

# Intranet Design Annual

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March 2005



Nielsen Norman Group

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This report is a gift for our loyal audience of UX enthusiasts. Thank you for your support over the years. We hope this information will aid your efforts to improve user experiences for everyone.

**The research for this report was done in 2005**, but the majority of the advice may still be applicable today, because people and principles of good design change much more slowly than computer technology does. We sometimes make older report editions available to our audience at no cost, because they still provide interesting insights. Even though these reports discuss older designs, it's still worth remembering the lessons from mistakes made in the past. If you don't remember history, you'll be doomed to repeat it.

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## Executive Summary

Selecting the ten best intranets gets harder every year because the number of great designs keeps increasing. While tough on the judges, this is good news: it shows that the intranet usability movement is winning. More and more companies are treating their intranets as productivity tools and are investing in improving their design's usability instead of leaving the intranet to grow as it may.

The recommendations from our previous reports on intranet usability are now being widely implemented. This year's designs were so good that our list of runners-up included at least ten additional intranets that were worthy of being recognized, featured, and emulated. However, a top-ten list can only include ten winners, so we had to select the best of the best.

### THE WINNERS

The world's ten best intranets for 2005 are:

- Banco Español de Crédito (Banesto), the third largest bank in Spain
- Cisco Systems, the world's leading computer networking vendor (U.S.)
- Electrolux, the world's largest manufacturer of powered appliances (Sweden)
- The Integer Group, the seventh largest promotional marketing agency (U.S.)
- NedTrain, the Dutch National Railway's maintenance subsidiary (The Netherlands)
- Orbis Technology, a small software developer (U.K.)
- Park Place Dealerships, operator of ten luxury automobile dealerships (U.S.)
- Procter & Gamble, a leading manufacturer of branded consumer goods (U.S.)
- Schematic, an interactive design and technology agency (U.S.)
- Verizon Communications, a leading telecommunications company (U.S.)

Cisco is particularly remarkable because its sales-support intranet application was among the 2001 winners. This year, Cisco won for its overall intranet design.

Schematic won for its extranet connecting employees, clients, contractors, and vendors. The other nine winners are internal-use intranets.

Sweden seems to have the world's highest concentration of intranet design talent relative to the size of its population: it now accounts for 8% of the fifty intranets that have won our design competitions since 2001. An impressive achievement for a small country. The U.K. retains second place, with 10% of the winners since 2001. The United States continues to have the most winners. In general, however, we continue to find good intranets from over the world; this year's winners represent five different countries.

Four of the winning intranets support relatively small companies with less than 1,200 employees. Two others are mid-sized, with 4,000 to 10,000 employees, and four are big, with 34,000 to 236,000 employees. The winning intranet teams range in size from one person at Park Place Dealerships to twenty people at Cisco and twenty-four at Verizon.

## ADVANCED DESIGN CONCEPTS

This year, several intranets were designed to work best at a 1024 x 768 screen resolution. Intranets have an advantage over websites here, as organizations often give all employees the same sized monitors. At Banesto, for example, all bank employees have standard-issue monitors that support 1024 x 768 resolution. The intranet designers used this wider screen space to good effect, implementing a homepage with multiple columns in a layout that would feel cramped on a smaller screen.

In the future, we expect to see much bigger screens, starting in knowledge-focused small and mid-sized companies, which will get the most substantial productivity gains from including more data within the visual field. Except for slightly boring examples (such as spreadsheets), we've yet to see many good examples of interfaces optimized for screens that are 2,000 pixels wide or more. In the coming years, advanced intranets might well be pioneering these broad-canvas designs.

Intranets are already pioneering the use of online video, which websites rarely use to good effect (aside from movie trailers). Intranets can take advantage of one of video's key benefits: it can show a speaker's personality. Several winning intranets use video to strengthen the corporate culture through messages from the CEO and other executives. Because video messages carry both information and emotion, they can convey the multiple layers of a CEO's message.

Among this year's winners, the Integer Group has perhaps the most elaborate online videos, often produced in a highly original style in which the company's Denver-agency president makes fun of himself. Although that specific tone might not fit as well in more staid organizations, the general idea of highlighting personality and illustrating corporate culture by example definitely translates.

Orbis has probably the most unusual intranet approach, building its site entirely on a Wiki platform. In this collaborative authoring environment, any employee can edit any page at any time (except for a few modification-controlled pages). As a result, employees can easily and immediately update information whenever they come across outdated content. The result is that the Orbis intranet is much more richly informative and current than what is typical for small organizations with limited intranet resources. Even companies that don't want to completely open up edit-access can benefit from making department- and project-level pages easier to edit.

## BEYOND THE OFFICE

Intranets began as document repositories and soon grew into support tools for office workers. We are now starting to see intranets move beyond this desk-bound role to take on the world beyond the office.

Four of this year's winners (Electrolux, NedTrain, Procter & Gamble, and Verizon) offer kiosk-based intranet access for factory-floor workers and others who work outside an office environment. These kiosks are basically traditional PCs on stands, maybe slightly ruggedized to withstand dust and grease. In the future, we hope to see a new kind of user interface developed for workers who are not routinely exposed to computers. It's difficult to ensure good usability for blue-collar workers when you're building on top of a UI platform optimized for office use.

Several of this year's winning intranets have special applications to support the physical environment. For example, NedTrain has a real-time list of available train parts, the most important piece of information it needs to keep its trains running. On the Park Place Dealerships intranet, the Client Concern Resolution system proactively contacts managers — such as the repair shop's foreman — who would otherwise be hard to locate. By enabling electronic communication with important employees who are highly mobile, this feature expedites customer service, which is much appreciated by the demanding clients of these luxury dealerships.

## **INTERNATIONALIZATION**

Several of the winning intranets support employees in multiple countries, and Electrolux and Procter & Gamble have made internationalization a core design element. Procter & Gamble provides an especially impressive location-change tool that employees can use to control the intranet's language and location-dependent information, such as HR policies. Having one place to define location-based settings beats the typical scenario, in which employees must wade through information about multiple locations in multiple languages in order to find the appropriate documents.

In addition to its English-language pages, Electrolux supports localized portals in French, German, Hungarian, Italian, Portuguese, Spanish, and Swedish. To ease collaboration across time zones, the company also provides a handy reminder of the current time-of-day at three main locations (Sweden, eastern United States, and Sydney, Australia) at the top of every page.

## **TECHNOLOGY CONFUSION**

The only conclusion regarding intranet technology platforms is that there is no conclusion. No single solution dominates the space. In fact, most winners didn't even build their intranet from a single, integrated platform. Typically, designers cobbled together widely diverse software using little more than spit, bailing wire, and willpower.

In total, the ten winners used thirty-nine different technology products. Most winners also feature a significant amount of homegrown software in their overall intranet technology platform, confirming the conclusion that it's still not possible to buy everything you need for a great intranet.

The most-used technologies were Apache, Microsoft ASP.Net, and Microsoft SQL Server. Other often-used technologies included Documentum, Google Search Appliance, IBM WebSphere, and Java 2 Enterprise Edition (J2EE).

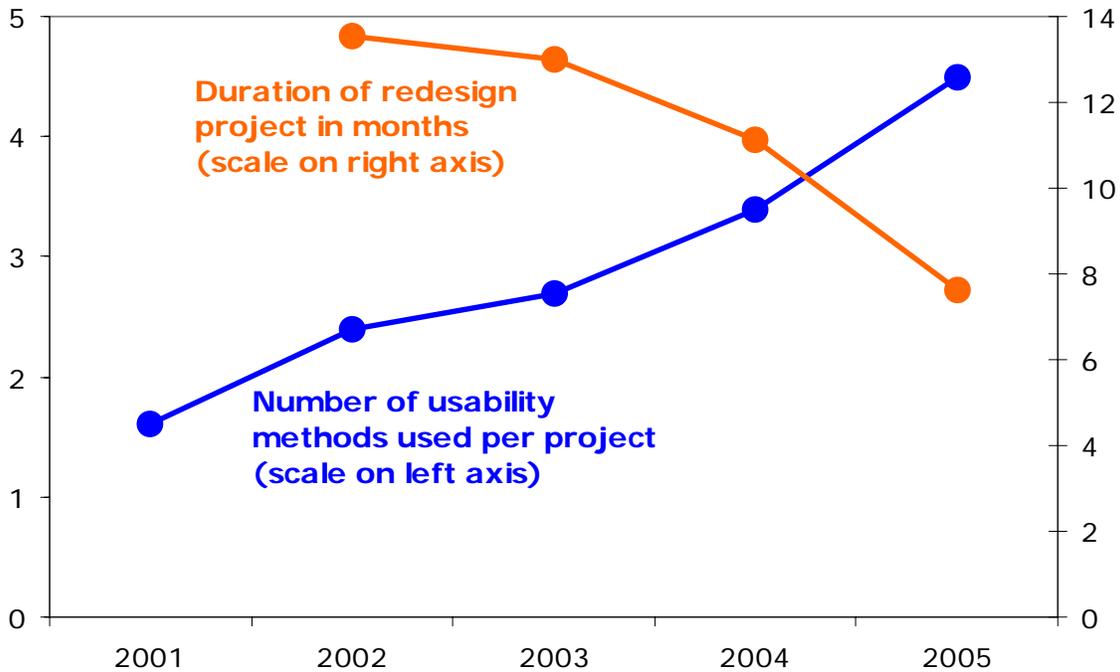
Some winners relied strongly on solutions from HP or IBM, and one winner was a committed Microsoft-only shop. Open-source software also made a strong showing this year. Beyond the heavily used Apache, winners used Eclipse, Linux, Mambo, MySQL, Hypertext Preprocessor (PHP), PostgreSQL, and TWiki.

All that said, we do see some progress in intranet technology platforms: solutions are emerging that support more of the necessary design elements and these solutions are becoming easier to integrate. For example, plug-in search engines are easier to handle than past search packages, which required extensive hacking before they could spit out decent results. Still, a significant opportunity remains for software vendors who truly understand the needs of intranet users and intranet teams.

## DESIGN PROCESS

The average time between redesigns for this year's winning intranets was 29 months. This is about the same as we've seen in earlier years: the typical time between redesign rounds is between 2.5 and 3 years.

What's new is that companies have dramatically expedited the redesign process itself. This year, the average project duration was a brief 7.6 months; in earlier years, redesigns typically lasted between 11 and 13 months. In fact, as the following chart shows, projects have moved progressively faster since we began our intranet design competitions. (Data on redesign duration is unavailable for 2001.)



Why are design projects moving faster? One reason is that technology solutions have in fact improved, making it easier to build what you want. Another reason is that we know more about intranets. As a result, we can concentrate resources on improvements that really matter to users and on getting the key changes out faster, while deferring less important ones.

The chart also shows a substantial increase in the number of different usability methods employed during redesign projects over the last five years. The fact that designers have more than doubled their usability methods, while decreasing their redesign cycle time by six months, is striking proof that usability doesn't have to delay project launch.

The 2005 winners used an average of 4.5 different usability methods. The most-used method was user testing, employed by 80% of this year's winning projects. Other heavily used methods included card sorting and heuristic evaluation, both of which were used by 50% of the projects.

In the past, few projects used heuristic evaluation. In 2001 and 2002, only 10% of the winners used the method, which basically involves judging a user interface relative to known usability principles. The recent growth of heuristic evaluation for intranets makes sense, because we have only recently established comprehensive intranet usability guidelines. It's now possible to review an intranet design relative to a list of important intranet usability issues. Prior to 2003, this was possible for websites, but not for intranets.

In general, we recommend using a variety of methods at different project stages, starting with field studies and tests of the old interface to set the new design direction. Next comes iterative design and testing with users. Few design projects fully follow this recommended user-centered design process, but in tracking good design projects over the years, we've seen more projects get increasingly closer.

## IMPROVEMENT METRICS

Averaged across the winners, intranet use increased by 149% following redesign. Organizations typically measured usage in terms of pageviews or user sessions per month. Intranets are discretionary-use environments; employees only visit them if they feel it's worth their time. Thus, increased use is a good indicator that a redesign is providing recognizable value to employees.

That said, pageviews are not a fully satisfying ROI metric because it's hard to estimate the monetary value of the increased use. Some types of use translate more directly into cost savings. Verizon, for example, saw the number of employee self-service transactions grow from 1.3 million to 6.3 million per year after it improved its intranet's usability.

On a smaller scale, Schematic saves \$100,000 per year on express shipments to clients and other partners now that they can directly view their project's progress on the extranet. This type of cost savings comes as hard dollars that are easy to count.

Quantifying the productivity gains from increased intranet usability requires a formal benchmarking study, which few organizations bother conducting. Thus, even good intranet teams usually don't have complete estimates of how much money they save their organizations.

Cisco is one of the rare exceptions. The company's intranet team collected time-on-task measurements for employees using the old and new intranet designs to perform fifteen representative tasks. Overall, the average task took 17.6 seconds less with the new design. When considering total intranet usage, this faster performance saves Cisco \$3 million per year simply from the reduced time it takes employees to navigate from the intranet homepage to a subsite. The gains from improving subsite usability will probably be even greater.

Cisco also improved its user success rate across the test tasks by 2%, increasing it from 87% to 89%. This improvement might seem modest, but the higher the success rate gets, the harder it is to increase. The fact that Cisco's old design had an 87% success rate indicates that it was already very good; we usually see substantially lower success rates in our studies. As this example shows, even great designs can get better with close attention to usability — and small improvements can be worth millions.

In real life, it's infeasible to expect a 100% success rate, but it's definitely possible to add a few percent with a good redesign. Across a big company, that's a lot of additional employee tasks you can empower each year. The average intranet project, which sits at the 60% or 70% success level, should expect even bigger improvements: low-hanging fruit is very real given the current state of intranet usability in most organizations.

As the ten winners show, it's possible for intranets to achieve a level of excellence lacking in most companies, and it doesn't require a lot of time to realize major usability improvements.

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## Overview of the Winners

The top ten intranets come from five different countries: the United States had six winners, while the Netherlands, Sweden, Spain, and the United Kingdom had one winner each.

The winning designs are from companies in various industries, including: banking, software, networking technology, powered appliances, household product manufacturing, promotional marketing, train- and railway-maintenance and overhauling, and automotive sales.

In terms of general attributes, no particular patterns contributed to an intranet's usability. In-house intranet teams created six of the ten winners. The other four winning designs were created either exclusively by an outside firm or through a joint effort between in-house employees and outside firms. Team sizes ranged from one person to more than twenty people. Company sizes varied from just over 100 people to 236,000 people.

All designers did, however, have one thing in common: they learned valuable lessons from their intranet development experiences. The **Lessons Learned** section at the end of each intranet's summary contains priceless insights.

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## THE TEN WINNERS LISTED IN ALPHABETICAL ORDER

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[Banco Español de Crédito \(Banesto\)](#)  
(Spain)

When you're building a new design, the tendency is forget the old, and even clear all evidence of it away. Banesto designers avoided this common mistake. Realizing that you can always learn from an existing design, they used theirs as a prototype for an excellent new one.

[Cisco Systems, Inc.](#)  
(U.S.)

With thousands of individual websites, an intranet such as the one at Cisco Systems, Inc. could easily get out of hand. But Cisco's intranet strategy team ensures consistent design by employing interface standards and a hands-on engagement model. The company's longstanding commitment to electronic processes also helped in the intranet design process.

[The Electrolux Group](#)  
(Sweden)

The Electrolux Group's intranet designers know the needs of their nearly 19,000 users and strategically target those needs in the intranet's segmented portals. Their secret to success? Involve others in the project and respect their opinions. But also: hold your own. If you try to satisfy everyone, you'll satisfy no one.

[The Integer Group](#)  
(U.S.)

Designing an engaging intranet for creative people can be a challenge. Designers at The Integer Group met this challenge using dynamic homepage content to encourage daily use. They also conducted extensive paper prototyping and other usability testing to hone navigation and overall usability, ensuring that users can actually find and use the features they need.

[NedTrain \(Macaw B.V.\)](#)  
(The Netherlands)

Clear goals are critical to any intranet project. When a company works with outside designers, they're even more important. Designers at Macaw BV worked with NedTrain employees to understand their goals, which lead to a successful relationship and a highly usable final design. For Macaw designers, managing client expectations is also important, and helps retain the client's full cooperation.

[Orbis Technology](#)  
(U.K.)

Despite a limited budget, the Orbis intranet team created an award-winning design. They did this using both open-source technology and creative thinking. The designers also had their priorities straight, employing a series of field studies and usability tests that contributed to their design's success.

[Park Place Dealerships](#)  
(U.S.)

Research and guts are the driving forces behind this excellent intranet design. When looking for software tools to meet an automotive dealership's unique needs, Park Place designers found limited off-the-shelf options. Rather than settle for those, they built their own intranet and extensive sub-applications in-house.

[Procter & Gamble](#)  
(U.S.)

Procter & Gamble's designers developed a role-based architecture to create an intuitive intranet. Now all P&G employees — office workers and warehouse technicians alike — can quickly find the news and resources they need. Post-launch marketing also created a buzz about the new intranet to help ensure user interest.

[Schematic](#)  
(U.S.)

Pinpointing what users need, which tasks they perform, and where you're wasting money with current systems is key information for a successful intranet design. By giving their users the tools they need to do fundamental tasks (mostly file sharing), Schematic's designers have saved the company more than \$200,000 per year.

[Verizon Communications](#)  
(U.S.)

Having proper support and defined roles can help the intranet design process. At Verizon, usability and development efforts had full support from the business unit directors and the usability team was given control of the design. This mandate helped the team avoid potential usability problems from the start.

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## Common Themes Among the Winners

Despite their unique style and the fact that they were designed for very different people, needs, and organizations, this year's winning intranets featured several common design elements.

### **KIOSKS FOR INTRANET ACCESS ARE BECOMING COMMONPLACE**

Even a year ago, only workers who sat at desks could typically access corporate intranets. Management did not mandate access for all employees because:

- Print media duplicated all or most of the important information found on the intranet.
- Intranet-based information and tools were not required for people to complete their jobs or receive up-to-date corporate news.
- Many organizations assumed that blue-collar workers didn't know how to use the Web or (by extension) the corporate intranet.

Many organizations are now eliminating or reducing their print media budgets for corporate communications, relying instead on shared computer kiosks strategically positioned in factories and in the field. This both saves on costs and offers workers more timely news. Also, as more and more people access the Web at home, it's no longer assumed that factory workers don't know how to use the intranet. Most importantly, today's intranets are becoming a strong communications medium and a necessary workhorse for accomplishing widely diverse jobs. Most organizations now recognize that all employees need intranet access.

### **GOOD NEWS**

In the past, intranet news sections basically offered users world news grabbed from a feed. Today, however, many intranets offer employees industry news, pertinent regulatory and legal news, press about the company, and news about its competitors. Providing this news, as opposed to generic world news only, makes employees well versed and informed about their current and future work.

### **VIDEO AND TV**

In addition to offering textual news items, designers are providing video streaming and downloadable videos of company meetings and speeches. Some larger organizations even broadcast their own television channel on the intranet. Giving users various media to choose from makes absorbing information more interesting and colorful. To make this work, however, organizations must involve the corporate IT department to ensure that employees' systems — and the server space and network bandwidth — can support such offerings. Categorizing and archiving media presentations appropriately are also design considerations.

## **ADDING AND EDITING CONTENT**

In the last few years (and especially this year), we have seen more and more intranet designers and management teams encouraging employees to add and edit content. At the same time, organizations are advancing what editors can do with the templates used to display content. Some intranets allow editors to discretely design department-level homepages from a selection of user-tested news, tools, or miscellaneous functionality. Other intranets continue to push out distributed authoring capabilities. This puts content-creation responsibilities in the hands of people in the know. As a result, the sites get more relevant and engaging content, without necessarily increasing the intranet team's workload.

## Banco Español de Crédito (Banesto)

### Using the Intranet:

Madrid-based Banco Español de Crédito S.A. (Banesto), a financial entity founded in 1902, is Spain's third largest bank by volume of managed resources. By virtue of its revenues — 2003 pre-tax profits of more than €640 million (\$689 million) — it's quoted on the primary Spanish stock market. The bank has 9,840 employees, 1,600 branches in Spain, and serves more than 3 million customers. The bank focuses on services for small-to-medium enterprises, corporations, and the retail banking market.

Banesto is part of the Grupo Santander Central Hispano (SCH), which is Spain's largest banking group and the largest banking group in the Euro-currency zone.

### Design Team:

In-house

### Members:

Pablo Sánchez, head of Banesto's usability and user interface design department; Ángel Laguna, creative director; Sergio Cabrera, art director; Ricardo Salazar, interactive designer; Danny Poves, usability consultant; María José Téllez, information architect; David Gil-Esteban, information architect; Pilar Ónega, usability consultant; Luis García, human-computer interface consultant

## SUMMARY

Good planning and research were the first things intranet designers did right at the Spanish bank Español de Crédito (Banesto). Defining specific redesign goals, identifying the existing intranet's problems, and assembling a top-notch usability team made a world of difference for this intranet design.

Wanting to create a completely new design, many intranet and Web designers ignore the existing design. This is a mistake, and one Banesto avoided. You can always learn from the existing design, and then use it as a prototype for your new design.

So, what was there to learn from? In the first version of the Banesto intranet, navigation was arranged according to the bank's departmental structure. At organizations with only a few clearly defined business units and functions, a department-based intranet structure can be effective. Banesto's organizational structure, however, is too complex for this approach; the bank has many different business units, including personal banking, private banking, corporate and institutional banking, financing for small and medium enterprises, agricultural banking, and more. As is true of many departmentally organized intranets, Banesto's original design wasn't scalable, encouraged information duplication, and required untoward maintenance. From the user's perspective, it was difficult to find information. The main challenge for Banesto designers was to find a new, easy-to-use organization for the existing content.

The redesigned Banesto intranet homepage — which automatically launches in users' browsers when they turn on their PCs — is elegant and practical. As is apparent on the homepage and all other pages, designers clearly understand the tools and systems users require. The pages are conservatively designed, which helps maintain fast download speeds. Designers also created an intranet that takes full advantage of the fact that all Banesto employees use company-standard monitors that support a 1024 x 768 screen resolution.

**Banesto** n° 901 - Martes, 1 de septiembre de 2004

Usuario:  Contraseña:

Esto es Banesto | En cifras | Inf. corporativa | Webs banco | Discursos

**Esto es Banesto**

**AgroBanesto reúne a más de ochocientos agricultores**  
 Más de 800 agricultores y ganaderos se dieron cita el pasado jueves día 25 en la localidad oscense de Barbastro en un acto organizado por AgroBanesto junto con la Organización Agraria ASAJA Aragón y la Asociación de Familias y Mujeres del Medio Rural (AFAMER). Las oficinas de Banca Minorista desarrollarán su Plan ...

**Y no te pierdas**

**Banesto Ganadores**  
**Doscientos ochenta y ocho nominados se van de crucero**  
 Doscientos ochenta y ocho personas de nuestra organización han sido nominadas en el Programa Ganadores correspondiente.

**Breves**

**En enero**  
 Nuevas funcionalidades para los portales de Banesto.

- Ranking planes prev.
- Documentación interés

**Banca Minorista: Plan Comercial Octubre 2003**  
 Hoy, las oficinas de Banca Minorista desarrollarán su Plan comercial para el mes de octubre, de acuerdo al Esquema Comercial de la Oficina.  
 Los Claves que han de incluirse para el próximo mes son los siguientes: ...

**La excelencia en Riesgos**  
 Como continuación al artículo publicado el pasado día 6, en el que ya se indicaba la transición de una gestión del riesgo basada en la prudencia, cuyo valor añadido es la prevención...

**Cotización intradía** Ver tabla

9.95  
9.9  
9.85  
9.8  
9.75  
9.7

09 10 11 12 13 14 15

Máx:9.87  
Min:9.75 Actualizar

**Noticias de prensa**

**Roberto Centeno: ¿Crisis petrolera y crisis económica?**  
 Roberto Centeno analiza la actual escalada de los precios del petróleo y sus consecuencias en la economía. Según él aún estamos alejados de lo que fue la segunda crisis del crudo.

**El Mundo**

Banesto SCH Finanzas Economía y Empresas Opinión

**¡Opina y gana!**

Mejorar Banesto depende de ti  
 Expónnos tu idea y participa en el concurso

Pictured: The Banesto intranet homepage, which automatically launches when users turn on their PCs. Designers struck a balance between design elegance and practical download speed. All bank employees have monitors that support a 1024 x 768 screen size, which designers used to full advantage.

The intranet redesign team had to allow for a broad range of user roles, each with varying professional needs. Research showed that each business unit needed its own set of portals, with each portal having a unique group of banking applications, financial tools, business reports, directives, and banking-sector news.

Throughout the intranet, designers maintain a subdued color scheme, using color to draw attention or call out sections. They delineate various portals across the intranet using specific colors, which are reflected in the menu and various user interface elements. This subconsciously reminds users of exactly where they are in the vast Banesto intranet.

In addition to the customized portals, the intranet also saves Banesto's nearly 10,000 employees time by making forms quick and easy to fill out. All Banesto intranet forms have a clean layout, headlines for specific sections, and clear and concise names for all field labels. Form fields are also automatically filled in, to the extent possible, based on a user's login and previous selections.

**Créditos y préstamos**  
Cumplimente los datos que aparecen a continuación y pulse "Aceptar"

**Formulario de contratación**

▷ **Datos de la solicitud:**

Producto:	Hipoteca joven	Plazo:	30 años
Importe:	1.000.000.000	Número de cuotas:	<input type="text"/>
Modalidad:	Tipo variable	Carencia:	<input type="text"/>

▷ **Datos personales:**

Nombre:	<input type="text"/>	Nacionalidad:	<input type="text"/>
Primer apellido:	<input type="text"/>	Sexo:	<input type="text"/>
Segundo apellido:	<input type="text"/>	Estado civil:	<input type="text"/>
NIF:	<input type="text"/>	Tipo de trabajo:	<input type="text"/>
Fecha nacimiento:	<input type="text"/>	País residencia:	<input type="text"/>
Segmento:	<input type="text"/>		
C.N.A.E.:	<input type="text"/>		

▷ **Domicilio habitual:**

Provincia:	<input type="text"/>	Otros datos:	<input type="text"/>
Localidad:	<input type="text"/>	Código postal:	<input type="text"/>
Vía:	<input type="text"/>	País:	<input type="text"/>
Número de la vía:	<input type="text"/>		

Pictured: Clean, straightforward, and well structured, Banesto's data-entry forms are specially designed so users can fill them out quickly. Note the intelligent use of color here: the color of this particular portal (green) is reflected in the form labels, page background, menu, and various other user interface elements.

Consistent navigation helps users traverse Banesto's many portals. The top-most navigation bar also leads to the different portals users can access with their specific privileges. The selected portal's menu then appears in the left-side vertical-navigation bar.

The screenshot displays the Banesto website homepage with a complex navigation structure. At the top, there are tabs for 'Normativa', 'Tarifas', 'Publicaciones', and 'Sucursales'. Below these are icons for 'Portal Alta Dirección', 'Contratación Minorista', 'Portal Riesgos', and 'Portal Cliente'. A secondary navigation bar includes 'General', 'Portales Temáticos', and 'Portales Públicos'. On the left, a vertical menu titled 'Portal General' lists options like 'Inicio', 'Sistemas de información', 'Sist. de Inform. y análisis', 'Publicaciones', 'Comités', 'Tipos de referencia', 'Foros y preguntas', and 'Mis accesos'. The main content area is divided into several sections: 'Normativa - Noticias del día' with a featured article about 'BANESTO GARANTIZADO MULTIOPORTUNIDAD 4X4 II F.I. (802 027)'; 'Acción Banesto' showing market data (Cierre: 9.36, Apertura: 9.35, etc.) and an intraday price chart; 'Enlaces de interés' with links to 'Economía y finanzas', 'Empresas', 'Organismos Oficiales', and 'Útil'; and 'Noticias de prensa' with an article titled 'Cómo aprovechar el tiempo ocioso de su tecnología.' The footer contains the site's name and navigation links: Banesto, SCH, Finanzas, Economía y Empresas, Opinión.

Pictured: Homepage portals offer a range of options tied to a user's business duties, such as generating business reports and visiting relevant forums.

Banesto's business reports allow users to easily analyze, explore, interact with, and understand large amounts of stored information. The various reporting tools, including the *Business Agenda* feature, enable quick drill-down and, for example, help the sales force understand and meet sales goals. Another important feature facilitates client data management. Consolidated lists and trouble-free chart-generation tools add to ease of use.

Although numerous off-the-shelf software applications offer similar business reporting capabilities, integrating them can make consistent intranet design impossible. Banesto found this to be the case, so its designers created their own. The end result is an excellent user experience.

**Banesto** Normativa Tarifas Publicaciones Sucursales Salir >

Contratación Minorista Portal Riesgos Portal Cliente Director Minorista

General Portales Temáticos Portales Públicos

### Programación Comercial

Mis Gestiones Gestiones de Oficina Agenda

Prioritarias | Alertas | Vencimientos | Propias | Todas | Alta gestión | Alta masiva de gestiones

Clientes con gestiones prioritarias					
Nombre/Razón Social	Gestiones	Prioridad	F.Límite	Potencial	Segmento
Ángel Aznar González	Banca Remota	Alta	22/11/2003	Muy Bajo	P. Cliente vincular
León López-García Abril	Oportunidad Comercial	Alta	15/12/2003	Muy Alto	P. Cliente Clave
Julia Pérez Riva Gómez	Campaña Depósitos	Media	15/12/2003	Alto	P. Cliente Clave
María González Rivas	Varias Gestiones (2)	Alta	09/12/2003	Alto	P. Cliente Clave
Pedro López Jiménez	Oportunidad Comercial	Alta	15/12/2003	Muy Alto	P. Cliente Clave
Vidal Pérez Navarro	Oportunidad Comercial	Alta	15/12/2003	Bajo	P. Cliente Clave
Sonia Puig Santos	Campaña Visa 123	Alta	09/12/2003	Alto	P. Cliente Clave
Pedro Bosé Marcos	Oportunidad Comercial	Alta	15/12/2003	Alto	P. Cliente básico
Miguel Ruiz Mena	Campaña Depósitos	Alta	15/12/2003	Muy Alto	P. Cliente nuevo
Ernesto Valverde Pino	Oportunidad Comercial	Alta	09/12/2003	Bajo	P. Cliente vincular

<< 10 | 10 >> Portal Cliente | PCC Consultar detalle Suprimir Responder Fechar

Ver gráficos

#### Gestiones pendientes

#### Gestiones realizadas en los últimos 30 días

Detalle gráficos

#### Sus clientes para hoy

Lunes, 15 de diciembre

**9:00 - 11:00**

Julia Reis  
Campaña depósitos  
Citar para el día 22 dic.

**13:30**

Oportunidad comercial  
Llamar antes del lunes

**17:00**

Antonio Jimeno  
Campaña Depósitos. Cerrar gestiones.

[< Ir a Agenda](#)

Pictured: The *Agenda* tool makes it easy for salespeople to track client information and meet sales goals.

For the redesign, the bank's top executives required that the intranet include reports that clearly distinguish and highlight — in a single view — the real-time status and situation of each Banesto branch.

Once again, the use of color, combined with the intelligent use of user interface elements, creates a successful design that's popular with end users. At a glance, managers can assess the basic state of the bank or a branch, letting them evaluate performance and make vital decisions more quickly. In essence, they see just the surface of a very complex banking application — and that's the point.

**Indicadores comerciales - Situación y evolución**

Imprimir | Seleccione los criterios por los que quiere visualizar los datos referentes a las oficinas | Ayuda

Criterios de visualización: Estado: **Necesita ayuda** |  Evolución |  Detalle | Tipo de centro: **Total** | **Seleccionar**

**Visualización del estado y detalle de oficinas que necesitan ayuda**

Datos del centro	Tipo	CIMA	A.P.I. 'S	AA.CC.	Pymes	Comercios	Agro	B. Pers.
0030 1001 MADRID O.P. →	1	40,23						12,34
0030 1003 MADRID U.VELAZQUEZ →								
0030 1008 MADRID INDEPENDENCIA →								
0030 1012 MADRID C. PEÑALVER →	1				70,00			
0030 1024 MADRID UR. SERRANO →	2		69,06			75,54		
0030 1026 MADRID URBANIZACION M.ANT →								
0030 1028 MADRID CASTELLANA →								
0030 1031 MADRID DIEGO LEON →	1			66,41	= 58,27			
0030 1037 MADRID PZA.LEALTAD →	1			49,81				
0030 1038 MADRID O'DONNELL →	4			67,54				
0030 1038 MADRID O'DONNELL →								
0030 1436 MADRID MALDONADO →								
0030 7184 N.R.MADRID →	2						90,22	
0030 8112 MADRID URB. GOYA →								
0030 8113 MADRID URB.J.ORT. →	1							13,33
0030 8122 MADRID URB.AV.FEL →	NU					12,58		
0030 1008 MADRID INDEPENDENCIA →								
0030 1026 MADRID URB. MONTE AGUDO →								
0030 1436 MADRID MALDONADO →	1	36,21						
0030 1024 MADRID UR. SERRANO →								

■ Necesita ayuda ■ Necesita seguimiento ■ Va bien

<< 20 anteriores | 20 siguientes >>

Pictured: One of the business reporting tools displays high-level status information for each bank branch. Senior management required this at-a-glance feature.

Of course, just building a new intranet with excellent productivity tools and a usable design doesn't guarantee its success. Here, support from upper management can make a tremendous difference, enabling changes in corporate culture and encouraging employees to use the intranet.

Here's one example of how senior managers can help: Instead of the annual conference call, Banesto's president conducted the company's annual employee meeting — which highlights goals for the upcoming year — via the intranet. Note the professional picture of her gracing the relevant page: she's confident, yet approachable. On a design-use note, with this type of image, it's imperative to include a name and title next to the picture. In general, we see too many upper-management messages on intranets that include only the executive's picture, devoid of name or title. This is a mistake, because employees — especially new employees — may not be familiar with a senior manager's face.

At Banesto, the president's messages are posted in an engaging, multimedia format, including video streaming. From this same page, users can interact with the president during the annual meeting, directly answering questions or making suggestions for improvements.



Pictured: The president’s message keeps employees informed of the company’s annual goals, via an engaging design and multimedia presentation.

Creating a sound, well-researched information architecture and applying consistent usability standards helps create an intranet useful for all Banesto employees. The Banesto intranet team’s innovative use of design, homegrown applications, and management buy-in all combine to meet the redesign team’s primary goals of improving employees’ efficiency and increasing the standard internal communication.

## URL AND ACCESS

The Banesto intranet’s address is <http://portal.intranet.banesto.es>. The intranet is the default homepage for all employee browsers, which launch automatically when they turn on their PCs. The intranet then authenticates users and automatically restricts their intranet view to the appropriate parts, filtered by job type.

Many employees — including managers, external collaborators, executives, and the sales force — can access the intranet remotely from their laptops using Banesto-provided General Packet Radio Service (GPRS) cards, WiFi, or DSL connectivity.

## CONTENT MANAGEMENT

Banesto uses Fatwire (formerly Open Market) Content Server version 5.5, customized to meet its needs. One feature Banesto added, for example, is the ability to flag urgent content to prioritize its editing.

Content creators must use templates, which the usability department maintains. Interestingly, templates are not “portlets” — small applications fitting into predefined sections of the page — but rather a three-by-three grid, which users can customize with various types of content or applications.

## TECHNOLOGY

Banesto's own data processing center hosts the intranet's secure servers. Middleware and back-end software running the intranet include Microsoft Internet Information Server, Windows 2000, Sun Solaris, and IBM WebSphere.

For designing and maintaining the intranet, Banesto's information architecture and usability tools include Microsoft Visio 2000, Office 2003, and Project 2003. For Web design, Banesto uses Adobe Photoshop and Illustrator, plus Macromedia Flash MX and ACDSSee. Software-development tools include Macromedia Dreamweaver UltraDev, IBM's WebSphere Studio v5.1.2 and Eclipse, and the Microsoft .NET development platform.

Intranet search is handled by technology from Altavista, though Banesto is transitioning to Autonomy technology. For bug tracking, Banesto uses software it developed in-house, called bGrid Monitoring Architecture.

The intranet also offers business software used at Banesto, including Business Objects, Staffware, Savvion, Siebel, and PeopleSoft.

Most Banesto PCs run Windows 2000, though the company is upgrading to Windows XP. Some employees also use Unix.

## GOALS AND CONSTRAINTS

Goals:

- Create a common platform for all employees, regardless of their job descriptions.
- Move all employees from host-based PC applications to an intranet-based application environment.
- Reduce costs by furthering a less-paper policy.
- Enhance corporate communications.
- Institute a knowledge-management program.

Constraints:

- Managing senior managements' expectations and deadlines.
- Enticing Banesto's employees — who are mostly over forty and not very technology savvy — to move from a host-based to a Web-based environment.
- Designing usable yet lean pages, interfaces, and navigation, as many bank branches' connectivity consisted of 45KB-per-second modem connections.

## BASIC INTRANET FEATURES

Banesto's employees have a one-stop shop for their computing needs: the Banesto intranet. The intranet creates a single access point for — and a consistent interface to — any of the portals, intranet tools, or business applications a user needs, whether it's reading corporate news, mining data using Business Objects, or checking e-mail in Lotus Notes.

Beyond the built-in capabilities of those business applications, Banesto employees can use the intranet to access sixty different banking applications, often via intranet portals personalized for their specific job description (such as a branch manager or cashier). The portals gather the tools and news users regularly need, minimizing click-throughs to reach the content. For example, customer-service representatives' workflow is accessible via a link on their portal homepage, allowing them to quickly walk a customer through a problem-diagnosis script. If that fails, the final intranet screen gathers the needed information, and then automatically creates a trouble ticket for follow-up.

Another often-used feature is the online catalog of bank offerings, which everyone from a salesperson to branch manager can use when a customer wants to buy or change a service. The catalog contains essential information about the product, plus the means to complete the transaction.

For employees themselves, an extensive self-service area lets users check their pay stubs, check tax withholding, and even make bank-matched charitable contributions. An online learning portal help employees plan their career path and follow through via online training.

## **USERS**

Users work in Banesto's Madrid-based headquarters or in one of 1,600 branch banks located throughout Spain.

The average user is "40.85 years old," says Pablo Sánchez, head of head of Banesto's usability and user interface design department, and user testing found that they were "not so well-versed in modern technologies."

Users typically work for one of the bank's business units, which are based on banking services offered and include retail (individual), business, small-to-medium enterprise, corporate and institutional, and agricultural banking.

Typical job titles include cashier, customer-service representative, market analyst, risk and insurance specialist, salesperson, business analyst, branch manager, and senior executive.

## **USER TASKS**

- Carry out banking transactions for clients
- Refer to client records
- Sell finance and banking products
- Participate in online training
- Consult business intelligence reports, updated in real time
- Consult company news, including the latest products and campaigns, Banesto shares and stocks, internal memos, and corporate messages
- Report tasks accomplished and hours worked (required for all head-office employees)
- Read banking industry and economic news
- Consult employee regulations, including collective agreements, equal rights, codes of conduct, the company hiring process, and vacation policy

- Consult company regulations, from the posting of internal job openings and information regarding product campaigns to notification of withdrawal of obsolete advertising material
- Access the company directory
- Resolve customer incidents
- Collaborate via Lotus Notes Quickplace
- Check wages and tax-withholding information
- Post to the intranet forums
- Search the documents archive
- Use e-mail or instant messaging, or send SMS messages (up to 150 characters) to a cell phone
- Locate offices and branches
- Check Web-based agenda
- Recommend a Banesto employee or an external person for a job opening

## BACKGROUND

In 2001, seeing the intranet foundering, Banesto's director of technology commissioned Cap Gemini Ernst & Young (now Capgemini) to conduct an in-depth usability review of Banesto's intranet.

The report was well received; in April 2002, the consultant who wrote it — Sánchez — was hired to head Banesto's in-house usability and interface design team. As Sánchez notes, Banesto is today "one of the few banking organizations in Spain with its own in-house usability department."

After the usability team was assembled, "the first steps we took were to draft a much-needed collection of usability and design directives," says Sánchez.

The team also brought the bank's software developers in to help build new intranet prototypes. Collaborations of this type occurred throughout the start-up and later redesign efforts.

In fact, the intranet redesign itself was part of the Banesto board of director's broader four-year strategy to improve overall technology practices. The strategy's goals were to acquire and adopt leading-edge software products, such as applications from PeopleSoft and Siebel, and the Microsoft .Net platform; to increase bandwidth to every branch and office, most of which had an RDSI (ISDN) connection that was slower than a 45KB-per-second modem; and to modernize all employees' PCs. "With this sound technological base, the goal was to make the intranet the one and only work tool for all employees, regardless of their position," says Sánchez. "Ultimately, both Banesto's cashiers and CEO would use Internet Explorer to do their jobs."

In the spring of 2003, the now-larger redesign group began actively redesigning the intranet, with noticeable improvements. By the spring of 2004, nine employees, including information architects, interactive and graphic designers, and usability consultants, were working full-time in the department, addressing the bank's portals and applications, as well as features such as the business-intelligence reports.

A steering team continues to hold regular meetings and make all major intranet decisions. That team is composed of the usability and user interface department, the systems architecture department, and the group developing finance and banking portals.

To develop the intranet, the steering group and related employees work with in-house technology architects, systems analysts, and quality-control consultants from the company's technology architecture department.

Most programming at Banesto is delegated to external software-development firms; the intranet's prototype and production programming are no exception. These external firms must rely heavily upon the Banesto usability department's intranet user interface standards and style guides.

## **DESIGN PROCESS AND USABILITY ACTIVITIES**

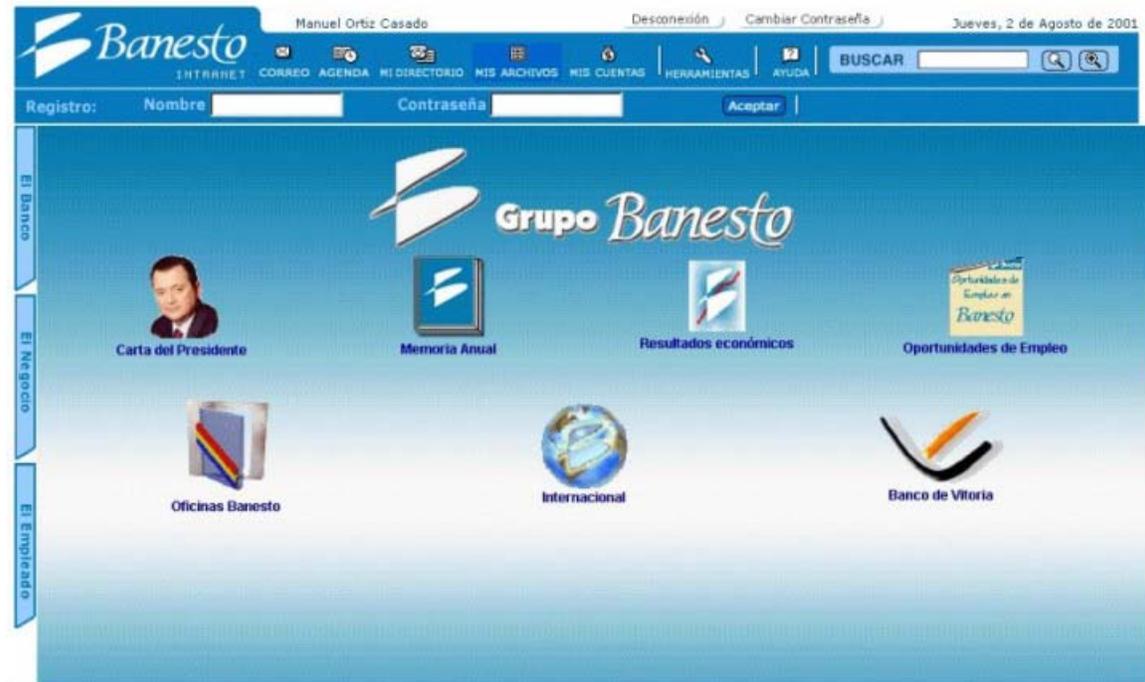
For redesigning the intranet, "the main challenge was how to organize the huge volume of content that exists in the bank," says Gil-Esteban, a Banesto information architect. "Unlike other banks that only have two business units (usually retail and business banking), [Banesto] also deals in personal banking, private banking, corporate and institutional banking, small-and-medium business financing, agricultural banking, and so on."

Beyond organizing this information, the resulting intranet "had to be sufficiently intuitive and uncomplicated," he says, since most employees are not very technically literate.

The problem with Banesto's existing intranet was that it largely reproduced the bank's organizational structure. "This rigid stance did not allow for much in the way of scalability," says Gil-Esteban, "and it also meant almost twice as much maintenance was needed" simply because of duplicated content. "Due to vested interests and internal divisions, content was never reused or shared." Last but not least, users couldn't find much of the existing content and functionality.

So, for the intranet redesign, the design team decided to abandon the old information architecture and introduce a reusable-portal model.

First, however, the team decided to study how the old intranet worked (and didn't work), so it began user testing and interviewing, and commissioned a heuristic study of the old intranet. The study found "a complicated navigation scheme, total lack of usability and design standards, no room for scalability, serious integration problems, and a clearly non-user-friendly interface," says Luis García, an HCI consultant. Those findings coincided with users' perceptions.



Pictured: The old Banesto intranet. Users complained about the complicated navigation and unfriendly user interface.

So, what needed to change from the old intranet to the new? Through user testing, the redesign team identified many discrete problems. For example, navigation was too complex to scale easily. "Navigation was limited to the use of either tabs or cascading menus, with no other alternatives," says María José Téllez, a Banesto information architect, and yet the intranet was growing rapidly. "Soon the tab menus were obviously going to be piling up on top of each other." To make matters worse, she says, the navigation was already "awkward and difficult, and it took forever to reach desired content."

The intranet's numerous design styles and user interface types also clashed; users were "frustrated and disoriented" by the inconsistencies, says Sergio Cabrera, Banesto's art director. Also, because users typically regarded the intranet as a document repository, a lot of content was in PDF documents, yet the intranet had no software to index or search the content of PDF files.

Off-the-shelf business applications integrated into the intranet also created many usability problems. Each application looked different: upon launching, some would dominate the whole browser screen and eliminate the navigation, others would generate a completely separate browser window, and still others would move navigational elements to different parts of the screen. "Furthermore, these applications, which had to display a large amount of content, blatantly abused both the vertical and the horizontal scroll bars," says Cabrera. A particular culprit in this respect, he says, was the default Business Objects interface.

The old intranet also featured a proliferation of pop-up windows, which are almost always disorienting for users. "When trying to read the latest economic news, for example, two or three new windows would open up to the user," says Sánchez. In general, pages often bulged with images, making page-download times noticeably long, especially at the many branch offices still sharing a single DSL connection.

Rather than tackle each of these features in turn, however, the redesign team decided to first understand the intranet's users, to better meet their needs. So, the team began profiling users. Because the team worked at the bank, this profiling was relatively easy. "Having an in-house usability department meant that over time the usability consultant could understand more and more the intricacies of the bank and its employees," says Sánchez. "Information exchanged in the corridor, or casual chitchat at the coffee machine, can very often produce invaluable data."

Next, the redesign team benchmarked the best intranets in Spain. That was relatively easy since "the majority of them are run by our strategic business partners," says Sánchez. Intranets studied include those of IBM, Cisco, and Microsoft. While, overall, the process was useful, he says "this study didn't shed much light on the Banesto project, since the objectives of these other corporations were extremely different than Banesto's."

The intranets did spark ideas about usability guidelines, however. The main objectives of the bank's usability guidelines, says Sánchez, were to ensure ease-of-use and performance speed, make navigation consistent, ease learning, and improve integration and scalability. In all, there were thirty specific criteria for achieving these objectives. "These became the 'lingua franca' of the usability and GUI consultants the bank hired," he says. "Naturally, each consultant arrived with his or her own personal views, but having this consensus of opinion, and clear objectives, was critical for the success of the in-house usability department."

Next, the redesign team began designing new prototypes for the intranet. "We made many attempts which failed, but luckily none of these prototypes ended up in management's hands," says Sánchez.

One hurdle was picking technology to run the intranet. Microsoft SharePoint and WebSphere Server Portal made the shortlist. After the intranet team tallied pros and cons, however, it eventually threw them both out, meaning "freedom from the limiting 'portlet' concept," says Sánchez. "From this moment on, the usability department was free to think up new design concepts." This would ultimately lead to a more-modular design concept.

After the near-final prototype was created and user-tested, information architects made further tweaks as they finished inventory, categorization, and taxonomy work.

With the prototype coded, they had to make further changes based on stress- and performance-testing results. "We had to reduce the number of server calls, and therefore we had to limit images displayed in the interface," says Sánchez. Thankfully, he says, the changes were minor.

The first part of the new intranet to launch was the *Portal del director de Banca minorista* (the portal for retail banking directors). Before it launched, the redesign team did user testing to hone the final design. "There was an atmosphere of great expectation as everyone was anxious to see the results of the first user testing carried out on the branch managers," says Sánchez. Testing covered all tasks that end users were supposed to carry out on the intranet, and produced excellent results, he says. The portal homepage's combination of icons, search, business-data display, button order, and content were all apparently working. Still, "although the initial results were encouraging," he says, "it was also clear that users would still need time to get accustomed to the new intranet, no matter how well received it was during testing."

The usability team therefore took steps to ensure that all intranet features were well documented by launch time, from user help to revised usability guidelines. “This documentation was also going to be crucial for the hundreds of software developers — some of them outsourced developers — who work with the bank,” says Sánchez.

## TIMELINE

- September 2000: The first intranet was launched, with a mix of HTML and Lotus Domino Web Profiling, giving employees access to their e-mail and Lotus Notes agendas
- May 2001: Launched first business portal with the company’s directives and communications from senior executives
- July 2001: Extended intranet access to Banesto branches and offices
- September 2001: Considered forming an in-house usability department following results of a commissioned intranet study
- October 2001: Adopted OpenMarket to manage content
- December 2001: Conducted user profiling and benchmarking studies
- February 2002: Implemented usability and IA solutions in the first two transactional application prototypes (“SAME” and “Propuestas”)
- April 2002: Created an in-house usability and interface design department
- July 2002: Outlined new intranet redesign for senior management
- Spring 2003: Launched intranet redesign
- March 2003: Deployed new intranet for “banca minorista” (retail banking) employees; old intranet remained operative for all others
- June 2003: Deployed new intranet for “empresas” (business banking) employees; usability department conducted first intranet-based online employee-satisfaction survey
- July 2003: Incorporated first online banking operations into the intranet
- August 2003: Banesto’s president transmitted the company’s annual objectives speech via intranet-based multimedia
- September 2003: Began redesign on *Portal público*, the default intranet homepage for all employees
- December 2003: Began construction on what would become two of the intranet’s most-used sections: *Portal de contratación* (Product Hiring Portal) and the *Catálogo comercial* (Products and Services portal)
- January 2004: Incorporated Microsoft .NET technology; Microsoft Pivot Table business report became available
- February 2004: Began upgrading content management software to OpenMarket 5.5
- Spring 2004: In-house usability and user interface team had nine full-time employees
- April 2004: Launched the *CUSUR* (customer-service portal) for the call center, which deals with all incidents and claims

- May 2004: Launched the *Agenda comercial* (business-agenda portal) to support Banesto's sales force
- June 2004: Launched the *Gestión hipotecaria* (mortgage management) transactional application, which was two years in the making
- July 2004: Began redesign for the call center portal and deployed the *Portal de cumplimiento* (compliance portal)

## RESULTS

The redesigned Banesto intranet began launching, portal by portal, in March 2003. With these new portals, for the first time the intranet was scalable, maintained a consistent interface — no matter the portal or business application — and utilized well-defined, intuitive interfaces.

Getting there, however, wasn't easy. Just in the usability department, "each team member had to constantly juggle seven or eight projects at a time, some of a very complex and serpentine nature," says Danny Poves, a usability consultant at Banesto. The process is still ongoing; multiple portal redesigns remain.

Yet the work paid off, with users benefiting from the myriad design and interface improvements, plus the bank's upgraded technology infrastructure. "Though a better Internet connection has undoubtedly improved response times, the decision to set guidelines on the use and optimization of images, the sensible use of the design program Macromedia Flash, and the reutilization of modules, has all contributed to improve interfaces, leaner pages, and faster page downloads," says Ricardo Salazar, an interactive designer at Banesto.

Users are embracing the new intranet, including the personalization features, which deliver information and applications tailored to their job function. During April 2004, the intranet had more than 6 million page visits, up from 1.5 million in April 2003. The *Normativa* (regulations) section alone received almost 1.1 million page hits in November 2003 when the bank reorganized. Employees also have online training options, and logged a total of 19,339 hours of online training in 2003.

The new intranet allows the bank to better conduct all of its business via a Web-based interface.

Pictured: The Banesto intranet standardizes the interface for any application, including this customer service signature-review tool.

Pictured: This portal, devoted to employees' outside pursuits, offers another example of the intranet's standardized interface.

One example of how the Web-based interface simplifies business is the recently launched Tarifa Plana (flat rate) product, which uses the intranet to guide the sales team's efforts. "First the product was promoted internally on the main intranet portal homepages," says Poves. By clicking a banner, users navigated to the *Catálogo Comercial* (the product and services portal), which offered a detailed product description. The sales force could also view tips on how to sell the product, and could launch the application they use to record sales with a single click. Also, because the portal reacts to user profiles, if the user browsing the catalog was, say, a business analyst rather than a salesperson, the portal might offer access to client records or display business intelligence reporting based on the product's sales.



Pictured: The new intranet presents a range of information to users in a consistent way, without requiring them to navigate through back-end applications or other user interfaces.

Another cost-reduction example is the customer-service portal (*CUSUR*), which customer-service representatives use while handling incidents or claims. "Today, the user walks through a series of questions that eventually lead to a solution, or else a simple, online report will be generated and sent to the relevant department," says Téllez. Behind the scenes, this portal integrates with Banesto's PeopleSoft implementation.

**Posición global**

Datos cliente | E-mail | Localizar persona | Reclamaciones | Planificar contacto | Alta oportunidad

Sexo: Mujer | Tipología: Familia joven | Domicilio ppal: C/ San Mauricio, nº 7  
 N.I.F.: 016885293H | Colectivo: Particulares | Localidad: Getafe  
 Edad: 33 | Tif. habitual: 91 6553 7665 ext:5673 | Provincia: Madrid

Transferencias | Tarjetas | Valores | Más operativa

**Posición Global del cliente** - para operar seleccione la opción de su interés

Cuentas corrientes			
Número	Descripción	Titularidad	Saldo
0030 1001 37 0000002271	CJENTAS CORRIENTES A LA VISTA	Titular	2.000,00 €
0030 1001 34 0000007271	CJENTAS CORRIENTES A LA VISTA	Autorizado	10.000,00 €
0030 1001 37 0000002271	CJENTAS CORRIENTES A LA VISTA	Representante legal	5.000,00 \$
0030 1001 34 0000008271	CJENTAS CORRIENTES A LA VISTA	Titular	3.000,00 \$
Total Euro:			12.000,00 €
Total Dólar:			8.000,00 \$

Préstamos			
Número	Descripción	Titularidad	Saldo
0030 1001 37 0000002103	PRESTAMO HIPOTECARIO	Titular	93.361,22 €
0030 1001 34 0000007103	PRESTAMOS PERSONALES	Titular	18.901,83 €
Total Euro:			112.263,05 €

**Temas pendientes cliente**

Concepto	Estado
Contratación	■
Operaciones pendientes	■
Acciones comerciales	■
Reclamaciones	■
Sugerencias	■

**Últimos contactos** Todos

- 12/07/04 - 08:48
- Llamada información producto
- 11/07/04 - 12:23
- Reclamación medios de pago
- 04/07/04 - 17:24
- Reclamación hipoteca

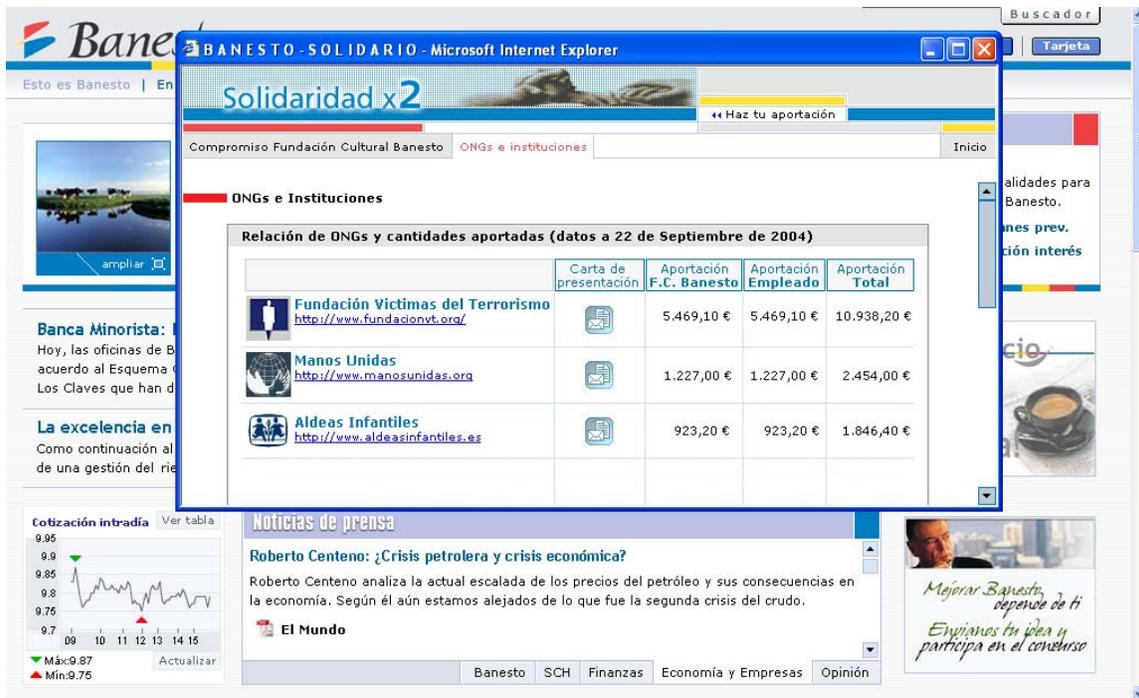
Pictured: The *Contact Center* portal centralizes information and access to applications for customer-facing employees, improving productivity.

The use of more modular and reusable code has simplified the overall intranet. The usability team estimates that the new intranet's code base is about half the size of the old.

One new piece of code is a rotating carousel menu that lets users navigate between available portals, an interactive map, and collapsible portal menus. Thanks to this carousel navigation, says Salazar, "out of Banesto's 9,000 employees, not one has complained about their experience navigating the new Banesto intranet."

As the rotating menu indicates, the new intranet is more fun. Users now have an online marketplace: a "cambalache" (second-hand store) for buying and selling almost anything. The intranet also features an online leisure magazine, online advice on health-related work issues, and a portal with "good deals on products with special financing schemes," says Sánchez.

Another portal, *Solidaridad x2* (solidarity times two) is an online program for donating to selected charities. When users make a donation, the amount is automatically debited from their Banesto bank account, and the bank matches the donation with an equal contribution.



Pictured: Banesto matches employees' donations to a number of charitable organizations.

The intranet redesign also furthers Banesto's move toward paperless branch offices. "Today, in the Banesto intranet, users don't see any print buttons or icons in banking applications or portals," says Sánchez. In fact, 98% of applications now lack such graphics. Thanks to this design change, he says the number of pages Banesto employees print dropped by 41%, from 7.9 million in 2002 to 3.4 million in 2003. In addition to being better for the environment, Banesto projects that this change will decrease its toner and paper costs by 30% per year.

One secret to the intranet's success was moving from a department-centric information architecture to one focused on job function. In other words, in the new intranet, departments no longer own content. "For example, in the new Banesto intranet, the customer-service portal doesn't belong to any business unit in particular. But an employee can still access this portal regardless of whether he or she is in private banking, personal banking, or retail banking," says García, the HCI consultant.

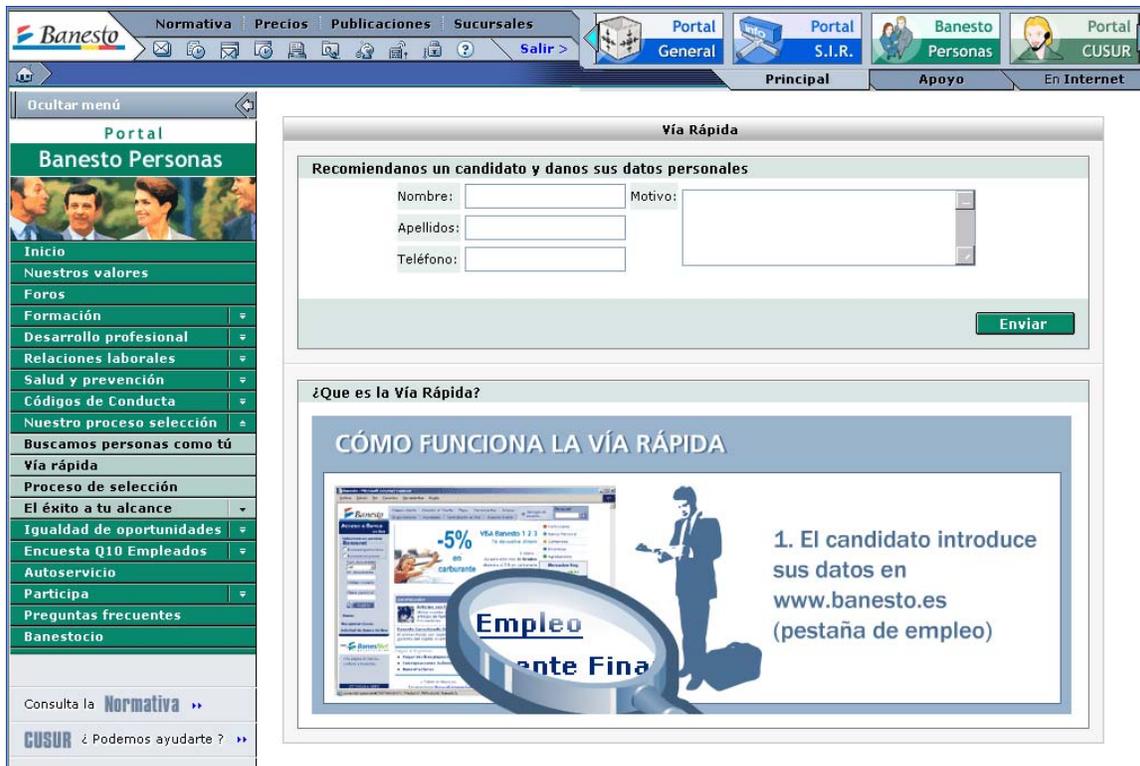
Even better, the new intranet is personalized, and includes business-dashboard capabilities. "Although providing personalization for each and every intranet user does considerably increase costs, this is a feature that is becoming more and more appreciated, and required," says Sánchez.

One benefit of personalization is a less-cluttered intranet, since users only see or have access to what they're authorized to see. For example, "an employee from retail banking will never get to see the technology portal or the markets portal," says Sánchez. For getting your job done, he notes, "less is more."

One example of the new personalization features is the homepage for Banesto's retail banking directors. The page reiterates the director's current objectives and level of completion. "The information that feeds the diagram is gathered in real time from numerous sources, including the number of new clients gained, sales growth, products and services hired," says Sánchez. "The employee can even compare his results with the average scores achieved by other branches," while not having to navigate to specific data-mining applications.

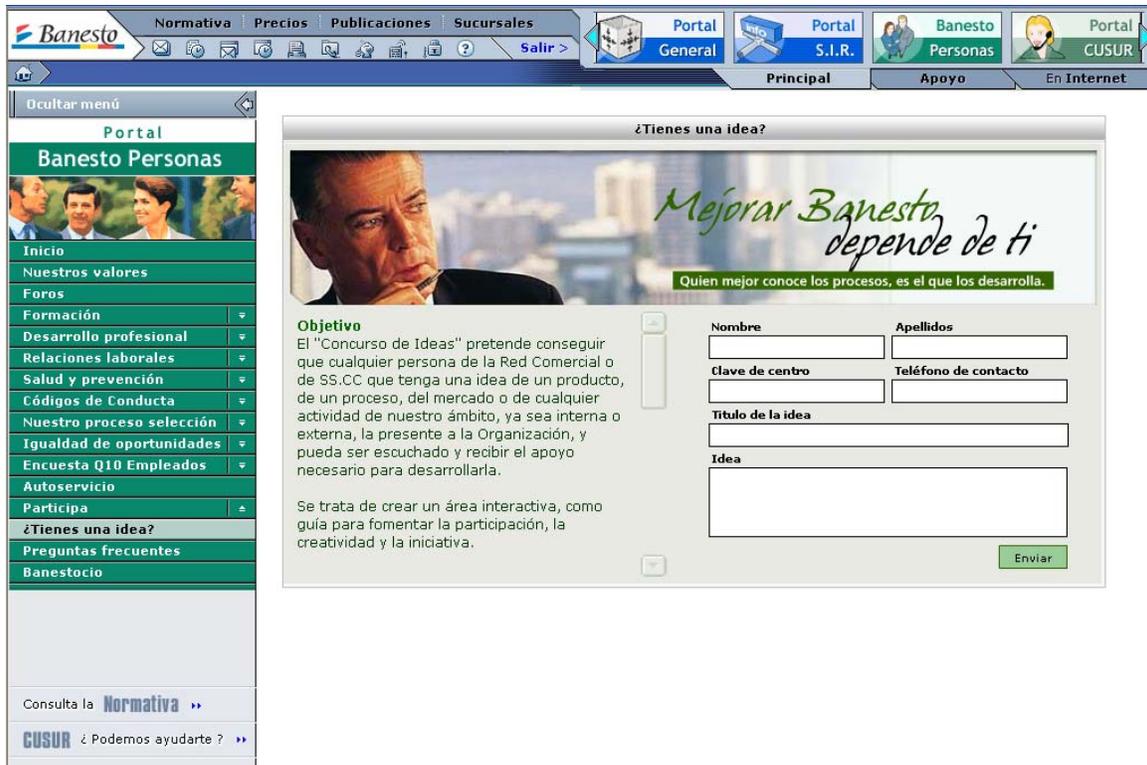
Another example of employee personalization is "banesto personas," a portal for employee career advancement. Here, employees can research courses and availability, see a list of courses already taken, and browse personal information, including salary, taxes, and remaining vacation time.

