



CISCO-SA

ENABLING SCALE AND RAPID GROWTH AT HIGH-TECH OEM

Cisco-SA is a leading provider of end-to-end video broadcast networks. Its expertise in video delivery goes beyond science and into the realm of art. The company is renowned for improving the way consumers experience the information and entertainment they receive from telecom, cable, satellite, and wireless service providers around the globe. In 1995, Cisco-SA began a transformation of its worldwide business processes by integrating its disparate business systems with the SAP® ERP application.





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TRANSFORMING WORLDWIDE BUSINESS PROCESSES WITH SAP® SOFTWARE

QUICK FACTS

Industry High tech
Revenue US\$3.2 billion
Employees 9,900
Headquarters Lawrenceville, Georgia
Web Site www.cisco.com
SAP® Solution and Services SAP® ERP application
Implementation Partner IBM

Headquartered in Lawrenceville, a suburb of Atlanta, Georgia, Cisco-SA is a major supplier of network products to broadcast service providers. By the mid-1990s, the company had evolved into an organization made up of separate business units, each using its own independent business system. In order to optimize operations and integrate worldwide business processes, the group decided to adopt the SAP® ERP application. That decision led to the largest internal IT implementation in the company's history.

Key Challenges

- Support rapid growth and ensure flexibility
- Provide superior customer service and increase responsiveness by integrating critical supply and demand planning processes
- Drive margins and overall profitability by increasing manufacturing efficiencies and reducing direct material costs
- Improve delivery and customer service by increasing supply chain visibility

Implementation Best Practices

- Ensured tight partnership between business units and IT
- Received strong sponsorship from senior executive team
- Adopted a unified application architecture
- Required minimal customizations by using SAP® platform as default software
- Adopted a train-the-trainer model

Financial and Strategic Benefits

- Proactive decision making, reduction in manufacturing variances, and lower costs
- Support for rapid growth
- Visibility across the supply chain, enabling the company to leverage its direct materials spend
- Integrated supplier performance management
- Faster consolidated closings
- Ability to meet available-to-promise dates more effectively
- US\$135 million in cumulative cost savings since 2003

Why SAP Was Selected

- Support for the company's globalization, growth, and cost-control strategies
- SAP's vision of the extended enterprise
- Ability to deliver business value via a unified set of industry best practices
- Easy user access to supply-chain and manufacturing data – in real time

Low Total Cost of Ownership

- Used industry best practices enterprise-wide, with fine-tuning for local requirements
- Shifted quickly from 100% internal manufacturing to partially outsourced model to facilitate business growth
- Minimized need for IT support and resources
- Used internal resources for upgrades
- Involved business users early on

Operational Benefits

Key Performance Indicator	Impact
Annual manufacturing costs	-\$10 million
Direct material cost savings	+20%
Customer lead times	20% faster
Deliver to commit	40% to almost 90% improvement
Deliver to request	35% improvement
Closing cycle time	50% faster
Financial inventory accuracy	+99.99%
Obsolescence and surplus	-50%
Scrap and physical loss	Reduced from 4% to 0.8% of cost of goods sold (COGS)
Repair turnaround time	75% faster
On-time, complete deliveries	+57%

KEY CHALLENGES

OVERCOMING THE OBSTACLES TO INTEGRATED BUSINESS PROCESSES

The digital marketplace changes at the speed of light. In the rapidly converging worlds of video, voice, and telephony, companies that want to lead and grow must be able to respond to market conditions in the twinkling of an eye. To do this, they need integrated IT.

In 1995, 10 years before Scientific Atlanta was purchased by Cisco Systems Inc., the half-century-old company was the leading worldwide provider of end-to-end video networks and equipment, including cable TV boxes. However, it was still operating with disparate and nonintegrated systems. Five independent, customized applications were running on a mainframe and other platforms, each reflecting the perceived diverse nature of the business units. Nevertheless, the company took the lead again; it saw the future coming fast and decided to meet it head-on by introducing an integrated enterprise management system. This would become the largest internal IT implementation in the company's half century of existence.

