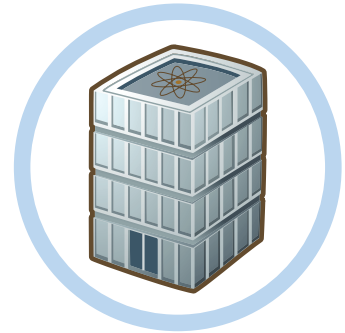




Universal Search in High Tech Organizations

High tech companies deal with massive amounts of information; according to Information Week, manufacturers of high tech products spend 3.7% of revenue on information technology, significantly more than the 2.4% spent by consumer products companies or the 1.7% spent by industrial products companies. But this spending doesn't necessarily result in easy access to key data across the enterprise. According to IDC and Accenture, knowledge workers, including engineers, typically spend more than 25% of their time at work simply looking for information – and, since information can be stored in multiple locations (for instance, the corporate network, the individual desktop, or the email in-box), more than half the time they have to look in five or more places to find what they're looking for.



To make information more accessible to employees, many organizations are turning to search technology. At Google, our vision for enterprise search is simple: All the information you need to be productive at work should be available through a single search box. This includes all the content within your enterprise firewall, on your desktop, and on the web. Our vision, in other words, is universal search.

Universal search translates to noteworthy benefits for high tech organizations:

- **Simplified global information sharing and collaboration among engineers.** High tech companies have enormous challenges in terms of managing productivity among engineers in multiple locations. With universal search, engineers can instantly access product documentation, engineering specifications, launch plans, and other key documents from wherever they are in the world – so those in Israel or India are just as connected to the information they need as those in the United States. And universal search allows engineers to find experts within the company on any given topic, fostering collaboration and the sharing of information.
- **An increased pace of innovation.** A considerable portion of the average engineer's time is spent searching for information – often unsuccessfully. Universal search can cut this time considerably, increasing the time the engineer spends on product development. The result: a reduction of overall time to market, a major benefit in an industry where ongoing increases in the pace of innovation have become a competitive requirement.
- **A more closely connected value chain.** Building and selling high tech products involves an intricate web of suppliers, partners, distributors, and customers. The best high tech companies have learned the importance of sharing information with all of the parties involved, whether it's to improve product quality, reduce time to market, or expand customer reach. With universal search you can share relevant information with each link in the value chain, while making sure that each link has access to only that information which it's authorized to view. For instance, you might give your distributors access to product documentation, including information on new features, launch calendars, and other important information.

Universal Search: Tailored to Each User

Universal search works with your existing security and authentication mechanisms, including LDAP, NTLM, and Windows Integrated Authentication, to ensure that only authorized users can view documents. Non-authorized users won't even see documents they're not authorized to access listed in their search results.

You can set up various user groups within your organization, each with access to only that information that its members are authorized to view. For instance, you might decide that sales & marketing is the only group authorized to view RFPs, while engineers are the only group authorized to search through software code; those in other groups would see neither RFPs nor code in their search results. At the same time, you can designate other information, such as details about benefits or company procedures and policies, as viewable by all employees. This flexibility makes universal search relevant to all employees within the enterprise.



The Google Search Appliance

The Google Search Appliance powers universal search across the enterprise. The Search Appliance optimizes Google's core search technology for business use. The result is universal search across a variety of internal and external sources – everything from file shares, intranets, and databases to applications, hosted services, and content management systems. The Search Appliance can search in any language and recognizes 220 file types, including HTML, PDF, MS Office, and IBM Office suites. Already among Search Appliance customers are Global 1000 companies such as Apple Computer, Sun Microsystems, and National Semiconductor.



The Search Appliance offers a variety of benefits you won't get with other search tools:

- **The ability to search all your content.** The Search Appliance provides built-in connectivity with intranets, databases, file shares, and popular content management systems including Documentum, Livelink, FileNet, and SharePoint. In addition, an open connector framework enables users to connect to virtually any other content management system.
- **Easy integration with other business applications.** With the OneBox for Enterprise feature, users can seamlessly connect to any business application – such as ERP, CRM, business intelligence, or other systems – in real time. For instance, a query for 'east coast sales' might tap your business intelligence system and return a chart displaying the actual sales in the eastern region for that quarter.
- **Relevance & speed.** Users receive accurate, ranked results with features like a self-learning spell checker and intelligent query expansion – all with sub-second response times.
- **Ease of use.** End users are very familiar with the Google.com interface, and are pleasantly surprised when they can search enterprise data with the same interface. And features like alternate search string suggestions and other advanced search options help end users find exactly what they're looking for.
- **Security.** The Search Appliance has built-in integration with existing security systems – including NTLM, Windows Integrated Authentication, single sign-on systems, native LDAP authentication, and X.509 client certificates – to ensure that users can only access information they're authorized to view.
- **Simplicity for IT.** We designed the Search Appliance with the understanding that IT organizations cannot dedicate an army to manage their search function. The Search Appliance provides high relevancy out of the box, without requiring any customization. And it requires minimal installation and maintenance time; a fraction of a single IT administrator's time is typically sufficient to manage an entire enterprise's search needs.

