



Global Manufacturer Increases Collaboration and Reduces Cost

Presence-enabled Unified Communications is transforming Voith, increasing efficiency and collaboration while cutting costs.

EXECUTIVE SUMMARY

Customer Name

Voith IT Solutions GmbH & CoKG

Industry

Manufacturing

Location: Austria and worldwide

Number of Employees: 37,000

Challenge

- Reduce costs
- Increase collaboration in a globalized environment
- Accelerate time to market

Solution

- Converged voice and data campus and wide area network
- Cisco Unified Communications
- Cisco Unified Presence Server

Results

- Voice service costs cut by 20 percent by implementing Cisco Unified Communications
- Teams are able to collaborate and work effectively across cultural, time and geographic boundaries to drive the business forward with greater pace and improve customer intimacy
- Business agility, including speed to market, improved by building a new network which is seen as the platform for growth and new rich media services

Challenge

Voith AG is one of the best-kept secrets in the world. It comes as a surprise to most people to learn that one sheet of paper in three in the world is made on machines produced by Voith. And one-third of all the hydro energy is produced with turbines and generators from Voith Siemens Hydro Power Generation. Not surprisingly, therefore, to its customers, the company is a byword for excellence.

Founded in 1867, the Voith group is one of the largest family-owned enterprises in Europe, with a workforce of 37,000 in over 270 locations around the world, and sales over €4BN. In recent years, revenue growth has been running at about nine percent year-on-year, in part driven by an aggressive acquisitions strategy.

Success has been born from product innovation and customer service. For example, one of its large printing machines is 300 meters in length and some 12 meters wide—over three times longer than a Jumbo jet—and much more complex, with over 5000 controls compared to less than 1000 in the airplane. Once the print machine is installed, excellent after-sales service is a must.

Within Voith, designated company sectors are responsible for geographic regions, and some also act as competence centers for the entire group. For example, Voith Paper in Austria is also responsible for Eastern Europe and Asia, and is the group center of excellence for “brown paper” machinery. For Voith Paper, cost, speed of delivery, and after-sales service are the strategic battlegrounds on which commercial success is won. Competition in its markets is fierce and getting fiercer.

In response, Voith Paper recognized that it had to accelerate time to delivery while addressing increasing design complexity. It also needed to cost-effectively support the local offices that were springing up close to customers within a region to help ensure successful installations and ongoing customer service. Collaboration within the company was the key, but the existing network infrastructure could not support it.

Solution

In 2006, Voith decided to build two new buildings at its regional campus in Austria, one for the regional headquarters of Voith Paper and the other for Hydro.

With the move came the opportunity for the company to reevaluate how technology could be best aligned to meet its business needs. The legacy infrastructure was based on separate data and voice networks dating back over a decade and the company knew that developments, especially IP-based technologies, offered opportunities for converged, rich media solutions to both increase collaboration and reduce operating costs.

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—Erich Seher, Chief Information Officer, Voith Paper

Responding to a Request for Proposals (RFP), Cisco and its partners, Telekom Austria and Osiatis, presented to Voith a roadmap that would first create an open, scalable, robust, and secure network as the platform to support the services the company needed both today and in the future. Once built, the platform would support a wide range of rich media services that could dramatically increase collaboration, reduce costs, and increase business agility as the barriers of geography were removed from global operations.

Campus LAN

Voith moved forward with two projects. In the first, the existing campus single “star-based” network was replaced with a double star optical fiber backbone based on Cisco® equipment. This increased bandwidth from 1 to 10Gbps, and provided redundant connections between buildings, including the main data center and another back-up facility on the campus. Osiatis also designed and installed Cisco-based local area networks to serve the 300 employees at each of the two new buildings.

The second project saw Voith move to a converged infrastructure, with voice and data services running on the campus and out to branches. Erich Seher, Voith Paper Austria’s chief information officer, says: “With globalization comes an increasing need for collaboration. We wanted to build a network infrastructure that would not only support our day-to-day operations, but would also be the secure foundation on which to build the new services that our employees need.”

