HPE Aruba Networking ClearPass Device Insight

Full-spectrum visibility and identification of network connected devices

Key features

- Provides full spectrum visibility of network connected devices to eliminate blind spots

- Behavioral analysis goes beyond traditional hardware-based profiling for precise identification

- Utilizes advanced machine-learning to identify unknown devices and speed time-to-identification

- Seamlessly integrates with HPE Aruba Networking ClearPass Policy Manager for real-time enforcement and accelerated response

- Cloud-based solution simplifies deployment and management for faster time-to-value and cost savings

Today's networks have become increasingly more complex, due in part to the rapid adoption of Internet of Things (IoT) devices which are often difficult to detect and manage. In order to leverage the operational efficiencies of mobile and IoT, many organizations are deploying a wide range of devices, without fully understanding the security and compliance implications.

HPE Aruba Networking ClearPass Device Insight provides a full-spectrum of visibility across the network by intelligently discovering and profiling all connected devices. This includes detailed device attributes such as device type, vendor, hardware version, and behavior including applications and resources accessed. This allows organizations to create more granular access policies, reduce security risks and meet key compliance requirements.

As a part of HPE Aruba Networking ClearPass family of industry-leading access control solutions, ClearPass Device Insight

provides the visibility needed to make better informed network access control decisions. Integration with HPE Aruba Networking ClearPass Policy Manager delivers comprehensive policy control and real time enforcement. This makes the visibility provided by ClearPass Device Insight actionable and increases the overall level of security and compliance for all devices connected to the network.

Full-spectrum visibility

HPE Aruba Networking ClearPass Device Insight addresses the most stringent visibility requirements for the most diverse network environments. This includes the ability to broadly and accurately identify all wireless and wired devices connected to the network—from traditional IT managed devices to previously undetected IoT devices such as cameras, medical equipment and other hard to detect endpoints.

ClearPass Device Insight utilizes a unique set of both active (NMAP, WMI, SNMP, SSH) and passive discovery methods (SPAN, DHCP, NetFlow/S-flow/IPFIX) in order to discover and classify a wider range of device types. These capabilities are further enhanced through the use of deep packet inspection which provides additional context and behavioral information that can further identify difficult-to-detect devices connected to the network.

Rich context and behavioral intelligence

By utilizing data collection and deep packet inspection techniques, HPE Aruba Networking ClearPass Device Insight is able to analyze the characteristics and behavioral patterns of any device and extract specific attributes for each. Some of these attributes include domain name lookup, destination IP addresses, applications accessed, and frequency of communication. These attributes can then be used to identify a device using a set of known fingerprints. If there is not a match, machine learning models are used to group unknown devices that exhibit similar characteristics.

Advanced machine learning

HPE Aruba Networking ClearPass Device Insight analyzes device attributes including communication and behavior patterns to dynamically build clusters of similar devices. Machine learning models are used to constantly

learn and update these attributes to dynamically update fingerprints and provide classification recommendations. ClearPass Device Insight uses crowd-sourcing technology to validate fingerprints at multiple customer sites before adding them to the HPE Aruba Networking classification database. This increases the precision and comprehensiveness of the classification engine.

