

CASE STUDY



SPAIN



HOSPITALITY

CREATING A DIGITAL SERVICE LAYER TO ELEVATE THE VISITOR EXPERIENCE



ITSasmuseum
BILBAO

Modern museums are dynamic spaces. The best will educate and entertain, and create commercial value. Working with Aruba, Bilbao's Itsasmuseum has created a digital layer, to enhance the visitor experience. The museum now ensures connectivity across its 24,000sqm site, supporting a new app for visitors. The app not only helps visitors navigate the site, it provides an audio tour and interactive challenges for kids. Also, the data generated is helping inform future services.



Bilbao is a city of the sea. Its history is of shipbuilding and seafarers. Its dockside restaurants teem with bacalao pil-pil. For residents and visitors seeking fresh fish, La Ribera market is a must.

Itsasmuseum, the Bilbao Maritime Museum, allows visitors to discover the maritime heritage and culture of Bilbao and Bizkaia. It welcomes over 55,000 visitors a year.

Like any modern museum, Itsasmuseum is part museum, part venue, part education facility. It has to generate foot-fall (and revenues) throughout the year. It hosts conferences and events, school visits, and temporary exhibitions. It is a dynamic space.

“Visiting a museum is a physical act,” says Jon Ruigomez, Director, Itsasmuseum. “You engage with the collection face to face, but technology can allow the physical experience to be more intense and more lasting.”

ENRICHING THE MUSEUM EXPERIENCE

Based on an Aruba Edge Architecture, BilbaoTIK, the City of Bilbao IT & Services organisation, has enabled the museum to transform its visitors' experiences through the introduction of high-quality wired and wireless connectivity and an interactive museum app, and by adding a digital service layer. In Jon Ruigomez' words, the museum “facilitates, entertains, and enriches each visit.”

Itsasmuseum, built on the site of the former Euskalduna shipyard, is now endowed with seamless connectivity. A total of 15 AP-305 access points provide high density coverage for 3,500sqm of indoor exhibition space, while five AP-365 outdoor access points extend the pervasive access and uninterrupted roaming across the 20,000sqm of external spaces around the venue. The APs are managed by Aruba Mobility Controllers.



REQUIREMENTS

- Support seamless mobility across the 24,000sqm dockside location
- Enable the museum to collect valuable user data
- Allow the creation of new digital services

SOLUTION

- 802.11ac Aruba Indoor & Outdoor Wi-Fi APs
- Mobility Controllers
- Aruba Campus Edge Switches
- ClearPass Policy Manager
- AirWave Network Management
- Bluetooth Low-Energy Beacons
- Meridian Mobile App Platform (Maps, Blue Dot & Campaign)
- Analytics and Location Engine (ALE)

OUTCOMES

- Supports the creation of a new app for visitors, driving digital engagement
- Gathers visitor data, from dwell times to route maps, to inform new services
- Ensures museum keeps pace with Digital Bilbao project

The backend wired network and access is provided by Aruba 2930F Campus Edge switches. The entire network is managed remotely by BilbaoTIK and on the unified management platform, AirWave Network Management.

In addition, the site is currently dotted with over 60 Aruba Bluetooth low-energy (BLE) Beacons which interact with the museum's mobile app and enable location services such as navigation, way finding, proximity engagements and push notifications. The app is integrated with the Meridian Mobile App Platform which provides the back-end services such as Maps, Blue Dot Navigation and Campaigns. Meridian has been fully integrated with the museum's app through the platform's SDK and Open APIs. There is full integration with the Tourist Guide and with the museum's analytics dashboard. The Aruba Analytic Location Engine (ALE) delivers a raft of valuable network data about devices, users, location, etc., which feeds the analytics platform and allows the staff to create necessary dashboards.



“ We know where visitors stop, we know which exhibits they value more. This is very valuable information. We’re executing improvements based on scientific data, not perceptions. ”

JON RUIGOMEZ

Director, Itsasmuseum Bilbao Maritime Museum

The museum’s document repository for the app is changed in real-time in order to keep the app up-to-date, relevant and dynamic. This is critical in an environment where exhibits can change or be relocated at any time, or where beacons may be moved to other areas or additional ones deployed.

Currently, the app has two primary features: to provide an audio guide for visitors; and to ‘gamify’ the visit for children by setting challenges as they move around the space. Opportunities for features and engagements with visitors are endless and future capabilities can be added over time. This will increase the use of rich media and the amount of data generated by the network and through the app, enriching the museum’s knowledge about visitor preferences and enabling the enhancement of services. Ruigomez and his team are confident that the network and technology will provide them with sufficient headroom and scale to grow and develop their vision.

