

CASE STUDY



SWITZERLAND



MANUFACTURING

EMPOWERING MANUFACTURING EXCELLENCE THROUGH GLOBAL PLATFORM FOR SMART WORKING

maxon

maxon is a developer and manufacturer of high-precision drive systems. maxon's operations are as precise as its manufacturing output. The business wants to ensure its global workforce has access to the latest collaboration tools, with the ability to work remotely and form dynamic, cross-border project teams. Today, its Aruba architecture enables half of all employees to work using Wi-Fi, it supports digitisation of production and logistics, and reduces network management burden, freeing time to explore innovation.

maxon is a manufacturer of high-precision drive systems. Few people know the name, but most will appreciate maxon's expertise: maxon products can be found in cardiac pumps, racing cars, camera lenses and NASA's Mars rover.

Based in Switzerland, the company has more than 3,000 employees and revenues of CHF 568 million in 2019. Family-owned, maxon has operations in more than 30 countries, including production facilities in China, France, Germany, Hungary, the Netherlands, South Korea, the United Kingdom and the United States.

In a global market, the business must be innovative; more than eight per cent of annual revenues are invested in research and development.

As maxon's manufacturing output is precise, so are most of its operations. The business wants to ensure its global workforce has access to latest collaboration tools, with the ability to work remotely and form dynamic, cross-border project teams.

AN UMBRELLA UNDER WHICH TO MANAGE THE ENTIRE NETWORK

The network needed to support this style of work must be adaptive, secure and easy to manage, says Christian Kaelin, Head of ICT Services, maxon. The group wants centralised control and visibility but to retain the ability to scale things up quickly at a local level when needed.

"We operate from 30 locations around the world and some locations are growing fast," Kaelin explains. "On the network side, we only have a small team and everything is managed from here."

The Aruba architecture delivers a unified network infrastructure, from access points to switches and uncompromising protection and security orchestration together with supervision and oversight. Other vendors were considered in proofs

REQUIREMENTS

- Provide seamless connectivity across all office locations
- Simplify network management across 30 global locations
- Establish a platform for future digital innovation, optimising network usage

SOLUTION

- DC Core to Edge and Campus Access Switches
- Wi-Fi 5 & 6 wireless Access Points
- Mobility Controllers
- Mobility Conductor
- AirWave Network Management
- ClearPass Policy Manager and NAC
- Dynamic role-based VLAN assignment orchestration [colourless ports]

OUTCOMES

- Promotes mobile working among workforce, with half of all employees now working off Wi-Fi
- Supports digitisation of production and logistics
- Reduces network management burden, freeing time to explore innovation
- Enables maxon to extend corporate network, securely, to remote locations

of concept, says Kaelin, but only Aruba could provide the vital management layer.

"We're a long-time HPE network customer and we favour a single-vendor strategy, so Aruba was always in a strong position," he admits. "But Aruba ClearPass and Aruba AirWave really made the difference. That gave us an umbrella under which to manage everything."

The implementation was designed and managed by Softec, a local Aruba partner.

SUPPORTING MOBILITY AND DIGITISATION

The engagement enables campus-wide wireless access at every maxon location. At the headquarters this means unobtrusive mobility for employees: there are no DECT phones, VoIP and Office 365 are standard, and half of the 1,300 people working there have no fixed desk. In the factories and logistics centres, handheld scanners connected to the network record the production process.



“We are an engineering company. There is no shortage of people coming up with new ideas. With Aruba, we have given them a high-performance network. They will figure out how to use it best.”

CHRISTIAN KAELIN

Head of ICT Services, maxon

“We digitise more and more processes in the production environment,” says Kaelin, “this makes us more efficient and helps us to deliver best quality to our customers.”

Today, all Client-Ports are authenticated with ClearPass. Dynamic VLAN/Role Assignment is used, without tunneling. All wired-ports and wireless-SSIDs authenticated over ClearPass.

ONBOARDING AND MANAGEMENT

Kaelin says the use of ClearPass, in particular, simplifies and consolidates the network.

The business is exploring IoT in the production and logistic environments: “Separating different networks for different usages behind ClearPass is far simpler than spreading ten different SSIDs around the world,” he explains.

Likewise, maxon uses ClearPass Policy Manager to separate users into different networks, with different policies for each group. “It’s a starting point,” says Kaelin.

He praises the ability of ClearPass to integrate with third parties. “We’re using Microsoft Intune to onboard the Zebra scanners and corporate and personal mobile devices, authenticated on ClearPass. It means there is no manual intervention need, users can automatically access the network worldwide.”

A PLATFORM FOR CONTINUED EXPERIMENTATION

More importantly, the Aruba Edge Services architecture enables maxon to experiment with new network approach-

es. Besides ensuring the network is fit for purpose, the job of the maxon network team is to explore new possibilities.

“We are an engineering company,” says Kaelin. “There is no shortage of people coming up with new ideas. We have given them a high-performance network. They will figure out how to use it best.”

With a view to further simplifying management and working alongside Softec, the team is looking at Dynamic Segmentation and Aruba Central. “We’re looking at PoC with Central as a means to improve how we manage our branch offices,” says Kaelin. “We want to be faster and more efficient in the way we manage remote locations.”

Aruba Remote Access Points are already being used to extend the maxon network to hotels hosting staff visiting the head office.



“We’ve used the RAPs in quickly setting up a new office in Paris,” explains Thomas Rossacher, a maxon network engineer. “They plug into the local Wi-Fi and have secure access to the maxon network. ClearPass enables us to extend the corporate security policies to the remote location.”

With home working now an established practice, Kaelin says extending the network, securely, to remote locations has to be a viable long-term option.

“It’s hard to say for certain how things will be in a year’s time but we have to imagine that travelling to and working from an office will not be a preferred option for many. Aruba gives us a platform to accommodate a changeable future.”