TIP OpenWIFI &
ecCLOUD Managed Solution

2022

Edge-corE NETWORKS

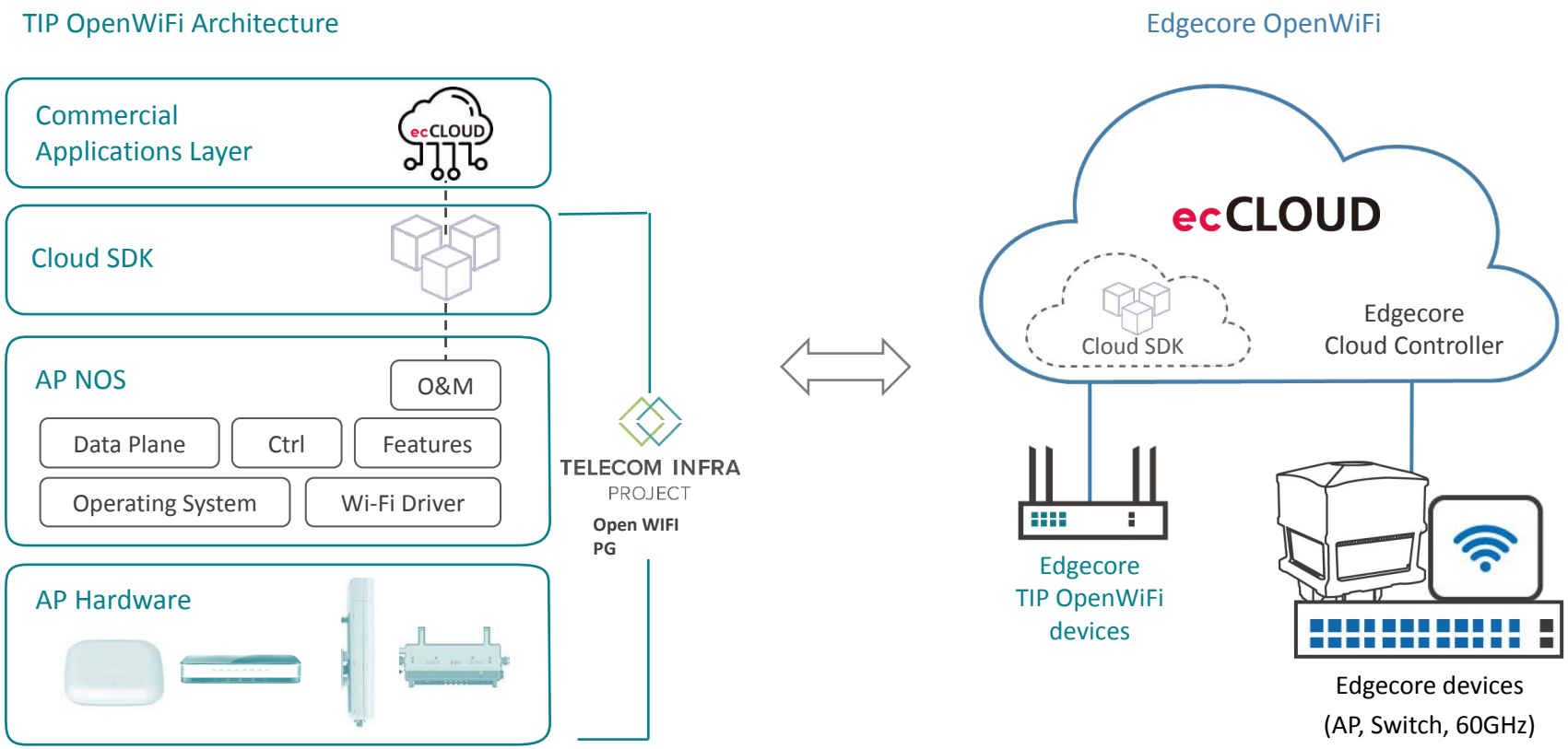
Telecom Infra Project (TIP) OpenWiFi

Edgecore is one of the active contributing members of the TIP Wi-Fi Project Group

- The Telecom Infra Project (TIP) is a global community of companies, organizations, and institutions, founded by Facebook, as known as Meta now. They're working together to accelerate the development and deployment of open, disaggregated, and standards-based technology solutions.
- **OpenWiFi** is a community-developed, disaggregated Wi-Fi software system, offered as free open-source software, that includes both a **cloud controller SDK** and an **Enterprise-grade Access Point (AP) firmware**, designed and validated to work seamlessly together.

Edgecore OpenWiFi Solution

- Edgecore provides a range of access points that comes preinstalled with TIP's Open AP software that offers users an open platform for further customization. From SMB to MDUs to larger venues, Edgecore TIP-ready access points and the integration between ecCLOUD and CloudSDK solutions can meet various usage and requirements.



Efficiency: Cloud Controller SDK

- The cloud controller SDK provides open north-bound APIs, so over-the-top Wi-Fi applications can be integrated once and then be used with multiple vendor solutions, saving integration costs and reducing time to market

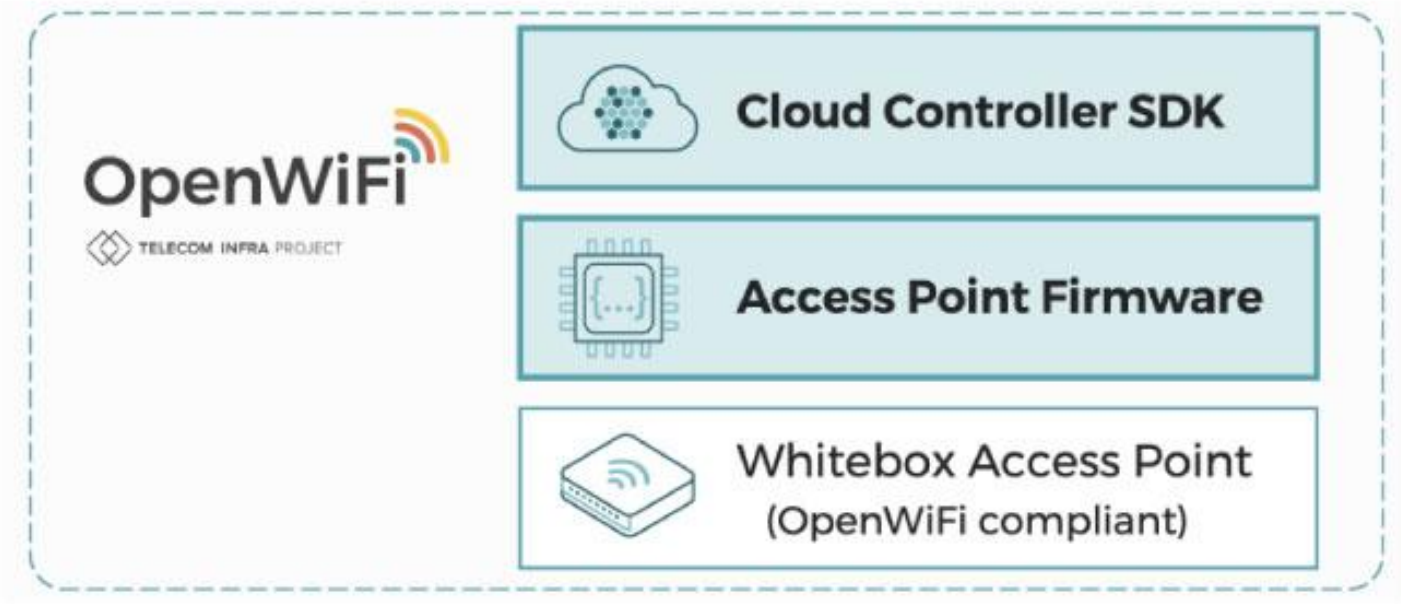
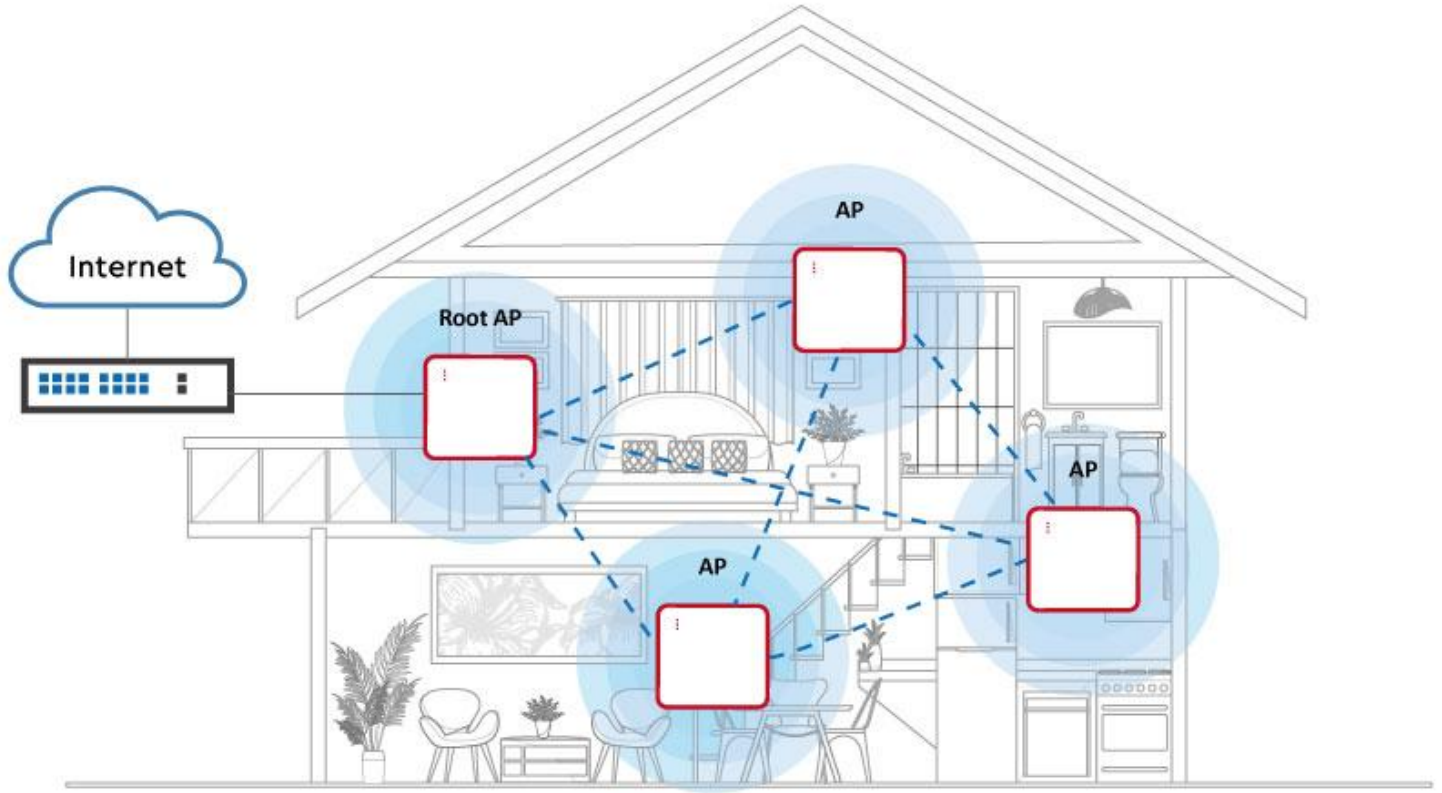


