

Intranet Design Annual

Ten Best Intranets of 2001

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Executive Summary

In the 1990s, corporate intranets were severely underfunded and were viewed more as a playground than as a serious business tool intended to drive employee productivity. As a result, intranets are an utter mess in most companies and employees waste countless hours every time they try to find anything. No interface design standards, no unified information architecture, no task support for collaboration or other activities. Employees don't gain the benefits that the intranet could bring in terms of improved communication, collaboration, and awareness because they not very motivated to check the information on poorly designed and confusing intranet pages.

In 2001, we have seen more of an emphasis on making technology pay for itself and on increasing productivity. Most marketing-oriented websites have abandoned "cool design" and have embraced simplicity as a goal (even if they are not always that simple in practice). Intranets have been slower to improve because they are often out of control or still lack sufficient budget for a serious redesign that can reach the entire company and the full mass of content and applications that are online inside a big corporation.

We expect 2002 to be the year when most companies start treating their intranets seriously and invest in employee productivity by improving intranet usability. To expedite this trend, we are publishing ten case studies of intranets that were done well in 2001. These ten intranets were selected from a much larger number that was submitted as a result of a call for nominations earlier in 2001. The ten winners are:

- Andersen: Business Radar 3.0
- BC Hydro: HydroWeb
- Cisco Systems: I-deal (Tristream)
- Fidelity Investments Canada
- Interactive Applications Group: CommunityApps
- Luleå University of Technology, Sweden
- Pearson Technology Centre
- Science Applications International Corporation (SAIC): ISSAIC
- silverorange
- United States Department of Transportation: DOTnet

It is obvious from the list that good intranets can be found in many places: huge companies, small companies, university departments with close to zero budget, government agencies, non-profits (CommunityApps), and several different countries. In fact we had runner-ups from two additional continents that almost made it into the top-10 list.

After having gone through the process of selecting ten winners from more than fifty nominations, it is clear to us why most design annuals focus on the graphical appearance of the designs they select. It's fast to pick designs that look good. It's a lot of work to dig beneath the surface to assess features and usability. We spent many months of efforts in the selection process because we wanted to showcase intranets that work well for employees in addition to looking good.

DESIGN PROCESS: FAST AND ITERATIVE

The good news is that it is possible to do a good job and pay attention to usability on a small budget. The bad news is that even our ten winning intranets were too constrained in resources to devote as much attention to the full user-centered design process as we like to recommend. Shortcuts were frequent, and many of the steps we recommend (such as up-front field studies) were often skipped or abbreviated.

It is clear from the case studies how much a design benefits from iterative design and even the shortest and cheapest usability activities. Many project teams showed great resourcefulness at getting user input at multiple phases in the design process even when they were operating under tight deadlines or limited budgets.

For example, ISSAIC conducted 10-minute user tests to get fast data from employees who might not have been available to leave their jobs for traditional, hour-long studies. BC Hydro organized a scavenger hunt to get employees to give them early feedback. Several project teams also went the extra mile to collect data from employees at remote locations who often have different needs than the staff at headquarters. As a simple example, many off-site employees stressed the need for the design to work over slow modem connections.

It is definitely possible to do a good job on intranet usability on a tight budget. Even though we view all ten featured intranets as winners and great designs, we did pick a single company as our over-all best intranet design: silverorange, which is a small company in Canada. They do have the unfair disadvantage of being a design firm, but even so, the point is that this small company stood out even when compared to much bigger projects.

It is also notable that Luleå University of Technology made it to the top-10 despite being designed by a bunch of graduate students. Though small and without a lot of resources, this design team focused relentlessly on user needs and on simplifying their design through many fast iterations. Some of the Luleå features underwent up to 50 iterations before they reached their current level of usability. "I thought my initial design for the calendar application was really easy to use - in fact, I was quite proud of it," as one of the developers said. But it didn't hold up when used by the professors and other staff, and so it was changed. User needs triumphed over the designer's initial pride. That's the hallmark of a truly great designer. Fast and cheap iterations and the willingness to do what users need are the way to a high-quality design despite a small budget.

DESIGN TRENDS: SIMPLIFICATION AND STANDARDIZATION

Two important trends stand out from the case studies in this design annual: Good intranet projects in 2001 focused on simplification and on creating unified navigation and user interface design across multiple business units or departments.

Forms that were a hassle in previous versions of the intranets were cut to highlight the most important fields. Search was made prominent and simplified. Features were reduced or moved to secondary screens if they didn't apply to most users. Graphics were toned down and the general look-and-feel targeted at clean design.

