The Mist Learning WLAN

Mist
A.I. is in the AIR™

Mist built the first AI-driven wireless platform, designed specifically for the Smart Device Era. With the Mist Learning WLAN, you can think centrally and act locally through a combination of cloud-based intelligence and enterprise-grade Access Points. Revolutionary machine learning technology simplifies Wi-Fi operations and delivers personalized indoor location services.

Mist Cloud with Marvis AI

The Mist platform is the first truly new approach to wireless in nearly a decade. We started with a clean sheet of paper and designed a purpose-built cloud with the following unique features

Built on modern cloud elements

- Micro-services for SaaS agility (i.e. fast, risk free changes)
- Containers ensure portability and fault tolerance
- Big data collection / analysis from every wireless user
- Built for speed and reliability using modern cloud elements like Storm, Spark, and Kafka

SaaS agility for upgrades and patches

The Mist cloud is built on a micro-services architecture that brings the agility of SaaS to wireless networks. On-demand network upgrades and patches take minutes instead of months.

Optimize the wireless user experience with Marvis AI

Mist Marvis uses patent-pending machine learning algorithms to adapt in real-time to changes in user, device, and application behavior. This ensures predictable and reliable Wi-Fi and enables accurate Bluetooth® Low Energy (BLE) location-based services.

Proactive AI-Driven IT operations

Mist Marvis uses AI to monitor network trends in real-time and send alerts when service levels degrade below defined thresholds. Recommendations are provided for troubleshooting and/or proactive configuration changes.

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

Mist Access Points

Mist is leading the convergence of Wi-Fi, Bluetooth® LE and IoT. Key to this are our enterprise-grade APs, which include the following unique features.

Best Wi-Fi and Bluetooth® LE performance

In addition to delivering the best Wi-Fi 802.11ac Wave 2 range and performance, Mist APs have a dynamic vBLE 16 antenna array for the industry's most accurate location services.

Data collection, analysis and enforcement

All Mist APs have extra radios for collecting data and enforcing policies in conjunction with the Mist cloud, which is critical when doing analytics, machine learning, location services, and event correlation

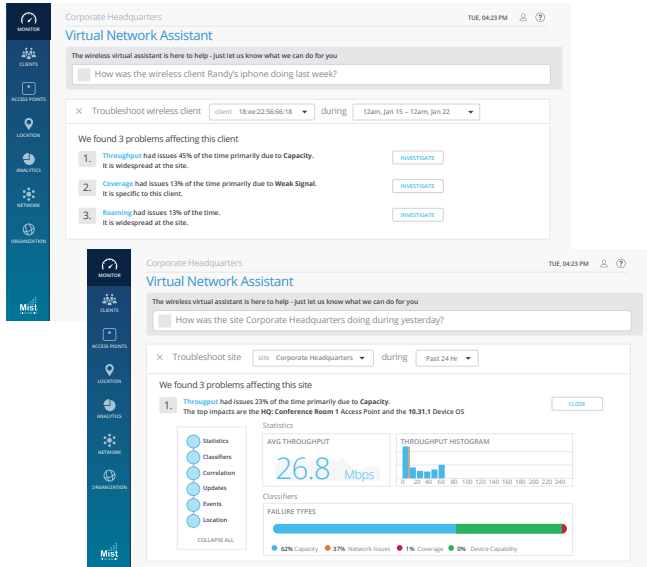### A single, enterprise-grade platform for Wi-Fi, Bluetooth® LE, and IoT

Mist APs also have an expansion port for Internet of Things (IoT). This makes Mist APs a single, enterprise-class platform for all wireless connectivity options.

Mist Access Points

	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

Virtual Network Assistant Service

Mist offers an AI-driven assistant to simplify wireless operations and helpdesk functions, resulting in substantial cost savings and a better Wi-Fi user experience.

The Mist virtual network assistant makes it easy to query the Mist system and proactively fix wireless problems.

Natural Language Interface

Put a face on Mist's AI technology with simplified queries, elastic search, feature ranking, data mining, and more.

Monitor client activity in real-time and analyze trends via the following types of questions:

- Why is Bob's computer having a problem?
- Please rank sites with best throughput
- Were there any anomalies between 7 am and 9 am?