Image source: https://telecominfraproject.com/openwifi/

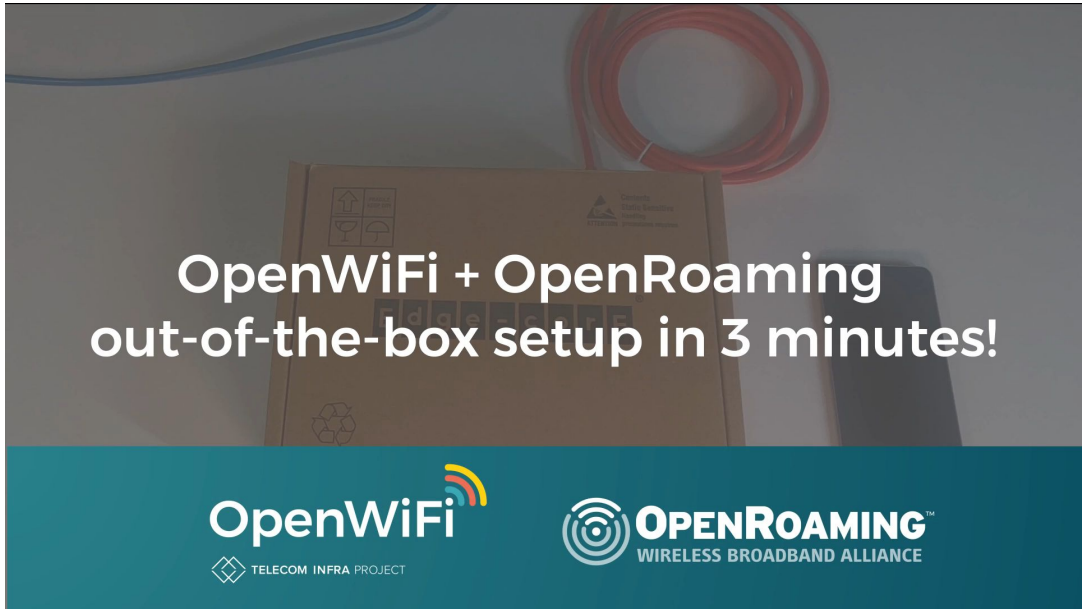
Scalability: OpenMesh

- OpenMesh allows you to connect your AP wirelessly to one another, providing an intuitive way to extend the Wi-Fi signal to a larger area and minimizing dead zones.



Flexibility: WBA OpenRoaming

- WBA OpenRoaming provides assurance that the Wi-Fi / Cellular networks automatically interoperate with each other to deliver an automatically connected networks experience, allowing users to securely roam from location to location without the need for logins, registrations or passwords.
- Check out the video of the conduct trial of the WBA's OpenRoaming with Edgecore OpenWiFi AP: https://lnkd.in/g73aHrn

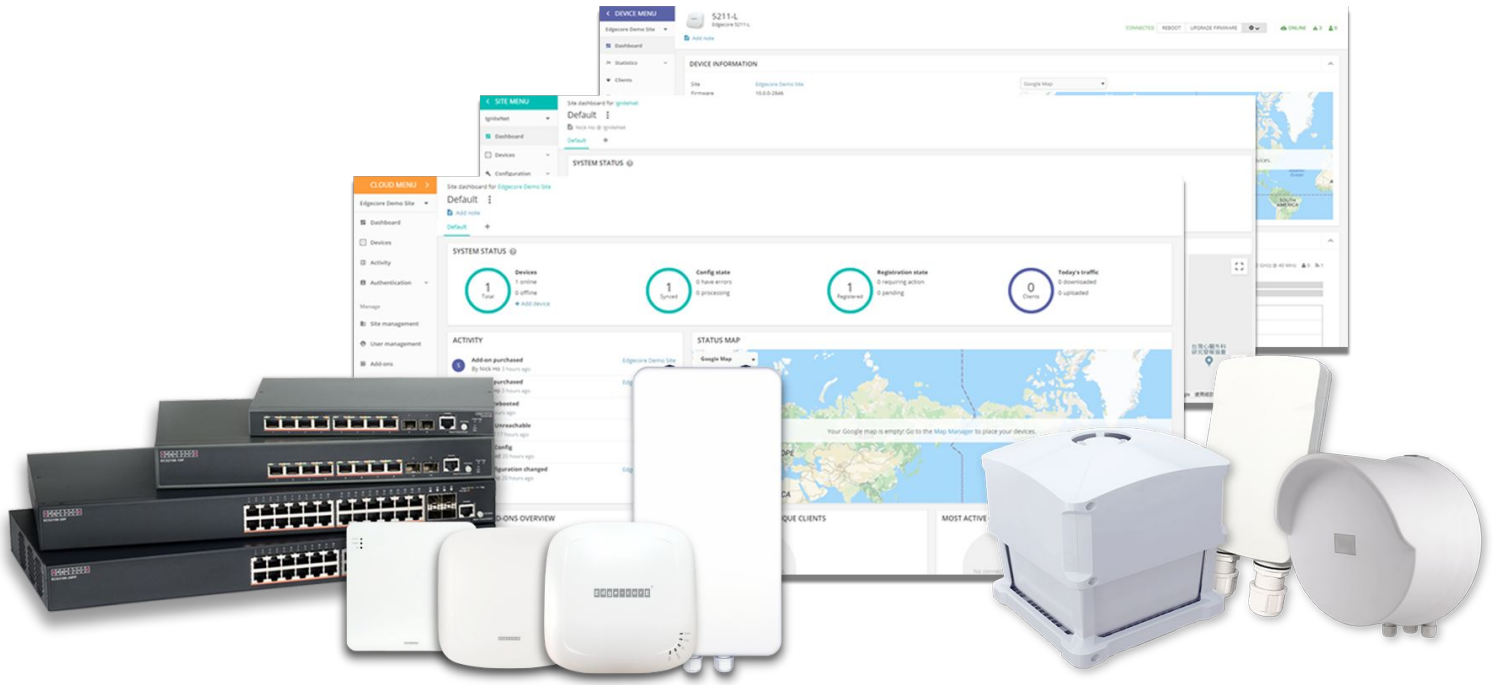


TELECOM INFRA PROJECT

Edge-corE NETWORKS

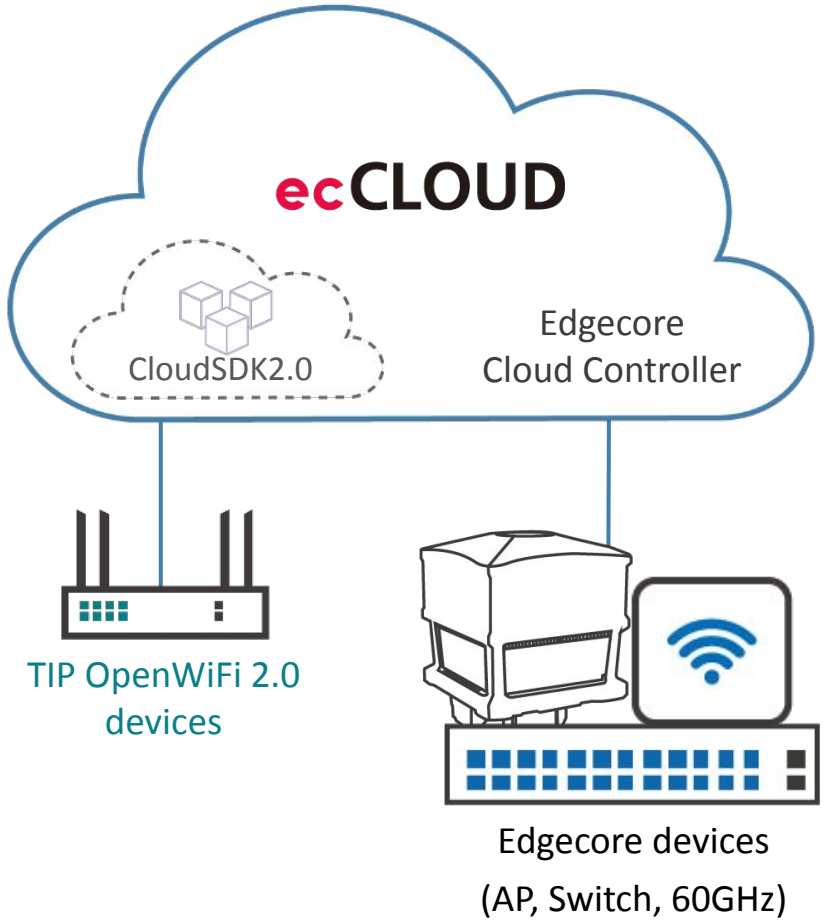
ecCLOUD – Edgecore Cloud Controller

- The Edgecore ecCLOUD is a cloud-based controller that provides unified visibility and control for Edgecore wired and wireless devices, including AP, PoE switch, and Terragraph products.
- ecCLOUD simplifies the task of device deployment, management and monitoring at a single site or multiple sites across different geographical locations.
  - Centralized management
  - Multi-site and Multi-level
  - Firmware management
  - Device provisioning
  - Custom Captive Portal
  - Logs, Report and Monitoring

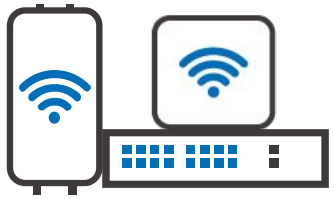


ecCLOUD & CloudSDK 2.0 Integration

- By converging with CloudSDK 2.0, the highlight of OpenWiFi 2.0, ecCLOUD can provide central management and visibility to all TIP OpenWiFi devices.
- Being the world's first TIP OpenWiFi cloud controller, ecCLOUD can support the full range of TIP OpenWiFi hardware devices and software applications, which realizes the dream of commercializing TIP OpenWiFi and making it a sustainable business model.