INTRANET AS COLLABORATION AND COMMUNICATION TOOL

We saw a greatly increased emphasis on the intranet as a collaboration tool where employees exchange information through discussion groups and other ways of posting their own views. The intranets also emphasize communication by

encouraging departments to post news and other information of interest to other groups.

In the past, it was often very difficult to post information on intranets for people without the necessary technical skills, but several of the projects profiled in this report introduced ways of allowing employees to contribute in much easier ways.

In the past, it was also common for employees or departments to place information on the intranet in unstructured ways that nobody else could find. Many of the current projects introduced ways to make this valuable information more integrated into the intranet and easier to find.

CONTENT MANAGEMENT

One of the key ways to make it easier for average employees to contribute to the intranet is to use a good content management system. Instead of having everybody design their own web pages, a CMS allows people to focus on the content and their message. The mechanics of posting their writings are taken care of by the system.

In addition to making it easier to collaborate, these solutions also enforce design standards and thus enhance user interface consistency and reduce confusion and training costs. If everybody has to design and build their own pages, you can be sure that the pages will be very different and confusing. Plus, often, poorly designed since most employees don't know that much about designing for online interactive media.

Our most dramatic case study of an automated solution is CommunityApps from Interactive Applications Group. This is a fully hosted ASP solution that provides intranets for non-profit organizations. By focusing on a specific market segment, Interactive Applications Group can provide a "just-add-water" intranet that is better designed than the intranet a resource-constrained non-profit would build on its own and still supports the typical needs of such organizations.

98% INCREASED USE

It is very hard to assess the business value of the improved intranet designs described in this report. Most of the value probably comes from better and more informed decisions due to the increased knowledge dissemination from the collaboration features and news areas. Productivity gains can also be huge from streamlined applications such as the Cisco sales force tool. If every sales person can save a few minutes for every lead that has to be entered into the system, then the annual savings will be in the multi-million-dollar range. And yet, the gains from better management of the sales process and more informed deals could easily be even bigger. Unfortunately, exact numbers and measurements to quantify these gains are not available and would be somewhat costly to collect with any degree of accuracy.

We do have an estimate of the value of improved usability from one set of data: the usage statistics reported by several of the intranets. On average, use increased by 98% after redesigning the intranets to make them more usable. In other words, companies can approximately double the benefits from their intranet investment if they spend a small amount of that investment on improving the usability of the design.

Selection Criteria and Process

We held this contest in order to find examples of intranets that are meeting users' needs and that are easy to use. The call for submission was posted on www.useit.com in the spring of 2001. More than fifty companies of different sizes and from various industries and countries made intranet design submissions. These submissions included:

- screenshots of the intranet
- very explicit descriptions of how the intranet is designed and how it works
- notes about the design process including usability methods employed
- explicit information about the users and potential users
- goals of the intranet.

We employed a three-step judging process for this competition, including: 1) initial design reviews; 2) follow-up interviews; and 3) rating, sorting, and more thorough design reviews.

INITIAL DESIGN REVIEWS

Based on the initial submission information, the three judges (named in the *About the Authors* section of this report on page 110) conducted simple design reviews and whittled down the intranets to the tier one submissions, the top twenty-five.

FOLLOW-UP INTERVIEWS

After choosing tier one, we then asked many follow-up questions about the site, design decisions, usability evaluation methods employed, and lessons learned. We asked each of the selected contestants these more specific questions, some exclusive to their particular intranet and some more generic. For example, some of the more generic questions included the following:

- What was the business reason for setting up the intranet?
- What does it do and what kind of information does it contain?
- Whose idea was it and what goals did they want to achieve?
- What were the constraints, for example time, budget, language?
- Describe the development process and usability findings.
- Who was involved in the project and what are their roles in the organization?

RATING, SORTING, AND MORE THOROUGH DESIGN REVIEWS

After this extensive information collection phase with the site designers about their users, goals, and findings from their own usability evaluations, we conducted thorough design reviews on the intranets. We evaluated them based on usability, look and feel, and elegance. We considered the users the site was designed for, their tasks, and how well the applications offered on the site might help them complete their tasks. We did not conduct usability evaluations with test participants. We believe that it would be best to conduct usability studies with users to determine

the intranet usability. That is our plan for the next intranet review, but for this first exercise it was beyond the scope of the contest.

In addition to written commentary, each site was rated numerically. Based on eight areas that are typically very important in intranet usability, each design was scored between zero and three, with three being the best rating, in each of the criteria, which are listed below:

1. Simple look
2. Simple navigation
3. Consistent navigation across pages
4. Search bar (button) visible
5. Simple search
6. Limited (well-presented) text on pages
7. Clear labels
8. Clear links (name and marks)

Finally, we chose the top ten sites and the one best intranet of 2001.

