Corporate Profile

Lenovo is the world's second largest maker of personal computers (PCs) and has a reputation for producing the world's most innovative PCs, including the renowned ThinkPad® notebook as well as products carrying the ThinkCentre®, ThinkStation®, ThinkServer®, IdeaCentre® and IdeaPad® sub-brands.

Strengthened by its acquisition of IBM's Personal Computing Division in 2005, Lenovo continues to build on its dominant position in China to expand globally. The company has outpaced the PC industry for the past two years, nearly doubling its market share by 2011.

This expansion included a number of key mergers and acquisitions in 2011, including German PC and consumer electronics company Medion, and a joint venture with NEC to form the leading PC business in Japan.

“This is Lenovo's Moment”

In 2005, Lenovo purchased IBM's Personal Computing Division for $1.75 billion, a move that heralded huge growth and revenue potential and put Lenovo squarely on the map as a global player in the PC space. The subsequent integration proved challenging along a number of operational dimensions. Without its own IT infrastructure in place to support a worldwide business, Lenovo was forced to operate its new global supply chain on legacy systems.
Outsourcing these core systems was expensive relative to industry benchmarks for IT efficiency. Further, Lenovo supply chain executives quickly recognized the limitations of these legacy systems, including the lack of flexibility to change or scale operations, and a reliance on rigid, manual-based processes.

The broad challenge for Lenovo and its global supply chain organization was to design and build a worldwide IT platform that would enable the transition from its legacy systems as quickly as possible, with minimal business disruption. Coupled with the overarching supply chain strategies to drive business innovation, operational excellence and unparalleled customer experience, the new platform required improved visibility, efficiency, and responsiveness to manage its growing trading network.

“At Lenovo, our average product innovation cycle is six months, which magnifies the cost of supply chain errors. To drive growth and profitability, our operations must be fast, flexible, and reliable to ensure that we can get the newest products to our customers—regardless of disruptions in the trading network or macro-environment,” says Jon Pershke, vice president, Business Transformation/IT, Global Supply Chain at Lenovo. “Access to real-time, actionable information—plus the ability to collaborate with partners to resolve exceptions—are critical to achieving this goal."

Lenovo identified the following key objectives as part of its overall strategy to build a world-class global supply chain:

- Leverage cloud-based systems to reduce operating costs, improve IT flexibility, and deliver superior customer experience
- Reduce the cost and time to onboard new trading partners
- Enable a real-time, consolidated view of processes and operations, providing a “single version of the truth” for Lenovo and its partners
- Eliminate the need for manual intervention
- Enable collaborative execution of key supply chain processes, including order-to-cash, procure-to-pay, and inventory management
- Achieve convergence of physical and digital networks to increase cost savings and service levels

Advanced Cloud Platform Simplifies Supplier Management and Facilitates Collaborative Supply Chain Execution

Lenovo partnered with E2open’s consulting and deployment teams to design and build a strategic, cloud-based solution for seamless information sharing, process management, and collaborative exception management.

To begin, Lenovo deployed E2open’s any-to-any cloud platform, enabling the company and its partners to exchange data in any preferred payload format and protocol (regardless of technical sophistication). In this way, Lenovo has automated manual processes and buyers now can operate in a real-time, collaborative manner. E2open’s optimized onboarding methodology extends value to trading partners immediately, offering them self-configuring connectivity options and eliminating costs associated with testing and infrastructure maintenance.

By leveraging E2open’s cloud platform and deployment resources, Lenovo has realized the following business benefits to date:

- Reduced onboarding time by 85 percent
- Reduced IT costs by 53 percent
- Reduced IT management costs associated with supplier integration by 70 percent

“Lenovo’s vision is to become the number one supply chain in our industry by innovating to deliver the best customer experience with world-class operational excellence. The cloud platform provided by E2open is part of the solid IT foundation we are putting in place to realize our vision through better visibility and control across the end-to-end global supply chain.”

Gerry Smith, Senior Vice President, Global Supply Chain, Lenovo
• Faster supplier adoption due to lower costs and ease of doing business
• Global availability with reliable performance and rapid change management

Next, Lenovo's supply chain organization and E2open designed solutions to extend the value of the cloud to two important areas of its operation: centralized procurement and software license management.

**Lenovo Drives Down Material Costs with Streamlined Procurement Processes**

With a streamlined, lower-cost way to onboard its trading partners, Lenovo shifted its focus to building an end-to-end procurement solution. One of its key challenges was to increase control and transparency of purchasing costs associated with strategic components, while continuing to reap the efficiency and risk mitigation benefits of outsourcing.