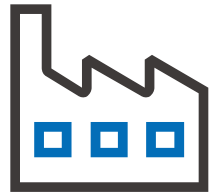


Edgecore OpenWiFi Advantages



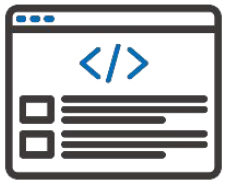
- ✔ Comprehensive product series including indoor / outdoor AP, and PoE switch
- ✔ Multiple international certifications

- ✔ Device onboarding service
- ✔ Centralized manage all TIP OpenWiFi 2.0 devices
- ✔ ecCLOUD public API for third-party applications



- ✔ High productivity in manufacturing
- ✔ High standard of quality control
- ✔ Complete logistics and RMA services

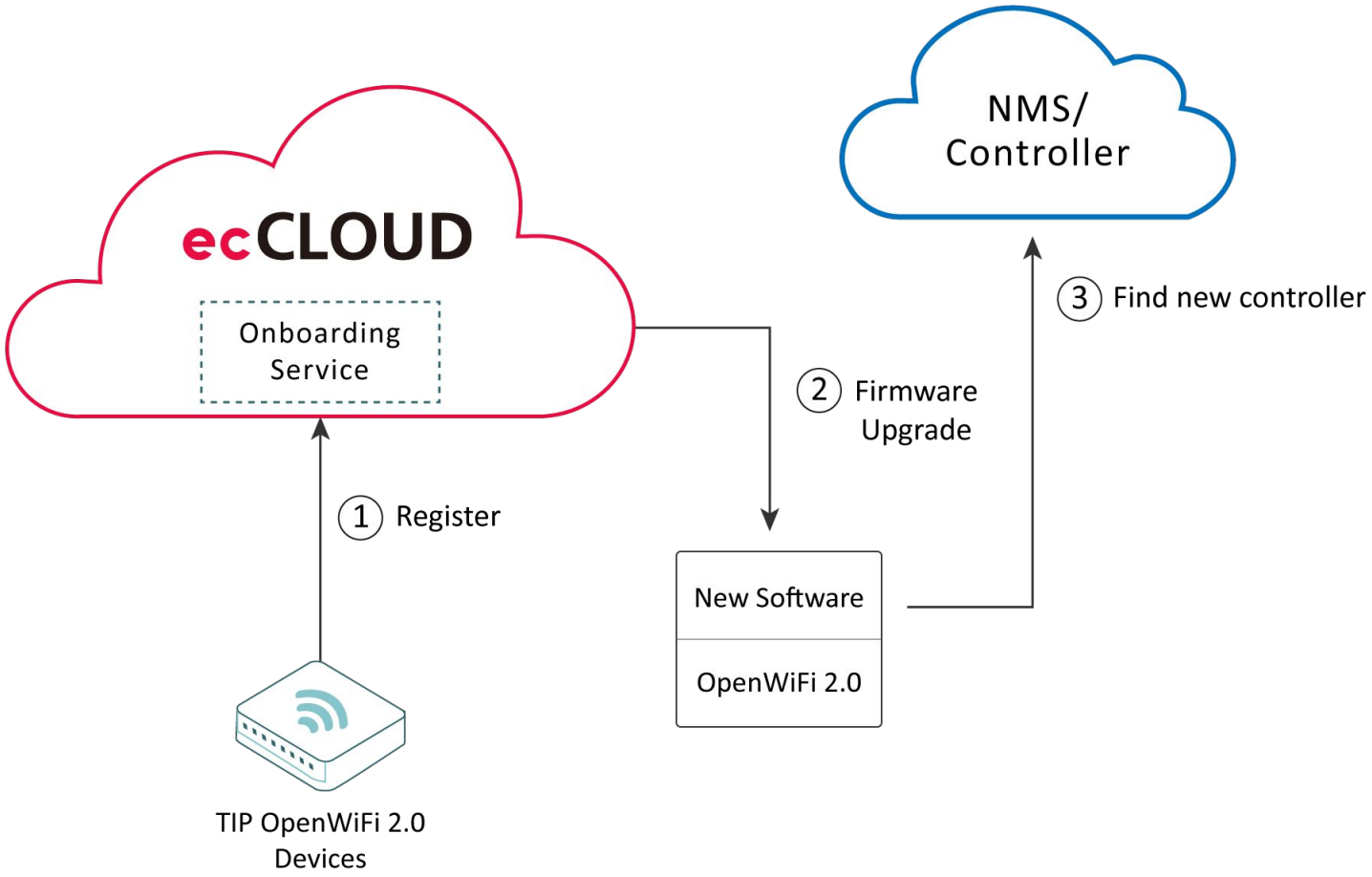
- ✔ Supply products and services with global partners
- ✔ Offer hardware & software technical support worldwide



- ✔ Easy to develop with pre-loaded TIP OpenWiFi image
- ✔ Web GUI-ready for quick start up

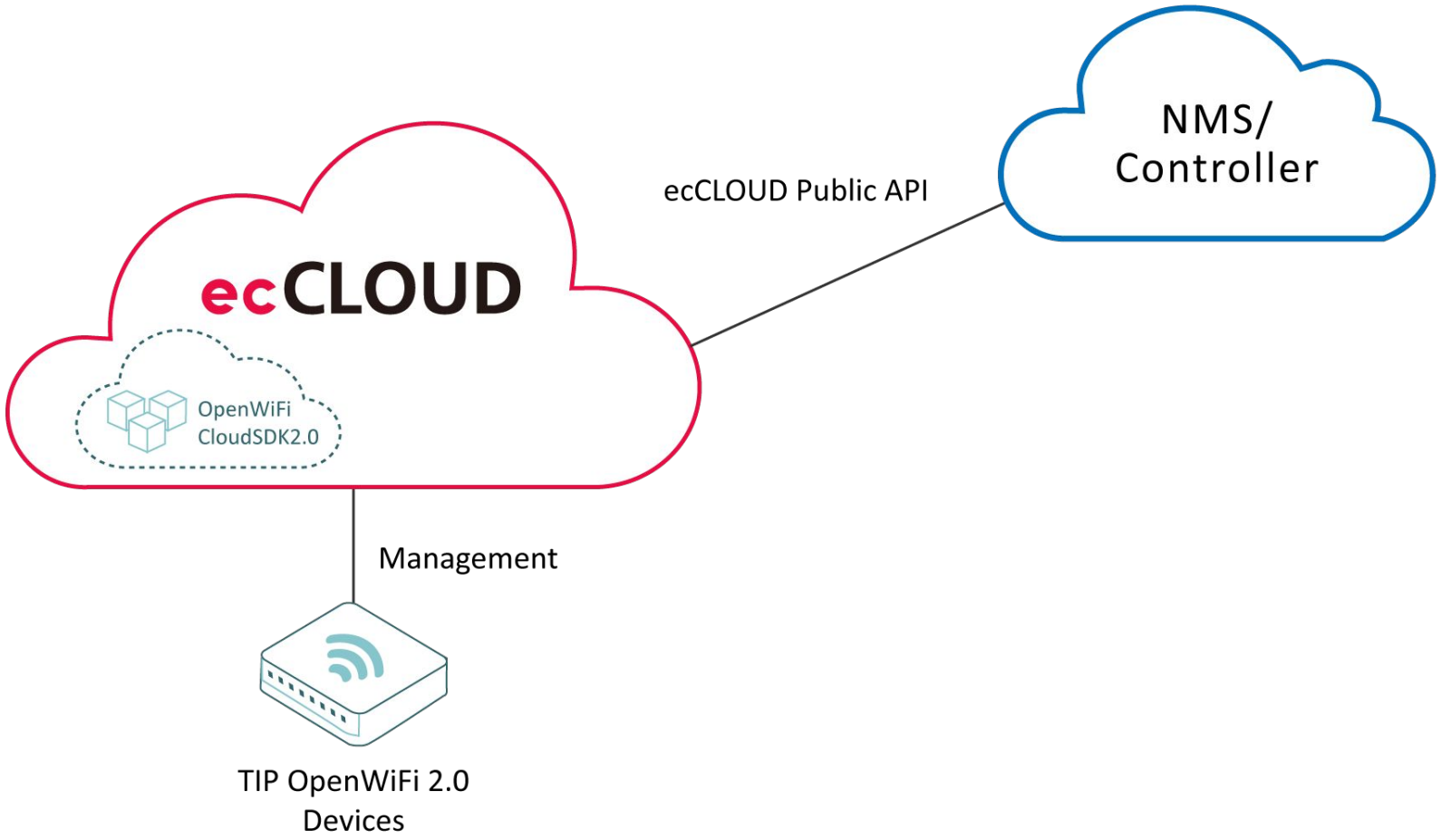
Device Onboarding Service

- With the device onboarding service, the TIP OpenWiFi devices can be easily upgraded to customized firmware or redirected to another cloud controller