Cisco Systems: I-deal (tristream)

Cisco Systems is a major supplier of Internet networking solutions, selling its products in about 115 countries through a direct sales force, distributors, resellers and system integrators. Its headquarters are San Jose, California.

DESIGN TEAM:
tristream

Pictured: homepage



SUMMARY

As designers, it's always a scary prospect to revamp the interface in a new release. Users do not like change. In this case, designers were faced with the challenge of totally altering the model the old system. They decided it made so much more sense to separate out two activities that were presented as a combined activity in the old system. While this was a drastic change, it turned out to be the right decision, as the new design was far superior and much more simple for the users.

This design team collected extensive feedback through interviews, field studies, and usability evaluations with several prototypes, even before writing a line of code. This design is testament to what you can do when you commit to collecting feedback before you code. This design manages and moves forward the process of creating, editing, and approving sales proposals, one of the company's core business practices. They came upon the design after practicing the field studies usability method in one of the best possible ways: Since people were not using the old system, designers focused on how people actually did their job.

Many design consultants face some resistance when recommending conducting usability evaluations. These designers also encountered this challenge. But, once

they passed that hurdle, the client was hooked on usability, learned, and actually had fun.

As for the site design, the look is subtle and appealing. The category links and tabs make navigation easy to understand, and the links and text are legible and apparent.

Search is always available, though not presented as the recommended simple open field. The directory field, however, is presented as a simple open field, and is always available. This is a very important feature when the intranet supports so many different sites and people.

Scoring							
Simple look	Simple Navigation	Consistent navigation across pages	Search bar (button) visible	Simple search	Limited (well-presented) text on pages	Clear labels	Clear links (name and marks)
2	1.5	1.5	2	1.5	1.5	2	2

INTRANET

I-deal is an intranet tool used by Cisco's Offer Integration division. It enables sales staff and staff from many business divisions (finance, manufacturing, engineering and so on) to register deals, view deal status, modify information, and analyze and approve sales opportunities.

BACKGROUND

Every day Cisco Systems makes thousands of product sales through its sales-force and dealer networks, but many of those deals, especially higher-value contracts with Internet Service Providers, are much more complex. Various aspects of the deal, such as the system specifications, pricing or accompanying support services, may need to be tailored for the a specific client. Before it can be signed off on, all the departments involved have to agree.

"When Cisco gets a big non-standard deal, the sales people initiate it but they then need to get approvals from other divisions. For example finance, legal, manufacturing, and engineering might need to get involved," explains Michael Coombs, director of the Experience Design Group at Web firm tristream. Cisco's Offer Integration (OI) division was set up to coordinate deals of this kind.

The OI group had an existing intranet system, launched in March of 2000, which sales staff could use to register deals and ask for support in coordinating them. But only about 40 to 70% of deals were being registered through the intranet tool itself, a percentage far lower than the company wanted. Though the intranet is strategically very important to the company, Cisco's company philosophy is to offer support tools to its staff but not to mandate their use. Thus, tristream's brief was to redesign the system so that it would draw users in.

"It was a perfect challenge for us as experience designers because our mandate was to design a system that was so valuable, intuitive and easy to use that everyone would want to use it," Michael said.

GOALS AND CONSTRAINTS

Cisco had a number of reasons for wanting better information about the deals its sales-force had in progress. It wanted to ensure that it got the highest possible return on investment on a deal given the resources committed to it, ensure there was no undesirable legal exposure, and provide a base of information for data mining in future. Cisco's top goal for the project was to get all deals registered on the site, and especially the non-standard higher value deals. Keeping these goals in mind, Cisco also wanted to design a simple, five-minute registration process that would allow the sales staff to complete it quickly while providing some kind of high-level information about every deal the sales-force had on the table.

This involved separating out two different activities which were a combined activity in the existing system: the process of registering a deal and the more detailed process of working out approvals with each of the business groups involved. "Sales people would have to sit down for an hour and a half and fill out unbelievable forms that required a lot of information that they didn't have at the time," Michael explained. "There was high resentment among the sales force towards this tool."

