

QUALCOMM



Secure supplier extranet delivers enhanced productivity, protects against errors, and secures intellectual property

Benefits

- Greater timeliness of “build to” documentation ensures suppliers will deliver correct product configuration
- Enhanced security through SSL encryption
- Increased productivity through automation of documentation assembly
- Reduced liability exposure through enhanced auditing and reporting capabilities

Business overview

Founded in 1985, QUALCOMM is a pioneering technology and services provider for digital wireless communications. The company’s Code Division Multiple Access (CDMA) technology has helped to transform the wireless industry by providing an important standard for innovative voice, data, and Internet products and solutions. Today, QUALCOMM is a global telecommunications leader, and its third-generation wireless technologies provide users around the world with more reliable, low-cost voice services and high-speed data connectivity.

Headquartered in San Diego, Calif., QUALCOMM has licensed its CDMA patent portfolio to more than 125 telecommunications equipment manufacturers. QUALCOMM employs approximately 7,000 people around the world, and is a 2005 FORTUNE 500 company traded on the NASDAQ Stock Market under the ticker symbol “QCOM.”

Challenges

QUALCOMM CDMA Technologies (QCT), a division of QUALCOMM Inc., designs semiconductor components and software for mobile phones and devices based on CDMA and other wireless technologies and outsources the fabrication to a select group of semiconductor manufacturers. The manufacturing process requires tight communication between QUALCOMM and its fabrication suppliers, beginning with the initial design stages for each chip. To meet QUALCOMM’s complex, exacting specifications, suppliers require seamless access to the “build to” documentation that details chip design, testing components, and quality data.

Business profile

QUALCOMM

Global leader in digital wireless communications technology and services

Industry

High tech

Geographies

Headquarters in San Diego, Calif., with about 7,000 employees worldwide

Business solution

Document management, partner extranet

EMC Documentum products

EMC Documentum content management platform, Webtop, IWS

Deployment summary

Rolled out to more than 250 external users representing ten large suppliers; accessed internally by 80 program managers

EMC partners

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Previously, this communication was a manual, ad hoc process in which QCT's program managers distributed product documentation to suppliers via e-mail or FTP sites. This process was not scalable since it often required program management personnel to manually extract data from the QUALCOMM product data management (PDM) system and reassemble it before sending it to the supplier. "With human intervention, there was always the possibility that errors could be introduced into the process and suppliers could build to the wrong configuration, which also meant greater liability exposure," said Steve McLeod, staff manager of IT at QUALCOMM.

Since product information was often stored in multiple locations in Excel spreadsheets, reporting capabilities were limited and there was little visibility into which documents were being distributed to which suppliers. Finally, there were real concerns about the security of sharing documents over e-mail or FTP.

Protecting and sharing intellectual property

For the solution, QUALCOMM managers identified two high-level objectives: provide security for the valuable intellectual property contained in product documentation, and improve the processes for assembling, distributing, and sharing documents with suppliers. The goal was to provide suppliers with a common, secure portal that would link directly in to data released in the PDM system, therefore reducing human intervention and its inherent potential for errors. The solution would also need to include tools for reporting and provide an audit trail.

EMC Documentum solution

In mid-2004, QUALCOMM rolled out an enterprise solution based on the EMC Documentum® enterprise content management system. The system allows QCT to control the publication, security, and delivery of documentation. Suppliers access the system via an extranet based on EMC Documentum Webtop, a browser-based interface to the Documentum Content Server.

According to McLeod, Documentum was the best fit for QCT's architectural and user interface requirements. "The Documentum Content Server provides all the failover and security features we need, including SSL encryption," he said, referring to information delivery through a secure socket layer (SSL). "And, since Webtop is based on the EMC Documentum Web Developer Kit, it was easy for us to provide a completely customized interface for both internal and external users."