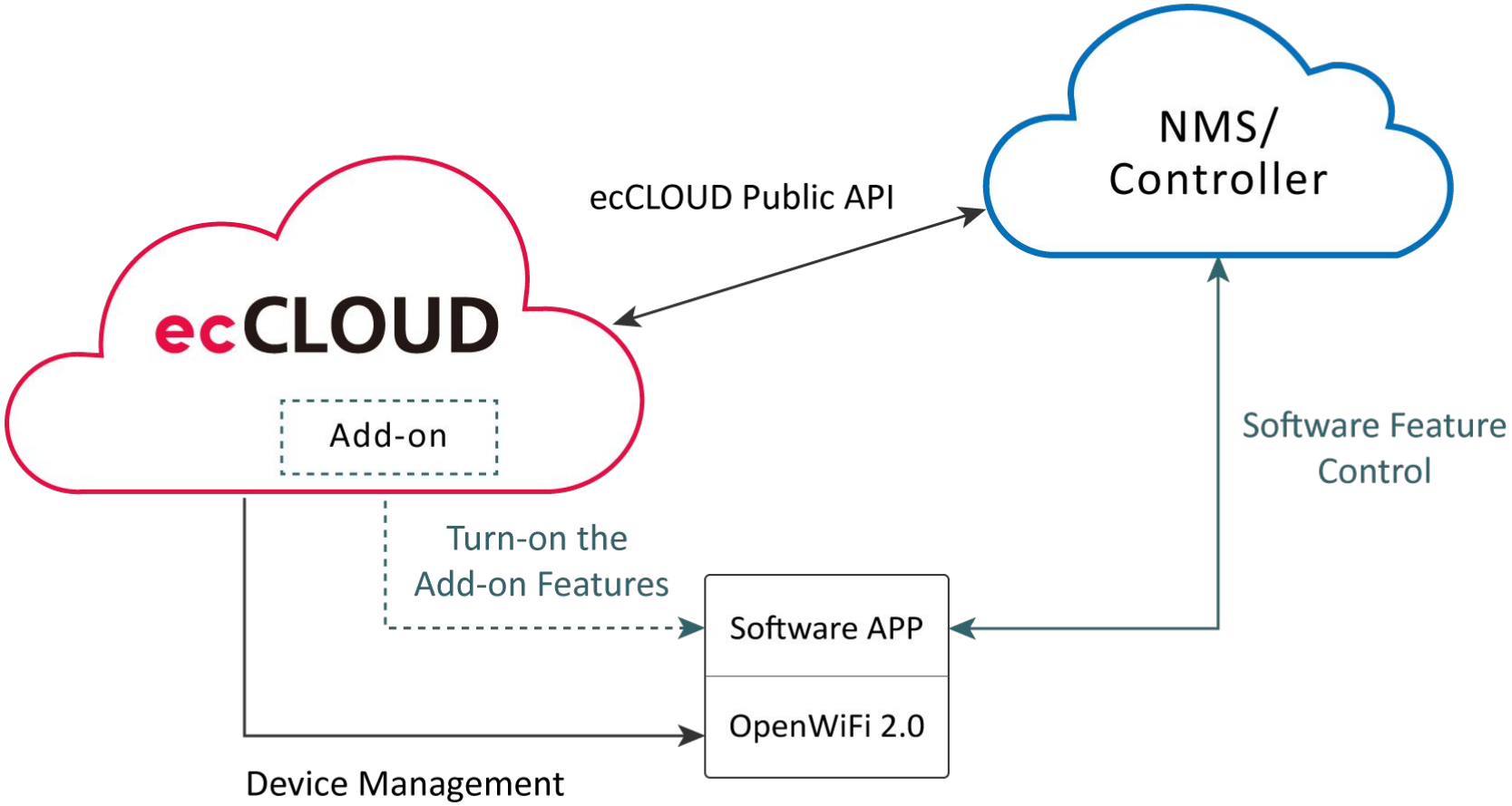
Applications

- ISP/MSP/Telcos can manage their OpenWiFi devices on ecCLOUD

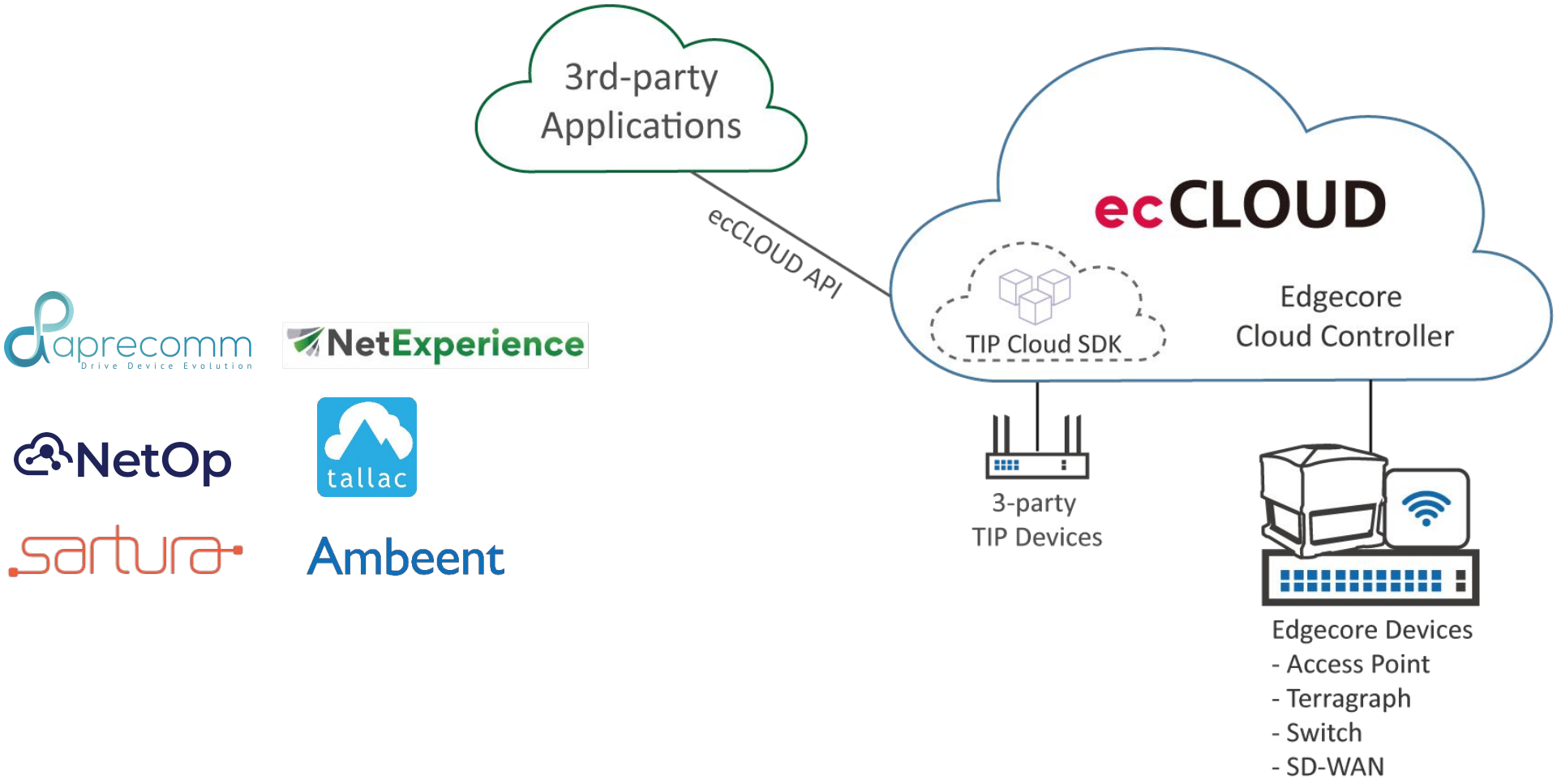


Applications

- For an OpenWiFi software partners, they can install their software on OpenWiFi AP NOS, and use ecCLOUD's northbound API to manage the devices.

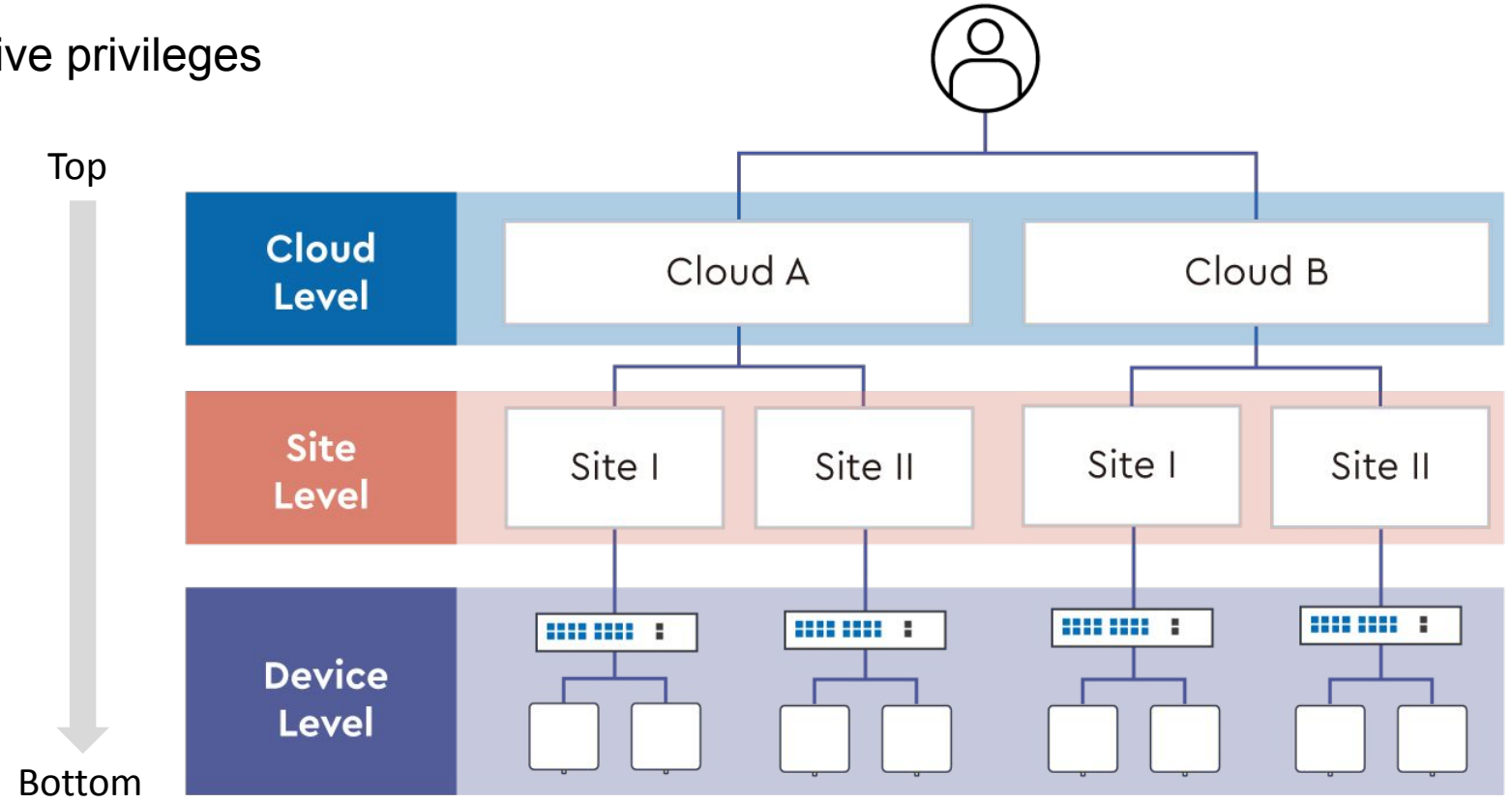


ecCLOUD API for Third-party Applications



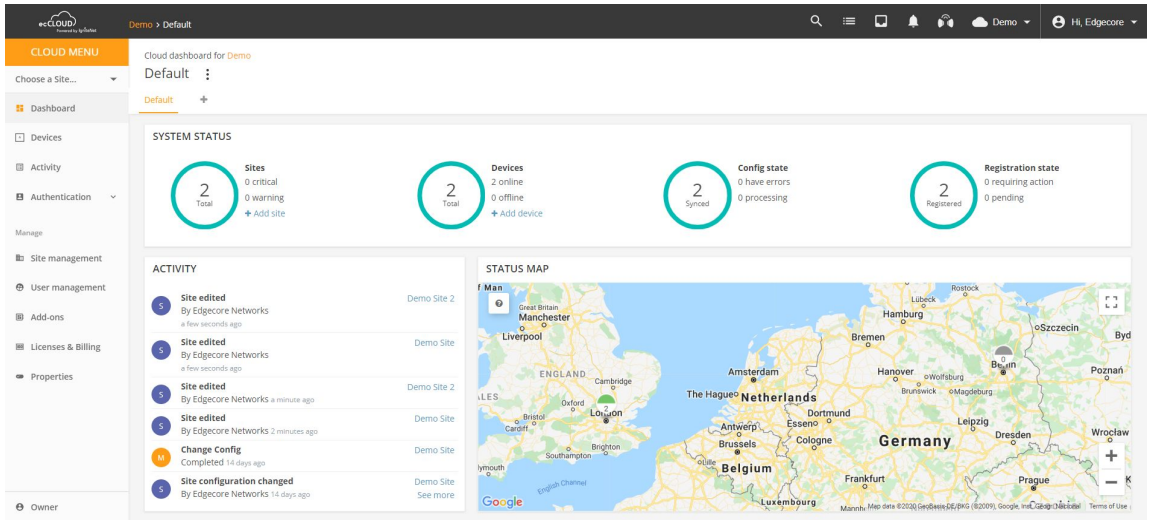
ecCLOUD Hierarchy

- **Multi-level management**
  - Each site can have a distinct set of configurations, users, maps, and so on
  - Each device can inherit or not to inherit site-level settings
  - Role-based administrative privileges