Pictured: old, tedious registration tool

The screenshot shows the 'i-deal' Opportunity Registration page. At the top, there is a navigation bar with links for 'CEO', 'COO', 'SEARCH', 'INDEX', 'SUPPORT', 'FEEDBACK', and 'DIRECTORY'. Below this is a search bar and a 'Go' button. The main header features the 'Offer Integration' logo and the 'i-deal' logo. The page title is 'Opportunity Registration'. Below the title, there is a navigation bar with links for 'Home', 'Register Opportunity', 'Status Dashboard', 'Search', and 'Help'. A note states: 'Note: Special characters (like double quotes ()) are not allowed.' The main form is titled 'General Registration' and 'US Service Provider'. It contains several fields: 'Submitter Name' (text input), 'Account Manager Name' (text input with a 'Confirm' button), 'Regional Manager Name' (dropdown menu), 'Operations Director (OD)' (dropdown menu), 'Area VP' (dropdown menu), 'System Engineer' (dropdown menu), 'GSM Name' (dropdown menu), 'Engineering Manager' (dropdown menu), 'Opportunity/Project Name' (text input), and 'Customer/Account Name' (dropdown menu). A 'Confirm' button is located at the bottom right of the form.

A second goal was to provide a more effective mechanism for requesting and delivering sales support in terms of personnel resources (such as offer managers, deal consultants, and technical writers), proposal production, presenting to the customer and so on. Ideally the sales-force needed immediate feedback about whether or not they were going to get help, or at the very least the status of their deal within the approval process itself.

Sales people also needed effective online access to existing material that they could use to shorten the time consuming process of putting together a proposal. The existing toolkit on the intranet was put together from several items with different navigation and a different look and feel, which sales people found hard to use

Pictured: old intranet, tools with inconsistent look and feel



The aim was to create a single, scalable, database-driven navigation system that could be personalized for different roles in the organization.

Cisco itself did not have a user experience group, and it realized that to produce a compelling application it needed to call in information design professionals. But tristream did not have a completely free hand in how the finished application would look. Different divisions in Cisco were responsible for different elements of the pages, which had to be retained in the new design.

For example, the I-deal banner on the front page was owned by the OI division, and it had to stay.

Pictured: required I-deal banner



The black navigation bar across the top of most pages is a feature of the Cisco intranet, and was mandated by the company's business rules. "We couldn't stop all that screen real estate from being used up, but we did the best we could to simplify the design," Michael said.

PROCESS

To transform I-Deal from a massive kludge of navigation into a usable intranet tool, the six tristream designers had to find a way of presenting the functionality it contained in a more manageable way.

tristream uses a four-phase process: 1) Clarify, in which it meets with stakeholders to define business requirements; 2) Discover, in which it talks to users and stakeholders to establish the organization's audience and their goals; 3) Dream, in which it works with the organization to come up with innovative solutions to business problems; and 3) Design.

During the Discover phase, the tristream team carried out contextual and phone interviews with users representing each user segment. They created spreadsheets summarizing each user's goals, tasks, and procedures. These were then combined into a master spreadsheet of user based features and requirements.

"We went through the site listing every feature methodically, documented them as a Word document and a spreadsheet, and broke them down into goals, motivators, and procedures," Michael said.

tristream also did a series of stakeholder interviews with representatives from each of the functional groups involved, to understand fully the required business features to be included in the new system. These interviews started in mid-December 2000 and ran for about two weeks, culminating in a summary of findings being presented at Cisco at the beginning of January 2001.

Moving into the Dream phase, 11 Cisco staff members participated in a three-day offsite brainstorming session. Participants included IT analysts, business development managers, trainers, and representatives of various functional groups. Staff were presented with various target user-oriented core scenarios and encouraged to brainstorm features and innovations for the site, which were written up on post-it notes. For instance, if the tristream team proposed that a core user like a sales area manager needed to register a deal but was short of time, the post-it notes might suggest improved forms with reduced fields for quicker registration, or a PDA version of the registration form that automatically synchronized to the intranet tool so the sales person can enter the registration info while they're on the road.

tristream took the innovative and revised feature list gathered from users, and added in the core existing tool features plus the features gathered from business requirements and goals.

Using techniques like affinity clustering, the team took the post-it notes and created a rough first pass information architecture for the site (major areas and sub-areas), and then created a master spread sheet with all of the potential features.

Each potential feature was then weighted from the user perspective in a five-point scale, then Cisco's OI and IT group members weighted their ratings in terms of ease of implementation and the return on investment on that particular feature.

