



Volvo Group Improves Environmental Sustainability with Unified Communications

Overview

Country or Region: Sweden

Industry: Automotive and industrial manufacturing

Customer Profile

The Volvo Group designs and manufactures vehicles for commercial use, employs 100,000 people, and operates in 180 markets worldwide.

Business Situation

With environmental care as one of three corporate values, Volvo IT always looks for ways to help the organization reduce its environmental impact.

Solution

By deploying Microsoft® Office Communications Server 2007 and subscribing to Microsoft Office Live Meeting, the Volvo Group improved its environmental sustainability efforts.

Benefits

- Reduced CO2 emissions by more than 900 tons a month
- Reduced travel by thousands of flights per month
- Improved the quality of life for employees

Environmental Care Video

- [Volvo Sustainable IT](#)

“Office Communications Server 2007 enables our users to reduce their environmental impact by using technology to collaborate virtually rather than traveling for meetings.”

Claude Chanal, Technical Manager of Collaborative Products, Volvo IT France

The Volvo Group, headquartered in Gothenburg, Sweden, has products in more than 180 markets worldwide. The organization holds environmental care as one of the three corporate values that help define how it conducts its operations. Helping to promote these values, Volvo IT is a driving force for sustainable IT solutions. Over a period of eight years, Volvo IT deployed several unified communications products, including the recent deployment of Microsoft® Office Communications Server 2007 to 50,000 users. In addition, Volvo IT subscribed to Microsoft Office Live Meeting and began using Microsoft Office Communicator 2007. These tools, which integrated with the organization’s existing Windows®-based infrastructure, enabled the organization to reduce travel and thereby avoiding CO2 emissions of more than 900 metric tons a month.

“There are a number of areas in which we can use IT and how IT improves not only collaboration but also ways of working, such as calculations and visualizations, that help our employees make better decisions and create better solutions”

Magnus Holmqvist, Director Volvo IT Innovation Centre

Situation

Founded in 1927, the Volvo Group is one of the world’s leading manufacturers of heavy commercial vehicles and diesel engines. The Volvo Group also offers a comprehensive range of customized solutions in financing, leasing, insurance, and service, as well as complete transport systems for urban traffic. In 2008, the Volvo Group had more than 100,000 employees and products operate in more than 180 markets.

The Volvo Group has three corporate values that define how the organization develops and manufactures products, how it conducts sales and aftermarket support, and how it approaches customers, employees and the society. These values are quality, safety, and environmental care. “Within the Volvo Group, we’ve been passionate about environmental care for a long time,” notes Magnus Holmqvist, director at the Volvo IT Innovation Centre in Gothenburg, Sweden.

Environmental care has been a corporate value since the 1970s, and the Volvo Group constantly strives to reduce the environmental impact of its products and operations. Some of the projects that the Volvo Group manages to reduce the organization’s environmental impact include developing hybrid and biofuel technologies, CO2 neutral production, and the FuelWatch program, which is a comprehensive program to help Volvo Truck customers reduce their fuel consumption.

Volvo IT is a driving force for sustainable IT solutions provided to the Volvo Group. Volvo IT believes that environmental initiatives must go beyond power savings in the data center and focus on improving the efficiency of processes throughout the entire product life cycle—from design and manufacturing to sales and aftermarket support. “There are a number of areas in which we can use IT and how IT improves not only collaboration but also ways of working, such as calculations and

visualizations, that help our employees make better decisions and create better solutions,” notes Holmqvist. Examples of IT projects that deliver environmental benefits within the Volvo Group include systems for virtual product development with digital mock-ups, customer-driven production enabled by build-on-demand capabilities, and software spare parts, which extend the lifetime of physical spare parts.

Another way Volvo IT helps employees improve efficiency and reduce environmental impact is with Microsoft® unified communications technology. Microsoft has provided technology to help the Volvo Group improve communication and collaboration for many years.

Volvo IT first deployed Microsoft NetMeeting® conferencing software in 2000 to help employees collaborate without having to travel for meetings. NetMeeting usage grew rapidly as people realized they could communicate effectively with teams around the globe. In 2003, Volvo IT deployed Live Communications Server 2003 for the instant messaging and presence capabilities to help employees locate coworkers and quickly get information from them. Two years later, the Volvo Group switched to Microsoft Office Live Communications Server 2005 to increase technology consolidation and improve usability with other products in the Microsoft Office system. At this time, Volvo IT deployed a hosted instance of Microsoft Office Live Meeting for external Web conferences. While these technologies were useful, Volvo IT continued to look for ways to improve service to users and expand the use of unified communications technologies.

Solution

To add new communications capabilities, improve reliability, and promote increased adoption by employees, Volvo IT upgraded from Live Communications Server 2005 to

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Microsoft Office Communications Server 2007. Office Communications Server 2007 provides enhanced presence information, meaning that users can not only see whether someone is currently online but also see their calendar information stored in Microsoft Exchange Server 2003 e-mail messaging and collaboration software. They can use this information to determine the best channel for contacting them: instant messaging, e-mail, voice-over Internet Protocol (VoIP) calls, or audio, video, and Web conferencing.

