

SAP Customer Success Story High Tech – Software and Components Manufacturer



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AT A GLANCE

Summary

NVIDIA, a market leader in graphics and digital media processors, relied on SAP® Consulting to drive the evolution of a virtual manufacturing monitoring system to enable real-time inventory visibility across partner production facilities and global distribution locations.

Web Site

www.nvidia.com

Key Challenges

- Support and sustain exponential growth rate
- Provide visibility into logistics channels and supply networks

Project Objectives

- Begin to develop a virtual manufacturing system
- Optimize logistics process
- Proactively meet global trade compliance requirements
- Provide access to real-time supply chain data
- Support exponential business growth with a flexible application platform

Solutions and Services

- SAP Education
- SAP Advanced Planning & Optimization component
- SAP NetWeaver™ platform, including SAP Business Intelligence component
- SAP Global Trade Services application

Why SAP Solution

- Depth of SAP product knowledge
- Experienced consulting professionals
- Commitment to NVIDIA's long-term success

Implementation Highlights

- 400 users in virtual manufacturing system
- Implementation of 9 core ERP components completed in 5 1/2 months
- Smooth go-live without major incident

Key Benefits

- Lead industry in logistics optimization
- Provide visibility and control of logistics and supply networks
- Match product availability to demand

Implementation Partner

SAP Consulting

Existing Environment

Legacy systems

Database

Microsoft SQL

Hardware

IBM

Operating System

Microsoft Windows

NVIDIA

SAP® Consulting Brings Depth of Knowledge and Experience to System Design

Coping with Aggressive Growth

NVIDIA is a market leader in graphics and digital media processors with more than 2,000 employees worldwide. Its products include graphics processing units, media and communications processors, and wireless media processors. These products are incorporated into a variety of platforms, including personal computers, gaming consoles, workstations, cell phones, and electronic devices with screens.

In 1999, NVIDIA began to experience a huge growth curve. “We were growing at an exponential rate – from a \$100 million company to a \$1.8 billion company in approximately two years – and we had software in-house that was woefully inadequate,” says Brian Weiss, NVIDIA’s director of information technology.

NVIDIA’s supply chain included managing chip production, tracking inventory in sites in Asia, submitting inventory to board manufacturers, and enabling original equipment manufacturers to access the order system. The company decided to replace its existing three-tier system and implement a comprehensive ERP system that would provide additional functionality and scale to support future growth.

NVIDIA assembled a team to choose the software that would provide access to real-time information. The team was also responsible for selecting an implementation partner to integrate its business solutions. “Hands-down, the decision was to choose SAP [software] and use SAP Consulting as our implementation partner,” notes Weiss.



In just five and a half months, NVIDIA implemented nine core ERP components, and the go-live went smoothly and without major incident. In addition, the project was completed on time and within budget, due largely to rigorous project management and a core belief that a “vanilla” version of the SAP® software should be implemented whenever and wherever possible.

“The real economic value to NVIDIA,” says Weiss, “is our ability to know the status of our inventory and to be able to make reasonable promises to our customers as to the availability of inventory.”

Planning a Successful Design for the Future

Because the SAP implementation was very successful and the company continued to grow, NVIDIA decided its next steps would be to enhance its planning capabilities, optimize logistics, and access supply chain data at various company, vendor, and customer locations. This challenging design included the SAP Advanced Planning & Optimization (SAP APO) component and SAP Business Intelligence (SAP BI), a key component of the SAP NetWeaver™ platform.

NVIDIA employees partnered primarily with a team from SAP Consulting, while complementing the team with a few outside vendors. “Anywhere there was a need for strong knowledge and experience, we went straight to SAP Consulting, particularly on the SAP BI side,” adds Weiss. “SAP brought in a host of very talented people, including architects and an extremely capable manager for SAP BI. They came in and really ramped up our efforts around the design piece of SAP BI.”

To provide detailed planning functions and accurate monitoring of its global supply chain, NVIDIA deployed SAP APO. Weiss notes that SAP consultants “were really the backbone for that design. Several key SAP resources helped us drive the design and subsequent implementation of our costing system. As the overall project manager, I recognized that SAP was the force that made the project the major success that it is. It took a real partnership between NVIDIA and SAP to really get the project live.”

Providing Leadership Through Experience

SAP’s mission is to bring world-class thought leadership to its customers and their internal organizations. Therefore, NVIDIA relied on SAP Consulting to help model global supply chain scenarios that could be maintained with future growth. Although it was challenging to predict the future, SAP consultants pooled their depth of experience and knowledge to provide the solutions that NVIDIA needed and ensure the positive results of the project.

The SAP Consulting team was “well-versed in many businesses,” says Weiss. “They all had worked on several large implementations and were a very effective group to work with.” Weiss’s philosophy is simple: if you really want to know how something

works and the best way to optimize it, it is always best to go to the source.

