

## CASE STUDY

# PORTAVENTURA WORLD OPTIMISES NETWORK TO ADD DIGITAL LAYER TO THEME PARK EXPERIENCE



*Furius Baco* catapults riders along an 850m track, accelerating from 0 to 135kmph in three seconds. Then there is *Dragon Khan*, with eight loops. Or the 76m tall *Shambhala*, or *Hurakan Condor* and its 100m-long free fall.

If rollercoasters are your thing, there are few better places in Europe than PortAventura World, an hour outside of Barcelona in Spain.

### THE NETWORK AS INNOVATION-ENABLER

Rollercoasters are not the only reason visitors flock to PortAventura World. There are three theme parks, a water park, a range of hotels, a campsite, a beach, golf courses, spas, gyms, and several pools. There is also a year-round conference and events business.

The park welcomed more than five million visitors in 2018. Everyone and everything needs to be connected to the network.

“Our network plays a central role in our innovation enablement plans,” says Juan Carlos Delgado, IT & Networking Lead, PortAventura World. “To become a digital business, every aspect of our operation needs to be measurable.”

#### Pausing to consider long term needs

The resort has grown steadily over the last ten years, adding new features and attractions each year. With the accelerating influx of connected devices and digital components adding to the infrastructure, the PortAventura World network has rapidly taken a central role in enabling business initiatives. To keep pace, however, the network has grown in a piecemeal fashion. Delgado says it was time to take stock and plan a coherent, long-term strategic approach.

“As much as is possible we wanted to future-proof the network. It had to be scalable, secure, and simple to manage,” he explains. “We favour open standards and wanted a network that allowed us to easily integrate different applications.”

#### Unified, secure and easy to manage

The business was familiar with Aruba, having used HP ProCurve switches and worked with HPE Pointnext Services. The Aruba Mobile First Architecture provided the necessary functionality for PortAventura World’s long term network strategy.

“We had confidence in Aruba and appreciated the multivendor interoperability and commitment to open standards,” says Delgado.

### REQUIREMENTS

- Support digital transformation at one of Europe’s largest theme parks
- Establish coherent, long-term strategy for wired and wireless network
- Enable simple integration with third party applications

### SOLUTION

- 7200 Series Mobility Controllers
- Aruba 8320 Campus Core Switches
- Aruba 3810 Campus Distribution Switches
- Aruba 2930F Campus Edge Switches
- ClearPass for access control
- AirWave for network management
- ArubaOS 8
- User Experience Insight Sensors

### OUTCOMES

- Ensures park-wide connectivity for 10,000 visitors and 30,000 devices per day
- Simplifies network access, with means to instruct profile-based privileges for different user groups
- Creates the scale to add more devices, particularly IoT, accelerating ‘smart park’ features
- Provides clear visibility of who and what is using the network

“With Aruba ClearPass, we know exactly who and what is on the network. We can then easily control a set of privileges through the definition and enforcement of profile-based policies.”

**JUAN CARLOS DELGADO**

IT & NETWORKING LEAD, PORTAVENTURA WORLD

The Aruba solution involves two Aruba-8320 Campus Core switches, 1km apart, configured in a high availability virtual cluster using VSX (Virtual Switching Extension). Forty-three Aruba-3810M switches provide the campus distribution layer, connecting the different sites (including offices, shops, hotels, restaurants, and convention centre) to the core. More than 200 Aruba-2930F switches in redundant pairs provide the campus edge, connecting the multitude of access points, devices and extend LAN ports to each site.

### MORE EFFECTIVE MONITORING OF NETWORK PERFORMANCE

The Aruba-8320 Core offers an innovative approach to dealing with the new application, security, and scalability demands for PortAventura World. It combines a modern, fully programmable

OS, incorporating the industry-first Network Analytics Engine. This enables PortAventura World to monitor and troubleshoot network, system, application, and security related issues easily and far more efficiently.

This platform will enable faster automation and deliver network insights. The ArubaOS-CX powering the core will reduce the time spent on manual tasks and will address current and future mobility and IoT demands for PortAventura World.

The ArubaOS-8 architecture, including Mobility Controllers and a Mobility Conductor, allow Delgado and his team to automate many installations, maintenance and upgrade operations. This work can be completed without impacting network availability.

### Greater control and insight

The security and network access control are managed through ClearPass. The team can use profiles to identify any user, device or thing which connects to the network and appropriately assign them to the right VLANs, or simply keep them off the network.

Aruba Mobility Controllers, together with ClearPass and the Aruba switches, enable the Dynamic Segmentation solution at different sites. For example, at the Convention Centre, where clients wish to have securely segmented VLANs for their conference or meetings, Dynamic Segmentation allows PortAventura World to offer clients flexible and end-to-end secure connectivity for their profiled and authenticated devices. This access applies anywhere around the Convention Centre, or even in guest rooms.



Overall visibility and control over the network are provided by AirWave Network Management. This significantly reduces the time required for troubleshooting and affords a proactive operating model for the team.

In addition, insight sensors, strategically placed in different locations around the site, will monitor the network experience from user and device standpoint. PortAventura World will start by placing 20 sensors in and around the Convention Centre before a wider roll-out.

The solution is deployed by Delgado's team, working alongside HPE Pointnext Services.

### Controlled network access for a range of users

With the Aruba Architecture, PortAventura World secures network access for a wide range of users, from holidaying theme park visitors to conference delegates and IoT devices across the site. A typical day sees up to 10,000 individuals connect to the network and 30,000 devices.

"Previously, anyone could connect to the network and use it. That wasn't the issue. The problem was we had no visibility and no control," says Delgado. "Things have transformed dramatically. With ClearPass, we know exactly who and what is on the network. We can then easily control a set of privileges through the definition and enforcement of profile-based policies."

### ENSURING THE SCALE TO ACCOMMODATE FUTURE GROWTH

The solution also answers PortAventura World's need for scalability. From an operational perspective, the network already supports printers, PCs, PoS, IPTV and electronic gates. There are more than 500 CCTV cameras connected. Delgado says the park expects the number of connected devices to grow exponentially:

"We'll have connected fridges, turnstiles, and environmental sensors. All of these connections need to be managed. With Aruba, this task is simple."

### Delivering the data to make smarter business decisions

The network is now smarter. PortAventura World has visibility of what is happening on the network and is better able to manage coverage and optimise services. For instance, sales can be monitored in real-time or traffic queues managed.

For a business focused on the customer experience, this is vital information. It means park staff can be moved to busy areas, or for the marketing team to create real-time personalised promotional messages.

"Today, we're not sat waiting for last weeks' figures to come in. We can see immediately if there is an issue, and take action," explains Delgado.

### A clear roadmap for continued innovation

"We've transformed from an organisation that was conservative in nature to one that is a technology-centric innovator. We recognise that technology is fundamental to our continued growth, and invest accordingly," says Delgado. "Today, we're no longer just a leisure and hospitality provider, we're a technology company."

The plan is to automate the discovery, authentication and access control for each device onto the right network through the use of Tunnel Node Dynamic Segmentation. A mobile device management solution is currently being implemented, integrated with ClearPass to authenticate and onboard BYOD and POS devices.

"For the first time we have a clear roadmap for the development of the network," says Delgado. "We're keen to implement Dynamic Segmentation, which will be up and running as soon as we have completed the deployment of our Aruba controllers."