For recruiting new employees, Banesto offers "recomendar amigos," a way of recommending friends or Banesto colleagues for a new job. In addition to helping generate valuable leads for HR, the recommender can attach the person's resume or curriculum vitae "to speed up an otherwise slow staff-hiring process," says Sánchez.



Pictured: Banesto employees can recommend friends or colleagues for a new job, and attach a resume to help speed the hiring process.

For employees, another personalization feature — of a sort— is the user-feedback option on every page, which forwards messages directly to the usability department. This feedback often generates or directs future redesign work. In fact, says Sánchez, "this information also reaches the director of technology himself," to whom he reports. "This indicates how seriously Banesto's management takes employees' views of, and ideas for, the intranet."



Pictured: Intranet ideas and feedback go not only to the usability department, but also to the usability department director's boss, the director of technology.

## LESSONS LEARNED

Insights from Pablo Sánchez:

**The art of persuasion.** "Some of our success can be traced to political backing in the company, which made the bank both think about usability and take it seriously. To maintain that, our usability department now regularly promotes usability internally, through introductory courses for new software developers, and communications collateral, such as posters, to keep spreading the word."

**Create a multidisciplinary user-interface team.** A team that combines usability consultants, information architects, graphic designers, and programmers not only guarantees better results, it also helps cross-train — or at least make knowledgeable — all employees in the other disciplines."

**Be patient.** "In user testing, interviews, measuring results, and gauging feedback, you need a strong dose of empathy to understand what the user is saying, and what he or she means to say."

**Don't hurry usability.** "As Ángel Laguna, our creative director, would say, 'quality cannot be improvised.' In other words, you can't achieve fast, intuitive, and elegantly designed solutions overnight. So, rather than looking for shortcuts and quick results, take the time and effort you need to do it right. Only this will make the user experience as smooth as possible."

Insight from María José Téllez:

**Maintain thorough documentation.** “With everything the department juggles, gathering all of the decisions we’ve made, plus test results and solutions to problems, can be difficult. We could easily fall into the trap of forgetting which decisions we’ve made, and even contradicting ourselves. Therefore, we constantly update our usability manuals and guidelines, not only to track change, but also to help guide consultants and acculturate new team members.”

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## Cisco Systems, Inc.

### Using the Intranet:

Cisco Systems was founded in 1984 by a small group of computer scientists from Stanford University. Since then, Cisco's development of Internet Protocol-based (IP) networking solutions — hardware, software, and services — have made it the world's leader in Internet networking technology. Today, Cisco's IP technology addresses the core Internet areas of routing and switching, and brings advanced networking technologies to home networking, optical and storage networking, IP telephony, network security, and wireless LANs. Cisco's hardware, software, and service offerings are used to create Internet solutions that let individuals, companies, and countries increase productivity, improve customer satisfaction, and strengthen competitive advantage. The Cisco name has become synonymous with the Internet, as well as with the productivity improvements that Internet business solutions provide.

### Design Team:

In-house

### Members:

Mathew Burns, senior manager; Molly Barry, project manager; Jim Beno, information architect, applications; Melissa Dickerson, news strategy; Nikki Dudhoria, business analyst, enterprise news tool; Scott Gardner, developer, intranet user interface templates; Nitin Gupta, project manager, enterprise news tool; Dolan Halbrook, developer, enterprise news tool; Rikio Kaneko, developer; Michael Lenz, information architect, user interface standards; Sharon Meaney, usability program manager; Diana Morshead, information architect, taxonomy; Blaise Rattana, developer; Zain Rehan, developer, enterprise news tool; Ruben Rohde, visual designer; Jennifer Sterkel, news operations; Marshall Uy, lead technical developer; Gilbert Yu, search program manager

## SUMMARY

With thousands of individual websites, an intranet such as the one at Cisco Systems could easily get out of hand. Autonomy and the efforts of a strong Web community, however, ensure that this intranet remains useful. Also contributing to success is Cisco's company-wide, longstanding commitment to employ electronic processes, wherever appropriate, in place of paper.

The Cisco Employee Connection (CEC) is Cisco Systems' intranet starting point and provides the primary gateway to all Cisco internal websites and applications. CEC supports 34,000 employees in seventy countries. "Virtually every team at Cisco has an intranet Web presence, and has worked over the past ten years to bring offline processes online," says Mathew Burns, senior manager of Cisco's intranet strategy. "This is part of the fabric of how we work at Cisco — most mission-critical tasks have a component that involves the intranet." The CEC homepage content is largely devoted to providing a meaningful business context to help employees understand the company's goals, culture, and key initiatives. That information takes the form of internal, public, and industry news stories, all of which are usefully located in the homepage's right column, with tabs that make it easy for users to find a particular type of news. The *Culture & Initiatives* section houses feature stories, and the *Business Metrics* component keeps employees updated about the company's performance.

The understated design keeps users focused on the content, while graphics help tell a story. When an article profiling an employee includes that employee's picture, for example, it helps readers remember — or at least recall the face — of the person profiled. It also personalizes corporate communications, keeping it engaging and thus accessible. Charts, including simple bar graphs, display numeric data and help give users the gist of a story before they read it.

The screenshot shows the Cisco Employee Connection (CEC) intranet homepage. At the top, there is a navigation bar with links for CEC Home, Cisco.com, EMCO, Site Index, Emergencies, and Directory. The main header includes the Cisco Systems logo and the text 'Cisco Employee Connection'. Below this, there is a search bar and a navigation menu. The left sidebar contains a 'Navigation' tab and various links categorized under 'About Cisco', 'Office of the President', and 'Job Roles'. The main content area features several news items and metrics. One prominent article is 'Cisco Announces Its Intent to Acquire Netsolve, Incorporated', which includes a small image of two hands shaking and a brief description of the acquisition. Below this, there is a 'Business Metrics' section with a bar chart showing revenue from advanced technologies for the years '03 Q1-Q4 and '04 Q1-Q4. The chart shows a significant increase in revenue, with the '04 Q1-Q4 period reaching over \$1,000 million. The text accompanying the chart states that Cisco Q4 FY004 Advanced Technologies Revenue of \$962M grew 67% year over year, and that the goal is to have four of the six advanced technologies market grow to a \$2B annual run rate, and develop 8 areas with \$1B per year potential. There is also a 'Culture & Initiatives' section with an article titled 'Career Movement: An International Experience', which includes a small image of a person and discusses the challenges and benefits of moving a career overseas. The right side of the page features a 'Top Stories' section with several news items, including 'Global Accounts Demonstrate their Impact to Cisco Bookings', 'FY'05 Goals and Initiatives Badges to be Delivered to All Employees', 'Travel Restrictions to Indonesia', and 'ISO Audit Examines Systems and Processes That Drive Quality'. There are also sections for 'Cisco Stock' and 'Customer Satisfaction' with data for the period 2004-Sep-10. The bottom of the page includes a footer with the text 'Cisco Systems, Inc. Cisco Confidential. Managed by: Intranet Strategy Team; Last Modified:2004-SEP-7 | About CEC'.

Pictured: The homepage of Cisco Employee Connection (CEC), the Cisco Systems intranet, provides a gateway to all of the company's internal intranet sites, and displays internal, public, and industry news.

On the left side of the page, a *Navigation* tab consolidates intranet site navigation options into one concise area. Well-chosen and user-driven names for employees' top-level navigation choices — with logical sorting under those main links — helps users quickly find the information they're looking for. Overall, links are categorized and labeled based on key user tasks, tools, and expectations informed by card sorts and usability testing. As a result, these links are organized based on cross-functional and user-centered — as opposed to organization-centered — views of the intranet. This makes it easier for employees to find what they need without having to know or remember which organization built the page or tool. Overall, there are only a few links to choose from, which is nice: a multitude of links burdens users, making it incredibly difficult for them to remember all possible choices. In the top horizontal section of every CEC page, utility navigation links to the CEC homepage and Cisco's public-facing website, among other things.

Also on the left side of the page, grouped with the *Navigation* tab, is the *My Links* component, which includes tools and sites that are applicable to most Cisco employees. Currently, employees can customize some links within *My Links*. Adding or editing *My Links* is easy: users simply click the component's *Edit* button and add one or more URLs at once. Users can also add a link to any intranet page they're currently viewing by clicking on an icon in the site-wide toolkit, located at the top-right of every template-based intranet page. (In the future, Cisco will let employees subscribe to fully customized folders managed by organizations throughout the company.)

**CISCO SYSTEMS** CISCO CONFIDENTIAL Close Window

Cisco Employee Connection  
**My Links Editor**

[Support / Feedback](#) |   

You are currently logged in as **Teresa Lai (telai)**. You may customize your list of Quick Links by:

- Changing the Link Name and/or URL of any listing and clicking **Save**
- Clicking **Delete** on any of the listings and then clicking **Save**
- Adding new links at the top of this form, and clicking **Save**
- Changing the order of your links through the **Up** and **Down** arrows, and clicking **Save**

For guidance using My Links, please click on the Support / Feedback link located in the toolkit.

**My Links - Quick links Folder**

Add a New Link

Link Name	URL	Add
<input type="text" value="NNG"/>	<input type="text" value="http://www.nngroup.com/"/>	<input type="button" value="Save"/>

Modify an Existing Link

Link Name	URL	Move	Delete
<input type="text" value="CEC Livelink"/>	<input type="text" value="https://ework.cisco.com/Livelink/live"/>	<input type="button" value="▲"/> <input type="button" value="▼"/>	<input type="button" value="Delete"/>
<input type="text" value="Sametime Meeting Place"/>	<input type="text" value="http://ecollaborate.cisco.com"/>	<input type="button" value="▲"/> <input type="button" value="▼"/>	<input type="button" value="Delete"/>
<input type="text" value="Floorplans &amp; Maps"/>	<input type="text" value="http://www.win.cisco.com/cgi-bin/w"/>	<input type="button" value="▲"/> <input type="button" value="▼"/>	<input type="button" value="Delete"/>
<input type="text" value="Internal Tech Support"/>	<input type="text" value="http://www.win.cisco.com/support"/>	<input type="button" value="▲"/> <input type="button" value="▼"/>	<input type="button" value="Delete"/>
<input type="text" value="Audio Conference"/>	<input type="text" value="http://www.win.cisco.com/it/services"/>	<input type="button" value="▲"/> <input type="button" value="▼"/>	<input type="button" value="Delete"/>
<input type="text" value="Audio/web Conferencing"/>	<input type="text" value="http://at.meetingplace.net"/>	<input type="button" value="▲"/> <input type="button" value="▼"/>	<input type="button" value="Delete"/>
<input type="text" value="Call Transfer"/>	<input type="text" value="http://sjcmcc2pp.cisco.com/ccmuse"/>	<input type="button" value="▲"/> <input type="button" value="▼"/>	<input type="button" value="Delete"/>
<input type="text" value="Mailer (Mailing Lists)"/>	<input type="text" value="http://mailer.cisco.com"/>	<input type="button" value="▲"/> <input type="button" value="▼"/>	<input type="button" value="Delete"/>
<input type="text" value="eLustro"/>	<input type="text" value="http://www.win-tools.cisco.com/elust"/>	<input type="button" value="▲"/> <input type="button" value="▼"/>	<input type="button" value="Delete"/>
<input type="text" value="Payroll"/>	<input type="text" value="http://www.win.cisco.com/FinAdm/pa"/>	<input type="button" value="▲"/> <input type="button" value="▼"/>	<input type="button" value="Delete"/>
<input type="text" value="Stock Administration"/>	<input type="text" value="https://www.win-tools.cisco.com/Fin/"/>	<input type="button" value="▲"/> <input type="button" value="▼"/>	<input type="button" value="Delete"/>
<input type="text" value="Workplace Resources"/>	<input type="text" value="http://www.win.cisco.com/wpr/"/>	<input type="button" value="▲"/> <input type="button" value="▼"/>	<input type="button" value="Delete"/>
<input type="text" value="WAN"/>	<input type="text" value="http://www.win.cisco.com/HR/WAN/ir"/>	<input type="button" value="▲"/> <input type="button" value="▼"/>	<input type="button" value="Delete"/>
<input type="text" value="Books"/>	<input type="text" value="http://www.win.cisco.com/data-share"/>	<input type="button" value="▲"/> <input type="button" value="▼"/>	<input type="button" value="Delete"/>
<input type="text" value="Dry Clean"/>	<input type="text" value="https://www.drybay.com/indexcisc"/>	<input type="button" value="▲"/> <input type="button" value="▼"/>	<input type="button" value="Delete"/>
<input type="text" value="Oil Change"/>	<input type="text" value="http://www.win.cisco.com/wpr/empst"/>	<input type="button" value="▲"/> <input type="button" value="▼"/>	<input type="button" value="Delete"/>
<input type="text" value="Feedback Alias"/>	<input type="text" value="http://www.win.cisco.com/cgi-bin/fee"/>	<input type="button" value="▲"/> <input type="button" value="▼"/>	<input type="button" value="Delete"/>
<input type="text" value="Voicemail"/>	<input type="text" value="http://voicemail.cisco.com"/>	<input type="button" value="▲"/> <input type="button" value="▼"/>	<input type="button" value="Delete"/>
<input type="text" value="design expo"/>	<input type="text" value="http://www.chi2005.org"/>	<input type="button" value="▲"/> <input type="button" value="▼"/>	<input type="button" value="Delete"/>

Cisco Systems, Inc. Cisco Confidential  
Managed by: Intranet Strategy Team; Last Modified: 2004-JUL-02 | [About CEC](#)

Pictured: Users can add links manually or edit existing favorites in their *My Links* by using this editor, accessed by clicking the *Edit* button from the *My Links* tab. Note a link will be automatically generated on this page, with the URL pre-filled, if users click the "Add to My Links" icon — a yellow page and arrow on the upper-right of every page.

The *My Links* editing interface allows users to not only add links, but also to modify link names and reorder their links.

**My Links How To**

The "My Links" module provides single-click access to your favorite Intranet and Web sites from any CEC page using the URL framework.

By default, the "Quick Links" folder includes several useful Intranet sites such as Audio Conferencing, Human Resources, and Technical Support, but you can easily customize this folder by adding, removing, or reordering your own set of links. (However, in the current version of My Links, the "Personal Information" and "Job Roles" folders are not editable.)

**There are two ways to add new links to your "Quick Links" folder:**

1. Click the "Edit" button at the top of the "My Links" tab.
  - If prompted, type your CEC user ID and password into the Log In dialog box and click "OK".
  - The "My Links Editor" page opens.
  - In the text boxes under "Add a New Link", type a Link Name (display Web) and URL (Web address). (Tip: to save time and avoid transcription error, copy & paste the URL from your browser's location bar.)
  - Click "Save".
  - The new link is added to the bottom of your "Quick Links" list.
2. Click the "Add to My Links" toolbar icon.
  - If prompted, type your CEC user ID and password into the Log In dialog box, click "OK".
  - The "My Links Editor" page opens.
  - The text boxes under "Add a New Link" for link name and URL are automatically filled in. You may edit the link name, if desired, but do not change the URL, or the link will not work.
  - Click "Save".
  - The new link is added to the bottom of your "Quick Links" list.

**To change the display order of links in your "Quick Links" folder:**

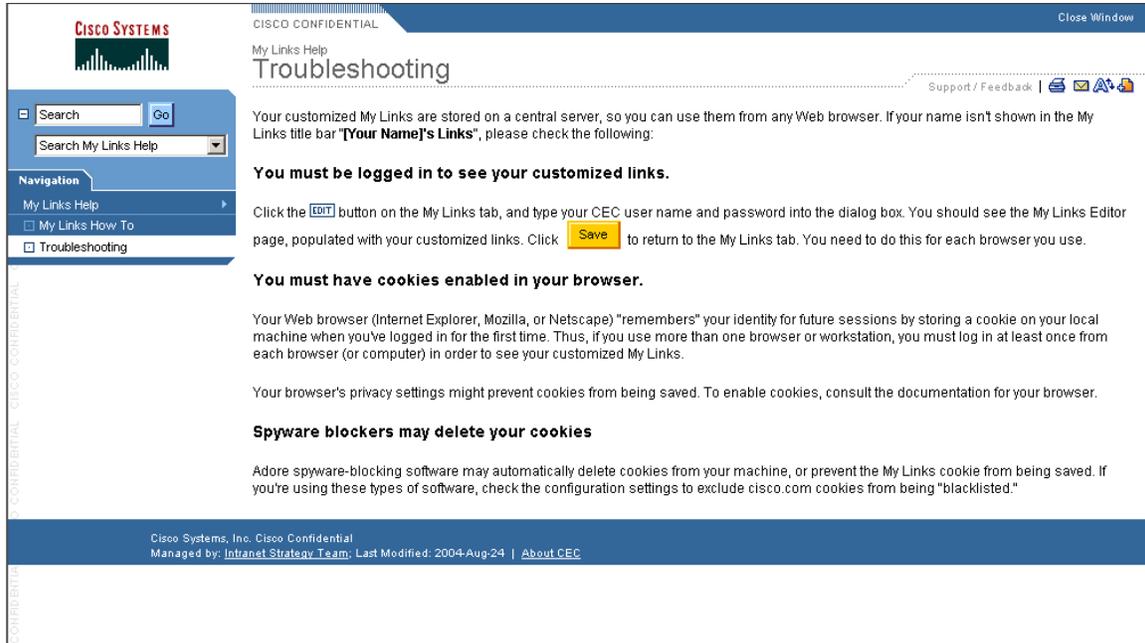
- Click the "Edit" button at the top of the "My Links" tab.
- If prompted, type your CEC user ID and password into the Log In dialog box, click "OK".
- The "My Links Editor" page opens.
- Use the "▲" and "▼" buttons to move the link up or down one row in the list. Repeat as necessary until the links are in the desired order.
- Click "Save".

**To remove a link from your "Quick Links" folder:**

- Click the "Edit" button at the top of the "My Links" tab.
- If prompted, type your CEC user ID and password into the Log In dialog box, click "OK".
- The "My Links Editor" page opens.
- Click the "Delete" button to the right of the link(s) you wish to remove.
- Click "Save".

Pictured: Help for users who want to add to or edit *My Links*.

While a “favorites” feature on intranets isn’t uncommon, many sites store the favorites in cookies, which makes users’ favorites unavailable if they’re browsing on a different computer. Cisco solves this problem by storing *My Links* in a database on the intranet server so users can see them from any machine. This ensures that users can take complete advantage of their *My Links*, and not lose their customizations.



Pictured: Cisco provides a dedicated troubleshooting page to help users access their *My Links*. While the links are stored in a centralized database so users can access them from anywhere, they must first log in, and may have to reconfigure the browser’s security settings.

Aside from adding their favorites and using the homepage’s main navigation categories, employees can navigate by selecting topics via an alphabetical list of intranet sites. For navigating to internal Cisco sites, users can also use drop-down lists in the *Navigation* area. These lists include organizations, geographic locations, and job roles. Specific job roles, for example, include administrator, documentation developer, engineer, manager, project manager, salesperson, sales engineer, service account manager, service & support manager, and Web developer.

Even for an intranet with effective navigation, search remains an important feature, and that’s especially true for CEC, which has some 3.5 million pages. Every intranet page contains an open search field, making search easily accessible. From the CEC homepage and other pages utilizing the template-based intranet interface, users can also restrict searches to specific sites. Search results can be filtered by a variety of criteria: file format, the date the file was last modified, or any string of characters contained in the URL.



Worldwide Operations

Global E-Sales Portal

CEC | CCO | Search | Index | Support | Feedback | Directory:  **Go**

esalesam, esalesam: December 27, 2004 - 12:08

**Home** | **Bookings** | **Dashboard** | **MyDevelopment**

My Applications

Support

**My Bookings Reports**

REPORT	PROD	SVC
Total Non Booked	0	0
Bookings YTD	0	0
Bookings MTD	0	0
Total Backlog	0	0

[Refresh](#)

**My Alerts**

Corporate Events [1 of 1]

Networkers 2002, San Diego 24-Jun-2002

[Delete checked alerts?](#) [View All](#)

**Cisco News Portlet**

**Employee News**

- Victor and Janie Tsao are Promoted to Senior Vice Presidents
- Vote for the FY '04 Teamwork across Cisco Winner
- IBSG Consultants Share What They Hear from Executives

[Refresh](#) [More>>](#)

**Bookings Options**

Current View:  Hierarchy:

**My Realtime Bookings**

Bill To	Booked Date	SO # / Deal ID	Channel	Product (USD)	Service (USD)	End User
GE CAPITAL INFORMATION TECHNOLOGY SOLUTIONS INC	2002-07-03 21:27:03.0	42076675 N/A	Systems	0	166	
IBM CANADA	2002-06-05 10:52:14.0	42025419 N/A	Systems	0	-8,329	
NEXINNOVATIONS	2002-04-12 09:33:56.0	41957810 N/A	Unknown	0	-2,882	
NEXINNOVATIONS	2002-04-12 09:33:57.0	41957811 N/A	Unknown	0	-1,723	
NEXINNOVATIONS	2002-04-12 09:33:58.0	41957809 N/A	Unknown	0	-33,261	
NEXINNOVATIONS	2002-04-15 12:58:00.0	41960428 N/A	Unknown	0	-654	
NEXINNOVATIONS	2002-04-22 09:36:58.0	41970076 N/A	Unknown	0	31	
NEXINNOVATIONS	2002-05-02 07:26:19.0	41986620 N/A	Unknown	0	463	
NEXINNOVATIONS	2002-05-02 07:26:21.0	41986621 N/A	Unknown	0	28	
NEXINNOVATIONS	2002-05-06 13:10:40.0	41990957 N/A	Unknown	0	733	
POS Adjustments				0	0	

Filter for ALL Data as of: 27-Dec-2004 10:39:05 AM (GMT-8:00) Pacific Time ( US & Canada ), Tijuana

[Previous Day](#) | [Next Day](#) | [7d View](#) | [Today](#) | [Refresh](#) [More](#)

**My Bookings Attainment**

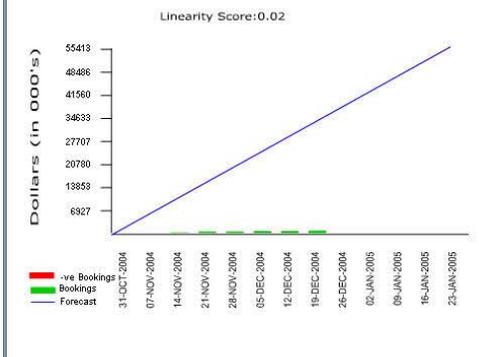
	Category	Bookings (USD) (000's)	Commit (USD) (000's)	%	Plan (USD) (000's)	%	Commit To-Go (USD) (000's)	Days Left
Week of 19-DEC-2004	PROD	165	21,037	1%	64	258%	20,872	0
	SVC	5	-355	-1%	680	1%	0	0
DEC-FY05	PROD	317	21,037	2%	322	98%	20,720	0
	SVC	291	-355	-82%	3,400	9%	0	0
Q2-FY05	PROD	379	55,413	1%	837	45%	55,034	35
	SVC	37	17,719	0%	8,840	0%	17,682	35
FY05	PROD	385	55,413	1%	4,000	10%	55,028	217
	SVC	-185	17,719	-1%	25,540	-1%	17,904	217

Data as of: 26-Dec-2004 02:10:56 PM (GMT-8:00) Pacific Time ( US & Canada ), Tijuana

[Current Goalsheet](#) | [All Goalsheets](#)

**My Linearity**

Linearity Score: 0.02



Data as of: 26-Dec-2004 02:20:42 PM (GMT-8:00) Pacific Time ( US & Canada ), Tijuana

[\[MTD\]](#) | [\[QTD\]](#) | [\[YTD\]](#)

**My Customer News**

**AT&T Corp**

- NYSE Short Interest Ace Ltd - Burlington Nbrtn
- Dividends Reported December 20
- AT&T declares quarterly dividend

[Refresh](#) [More>>](#)

**My Industry News**

**Advertising**

- Tokyo Stock Exchange: closing price list-2-
- Tokyo Stock Exchange: morning price list-2-
- Made-in-Korea ads catch on globally
- Advertising: A Roster of Wishes for the New Year --- From Pleasing Ads for Coke To a Cease in Drug Scars: Digestion for Karmazin
- Or to fill Lancaster's post as GM of Lowe Hong Kong

**Apparel**

- OTC Bulletin Board Most Actives at 11:00 EST
- Tokyo Stock Exchange: closing price list-7-
- Tokyo Stock Exchange: closing price list-9-
- Tokyo Stock Exchange: closing price list-2-
- Tokyo Stock Exchange: closing price list-1-

[Refresh](#) [More>>](#)

**My Competitor News**

**Hitachi Maxell Ltd**

- Hitachi Maxell Cuts Earnings Forecasts
- Tokyo Stock Exchange: closing price list-2-

[Refresh](#) [More>>](#)

**Cisco Systems, Inc. Internal Use Only**

Questions? Problems? Consult the [E-Sales FAQs](#) or open a [support case](#) with GSTS.

Pictured: *E-Sales*, a centralized location for all of Cisco's sales force programs. Available tools here include opportunity management and forecasting, deal support automation, quoting, and sales territory maps.

As mentioned, the intranet homepage includes navigation to several sites centered on job roles. For example, the *E-Sales* portal is a centralized location for all sales force programs globally, aimed at increasing the entire sales force's productivity and profitability. Tools herein include opportunity management and forecasting, deal support automation, quoting, and sales territory maps.

**E-SALES**  
Worldwide Operations

CEC || CCO || SEARCH || INDEX || SUPPORT || FEEDBACK || DIRECTORY:  **Go**

**Quoting Tool** CLOSE

Welcome, Test user E-sales (ADMIN-ESALES) [change access](#) December 27, 2004 - 12:10

My Quotes | **Main Quote Form** | Quote Template | Set Defaults Help

Search Quotes (Asterisk(\*) can be used as a wild-card for searches)

Quote Number:  Deal ID:   
 Quote Description:  Opportunity Name:   
 Account Name:  Creation Date Between:  to   
required DD-MON-YYYY (ex. 01-JAN-2002)

Quote Number	Quote Description	Account Name	Deal ID	Opportunity Name	Creation Date	Expiration Date	Total	Delete
<a href="#">1-25ZHS9</a>	test of training	FUJINON	1016842	Outline quote	26-Nov-2004	26-Dec-2004	12,568.30	<input type="checkbox"/>
<a href="#">1-25M7AJ</a>	Training copy1	FUJINON	1016842	Outline quote	18-Nov-2004	18-Dec-2004	6,570.80	<input type="checkbox"/>
<a href="#">1-25M7AH</a>	Traning temprate 1	FUJINON			18-Nov-2004	18-Dec-2004	8,616.00	<input type="checkbox"/>
<a href="#">1-25M7AF</a>	Training 1	FUJINON	1016842	Outline quote	18-Nov-2004	18-Dec-2004	8,616.00	<input type="checkbox"/>
<a href="#">1-25JEX</a>	dddd				14-Nov-2004	14-Dec-2004	4,195.00	<input type="checkbox"/>
<a href="#">1-25DUO7</a>	part# test				11-Nov-2004	11-Dec-2004	0.00	<input type="checkbox"/>
<a href="#">1-24RM9H</a>	mmtest				29-Oct-2004	27-Nov-2004	0.00	<input type="checkbox"/>
<a href="#">1-24OXML</a>	Test -GSTS				27-Oct-2004	26-Nov-2004	0.00	<input type="checkbox"/>
<a href="#">1-24N3UT</a>	test_JBM Prod				26-Oct-2004	25-Nov-2004	0.00	<input type="checkbox"/>
<a href="#">1-24HGRP</a>	test1022				22-Oct-2004	21-Nov-2004	82,375.00	<input type="checkbox"/>
<a href="#">1-23U6EV</a>	CAM test				06-Oct-2004	05-Nov-2004	26,815.80	<input type="checkbox"/>
<a href="#">1-22VHU3</a>	Quoting virtual copy 2	FUJINON	1016842	Outline quote	16-Sep-2004	28-Oct-2004	39,771.57	<input type="checkbox"/>
<a href="#">1-22VHU1</a>	Quoting virtual 2 template	FUJINON			16-Sep-2004	16-Oct-2004	34,287.40	<input type="checkbox"/>
<a href="#">1-22VHTZ</a>	Quoting training virtual 2	FUJINON	1016842	Outline quote	16-Sep-2004	16-Oct-2004	19,890.40	<input type="checkbox"/>
<a href="#">1-22RC9X</a>	Quoting copy virtual 1	FUJINON	1016842	Outline quote	13-Sep-2004	13-Oct-2004	10,287.40	<input type="checkbox"/>

1 to 15 Next >>

Cisco Systems, Inc. Internal Use Only  
Support & Feedback | Quoting FAQs

Pictured: The *E-Sales Quoting Tool*, integrated with the *Opportunity Management and Forecasting* tool (picture follows), reduces duplicate information entry and speeds quote generation for customers.

My Opportunities | My Forecast | Add Opportunity | My Profile ?

In order to submit your forecast, please update status of opportunities that are 30 days past their expected book date.

Please fill in the following fields to search for opportunities:

Opportunity Status	Active	Book Date Between	<input type="text"/>	and	<input type="text"/>	
Forecast Status	All	Product	Between	<input type="text"/>	and	<input type="text"/>
Deal ID	<input type="text"/>	Site	Name	<input type="text"/>	<input checked="" type="radio"/> Starts WithExact Match <input type="radio"/> Keyword	
Opportunity Name	<input type="text"/>	SSR Email ID	<input type="text"/>	<input type="button" value="Search"/> <input type="button" value="Clear"/>		

My Opportunities - ADMIN-ESALES										
Reassign Selected		Reassign All		Advanced Reports			Save	Reset	Export	
<input type="checkbox"/>	Account Name	Deal ID	Opportunity Name	DD Status	Opportunity Status	Forecast Status	Expected Book Date	Expected Bookings (USD 000's)		
								Product	Service	Total
<input type="checkbox"/>	JPV - JPV	1082628	GenCorp- PHASE 1	N/A	Active	Commit	02-MAR-2005	150	0	150
<input type="checkbox"/>	JPV - JPV	1111484	Test for dec release- 1	N/A	Active	Commit	16-DEC-2004	0	1000000	1000000
<input type="checkbox"/>	JPV - JPV	1019538	IS Config/Quote Process- ONE	N/A	Active	Upside	15-DEC-2004	10	1000	1010
<input type="checkbox"/>	JPV - JPV	1098672	gsts test1- PHASE2	N/A	Active	Upside	11-NOV-2004	20	0	20
<input type="checkbox"/>	A B C D - ACTION FOR BOSTON COMMUNITY DEVELOPMENT INC	1092160	Test for OOC CR of ODS- 1	N/A	Active	None	31-JAN-2005	1000	50	1050
<input type="checkbox"/>	A B C D - ACTION FOR BOSTON COMMUNITY DEVELOPMENT INC	1101855	Test Oppty- TEST 1	N/A	Active	None	13-DEC-2004	100	0	100
<input type="checkbox"/>	ABC COMPANY - ABC INCORPORATION	1090325	123- 1	N/A	Active	None	20-DEC-2004	0	0	0
<input type="checkbox"/>	ABC COMPANY - ABC INCORPORATION	1098673	Copy of gsts test1- PHASE2	N/A	Active	None	10-DEC-2004	20	0	20
<input type="checkbox"/>	ABCD BEIJING - ABCD BEIJING	943931	Franceré1111_TEST-FRANCERÉ1111_TEST	N/A	Active	Commit	05-APR-2005	12	0	12
<input type="checkbox"/>	ACCOUNTS PAYABLE	948413	Salesforce demo- FIRST PHASE	N/A	Active	None	30-DEC-2004	50	5	55
<input type="checkbox"/>	ADSTAR ISSC - ADSTARCOM INC	958431	Test March- TEST	N/A	Active	None	13-APR-2005	100	0	100
<input type="checkbox"/>	ANIXTER (ANIXTER, INC) - ANIXTER INTERNATIONAL INC	927681	testing- TEST ONE	N/A	Active	None	24-APR-2005	100	10	110
<input type="checkbox"/>	ASA CORPORATION	998307	IS Process Test- PHASE 1 TEST	N/A	Active	None	14-DEC-2004	23	1	24
<input type="checkbox"/>	ASUS - ASUS	928276	New Factory IP Network- ONE	N/A	Active	Commit	30-DEC-2004	500	0	500
<input type="checkbox"/>	SHOCHIKU CO., LTD. - SHOCHIKU CO., LTD.	1017978	EBIZO- EBI	N/A	Active	None	21-DEC-2004	3	0	3
<input type="checkbox"/>	STONERIDGE ELECTRONICS AS - STONERIDGE ELECTRONICS AS	1114331	IP Tel opp- Q1	N/A	Active	Upside	23-DEC-2004	20	3	23

1 to 16

**Cisco Systems, Inc. Internal Use Only**  
 Feedback? Questions? Problems? Consult the [Opportunity/Forecast FAQs](#) or [open a support case](#) with GSTS.

Pictured: The *Opportunity Management and Forecasting* tool provides the global sales force with one application to manage their sales pipeline; streamline forecasts into a single, weekly forecast; and submit opportunity-based forecasts.



**CISCO SYSTEMS**

CEC Home | Cisco.com | Site Index | Support | Feedback

Directory:

---

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CISCO EMPLOYEE CONNECTION

**SALES RACK**

Solutions ▶

Commercial Solutions ▶

Technologies ▶

Products ▶

Services ▶

Verticals ▶

Programs ▶

About Sales Rack

**Rating Feedback**

★ No Downloads to Rate

**News**

**Links to Cisco Trade-Up Program**

A new migration path to Cisco solutions, which up to 100 percent investment protection. (kdecato)

**SMB Training on the Run**

Three new SMB Training on the Run courses are now available for industry solutions. (kdecato)

[» More](#)



**Partner-customized versions of Cisco Solution Designer**

» LEARN MORE

**LOOK NO FURTHER**

**CISCO ON CISCO TOOLKIT** »

**Communications**

[» More](#)

SALES RACK: COMMERCIAL SOLUTIONS

Cisco SMB Class Solutions



Cisco SMB Class Solutions fuel the success of small and medium-sized businesses (SMB) through **financing, applications, training and service and support**. Integrated, intelligent network solutions that provide bottom-line benefits for business.

- [BusinessWise/ TechnologyWise Communications Nov. 2004 \(for back issues click 'more'\)](#)
- [Secure Network Foundation w/ Integrated Services Routers Tier I Inside Sales Kit](#)
- [Value of the Integrated Network](#)
- [Intelligent Network Services](#)
- [The Power of IOS for SMB](#)

**Network Foundation**

[Voice Solutions](#)

CallManager Express Solution for Small Offices

CallManager Solution for Mid-sized Business

**Security and VPN Solutions**

[Integrated Security Solution](#)

[Threat Prevention Solution](#)

[VPN Solution](#)

**Wireless and Mobility Solutions**

[At Work Solution](#)

[On the Road Solution](#)

[Wireless LAN Security Solution](#)

Search

CEC in Sales Rack

Toolkit: Roll over tools below

[Home](#) [Email](#) [Lock](#) [Help](#)

Internal Related Links

Competitive

[Success Builder](#)

Related Marketing Links

[Marketing Programs-in-a-box/ kits](#)

[Cisco On Cisco Toolkit](#)

[» More](#)

Other

[Channel Partner Locator](#)

[Cisco Capital EMEA](#)

[Corporate Messaging](#)

[Customer Success Stories](#)

[Task Tracker \(request update to this site\)](#)

Cisco.com Related Links

[Solution Designer](#)

[Cisco Network Investment Calculator \(CNIC\)](#)

[Small and Medium Business](#)

Contacts

[Anthony Passarelli](#)

[Kevin DeCato](#)

Cisco Systems, Inc. [Internal Use Only](#)

Question? Problem? Consult the [Sales Rack Resource Page](#) or [open a support case with GSTS](#)

Pictured: *Sales Rack* enables the sales force to quickly and easily locate current product, solution, service, program, technology, and vertical collateral. The page itself is a collaborative effort by several different Cisco business units and groups.

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CISCO CONFIDENTIAL

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## Worldwide Sales Support Programs

Support / Feedback

Search [ ] Go

Navigation My Links

- Cisco Employee Connection
- Organizations
- Worldwide Sales
- Worldwide Field Process & Operations
- Worldwide Sales Support Programs
  - Organizations
  - Sales Learning & Development
  - Sales Acquisition Integration
  - Key Initiatives
  - Customer Demo Programs
- Other Resources
  - Metrics
  - Publications
  - Multimedia
  - Operations
  - Web Job Request Tool

Popular Items

- Sales Support Programs Org Chart (PPT - 1.6MB)
- FY05 Initiatives (PPT - 295KB)

### Message from Scott



As we drive forward into FY '05, WW Sales Support Programs is focused on the following strategic initiatives, designed to ensure the greatest impact on the Cisco sales force:

- Deliver Global Demonstration and Performance Testing Capabilities
- Increase Sales Force Competency in Technology, Verticals and Services [Full Text...](#)

**Scott Brown** Vice President, Worldwide Sales Support Programs

**Vision**  
Shape the future composition of the Cisco Sales Force and Sales Process

**Mission**  
Create unprecedented value through the Delivery of Sales Support Programs and Services that are aligned to key sales and business objectives, and enable sales force productivity

### WWSP News

DEC-20 [Cisco Announces Intent to Acquire Protego Networks, Inc.](#)

NOV-30 [Read the Latest WW Ops Quarterly Update from Manny Rivelo](#)

NOV-17 [Cisco Announces Intent to Acquire Jahi Networks](#)  
Cisco announced a definitive agreement to acquire privately-held Jahi Networks, Inc., a provider of network management appliances designed to simplify device deployment, configuration and management.

### Related Items

**Links**

- [Read the Latest Executive Summary](#)

**WWSP Highlights**

**Congratulations!** The following individuals were recognized for their outstanding contribution to WWSSP for November, 2004: Ali Saifee, Gaurav Khanna, Mary Ellen Buchheit, Paula Cohen, Joe Radich, Vera Fisher

Top Presentations...

**Metrics**

- [FY04 Q4 SSP Business Impact Metrics](#) (ZIP - 1.08MB)
- [FY04 Q3 Executive Summary - Theatre Activity](#) (DOC - 122KB)

**Training Reports**

- [June 2004](#) (XLS - 31.7MB)
- [May 2004](#) (XLS - 18.8MB)

### Sales Support Programs

**Sales Learning & Development**

Providing the Worldwide Sales Force with the skills and knowledge to effectively achieve Cisco's sales and business objectives. SL&D develops learning solutions targeted at expanding the competency of the Cisco sales force.

- [Sales Readiness](#)
- [Technical Readiness](#)
- [APAC Theatre Development](#)
- [Americas Theatre Development](#)

**Customer Demo Programs**

Dedicated to providing world-class customer focused demonstration services.

- [Worldwide Briefing Program](#)
- [Customer Proof of Concept Labs](#)
- [Global Demo Loan Program](#)
- [Field Labs](#)
- [Mobile Demo Kits](#)
- [Local Demo Kits](#)
- [SP Labs](#)

**Key Initiatives**

New programs for FY05 which will increase leadership competency and provide training focused on the advanced technologies and theatre sales plans.

- [Winning with Demos](#)
- [Sales Master Series](#)

**Sales Acquisition Integration**

Providing change leadership for integrating acquisitions into the global Sales operations and delivering learning aligned to the newly acquired technologies and tools.

**EXECNET**  
MOBILITY SOLUTIONS:  
ENABLING WORK  
FORCE PRODUCTIVITY



[VIEW FLASH](#)

all you have to do is unlock it.



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Managed by: Intranet Strategy Team; Last Modified: 2004-Dec-20 | [About CEC](#)

Pictured: The *Worldwide Sales Support Programs* page gives Cisco's sales force a centralized intranet location for accessing sales-force tools, including downloadable sales initiatives, business metrics, and an organizational chart.

Another example of a domain-specific portal is the *Manager Portal*. It provides quick access to a customizable list of tools for managers, as well as categorized navigation to manager-specific information, policies, and applications. In addition, Cisco will soon add real-time, decision-support data portlets, providing a formal starting point for many managerial tasks.

CISCO SYSTEMS CISCO CONFIDENTIAL CEC Home | Cisco.com | EMCO | Site Index | Emergencies | Directory

## Manager Portal

Support / Feedback

Search

Navigation My Links

Cisco Employee Connection

Job Roles

**Manager Portal**

- People & Team Management
- Business Management
- Leadership
- Manager News
- About Manager Portal

### Manager Tools & Bookmarks

All Tools...

**Personal Tools** (edit)

- Cisco Achievement Program (CAP)
- e-Performance Management (ePM)
- Global People Movement (GPM)
- Profiler Reporting
- IT-SERT
- Leadership Development (360) Feedback
- Manager Access Toolkit (MAT)
- Manager InfoCenter
- MOCHA
- Talent Assessment Tool
- Universal Application Inbox (UAI)
- WebLetters

**Personal Bookmarks** (edit)

- Expectations of Leaders

### Manager News

- Learn More About the Protego Networks Acquisition
- New Service Supplier for Worldwide Immigration Services
- Take the Company Meeting Survey and Catch the Video

>>Recent Manager News | All Cisco News

---

**New on Manager Portal**

2004-NOV-08 [About Manager Portal](#)  
Learn about the newest release of the Manager Portal

2004-NOV-08 [Applicant Tracking Requirements & Guidelines](#)  
Understand best practices and requirements for US external hiring

2004-NOV-08 [Quarterly Managers' Meeting](#)  
Locate information on future or past Manager meetings

---

**People & Team Management**

- Compensation & Recognition
- Expand Your Team
- Health & Safety
- Learning & Development
- Management Policies & Guidelines
- Performance Management
- PTO & Leaves
- Transfers, Job & Status Change

---

**Business Management**

- Budget & Expenses
- Business Planning
- Communication & Workflow

---

**Leadership**

- Guidelines & Expectations
- Learning & Development

### Calendars

- Fiscal Calendar
- Global Marketing Calendar
- Quarterly Managers' Meeting

79 Days left in Q2

December 2004						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

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Managed by: Manager Portal Team, Application version: 2.0.1.0\_10103 | About CEC

Pictured: The *Manager Portal* aggregates various tools for managers, including links to the quarterly manager-meeting schedule and feedback tools for leadership development. Future page iterations will add more manager-centric tools, making this page the starting point for many managerial tasks.

Another intranet site targets new employees, who can more quickly acclimate themselves to Cisco via the *New Hire Dashboard*. The dashboard includes a checklist of tasks that new hires need to perform in the first week, month, and quarter. It also includes a *New Employee Orientation* section, which provides a company overview, including vision, culture, history, customer focus, Cisco products and services, Cisco history, corporate philanthropy, *Cisco University*, benefits, compensation, and more.

The screenshot shows the Cisco New Hire Dashboard. At the top, there is a header with 'CISCO CONFIDENTIAL' and navigation links: 'CEC Home | Cisco.com | EMCD | SiteIndex | Emergencies | Directory | Go'. Below the header is a search bar and a 'Go' button. The main content area is titled 'New Hire Dashboard' and includes several sections:

- New Employee Orientation:** A section with a graphic of a person and text: 'This e-learning orientation beta is for all new employees worldwide. For additional information that is theater-specific, select the Related Theaters to the left.' Below this is a 'System Requirements' section: 'System Requirements: Internet Explorer version 5.5+ is recommended for viewing the E-Learning. You must also disable any popup blockers that you have installed.' There is a link to 'Launch the New Employee Orientation (beta version)'.
- Welcome to Cisco!** A section with text: 'This site helps familiarize you with Cisco's culture and introduces you to our intranet. Be sure to browse through all sections of the dashboard, starting with:'
- New Hire Checklist:** A section with a checklist of tasks: 'Check off the things you need to do in the first week, first month and first 90 days...'.
- Useful Links:** A section with text: 'Find all the important sites you need to get started...'.
- Intern Information:** A section with text: 'Information to help interns familiarize themselves with Cisco's culture and intranet...'.
- Feedback:** A section with text: 'Tell us what you think! We welcome your feedback on the New Hire Dashboard.' Below this are two dropdown menus: 'New Hire Forms' and 'How do I...', each with a 'Go' button.

On the left side, there is a navigation menu with options: 'Navigation | My Links', 'Cisco Employee Connection', 'Job Roles (Dashboards)', 'New Hire Dashboard', 'New Hire Checklist', 'Useful Links', and 'Intern Information'. Below this is a 'Related Theaters' section with a world map and links to 'Americas', 'EMEA', 'Japan', 'FUS', and 'ASIAPac'. At the bottom of the page, there is a footer with 'Cisco Systems, Inc. Cisco Confidential' and 'Managed by: HRC, Last Modified: 2004-Sep-08 | About CEC'.

Pictured: The *New Hire Dashboard* helps orient new employees by providing them with a checklist of tasks they need to perform in the first week, month, and quarter of their employment.

With so many intranet applications and processes available, Cisco employees need a place to get their bearings. The *Workplace Resources* page helps with just that. People can find information about the organization's mission, employee services, building-related information, security badges, and much more.

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CISCO CONFIDENTIAL  
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## Workplace Resources (WPR)

Support / Feedback |    

Search WPR

Navigation My Links

- Cisco Employee Connection
- Organizations
- Workplace Resources (WPR)
  - Cisco Locations Worldwide
  - Employee Services
  - Building Information
  - Safety & Security
  - About WPR
  - Need Help?
  - View All Websites (A-Z)

Popular Items

- eTools...
- Policies & Processes...
- Teams & Programs...

Feedback

**Tell us what you think!**  
We welcome your [feedback](#) on the new WPR Global Homepage.

**Frequently Visited Websites**

<a href="#">Badging</a>	<a href="#">Move Information</a>
<a href="#">Cafes / Food</a>	<a href="#">Package Status Lookup</a>
<a href="#">Conference Rooms</a>	<a href="#">Reception</a>
<a href="#">Fitness Center</a>	<a href="#">Secured Area Access</a>
<a href="#">Floorplans</a>	<a href="#">View All Websites (A-Z)</a>
<a href="#">Mail &amp; Shipping</a>	

**WPR News & Announcements**

AUG-27 [Eye on Americas Newsletter!](#)  
Match the WPR employee with their first car and win!

AUG-12 [WPR Intranet Receives Award](#)  
The WPR Intranet Team is the first recipient of the new Intranet Excellence Award

AUG-12 [WPR Habitat for Humanity Pictures](#)  
View the pictures from Thursday's Habitat for Humanity Team in Santa Clara, California

>> [More](#) | [Submit News](#)

**Employee Services**

ATMs, Document Svcs, Ergonomics, Fitness Centers, Nameplates, Recycling, Transportation

**Building Information**

Badging, Building Access, Floorplans, Maps & Directions, Mail & Shipping, Planning (Space), Reception

**Safety & Security**

Emergency Response Team, Laptop Security, Lock & Key, Security Officers, Security Ops Center, Travel Risk

**About WPR**

Mission & Vision, Organizational Chart, Teams, Programs, Policies, News & eTools

**Need Help?**

- [Open a Service Request](#)
- [Is it an Emergency?](#)
- [Crime or property damage?](#)
- [Building maintenance problems?](#)
- [Cubicle or furniture need adjusting?](#)
- [Moving people or equipment?](#)
- [Need more space?](#)

**Location Filter**

Set a Location Filter to see WPR information only for the specified location.

Your filter is currently set to:

Select a Theater...  
Select a Location...

**ISO AUDIT 9/13!**

click here to find out what you can do to prepare for the ISO Audit



**CISCO LOCATIONS BY NAME OF CITY**  
worldwide



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Managed by: WPR Webspinners; Last Modified: 2004-Aug-30 | [About CEC](#)

Pictured: On the *Workplace Resources* page, employees can find the workplace-related information they need to perform their jobs, including facilities-related information such as maps, security badge applications, and cafeteria menus.

Today, many organizations have intranet-based learning portals for fast access to key education and development opportunities. What's special about *Cisco University*, however, is that it showcases not only in-house training courses and e-learning opportunities, but also presents experience and exposure opportunities, plus guidance for creating and managing a self-development plan. In other words, this site is essentially a single, centralized location for employees to manage their Cisco career.

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Learning & Development  
**Cisco University**  
Support / Feedback | [Icons]

Search Cisco University [Go]

**Navigation** My Links  
Cisco Employee Connection  
Learning & Development  
Cisco University  
About Cisco University  
Career Development  
Find Courses & Activities  
Development Plan Guidance  
Manager Development  
Reference Library  
Career Certifications  
Featured Items  
Metrics  
Create & Deploy Learning

**Popular Items**  
Development Plan Guidance  
Cisco University Overview  
Presentation (PPT)

**Feedback**  
Tell us what you think.  
We want to hear from you. We welcome your [feedback](#) on Cisco University.

**Find Courses & Activities for All Employees**  
Search Cisco University Courses [GO]

**Education**  
[Cisco's Business](#)  
[Desktop Software](#)  
[Effective Communication](#)  
[Finance](#)  
[Leadership](#)  
[Legal](#)  
[Products & Technology](#)  
[Project Management](#)  
[Working Globally](#)

**Experience**  
[Cross-Functional Projects](#)  
[Customer Visit](#)  
[Deliver a Presentation](#)  
[Mentoring or Coaching](#)  
[On-the-Job Task](#)  
[Rotation](#)  
[Special Assignment](#)  
[Teach](#)

**Exposure**  
[Develop a Peer Network](#)  
[Find a Mentor](#)  
[Ongoing Activity](#)  
[Professional Organizations](#)  
[Seek Feedback](#)  
[Selected Reading](#)  
[Shadowing](#)  
[Visibility Opportunity](#)

**Find Specialized Resources**  
Additional development resources for specific areas of focus:  
Select a Business Function [v] [Manager Development](#)  
Select a Tech Group or BU [v] [Education Management System](#)

**What is Cisco University?**  
[About Cisco University](#)  
[Career Development](#)  
[Metrics](#)

**Number of Employees Who Moved to New Jobs**

Quarter	Number of Employees
Q4 '02	149
Q1 '03	199
Q2 '03	139
Q3 '03	162
Q4 '03	181
Q1 '04	153
Q2 '04	168
Q3 '04	204
Q4 '04	198

**6 Steps to Development**  
1. Understand Cisco's approach to [career development](#).  
2. Document your skills, experience and goals in your [employee profile](#).  
3. Create a [development plan](#) during your performance review.  
4. [Get guidance](#) on focus areas in your development plan at Cisco University.  
5. Throughout the year, maintain a dialog with your manager and [record your accomplishments](#).  
6. When you're considering a career move, discuss options with your manager and search [internal job openings](#).

**Featured Items**  
[Career Certifications](#)  
Find training classes and testing centers for employees.  
[Cisco Change Roadmap](#)  
Discover the seven steps for planning organizational changes on the Cisco Change Roadmap using an interactive video.  
[Technology Quizzes](#)  
Find out what you know and learn about Cisco technologies.  
[Cisco Made Simple](#)  
Learn how to explain Cisco technologies to anyone.  
[Project Management](#)  
Build effective skills in nine project management knowledge areas.  
[Strategy I-Coach](#)  
Have fun while learning fundamental concepts in business strategy.

**For Managers**  
[Manager Development](#)  
Selected education offerings for managers.

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Managed by: Cisco University Communication Team, Last Modified: 2004-Aug-05 | [About CEC](#)

Pictured: *Cisco University* provides fast access to key learning and development opportunities, as well as guidance for creating and managing a self-development plan.

Cisco TV lets employees view broadcasts of company or organizational meetings, along with tutorials and other educational sessions. This content is available both live and on-demand following the broadcast. A calendar lets users browse available titles by date, and click on the multimedia icon to watch a program. The calendar defaults to the user's geography and time zone. Users can change those criteria by selecting a geographical location via tabs at the top of the Cisco TV page.



INTERNAL USE ONLY

### CISCO EMPLOYEE CONNECTION

< CiscoTV Guide Entry Page

## CISCO MEDIA NETWORK

Toolkit: Roll over tools below



### CiscoTV Guide

Test My Connection | Help

Americas

EMEA

Asia/Pac

Search

Time Zone: (-08.00) Pacific Time (U.S. & Canada)

Save Settings

#### Programming Highlights



**Enterprise SETV** ⓘ  
 2004-SEP-02 08:00 a.m. - 10:00 a.m.  
 Timely technical information for the global sales force. All SEs, SEMs & SEDs globally



**Partner Tech Talk -- Sep 2004** ⓘ  
 2004-SEP-14 09:00 a.m. - 11:00 a.m.  
 External broadcast for Cisco Partners with the latest product and technology information  
 Cisco Partners and sales teams  
[Agenda](#) ↗



**Cisco Company Manager Meeting** ⓘ  
 2004-SEP-17 2:00 p.m. - 4:00 p.m.  
 John Chambers will host the Cisco Company Meeting  
 All Cisco Employees

#### CiscoTV Events

◀◀ September 2004 ▶▶

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
29	30	31	<b>1</b> 08:30 a.m. - 10:00 a.m. <a href="#">GPS All Hands</a> ⓘ 11:00 a.m. - 12:00 p.m. <a href="#">Mr. Router's Neighborhood - Protecting Your Data and Yourself</a> ⓘ 1:00 p.m. - 3:00 p.m. <a href="#">IT Quarterly All Hands</a> ⓘ	<b>2</b> 08:00 a.m. - 10:00 a.m. <a href="#">Enterprise SETV</a> ⓘ	3	4
5	6	<b>7</b> 09:00 a.m. - 10:15 a.m. <a href="#">August/September Birthday Breakfast with John Chambers</a> ⓘ	<b>8</b> 08:30 a.m. - 5:30 p.m. <a href="#">DMVPN Customer Training</a> ⓘ	<b>9</b> 08:30 a.m. - 5:30 p.m. <a href="#">DMVPN Customer Training</a> ⓘ 09:00 a.m. - 12:00 p.m. <a href="#">NPI Forum</a> ⓘ 09:00 a.m. - 11:00 a.m. <a href="#">WWTP All Hands</a> ⓘ	10	11
12	<b>13</b> 08:00 a.m. - 09:00 a.m. <a href="#">ISO External Audit</a> ⓘ 08:00 a.m. - 6:00 p.m. <a href="#">SEVT: US Unified Security SEVT Meeting</a> ⓘ	<b>14</b> 08:00 a.m. - 6:00 p.m. <a href="#">SEVT: US Unified Security SEVT Meeting</a> ⓘ 09:00 a.m. - 11:00 a.m. <a href="#">Partner Tech Talk -- Sep 2004</a> ⓘ 09:00 a.m. - 11:00 a.m. <a href="#">CA All Hands</a> ⓘ	<b>15</b> 10:00 a.m. - 12:00 p.m. <a href="#">US and AI Advanced Services All Managers Broadcast</a> ⓘ 1:00 p.m. - 3:00 p.m. <a href="#">Canadian Pulse Survey Results</a> ⓘ	<b>16</b> 07:30 a.m. - 08:30 a.m. <a href="#">Selling to K-12 in FY05</a> ⓘ	<b>17</b> 2:00 p.m. - 4:00 p.m. <a href="#">Cisco Company Manager Meeting</a> ⓘ	18
19	<b>20</b> 08:00 a.m. - 6:00 p.m. <a href="#">SEVT: US Unified Optical SEVT Meeting</a> ⓘ 10:00 a.m. - 11:30 a.m. <a href="#">FY05 Compensation &amp; Benefits Update</a> ⓘ	<b>21</b> 05:00 a.m. - 06:00 a.m. <a href="#">Inside Sales Today</a> ⓘ 08:00 a.m. - 09:15 a.m. <a href="#">Customer Service TV</a> ⓘ 08:00 a.m. - 6:00 p.m. <a href="#">SEVT: US Unified Optical SEVT Meeting</a> ⓘ	<b>22</b> 08:00 a.m. - 6:00 p.m. <a href="#">SEVT: US Unified Optical SEVT Meeting</a> ⓘ 09:00 a.m. - 09:30 a.m. <a href="#">Learning Forum - Part 1</a> ⓘ 10:30 a.m. - 11:00 a.m. <a href="#">Learning Forum - Part 2</a> ⓘ	<b>23</b> 08:00 a.m. - 6:00 p.m. <a href="#">SEVT: US Unified Optical SEVT Meeting</a> ⓘ 1:00 p.m. - 3:00 p.m. <a href="#">CA Services Marketing / Channels All Hands</a> ⓘ	<b>24</b> 08:00 a.m. - 6:00 p.m. <a href="#">SEVT: US Unified Optical SEVT Meeting</a> ⓘ	25
26	27	<b>28</b> 08:00 a.m. - 6:00 p.m. <a href="#">SEVT: Global Enterprise Wireless &amp; Mobility SEVT Meeting</a> ⓘ	<b>29</b> 08:00 a.m. - 6:00 p.m. <a href="#">SEVT: Global Enterprise Wireless &amp; Mobility SEVT Meeting</a> ⓘ	<b>30</b> 08:00 a.m. - 3:00 p.m. <a href="#">Cisco All Admin Meeting 2004</a> ⓘ 08:00 a.m. - 6:00 p.m. <a href="#">SEVT: Global Enterprise Wireless &amp; Mobility SEVT Meeting</a> ⓘ	1	2

◀◀ September 2004 ▶▶

For technical assistance, open a case with [SupportNet](#).

Pictured: Through *Cisco TV*, employees can view broadcasts of company or organizational meetings, along with tutorials and other Cisco-related content.

In an organization with literally thousands of intranet sites, providing guidance on good, consistent design is imperative. At Cisco, the intranet strategy team handles this through a thorough set of user interface standards and a hands-on engagement model. This not only makes for a more consistent and integrated user experience overall, but also supports the Cisco brand.

In addition, the intranet strategy team developed the *Intranet Web Development Center* to provide the processes, policies, and standards needed to develop the intranet. The goal is to keep driving Cisco's intranet toward a more consistent, integrated, and managed environment and thus to further increase employee productivity.

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Web Developer Dashboard  
**Intranet Web Development Center**

Support / Feedback

**Intranet Excellence Award**  
**Congratulations to ITD Web Team!**  
We have been impressed with the hard work and professionalism your team demonstrated throughout the engagement process to adhere both to the UIZ Intranet standards and the Technology Group & Business Unit Framework. We are aware that this undertaking was truly enormous.

Welcome to the Intranet Web Development Center. Here you can learn about the teams, processes, policies, and standards involved in developing for the Intranet. You can also get news and updates on Intranet projects and developer events. The Cisco Intranet is beginning an evolution towards a more consistent, integrated, and managed environment, driving increased employee productivity and user success. By leveraging common platforms, standards, and processes, Cisco will deliver on a new generation of Intranet capabilities. We encourage your participation and ideas in this process!

**Intranet Web Development News**  
NOV-03 [Beta Release of Intranet Templates for Java Applications](#)  
Check out the Application Templates section for the latest information.

**Events**  
JAN-19 [Brown Bag Sessions](#)  
Next session is Wednesday, January 19th.  
FEB-10 [Intranet Web Developers Meetings](#)  
Next meeting is Thursday, February 10th, location: SJ-9/1, Silveroak Conf. Rm. January meeting is cancelled.

**The Intranet Web Development Center is grouped into the following sections:**

**About CEC**  
Describes how CEC is evolving towards a more consistent and integrated Intranet site.

**Site Maintenance & Directory Management**  
Explains how to maintain and manage your sites and directory space.

**Getting Started**  
Provides a quick view of what is presented within the CEC Web Development Center.

**Search & Site Visibility**  
Explains search collections, Spidering, SmartMatches, Go Links, and how to increase visibility to your site.

**Site Strategies & Planning**  
Explains processes and tips on how to develop, design, and manage your website.

**Developer Meetings & Tools**  
Provides information regarding Web Developer's meetings, community and news updates, and useful tools.

**Design & Coding Standards**  
Describes consistent navigation facilities, interaction standards, visual cues, common tools, and graphic displays.

**Glossary**  
Provides definitions of commonly used Intranet terms.

**Publishing Policies & Processes**  
Explains how to establish a web account, understand the server architecture and learn how to copy files to the servers.

**Related Theaters**  
AdminIT | FUS | EMEA | AsiaPac | Japan

**Popular Items**  
• [Web Development Tools & Resources](#)  
• [Developer's Checklist](#)

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Pictured: The intranet strategy team's *Intranet Web Development Center* provides the processes, policies, and standards needed to create a consistent and usable Cisco intranet.

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Intranet Web Development Center  
**Visual Design, Fonts & Graphics**

Support / Feedback

Search [Go]  
Search Web Dev Center

Navigation My Links

- Cisco Employee Connection
- Job Roles
- Web Developer Dashboard
- Intranet Web Development Center
- UI 2 Design & Coding Standards
  - Authoring & Implementation Overview
  - Visual Design, Fonts & Graphics**
    - Color Palette
    - Advertising
    - Photography
    - Page Header Image
    - Iconography
  - Content Templates
    - Application Templates
    - Cascading Style-Sheets (CSS)
    - Code Snippets
  - HiNav
    - Example Sites & Applications
    - News
    - Release Schedule

The Intranet User Interface Design Standards 2.0 (UI 2) includes features that are as important to users as to developers. The framework graphics are rendered using Server Side Includes (SSI), allowing developers to focus on the presentation of the content more than the context. Users will benefit from a predictable interface design, consistent navigation, and familiar content objects. Together, these elements are easily identifiable as being part of the Intranet yet function in a similar manner to Cisco.com.

Cisco is one company and one brand. The way we present ourselves to our customers, the rest of the public, and our own employees must transcend borders, languages, and cultures while preserving our core values. World-readiness and compliance with the Cisco Accessibility standards (covering the Americans with Disabilities Act) are very important aspects of the Intranet. Our standards have been designed to address the functional and aesthetic requirements of the Intranet community of users, content owners, and web developers.

The visual design elements provide substance, context, and brand attributes to the Intranet core content. Adhering to the Intranet UI standards ensures the integrity of the system, in turn yielding greater employee productivity. Read through the topics on this page as well as the other pages linked below to get a feel for how to use and respect the Cisco brand.

- Color Palette
- Advertising
- Photography
- Page Header Image
- Iconography

**Topics On This Page:**

- Logo
- Fonts
- Media Guidelines

**Logo**

The Cisco Systems logo is an integral part of all of the page templates. The Cisco Systems logo is in a non-editable portion of the template. No additional logo placement is necessary on any page. Do not attempt to remove or alter the logo in any way.

Do not use the Cisco WEB Red color that is reserved for the Cisco Systems logotype. Instead, use the Cisco WEB Dark Red color as required.

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**Fonts**

The Intranet makes extensive use of Cascading Style Sheets (CSS). There is no need to designate <font> attributes in the code when using the CSS. Most font types within the Intranet UI and core content areas appear as system fonts (Arial Regular, Arial Bold, and Courier), Univers 55 (Regular), Univers 65 (Bold), are used as graphic text and in advertising. Do not use Sabon fonts for screen-based media, as they are difficult to read on-screen.

**Note:** The Univers fonts are readily available from Adobe in PC and Macintosh formats at [www.adobe.com](http://www.adobe.com). Individual groups within Cisco are responsible for the cost of downloading these fonts.

[View the Intranet CSS styles](#)

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**Media Guidelines**

Presentations and screen-based media authored in Macromedia Flash, Macromedia Director, and other screen-based authoring applications need to follow all the guidelines mentioned in the standards available at: [www.cisco.com/go/vam](http://www.cisco.com/go/vam).

Interactive media must be embedded in HTML, using a pop-up window, with media preference controls either embedded in the launch page, accompanying the media player in the pop-up window, or available by reloading the pop-up window.

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Pictured: The *Visual Design, Fonts & Graphics* page contains essential information for maintaining a consistent, Cisco-branded intranet look. This includes font and interactive-media guidance, as well as prohibitions on altering the Cisco logo, its placement on the page, and its particular shade of red.

Detailed design and coding standards, and many example templates and components, not only guide designers, but also prevent developers from recreating existing work. They also allow business teams to focus on their content. "The standard intranet user-interface templates make it easy for developers to create sites, while letting us ensure design consistency, and manage key components centrally," says Burns. "This is all in the absence, so far, of a unifying content management system."

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Intranet Web Development Center

# Content Templates

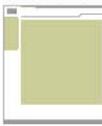
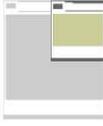
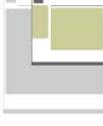
The Intranet user experience is built through a system of consistent templates. The Intranet templates have been created to allow your team localized control of content while freeing them from having to worry about site-wide elements in the user interface.

**Template Acquisition Process**  
The Intranet templates can be used to create any page that will employ the new design standards. These templates are not linked from this website because the Intranet Strategy team currently needs to track the implementation of the new standards. If you have a website that you are ready to redesign, please send an email to [cec-design@cisco.com](mailto:cec-design@cisco.com) or read the [engagement process](#) to receive the templates.

Application templates are currently in development. If you are developing on CCI or another application server please check the status of their development by sending an email to [cec-design@cisco.com](mailto:cec-design@cisco.com)

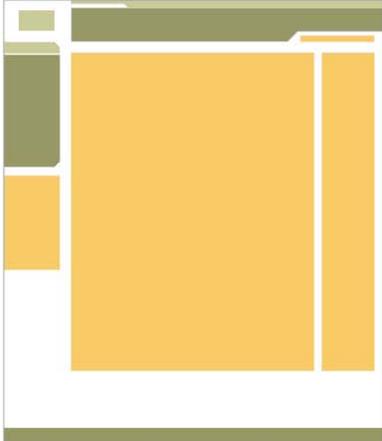
**Types of Templates**

There are several templates to choose from. The templates are independent of the page type, meaning that different template types can be used on different type of pages within a site, such as a root page, organization page, or application. For example a Two Column (2c) template can be used in building a root page, sub-page or an application. With the more granular page descriptions, you will find a list of components that should be used on that page type, the rules for their use, and code samples for each object.

 <p><b>2c (Two Column)</b> This template contains HiNav (local page navigation) and a single content area in the body. This is the base template for the intranet.</p>	 <p><b>1c Application (One Column)</b> The template is to be used exclusively for applications. This template contains a single link back to its parent page (no HiNav), a reduced utility navigation bar (containing only directory), an expanded tool kit (includes UserID and preferences), and a single content area that takes the entire page width.</p>
 <p><b>3c (Three Column)</b> This template contains HiNav (local page navigation), a content area in the body, and a right column.</p>	 <p><b>Standard Pop-up (no navigation)</b> This one template allows for all sizes (small, medium, large) and content types (standard, simple and multi).</p>
 <p><b>2c-3c (Two-Three Column)</b> This template contains HiNav (local page navigation), a top half of the body area laid out as a 2c (containing a content area in the body), and a lower half laid out as a 3c format (containing a content area in the body, and a right column). This template is only available for use at a site's root level.</p>	 <p><b>Support/Feedback Pop-up (with navigation)</b> The template is used exclusively for Help content. It contains predefined facilities for help, including HiNav.</p>

**Editable Areas**

The Intranet Strategy team's template approach regionalizes editing and content authoring. The Intranet Strategy team will supervise the maintenance of regions of the template, freeing development teams to focus on development of their content and not the templates. The templates use DreamWeaver "Editable" tags to prevent accidental editing of site-wide UI assets. These tags are functional in DreamWeaver and appear as comments in text editors. Below is a visual representation of these areas in the three column template.