Aggressively Evolving Solutions

With a leading-edge company like NVIDIA, SAP Consulting was asked to go one step further in providing innovative solutions. “We’ve been very actively talking to SAP about building a virtual manufacturing solution,” remarks Weiss. “We’re pushing

the evolution of the SAP APO engine and the changes in SAP BI, and we’re pushing the evolution and innovation in SAP Global Trade Services.

“We’re very demanding in all of that, and we chose SAP to be our partner because they are in a position to understand our business and evolve their products to help us compete over time,” continues Weiss. Because SAP consultants are tightly linked to the SAP development and product management groups, NVIDIA was able to quickly resolve challenges as they arose during the project, as well as provide feedback to SAP for enhancements, specific system requirements, and ideas for additional functions.

“We know that without SAP Consulting, we would never be able to grow from \$1.8 billion to our projected revenue growth of \$5 billion over the next couple of years. You need systems that can support that kind of growth, and with major economic growth comes the need to evolve your systems.”

Brian Weiss, Director of Information Technology, NVIDIA

Offering Exceptional Customer Services

In addition to asking SAP Consulting to be architects for the SAP BI and SAP APO components, NVIDIA continually asked for implementation guidance and extensive leadership due to the leading-edge nature of the implementation. Consultants performed a go-live check and a performance check during implementation as well as a post-implementation review of NVIDIA processes, methodology, production support, and overall system performance.

SAP consultants developed a strong relationship with employees at NVIDIA. As they discussed challenges and sought support, SAP consultants took a personal interest because they knew how important it was to get everything right. “They dropped everything and were on it immediately,” adds Weiss.

To mitigate risks in global trade, NVIDIA implemented the SAP Global Trade Services (SAP GTS) packaged solution. SAP GTS enabled NVIDIA to proactively meet regulatory trade compliance requirements while streamlining and securing their supply chain across the enterprise. “As issues arose during implementation and the last phases of testing, we really relied on SAP Consulting to provide a lot of solutions because we were really pushing the envelope, pushing hard,” notes Weiss. “We got support out of Germany, Ireland, Philadelphia, and Palo Alto to meet our tight deadlines.”

Supporting Employee Skills

As NVIDIA employees identified their in-house skill sets, they looked to SAP Education to provide training on an as-needed basis. While about half the in-house team had a significant SAP background already (including some with 8 to 12 years of experience), complementing and updating that skill set was a requirement. For example, two NVIDIA employees had skill sets with the SAP APO component, but they needed transitional skills for the implementation. For the SAP BI component, employees did not have much experience, so SAP Education offered extensive training that was specific to the target audience.

According to W. Randall Wonzer, SAP consulting engagement manager, “NVIDIA understood how to leverage our consultants’ deep product knowledge and delivery experience with NVIDIA’s core business expertise. This approach provided a lean, low-cost team; leveraged the power in the SAP product; and minimized customization. Knowledge transfer from the consultants enabled NVIDIA to sustain and maintain the solution long-term without further need for consulting expertise. NVIDIA knows SAP!”

Providing a Global Connection to NVIDIA

NVIDIA has 400 SAP users across the world. It is unique in that it outsources almost all of its supply chain. As a result, many system users are actually third-party partners that log in directly to NVIDIA’s system through a virtual private network (VPN).

Currently, 16 sites are up and running on SAP software, including Taiwan, Korea, Hong Kong, Singapore, India, Britain, and four locations across the United States. Other locations – Shanghai, Moscow, and Tokyo – will come onstream in about a year, and NVIDIA plans to convert its European locations to SAP software. NVIDIA has gained significant visibility into its business and is managing its supply chain in real time.

Knowing What to Promise Customers

The goal of the latest SAP implementation at NVIDIA was to take the SAP software to the next level – to use it to manage its virtual manufacturing system.

The implementation has helped NVIDIA pinpoint inventory in vendors’ warehouses and manufacturing facilities.

SAP Consulting provided consultants for all areas of NVIDIA’s system implementation and rebuilt 400 business processes. “We know that without SAP Consulting, we would never be able to grow from \$1.8 billion to our projected revenue growth of \$5 billion over the next couple of years,” says Weiss. “You need systems that can support that kind of growth, and with major economic growth comes the need to evolve your systems.”

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Looking Ahead

The next phases of the project will improve operations, refine engineering productivity, and further extend NVIDIA's reach to its partners. In addition, company executives want to make the system more interactive and collaborative.

Early in 2005, NVIDIA will implement SAP Enterprise Portal and SAP Exchange Infrastructure, both components of SAP NetWeaver. Using SAP NetWeaver to collaborate with customers means more than exchanging files and data. Customers can log in and see the status of their orders and inventory, so NVIDIA can optimize its supply chain to them.

NVIDIA's goal is to Web-enable all of its SAP applications, so when the system is added at its European sites, everything is Web-ready for those implementations – because even a 1% efficiency gain and cost reduction can impact the gross margin by \$100 million. Further adoption of SAP NetWeaver beyond SAP BI will help NVIDIA achieve these goals, and SAP consultants will be there to help.