Mist AP21 Access Point

Mist
A.I. is in the AIR™

High Performance Wi-Fi and Bluetooth® LE

Mist built the first AI-driven wireless platform, designed specifically for the Smart Device Era. Mist's Learning Wireless LAN (WLAN) makes Wi-Fi predictable, reliable and measurable by providing unprecedented visibility into the user experience and by replacing time consuming manual IT tasks with proactive automation. In addition, Mist is the first vendor to bring Enterprise-grade Wi-Fi, Bluetooth® LE and IoT together to deliver personalized, location-based wireless services without requiring battery-powered beacons.

The Mist Learning WLAN consists of the following components:

Mist Marvis AI - Patent-pending machine learning algorithms adapt in real-time to optimize the wireless user experience. In addition, Marvis uses AI to proactively automate IT operations, provide real-time alerts, and predict problems before they arise.

Mist Cloud – All wireless deployment, setup, operations, and insight are handled via the Mist cloud, which was designed to provide unprecedented visibility and control at web scale. A microservices architecture provides maximum agility when rolling out new features/services.

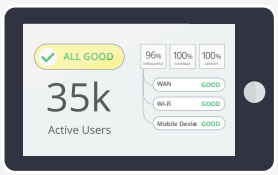
Mist Access Points – The AP21 (detailed here), AP41, and AP61 are high performance, enterprise-grade Access Points for 802.11ac Wave 2 Gigabit Wi-Fi and Bluetooth® Low Energy. The Mist BT11 is an enterprise-grade Access Point exclusively for Bluetooth® Low Energy. To view other datasheets, go to www.mist.com/resources/datasheets/

The Mist cloud, featuring a micro-services architecture, and powered by Marvis AI

	AP61	AP41	AP21	BT11
Deployment	Outdoor	Indoor	Indoor	Indoor
Wi-Fi	802.11ac Wave2 4x4:4	802.11ac Wave2 4x4:4	802.11ac Wave2 2x2:2	–
Wi-Fi Tri-Radio	✓	✓	✓	–
IoT Interface	–	✓	–	–
Antenna Options	Internal/External	Internal/External	Internal	Internal
Virtual Bluetooth® LE	✓	✓	✓	✓
Warranty	1 Year	Limited Lifetime	Limited Lifetime	Limited Lifetime

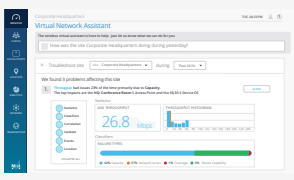
Services available on the Mist Learning WLAN:

Wi-Fi Assurance Service



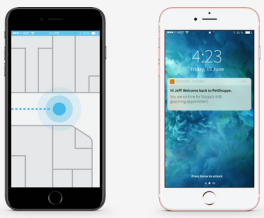
- Predictable & Reliable Wi-Fi
- Proactive Operations
- Minimize Wi-Fi Costs

Virtual Network Assistant



- Natural language queries, data mining, and feature ranking
- Simplified troubleshooting
- Proactive notifications

BLE Engagement Service



Push location-based information to mobile users, such as turn-by-turn directions and messages.

BLE Asset Visibility Service

Immediately locate high value resources + analyze traffic patterns.

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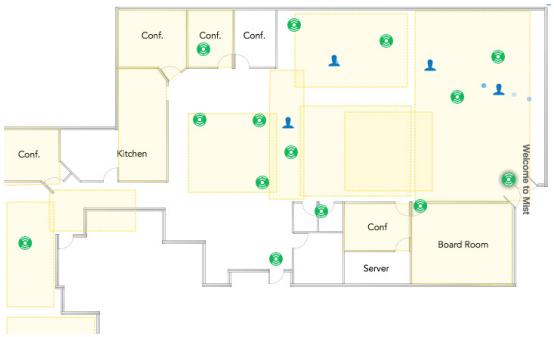
Mist AP21 Features

High performance Wi-Fi access

The AP21 delivers high performance wireless access with three 802.11ac Wave 2 radios that deliver up to 867 Mbps in the 5GHz band and up to 400 Mbps in the 2.4Ghz band.

High accuracy indoor location

The AP21 has a 16-element Virtual Bluetooth® LE (vBLE) antenna array controlled from the Mist Cloud. Passive antennas enhance the power of a single transmitter and produce directional beams to accurately detect distance and location with 1 to 3 meter accuracy. With Mist's patented vBLE technology, you can deploy an unlimited amount of virtual beacons in your physical environment without requiring battery powered BLE beacons.



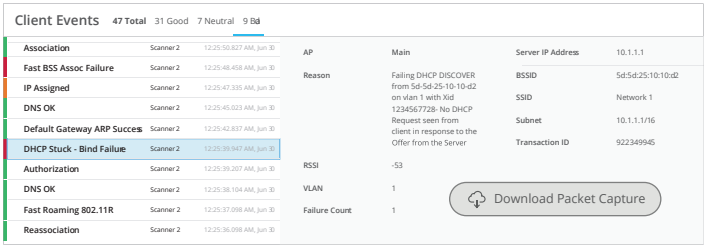
The AP21 works with the Mist cloud to provide high accuracy enterprise-grade Bluetooth® LE location services using virtual beacons

Unprecedented insight and action

A dedicated dual band radio collects data for Mist's patent-pending Proactive Analytics and Correlation Engine (PACE), which leverages machine learning to analyze user experience, correlate problems and automatically detect the root cause of problems. These metrics are used to monitor service level expectations and provide proactive recommendations to ensure problems don't occur (or are fixed as quickly as possible when they do).

