



BACKUP/RECOVERY/ARCHIVING	■
CLUSTERING	■
CONSOLIDATION	■
DATABASE	■
MANAGEMENT/UTILITIES	■
MESSAGING	■
SECURITY	■
VIRTUALIZATION	■



CUSTOMER OVERVIEW

Google's Enterprise division brings Google search tools and technologies to companies, universities, and government agencies.
www.google.com/enterprise

CHALLENGE

Google required extensive customization, single-point contact and fulfillment, and high product quality to bring the Google Search Appliance to the enterprise

SOLUTION

Dell's OEM Industry Solutions Group provides extensive customization to Dell™ PowerEdge™ 2950 servers running the Linux® operating system to form the foundation for the Google Search Appliance; Dell OEM Industry Solutions Group provides a single source of sales and technical expertise, customer fulfillment, and worldwide regulatory compliance capabilities

BENEFIT

Dell PowerEdge 2950 servers help improve appliance quality and performance, reducing service calls and replacement costs; Dell helps improve the customer experience by helping Google exceed service-level agreements; Dell helps speed the time to market for the Google Search Appliance with improved supply chain management and customer fulfillment capabilities

In Search Mode

Dell's OEM Industry Solutions Group and Dell PowerEdge 2950 servers form the foundation for the Google Search Appliance

With a mission to organize the world's information, Google has accomplished a great deal since its humble beginnings nearly a decade ago in a subleased garage in Menlo Park, California. Since then, the company has grown to become a US\$150 billion business, and today the global technology company is widely recognized as offering the world's most popular search engine.¹ Along the way, the popularity and ubiquity of Google led the search engine company to expand its vision with a way to organize the corporate world's information. Introduced as a scalable, plug-and-play search solution, the Google Search Appliance has brought Google technology inside the workplace in the form of a bright yellow box.

At the core of the search appliance is Google software technology. Powerful, enterprise-level search engine capabilities are customized inside company firewalls to index, organize, and retrieve information instantly—in more than 220 file formats and more than 100 languages. Through a secure, user-friendly interface, employees can rapidly search an organization's corporate network, helping to achieve greater productivity, better customer service, and faster retrieval of business information. "The goal was to make it as easy to find information behind the corporate firewall as it is using Google.com. We've worked hard to create a product that provides a high-quality, worry-free search experience. That's why we offer tools as easy to use as our public search engine at Google.com—as well as why we require the right partner," says Aidymar Bigio, manufacturing and operations manager at Google.





We have very Google-specific software installation processes that Dell implements. We are able to protect our intellectual property, achieve a high level of customization for the Google boxes, and gain the computing power of a very reliable product.”

— **Aidymar Bigio**, Manufacturing and Operations Manager
Google

Global logistics and product quality create concern

Since first shipping in 2002, the Google yellow boxes quickly grew in popularity. As the shipment volume increased, so did the number of shipping destinations—the yellow boxes were soon shipping around the world.

“We were dealing with so many intricacies and logistics across numerous countries and time zones. Even trying to solve or discuss any particular aspect of the supply, shipping, or support operations often meant scheduling middle-of-the-night conference calls between countries,” recalls Bigio. “We have an advanced replacement model because our appliances are vital to our customers’ businesses. If a system goes down, we send a complete replacement unit rather than just a part. Although this method is costly, preventing the box from being opened helps to ensure the security of our proprietary software technology.”

The Google team did not always receive the engineering support it expected from partners and third-party suppliers. “Because the search appliance is deployed at some of the world’s top companies and because search methodology is so important to business, product quality is paramount. Ultimately, we wanted a strong partner who was well-versed in worldwide supply chain management with proven expertise from end to end,” says Bigio.

The Google Enterprise team began a thorough selection process to find a partner with global presence, engineering support, and quality products to service Google’s enterprise customers without glitches.

“We wanted to benefit from a company whose core competencies would free up Google to stay focused on its own strengths,” explains Bigio. “It didn’t take us long to select Dell as our strategic partner. With excellent engineering and service, as well as proficiency in all facets of supply chains, Dell’s OEM division provided us with no-excuses dependability, which extends to every one of our customers. Beyond that, I think what actually swayed us was the willingness and flexibility of Dell to meet our needs.”

