Highlights

- Operational costs are lowered by overhauling and unifying siloed legacy systems
- New umbrella approach brings complete and actionable insight to the admin team
- Increased network stability and capability raises commuter confidence

Key stats

- 1,000,000 commuters per day
- Transit covering buses, rail, bike shares, car shares, and parking throughout the city
- Meraki cameras and sensors adopted for data-driven insights and planning

Overview

"We see a future where commuters can share a view and see the status and timings of public transport in real time, just like administrators. ... Because of Meraki, we can show the whole journey across all the modes of transit."

CARLO BRACCHI- *Senior System Network Administrator, Brescia Mobilità*

Created in 2004, Brescia Mobilità SpA oversees all public transit in and around the historic and idyllic Italian town of Brescia.

In addition to managing payment and ticketing systems for commuters, Brescia Mobilità is responsible for the operation, upkeep, optimization, and improvement of multiple transit network systems used by more than 1,000,000 commuters per day.

The Challenge

Eight years ago, Brescia Mobilità's Senior System Network Administrator, Carlo Bracchi, had what he described as an impossible challenge. Under his management were bus lines, rail lines, car sharing, bike sharing, parking management, traffic monitoring, and more—all the critical components of mobility that keep a city moving.

The unsustainable issue from a network administrator's point of view was that all of those systems worked in silos. For a commuter, buying a bus ticket meant interacting with a single third-party system. Purchasing a rail ticket required transacting with an entirely different system. Arranging for a car share used yet another provider, and so on with each city service. The siloed systems were further complicated by the stress of an unreliable network. Dropped network connections during transactions left commuters unable to make their transit connections to get to work, school, or out for a day in the historic city.

Network admins, meanwhile, had to manage a call sheet of vendors for each disparate system. No single person on staff could see or diagnose issues across all the services they used. Worse, the upkeep costs were quickly eclipsing the city's transit budget.

"It was not possible for us to hire the people needed to manage all the different elements," said Mr. Bracchi. "We could not even think about the future because we were spending our budget and focus prioritizing which third-party consultant we had to hire to fix which system."

The Solution

When Bracchi began working with Cisco Meraki, he focused on the big problem first: connectivity.

Brescia Mobilità and Meraki built a network of updated cables and Wi-Fi access points that stretched across all the city's transit spots. With this first step, dropped connections were practically eliminated, dramatically alleviating commuter frustration while providing administrators with full visibility into all systems.

The impact and success of this first step enabled Brescia Mobilità to begin focusing on their business goal of providing safe, streamlined, secure access to all the elements of transit. Bracchi and his team asked themselves how they could refine the system to better respond to commuter needs using connectivity and data, and how they could build a network of services capable of rapidly responding to change?

Next, Brescia Mobilità integrated Meraki IoT sensors and cameras into their network, gaining the ability to change and improve using data insights. A transformation began to take shape, powered by building more innovative solutions to simplify the previous overcomplicated system.

From the Meraki dashboard, administrators could see where server rooms were getting too hot. They could see the HVAC impacts in crowded trains. They could get live views from cameras at stations and stops that were becoming overcrowded. It was easy to adopt and integrate all the devices into the network monitoring system because they were built to work seamlessly with their new network. The unconnected, siloed third-party systems began to be phased out.

"We have a single dashboard now. We can see where any particular bus is. We can see when someone is lost in a parking lot. And we can see when any part of the system is down and react quickly and precisely."

CARLO BRACCHI- *Senior System Network Administrator, Brescia Mobilità*

Results

With the IoT sensors and cameras, Bracchi's team was able to quickly adopt APIs, which allowed tracking of how many people were in train stations. Those insights enabled transit managers to direct people and avoid dangerous overcrowding. They also adopted systems that tracked how many empty seats were on buses and provided that information to commuters to make informed decisions.

Adding capabilities and services happens faster and simpler by using partners like Project Informatica, which is part of the Meraki network—service providers that bring solutions that are ready to be integrated into the network and the Meraki dashboard. The continued unification of systems means Bracchi's staff spends less time fixing the past and more time working on the future.