A Collection of Disparate Applications

"We were a collection of individual, distinct businesses running on various platforms," says Ward Dickson, VP of finance for Cisco-SA. "For example, we had multiple manufacturing operations, which were completely separate from our procurement organizations, and they were all using different types of software." Not only did all of these disparities inhibit cost-effective reaction to market demand, they affected customer service and delivery and fueled a host of other sometimes-daunting challenges.

For starters, without a way to bring supply and demand together in a flexible business process, the video technology group found it hard to effectively pursue its globalization, growth, and cost-control strategies. Nonintegrated processes slowed response to customer requests. "Basically, we were a non-SAP environment," says Steve Boyd, VP and controller at Cisco-SA. "We had disconnected systems. We had limited visibility of the customer and our manufacturing processes. It was also difficult to retrieve financial information. For example, it took us 15 to 20 days to close every month."

The company's disparate systems played havoc on its global supply chain as well. "We had no available-to-promise process," says Jack Allen, director of global supply chain processes at Cisco-SA. "So consequently, trying to make a commitment to a customer was difficult, at best." Poor visibility of the supply chain affected controlling and made it difficult to keep direct material costs down – which in turn affected profitability. The lack of transparent data also made it hard for the company to assess supplier performance, which at the time was done using a manual spreadsheet process. "It was a real mess," says Allen, "but we knew where we wanted to go."

Tuning in a New Vision

To extend its leadership position into the 21st century, the video technology group embraced a new business vision. It focused its efforts on building a flexible, scalable global organization poised for growth, operating with an enterprise resource planning (ERP) application based on industry best practices. Specifically, the heart of this vision was to enable superlative customer service and delivery by leveraging key core competencies and introducing common best practices across worldwide shared-services organizations. These organizations included manufacturing, procurement, finance, customer order management, human resources, and information technology.

In 1996 the company's transformative business decision to move away from system disparity and follow best practices toward a unified set of business processes was finalized. On the heels of that decision, the video technology group chose to implement the SAP® ERP application.

"Clearly, SAP software was the foundation for our manufacturing improvements over the last 10 years."

Steve Boyd, VP and Controller,
Cisco-SA

WHY SAP WAS SELECTED

SUPPORT FOR KEY STRATEGIC IMPERATIVES

Business Value

Cisco-SA selected the SAP ERP application because of the software's ability to deliver business value by supporting a unified set of industry best practices. The company saw how it could leverage the application's functionality to attain its business objectives and enable its vision of a shared-services organization worldwide.

Manage Complexity

By 1996 the video technology group's manufacturing model was changing. "We'd left the era of very simplistic supply chains behind us," says Boyd. "Today we live in a more complex supply chain world – one where we do internal manufacturing plus original device manufacturing as well as consumer manufacturing." Cisco-SA selected business enterprise software from SAP to help manage the evolving complexity of its high-tech supply chain and to drive profitability through support of its internal manufacturing models. In addition, by implementing SAP ERP, the company would gain the opportunity to further reduce complexity and cost by replacing nonscalable manual processes with 100% automated processes.

Strategic Support

The common business-process and reporting framework offered by SAP ERP was another factor in the company's preference for SAP software. The application provided the integration the company needed to support its global growth and cost-reduction strategies, allowing it to assimilate new business acquisitions rapidly – in weeks instead of months. SAP ERP also would enable the video technology group to add new product acquisitions to its software system – often in days instead of weeks.

Cost Savings

The company's video technology group also found the SAP software attractive because it would help the company realize greater global manufacturing control and cost savings. For example, managers can use SAP ERP to help them quickly relocate manufacturing operations for certain products to the optimally suited global facility or outsource capacity to strategic supply chain partners, whenever needed. Furthermore, the company appreciated the cost-leveraging advantages of having enterprise software from SAP. "Once you've switched to SAP software, cost leveraging becomes huge," says Dickson. "Now you have visibility on the manufactured part numbers for all product lines. You can identify the supplier with the best total sum value and get a better price than you would have from a number of individual suppliers."

