



# OpenWiFi Cloud Controller



## Ideal for:



Telecom



Hotels & Resorts



Universities



Healthcare



Public Places



Airport



Transport

## Operation Management

- Customers
- AP Vendors
- AP Models
- System Admins
- Inventory
- Network Troubleshooting

## Wireless Controller

- Advanced RRM
- Dynamic Control (Channel and Power)
- Roaming
- Steering (Client, Band)
- Meshing
- Application Fingerprinting
- Policy-Airtime, Speed, etc.

**Indio Cloud OpenWiFi Cloud Controller is an open wireless cloud controller designed for Enterprise, SMB and MDU deployments. It is built on an open technology stack that includes the OpenWiFi cloud SDK and OpenWiFi AP NOS.**

It has the OpenWiFi 2.x Stack which allows the solution to be delivered on low-cost, low-compute AP hardware. This flexibility enables WiFi service providers to select any AP hardware from a list of supported ODMs, eliminating hardware vendor lock-in. It is built to support WiFi6 and WiFi6E multi-radio APs, while also maintaining backward compatibility with WiFi4 and WiFi5 APs. It can be deployed on private or public clouds, including AWS, Azure, DigitalOcean, or on-premise data centers. Additionally, it offers both SaaS and licensed platform options for WiFi service providers and enterprises, providing a versatile and scalable solution for various deployment needs.

## Config Management

- Venues
- Device Profiles
- AAA Profiles
- WIPS
- SON
- Captive Portal

## Network Visualizer

- Dashboard View
- Network insight – Venue, AP, Client

## Analytics & Reports

- Network & AP Outage Report
- Data Usage

## Troubleshooting

- Syslog
- Health Checks
- Remote Shell
- Remote Capture

## Provisioning

- Device Identity (Model, MAC, Serial Number)
- Device Software Upgrade
- Multiple SSID Configuration
- Bandwidth Rate Control per SSID
- Multi-Radio 2.4/5/6GHz Control
- AP Network Mode Control (Bridge/NAT mode)
- Security (WPA-Personal/WPA & WPA2/3 Personal Mixed/WPA & WPA2/3 Enterprise Mixed/WPA2/3 Personal/WPA2/3 Enterprise/WEP)
- VLAN per SSID
- VxLAN Port Configuration
- NTP Enable/Disable
- RTLS (Location Services) Enable/Disable

## Cloud SDK in OpenWiFi

- Zero Touch Provisioning & Discovery
- Integration Northbound Interface (NBI) RESTful
- Data model driven OpenAPI design
- Enterprise Message Bus data access
- Cloud Native & Agnostic micro services
  - Gateway Southbound
  - Security Northbound
  - Firmware Management
  - Web User Interface
  - Provisioning
  - Analytics

## RF Control

- IEEE802.11r Fast BSS Transition per Radio Control
- IEEE802.11k RRM Radio Information per Radio Control
- IEEE802.11v Network Assisted Roaming per Radio Control
- RRM Location AP Channel (uChannel) Provisioning
- RRM Location Client Steering (uSteer) Threshold Provisioning

## Remote Troubleshooting and Service Assurance

- Syslog
- Health Check Reports
  - Remote DHCP, RADIUS, UE Network Analysis
- Remote TTY Shell
- Remote Packet Capture Analysis

## Supported Vendors

- CIG
- Netgear
- TP-Link
- ZyXEL
- Sercom
- Wallys Communications
- Edgecore Networks
- HFCL Limited
- Actiontec
- Mesh+
- CyberTAN
- Lindsay Broadband
- Inventum

## Open Technology Stack

- 1 An initiative of Telecom Infra Project (TIP)
- 2 Open source cloud SDK and Enterprise-grade Access Point firmware
- 3 Community developed, disaggregated Wi-Fi software system
- 4 Two different open technology stacks available for OEMs to build open cloud controllers - 1.x and 2.x