Pictured: features matrix

	A	B	C	D	E	F	G	H
	Proposed by Functional Area	Phase / Potential Feature	User Type	User Value		Size of Investment		
1	Registration							
2	Online Registration	Ability to include unified messaging response on registration	Field	1		5		per IT - very simple
3	Proposed Help Requests at Registration	Ability to request quick response from OI tool (links, webinars, etc.)	Field	1	1			per OI - very simple
4	Online Registration	Designed via email via forwarding	Field	1	2			per IT - very simple
5	Online Registration	Flexible entry/fields - modular reg. form (link - some registration options)	Field	1	2			
6	Registration Results/Responses	Insightful path of relevant linked documents	Field	1	1			
7	Registration Results/Responses	Phone or registration to call center entered	Field	1				see Rank?! / Dev 2?
8	Registration Results/Responses	Push link to send document folder attached to desktop	Field	1	1			
9	Registration Results/Responses	Response with contact info for immediate person to person contact	Field	1	2			
10	Online Registration	Full user registration for immediate standard PDA online searching	Field	1	1			
11	Online Registration	Save registration in process with quick capability	Field	1	1			
12	Registration Results/Responses	Ability to include unified messaging response via tool	IG	1	2			
13	Registration Results/Responses	Ability to request quick response from OI	IG	1	1			see Rank / Dev 2 / Ref'd Eq?
14	Registration Results/Responses	Designed via email via forwarding	IG	1	2			
15	Registration Results/Responses	Push link to send document folder attached to desktop	IG	1	2			
16	Registration Results/Responses	Response with contact info for immediate person to person contact	Field	2	4			
17	Registration Results/Responses	Push link to notify virtual team of changes, etc.	Field	2	2			per IT - IM, IT will get education on IM
18	Online Registration	Personal opportunity entry (IE, Proposal rev 1, near Wb Proposal rev 2, also Wb Proposal rev 3, etc)	Field	2	2			per IT - complex but existing development
19	Registration Results/Responses	Push link to notify virtual team of changes, etc.	IG	2	2			
20	Registration Results/Responses	Personal opportunity entry (IE, Proposal rev 1, near Wb Proposal rev 2, also Wb Proposal rev 3, etc)	IG	2	2			
21	Online Registration	Apply to duplicate existing post registrations - reuse modify fields and search	Field	2	2			
22	Online Registration	Ability to include unified messaging response	Field	4	2			

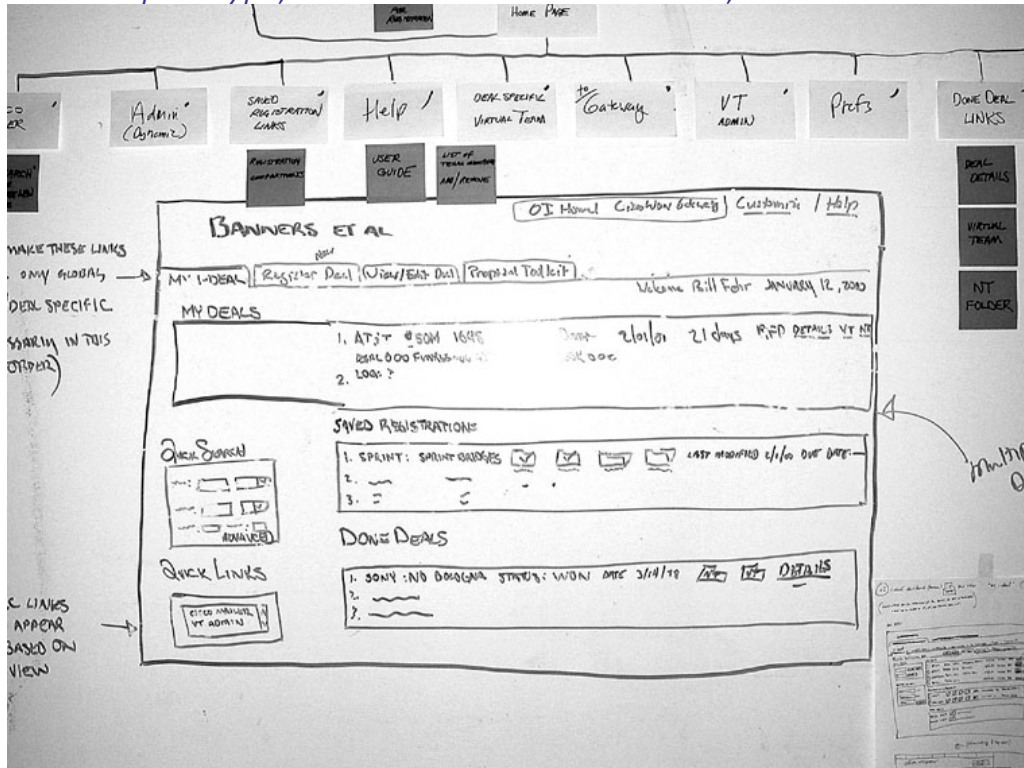
"We ended up skimming the top-rated "must-have" features, the one's and two's in our five-point scale. We tossed the 4's and 5's out for future implementation, or deleted them from the list altogether. Then we worked together and decided whether or not to implement the three's," said Michael.