Unified Communications

The company required a managed voice service contract with a set price per port, per phone, and per month. “It was important that we bought a voice service rather than a phone,” says Seher, “one that could be extended throughout Austria and to other countries in our region.” A managed voice service offered Voith the benefits of better cashflow management, with no unexpected operating costs. It would also pass to the service provider the job of managing the infrastructure, freeing up the time the internal IT team to focus on adding more value to the business by developing new applications such as better collaboration tools.

The company had implemented Microsoft Active Directory throughout the world, and any solution also had to tightly integrate with Voith’s standard desktop environment, which was based around Microsoft applications. In particular, Voith was looking for “click to dial” functionality from Microsoft Outlook.

Competition to win the voice tender was fierce, but Voith selected a Cisco-based solution from Telekom Austria. Two Cisco Unified Communications Manager platforms were installed on the campus to provide voice and associated messaging services. Voice and data services were extended to two other Austrian branches over Telekom Austria’s managed MPLS (Multiprotocol Label Switching) wide area network.

“We trusted Cisco more than other vendors to be committed to supporting this upcoming new technology, and this influenced our decision to select Cisco as our voice platform. They were the only vendor that responded to the tender with an out-of-the-box presence solution— Cisco Presence Server— that would integrate with Microsoft’s.”

—Jürgen Bichler, Head of IT Infrastructure, Voith Paper

Telekom Austria’s commitment to providing a managed voice service to Voith was underlined by it taking over the company’s legacy PBX (private branch exchange) at the campus. Importantly the new voice platform was integrated into the legacy system, providing feature transparency such as caller ID and callback, thereby protecting the company’s previous investment.

Extending Collaboration with Presence Information

The company was also using Microsoft Live Communications Server and wanted a voice solution that was able to extend presence information to the Microsoft server so that it could be integrated onto the desktop. Using Presence, people can see from their own desktop the real-time “status” of the people they want to contact—be they online or on the phone—and then reach them in the most appropriate way, for example by phone, Instant Messaging, or Short Message Service (SMS).

Jürgen Bichler, head of IT infrastructure, says: “We trusted Cisco more than other vendors to be committed to supporting this upcoming new technology, and this influenced our decision to select Cisco as our voice platform. They were the only vendor that responded to the tender with an out-of-the-box presence solution— Cisco Presence Server— that would integrate with Microsoft’s.”

Results

The new converged solution has delivered significant benefits to Voith, reducing costs and complexity, improving collaboration, and providing the platform on which processes can be streamlined in the future and services to customers improved.

Reduced Total Cost of Ownership

The cost of voice services will be reduced by 20 percent over the five years of the managed unified communications contract with Telekom Austria, delivering total savings of €130,000. The expense of calls to mobile phones has also been reduced by 43 percent equating to €220,000 a year by aggregating calls to the mobile operator offering the best service package.

Voith also benefited by taking advantage of a three-year lease from Cisco Capital on the LAN solution, which offered competitive terms and the opportunity for a technology refresh at the end of the contract. By basing the residual value of the equipment covered by the lease in line with the economic life of the assets, Cisco Capital was able to reduce Voith’s operating costs to a minimum.

Removing Complexity

IP-based voice services are much easier to manage. In the past, up to three people were needed to look after voice services, including providing service to the 30 or so people moving departments each month. Today, only half of one person’s time is required for voice services, partly because staff just unplug their phone from one office and plug it in at another.

Standardizing on an IP-based platform will also make it far easier to connect new branches and even acquisitions into the corporate network.

Improved Collaboration and Time to Market

However, Seher sees the greatest benefit in improved collaboration. With the globalization of Voith's markets and operations, collaboration between design teams and experts around the world has intensified the need to reduce the time to design a complex, custom-made printing machine to reduce from 24 to 18 months.

By moving to an IP-based infrastructure, Voith will be better able to meet its teams' increasing demands for media-rich and Web-based tools such as shared portals and applications. Seher is confident that the improved collaboration offered by features such as extending presence information will enable the company to reduce time to design even further.

"Presence enables us to see exactly where people are and their availability at any moment. It removes the barriers of geography and time zones," says Seher. "This is very important for a company whose experts can be almost anywhere in the world, advising customers and troubleshooting issues." Currently, presence information is shared between the Austrian office and colleagues in Germany, which also has an IP-based voice system, but will be extended eventually to include all employees wherever they are.