- Non-editable. System controlled
- Non-editable. Generated from team's Hi-Nav
- Editable. Controlled by team

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Pictured: To maintain consistent zones of navigation across Cisco's 3.5 million intranet pages, the *Content Templates* page details the six basic templates available for any page, and how to use them.

Creating these standards and templates inspired designers to take their approach to a higher level, resulting in the creation of an intranet-wide navigation system. "The cornerstone of the system is our hierarchical-navigation component — the left-hand navigation — or HiNav, as it is known here," says Burns.

In a nutshell, HiNav is a "you are here" for the intranet — no easy feat for an intranet with 3.5 million pages. But HiNav also lets users navigate from their current location. Using HiNav, users can:

- See their current location's subsites or child sites in the left-navigation area without reloading the whole page. To do this, users click a familiar, Windows-style "+" sign, which lets them compare multiple sections without having to wait for a page reload after every click.
- View parents, grandparents, etc., of their current location, all the way up to the homepage. This vertical-breadcrumb path helps users define their location, and surroundings, in the overall site hierarchy.
- View peers of parents, grandparents, etc., through fly-out menus, which let users move not only up and down, but also across the site.

The various HiNav features add extra clarity to the massive CEC intranet. "We are able to expose a huge portion of a site's hierarchy through HiNav, avoiding extra clicks and page loads," says Burns. Just as importantly, "it helps reinforce for both users and stakeholders the notion that everything is connected."

The CEC user interface contains not only HiNav, but also the header, footer, and other standard components such as related items, popular items, top of mind, and toolkit — in other words, almost everything except content. These templates have also been coded and tested to meet the Cisco Accessibility Coding Standards for the Web, which are based on the World Wide Web Consortium's (W3C) Web Accessibility Initiative (WAI). "By implementing these intranet templates, we can ensure that the Cisco intranet meets accessibility guidelines," says Lai.

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Accessibility Initiative  
**ACC-WEB-50.10**

Support/Feedback | [Icons]

Search Accessibility Initiative [Go]

Navigation My Links

- Cisco Employee Connection
- About Cisco
- Cross-Functional Initiatives & Teams
- Accessibility Initiative
- Accessibility Design Requirements
- Web HTML Content
- Detailed Requirements
  - ACC-WEB-50.10
  - Testing Procedures
  - WCAG Techniques

Popular Items

- Policy
- FAQs
- Key Contacts

**Cisco Accessibility Coding Standards (ACS) for the Web**

Revision 6, 2004-May-17

**ACC-WEB-50.10**

**Introduction**

This document is intended for the use of Cisco web designers and programmers. It contains information on web accessibility for people with disabilities and is based on "HTML Techniques for Web Content Accessibility Guidelines 1.0" (WCAG). That resource is copyrighted by the World Wide Web Consortium, and was produced by the Consortium's [Web Accessibility Initiative \(WAI\)](#), the internationally recognized resource for accessible web design and technology.

The table below is a checklist; it includes basic information on how to build an accessible web, with links to more detailed references. The WCAG Techniques are included in this document; the WCAG References point to the WAI site.

**Checklist**

**Note: (P1) = Priority 1; (P2) = Priority 2; (P3) = Priority 3.** These priorities are part of the WAI approach; they indicate the order of severity of an accessibility barrier and therefore the order in which those barriers should be addressed.

Element	Do This	Don't Do This	WCAG Techniques	WCAG Ref.
Information-rich images, including graphical representations of text, symbols, animations such as animated GIFs	Provide a text equivalent (e.g., via "alt", "longdesc", or in element content). <b>(P1)</b>	Avoid graphical representations of text.	<a href="#">text equivalents for images</a>	<a href="#">1.1</a>
Image map regions	Images used for formatting only: list bullets, spacers, etc. with no intrinsic information	alt="big blue ball for bullet list" or alt="spacer.gif"	<a href="#">bullets</a>	
	Provide a text equivalent (e.g., via "alt", "longdesc", or in element content). <b>(P1)</b>		<a href="#">text equivalent</a>	<a href="#">1.1</a>
	Provide redundant text links for each active region of a server-side image map. <b>(P1)</b>		<a href="#">redundant links</a>	<a href="#">1.2</a>
	Provide client-side image maps instead of server-side image maps except where the regions cannot be defined with an available geometric shape. <b>(P1)</b>	avoid server-side image maps	<a href="#">client-side vs. server-side</a>	<a href="#">9.1</a>
	Until browsers render text equivalents for client-side image map links, provide redundant text links for each active region of a client-side image map. <b>(P3)</b>		<a href="#">redundant links</a>	<a href="#">1.5</a>
	Provide a text equivalent (e.g., via "alt", "longdesc", or in element content). <b>(P1)</b>		<a href="#">text equivalent</a>	<a href="#">1.1</a>
	Ensure that pages are usable when scripts, applets, or other programmatic objects are turned off or not supported. If this is not possible, provide equivalent information on an alternative accessible page. <b>(P1)</b>		<a href="#">usable when turned off alternative page</a>	
	Make programmatic elements such as <a href="#">events and events</a> directly accessible		<a href="#">directly accessible</a>	<a href="#">8.1</a>

Pictured: The Cisco Accessibility Design Requirements for Web Content ensures intranet pages meet accessibility guidelines.

Together, CEC's many valuable features and applications let users browse all of Cisco's intranet sites in a cohesive way.

## URL AND ACCESS

The Cisco Employee Connection (CEC) is Cisco's intranet starting point and the gateway to all of Cisco's internal Web sites and applications. The intranet default URL is <http://wwwin.cisco.com>. When away from the Cisco LAN, employees can use a VPN to access the LAN, and thus the intranet.

For Cisco-supplied browsers, CEC is the default homepage and also a bookmark.

## CONTENT MANAGEMENT

CEC is made up of thousands of individual websites, and includes about 3.5 million pages, plus another 10 or 15 million pages that exist on informal Web servers as part of the “gray Web.” Given the intranet’s size, “we could not mandate that the standard intranet user interface templates be adopted by all teams, since the return on investment would not be there, and the disruption to all businesses would have been enormous,” says Burns.

Because of its size, Cisco uses a highly distributed approach to content management. Currently, it has more than twenty-five casual and formal content management systems (CMSs) in place, mostly a legacy “of Cisco’s IT funding model,” says Burns, since “each business has had broad discretion to fund IT development to meet its own needs.” Especially during the 1990s economic boom, the imperative was to get a site or application launched quickly. “While this strategy was successful in the context of the boom market, it led to ‘siloed’ sites, applications, and content management systems,” he says.

To centralize and consolidate the many existing intranet processes, redundant technology, and content-management processes, Cisco is now implementing a new, shared intranet services program. For content management, centralization should save money and make central governance easier.

One of the first moves in this shared intranet services program is a recently completed pilot implementation of Documentum content management software. Cisco will standardize the entire intranet on the software, and the intranet team will supply standard user interface templates for content creators, ensuring a consistent intranet look.

Until the central CMS is in place, individual site developers can choose whether or not to use the new, standard intranet templates. To ensure full template compliance, however, the intranet team set several ground rules. First, “we communicated that the standards are not mandatory, but that they must be implemented 0% or 100%,” says Burns. Site teams can’t pick and choose which pieces of the user interface system they want, or modify the components, since that would compromise other sites’ efforts to implement the standards in full. To ensure the point gets across, “we make every developer sign a ‘terms of service’ agreement to this effect before being able to view the standards,” he says.

To access the templates, intranet site development teams also go through an engagement process with the intranet strategy team. “During this process, we gather information about the sites being developed, we introduce the user interface system and its key components, we provide training on how to build sites with the templates, and we provide consultation checkpoints once teams have created their information architecture and executed their layout,” says Burns.

“We worked initially with a few willing partners, who helped us quickly evolve the user interface system from something that was fairly vanilla to something much more comprehensive,” he says. “We actively encourage change requests to expand the user interface standards. This way, we can create solutions for real business requirements that will be in alignment with the rest of the standards, and we can leverage these solutions beyond the requesting team.”

Templates aren't stuffed with every last feature; they contain only what users and developers find valuable. Examples for users include customized link creation and scoped searching." For developers, examples include fast component creation and simplified maintenance.

The overall process of phased deployment and working with individual teams ensures that the intranet maintains a consistent look and feel as the intranet team improves the templates.

Aside from assisting other teams, the intranet strategy team is also taking its own medicine. By continually working on various intranet team development projects, "we ensure we are not some austere policing body," says Burns. "We are constantly working with our own standards in a variety of projects, so that we better understand the needs of developers, and many change requests come from our team."

## TECHNOLOGY

The Cisco intranet team uses a number of custom scripts to maintain the intranet homepage and its supporting, top-level pages. The scripts provide such things as file optimization and link management for indices.

Cisco's intranet developers utilize three environments: development, staging, and production. "From a solely technical standpoint, these environments are basically identical, except that staging is distributed on two servers and production is distributed across three servers," says Marshall Uy, manager of the intranet team's technology strategy. Each server is a Sun E6500 running Solaris 2.8, Apache 2.0, Java 2 Platform — Enterprise Edition (J2EE), plus Cisco Content Switching Modules for load balancing. Whenever possible, Cisco developers use the Web servers' built-in technologies. For example, on the content and CGI server, Apache is used for browser detection, content negotiation, and handling Perl for CGI applications. With the recent development of the J2EE environment, however, most enterprise applications are Java applications, rather than Perl scripts. A Google Search Appliance handles intranet searches, then "we serve the search results through a custom search script, which provides additional functionality and metrics," says Uy.

Bug tracking and case support software varies by development team. The central intranet team, however, uses Remedy Action Request System for case management and OpenText's Livelink for enhancement tracking.

For page design, Cisco recently switched from using HTML-table-based page layouts to Cascading-Style-Sheets-based positioning and JavaScript. They were able to do this, says Uy, "by updating the corporate browser standard during our last homepage redesign" to ensure its compatibility with CSS and JavaScript.

For presenting content, Cisco migrated much of its static intranet content to XML, and now uses XSL Transformations (XSLT), a language for transforming XML content. "Often we perform XSL transformations and stamp the results into static files. Over the past year, however, we also started providing richer interactions for users with browsers able to perform client-side XSLT — namely, Internet Explorer, Mozilla, and Mozilla's Firefox," says Uy.

Cisco's engagement-process approach to a new CMS is also being used for new intranet applications. "We have built a repository of user interface components to be leveraged by application development teams," says Burns. To guide developers, the intranet team maintains extensive documentation on the dedicated *Intranet Web Development Center* site. This site includes instructions for using the templates, including sample code, layout examples, business rules, and best practices.

## GOALS AND CONSTRAINTS

Goals:

1. Further develop a consistent and integrated user experience, aligned with user needs and end-to-end processes.
2. Push for more centralized intranet standards.
3. Consolidate the team's governance of the intranet.
4. Better deliver meaningful business information.
5. Improve navigation to subsites through more intuitive categorization and design.
6. Create better intranet user interface standards.
7. Incorporate more user-centered design in the development of the intranet information architecture, and promote usability best practices to the enterprise.

Constraints:

1. Dealing with the intranet's scale and highly distributed state, and the resulting difficulty of establishing common frameworks for such things as portal services, content management, and role or profile management.

## BASIC INTRANET FEATURES

CEC gives users the tools they need to do their jobs, and to navigate Cisco's many organizations, people, and products. Features of top-level CEC pages and sites include the ability to navigate the intranet by job role, organization, geographic location, topic, or an alphabetical list of all intranet sites. The intranet also enforces Cisco Accessibility Design Requirements to ensure all employees can access the information.

Each organization at Cisco manages its own additional functionality. For example, the *Human Resources* site includes online performance management and compensation; the *Sales* site has real-time bookings data; the *Finance* site lists stock-option values; and the *Workplace Resources* site includes global employee services information.

Search is available from a consistent, highly visible location. All search results can be filtered by file format, the last date the file was modified, or any string of characters in the URL. For keyword searching, users can select from dedicated, topic-oriented tools: the *Organization Locator*, *Product Finder*, or *Site Index*. As users type letters into a keyword search tool on these pages, the display dynamically changes, narrowing options according to the user's entry.

The *My Links* feature accesses a user's stored personal information and favorite links, which are maintained on a back-end database — instead of using cookies — to make the features available from any machine.

## **USERS**

CEC supports 34,000 employees in seventy countries. Most employees' mission-critical tasks at least partially utilize the intranet.

Dedicated sites within CEC provide extra support for the following roles: administrator, documentation developer, engineer, manager, project manager, sales, sales engineer, service account manager, service and support manager, and Web developer.

## **USER TASKS**

Common user tasks include:

- Look up contact information in the employee directory
- Send an intranet page to another employee
- Share documents collaboratively in real-time
- Set up conference calls
- Book travel
- Fill out expense reports
- Submit and approve purchase requisitions
- Request paid time off and leaves of absence
- Access document repositories and team work areas
- Open technical- and HR-support cases
- Order products, equipment, or supplies
- Look up paycheck stubs
- Look up stock balances in personal accounts
- Submit and approve performance reviews and award bonuses
- Engage in learning and career development
- Fill out internal job applications
- Check voicemail online
- Find building floor plans and facility maps
- Enroll in benefits programs

## BACKGROUND

The Cisco intranet started in 1994 as a loose collection of sites managed by employees who taught themselves HTML. “A cross-functional team met regularly in an ‘interest group’ setting to create some structure and standards for the intranet, and to discuss potential applications for the technology,” says Burns. Starting in 1994, he also maintained a simple homepage that linked to all of Cisco’s internal sites.

In 1996, oversight of Cisco’s intranet — then called CiscoWeb — switched to the corporate marketing department, which re-launched the intranet as the Cisco Employee Connection (CEC). “This launch provided the first basic sense of common design, structure, and governance to what had been a loose collection of sites,” says Burns, and included basic user interface guidelines, a simple information architecture, several navigation pages, a search engine, and a feedback mechanism.

Responsibility for maintaining the intranet rested with one or two people. By contrast, Cisco’s public Web site — also managed by the corporate marketing team — received much more attention. Thus, in 1998, HR took over intranet administration “due to its stronger focus on employees and its role in employee communications,” says Burns. From 1998 and 2002, the intranet team numbered between five and eight people.

Between 1997 and 2000, the intranet grew rapidly “as teams answered the call from executive management to become leaders in Internet capabilities in all functions,” says Burns. Sites sprang up independently, to meet specific business processes, and Cisco estimates that it saved \$2.1 billion annually from the productivity enhancements and cost reductions from this period of rapid growth. On the flipside, however, few of Cisco’s intranet sites integrated into a holistic “Cisco intranet,” whether by look or design; only a small set of common standards existed.

In March 2000, the intranet team redesigned the CEC homepage and several other high-level pages to improve user productivity, site navigation, and the intranet’s look and feel, and to eliminate redundant content. “This was carried out by employing basic user-centered design practices, which ensured a seamless transition on launch,” says Burns.

Yet by June 2002, the intranet had grown so large that its inconsistent applications, design, and navigation was costly to maintain, and not optimized for users’ or developers’ productivity. “We began to realize that we had hit a ceiling of sorts in what we could accomplish with the intranet with our ‘siloed’ approach to development,” says Burns.

To increase user productivity, “we needed to bring consistency and integration to the intranet,” he says, “and not just with the user interface, but also to such things as interaction standards, vocabulary, back-end data, and tool consolidation.”

Accordingly, HR created a larger intranet team and increased its mandate to tackle those concerns. Today, the intranet team includes twenty people: eleven employees, seven contract workers, and two interns. The team consists of a senior manager for intranet strategy, a manager of technology strategy, two usability and metric program managers, a user interface lead, two project managers, six user experience architects, a search program manager, four developers, a visual designer, and a business analyst. The team reports to the employee commitment team, the HR group responsible for internal employee communications.

Since 2002, the intranet team's quarterly budget for contractors, usability services, development, and other miscellaneous charges — excluding full-time employees' compensation or benefits — has been between \$150,000 and \$200,000.

Today, the intranet strategy team also promotes user-centered design processes in Cisco's standard IT development processes, ultimately supporting a community of several hundred Web developers and program managers.

## **DESIGN PROCESS AND USABILITY ACTIVITIES**

### **Planning the Redesign**

The intranet team began discussing and planning for the latest CEC redesign in December 2002, though the redesign wasn't the only project underway. "We did have a number of other projects and day-to-day activities on our hands throughout this process," says Burns, "though this was of course our highest priority."

The intranet's numerous pages and highly distributed state made central governance and the introduction of new templates and technologies difficult. However, the project did have an upside: no externally imposed timeline. "There were nothing driving the timeline other than a good use of our resources, so we were able to spend the time to get it right," says Burns.

### **A Four-Step Program**

The redesign project distilled into three key deliverables: redesign the CEC homepage and other top-level navigation pages and tools; revamp the User Interface Standards from version 1.0 to version 2.0; and create templates to enable adoption of the standards.

Given the sheer number of intranet pages and sites, the team decided on a four-step approach to the redesign. In step one, they would develop the user interface system with standard templates, components, and a supporting engagement process. In step two, they would redesign the homepage and other top-level navigation. In step three, they would redesign and better integrate CEC's most commonly used applications to improve the user experience. Finally, in the last step (still forthcoming), they would implement an enterprise framework for personalization and customization, including a personal homepage for each employee "that feels like an employee work area," says Burns.

The team began user research and design activities in April 2003. After beginning template development and the related engagement process with Cisco intranet teams, the intranet strategy team tackled the homepage and higher-level pages. Their goal was to give them a better structure. "The homepage had remained fairly static over three or four years," says Burns, and a variety of navigation paths and methods had sprung up.

For actually communicating information about Cisco, the homepage also lacked context. "We wanted the homepage to not only facilitate the job of successful, user-centered navigation, but also to communicate to employees what's important to Cisco and how we are doing against our measures," says Burns. In other words, besides news, the homepage needed to draw in readers and communicate how the content related to Cisco's goals, initiatives, culture, and values.

The intranet team began user research to gather data for a redesign and to get stakeholders — end users and different Cisco business units — thinking about the concept.

Cisco already had information about its users, their tasks, and the information and applications they needed to successfully perform their jobs. “We do a fair amount of formal and informal benchmarking with other companies and with Cisco customers,” says Burns. Because the intranet had adopted the conceptual look of Cisco’s external Web site in version 1.0, the team also had additional information at hand. “We had a very good idea about what was working and what was not from usability studies conducted there,” says Burns.

## Creating an Intranet Baseline

Even so, the intranet team first created a *CEC Snapshot* report on current user behavior. “This included looking at homepage traffic, referrer-page logs, and detailed homepage clickstream logs to discover the most popular ‘zones of navigation’ on the homepage, plus an analysis of intranet feedback received from employee users, and a look at past survey data,” says Sharon Meaney, usability program manager.

The team also launched a new survey to research employees’ existing intranet perceptions, and conducted in-person usability studies on existing CEC pages. The usability study drew questions from various sources, including the survey data, feedback data, and management concerns. The survey included users’ responses to two questions — “What are your top tasks?” and “What’s hard to find on the existing intranet?” — which became natural sources for usability test tasks. In addition, tasks were drawn from user complaints, and management concerns about whether users could easily access corporate messaging and see it in its business context.

The redesign team also added must-have functionality to the test, including how users would look up a news article, request time off, and reach their particular Cisco organization’s dedicated homepage using the intranet.

The list of tasks included some that were specific to certain employees, and some were used to test functionality applicable to all employees. Locating accounts payable, for example, was “a task representative of finding any organization sitting three or four layers deep in the hierarchy,” says Meaney. Following is the study’s baseline list of tasks, including derivations for each task:

### Industry and Products:

- Locate the Business Unit product page for the Cisco Aironet 350 product.
- Locate the competitive portal for Huawei.

### Technical Support:

- Where would you look for the VPN expense policy?
- You need to download Visio for Microsoft Windows. How would you do that?
- How would you locate information about forwarding calls on your IP phone?

### Human Resources and Personal Information

- Locate the number of hours left on your PTO balance.
- How do you get to the application that lets you look at your check stubs?

### **Communication:**

- You need to work on a document, in real time, with a colleague. Locate the *SameTime Meeting Center* to help you do this.
- How do you set up an audio conferencing call or bridge line?

### **News:**

- In the headlines a few weeks ago, there was an article posted in the headlines from VAR Business News about an interview with John Chambers. How would you go about locating that article?
- You want to find the latest news about Cisco's competitors. Locate the site that shows *Cisco Competitor News* articles.

### **Training, Learning and Development:**

- Please use the Education Management System to register for a Cisco Business Essentials course.

### **Organization and Functional Questions:**

- Find the website for accounts payable.
- Find the *Intelligent Network Services Management BU* website and locate the website for managers at Cisco.

## **Baseline User Testing of CEC**

Following task development, the intranet team conducted in-person usability tests of the homepage, including a short interview. "The purpose of the test was to discover how Cisco employees utilize the existing CEC homepage to perform various common tasks," says Meaney.

The usability test posed three main questions:

1. What are your impressions of the existing CEC homepage? What are your likes and dislikes with the page as it stands?
2. Using the CEC homepage, how long did it take you to perform the task outlined by each question? How many clicks did it require? Did you find the answer to the question?
3. What common navigational routes did you use to find the answers to common tasks and questions?

"By measuring time-to-task, clicks, and success rates, we were able to achieve one of our primary goals, which was to establish quantitative measures on the existing interface by which the new CEC user interface could be measured," says Meaney.

The results of all the above were used to set baseline metrics and focus development work. "Meshing together the aggregate traffic data (from server logs), the employee perception data (from the employee survey), and the observed behavioral data (from the usability study) gave us the information we needed to identify what to focus on, and what not to waste time on," says Meaney.

## Plotting Improvements

While expert reviews had already identified most of the needed improvements, the user research and baseline usability study helped the intranet team distill all of the intranet's must-have improvements: showing users where they were in the site's hierarchy, eliminating information and site silos, simplifying navigation indices, and creating a taxonomy based not upon tool or organization names, but business tasks.

Curiously, end users' descriptions of the intranet varied widely. "Employees described the intranet in dichotomous terms, some saying it was 'useful, friendly, informative, and functional,' while others indicated things like 'confusing, complicated, conventional,' and 'too much on the page,'" says Meaney.

With the usability results in hand, the intranet team began its outreach efforts, conducting meetings with intranet stakeholders to solicit their opinions on recommended changes.

The intranet stakeholders are communications leaders and business function representatives drawn from across Cisco. The team conducted an exercise with them, asking them to describe, using adjectives, their vision for the future homepage.

The team also asked stakeholders to describe the types of components that characterized their vision for the homepage. Sample responses from the stakeholders included "business metrics," "a Q&A with CEO John Chambers," and "a feature story on Cisco culture." The purpose of these exercise was two-fold: to gather input, but also to "help set business priorities for meeting the objectives of the redesign, in a way that synchronized stakeholders with user input," says Burns.

## Conducting Additional Usability Tests

Beyond the homepage-baseline study, the intranet redesign team guided their efforts through multiple usability tests. To define the information architecture, for example, the team used two card-sorting exercises and an online categorization study. "Both of the initial card sorts were open sorts, and the online exercise tested categorization in a similar way to how a closed card sort would," says Meaney. The team also used heuristic evaluation and sent e-mail invites to Web-based surveys at the project's start and end.

All together, the team conducted six usability studies during the redesign project, using a combination of in-person testing and NetRaker, online usability-testing software from Keynote Systems, Inc. "These studies were iterative and cumulative, focusing first on discrete, critical components, and adding additional components with each study," says Meaney.

The redesign team also did an accessibility review and an in-person accessibility test with a blind user, to gauge needed intranet changes to best accommodate screen-reading technology.

The accessibility requirements also drove several subsequent changes. First, designers increased the contrast of the site's color palette, so color-blind users could view and navigate pages more easily. Second, they added skip-to links for the navigation, footer, and center column on all major pages, to help blind and keyboard-only users navigate the site more easily. Third, they increased the font-size-change delta when users toggle font sizes, to help users with poor eyesight. Fourth, they added header and screen-reader-friendly summary information for data tables. Finally, for screen-reading software, developers ensured that all ALT tags contained useful text descriptions.

"One of the core benefits of the UI system and its templates and code snippets is that 90% of the accessibility work has already been done for developers," says Michael Lenz, the Cisco information architect for user interface standards. "This makes compliance with the accessibility requirements easier for all the parties involved. The UI 2.0 code relies heavily on CSS and DIVs [division tags], which are better for disabled users as a whole." In fact, he says the team has been "leading by example" here, both inside and outside Cisco. As a result of his work on the intranet, for example, Lenz began working with the W3C's WAI Education and Outreach Working Group. "This allowed us to share what we'd learned with other accessibility advocates, and also leverage their expertise."

## Developing applications

A separate but related research project was conducted while the intranet redesign was underway, and it illustrates Cisco's approach to developing intranet applications for end users. The project was an ethnographic field study of Cisco managers' working habits. "We visited managers at their desks in San Jose, North Carolina, England, Belgium, and Singapore to understand how to help make them more efficient, productive, and self-reliant through the intranet," says Burns.

The researchers conducted interviews, observed managers in the work environment, and interacted with managers and their staff. The team collected almost 100 hours of video footage, plus "scores of spreadsheets, documents, and other artifacts used by managers to conduct their work," says Burns.

As a result of its research, the usability team gained a composite view of managers' time.

For example, the team modeled end-to-end process flows by getting managers to describe specific business processes they conducted, "such as budget management, performance management and development, compensation, and business alignment," says Burns. When completing common tasks, managers described each step in detail, referring to all applications and documents — official or otherwise — used along the way. The results helped the redesign team learn how to move from a view of single applications to a focus on managers' end-to-end process, for a more seamless end-user experience.

As managers completed a task, researchers also watched how managers integrated related processes as necessary. "Seeing these relationships was tremendously insightful," says Burns. Researchers gathered results not just from task-based usability testing, but also satisfaction measurements and log analysis.

Using the data, researchers then noted functionality gaps, workarounds that managers took, or homegrown tools they built, then reconciled those with the already developed business process flows to identify “where managers felt the most pain,” says Burns. The results also clarified how to best improve the managers’ user experience. “The results showed us where we had deployed multiple applications to address specific parts of a process, and conversely where we had deployed nothing to address an area of pain,” says Burns.

They used all of this information to build a model of a Cisco manager’s work experience, to help designers better understand their needs.

For guiding future design efforts, the researchers categorized the managers — based on their work approach and the teams they work with — into a number of personas. “Each persona approaches our applications in different ways, and must be accounted for in future development,” says Burns.

Researchers also learned how to encourage managers to adapt new applications. “We learned many lessons about how best to encourage user adoption of applications through effective communication, feedback loops, and support,” says Burns.

Finally, researchers shared their data about how Cisco managers do their jobs with business leaders and application owners in Cisco’s HR, finance, and IT departments. The results “helped increase their awareness and understanding of user needs,” says Burns, as well as “the importance of incorporating those needs” early into future business projects.

## **TIMELINE**

- 1994: Launched CEC
- July 1996: Launched CEC 2.0
- March 2000: Launched CEC 3.0
- April 2003: Conducted CEC annual satisfaction survey
- June 2003: Conducted in-person baseline usability study
- July 2003: Conducted in-person local navigation study
- August 2003: Conducted page framework usability study (in person and online)
- August 2003: Conducted page component testing (in person)
- August to September 2003: Stakeholder requirements workshops held
- September 2003: Conducted first CEC homepage test (in person and online)
- October 2003: Conducted second CEC homepage test (in person and online)
- December 2003: Launched CEC 4.0 beta
- December to January 2003: Conducted third CEC homepage test (in person and online)
- March 2004: Launched CEC 4.0
- July 2004: Conducted in-person CEC post-launch study

- October 2004: Conducted the CEC annual satisfaction survey online

## RESULTS

### Launching CEC 4.0

CEC 4.0 launched in March 2004, and the intranet team conducted post-launch testing in July 2004. Thanks to the redesign, “employees can navigate a lot more easily, and have more access to a broader set of news and other business communication,” says Burns. In addition, “the redesign creates an overall intranet information architecture framework to which other organizations can easily connect via our templates.”

For starters, the redesign fixed homepage problems identified by users. “The CEC homepage now employs the standard intranet user interface, with clear zones for navigation, news, and other elements,” says Burns. The homepage also presents Cisco-related information in a meaningful business context by using various content monikers, including *Business Metrics*, *Q&A with John Chambers*, and *Culture Feature Stories*.

The new standards and changes to the information architecture ensure that the homepage now connects hierarchically with any page on the intranet.

In the navigation, a new *My Links* tab lets users toggle between navigation and their customized set of CEC links.

Responding to users’ need to quickly find certain information, the intranet redesign team introduced tools for finding product information and CEC-specific sites within the CEC intranet.

For searching the intranet, users can now filter by file format, URL string, and date, and can set language preferences. For search terms not returning results, the search engine also offers SmartMatch, which “provides users with ‘best bets,’” says Burns.

The intranet team also introduced user-centric sites, instead of just having organization-centric sites. For example, some of what was under *Human Resources*, *Finance*, and *Workplace Resources* is now part of a user-centric *Employee Services* site. The use of more user-centric sites is growing.

Thanks to the redesign, users are already saving time, and thanks to baseline studies, Cisco can quantify the changes. Overall, the average time-to-task improved by 17.6 seconds per task, a marked improvement. Overall, completion times for eleven of the fifteen baseline tasks (73%) stayed the same or improved. In addition, twelve out of fifteen tasks (80%) now require fewer clicks, with an average reduction of 0.8 clicks per task overall. Finally, thirteen out of fifteen baseline tasks (87%) have the same or improved success rate. The average success rate for the baseline was 87%, and post-launch it was 89%.

The redesign team estimates that Cisco saves \$3 million from the reduced time needed just to navigate from the homepage to subsites. Note: all of these savings were just from homepage improvements. “This particular project did not try to solve usability issues on the subsites themselves, but rather an employee’s ability to get from the homepage to the subsites,” says Meaney, opening the door for future returns after tackling subsite usability. In addition, teams have been enticed to adopt the new user interface, both for its ease of use and because it makes the intranet more valuable for users.

"We computed the dollar savings by using a Nielsen-Norman-Group-inspired return-on-investment calculation, presented at the User Experience 2004 conference in Las Vegas," says Meaney. That calculation takes an estimate of how many times, on average, each employee would do a task in a year; it then factors in the estimated hourly salary per employee, plus overhead. The pre- and post-launch time per task for both the old and new sites is multiplied by the first two variables, then compared.

Cisco employees are buying into the changes. As one user wrote, "I love the new CEC! It's taking a little time to get familiar with it, but the logic of organization is there, and the *Site Index* is always a last resort." Another user called out the intranet's improved context: "Great to see information on culture and *Cisco University* to help us see the future direction of Cisco internally."

The intranet's popularity is reflected in its prevalence as employees' homepage. While Cisco builds its PCs with CEC as the default browser homepage, users can change the setting. Still, "recent surveys and tracking indicate that roughly 80% to 90% of employees use the CEC homepage as their default startup page, while most of the rest use either a geographic or functional intranet site as their startup page," says Meaney.

## Templates Drive Time and Cost Savings

As it redesigned CEC, the intranet team also redefined its role. Today, it supports the design, distribution, training, and maintenance of standard user interface templates for the entire intranet, and works with all Cisco sites to maintain an integrated intranet architecture.

"Our standard intranet user interface templates contain a number of innovations that make it easy for developers to create sites while ensuring consistency and centralized management of key components — all in the absence, so far, of a unifying content management system," says Burns.

Since November 2002, the team has worked with about 150 teams from 300 Cisco sites, comprising over 150,000 pages, and the template development work is already paying off. "The templates have saved an estimated 50% or more of development time, resulting in a \$45.7 million savings," says Burns.

The templates' cornerstone is the HiNav navigation component. In addition to offering users highly flexible navigation options, the technology driving HiNav saves developers' time by easing site coding. "HiNav is one XML file that site developers maintain, thus one file controls all their navigation menus — there's no repeat coding," says Burns. While one HiNav file can drive an entire site, for distributed ownership, multiple HiNav files can be joined to cover a site. Even so, "to the user, it looks like one connected navigational model," he says.

Information in HiNav can also be automatically imported elsewhere to save time, maintain a standard user experience, and reduce errors. For example, specific HiNav entries are used to create the HTML page title, the title displayed in the banner area, and page ownership and contact information. "HiNav drives various parts of the page framework so that developers need not worry about getting all that information coded for their specific team across multiple pages. It also ensures that page titling, ownership, and support is consistently identified within a given site," says Burns.

This approach to templates also helps Cisco meet accessibility requirements and facilitate scoped searching, and it gives developers more than 100 pre-made page components to make publishing easier. “They can find visual samples and code snippets for these items online, and just cut and paste them into their pages,” says Burns.

Even with this phase of the redesign complete, the intranet is never static. “Each quarter, new features, content, and enabling intranet framework components will continue to be introduced in an effort to bring consistency, integration, business context, and next-generation functionality to Cisco employees,” says Burns.

## LESSONS LEARNED

Insights from Sharon Meaney:

**Ready multiple options after inconclusive usability tests.** “Our testing indicated about a fifty-fifty split on the layout of employee-customized links, so we prepared both solutions. Post-launch, however, we received a mountain of feedback demanding we go with a toggled, rather than a stacked, layout for those links. That settled the issue, and we were already prepared with the alternate solution.”

**Start with a baseline.** “Always conduct a baseline study. If you don’t, you have nothing to stand on to prove the return on investment.”

**Test components iteratively.** “Test design components individually, then test them within the context of a page. We did this with navigation styles, first testing them by themselves, then testing a page framework with the navigation styles incorporated, and then testing content within that framework. Having separate studies allows us to gather more detail on individual components first, before applying them to an overall page.”

**Don’t expect landslide results.** “One or two usability studies will not conclusively settle all your issues; don’t expect a landslide. Expect to conduct many tests, to keep refining and modifying your design to ‘creep up’ to something the majority of users can use.”

Insights from Mathew Burns:

**Define a shared vision.** “Create a shared vision — a set of tenets — with your team and stakeholders. To do that, document the key functionality, foundation technology, and processes needed to achieve those tenets. This helps focus the team on what’s important, and focuses stakeholders on working with you, not against you.”

**Phase in changes.** “An incremental approach to intranet development is usually the best way to go. While you need to understand where you’re going and — in general — how to get there, launching in phases is the fastest way to achieve your vision with maximum quality. We view our intranet as an enormous puzzle. We started with the edge pieces — user interface templates, information architecture — to provide structure, and are now filling in the middle.”

**Communicate user interface ramifications.** “Make sure stakeholders understand a user interface is much more than just ‘look and feel.’ The user interface is a system that governs and standardizes such things as user interaction, vocabulary, design elements, and common tools. When stakeholders understand that, and how independently modifying the standards degrades the effectiveness of all other sites, they are much more likely to adhere to user interface standards.”

**Get the end-to-end task picture.** “In usability and user experience architecture, make sure you understand not just tasks but end-to-end processes supporting employees, including the parts of the process that have nothing to do — at least so far — with the intranet.”

**Employ usability to arbitrate disputes.** “Usability is a great way to break deadlocked stakeholders’ opinions, and much more effective than relying on internal politics. When teams disagree, test with users.”

**Avoid the clever.** “Stay away from acronyms and clever, branded names for sites and applications. We are still extricating ourselves from an alphabet soup of archaic application names. Strongly encourage stakeholders to use clear, simple, plain terminology.”

**Change is painful.** “No matter how outdated or dysfunctional a site, your users have learned how to use or cope with it, and any redesign will disrupt their work. Change is almost always painful for users, and after a redesign, site-satisfaction scores may not increase at first. So: have quantitative usability data in hand to get past the emotion and demonstrate success.”

**Prioritize “what’s changed” communications.** “When launching new sites or applications, communicate the changes, but prioritize them to reduce overall noise. No matter how proud you are, don’t describe every last feature, because minutiae-laden change messages increase users’ blood pressure. Also, don’t just send the update e-mail. Provide users with roadmaps, ongoing feedback loops, and support to encourage adoption.”

**Provide a redesign fallback.** “When launching a redesign, provide fallback navigation assistance or tools as needed. When we redesigned CEC, a number of organizations fell off our homepage. To address that, we built an organization locator tool to quickly and easily find any organization.”

**Redesign never stops.** “Never consider any aspect of the intranet as done; don’t just complete a project and completely move on to something else. Expect to continue to make enhancements as you better comprehend users’ needs, and learn from developing other site elements. This continuous-improvement mindset keeps you listening to users, brings vitality to your site, and — especially — empowers your intranet team.”

# The Electrolux Group

## Using the intranet:

The Electrolux Group, based in Stockholm, is the world's largest producer of powered appliances for kitchen, cleaning, and outdoor use, such as refrigerators, washing machines, cookers, vacuum cleaners, chain saws, lawn mowers, and garden tractors. In 2003, the Electrolux Group had sales of around \$17 billion and approximately 77,000 employees. Every year, customers in more than 150 countries buy more than 55 million Electrolux Group products for both consumer and professional use under famous brands such as Electrolux, AEG, Zanussi, Frigidiare, Eureka, Flymo, and Husqvarna.

## Design Team:

Electrolux, Lowe Brindfors, Grow

## Members:

### Lowe Brindfors

**Grow:** Jari Ullakko, creative director

**Electrolux:** Ralf Larsson, E-gate manager; Claes Nordén, E-gate manager (from November 2003 to May 2004)

## SUMMARY

The Electrolux Group's intranet designers know their users, and strategically target them with segmented portals to give users the information they need, when they need it.

On the homepage, pleasing aesthetics and good content quickly draw in users. The site's subpages are displayed in the left menu. The homepage also offers simple headlines about internal news, overall company news, and industry news — for example, one headline announced a competitor's release of a groundbreaking new saw with higher torque, lower fuel consumption, and reduced emissions. Articles like this keep employees apprised of new inventions and inspire them to conceive of their own, better innovations.

Times of day are shown across the top of the screen for the three biggest Electrolux locations: Stockholm; Augusta, Georgia; and Sydney. This reinforces the fact that Electrolux — and, by extension, E-gate — is a global entity. (While users can't currently change the default time locations, they will be able to in a future version.)

On the homepage's right-hand side, *Newswatch* tracks industry-related news. CNN is the default here, though users can also select from media in their language, such as the French business magazine *La Tribune* or the German *Frankfurter Allgemeine*.

**E-gate** **Electrolux**

MyHome MySector MyLocal MyProcess MyProfile MyHelp Ralf Larsson

Thursday, September 30, 2004, 10:11 Stockholm: 10:11 Augusta: 04:11 Sydney: 18:11 Search:

[Advanced search](#)

**ELECTROLUX**

- News
- Group information
- Practical resources
- Sector portals
- Local portals
- Search/help/contact

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Editorial network

Newsletter (admin)

GROUP TREASURY

E-GATE FORUM

PRODUCT

MANAGEMENT FLOW

MY SHORTCUTS

Editorial network

Contact editors

Matsedel

Language center

Search for people

Overflow message

News for editors

Hem-PC

Our history

Learn how to find news stories for E-gate

## Electrolux Group news

**September 30, 2004**

### World premiere for revolutionary chain saws

The Husqvarna 455 Rancher, 570 and 575XP—three revolutionary, low-emissions chain saws from Profession Outdoor—were introduced at the EXPO fair in Louisville, Kentucky, on September 26.

**September 29, 2004**

### Top rating for Electrolux annual report

The Electrolux annual report was ranked number six in a rating ...

**September 28, 2004**

### Graphic guidelines printed and ready for distribution

The Electrolux graphic guidelines have been printed and are ...

- » Thomas Johansson appointed Design Director Floor ...
- » Husqvarna and Jonsered are world champions
- » Downward revision of Group's earnings outlook for ...
- **Louis R. Hughes** leaves the Electrolux Board to help reconstruct Afghanistan.
- **Thomas Johansson** appointed

**Share price**

Elux B	+/-	Buy	Sell	Latest
SEK	1.00	134.5	135	135

**DAGEHS INDUSTRI**

- » Kameramobiler sprider synd
- » SAS ska notera hotellverksamhet
- » I dag möter Microsoft EU i domstol
- » Riksgälden vill amortera 25 miljarder per år

**NEWSWATCH**

- » Dyson resigns seat at Design Museum
- » Godrej to expand SmartCare concept
- » China's Suning to build appliance factory

**OPEN JOBS ON OLM....**

- » Electronic Development Manager - Core Technology & Innovation (Italy)
- » Plant Manager (Poland)
- » Accounting Controller (Sweden)

**CAN'T FIND IT?**

Pictured: The homepage on the Electrolux Group's E-gate intranet looks good and gives users a diverse choice of news topics.

As for the actual news pages, the content is well written, leading — as it should — with the story's most important points. The writing style is light, personal, and engaging. The designers also strive to use good, clear photographs to help illustrate points or add color to a story. When appropriate, photographs are labeled so users can easily get pertinent details, such as who's in the picture. Using the links above every article, users can also create a printer-friendly text layout of the article, e-mail it to another employee, or add the article to their shortcuts, located in the left-hand bar.

**E-gate** **Electrolux**

MyHome MySector MyLocal MyProcess MyProfile MyHelp Ralf Larsson

Thursday, September 30, 2004, 14:33 Stockholm: 14:33 Augusta: 08:33 Sydney: 22:33 Search:

You are here: E-gate / Electrolux / News / Electrolux Group news / **Thomas Johansson appointed Design Director Floor Care Global** Advanced search

**ELECTROLUX**

- News
- Group information
- Practical resources
- Sector portals
- Local portals
- Search/help/contact
- 
- Editorial network
- Newsletter (admin)

**PROFESSIONAL**

- OUTDOOR
- E-GATE FORUM
- BUSINESS SUPPORT

**MY SHORTCUTS**

- Editorial network
- Contact editors
- Matsedel
- Language center
- Search for people
- Overflow message
- News for editors
- Hem-PC
- Our history

**Thomas Johansson appointed Design Director Floor Care Global**

September 28, 2004

**In his new position, Johansson will be responsible for all design in Floor Care globally.**

Johansson has sixteen years' professional design and management experience within multinational companies. He was previously head consumer products design for Caran, a leading supplier of industrial design, product development & industrial management.

Johansson, 42, was born in Switzerland, raised in England, lived in Brazil one year and has spent the last 24 years in Sweden. He has a Masters of Fine Arts in Design from the University of Gothenburg, Sweden, School of Design and Crafts.

Johansson succeeds Per Börjesson, who in May of this year was appointed head of design for EHP Europe. Johansson begins his role on November 1, 2004. He will be located in Stockholm, Sweden, and report to Henrik Otto, Senior Vice President Global Design.

**More information** Henrik Otto ([henrik.otto@electrolux.se](mailto:henrik.otto@electrolux.se))

**Thomas Johansson in brief**

**Title:** Design Director Floor Care Global  
**Age:** 42  
**Nationality:** Swedish  
**Civil status:** Married with two

Pictured: An example of a news page with good photographs and an engaging writing style. Using the links above the article, users can create a printer-friendly text layout, e-mail the page to another employee, or add the page to their shortcuts, which are located in the left-hand bar.

No wonder designers refer to E-gate as their “internal news portal.” Furthermore, to sate users who want news as it breaks, Electrolux offers the ability to subscribe to news feeds. On the content-generation side of this scenario, news editors have a mass-mailing system for notifying such users of important, breaking news.

Giving employees the information they need can be challenging, especially at large, global organizations such as Electrolux. While the 16,800 intranet users are mainly white-collar workers, they all have different roles and do very different jobs, including sales, marketing, product development, production, communication, quality control, financial control, and administration. To further complicate matters, users access the intranet from six different continents and a total of fifty-four countries.

To satisfy these diverse groups, the intranet provides a series of portals — from country-based to department-level — that users access via the top horizontal tabs. The intranet lets editors change the look of their portals, giving them new “skins” — Electrolux shorthand for a collection of design elements and templates. To differentiate the portals, each must have a different skin than the main group’s portal.

E-gate has national portals for all major countries where the user base might not be fluent in English, including Brazil, France, Germany, Hungary, Italy, Spain, and Sweden. The major design elements on these pages are identical, as is most of the content, yet these translated, localized pages help all employees feel represented, no matter where they are.

- ELECTROLUX
- PROFESSIONAL
- OUTDOOR
- E-GATE FORUM
- PRODUCT
- NUESTRO PORTAL
  - Noticias
  - Noticias del Grupo
  - EHP España
  - Fábrica de Alcalá
  - Muy útil
  - Fábrica Fuenmayor
  - Professional
  - Club Electrolux
  - Calendario
- MY SHORTCUTS
  - Electrolux Internet Center
  - Address book
  - Lunchmatsedel för Restaurang e
  - Telefonboken ECA
  - Personalguiden - svenska
  - Leadership Training

You are here: E-gate / Local / **Nuestro Portal**

**Local: E-portal noticias**

**December 28, 2004**

**Electrolux estrena su página web**  
 La marca Electrolux estrena web site: productos, catálogos, manuales de instrucciones, buscadores, comparativos.... Todo lo que siempre has querido saber sobre Electrolux, ahora disponible con sólo hacer "click"...



**December 23, 2004**  
**Ricardo Carramiñana , Director General de EHP, se dirige a todos los empleados/as**

Ricardo Carramiñana, Director General de EHP España, se dirige a todos los empleados/as a través de una carta con motivo de las fiestas navideñas y próximo año 2005. Análisis del 2004, planes de futuro, decisiones estratégicas e inversiones...Leer más.

**December 23, 2004**

**I Convención nacional de ventas canal mueblista**

Durante los días 18 y 19 de Diciembre se celebró la I Convención nacional de ventas canal mueblista, en el Balneario de Mataelpino ( Madrid).

- » III Edición Dibujo Infantil. Categoría de 7 a 10 años
- » III Edición Dibujo Infantil. Vota en E-gate por el dibujo ganador
- » III Concurso de dibujo Infantil. Vota y visita la exposición
- » EHP organiza : el día de la solidaridad. Participa
- » La revista BrandNews reemplazará todas las publicaciones de EFS de cara al 2005
- » EHP Europa nombra un business manager para el área de WEEE

» More

- DEL GRUPO**
- » Ayude a ubicar empleados de Electrolux de vacaciones en Asia
  - » Cancelar antiguas cuentas de e-mail por seguridad y menor costo de IT
  - » Listos criterios de identidad web de Electrolux

- EL MUNDO**
- » Los inversores demandan a Pfizer por el riesgo que supone Celebrex
  - » El crecimiento económico ayuda a reducir los déficits de los nuevos miembros de la Unión Europea

La nueva **Web de Electrolux** comunicará al consumidor los valores: innovación, diseño y máximas prestaciones. **¿Qué portada te gusta más?** Escoge la opción que más te guste y colaborarás en la construcción de la página web.



Foto nº1



Pictured: An example of the local portal for Spain. E-gate has national portals for all major countries where the user base might not be fluent in English, including Hungary, Italy (image follows), France, Spain, Brazil, Germany, and Sweden (image follows).

## Prima Pagina

December 22, 2004

## Anche l'Italia partecipa all'iniziativa natalizia di E-gate...

L'idea di E-gate di raccogliere le immagini degli alberi di Natale dagli uffici Electrolux di tutto il mondo, ha avuto successo anche negli stabilimenti italiani: da Susegana e Valtenoncello arrivano due originali iniziative.



December 22, 2004

## La lettera di Natale di Johan

Cari colleghi, ci stiamo approssimando alla fine di un anno pieno di sfide. Sono ora sei settimane che sto svolgendo il mio incarico nel settore White Goods Europe e vorrei ringraziare ciascuno di voi per il suo contributo. Sono veramente entusiasta di far parte di questo team!



December 21, 2004

## Henrik Otto parla del design Electrolux

Henrik Otto, capo del settore del design da agosto 2004, ritiene che sia suo dovere dare spazio e libertà creativa ai designer. E, dice, i prodotti Electrolux dovrebbero essere una riscoperta ogni volta che ci avviciniamo ad essi.



- » Il nuovo BrandNews sostituirà nel 2005 tutte le ...
- » Electrolux da 35 anni in Unindustria Pordenone
- » Il nuovo Book of Records è ora disponibile in ...
- » Electrolux Laundry Systems cesserà la produzione ...
- » Electrolux "accende" il Natale a ...

## GIORNALI DI FABBRICA ON LINE



Oblò (EHP Porcia)  
Calendario di Oblò per il 2005  
Il termometro (EHP Susegana)

## CORRIERE DELLA SERA

- » L'istat: l'inflazione nel 2004 pari al 2,2%.
- » «La vacanza continua: la vita è un'avventura»
- » Bagdad, esplose autobomba: almeno sei vittime

## NEWSWATCH

- » BSH offers direct purchasing for Southeastern US
- » Haier targets 60% revenue growth in 2005
- » Whirlpool launches Duet fridges in India



## Date un'occhiata agli alberi di Natale

## TORNEO DI CALCIO DI NATALE AL MAGAZZINO RICAMBI DI MANIAGO

Il "Giant Sol", ovvero la formazione che rappresenta il reparto spedizioni, ha vinto il torneo di calcio a cinque di Natale, organizzato dal Magazzino Ricambi di Maniago.

» [Cliccate qui](#) per leggere l'articolo o andate nella sezione "Dalle sedi".



## EHP EUROPE CREA LA PRIMA LAVASTOVIGLIE "ORIZZONTALE"

Nel mondo delle cucine di gamma alta è in atto



Pictured: The local portal for Italy.



**Sverigenyheter**

**December 31, 2004**  
**Tsunami - senaste nytt: Två anställds fortfarande försvunna - Electrolux donerar 250.000 kronor**  
Sedan i tisdags har Electrolux arbetat för att få fram information om vilka anställda som är på semester i de länder som drabbats av flodvågorna. Alla utom två anställda har meddelat att dom är oskadda. Electrolux donerar nu 250 000 kronor till Röda Korset. Electrolux kommer också att matcha donationer till Röda Korset som görs av anställda.

**December 27, 2004**  
**Electrolux HemProdukter: Bättre leveranssäkerhet under 2004**  
Leveranssäkerheten för vitvaror har i år varit betydligt bättre ...

**December 22, 2004**  
**Produkter: Plaza Interiör jämför kylfrys**  
Ska det vara fristående, integrerat eller side-by-side? Vitt, ...

**SMÅ NYHETER**  
» [Centrala Bygg/EHP: Nytt nummer av CBnytt har kommit ut \(pdf\)](#)

- » Torsvik/Distriparts: Nya streckodsläsare klarar ...
- » Produkter: Expressen testade brödmaskiner
- » Sverige: Testpersoner för resebokningsverktyg ...
- » Electrolux Service: Tjugo tekniker tog sig till ...
- » Husqvarna: Consumer Outdoor vann hockeymatch mot ...
- » Mariestad/EHP: Fabriken är ett kunskapscentrum ...

» More

**GROUP NEWS**  
» Tsunami update: Two employees not yet reachable - Electrolux to donate SEK 250,000  
» Help trace Electrolux employees vacationing in Asia

**DAGENS INDUSTRI**  
» Samsung får japansk 3G-order  
» Nordea vill växa med produkter och tjänster

**Vinn ugnstomar av silikon för jämnare och snabbare bakning...**

**SVERIGEKALENDARIUM: VECKORNA 52, 53, 1 OCH 2**  
**24/12** Julafton  
**12/01** Husqvarna: Nyårsrevyn Wätter Joker. [Läs mer...](#)  
Maila till [cosmin.irina@electrolux.se](mailto:cosmin.irina@electrolux.se) om något saknas.

Pictured: The local portal for Sweden.

Each business area also has its own portal. Users access business portals by clicking the *MySector* tab. The start-page features news items related to that sector, with relevant subpages in the left-hand menu.

You are here: E-gate / Sector / Professional Outdoor

- ELECTROLUX
- PROFESSIONAL OUTDOOR
- News
- Sector head letters
- Premium Brand
- What's happening?
- Sector info
- E-GATE FORUM
- BUSINESS SUPPORT
- MY SHORTCUTS
- Editorial network
- Contact editors
- Matsedel
- Language center
- Search for people
- Overflow message
- News for editors
- Hem-PC
- Our history
- Learn how to find news stories for E-gate

## Sector: Professional Outdoor news

**September 30, 2004**  
**Engine of change: new saws reduce emissions by 70%**  
 The three new Husqvarna chain saws presented September 26 at the American EXPO fair in Louisville, Kentucky, are the most environmentally friendly chain saws on the market. The saws are equipped with a revolutionary new engine technology that reduces emissions by 70% and fuel consumption by 20%, plus offers more engine power.



**September 29, 2004**  
**World premiere for revolutionary Husqvarna chain saws**  
 The Husqvarna 455 Rancher, 570 and 575XP—three revolutionary, low-emissions chain saws—were introduced at the EXPO fair in Louisville, Kentucky, on September 26.



**September 22, 2004**  
**Belgian accident: eight remain**

- ### GROUP NEWS
- » World premiere for revolutionary chain saws
  - » Top rating for Electrolux annual report
  - » Graphic guidelines printed and ready for distribution
  - » Thomas Johansson appointed Design Director Floor Care Global
  - » Husqvarna and Jonsered are world champions

- ### NEWSWATCH
- » Dyson resigns seat at Design Museum
  - » Godrej to expand SmartCare concept
  - » China's Suning to build appliance factory
  - » LGE: brand effort with focus on non-mainstream sports
  - » Steel prices hit Maytag, Whirlpool

### USER QUESTIONS AND FEEDBACK

"Every time I open E-gate, I have to log in again. I used to only have to log in once a day. Can you tell me what has changed please?"



Louise Hall, Electrolux Professional Outdoor, Great Britain

Pictured: Each business area has its own portal with its own skin. This screenshot shows the start page for *Professional Outdoor products*. The relevant subpages are displayed in the left menu.

Users access their department-level start pages by clicking the *MyLocal* tab. The head office has about twenty local portals in E-gate. The left menu shows subpages for this department.

**E-gate** **Electrolux**

MyHome MySector **MyLocal** MyProcess MyProfile Myhelp Ralf Larsson

Thursday, September 30, 2004, 10:57 **Stockholm: 10:57** Augusta: 04:57 Sydney: 18:57 Search:

You are here: E-gate / Local / E-gate Forum

**Local: E-gate Forum nyheter**

**September 30, 2004**  
**Anmäl dig till klubbmästerskapet i skytte**  
 Electrolux Skytteklubb anordnar den 16:e oktober årets Forum klubbmästerskap på Roserbergs skjutbanor.

**September 30, 2004**  
**160 Electroluxare besökte Tekniska i söndags**  
 160 Electroluxare med familj tittade in hos Tekniska museet ...

**September 29, 2004**  
**Gourmet bollar**  
 Tabacen säljer gourmetbollar  
 Under en prowecka erbjuder Tabacen en "gourmetboll" till dig ...

» Telefonväxeln nere på fredag kväll  
 » Nice Kontor ersätts med ECA  
 » Tyskt besök på Forum  
 » Höstens temaveckor på Restaurang e  
 » Säms utvalda för konferens

**FELANMÄLINGAR / SKANSKA**  
 » tel. 20050 / [serviceportal](#)  
**SMÅ NYHETER**  
 » [Personaltytt: Ulf Bergendal är nyanställd](#)

**SVERIGENYTT**  
 » Ljungby/ELS: Servicebilarna skyltades om  
 » Produkter: Komponentfel i inbyggnadshällar  
 » Sverige: Ny adressbok med samtliga kolleger i Sverige

**DAGENS INDUSTRI**  
 » Övrraskning i baktickan  
 » UPC/Chello ökar hastighet men inte pris  
 » Telia Sonera vill banta

**ELECTROLUX QUIZ:** Hur många procent av världsmarknaden för motorsågar täcker Electrolux? [Kolla om du hade rätt...](#)

40  
 45  
 50

**Electrolux**  
 OXYsystem  
 Vinn Electrolux första dammsugare och luftrenare i ett!

Pictured: The start page for the Stockholm head office's portal, which is a department-level portal. The left menu shows subpages for this department.

E-gates editors have their own portal, which makes it easy for them to monitor their intranet section's usage. The *Statistics* section makes usage patterns easily readable, and the *Pipeline* area encourages editors to change their content weekly, and makes doing so easy.

MyHome MySector MyLocal MyProcess MyProfile MyHelp Ralf Larsson

Friday, November 5, 2004, 16:47 Stockholm: 16:47 Augusta: 11:47 Sydney: 01:47 Search:

You are here: E-gate / Editorial network

- ELECTROLUX
- PROFESSIONAL
- OUTDOOR
- E-GATE FORUM
- PRODUCT
- EDITORIAL NETWORK
- News
- Tools
- Calendar
- Search/help/contact
- MY SHORTCUTS
- Detlef Münchow presents innovation and Kitchen of 2025 project
- OLM job container
- Travel Planner
- Introduction
- CNN News
- Ergorapido säljs på Forum med julrabatt

## News for editors

**November 5, 2004**  
**Now easier to contact non-users**  
 On Editorial network, in left menu under tools, you can now find your mailing tool to contact people. It's called userlist/mailling.

**November 3, 2004**  
**Statistics: Close to 1 million page views**  
 The October statistics is now updated. The total number of page ...

**October 29, 2004**  
**E- Downunder - just a double click away!**  
 The Australian E-Downunder local news portal continues to go ...

**KEY FIGURES OCT 27, 2004** [\(more\)](#)

<b>16991</b> Reg. users (goal 20000)	<b>9918</b> Users last week	<b>6092</b> Users per day
--	-----------------------------------	---------------------------------

- » E-gate system to be upgraded - your chance to ...
- » Number of daily users increasing
- » Update your inline editor
- » Husqvarna launches local E-gate portal
- » September statistics: Most portals increase
- » Implementation dates for new Notes start page
- » More

### EDITORS CHAT

- » animated banner
- » Banner - alternative heading
- » New back link in E-gate

### EVENTS CALENDAR

- » Phone conference local editors
- » Phone conference sector editors

### STATISTICS

What pages are most popular on your portal? Read the statistics - updated monthly:

	Group	Sector	Process	Local
October	»	»	»	»
September	»	»	»	»
August	»	»	»	»
July	»	»	»	»

### NEW FEATURE

Here you can test a new feature on E-gate: **The Photo gallery**. Click to see: [TM-Meeting](#).

### PIPELINE

**For all E-gate editors.** Click [here](#) for a list of stories in progress in E-gate. Editors should update their lists once a week.

[Disclaimer](#)

Pictured: The editorial portal contains information for E-gate editors. One interesting feature: dynamic statistics of the most-popular pages within each editor's portal.

The editorial portal also targets users with news. Articles are aimed at helping editors; story headlines highlight things such as contacting users, page-view statistics, and system upgrades.

You are here: E-gate / Editorial network / News /

Statistics: Close to 1 million page views

Print This    E-Mail This    Add to Shortcuts    Change    View Statistics

## Statistics: Close to 1 million page views

November 3, 2004

The October statistics is now updated. The total number of page views (hits) for whole E-gate was close to one million.

**Group level: 5,6 hits per user** (around one page visit per user and week) \*  
**OLM decrease with almost 40 percent**

In October the Group level had 95581 page views (hits), and increase with 16 percent from September. The increase is mainly due to the CEO letter distributed mid October. The whole CEO letter section generated 22400 hits. Travel Planner also increased, reaching 10300 hits. The activity on both OLM pages and Group news de-created from previous month, OLM with almost 40 percent, reaching only 6928 hits. [Read more](#)

\* Everything under Electrolux in left menu. Start page is excluded.

**Sector portals: 5,3 hits per user** (around one page visit per user and week)  
**Professional Indoor the only sector to reach both goals**

**Sector portal goals:** The activity on all sector portals but Professional Indoor and Professional Outdoor de-created from previous month. Floor Care and ECOP de-created the most, with around 20 percent. Both Professional Indoor and Professional Outdoor reached the highest figure in 2004.

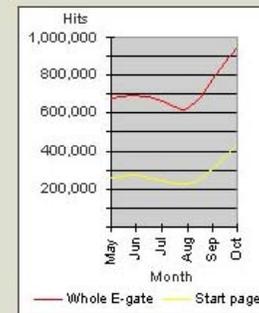
Professional Indoor was the only sector to reach *both* goals in October. [Read more](#)

**Local portals: 31,3 hits per user** (more than one page visit per user and day)  
**Husqvarna NA gets over 25,000 hits in first month**

**Local portal goals:** 11 out of 19 local portals had increased activity in October from previous month. The new Husq-E-news portal, launched a month ago, had more than 25,000 hits, reaching 80 hits per user (around four page visits per user and working day). In whole E-gate only CSG NA has a higher activity level, with it's 161 hits per user. *If we list the five most visited pages in E-gate, the position two to five belong to local portals.*

13 out of all 19 local portals reached *both* goals for October. [Read more](#)

### October focus - Whole E-gate



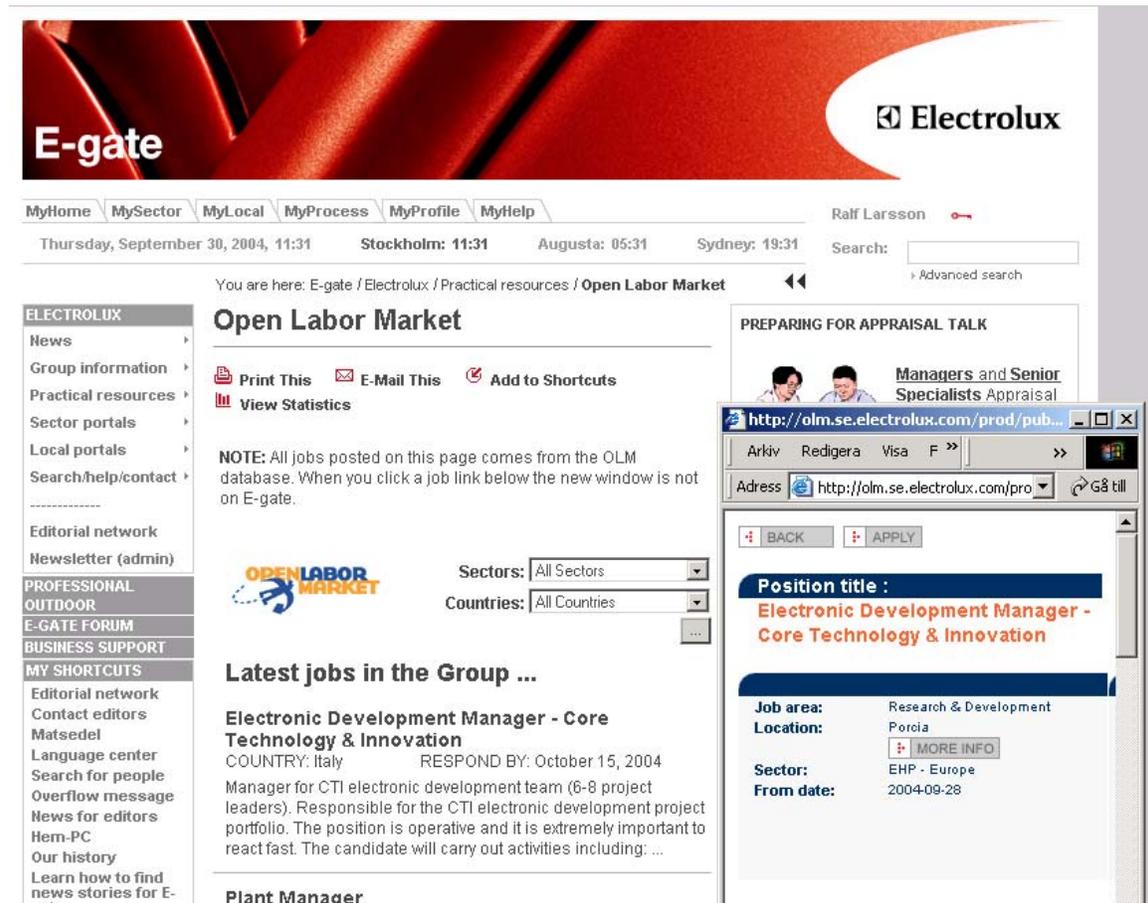
The number of hits for whole E-gate and start page, May-October 2004

USERS	17000
POTENTIAL	25000
HITS	943,928
HITS/USER	56 for whole E-gate 25 for start page
MOST VISITED	1. E-gate start page 2. Brazil (local) 3. Husqvarna NA (local) 4. Forum (local) 5. CSG EHP-NA (local)

Pictured: An example of a news story in the editorial portal.

Electrolux intranets have always provided internal job listings, but previous versions forced users to access them via a Lotus Notes database. To make jobs easier to find, designers created the *Open Labor Market* to help employees locate all available jobs at the organization. The *Latest jobs in the Group...* area showcases some of the most recent job openings. Users can also search for jobs by country or sector. Search results clearly display the job title, location, and a summary job description; the *Respond by* date motivates interested parties to act quickly. Note that job titles are links to the Lotus Notes job-openings database, which offers more information about specific positions.

“Now all new jobs are sourced from Notes and published on our start page, which has been a huge success, attracting many employees,” says Ralf Larsson, the E-gate manager.



Pictured: The *Open Labor Market* shows all internal job openings. This interface aggregates information from other systems — in this case, importing from Lotus Notes — to help users easily find and apply for jobs.

E-gate incorporates various other features and applications, including a built-in business-support process tool; a slideshow manager that lets users select slides and create their own presentations; and a travel manager for booking flights and hotels, and reporting expenses. Electrolux also uses the intranet to welcome and assist new employees. Each new hire receives a personalized welcome e-mail and a link to E-gate’s *Welcome* page, which includes the CEO’s comments and links to important tools.

**E-gate** **Electrolux**

MyHome MySector MyLocal MyProcess MyProfile MyHelp Ralf Larsson

Tuesday, January 4, 2005, 10:47 Stockholm: 10:47 Augusta: 04:47 Sydney: 20:47 Search:

You are here: E-gate / New employees Advanced search

**ELECTROLUX** **PROFESSIONAL** **OUTDOOR** **E-GATE FORUM** **PRODUCT** **E-GATE** **MY SHORTCUTS**

Address book **New employees** Innovation centre Disclaimer LogOff  
 Electrolux Internet Center Address book Lunchmatsedel för Restaurang e Telefonboken ECA Personalguiden - svenska Leadership Training

**Welcome to the Electrolux Group**

Before you start using E-gate, we recommend that you spend a few minutes looking at this page. If you don't have time to read the whole page now, add this page to your shortcut menu, and return to it later (click the link above which says [add to shortcuts](#)).