Dell PowerEdge 2950 servers power enterprise search

The Google Search Appliance can index millions of documents and search up to 25 queries per second. It is based on the Dell PowerEdge 2950 server running Linux for seamless integration of hardware and software while supporting the sophisticated software algorithms of Google technology. The PowerEdge 2950 features Intel® Xeon® processors to create a truly plug-and-play search appliance with robust performance.

Thanks to the high quality of the PowerEdge 2950 server and its ease of use, Dell helps provide Google customers with a seamless user experience. “The Google model is very different from a typical software model in that we actually sell an appliance,” states Bigio. “The reason we do that is so our customers can have a plug-and-play experience. Customers don’t have to procure a server, deploy it, maintain it, patch it, or deal with integrating operating systems. We think that is a huge win for our customers, and Dell has helped us make that happen.”

Dell’s OEM division also performs significant customization to the PowerEdge 2950 server to help support the branding goals of Google. “Brand image is very important to us—and our customers love the yellow color and funky bezel,” adds Bigio. “What Dell has allowed us to do is basically take the proven PowerEdge platform and transform it into a product that fits the unique Google style.”

Ultimately, Dell helps support Google by removing hardware concerns and helping to protect Google’s software and intellectual property. “Our value-add is software, not hardware. We have very Google-specific software installation processes that Dell implements. We are able to protect our intellectual property, achieve a high level of customization for the Google boxes, and gain the computing power of a very reliable product,” says Bigio.

Dell OEM Industry Solutions Group provides vital services

From packaging to shipping, the Dell OEM Industry Solutions Group manages Google Search Appliance fulfillment—another critical aspect of Dell support for the Google Search Appliance. “Relying on Dell to handle fulfillment has saved us a lot of logistical energy, allowing us to keep our team here at Google fairly small. Dell ships our search engine directly, along with the cabling and guidelines, for a very positive plug-and-play experience right out of the box. There’s even a Google T-shirt that ships with the search appliance,” says Bigio.

Dell OEM is also simplifying compliance with international exporting regulations—helping to speed the time to market for the Google Search Appliance worldwide. “Dell OEM has an entire regulatory team in place with the expertise to guide us and do much of the work for us. If we ship into countries that are not on the standard list, Dell’s OEM division will manage customs, paperwork, and any other particulars associated with compliance for that country,” notes Bigio. “Google no longer has to bear the burden of doing all the regulatory work on our end.”



Rounding out the support matrix for the Google Enterprise products, Dell OEM helps Google operate the advanced replacement model program to help the company meet its service-level agreements to customers. Google handles the first-level troubleshooting after receiving a request or concern from a customer. Dell is then notified when a replacement appliance needs to be shipped and also processes returns.

Bigio cites the total support services provided by Dell as a key enabler of the business success of the Google Search Appliance. “At Google, we like to remove as much complexity as possible from the customer’s standpoint,” she says. “With a total service solution from Dell, we’ve also been able to remove complexities for our staff. It’s one-stop shopping—who wouldn’t love that?”

Dell helps Google deliver better customer experience and realize lower costs

There was no need to search for the benefits of the Dell PowerEdge 2950 server and the Dell OEM Industry Solutions Group. With the help of Dell, the Google team was able to immediately deliver a better customer experience. “What comes to mind, first and foremost, when I think of the gains of the Google and Dell relationship, is customer experience,” says Bigio. “When any consumer has a bad experience with any product, the repercussions are significant. We are interested in developing products and working with partners to elicit a positive customer experience, which working with Dell made possible. Also, the Dell product quality is significantly better

HOW IT WORKS

HARDWARE

- Dell™ PowerEdge™ 2950 servers with Intel® Xeon® processors

SOFTWARE

- Linux® operating system

SERVICES

- Dell OEM Industry Solutions Group

than what we had previously and is consistently reliable, which in turn has decreased the amount of returns from the field. The resulting savings are substantial—our operating cost is lower, and the volume of service calls has decreased.”

Bigio notes that maintaining focus on Google’s core competencies was another benefit brought by the relationship with Dell. “With the Dell OEM Industry Solutions Group involved through every step of our supply chain, we at Google are able to concentrate on what we’re good at, which is creating software. We can relax knowing that performance is built into the hardware and that Dell has the expertise to handle service. Bottom line? Dell is enabling us to go to market quickly while scaling faster—in more locations—and all with a lean staff.”



¹ <http://news.bbc.co.uk/1/hi/magazine/4005901.stm>

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