By leveraging E2open’s solution, Lenovo now has direct control of strategic components purchasing regardless of where its finished PCs are produced (in-house or outsourcing) using automated procurement processes from a single hub in Hong Kong. This powerful capability enables Lenovo to maintain its market-competitive, volume-based pricing, as well as the confidentiality of these supply agreements. Specifically, Lenovo’s Hong Kong procurement solution offers the following functionalities:

• Complete automation and tracking of the order-to-cash and procure-to-pay processes
• Elimination of the need for manual touches and data aggregation
• Support for discrete orders and blanket orders/scheduling agreements
• Purchase order (PO) collaboration between Lenovo and its suppliers and contract manufacturers
• Confidential pricing agreements with key suppliers

The Lenovo procurement solution also provides support for its global service network, enabling post-sale, warranty, and service providers to purchase their materials at lower, pre-negotiated prices. To date, Lenovo’s procurement solution has yielded the following benefits:

• Improved cash conversion cycle
• Strengthened market competitiveness through reduced purchasing costs of core commodities
• Improved supply assurance and supply allocation abilities
• Cycle time on supplier responses reduced from hours to minutes

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**Figure 1: Lenovo Hong Kong procurement hub facilitates PO collaboration, confidential pricing agreements, and complete automation of order-to-cash and procure-to-pay processes.**
In partnership with E2open, Lenovo continues to execute against its vision, building on the following business benefits enjoyed to date:

**Scalable partner onboarding**
- Automated, on-demand integration methodology and self-service functionalities, reducing onboarding time by 85 percent
- Faster supplier adoption due to lower costs and ease of doing business
- Global availability with reliable performance and rapid change management

**Data and productivity improvements**
- Improved data quality with multi-enterprise access to “a single version of the truth”
- Reduced data flow latency
- Cycle time on supplier responses reduced from hours to minutes
- Improved transaction speed through automated purchasing and tracking of digital keys
- Greater visibility to KPIs to drive continuous improvements

**Reduced costs**
- Improved cash conversion cycle
- Price leadership through the ability to leverage pricing agreements across in-house and outsourced procurement and manufacturing operations while maintaining confidentiality
- Reduced costs to administer software builds to hardware configurations
- Reduced audit exposure
- Facilitation of royalty invoice and credit reconciliation
- Competitive advantage through purchasing cost reduction of core commodities

**Superior service levels**
- Improved flexibility and resiliency to demand changes and environmental disruptions
- Automation and process improvements extended to the service, repairs, and returns network
- Improved supply assurance and supply allocation abilities

**Lenovo Integrates Physical and Digital Networks for Improved Customer Value and Faster Product Innovation**

For Lenovo, innovation has always been a primary driver of competitive differentiation and new market opportunities—and the supply chain is no exception. “Our supply chain organization works the same way as our research team: we’re constantly innovating,” says David Gillon, executive director, Business Transformation/IT, Global Supply Chain at Lenovo. “Convergence of the physical and digital supply chains is the next phase of innovation at Lenovo, allowing us to leverage the power of the cloud to extend visibility and control, and reduce risk across the network.”

In partnership with a leading global supplier of computer operating systems, Lenovo began a new initiative to replace physical “Certificate of Authenticity” labels with digital “software activation keys” to track the operating software associated with each hardware device. The goal was to eliminate manual intervention by using digital keys to electronically track authenticity—from receipt through final build and consumption (and return, if necessary).

Lenovo leveraged E2open solutions to enable the seamless and rapid flow of license key data between the company and its software partner, a capability necessary for digital key ordering, build reporting, and centralized tracking. The E2open cloud-based database provides a single point of visibility across the life cycle of the digital keys, including real-time tracking of all digital transactions, and reporting on deliveries and consumption by location. Further, the solution monitors the write off of unusable keys and gives Lenovo the ability to trigger investigations at non-conforming locations.

Leveraging E2open’s rapid onboarding methodology, Lenovo was able to extend the value of the software license tracking solution to its new partners quickly and without disruption to current processes.

“The E2open solution enables us to buy and track digital keys from our global operating system provider—eliminating the need for manual intervention and allowing us to significantly reduce the risks of error and fraud for both Lenovo and our partners,” Gillon explains.

**Figure 2: Partner message integration for digital key ordering, fulfillment, returns, build reporting, and centralized tracking.**

**Paving the Way for the Next Generation of “Doers”**

Last spring, Lenovo launched its first-ever global branding campaign, introducing itself to the world as the brand “For Those Who Do.” In line with its brand positioning to provide tools and technologies that enable its customers to “do” great things, Lenovo prides itself on a spirit of innovation, collaboration, and execution.
Looking forward, Lenovo plans to leverage its any-to-any, cloud-based platform to design and execute a supply chain Control Tower program. Lenovo’s program will feature a robust business intelligence workbench, including executive dashboards, sophisticated reporting and analytics, and automated resolution capabilities. Multi-tier visibility, collaboration, and decision support will also be incorporated into the program, enabling Lenovo to operate a truly end-to-end, “sense and resolve” supply chain operation.

Collaboration in the Cloud: Lenovo and E2open Achieve Valuable Supply Chain Innovations

The cloud-based solutions offered by E2open have added significant value to Lenovo’s global supply chain operations in a number of key areas. First, the any-to-any platform extends value to trading partners immediately. This platform has also cut costs associated with testing and infrastructure maintenance. Second, the streamlined procurement processes have enhanced automation and collaboration and have helped to protect the confidentiality of pricing agreements. Lastly, the E2open solution has enabled the convergence of physical and digital supply chain networks to enhance control over operating system software activation keys and to reduce the risk of error or fraud. Taken together, these innovative cloud-based solutions promise to improve Lenovo’s operational performance—particularly from the customer perspective—with significant potential to drive lower costs.