

Global Electronics Producer Turns to QAD and Partner Sterling Commerce for eCommerce Solution

The Company: Genesis of Flash Memory Storage

SanDisk designs, develops and markets flash storage products that millions around the world use every day: USB “thumb” drives, as well as memory cards used in cell phones, digital cameras, electronic games, and hand-held devices. In fact, SanDisk is the world’s largest supplier of flash memory data storage products. SanDisk recently extended its product line to include MP3 players, becoming one of the top suppliers of digital audio devices.

Founded in 1988, SanDisk became a publicly traded company (NASDAQ:SNDK) in November 1995; 2004 revenues were over \$1.8 billion. Headquartered in Sunnyvale, California, SanDisk has over 900 employees worldwide.

The Challenge: Extreme Growth Fuels Extreme Outsourcing

With flash memory’s capability for storing large amounts of data in a compact, removable format, SanDisk’s products have helped drive the exponential growth in sales of digital consumer devices. All this popularity means that SanDisk itself has grown by leaps and bounds.

While SanDisk designs and sells its products, all manufacturing is outsourced. In fact, SanDisk is a master of the virtual supply chain. “Our entire supply chain is outsourced,” says Jon Miller, information architect for SanDisk. “Other than managing the relationship and order receipt process with customers like Best Buy and Wal-Mart, all other aspects of manufacturing and fulfillment are managed by external partners. Our business strategy requires frequent evaluation and identification of new, cost-effective processes and the flexibility to efficiently engage those partners so we can go to market as quickly as possible,” says Miller.

The Solution: The Simplicity of Fully Standardized Processes

To maintain its market dominance and ensure the viability of its virtual supply chain, SanDisk has continuously evolved its electronic business solutions, turning to best-of-breed products like QAD MFG/PRO, QXtend and the QAD Total eCommerce Solution for B2B and application-to-application (A2A) integration. The Sterling Commerce Gentran Integration Suite (GIS) is a key part of SanDisk’s platform

for QAD integration, as well as integration with other third party applications such as Manugistics i2 and Siebel, and legacy applications. By standardizing on these technologies, Sandisk is poised to deploy new business processes quickly and efficiently, and successfully manage rapid growth.

As SanDisk and its extended virtual supply chain grew, so did the necessity to collaborate electronically with subcontractors and trading partners. SanDisk needed the ability to accommodate any electronic data interchange (EDI) standard. These standards prescribe the formats, character sets, and data elements used in the electronic exchange of documents and forms, such as purchase orders and invoices. There are three major sets of EDI standards today. UN/EDIFACT, recommended by the United Nations, is the only international standard and is predominant in all areas outside of North America.

Miller says, “While our legacy systems ran X12 satisfactorily, one of the problems with all our legacy systems was the inability to meet international EDI standards without implementing a completely new interface for each standard.” A proliferation of ad hoc interfaces resulted. Compounding the issue, these one-off data interfaces were developed and supported by internal programmers, with little standardization, documentation or ability to maintain the interfaces over the long term.

The flexibility of the QAD Total eCommerce Solution eliminates the need to develop and maintain SanDisk’s legacy program-based data interfaces along with the attendant IT costs. Additionally, the solution easily handles the substantial volume of documents SanDisk must continuously process. Most importantly, all e-business processes are standardized.

The Benefits: Integration and Collaboration Made Easy

The QAD Total eCommerce Solution has significantly reduced the time it takes SanDisk to deliver new processes and integrate with new customers. The standardized approach enables seamless collaboration between SanDisk and its partners, and provides the ability to bring outside parties on board much faster. SanDisk notes just a few examples:

- Earlier acknowledgement and processing of purchase orders
- Improved visibility and faster resolution of order issues
- Remote access for MFG/PRO users in Asia, with views into transaction failures and ability to facilitate corrections

Benefits

QAD and Sterling Commerce: B2B for Multi-Enterprise Collaboration

The QAD Total eCommerce Solution leverages the leading-edge Gentran Integration Suite (GIS) from Sterling Commerce, providing end-to-end integration capability, including communications, translation and business process transformation for both A2A and B2B processes.

Key Features of the GIS Toolset:

- Integration for data transformation and mapping
- Communications, including EDI standards and messaging protocols
- Full data security, with encryption, user administration, and secure perimeter network traversal
- Business process management
- Visibility and trading community management
- Back-end connector adapters for third party applications, messaging platforms and technology

Key Advantages of the QAD Total eCommerce Solution:

- Configurable toolset to meet global requirements;
- Any-to-any formatting capability; EDI, XML, flat files, CSV files, other non-standard formats
- Standardized output
- Access to global QAD resources

Leveraging the easy configurability of QAD Total eCommerce Solution, SanDisk has found creative ways to enhance performance. Says Miller, "Because the solution is configurable, we can handle data the way we want to." The solution is not limited to pre-defined EDI processes: for example, The QAD Total eCommerce Solution offers gateways that are not restricted by business process, and can handle multiple transaction types. SanDisk built its own 'Operation Completion Gateway' to easily process subcontractor purchase orders, work orders and inventory transactions.

QAD Global Services has been an integral part of SanDisk's success with the QAD Total eCommerce Solution; SanDisk currently has a dedicated QAD consultant onsite. QAD Support has also played a crucial role, steering SanDisk IT professionals to exactly the updates and service packs they need to configure the solution to company requirements.

Highlights

Company

Company Name	SanDisk
Industry	Industrial
Products	Flash memory products; MP3 players

Solution

QAD Solutions	QAD MFG/PRO eB QAD Total eCommerce Solution leveraging Sterling Commerce's Gentran Integration Suite (GIS)
Languages	English, Japanese
Number of sites	20
Environment	Sun Solaris UNIX
Time-to Benefit	Immediate

Results

- Lower IT costs; lower development and support costs, no need for multiple interfaces
- Integrate new supply chain partners much more quickly
- Configurability allows custom processes without the usual development and maintenance costs
- Single platform takes any file format
- One output format from many incoming document formats
- Costly manual processes are reduced or eliminated
- Enhanced productivity
- Reduced costs across the extended supply chain
- The solution is scalable to enormous transaction volumes
- Easy-to-use solution

The Future: Unlimited Possibilities

To synchronize real-time transactions, SanDisk is currently in the process of implementing QAD QXtend instant messaging—Miller expects full implementation and go-live in 2006. SanDisk anticipates continued growth: Miller foresees "New products, new markets and new opportunities."

Story prepared by SanDisk and Sterling Commerce, in cooperation with QAD.