

Helping Ensure Safe and Reliable BYOD Collaboration



Austrian radio station improves creative abilities and production quality with Cisco ISE and BYOD Smart Solution

EXECUTIVE SUMMARY

Customer Name: Radio Max

Industry: Media

Location: Austria

Number of Employees: 100

Challenge

- Help enable staff to collaborate effectively and securely on any device
- Eliminate production problems caused by poor network performance
- Support bandwidth-hungry new business areas such as multimedia

Solution

- Next-generation identity and access control policy platform
- Cisco Borderless Network with Cisco Identity Services Engine and bring-your-own-device (BYOD) Smart Solution

Results

- Ability to manage larger, more complex networks with same IT resources
- Support for company growth while simultaneously improving network availability, security, and user experience
- Reliable foundation for supporting new business models

Challenge

The German REWE Group runs one of Europe's largest retail chains. When shoppers visit its supermarkets, they hear in-store broadcasts live from Radio Max. An REWE subsidiary, Radio Max is present at the group's about 2900 Billa, Bipa, Penny, and Merkur outlets in Austria and Italy. It also streams advertising and music tracks via the Internet to stores in the Czech Republic, Slovakia, Bulgaria, Romania, Ukraine, and Russia.

With 10 broadcast and two production studios, Radio Max is one of Europe's largest radio stations. To support ambitious expansion plans, it recently moved to new premises in Vienna. The relocation provided the ideal opportunity to review its future IT requirements. "Our previous network had no failsafe procedures and was running at full capacity," says Markus Stangl, technical coordinator and deputy head of the technical division at Radio Max. "We wanted a flexible platform that would support growth, along with bandwidth-hungry new business areas such as multimedia."

Network security was another big concern. Most of the station's 100 employees are freelancers and, although they visit the studios regularly to record and edit programs, they rely on remote access to Radio Max tools and information. Visitors and participants in the station's Media Academy training seminars have similar needs.

"Before, we used two multi-vendor networks, both of which were unable to offer user authentication or profiling capabilities," says Stangl. "Staff could connect to the network with a notebook at any time and we had no control. There was no data security, and user experience was lousy because the components were old."

Solution

Having previously called on Cisco to help address network performance issues, the company was interested to learn more about Cisco® Borderless Network architecture. The decision to adopt this validated design was affirmed when it received endorsements from other Cisco broadcast industry customers.



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Markus Stangl
Technical Coordinator and Deputy Head of
Technical Division
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Working with local service provider Diamond Informatics, Radio Max implemented a new infrastructure, which includes 14 virtual local area networks (VLANs), providing separate domains for audio streams, video streams, office and administration, editors, and guests.

The overarching Cisco Borderless Network design consists of Cisco Catalyst® 4500 and 6500 Series Switches and wireless LANs powered by Cisco Aironet® 3500 Series Wireless Access Points and 5508 Series Wireless Controllers. At the center of the solution is the Cisco Identity Services Engine (ISE), unifying security management across all domains: wired, wireless, and remote access.

Part of the Cisco TrustSec® architecture, ISE is a core capability within the Cisco bring-your-own-device (BYOD) Smart Solution. It combines information about the roles and privileges of users, their device profile and posture, their location (VPN, trusted or untrusted networks), and the service request. This policy-based approach then automatically determines who gets what access, from where, and on what device.

“We use two ISEs for reliability, and their job is to ensure network security and stability by profiling and managing fallbacks,” says Stangl. “For example, if one of our editors wants to use a mobile device, they have to get in touch with the administrator, who then connects that device to the network. Members of staff have permanent connections, but ISE also offers a portal for guests. They identify themselves via a web interface, but the network connection is only granted for a specific time.”

Seven VLANs run on the fixed network, while seven wireless VLANs with audio systems remain partitioned from the normal office infrastructure. ISE profiles the end-point devices, and then direct users to the appropriate VLAN.

Results

ISE dynamic profiling has cut down administrative effort, easing the IT management burden. Even though the new network is larger and more complex than its predecessor, the Radio Max IT team can still manage with the same resources. In particular, arranging guest access is faster and easier.

Radio Max has not implemented any formal policy for BYOD, but uses ISE to support staff preferring to use their own mobile phone, laptop, or tablet. “ISE profiling makes it really easy to connect devices,” says Stangl. “To enable a device, you simply include a media access control (MAC) address, assign a profile, and push it into the appropriate network.” Moreover, if guests want to use their own devices, it’s not a security issue because they are directed to the guest VLAN, which is totally separate from all other internal networks.

“Although we haven’t quantified it, since implementing ISE we know that network availability has increased because there has been no downtime,” says Stangl. “Parallel to this, performance has significantly improved despite the growing number of Radio Max employees, which increased by 10 percent in the last six months.”

In addition, the company’s ISE-enabled borderless network is making a positive contribution to the business in other ways. “ISE holds everything together,” says Stangl. “Access time is a lot faster, and there are fewer mistakes in the studios, which improves the quality of our products. It also means we can be more flexible in our reaction to customer wishes. If they want multimedia solutions, we can offer them, while, in future, we plan to extend our business model to include video content.”



Next Steps

A future enhancement could be to switch the VLANs to Cisco TrustSec, which will help enable Cisco ISE firewall implementation, further reducing administrative burden for Radio Max by using security groups instead of IP addresses.

For More Information

To learn more about Cisco Borderless Networks, please go to www.cisco.com/go/borderless

For further information on Cisco Identity Services Engine, please go to www.cisco.com/go/ise

Product List

Routing and Switching

- Cisco Catalyst 4500 and 6500 Series Switches

Management

- Cisco Identity Services Engine
- Cisco 5508 Series Wireless Controller

Wireless

- Cisco Aironet 3500 Series Wireless Access Points



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