Key Metrics

Moreover, with the integrated data generated by SAP ERP, the video technology group would be empowered to optimize essential business metrics, including its critical deliver-to-commit and deliver-to-request key performance indicators (KPIs). "What's important is the detailed data behind the KPIs," says Allen. "This data is critical to decision making – and we did not have this kind of data before we introduced the SAP software. It really wasn't even possible to get it." With SAP ERP, the company could ensure that users had easy access to all supply chain, financial, and manufacturing data – in real time.

Best in Class

The best-in-class financial management and reporting tools available in SAP ERP were also interesting to the company's video technology group. "With the SAP software," says Boyd, "we'd be able to generate line-of-business reporting by geography, by account, right down to the customer level. With our former processes, we weren't even close to being best in class."

IMPLEMENTATION PROCESS AND BEST PRACTICES

ARCHITECTURE, PARTNERSHIP, AND STANDARDIZATION ALL ESSENTIAL

“The implementation of SAP software started the foundation that enabled the shared-services approach at Scientific Atlanta and has generated the tremendous cost leverage we have in this business.”

Ward Dickson, VP of Finance, Cisco-SA

Implementation Process and Best Practices

Moving from a mainframe to a unified architecture was a key enabler for the company’s continued success. However, with so many existing IT skill sets that had developed from the company’s disparate focus, setting a migration path to a client server-based unified application architecture presented its own set of challenges.

Regardless, following an intensive, nine-month development cycle, the path was set and in April 1996, Cisco-SA launched the first phase of the SAP software implementation. During the following two and a half years, the company successfully rolled out the software to 12 manufacturing, logistics, and sales offices around the globe. Today, users throughout 23 locations in the United States, Canada, Mexico, the United Kingdom, Germany, Italy, and Denmark can take advantage of the software on a 24x7 basis.

A True Partnership Between IT and Business

The core implementation team consisted of 40 full-time people, half of whom were IT employees. However, business process experts recruited from the business units, together with IBM consulting partners, helped ensure the proper business focus. Before and during the implementation, the traditional lines between IT and business process owners blurred, leading to a synergy between technology and business process engineering.

The team members went to extraordinary lengths to minimize implementation shock to the enterprise. For example, during the early parts of the implementation, information on existing legacy systems had to be transferred to the SAP ERP application. Subsequently, the team developed 26 separate information bridges to feed critical information between numerous systems, some in near real time.

Setting the Standard

Because the video technology group had been running SAP software for more than a decade, many who worked there felt they grew up on SAP. The application customization strategy to make SAP software the company standard was shaped early on to eliminate modifications to the base SAP ERP application. This helped place a focus on standardized best practices – away from a “we’ve always done it that way” mentality.

Minimal Customization

Although Cisco-SA chose SAP ERP to support its global business vision, it also benefited from the software’s flexibility for meeting specific location requirements. For example, the company implemented the ERP application in less than six months at a recently acquired company in Sonderborg, Denmark. It implemented the baseline processes first and then fine-tuned these processes to meet local language and legal requirements.

Cisco-SA IT Architecture

SAP® solution or application	SAP ERP application
Number of users	More than 2,000
Number of locations	23
Number of SAP instances	1
Database	Oracle
Operating system	HP-UX
Hardware	HP

STRONG GOVERNANCE AND PROJECT MANAGEMENT

THE IMPLEMENTATION: CRITICAL SUCCESS FACTORS

One of the key factors behind the success of the SAP software implementation at the video technology group was the strong sponsorship from the senior executive team. It helped ensure that the implementation goals and milestones were consistent with the business vision, and that execution obstacles were minimized. In addition, executive incentives were tied to the success of the project.

