

# Johns Manville Slovakia implemented the first real IP telephony on a virtual platform

## Company

Johns Manville Slovakia, a.s.

## Sector

production and processing of glass fibres

## Number of employees

900

## Requirement

- \* migration of traditional telephone exchange to a new modern platform
- \* reliable communications through solution redundancy
- \* new voicemail service solution - VoiceMail and automatic call routing
- \* upgrade of the fax solution 2Ring NetFAX to a newer version

## Solution

- \* PGradual migration of the old telephone system to the latest Cisco IP telephony version 8.5 without restricting the manufacturing plant's operation

- \* redundancy at the hardware and application levels
- \* virtualization solution using the VMWare vSphere platform
- \* deployment of the Cisco Unified Communications family of products for intelligent call routing and voicemail service
- \* upgrade of the existing fax solution 2Ring NetFAX to a newer version

## Results

- \* a stable and reliable communication environment and a high level of protection against communication failures due to the redundancy of the whole solution.

- \* The latest version of Cisco Unified Communications Manager 8.5 supporting a wider range of end communication devices, new product lines of phones, mobility, video, SIP protocol and more.
- \* An innovative IP telephony solution on a virtual platform enabling the coexistence of up to four Cisco Unified virtual servers on one physical hardware, which is prepared for the implementation of further applications from the UC family of products to ensure higher communication efficiency and user comfort.

## Client's conception

Johns Manville Slovakia is the biggest European manufacturing facility of the Johns Manville worldwide group. It deals with the production and processing of glass fibres and employs nearly 900 people at its facility in Trnava. Given the size and nature of the facility, it really needs reliable communication not only with the external environment, but also within the company. The original telephone exchange was approaching the end of its lifetime, and it no longer met the facility's high demands for reliability. For the client, the risk of voice and fax communication failures was unacceptable, especially for departments like Sales and Logistics for which maintaining smooth communication is crucial to the company's operations. Besides eliminating this risk, our client Johns Manville decided to expand its communication system with new services such as voicemail and an interactive voice system.



*„I cooperated with this IT team for the first time in 1995 on a completely different project, and even then the cooperation between JM Slovakia and Soitron (at that time Tronet) was very congenial. Later on, I assumed responsibility for Cisco Voice in the company, and I was very pleased when this project started so I could work with the JM team again.“*

Peter Mihel,  
Senior System Engineer, Soitron



*„While modernizing its data center, JM Slovakia chose virtualization technology. This what was consistent with the solution we offered. Implementation into the customer's virtual environment represents the most interesting part of the project from my point of view. The future possibility to*

*build other UC applications at current infrastructure, which will bring higher effectivity of communication, team collaboration and users mobility is also very important“.*

Peter Benko,  
Senior Product Manager, Soitron

### Used technologies

- \* Cisco Unified Communications Manager 8.5
- \* Cisco Unified Computing System servers - UCS-C200M2
- \* IP phones Cisco line 6921, 7962, 7975, 7937
- \* Cisco Unified Contact Center Express 8.5
- \* Cisco Unity Connection 8.5
- \* Voice gateways - Cisco ISR routers 2811
- \* Cisco Analog voice gateways – VG224

The client turned to our company with a request to solve the situation for two fundamental reasons. The first reason is our very good knowledge of the client's environment due to our above standard cooperation on joint IT projects for nearly 20 years. Another equally important reason is our long-term experience with the Unified Communications family of products and with IP telephony, as proven by our Gold certified partnership with Cisco as well as other designations such as Cisco Advanced Unified Communications Specialization and Cisco Unified Contact Center Enterprise Authorized Technology Provider.

The IT department of Johns Manville was acquainted with the advantages of IP telephony in advance since, in addition to its original solution of classic telephony, a pilot Cisco IP telephony solution had been in operation. Given the already built Cisco network infrastructure and a previously successful joint project of data center virtualization, our solution of complete migration to Cisco IP telephony was the obvious choice.