**Welcome to the Electrolux Group!**  
 Here you can read about the Group and our key issues, in your welcome letter from Hans Stråberg.

[Go now](#)

**Where's the Group heading?**  
 Read the letters from CEO Hans Stråberg. This is the best way to stay informed of Group goals and direction.

[Go now](#)

LOCATION: *Electrolux/Group information/Ceo letters*

**How to save time and money when traveling?**

Use the [Travel Planner](#) section on E-gate when traveling. With Travel Planner you can book hotels, report your travel expenses, read country specific information and much more.

[Go now!](#)

LOCATION: *Electrolux/Travelplanner*

**How to order your business cards**

**Local resources on E-gate:**  
**Forum/Stockholm employees:**  
 Read our local policies and benefits in [Swedish](#) [English](#)  
*More local resources will be available!*

Pictured: New Electrolux employees receive a personalized welcome e-mail, which links them to E-gate's new-employee page. The page includes links to important tools and a message from the CEO.

Tabbed sections at the top of each page and obvious left-hand navigation make the intranet easy to navigate. The *You are here* breadcrumbs at the top of each page help employees swiftly determine where they are. Users can also add pages to their personal shortcut menu for faster access.

With numerous simple applications, and multiple targeted portals, users find exactly what they need on E-gate.

## URL AND ACCESS

E-gate is bookmarked in all employees' browsers. The intranet is the homepage for most people who view the intranet via Lotus Notes, and for some employees who use Internet Explorer.

Users who are away from the corporate LAN can access the intranet by connecting to the network via VPN. Electrolux also has kiosks for blue-collar workers at some of its European sites.

## CONTENT MANAGEMENT

For content management, Electrolux uses off-the-shelf software, EPiServer 3.2, which they've customized to meet their needs. EPiServer works with Microsoft Active Server Pages and logs ASP changes (including user and time); Electrolux uses this to handle version control.

Content owners within the company vary. For the group section, the owner is Paul Palmstedt, vice president of internal communications. Each local section also requires a content owner; content teams are typically led by the local HR, marketing, or public relations departments.

All intranet sections — as well as external Electrolux Web sites — must follow the brand guidelines developed by Lowe Brindfors, a brand-design agency. (The public-facing [electrolux.com](http://electrolux.com) website is set to be updated, per the new guidelines, during the spring of 2005.) Prior to launching the intranet redesign, the team created and distributed the new guidelines to content editors.

EPiServer enforces all major templates and all design elements. "Only administrators can change those," says Larsson. Also, all new skins must be approved by the company's brand manager.

To help maintain a cohesive look and feel, the intranet team frequently communicates with editors via a dedicated editor portal. This portal, says Larsson, is "where they find guidelines, read news, and chat online about various issues." Maintaining this outreach is important so that "everyone understands the logic behind all of the guidelines," he says.

## TECHNOLOGY

The E-gate intranet team uses Microsoft Visual Studio for building intranet applications. It runs the intranet with EPiServer for content management and a Microsoft SQL database running on Dell servers with Windows 2000.

Users access the intranet through the Lotus Notes browser or Internet Explorer.

## GOALS AND CONSTRAINTS

Goals:

1. Have every user visit the site at least once daily.
2. Follow new brand guidelines.
3. Personalize different intranet sections with different skins.

Constraints:

1. Accomplishing site redesign in three months.

## BASIC INTRANET FEATURES

All E-gate intranet pages feature: a “print page” for printer-friendly page rendering, the ability to send a page to another employee, and related links for more information about a topic. For fast access to frequently used pages, users can add pages to a personalized shortcut menu. Users can also subscribe to any E-gate information source and get e-mail notifications of content updates.

To find people, users can search the corporate address book.

E-gate integrates various business tools, including a travel center, with relevant news, hotel and airline booking, and an expense-report tool. Another tool offers business process support. Users can also browse a directory of new internal jobs.

Newly hired employees receive a special e-mail directing them to a “getting started” section of the intranet, along with links to essential intranet tools.

## USERS

The intranet has 18,800 users divided among six continents and fifty-four countries; most are in the United States, Sweden, Italy, Germany, Australia, Brazil, and Great Britain. Users typically have their own PCs. The target audience works mainly in sales, marketing, product development, production, communication, quality control, finance, or administration.

## USER TASKS

- Get news and updates
- Search the staff directory
- Book airline and hotel reservations
- Report expenses
- Search and apply for internal jobs

## BACKGROUND

E-gate began as a Lotus Notes database in 2001. The IT department managed all aspects of the intranet, and content was segmented into a few so-called “news channels.” There were few readers, however, as the database “was very difficult to find,” says Larsson.

Since then, corporate communications took over intranet management from IT. Technologically, the intranet team transitioned the intranet from Notes to EPiServer and Microsoft ASP in September 2002.

The management change brought a different approach to the intranet. “We prefer to call E-gate, our intranet, ‘our internal news portal,’ as we believe the Web-based news format is a good way to inform our colleagues,” says Larsson. “Our goal is to have better-informed colleagues, as better-informed people make better decisions,” says Larsson.

Previously, Notes administrators edited the content; there are now 50 to 100 dedicated editors, including “everyone from secretaries to professional editors,” says Larsson. As a result of all this involvement, “the cost for editing is reduced, and editing is much more effective.” The number of news channels has also dramatically increased, as have the number of registered users.

In 2003, the corporate communications group unveiled a new Electrolux brand identity. Suddenly, the intranet looked out of date. "With the identity in place, it was obvious that our intranet needed to align with the new brand," says Larsson.

## DESIGN PROCESS AND USABILITY ACTIVITIES

The E-gate team needed to redesign the intranet to meet the new Electrolux brand identity, which applies to all of the company's intranet and Web sites. Thus, "meetings with design, brand, and Internet people started the whole process. This, coordinated with editorial teams, inspired us a lot," says Larsson.

To guide the redesign, the intranet team conducted a Web-based user survey and heuristic evaluations, studied server logs to note user behavior, and ran usability field tests of the old intranet with twelve users. According to E-gate's former manager, Claes Nordén, the field test tasks were centered on finding specific information, such as "Can you find the news story *X* in the portal *Y*?" and "Can you find the latest letter from our CEO called *XYX*?" The team also referred to a usability study from the Electrolux USA website (<http://www.electroluxusa.com>), and to that site's look and development, as it was adopting the identical branding guidelines.

While most users liked the intranet, the team's research indicated that "the general opinion was that the design, information structure, and search functionality needed to be improved," says Nordén.

The project's first phase focused solely on redesign, without considering the fundamental intranet technology. "We chose to exclude major changes in functionality," says Larsson, because of the limited time available.

The team also gathered redesign input from numerous sources. "Since the design needed to align to the new brand identity, a number of designers were invited to give suggestions. The best suggestions were chosen and a project team was put together," says Nordén.

## TIMELINE

- 2001: Launched first intranet (based on Lotus Notes)
- September 2002: Launched redesigned intranet (based on EPiServer and Microsoft ASP)
- December 2003: Began latest redesign project, incorporating new Electrolux branding guidelines
- March 2004: Launched redesigned E-gate

## RESULTS

This redesign meets Electrolux's primary goal: altering the intranet to match the company's new brand identity. Yet, along the way, the redesign team also improved site usability and laid the foundation for making changes that user testing diagnosed, and that users had requested.

For example, users had difficulty finding two popular intranet sections: the internal job market, and the internal travel agency. "Our internal job market is integrated with E-gate, to help colleagues find other available jobs in the company," says Larsson.

The internal travel agency includes travel-related news, and integrates other Web sites to facilitate hotel and flight booking, and to report travel-related expenses.

"Before, both these applications were hard to find and difficult to access," says Larsson. The redesign emphasized their locations and reduced the number of clicks needed to access them. In addition, background technology changes eliminated some application log-in requirements once the user is authenticated in E-gate. Future versions of the intranet will extend single sign-on.

Also, different portals can now customize their look. "Editors can have their own layout, or skin, to make their own portal more individual," says Larsson. As long as content heads follow the E-gate branding team's graphic guidelines, they can add their own graphical elements, such as top images and arrows. However, some standard elements must appear, and the skin must then be approved by an Electrolux brand manager. Afterwards, the skin is set. "Local editors can't change these elements — only the text and images on the pages they edit," says Larsson, referring to elements designed to be changed, for example on a news page. "We don't want to allow too much freedom, as we all work for the same group, and E-gate supports our CEO's effort to build one strong, global Electrolux brand."

Now, with the redesign in place, "it feels like people are more positive about our intranet," says Larsson. "As the corporate communications group is focusing heavily on our new brand identity, we also have 'new ambassadors' like brand managers and marketing managers who like the redesigned intranet even more" because it mirrors the new branding.

Overall, when it came to redesigning the site, Larsson was surprised by how easily the redesign went. "To my knowledge, this was the first time we did a redesign following a professional graphic guideline that was for the whole group," he says. "As one or two external websites based on the guideline had already launched, we already had very good reference tools and templates available. We also excluded functional changes from the redesign, to only focus on layout and graphical elements. In short, we were very structured, and patient, and didn't rush into it."

With design changes implemented, search engine improvements are now underway. As for the information structure, "that has now been improved, and is about to be implemented in all portals throughout the site," says Nordén.

The intranet team is also planning a migration from ASP to ASP.NET for several reasons. First, it integrates more easily with more tools, including the Lotus Notes environment, and Lightweight Directory Access Protocol (LDAP) and Active Directory servers, which they'll eventually use to meet the single sign-on goal across the intranet. Second, the new software will enhance usability, because it includes a language module, hot keys, zooming, and low- and high-resolution versions of pages. Those features are especially useful because about 75% of Electrolux employees' mother tongue isn't English, and many travel and use modems on the road. Finally, ASP.NET includes: a better editing tool that allows direct publishing from Microsoft Office, improved image and document handling, and more-flexible templates.

## LESSONS LEARNED

Insights from Ralf Larsson:

**Get branding help.** "Involve your brand people. Having a brand guideline before you start the project makes life easier."

**Think big.** “Always try to incorporate feedback from users and editors into any redesign. Always think big.”

Insights from Claes Nordén:

**Manage end-user expectations.** “Involve others in the project and respect their opinions. Be careful, however, about trying to satisfy everybody’s suggestions, and make it clear beforehand who has the final say, and why.”

**Make life easy for editors.** After reading the brand guidelines, translate those into intranet design guidelines for editors. Be sure to communicate these guidelines to editors before — or at least at the same time as — launching the redesigned site; it makes life easier for the editors.

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## The Integer Group

### Using the Intranet:

The Integer Group is one of ten biggest promotional marketing agencies in the United States. The agency creates campaigns to support retail, field, and promotional marketing for clients in market categories such as beverages, packaged goods, telecommunications, financial services, fast food, home shelter, home appliances, sports apparel, eyewear, and retail jewelry. An Omnicom company, The Integer Group has agencies in Dallas; Denver; Des Moines, Iowa; and Cleveland, Ohio; as well as multiple field offices. The Integer Group is headquartered in Denver.

### Design Team:

In-house

### Members:

Anne Mitchell, director of knowledge management; Christiaan van Woudenberg, senior developer; Jill Kliger Saliba, usability consultant; Tim Bock, interactive design director; Sarah Herold, director of corporate communications

## SUMMARY

The Integer Group's intranet serves some 850 users in various agencies throughout the United States, including its agencies in Dallas, Denver, Des Moines, and Cleveland, and its coast-to-coast field offices. Users include managers, art directors, account supervisors, sales people, and various support personnel. By providing a central location for company information and facilitating employees' communication and collaboration — especially across agencies — the intranet helps users more easily do their jobs.

When users first log in, the intranet streamlines several tasks for them. First, it logs appropriate users into secure areas, and secures these areas against people who shouldn't have access. Second, the intranet pre-populates many form fields. This is a major employee timesaver — not to mention headache-reducer — because it frees employees from entering their name, job title, and office number umpteen times. In addition, the system queries important information employees might need but not remember, such as the date they were hired. Again, this saves time and energy.

On the homepage, the intranet recognizes users and greets them with a *Welcome*. Important announcements are readily available in the middle of the page, and users can easily view past announcements by clicking the *See Previous Announcements...* link at the bottom of the page. Also, users can easily submit their own announcements by clicking the *Submit a New Announcement...* link, also at the bottom of the page. This links to the intranet team's e-mail account, automatically adding the "Intranet News Submission" subject line.

The intranet is personalized, with announcements filtered by agency. The *Quicklinks* also change according to the user's agency, geographical location, and department assignment. For example, users in different offices might see local restaurants or links to local weather based on zip code.

In addition to internal announcements, the homepage helps employees stay informed, and even competitive. *Industry News* has a prominent space on the homepage in the left-side column. The *Useful Sites* list links out to informative publications that employees should be reading.

The homepage also has whimsical elements to engage employees. Birthdays, job-hire anniversaries, and new employee hires are all listed on the right side of the page. (Only listings relevant to the user's location appear.) The top banner artwork is Flash, and the image changes depending upon date, time of day, and user location.

While homepage announcements are concise, in places they can also be light, playful, and even quirky. For example, the description for the Denver office's Halloween-party photos reads: "The strange, the beautiful, and the bizarre. See it all." The writing style and supported features all sustain the company's culture and fun-loving atmosphere.



**Quick Links**

- ▶ [Edit My Profile](#)
- ▶ [Faces of Integer](#)
- ▶ [People Directory](#)
- ▶ [Power Users](#)
- ▶ [Site Updates & Help](#)

**Popular Areas**

- ▶ [Belmar Move](#)
- ▶ [Got a Minute?](#)
- ▶ [I-Connect](#)
- ▶ [Integer Brand Standards](#)
- ▶ [Integer State](#)

**Useful Sites**

- ▶ [CIO Magazine](#)
- ▶ [DexOnline](#)
- ▶ [Dictionary/Thesaurus](#)
- ▶ [Local Restaurants](#)
- ▶ [Local Weather](#)

**Industry News**

[Jaguar Launches Review Of Global Ad Accounts](#)  
Advertising Age Nov 5 2004 6:18PM GMT

[Experts: Advertisers Need Simplicity; Consumers Want Choice](#)  
ClickZ Today Nov 5 2004 12:49PM GMT

[Jaguar Launches Review Of Global Creative Ad Account](#)  
Advertising Age Nov 5 2004 12:38PM GMT

[WPP Group Announces Cannondale Acquisition](#)  
Dow Jones via iWon Nov 5 2004 10:15AM GMT

[Intel, Microsoft Team Up for Ad Campaign](#)  
Technology Marketing Nov 5 2004 4:24AM GMT

**Announcements**

**Do people know when your birthday is?**

By Intranet Team on Friday, 05 November 2004



If you want your name to show up in the Birthday list, be sure to enter your birthday in your profile under Personal Info (and no, you don't have to share the year!). [Go to People: Edit My Profile: Personal Info](#). Don't forget to add your gift preferences too!

**Big Idea Day**

By Big Idea Team on Thursday, 04 November 2004



Guess what? Integer's Big Idea Day is now re-invented as T2: The Trends and Technologies Expo. And this year, the whole event is bigger than ever!

So set aside a few hours either day, Tuesday November 16th (9 a.m. to 6 p.m.), or Wednesday, November 17th (9 a.m. to noon), for T2.

If you weren't here last year, or just want to learn more, [click here](#)

**Denver's Halloween Party photos**

By Intranet Team on Thursday, 04 November 2004



The strange, the beautiful, and the bizarre. See it all at [Agency Events: 2004 Integer Denver Halloween Party](#)

**Only 58 days till 2005!**

By Intranet Team on Thursday, 04 November 2004



Ready to make your New Year's resolutions? You can start early by resolving to update your intranet profile. Go to [People: Edit My Profile](#) to share information about yourself.

**Massive library of royalty-free images**

By Intranet Team on Wednesday, 03 November 2004



Need a beautiful scenery photo like the one at left? Over 33,000 high-resolution images of business tools, cities, finances, food, holidays, technology, textures, and more can be found at [Resources: Photo CD Library](#).

▶ [See previous Announcements ...](#)

▶ [Submit a new Announcement ...](#)

**Friday, Nov 05**

OMC 80.21 ↓ -0.64

**Birthdays** [\[All\]](#)

Today:  
Doug Frisby  
Julie Halsted  
Susan Weispfennig  
Tomorrow:  
Carley Piper

**Anniversaries** [\[All\]](#)

Amy Hazen, 3 years

**New Employees** [\[All\]](#)

Melissa Mizer  
Laura Bodtker  
Lauren Nikolich

**Quick Poll**

The next thing I'd like to see on the intranet is ...

- Custom Quick Links
- Employee Classifieds
- IT Ticket Status Info
- Personal Reminder Notes
- Personal Phone List

[Vote](#) [Results](#)

**Site Log On/Off**

[Change My Password](#)  
[Log off](#)

Pictured: The Integer Group intranet's homepage offers important industry news and announcements, along with fun elements that employees can relate to, such as quirky announcements, birthdays, and anniversary dates. The image in the top bar changes according to the time of day.

To be a good communication tool, the intranet must include a thorough employee directory. Integer Group employees can sort their directory by any column title, including departments. Clicking a name shows the employee's office location, building-map location, and other relevant information, including experience and skills. When users click *save Excel file*, the intranet saves the file as users see it sorted. (All search results also let users view results in a table format, which they can then sort.)



## People Search Results

Viewing basic information for all 520 associates at [Integer Denver](#).

View for another agency:  [v](#)

[Save Excel File](#)

(click on a column heading to sort by that field)

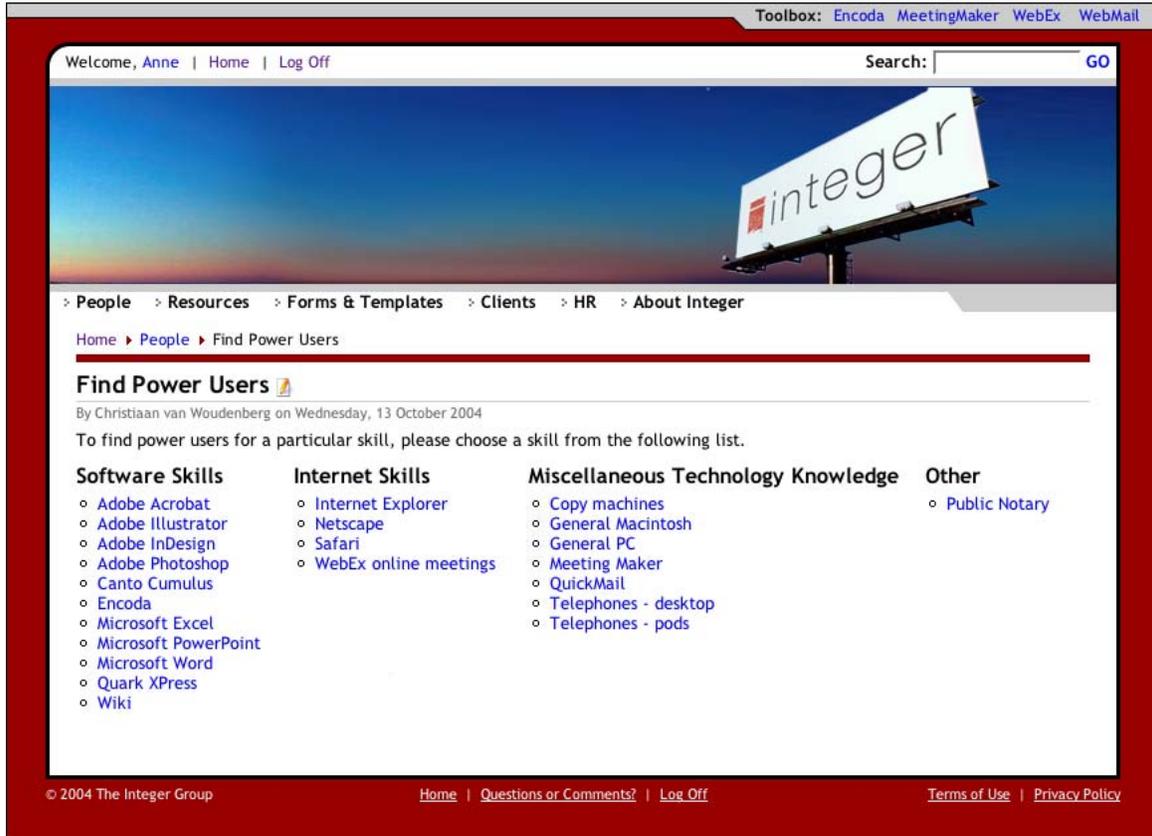
Last Name	First Name	Agency	Title	E-Mail	Fax	Phone
Abbott	Keri	Integer Denver	Account Director	<a href="#">mailto:k.abbott@integer.com</a>	303.534.3448	303.534.3448
Abel	Robyn	Integer Denver	Group Account Director	<a href="#">mailto:r.abel@integer.com</a>	303.534.3448	303.534.3448
Akers	Mark	Integer Denver	Material Handler	<a href="#">mailto:m.akers@integer.com</a>	303.534.3448	303.534.3448
Alawusa	Adepeju	Integer Denver	Street Source	<a href="#">mailto:a.alawusa@integer.com</a>	303.534.3448	303.534.3448
Albert	Jill	Integer Denver	Account Executive	<a href="#">mailto:j.albert@integer.com</a>	303.534.3448	303.534.3448
Albrecht	Sandra	Integer Denver	Billing Specialist	<a href="#">mailto:s.albrecht@integer.com</a>	303.534.3448	303.534.3448
Aldashi	Rojjar	Integer Denver	Regional Acct Supv	<a href="#">mailto:r.aldashi@integer.com</a>	303.534.3448	303.534.3448
Alishio	Reyna	Integer Denver	Group Account Director	<a href="#">mailto:r.alishio@integer.com</a>	303.534.3448	303.534.3448
Alvarez	Elizabeth	Integer Denver	Account Executive	<a href="#">mailto:e.alvarez@integer.com</a>	303.534.3448	303.534.3448
Alvarez	Ralph	Integer Denver	Account Director	<a href="#">mailto:r.alvarez@integer.com</a>	303.534.3448	303.534.3448
Anderst	Heidi	Integer Denver	Administrative Assistant	<a href="#">mailto:h.anderst@integer.com</a>	303.534.3448	303.534.3448
Arace	Denise	Integer Denver	Accounting Specialist	<a href="#">mailto:d.arace@integer.com</a>	303.534.3448	303.534.3448
Aragon	Michelle	Integer Denver	Field Marketing Rep	<a href="#">mailto:m.aragon@integer.com</a>	303.534.3448	303.534.3448
Armstrong	Jane	Integer Denver	Assistant Buyer	<a href="#">mailto:j.armstrong@integer.com</a>	303.534.3448	303.534.3448
Arriola	Fernando	Integer Denver	VP Media Director	<a href="#">mailto:f.arriola@integer.com</a>	303.534.3448	303.534.3448
Askins	Cooper	Integer Denver	Field Marketing Representative	<a href="#">mailto:c.askins@integer.com</a>	303.534.3448	303.534.3448
Austin	Christopher	Integer Denver	Senior Art Director	<a href="#">mailto:c.austin@integer.com</a>	303.534.3448	303.534.3448
Bailey	Camilla	Integer Denver	Director of Communications	<a href="#">mailto:c.bailey@integer.com</a>	303.534.3448	303.534.3448
Ballew	Paul	Integer Denver	Group Account Director	<a href="#">mailto:p.ballew@integer.com</a>	303.534.3448	303.534.3448
Barajas	Mario	Integer Denver	Latino Street Wise TX	<a href="#">mailto:m.barajas@integer.com</a>	303.534.3448	303.534.3448
Barberis	Lisa	Integer Denver	Asst. OOH Media Planner/Buyer	<a href="#">mailto:l.barberis@integer.com</a>	303.534.3448	303.534.3448
Barnes	Darcy	Integer Denver	Associate Media Director	<a href="#">mailto:d.barnes@integer.com</a>	303.534.3448	303.534.3448
Barnett	Kristen	Integer Denver	Regional Acct Supervisor	<a href="#">mailto:k.barnett@integer.com</a>	303.534.3448	303.534.3448
Barnette	Jennifer	Integer Denver	Studio Artist	<a href="#">mailto:j.barnette@integer.com</a>	303.534.3448	303.534.3448
Barnhill	Seth	Integer Denver	Jr. Copywriter	<a href="#">mailto:s.barnhill@integer.com</a>	303.534.3448	303.534.3448
Barry	Erin	Integer Denver	Digital Sales Tool PM	<a href="#">mailto:e.barry@integer.com</a>	303.534.3448	303.534.3448
Bebber	Jamie	Integer Denver	Senior Acct Exec Mdse	<a href="#">mailto:j.bebber@integer.com</a>	303.534.3448	303.534.3448
Beck	Thomas	Integer Denver	Graphic Artist	<a href="#">mailto:t.beck@integer.com</a>	303.534.3448	303.534.3448
Beck	Kathy	Integer Denver	Retail Clerk	<a href="#">mailto:k.beck@integer.com</a>	303.534.3448	303.534.3448
Bek	Anna	Integer Denver	Account Executive	<a href="#">mailto:a.bek@integer.com</a>	303.534.3448	303.534.3448
Belenkova	Katya	Integer Denver	Account Executive	<a href="#">mailto:k.belenkova@integer.com</a>	303.534.3448	303.534.3448

Next: >>

<< First < Previous 1 2 3 4 5 6 7 8 Next > Last >>

Pictured: The employee directory is straightforward and searchable, and can be sorted by clicking on any column. The above picture is sorted to show only employees in the Denver office. If users click *save Excel file*, the file will be saved as sorted.

Like its employee-search feature, Integer's corporate directory isn't the "same old" employee list. Instead, users can browse by various skills — everything from specific job competencies to whether or not the person is a notary public.



Pictured: Users can locate fellow employees with the needed technical or application-based skills to help solve specific problems.

Users contribute some of the directory information themselves. They use the *Edit Profile* form to add to or edit their information. Because there are so many possible fields to attend to, the form is broken up into several parts: *Contact Information*, *Position Information*, *Work History*, *Client Experience*, *Industry Experience*, *Other Experience*, and so on.

While the section includes serious business questions, the design team “decided to insert some levity into what could be the tedious process of filling out a user profile,” says Anne Mitchell, The Integer Group’s director of knowledge management. Accordingly, along with questions about industry, clients, and agency experience — which helps Integer address client and new-business needs — users can answer questions of a more esoteric nature. For example, there are birthday-gift preferences (one example: “love, chocolate, cash”), the employee’s “real” title (“queen of paperwork”), a personal e-mail or website address, and their self-stated personal-hygiene habits. To the latter question, “we were being funny, but it turns out most people answered it,” says Mitchell. “Now we tell users how many others answered the question like them.” Another popular question regards little-known facts. “We get some interesting answers here, such as, ‘used to be a clown,’ ” she says.

Toolbox: [Encoda](#) [MeetingMaker](#) [WebEx](#) [WebMail](#)

Welcome, Anne | [Home](#) | [Log Off](#) Search:  [GO](#)



[People](#) | [Resources](#) | [Forms & Templates](#) | [Clients](#) | [HR](#) | [About Integer](#)

Home | [People](#) | [Edit My Profile](#) | Position Information

### Editing Profile – Position Information

Last updated on Oct 23 2004  
[Help me with this page](#)

You're a part of Integer's "Who's Who".

Date of Hire:  mm/dd/yyyy

Official Title \*

But my real title should be...   
Have some fun with this answer. Have a look at some examples.

---

... Select from

Department(s) \* Add all that apply. My dept. isn't listed.

- Account Planning
- Account Service
- Administrative Support
- APS—Digital Imaging

Supervisor(s) \* Enter last name and Search to retrieve a list of available supervisors.

Administrative Assistant(s) \* Enter last name and Search to retrieve a list of available assistants.

Currently assigned to ...

- Knowledge Management
- Christine Stoeber
- 

\* Changing these items will NOT notify HR to update their records. You must ALSO contact HR so they can make any needed changes.

#### Edit My Profile

Section	Updated
<a href="#">Contact Information</a>	Jun 20 2004
<a href="#">Position Information</a>	Oct 23 2004
<a href="#">Work History</a>	Sep 10 2003
<a href="#">Client Experience</a>	Jan 30 2003
<a href="#">Industry Experience</a>	Feb 10 2003
<a href="#">Other Experience</a>	Oct 11 2002
<a href="#">Special Skills</a>	Nov 12 2003
<a href="#">Photos</a>	Mar 30 2004
<a href="#">Personal Information</a>	Oct 26 2004
<a href="#">Change My Password</a>	

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Pictured: When a user logs in, the system saves time by pre-populating many form fields. The above form is used for entering searchable user profile information for display in the employee directory and elsewhere.

As the personal-information pages show, cross-employee communications don't have to be flat or boring. Take the monthly video messages from The Integer Group's Denver-agency president, Mike Sweeney. Among his repertoire: a range of characters, and often some relevant hilarity. While these important communications could be conveyed through a few paragraphs on an intranet page, instead he employs humor and video to convey the messages quickly and effectively, and amuse people along the way. Videos like these — as long as they convey a message and aren't too long — are often well received among employees. People appreciate leaders who are willing to give of themselves, and laugh at themselves.

In a recent video on corporate culture, for example, Sweeney stops by the cafeteria — “Where else can you get a breakfast burrito and not leave work?” He subsequently visits a local ice cream truck, bums money off the person behind him in line, then gets a shoulder massage (cue alarming crunching noise). The video then cuts to Sweeney losing his golf cart at the annual Integer golf tournament and later visiting Integer's hockey team.

In another video on agency communications, barely disguised employees — their faces in shadow profile, their voices altered — discuss agency rumors. It's all reminiscent of a bad TV show. Then, Mitchell recalls, someone labeled “Mike” begins talking “about how he thinks communication at Integer is great, much better than the last place he worked, and the *Got A Minute?* [video] segments have changed his entire perception of the company. The light starts to get brighter and we see that it is Mike Sweeney.” From there, Sweeney switched to a more-serious discussion of communication successes, as well as areas still needing improvement.

“I'm not sure if these written descriptions translate as being funny, but I can assure you they are very engaging to watch,” says Mitchell.

The *Got A Minute?* area presents the current video in the middle of the page. The video automatically plays when the users hit the page; this works well, since the videos are only about a minute long. If users have technical problems, the intranet team's e-mail address is visible, along with the instructions and a page description. The page is dated, so users know how recent the message is. Other recent videos appear, with dates, on the right.

Toolbox: [Encoda](#) [MeetingMaker](#) [WebEx](#) [WebMail](#)

Welcome, [Anne](#) | [Home](#) | [Log Off](#) Search:  [GO](#)



[People](#) > [Resources](#) > [Forms & Templates](#) > [Clients](#) > [HR](#) > [About Integer](#)

[Home](#) > [About Integer](#) > [Got A Minute?](#)

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### Got A Minute?

By Intranet Team on Monday, 13 September 2004

Each month, [Mike Sweeney](#) addresses new ideas and initiatives that are shaping Integer and our industry. Spend a minute with Mike! The most recent message is a video, which should begin playing in a moment. To view other months' messages, just click on the corresponding link. If you encounter trouble, please contact the Intranet team at [intranet.team@integerdenver.com](mailto:intranet.team@integerdenver.com).



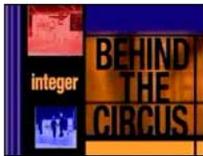
#### Previous "Got a Minute?" Messages



[July 2004 video \(11.0 mb\)](#)  
Mike talks about corporate culture.



[June 2004 video \(9.3 mb\)](#)  
Mike introduces the Concept Team.



[May 2004 video \(16.3 mb\)](#)  
Mike takes a look behind the circus.

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Pictured: This page provides monthly videos from the Denver agency's president, Mike Sweeney, who gives employees informative and often humorous updates on various agency issues and topics.

Another interesting aspect of this intranet is its use of a CMS as its core development platform. Specifically, the team uses Mambo, which offers features that enable employee collaboration on the intranet. The open-source code makes this a very cost-effective approach, which is important because the intranet team's budget was, and continues to be, limited.

As its use of open-source software illustrates, The Integer Group chooses efficient, creative, and often amusing ways to make its intranet the backbone of cross-employee communications and job support.

## **URL AND ACCESS**

The Integer Group intranet's URL is <http://intra.integer.com>, though the site can also recognize and redirect entries such as <http://www.intranet.integer.com>. All new users have the intranet set as their default homepage. The intranet offers employees the option to remember their passwords via browser cookies. If users forget their passwords, a forgotten-password feature will e-mail the password to the user's e-mail address.

Users can also access the site from any Web browser, using the above URL, then authenticate with a username and password.

Clients can access portions of the intranet via a secure extranet.

## **CONTENT MANAGEMENT**

The intranet runs the open source Mambo 4.5 (<http://mamboserver.com>) as its CMS. Technically, Mambo is an application framework that can run a large library of free components (<http://mamboforge.net>). "We chose Mambo because of its strengths in time-sensitive content publishing, its large developer community, and its very open framework that we were able to extend easily," says Christiaan van Woudenberg, a senior developer at The Integer Group. The Integer Group also adapted a number of the free components for its intranet-specific needs.

The basic Mambo installation includes a CMS with distributed content authoring capabilities, a user authentication and permission system, page caching, several WYSIWYG- and Web-based content editors, and content syndication through Really Simple Syndication (RSS). Mambo also creates pages with URLs that can be indexed by search engines, a crucial feature for The Integer Group's intranet searching.

Using free Mambo components, The Integer Group added such things as stock prices and image galleries to its intranet. The organization also developed components for Mambo itself, including an employee profile manager, corporate training tools, and a client database.

Toolbox: [Encoda](#) [MeetingMaker](#) [WebEx](#) [WebMail](#)

Welcome, Anne | [Home](#) | [Log Off](#) Search:  [GO](#)



[People](#) | [Resources](#) | [Forms & Templates](#) | [Clients](#) | [HR](#) | [About Integer](#)

Home | [Resources](#) | Integer State

---

## Integer State

### Upcoming Courses

*Click on a course to view full course description and to enroll.*

Coors Business-Understanding the Distributor Network

- Nov 05 2004 at 3:00 pm  
*No spaces left*

Coors Brand Marketing

- Nov 09 2004 at 2:00 pm  
*No spaces left*

Supervisor Boot Camp 6-Disciplinary Policies

- Nov 11 2004 at 9:00 am  
*No spaces left*

Merchandise 101

- Nov 12 2004 at 9:00 am  
*No spaces left*

Encoda Workshop

- Nov 15 2004 at 9:00 am  
*21 spaces left*

Encoda Time Sheet Training

- Nov 15 2004 at 10:30 am  
*25 spaces left*

Retail 101

- Nov 17 2004 at 1:00 pm  
*No spaces left*

[view complete course list](#)  
[view course calendar](#)

### Getting Started

Welcome to Integer State! If you're just getting started, you'll want to check the upcoming courses at left, or [view the complete course list](#) to choose a course. You may also view the [courses on a calendar](#). Once you've enrolled for a course, you can [keep track of your course enrollments](#).

### Campus Life

Integer State is at the center of it all. Situated on three acres in the prestigious Lakewood area of metro Denver, the scenic Integer State campus enriches the educational experience for all of its students. The peaceful setting that's made for learning ([more ...](#))

[See pictures of Biff](#) as he romps through the halls of Integer State.



### Letter from the Dean

Welcome to Integer State.

It is with enormous pride and pleasure that, on behalf of the Integer State Board of Trustees, I accept the esteemed position of Dean at this fine institution. Who would have thought that my years of dedication to the diverse fields of geology, phrenology, and mixology would result in ([more ...](#))



<a href="#">Professor Bios</a>
<a href="#">Complete Course List</a>
<a href="#">Course Calendar</a>
<a href="#">My Enrollments</a>
<a href="#">Download Evaluation Form</a>
<a href="#">Download WebEx Instructions for Professors</a>
<a href="#">Return to Integer State Home</a>

3205 enrollments and counting!

Pictured: Integer's corporate training tools — the tongue-in-cheek-entitled *Integer State* — also runs atop its CMS.

While most of the intranet revolves around Mambo, The Integer Group has a paid subscription to Moreover.com, which provides users with industry news via RSS feeds.

## TECHNOLOGY

Mambo is an Apache, PHP, and MySQL-based application. The Integer Group runs it on a dual-processor Apple Xserve G5 with 2 GB of memory and a 250 GB disk.

Site graphic design is done with Adobe Photoshop and Macromedia Flash Professional. For handling scripting and development, "we use Allaire Homesite 4.5, an old but good HTML editor," says van Woudenberg.

For version control of code and text, the intranet team uses the open source Concurrent Versions System (<https://www.cvshome.org>). The team also uses DotProject (<http://dotproject.net>) for managing intranet projects and defect resolution, and Canto Cumulus Enterprise for managing digital assets.

## GOALS AND CONSTRAINTS

Goals:

1. Create an engaging homepage with dynamic content to encourage daily intranet use.
2. Centralize company information and internal announcements.
3. Improve content organization.
4. Build an intuitive, persistent, menu-based navigation system with single-click access to selected corporate initiatives.
5. Introduce personalized links to encourage users to keep the intranet as their homepage.
6. Find a new CMS that gives employees greater control of intranet content and thus improves its quality.
7. Improve the intranet's graphic design.
8. Consolidate the agency's two intranets, yet preserve existing features and functions for all users.

Constraints:

1. Having fewer resources than needed to execute the redesign team's ideas and the intranet-redesign needs they identified.
2. Meeting the goal of creating single solutions usable by all agencies, which was complicated by technological incompatibilities between agencies; this continues to be a challenge.
3. Feeling pressure to quickly complete the project, despite a small budget and the reliance on donated time from the Denver agency's employees.

## BASIC INTRANET FEATURES

Among the Integer Group intranet's basic features are a news area, team pages, Wiki-like collaboration areas, FAQs, and customizable quick links.

The intranet supports employees' promotional marketing activities through features such as a comprehensive phone list containing employee account assignments, work experience, and category expertise (useful for finding "power users"). It also lets employees' share market research materials and industry-related information.

## USERS

The Integer Group intranet supports about 850 users in the company's Denver headquarters; its agencies in Dallas, Denver, Des Moines, and Cleveland; and its coast-to-coast field offices.

## USER TASKS

Frequent user tasks include:

- Find contact and basic profile information about other employees
- Read current news and search news archives
- Download forms and templates
- Conduct research using the online resource library and employee profiles
- Download client assets and logos
- Locate employees to assist with technical needs
- Enroll in training classes
- Learn about the company and its benefits, events, and opportunities
- And, for senior managers, share new business information and collaborate on business initiatives

## BACKGROUND

The need to redesign The Integer Group's intranet arose from its history of acquisitions.

The Integer Group started in 1993 as a Denver-based promotional marketing company. In 1996, the agency added a Dallas office to serve Texas-based clients and, by 2000, had acquired three more agencies: one in Des Moines (now called The Integer Group — Midwest), one in Cleveland (Stern Advertising), and a second Denver agency (Karsh & Hagan).

In 1998, "the Denver agency launched a simple intranet with a primarily cultural focus," says Sarah Herold, The Integer Group's director of corporate communications. An all-volunteer team of "creatives" and technologists developed this intranet, and in 1998 and 2000, brought in two vendors to standardize the software. Both efforts, however, "failed to produce the desired results," she says. The problems: lack of executive buy-in and difficulty finding a product that met The Integer Group's needs. In the latter case, the problem may have been related to a problem in defining those needs, and/or the lack of in-house programmers to evaluate new technology.

Meanwhile, in 2000, a Denver-based corporate office was formed to manage the five-agency network. "The corporate office's first communication initiative was creating an intranet to serve as a single source of information, and to promote a sense of the agencies as one entity," says Mitchell, who was charged with building the new intranet in collaboration with the corporate office.

The corporate intranet, introduced in 2000, subsequently underwent radical and effective transformations to better meet users' needs. After the 2002 intranet version was introduced, for example, user visits increased by 450%.

Nonetheless, the intranet wasn't The Integer Group's one-stop shop. The Midwest office's 100 employees had created their own intranet in 1998, prior to that agency's acquisition by The Integer Group. The Midwest office kept up development, eventually using the intranet to standardize their accounting, workflow, and information-sharing processes. "It is now used daily by everyone in that agency," says Herold.

**integer** Fri, Aug 13 2004 OMC 66.7 directory search  go

home | my profile | help | log off advanced directory search

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**advertising news**

Giant Calif. Utility Puts Ad Account In Review  
*Advertising Age*, Aug 13 2004 5:21PM

List Council Plans Outreach to Ad Agencies  
*dmnews.com*, Aug 13 2004 5:19AM

Bacardi Launches Global Ad Account Review  
*Advertising Age*, Aug 12 2004 0:50AM

Leo Burnett Wins Pam Cooking Spray Ad Account  
*Advertising Age*, Aug 12 2004 0:28AM

Western Union Looks For New Agency Partner  
*Advertising Age*, Aug 11 2004 10:50PM

\$83 Million Claritin Ad Account Moved To Euro Rscg  
*Advertising Age*, Aug 11 2004 11:19AM

Emap Acquires Cannes Lions Ad Festival  
*Advertising Age*, Aug 9 2004 9:07PM

[see more advertising headlines ...](#)

[see beverage headlines ...](#)

**integer updates**

Keep up to date on what's happening.

- belmar move
- calendars
- creative circus 2004
- esat surveys
- fat i awards
- got a minute?
- news
- omnicom/das
- open positions

**team work centers**

Document libraries, news, & more.

< select team > ▾

*Some are members-only. Submit access request.*

integer standards, logos, & templates

**resources & reference**

Essential materials & information.

- client assets & logos
- denver machine
- employee purchase plan
- forms, manuals, & more
- i-connect – research library
- organization chart
- photo cd library
- who to go to

**remote tools**

- encoda
- meeting maker online [meeting maker help](#)
- webex online meetings
- webmail

**directory**

View agency phone directories.

< select agency > ▾

- birthdays & anniversaries
- faces of integer
- main numbers & info
- my directory profile
- my traveler profile

**network of agencies**

View agency profiles.

< select agency > ▾

it's a state of mind

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© 2004 The Integer Group®. This document last updated July 28 2004.

Pictured: The previous version of the Integer intranet, which was used by all employees except the Midwest office. The company decided to design a new intranet to bridge the various offices' needs and expectations.

In 2003, the company decided to merge the two intranets. "We were also on schedule to do a redesign that year, because the previous design was over eighteen months old," says Herold. The plan: all five agencies would standardize on a single, new intranet, thus creating a more consistent user experience, making corporate communications easier, and allowing all agencies to share intranet tools and development. "The corporate goal was to integrate the contents and functions of both intranets without degrading the user experience at any agency," says Herold.

Various agencies agreed to split the workload, with headquarters underwriting the venture. Because Denver was the largest agency (with 500 employees) and most needed the new intranet, it would helm the project. The Midwest office agreed to share its independent intranet's content and use the newly developed intranet.

Many Web-based conferences ensued, during which all agencies hammered out an acceptable development plan, including the intranet's structure and the technology to run it. "The agreed-upon solution was to have a single entry page with common main navigation, but personalization at login that would serve up agency-specific content and applications, depending on the user's location," says Herold. "This ensured that there would be one intranet for the entire network, delivering on the business objective of a shared communication medium and a single branding experience for all 850 employees throughout the five agencies."

## DESIGN PROCESS AND USABILITY ACTIVITIES

The design process began as a collaborative effort between the intranet redesign team and users in multiple agencies. “All of the agency people involved agreed to come to the table and contribute to a shared solution,” says Herold. The goal was to get everyone on board and contributing, and to make that the model for all ongoing intranet development — not just for the redesign.

The redesign effort was funded by all agencies, which contribute to a pool for developing agency-wide solutions. “From 2000 to 2004, some of this budget was allocated to Denver to underwrite outsourced and in-house intranet development,” says Herold. Beyond the salaries and related overhead costs for two full-time intranet staff members and occasional support personnel, the intranet-redesign development team used about \$20,000 worth of outside resources.

At the start of the redesign, the intranet team opted not to test the existing intranets due to time and budget constraints. “Because we intended the change to be radical, we felt spending time on the new site was more critical,” says Mitchell. In addition “before the development of this new intranet, we had never undertaken extensive user testing,” she says. Given what the team knows now, “we will probably make user testing of the existing site a bigger priority before developing our next one.”

However, the redesign team did take several other steps to ascertain what worked and didn’t work for intranet users. Team members collected user feedback about the old site; conducted detailed, heuristic evaluations of the existing homepage and key intranet sections; and solicited additional intranet feedback from employees in the lunchroom.

After studying that research, the redesign team wrote a functional-requirements document. “This became the blueprint we used to ensure key objectives would be met,” says Mitchell.

With the blueprint as a guide, the team conducted card-sorting exercises with users, asking them to group and name intranet features and content buckets. “These card-sorting exercises were conducted informally, with items written on 3x5-inch index cards and laid out on tables,” says Mitchell.

With that testing complete, the redesign team outlined the homepage and secondary pages’ structure. “The results of the card sorting and the planning stages led the team to the development of a wireframe layout for the intranet homepage and a few inside pages. A detailed navigation document was also developed,” says Mitchell.

The team generated ideas and assembled an initial homepage plan by studying various external resources, including past Nielsen Norman Group design annuals and heuristic guidelines, and by attending two NNg conferences in early 2003. “We came away with new ideas and tools for planning a more useful intranet for our users,” says Mitchell.

As for the homepage redesign, “from the outset, we were focused on exposing some links in the left sidebar, placing news in a large area down the center, and displaying birthdays and a poll in the right sidebar,” says Jill Klinger Saliba, a usability consultant. Using the heuristic guidelines, the team iterated paper prototypes, adjusting layouts where necessary.

The redesign team then tested wireframe models of the site online. Users submitted feedback through in-person user tests and an online tool. The team used the results to identify areas still needing improvement, then improved the paper prototypes. "We went through this cycle about five times, and when we decided that we had a wireframe layout that would work well, we engaged a graphic designer to apply an attractive look and feel," says Mitchell.

Welcome **Joe Smith** [ [Log Off](#) ]
**Toolbox:** [Encoda](#) | [MeetingMaker](#) | [WebEx](#) | [WebMail](#)



**Search**    
in entire site

People | Resources | Forms | Clients | HR | Integer Denver | Corporate

**Quick Links**

[My Profile](#)  
[People Directory](#)  
[Faces of Integer](#)

My Links:  
[BelMar Move](#)  
[Creative Circus](#)

[Integer Brand Standards](#)  
[Got a Minute?](#)  
[I-Connect](#)  
[Integer State](#)  
[Company Calendar](#)

[Client Assets & Logos](#)  
[IT Help & FAQ](#)  
[Power Users](#)  
[Track Shipments](#)  
[Employee Classifieds](#)

[DexOnline](#)  
[Dictionary / Thesaurus](#)  
[Local Weather](#)

[\[Customize\]](#)

## Announcements



**Aug 5** | [Promotions & New Hires](#)  
 Summary for the Integer Group, 2nd half of July 2004  
By Steve Tymant, Integer Midwest, Aug 05 2004, 8:23AM



**Aug 1** | [Integer Group Revitalizes Coors Packaging](#)  
 Dynamic New Look Re-positions a Beverage Classic  
 Sparking Attention of Female Audience  
I posted this on Aug 01 2004, 8:08AM    [\[ Edit \]](#) [\[ Delete \]](#)



**Jul 30** | [DexMedia to tweak name to fit new identity](#)  
 ([News.com](#))    (external link)  
By Mattie Sherman, Integer Dallas, Jul 30 2004, 12:32PM

[Show More Announcements](#)    [Submit an Announcement](#)

**Thursday, Aug 15**  
[OMC 81.5](#)

**Birthdays** [ [All](#) ]  
Today:  
[Shawn Walker](#)

Tomorrow:

**Anniversaries** [ [All](#) ]  
[Jo Smith](#)  
Administration  
17 years

**New Employees**  
[Lisa Kawakami](#)  
[Tyr Washington](#)

**Quick Poll**  
 The next thing I'd like to see on the intranet is...

- Personal Reminders
- IT Ticket Status Info
- Department Profiles
- Employee Classifieds

   [See Results](#)  
(Today's poll is anonymous.)

## Industry News

[Internet Phone Service Vonage Hires Agency](#)  
Advertising Age, Aug 10 2004, 8:56PM

[Grooming Marketer Targets Young Boys](#)  
Advertising Age, August 08 2004, 9:52AM

[New Low-Carb Soda Scheduled for School Cafeterias](#)  
dmnews.com, Aug 05 2004, 6:18AM

[P&G Wants Frito-Lay Chip Ad Pulled](#)  
Advertising Age, August 03 2004, 2:31PM

[BMW's Panke Wins Cannes Lions Advertiser of the Year](#)  
dmnews.com, Aug 03 2004, 6:02AM

[Show More Industry News](#)

Last Update: Aug 15 2004  
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Content Owner: [Jess Wu](#)  
Technical Contact: [See Shore](#)

[Terms of Use & Privacy Policy](#)  
[Site Map & Site Tour](#)

[Home](#) | [Questions or Comments](#) | [Log Off](#)

Pictured: A wireframe-model prototype of the redesigned intranet. Users could test it and submit online feedback.

The Denver office lent one of its graphic designers. With the intranet's objectives in mind, he used Adobe Photoshop to translate the paper prototypes into page design, abiding by certain constraints dictated by the CMS. "As soon as we could, we held user testing on the live prototype intranet, asking users to comment on the site and perform specific tasks. Gathering feedback from these exercises, we went through a rapid iterative-development process in which we made changes between user tests," says Mitchell.

The intranet team limited testing to two or three users per day, "to allow for the team to regroup and make changes before the next day of testing," says Kliger Saliba. The team paid special attention to navigation, because the previous intranet lacked persistent pull-down menus. In general, users' responses to the intranet were positive; the team attributes this to the site being not only attractive, but easier to use.

Most user testing took place at the Denver agency, but, because the testing involved navigation, "the test results were considered to be universal and not agency-specific, and were readily acceptable to the Midwest agency," says Herold.

Along the way, the team kept other agencies informed of redesign progress. "The Midwest agency team especially was included at key points along the way to ensure that they were agreeable to the overall design and that it was compatible on multiple levels with Midwest's intranet content," says Herold.

User testing produced myriad changes. For example, many users expected to see recent news in the news section. "Almost every tester mentioned the importance of fresh information appearing on the homepage at least once a day," says Kliger Saliba. As a rule of thumb, the team now adds one to three new announcements per day.

In terms of the amount of news content users expect, "we learned people consistently resonated with seeing five announcements in the center area," she says, but for heavy news days, they wanted to see all the day's announcements.

The redesign team encountered various surprises while testing users. "We were especially surprised during the usability testing by how many people would try to use the search field for non-traditional queries," says Kliger Saliba. "For instance, they wanted to type 'home,' 'people directory,' 'my profile,' or 'client logos' into the search field. In fact, just about any item that was listed under a pull-down menu was a ripe choice for someone to try to enter into the search field." Users also tried to enter departmental names when searching for department contact information. As a result, she says, "our decision was to hard-code some of these items so that a special link would appear above the regular search results to take users to the specified area."

One user also suggested increasing font size in the left-hand navigation, to make the links easier to read. "Changes were made overnight to try to increase the font size on the left, but they were visually problematic, so subtitles were added instead," says Kliger Saliba. While only two more people were tested with the proposed homepage design, neither mentioned a problem with the left-hand font size, so the redesign team moved the subtitles into production.

Another interesting surprise was "how pleased the users were to be able to see birthdays, anniversaries, and new employees' names," says Mitchell. Her explanation: "Users were excited about the personal touches that helped foster a sense of community within the company." Engaging photographs were also popular with users.

## TIMELINE

- January 2004: Began planning the new intranet
- February 2004: Examined logs and began writing functional requirements
- March 2004: Developed and conducted initial card-sorting exercises, attended usability conferences, and conducted heuristic evaluations of the existing intranet
- April 2004: Continued card-sorting exercises, fine-tuned functional requirements, and began investigating CMS options
- May 2004: Developed paper prototypes and began user testing
- July 2004: Finalized functional requirements and tested various CMS products
- August 2004: Selected and began implementing Mambo CMS
- September 2004: Continued Mambo development, launched prototype site, migrated content, conducted user testing with live beta of site, and introduced new graphic design
- October 2004: Launched new intranet

## RESULTS

From start to finish, redesigning The Integer Group's intranet took ten months, and included extensive paper prototype testing with users, and subsequent user testing to hone navigation and overall usability.

The work paid off: With the redesign complete, The Integer Group now has a single intranet for all employees. "The result is a very user-friendly site that is excelling in its objective as a central company communication tool," says Mitchell, with an 86% increase in daily use. "We believe this large increase is primarily due to the constantly updated announcements," as well as a better look and improved searching.

For the first time in The Integer Group's history, employees have an intranet tailored to their needs, and it's largely driven by the open source Mambo software. With Mambo, for example, the intranet team can now allocate content-authoring permissions so content managers can independently maintain intranet sections and documents.

Mambo also allows employees to search site-wide. "On the old intranet, people could look up other employees to get their contact information, but users had to know where to find specific content items," says Mitchell. By contrast, the redesign introduced a clearly visible search box on every page that returns results from all site content, as users expect.

By and large, users have reacted positively to the new intranet. One user described it as "awesome," while another said "I have put it as my homepage instead of Google, which says a lot."

As befits a promotional marketing company, the intranet includes features tailor-made for its audience. For example, users gave high marks to the Flash-based banner atop every page, which changes based on factors such as the time of day and season. "User reaction was particularly favorable to the slow animation in the daytime and nighttime 'cloud' versions," says Kliger Saliba. In hindsight, "the banner's popularity justified the design decision to allow it be to rather tall."

The intranet team plans to use the banner in other creative ways as well. For example, it plans to have an in-house photography contest, with the best photos becoming banner images. "This is an easy way for users to get involved in the intranet," says Kliger Saliba.

The new announcements area has also been a hit with users, who both enjoy reading the news and having a centralized outlet for their announcements. "People can now easily submit news items that go through an administrator for final approval before being posted on the site," says Mitchell.

The intranet team is still developing some of the intranet's other features. In user testing, for example, the quick poll "drew varied reviews," says Kliger Saliba. Still, the team plans to use it to gather feedback to help prioritize future features and gauge employees' reaction to corporate events. Another possibility includes "fun questions — such as predicting how much snow Denver will receive in May," she says. "Realistically, however, there will only be eight to twenty new polls in a year, so we expect to frequently replace the quick poll with a 'tip of the day' or cultural 'thought of the day.'"

As part of the redesign, the intranet team had to surmount several time and technology constraints. One hoped-for feature, put on hold due to time restrictions, is the ability for users to add personal links to the homepage, "so users can really make the homepage their own," says Kliger Saliba.

Using the Mambo CMS also entailed some restrictions. For example, "there is a vestigial login and logoff box in the right sidebar of the homepage that cannot be removed without upgrading the CMS," says Kliger Saliba. "That space would be better suited to a suggestion box." Newer versions of Mambo can eliminate the login and logout box; the intranet team will eventually upgrade.

Another technology restriction makes it difficult to search or present certain types of information. With the redesign, for example, industry news moved to the left-hand navigation bar to create center space for the announcements page — and to simplify the homepage's look. While moving industry news "was well received, more than once users mentioned the need for a link to get to 'More Industry News,' or to the news for each major news source," says Kliger Saliba. Yet incorporating information from different back-end systems can be difficult with Mambo, she says, without extensive, custom coding. The group hopes to address this in a future redesign.

Today, however, the intranet team is helping employees transition to using the new intranet. "We are helping employees who send broadcast e-mails learn to use the intranet as their primary vehicle for news and announcements," says Mitchell. The rule of thumb: "announcements with high interest or historical value should be placed on the intranet," she says. For group e-mails with little long-term or archival value, or for urgent group messages, however, the intranet team still advocates using e-mail.

Already, recent management decisions are laying the next redesign's foundation. "The agencies that use the intranet the most derive the greatest value from having a platform and forum with which they can deliver location-centric solutions," says Herold. "For this reason, corporate will turn over all intranet decision-making authority to each individual agency in 2005, as a strategy for encouraging user-driven ideas, input, and development." The intranet team, however, will still maintain and enforce a consistent intranet look.

## LESSONS LEARNED

Insights from Anne Mitchell:

**Build in extra time.** "Always allot extra time — beyond your best estimate — for fine-tuning the redesign during the final stages of development, especially when transferring content from an old intranet to a new one. Such a project requires tremendous organization, and often more time than you might anticipate."

**Keep end users in the loop.** "Invite input, early on, from whomever will be affected by intranet changes, then keep them apprised of progress. This approach, while time-consuming, greatly improves the final product and users' buy-in."

Insights from Jill Kliger Saliba:

**Define criteria for navigation links.** "One ongoing debate involved which links to put in the left sidebar. While some links aligned with corporate initiatives — such as user-profile updating and linking to brand standards — others had fleeting importance, including one for a special summer celebration. Simply put, the latter type of link doesn't belong in persistent menus. To apply a consistent approach, we eventually defined criteria for deciding which links should appear prominently. In the future, however, users will have more flexibility, via an area for customizable links."

**Management buy-in is key.** "While we kept upper management well-informed during all design stages, they nevertheless trusted us to autonomously make large decisions. That approach allowed the project to move forward rapidly. If our team had been less empowered, redesigning the intranet may have taken much longer."

**Empower small teams.** "We aimed to launch a radical redesign in six to nine months. While upper management was aware of each design stage, they trusted our small team to make decisions autonomously. Our size allowed us to communicate and make progress quickly, and iterate the redesign each night of our multi-day usability testing cycles. The next day's subjects could provide input on whether our latest modifications were successful. By contrast, a larger team might not have met our tight schedule — more time would be required to maintain specification documents, hold meetings, and write detailed reports. One disadvantage of our small team, however, was that, with only one developer, we had to delay some features and design improvements."

# NedTrain

## Using the Intranet:

NedTrain, based in Utrecht, the Netherlands, is a subsidiary of the Dutch National Railway Company (Nederlandse Spoorwegen). NedTrain is an expert in train- and railway-maintenance and overhauling. Before any new parts or equipment are allowed on the Dutch Railway, NedTrain first assays them. Other domestic and foreign transport operators also rely upon NedTrain's services. NedTrain has thirty-nine locations throughout the Netherlands.

## Design Team:

Macaw B.V.

## Members:

**NedTrain:** Arienne de Vries, communications department manager; Belle Prinssen, webmaster

**Macaw B.V.:** Arie Duindam, project manager, architect and lead programmer; Marco Roling, System analyst, project manager; Jelger Groeneveld, developer; Antoni Dol, lead designer and art director; Elise van Looij, developer; Berry Vorstenbosch, senior developer for application services

## SUMMARY

One of NedTrain's main objectives for their IntraNed intranet is to make information available for all employees and improve communication between departments and locations. The intranet achieves this goal, beginning with the homepage, which features current news relevant to all NedTrain employees. Users also have access to articles, events, FAQs, and discussions. Employees use these areas extensively, along with more thematic pages, personal organizational pages, and project pages.

IntraNed's look and feel is business-like but not stuffy, and follows NedTrain's corporate guidelines: be efficient, and avoid excessive dynamic design and content elements.

Home Zoek Sitemap Reageer Help Afmelden

**NedTrain** IntraNed

U bent op: Home

### NedTrain Nieuws

Nieuwstip? Mail naar [Nieuws@NedTrain.nl](mailto:Nieuws@NedTrain.nl)

#### Herfststacties anders bekeken

Tenwijl iedereen bij NedTrain zich warm loopt voor de herfst, hebben een filmbedrijf en een decorbouwer hard gewerkt om in opdracht van NS Commerce twee nieuwe tv-spotjes te maken. Daarin staan - met een knipoog - de herfstpenkelen centraal. Vanuit NedTrain waren collega's uit OB Zwolle en van de Productgroep Veiligheid daarbij nauw betrokken. - [lees verder](#)

#### Meer reizigers in de trein

Voor het eerst in drie jaar reizen er weer meer mensen met de trein. De dalende trend die we de afgelopen drie jaar kenden is gekeerd. In het eerste halfjaar 2004 is het licht gestegen met circa 2 procent ten opzichte van dezelfde periode in 2003. - [lees verder](#)

#### Prijswinnaars Athene-reis

De winnaars van een arrangement voor twee personen in Athene hebben de Olympische Spelen bezocht. Zij stuurden een winnende ansichtkaart naar de Olympische oranjepoorters in Athene om hen succes te wensen.

De prijswinnaars met aanhang in Athene - [lees verder](#)

#### NS biedt geïnteresseerden een kijkje in de keuken

Geïnteresseerden kunnen binnenkort op diverse locaties in Nederland een kijkje nemen in de keuken van NS. Op zaterdag 18 september 2004 organiseert NS voor hen een open dag. De werkplaatsen van NedTrain in Leidschendam, Zwolle en Haarlem zijn ook open voor het publiek. NS koppelt deze landelijke open dag aan de start van de herfstcampagne. - [lees verder](#)

#### Afschaffing pc-privéregelingen

Met onmiddellijke ingang, te weten vrijdag 27 augustus 2004, is door het Kabinet besloten de faciliteit in te trekken om met gebruikmaking van fiscale tegemoetkomingen in de loonbelasting pc's en aanverwante apparatuur aan te schaffen. - [lees verder](#)

#### Aad Veenman ontmoet journalisten

#### Materieelbeschikbaarheid

03-09 bakkenstand :	7
02-09 bakkenstand :	3
01-09 bakkenstand :	32
31-08 bakkenstand :	25
30-08 bakkenstand :	46
weekcijfer :	23

#### Nieuw op IntraNed

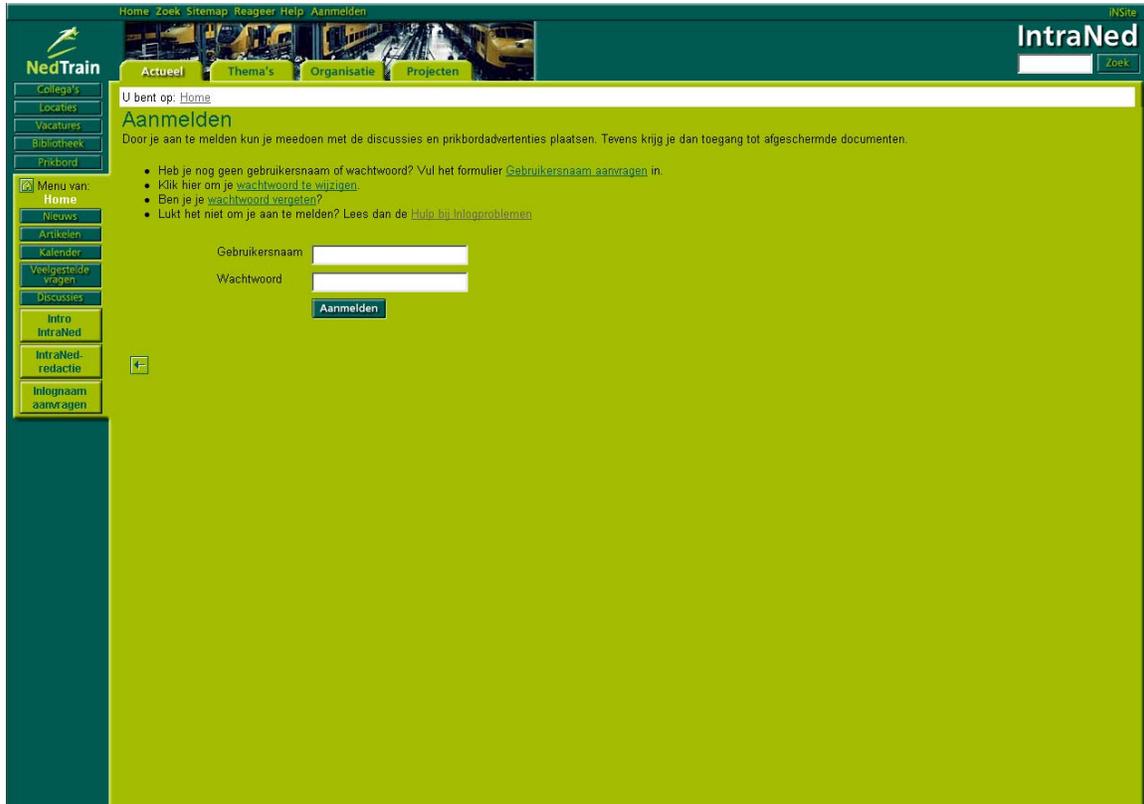
- ✓ **Waarderpolder roeiregatta**  
vr 3 sept 2004 - R&O Haarlem
- ✓ **Uitgangspunten en Format FDC t.b.v. BP 2005 2009**  
do 2 sept 2004 - Financien
- ✓ **Herfststacties anders bekeken**  
do 2 sept 2004 - Communicatie
- ✓ **24-08-2004 Vergaderverslag A-team**  
do 2 sept 2004 - Informatievoorziening
- ✓ **Openstaande RFC's op 2 sept 2004**  
do 2 sept 2004 - Informatievoorziening
- ✓ **Afgesloten RFC's op 2 sept 2004**  
do 2 sept 2004 - Informatievoorziening
- ✓ **Meer reizigers in de trein**  
do 2 sept 2004 - Home

#### Evenementen

- vr 3 sept 2004 **Waarderpolder Roeiregatta**  
R&O Haarlem
- za 4 sept 2004 **100 jaar vakmanschap in Haarlem - personeelsfeest**  
R&O Haarlem
- zo 5 sept 2004 **Tilburg Ten Miles**  
R&O Tilburg
- zo 5 sept 2004 **Tilburg Ten Miles**  
Componentenbedrijf
- do 9 sept 2004 **Herfstbijeenkoms**  
Herfst 2004
- vr 10 sept 2004 **NJA BBQ**  
Netwerk Jonge Academici
- za 11 sept 2004 **Kostorjensberekening Triton**  
LBP/Triton

Pictured: IntraNed's homepage features events, FAQs, discussions, job opportunities, a map of locations, a *who is who* listing, and search. The design follows NedTrain's corporate guidelines on intranet design efficiency.

Users enter the intranet through a very simple login page with open fields. This straightforward page also offers assistance for users who have password issues. Users who are not yet registered can request a login. The page also lets users change their passwords, and will e-mail current passwords to users who've forgotten them. If they have login problems, the help screens offer users questions with yes/no answers that ultimately lead to solutions.