Seamless integration with ClearPass Policy Manager

Visibility without proper control can leave organizations open to security and compliance risks. The integration of HPE Aruba Networking ClearPass Device Insight with HPE Aruba Networking ClearPass Policy Manager provides closed loop, end-to-end access control from visibility to automated enforcement. Devices that are discovered through ClearPass Device Insight can automatically be segmented based on a given policy or even quarantined in the event they are behaving in a malicious or insecure manner. With additional visibility and actionable insight, ClearPass Device Insight can increase overall levels of security and compliance for all devices connected to the network.
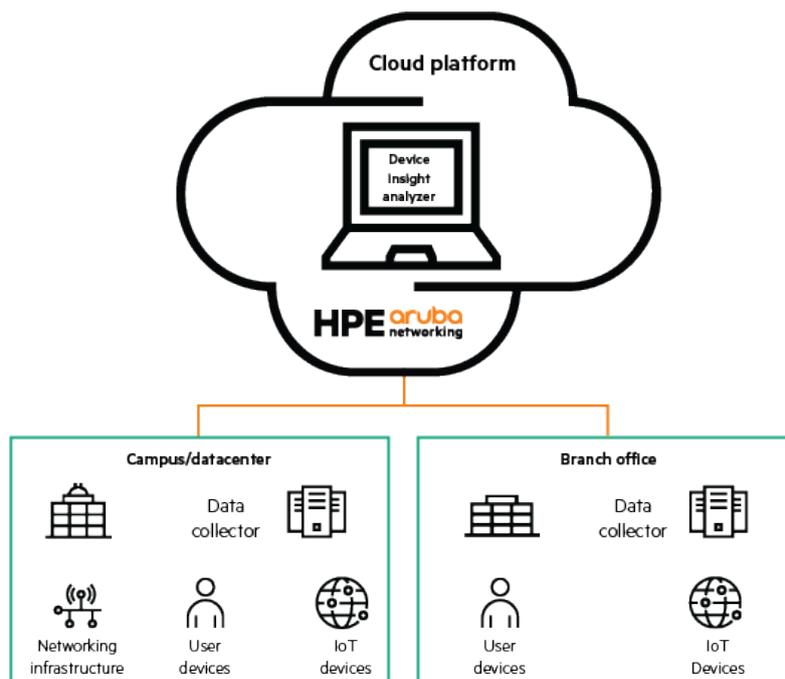
Figure 1. Attributes collected on the network are sent to HPE Aruba Networking ClearPass Device Insight Analyzer to accurately identify connected devices.

HPE Aruba Networking Central cloud with Client Insights

HPE Aruba Networking's network management solution HPE Aruba Networking Central cloud now includes AI-powered client visibility as a native service. Client Insights offers the most granular profiling and visibility in the industry and leverages native infrastructure telemetry from access points, switches, and gateways, as well as clients. Client Insights does not require the installation of physical collectors or agents, thus reducing the complexity and cost of client monitoring in large, distributed deployments.

ML-based classification models are used to fingerprint, identify, and accurately profile a wide variety of clients across the entire wired and wireless infrastructure.

By leveraging deep packet inspection, Client Insights can utilize a broader set of client attributes that include communication and behavioral patterns for more accurate identification and fingerprinting. Additionally, controlled crowd-sourcing technology is used to validate fingerprints at multiple customer sites before adding them to the HPE Aruba Networking classification database.

Client Insights with HPE Aruba Networking Central cloud also integrates seamlessly with HPE Aruba Networking ClearPass Policy Manager for automated policy enforcement. Learn more here.

Accelerating time-to-value

Managing business critical applications across expanding mobile environments are driving heightened availability, performance and security expectations. HPE Aruba Networking ClearPass Device Insight leverages a multi-tiered, cloud architecture to speed deployment time and accelerate time-to-value. Data Collectors on-site are used to continuously gather device attributes, which are sent to the ClearPass Device Insight Analyzer hosted in the cloud. This approach provides centralized, continuous discovery and monitoring of network connected devices.

Specifications

Data Collector

Data Collectors are available as turn-key hardware appliances, or as virtual appliances. Virtual appliances are available in two configurations: DC1000V supports up to 2,000 devices and DC2000V supports up to 20,000 devices. Each virtual appliance requires VMWare ESXi 6.0 or higher.

Data collector hardware appliance specifications

Hardware model	HPE DL360 Gen10
CPU	12-core 2.4 GHz XEON-G 5115
Memory	64 GB
HPE SmartDrives	2 x HPE 480GB SATA 6G Mixed Use SFF
Serial port	DB-9
Supported devices	20,000
Throughput	2 Gbps
Form factor	
Rackmount	1U SFF Easy Install Rail
Dimensions (H x W x D)	1.69" x 17.1" x 27.8" (4.29 x 43.46 x 70.7 cm)
Weight	35.89 lbs. (16.27 kg) max
Networking	4 x 1GbE Embedded+ FlexibleLOM slot 4 x 1GbE 366FLR Adapter 2 x 10GbE 562SFP+ Adapter
VGA/Serial/USB ports	Front VGA, Rear VGA, DB-9, 3 x USB
MicroSD slot	1 Micro SD slot
Power	
Power supply	HPE 500W FS Plat Ht Plg LH Power Supply Kit
Power redundancy	Optional redundant power supply

Data collector hardware appliance specifications

Power

AC input voltage	100/240 VAC Auto-Selecting
AC input frequency	50/60 Hz Auto-Selecting

Environmental

Operating temperature	10°C to 35°C (50°F to 95°F)

