Aruba NetInsight delivers network assurance by arming IT organizations with machine learning-based network analytics to proactively run today's mobile-first networks. With automated insights, prescriptive recommendations and closed-loop implementations, businesses can continuously deliver amazing experiences for users and the Internet of Things (IoT).

As organizations move to smart digital workplaces with unpredictable connectivity patterns, more wireless initiated voice and video usage and IoT devices, NetInsight delivers the visibility and learning needed for today's always-on network requirements.

**HOW NETINSIGHT WORKS**

Data feeds from multiple sources including your Aruba wireless infrastructure, DHCP and authentication servers are gathered via a data collector that is deployed onsite in your data center.

The data is then compressed and sent via a secure tunnel to the NetInsight cloud instance.

NetInsight is then able to analyze network connectivity and performance issues by leveraging machine learning-based models, Aruba’s Wi-Fi expertise, and the latest cloud technologies.

A web-based dashboard allows network admins to view insights along with root causes, and more importantly, provides recommendations to fix immediate and foreseeable network performance issues. When enabled, NetInsight will provide closed-loop operation to automatically implement recommendations and report changes.

**KEY FEATURES**

- Prescriptive recommendations to optimize Wi-Fi performance and application assurance
- Network baseline with insights from Wi-Fi, authentication and DHCP data resources
- Real-time network anomaly detection
- Impact validation for tracking effect of network changes
- Closed-loop operation for continuous self-optimization
- Visualization of user mobility for network and resource planning
- Green AP mode for machine learning-based power savings
- Helpdesk dashboard for accelerated troubleshooting
- Cloud sourcing for cross-organization comparisons
**KEY CAPABILITIES**

**Wi-Fi Benchmarking**
Proactively optimize network performance with:

- Automatic classification of individual APs based on environmental measures such as radio propagation, AP arrangement, user behavior and traffic characteristics
  - Radio propagation attributes include path loss exponent, through-ceiling loss and number of adjacent floors
  - AP arrangement attributes include AP density, AP uniformity, and AP capabilities
  - User behavior attributes include user density, user mobility, connection duration, and device class mix
  - Traffic attributes include load statistics, application type distribution and UL/DL ratio
- Anonymous benchmarking based on comparative learnings against similar networks
- Recommendations and automatic implementation for closed-loop self-optimization configuration tuning

**Impact Validation**
Measure the outcome of changes on the network based on key performance indicators with before and after comparisons for monitoring the outcome of a change to validate it has improved performance.

**Real-time Anomaly Detection**
Easily detect network performance deviations that can be extremely difficult to identify manually, but can be early indicators of bigger problems:

- Baseline models of “normal” using machine learning attributes of tracked metrics
- Automatic monitoring of inconsistent device and radio performance trends
- Intelligent clustering of data to focus on anomalies that will actually degrade user experience

**User Connectivity Insights**
Focus on what is truly impacting users with:

- Real-time monitoring of authentication, DHCP and Wi-Fi connectivity failures
- Automatic elimination of false positives to discount irrelevant failures
- Insight-driven root cause analysis and recommendations to fix problems proactively

**Power Saving with Green AP mode**
Machine learning-based AP power management for:

- Real-time AP power management and operational savings
- Automatic power down/up based on demand trends
  Compliance with corporate social responsibility initiatives

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**Figure 1: Aruba NetInsight Topology**
**SPECIFICATIONS**

NetInsight Solution Components

- Cloud-based Interface
- Data Collector – 1U Server (HPDL360) running CentOS7

Data Sources

- Aruba Mobility Controllers – version 6.4.x and higher
- Aruba ClearPass – version 6.6 and higher
- Aruba AirWave – version 8.2 and higher
- DHCP – Infoblox, ISC, BlueCat

Network Protocols

- AMON – Aruba Controllers
- Syslog – Aruba ClearPass, DHCP & DNS
- XML – Aruba AirWave

Security

- IPSec tunnel to secure traffic between the data collector and NetInsight instance in the cloud

**Green AP**

- AOS 8.4 minimum
- Aruba 500-series 802.11ax Controller-base APs

**Closed-loop Optimization**

- Requires Mobility Master

**ORDERING AND SUPPORT**

NetInsight is available as a 1, 3 or 5 year subscription. It is licensed per network device. Network devices include APs and Controllers.

For example, to subscribe to NetInsight for 3 years with a network consisting of 2,000 APs and 5 Controllers, order 2,005 x 3-year subscription SKU (JZ116AAE).

Support is included with the subscription part numbers for software, the collector and any general questions. Aruba technical assistance is available via standard phone and on-line methods.

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<th>Part Number</th>
<th>Description</th>
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