

CASE STUDY



NETHERLANDS



MANUFACTURING

# MACHINE MANUFACTURER INNOVATES AND STRENGTHENS GLOBAL PRODUCTIVITY WITH ROBUST NETWORK

# AWL.

Ensuring global productivity

Upgrade network security and control to strengthen global collaboration and enable workplace mobility.



AWL is a huge presence at the cutting edge of global manufacturing. Yet few of us will be familiar with the name.

The Dutch company provides solutions to automate and digitise industrial processes in factories and warehouses all around the world. AWL robots help build car parts, assemble furniture and pick and pack orders in vast warehouses. These robots produce the commonplace but their design and operation is highly classified.

### PROTECTING CRITICAL INTELLECTUAL PROPERTY

AWL-Techniek has 600 employees worldwide but the centre of its operation remains in Harderwijk, east of Amsterdam, where the business was founded in 1993. In a global marketplace, protecting the intellectual copyright of its designs is critical.

“We have operations in China, the Czech Republic, Mexico and the United States,” says Reint Cornegoor, IT Project Manager, AWL, “but all the data, whether on engineering, ERP, PLM or testing, is stored in the Netherlands.”

The challenge for AWL is to create a workplace that is collaborative and dynamic, yet secure and controlled. It wants its engineering teams in the Netherlands to work on live projects with colleagues in China but it also needs rigorous segmentation of network access.

In the Dutch facility, a total of 300 engineers and power users rely on the Wi-Fi to access very demanding applications, most often through laptops and on the move. Engineers may be reprogramming robots on-the-fly, while standing next to them on a production line. Network performance and security are both critical to them.



### REQUIREMENTS

- Centrally manage and secure high-performance unified network
- Establish global security controls
- Allow network control and expertise to reside in-house

### SOLUTION

- High-density Wi-Fi 6 Access Points (AP-515)
- Aruba 7205 Mobility Controllers (two per site)
- Virtual Mobility Conductor
- Aruba 8325 Core switches (four – 2/VSX per site)
- Aruba 2930M Access Switches (stacks)
- ClearPass Policy Manager with OnBoard
- NetEdit VM
- AirWave Network Management

### OUTCOMES

- Strengthens segmentation for different users, protecting intellectual property
- Simplifies network management, with clear visibility and global security policies
- Reduces downtime with in-flight updates
- Enables secure access to workplace productivity applications for global users
- Establishes resilient, future-ready infrastructure with the intelligence, scalability and intuitive tool sets to accommodate future needs

“Our engineers can be working on CAD applications with heavy data sets, alongside prototypes. All that data will be stored in the Netherlands. We don’t share data through our applications.”

### TAKING EXPERT ADVICE, OWNING THE IMPLEMENTATION

Aruba’s architecture sits at the heart of the AWL network. ClearPass Policy Manager establishes secure network access; AirWave simplifies network management with clear visibility into the wired and wireless network environment,



“Aruba ClearPass enables us to extend security policies across the whole environment. We can establish and manage global policy.”

**REINT CORNEGOOR**

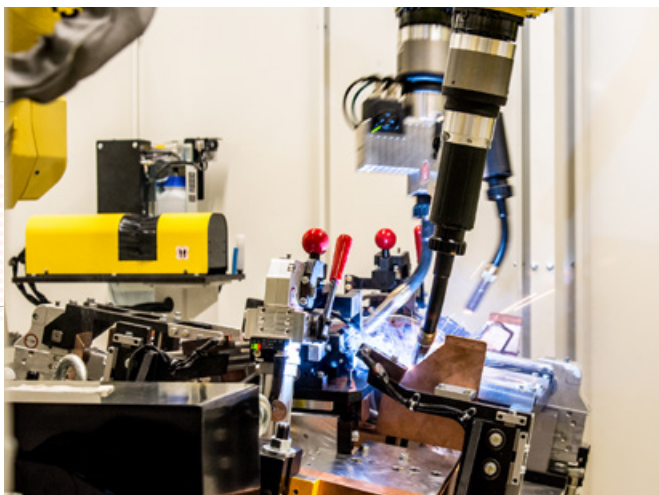
IT Project Manager, AWL

while NetEdit offers critical AI-enabled change management and automation in the core network.