### Project solution

The offered solution is based on the homogeneous environment of the Cisco Unified Communications family. It provides redundancy at the hardware and application levels ensuring the high reliability and availability of the whole solution. The client's IP telephony using Cisco Unified Communications Manager version 8.5 has been extended with Unified Contact Center Express server, which provides intelligent call routing services (Intelligent Voice Response - IVR) and a server for the additional service of voicemail - Cisco Unity Connection (CUC). This application has been requested mainly because of the need for communication with colleagues and customers from different time zones. The basis of the solution is a pair of Cisco Unified Computing System (UCS) servers which we proposed along with virtualization on the VMware vSphere platform. These models meet the operational demands of up to



1000 users and the coexistence of up to 4 virtual servers on one physical device. The reasons for such a unique implementation in a complicated environment of voice applications are both good customer experience with virtualization and the possibility of expanding IP telephony services in the future without any additional costs for new hardware. All other services can be installed as virtual servers running on this shared hardware.

During the implementation, it was necessary to provide 250 users with IP phones and integrate them into the new solution, but also to overcome the challenge of connecting more than 100 analog devices in manufacturing facilities. In order to ensure the trouble-free migration of the old hybrid telephone system to a single IP telephone platform, we proposed a gradual transition involving several phases. Linking the new Cisco solution with the old telephone environment provided the client with the possibility of gradually transitioning users at its own pace and prevented any failures from threatening the company's operations.

Throughout the whole process of implementing the new telephony, both end users and new system administrators were trained. The client was even able to execute the final stage – the distribution and connection of telephones and their configuration in individual manufacturing plants – on its own thanks to the knowledge and reliable work of its IT specialists.

As part of the project, we proposed an upgrade of the existing fax solution 2Ring NetFAX and its transfer to a virtual environment. The new server version offers greater flexibility in fax services by unifying faxing with the email channel so that it is now possible to fax directly from the company's ERP system. The new NetFAX server also enables employees to work with faxes from any location with access to the Internet.

### Outcomes

Complete solution redundancy through Cisco UCS servers has ensured the stability and reliability of the communication environment in the entire manufacturing facility. The innovative IP telephony solution on a virtual platform has enabled the coexistence of four Cisco Unified Communications virtual servers on one physical hardware which is ready for the implementation of additional applications from the UC family for more efficient communication and mobility.

The new version of Cisco Unified Communications Manager 8.5 provides a wider range of supported end-devices, the utilization of new IP phones, mobility and new audio and video codecs. Other benefits are the direct integration with Cisco TelePresence videoconferencing solutions and extended support of the SIP protocol. In the future, using SIP to connect to telecom operators can help Johns Manville reduce the total cost of telephoning. It will be possible to further improve communication effectiveness as well as teamwork within the company through the expansion of the new solution with services such as Unified Presence or Webex.

The Johns Manville plant in Trnava, Slovakia, became the first within the Johns Manville global group to implement this unique, effective Cisco IP telephony solution on the VMWare virtual platform. The Slovak plant thus became not only a technological inspiration for other plants in the Johns Manville Group, but also for the parent company itself.

#### Johns Manville

The American company Johns Manville was founded in 1858 and is a leading manufacturer of construction and industrial products of high quality, currently holding leadership positions in all its markets. The company has 7000 employees in 40 manufacturing facilities in America, Europe and Asia. Johns Manville is part of the Berkshire Hathaway Group. The Johns Manville Slovakia joint stock company in Trnava is the biggest European manufacturing facility of the Group; it produces and processes glass fibre. The company employs about 900 people.

#### Soitron

Our company has long been active in the European market as a systems integrator in the areas of IT Infrastructure, Unified Communications, Customer Interaction, Content Management and Security. For more than 20 years, we have been helping companies such as Tatra banka, Slovenská sporiteľňa, Orange, E-On, J&T, Hewlett Packard and many others to grow their business. Our philosophy is to continue moving forward; that makes us the leader in implementing unique technologies and innovative solutions. This is reflected in awards like IT Company of the Year 2010 and Cisco Enterprise Partner of the Year 2010, and inclusion among the Big Five in the Deloitte Technology Fast 50 (2011). Currently we have more than 500 international experts working for us, including professional teams in the Czech Republic and Romania.

For more information, please visit [www.soitron.sk](http://www.soitron.sk).