Focus on Training

The implementation of the SAP software at the video technology group not only signified the largest internal system implementation in the company's history, it also represented the largest educational effort. To date, more than 5,000 separate student education sessions have been held. This equates to more than 35,000 hours of training. Resistance to the training schedule was minimized by offering weekend education sessions. While the partnership between business process experts and the IT team continues at Cisco-SA, ongoing hands-on education and reinforcement remains consistently present at the company.

Continuous Improvement

As processes are steadily improved at the video technology group, the company's enterprise management solution continues to evolve. The documented successes piloted in one implementation or installed location can be transferred quickly to other locations throughout the world. At the same time, mistakes made in one location can be avoided in other locations. The SAP ERP application itself acts as the storehouse for process knowledge.

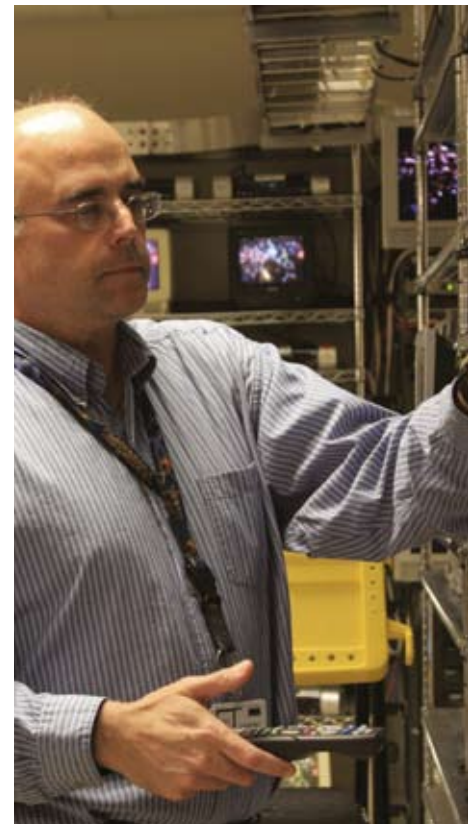
Broad Participation

The implementation of enterprise software is now virtually complete at Cisco-SA. Nearly 98% of the revenue and shipments of the company flow through the system. More than 2,000 employees use it to transact business or to perform business analysis. This represents about 67% of the employees with desktop workstations. In addition, the company is transacting business electronically with many of its trading partners.

Moreover, the operating environment supporting the enterprise management system provides high availability to the video technology group's worldwide client base. The SAP ERP application, Oracle database, and HP hardware combine seamlessly to provide a stable, reliable platform, enabling synergy between Cisco-SA and its global customers and supply network.

"Cisco-SA is expanding aggressively into new markets and customer bases. SAP software gives us the ability to have a streamlined buy-sell strategy outside the United States."

Rick Mayda, Director of Worldwide Procurement Operations, Cisco-SA



BUSINESS PROCESS TRANSFORMATION AND VALUE REALIZED

MANY BUSINESS BENEFITS WITH SAP ERP

With SAP ERP, Cisco-SA has the tools it needs to align business processes to reduce manufacturing costs and leverage core competencies worldwide. For the first time in the company's history, it has a set of common baseline processes groupwide and the flexibility to optimize these processes for ongoing success.

Increased Visibility

The video technology group now has real-time visibility of its manufacturing processes as well as financial information, which helps enable proactive decision making, reduce manufacturing variances, and lower costs. Furthermore, with global inventory visibility across the extended supply chain, the company can leverage direct materials and spend. Finally, with increased visibility into supply and demand and automated available-to-promise functionality, Cisco-SA can optimize order fulfillment. "We went from having limited visibility of operations," says Boyd, "to complete visibility in a short time frame."

Reduced Manufacturing Costs

Once the software was in place, the video technology group chose to move its high-volume product manufacturing operations into a low-cost manufacturing infrastructure in Mexico – resulting in cost savings of more than US\$10 million a year. Steve Winterbottom, VP of IT at Cisco-SA, comments, "With SAP ERP as our enterprise-wide software system, we can rapidly move production between facilities while maintaining the integrity of our management information."