Pictured: The login page makes it easy for users to log in quickly and offers help for people who need it, including the option to change or request passwords.

Once logged in, users are given permission to view specific content, such as particular projects or department information. When creating a document, the user can choose whether it can be viewed by all users, or only by those with proper permissions.

IntraNed has many different types of user groups. Employees in corporate departments hold jobs such as personnel officer, communications manager, payroll clerk, and administrative assistant. NedTrain's maintenance employees include assemblers, co-operating front-rank men, warehouse employees, mechanical/electrical servicemen, and shunters. Traditionally, people doing these jobs do not have access to desktop PCs at work. But at NedTrain, most of the workshops have kiosks with touch screens, keyboards, and trackballs. Employees use these kiosks to access IntraNed, as well as technical manuals.

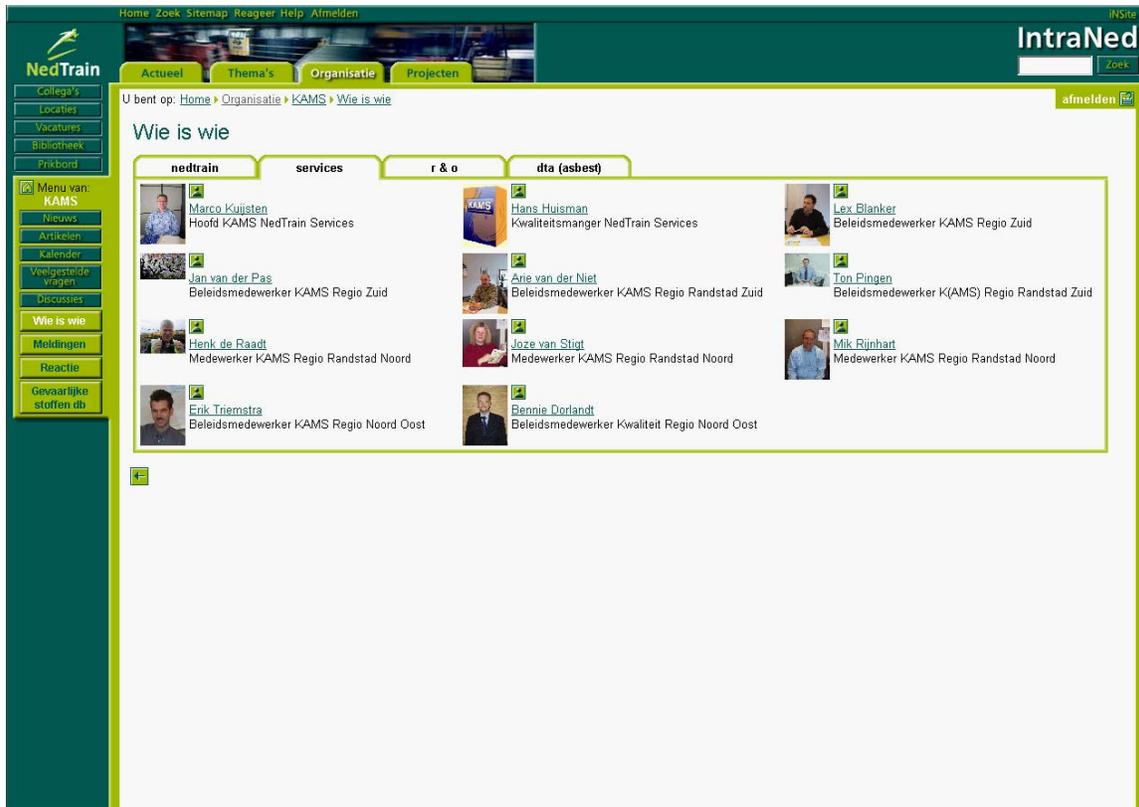


Pictured: NedTrain offers workshop-based kiosks in easily accessible locations.



Pictured: Two NedTrain employees use IntraNed at a kiosk in their workshop.

With 4,000 intranet users in more than thirty-nine locations in the Netherlands, the employee directory at NedTrain is an important feature. The colorful address book shows the employee's name, job title, and picture. By offering pictures with the list of employees, the application lets people easily find the names of employees they know only by face, or see the faces of people they know only by name. Because the pictures are not all taken in a studio, the shots also help show people's personalities. Clicking the person's name link leads to a document that includes the person's name, address, phone numbers, tasks, and holiday schedule.



Pictured: The colorful address book helps the 4,000 intranet users in more than thirty-nine locations find each other. A picture of each employee adds a personal touch, and helps colleagues learn each other's faces.

A simple open field for searching is available on the homepage and on every page of the intranet. Extensive search functions let users search the entire intranet, all public documents, or specific subcontexts or document types.

For users who prefer browsing to searching, a straightforward navigation scheme leads them to their content. Tabs across the top include *Theme*, *Organization*, and *Project* and are always available. This tabbed interface makes it easy for users to acclimate. The left-side navigation menu choices (in the lighter green area) change depending on which of the roughly 90 subsites is selected via one of the top-horizontal tabs. In some cases — such as on the *Organization* tab — there is no need for related navigation, so it doesn't appear.

At the top of the left side navigation area, blue-green buttons offer global level choices that are always available. The global choices include *Colleagues*, *Locations*, *Employment Opportunities*, *Library*, and *Bulletin Board*.



Pictured: The *Organization* tab shows the high-level company organization chart. The screenshot also shows the left-side global navigation, which is always available.

An interesting IntraNed feature is its locations map, which automatically regenerates, using latitude and longitude, whenever the page is changed. "Locations on the map do not change very much," says Antoni Dol, lead designer and art director, "but to allow NedTrain to not be dependent on a graphic designer in any way, we decided to build it this way." (He also concedes "it was an easy and fun thing to do" for Arie Duindam, Macaw's project manager, architect, and lead programmer, who has a passion for global-positioning systems and maps.)



Pictured: The map of locations is automatically regenerated, using latitude and longitude. Thus, NedTrain is not dependent on a graphic designer to make the changes.

NedTrain's corporate departments read and actively contribute content to IntraNed. Users need not be very technical to add content: they can submit information via a simple form. The text is legible and field labels are left-aligned for easy scanning. Users can tick off radio buttons and checkboxes, and type their content in fields.

Editors can set up a form to be sent to any e-mail address, and can compose and create the auto-reply text sent to users after they've submitted the form. Editors can then deal with form submissions in the content management application.

Beheer
Bewerk Invulformulier 13071 (totaal aantal hits: )
IntraNed BeheerApplicatie

IntraNed Home

- DOCUMENTEN
  - Nieuwsberichten
  - Vaalgestelde vragen
  - Evenementen
  - Artikelen
  - Vervolgpagina's
  - Wie is wie
  - Vacatures
  - Matchingformulier
  - Externe HTML docs
  - Locaties
- STARTPAGINA'S
- FORMULIEREN
  - Invulformulieren
  - Automatische antw.
  - Respons
  - Form. elementen
- WORKFLOW
- FORUMS
- MATERIEEL
- STATISTIEKEN
- RECHTEN
- STRUCTUUR
- SITE BEHEER
- OVERIGE

Goed te keuren  
 Goedgekeurd  
 Afgekeurd

**Titel (verplicht)**

**Geplaatst door**

**Auteur**

**Subcontext (verplicht)**

**Automatisch antwoord**

**Intro**

Indien je een vraag, verbeter voorstel of een opmerking op R5 hebt kun je middels dit formulier deze naar de webbeheerder van de deelsite "Project R5" sturen. Dat is op dit moment Pieter Wolters, LBP.

**email adres (verplicht)**

**Formulier elementen**

Volgorde	Verplicht veld?	Actie	Element naam
1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Aanvrager
2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Email
3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Onderwerp
4	<input type="checkbox"/>	<input type="checkbox"/>	Telefoon
5	<input type="checkbox"/>	<input type="checkbox"/>	Suggestie
6	<input type="checkbox"/>	<input type="checkbox"/>	Vraag
7	<input type="checkbox"/>	<input type="checkbox"/>	Opmerkingen

**Element voorvertoning:**

▲
Beschikbare formulier elementen.

- A: Aanvraag applicatie
- Aanvraagkeuze
- Achternaam
- Adres
- Advertentiefoto
- Afdeling
- Algemeen
- B: Aanvraag inbelvoorziening
- Bedrijfsonderdeel
- Begindatum

Pictured: Users can easily add content to IntraNed via a very simple form.

Systems support personnel allocate rights — such as read, edit, and administrator — depending on a user's role within the company. For highest flexibility, user rights are allocated per subsite. So, a user can have admin rights in one IntraNed area and read-only rights in another. Systems support personnel can quickly assign rights using simple checkboxes in the form.

Beheer IntraNed BeheerApplicatie

**Rechten beheer**

Update

Hier kunnen de leesrechten op de private delen of redacteurschappen van subcontexten worden beheerd van: **007 James Bond**

	Lezer	Redacteur	Eindredacteur
<b>Actueel</b>			
Home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Organisatie</b>			
Business & Development	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cargo Support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communicatie	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Componentenbedrijf	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Consulting	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Directie NedTrain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ematech b.v.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financiën	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Functioneel Beheer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HRM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Informatievoorziening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Informatievoorziening/ServiceDesk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inkoop & Logistiek	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inkoop & Logistiek/Facilitaire Inkoop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Instandhoudingsmanagement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
KAMS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kenniscentrum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Landelijk Bureau Capaciteitsmanagement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Landelijk Bureau Materieellogistiek	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Landelijk Bureau Productie	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LBP/Triton	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medezeggenschap	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Netwerk Jonge Academics	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
OB Rotterdam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Pictured: Systems support personnel can quickly and easily allocate rights to users via a simple list of checkboxes.

Letting employees access the intranet, no matter where they work, and letting many of them add and edit content, make IntraNed a supportive, collaborative tool for NedTrain employees.

## URL AND ACCESS

NedTrain's intranet URL is [intra.nedtrain.nl](http://intra.nedtrain.nl); IntraNed is the start-up page for employees' Microsoft Internet Explorer 6 browsers.

For security reasons, when NedTrain employees are away from the LAN they can only access IntraNed by calling a special server, which then dials users back, and logs them onto the LAN.

All of NedTrain's larger workshops now have one or two IntraNed kiosks with touch screens, keyboards, and trackballs. IntraNed access from PDAs running Microsoft's Pocket-PC operating system is under development.

## CONTENT MANAGEMENT

IntraNed's CMS is a customized version of Code-Rack, a CMS developed by Macaw. Both Code-Rack and IntraNed were built using Microsoft's ASPs technology; Code-Rack's development predates the introduction of Microsoft's .NET framework (although a version of Code-Rack now exists for .NET, it's not used for IntraNed).

Code-Rack is “actually more a framework for a CMS, to be customized and added to for each project,” says Dol. For the NedTrain project, the CMS was enhanced to include passive, or *theme*, pages. Here’s how they work: when uploading content, IntraNed editors can assign themes to it — designating it to be a certain type of company or industry news, for example. The CMS then automatically generates and maintains a number of pages filled with the most recent publications by theme. Theme pages also support project development. “People who have no idea they are working on the same subject will see each other’s work appear” on relevant theme pages, notes Dol.

Macaw also added division-level permissions to Code-Rack, so each division can maintain its own information and its own templates.

In NedTrain’s intranet, a user is assigned one of four roles: user (default), editor, chief editor, or webmaster. Editors can create and modify several types of documents using either HTML or a DHTML editor that resembles the Microsoft Word interface. They can then set public or private (restricted) permission for each document. As noted above, editors assign themes to pages and can also create forms, which are often used to let employees sign up for events and training. Editors can set the forms to automatically reply, via e-mail, to employees. Chief editors can create and edit all forms and documents they have access to, approve or reject documents, and publish approved documents online. The webmaster controls additional website functionality, via a Web-based interface.

Templates handle all content, ensuring NedTrain has a uniform look.

Content creators can also use pagelets (pre-made sections). Different pagelets — which are often used on division and project team homepages — contain such things as files, links to current news items, upcoming employee birthdays, and a list of recent events.

NedTrain’s communications department oversees IntraNed’s webmaster and the dedicated editors assigned to different business areas.

The webmaster functions as editor-in-chief, and various communication staff members are executive editors. NedTrain’s 200 editors are organized regionally. “This democratic set-up mirrors our organizational structure,” says Belle Prinssen, IntraNed’s webmaster. While editors typically answer end-user queries, the webmaster is the editors’ and users’ first point of contact.

## **TECHNOLOGY**

IntraNed was developed using Microsoft Visual Studio, Microsoft Visio, Macromedia HomeSite, and Adobe Photoshop. While Macaw typically uses Visual Studio’s SourceSafe for source code management, “as a test we were using Rational’s ClearCase as an alternative, plus Rational’s ClearQuest as a bug-tracking tool,” says Dol. “Although my personal experience with the tools was not bad, Macaw discontinued using ClearCase, but we continued to use ClearQuest,” as well as Microsoft’s SourceSafe, and now the open source version control system Subversion.

The intranet runs on Microsoft’s Internet Information Server 5, Windows 2000 Advanced Server, and SQL Server 2000. A SQL database handles all content, and Citrix MetaFrame maintains authentication and access control.

The intranet infrastructure resides at NedTrain's headquarters in Utrecht. For supporting IntraNed's users, NedTrain's information and communications technology (ICT) department provides technical support. Two employees in Macaw's Application Services department maintain the back-office technology and live site. The Macaw employees access the NedTrain systems remotely by "connecting to an internal server that has a Microsoft Remote Access Server connection to the NedTrain server," says Dol. Macaw also runs its own development version of NedTrain locally.

## GOALS AND CONSTRAINTS

Goals:

1. Enhance internal information distribution and communication between NedTrain's independently operated departments and locations, while reducing document-distribution costs.
2. Make information more quickly available and accessible to more employees.
3. Standardize on department-level intranet templates.
4. Maintain hassle-free navigation and an intranet consistent with NedTrain's corporate style.
5. Decrease overall operational costs and increase operating efficiency.

Constraints:

1. Having no dedicated project manager available for the redesign.

## BASIC INTRANET FEATURES

Beyond search and regularly refreshed content (news, articles, event listings, and FAQs), NedTrain's has several other basic features:

- Extensive information about ongoing projects and subdivisions
- "Theme pages" that automatically centralize articles on the basis of attributes set by content creators; example pages include *Safety and quality* and *Materieelbeschikbaarheid* (indicating train wagon and locomotive part availability)
- The ability to create forms, such as a form that lets employees subscribe to a course
- A corporate library containing the company handbook and HR information
- A map of locations that is dynamically generated using site latitude and longitude, which eliminates the need for a graphic designer when location changes occur
- Ongoing discussions
- A poll (linked to discussions)
- A dynamically built site map with drop-down lists of navigational choices
- A job listing board for open NedTrain positions
- The ability to add pagelets — such as a birthday calendar or links to the latest news — to any page

- In addition to basic contact information, the corporate *who is who* directory lets employees display their current list of tasks where and when they're working, and their replacements for holidays or sick days
- A general-interest bulletin board, including an ongoing NedTrain garage sale

## USERS

NedTrain has 4,000 employees, located in its Utrecht headquarters and thirty-eight maintenance and service locations throughout the Netherlands. Users range from corporate employees, with titles such as personnel officer, communications manager, payroll clerk, and administrative assistant; to maintenance staff, including assemblers, co-operating front-rank men, warehouse employees, mechanical and electrical servicemen, and shunters.

## USER TASKS

- Read news at the organization, division, or project level
- Share documents
- Search the company directory, or find telephone numbers and e-mail addresses through the *who is who* feature
- Update personal information
- Locate an office or facility and find its address and contact information
- Access HR information
- Read manuals
- Browse internal job openings
- Enroll in activities
- Consult the calendar listings for such things as company meetings, corporate events, and trade shows
- Review site-usage statistics
- Post to discussion boards and the bulletin board
- Fill in forms

## BACKGROUND

IntraNed started in 2001 "as an information source for every employee with a PC inside the company," says Dol.

"IntraNed was initiated by the communications department and developed in collaboration with our ICT department," says Prinssen. Before rollout, NedTrain appointed editors to manage different pieces of the intranet.

The initial intranet included basic information, such as departmental news, and a list of employees and locations. Later, Macaw developed the *who is who* application and the *Materieelbeschikbaarheid* indicator, a "real-time train part availability indicator, and the most important piece of information in the company," says Prinssen. "It allows all staff to check if they've achieved their targets for maintaining train wagons and locomotives." Both features noticeably increased IntraNed use.

While early intranet iterations were separate projects, Macaw now maintains a more continuous IntraNed presence, both in running and developing the intranet. For example, “Macaw’s Application Support department is now responsible for the stability, maintenance, and implementation of intranet additions,” says Dol.

NedTrain’s annual budget for intranet development is €60,000.

Planning for intranet redesigns and application changes starts with the webmaster, who collects all user feedback. “Small changes or additions can be performed by Macaw’s application services department, on the basis of a maintenance contract,” says Berry Vorstenbosch, senior developer for application services.

Any proposed change, however, must fit IntraNed’s look and logic. Thanks to that consistency, Prinssen says that, “everything now looks as though it was part of the very first delivery of the IntraNed.”

For this redesign, NedTrain wanted to improve information delivery to all employees — not just those with PCs — and improve inter-departmental communications and collaboration between employees. By improving the intranet, NedTrain also wanted to continue decreasing operating costs and increasing operating efficiency.

## DESIGN PROCESS AND USABILITY ACTIVITIES

With no project manager available for the redesign, the project’s architect/lead programmer covered the project-management tasks, and the system analyst identified the requirements and features needed for the design. Later, the analyst assumed more of the project management duties, including defect and change tracking, planning releases, and coordinating with the lead programmer. Shifting tasks between these two team members “worked because both were experienced professionals and saw the work that had to be done,” says Dol. While he advocates this approach if there’s no project manager and a near-term deadline, in general Dol recommends using a dedicated project manager.

For the original design, Macaw first conducted usability tests, testing working intranet versions with users. Tests took about 90 minutes. Tasks included finding specific information on the intranet, responding to site-feature questions, and evaluating the intranet’s speed, aesthetics, and usefulness.

For finding specific information, sample questions included: “How many hours per week is the operational contract manager job advertised on the NedTrain intranet?” “What is the zip code of the Rotterdam Central Station?”

For evaluating site features, the browsers were turned off and users responded from memory to true or false statements. Examples include: “*Materieelbeschikbaarheid* can be reached via the project tab.” “A project team’s news item can appear on the homepage.”

On a scale of 1 to 10, users were asked to rank the site’s look and feel, speed, usability, and usefulness. Specific queries about intranet features included general questions about the site’s appearance, missing features, and whether or not users would visit IntraNed on a daily basis.

The tests produced many findings, some related to design and others to technology problems. For example, users frequently searched, but occasionally documents that they knew should appear in the results didn't, creating "user irritation," says Dol. Macaw dealt with that problem via a code fix. Following the usability testing, the team also replaced one of the tab labels, "communities," with "organization," since Dutch users didn't understand the former word.

Macaw also found that few people used the site map. "The term 'site map' is still gibberish to a lot of Dutch users," Dol says, though he notes that "the people that did use the site map had no problems." Because the site map added needed insight into the information architecture, Macaw left the feature, but rewrote the names of some primary levels to better suggest the site map's purpose to users. "This site map is a nice piece of work, because it is dynamic," says Prinssen. "If we create a new project site, it is added to the site map automatically."

## TIMELINE

- May 2001: Kicked off project with requirements workshop, followed by a final "vision for the design" document elaborating on the project's important requirements and the desired end result
- June 2001: Began construction on the intranet
- September 2001: Launched headquarters intranet
- 2002: Began subsite creation and related department editing (this is ongoing; each new project typically creates a subsite)
- October 2002: IntraNed on all PCs in all locations
- February 2003: IntraNed accessible via kiosks in the five largest workshops
- February 2003: Design team began incorporating more "fun" elements to draw people to the intranet, including a bulletin board and a pagelet for birthdays
- November 2003: Added another eight kiosks
- July 2004: NedTrain's board of directors decided the intranet should be the conduit for all future company information, and launched plan to discontinue use of network drives for information storage
- December 2004: Added another ten kiosks
- For 2005: Enable IntraNed access via handhelds and increase personalization

## RESULTS

Since IntraNed first launched in 2001, the redesign team has been instituting modular changes — sometimes weekly.

Thanks to those ongoing improvements, and with the contribution of 200 editors, "IntraNed has grown to be the first and fastest medium employees turn to for news about the company," says Prinssen. "NedTrain has thirty-nine locations throughout the Netherlands. IntraNed makes it easier for everyone in these locations to find information or colleagues, and has also improved collaboration between employees."

Now the intranet has an array of must-read material, including manuals, procedures, mechanical instructions, a hazardous-materials database, and more. For example, "the defect codes of our trains are listed on IntraNed," says Prinssen. "This means that if a train shows a defect code on its display, a mechanic can look up both the meaning of the code and how to fix the problem on IntraNed, saving time and effort."

New pagelets also improve information delivery. The company-wide "materieelbeschikbaarheid" indicator, for example, is especially popular.

The improvements have helped drive increased intranet use, with fourth-quarter visits growing from over 860,000 in 2002, to 2 million in 2003, to 2.5 million by the end of 2004.

Based upon anecdotal feedback, "users are very happy" with the redesign, says Prinssen. For example, when users were queried about whether additional project information should be highlighted in its own, separate digital newsletter, "the overall response was that they preferred to read this information on IntraNed."

Employees looking for a new job can submit their profiles to the IntraNed Matching System, which helps HR find the right person to fill job openings. "If a candidate matches a job profile, this is displayed on screen" to HR whenever a new job listing is created, says Prinssen.

Editors often use forms to let employees sign-up for events. The redesign added the ability for editors to view all results from a form online. "Editors already received the form data in an e-mail, but now they can also view this data online," says Prinssen. This online view aggregates all of the information in one interface. Before, each response to the form generated a separate e-mail.

## LESSONS LEARNED

Insights from Antoni Dol:

**Manage expectations.** "Expectation management is an important part of any project for a client, especially for retaining their full cooperation. With those two things, good project management, and the Rational Unified Process Methodology, we can build software on time, and on budget."

**Work without a project manager only in a pinch.** "With no project manager available for our project, the architect and lead programmer ran such project management tasks as planning, budgeting, and organizing, while the system analyst researched redesign requirements and features. Later on, the analyst took on more project-manager responsibilities. This approach worked because both members of the team had extensive experience with such projects, and is something to consider if you lack project managers but must start immediately. Otherwise, however, I recommend a dedicated project manager."

Insights from Belle Prinssen:

**Keep it fresh.** "Always have new, but useful, information on your intranet."

**Foster intranet champions.** “It is very important to have one, or several, intranet champions to promote and campaign for the intranet. At NedTrain, that’s my role; my nickname is ‘Mrs. IntraNed’ — the one person any employee can ask any intranet-related question. Also, I personally trained all the editors, which means they know how to find me for any follow-up questions. Especially for our large company, with 4,500 employees at thirty-nine locations, it’s crucial to have a central person anyone can approach.”

**Make the intranet personal.** “Make sure all departments are represented on the intranet. For NedTrain, this means having subsites for the communications, ICT, and HR departments. In fact, those subsites are the most-visited parts of the intranet.”

**Make the intranet a guide to the organization.** “We put our organizational structure — with quite a lot of detail — onto the intranet, which has worked very well. Now employees can determine which department can best field a particular type of question. Conversely, because IntraNed follows the organizational structure, and because employees know their company, they also know their way on IntraNed. For example, if you have a question about your computer, you surf to the ICT department on IntraNed.”

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## Orbis Technology

### Using the Intranet:

Orbis Technology, based in Chiswick, West London, started in 1996 as a small software consultancy. In 1999, Orbis developed the OpenBet interactive sports gambling software, a custom solution for a U.K. bookmaker. Orbis has since sold OpenBet to many other gambling organizations, including Ladbrokes and BlueSquare in the U.K., PaddyPower in Ireland, and Macau SLOT in China.

### Design Team:

In-house

### Members:

Gordon Ingram, information architect; David Bailey, technical communications manager

## SUMMARY

Designers at Orbis Technology made two brave choices: they empowered employees to edit content, and chose surprisingly simple navigation and aesthetics. These features — among others — combine to create this successful design.

The Orbis intranet's less-is-more design makes it easy for users to navigate and find content. The homepage has a clean, three-column layout. Three tabs, plus breadcrumbs, also help users easily make choices while keeping their page-browsing context. The intranet's minimalism even extends to its menus, both in the number of possible selections and in the visual design. Fewer choices and less clutter make for a streamlined user experience.

As for content, the homepage displays the most important elements on the site, including the timesheet and meeting-room booking systems. "All of these applications are essential for efficient work practice," says David Bailey, Orbis's technical communications manager.

For example, the *Messages of the Week* page contains social and work-related information that employees care about. Featured messages, such as those offering helpful tips or details about the employee Christmas party, simply enhance the employee experience.

Another important area, *Industry News Cuttings*, keeps people apprised of life outside the office walls. Sometimes the daily grind or the latest impending project can sway the best-intentioned employee from following competitors' offerings and other industry happenings. This intranet, however, brings this key information to employees, helping keep them informed.

A third important homepage area is the intranet search — a simple, open field in the upper-right part of the page.

Search

[orbis](#) | [tech](#) | [customers](#)  
[create page](#) | [recent changes](#) | [statistics](#) | [topic list](#)

 Find

- admin**
- Phone List
  - Time Sheets
  - Orbis Calendar
  - Expenses
  - Meeting Rooms
  - Training Courses

- people**
- Joining Order
  - Job Descriptions
  - Teams
  - Floor Plans: 4 5 6
  - Mailing Lists
  - Social
  - Orbis Photos

### Messages of the Week [\[archive\]](#)

**COMING SOON 3rd December: Orbis Xmas Party**  
Get your names down for the Orbis 2004 Christmas Party & Awards night!

**COMING SOON 9th December: NDS Christmas Party**  
Sign up here as well as at <http://redback/endofyearpartyorbis>

**NEW 31st October: Article on Orbis in the Observer**  
"Rupert Murdoch is working on audacious plans to manage all betting transactions", apparently!

**29th October: UsefulPages**  
A collection of hints and tips from your helpful co-workers

**29th October: VenusPortRanges**  
Apache port ranges on venus

### Industry News Cuttings [\[archive\]](#) [\[Orbis news\]](#)

- [4th November 2004 - Nambling Notes](#)
- [4th November 2004 - Insights - The Outlook for I-Gaming in South Africa](#)
- [4th November 2004 - Post-Election Thoughts](#)

### "Inforbis" News Letter [\[archive\]](#)

- [August / September 2004](#)
- [June / July 2004](#)
- [April / May 2004](#)
- [January / February 2004](#)

### Getting started

- [A User's Guide to Orbis](#)
- [New starters: technical info](#)
- [PC setup instructions](#)
- [Coding standards document](#) (PDF)
- [Orbis Enlightenment](#)
- [Employee Benefits](#)
- [Help with TWiki](#)
- [Orbis FAQs](#)

### Useful links

- [ViewCVS](#)
- [Project teams, PMs and tech leads](#)
- [Customer contacts database](#)
- [Support phone diverts](#)
- [List of forthcoming releases](#)
- [Tech mailing list archive](#)
- [Project estimate documents](#)
- [HumanResources](#)
- [NDS Intranet](#)

Topic [Home](#) { [Edit](#) | [Printable](#) | [Attach](#) | [Ref-By](#) | [Diffs](#) | [r1.307](#) | [>](#) | [r1.306](#) | [>](#) | [r1.305](#) | [More](#) }

Revision [r1.307](#) - 2004-11-04 10:29 - [GordonIngram](#)

Ideas, requests, problems regarding the Intranet? [Send feedback](#)

Pictured: The Orbis Technology intranet's homepage displays important content, including industry news, and embraces a minimalist approach to navigation via simple menus and tabs.

On the *People* page, users type the name they are looking for in the *Employee* box in the upper left. They can then select the name they're interested in from the search results. Employee photographs — in addition to name, job, office location, and more — spice up the search.

Such functionality, even at a small company, can dramatically increase the speed with which employees find other employees' phone numbers and important information. If done well, as at Orbis, using the intranet is even faster than referring to a paper list.

Like the homepage, the *People* page includes links to important and contextually relevant applications, such as the Orbis timesheet system and the meeting-room booking system.

Another link is to *Joining Order*, which opens a list of all employees, in order of when they started working at Orbis. The list, which links each name to its *People* page, functions as a duplicate phone list, while also having a secondary, social use: comparing length of service.

Employee Find

- admin**
- Phone List
  - Time Sheets
  - Orbis Calendar
  - Expenses
  - Meeting Rooms
  - Training Courses

- people**
- Joining Order
  - Job Descriptions
  - Teams
  - Floor Plans: 4 5 6
  - Mailing Lists
  - Social
  - Orbis Photos

**Gordon Ingram**



- Phone extension - 261
- E-mail - [Gordon.Ingram@OrbisUK.com](mailto:Gordon.Ingram@OrbisUK.com)
- Wiki Page - <http://wiki.orbis/cgi-bin/twiki/view/Orbis/GordonIngram>
- Seated - [5th Floor](#)
- Role - Technical Author

**Search again**

Employee Find

Pictured: The *Person* document displays an employee’s photograph, name, job title, office location, and more.

Providing informative and interesting content makes people feel involved in the intranet, and engaged with the company. Deploying technology that lets employees add and update their own content is just one way to ensure the intranet is filled with interesting, relevant, and up-to-date information.

Creating and editing content on the Orbis intranet is a snap. This capability is the result of a bold and liberal intranet content strategy, which is perhaps not surprising given the company’s relative youth and size; it was started in 1996, and now has just over 100 employees.

At Orbis, the intranet content strategy is not only to collect and encourage content submissions from every employee, but to let any user add or edit content — and even change the navigational structure. This holds for all intranet pages, save a few containing administrative information; the homepage is also exempt.

Does Orbis’s small size and rather technical staff make it more ideally suited to this approach? Actually, this model can work wherever employees are involved and trustworthy, providing the organization deploys technology and a user interface that encourage editing. Of course, it doesn’t hurt that most Orbis employees are software developers who aren’t afraid of technology or of altering content and design to suit their exact purposes.

The technology running the Orbis intranet is TWiki (see <http://TWiki.org>), which Orbis deployed in early 2003 to replace a previous Wiki system. The TWiki technology makes it easy for users to edit the content.

To begin editing, the user clicks the *Edit* button on the top-left or bottom-left of the page. This is an especially nice model, because it encourages spur-of-the-moment editing. A user reading a page might see something that needs to be changed or realize that certain information is outdated. If so, they simply click *Edit*. The system then authenticates the user and opens the editing form. Once the changes are made, the user clicks the *Save Changes* button.

**ORBIS** An NDS Group plc Company **Wiki: Tech: WebChanges**

**orbis** **tech** **customers**

Topics in Tech web:	Changed:	Changed by:
<a href="#">TestQueue</a> Work on hold Team Project Days Developer Dev Finished Date work held Tester Estimated Completion Dev Est Time in Test LBR161 Classic Keno flash integratio Chetan ...	05 Nov 2004 - 14:58 - r1.295	<a href="#">[User]</a>
<a href="#">CompletedTest</a> Test Completion page This Week (w/c 01 November ) Team Project Days Developer Dev Finished completed test Tester Completion Notes LBR001 PT3952 - Check balance is ...	05 Nov 2004 - 14:57 - r1.108	<a href="#">[User]</a>
<a href="#">OXidequeue</a> THIS PAGE IS WORK IN PROGRESS!!! Currently in Dev Team Project Days Developer Dev Finished Due Day Estimated Completion Ladbroses Kana population n day James In progress ...	05 Nov 2004 - 14:54 - r1.28	<a href="#">[User]</a>
<a href="#">WebStatistics</a> Statistics for TWiki.Tech Web Month: Topic views: Topic saves: File uploads: Most popular topic views: Top contributors for topic save and uploads: Nov 2004 2129 ...	05 Nov 2004 - 01:01 - r1.640	<a href="#">[User]</a>
<a href="#">PkgOBPrice45mkbetstr</a> proc ob price::mk bet str Package util price 4.5 Description Make a foramtted price string (as used on an end-device) when supplied a live price and bet price type ...	04 Nov 2004 - 18:21 - r1.2	<a href="#">[User]</a>
<a href="#">StephenWilcockUnixScripts</a> Steve's Unix Scripts Here are a few of my creations, they are available in /home/swilcock/bin . They're not rocket science but I find them quite handy. I am likely ...	04 Nov 2004 - 14:26 - r1.5	<a href="#">[User]</a>
<a href="#">NBarrBSQ111</a> BSQ111 CSV Amendments CSV Replacement A brain dump about how the amended CSV stuff works for BlueSq, project BSQ111. Basically CSV collects summary information about ...	04 Nov 2004 - 12:12 - r1.4	<a href="#">[User]</a>
<a href="#">SkyBB</a> How to build and release Sky Broadcast Builds This is primarily for ladbroses and is a work in progress! The sky architecture: Orbistbs: Skybox "ONS" WEBSERVER ...	04 Nov 2004 - 11:23 - NEW	<a href="#">[User]</a>
<a href="#">AlexCollinsKate</a> Kate Syntax File A syntax file for the linux editor Kate. Adds in Orbis keywords and some SQL ones too. Suggestions?	04 Nov 2004 - 11:00 - r1.2	<a href="#">[User]</a>
<a href="#">OpenBetGamesUserGuide</a> OpenBet Games Admin Guide distribution First print run: March 2004 (75 copies plus 75 spare covers) Note : it's early days for OpenBet Games as a product, and this ...	04 Nov 2004 - 09:45 - r1.19	<a href="#">GordonIngram</a>

- See [100](#), [200](#), [400](#), [800](#) most recent changes
- See [all](#) changes

Topic **WebChanges** {   | [Attach](#) | [Ref-By](#) | [Diffs](#) | r1.3 | [>](#) | [r1.2](#) | [>](#) | [r1.1](#) | [More](#) }

Revision r1.3 - 2001-08-16 19:59 - [PeterThoeny](#) Ideas, requests, problems regarding the Intranet? [Send feedback](#)

Pictured: The *Edit* button appears at the top left and bottom left of all pages. Users click it to edit the content.

On the editing page, the content appears in an editable field.

**Edit topic**

```

<table cellpadding="0" cellspacing="0" border="0">
<tr>
<td valign="top" width="60%">
---++ Messages of the Week <span class="archive">{#91;[[MessagesOfTheWeek][archive]]{#93;</span>

%COMING_SOON% *3rd December: [[http://intranet/Xmas2004.htm][Orbis Xmas Party]]* <br />
Get your names down for the Orbis 2004 Christmas Party & Awards night!

%COMING_SOON% *9th December: [[NDSXmasParty2004][NDS Christmas Party]]* <br />
Sign up here as well as at http://redback/endofyearpartyorbis

%NEW% *31st October: [[http://observer.guardian.co.uk/business/story/0,6903,1339972,00.html][Orbis mentioned in
the Observer]]* <br />

*29th October: UsefulPages* <br />
A collection of hints and tips from your helpful co-workers

*29th October: VenusPortRanges* <br />
Apache port ranges on =venus=

---++ Industry News Cuttings <span class="archive">[<a href="%
SCRIPTURL%/include/Orbis/intranet.orbis/Press/index.html">archive</a>] [<a
href="http://www.orbisuk.com/home/about_orbis/news/news_2004.htm">Orbis&nbsp;news</a>] </span>
%INCLUDE(HeadLines)%

```

-- Orbis.DavidBailey - 03 Nov 2004 <== This is your signature for easy copy & paste operation.  
(If you are not [DavidBailey](#), [click here](#).)

Don't forget - if you change something, do it in [GoodStyle](#) and follow the [TextFormattingRules](#).

Topic Home {  | [Cancel edit](#) }

Release edit lock ([help](#)) Ideas, requests, problems regarding the Intranet? [Send feedback](#)  
 Minor changes, don't notify ([help](#))

Pictured: In the *Edit* page, users can easily edit the text and simply click the *Save Changes* button for the changes to take effect.

So, has Orbis experienced problems with this anyone-editing-anything approach? On the contrary, says Bailey, the company has seen “an extraordinarily high level of commitment to intranet maintenance from nearly all our staff.” In fact, intranet use greatly increased following the introduction of TWiki. For the month of August 2004 alone, the intranet received almost 2,200 page edits and more than 37,000 page views. That’s an average of 370 page views and 22 page edits per employee. Also of note: six months after the intranet was deployed, the number of employees setting the intranet as their browser homepage more than doubled.

Why are users drawn to the new intranet? “This ease of change,” says Bailey, “allows users to create the content and structure they want, and greatly increases user involvement.”

Today everyone, managers included, uses the intranet to help them complete everyday tasks. For example, when a new employee needs orientation, the intranet’s version control system lets the development manager create and circulate an induction schedule — including the names of all presenters — tailored to the new hire. The flexibility really shines, however, by letting the new employee not only view the schedule but also update it if conflicts arise. Any of the presenters can do the same, meaning the development manager doesn’t have to coordinate every meeting. “This greatly reduces the administration overhead of running induction sessions,” says Bailey.

## New Starter Schedule, starting 4th October 2004

- Michael Hans, PM for [OrbisGeneral](#)

**admin**

- Phone List
- Time Sheets
- Orbis Calendar
- Expenses
- Meeting Rooms
- Training Courses

**people**

- Joining Order
- Job Descriptions
- Teams
- Floor Plans: 4 5 6
- Mailing Lists
- Social
- Orbis Photos

Date	Time	Session	Presenter
<b>Mon 4th October</b>	11am	Coffee, welcome	<a href="#">AshleySandy</a>
	11am - 11.15am	Induction overview	<a href="#">DavidBailey</a>
	11.15am - 11.30am	Welcome to Orbis	<a href="#">DavidLoveday</a>
	11.30am - 12.30pm	Walkabout	<a href="#">AshleySandy</a>
	3pm - 3.30pm	Intro to internal network	<a href="#">AndreEss</a>
	3.30pm - 4pm	Introduction to the Intranet	<a href="#">GordonIngram</a>
	4pm - 5pm	Reading / intranet browsing	N/A
<b>Tuesday 5th October</b>	11am - 12pm	Admin induction	<a href="#">AmeliaBradshaw</a>
	2pm - 3pm	Development at Orbis	<a href="#">MattWill</a>
	3pm - 4pm	Support at Orbis	<a href="#">JohnCiesl</a>
	4pm - 5pm	Test at Orbis	<a href="#">StuartM</a>
<b>Weds 6th October</b>	10am - 11am	Introduction to betting	<a href="#">JustinPurrin</a>
	2pm - 3pm	<a href="#">OpenBet</a> technical overview	<a href="#">JustinPurrin</a>
	3pm - 4pm	Project Management at Orbis	<a href="#">RachelEp</a>
<b>Thurs 7th October</b>	10am - 12pm	Customers business overview	<a href="#">AshleySandy</a>
	2pm - 4pm	Customer technical overview	<a href="#">StephenWil</a>

Pictured: The orientation schedule shows the dates, times, agenda items, and presenters' names. While the development manager creates the schedule, the new hire or any presenter can subsequently modify it, which saves administrative time.

Customer support personnel also use the intranet to do their jobs, storing technical information about product releases in the *Customers* section. The intranet's *Customers* tab opens the section's main page, which offers significant information at a glance, including lists of supported customers and products. The software release pages describe release schedules and link to relevant technical and business documentation.

All of this customer information is vital for good release control and configuration management. The customer support teams use the pages accordingly, and frequently update them. Yet, the pages' use goes beyond release control. The support team often introduces pages or makes changes as it deals with customer calls, for example. "This information is vital for good release control and configuration management, and the pages are used specifically by the relevant customer teams," says Bailey. "These pages are updated frequently, by multiple users, and it would be difficult to recreate this in a non-Wiki environment."

Another advantage of TWiki is automation. In the upper-right part of the *Customers* page, for example, the *New Pages* section is an automatically generated list of the three most-recently-created pages under the *Customers* tab — an easy way to get new content noticed. (A similar list appears on the *Tech* homepage.)

Also on the *Customers* page, *Customer Contacts* is a password-protected contact database with customer phone numbers and e-mail addresses. Also password-protected is the *Support Portal*, an external application that contains details of all open and closed support calls for each customer.

The *Releases* area contains a table with project release notes, including release date, time, customer, summary, details (a link to the release note text file, as sent to the customer), and anything else users should be aware of. The area also links to an archive of past release notes for each customer.

The *Support Notes* area links to useful hints and tips for administering the Informix database used by Orbis's OpenBet gambling software. The area also includes other technical issues, as noted by various support team members.

**ORBIS**  
An NDS Group plc Company

Wiki : Customers : Home

orbis tech customers

create page recent changes statistics topic list

edit page printable version

**support**

- Customer Contacts
- Support Portal
- Releases
- EHS/24x7 Rota: XLS | HTML
- Phone diverts
- 24x7 FAQ page
- Service hours
- Reports page
- Handover info doc
- Support notes
- Connecting from Home

**project links**

- Project database
- Project teams
- Project docs
- CM / Support docs
- Account reviews

**cvs tree**

- ViewCVS

**Useful Things (Support)**

SupportNotes | Site LOGINS | Releases

- QueryTimes | PortalWork | CallChaser | SupportCalender
- Database useful - LOCK TIMEOUTS - DROPPED, RENAMED errors
- Codes used when logging a call
- Resolution codes used when solving/closing a call

**Customers**

- BlueSquare Support Branches Apps Dev Branches
- Fancy A Flutter Support Worksheet
- Ladbrokes Support Branches Apps Cantor Apps Playboy
- Littlewoods Support Branches Apps
- PaddyPower Support PPTelebet Branches Apps
- FOG Branches
- ParadiseBet
- Playboy
- RacingPost (smartbet)
- SkyBet Support Branches Apps
- StanleyBet Support Branches Apps
- UkBetting / TotalBet Support Branches Apps
- WaqerWorks Support RANK/ATC/GM Branches Bsq

**New pages**

- NEW 2004-11-04 PReleaseNoteP
- 2004-11-04 LadbrokesRelease
- 2004-11-03 SupportMetaHandover

**Our Products**

Customer Product Matrix

- BIRTI
- OXI Support
- Pools
- Feeds:
  - BIDS Feed - paddy
  - LES Feed Support
  - PA Feed Support
  - SIS Feed Support
  - TOTE Feed Support
  - TRNI Feed Support
- Numbers (Balls, SNG)
- Netballs
- IGF casino (FOGs)
- X-games (lotteries)
- Fantasy Games
- Sky Vegas Live
- Telebet Support Branches + Releases
- Payments - Gateways, FAQs
- FreeBets
- iRace
- Bet Monitor / Ticker

Topic Home { Edit | Printable | Attach | Ref-By | Diff | r1.78 | > | r1.77 | > | r1.76 | More }

Revision r1.78 - 2004-11-01 15:50 - GordonIngram

Ideas, requests, problems regarding the Intranet? [Send feedback](#)

Pictured: The *Customers* tab keeps all the information that the customer support team could need in one place. *New Pages* are automatically generated by a custom-created TWiki script.

The *Project Teams* area shows which customers Orbis employees are working for, as well as employees' internal project teams, such as support or infrastructure. Most of this information is contained in a table with several columns: customer team (which links to a page listing all team members); project manager; technical lead; and technical analyst.

In short, any resource that support personnel could possibly need — from codes for call logging, to customer contacts, to applications such as *CallChaser* (which helps track customer calls) — is only a click away.

The screenshot shows the Orbis Wiki interface for the 'SupportNotes' page under the 'Customers' section. The page has a navigation bar with 'orbis', 'tech', and 'customers' tabs. Below the navigation bar is a search box and a 'Search' button. The main content area is titled 'support' and includes a sidebar with links like 'Customer Contacts', 'Support Portal', and 'Releases'. The main content area lists 'Support Titbits' with links to 'Johns titbits', 'Jon's useful things', 'Jim's useful things', 'Database delights', 'performance investigations', and 'Wagerworks casino (BlueSQ flavour)'. There are also links for 'edit page', 'printable version', and 'statistics'.

Pictured: The *Support Notes* page offers hints and tips for support personnel.

On every page, the *Tech* tab leads to the *Tech* homepage, which provides information about anything technical that doesn't relate to a particular customer. Examples include internal product descriptions, shared-code documentation, and key technology tutorials.

**product docs**

- Shared Tcl
- Technical docs
- User docs

**technologies**

- CVS help
- Informix / SQL
- Tcl pages
- Unix / Linux

**standards**

- Our Approach
- Quality Assurance
- Coding Standards
- Release process
- Tech Lead role

**testing**

- Test Queue
- Test Lifecycle
- Orbis Test
- Test Environment

**cvs tree**

- ViewCVS

## Tech Home Page

The Tech(nologies) web is for technical material that doesn't relate to a particular customer (see the [Customers](#) web for customer project work). If you are new to this web, see the [GettingStarted](#) page.

### Our Products

[Customer Product Matrix](#)

- [Telebet Support Branches + Releases](#)
- [BIRTI](#)
- [OXI Support](#)
- [Pools](#)
- Feeds:
  - [BIDS Feed - paddy](#)
  - [LES Feed Support](#)
  - [PA Feed Support](#)
  - [SIS Feed Support](#)
  - [TOTE Feed Support](#)
  - [TRNI Feed Support](#)
- [Numbers \(Balls, SNG\)](#)
- [Netballs](#)
- [IGF/Casino \(FOG\)](#)
- [X-games \(lotteries\)](#)
- [Fantasy Games](#)
- [Sky Vegas Live](#)
- [Payments - Gateways, FAQs](#)
- [FreeBets](#)
- [Bet Monitor / Ticker](#)

### New pages

- **NEW 2004-12-21** [FOGDataLoadUpload](#)
- **2004-12-20** [GamesFOGRelease](#)
- **2004-12-20** [GamesDocs](#)

### See also

- [Technical Directives](#): TDs are work that needs to be performed promptly, usually across many sites as determined by technical management.
- [PC setup instructions](#): useful for new starters, or if you get a new PC
- [Help with Twiki](#): a basic introduction to our wiki system
- [Documentation home page](#)
- [Orbis Enlightenments](#)
- [Orbis FAQs \(old\)](#)
- [Bet Placement introduction](#)
- [The Network CD bookshelf](#)
- **NEW** [Apache port ranges on venus](#)
- **NEW** [UsefulPages](#): a collection of hints and tips from your helpful co-workers

Pictured: The *Tech* tab houses technical information that isn't related to a specific customer.

Orbis's approach is to foster anytime, anywhere editing, and infuse the intranet with industry news. The intranet thus not only assists and motivates employees — keeping them in the loop on company and industry news, and giving them needed project information — but it also helps support Orbis customers.

## URL AND ACCESS

The intranet's URL is <http://wiki.orbis>. The site is not bookmarked by default. "We don't customize our employees' browser software," says Orbis information architect Gordon Ingram. "But the majority of users have chosen to make it their startup page."

Employees can access the intranet remotely, using an SSH tunnel to a server on the corporate LAN.

## CONTENT MANAGEMENT

All content is viewed, and edited, through a Wiki system called TWiki. "The system wasn't developed in-house, but it is open source, so we have customized it heavily by creating our own scripts and editing the TWiki scripts and templates," says Ingram.

In the words of its creator, Ward Cunningham, Wiki is "the simplest online database that could possibly work." In other words, less is more. Core Wiki precepts are open editing and allowing anyone to edit any page, as well as open entry reorganization, in-browser editing, and easy page creation and linking.

TWiki (<http://twiki.org>), a flavor of Wiki, is specifically targeted at intranet collaboration. Components include page templates, version control, granular user authentication, and CGI scripts for comparing current or historical page versions.

While TWiki uses templates, it fills them in using server-side includes. As a result, only limited forms of page design are possible when using the simple Wiki-style markup language native to TWiki. More complex design is possible, however, by pasting in HTML fragments.

### GoodStyle Collaboration Tips

- TWiki has a very simple [text formatting shorthand](#). In any case, you won't go wrong if you simply:
  - start each line without spaces
  - separate paragraphs with a blank line
- Run together capitalized words to form [WikiWords](#):
  - [WikiWords](#) automatically appear as hyperlinks
  - make up meaningful, reasonably brief Wiki names - it can be a challenge (it'll sharpen you up!)
  - [WikiWords](#) has name-creation tips that may help
- If a **discussion** is going on:
  - separate each follow-up with a space
  - add your [WikiName](#) and the date at the end
  - OR, by all means, insert your comment where it seems to fit best:
    - you may want to inset it with a bullet and/or *set it in italics* so it's clear (always sign and date)
  - if a sub-topic develops, separate it with a horizontal rule at beginning and end

- [TWiki Text Formatting](#)
  - [TWiki Editing Shorthand](#)
  - [Using HTML](#)
    - [HTML and TWiki Usability](#)
    - [TWiki HTML Rendering](#)
  - [Hyperlinks](#)
    - [Internal Links](#)
    - [External Links](#)
  - [TWikiPlugin Formatting Extensions](#)

### TWiki Text Formatting

Working in TWiki is as easy as typing in text - exactly like email. You don't need to know HTML, though you can use it if you prefer. Links to topics are created automatically when you enter [WikiWords](#). And TWiki shorthand gives you all the power of HTML with a simple coding system that takes no time to learn. It's all layed out below - refer back to this page in a pop-up window from the **Edit** screen.

### TWiki Editing Shorthand

Pictured: Parts of two different help pages, detailing TWiki's text formatting shorthand and tips for collaborating.

For content management, Orbis appoints few overt content owners. "Responsibility for keeping particular pages up-to-date is allocated informally at present," says Ingram. Anyone in the company can edit any page, with the exception of a few key pages. "Having access open to all fits in with the Orbis culture. It was thought that certain pages, however, including the front page, were so important that access to them should be restricted in order to prevent overall intranet usability from being disrupted by frivolous or misguided changes," he says. In addition to homepage, a few intranet administration pages are restricted, and only the technology communications team, the administration team, the system administrator, and a few senior managers can edit them.

Despite the current approach, "we are moving towards a more formal system of page ownership — still allowing everyone to edit most pages, but specifying that certain people have a responsibility to keep particular pages up-to-date," says Ingram.

## TECHNOLOGY

Orbis designs Web pages using Macromedia Dreamweaver MX, plus Jasc Paint Shop Pro 7 for graphic design. The intranet team uses GNU Emacs 20.7.2 for server-side code editing.

The Web server software is Apache 1.3.26 on Debian GNU/Linux 2.4.24, running on an Intel Xeon 2.4 GHz machine with 1 GB of RAM and two 33-GB hard drives in a RAID-1 (redundant array of independent disks) configuration to increase performance and fault-tolerance. The intranet's search engine is ht://Dig 3.1.6 (<http://htdig.org/>).

TWiki, which handles Web site content, is based upon CGI scripts and libraries written in Perl. TWiki uses the Revision Control System (<http://www.gnu.org/software/rcs/rcs.html>) to handle version control.

## GOALS AND CONSTRAINTS

Goals:

- Merge two existing intranets and give employees a single access point for the new Orbis intranet.
- Improve productivity by making applications and knowledge easily accessible.
- Allow for easy intranet updates by as many people as possible — not just “intranet enthusiasts.”
- Improve navigation by introducing a logical navigation hierarchy based on projects or project modules, so users can browse by project, rather than just search.
- Provide a single interface with clearly defined results for searching all in-use file types, including HTML, PDF, and Microsoft Word.
- Add transparency and accountability to Web site changes via authentication and change tracking.
- Avoid disrupting established workflows, while also luring and retaining users.

Constraints:

- Creating a platform-independent intranet when employees are split between Linux and Windows operating systems.
- Producing a working demonstration in three months, with only two or three weeks to research technology options.
- Finding a low-cost solution, given the minimal intranet software budget.

## BASIC INTRANET FEATURES

The Orbis intranet gives employees a range of project-oriented tools, including project-specific information sets, such as release schedules and links to relevant documentation. It also features a search tool that can index any document Orbis uses. Because the intranet is built on TWiki, any user can update any page, except for a few restrictions, such as the homepage. On the administration front, employees can enter their timesheets, search the company contacts database, and book a meeting room. New employees also have an induction schedule, including orientation and meetings, which can be revised, by anyone, on the fly.

**ORBIS Meeting Room Booking System**

21 Jan 2005 goto Help Admin Report Search:

Areas  
Orbis Office

December 2004 January 2005 February 2005  
MTWTFSS MTWTFSS MTWTFSS  
1 2 3 4 5 1 2 3 4 5 6  
6 7 8 9 10 11 12 3 4 5 6 7 8 9 7 8 9 10 11 12 13  
14 15 16 17 18 19 10 11 12 13 14 15 16 14 15 16 17 18 19 20  
20 21 22 23 24 25 26 17 18 19 20 21 22 23 21 22 23 24 25 26 27  
27 28 29 30 31 24 25 26 27 28 29 30 28  
31

**Friday 21 January 2005**

<< Go To Day Before Go To Today Go To Day After >>

Time:	4th Floor Meeting Room (0)	5th Floor Meeting Room (0)	6th Meeting Room Back (0)	6th Meeting Room Recept(0)	Senior Meeting Room(0)
08:00	*	*	*	*	*
08:30	*	*	*	*	*
09:00	*	*	*	*	Weekly Status/Review/Quarterly meeting
09:30	Games Overview	*	*	*	"
10:00	"	project update	*	Interview	"
10:30	*	"	*	"	*
11:00	*	PB Project Update	Conf call NDS	"	*
11:30	*	"	"	"	*
12:00	*	*	*	"	*
12:30	*	*	*	*	*
13:00	*	*	*	*	*
13:30	Alya	*	*	*	*
14:00	"	*	*	Interview	screen design
14:30	"	*	induction	"	"
15:00	*	*	"	"	"

Pictured: Employees can book meeting rooms on the intranet.

## USERS

The Orbis intranet supports more than 100 employees, most of whom are located at the company's Chiswick, West London office. While all staff members use the intranet, it is targeted at approximately seventy technical employees — the company's key revenue-earners. Other employees include project managers and administration and sales staff. All employees use a PC or laptop.

## USER TASKS

- Create or view project-specific data, including technical details of release information
- Read industry news
- Find an employee's phone number
- Enter timesheet data

- Book meeting rooms
- Field a customer-service call

## **BACKGROUND**

In 2002, Orbis faced a problem: competing intranets. The official intranet contained about thirty static HTML pages with useful HR and administration-related information. That intranet competed with a MoinMoin Wiki (<http://moinmoin.wikiwikiweb.de/>) system implemented by developers, which they preferred because it contained the information they needed to accomplish their jobs. Yet, the Wiki intranet lacked the useful administrative information, and there were few links between the two systems.

- [Home](#)
- [A Users Guide to Orbis](#)
- [Timesheets \(new\)](#)
- [Phone List](#)
- [Expenses](#)
- [Directions to the office/Tube Map](#)
- [Orbis & Gambling Related Press Cuttings](#)
- [Wiki Frontpage/ Orbis joining order on Wiki](#)
- [Disaster Plan - Emergency Contact Details](#)
- [Seating Plan - Floor 4](#)
- [Seating Plan - Floor 5](#)
- [Seating Plan - Floor 6](#)

## Orbis

Address - 414 Chiswick High Road  
London  
W4 5TF  
Main Switchboard - 020 8742 1600  
Main Fax Number - 020 8742 2649

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## NDS Head Office

Address - One London Road  
Staines  
Middlesex  
TW18 4EX  
Main Switchboard - 020 8476 8000

**Orbis Wiki Front Page**

[UserPreferences](#)

[MoinMoin Wiki](#) [FrontPage](#) [RecentChanges](#) [TitleIndex](#) [WordIndex](#) [Help](#)

**Search**

**Messages of the Week**

- [MissingDeliveries](#)
- [OrbisEntertainments](#)
- [AustinPowers](#)
- [DogTrack](#)

**Wiki Pages**

- [OrbisComputers](#)
- [OrbisWikiRules](#)
- [OrbisPages](#)
- [DevelopmentPages](#)
- [TeamLeaders](#)
- [CustomerPages](#)
- [ReleaseManagement](#)
- [ExternalResources](#)
- [FaqPages](#)
- [ProjectPages](#)
- [SupportPages](#)
- [ExtendedHoursSupport](#) Rota and Log
- [UsingTimesheets](#)
- [DebianInstall](#)

**Intranet Applications**

- [Orbis Forums](#)

Pictured: Dueling intranets. The official Orbis intranet, on the top, contained useful administrative information. Developers preferred their grassroots intranet, on the right, because they used it to store project-specific information they needed to do their day-to-day jobs. Few links existed between the two intranets.

So, Orbis management decided to combine the two intranets. “The impetus for the redesign was Orbis’s rapid growth, from a startup where everyone could shout at each other across the office, to a middle-sized company with a lot of new starters who had a big learning curve to overcome,” says Ingram. “Although we only had one office at the time, we found that expanding from one floor to three floors also created a significant barrier to knowledge sharing.”

In late 2002, Orbis completed the first stage of its redesign plan: hiring a new employee “specifically to develop and maintain the enabling technologies and infrastructure for the intranet,” says Bailey, who project manages the intranet and reports to the vice president of product and business development. Ingram, the new employee, became the other half of the technical communications team, and began evaluating next steps for the intranet.

## DESIGN PROCESS AND USABILITY ACTIVITIES

Redesign planning began in 2002 with Ingram’s hire and progressed rapidly; a working prototype was due in three months, and only about three weeks were allotted to study new intranet technology.

First, Ingram studied users to see what they needed in an intranet. “We canvassed the whole company for their opinions by e-mail,” he says. “That included their perceptions of the existing intranets — from what was easy or hard to use, to which features they liked or didn’t like.” He also studied server logs to analyze user behavior.

To better understand users and their job requirements, Ingram also ran field studies of users in their environments. “We conducted a series of structured, one-to-one interviews — in front of a PC — with a ‘focus group’ of twelve people chosen to reflect a broad cross-section of the company, and to represent different interest groups,” he says.

During the design phase, while he says there weren’t any big surprises, “what was most surprising to me was the degree that different people wanted completely contradictory things from the intranet, and the difficulty in reconciling such opposing viewpoints,” he notes. For example, some users wanted access control for the intranet, while others preferred it to be completely open.

When it came to translating users’ needs into intranet design, Ingram says, “we made frequent reference to useit.com and to a book called *Information Design*” (ed. Robert Jacobson, MIT Press, 1999). Ingram also redesigned the intranet’s navigation to allow for a user-requested feature: logical browsing of projects. Previously, most employees navigated using the search engine. He also began looking for a search engine that could index and search all of the document types used at Orbis.

To vet prototypes and new iterations, Ingram would return to the focus group. As the intranet progressed, “feedback was generally positive,” he notes.

One challenge was finding technology that fit the Orbis culture. “Over 75% of our staff works in development. All of our developers have expertise in some key areas, and they are all used to working with HTML and markup syntax. Lots of our developers also use non-Windows systems, and browsers other than Internet Explorer,” says Bailey. “These factors mandated using a cross-platform solution, which would also allow as many people as possible to maintain and update information.”

So, for the new intranet technology, the redesign team proposed TWiki. An open source, Web-based collaboration platform, TWiki lets any user alter content and even structure, a crucial feature since the intranet team didn't have time to edit every post — not that developers would want them to. "For us, this democratic updateability is the best feature of a system like Wiki," says Bailey.

Because it's open source software, implementing TWiki is relatively inexpensive. "As a small company, we did not have the budget to afford high-cost packaged solutions; this ruled out most professional content management systems," says Bailey. TWiki had the added benefit of mirroring the functionality of the developers' old intranet, which would reduce learning time. With properly done usability and feature improvements, the redesign team thought they could hook people with the new intranet, giving it the critical user mass that it would need to succeed.

Technologically speaking, TWiki "was much easier to customize than the previous Wiki system, and included many useful authentication and version tracking features," says Ingram. Orbis created its own "skin" for TWiki, and added customized navigation links, plus homegrown scripts for searching and displaying news headlines.

With a working prototype constructed and management's sign-off, the team began transitioning to TWiki. "We installed the TWiki system, migrated the old Wiki content over, and created a new homepage and navigational templates with links to included content from the old intranet," says Ingram. The new site went live in January 2003.

**ORBIS** An NDS Group plc Company **Intranet : Orbis : Home**

**orbis** **products** **tech** **customers** **support** **standards** **twiki**

**admin**

- Phone List
- Time Sheets
- Orbis Calendar
- Expenses
- Meeting Rooms
- Orbis Training

**people**

- Job Descriptions
- Joining Order
- Teams
- Floor Plans: 4 5 6
- Computer Names
- Mailing Lists
- Recruitment
- Social
- Orbis Photos

## The new Orbis intranet

This is a demo of the new Orbis intranet pages, powered by [TWiki](#). You are currently in the Intranet.Orbis web. The Orbis web is the place for all personal and social material, and also for corporate stuff such as news, administrative tasks and quality standards.

If you're feeling totally disoriented, you can go to the old Wiki [FrontPage](#), or the old corporate intranet on [www](#). The intranet links from www are available [here](#).

### Messages of the week

- 21st November: [IceSkating](#) (try Wed 4th Dec, ~7pm)
- 20th November: [PoolRoomMusic](#)

### Getting started

- [Need to Know: A User's Guide to Orbis](#)
- [Technical information for new starters](#)
- [Help with TWiki](#)
- [Orbis FAQs:](#)
  - [FaqOrbisAdmin](#)
  - [FaqProgrammingGeneral](#)
- [AllFaqPages](#)

### Orbis news

- [Orbis launches new betting exchange product 'BetX'](#)
- [Orbis announced as partner for a world first in online sports betting](#)
- [Rank Interactive Gaming chooses Orbis to support its launch into online casino market](#)

### Industry news

- [Gaming issues advance throughout US](#)
- [Online gambling on the rise](#)
- [Singapore police crack down on illegal gambling](#)

Pictured: The first version of the new TWiki intranet, launched in January 2003, included all old Wiki content, a new homepage and redone navigation, plus links to content on the old intranet.

In September 2003, Ingram redesigned the TWiki site, integrating a new search engine. The new search tool indexed formats such as HTML, PDF, and Microsoft Word, letting employees search everything from the corporate directory to network files to the e-mail system. Orbis also created TWiki scripts to generate automatic boxes that listed new pages, using built-in TWiki functionality to display recently changed or created pages.

**ORBIS** An NDS Group plc Company **Intranet : Orbis : Home**

orbis products tech customers support standards twiki

create page recent changes statistics topic list

Employee Find

**admin**

- Phone List
- Time Sheets
- Orbis Calendar
- Expenses
- Meeting Rooms
- Orbis Training

**people**

- Job Descriptions
- Joining Order
- Teams
- Floor Plans: 4 5 6
- Computer Names
- Mailing Lists
- Recruitment
- Social
- Orbis Photos

**Messages of the Week** [archive]

**NEW 18th December:** [Visionik Live Betting](#) - enlightenment by &

**17th December:** Get your free professional photos from the Christmas dinner [here](#)

**4th December:** [Introduction to XML](#) - enlightenment by

**Industry News Cuttings** [archive] [Orbis news]

- 21st September 2004 - [Nambling Notes](#)
- 21st September 2004 - [Well Done? Betfair Doesn't think so](#)
- 21st September 2004 - [Cyprus Prepares for Interactive Gambling](#)

**Orbis News Letter** [archive]

- October 2003
- July 2003
- June 2003
- April 2003

**Getting started**

- [A User's Guide to Orbis](#)
- [New starters: technical info](#)
- [PC setup instructions](#)
- [Orbis Enlightenment?](#)
- [Employee Benefits](#)
- [Help with TWiki](#)
- [Orbis FAQs](#)

**Useful links**

- [ViewCVS](#)
- [Projects, PMs and tech leads](#)
- [Customer contacts database](#)
- [Support phone diverts](#)
- [Quality Assurance](#)
- [TidBits of work to do](#)
- [Human Resources](#)
- [NDS Intranet](#)

Topic **Home** { [Edit](#) | [Printable](#) | [Attach](#) | [Ref-By](#) | [Diffs](#) | [r1.289](#) | [>](#) | [r1.288](#) | [>](#) | [r1.287](#) | [More](#) }

Revision r1.190 - 2003-12-23 12:42:00 - [DavidBailey](#)

Ideas, requests, problems regarding the Intranet? [Send feedback](#)

Pictured: The second version of the TWiki intranet included more mature content and extra links to make the site more relevant for users.

Just before the second redesign, performance issues — unrelated to the intranet's design — manifested. "We had a system problem lasting a month, which slowed down page access from less than one second to 1.5 to 2 seconds," says Ingram. As the site slowed, users' site visits also noticeably decreased. After the performance issue was solved, however, user visits rebounded. Based on the experience, "performance needs to be constantly monitored in a growing intranet system," he says.

Finally, for the latest redesign, in September 2004, "we reduced the number of 'webs' — discrete sections of the intranet, displayed as tabs at the top of the page — from seven to three, to improve usability," says Ingram.

At the same time, he migrated the intranet to a new version of TWiki, this time with a dedicated server to stay ahead of performance problems and allow more control over the production environment. Ingram says the migration process “took almost as long as when we introduced the new system in the first place,” with data migration being especially time-consuming. Another slowdown was trying to change software and hardware at the same time. “Don’t change the hardware at the same time as changing the software platform, if you can avoid it,” he says.

## TIMELINE

- June 2002: Merged two existing intranets into one; began recruitment for new employee to run the new intranet
- Early September 2002: Recruited new technical communications staff member, Gordon Ingram
- October 2002: Ingram researched choices for next intranet version; proposed TWiki, a Wiki-based system
- December 2002: Implemented trial version of TWiki intranet for demonstration and wider usability review
- January 2003: Launched new TWiki intranet
- September 2003: Implemented second phase of intranet, including new search engine
- September 2004: Implemented third phase of intranet, including a thorough redesign and content restructuring

## RESULTS

Today, Orbis has a single intranet that lets employees collaborate and easily search for employee information, files, and e-mail. Employees can also read industry news, view project-related data, enter their timesheets, and book meeting rooms.

The TWiki intranet is “both a knowledge area, and a portal to other areas,” says Ingram. From the homepage, it gives users easy access to administrative-related functions, such as entering weekly timesheet data. In addition, “it promotes a sense of community through social messages and functions,” he says. Finally, it’s an efficient medium for communicating technical information, as well as management messages.