Seamless product configuration for greater accuracy and productivity

Within QUALCOMM's QCT business unit, the primary users are program managers who oversee the management of product documentation. Other QUALCOMM personnel, such as quality assurance managers, also access the system and provide input into the process. Currently, about 80 internal users access the system, but that figure is expected to triple within the next two years.

On the back end, QUALCOMM's Agile PDM system houses all pertinent released product documentation. A custom integration based on a TIBCO enterprise application integration solution provides the link between the PDM system and the Documentum repository. An XML message from TIBCO contains the documents and all components of the bill of materials (BOM) for the product to be configured. A TIBCO process pulls relevant messages off the bus and forwards them to a Documentum IWS listener. Based on the type of message that IWS will kick off, a specially designed Documentum workflow takes the XML components and populates the repository with the correct BOM structure and the documents themselves. It links all documents stored in multiple locations together so that they can be represented on multiple BOMs and links a single copy of shared documents to multiple BOMs. Because the distribution of product documentation is now automated, the potential for error has been

greatly reduced while significantly increasing timeliness. “Being able to reduce human intervention in the process has been a big benefit because it helps ensure the accuracy of the information,” McLeod said. In addition, he added, automation has created new efficiencies that have enabled the program managers to be more productive. “In our business, the customer demand and our product offerings are growing extremely rapidly. With our Documentum system, we can address these challenges while maintaining accuracy and keeping pace with growth without having to expand our staff,” he said.



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Secure access to the right information

When the correct product build information and documentation is ready for distribution, an e-mail is sent notifying the supplier that the information is available. The supplier can then download the data via Documentum Webtop over a secure communications channel. Built-in access controls ensure that each supplier receives only the information pertinent to the product that supplier is contracted to build.

The suppliers have responded enthusiastically to the new system. Currently, more than 250 external users representing multiple suppliers have access. The new system brings the information exchange completely under QUALCOMM’s secure management and control, giving the suppliers a single point of access for build-to documentation that is current and accurate.

Enhanced reporting capabilities

Audit control and reporting capabilities with Documentum provide valuable benefits that were non-existent in the previous process. Once the current version of the documentation is officially handed over, the supplier is contractually bound to build product according to that documentation. QUALCOMM can identify the exact moment at which a supplier accepted and physically downloaded materials and thus became contractually responsible for building to the new product revision.

Not only does this audit ability protect QUALCOMM from liability exposure, but it also helps the company stay in compliance with legal requirements for archive management and financial reporting.

Building on success

With the success of the initial QCT implementation, QUALCOMM is planning numerous additional Documentum projects to address business needs. These include extending the supplier extranet to expand collaboration capabilities, providing similar functionality for customer-facing extranets, and addressing internal document and content management needs.

QCT is currently implementing a customer portal that will leverage the same configuration of technologies as the supplier portal. The new portal will be rolled out to the entire customer base and will provide secure access to technical support documentation and software products. The new implementation will involve a much larger volume of documents and a much more complex security and entitlements model.

Summary

By streamlining access, reducing the potential for errors, and providing an audit trail, the Documentum system has greatly improved product documentation processes at QUALCOMM. "Program managers are more productive because many manual processes have been eliminated. With the reporting we know exactly who downloaded which documents and when. And we have better control over document security through SSL encryption of the download," said McLeod. "At an underlying level, Documentum is a key component of our overall intellectual property strategy."

About Documentum software from EMC

Documentum software from EMC Corporation includes enterprise content management solutions that enable organizations to unite teams, content, and associated business processes. With a single platform, EMC Documentum software enables people to collaboratively create, manage, deliver, and archive the content that drives business operations, from documents and discussions to e-mail, web pages, records, and rich media. With Documentum enterprise content management, organizations improve their competitive advantage by accelerating time to market, increasing customer satisfaction, and reducing operating costs. For more information, visit www.EMC.com/documentum or call **800.607.9546** (outside the U.S.: +1.925.600.5802).

About EMC

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Customer Profile
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