Ordering information

Part number	Description
Hardware appliances	
R1P62A	HPE Aruba Networking Central Data Collector—DC2000
HC8S2E	HPE Aruba Networking 1 Year Foundational Care Next Business Day Exchange Data Collector Service
HC8T0E	HPE Aruba Networking 3 Year Foundational Care Next Business Day Exchange Data Collector Service
HC8X6E	HPE Aruba Networking 5 Year Foundational Care Next Business Day Exchange Data Collector Service
Subscription licenses (1-year)	
R0Z66AAE	HPE Aruba Networking ClearPass Device Insight New License for 100 Devices for 1-Year E-STU
R0Z67AAE	HPE Aruba Networking ClearPass Device Insight New License for 500 Devices for 1-Year E-STU
R0Z68AAE	HPE Aruba Networking ClearPass Device Insight New License for 1K Devices for 1-Year E-STU
R0Z69AAE	HPE Aruba Networking ClearPass Device Insight New License for 2500 Devices for 1-Year E-STU
R0Z70AAE	HPE Aruba Networking ClearPass Device Insight New License for 5K Devices for 1-Year E-STU
R0Z71AAE	HPE Aruba Networking ClearPass Device Insight New License for 10K Devices for 1-Year E-STU
R0Z72AAE	HPE Aruba Networking ClearPass Device Insight New License for 25K Devices for 1-Year E-STU
R0Z73AAE	HPE Aruba Networking ClearPass Device Insight New License for 50K Devices for 1-Year E-STU
R0Z74AAE	HPE Aruba Networking ClearPass Device Insight New License for 100K Devices for 1-Year E-STU
Subscription licenses (3-year)	
R0Z75AAE	HPE Aruba Networking ClearPass Device Insight New License for 100 Devices for 3-Year E-STU
R0Z76AAE	HPE Aruba Networking ClearPass Device Insight New License for 500 Devices for 3-Year E-STU
R0Z77AAE	HPE Aruba Networking ClearPass Device Insight New License for 1K Devices for 3-Year E-STU
R0Z78AAE	HPE Aruba Networking ClearPass Device Insight New License for 2500 Devices for 3-Year E-STU
R0Z79AAE	HPE Aruba Networking ClearPass Device Insight New License for 5K Devices for 3-Year E-STU
R0Z80AAE	HPE Aruba Networking ClearPass Device Insight New License for 10K Devices for 3-Year E-STU

Ordering information

Part number	Description
Subscription licenses (3-year)	
R0Z81AAE	HPE Aruba Networking ClearPass Device Insight New License for 25K Devices for 3-Year E-STU
R0Z82AAE	HPE Aruba Networking ClearPass Device Insight New License for 50K Devices for 3-Year E-STU
R0Z83AAE	HPE Aruba Networking ClearPass Device Insight New License for 100K Devices for 3-Year E-STU
Subscription licenses (5 year)	
R0Z84AAE	HPE Aruba Networking ClearPass Device Insight New License for 100 Devices for 5-Year E-STU
R0Z85AAE	HPE Aruba Networking ClearPass Device Insight New License for 500 Devices for 5-Year E-STU
R0Z86AAE	HPE Aruba Networking ClearPass Device Insight New License for 1K Devices for 5-Year E-STU
R0Z87AAE	HPE Aruba Networking ClearPass Device Insight New License for 2500 Devices for 5-Year E-STU
R0Z88AAE	HPE Aruba Networking ClearPass Device Insight New License for 5K Devices for 5-Year E-STU
R0Z89AAE	HPE Aruba Networking ClearPass Device Insight New License for 10K Devices for 5-Year E-STU
R0Z90AAE	HPE Aruba Networking ClearPass Device Insight New License for 25K Devices for 5-Year E-STU
R0Z91AAE	HPE Aruba Networking ClearPass Device Insight New License for 50K Devices for 5-Year E-STU
R0Z92AAE	HPE Aruba Networking ClearPass Device Insight New License for 100K Devices for 5-Year E-STU

☀ Cyber Catalyst

The Cyber Catalyst℠ program, leading cyber insurers evaluate and identify solutions they consider effective in reducing cyber risk. Participating insurers include Allianz; AXIS; AXA XL, a division of AXA; Beazley; CFC; Munich Re; Sompo International; and Zurich North America. Microsoft is a technical advisor to the program.

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