Because the intranet runs on TWiki, “any member of staff can quickly and easily make alterations to both content and structure,” says Bailey, except for a few key pages, such as the intranet homepage. Built-in TWiki functionality also includes a list of recent changes, to keep developers up-to-date; version histories, so anyone can see edits and why they were made; and automatic page linking, so an intranet administrator doesn’t have to edit site content. “The recent-changes pages are always in the top ten ‘most popular views’ pages,” says Bailey. Boxes displaying this information also “help generate interest by providing a transparent view of changes as soon as those changes are made.”

Beyond the built-in TWiki capabilities, “we have also developed our own improvements, designed to add more structure and make the Wiki more suitable for a corporate environment,” says Bailey. Such changes “include hierarchical organization, improved search functionality, and user authentication when editing pages.”

The new site makes content creation easy. “Any user can make almost any changes to content, and some changes to the navigational structure, without needing to get changes approved and implemented via a central authority,” says Bailey. Empowering users, he says, “greatly increases user involvement and commitment to the intranet.”

Orbis has kept its intranet-related costs low, especially since TWiki is open source, and thus has no purchase or licensing costs. Since late 2002, the intranet — beyond staff costs — has required an investment of £2,000 (about \$3,700) for a server dedicated to TWiki. Orbis also spent about £2,000 on intranet and usability training, including conferences.

Users have bought in to the new intranet. When TWiki went live in January 2003, total intranet page views stood at 11,700 per month. Five months later, that figure had almost doubled, as had the number of users making the Orbis intranet their homepage. By October 2004, with the latest redesign, total page views stood at 37,930 per month. “As Orbis has just over 100 employees, this currently works out at approximately nineteen page views per person per working day,” says Bailey.

**ORBIS** An NDS Group plc Company **Intranet : Customers : WebStatistics**

orbis tech customers

**Statistics for Intranet.Customers Web**

Month:	Topic views:	Topic saves:	File uploads:	Most popular topic views:	Top contributors for topic save and uploads:
Sep 2004	3542	532	4	<a href="#">452 Home</a> <a href="#">199 LadbrokesTeamPage</a> <a href="#">184 LadbrokesReleaseNote</a> <a href="#">183 LadbrokesPages</a> <a href="#">130 LadbrokesTelebet</a> <a href="#">116 BlueSqTribecaPoker</a> <a href="#">112 SigSupportNotes</a> <a href="#">94 LadbrokesLive</a> <a href="#">78 LadbrokesSupport</a> <a href="#">78 BlueSqSupport</a> <a href="#">69 LadbrokesRelease</a>	<a href="#">61 Stephen</a> <a href="#">59 SeanM</a> <a href="#">45 Monish</a> <a href="#">37 Paul</a> <a href="#">24 Thomas</a> <a href="#">22 Steven</a> <a href="#">22 Liam</a> <a href="#">21 PeterB</a> <a href="#">21 Gordon</a> <a href="#">20 Gavin</a> <a href="#">19 Jean</a>
Aug 2004	5195	666	0	<a href="#">779 Home</a> <a href="#">235 LadbrokesPages</a> <a href="#">225 SigSupportNotes</a> <a href="#">207 LadbrokesTeamPage</a> <a href="#">195 LadbrokesReleaseNote</a> <a href="#">169 ProjectTeams</a> <a href="#">159 LadbrokesLive</a> <a href="#">144 BlueSqCurrentDev</a> <a href="#">138 LadbrokesTelebet</a> <a href="#">122 LadbrokesRelease</a> <a href="#">121 BlueSqSupport</a>	<a href="#">68 Frank</a> <a href="#">64 Paul</a> <a href="#">59 Guest</a> <a href="#">48 Sally</a> <a href="#">45 Michael</a> <a href="#">37 Gordon</a> <a href="#">37 David</a> <a href="#">37 AlanR</a> <a href="#">33 Mike</a> <a href="#">29 Stephen</a> <a href="#">27 Monish</a>

Pictured: A listing (both by pages browsed and edited) of the most-popular pages in the Customers sub-Web, by month. TWiki automatically generates these statistics, which aid the development team’s assessment of current features and functionality.

Beyond viewing content, users are getting involved in editing. The old Wiki system averaged 409 edits per month. For the new TWiki system, that figure increased to an average of 1,116 edits per month for the twelve months prior to April 2004. While users have added several project-related pages, they've also used the intranet in surprising ways. "It has been used in ways that we hadn't predicted, including for documentation of shared code modules, and to provide a repository of customer release notes," says Ingram. On a lighter note, he says it's also used "to record staff look-alikes and a dream diary."

Giving end users the ability to alter almost any page on the intranet extends to the "induction schedule" for each new employee. While a development manager sets up an initial schedule for new employees to meet with presenters, any new hire or presenter can subsequently alter the schedule as needed, saving administration time. These schedules, which are saved, make planning future ones easier. "By updating the same page, the TWiki version control functions automatically ensure we have a record of successive schedules for new hires, for review and inspection purposes," says Bailey.

## LESSONS LEARNED

Insights from Gordon Ingram and David Bailey:

**Involve users:** "Making sure everyone was consulted for their intranet perspective and kept informed of changes eliminated complaints. Most people were overwhelmingly supportive of our redesign work, and regarded it as a significant improvement over the old intranet. Remember that usability improvements implemented in isolation and without consultation may not be popular, and may even create resentment."

**Pursue evolutionary change:** "Whenever possible, pursue evolutionary intranet change. Above all, ensure any new intranet fits the current corporate culture and, if possible, current working practices."

**Good logging tools are essential:** "If you don't know how popular or unpopular areas of the system are, you can't tell what changes are needed. Ensure you can view log files to diagnose problems and then track the effectiveness of changes."

**Separate hardware and software migration:** "Migrating data from the old system to the new took longer than expected, and caused a lot of hiccups. Don't underestimate how difficult data migration can be, and don't change the hardware at the same time as changing the software platform, if you can avoid it."

**Use a dry run:** "Next time I'll also use a dry run, asking select users to switch to the production system, watching for issues and pitfalls, and only then taking the new intranet live."

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## Park Place Dealerships

### Using the Intranet:

Park Place Dealerships operates ten luxury automotive dealerships: eight in the Dallas-Fort Worth area, and two in Houston. They sell many types of luxury cars, including Mercedes-Benz, Lexus, Porsche, Maserati, Bentley, Rolls-Royce, Land Rover, and Jaguar.

### Design Team:

In-house

### Member:

Ryan Counts, programmer, designer, and database administrator

## SUMMARY

Just because you haven't done something before, doesn't mean you can't do it now.

Make that the slogan for the intranet designers at Park Place Dealerships, which operates ten luxury automotive dealerships in Texas. When looking for software tools to meet an automotive dealership's unique needs, the designers found existing off-the-shelf options to be severely limited. As a result, Park Place chose to develop its intranet and extensive sub-applications in-house. Today, the intranet features some forty-five applications: a custom help desk, a Client Concern Resolution (CCR) system, a service-scheduling system, action-plan and management-strategy tracking, training-class management, inventory management, and more.

While the intranet supports diverse tasks, one commonality is usage: most of the more than 1,200 employees use one or more intranet applications at least weekly, and almost half the employees use the intranet daily. "Our intranet has become the glue tying all of our other business applications and processes together," says Ryan Counts, Park Place's programmer, designer, and database administrator. "As a result, almost every employee utilizes the intranet on a weekly or daily basis."

By developing the applications in-house, designers had greater control over the applications' features and interface. "We've achieved a higher level of usability, simply because the users have direct access to the programmer," says Counts. "When a new application is requested, our process is to form a team of all principal users, and this team meets regularly with the developer and even assists in rollout, which has the added benefit of gaining internal 'evangelists' to promote the application's benefits to other users."

Today, when users log in, they all see a homepage divided into three columns. The information itself is ordered left to right, from most global to most user-specific. Thus, in the far left column, *Park Place News* highlights news of interest to all employees. The news might be anything from philanthropic and volunteer opportunities to recognition for years of service at the organization. This area can include news about any Park Place group or organization.

The middle column contains department news. For example, IT administrators can add, edit, or delete news that can only be seen by IT employees. Users can also add news simply by clicking a link and filling in a form. Users can also read archived news.

The far right column includes crib notes — a knowledge base for each department. Managers and IT administrators also administer this, and users can use the *Search Dept. Notes* feature at the bottom of the column.

Note that while the page's top header is branded for each location — displaying a picture of that location's main car brand — this will soon change. "In an earlier version of the intranet, the logos at the top went to the public-facing homepages for each of our dealerships," says Counts. "Our logs showed, however, that the links were rarely used, so they were removed, and we're currently working on a new revision that eliminates those logos entirely, since that real estate is too valuable to have no useful function."



Pictured: The Park Place Dealership intranet's homepage shows global company news in the far left column. The other two columns house information based on the user's department. The header reflects the user's location — in this case, the red Porsche indicates the Porsche dealership.

The top, horizontal navigation is simple and available on every page. Park Place found, through usability studies, that users could easily locate department-related applications through a department-name-based information architecture. This is rare; departmental names often don't facilitate easy navigation. In this case, however, the names provide users with clear-cut possibilities for what's underneath: *Home, Sales, Service, Parts, H.R., Accounting, Management, Administration, Profile, and Log Off.*

Technologically, the menus are simple CSS drop-down menus, and back-end programming renders only menu items that the logged-in user has permission to use.

The screenshot displays the Park Place intranet interface. At the top, a navigation bar includes the Park Place logo and a menu with items: Home, Sales, Service, Parts, H.R., I.T., Accounting, Management, Administration, Profile, and Log Off. Below this, the main content area is divided into several sections:

- PARK PLACE NEWS**: Contains articles such as "Mid-Cities Member Recognition", "Adopt A Soldier Update", "15 Years at Park Place!", "A Special Thanks...", "Top Gun Award for Motorcars Technicians", and "Intranet will showcase Park Place accomplishments".
- IT NEWS**: Features a "News Help" section with instructions on how to post news and view archives.
- ABOUT PARK PLACE NEWS**: A note about the maintenance of the news section.
- ARCHIVES**: A link to view complete archives for the IT News section.
- SEARCH DEPT NOTES**: A search box for department notes.

On the right side, a sidebar contains a dropdown menu with the following items: Report Links, Data Entry, Goldmine Activity, Internet Sales, Eform Data, Administration, New Metric, New Category, Monthly Summary, Meetings, Action Plans, Long Distance Report, Month End Links, DRIVE, Internet Sales, and Marketing Calendar. Below the menu, there are sections for "Dept Notes Help" and "SEARCH DEPT NOTES".

Pictured: Menus are well organized. The top-level names are based upon departmental names, which usability tests showed gave employees clear-cut options.

Beyond the homepage, search pages allow employees to search by name, location, department, job title, or e-mail address. Search results display the user name, telephone extension, job title, and dealership. Clicking on the envelope to the left of a name creates a new e-mail message, addressed to the selected member.

The *Functions* button on the far right of each result lets administrators alter the user's account information. Using the inline menu, administrators can edit the profile, create a help-desk ticket, view the training schedule, view detailed specifications of the user's computer, review long-distance phone calls, view assets, assign a manager, and more.

Welcome to the Member Search Page  
 From here, type in the criteria for the search and select a search type, then click Search.  
 (This search is not case sensitive)

Search Criteria: General Manager    Search Type: Job Title    Location: ALL    Search

6 Members Found ( You might also try the Member Directory or Phone Directory )

Member Name	User Name	Extension	Job Title	Dealership	Functions
Chris Brunner	cbrunner	3152	General Manager	Lexus Grapevine	Functions
Dean Granger	dgranger	5201	General Manager	Motorcars Dallas	Functions
Gary Venner	gvenner	7033	General Manager	Lexus Plano	Functions
Kirk Frederick	kfrederick	5205	General Manager	Porsche Dallas	Functions
Lance Donovan	ldonavan	2002	General Manager	Land Rover Houston	Functions
Robert Morris	rmorris	4813	General Manager	Motorcars Mi	Functions

- Edit Profile
- Helpdesk Ticket
- Helpdesk Report
- View Members
- TW Transcripts
- TW Schedule
- Remove Account
- Roll Members
- Assign Manager
- Assets
- Computer
- Long Distance
- Emulate
- 711

Pictured: Search results in the member directory display the user name, telephone extension, job title, and dealership. Clicking on the envelope to the left of a name creates a new e-mail message, addressed to the selected member. The *Functions* button lets administrators alter user account information via an inline menu.

Park Place's intranet highlights the organization's emphasis on keeping employees informed and productive, and constantly improving client satisfaction. On the latter front, whenever a client has a problem, members log the case in the CCR application.

When users select the CCR menu, a simple but thorough case form appears, requesting specific model and part information. The form also provides open spaces for users to elaborate on explicit issues. When possible, the application populates the form fields with default values based on the user's login.

The *MTD Department Stats* area, in the bottom right, displays information based on the user's job title. Department managers, for example, see an overview of the MTD stats for their department, at their location; general and higher-level managers see an overview of their entire location.

Employees can also use the quick forms section on the right to generate reports, search records, and list unresolved CCR tickets. The section's bottom right side displays personal month-to-date stats for the current user. Having all of this information and all of these options in one place is very convenient.

**CLIENT INFORMATION**

Date: 1/3/2005 | Location: Motorcars Dallas | Dept.: IT

Manager Involved: Ryan Counts | Member Involved: Ryan Counts

First Name: | Last Name: | Phone 1: | Phone 2: |

**CLASSIFY CONCERN**

Concern Type: Defective Part | Concern Type 2: No Second Concern

RO / Part No.: | Cost / Lost Sale: | Policy: | Account: ?

**VEHICLE INFORMATION**

Year: | Make: Mercedes-Benz | Model: Select Model | VIN or Stock No.: |

**DESCRIBE CONCERN**

Specific Concern: | Client Expectations: | Resolution: |

RESET SAVE

**Right Sidebar:**

**Name Search**  
Client Name, VIN or RO: | SEARCH

**Record Search**  
Location: Motorcars Dallas | Start Date: 1/1/200 | Dept.: IT | End Date: 1/3/200 | Status: Resolved | SEARCH

**CCR Reports**  
Location: Motorcars Dallas | Start Date: 1/1/200 | End Date: 1/3/200 | VIEW

**MTD Department Stats**

Total CCR's	0
Unresolved	0
Top Issue	Lack of/Poor communication
Total Lost Sale	
Avg Lost Sale	

Pictured: Whenever they have a dissatisfied client, members log the case in the Client Concern Resolution application. The CCR case form is simple but thorough, asking for specific model and part information.

The CCR reports themselves are also quite helpful, and have an easily scannable table format. Each report begins with a summary view of the departments, followed by the types of concerns. Knowing which concern types are generating the most problems lets the organization isolate problem areas. Clicking on either a department name or a concern type drills down to a detailed summary of all tickets meeting the criteria. Users can also easily access quick report forms on the right, to do additional queries.

**Park Place** Mercedes-Benz Lexus Acura Infiniti Volvo Jaguar Land Rover

Welcome Ryan Counts Home Sales Service Parts H.R. I.T. Accounting Management Administration Profile Log Off

### CCR Report

Below is a summary report of CCR's for **Motorcars Dallas** between **12/1/2004** and **1/3/2005**. You can sort the results by clicking on any column name.

Summary			
Date Range	12/1/2004 - 1/3/2005	Total CCR's	126
Total Lost Sale		Avg. Lost Sale	
Total Policy		Avg. Policy	

### Department Summary

DEPT	CONCERNS	% OF TOTAL	LOST SALE	POLICY	AVG LOST SALE	AVG POLICY
Service	124	98.41%				
Sales, PreOwned	2	1.59%				

### Category Summary

CATEGORY	CONCERNS	% OF TOTAL	LOST SALE	POLICY	AVG LOST SALE	AVG POLICY
Defective Part	25	19.84%				
Lot Damage	21	16.67%				
Unable to meet Client Expectations	20	15.87%				
Dissatisfaction with product	15	11.90%				
Estimate inaccurate	15	11.90%				
Poor quality of work	15	11.90%				
Lack of/Poor communication	10	7.94%				
Survey	6	4.76%				
Lost / Misplaced Items	6	4.76%				
Member was discourteous	2	1.59%				

**Name Search**

Client Name, VIN or RO

**Record Search**

Location: Motorcars Dallas Start Date: 1/1/200

Dept.: IT End Date: 1/3/200

Status: Resolved

**CCR Reports**

Location: Motorcars Dallas

Start Date: 1/1/2004 End Date: 1/3/200

**MTD Department Stats**

Total CCR's	0
Unresolved	0
Top Issue	Lack of/Poor communication
Total Lost Sale	
Avg Lost Sale	

Pictured: A CCR report, beginning with a summary view of the departments and followed by the types of concerns. Quick report forms are also available on the right, so users can conduct further queries.

As soon as an employee enters a CCR, their manager receives an e-mail detailing the issue to ensure that every client issue is satisfactorily resolved. The manager can then review the situation, take action to ensure that the client is satisfied, and close out the ticket. If the CCR involves the services department, the application automatically sends an additional e-mail to the shop foreman, so he can act to resolve the issue as well. This might include adding additional work to the repair order, or talking to the technician involved with the client's car to make sure the client's needs are fully addressed. Because some locations have more than 100 service stalls, these e-mails help cut down on the time it would take to actually find the relevant managers or employees.

From: smagee@parkplacetexas.com  
 To: Ryan Counts  
 Cc:  
 Subject: CCR #19279 Needs Approval

Sent: Tue 8/31/2004 9:34 AM

**CLIENT INFORMATION**

Date: 8/31/2004 Location: Lexus Plano Dept.: Accounting

Manager: Ryan Counts Received By: Suzie Magee

First Name: Last Name:

Phone 1: Phone 2:

**VEHICLE INFORMATION**

Year: 2004 Make: Lexus Model: GX 470 VIN:

**CLASSIFY CONCERN**

Concern Type: Lack of/Poor communication Concern Type 2: No Second Concern

RO / Part No.: Cost: 30

Policy:

**DESCRIBE CONCERN**

**MGR FUNCTIONS**

This CCR was recently posted by Suzie Magee and was sent to you for editing purposes. To approve this CCR as is, simply click the Submit button below. You can also make any changes in this email and hit submit to update this CCR. If you experience any problems with this email, you can edit this CCR online [Here](#).

Issue Resolved Resolved Date:

Client Satisfied

CCR Status: Approved by Manager

Pictured: As soon as employees enter a case in the CCR, their managers receive an e-mail with case details, facilitating a rapid follow-up with the customer.

One of the intranet's underlying design concepts is that critical information should proactively reach out to employees, rather than waiting for employees to find it. The CCR application is one example of this concept in action. Another is that department managers have critical reports waiting for them in their e-mail inbox every morning. These e-mails contain hyperlinks to the intranet with even more detailed information. As these two examples illustrate, many of Park Place's applications use e-mail to rapidly communicate business-critical changes or events to employees.

Not all automation, however, involves just e-mail. This is especially true for the HR department, which has a form to add, edit, and remove employees, or assign them assets such as uniforms, pagers, and cell phones. This functionality sits atop automated processes. For example, once an employee's name is added to the general HR information form, users click either *New Hire*, *Change*, or *Termination*, each of which triggers specific events.

When editing an employee's profile, a user sees the employee's complete HR-related history at the top right of the form.

If a new employee is being added, the HR form will create an intranet account for the new employee, send an e-mail notification to the payroll and IT departments, and register the employee for new-hire orientation. It will also automatically add a job ticket to send the employee a welcome packet.

When terminating an employee, the HR form triggers the deactivation of the employee's user account, and notifies the payroll and IT departments, via e-mail, to close the relevant network accounts, and reclaim any assets.

As a direct result of the HR application, and the related automation, the time it takes to prepare a new employee for work has been reduced from days to hours. Also, far fewer new hires are lost in the shuffle — they get needed account access and assets quickly, helping them get to work.

**Park Place** Welcome Ryan Counts Home Sales Service Parts H.R. I.T. Accounting Management Administration Profile Log Off

**1 Enter a user name if you are making changes to a member.**  
 Member (enter username if making changes to an existing member)  
 b miles Brandi Miles

**2 Select the type of PAF you wish to create.**  
 New Hire  Change  Termination  
 File Number Effective Date

**3 Member information**  
 First Name Preferred Name Last Name Middle  
 Brandi Miles  
 Address City State ZIP  
 Social Security Number Home Phone

**4 Transfer Details**  
 New Dealership Lexus Plano New Dept. Corporate New Job Title Process Co-Ordinator  
 Supervisor kgongora Kandi Gongora Replacement Mgr  
 Next Review (==/==/==)  Training Wheels Supervisor

**5 Remarks**

**History of Brandi Miles**

Class	Description	Date
TW - Cancelled	New Hire Orientation (OSHA / Sexual Harassment training included)	8/23/2004 8:30:00 AM
TW - Completed Class	Lexus-D380 Managing Your Workday	8/19/2004 8:00:00 AM
TW - Completed Class	CRM Training (Service)	6/24/2004 3:00:00 PM
TW - Completed Class	CRM Admin Training	6/18/2004 8:00:00 AM
TW - Completed Class	The Art and Science of Employee Selection	5/25/2004 2:00:00 PM
TW - Cancelled	Defensive Driving	5/19/2004 9:00:00 AM
TW -	Break all the Rules: Managing	

**Assets**

Asset Type	Description / Notes
<input type="checkbox"/> Parking Pass	
<input type="checkbox"/> Uniforms and Nametags	
<input type="checkbox"/> Keys	
<input type="checkbox"/> Pager	
<input type="checkbox"/> Telephone / Nextel	

Pictured: HR personnel use this form to add and terminate employees, and to update employee information. When editing an employee profile, the HR staff can see the employee's complete HR-related history in the top-right area of the form.

While the intranet automates and streamlines many functions, some core business metrics simply must be manually entered every month. To facilitate manual entry, the data entry screen must be as easy to use as possible.

The Park Place intranet embodies this idea. For the business-metrics page, there isn't even a *Submit* button. Instead, as the cursor leaves each field, a simple JavaScript saves the information to a database, then analyzes the results. Users see real-time feedback, with color-coded metrics and an appropriate text explanation. Three icons to the immediate right of each metric's title provide even more context. Clicking the first icon, for example, opens a pop-up window that explains the business reasons behind the metric. The second icon opens a pop-up window that explains how the user should gather and calculate this metric. The final icon generates a year-to-date graph of the metric.

Strategy: Effective Resource Utilization		1 / 2004	2 / 2004	3 / 2004	YTD	Analysis
# of On-line Appointment Scheduler	Current	12	13	14	13.00	Good job. (3)
	Target	10	11	11	10.67	
	Variance		+2.00	+3.00	2.33	
% Maintenance	Current	100	100	100	100.00	You are climbing out of it. (-1)
	Target	200	110	90	133.33	
	Variance	-100.00	-10.00	+10.00	-33.33	
Actual Shop Hours	Current					(0)
	Target					
	Variance					
Additional Service Requests	Current					(0)
	Target					
	Variance					
Cycle Time on Reconditioning	Current					(0)
	Target					
	Variance					
Extended Warranty Receivables	Current					(0)
	Target					
	Variance					
Service Advisor Evaluation	Current					(0)
	Target					
	Variance					
Shop Potential Hours	Current					(0)
	Target					
	Variance					

Pictured: A simple form expedites the entry of core business metrics each month. The data entry screen is as easy to use as possible. A simple JavaScript saves the information to a database and then analyzes the results to provide real-time feedback.

The detailed, mission-critical applications on the Park Place intranet make the intranet itself mission-critical for producing quality work. While home-grown applications can be more expensive than buying a canned solution, if the internal applications are as well-designed and useful as the ones at Park Place, it's well worth the time and energy to create and maintain them.

## URL AND ACCESS

The intranet's URL is <http://intranet>. All new PC builds include a shortcut to the intranet on the desktop, and some users make it their start page.

Mobile users can log in to the intranet through the company's external website. "We allow our customers to create logins on the website," says Counts, "but one piece of sneakiness — not advertised — is the same login authentication system handles both employees and customers, intelligently redirecting based upon the type of user authenticating." For security purposes, however, users logging in via the website cannot access financial information.

## CONTENT MANAGEMENT

At Park Place Dealerships, the same group designs, develops, and maintains both the intranet and the website. To serve both, they use a custom-designed CMS.

The CMS was originally written using Microsoft ASP, COM+ distributed component technology, and a Microsoft SQL Server database. While Park Place is keeping the existing database, it's currently transitioning to ASP.Net, plus C# for the front-end code.

When it comes to distributing content management, "because we are a relatively small company with a very small IT department, management of our content is distributed to each department as much as possible," says Counts. The CMS lets managers enter the rough outlines of content they want published, then routes the content to the intranet staff. The staff cleans up and enhances the text, ensures that it meets professional standards, and then publishes it. Along the way, a back-end logging system tracks all changes, allowing the intranet staff to revert to previous versions.

## **TECHNOLOGY**

On the technology front, "we are almost entirely a Microsoft shop," says Counts. That goes for the custom CMS software Park Place built, as well as the Web server and database server running the intranet — both are Compaq Proliant servers, running Windows 2003 Server.

The intranet is a custom application. Today, after two years of intranet development, it includes forty-five applications for such things as resolving client concerns and service scheduling.

For bug tracking, the intranet team takes three approaches. First, developers coded custom http 500 error pages. Besides telling the user that there's been an error, the pages also immediately e-mail the programmer all pertinent information. "We found programmers are much more inclined to fix a problem faster when their in box is flooded with error reports," says Counts.

The intranet team reviews server performance monthly to help isolate memory holes and slow pages. For harder to find problems, a periodic survey queries users' perceptions of performance and effectiveness for different intranet sections. "For example, three months after deploying the Client Concern Resolution application on the intranet, a survey was sent to the departments that most use the application," says Counts. "This aided in identifying opportunities for improvement, and helped us find a slight bug that wasn't showing up in error reports."

## **GOALS AND CONSTRAINTS**

Goals:

- Enhance interdepartmental communication.
- Reduce duplicate data entry.
- Redesign site navigation to increase available screen space.

## **BASIC INTRANET FEATURES**

The intranet offers a number of standard features, including company news, departmental news, a corporate phone book, and the ability to search for employees.

Park Place also custom-built forty-five applications to tackle discrete, previously time-consuming business processes. These applications cover such things as the help desk, resolving client concerns, scheduling service, action plans and management strategy, new employee hires, training classes, and Park Place's inventory.

## **USERS**

Park Place has ten dealerships and more than 1,200 employees, including HR managers, sales consultants and managers, automotive technicians, call-center representatives, valets, body-shop estimators, and accountants.

## **USER TASKS**

Some common user tasks include:

- Search for employees
- Reference the internal phone book
- Read company and departmental news
- Add new employees to HR, payroll, and IT systems
- Enroll in new-employee orientation classes
- Contact the help desk
- Resolve client issues via the CCR system
- Track inventory

## **BACKGROUND**

The groundwork for the Park Place Dealerships intranet began in 1999, when the organization needed to revamp how it tracked clients' issues and resolved problems. The goal was to reliably track and report on customer service weaknesses.

A search of off-the-shelf software, however, turned up nothing. "Unfortunately, the automotive industry is technically about five to ten years behind all other industries," says Counts. "As a result, there is a limited set of options when it comes to business applications that target the specific needs of a car dealership."

Park Place decided to build its own intranet, starting with basic intranet functionality and then adding applications to address significant business problems. "Since then," says Counts, "our intranet has largely been a product of two words: 'what if.'"

The first application was the CCR. When its early versions succeeded, departmental managers began asking what else the intranet could do. "Park Place is fortunate to have a large number of managers who actively seek ways to make their departments more efficient," says Counts.

Not every proposal ends up as an application. One question they ask before creating a custom application is, "Will it streamline a manual, time-intensive business process?" One such process was tracking vehicles after they'd been sold. Before a customer could take delivery, the vehicle had to visit between two and four dealerships for final touches. During this process, the make-ready manager — responsible for preparing a vehicle before it's handed over to a client — had a difficult time knowing where a vehicle was at any given moment. Of course that's not something a customer waiting for her Porsche wants to hear. To solve the problem, Park Place investigated whether existing hardware and software programs could track vehicle location, but the cost of available options would have precluded any return on investment.

So, Park Place began building its own application to track vehicles. "I built up an ugly first draft, focused on the functionality, in a couple of days. Then the manager used it for a couple of days, and we got together to discuss what worked and what didn't," says Counts. "Based on his feedback, we went through a period of daily updates until he was happy with the product, and that's when we started rolling it out."

Development took only three weeks, and cost dramatically less than commercially available options. "We ended up building a simple check-in and check-out system on the intranet for a fraction of the cost," says Counts.

As the inventory-tracking solution illustrates, many of the business processes that the intranet solves don't seem complex. "Most of our applications have turned out to be deceptively simple, some taking less than a week to develop. Yet a simple application, targeting the often overlooked details of a process, can have a considerable impact on the business efficiency of a department," says Counts.

Currently, the intranet staff consists of one person who reports to the corporate IT department. The intranet staff once had three people, including a project manager, programmer, and content coordinator. "This lasted for about six months, after which the project manager position was eliminated, and the content coordinator was promoted out of our department," says Counts. The dealership is currently looking for a new content coordinator.

Currently, the intranet budget "is confined to the salaries of the personnel involved," says Counts.

## **DESIGN PROCESS AND USABILITY ACTIVITIES**

For the latest redesign, begun in April 2004, Park Place wanted to address two weaknesses. First, because intranet applications were grouped in a vertical menu, as the number of applications grew users had difficulty finding them under the existing headings. "We reached a critical mass of links and when watching people use the intranet, we started noticing they were having increasing difficulty finding specific applications."

The second problem was that the vertical navigation bar had grown too much. "Approximately 95% of our applications do not require the user to scroll vertically, but this was becoming increasingly difficult to maintain because the navigation region ate up too much space," says Counts.

**Park Place DEALERSHIPS**  
Welcome Mark Dresselhuys

**Inventory Management**

Home  
Member Search  
Phone Directory  
Vehicle Inventory  
Help Desk  
eReports  
Training Wheels  
Accessories  
Client Concern  
Meetings  
DNC Search  
Marketing Calendar  
Vendors  
Document Library

Intranet Help  
Edit Your Account  
Log Off

Text size : 1 2 3

### Pre-Owned Inventory for Lexus Plano

Lexus Plano | Change Dealership

The vehicles listed below are currently live on the Lexus Plano portion of the Park Place Website, as well as on Autotrader, Cars.com and your manufacturer template site. In addition, an overnight process compares your current live inventory with the inventory in ADP and generates a queue of vehicles found in ADP that are not currently on the website. To access this queue, click on the 'Inventory Queue' button below to edit and publish those vehicles.

122 vehicles | Click on any column title to sort the page by that column.

DEL	#	C	STOCK NO	YEAR	MAKE	MODEL	EXTERIOR	MILEAGE	RETAIL	VIEWS	POSTS	DATE CREATED			
<input type="checkbox"/>	11		4R042326A	2004	BMW	745i	Titanium Gray	12,110	\$64,900.00	26	0	8/24/2004	Edit	Images	View
<input type="checkbox"/>	5		4e049522a	2004	Cadillac	DeVille	Sand	22,588	\$28,900.00	23	0	7/29/2004	Edit	Images	View
<input type="checkbox"/>	10		8734	2004	Lexus	LS 430	Black Onyx	13,010	\$59,900.00	78	0	8/18/2004	Edit	Images	View
<input type="checkbox"/>	4		g1587	2004	Lexus	LX 470	Black Onyx	8,400	\$65,900.00	263	1	5/15/2004	Edit	Images	View
<input type="checkbox"/>	0	<input checked="" type="checkbox"/>	4r013212	2004	Lexus	RX 330	Savannah Metallic	15,224	\$36,900.00	82	2	8/24/2004	Edit	Images	View
<input type="checkbox"/>	0		4R044258A	2004	Lexus	RX 330	Crystal White	16,837	\$37,900.00	11	0	8/28/2004	Edit	Images	View
<input type="checkbox"/>	9		4s086901a	2004	Nissan	Altima	White	11,493	\$19,900.00	25	0	8/14/2004	Edit	Images	View
<input type="checkbox"/>	0		4e034376a	2003	BMW	325	White	23,734	\$30,900.00	1	0	8/26/2004	Edit	Images	View
<input type="checkbox"/>	11		4e048539a	2003	Cadillac	CTS	Gold	17,553	\$28,900.00	58	0	7/30/2004	Edit	Images	View
<input type="checkbox"/>	0		4r042731a	2003	Honda	Accord	White	31,228	\$18,999.00	37	0	8/16/2004	Edit	Images	View
<input type="checkbox"/>	7	<input checked="" type="checkbox"/>	4r063444a	2003	Lexus	ES 300	White	12,378	\$31,900.00	88	0	6/25/2004	Edit	Images	View
<input type="checkbox"/>	11	<input checked="" type="checkbox"/>	3e015766	2003	Lexus	ES 300	White	10,800	\$31,900.00	56	1	7/29/2004	Edit	Images	View
<input type="checkbox"/>	9	<input checked="" type="checkbox"/>	3e015749	2003	Lexus	ES 300	White	13,029	\$31,900.00	37	0	7/29/2004	Edit	Images	View
<input type="checkbox"/>	4	<input checked="" type="checkbox"/>	3e015725	2003	Lexus	ES 300	White	12,745	\$31,900.00	14	0	7/31/2004	Edit	Images	View
<input type="checkbox"/>	6	<input checked="" type="checkbox"/>	8713	2003	Lexus	GX 470	Sand Dollar Pearl	17,353	\$47,900.00	105	0	7/21/2004	Edit	Images	View
<input type="checkbox"/>	6	<input checked="" type="checkbox"/>	4m052408a	2003	Lexus	GX 470	Sand Dollar Pearl	20,351	\$47,900.00	101	0	7/23/2004	Edit	Images	View
<input type="checkbox"/>	0	<input checked="" type="checkbox"/>	4l169203a	2003	Lexus	GX 470	Sand Dollar Pearl	29,768	\$46,900.00	82	1	7/31/2004	Edit	Images	View
<input type="checkbox"/>	0	<input checked="" type="checkbox"/>	8719	2003	Lexus	LS 430	Black Onyx	41,505	\$52,900.00	91	0	8/1/2004	Edit	Images	View
<input type="checkbox"/>	10	<input checked="" type="checkbox"/>	4x543098aaa	2003	Lexus	LS 430	Gold	39,183	\$50,900.00	105	0	8/2/2004	Edit	Images	View

Pictured: The old version of the intranet sported vertical menus on the left side of the page. An increasing number of applications made it difficult for users to find any of them, however. In addition, the vertical menu bar ate up valuable horizontal space and limited the design options.

The plan: do away with the vertical navigation bar. "Moving from our vertical menu to a horizontal menu was kind of a no-brainer," says Counts. Park Place opted for a small, horizontal strip that wouldn't require so much screen space. Because the horizontal bar had much less space for names, the intranet team grouped applications by departments. "Since each application was designed for a specific department's needs, grouping by department just seemed a natural conclusion, which was reinforced in multiple discussions with users," says Counts.

To test the menu order, Park Place created a group with members from each department, then did card sorting. Nonetheless, "we ended up organizing the menus by usage," based on server logs, says Counts, putting the most-used applications on top, then tweaking placement for individual departments. "For the most part, the critical factor on the order of the menus was consistency. Once the user has gotten used to a link being in a certain spot, they start instinctually clicking that area without reading the link names."

As this redesign scenario illustrates, when it comes to intranet design at Park Place, "the overriding design principle is KISS," says Counts, and keeping it simple creates fewer problems in the long run. "Most of our users have very limited training and experience with computers," he says, "so it's absolutely essential that every page be as self-explanatory and easy to use as possible."

Park Place's intranet redesign projects often begin as end-user requests. If approved, the intranet designers form a team of all principal users to articulate the requirements. The company's Business Excellence department also maps the business process or processes behind the application. "Usually, they are called in with a specific objective in mind, such as improving service revenue. They start by documenting the current process and use that as a guideline to determine areas for improvement, to build a new process specifically designed to meet the objective," says Counts. The development group follows this documentation as much as possible to ensure a streamlined process; it also meets regularly with the principal-user team to gather feedback.

One benefit of this approach is that a project simply takes as long as it needs to take — within reason, of course. "Since all of the people involved in process documentation, development, and training are part of our company, it really provides quite a bit of flexibility," says Counts. "We don't have to worry about strict budgeting, or time and contract restraints."

The team frequently waits until the beta stage — when the applications can actually be used — to test designs with users. "Working in a non-technical company, it's far easier to get people thinking about a project with a mockup they can see and use; wire guides and drawings have tended to be more difficult for our users to wrap their minds around," says Counts.

To ensure the intranet is easy to use, however, Park Place focuses especially on socializing developers and end users. "The key to making our applications as easy to use as possible is our communication, mixed with understanding of the fundamentals of usability," says Counts.

On the communication front, developers work in the same building as users. They thus see people actually using the applications, which helps the developers "actively participate in process development and application training," says Counts.

This development approach helps Park Place avoid what Counts sees as a too-formal approach to usability in many organizations. Calling for formal usability studies and formal user research at discrete development process stages, he says, leads to an on-again, off-again usability approach. According to Counts, less-rigid structures are needed. "By breaking out of a formal process, the process becomes free enough to fully integrate into the social atmosphere of development, and causes 'usability' to be less of a buzzword and more of a natural part of the development process."

Another usability aid: making developers train end users on their applications and demonstrate iterations to the principal user group. "By being forced to stand in front of a group of users and explain how to use a piece of software," says Counts, "user-flow kinks really begin to stand out."

The overall design process is iterative. During training, users pose "the questions that all-too-often fail to reach developers," says Counts, with the result that sometimes simple but overlooked solutions come to light. Another benefit is that users get to know the developers. "That familiarity encourages users to contact the developer directly with questions and solutions," he says.

Case in point: For redesigning the intranet's vertical menu as a horizontal one, the designers kept the new intranet in beta, gradually expanding the test group to sixty people, then "waited for the stream of suggestions to turn into a trickle," says Counts. That took about three months. Then, when the new intranet was ready to launch, Park Place promoted the redesign via an internal e-mail campaign.

Of course, a redesign doesn't stop there, and involving principal users in the development process means they assist in the rollout, then go on to evangelize the intranet's functionality.

## TIMELINE

- 1999: Revamped method for tracking client issues; began creating its own applications in-house
- June 2000: Rolled-out intranet
- June 2001: The intranet now contained three applications: an early CCR version, a help desk application, and an early version of a training management system
- April 2004: Began menu redesign
- June 2004: Began beta testing redesigned menus
- September 2004: Launched redesigned intranet and promoted it with internal e-mail campaign

## RESULTS

Today, almost half of Park Place's employees use the intranet daily, and most use it at least weekly. Driving that use is a design team open to users' ideas and feedback, and that designs applications to address specific end-user pain points.

Take page design, for example. While Park Place tries to maintain pages that require no scrolling, links to new applications and functionality in the old design were threatening to make vertical menus longer than screen contents. So, Park Place switched from a vertical to a horizontal menu bar. "By moving the menus to the top, we gained considerable screen real estate. The code change also decreased page-load times," says Counts.

Designers also reorganized menu contents to address users' navigation complaints. "After a little testing, we discovered that using departments to organize links was more intuitive for new employees, and it allowed them to more easily find needed applications." The new departmental headings include sales, service, parts, HR, account, management, and administration. The switch reduced the number of links from seventeen to ten, simplifying the interface.

Going forward, Park Place will increasingly rely upon its intranet — and of course, its website — to support the business. "Dealership staffs are going through an interesting transition as the old-school, stereotypical used-car salespeople give way to a new generation that relies more on technology," says Counts. "In sales especially, you have a new generation of staff looking more to the Web for customers than the showroom floor, and then to the intranet for support."

Central to meeting employees' needs is to never view an intranet application as finished. For example, Park Place might expand its make-ready application from just tracking cars during their post-sale preparation for customers, to also tracking its rental-car fleet. "For insurance purposes, using a PDA, we'd photograph vehicles when checking them out to a client," he says, then automatically store the images on the intranet.

Such tweaks bespeak an ongoing improvement process at Park Place. “I don’t like to think of any application as being finished,” says Counts. “There’s always an improvement to be made, and a fluid development process like ours makes it much easier to react to changing user environments and needs.”

## LESSONS LEARNED

Insights from Ryan Counts:

**Keep users involved.** “Having a casual conversation with a user when we’re out on a smoke break has often sparked ideas for improving a product. If users have ongoing input during development, it really increases their buy-in and use of the resulting application.”

**Foster developer–user conversations.** “Avoid having a brick wall between your developers and users. It’s important for developers to be as close as possible to the people that are using their software. While I’ve worked at several development shops with structured project plans, formal usability studies, and weekly status meetings, I’ve never developed better applications than I have while working in an environment where I simply have daily contact with people who are using my applications. Even in organizations with millions of users, have the developer e-mail a client or two.”

**Bake-in usability studies.** “Because of the expense and time required for formal usability studies, many organizations only conduct them on a quarterly or yearly basis. This is probably all right if you are only updating your code or content on a yearly basis, but most sites tend to change daily. For usability to be truly effective, it must be a daily part of the development cycle. You can’t just have a study, make some changes based on the results, and hope that it fixes your weaknesses. There has to be follow-up. And perfection is an evolutionary process; you can’t build it on a white board, and rarely by committee.”

**Don’t treat usability studies as scorecards.** “For formal usability studies, the development team needs to deactivate its ego. All too often — especially in non-technology companies — a usability study is treated as a scorecard for the application or website being developed, and people often cringe when a test subject fails to achieve a common task. Get over it: usability isn’t about right or wrong, but making things that work.”

**Localize usability results.** “Because of time and expense, usability studies often draw attention from senior managers. When those managers only read the executive summary, however, or lack technical expertise, and then involve themselves in the process, it can be counterproductive. So, while the development team — those doing the redesign work — need to hear the raw truth, outside of that department, I think usability study results should remain secret.”

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## Procter & Gamble

### Using the intranet:

The Cincinnati-based Procter & Gamble Company (P&G) began in 1837 as a small, family-operated soap and candle company. Today it's the largest manufacturer of household products in the United States, with \$51.4 billion in 2004 revenue. P&G markets its products to consumers in 140 countries, under such brand names as Actonel, Always, Ariel, Bounty, Charmin, Crest, Downy, Folgers, Head & Shoulders, Iams, Olay, Pampers, Pantene, Pringles, and Tide.

### Design Team:

Procter & Gamble's Global Business Services (GBS) group and the employee-communications department; Hewlett-Packard; Bridge Worldwide

### Members:

**Procter & Gamble:** Michelle Gosselin, GBS brand manager and initiative leader; Barb Nieman and Scott Bennett, employee communications; Linda Weaver, technical liaison with HP; Gail Macke, employee resources page leader; Mark McCabe, people management page leader; Gretchen Terhar, business management page leader; Steve Schmidt, P&G deployment and launch leader; Kim Rehtin, employee research leader

**Hewlett-Packard:** Donna Quinn, project manager; Vincent Jacobs, Jim Kruckeberg, Mandy Huth, Cuong Vu, Mark Owen, Phil Stam, Jeff Sen, and Cary Harlow, technical development

**Bridge Worldwide:** Jeff Haun and Steve Kirschner, account team; Dave Maly, Kerry Broderick, Nicole Wehrle, and Kristine Shuey, creative team

## SUMMARY

Procter & Gamble brands include some of the world's most recognizable product names — Pampers, Tide, Bounty, Pringles, Folgers, Charmin, Downy, Crest, and Clairol are a few of its creations. To keep an incredible machine like this well oiled takes a large staff, superior communication, and the right tools. The P&G intranet, my.PG.com, is at the center of this effort.

All P&G employees have access to the intranet for news, HR services, business support services, and business data. My.PG.com makes it fast and easy for employees to get the information, tools, and resources they need.

On the homepage, all employees see the *Corporate News* area, which contains global news about the organization, including important awards and references — such as making Fortune's "best companies to work for" list. The area also displays high-level announcements, such as major product launches, acquisitions or divestitures, and corporate sales milestones.

Following corporate news is business-unit news, local news, and news related to various company functions. Here, the intranet's personalization features serve relevant news based on an employee's selections. For example, local news is keyed to the employee's worksite, city, or country. Also, because employees often belong to more than one business unit, they can receive news from up to three organizations or units, as well as select news from up to three functions (including research and development, marketing, finance, HR, and sales). By clicking on *P&G News*, users can see all recent references to P&G in external media.

Users can change their business unit and function news settings by clicking on the *Edit* button for each section. To change their location setting, users click on *Change settings* in the banner in the page's upper-right-hand corner. They can also click on their current country or city (each a separate link in the upper-right part of the page) to change it. The location setting is prominent because it determines the content users see in other sections of the portal.

Users can easily search the entire intranet (using the Google appliance), employee directory, or other areas of the intranet via the search function in the upper-right corner of all pages. To select the search area, employees use the drop-down menu, which gives them many search choices, including a people finder; the intranet (Google); the *Employee resources*, *People management*, or *Business management* sections; an acronym database; the location directory; and the Internet. The nicest thing is that the most-used functions — searching the entire intranet and the employee directory — are the first two choices.

my.PG.com

Welcome, [Scott Rowland](#)

Site Map | [Change Settings](#) | [Change Password](#) | [Contact Us](#) | [Help](#)

Search:  in **PeopleFinder**

**PeopleFinder**  
 Intranet (Google)  
 Employee Resources  
 People Management  
 Business Management  
 Acronym Database  
 Location Directory  
 Internet (Google)

**P&G Inside** | [Employee Resources](#) | [People Management](#) | [Business Management](#) | [My Pages](#) | [My Cor](#)

**Alerts**

**PG**  
Listed: NYSE

Last:	54.10
Change:	-0.50
Volume:	2,936,600
52 Wk High:	56.95
52 Wk Low:	47.50

11/15/2004 2:40 PM ET  
Pricing Delayed 20 Minutes

**Business Sites**

- GBU Sites
- MDO Sites
- CF Sites
- GBS Org Sites
- Billion \$ Brands

**News**

- [P&G News](#)
- [Org Announcements](#)
- [Archive](#)
- [Virtual Library](#)
- [Submit news to P&G Inside](#)

**Views**

- [AG Online](#)

**P&G Brand**

- [Purpose/Values/Principles](#)
- [Success Drivers](#)
- [Business Conduct Resources](#)
- [P&G Visual Identity](#)
- [QGSIM](#)
- [History](#)
- [pg.com](#)
- [Worldwide Operations](#)

**Up Close**

- [Unsung Heroes](#)
- [Connections](#)

**Intranet Directories**

- [Directory](#)
- [Top Intranet Sites](#)
- [List of all gadgets](#)

**Corporate News**

**Flashpoint Celebrates Innovation**  
See highlights from this year's event, from general session moments to booth winners. [Details](#) (Posted on 15-Nov-04)

**P&G Licenses Marketing Know-How to BASES**  
Exclusive license of "Virtual Launch" product test methodology and Gen-3 volume forecast model will increase the accuracy of Virtual Launch while significantly lowering costs and accelerating global deployment for P&G. [Details](#) (Posted on 15-Nov-04)

**Living Leadership**  
What does leadership look like? How do some of the experts outside P&G define it? [Details](#) (Posted on 12-Nov-04)

**Nabil Sakkab Elected to European Chemical Council Industry (CEPIC) Board**  
Bringing unique customer perspective and strong innovation knowledge base. [Details](#) (Posted on 11-Nov-04)

**REPOST: Guarding Against Phishing Scams**  
This continues to be an issue so we're reposting this information once again. [Details](#) (Posted on 11-Nov-04)

**2004 Global Brand Building Awards/Harley Procter Marketers**  
P&G celebrates achievement in brand building innovation and excellence. [Details](#) (Posted on 10-Nov-04)

(Posted on 12-Jan-05)

**1/06/05 NA MDO People Announcements**  
[Details](#) (Posted on 10-Jan-05)

**AA ER Echoes October '04**  
A recap of programs, press and presentations targeting the African-American community. [Details](#) (Posted on 5-Jan-05)

[Link to NA MDO Website](#)

**Local News**

[Expenses Online Coming Soon](#)

**ER News** [edit](#)

[Link to External Relations Net](#)

bdc-intra

Pictured: Users can search the entire intranet, employee directory, or other specific intranet areas by selecting from a drop-down list next to the open search field.

Users also see the stock quote on the homepage, and can link or navigate to various business sites via the left-side drop-down menus.

P&G's corporate visual identity, denoted by the moon-phase-type graphics and royal blue color, also comes to life on the intranet homepage (other colors from P&G's corporate color palette are often used to denote other intranet sections). The corporate logo, referred to internally at P&G as a "phase graphic," plays off P&G's historic moon-and-stars logo.

The screenshot shows the P&G intranet homepage. At the top left is the 'my.PG.com' logo. In the center is the P&G logo. To the right are links for 'Site Map', 'Change Settings', 'Change Password', 'Contact Us', and 'Help'. Below these is a search bar with a 'Go' button and a 'PeopleFinder' dropdown. A navigation bar contains links for 'P&G Inside', 'Employee Resources', 'People Management', 'Business Management', 'My Pages', and 'My Communities'. The main content area is divided into sections: 'Alerts' with a table for PG stock prices, 'Business Sites' with dropdown menus for GBU, MDO, CF, GBS, and Billion \$ Brands; 'News' with links for P&G News, Org Announcements, Archive, and Virtual Library; and 'Corporate News' with several news items including 'P&G's Safe Drinking Water Program in Kenya', 'P&G Confirms Prior Earnings Guidance for First Quarter 2004/05', 'P&G Responds to Hurricanes', 'P&G Korea Wins "Fun Management" Award', 'Five Straight Years', 'Japan is a Source of Innovation', and '2004 Annual Report Issued'. A circular photograph of people in a rural setting is associated with the Kenya news item.

Pictured: The Procter & Gamble homepage displays global corporate news to all employees. More news is personalized by the user's location and any corporate-group news to which they subscribe.

When employees click on a news item, they see the full story, complete with a title, short summary, and date of the posting — in an international format that spells out the month. In addition, pertinent photographs enhance the story, cropped to reinforce P&G's brand identity.

## Feature



PG	
Listed: NYSE	
Last	54.23
Change:	▼ -0.37
Volume:	3,029,800
52 Wk High:	56.95
52 Wk Low:	47.50
11/15/2004 2:52 PM ET	
Pricing Delayed 20 Minutes	

### Bringing the Outside In

*P&G's new global headquarters lobby welcomes employees and guests from around the world*

**Scott Bennett**, Corporate Employee Communications

3 November 2004



On 25 October, the plywood barriers came off and a once reserved and expressionless entrance to P&G's Central Building opened its glass doors to the world once again, revealing a colorful, spirited experience that is inspiring employees and guests alike.

The sun shines a little brighter into the new Lobby, with the north and south walls now almost entirely made of glass. Larger-than-life photography along the west wall brings the open space to life and celebrates P&G's commitment to put the world's consumers at the heart of all we do. The wall is modular and uses adhesive film photos that can be changed periodically to refresh the space.



A clever, symbolic feature of the design is the pebble-covered ground outside that seems to pass through the glass and continue into the outer edge of an interior meeting space. This and other subtle choices seem to bring the outside in — a defining characteristic of P&G's DNA.

To extend a warm welcome to guests from around the world, a circular glass sign above the reception kiosk displays the word "Welcome" in several world languages.



Amid all the fun, futuristic furniture the lobby offers at every turn, there's a strong sense of the Company's heritage throughout the space. Blue is predominant in the architecture, and the terra cotta Moon & Stars historical icon that has always donned the end of the elevator bank appears to have weathered the construction without a scratch.



Speaking of history, the Central Lobby has been welcoming employees and guests for 48 years. Construction of the Central Building began in November 1954. At 4:30 pm on Friday, November 16, 1956, 1,500 employees made the "Great Move Eastward," re-locating their belongings from the Gwynne Building at Sixth & Main Streets to the newly constructed General Offices at Sixth and Sycamore. P&G President Neil McElroy (pictured) led the formal dedication ceremony in the Lobby on January 7, 1957.

The new Central Lobby's combination of dramatic architectural and graphic elements reveals a new, exciting chapter for P&G. It's a remarkable display of achievement, honoring our past, while providing energy for a bright future. We hope our new face to the world brings a smile to yours.

[Official Central Lobby Renovation site](#)

[Comments about this story?](#)

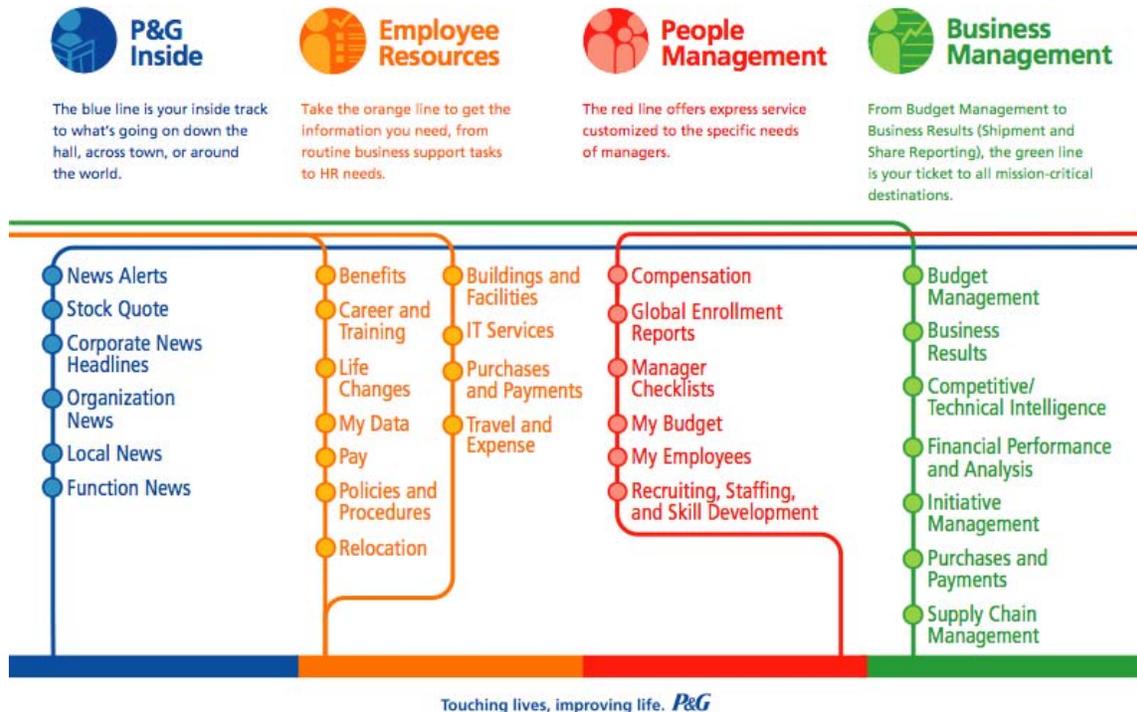
Pictured: News stories on the P&G intranet demonstrate good writing, appropriate and relevant photographs to enhance the story, and include full information, such as a story title, description, and date. Recalling P&G's corporate logo, pictures are cropped to reinforce the corporate brand identity.

In addition to horizontal controls at the top of the page and the left-side navigation, the intranet provides a site map, reinforcing the main sections:

- 1.) *Employee resources*: pay, benefits, relocation, career and training information, IT, buildings, purchasing, and travel.
- 2.) *People management*: everything managers need, including the compensation system and organizational charts.
- 3.) *Business management*: role-based applications and content for employees' job-related needs, whether their jobs are commercial (sales, marketing) or technical (logistics, research and development).

The page clearly lists and provides thorough descriptions for each of these areas. The color-coded page also resembles a subway map — and that’s no accident. “Our offline communications to employees used the site map theme and further capitalized on the idea by using a subway theme as the launch campaign,” says Michelle Gosselin, brand manager for P&G’s Global Business Services division and head of the redesign.

## Catch the new my.PG.com for the resources, data, tools, and news you need.



Pictured: For the new intranet’s marketing launch campaign, P&G picked up on the site map’s subway design theme to introduce users to the intranet’s information architecture.

In terms of Web design, a site map might seem rather old-school, but in this case, it’s a useful element: after the redesign, it was the first page every user saw. P&G took this approach because “we found that it sent a much stronger signal that this was something new and different, and that my.PG.com was going to deliver much more than just news,” says Gosselin. “In our user research, we found that about half of our users preferred to land on the news page, while the other half preferred a site map-type page, describing our top-level navigation.” Based on that research, the designers gave users the option to eliminate the navigation page at startup and instead start on the news page.

Users who set the news page as their intranet home can easily access the site map via the *Site map* link at the top of every page.



Pictured: The site map page clearly distinguishes and describes the intranet's four main sections. Users can either use this page or the news page as their homepage.

The main-category colors on the site map carry through to the top-level global-site navigation. The navigation bar is royal blue, and once a button is selected, it briefly turns a different color to indicate it's a link. This attention to colors makes it very easy for users to determine which intranet area they're in, and it creates a consistent look and feel across the entire intranet, using colors from P&G's corporate brand palette.

Beyond the site map, employees need other ways of locating crucial information, and with almost 110,000 employees in more than eighty countries, the employee directory is a work staple. To be useful, however, user profiles must be thorough and helpful, and indeed they are in P&G's *PeopleFinder* application. The profile shows the employee's name, phone numbers, e-mail, and any other communication information they provide. The employee's P&G organization, cost center, role, and location are also visible, as is a picture.

<b>Name:</b>	<input type="text"/>	<b>Company Name:</b>	<input type="text"/>	<b>Personal &amp; Contact Data:</b> 
<b>Office Phone:</b>	<input type="text"/>	<b>P&amp;G Status:</b>	<input type="text"/>	
<b>Starnet/GN:</b>	<input type="text"/>	<b>T-Number:</b>	<input type="text"/>	
<b>Alternate Phone:</b>	<input type="text"/>	<b>Primary Location:</b>	<input type="text"/>	
<b>Mobile:</b>	<input type="text"/>	<b>Bldg/Office:</b>	<input type="text"/>	
<b>Pager:</b>	<input type="text"/>	<b>Site/Country:</b>	<input type="text"/>	
<b>Fax:</b>	<input type="text"/>	<b>Mailbox/Mailstop:</b>	<input type="text"/>	
<b>Email:</b>	<input type="text"/>	<b>Phone Comment:</b>	<input type="text"/>	

<b>Organization Type:</b>	<input type="text"/>	<b>Function:</b>	<input type="text"/>	<b>Organizational Data:</b>
<b>Organization Name:</b>	<input type="text"/>			<a href="#">Open Manager's Profile</a>
<b>Department Number:</b>	<input type="text"/>			
<b>Department Name:</b>	<input type="text"/>			
<b>Cost Center Code:</b>	<input type="text"/>			
<b>Cost Center Name:</b>	<input type="text"/>			

Pictured: The employee profiles in the corporate directory provide all the information you could need to contact someone. A picture of the person also helps people to get to know each other.

At large organizations such as P&G, every little bit of time wasted on a bad interface can prove costly. Even time wasted trying to find forms, when multiplied by many users, can really add up. A great way to save users' collective time is to consolidate forms from across the organization. P&G does this by consolidating forms from its three main content areas — *Employee resources*, *People management*, and *Business management* — into a single interface. The *Forms/Request Center* lists the forms and divides them into specific, easy-to-decipher categories. Links open either HTML forms, Word documents, or, for paper-based submissions, PDF documents.

Employee Resources Home

Forms/Request Center

Benefits | Buildings & Facilities | IT Services | Pay | Personal Information | Travel & Expense

Forms/Request Center

HR Services

Benefits

Career & Training

Life Changes

My Data

Pay

Policies & Procedures

Relocation

Business Support Services

Buildings & Facilities

IT Services

Purchases and Payments

Travel & Expense

Benefits

Benefits

Employee Benefits Handbook Order Form - MS0210

My Benefits Enrollment Summary

Education Programs

Matching Gift Brochure - MS0390

Scholarship Fund Eligibility - MS0425

Technical Education Information Packet - MS0640

Tuition Reimbursement - MS0200

Employee Programs

Addition Assistance Application for Reimbursement Form - MS0130

P&G Fitness Center Cancellation

P&G Fitness Center Registration

P&G Fitness Center Suspension

United Way and Fine Arts Fund Authorization - MS0630

Volunteer Support Program Brochure - MS0900

FlexComp Benefits

Application for Dental Vision Medical or Child Dependent Care Assistance - FX0110

FlexComp Reimbursement Form 2004 - FX0170

FlexComp Reimbursement Form 2005 - FX0170-2005

FlexComp over the counter eligible items - FX0270

Health & Well Being Benefits

Opera Dental Claim Form - HC0200

Cost Verification Form - HC0540

Domestic Partner - Financial Interference Test - MS0610

Domestic Partner - Statement of Termination - MS0615

Domestic Partnership Affidavit - Local Tax Dependent - MS0600

Domestic Partnership Affidavit - Non Local Tax Dependent - MS0605

HRAA Privacy Notice - HC0375

Health Care Affidavit Household Dependents - HC0241

Health Care Direct Debit Form - HC0240

Hanana Medical Claim Form - HC0150

P&G Dependent Support Test Form - MS0620

Vlaegans Home Delivery Prescription Order Form - HC0615

Life Insurance

Beneficiary Designation Form - FX0190

Beneficiary Information/Change Request Packet - MS0150

Pension/Retirement Plans

Beneficiary Designation Form - PS0120

Beneficiary Election of Optional Payment Form - PS0130

Beneficiary Modification of Default Annuity Form - PS0140

Shareholder Investment Program

Historical Account Analysis Form - SH0100

New Account Application Form - SH0110

Order for Sale of Common Stock - SH0130

Shareholder Transaction Form - SH0160

Stock Power Form - SH0170

Stock Transfer Form - SH0130

Stock Purchase Plans

My Stock Options/Purchase Shares

Time Away from Work

Certification of Entrance to Military Duty - MS0535

Buildings & Facilities

Building, Lawn & Road Services

Cleaning Request

Electrical Request

Elevator/Escalator Repair Request

HVAC Request

Interior Finishes Request

Lawn & Roads Request

Painting Request

Pest Control Request

Patio & Porch Request

Cleaning & Disposal Services

Request for Confidential/Trash Dumpster

Facilities Services

Audio/Visual Request

Food Services

Place a catering order with MyAssistant!

Health Safety & Environment

Request Correction to Unsafe Condition

Request Ergonomic Adjustment

Request Ergonomic Assessment

Request Fire Device Inspection

Request Paper Recycling Bin

Request Safety Service Inspection

Request Waste Pickup

Mail Services

Online Order Form

Movement of Materials (On Site) Equipment, Skids, Boxes, Etc....

Package Shipping Request

Move and Furniture

Furniture Request

Furniture and Door Locks

Office Lab Moves

Request Ergonomic Adjustment

Request Ergonomic Assessment

Wall Mounting

Printing Services

Copier Repair Request

Document Services Order Form

Security Services

Report an IT Security Incident

IT Services

Account Registration and Deletion

04. Request Business Warehouse/SEM Access

Request a Social email ID

Computer Hardware & Accessories

Request IT Equipment

Request a BlackBerry

Request a PC (New/Replace)

Return Computer or Accessories

Connecting to PG Wirelessly or Remotely

Request/Renew SecurID

E-mail and Sametime

Request Sametime Account and Install Application

Request Lotus Notes Fix

Request a Social email ID

Request to add Address to the SPAM Exception List

GBS IT Volume & Pricing

Request an IT Resource Unit Change

Information Security

Security Genie - CSA Use Only

Passwords

Request a Non-Unsafe Password Reset

Request an Intranet Password Reset

Phones Pagers Voice Mail

Order Pager Service - NA

Order Modify/Cancel an ESP Card - NA

Printing & Faxing

Report a Faulty Printer

Report a Faulty Copier

Request a Printer - New or Replacement

SAP Security

02. SAP Access (G4 F4 N61 A7 L5 . .)

03. ODC Access (for G11 G12 G15 & webflow)

05. KDC Access (GLD GLR GLE . .)

Request Business Warehouse Access

Sharing Files Internally and Externally

Request Network DataFile Restore

Request New or Change Existing Shared Drive/Folder

Request Shared Area Membership List

Request a Shared Area Owner Information

Support

Add or Replace Charaback Report Recipient

Hardware Support Request

Request SBWP

Request VirtualViews Application Change

Request VirtualViews Services

Request VirtualViews Support

Software Support Request

Pay

Deductions

My Paycheck Deductions

Spouse Bond Application - PT0320

Pay

My Bank Information

My Payroll

My Timesheet

My Timesheet Correction Form - PT0399

My Vacation/Leave Information

Taxes

Childrnl Income Tax Return Form - PT0140

Insured Income Calculation Worksheet - PT0170

My Federal W4

State Tax Forms

W2 Reconciliation PT0500

Work Tax Change PT0105

Personal Information

Personal Data

Employment Verification Instructions - MS0220

My Home Address/Resident Tax Change Form

My Immediate Manager

My Personal Data

Work Location Change Form

Travel & Expense

Corporate Card

AMEX Cash Application

AMEX Courtesy Reimbursement Form

AMEX Guaranteed Corporate Card Form

American Express Application - Manual Form

Online Corporate Card Application

Expense Management

Affiliate Cross Charge Form

Excursion Approval Form

Expense Report Form

Local Mileage Reimbursement Form

Travel Advance Form

Planning a Trip

Corporate Jet Request Form

ESP Caltra Card

Emerald Airline Application (US and Puerto Rico)

Travel

American Express Travel Profile

American Express Travel Profile - Contractors

Dependent Care Form

Travel Security

Global Travel Clearance Request Form for Travel to Colombia

Global Travel Clearance Request Form for Travel to Venezuela

Benefits | Buildings & Facilities | IT Services | Pay | Personal Information | Travel & Expense

Pictured: The *Forms/Request Center* houses the organizations' forms and presents them in categories that users can easily navigate.

Communication with an organization's leaders helps keep employees in touch and aware of important directives and accomplishments. On this front, P&G's intranet contains an engaging section hosted by A.G. Lafley, P&G's chairman of the board, president, and chief executive. The smiling picture of Lafley makes him seem friendly and approachable, and the page's information is concise and presented in a simple, bulleted list. Terms an employee might not understand, such as "organic sales growth," are defined in a call-out box. This helps employees actually understand the information and learn from it, and helps them feel like part of the organization's future.



AGOnline

[Leadership Perspective](#)  
[AGOnline Archive](#)  
[AG's Biography](#)  
[Site Feedback](#)  
[Ask AG](#)

## P&G Strategies Are Working, with Challenges Ahead

27 October 2004

Today we announced [July-September \(JAS\) business results](#):

- **Net earnings** increased 14% to \$2 billion due to strong top-line growth and the net gain from the Juice divestiture.
- **Diluted net earnings per share** increased 16% to \$0.73. Excluding the Juice divestiture, earnings per share increased 13%.
- **Unit volume** grew 12%, with developing markets leading the charge; **Organic volume**, which excludes acquisitions and divestitures, was up 8%.
- **Sales** were up 13%. **Organic sales** grew 6%, with Beauty Care and Household Care delivering double-digit sales growth.