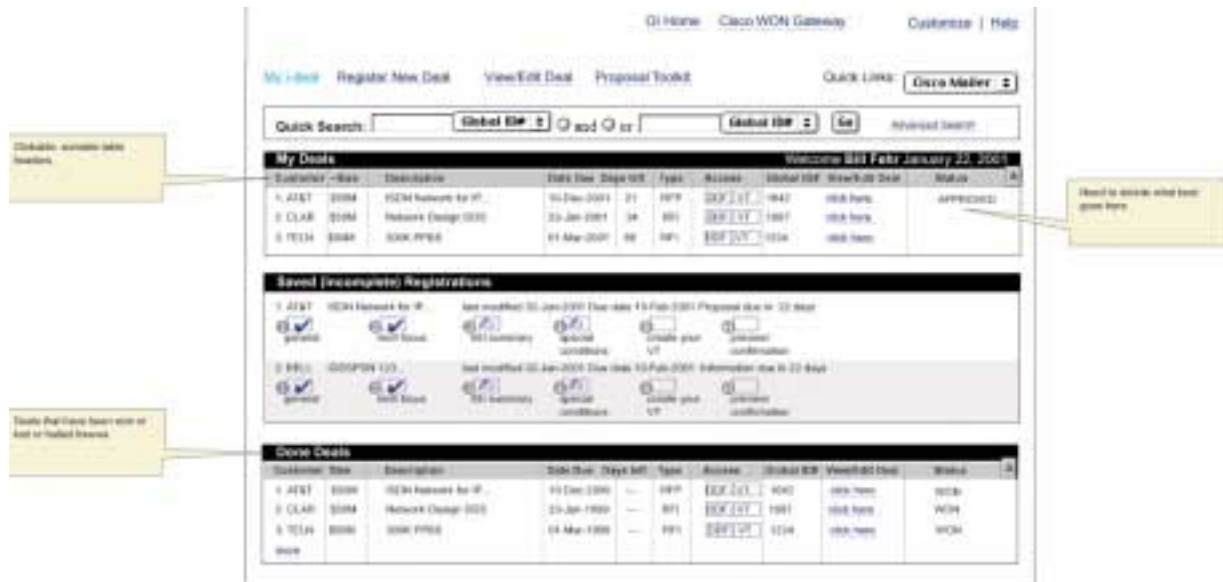
Having decided on the features that had to be included in the revision, tristream moved into the Design phase. The team produced a series of prototypes of the site,

starting with wire-frame sketches, then more detailed layouts produced in Photoshop, and then sometimes an html file prototype. The wire-frame sketches showed all the main sections and their navigation, and were tested for completeness by running various core user and core task scenarios such as, "I am a networking engineer assigned to a registered deal supporting sales in the field. I need to find the RFP for this project and also find any networking specifications that have been done for similar projects."

Though these wire-frames can be produced electronically, tristream has found through experience that it's often more effective to use a whiteboard or paper sketch at this stage.

Pictured: prototype, first sketched on a whiteboard, then as a wire-frame





"The idea of the wire-frames is just to get people to understand the basic navigation paradigm and agree to the features and functionality," said Michael. "However, we've found that no matter how many times you tell them, if it's presented as a web page the client will insist on seeing it as a visual design. For example, we used a vector tool to do a sketch to show the hierarchy of information, and one of the team members at Cisco started propagating it around as an actual design."

The final stage was to produce a series of mockups of the design in Photoshop, which once approved could be used to export graphics for the final html prototypes. Cisco had appointed two project managers, one from the IT side, and one from the business side. Each day, tristream presented a series of Photoshop screens representing core screens the Cisco IT department would need to build out the intranet, on its project extranet. The Cisco project managers then took them to a few stakeholders for approval and revision. A couple of meetings were also held at tristream to speed up the process.

The mockups went through five or six revisions until the basic navigation shell or basic table and header styles were agreed on. Once those basic elements were in place, the final designs generally took only another two or three revisions at most. "The more we detailed, discussed and jointly understood the screen sketches before moving to visual design, the quicker that process would go," Michael points out.

USABILITY

tristream had wanted to carry out user interviews at two stages in the project: at the information design and graphic design stages. In the end, tristream and Cisco agreed on a three-week fast-track usability project to establish initial requirements.

"For everything you read about usability, in reality the biggest challenge is convincing the stakeholders involved in the project to provide time and money in the proposal to do it," said Michael. "And generally, the issue is the business rules: unless you're sitting in the room with the CEO and he's tasked you with redoing the entire intranet, you have to balance your ideal usability goals for the site with the 'don't touch the existing business rules' factor"

tristream staff interviewed 23 core users about the processes involved in their work and their requirements for the site. Some interviews were carried out on the telephone. Others were done on site visits while sitting with users and observing their daily work habits, or by watching people use the existing intranet tool. Interviewees included a complete range of different user types - account managers, sales managers, sales engineers, offer managers, field marketing managers, people from functional groups and so on - as well as staff from several theatres, representing users from many different countries.