This move provides the Volvo Group with many new unified communications capabilities; all focused on making employees more efficient and further reducing environmental impacts. Volvo IT also deployed Web conferencing via Office Communications Server 2007 as a replacement for NetMeeting. The Web conferencing capabilities in Office Communications Server 2007 will eventually replace the Office Live Meeting hosted service as well.

Volvo employees access these capabilities through Office Communicator 2007—the preferred client for Office Communications Server. Office Communicator provides a single user interface for employees to access voice, instant messaging, presence, and conferencing capabilities. The Volvo Group takes advantage of unified communications technologies throughout the product life cycle to increase efficiency and reduce the company’s environmental impact.

Global Design Teams

With large design centers in Sweden, France, Japan, Brazil, Korea, India, China, and the United States, the Volvo Group has intense needs for collaboration. Increasing demands for new trucks, power trains, and other transport solutions that excel in terms of safety, quality, and environmental care provide the basis to exploit unified communications technologies.

Projects are often shared among the design centers so that progress can continue around the clock. Designers use the instant messaging capabilities in Office Communications Server 2007 to update their counterparts on daily progress. They can choose to elevate the conversation to an audio conference or Web conference in Office Live Meeting for more detailed conversations and to support regular design reviews.

Implementing the Volvo Production System

The company is deploying Volvo Production System at all of the global manufacturing sites. This initiative is designed to improve manufacturing efficiency by measuring, analyzing, and improving business processes in a structured manner. Continuous improvement is at the heart of every activity and requires frequent communications between the 19 countries in which the Volvo Group has production facilities. Unified communications technologies are used to share best practices between sites. A team that develops a new energy-efficient process will host a meeting to share the innovation with the other sites. Office Live Meeting enables the team to thoroughly describe the new process and even show a video if necessary. The meetings are typically recorded so that teams in distant time zones can still benefit from the knowledge.

Driver Training

Unified communications helps reduce the amount of resources spent on traveling throughout the organization. One example is in the area of driver development. Volvo Trucks provides driver development based on customer demand. Drivers are eager to know how to drive trucks in a more efficient way. Furthermore, there is a European directive which requires drivers to take certain trainings on a continuous basis. To meet this growing demand, Volvo Trucks has more than 200

driver-development trainers throughout Europe. These trainers must communicate frequently to exchange best practices and collaborate on new courses. Unified Communications technologies help to facilitate the development of course materials among this distributed group by enabling more frequent and effective communications. Impromptu conversations through instant messaging chats replace phone calls. Deep discussions through Web conferencing replace in-person meetings that previously required travel.

Solution Details

The upgrade to Office Communications Server 2007 required 17 new servers. All of the servers are deployed at the company's data center in Gothenburg, Sweden. The data center uses CO2 neutral energy and utilizes cooling water from a nearby river. The cooling water system even helps improve maritime life in the river by increasing the oxygen levels in the water through increased water flow.

This Office Communications Server configuration provides separate servers to handle audio and video conferencing, Web conferencing, and instant messaging and presence. Volvo IT used two servers in each of these roles for added reliability, as well as a Microsoft SQL Server® 2005 data management software for the backend database. External communications are handled by Edge servers, which Volvo deployed in the Edge Distributed configuration with one server handling audio and video conferencing and one server handling instant messaging, presence, and Web Conferencing. The company uses additional servers for Quality of Experience (QoE) monitoring and Archiving. Users have had access to Office Communications Server 2007 since May 2008 and are in the process of transitioning from NetMeeting. As of September 2008, about 30 percent of the 75,000 Web conferences held each month use Office Live

Meeting. In 2009, Volvo IT expects to stop using the servers that power NetMeeting.

Benefits

Office Communications Server 2007, Office Communicator 2007, and Office Live Meeting help provide the Volvo Group with a fully integrated environment for collaboration globally. In addition to helping Volvo reduce its environmental impact, Volvo IT expects that its investment in unified communications will generate a substantial return on investment.

Environmental Impact

Volvo Group employees participate in more than 75,000 Web conferences every month. This number has increased recently after the company issued a directive to further increase concern for environmental care as well as reduce costs by cutting travel. There are estimates that 20 percent of these meetings result in at least one person saving on travel. For air travel alone calculations indicate that more than 900 metric tons of CO2 are saved every month. Users who are able to avoid driving to meetings deliver additional environmental benefits.

Reduced Costs

In addition to supporting environmental sustainability efforts by minimizing the need for travel, the Volvo Group has reduced the cost of traditional calls between international offices and the need for different external conferencing services. During the first five months after deployment, users have participated in Web and audio conferences, totaling more than 34,000 hours. Although it is too early to determine the savings, transferring this number of phone calls into the corporate IP network indicates a significant reduction in phone and audio conference service charges.

Live Meeting and NetMeeting have also led to a significant reduction in business travel. Overall, the organization avoids thousands of

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roundtrip flights each month. The Volvo Group does not disclose data on the average cost per trip, but a reduction in travel produces significant costs savings and helps Volvo Group employees maintain a better balance between work and personal time.

Microsoft Office System

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