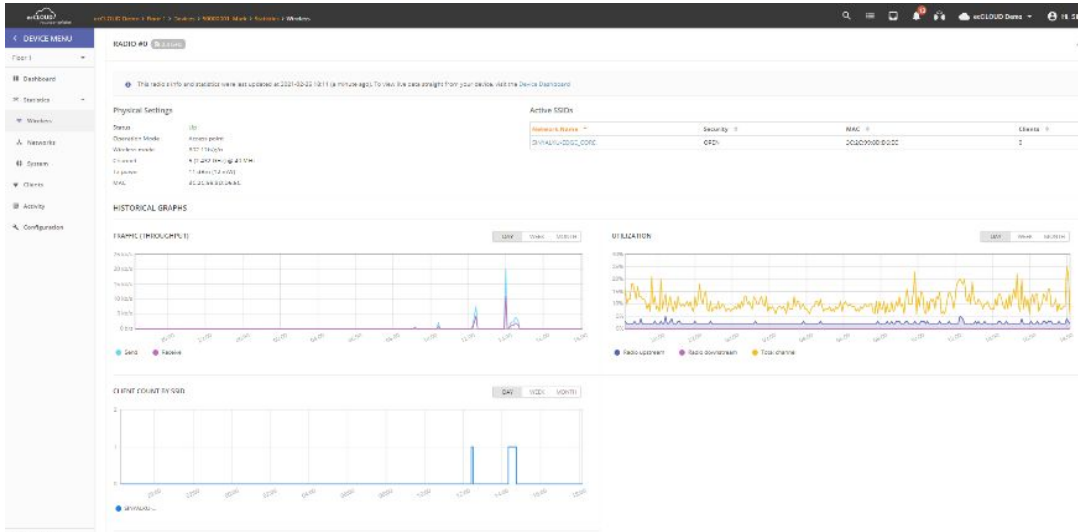


Intuitive Dashboard & Statistics

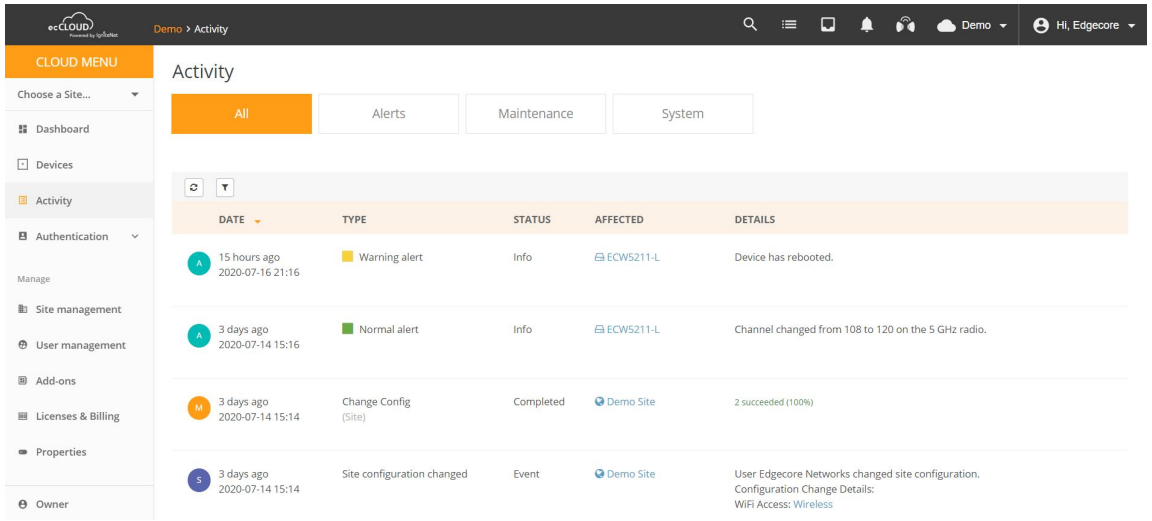
Cloud Dashboard



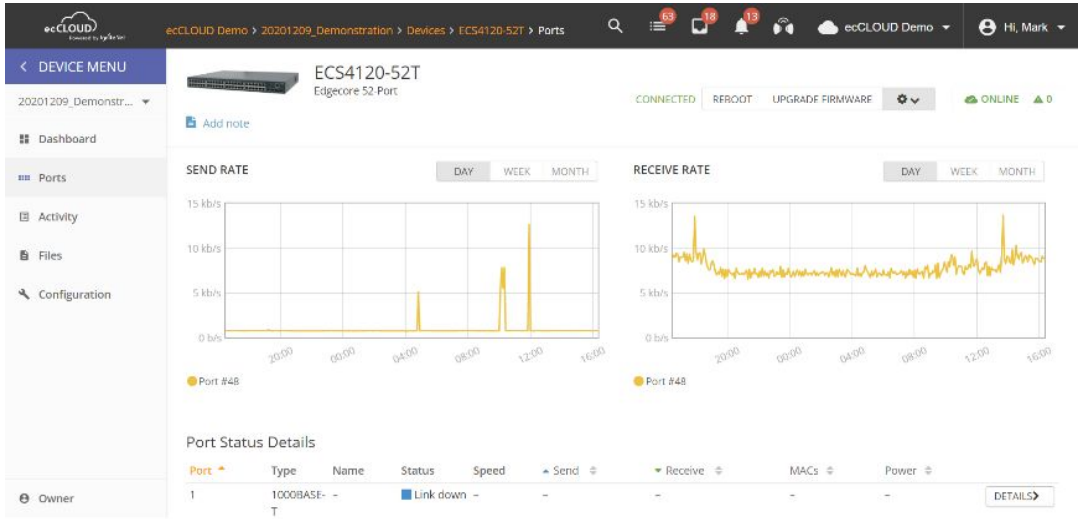
Wireless Client



Alerts & Notifications

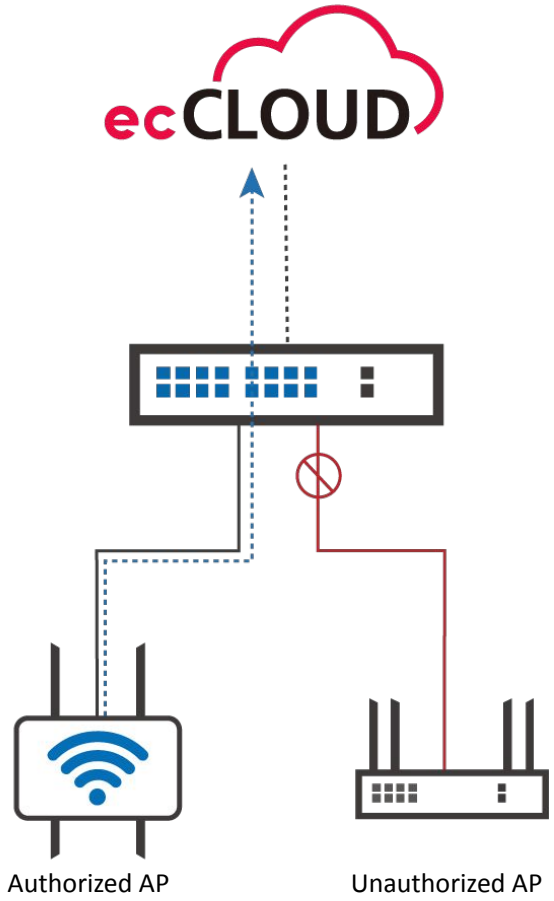


Switch Port Activity

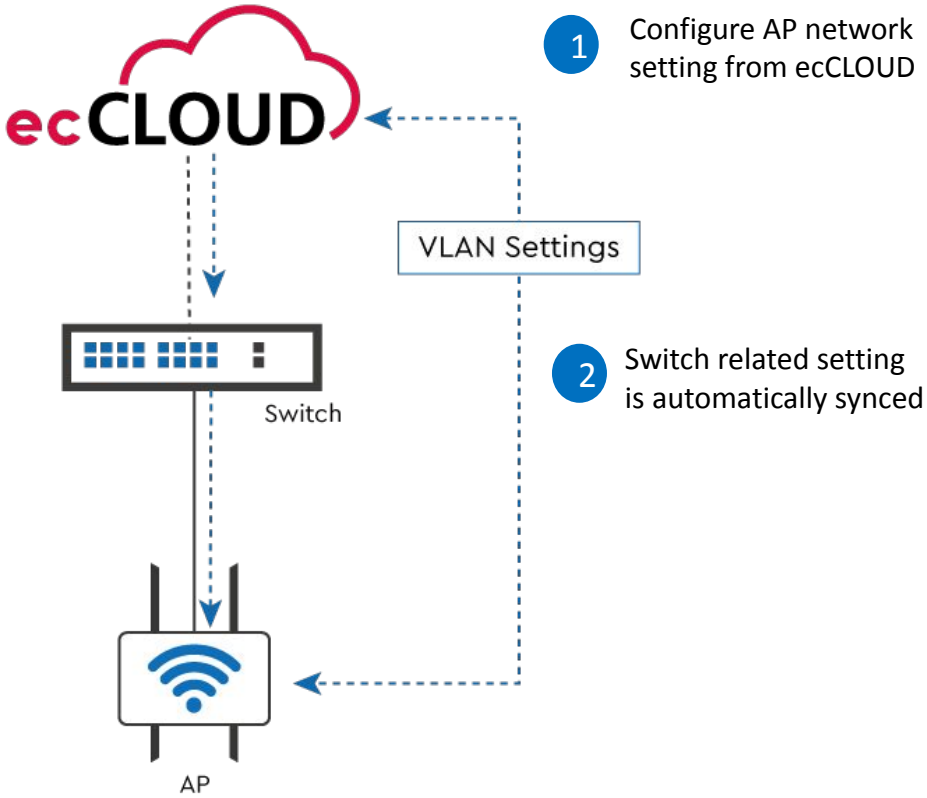


Integrated Wired & Wireless Management

- Port Security

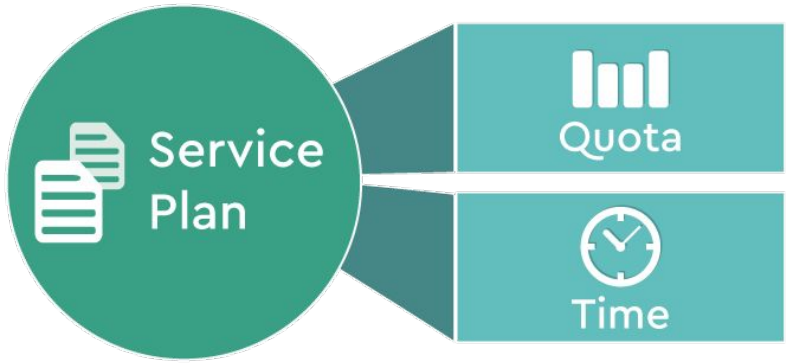


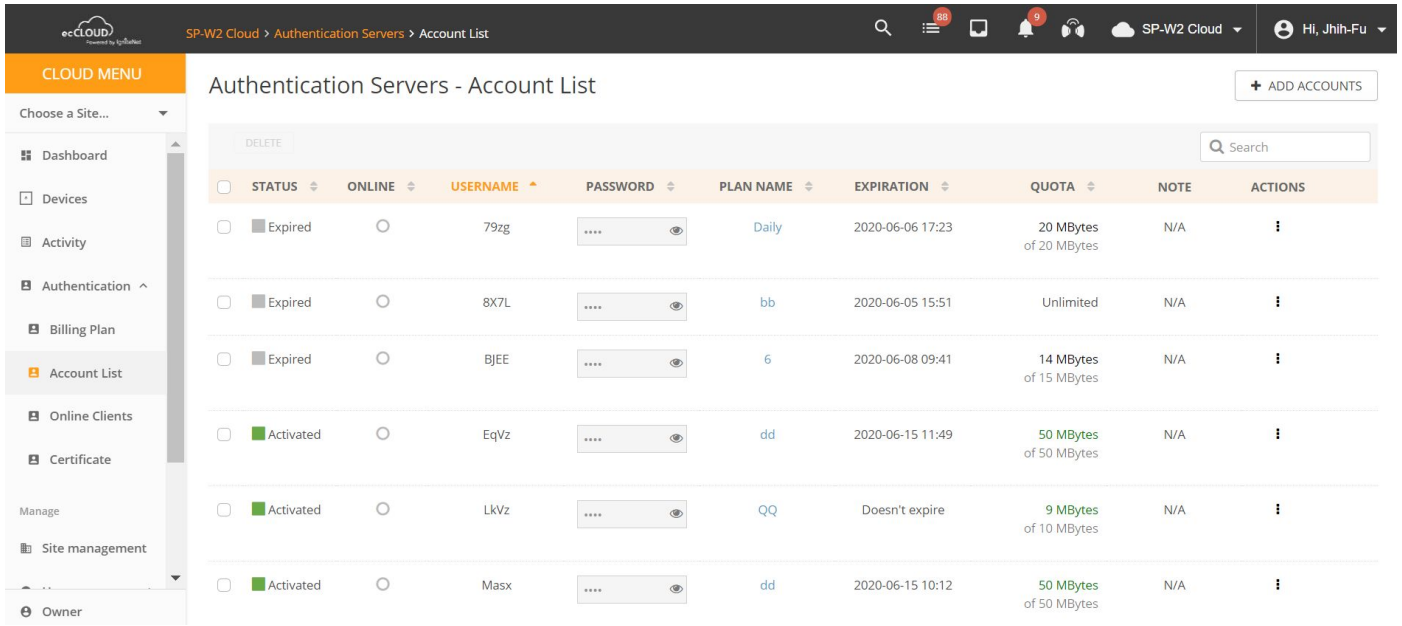
- VLAN Setting Automatic Sync



Network Security & Access Control

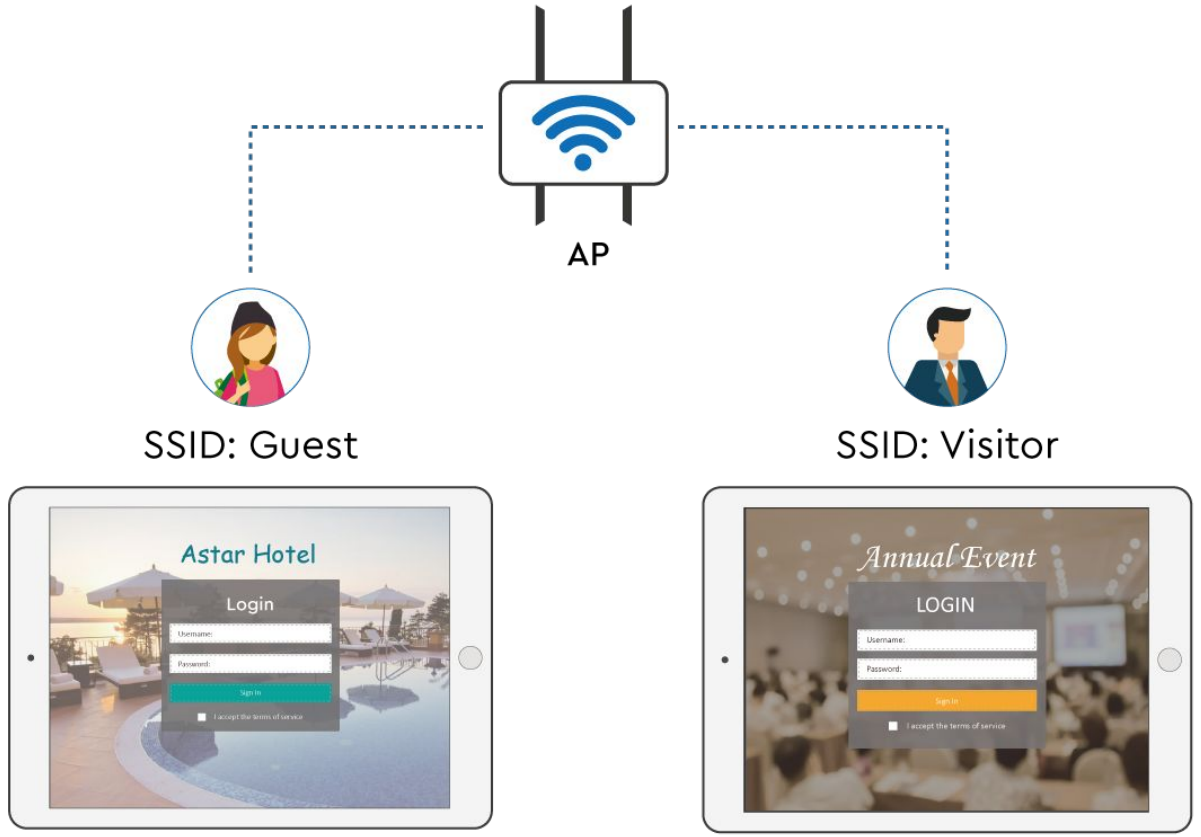
- **AuthPort – AAA of wireless clients**