Wi-Fi Commercial Use Cases



Indio Cloud Controller



Cloud Controller SDK



Access Point Firmware



Whitebox Access Point (OpenWiFi Compliant)

## Dashboard





Deployment & Architecture

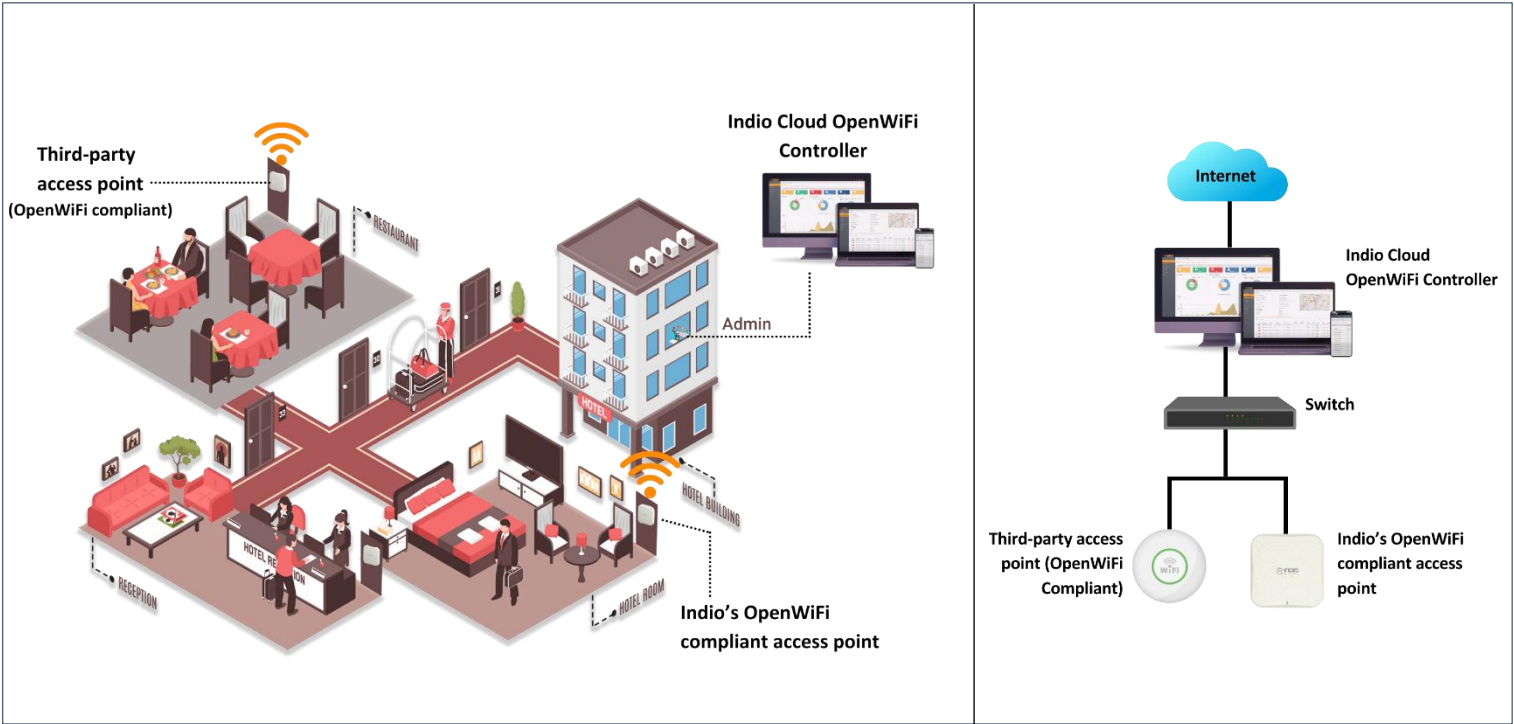


Fig. 1 OpenWiFi Deployment Scenario (Enterprise)

Fig. 2 Architecture