**What is....****Organic sales growth.** The growth rate of a company, excluding the impact of acquisitions or divestitures and the impact of foreign currency exchange rates.

We're off to a good start this fiscal year. P&G strategies are working. The strength of our innovation program and the diversity and strength of our portfolio continue to give me confidence that we can deliver another year at or above long-term targets.

Nonetheless, we MUST resume disciplined cost management and keep a clear eye on delivering superior consumer value. We face challenges from increasing commodity price pressure and aggressive spending by competitors in a number of categories. We must not let up. The external environment is tougher than ever.

Quarterly highlights by GBU:

- **Health, Baby & Family Care.** Health Care delivered mid single-digit volume and sales growth. Unit volume increased 6%, with Pharmaceuticals delivering strong double-digit growth led by the continued success of Actonel and Asacol. Net earnings decreased 4%. Excluding the impact of Prilosec OTC® in both years, Health Care delivered double-digit sales and earnings growth.  
  
Baby & Family Care delivered strong results. Unit volume increased 7% driven primarily by global strength in Baby Care behind Feel 'n Learn training pants in North America and Baby Dry in Western Europe. Family Care volume increased behind solid growth from recent Bounty and Charmin initiatives. Net sales increased 9% to \$2.85 billion. Net earnings grew 9% to \$320 million against a strong base period where earnings grew 23%.
- **Beauty Care** delivered double-digit volume, sales and earnings growth. Unit volume was up 25%. Net earnings grew 16% to \$692 million due to the impact of volume growth and cost reduction programs, which more than offset the impact of higher commodity prices. Volume growth was broad-based. Head & Shoulders, Rejoice and Herbal Essences led hair care growth. Olay grew behind continued geographic expansion and new initiatives including Regenerist Eye Serum. The Lacoste brand led fine fragrances growth while Always/Whisper and Naturella drove Feminine Care gains.
- **Household Care** posted strong top-line growth for the quarter. Volume was up 11% behind developing market growth, a strong initiative program led by Tide with a Touch of Downy, Febreze Scent Stories and Air Effects, and the expansion of Lenor fabric softener in Japan. Net earnings increased 7% to \$600 million.  
  
Snacks & Coffee sales were \$740 million — up 1% behind foreign exchange help that offset the impact of a 1% volume decline. Net earnings were \$83 million, down 13% driven by higher coffee commodity prices and marketing investments behind innovation in the Snacks business. Continued competitive discounting and trade promotion activity had an adverse impact on volume growth and prevented us from fully recovering commodity increases in the quarter.

While this performance confirms our strategies are working, we know it's just a start. As I said earlier, we must remain more focused than ever on disciplined cost management and delivering superior consumer value through competitive cost structures that enable competitive pricing as well as consumer-meaningful innovation. We are committed to consistent, reliable long-term performance and it will require the best from all of us in this increasingly challenging environment.

I'm confident we can meet the challenges ahead. It's your creativity and capability, leadership and ownership, collaboration and inspiration that will keep P&G's business healthy and growing.

[Comments about this column?](#)

Pictured: The P&G president and CEO offers an announcement page to keep employees informed.

With so much information on the intranet, it's important that all employees get access to it. Of course, some employees work in plants and warehouses rather than at a desk in an office. For these employees, the organization provides workstations for e-mail and intranet access.



Pictured: A shared workstation in a meeting room in Mehoopany, Pennsylvania, gives plant technicians access to their e-mail and P&G's intranet.

Through consistent navigation and branding, and good search capabilities, the intranet unifies different P&G groups' intranet sites and gives employees access to both the intranet and the P&G organization as a whole. News, personalization, and employee-oriented communications materials also keep employees engaged and informed.

## URL AND ACCESS

The intranet's URL is <http://my.pg.com>. The intranet is the default homepage for all employees, though they can change it. "Most employees choose to keep their homepage set to the default," says Barb Nieman, who works in P&G's employee communications department.

When not connected to the corporate LAN, employees can access the intranet on a company-provided computer via a VPN connection. In some plants, technicians also access the intranet via kiosks connected to the corporate LAN.

## CONTENT MANAGEMENT

"The content management system is a custom-developed, Web-based system that uses a combination of portal server and document management systems to generate the HTML and JavaScript files used to render the site," says Mark McCabe, leader of the people-management page.

Based on the intended audience, portal content beyond news is arranged into one of three sections: content relevant to all employees, to staff managers, and to business managers. "There is a global portal owner, an owner for each section, regional owners for each piece of content, and in some cases, country-specific owners," says McCabe. This approach to content ownership arises from P&G's highly distributed operations, including multiple locations and languages. Much of the content relevant to all employees, including HR, pay, benefits, travel, and building information, is actually location- or country-specific.

Country-specific content owners add or change all content via templates, making it easy to enforce design and presentation. P&G tracks all changes with the content management tool.

## TECHNOLOGY

The software running the intranet, Plumtree Corporate Portal, runs on Microsoft Internet Information Server and Windows NT servers. Plumtree also handles the intranet navigation and site localization, including serving relevant translations.

P&G uses custom-built portlets that integrate with Plumtree to create some dynamic features. The site also uses static HTML, and JavaScript, both of which the Plumtree software serves.

A Google appliance handles general intranet searches, while the custom-developed document management engine searches for content, and various other engines locate people, company locations, acronyms, and so on.

HP handles the bulk of P&G's IT needs through an outsourcing arrangement that includes most of the intranet technology. "Some of our Web applications are sourced to other strategic suppliers as well," says Gosselin, "such as IBM for our online travel booking and online expense reporting systems." P&G also uses real estate services company Jones Lang LaSalle for its conference-room booking system.

## GOALS AND CONSTRAINTS

Goals:

- Implement a role-based architecture to make the intranet more intuitive so employees find the news, data, tools, and resources they need more quickly.
- Update the intranet's graphic design to reflect P&G's new visual identity, and standardize the whole intranet's look and feel.
- Better exploit portal-software capabilities to improve corporate content delivery, and localization and personalization features.

Constraints:

- Timing: Senior management wanted the intranet to sport P&G's new visual identity as quickly as possible, while the redesign team wanted to ensure the role-based framework and navigation improvements were ready.
- Dealing with technical limitations related to the time constraints, since "waiting for the ideal technology to be qualified and ready would have added considerable time to the project," says Gosselin.

## **BASIC INTRANET FEATURES**

The intranet offers a range of information for P&G employees, much of it localized and in relevant languages so employees don't have to wade through irrelevant information. For example, a range of content — including vacation policies, benefits, travel, and building services — is country-specific, and is only revealed when users select their location via a drop-down menu.

Other intranet features include links from the homepage to corporate news and organizational announcements. Employees also have access to a variety of job-specific tools, including sales, marketing, logistics, and research and development functions. For example: managers can access relevant compensation system calculators and organizational charts; marketing personnel can access work in process, including advertising clips and artwork packaging; salespeople can see customer-shipment reports; and scientists in research and development can search a global library of research that has already been performed on various technologies.

## **USERS**

P&G has over 100,000 employees working in almost eighty countries worldwide.

## **USER TASKS**

Typical user tasks include:

- Read corporate, business unit, or site and facility news
- Access company-specific reference or policy information
- Search for content, employee information, and common P&G acronym definitions
- Book travel
- Obtain computer support or applications to install
- Order supplies
- Report building problems
- Obtain HR-related information and download related forms
- Access job- and business-related data, systems, and applications

## **BACKGROUND**

Intranet development at P&G began in 1996, when the IT department created prototype sites for two of the company's most important competencies: research and development, and sales. "A site for public-affairs employees was also slipped in, since work was already well underway on that," says Nieman.

Those three sites went live in 1997, with an HTML-based homepage. From there, the intranet grew organically — “there was no central organization structure,” says Nieman — as different departments and teams added their own stand-alone sites.

In 1998, IT still managed the intranet, but the employee-communications department began managing the communications-related parts of the homepage. At this point, the homepage “began to evolve from a launch page to more of a communication tool, as well as providing some high-level navigation to key intranet sites,” says Nieman.

In 2000, the introduction of new page-creation tools (that required no HTML knowledge or programming), plus pre-built “easy start” sites for such things as team collaborations, led to a rapid increase in the number of internal intranet sites.

Later that year, P&G began implementing portal technology from Plumtree, moving beyond its Lotus Notes infrastructure. In October 2001, the Plumtree-driven intranet went live, supporting 60,000 employees worldwide. One notable new feature was a dynamically generated directory page, providing better insight into the intranet’s content.

In 2002, the intranet’s functionality and appearance was updated.

## **DESIGN PROCESS AND USABILITY ACTIVITIES**

### **Assembling a team**

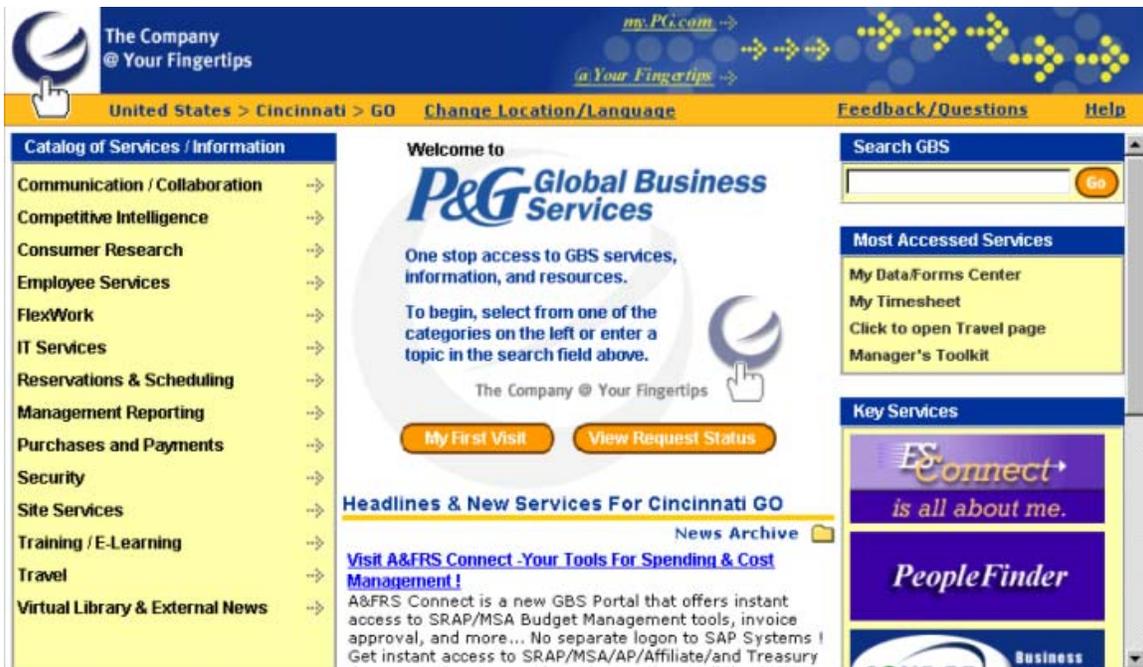
One catalyst for redesigning the P&G intranet was that “employees told us they didn’t know where to go for various services,” says Gail Macke, leader of the employee-resources page. “Frankly, we’d gone a little ‘brand crazy,’” with application titles such as “SourceOne,” “A&FRSConnect,” “BBP,” “ESConnect,” “Company at your Fingertips,” “my.PG.com,” and “eSupport.”

For an analogy to the challenge users faced, “imagine a grocery store organized by manufacturer rather than by product category,” says Gosselin. The naming was a legacy of an intranet architecture driven by internal P&G departments rather than employee needs.

Another redesign catalyst was the desire to update the intranet to reflect P&G’s new visual-identity standard.



Pictured: The old P&G intranet was organized by department, and its design didn't match the new corporate-branding guidelines.



Pictured: Subsections in the old P&G intranet lacked navigation or design consistency with other subsections.

To start the redesign, P&G first needed to assemble a redesign team. At P&G, there's no one intranet team per se, says Gosselin, because "historically, the intranet has been a loose confederation of sites linked together across the enterprise." The employee-communications department, for example, maintains content for *P&G Inside*, the de facto intranet homepage, while HP, in conjunction with a P&G governance organization, makes technology-related intranet decisions.

For this redesign, the project team was composed of employees from a variety of P&G's groups. Gosselin, as brand manager for Global Business Services (GBS), which owns most corporate-wide content, led the project. The employee-communications department also participated, especially advising on news and visual-identity issues. Meanwhile, HP provided systems development and integration expertise, and the design firm Bridge Worldwide delivered the graphic design, based on the design it created for P&G's public-facing website (<http://www.pg.com>).

Because P&G's shared-services group maintains much of the intranet content, several of its managers also joined the redesign team to handle the *Employee resources*, *People management*, and *Business management* sections.

## Setting the scope

With the team in place, members outlined a plan of attack. "We knew we wouldn't be able to redesign the thousands of pages of an organically grown corporate intranet all at once," says Gosselin. Instead, the first phase of the project — the winning redesign — would target about twenty of the largest corporate intranet sites. Others would be redesigned later.

The first step of the redesign plan was to learn from the existing site, so the team commissioned an expert review of the existing intranet, analyzed previous employee-satisfaction surveys, and benchmarked the functionality of popular Internet portals. At the same time, Bridge Worldwide began developing a new graphic design for the intranet.

The redesign team also began user research. "We needed to understand how employees approached the intranet," says Gosselin. Research began with card-sorting exercises, to discern a better information architecture.

All of that research "showed us employees visit the intranet for one of three key reasons," says Gosselin. Employees' primary activities were to look for news, HR information, or perform administrative tasks; to perform tasks associated with managing other employees; and to use business tools, data, and information relevant to their role in the company.

Based on the results, says Macke, "we decided we needed to move to a more role-based design, to make it easier for employees to find what they were looking for."

Through research, the team honed a new, role-based navigation structure, with six primary pages: news, employee resources, resources for managers, key business tools and data, personalized pages, and communities (individual sites for P&G departments and organizations).

To speed the project, “the team got agreement to do visual design and content organization through the use of an HTML- and Java-Server-Pages-based mockup design, which we used to demonstrate and ‘sell’ the new portal design to functional leaders and content owners,” says McCabe. This step was necessary “to get them to agree to such a dramatic change, and to move their content to the new portal.” This HTML and Java server pages (JSP) mockup, which was done only in English, sped up the process since it “let us test 90% of the design and functionality of the new site with users before making a significant investment in technology,” says McCabe.

## **Launching a prototype**

In January 2004, the redesign team created the HTML and JSP intranet prototype, then conducted usability testing on it in February and March. “The testing focused on the thirty tasks most commonly completed by an employee or manager, and our goal was to have users successfully complete 80% of the tasks,” says Macke. However, with the first version of the prototype, “we didn’t meet our goal.”

To improve employees’ success rate, the redesign team studied results from the prototype test to understand the current design’s pitfalls and why users couldn’t find the information. This research sent the information architecture design team back to the drawing board to make content easier to find. With a new prototype in hand, the team ran a second round of usability tests on both the prototype and the existing intranet to benchmark improvements. This time, task-completion rates for the new site met the needed 80% success rate and were significantly better than the current intranet.

Meanwhile, the team discussed technology needs with HP, which returned with an implementation proposal in April 2004. The timing here was a challenge for P&G. Management wanted the intranet updated with the new P&G branding quickly. Yet, the intranet redesign required significant changes to the content stores and to the technology, which the team would need to rigorously test and qualify before launching it to over 100,000 users. Technologically, there was no way to stage a phased rollout — it had to be done all at once.

Balancing the need for speed and new functionality “led us to use an older version of Plumtree that didn’t allow as much design flexibility as we would have liked,” says Gosselin. A newer version of Plumtree would bring many of the enhancements the team wanted, but would have taken much longer to implement. So, the team chose the older technology, knowing that “we could implement the next version, and get the improvements, without changing the role-based framework we were creating with the current redesign.”

After the sign-off on the proposal, the HP team implemented the technological changes in Plumtree on the development server and in the Web-based CMS in less than two months. The team launched a pilot of the redesigned intranet in June. “We recruited 500 users, representative of our global user base, and tested it for about a month,” says Gosselin. In July, the redesign team took those test results and made enhancements to the system on the development server.

## Heralding the new intranet

With the new intranet release upcoming, P&G implemented an internal-marketing plan. “We wanted to give employees enough information and notification that the intranet was changing,” says Gosselin. The expectation was that the intranet would be intuitive enough to use without much training. Accordingly, “we struck a balance between informing and training.”

First, the team began describing the impending switchover through e-mail messages and articles posted on the old intranet.

The redesign team also released three marketing pieces: a poster with high-level information, which they hung in offices and plants; a quick-reference guide to the new intranet, in the form of a subway map; and a detailed brochure for heavy users, including administrative assistants. The team also sent the brochure to users who voiced concerns about navigation and e-mailed or called with content-finding problems. P&G was also mindful of “diffusion marketing”: early adopters (who tend to be technology-savvy) adopt a new offering quickly, and can champion it into widespread use and help educate later adopters.



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## Catch the new my.pg.com

for the resources, data, tools, and news you need.



**P&G Inside**

The blue line is your inside track to what's going on down the hall, across town, or around the world.



**Employee Resources**

Take the orange line to get the information you need, from routine business support tasks to HR needs.



**People Management**

The red line offers express service customized to the specific needs of managers.



**Business Management**

From Budget Management to Business Results (Shipment and Share Reporting), the green line is your ticket to all mission-critical destinations.

Pictured: The redesign team released a poster for all P&G offices and plants, heralding the new intranet. The poster further reinforced the team's subway design theme.

The subway idea came from Bridge Worldwide, the agency responsible for the new intranet's graphic design. "The map communicated the benefits of the change perfectly — a faster, more organized, and more efficient route to the information you need," says Gosselin. The approach was also elegant, since "the concept was globally relevant" to the entire P&G user base.

The new site went live, over two weekends in August, to the more than 100,000 P&G employees.

## TIMELINE

- 1996: Began development of prototype intranets for three groups: research and development, sales, and public-affairs employees
- 1997: Moved three initial sites into production; new sites were added organically
- 1998: Evolved the intranet from a launch page to a full-fledged communication tool, including high-level navigation to key intranet sites
- 2000: Introduced easier-to-use intranet authoring tools (no HTML or programming knowledge needed), which rapidly increased the number of intranet sites
- December 2000: Began rollout of Plumtree portal technology
- October 2001: Implemented Plumtree, which supports 60,000 employees worldwide
- May 2002: Upgraded to Plumtree Portal version 5.5 and made some cosmetic changes
- October 2003: Began latest redesign project
- December 2003: Bridge Worldwide delivered initial graphic designs for intranet
- January 2004: Developed HTML version of new site for testing purposes
- February–March 2004: Tested content usability
- March 2004: HP studied intranet's technology needs
- April 2004: HP and P&G agreed on technology to be implemented
- May 2004: HP finished intranet technology development
- June 2004: Launched global test pilot
- August 2004: Launched latest redesign, over two weekends, to 100,000 users

## RESULTS

The new site launched in August 2004 and included customized content for more than 200 locations and sixteen languages. For consistency and standardization, several important corporate sites, previously standalone, now sport the intranet's design and are completely integrated into my.PG.com, making for a more seamless user experience.

The redesign helps users browse more efficiently, and it replaced difficult-to-decode names of intranet sections with a simple, user-focused and color-coded information architecture. This helps guide users in finding everything from corporate news to employee and manager tools.

From start to finish, redesigning the intranet took about a year. One complication was the outsourcing deal with HP that took effect August 1, 2003. In addition to spending time on designing, testing, prototyping, and development, P&G and HP had to learn how to work together.

How did the launch go? "Having gone through a number of intranet design changes over the past eight years, this was the quietest in terms of employee complaints," says Nieman. The secret, she thinks, was two-fold. First, P&G conducted extensive usability testing prior to changing the design. Second, the project team developed an effective marketing campaign, alerting employees to the new intranet's impending launch, then supported them once the intranet appeared. "It's not that everybody was thrilled with the changes — there were the usual comments of 'why did you have to change this, I can't find anything' — but just at a much lower volume than before."

Beyond usability and interface design, new technology helped enhance intranet functionality. For example, honing the my.PG.com localization feature — which delivers content such as HR information, travel, and building services — took time and ingenuity.

"By changing the location, via drop-down menu selection, employees can see the content specific to that location, in the local language," says Donna Quinn, HP's P&G project manager. This approach reduces time spent needlessly paging through irrelevant information. While the localization concept was part of the initial redesign, implementing it was difficult. The drop-down localization solution was part of an application that had been integrated into the new my.PG.com; however, Plumtree came with a different localization solution that could not replicate the same functionality. HP tried merging the two localization settings but was unsuccessful. Ultimately, HP developed the code to allow the two settings to co-exist without negatively impacting each other or the end user.

The screenshot displays the P&G intranet interface. At the top, there are navigation links: Site Map, Change Settings, Change Password, Contact Us, and Help. A search bar is visible with the text 'Search: [ ] in PeopleFinder [Go]'. Below this, a 'Welcome, Scott Bennett' message is shown. The main navigation bar includes 'P&G Inside', 'Employee Resources', and 'Personalization'. A 'Location & Language Changer' dialog box is open, with the following steps:

- 1 Current Location: Your location has not been selected. Please follow the directions below. Complete steps 1-4 to identify your location.
- 2 Select Country: United States (dropdown menu)
- 3 Select City: Cincinnati (dropdown menu)
- 4 Select Site: GO (dropdown menu)
- 5 Select Language: Choose a Language (dropdown menu)
- 6 Help

The background website shows a 'PG' stock price table with the following data:

PG	
Listed: NYSE	
Last:	55.73
Change:	-0.36
Volume:	488,900
52 Wk High:	56.90
52 Wk Low:	45.51

Other visible elements include 'Alerts', 'Business Sites' (GBU, MDO, CF, GBS, Billion \$ Brands), 'News' (P&G News, Org Announcements, Archive, Virtual Library), and various news snippets such as 'P&G's Safe Drinking Water' and 'Japan is a Source of Innovation'.

Pictured: The new localization feature lets users select their location and language, then only see relevant information. This is useful because much of P&G's HR and business-location information, including vacation time and building services, is specific to a location or country.

Just how much did the redesigned site benefit user productivity? The redesign team tested for business-scenario-completion success rates on both the old and new sites, and, based on the results, "we expected a 20 to 30% productivity improvement over the old site," says Macke. Early results indicate that the redesign is meeting this goal.

Productivity improvements should apply to new employees as well. "We know that new hires need a lot of pay, benefits, relocation, and policy information when they join the company, and we tried to ensure they would be able to find this information easily," says Gosselin.

The new intranet platform will also let P&G keep adding new features, such as personalization. For example, the large *Business management* section will become more personalized. "The vision for the *Business management* page is to allow personalization so that what the employee sees is uniquely tailored to his or her role within the company," says Gosselin. For commercially focused job functions, such as sales and marketing, employees will get "dashboards" containing shipment and market-share information. Employees in logistics or operations will get access to plant and supply-chain data, and employees who work in market research will have access to analytical tools.

Personalization will continue with the *My Pages* and within each section — *Employee resources*, *People management*, and *Business management*. Currently, employees can customize the *My Pages* with about 100 portlets, such as a world clock, exchange rates, and news headlines from external sources. In the future, employees will get such things as local cafeteria menus; travel tips related to upcoming trips; a list of meeting rooms they've booked; and, on the *Employee resources* page, a list of new, internal jobs that match employees' specific search criteria. On the *People management* page, features will include pending salary-plan notifications, employee-review-management tools, and budget updates. On the *Business management* page, users will see personalized business cockpits or other job tools. Additional portlets for *My Pages* will also become available.

## LESSONS LEARNED

Insights from Barb Nieman:

**Warn employees of pending change.** "Take the time to communicate — and keep communicating — what you're doing and why. Thanks to that approach, this was the quietist rollout in my eight years of intranet redesigns."

**Follow feedback through to problem resolution.** "When employees provide feedback, follow up promptly. Post-launch, track the types of questions you're getting, then address those concerns in periodic updates to employees, to improve the intranet's usefulness."

Insights from Donna Quinn:

**Plan for the unexpected.** "No matter how much initial usability testing you've done, there will always be additional surprises from the actual, working intranet. Always budget sufficient time during the project to tweak the design due to unforeseen problems."

**Work with real end users.** "When engineers and designers have access to real end users, they can ask questions and make suggestions that get to the root cause of a problem. So, instead of making assumptions about what an end user would understand — technical terms are often a culprit here for end users, and vice versa for engineers, who don't always understand what end users are trying to say — we allowed the two groups to speak directly. This approach helped create a more robust intranet."

Insights from Michelle Gosselin:

**It's the process, not the tools.** "Start testing with any type of prototype. Maybe it's a mockup in PowerPoint or HTML. Just don't wait for the final technology to be ready to start testing; you want to start iterating early to produce the best possible results."

**Testing variety helps.** "For best results, gather both qualitative and quantitative data, using many different types of employee-focused research, such as card sorts, surveys, and focus groups."

**Protect the end user's best interests.** "Often, content and application owners will push to give their material more prominence on the intranet, because all stakeholders think their material is the most important. Remember, however, you're the voice of the employee. Keep end users' needs foremost, and don't be afraid to push back when stakeholders make demands. Similarly, keep stakeholders informed throughout the redesign process, yet clearly define up front who makes the final decisions."

Insight from Dave Maly, part of Bridge Worldwide's creative team:

**Simplicity is a design virtue.** "One design challenge was making the intranet appeal to all of P&G's 98,000 employees — a diverse, global workforce. Our approach was to simplify the navigation, to highlight the wide variety of available information and tools. We also used graphic-design elements sparingly but efficiently, to avoid overshadowing the content. This economical approach has another benefit: it more consistently presents P&G's visual identity, regardless of language, across a number of sites."

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## Schematic

### Using the Intranet:

Schematic is one of the nation's leading interactive agencies. Headquartered in Los Angeles, with offices in New York and Atlanta, the firm provides award-winning design, user interface, and technology solutions for the Web, advanced devices, and television. Schematic serves clients in multiple industry verticals including media and entertainment, healthcare, and consumer electronics. The company develops across an array of platforms, including set-top boxes, game consoles, mobile devices, and the Internet. Recent projects include the new Microsoft Xbox Live Arcade service, application development for Nielsen Media Research, Cablevision's new set-top gaming service, the Gold's Gym Web site and customer relationship management system, and broadcast design for the National Football League.

### Design Team:

In-house

### Members:

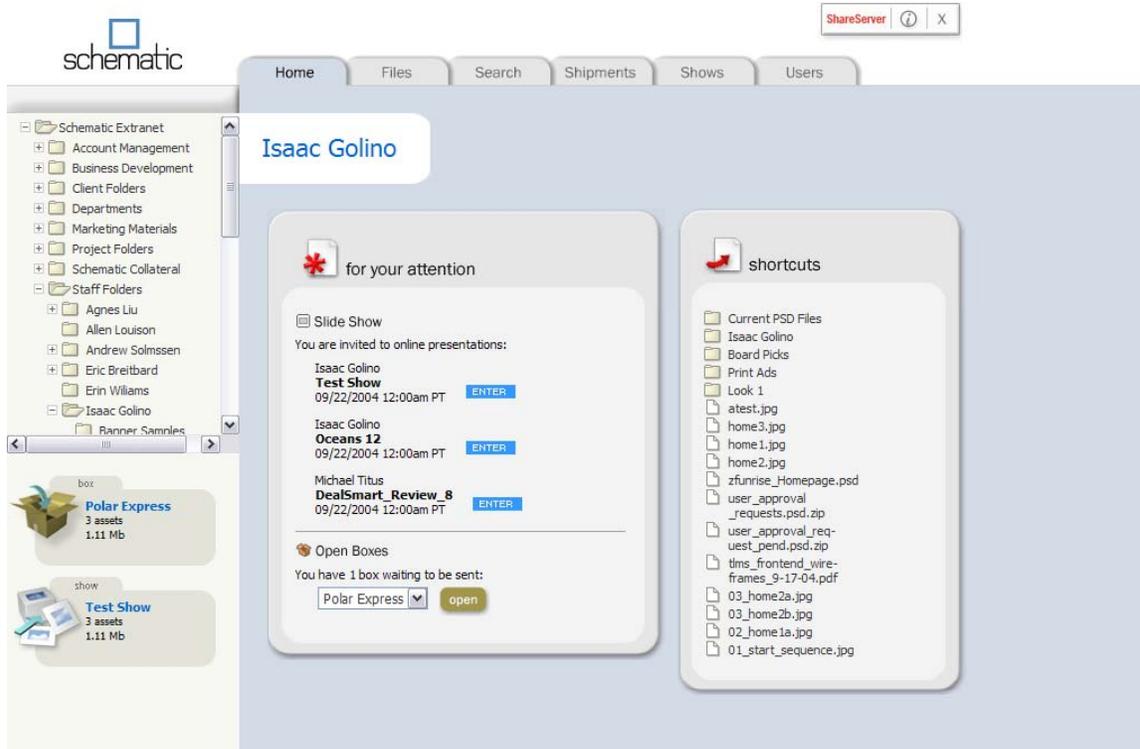
Trevor Kaufman, CEO, visionary, architect, and iconographer; Isaac Golino, design director and interface designer; Jason Brush, director of interface engineering and client-side developer; Lisa Smith, director of software development

## SUMMARY

At an interactive agency, it's imperative that employees be able to quickly and easily store files, then share them with colleagues and clients. ShareServer, Schematic's extranet, supports hundreds of users inside and outside the company, including designers, contractors, clients, vendors, executives, and salespeople. Yet ShareServer not only shares files, but organizes them as well — an asset-management dream.

For example, ShareServer lets users download individual files, or select a discrete group of files and put them into a single Asset Box, in the compression format of their choice. Links to Asset Boxes can be e-mailed to external users, letting them retrieve items without giving them full-fledged system access. Schematic's ShareServer can even assemble files as slideshows for remote, real-time presentations.

ShareServer looks as if it were designed by a contemporary artist. The muted colors are pleasant and easy on the eyes. Even so, there is good contrast between text and background, which is difficult to achieve when working with pastels. Overall, pages are sparse, but in a welcoming — not cold — way.



Pictured: Schematic's ShareServer extranet is beautifully designed. Besides being easy on the eyes, the site lets users — whether employees or clients — personalize it for easy access to a variety of assets.

From the homepage, ShareServer grabs you by the collar, calling out *For Your Attention*. This list is customized for each user, deliverable based on login, and displays all open boxes (client shipments) and slideshows the user is invited to view. These slideshows contain design work and drafts, which are often shared with several people.

At other organizations, the asset-management process is not typically so streamlined. Often, designers must figure out which files they need, find them on an external server or FTP site, then download them for review. Reviewing or updating the wrong files because they're misnamed can waste time and lead to miscommunication — or worse, if it happens during a client presentation. Similar problems occur when designers send files to clients, plus clients don't always have the required software to view files. ShareServer eliminates all of these issues, and modernizes the process.

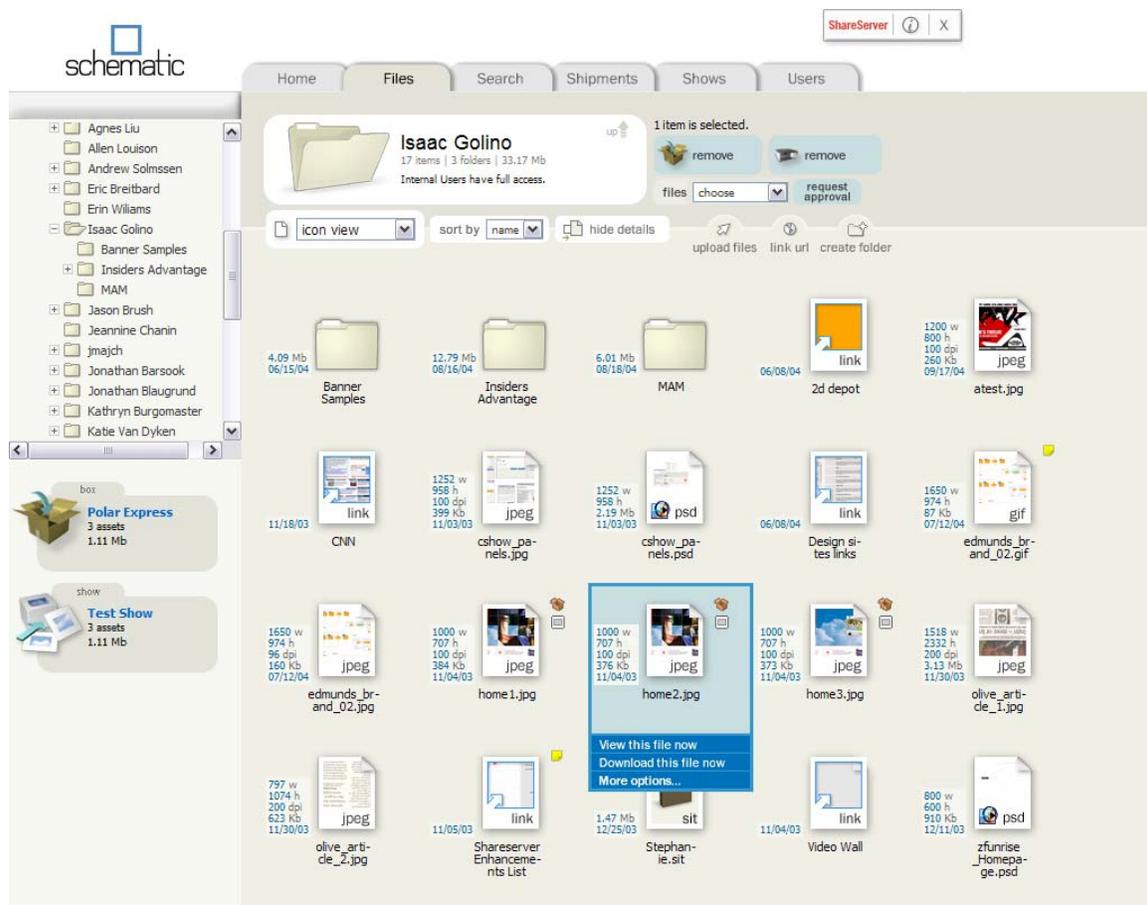
With ShareServer, users can see which files were most recently uploaded, which assets are receiving the most download activity, and which documents have new comments. These new comments are indicated by a small, yellow "sticky note" icon that appears in the file view. Each asset also carries its own log, so users can see when it was created, overwritten, or downloaded, and by whom.

ShareServer can handle any file type, and its built-in media intelligence understands characteristics of most major media types.

When working with many different projects and files, it can be challenging to keep track of them and keep them in order. The homepage helps with this, too. The *Shortcuts* area lists the user's most recently accessed folders and assets, and any slideshows the user needs to finish before posting for others to review.

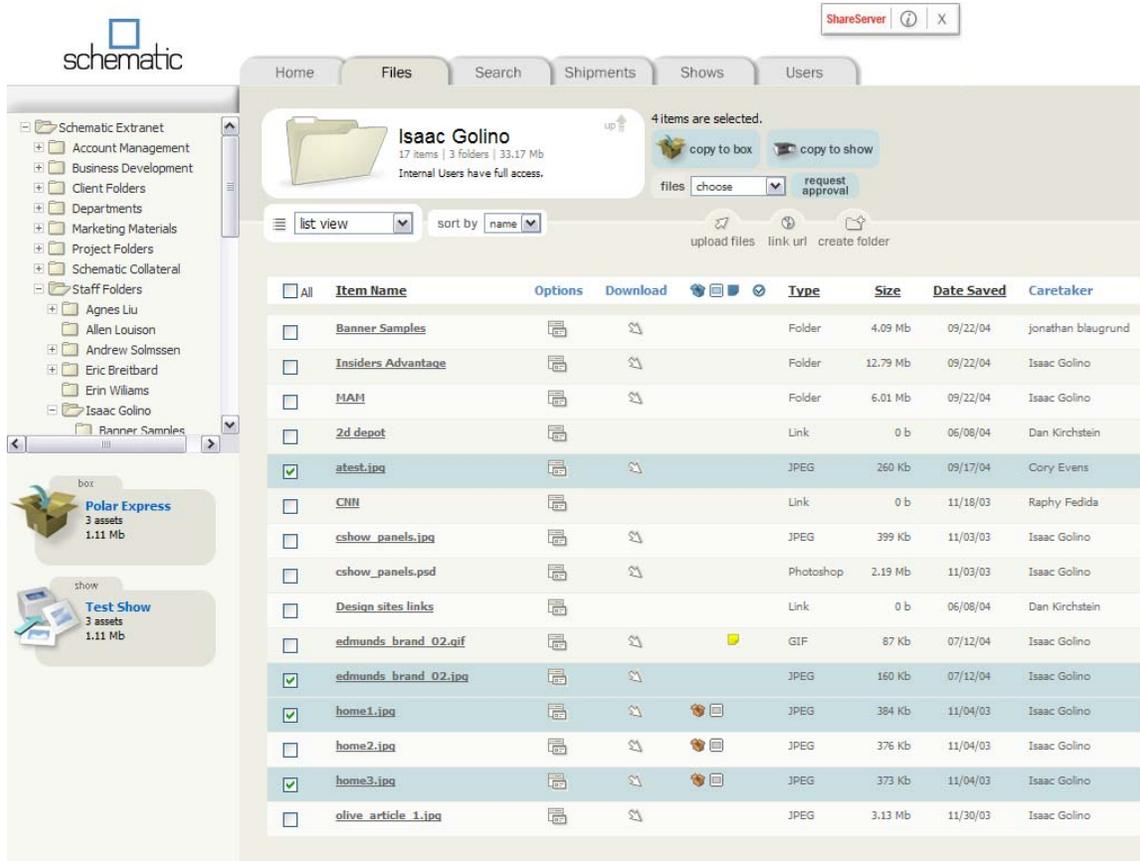
A comprehensive filing system, under the *Files* tab, also helps users maintain order. Users can view items by icons, list, or images.

The *icon view*, for example, is the default view for browsing files (it's also available from the *Files* drop-down menu). The *icon view* displays individual folders and files within a graphically rich environment that's similar to an Apple Macintosh GUI. In addition to folders, the view displays related information. For a JPEG image, for example, users see the height, width, dots per inch (DPI), file size, and last date modified. Users can also click the blue tab to view or download the file. By clicking the *Hide Details* link, users will see only icons. Note that the server dynamically generates the icon graphic and file metadata.



Pictured: The *icon view* under the *Folders* tab displays individual folders and files, plus related information.

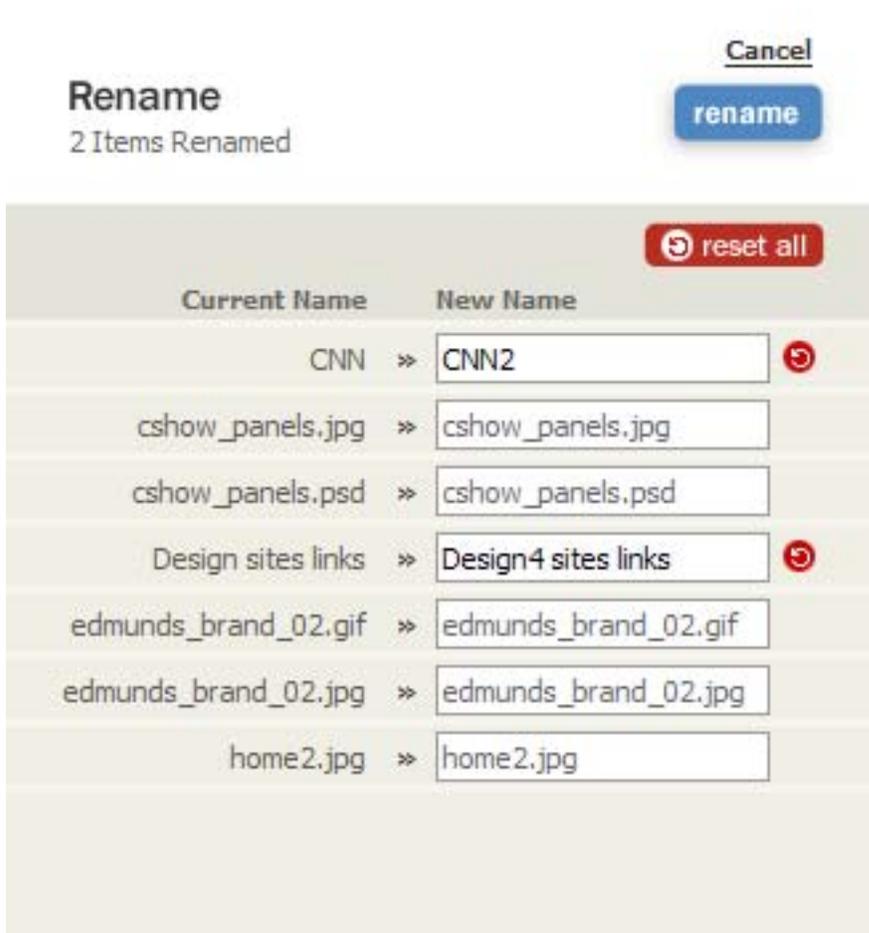
Selecting *list view* from the *Files* drop-down menu gives users a standard-looking tabular list for sorting assets by specific metadata, including name, type, size, and last-date saved. In this view, users can manipulate large groups of files at once by simply selecting their related checkboxes. Users can then create folders, upload, move, delete, or ship out the group of files.



Pictured: The *list view* is one of three ways of viewing files under the *Files* tab. Here, users can select multiples files from the list and create folders, upload, move, delete, or ship out the group of files. The small yellow icon indicates a file has new comments.

ShareServer is an homage to designers, making their lives easier by building in the image-manipulation functionality lacking in today's graphical operating systems. "Most GUIs don't provide particularly convenient ways to rename more than one document at a time," says Trevor Kaufman, Schematic's CEO. "ShareServer, however, has a specific interface that enables users to very rapidly append a suffix to lots of file names, for example, or to delete a part of a name from a group of files."

The extranet also gives users sophisticated rollback functionality in case they make a mistake or change their mind. "Users can see at a glance which file names they've changed, and roll them back to the original before committing the changes to the group," says Kaufman. "It's an easy interface for novices, but we find that expert users appreciate it even more. It's a system that combines the best components of GUIs and command-line interfaces."

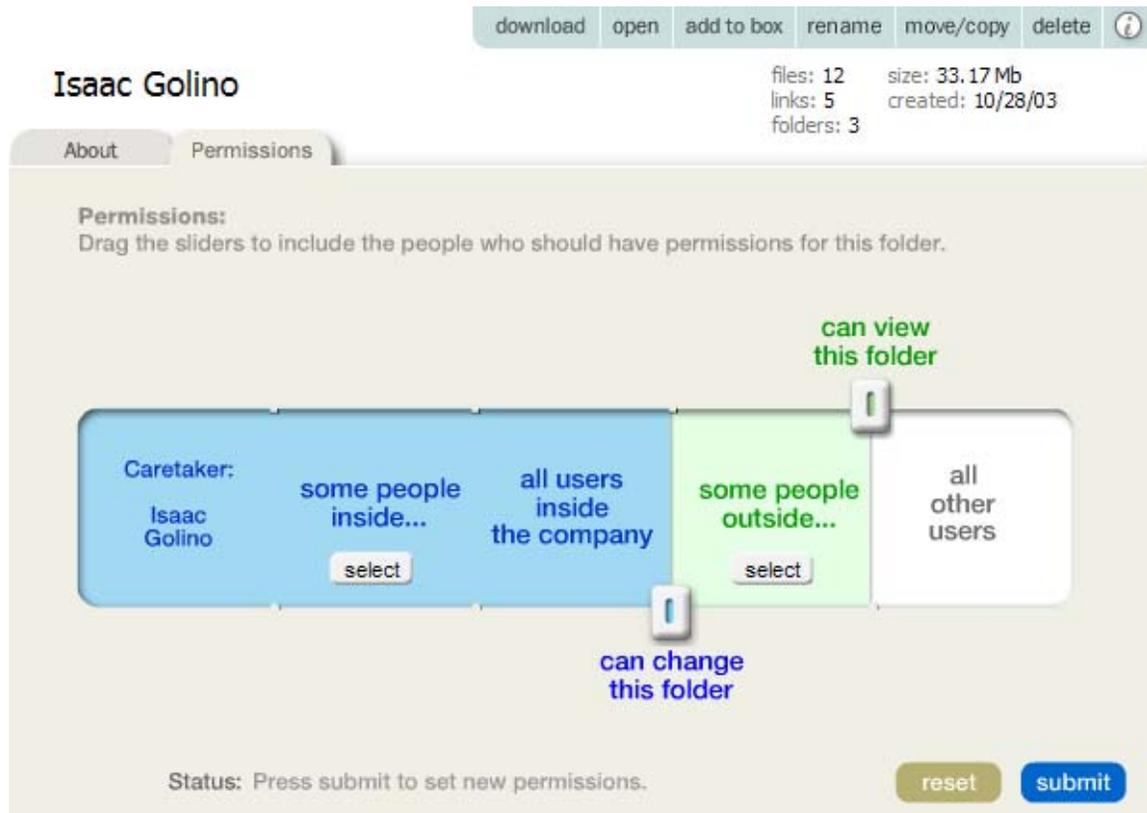


Pictured: After selecting one or more files or folders, users can rename them. Similar screens will also move, copy, or delete all selected files and folders. (Note: “Design4 site links” is the name of a file.) ShareServer lets users enter a URL, which it then screen captures to create a thumbnail of the page in the file view — a kind of bookmark.

Combining security and usability, ShareServer gives asset creators an easy, slider-based method for determining who can access or edit a folder or file. Designers did not try to choose one-word descriptions for the permission levels, which is very nice. Instead of cryptic names, they chose easily understood phrases such as *can view this folder* and *can choose this folder*.

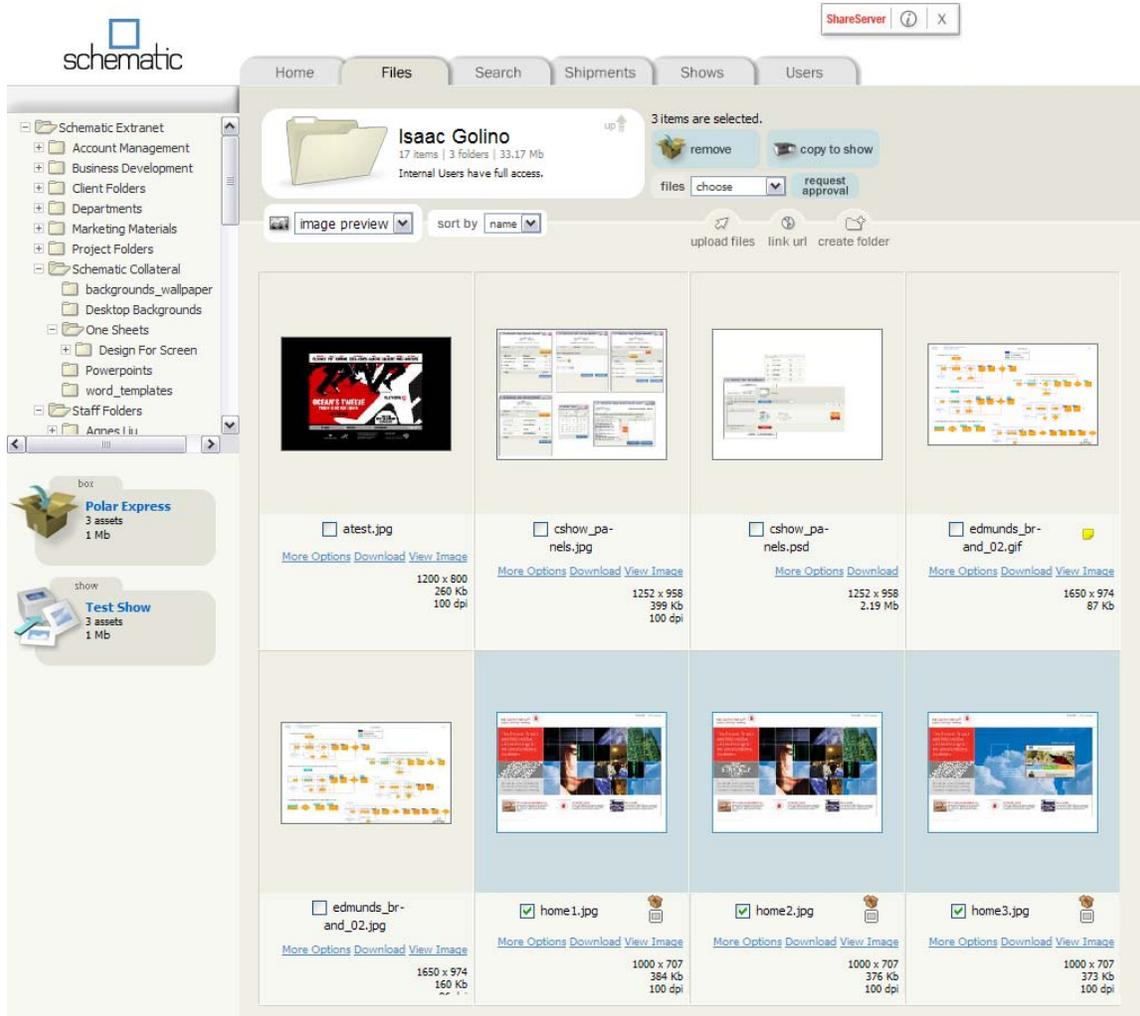
ShareServer’s security features further reflect the software’s designer orientation. “Most digital asset management systems are awkward because of elaborate roles and responsibilities that must be set in a granular way, and through check-in and check-out procedures that put barriers between users and their documents,” says Kaufman. When it comes to security and usability, there’s a simple rule: If you make security difficult for users, they will attempt to route around it.

Hence, Schematic opts for a visually and textually clear approach. “ShareServer allows users to set permissions on directories with a simple pair of sliders — slide left for more open, slide right for more secure. One slider controls which groups can view the folder; the other dictates who can change the folder’s contents,” says Kaufman. “One simple interface element not only shows all the potential complexity of permissions in a simple form, but enables users to set complex rules in an intuitive way.” Setting a permission for a folder also sets identical permission levels for everything inside it — all child folders and files.



Pictured: Too often, security sacrifices usability. Here, however, asset creators can use a simple slider bar to easily manage permissions for files and folders.

Selecting *image preview* from the *Files* drop-down menu shows previews of all assets, including related information. While similar to the *icon view*, *image preview* lets users view comps (preliminary designs or sketches), logos, and other graphics files without having to open the file.



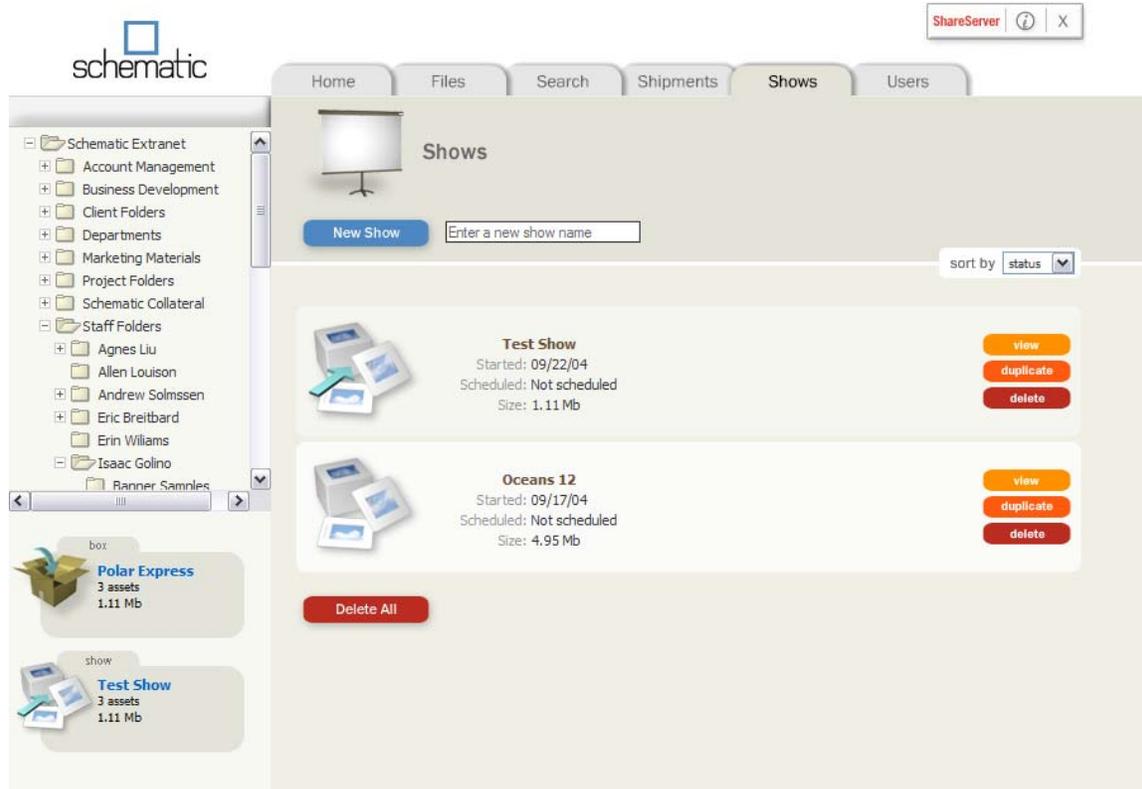
Pictured: The *image preview* view on the *Files* tab shows previews of all assets, including related information. This view makes it easy to quickly review comps without having to open files.

Beyond image handling, one frequent ShareServer use is to present slideshows to other team members or clients. Slideshows tend to contain “creative work, or diagrams, or Flash animation,” says Isaac Golino, Schematic’s design director and interface designer. These shows can contain any number of JPEG and .swf (Flash) files.

On the homepage, users see an easily visible list of slideshows they’re invited to view. The list includes the slideshow’s name, the name of the person who posted it, and the post date and time. Users simply click the *Enter* button to instantly review the show. Invitees can view a show at its specific show time, then access it afterwards for a length of time specified by the show’s administrator.

Users can also access slideshows via the minimalist navigation. The universal global tabs make it easy for users to know where they are. For quick navigation, users can access the familiar folder tree on the left.

The *Shows* tab is where the user creates, organizes, and schedules slideshows. Users can also sort shows by various criteria, including name, status, and size. When creating a show, users can add JPEG and Flash assets from ShareServer; the back-end software handles the related storage and presentation.



Pictured: Under the *Shows* tab, users see a list of current shows and can easily view, delete, and duplicate them.



## Oceans 12

Organize

Schedule

Invite

### Invite:

Enter an email address:

Add

Or, select from existing users:

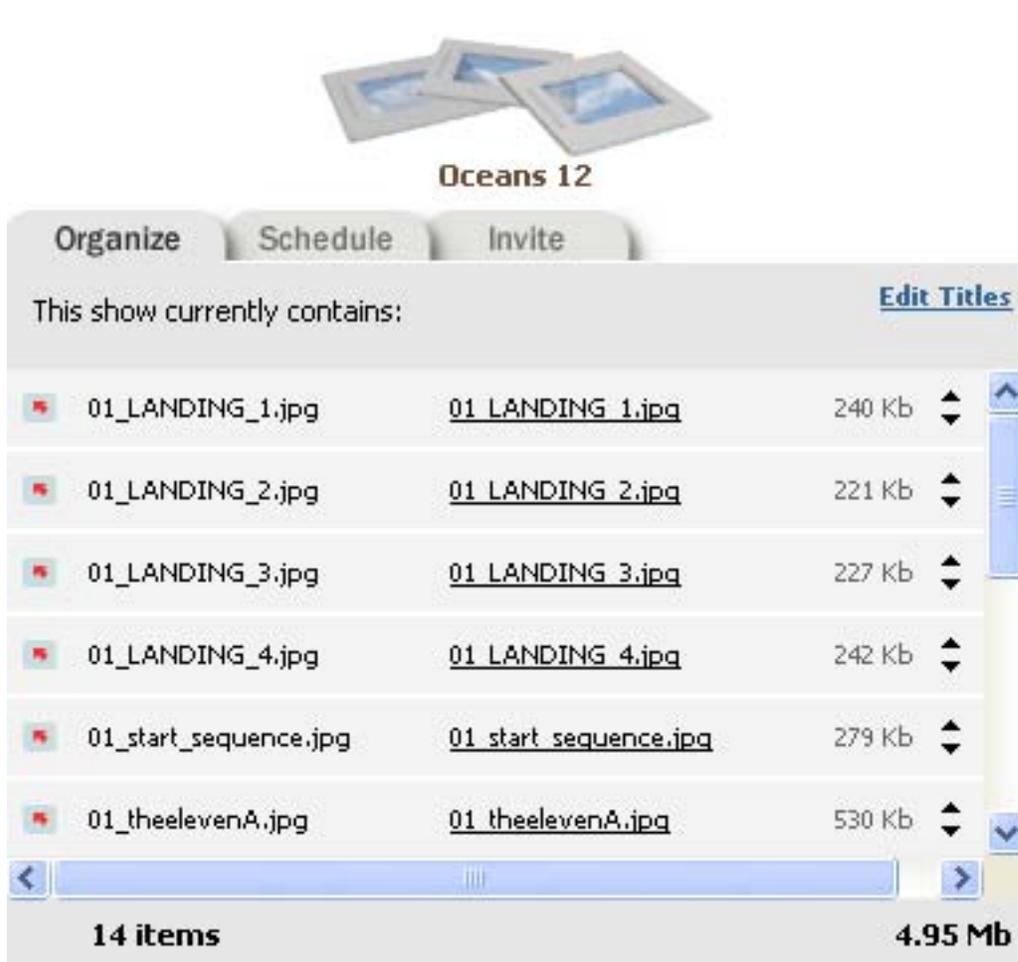
Select...

Remove	Name	Admin
	igolino@schematic.com (Isaac Golino)	<input checked="" type="checkbox"/>
	lsmith@schematic.com (Lisa Smith)	<input type="checkbox"/>

2 recipients

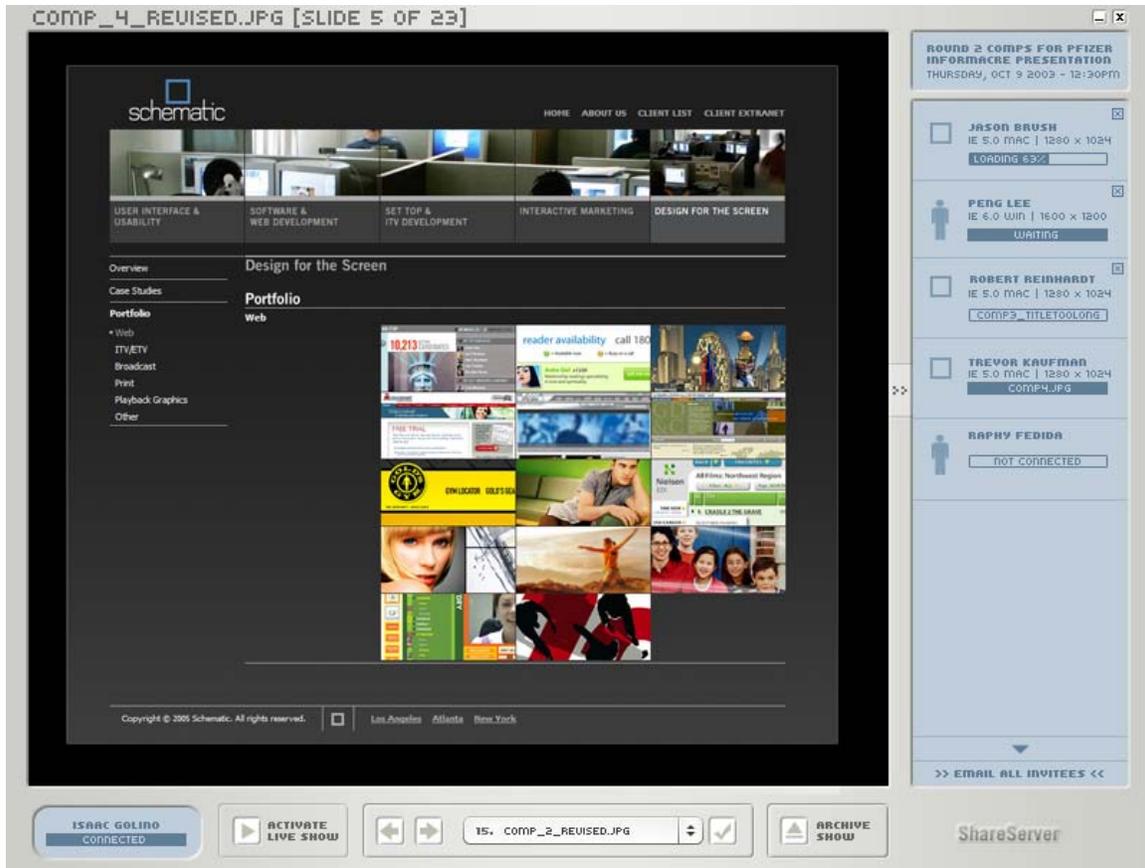
Invite

Pictured: Once users create a show, they can invite others to view it. The user enters the e-mail addresses of all recipients, then clicks the *Invite* button.



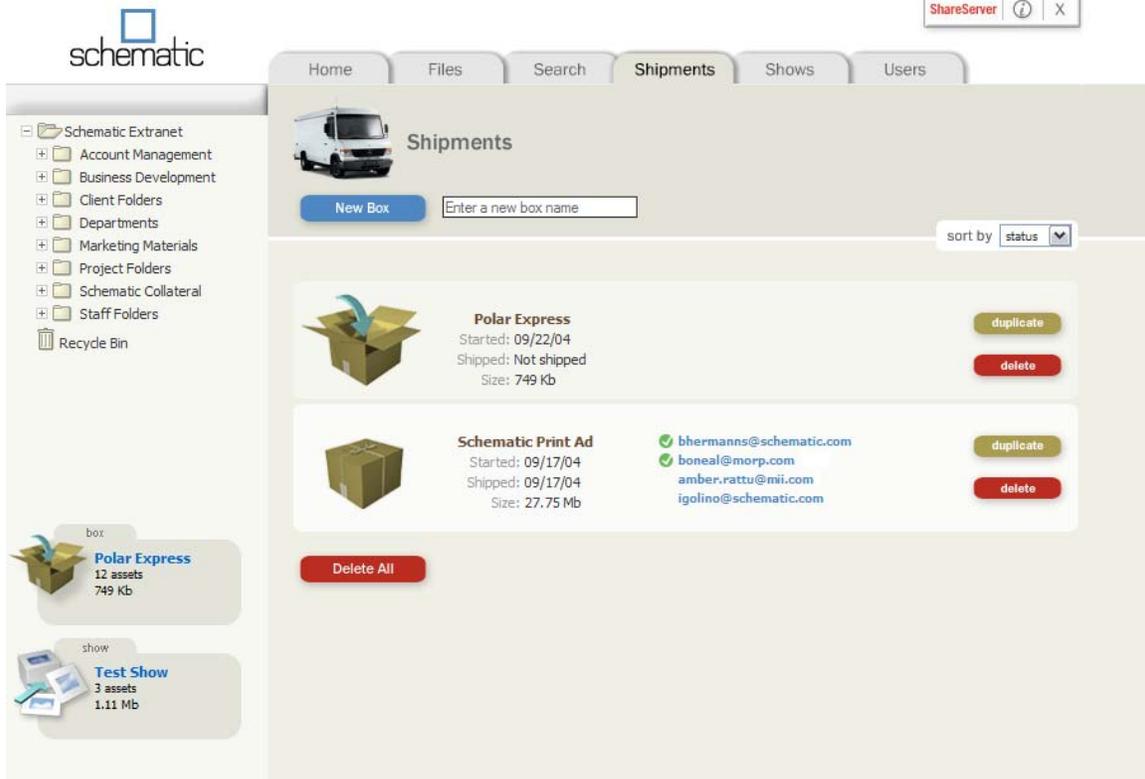
Pictured: Users can edit the titles or contents of their slideshows. The black up-and-down arrows also let them rearrange the content display sequence.

To keep design reviews simple and focused, the administrator controls the slideshow and what participants see on their computers. In the administrator's view, there are simple controls at the bottom to activate the show and scroll pages, as well as for archiving the show. Names of the participants in the show, as well as their status, are listed down the right side of the view. What's nice here is that most of the screen's real estate is reserved for the star of the show — the page designs.



Pictured: The slideshow view for the controlling administrator. Participant names and their status are on the right, and controls are placed horizontally, across the bottom. The slide itself rightfully occupies most of the screen.

Beyond asset management, users can also easily manage entire slideshows and shipments. Shipment and slideshow creators get information about the status of all shipments, and can create a new "box" on the *Shipments* tab. The cardboard box metaphor helps the user see the status at a glance. An open box indicates that a shipment is still being assembled; the closed box indicates a shipment has been sent. Green checkboxes next to e-mail addresses indicate which target recipients have viewed the shipment.



Pictured: The *Shipments* tab uses a cardboard box metaphor to show the status of all shipments. An open box hasn't been shipped, while a closed box indicates all recipients have been e-mailed a link to the shipment or show. A green arrow indicates that the recipient has downloaded a shipment.

After selecting one or more items, users can pack them into a shipment.



## Polar Express

**Pack** **Ship**

[Edit Box](#)

This box currently contains:

 <a href="#">120x600.svrf</a>	66
 <a href="#">160x600.svrf</a>	33
 <a href="#">240x400.svrf</a>	29
 <a href="#">300x250 2.svrf</a>	38
 <a href="#">728x90 30k.svrf</a>	28
 <a href="#">cs 300x250 30k.svrf</a>	28
 <a href="#">KangarooJack.svrf</a>	40

**12 items** **749 Kb**

[Download box as .zip](#)

Pictured: Users select images and pack them to prepare for shipping.

After packing images into a shipment, a user selects recipients and presses the *Ship!* button to send the shipment. The server helpfully zips all files into a single archive before shipping them.



## Polar Express

Pack

Ship

### Ship To:

Enter an email address:

Add

Or, select from existing users:

Select...