Dynamic packet capture

The Mist platform automatically captures packets and streams them to the cloud when major issues are detected. This saves IT time and effort and eliminates the need for truck rolls with sniffers.



Effortless, cloud-based setup and updates

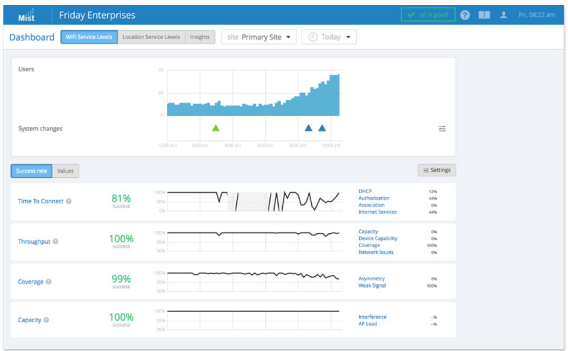
The AP21 automatically connects to the Mist cloud, downloads its configuration, and joins the appropriate network. Firmware updates are retrieved and installed automatically, ensuring that the network is always up to date with new features, bug fixes, and security updates.

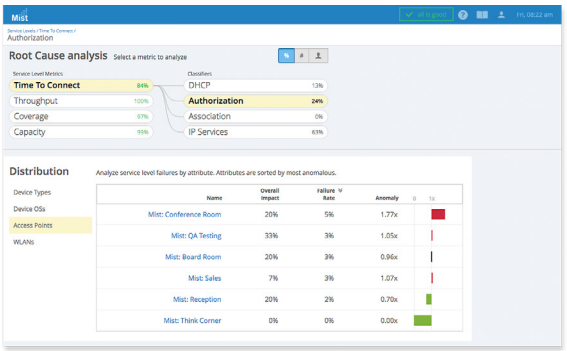
Dynamic debugging

Constantly monitor services running on the AP21 and send alerts whenever a service behaves abnormally. Dynamic debugging relieves IT of having to worry about an AP going offline or any services running on becoming unavailable

Automatic RF optimization

The AP21's dual-band scanning mode continuously scans the airspace for threats and interference. This ensures optimal performance under what could otherwise be challenging RF conditions. The AP21's dual-band sensor continuously scans the airspace for threats and interference.





The AP21 collects data for the Mist cloud to use for Proactive Analytics and Event Correlation, as well as enforcing Service Level Expectations

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Mist AP21 Specifications

SPECIFICATIONS	AP21
Gigabit Wi-Fi	Wave 2
Combined Highest Supported Data Rates	1.3Gbps
2.4Ghz	2x2:2 802.11b/g/n/ac up to 400 Mbps data rate. 802.11ac for VHT capable Proprietary clients.
5Ghz	2x2:2 802.11a/n/ac Wave 2 up to 867 Mbps data rate.
Dedicated Third Radio	2.4 GHz & 5 GHz dual-band WIDS/WIPS, spectrum analysis & location analytics radio.
Bluetooth®	16 Directional Antenna + 1 Omni Antenna Bluetooth® Array
Beam Forming	Transmit Beamforming and Maximal Ratio Combining
Power Options	802.3af PoE 12V/3A DC power supply
Powering Adaptor	100-240VAC, 50-60 Hz, input All regions (output): 12V/3A DC output
Dimensions	203mm x 203mm x 40mm (7.99in x 7.99in x 1.57in)
Weight	0.636 kg (1.4 lbs)
Operating Temperature	0° to 40° C
Operating Humidity	10% to 90% maximum relative humidity, non-condensing
Operating Altitude	3,048m (10,000 ft)
Electromagnetic Emissions	FCC Part 15 Class B
I/O	1-10/100/1000BASE-T auto-sensing RJ-45 with PoE-in 1-10/100/1000BASE-T auto-sensing RJ-45 with 48Vdc PoE-out
Indicators	Multi-color status LED
Compliance Standards	UL 60950-1 CAN/CSAC22.2 No. 60950-1 FCC Part 15.247, 15.407, 15.107, and 15.109 RSS247 ICES003 (Canada)

I/O PORTS & ACCESSORIES	
Reset	Reset to the factory default settings
12VDC	Support for the 12VDC power supply recommended by Mist
Eth1	10/100/1000 BaseT RJ45 interface
Eth0+PoE	10/100/1000 BaseT RJ45 interface that supports 802.3af/802.3at PoE PD
Brackets	AP41BR1 (T-Bar) BT11BR1 (Dry-wall)
Kensington Lock	Supported

ORDERING INFORMATION	
US/FCC Domain	AP21-US (Internal Antenna)
Rest of the World	AP21-WW (Internal Antenna)

Mist AP21 Access Point

Mist Omni-Directional Bluetooth® Antenna Array

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