Shortened Financial Closing Cycle

With its disparate legacy systems, closing at the video technology group seemed to never end. "Before we introduced the SAP software, it took us nearly three weeks to close," says Boyd. "Afterwards, we were closing in five days, on a consolidated basis; we now had visibility all the way down to the customer level." Today, spreadsheet-driven manual processes are gone. These processes are now 100% automated and enabled by SAP software.

Consistent Process Improvements

Since the initial implementation of SAP ERP, Cisco-SA has noted continual improvements in KPIs across all core processes. For example, financial closing time is now 50% faster; on-time, accurate deliveries have increased by 57%, and direct material costs have been reduced by 20%.

"We've seen improvements across the board. Since we put in SAP software, most major metrics have gone through the roof."

Jack Allen, Director of Global Supply Chain Processes, Cisco-SA

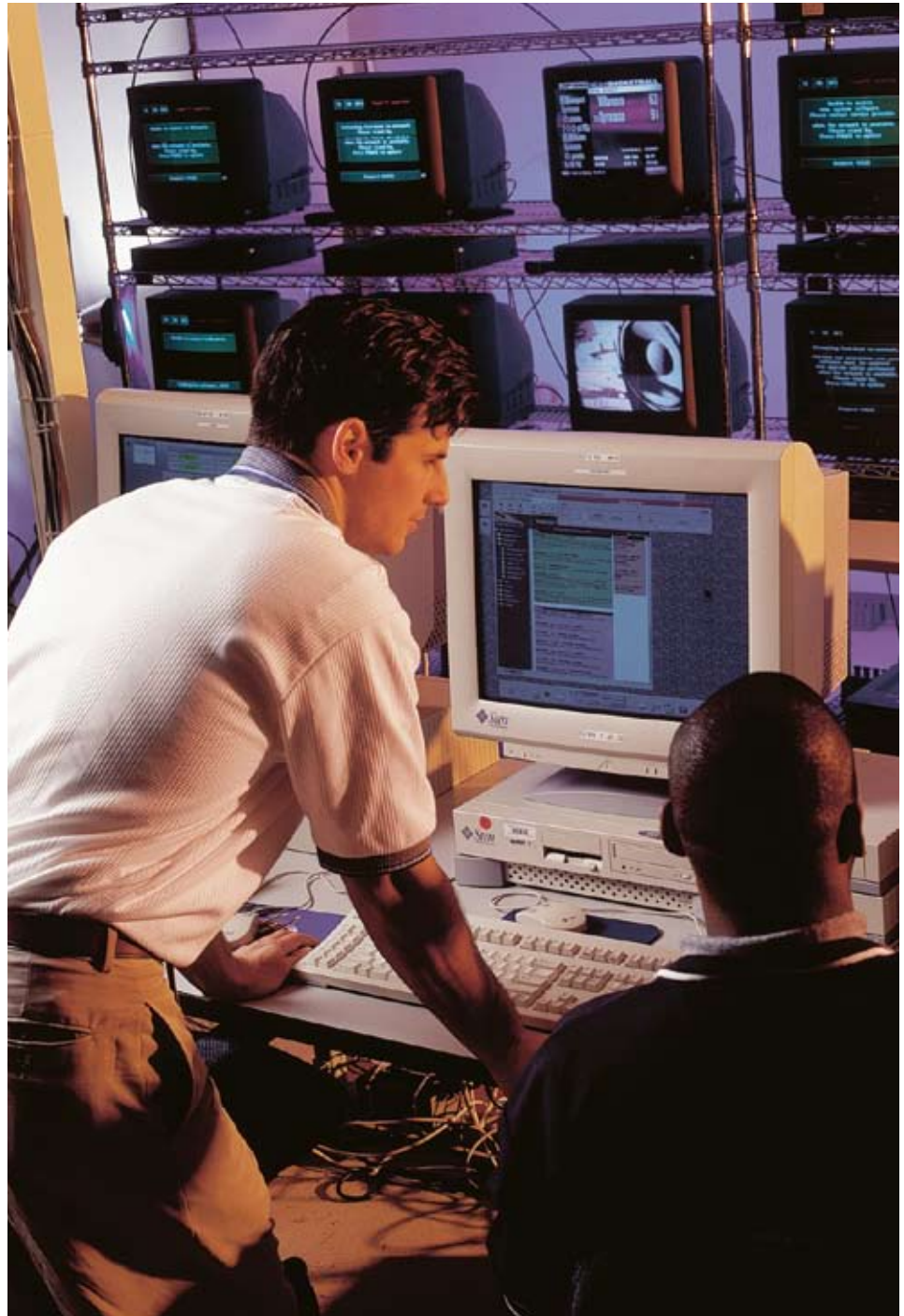


Process Area	Challenges	Results After SAP® Software	KPI Impact
Finance	<ul style="list-style-type: none"> ■ Inadequate reporting and analysis capabilities ■ Highly manual processes and activities 	<ul style="list-style-type: none"> ■ Consistent data across the enterprise ■ New controls for financial management and reporting 	<ul style="list-style-type: none"> ■ Improved finance and compliance management ■ Increased productivity ■ Faster, easier, and more complete reporting
Procurement	<ul style="list-style-type: none"> ■ Decentralized purchasing at the business unit level ■ Lack of shared services between plant procurement groups 	<ul style="list-style-type: none"> ■ Centralized and integrated procurement process ■ Greater visibility of funds ■ Shared services between procurement organizations 	<ul style="list-style-type: none"> ■ Shorter procurement cycle times and less manual effort ■ Reduction in procurement spend ■ Improved purchasing controls
Project management	<ul style="list-style-type: none"> ■ Inaccurate project costs ■ Poor visibility into financial status of project ■ Difficulty in assigning costs to project 	<ul style="list-style-type: none"> ■ Real-time visibility of project costs ■ Clear view of project status ■ Planned versus actual cost analysis 	<ul style="list-style-type: none"> ■ Improved decision making via accurate project data ■ Improved project planning and budget process ■ End-to-end project life-cycle management