Future Proofing To Stay Ahead

Commenting on a recent visit to Cisco's San Jose headquarters in which he saw the company's vision of the network providing the platform for a wide range of services—from video to intelligent buildings—Seher says: "What really impressed me is that in building our solution we have already built much of the foundation for these services. Future developments will maximize the investment we have made today. Cisco is working closely with other leading IT companies that we already trust, which will simplify things moving forward."

Next steps

New LANs are being installed in every building on the campus, and voice and data services are to be extended to three additional branches in Austria and, eventually beyond. Offices in Turkey have even been "snapped" in to the solution simply by installing a Cisco router and providing the offices with Cisco IP Phones.

Cisco Unified Personal Communicator is also being piloted to provide a softphone and rich-media communications for Voith staff working at customers' locations as remote as Mongolia, using a secure connection to corporate resources over the Internet.

Voith is also looking at developing wireless communications. Wireless access to network-based resources will be of particular interest to laptop moving around the campus. There are also plans to make use of a new generation of wireless-enabled mobile phones. Legacy DECT phones will be replaced with wireless enabled GSM phones able to access the campus WLAN.

Of particular interest is Cisco TelePresence, a high-quality virtual meeting video-based solution that creates a remarkably lifelike experience among participants thousands of miles apart. It thus enables improved collaboration, while significantly reducing air travel and the associated emissions, especially when used for long-range international meetings.

Technical Implementation

Within the offices, the LANs comprise Cisco Catalyst® 6500 Series Switches at the core and Cisco Catalyst 4500 Series at the distribution layer. The LANs enjoy the benefit of Stateful Switchover, a feature of the Cisco IOS that increases network resilience. Originally installed in the new campus buildings, this LAN topology will be installed across the entire campus. A "double star" design campus backbone, running over single mode fiber, provides redundant connections at 10 Gbps.

In the first phase of the project, new LANs were installed at two branches in Austria using Cisco Catalyst 3500 Series Switches and Cisco 2800 Integrated Services Routers. The branches benefit from Cisco Unified Survivable Remote Site Telephony, which provides for PSTN (public switched telephone network) breakout if the link to the central Cisco Unified Communications Manager fails. Three other branches will soon enjoy similar services.

WAN connections are provided over Telekom Austria's managed MPLS network, enabling access speeds ranging from 2 to 20 Mbps.

Cisco Unified Communications Manager is the powerful call-processing component of the Cisco Unified Communications solution. It provides voice, video, mobility, and presence services for businesses with up to 60,000 users. Unified Communications Manager is a scalable, distributable, and highly available enterprise-class IP telephony call-processing system.

Cisco Unified Communications Manager creates a unified workspace that extends enterprise telephony features and capabilities to packet telephony network devices such as IP phones, media processing devices, voice over IP (VoIP) gateways, mobile devices, and multimedia applications. Additional services, such as unified messaging, multimedia conferencing, presence, collaborative contact centers, and interactive multimedia response systems, are made possible through open telephony APIs.

Cisco Unified Presence Server was integrated with Microsoft Office Communications Server to provide presence information from Cisco communications devices, typically Cisco Unified IP Phones. Additionally, GSM mobile phones were integrated within Cisco Unified Presence and Microsoft Office Communications Server to enable users to see, from their desktops, if the person they wanted was on their mobile.

PRODUCT LIST

Cisco Capital

- A three year lease helped reduced total cost of ownership and provided technology refresh options

Routing and Switching

- Cisco Catalyst 6500 Series Switches
- WS-SUP720-3B
- Cisco Catalyst 4500 Series Switches
- Cisco Catalyst 3500 Series Switches
- Cisco 2800 Integrated Services Routers
- Cisco 3800 Integrated Services Routers

Network Management

- LMS 2.6 Enterprise WIN/SOL 300 Device Restricted (LAN Management System)

Security and VPN

- Cisco ASA 5500 Series Adaptive Security Appliance
- Cisco Secure Access Control Server for Windows

Voice and IP Communications

- Cisco Unified Communication Manager
- Cisco Unified Presence Server
- Cisco Unified Personal Communicator
- Cisco Unified IP Phones 7900 Series
- Cisco Unified Survivable Remote Site Telephony

Wireless

- Aironet 1200 Series Wireless Access Points

For More Information

To find out more about Cisco Unified Communications, go to:

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