Before carrying out the interviews, tristream had worked with Cisco to develop a set of questions specific to each user type. These covered their work and their role, asked them to describe wins and frustrations, and asked them to walk through the processes involved in setting up a deal, such as getting approval from the functional groups.

"We didn't just interview them about their use of the current intranet. We knew a lot of them simply weren't using it, so we wanted to know about their workarounds," said Jeffrey. "We mainly focused on how they actually did their job, so that we could find out how to design something that worked better than using their cell phone or email, or asking the guy in the next cubicle."

Before and after screenshots show the impact of usability research on the finished design. For example, users complained that the old Opportunity Documents page was non intuitive and difficult to use, failing to show visually what resources were available.

Pictured: Opportunity Documents page before the redesign



The new version makes use of the well-understood Windows Explorer paradigm with navigation tree for the folder on the left and details on the right, plus clickable tables to re-order the view. A one-click button is available for the user's main activity of uploading files to the folder.

Pictured: Opportunity Documents page after the redesign



The old Register Deal page confronted users with a massive form necessitating several scrolling actions, and including required fields that demanded information users might not yet have. The form also confused two activities: registering a deal, and providing information to functional groups.

Pictured: Register Deal page before redesign

CEC | COO | SEARCH | INDEX | SUPPORT | FEEDBACK | DIRECTORY:

Offer Integration **i-deal** [Create Account](#)

i-deal from Offer Integration. From open to close, how deals get done.

Opportunity Registration

[Home](#) | [Register Opportunity](#) | [Status Dashboard](#) | [Search](#) | [Help](#)

Note: Special characters like double quotes (") are not allowed.

General Registration Fields marked with an * are required fields.

US Service Provider

Submitter Name: tosperos

Account Manager Name: [Back](#)

NOTE: Please enter Last Name OR First Name OR Email ID
[Add Edit Confirm](#)

Regional Manager Name: (Select RM)

Operations Director (OD): (Select OD)

Area VP: (Select AVP)

System Engineer: (Select SE)

GSM Name: (Select GSM)

Engineering Manager: (Select EM)

Opportunity/Project Name:

Customer/Account Name: (Select Customer Name)

In the new version, the task Cisco wanted all users to complete is quick and easy. The form has been reduced to 18 fields, few of them obligatory and many allowing for free text entry. Color and subheads have been used to help users to group the information, and the uncluttered layout reinforces the idea that this is a straightforward process. "Register New Deal" is available as a main navigation item throughout the program to reinforce that this is the main point of the tool, and enable users to get to it easily. The word Opportunity has been replaced with Deal, which is the word employees actually use.

Pictured: Register Deal page after redesign

The screenshot shows a web form titled "Register Deal" on the "i-deal" platform. The form is organized into three main sections:

- General Information:** Includes fields for "Account Manager Name", "Project Name", "Customer / Account Name", and "Territory / Country". It also features radio buttons for "Opportunity Type" (OFF, OFI, Download) and a checkbox for "Opportunity Addressed Distribution?".
- Technology Focus:** Includes a dropdown for "Market Segment", and three text input fields for "Service", "Technology", and "Competitor".
- Business Focus:** A series of checkboxes for various criteria, such as "Is this a CAT Account?", "Would your customer like to explore partnering with this company?", "Is your technology in a strategic category?", "Does your product solve a common problem?", "Is F2B2B required for this deal to win?", and "Are you a standard manufacturing component?".

The basic problem with the toolkit, tristream discovered, was that users had two very different ways to find content, each with their own links, and with conflicting titles: *Generate Proposal* and *Content Roadmap*. "We found that users thought *Generate Proposal* was a proposal creation tool, and that *Roadmap* was a plan for where development of content was going," explains Michael. "But users basically thought of it all as just finding content."

tristream's solution was to put rename the commands and put them both on one page, titled *Proposal Content*. That page includes two modules: the *Content Finder* and the *Content Index*. *Content Finder* is a hierarchical tool that immediately shows users if there is any existing content for their needs before they even press Go. The *Content Index* enables users see graphically and immediately what content is available in what category. After choosing their category of content in either tool, users are then given the option to have the tool build a proposal for them, or to simply download existing documents and repurpose them.

Before the redesign, the intranet homepage had made the mistake of mixing the look and feel and navigation for the Offer Integration home page and for the actual tool, I-deal.

tristream created a separate look and feel for the homepage, with navigation into the tool using a simple format of icon, plus underlined link, plus brief description in the body of the page. It emphasized the value of registering deals, and also added an area of news and headlines that OI could use to market their services and peak interest and show their values.