Universal search in practice: Stratus Technologies



Business

Stratus Technologies is a 27-year-old maker of fault-tolerant computers, which never go down, offering continuous availability to clients. Stratus products are used by financial institutions, 911 applications, stock exchanges, manufacturers, transportation and logistics organizations, telecommunications companies, life scientists, and other businesses and organizations that absolutely cannot afford any server downtime. Stratus is a global solutions provider with over 700 employees worldwide.

Challenge

For years, Stratus used a search engine that lacked both speed and thoroughness. While the company had over 100,000 pieces of content (double that with sales force data factored in) spread over various information silos, its search engine could only index about 6,000 pieces. "Most users were not happy with the previous search engine," says Joe Graves, the company's CIO.

"Since we have been in business a long time, we have some quirky repositories," says Stratus web developer Scott Melick. "The repositories we're searching are file shares, web servers and some databases. Two of our groups use SharePoint for documentation repositories." Because SharePoint lacks effective full-text search capabilities, Stratus employees were finding it difficult to find the documents they were looking for using it.

Stratus wanted more than a more powerful search solution, though. The company also wanted benefits like ease of use, swiftness of returns, intuitive searches, and a technology that didn't require intensive employee training.

Solution

Within a week of seeing the Google Search Appliance demonstrated, Stratus ordered the product. "We like the functionality," says Graves. "It was more than we expected, and we had some pretty high expectations. Our web developer plugged it in and we were searching our intranet in no time."

Graves recalls the first week employees were introduced to the appliance. "We said, 'It's here, come and use it.' We had one or two questions about how to switch between repositories, and that was it. Everyone just got it right away. We've had plenty of kudos."

"One of the advantages," says Melick, is that "everyone is so accustomed to the interface from using Google.com. I mirrored that interface on our website."

The Search Appliance, using the same technology that powers Google.com, is compatible with SharePoint and can crawl through all available content, regardless of how many repositories that data is spread over or how the data is organized (or disorganized).

Additionally, the appliance creates an index as it searches, providing simple organization of massive amounts of information. As future repositories are added, the appliance will also crawl those and provide an expanded index. Other benefits include a built-in spell check feature that suggest alternate spellings if it detects that a search term is being typed in incorrectly; a synonym search feature, so if a user types in "mobile" the search engine will also return results for "cellular"; and a similar acronym feature. "If someone searches for a term, the Search Appliance searches for the corresponding acronym," says Melick.

"We're pretty excited about the OneBox feature that allows us to tie in databases. If we search on our intranet for the term 'San Diego', we find all the references"

Joe Graves, Stratus CIO

Results

Stratus has seen efficiencies across the enterprise as a result of implementing the Search Appliance. “We’re pretty excited about the OneBox feature that allows us to tie in databases,” says Graves, referring to the appliance’s simple single box that handles all searches overall repositories. “If we search on our intranet for the term ‘San Diego,’ we find all the references.”

Perhaps the biggest crowd pleaser has been the Search Appliance’s application search functionality. Says Graves, “Scott set it up so if you type up the name of an application the first thing that pops up is the location of the app. We got several emails from users saying, ‘Thank you thank you thank you!’”

Recently the company tied the appliance in to its customer service database. “We had a lot in the database that was not searchable,” says Graves. “The tie-in was a big win for us. For example, if someone in customer service is working a call issue and wondering if anyone else had trouble with a part, they can look up the part then look up past references. That’s a huge productivity boost for our customer service base.”

With customer service representatives better able to handle service calls and better able to quickly resolve customer issues, Stratus has experienced an improvement in both employee morale and consumer satisfaction.

Graves concludes, “Our previous search engine was very limited,” he says. “With Google it’s been like night and day.” ©

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