



Florida Department of Environmental Protection

- Deployed switches, access points, and security appliances at 100+ state parks
- Chose Meraki for the speed of deployment and ease of day-to-day management
- With the Meraki dashboard, IT can remotely manage, configure, and troubleshoot



With 175 state parks and coastal resources encompassing 16 million acres, the Florida Department of Environmental Protection (DEP) is responsible for protecting the air, water and land across the state. DEP is in charge of many areas, including land and recreation, all state parks and trails, regulatory programs for air

and water quality, and ecosystem restoration to improve resources in the Everglades, Florida's many springs and other water bodies. The agency's goal is to create strong community partnerships, focus resources on projects that directly benefit the environment, and empower employees to solve problems through innovation and efficiency.

A team of only two senior network engineers, one part-time network engineer, and two junior engineers are responsible for managing the entire Florida DEP network, from networking and voice infrastructure to telecommunication services, including video conferencing. They manage the networks at all Florida state parks and DEP field offices, as well as the headquarters in Tallahassee. The department employs approximately 4,000 people and manages over 7,000 IT devices.

Ease of Management and Best Price Tag Wins the Bake-Off

With such a small IT team, they faced some unique challenges. The team is composed of people with different knowledge sets and skill

levels, making it hard to deploy and maintain both the network and all of the voice infrastructure and telecommunication services. In addition, their original switching was all unmanaged, giving them zero visibility into the network. Because of this, when it came time to refresh their legacy switches, the team decided to evaluate a new solution. They were determined to find a solution that would make it easier to deploy and manage the network while providing increased visibility.

“It was time for a refresh, so we decided to look at Meraki, our existing solution, and a competitor. We had a bake-off, and Meraki won hands down when it came to deployment, the day-to-day maintenance and the cost.”

– Arthur W. Wilson, Network Engineer, Florida Department of Environmental Protection

The DEP team researched popular switching solutions and decided to do a performance and cost efficiency evaluation between Cisco Meraki, their legacy solution, and a competitive solution. Immediately the results were clear: Meraki triumphed when it came to the speed of deployment and the ease of day-to-day management. This was key for the small IT team to continue managing the network at so many sites. Besides the sheer performance, Meraki also won on cost, allowing the agency to save on networking infrastructure and apply more of their funding directly to park services. The lifetime warranty that came with each switch cinched the Meraki choice.

Switching and Access Points and Security Appliances – Oh, My!

Although the evaluation only included switching, after seeing how easy it was to manage the entire network through the Meraki dashboard, the team decided to purchase Meraki access points and security appliances as well. They began deploying all of the equipment and immediately realized several benefits.

With the MS220 switches, the team was thrilled with how simple it was to deploy the devices across all of the parks. They applied their standard switch template to the devices in dashboard, plugged them in, and they were ready to go. The junior engineers were able to configure and support the switches, without having the in-depth knowledge they would need to manage other brands of switches or routing infrastructure.

The team deployed MR72 and MR74 outdoor access points out in the field. The flexibility of user authentication, ease of installation and the simplicity of firmware upgrades were the selling features for Meraki. The wireless allows park rangers to access DEP resources and data and improve efficiency for day-to-day administrative tasks. Two SSIDs are in use, one for park rangers and one for the credit card machines to process park fees, hiking permits, and souvenirs.

“Across the whole Meraki product line, there is flexibility, ease of installation and deployment, and simplified firmware upgrades and maintenance - it is a single interface for managing switching, routing, wireless, telephones - the whole works.”

– Arthur W. Wilson, Network Engineer, Florida Department of Environmental Protection

As the majority of the state parks are located in remote locations, the team needed a way to provide secure access to the network and the proper telecommunications circuit. Initially, they could only get a DSL or other lower bandwidth connection. But after deploying the MX64 and MX65, they could capture all traffic that came in, encrypt it, and create a VPN tunnel back to their main MX100 at their headquarters in Tallahassee. This gave them the security and connection they needed to keep all the information secure.

Overall, the DEP team is thrilled with how easy it is to deploy and manage all of their Meraki products. The team uses the template feature, which allows them to drag and drop configurations onto devices, greatly simplifying and speeding up the deployment. The team spends much less time on regular day-to-day management and site configuration, leaving time to work on the telecommunications infrastructure and more impactful projects. The team has also seen a much lower call volume with network issues since migrating onto Meraki.

“The problems we get today are not related to Meraki equipment - usually it is the carrier who dropped a circuit that caused a park site to go down, but it is never the switching infrastructure or other Meraki gear” noted Wilson. Meraki has also helped the team beyond just simplifying their networking. Thanks to Meraki’s available documentation and set-up guides, as well as its intuitive deployment design, the team has started to simplify the work they do in other areas. They now work to “Merakify” the other aspects of networking and telecommunications that they manage, enabling them to work more efficiently and effectively.

Incoming! Big Plans for DEP

DEP has several projects on the horizon to continue simplifying all aspects of their networking infrastructure.

The parks and offices currently have video surveillance, but they want to replace the cameras with a solution that can improve safety and security for park rangers, visitors and employees. Therefore, their first project is to evaluate the Meraki MV security cameras. The ability to manage security cameras from the same interface as their other networking technology would save time and greatly simplify maintenance.

Although most of the park sites are using Meraki access points, there is still some legacy equipment deployed at the headquarters. The plan is to migrate all of the wireless over to Meraki in the next couple of years. The team also intends to provide public Wi-Fi at park entrances, visitor centers, and ranger stations through a separate and secure SSID.

The team has several plans for their network security as well. Their first priority is to start utilizing SD-WAN. This would give them more flexibility, provide them with multiple connections coming out of their sites, and allow for traffic profiling. Because the Meraki MX comes with built in SD-WAN functionality, the team can quickly migrate their network to a MFN-2 design. The network security policies are also currently centralized in Tallahassee - the plan is to decentralize over the next few years to allow each park site faster connections and more flexibility.

Since the team also manages voice services, they participated in a beta program for the Meraki MC phones. The SIP phones worked great for them, and the team is exploring a deployment strategy in the near future.

All in all, the DEP team is pleased with the Meraki purchase, and they continue to test out and deploy new Meraki products to add increased visibility through the dashboard. As Arthur concluded, “The advantages we see having a single-pane-of-glass and simplified management for all of our networking needs, all under the same umbrella, is why we continue to choose Meraki.”