Founded more than a century ago, the family-owned company Viessmann, one of the world’s leading providers of holistic energy and climate solutions, has been driving the cultural shift towards becoming a “Next Generation Family Business” for years. This is reflected everywhere in the company: With Viessmann, digital technology is enabling people all over the world to enjoy a comfortably air-conditioned, comfortable home. The heat generator connects to the Internet with the help of the Vitoconnect 100 system. In this way it can be controlled by the plant operator via an app or maintained online by a specialist tradesman.

At the same time, plant operators can save energy, conserve resources and protect our climate. The company has also incorporated its trade partners into the strategy by launching digital services that enable them to communicate with the customer digitally, at every stage, from making the initial contact to planning and installation.

This change also has an impact on the way the company is organised. Its core business of heating systems and its development of digital products as well as services are now bundled together in one “Climate Solutions” unit. The group, which employs around 12,100 people worldwide, also works in the start-up sector, developing new business models.

A POWERFUL NETWORK PROVIDES THE BACKBONE FOR INTERNAL DIGITISATION

New strategies and business models won’t get you anywhere if they aren’t accompanied by a shift in the corporate culture. “At Viessmann, our staff have a unique opportunity to help shape the way future generations will live,” says Co-CEO Max Viessmann. “When it comes to competing for the best brains in the business, the culture we have here at Viessmann is a factor that really sets us apart. Our company has a future-oriented corporate culture throughout the company, including its core business, creating space for creativity and innovation and the digitisation of products and processes.”

“But this digitization of our internal processes is only possible with a powerful network that our employees can access from any-
into Industry 4.0 concepts in future. For example, Viessmann is currently looking at driverless transport and intelligent workpiece carrier systems that store product information and production data, which can then be passed on from one station to the next. Even production tools such as electronic torque wrenches could transmit their data wirelessly in future.

The existing Wi-Fi infrastructure had no more capacity for expansion
For Viessmann, this meant that a new mobile-first architecture had to be built as the existing infrastructure, which had previously only been seen as an add-on to the physical network, was beginning to show its age. "The number of mobile devices in the offices and manufacturing has grown rapidly over recent years, so we needed a flexible management system that would enable us to control network access for the devices centrally," remembers Jordan. "The existing Wi-Fi infrastructure had no capacity left for expansion, so we needed to replace it with a new solution."

But the project that Jordan put together with colleagues from the network technology and telecommunications teams proved to be anything but simple. After all, the group has 23 production companies in twelve countries, sales companies and representatives in 74 countries and 120 sales subsidiaries around the world.

It shortlisted three potential vendors to work with, one of which was Aruba. Jordan and his colleagues travelled to the Aruba Demo Center in Bad Homburg where they got the chance to take a closer look at how voice-over-Wi-Fi telephony and mobile data capture devices for manufacturing behaved in an Aruba infrastructure using a variety of test scenarios. These tests yielded very promising results, so promising in fact, that a proof of concept with multiple mobility controllers and around 50 access points was installed in the new Technology Centre at Viessmann's headquarters in Allendorf.

ClearPass und AirWave made all the difference
"On the technological side, having the option to use Aruba ClearPass for network access controls and AirWave for network management was a key part of our decision. With its integrated, context-based policy engine, ClearPass ensures that we have control over all of the devices on our Wi-Fi network at all times. It therefore provides precisely the support we need now and will need in the future. And we were impressed with how AirWave manages network administration right from the start," says Jordan. "I would also like to highlight the excellent sales assistance and professional technical support we received throughout the entire evaluation phase. The whole team was incredibly dedicated, particularly in the critical area of voice-over-Wi-Fi telephony. And during the migration from the old infrastructure to the new, the support they provided was exemplary."

Today, the 4,500 staff at the headquarters in Allendorf are served by two Aruba Mobility Controllers and 450 Aruba access points. At the company’s production site in Faulquemont, France, where a further 1,000 people are employed, there are two more Aruba Mobility Controllers and 135 Aruba access points. The rest of Viessmann sites around the world are connected via Aruba Instant Access Points (IAPs). In total, the company will install more than 850 IAPs across the 180 sites it operates worldwide, bringing the overall total to some 1,400 access points.

ARUBA VIRTUAL MOBILITY MASTER SOFTWARE ENSURES SERVICES RUN UNINTERRUPTED DURING UPDATES

The network administrators at Viessmann also appreciate the value of AirWave for monitoring purposes. "With AirWave, we now know what the connection quality from a client to an access point is like at all times, and how it has been in the past. This provides us with a wealth of information if we experience connection and performance problems," explains Jordan.

Aruba switches provide even greater transparency
Viessmann is so satisfied with the new Wi-Fi infrastructure from Aruba that the two companies are already getting to work on their next joint project: replacing the access switches. "The old switches had come to the end of their lifecycle and we wanted to convert to 10 gigabit technology in order to provide more bandwidth for all kinds of applications," again, the company looked at a number of different providers for the project, with Aruba amongst those submitting an offer.

But a long telephone call with an Aruba customer that had been using the Aruba switches for a long time helped us make the decision. "We could clear up all of the concerns the administrators had," recalls Jordan, "both in terms of network stability and of service requests and administration." Around 900 Aruba-2930F Campus Access switches will now be installed at Viessmann sites around the world over the next two to three years. "This all-Aruba solution offers a key advantage for our administrators in that it provides us with a standardised view of the clients on the access points and on the switch ports. This increases transparency in the mobile network considerably," explains Jordan.

Wi-Fi network enables mobile working across the entire campus
Elmar Jordan believes that the mobile-first architecture will become increasingly important for Viessmann over time. "Wi-Fi used to be a supplementary solution for us, today it has equal standing to LAN. However, our digitisation strategy means that it will soon become our most important network technology, and Aruba will play a key role in this transformation," he explains. "We are currently in talks with Aruba about how we can get 80% of our devices onto the Wi-Fi network. We want to make it possible for our staff to work wherever they want to on our campus, including outdoors and in the canteen."