✘ bhermanns@schematic.com (Bill Hermanns)

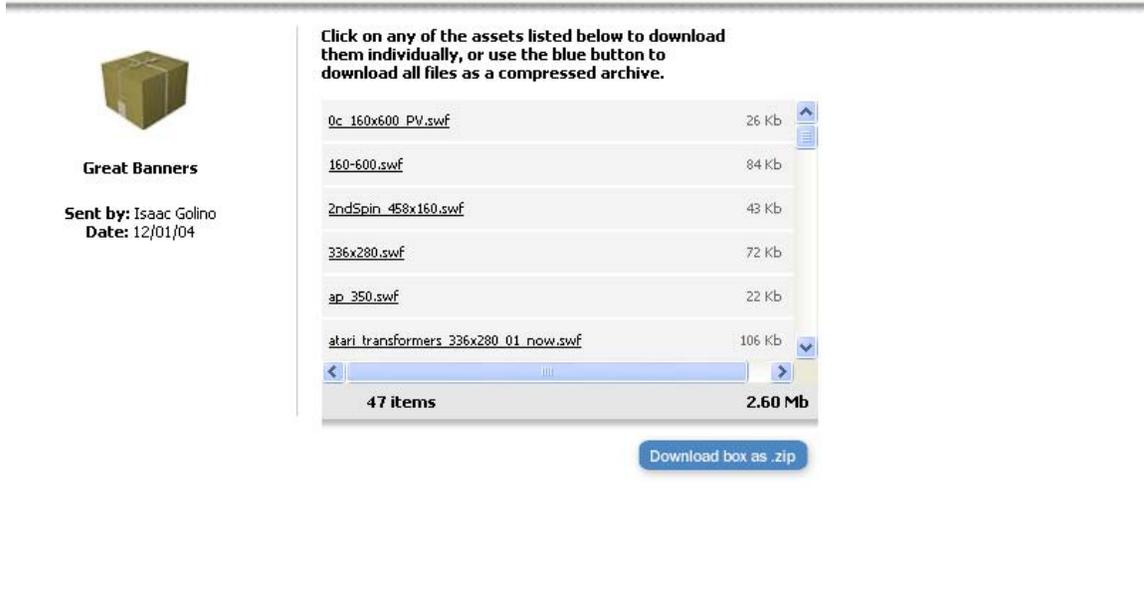
✘ rtitus@schematic.com (Richard Titus)

✘ igolino@schematic.com (Isaac Golino)

**3 recipients**

Ship!

Pictured: Once the files are packed, the user enters the e-mail addresses of all recipients, then clicks the *Ship!* button. Behind the scenes, the server zips the shipment into a single archive before sending it.



Pictured: Shipment recipients get an e-mail with a link to the shipment. The link takes them to a screen such as the one pictured; no login is required. Recipients can download the box as a zip file.

Using a simple, appealing design that removes interaction and usability barriers, ShareServer brings clients closer to designers, making it easy for everyone to share files in a fast and safe way.

## URL AND ACCESS

The default URL for the intranet, ShareServer, is [extranet.schematic.com](http://extranet.schematic.com). The site is meant as an extranet — both for internal use and for clients and partners, so the site, while password-protected, is publicly available.

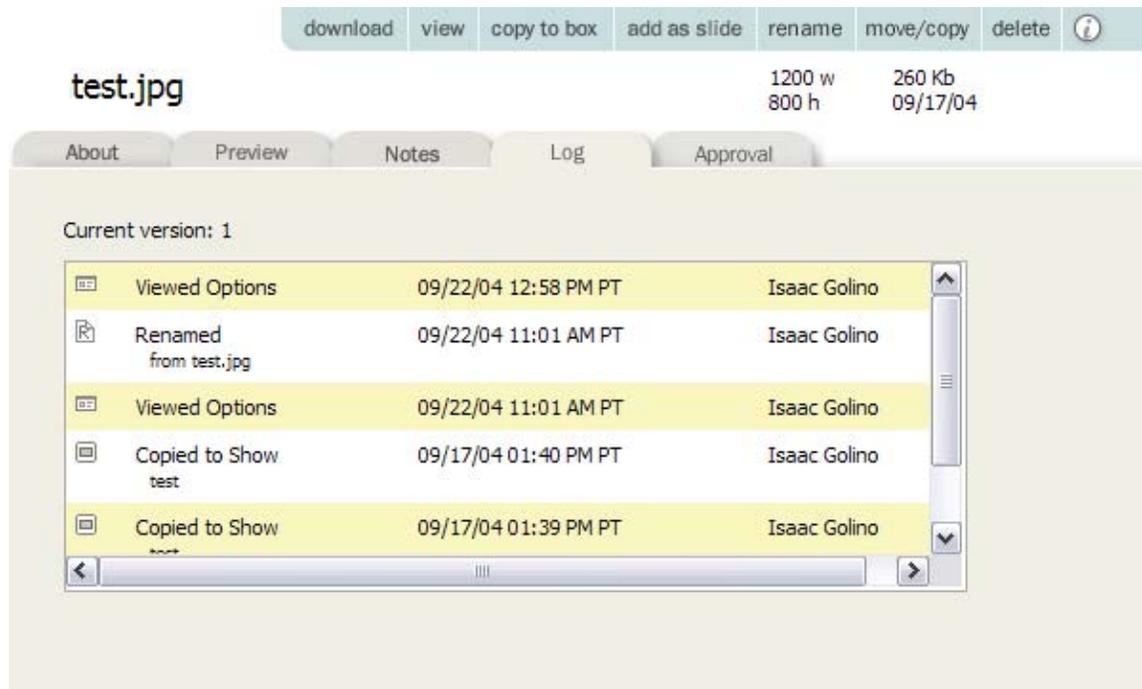
Upon login, users see a portal page with all recently accessed files and an activity guide to all files they have permission to view.

## CONTENT MANAGEMENT

The ShareServer file and folder structure mimics internal departments, and each department owns the content in its folders. "As ShareServer is, fundamentally, a file repository, there's been no issue with users having to interact with content templates — they just post documents as they see fit," says Kaufman.

Behind the scenes, ShareServer generates the relevant icon graphic for each asset to help designers visually distinguish between JPEG images, Photoshop PSD files, and PDFs. The server also maintains the file metadata, and a log for each file that tracks all events — such as moving, copying, deleting, and viewing the file.

“While ShareServer doesn’t expose this distinction to users, our development team makes very specific distinctions between metadata, and what we call ‘summary data,’” says Golino. “Summary data is how we refer to characteristics about the file we’ve obtained from opening the binary, whereas metadata is based on user entry.”



Pictured: ShareServer maintains a log for each file, noting what occurs to a file and when, including moving, copying, deleting, or viewing.

## TECHNOLOGY

ShareServer is a Web-based application built in PHP. Application elements use Flash MX technology, PostgreSQL, and open-source server applications such as ImageMagick. It runs on Linux and Apache, on a dedicated server that Schematic hosts at its data center.

## GOALS AND CONSTRAINTS

Goals:

1. Provide a simple, reliable way to access, archive, and share digital assets.
2. Start the project without any assumptions about the way it should work.
3. Reduce travel costs and lost time related to client visits.

Constraints:

1. Creating a system that Schematic’s staff, clients, and partners could use without any training and without reading documentation of any kind.

2. Keeping pages light, while also creating the complex DHTML needed to make ShareServer behave like a GUI within the constraints of a browser.

## **BASIC INTRANET FEATURES**

ShareServer is asset management software for storing and organizing media assets. For ease of use, ShareServer resembles a classic, desktop GUI, complete with Mac-like graphics. The software understands most file types, and displays relevant information, such as image dimensions.

When users first log in, their personalized portal page links to all recently accessed files, and includes an activity guide for all files they have permission to view. "You can see which documents have new comments, which sets of files were most recently uploaded, and which assets are receiving the most download activity," says Kaufman. ShareServer maintains a log for each asset so users can see when a file was created, downloaded, or overwritten, and by whom.

Users can view individual folders and files and modify their attributes singly or in batches, as well as move, delete, or ship groups of files with a click. "There are also some workflow features that allow users to trade notes about a particular file, and an approval process for design work," says Golino.

Access rights revolve around the familiar concept of users and groups. "Users and groups can be assigned three different levels of access: internal, external, and superuser (admin), and the permissions work much like most operating systems," says Golino. "In addition, we included the concept of a 'caretaker,' who is the creator of a folder or the uploader of a file. The caretaker has special permissions and rights concerning their files."

## **USERS**

ShareServer has 386 users, including designers, executives, and salespeople on staff, plus contractors, clients, and partners.

## **USER TASKS**

Typical user tasks include:

- Store files
- Present files to clients
- Exchange files
- Modify or delete large groups of files

## **BACKGROUND**

Schematic is an Internet design and technology company that develops software and interfaces for such corporate clients as Turner, Comcast, Disney, Pfizer, and Nielsen.

ShareServer, however, was a project designed to meet Schematic's own needs. "ShareServer is the first software project we started just for our internal use," says Kaufman. "We began with the idea that clients would be exposed to our technology and design services, in an interesting way, just by interacting with the software."

“The initial idea for a sophisticated company extranet existed as early as 2002, and we put together a four-person task force to start conceptualizing the software with no associated timeline,” says Golino. “That group kicked around some loose ideas and designs over the next year or so until we landed on the appropriate structure. Once we settled on the psuedo-desktop model, and created a proof of concept of the interface in HTML, we knew we had what we wanted and started in earnest.”

Planning and design started in January 2003. As ShareServer development began, however, “we realized it might be something flexible enough that other companies would want to license it,” says Kaufman. A beta went live in March 2003, then the software launched in May 2003, followed by a couple of months of revisions based on initial user feedback.

Since then, while the underlying technology hasn’t changed, “we’ve continued to add new components to the software as we introduce new features,” says Kaufman.

## **DESIGN PROCESS AND USABILITY ACTIVITIES**

The core ShareServer team is four people who set about to solve the company’s asset-management problem. They eventually settled on a Web-based asset management tool and a tool for delivering work to clients. “We created a few very early prototypes, but they were completely different than what you see now,” says Golino.

Along the way, four other people helped with development: a project manager, a production artist, and two Flash programmers.

Throughout the project, “the testing and iterating was mostly based on what felt right,” says Golino. “We drew upon resources throughout our company — which is in the Web and software interface development business — in order to design and redesign each interface until it was exactly how we wanted it.”

One design challenge was ensuring the software would be easy to use — so easy that clients wouldn’t need training. “This project serves as our client extranet, and we don’t have the luxury of going to each client and training their personnel on our system,” says Golino.

First, however, Schematic would have to entice internal users to adopt ShareServer. “It’s tough to get people to change the way they work, and equally tough to get people to learn new software,” says Golino. In short, any new approach would have to be at least as easy as the old method: e-mail. “We knew that if the system was too hard to use, people inside Schematic would circumvent it and our clients would become frustrated by it. And there’s no return on investment for software no one uses.”

So, most user testing focused on internal users. “The thing we learned right away is that people want instant responsiveness. They want the application to move as quickly as they can and keep up with them,” says Golino.

Testing also revealed how users approached the GUI, which resembles a traditional desktop operating system interface. “One thing that surprised us is that, since ShareServer looks so much like a desktop, people forget they’re using a Web page, and try to drag files out of their browser into their operating system folders,” says Golino. Schematic is currently designing drag-and-drop file moving and downloading — at least for some browsers — to address that.

While ShareServer makes it easy for designers to work with images and shows, maintaining such functionality is an ongoing task, since applications and file formats evolve. Take the software's automatic generation of thumbnails. "Every time a new version of PhotoShop is released, we need to tweak our code to properly thumbnail the updated .psd file format," says Golino. "When you consider that ShareServer thumbnails and previews literally dozens of different file formats, keeping up can be a challenge."

Since ShareServer's initial launch, Schematic added the "shows" component, along with support for additional file types. The company also maintains a separate site for ShareServer user feedback. "We've been very careful to make it like a suggestion box — not a threaded message board — because we want to get users' opinions in the purest way possible, unaffected by the shouts and murmurs of their peers," says Kaufman. "Keeping those discussions separate means we get some conflicting requests, but we find that's a constructive way to get varied inputs and to infer the underlying problems."

If users have difficulties while using ShareServer, they can click the small *i* icon in the upper-right corner of every page, which leads to site feature descriptions, and a short help and FAQ section. "Most users have no problem with the interface, and are right at home using the application after only a few minutes," says Golino.

The core team typically implements changes to ShareServer. Severe bugs, security flaws, and performance and stability issues are dealt with first, followed by tweaks, improvements, and efforts to address user annoyances. "We maintain a long wish list of other features and improvements that we plan to make in early 2005," says Golino, in what will be the single biggest redesign of ShareServer since it launched.

## TIMELINE

- 1999: Schematic founded
- 2002: Four-person design team began conceptualizing new asset-management software, and eventually settled on an appropriate structure
- January 2003: Began ShareServer planning and design
- March 2003: Launched ShareServer beta version
- May 2003: Launched ShareServer
- June–July 2003: Refined software based on user feedback
- Current: Ongoing site revisions and feature improvements

## RESULTS

As a busy design firm, Schematic was driven to build a mechanism to make working with images and shows easier. "With the number of projects we're working on, we share files with project teams and clients two or three times each day," says Kaufman.

Previously, sharing those files meant segmenting them into bite-sized pieces to send over e-mail; creating custom Web sites for clients to visit to download the files; or sending them via courier. "Trafficking that media with outside parties used to cost us over \$100,000 per year," says Kaufman. "We also save about \$100,000 in regained time that we used to spend internally searching for or recreating files that are now easily accessible and archived on our extranet."

Schematic worried that its ShareServer software wouldn't be adopted by enough employees or customers to hit critical mass. "If people found it to be too difficult to use, they'd circumvent it, and keep managing their files on the fileserver and sending them through e-mail," says Kaufman.

The software, however, turned out to be a success. "What surprised us most is how successful the application is, and how much we rely on it in our day-to-day work. It really is at the heart of our business," says Golino. "I'm also continually surprised and delighted by how comfortable our clients — who can be impatient and demanding — are with ShareServer."

While Schematic earns money selling ShareServer as a stand-alone product, the company also saves money by reducing employees' travel costs. That's because the company uses ShareServer not only for storage, but also for presentations. "ShareServer shows are synchronized slideshows that we can run full-screen on the clients' computers, without them having to download or install any software. When coupled with a conference call, they're almost as good as presenting in person," says Kaufman. "As client visits costs us over \$1,000 on average in lost time and travel, we're saving about \$200,000 per year, even if only a fraction of our ShareServer shows were direct substitutes for client visits."

As the sheer number of files to manage grows, Schematic also needs to find new methods for navigating all those assets. "One way of finding things in a large universe of data is through Google-style, text-based search," says Golino. "But that's not an inherently browsable way of looking for things — you don't have as many happy accidents in that model as you would when, say, drilling through nested folders."

Maintaining easy browsing and the potential for happy accidents is Schematic's current usability project. "The fact that you can get a search slightly wrong and still have it come up with results that are right has been a great advance in text-based search in recent years," says Golino. "While people tend to believe that Google is, in many ways, exact, its fuzziness is more valuable."

Going forward, Schematic will try to implement directory structures with more than one type of categorization. "Criteria such as file type, date, pixel width, or frame rate are all other ways to categorize," says Golino. "So we're now looking at ways that we can allow users to keep assets in a certain consistent virtual 'place,' dictated by a traditional, nesting-folder pathname, but also browse to them with other structures."

As an example of alternate browsing, he says "the 'history' panes in Web browsers are starting to use these kinds of techniques."

Another idea is a pull-down menu listing all files and folders accessed in the last week, which "would immediately cut down on the number of folders you'd see in any average visit by a factor of ten, yet still give easy access to a large array of files — and all without resorting to textual search," he says.

Beyond tackling next-generation navigation, "we have a huge list of things we want to add," says Golino. "We want to improve performance, add even more file type support, develop more views and previews of assets, enable better search, include more personalization and customization — the list goes on and on." Schematic also just tied ShareServer in with its local file servers and Active Directory.

## LESSONS LEARNED

Insights from Trevor Kaufman:

**Launch with the smallest scope possible.** “While we did a good job in our user-interview process determining which features should be included, the software includes some features which are rarely, if ever, used. In retrospect, we should have launched the site sooner, leaving more development available for feature additions later on.”

**Give users what they expect.** “The ShareServer interface is designed like a Web-based desktop. Yet it has limits — during user testing, some users try to drag icons off of the browser page and onto their own desktops. Of course, they’re using a Web site; you can’t do that. So now we’re now trying to come up with an alternative: either interfaces with standard GUI functionality, or interfaces able to clearly delineate what users can and cannot do.”

**Plan for success.** “We didn’t anticipate that ShareServer installations would get the amount of use they do, and we didn’t plan for truly massive amounts of assets. As we start thinking about installations with millions of discreet files, the traditional directory structure of files and folders becomes unwieldy, and a Google-style search box alone gives users no way to browse. So, we’re now looking at different ways of creating a matrix for the directory structure, based on additional categories, so that browsing thousands of directories is as easy as browsing twenty folders is today.”

## Verizon Communications

### Using the Intranet:

Verizon Communications Inc., based in New York, is one of the world's leading providers of communications services. Verizon companies are the largest providers of wireline and wireless communications in the United States, with more than 140 million access line equivalents and 37.5 million Verizon Wireless customers.

Verizon is also the world's largest directory publisher. With more than \$67 billion in annual revenues and more than 236,000 employees, Verizon's global presence extends to over 35 countries in the Americas, Europe, Asia, and the Pacific.

### Design Team:

In-house, Yani Technologies

### Members:

**Verizon Communications:** James Turner, executive director of Digital Workplace; Robert Wehmayer, executive director of intranet development; Sergio Canetti, executive director of HR and payroll technologies; Gregory Swindle, HR technology; Joel Angiollilo, usability manager; Greg Wilt, usability senior staff consultant; and intranet groups in Waltham, Mass.; New York; Baltimore; Tampa, Fla.; and Dallas

**Yani Technologies:** Martin Jasinski, eWeb program lead; Juliana Yamashita, eWeb graphical design

## SUMMARY

A successful organization like Verizon needs an intranet to offer support tools and to push information to all employees. Designing this intranet for more than 100,000 users is demanding enough. At Verizon, however, designers face another great challenge: the structure of the actual organization is rather complex due to the various government regulations affecting the telecommunications industry. The intranet design accounts for these complexities, but does not bog down the user with them. Good personalization and customization features, plus simple navigation help make using the intranet a positive experience for all users.

Verizon's intranet, the eWeb, is available without logging in, but employees can access a customized intranet portal by logging in. After logging in, employees arrive at the homepage for the eWeb portal. The homepage's main center section provides general news and communication information, including breaking company news and industry-related stories about Verizon and its employees. The *Employee Spotlight* area focuses on employee human-interest stories, such as one about the longest-serving Verizon employee. These are fun for employees to read, and enrich the sense of community at the company.

The *Featured Video* section posts speeches and presentations that employees can watch. The *My Calendar* displays at the bottom, giving employees direct access to their schedules. They can choose, via very simple icons, to view their calendars by one day, two days, seven days, or the whole month.

The top horizontal header provides the *Edit Page* link, with options for editing the eWeb homepage's content and layout. People can use an uncomplicated form to select the content that appears on their homepage. In addition, they can customize the display of some content, such as which stock indices to display.

Pictured: Employees can use this form to customize their eWeb content, including stock symbols, link lists, and weather forecasts.

The homepage's upper-left section is devoted to *Quick Links*, the intranet's most frequently accessed feature. The *My Links* area lets users easily access their own customized list of important sites. In addition, the employee's instant messenger contact list, *Sametime Contact List*, appears on the left. Through it, users can start a *Sametime* chat discussion with a single click.

On the homepage's right side, the banners display discounts for Verizon employees. A customizable a stock portfolio and weather forecast are also available.

**eWeb**  
We never stop working for you.  
Hi Michael, Today is Wed, Jan 19, 2005

Search eDirectory [Last Name] [First Name] GO Advanced  
Search eWeb [ ] GO Advanced

Michael's Page | Work Tools | About You | Verizon Info | EDIT PAGE | HELP | LOGOUT

**Quick Links**

- » boston globe
- » Travel
- » Get Reimbursed
- » Security
- » Get Discounts
- » Intranet Links A-Z
- » Useful Phone Numbers
- » red.com
- » new link
- » yahoo

**My Links**

To display your favorite links here, click the arrow above!

- » UCD Department Page

**Sametime Contact List**

People Options

- » Work
- » VoiceWing
- » eWeb PeopleSoft
- » eWeb
- » FIOS TV
- » eWeb Billing & Travel Participants

**VZ Business Units**

- » Domestic Telecom - Larry Babbio
- » ESG - Eduardo Menascé
- » IT - Shaygan Kheradpir
- » Network Services - Paul Lacouture
- » Retail Markets - Bob Ingalls
- » Telecom Finance - John Killian
- » Telecom HR - John Bell
- » Wholesale - Virginia Ruesterholz
- » Finance - Doreen Toben
- » Human Resources - Marc Reed
- » Information Services - Kathy Harless
- » Legal - Bill Barr
- » PA & C - Tom Tauke
- » Strat, Dev & Plan - John Diercksen
- » Verizon International - Dan Petri
- » Verizon Wireless - Dennis Strigl

**Verizon News**

**TOP STORIES**

- » Advanced Fiber Network, New Work Center Coming to Rhode Island
- » Advanced Technology Deployed for President's Inauguration
- » Black History Month Donation Commemorates Montgomery Bus Boycott

**IN THE MEDIA**

- » Westell Gets Contract for Verizon One Phone (The Wall Street Journal)
- » Help Sought from Council of Mayors to Lower Telecom Taxes (Communications Daily)

**FOR COLLEGE DREAMS, APPLY HERE**

Applications for Verizon Foundation Scholarships are available now for children of employees entering college in fall 2005.

- » Online Application
- » Verizon Foundation Site on eWeb

**Hot Topics:** [FTP](#), [Iobi](#), [VoIP](#), [Competitive Updates](#); Jan. editions now online.  
**Good Works:** The Verizon Foundation, volunteer opportunities, Verizon Reads, Pioneers.  
**HR Weekly:** Jan. 16 edition now online.  
**VBN:** Quarterly Broadcasts, Videos, TV Ads.

**DUO TEACHES KIDS THE VALUE OF 911**

A Maryland couple volunteer to teach 911 phone skills to kindergartners in local schools; 17,500 kids over the past 12 years.

**IN VZ ONLINE**

Scholarship applications are available for children of employees entering college in fall 2005.

**Banners**

**Corporate Responsibility**

- » View All Banners

**Banners**

Ever wish you had a personal assistant? Now you do - iobi Home  
Order online, get 30 days free.

**Management Knowledge Center**

Do you read me? Amazon not only helps readers find books, they help books find readers.

**The Zen of Jeff Bezos**

1/18/2005 Interesting interview with Jeff Bezos in which he talks about reverse demand (our term) and word of mouth advertising, among other things.

**My Stocks**

Wednesday, January 19, 2005 11:40:00 AM EST

VZ	37.37	-0.31	-0.82%
\$COMPQ	2,089.29	-16.75	-0.80%
\$DJI	10,598.14	-30.65	-0.29%
\$SPX	1,190.85	-5.13	-0.43%

Data delayed at least 20 minutes.

Get Quote Symbol Lookup

**My Weather**

**Boston MA**

High: 26  
Low: 23  
Snow

Get Extended Weather

**My Calendar**

September 2004

1 2 7 14 31

New Calendar Entry

10 Friday

- » 09:00 AM Amtrak to Philly
- » 10:00 AM IT Expo
- » 01:30 PM Payroll Mtg
- » 03:00 PM My eWeb status call

» Launch Application

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Pictured: The Verizon intranet's homepage provides news, human-interest stories, an employee calendar and chat list, and various other customizable features.

The intranet's tabbed structure encapsulates the site's main information groups, as identified during usability testing. This tabbed global navigation works particularly well in this design for several reasons. First, there are only four tabs, which makes the choices easy for users to scan. Second, the names of the tabs are all quite different, making the choices easy to distinguish, including: eWeb, which can be renamed by the user, *Work Tools*, *About You*, and *Verizon Info*. Third, the selected tab looks selected, changing to red while non-selected tabs remain gray. And fourth, the tab's aesthetics are good — they really look like selectable tabs.

Within each of the tabs (excluding the eWeb area), a prominent, left-side navigation offers simple choices, so users can easily acclimate.

**verizon eWeb**  
We never stop working for you.  
Hi Michael, Today is Thur, Dec 30, 2004

Search **eDirectory** Last Name First Name      
Search **eWeb**

eWeb Central Work Tools About You **Verizon Info**

### Verizon Info

- About Verizon**  
Executive Bios, Webcasts, Investor Relations, Our Service Story, Awards and Honors, and more...
- VZ Organizations**  
Verizon Business Units, Organization Charts, and more...
- News**  
News Center, VZ Today, Press Releases, VZ Online, Live Events, Webcasts, and more...
- Community Involvement**  
Verizon Foundation, Volunteer Opportunities, Verizon Reads, Verizon Pioneers, and more...
- VIDS (Verizon Information Delivery Solutions)**  
Publishing Information on the Verizon eWeb, Leverage Information Resources, Electronic Documentation, and more...
- Policies**  
General Corporate Policies, Corporate Conduct, Strategic Planning, Financial Policies, and more...
- Security**  
Facility Security, ID Cards, Keys, Awareness, Policies, Incident Reporting, and more...
- Compliance**  
DOT, Environmental, Health, Diversity, Legal and Regulatory Compliance, Internal Audits, Ergonomics, and more...
- Useful Phone Numbers**  
Contact Information for Conference Planning, Corporate Telecommunications Services, and more...
- Intranet Links (A-Z)**  
Alphabetical list of Verizon, fGTE, and fBA Intranet Links
- Intranet Links (By Organization)**  
Corporate Resources, Domestic Telecom, and International and Information Services

**verizon**

Pictured: The *Verizon Info* tab area provides access to corporate information, including Web casts, company news, policies, and volunteer/charity efforts. Employees can either select a link from the left navigation or from its counterpart directly on the page.



## Employee Data

- Your Programs / Discounts
- Personal Information
- Employee Data**
- Payroll

**Employee Information**

**Personal Data**  
 Legal Name: John Smith  
 Nickname: John  
 SSN: 444-44-4444  
 Gender: Male  
 Date of Birth: 10/24/1957

Address: 123 Main St.  
 Waltham,  
 MA 02453

Home: (444) 444-4444  
 Ethnic Group: White  
 Military Status: N/A  
 Disability Status: None

**Career Data**  
 Service Date: 06/26/2000  
 Years of Service: 4 yrs, 4 mos  
 Employee Status: Active  
 Reg/Temp: Regular  
 Full/Part time: Full

[» Change Information](#)

**Emergency Contacts**

**Primary Contact**  
 Name: Julie Smith  
 Relationship: Spouse  
 Home: (444) 444-4444

**Secondary Contact**  
 Name: Jake Smith  
 Relationship: Son  
 Home: (444) 444-4444

[» Change Information](#)

**Education**

Degree: Doctor of Science  
 School: University of Chicago  
 Major: Psychology  
 Date: 12/31/1984

Degree: Bachelor of Arts  
 School: Tufts University  
 Major: English  
 Date Acquired: 5/19/1976

[» Change Information](#)

**Work Information**

BAID: BD561A3

**Contact Information**  
 Building Code: GOOLAO  
 Floor#: 1  
 Room/Cube: 6-2112  
 Email: john.smith@verizon.com  
 Office: (444) 444-4444  
 Fax: (444) 444-4444  
 Mobile: (444) 444-4444  
 Pager:  
 Address: 40 Sylvan Road  
 Waltham,  
 MA 02453

**Organizational Information**  
 Company Code: 99-Verizon Laboratories  
 Department: VTO  
 RCI/Cost Center: NA110000000

Job title: Distinguished MTS -Technology  
 Preferred job title: Usability Engineer  
 Employee Class:  
 Career Band: 2L  
 Supervisor Name: Jane Short

[» Change Information](#)



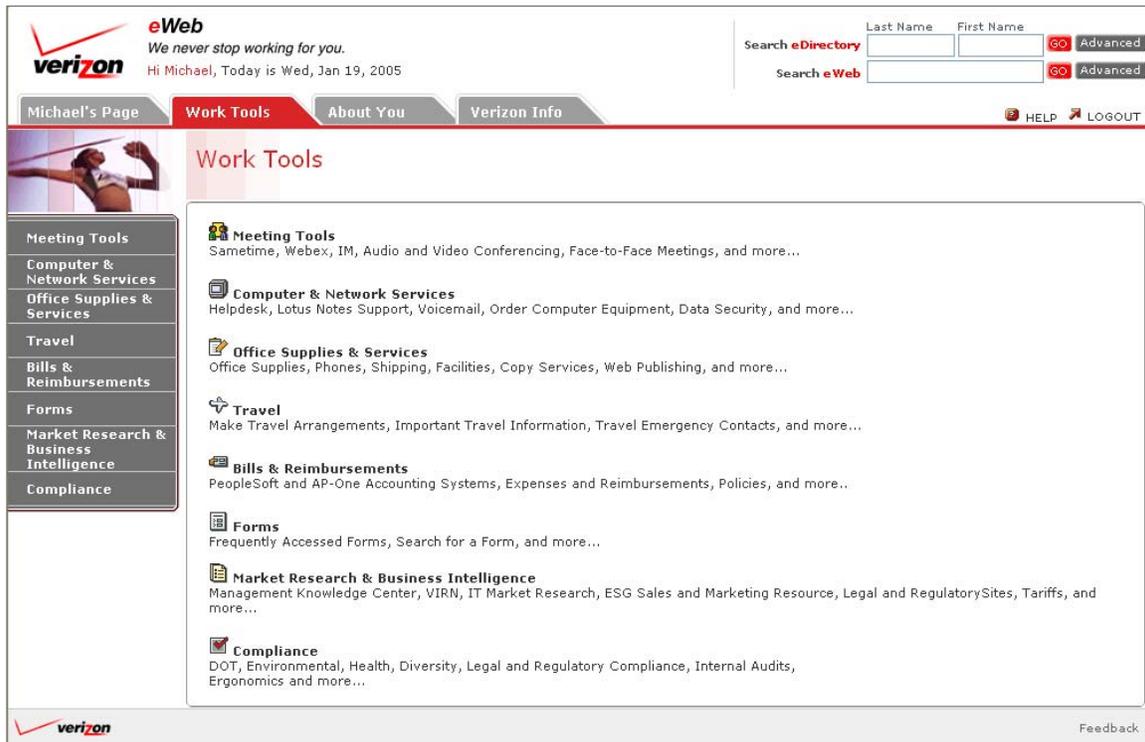
Pictured: The *About You* tab is currently being redesigned to bring more employee self-service options into this central location. This graphic shows the employee data page, which lets employees modify their personal and work contact information, as well as education and emergency contact information. Employee programs and discounts are available in the left navigation.

"From these pages, employees can list the links they visit most often, set up personal reminders, get weather for any city, and track stocks," says Joel Angiollilo, usability manager. "Employees can also access job-specific tools, such as online meeting applications, network and computer support systems, online travel reservations and expense reimbursement applications, as well as performance management and job-training systems," he says. "The corporate information page lets employees obtain company news, view Web casts, or volunteer for community projects. Additionally, a personal information page lets employees manage items such as payroll, direct deposit, benefits, and W-4 information."

Single sign-on drives the versatility of eWeb features. "This enables employees to sign-on once to access multiple applications," says Angiollilo.

Another navigation alternative, search, is present on every page. The employee search, *eDirectory*, appears just above the whole site search. The opens fields are clear, as are the labels and buttons to invoke the search. The readily available *Advanced search* button provides more search capabilities, but appears after the basic search so it doesn't hinder simple searching. Because site search and employee directories are so important to most users, it's critical that both are available on each page of the site. It's also vital to clearly distinguishing between the two. The Verizon intranet does a nice job on both fronts.

The *Work Tools* tab provides access to several intranet features, including computer support, travel support, forms, office services, and more. The main landing page, which first appears when the user selects the tab, mimics the left-side navigation, and also includes additional descriptions for each menu item.



Pictured: A navigational landing page for eWeb. Employees arrive at this page after clicking on the *Work Tools* tab. This page mirrors the options in the left-hand navigation, and provides brief descriptions to remind employees of all available features. Note that the headings are also hyperlinks.

One of many content-rich areas of the intranet's *Work Tools* section is the *Market Research and Business Intelligence* page. Information about the market helps users know their domain and stay competitive. Also, because telecommunications is a highly regulated industry, this page helps employees keep abreast of some of the most recent regulation, tariff, and legal information.

When users select items from the left-side navigation in the *Work Tools* area, the selected menu choice turns red, so users can easily tell where they are.

**verizon eWeb**  
We never stop working for you.  
Hi Michael, Today is Wed, Jan 19, 2005

Search eDirectory [Last Name] [First Name] GO Advanced  
Search eWeb [ ] GO Advanced

Michael's Page **Work Tools** About You Verizon Info

**Market Research & Business Intelligence**

**Management Knowledge Center**  
Visit the MKC to stimulate new ideas, increase strategic thinking, get access to new performance management tools and more...  
» Management Knowledge Center (MKC)

**Market Research**  
**Syndicated Research Studies**  
Access thousands of marketing studies by Yankee Group, Forrester, Dun & Bradstreet and others...  
» Verizon Information Research Network (VIRN) Syndicated Studies  
**ESG Market Intelligence**  
View competitive, pricing, geographic, and product assessments...  
» ESG Competitive Intelligence  
**IT Research Center**  
Get research help, advice from analysts, technical information, market research reports and more...  
» IT Market Research  
**Network Services Technology**  
View the entire VTO Document Database...  
» VTO Document Repository Database  
**VIRN Products & Services**  
Access quick links to databases, research, news and periodicals...  
» VIRN Products & Services Index

**Legal & Regulatory Intelligence Sites**  
**Legal News**  
» Legalweb site  
» Public Policy & External Affairs Site  
» Legalweb WWW Links  
» PP&EA WWW Links  
**Regulatory**  
» Regulatory Compliance Site  
» Regulatory State Document Bank  
» Public Policy & Regulatory Info  
» Long Distance Filings  
» FCC Filings  
» Regulatory Document Bank  
» Federal Merger Compliance Issues  
» Fed. Regulatory Policy & Planning  
» State PUCs  
» State Tariffs  
» Federal Web Sites  
» Private Industry and Utility Association Web Site  
» Federal Legislation  
**Tariff Resources**  
» Verizon Tariffs

**What's New?**  
» Featured Articles  
» Hot Items  
» Weekly Quotes  
» Business Week  
» Business Books  
» Quick Poll

**External Technology Sites**  
» BBN Technologies  
» Business Wire  
» CNET  
» Strategy & Business enews  
» eCommerce Times  
» Internet News  
» IT Industry Council  
» Telecom Web  
» U.S. Government IT Policies & Legislation  
» Wall St. Technology

**Business Initiatives**  
» Creating a Business Case  
» Active and Pending RFPs  
» Issues an RFP or RFI  
» Selection and Qualification Process

Meeting Tools  
Computer & Network Services  
Office Supplies & Services  
Travel  
Bills & Reimbursements  
Forms  
**Market Research & Business Intelligence**  
Compliance

Feedback

Pictured: The *Market Research & Business Intelligence* page is one example of an eWeb content page. The page gives employees relevant market and business information, including access to research libraries, competitive-analysis reports, and online magazines.

Another commonly used *Work Tools* area is the *Computer and Network Support* section. The page areas are clearly delineated graphically, with simple titles such as *Web Publishing* and *Security*. Under each area, there are descriptive link names for the types of support available to users. Security alerts are also available, positioned in the upper right of the page.

Pictured: The *Computer and Network Support* page is another example of an eWeb content page. The page gives employees access to essential information such as computer security alerts and contact information and resources for computer and network issues.

Overall, the expected navigation model, rich content, and unfussy aesthetics make this intranet easy and helpful for all employees.

## URL AND ACCESS

The intranet's URL is <http://eweb.verizon.com>, and while it's the default homepage for every user's browser — preloaded as part of Verizon's standard desktop image build — users can change it.

When outside the firewall, Verizon's managers can access the eWeb through a secure VPN connection from anywhere in the world. Otherwise, a small portion of the eWeb content is accessible from Verizon's external website at <http://www.verizon.com/eweb>. This content, however, "is limited to Verizon's press releases, general HR information, and information relevant to Verizon's retiree population," says Martin Jasinski, eWeb program lead.

In some locations, such as repair garages, call centers, and central offices, eWeb is also accessible through kiosks. These kiosks typically cater to unionized employees — such as repair, installation, and central office technicians — who don't have their own PCs.

## CONTENT MANAGEMENT

The overall portal is based on the top-level component of the IBM's WebSphere family. The CMS is WebSphere Content Management (WCM), which uses Java/J2EE-based technology and is installed as a Web application in the WebSphere Application Server. "We have configured multiple instances of WCM running on separate application server instances, in order to insure redundancy and availability. The content is delivered to content server instances by using syndication — content syndication is a feature in the WCM application. So the user enters content in one location, and the content is syndicated simultaneously to all the content servers," says Robert Weihmayer, executive director of intranet development.

For managing documents, including change management, Verizon uses Documentum.

Portal content is rendered in WebSphere Portal Server using portlets. Content from Documentum is rendered using HTML and Java server pages.

Content owners are drawn from Verizon's business lines: network services, retail markets, enterprise solutions, and wholesale markets; as well as from corporate organizations including HR, public affairs, communications, IT, and the legal group. This arrangement grew organically, "a natural result of the multiple businesses within the intranet population," says Weihmayer. While different organizations contribute content, it is centrally aggregated, then made available where appropriate to other portals and applications.

For managing content, "we have created custom templates and are in the process of finalizing the guidelines for designing and deploying templates," says Weihmayer. Templates are created using WCM and associated with particular page designs. Enforcing their use isn't difficult, says Weihmayer, because to enter content, a user must select a pre-designed page, which is tied to a related template.

## TECHNOLOGY

The intranet operates on Sun F15 hardware running the Solaris 8 operating system. Bug tracking is handled by in-house software called Infoman CMIS. Mercury Interactive's LoadRunner is used for quality assurance and load balancing.

The search engine is from Verity, the application servers are WebSphere Application Server and WebLogic Application Server, and the database is Oracle 9i. The directory is handled by an iPlanet LDAP server, and Netegrity Siteminder manages single sign-on.

To build eWeb's software infrastructure, Verizon used WebSphere Portal Server 5.0.2.2. That was layered over an enterprise identity management LDAP application tied into corporate ERP systems, with Netegrity Siteminder providing single sign-on — including the required authentication and authorization.

This framework is used to build not only the overall portal, but also Web applications and content therein. Each Web page typically relies upon one or more portlets. "The portlets allow the content owner to manage the design and presentation of Web pages, through controlling the placement and content of each individual portlet," says Weihmayer.

The primary portlet development tool is WebSphere Studio Application Developer.

“For building the Web pages, we use the administrator interfaces provided by the WebSphere Portal Server, in conjunction with WebSphere Content Management,” says Weihmayer. Verizon also uses a variety of HTML tools, including the open source Eclipse from The Eclipse Project, Microsoft FrontPage, IBM WebSphere Studio Application Developer (which is built on Eclipse), and Macromedia Dreamweaver.

This sum total of all this technology, says Weihmayer, is “a fully transactional and componentized intranet portal for all employees and all organizations” that includes personalization and customization.

The scalable portal environment includes distributed development, centralized deployment for more easily managing updates, and the ability to have a federated portal structure, meaning different parts of Verizon can build or share parts of their departmental-level intranets.

## **GOALS AND CONSTRAINTS**

Goals:

1. Increase employee efficiency by providing easy access to needed information and tools, and decreasing time spent on “administrivia.”
2. Enhance communication both between executives and employees, and among employees.
3. Introduce new productivity tools and applications, including greater single sign-on capabilities across systems and applications, better search tools, Web-based e-mail, new calendar and instant messaging systems, online forms, online travel arrangement and expense reimbursement tools, and self-service HR and payroll.

Constraints:

1. Accounting for regulatory concerns: some business units couldn't have access to some types of information.
2. Dealing with realities of life at Verizon, including navigating a potential labor strike by 70,000 unionized employees, and managing an early retirement offer to more than 60,000 managers.

## **BASIC INTRANET FEATURES**

eWeb supports a multitude of tasks that help employees work effectively and efficiently. For example, with eWeb, employees can list the links they visit most often, set up personal reminders, get weather for any city, and track stocks. Employees can also access job-specific tools, such as online meeting applications, network and computer support systems, online travel reservation and reimbursement applications, and performance management and job-training systems. Additionally, a personal information page is available, where employees can manage such items as payroll, direct deposit, and W-4 information. In these cases, and many more, the eWeb portal helps employees connect to the information they need to effectively manage their work and life.

## USERS

The intranet supports over 100,000 users worldwide, including everyone from administrative assistants to executives, contingent workers to management, and Verizon charitable organizations to market research and business intelligence teams.

## USER TASKS

- Search the employee directory
- Set up personal reminders
- Access job-specific tools, such as Web conferencing, instant messaging, and network and computer support
- Manage payroll, direct deposit, and W-4 information via self-service applications
- Access performance management, online travel reservation, and expense reimbursement tools
- Obtain the latest Verizon news, including business unit information, and view Web casts
- Read about Verizon's product initiatives
- Learn about the latest employee programs and discounts
- Get weather for any city
- Track stocks
- Volunteer for community projects

## BACKGROUND

In 2000, "eWeb was built as a static Web site providing general navigation to a variety of corporate resources, policies, and tools," says Jasinski.

The most popular services at that time were the employee directory search, general search utility, and corporate discounts, says Jasinski. Users also typically accessed applications such as online travel reservations, expense vouchers, forms library, and HR policies.

For the next version of eWeb, Verizon wanted "to evolve from a static, anonymous website to a personalized portal with better tailoring of content to groups, or even individuals," says Jasinski.

Verizon decided the best route would be adopting existing portal software, as well as an integrated CMS.

"Verizon's corporate intranet has evolved from a records-management group in IT," says Jasinski, adding that in the late 1990s, initial intranet funding "came from savings associated with Web access to paper records and forms."

When Bell Atlantic and GTE merged in 2000 to form Verizon, the event "provided an impetus to building a large-scale intranet that would, on the one hand, create a navigational shell and a cohesive guide to corporate resources and processes, and on the other hand, reinforce the new corporate branding to the more than 200,000 employees," he says.

Today, the intranet team contains three groups: business requirements and design (five people), technical development (seven people), and intranet operations (twelve people). The intranet team is part of the IT-Corporate Systems department. The HR department's technology group assists with presentation of its content and in the design of self-service systems.

Currently, IBM helps with technical support for WebSphere. It also prototyped an early, high-level version of the portal for Verizon. Yani Technologies, a New-York-based boutique consulting firm, collaborated with an internal Verizon team to help plan the overall intranet strategy, information architecture, and look and feel.

Virtual teams from other parts of the organization, including the employee communications, IT, and user-centered design groups, also support the intranet. Workers — in-house, independent contractors, and temporary employees — include developers, graphic designers, and human factors specialists drawn from the HR and IT groups and working from Waltham, Mass.; New York; Baltimore; Tampa, Fla.; and Dallas.

In addition, "various departments and business units within Verizon have their own operational portals or websites, which are supported internally by those departments," says Jasinski.

Verizon's intranet, eWeb, is governed by an eWeb Council, drawn from senior managers from all major business units, and co-chaired by the employee communications and HR departments' executives. The council was formed in 2001, following the Bell Atlantic–GTE merger that formed Verizon and around the time of eWeb's first release.

## **DESIGN PROCESS AND USABILITY ACTIVITIES**

The process of moving to an intranet that targets each employee was supported by a series of usability initiatives, including card sorts, wireframe and prototype development, formal lab tests, and site visits to several Verizon locations. The eWeb information architecture and user experience were guided by these usability efforts, and users have responded positively and successfully to the changes.

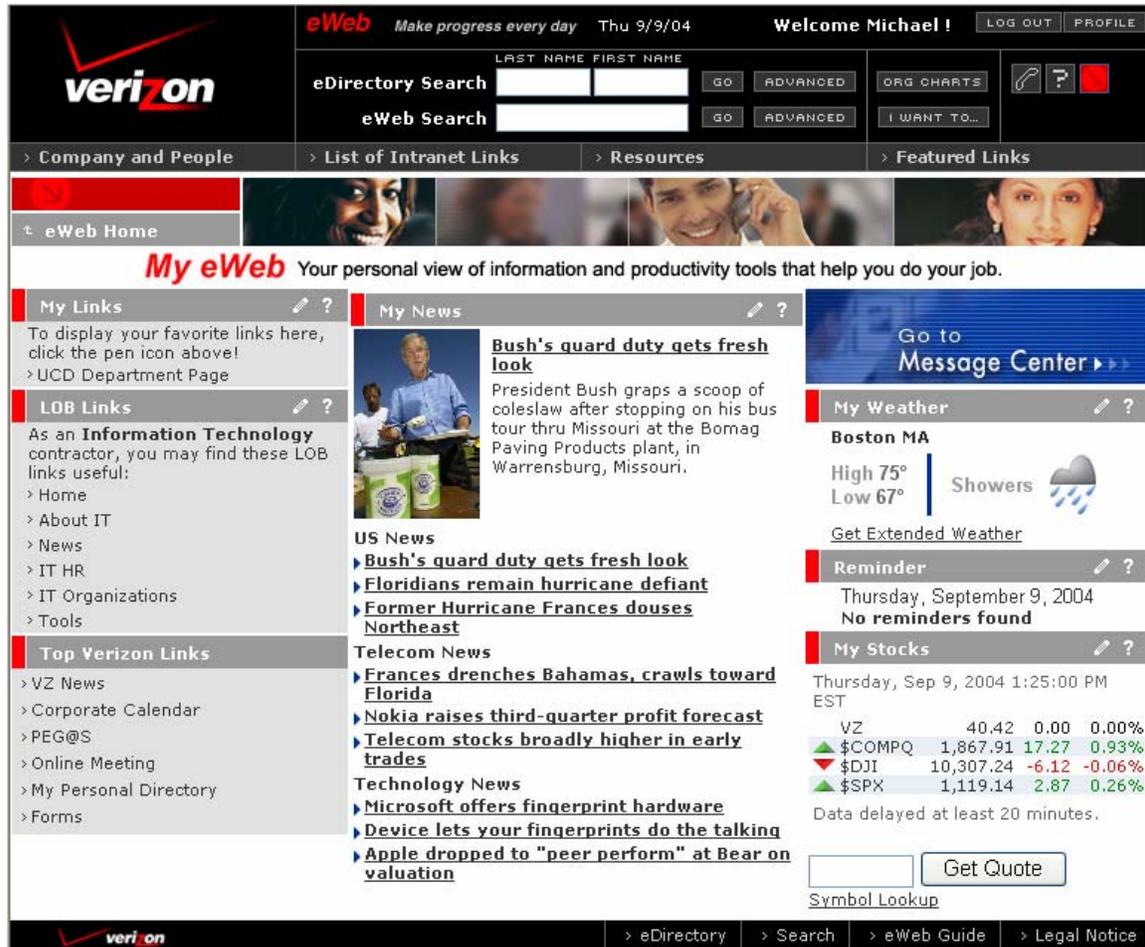
"The goals of the latest redesign of the portal were to enable sophisticated personalization and customization of the content for the users of eWeb," says Jasinski. This version of the portal, however, would provide a consistent look and feel for Verizon's intranet, regardless of business unit.

On the old intranet "employees were not able to efficiently utilize the technology available," says Verizon usability analyst Suzy Czarkowski, which led to the usability and intranet development teams collaborating to produce a better intranet.

"It was our intention to create a portal framework that serves all employees for the information and applications that are common, and at the same time, allow for individual business units to seamlessly create and publish content that would only be applicable to their employees," says Jasinski.

After the group created project goals and a timeline, the usability team weighed in on "where they could be most helpful to the development team, and have the most user impact," says Czarkowski.

Because the previous site had problems with information access speed, the redesign team targeted that first by studying the site's information architecture. Specifically, they looked at how users accessed information. They gleaned this information from interviews with users, employee surveys, and search logs, focusing on what employees most frequently sought.



Pictured: On the previous Verizon intranet, users had difficulty finding information quickly. Also, the intranet's look and feel often differed from one business division to another.

As the redesign progressed, the usability team conducted card-sorting exercises and navigation studies using prototypes. This helped the usability team communicate — particularly to developers — how employees “envisioned and interacted with the site content,” says Verizon usability analyst Beth Davis.

“The changes proposed throughout the eWeb redesign were made based on the severity of the issue and the feasibility of change,” says Michael Flynn, a Verizon usability analyst. “The usability team ranked and rated problems for global and specific issues, and then discussed these issues with the development team. This collaboration between the usability and development teams enabled both groups to make informed decisions for the redesign.”

Given the results, the intranet team proposed a navigation structure with four tabs that allowed for logical task groupings: a personalized homepage, work tools, corporate information, and personal information. Users can customize their personalized homepage name.

The usability team tested the tabs in the usability lab and in remote visits. Results in hand, “the development team took the site structure information and began constructing the new eWeb portal,” says Davis.

Following the first round of development, the usability team ran additional tests with users, both in the lab and in people’s offices, “to verify the architecture was accurate,” says Czarkowski, “and to identify any problems with the page-customization functionality” which it then communicated to the developers.

During development, the usability team also studied ongoing work, “identifying potential problems and also communicating what was working well,” says Czarkowski. The team sometimes submitted new designs to emphasize certain functionality, and occasionally brought in other employees for feedback on mocked-up eWeb pages. “These mock-ups were iterative, some undergoing several rounds of changes,” says Czarkowski.

As the design progressed, the intranet team also had to keep regulatory concerns in mind. In short, different Verizon business units might be governed by certain restrictions. “There are certain constraints on the intranet that reflect the complexity of Verizon’s structure, driven by government regulations,” says Jasinski.

The original rollout date was planned for late 2003, “but two major events changed the priorities for the project,” says Jasinski. “The first was a potential strike of more than 70,000 unionized employees in August 2003.” Management decided, says Jasinski, “to use the portal platform that was under development to prepare instead for the anticipated labor dispute. We used this platform to disseminate strike assignments and training packages to over 50,000 management employees,” says Jasinski. The portal provided related updates, including details of labor negotiations.

Ultimately, the strike didn’t happen because the union agreed to work past the contract expiration. For a month, however — while working to reach a new contract agreement — Verizon remained on high alert, using the intranet to disseminate crucial information.

The other major event to impact the intranet’s rollout was “an early retirement offer to over 60,000 management employees,” says Jasinski. The offer was released and managed entirely via the eWeb portal.

Both experiences sold Verizon on a personalized-portal approach and “paved the way to the 2004 deployment of the new version of the intranet,” says Jasinski.

Usability testing, intranet iteration, and redesign are ongoing.

## TIMELINE

- 2000: Launched initial eWeb
- March 2003: Released first version of the personalized portal, MyeWeb
- August 2003: Used portal platform for the VZReady program — work stoppage preparations and business-continuity event management
- October 2003: Used portal platform for early retirement offer to more than 60,000 Verizon managers

- January 2004: Began development on second version of eWeb, including design of the new look and feel, information architecture and navigational-structure development, usability studies to validate the design, portlet development, content migration, and testing
- October 2004: Launched the redesigned eWeb

## RESULTS

Thanks to the redesign, today Verizon's intranet provides efficient access to an enormous library of corporate resources, websites, online tools, applications, and more. In particular, "the latest release of eWeb moves the intranet from a static site and general navigational shell to a personalized portal that supports extensive customization — for both users and business units — via personalized content and application access based upon such things as the user's career level, function, business unit, and geography," says Jasinski.

In addition, the intranet helps users locate Verizon's more than 400 internal websites. These range from large, organizational websites to small sites for specific groups. "All are registered with the intranet," says Jasinski, "and can be navigated to and from the corporate intranet — eWeb," which is no small feat. An improved single sign-on system also helps employees access all of those sites and applications, automatically signing them on to 100 of them, with greater integration planned for the future.

Verizon's employees are taking to the changes, with over 100,000 of them accessing the eWeb monthly, and over 80% of those people using it every day. That's no surprise since the intranet gives employees easier access to the tools they need to do their jobs. In fact, the redesign helped drive instant messaging use from 63,000 chats per year to over 100 million. Likewise, Web-conferencing use grew from 2,400 to 70,000 sessions per year, and the number of employee self-service transactions grew from 1.32 million in 2001 to 6.28 million in 2004.

The new intranet divides information into work, human resources, and corporate information segments. For users, "the structure meets their expectations," says Flynn, adding that employee feedback indicates that they "read information more easily, they notice storylines, and on a whole, they report that the eWeb is a dramatic improvement from the original."

Search, however, is the most-used feature. "Other, less high-profile tasks include obtaining the latest news about Verizon and its product initiatives, staying informed of specific business unit information, and learning about the latest programs and discounts available," says Flynn.

For the rollout, Verizon also managed to balance ease of use with regulatory requirements. "Employees of certain subsidiaries that are governed by different regulatory rules have only limited access to eWeb's resources, which imposes architectural challenges on the content management system and the overall design of the intranet," says Jasinski.

In particular, employees in unregulated subsidiaries cannot have access to particular resources. "The issue of which resources they can access and which they cannot was handled by IT, in conjunction with our corporate legal team," says Flynn. "Then, appropriate safeguards were put in place to prevent unauthorized access."

What's next? "As the eWeb moves forward, and as the understanding of employee needs and behavior grows, the appropriate tasks available from eWeb will evolve," says Flynn. Verizon plans to keep redesigning the eWeb portlets to help employees more efficiently complete their critical business tasks. Near-term goals are to improve employees' ability to manage their corporate card expenses, make corporate travel arrangements, and obtain computer or network support.

## LESSONS LEARNED

Insights from Joel Angiollilo:

**Get top-to-bottom commitment.** "The usability and development efforts had full support, from the business unit directors to the team members. Such organizational commitment enabled the teams to complete the work necessary to create a usable and useful product."

**Control the design.** "The usability team was given control of the design, including page layout and content. This control enabled the usability team to focus on its strengths while the development team focused on its strengths. Ultimately, having significant control of the ultimate design enabled the team to avoid potential usability problems from the start."

**Allow for design iterations.** "The usability team created several iterations of the screens, each incorporating greater levels of detail. Staying flexible — both personally in the management process, as well as in development — allowed the best approaches to surface."

Insights from Martin Jasinski:

**Design the information architecture in advance.** "While designing information architecture for a large, complex organization such as Verizon is a challenge, do the work upfront. Otherwise, a narrowly conceived architecture will result in continuous adjustments and compromise."

**Simplify role management.** "In a static environment, managing personalized content — via user profiles — is easy. For a large, personalized intranet, however, things get complex. For example, how do you manage temporary delegations of authority or roles? Perhaps someone — filling in for another employee, but only on a temporary basis — needs to access certain systems, yet can't be allowed to see the absent user's personal information. Or how do you provide access to employees matrix-managed by different business units? Too often there are no simple answers to these situations. Our rule has been to establish general rules for role administration, but to make it decentralized and self-administered by departments or work groups."

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## Recommendations for the Intranet Design Process

Understanding the lessons learned from these good intranets will help you design a better intranet for your organization or your client's organization. You can also do other, more process-related things to improve intranet usability. Based on the above cases, the 2001-2003 winning intranets, the 2004 government-related winning intranets, and our other experiences testing intranets, we offer a few of the most important recommendations for designing a usable intranet. Note that these recommendations have changed very little in the last few years.

### WATCH PEOPLE WORK

When designing intranets, you know who your users are — the people you walk by in the hallways, the people sitting next to you in the cafeteria, the people parked next to you in the garage. Use this to your advantage and go watch them work. See how they're using and not using the intranet now, and where the design opportunities lie.

### CONDUCT USABILITY EVALUATIONS

Remember that you don't need a complete design to get usability feedback, and in fact, it's better to get early feedback on incomplete designs. You can test prototypes and paper mockups. If a website has design elements like ones you are thinking of implementing on your intranet, test those. You can watch people using any current system, even if it's not an intranet per se, and determine which activities are already well laid out.

When we looked through this year's design submissions, we once again observed a lack of consistent usability processes, including regular usability testing, heuristic evaluations, and field studies. Even busy development teams with tight deadlines should take the time to watch people attempt basic tasks using the design. It doesn't take long to do a quick test. We also encourage design teams to get a group of designers and developers together — even for just twenty minutes — and review the site's design to discuss and agree on the top usability issues.

### MEASURE ROI

Most of the intranets in this contest made obvious strides and great usability improvements, and, no doubt, have created productivity and efficiency gains for their companies. Most companies do not formally (or even informally) measure any return on investment. Often, such measurements are not a priority because of tight schedules and the way organizations allocate money. For example, the money to design and maintain the intranet might be allocated to the IT VP, while the actual productivity gains are found in the HR department.

Take the time to measure decreased task time and increased financial savings across your organization. Make the gains known to the different departments and at higher levels, so even the most upper-level managers understand the importance of well-designed internal systems.

### CONSIDER ACCESSIBILITY

Many companies employ people or will employ people who use assistive technology. Almost all of the submitted intranets suffered from accessibility issues for users with

low vision, no vision, or motor skill challenges. The trends toward many graphics, tiny text, poor contrast, limited space between links and text, and small targets are a bit scary, as these are chief accessibility offenders. On the positive side, while many submissions overuse graphics, many others use graphics sparingly, and when they do use them, they are well labeled for users with low vision or no vision.

## **ENCOURAGE EMPLOYEES TO CONTRIBUTE CONTENT**

The most well-received intranets are those with fresh information that people need and want. One way to keep information updated and interesting is to provide methods for employees to add and edit information. Also, letting users add content will make them feel some ownership toward the intranet. And, more good content providers will probably lead to more varied information on the intranet, inspiring more employees to return.

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## **Intranets Not Selected: Common Issues**

The high quality of many of the designs submitted to this contest created a challenging selection process. As in past years, we found many more than ten good designs.

Although we won't name or show examples from intranets not in the top ten, the following are some of the major problems we saw across the submissions not included in this report.

### **HOMEPAGES CLUTTERED WITH SOMETIMES USELESS INFORMATION**

Everyone wants a piece of the homepage. Even designers who know that it's better to keep it simple sometimes find it difficult to say no to someone (maybe a vice president) asking them to add an element on the homepage. Choose the most important information that people need to know and put that on the homepage. Remember, the more choices users have, the less likely they are to find anything.

### **LACK OF NEWS, OR UNINSPIRING NEWS**

Company news can excite and even involve employees. Some intranets have no news sections. Others have a news section, but the news either does not change or changes but is always about HR announcements, for example. Old or tiresome news will bore employees and make them feel like there is nothing new happening at their company.

### **INCONSISTENT DESIGN OR WILDLY INCONSISTENT NAVIGATION ACROSS THE INTRANET**

Inconsistency — in navigation, not to mention the overall look and feel of the intranet — was probably the most widespread flaw we saw. A common symptom of this design problem is that users find it difficult to determine their location and context. This frequently affects how quickly they can accomplish intranet tasks.

In reading some of the intranet histories, we noticed a common scenario that we've seen in years past: Individuals or different teams created intranets for their divisions, and at some point the company decided to link them all together via one main homepage. However, the subsites were never united by a consistent look and feel, leaving employees to work with fragmented and disjointed intranet designs. Some of the more common reasons for this might include:

- Designers didn't think of creating a common interface.
- Designers didn't think a common interface was important.
- Other people within the company didn't believe consistency was important on the intranet.
- Designers couldn't find the time or budget to redesign all of the intranet's subsites for consistency.
- The managers or vice presidents who created the different subsites wanted to retain their own image (and brand and design) on the intranet.

Whatever the reason, if this sounds familiar, please reconsider your intranet design. All users will benefit from a consistent design across the entire site.

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## Selection Criteria and Process

This year marks the fourth annual Nielsen Norman Group intranet usability competition,<sup>1</sup> which seeks the best examples of intranets that are easy to use and meet users' needs. In August 2004, we posted the call for submissions on <http://www.useit.com>. In response, we received submissions from almost fifty organizations of different sizes, from various countries and industries. These submissions included intranet screenshots, explicit descriptions of the intranet's design and how it works, notes about the design process (including usability methods employed), detailed information about users and potential users, and the intranet's goals.

To judge the entries, we followed a four-step process: 1) initial design reviews and numeric rankings; 2) follow-up questions with the top submissions (when necessary); 3) design sorting, followed by thorough design reviews to choose the top ten; and 4) follow-up interviews with the top ten.

### INITIAL DESIGN REVIEWS AND NUMERIC RANKINGS

Based on the initial submission information, the three judges (see [About the Authors](#)) conducted simple design reviews and whittled down the entries to the tier-one submissions. In addition to written commentary, we rated each site numerically. We based these ratings on criteria typically viewed as key to intranet usability, including some criteria that emerged from submissions and trends in our previous contests. We rated the following criteria in each submission on a 0 to 3 scale (with 3 being the best rating):

#### Navigation:

- Main navigation on every page
- Consistent/easy navigation
- Consistent style across the intranet
- No horizontal scrolling
- Minimal vertical scrolling

#### Design:

- Pleasing aesthetics
- Engaging homepage design
- Good contrast between text and background
- Easy-to-read text
- Easy-to-read links
- Good use of graphics
- The right amount of text

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<sup>1</sup> In lieu of a 2004 Intranet Design Annual, we conducted a competition focused only on government-related and public-sector intranets. *Ten Best Government and Public Sector Intranet Designs* is available for purchase at <http://www.nngroup.com/reports/intranet/government/>.

- The right number of links
- Clean design

#### **Search:**

- Consistently available search
- Good search design (ideally, a simple open field at the top of pages)

#### **Personalization and News Delivery**

- Personalization/catering to different offices or cultures
- Organization-related news
- Information about internal groups

#### **Content**

- Well-written text
- Employee directory or directory search
- Content posting and editing capabilities

#### **Overall**

- Simple forms
- Support for the main corporate functions
- Encapsulation of the organization's spirit
- Use of innovative/fun features

### **FOLLOW-UP QUESTIONS WITH TOP TIER (WHEN NECESSARY)**

After collecting this extensive information from site designers, along with information about their users, goals, and internal usability evaluations, we thoroughly reviewed the intranet designs. We evaluated them based on usability, look and feel, and elegance. We also considered the target users, their tasks, and how well the site's applications might help them complete these tasks. We did not conduct usability evaluations with test participants. We do believe, however, that intranet usability studies are best conducted with users, and we've conducted (and are currently updating) a usability research study in which intranet users tested various intranet designs.<sup>2</sup>

### **DESIGN SORTING AND THOROUGH DESIGN REVIEW**

Next, we reviewed the intranets and sorted the top thirty designs based on numeric ratings. We then conducted more thorough design reviews of the top twenty-five sites, and from this selected the ten best intranets.

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<sup>2</sup> *Intranet Usability: Design Guidelines from Studies with Intranet Users* is available for purchase at <http://www.nngroup.com/reports/intranet/guidelines/>. Version two of the report, including studies of at least ten more intranets, is scheduled for release in July 2005.

## FOLLOW-UP INTERVIEWS WITH TOP TEN

After choosing the top ten submissions, we asked the site designers general questions about the site and their design decisions, usability evaluation methods, and lessons learned. We then followed up with more specific questions — some exclusive to their intranet, and some more generic. For example, the generic questions included:

- What was the business reason for setting up the intranet?
- What does it do and what kind of information does it contain?
- Who had the idea for the intranet (or the revision), and what goals did he or she want to achieve?
- What were the constraints? (For example: Were there time or budget constraints? Did content have to be published in multiple languages?)
- Describe the development process and usability findings.
- Who was involved in the project and what were their roles in the organization?

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## About the Authors

The three authors were the reviewers, interviewers, and judges for the competition this report is based on. Coyne and Nielsen also wrote Nielsen Norman Group's 2001, 2002, and 2003 Intranet Design Annuals, along with co-author Candice Goodwin.

**Kara Pernice Coyne** is the director of research at Nielsen Norman Group and heads the company's East Coast operations. Since joining NN/g, Coyne has led several intercontinental research studies and wrote associated reports about topics such as intranets, the Web and accessibility, senior citizens, public relations, and site maps. She has developed and taught numerous seminars about these topics and about a variety of usability methods, such as the product life cycle, field studies, and usability testing. She is also working on methods for testing emotion and design. Additionally, Coyne has worked with clients in many industries. Before joining NN/g, she established successful usability programs at Lotus Development; Iris Associates, an IBM subsidiary; and Interleaf. She managed the first usability program for Lotus Notes and the Domino server, and after her team's work, *PC Magazine* wrote, "If this were summer camp, Lotus Notes would walk away with the Most Improved Camper award." Coyne chaired the Usability Professionals' Association conferences in 2000 and 2001, was presentations chair for UPA 1999, and was conference advisor for UPA 2002. She is on the editorial board for a new intranet magazine, *The Journal of Intranet Strategy and Management*. She has an MBA from Northeastern University and a BA from Simmons College.

**Mathew Schwartz** (<http://www.penandcamera.com>) is a freelance journalist, editor, and photographer based in France. He frequently covers business and technology issues, and has contributed to such publications as *The Boston Globe*, *Computerworld*, *Enterprise Systems*, *Fodor's Travel Guides*, *The Times of London*, and *Wired News*. He has profiled the usability practices of such leading organizations as eBay, Fidelity Investments, Intuit, and Staples, and co-authored the *Ten Best Government and Public Sector Intranet Designs* for Nielsen Norman Group. He earned a BA in English literature from Cornell University, and an MA in English literature from the State University of New York at Buffalo.

**Dr. Jakob Nielsen** (<http://www.useit.com>) is a user advocate specializing in Web usability and a principal of Nielsen Norman Group, which he co-founded with Dr. Donald A. Norman, former Vice President of Apple Research. Until 1998, Dr. Nielsen was a Sun Microsystems Distinguished Engineer and led that company's Web usability efforts, starting with the original design of SunWeb in early 1994. His previous affiliations include the IBM User Interface Institute, Bell Communications Research, and the Technical University of Denmark. Nielsen's book, *Designing Web Usability: The Practice of Simplicity*, has more than a quarter million copies in print in twenty-two languages. In its review, *Business Week* says that this book "should ... be read by any executive with responsibility for managing online operations." Nielsen's Alertbox column about Web usability has been published on the Internet since 1995 (<http://www.useit.com/alertbox>) and currently has about 200,000 readers. Nielsen has been called "the guru of Web page usability" (*The New York Times*), "the smartest person on the Web" (*ZDNet*), "the next best thing to a true time machine" (*USA Today*) and the person who "knows more about what makes websites work than anyone else on the planet" (*Chicago Tribune*). He holds seventy-seven U.S. patents, mainly on ways to make the Internet easier to use.

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