Before the redesign, the Search Results page presented a number of usability problems, including a hard to read table heading, no clickable re-sorting facilities, confusing instructions and inconsistent navigation features.

Pictured: the Search Results page before the redesign



In the new version Search and Results come in the same pop-up window so users don't lose their place in the tool. Instructions have been improved, along with navigation features such as a one-tab switch between results and search, one-click entry into multiple tools for a deal, and a "Go" button to remind users they can go straight to details of the deal.

Pictured: the Search Results page after the redesign

Global ID#	Project Name	Customer	Deal Date	Country	Submitter	Deal Tools
1234	ISDN Network for IP...	AT&T	10-DEC-2001	USA	Wahr	[Icons]
1642	2000 FPBS	TELN	10-DEC-2001	USA	Wahr	[Icons]
9075	CLIC Optical Cons.	CLAR	10-DEC-2001	USA	Wahr	[Icons]
1234	ISDN Network for IP...	AT&T	10-DEC-2001	USA	Wahr	[Icons]
1642	2000 FPBS	TELN	10-DEC-2001	USA	Wahr	[Icons]
9075	CLIC Optical Cons.	CLAR	10-DEC-2001	USA	Wahr	[Icons]
1234	ISDN Network for IP...	AT&T	10-DEC-2001	USA	Wahr	[Icons]
1642	2000 FPBS	TELN	10-DEC-2001	USA	Wahr	[Icons]
9075	CLIC Optical Cons.	CLAR	10-DEC-2001	USA	Wahr	[Icons]
1234	ISDN Network for IP...	AT&T	10-DEC-2001	USA	Wahr	[Icons]
1642	2000 FPBS	TELN	10-DEC-2001	USA	Wahr	[Icons]
9075	CLIC Optical Cons.	CLAR	10-DEC-2001	USA	Wahr	[Icons]

46 Deals Found Result Page: 1 2 3 4 5 6 7 8 9 10 Next

Cancel Search Again

LANGUAGE ISSUES

Through their usability work, the tristream team discovered that some of the language used on the old version of I-deal was making it harder to understand how the tool worked. Part of their work with the stakeholders during the Discover and, especially, the Design phases involved convincing them to modify some of the terms used on the site.

For example, Cisco encouraged use of the word "opportunity" for both potential and in-progress deals. tristream suggested simply using "deal", on the basis that it was natural language that employees used themselves as well as being shorter and taking up less space in navigation. Cisco was reluctant to abandon the use of "opportunity" completely but a compromise was reached, with "deal" used in navigation links.

tristream also found that different language was being used for different user segments doing similar tasks, making training and tool use more complicated. For example, the link to modify details on a deal in process of approval used to read "Approvals Dashboard" for functional groups and "Modify Opportunity" for sales groups. The new version reads "View/Modify Deal" for everyone.

The link language used previously was also confusing users by conjuring up the wrong mental model. For example, the index for locating and viewing proposal content was previously called *Solutions Roadmap*. This sounded to users like a business plan or projection rather than an index listing of documents. In the new version, it was renamed Content Index.

RESULTS

The final version of I-deal views the offer integration process as four separate activities: registering a deal, viewing the status of a deal, modifying information about a deal in progress, and a proposal building toolkit.

Pictured: proposal building toolkit



tristream's involvement with the intranet ended when it handed the finished HTML prototypes and all associated Photoshop comps and image files over to Cisco for their IT team to use in the implementation of the dynamically generated site. Therefore, the degree of subsequent success of the I-Deal tool has been hard to measure. But Michael believes that there were significant gains from the process of bringing people together to work on the project.

"One of highest values we brought to Cisco was in bringing together the OI and IT groups that had previously had a more distant working relationship," said Jeffrey. "Because of our process of holding multidisciplinary sessions, we essentially created what they didn't have before, which was a very interactive, fun working relationship between the two groups. A lot of the wins we achieve are in converting people to user research, and those are major wins indeed."

LESSONS LEARNED

IT'S A LEARNING PROCESS

"Of course you want to build a great solution," said Michael. "But there are other victories too, such as building relationships within the clients teams, and helping them to work more interactively together."

DON'T BE DOGMATIC

"It's important to work the way the client works, and not force your process on them," said Jeffrey. "You need to look at how they operate - are they more visual or rational? What's the political environment? You want everyone to be winners."

USABILITY IS FUN

"In the beginning, there was a lot of tension at Cisco about the project. We wanted to bring in a certain lightness, because we believe that people can only be creative in that type of environment" Jeffrey adds.