

CASE STUDY



MANUFACTURING

STEEL GIANT STRENGTHENS GLOBAL COLLABORATION THROUGH TRANSFORMATIVE SD-BRANCH PROJECT



Deploy Aruba SD-WAN to reduce the cost of connectivity across 70 European recycling plants, factories and offices and be quicker and more consistent in deploying new applications.



CELSA Group is a Spanish industrial giant. The business, based in Barcelona, contributes nearly 1.2% of the country's industrial GDP. Its heritage is in steel production but its future is in one of the world's most important new business sectors: recycling.

"We are the second largest recycler in Europe," says Manuel Parra López, CTO & Head of IT Architecture at CELSA Group. "We've been active in the 'circular economy' before it was even a phrase. Today, 93% of our production comes from recycled material."

PURSUING OPPORTUNITY IN THE CIRCULAR ECONOMY

With sustainability a priority for governments and economies worldwide, recycling presents a huge opportunity for CELSA. It now has operations across Europe, recycles metals and is on the hunt for strategic acquisitions.

"We're buying companies across Europe and that requires a connectivity strategy to bring acquisitions on onboard quickly and efficiently," explains Parra López.

CELSA wants to reduce the cost of connectivity of its international network, 70 offices, recycling plants and factories across Europe, and be quicker and more consistent in deploying new business applications.

In a growing and increasingly dispersed organisation, MPLS connectivity had proved costly, slow to update and wasteful – requiring a primary line and an expensive back-up circuit. With highly prized industrial IP being moved around the business, Parra López says the security and reliability of



REQUIREMENTS

- Reduce cost of connectivity between factories and branch offices
- Simplify management and shorten issue resolution times
- Improve user experience of cloud-based applications

SOLUTION

- Aruba Wi-Fi 6 Access Points
- Aruba CX 6400 series Campus Core switches
- Aruba CX 6300 series Campus Aggregation switches
- Aruba CX 6200 series Campus Access switches
- Aruba 2930 & 3810 series Campus Access switches
- Aruba Location Services
- Aruba SD-Branch & SD-WAN architecture
- Aruba 7000 Series Headend Gateways / VPNC
- Aruba 9004 Branch Gateways
- Aruba Central for SD-WAN and network management

OUTCOMES

- Allows move from MPLS to high performance internet SD-WAN
- Delivers higher performance with 40% cost saving
- Aggregates all available bandwidth to optimise user experience
- Supports easier access to cloud-based applications and collaboration tools
- Offers secure, local internet breakout
- Establishes consistent connectivity between sites, with transparent, granular and easily manageable SLAs

the network is critical: "Cost is one of the top priorities and we are conscious of waste. We don't like to be paying for something that is never used."

TRANSFORMING WAN AND BRANCH CONNECTIVITY

The Aruba SD-Branch architecture, with a unified, secure and fully managed infrastructure layer, provides a robust platform for an SD-WAN solution which delivers high-performance local internet breakout. This has transformed



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the way CELSA connects and manages communication and collaboration between its remote locations.

Delivered in two phases, the new architecture combines best-in-class wireless, wired and WAN infrastructure with unified management and zero trust security that includes assurance, orchestration and role-based access control. This optimises performance and minimises operational costs. The SD-WAN connectivity includes Aruba 9004 series Branch Gateways connecting to regional Aruba 7200 series Headend Gateways (VPNC) to establish secure internet breakout between all company locations. The wired infrastructure is built upon Aruba CX and S series switches from core to access. All locations are also increasingly enjoying high-density Wi-Fi 6 wireless connectivity with Aruba indoor and outdoor access points.

The Aruba Central cloud-native platform provides single-pane-of-glass unified infrastructure management, AIOps,



security and reporting services. It consolidates visibility over WLAN, LAN, WAN and VPN services.

“We preferred to have one vendor for WAN, WLAN and LAN. We already had a great relationship with Aruba in Spain and with SIRT, the local partner,” says Parra López. “Given the scale and importance of the project, any choice could be seen as a risk but we were confident in the ability of Aruba to work through issues.”

BRINGING 70 LOCATIONS UNDER MANAGEMENT

The engagement brings 70 international locations under one line of management. It spans production sites with more than 1,000 employees to small site offices, from the UK to Poland to all the Nordic countries. Global network management responsibility resides in Barcelona.

The move was fortuitously timed. Covid-19 has required a drastic reduction in travel between offices. Management meetings that used to take place face-to-face are now comfortably handled via Microsoft Teams. The general direction is towards standard, cloud-based applications.

“With MPLS, it would have been impossible to have the necessary bandwidth without incurring excessive costs,” says Parra López. “We are moving many workloads to the cloud and colleagues need the ability to access files quickly. SD-WAN and the gradual move to an SD-Branch architecture have made a significant impact on our new way of working.”

CELSA uses AWS, Google and Microsoft Azure, and is co-located in Equinix data centres in the UK, France, Spain and Sweden. It is also planning to migrate its SAP environment to S/4HANA.

“Cloud is not necessarily always cheaper than traditional infrastructure but it is more flexible,” says Parra López. “We need that advantage.”

CONTROLLING COSTS TO FUND NEW VENTURES

Consistency and ease of management were the primary objectives, says Parra López, but the impact on cost cannot be discounted: “It has meant we can move all remaining and new locations to the Aruba software-defined architecture.”

CELSA estimates the cost saving to be around 40%. “With MPLS, there are many links in the chain. Different providers have the ‘best’ solution for a particular region. This makes



things complicated and by the time you have addressed any issues and found out what needs to be tweaked along this long chain, you have very likely exploded the costs and missed the SLAs in case of any incidents. So, often we do not fulfil many SLAs on MPLS links," says Parra López.

The cost savings will generate money that can be channelled into new projects.

"With SD-WAN we now have an active-active setup using a high-bandwidth service provider business internet line and a basic line as backup," he says. "We can, however, aggregate and access the bandwidth of the primary and secondary lines which means we're not paying for something we're not using. Both lines are working for us. This is now possible with the software-driven and granularly-managed Aruba architecture."

ACCELERATING INNOVATION AND INDUSTRY 4.0

CELSA is not a heavy user of high-bandwidth applications but Parra López expects this to change. New business initiatives will require the different business units to collaborate and share data.

The business is already experimenting with Industry 4.0 initiatives. It wants to increasingly use video cameras and robots powered by AI and Machine Learning to optimise the triage of recycled materials. Accurately and consistently grading materials will be important in the precise costing of the recycling process. Also, GDPR-compliant facial recognition, for example, can help manage and simplify secure access to facilities. All of these initiatives will require a robust network, flexible resource provisioning and streamlined management.

"It is essential to have a simple and much unified infrastructure," says Parra López. "Aruba Central gives us a clear view



of everything that is happening on the network, from WAN to all the underlying infrastructure, and allows us to manage everything in the same consistent way."

SUPPORTING A MOVE TO A CONSUMPTION-BASED MODEL

The Aruba Edge Services Platform (ESP) aligns well with CELSA's broader IT vision. Where possible, CELSA want to move to a consumption-based, as-a-service model.

"If I need new bandwidth for a project, I only want to pay for what I need and consume. This is where we want to get to with branch connectivity and an SD-WAN architecture. We want a consumption-based model for the infrastructure too. That is a conversation we know we can have with Aruba which is fully aligned with its ESP architecture.

"We have a strong commercial relationship with Aruba, a clear vision of its innovation roadmap and a good working relationship with its partner," he concludes. "We've made our bet with Aruba and we're confident about the future."