FUTURE ROAD MAP

GETTING READY FOR TOMORROW'S NETWORKS

Although its journey to align and integrate business processes globally is well underway, Cisco-SA still has work to do. For example, to meet changing customer demand, it needs to optimize certain processes and introduce new ones. The group is also in the process of working with Cisco's corporate team to align the video technology group's IT systems with the broader organization. In the meantime, the video technology group is considering a number of SAP applications, including the newly enhanced SAP Supply Network Collaboration application.



LESSONS LEARNED

KEY TAKEAWAYS

In moving from mainframe to client server technology, Cisco-SA came up against some change management issues, resulting in many lively debates between the business units. This issue was compounded because the phases of the implementation occurred in rapid succession, and often concurrently. Nevertheless, the issues were resolved successfully. And since the initial implementation in 1996, there have been 23 separate major implementations of SAP ERP at the video technology group – with each implementation moving Cisco-SA toward the ultimate goal of unified processes enterprise-wide.

The following table summarizes the key takeaways from this project:



Key Takeaway

Execution Details

Focus on change management

- To ensure effective change management, focus on the best features or processes within individual business units
- Provide ongoing training and offer weekend classes to avoid absences during the regular work week
- Include business staff in the implementation process to help move people out of their comfort zones

Provide sustained and strong governance

- Demonstrate executive support by enthusiastic management participation and governance
- Ensure the transformation is driven by business process experts from the business units, not just IT

Use a phased Implementation approach

- Adopt phased implementations to help avoid scope creep and keep the project on track
- Document the implementation successes to use in the implementation rollouts

Mitigate risk

- Rely on implementation partners and software vendors with extensive experience in your specific industry
- Understand your processes thoroughly before attempting to change them
- Provide ongoing, clear communications company-wide
- To heighten user confidence, provide rigorous instruction during go-live

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