  - Authentication against cloud's authentication server & account database
  - Authorization of network privileges as defined by service plans
  - Accounting to keep track of account usage





Customize Your Captive Portal as Needed

- Multiple customized captive portals can be saved
- Independent captive portal setting for each SSID



Dashboard Overview

1 The top section shows your current location on ecCLOUD.
You can do key searches here, check the tasks, latest news and alerts. You can also switch clouds here

2

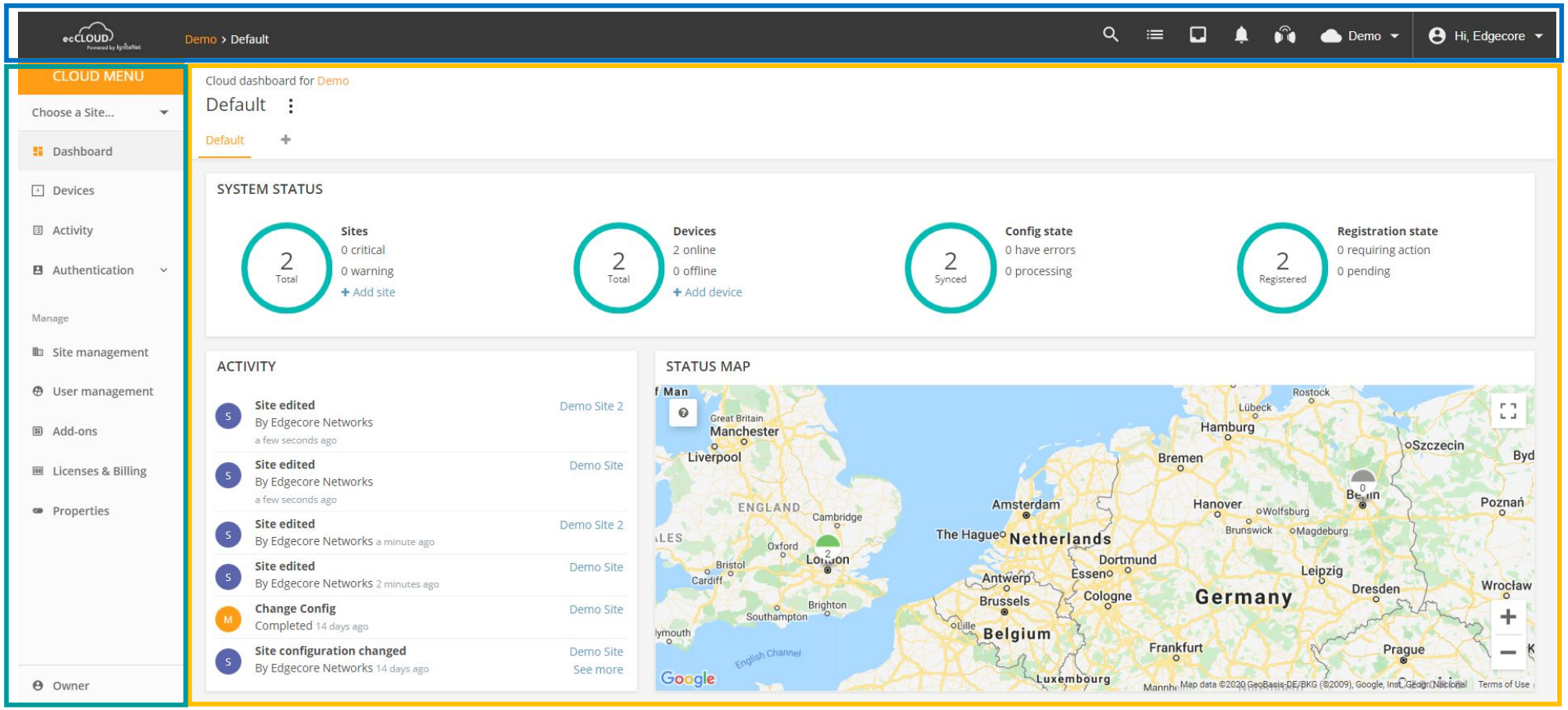
On the left section, you can get to other levels, Site and Devices