“We are at a turning point where the last generation of non-digital natives, Generation X, and the digital natives, Gen Z, coexist. Digital transformation is essential if we are to adapt,” says Ruigomez. “We want to educate while having fun. The app is a way to generate expectation and the desire to excel in children.”

A multi-media, multi-language layer

The Itsasmuseum Bilbao app takes visitors on a guided tour of the museum. The audio guide covers 23 points of interest throughout the museum, available in four languages, Basque, Spanish, English and French and it is free to download.

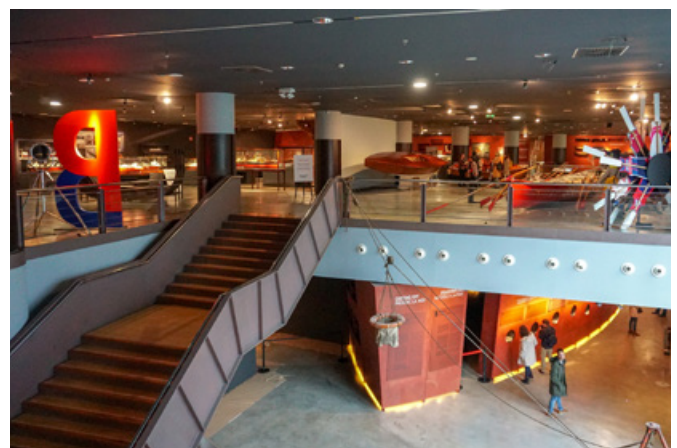
Through the app, the museum is able to engage a broader range of people and to attract much younger audiences through initiatives such as gamification. New and regular visitors alike, are able to use the app on-site for tours and

to obtain detailed information about exhibits, or even while they are away from the museum.

“Museums today are very focused on offering each segment of the public a personalised offer to improve their visiting experience,” says Ruigomez. “With this objective, we have gamified the app with a specific visit for children. This visit can be done in the museum or from home and is aimed at enabling learning by play.”

Itsasmuseum’s core focus is to showcase its heritage collection and permanent exhibitions. However, in order to open discourse, reach new audiences and have a renewed offer from time to time, temporary exhibitions are held. The app allows a more seamless and visual communication with subscribers about these new exhibitions and offers a flexible and agile platform for updating and delivering new content and experiences.

“In our museum we have dedicated a lot of time, care and resources to make a temporary exhibition on Juan Sebastian Elkano’s biography and the first circumnavigation 500 years ago,” Ruigomez explains. “It is a very complete sample with a lot of content whose storyline is narrated in four languages in the app. In this case, the app provides substantial value since it allows the panels to be relieved of distracting text and for us to better explain, to the visitor, all the vicissitudes of our most international navigator.”



THE DATA TO INFORM CONTINUOUS IMPROVEMENT

The Aruba architecture allows Itsasmuseum to monitor network health with Aruba AirWave while ClearPass Policy Manager orchestrates network access control, delivering secure connectivity to the corporate network for staff as well as secure guest and public access for collaborators and visitors.



Together with the huge amount of data collected and delivered via the Aruba Analytic Location Engine (ALE), the team are able to visualise many location-based parameters and make valuable assessments and decisions about what happens around the museum and how to evolve its services.

“It is a very powerful platform to help understand heat maps, dwell times, and typical routes,” Ruigomez says. “We have a far better picture of how the museum is being used.”



This clarity helps inform the event marketing and museum facilities; he continues:

“We know where visitors stop, we know which exhibits they value more. This is very valuable information. We’re executing improvements based on scientific data, not perceptions.”

Network security and data protection are a major requirement for Jon Ruigomez and his organisation. Secure

network access is not just a requirement for the corporate network, but is equally necessary when it comes to the public or guest segments. Visitors access the network and the app while on the museum’s network and ensuring the integrity of the data collected from and communicated to users is of paramount importance.

According to Jon Ruigomez, “Providing visitors with a safe connectivity environment is a duty that we take very seriously as a museum. Just as the physical environment needs to be safe and accessible in museums, so must be the digital and virtual part. ClearPass allows us to define and enforce flexible security policies and have full visibility and control over who and what connects to our network.”

One part of a city-wide transformation

The efforts at Itsasmuseum are mirrored across Bilbao. The city is one of the most connected in Spain, with citizens no more than 300 metres from an access point. There is free Wi-Fi in all public spaces, including government buildings, sports stadiums, libraries, schools, and health centres. In 2019, 32 million devices connected to the city’s network.

This certainty has encouraged a spike in digital innovation. There are apps to monitor public transport, or for students, or public workers. It changes the way the city lives, works, and plays.

“Bilbao is an example of a city that has managed to transform itself,” says Ruigomez. “It has ceased to be an industrial city in crisis to a city of clean and modern services. Digital transformation in Bilbao is real.”