With the business expanding, the group opened a new head office and second data centre – keeping the old building for extra production capacity. The new site now features 80 Aruba Wi-Fi 6 access points. There is a virtual cluster of two pairs of Aruba 8325 core switches connecting the two data centres on two redundant 100Gb links, feeding the server and storage layers. The campus access comprises stacks of Aruba 2930M switches providing full redundancy and high availability for all building areas. The Wi-Fi is controlled by a redundant pair of Aruba 7205 mobility controllers per building and orchestrated by a virtual mobility conductor.

The access and Wi-Fi layers are replicated in all remote locations and help extend the management and security policies in a consistent and unified manner.

The architecture was proposed and designed by Wentzo, an Aruba partner and long-time supplier of IT services to



AWL. The engagement included three evenings of training to upskill AWL network managers, as well as ongoing participation in Aruba’s Airheads community.

“We relied entirely on Wentzo’s advice,” says Cornegoor. “Our focus was on ensuring we could then implement and manage the solution. In particular, we needed to be confident that we could master the functionality of ClearPass. I’m happy to listen to specialist expertise but ultimately the control has to stay with us.”

### Ensuring security and oversight

The architecture provides a unified, secure, standards-based and performant network with low-touch management.

“ClearPass enables us to extend security policies across the whole environment,” says Cornegoor. “We can define a global policy and easily implement and enforce it.”

It means AWL can tightly govern different internal and external user profiles and VLANs, enabling it to secure access for project teams, third-party suppliers or customers alike. Strategically, AWL is defining a journey towards the predictive maintenance of its robotics and to have the ability to service its hardware on-site at a customer’s factory. Secure and segmented network access paves the way for this.

Arno Rook, Senior Systems Engineer at AWL, says the process of becoming an expert in ClearPass took a little time but was necessary and worth it: “There is a wealth of options and that can seem overwhelming. But once we understood the logic, it became very simple to create the policies we need.”

Arno and his team have the ongoing support of Wentzo and the Aruba teams but the Aruba Airheads community will also be an invaluable source of almost real-time advice and best practices.

### SIMPLIFYING SUPPORT AND MAINTAINING CONTROL

For those working from the new head office, the work-day is Wi-Fi only. “Wi-Fi 6 works like a charm,” says Rook. “There are no DECT phones in the new building, your day can be entirely wireless.”



ClearPass enables AWL to assign separate VLANs for users needing to connect direct to the servers, such as engineers or designers working on sensitive projects. It is quicker and easier to create a temporary VLAN or to isolate a specific VLAN, Rook adds. Printers are easily onboarded and added to a specific segment and any IoT device can be similarly segmented. Unknown devices or users can be completely secluded from the network.

### LESS DOWNTIME, GREATER PRODUCTIVITY

The result is an environment that is simpler for users to access and for AWL to maintain. There is less downtime and updates are planned in advance. There is workplace mobility for those who want it.

The move to the new head office required minimum effort. Rook and team spent a short weekend configuring the Aruba switches and 400 users, workstations, printers and mobile devices were brought online on day one. What could have taken weeks was instead handled in hours.

“We can do live updates if we want because the Aruba controllers are intelligent enough to hand over devices to other access points before upgrading,” Rook explains. “It means we can do in-flight updates in normal office hours and no one even notices it.”



The network will continue to evolve. AWL is looking at further segmentation, with the ability to prioritise bandwidth and security settings for different applications and users, or event device. The plan is to extend Aruba Wi-Fi 6 into the old head office building, enabling the integration of wireless scanners, 3D printers and sensors.

For now, AWL has the desired level of in-house control, Cornegoor adds: “What I don’t want is a situation where systems are updated automatically by service providers. We know best when updates should be implemented, timed to cause minimum disruption. The Aruba architecture empowers us to define and manage our own destiny. What we need from Wentzo and Aruba is a look ahead to future technology.”