CLOUD MENU

SITE MENU

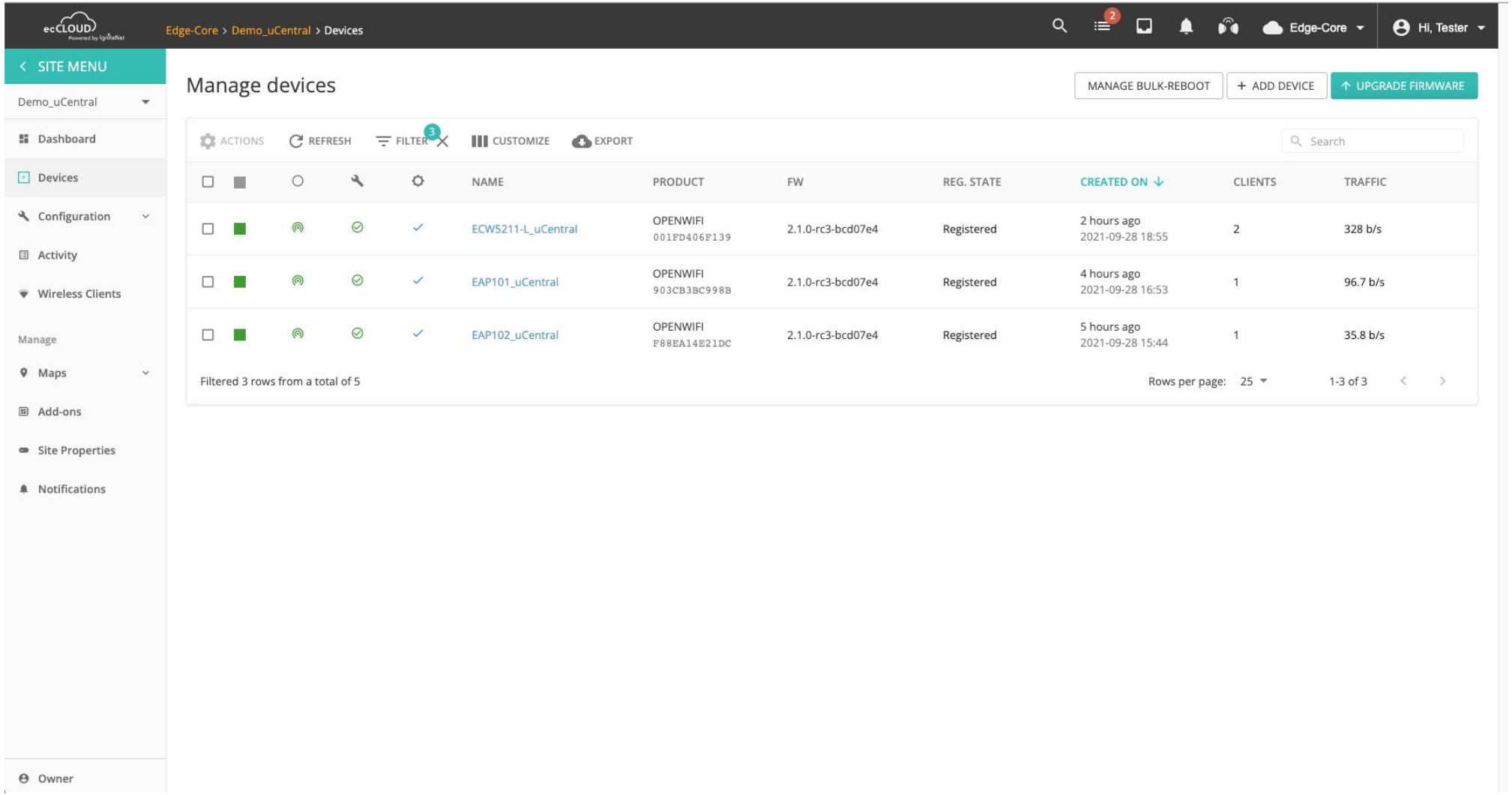
DEVICE MENU

And you can go to manage and add-ons' section here

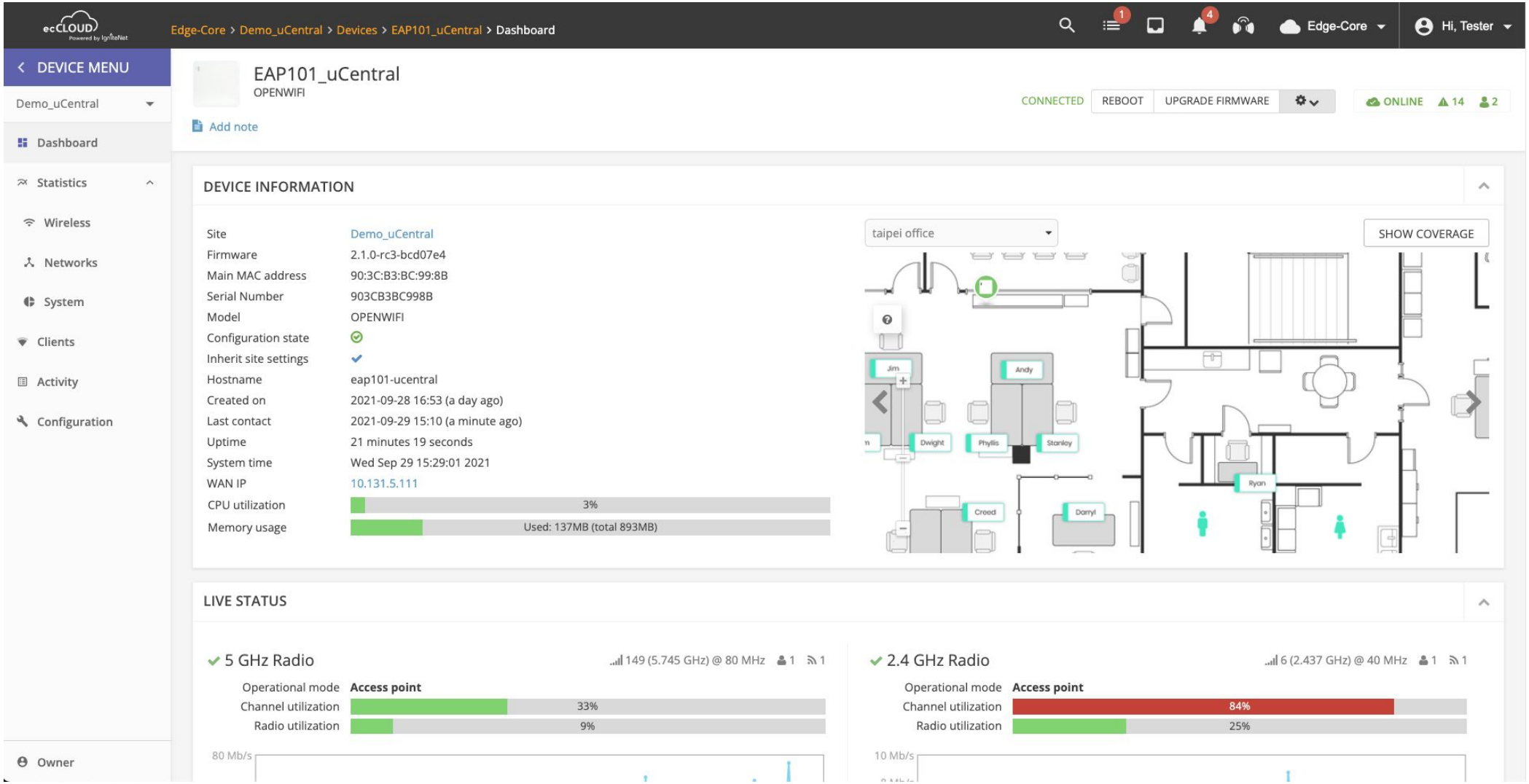


3 On the right section, you can see the system status, including device health, configuration state, registration state and traffic. There's also an activity box, showing configuration changes, channel changes and so on. Then, on the status map, you can see where the devices associated with this site have been placed.