Integrated help desk

Mist uses machine learning to facilitate wireless troubleshooting. Proactively detect anomalies, correlate events, assign confidence levels, and automatically notify the correct personnel for rapid resolution.
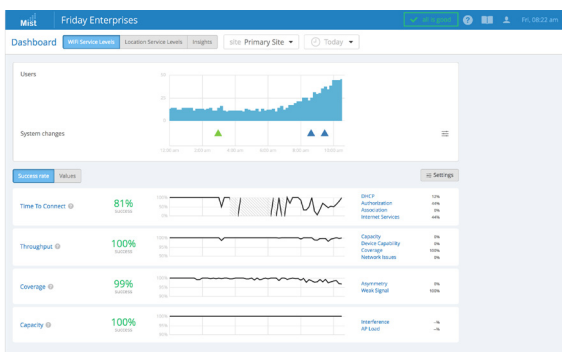
Types of problems addressed:

- DHCP (duplicate addresses, server down, …)
- RADIUS (wrong user name, expired certificates, …)
- WAN (packet loss, intermittent dropping)
- WLAN (interference, coverage, roaming, ..)
- Security (PSK typed incorrectly)

Wi-Fi Assurance Service

Mist makes Wi-Fi predictable, reliable and measurable. Automate operations to save time and money and get unprecedented visibility into the Wi-Fi user experience.

Mist Wi-Fi Assurance Service

Set, monitor and enforce service levels; Rapidly isolate and fix problems with no truck rolls

Set, monitor and enforce service levels
Mist lets you setup and track service level thresholds for key wireless criteria, such as time to connect, capacity, coverage, roaming and throughput. Drill down into users, applications, and devices and track trends over time.

Simple root cause analysis and remediation
Mist dynamically collects over 100 states from every mobile device in near real-time and correlates this information for quick problem remediation across the wireless, wired and device domains. Predictive recommendations let you prevent issues entirely.

Network rewind and dynamic packet capture
When a user is experiencing a major network anomaly the Mist system automatically detects it and starts capturing packets in the cloud. In addition, Mist lets you rewind back in time to see what was going on exactly when the event occurred.

API-first
The entire Mist platform is 100% open and programmable using Mist APIs.

Mist brings Wi-Fi, Bluetooth LE, and IoT together to deliver personalized, location-based experiences.

Let's get virtual

Patented virtual Bluetooth® LE (vBLE) technology lets you deploy and move virtual beacons with the simple click of a mouse (or via APIs), eliminating the need for physical beacons.

Machine learning eliminates manual calibration

Mist continuously collects data in real-time from all mobile devices to ensure accurate location estimates without the need for Bluetooth® LE site surveys.

Best location accuracy and performance

Dynamic vBLE 16 antenna elements in Mist APs plus machine learning in the Mist cloud ensure 1 to 3m for mobile devices, and in-room / zone level for Bluetooth® LE assets.

Detailed analytics

Monitor user visits and dwell times, with detailed drill down into specific zone traffic patterns and congestion points.
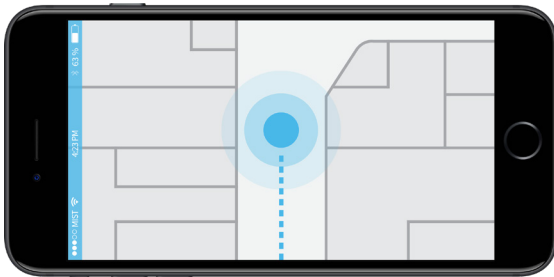
Real-time visibility

Mist gives you a real-time view of the RF environment from the mobile user's perspective. This lets you detect coverage holes and other issues, even as users move around and their RF coverage patterns change.
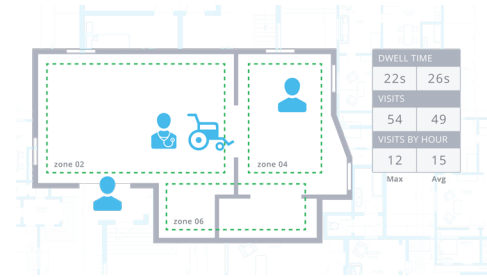
Open APIs for easy integration

Mist offers a mobile SDK for iOS and Android with three types of APIs (vBLE beacon, indoor location, and zone analytics) for seamless integration with complementary products.
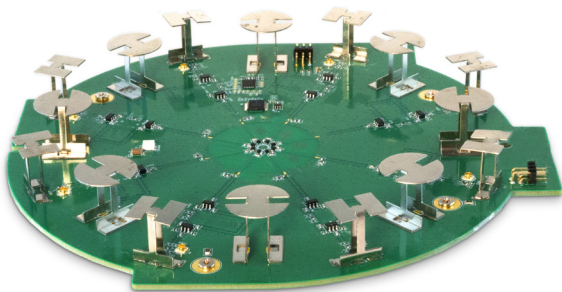
Mist Engagement Service

Location-based proximity messaging and wayfinding

Mist Asset Visibility Service

Locate key resources, like nurses and security guards; Track high value assets, like wheelchairs and forklifts

Mist Omni-Directional Bluetooth® Antenna Array