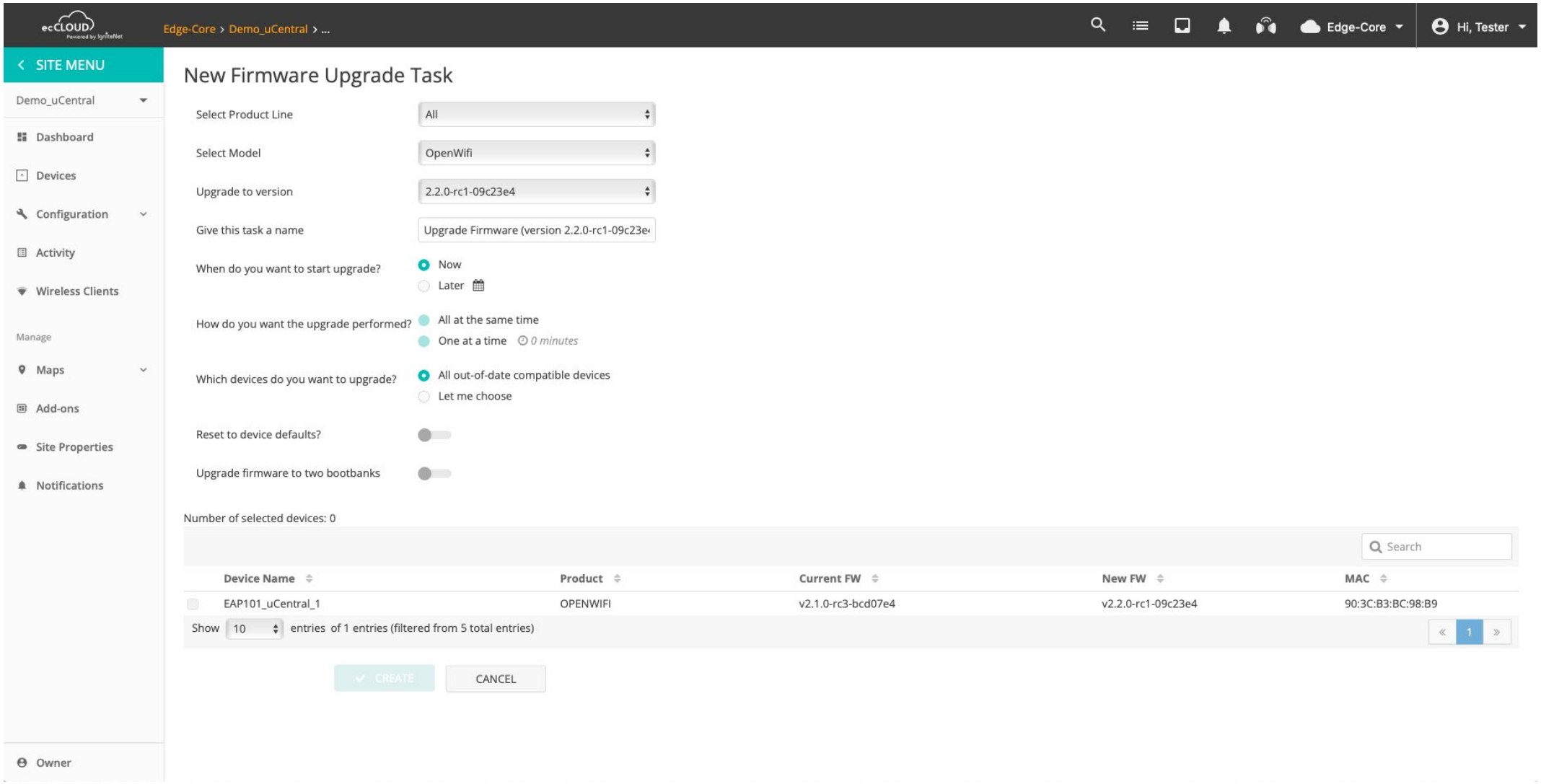
Site-Level Device List



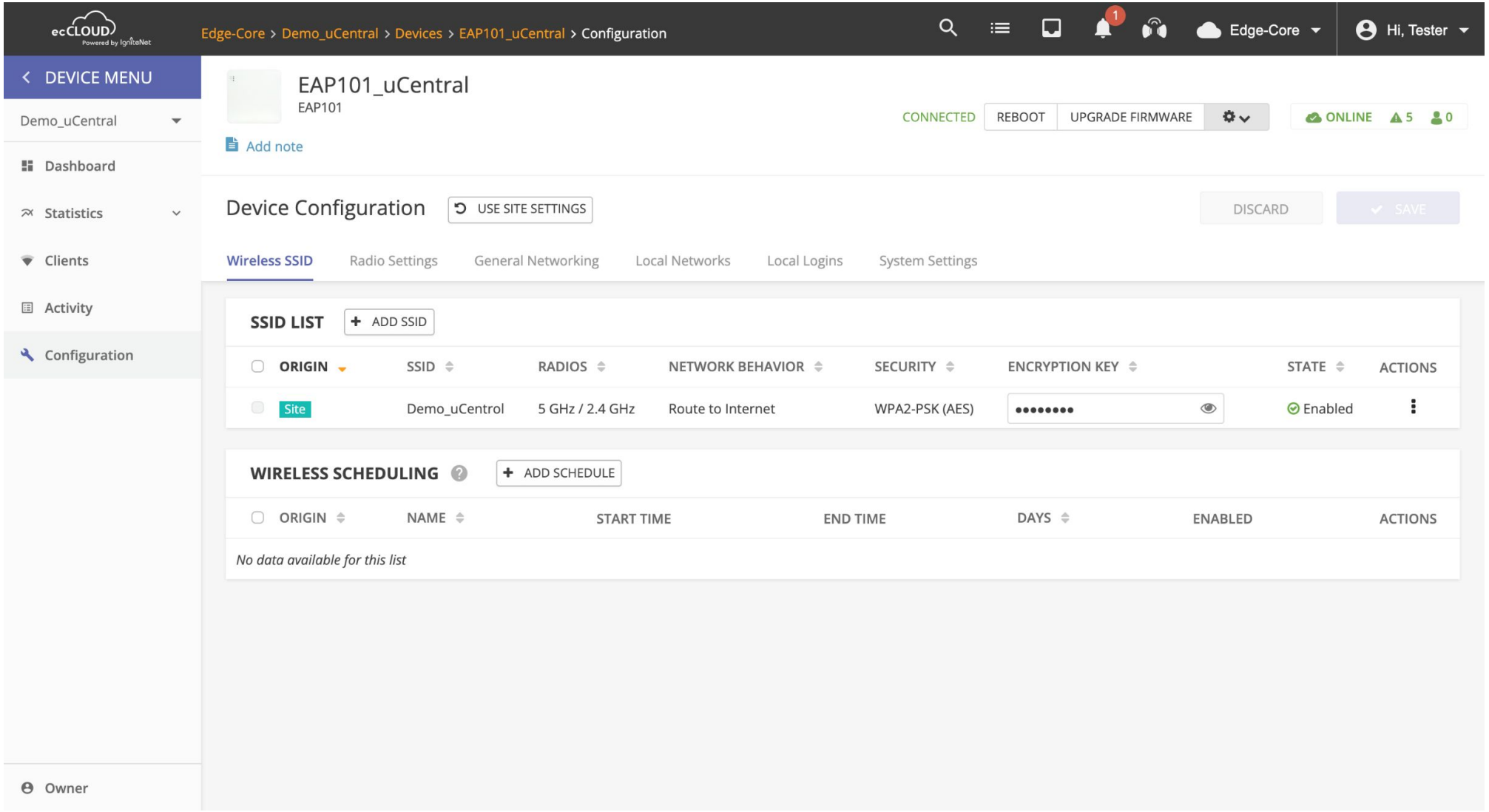
Dashboard – Information



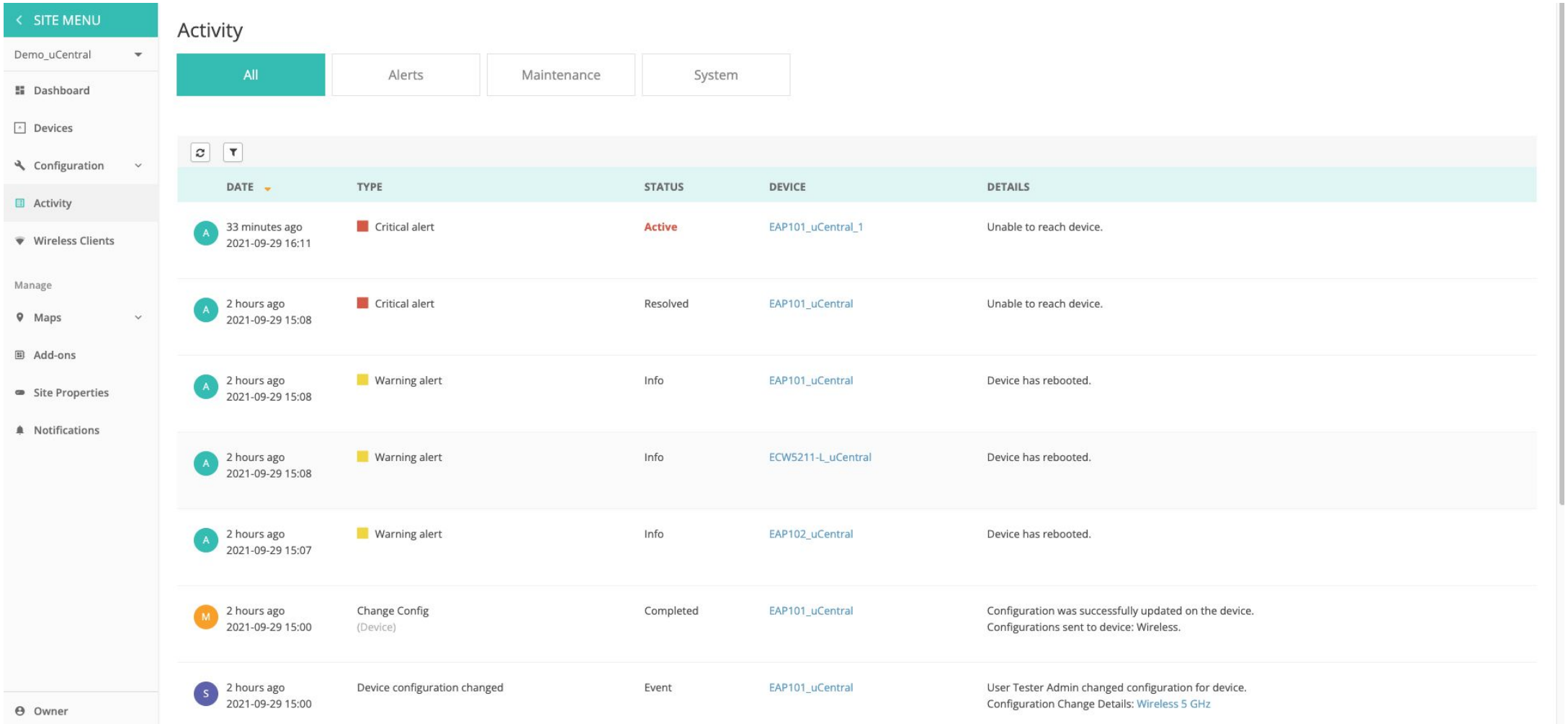
Firmware Upgrade



Configuration



Activities


SITE MENU
Demo_uCentral
Dashboard
Devices
Configuration
Activity
Wireless Clients
Manage
Maps
Add-ons
Site Properties
Notifications
Owner
Activity
All
Alerts
Maintenance
System
DATE
TYPE
STATUS
DEVICE
DETAILS
33 minutes ago 2021-09-29 16:11
Critical alert
Active
EAP101_uCentral_1
Unable to reach device.
2 hours ago 2021-09-29 15:08
Critical alert
Resolved
EAP101_uCentral
Unable to reach device.
2 hours ago 2021-09-29 15:08
Warning alert
Info
EAP101_uCentral
Device has rebooted.
2 hours ago 2021-09-29 15:08
Warning alert
Info
ECW5211-L_uCentral
Device has rebooted.
2 hours ago 2021-09-29 15:07
Warning alert
Info
EAP102_uCentral
Device has rebooted.
2 hours ago 2021-09-29 15:00
Change Config
(Device)
Completed
EAP101_uCentral
Configuration was successfully updated on the device.
Configurations sent to device: Wireless.
2 hours ago 2021-09-29 15:00
Device configuration changed
Event
EAP101_uCentral
User Tester Admin changed configuration for device.
Configuration Change Details: Wireless 5 GHz

Edgecore

TIP OpenWiFi Devices

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Wi-Fi 6 TIP Access Point

EAP101

Indoor Access Point

802.11ax	2x2:2 MU-MIMO	Dual Radio 2.4GHz + 5GHz	Up to 1.7 Gbps

EAP102

Indoor Access Point

802.11ax	4x4:4 MU-MIMO	Dual Radio 2.4GHz + 5GHz	Up to 2.9 Gbps

Wi-Fi 5 Indoor TIP Access Point

ECW5211-L

Indoor Access Point

802.11ac Wave2	2x2:2 MU-MIMO	Dual Radio 2.4GHz + 5GHz	Up to 1.2 Gbps

ECW5410-L

Indoor Access Point

802.11ac Wave2	4x4:4 MU-MIMO	Dual Radio 2.4GHz + 5GHz	Up to 1.73 Gbps

Wi-Fi 5 Outdoor TIP Access Point

SP-W2-AC1200

Indoor/Outdoor Access Point

802.11ac Wave2	2x2:2 MU-MIMO	Dual Radio 2.4GHz + 5GHz	Up to 1.3 Gbps

SS-W2-AC2600

Indoor/Outdoor Access Point

802.11ac Wave2	4x4:4 MU-MIMO	Dual Radio 2.4GHz + 5GHz	Up to 2.5 Gbps

OAP100

Outdoor Access Point

802.11ac Wave2	2x2:2 MU-MIMO	Dual Radio 2.4GHz + 5GHz	Up to 1.3 Gbps

TIP PoE Switch

ECS4100-12PH

Gigabit Ethernet Access Switch

8-port PoE	2 FE/1G uplink SFP ports	Ultra PoE 60 W	24 Gbps switching capacity

ECS4125-10P

Gigabit Ethernet Access Switch

2.5G RJ45 port	10G SFP+ Fixed Fiber port	Ultra PoE 60 W	80 Gbps switching capacity

OpenWiFi Facilitating Program

- To further thrive together with the TIP OpenWiFi ecosystem, Edgecore Networks launches the OpenWiFi Facilitating Program
- In this collaborative program, customers can:
  - Hardware vendors can test the ecCLOUD management functions with their OpenWiFi devices.
  - Software vendors can utilize ecCLOUD API for third-party application development

THANK YOU

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