DATA SHEET

ARUBA CLEARPASS POLICY MANAGER

The most advanced Secure NAC platform available

Aruba's ClearPass Policy Manager, part of the Aruba 360 Secure Fabric, provides role- and device-based secure network access control for IoT, BYOD, corporate devices, as well as employees, contractors and guests across any multivendor wired, wireless and VPN infrastructure that use them.

With a built-in context-based policy engine, RADIUS, TACACS+, non-RADIUS enforcement using OnConnect, device profiling, posture assessment, onboarding, and guest access options, ClearPass is unrivaled as a foundation for network security for organizations of any size.

For comprehensive integrated security coverage and response using firewalls, EMM/MDM and other existing solutions, ClearPass supports the Aruba 360 Security Exchange Program. This allows for automated threat detection and response workflows that integrate with third-party security vendors and IT systems previously requiring manual IT intervention.

In addition, ClearPass supports secure self-service capabilities, making it easier for end users trying to access the network. Users can securely configure their own devices for enterprise use or Internet access based on admin policy controls. Aruba wireless customers in particular can take advantage of unique integration capabilities such as AirGroup, as well as ClearPass Auto Sign-On (ASO). ASO enables a user's network authentication to pass automatically to their enterprise mobile apps so they can get right to work.

The result is detailed visibility of all wired and wireless devices connecting to the enterprise, increased control through simplified and automated authentication or authorization of devices, and faster, better incident analysis and response through the integration of Aruba IntroSpect UEBA and third-party partner ecosystems. This is achieved with a comprehensive and scalable policy management platform that goes beyond traditional AAA solutions to deliver extensive enforcement capabilities for IT-owned and BYOD security requirements.

KEY FEATURES

- Role-based network access enforcement for multi-vendor wireless, wired and VPN networks.
- Virtual and hardware appliances that can be deployed in a cluster to increase scalability and redundancy.
- Intuitive policy configuration templates and visibility troubleshooting tools.
- Supports multiple authentication/authorization sources (AD, LDAP, SQL dB).
- Self-service device onboarding with built-in certificate authority (CA) for BYOD.
- Guest access with extensive customization, branding and sponsor-based approvals.
- Supports NAC and EMM/MDM integration for mobile device assessments.
- Comprehensive integration with the Aruba 360 Security Exchange Program.
- Single sign-on (SSO) support works with Ping, Okta and other identity management tools to improve user experience to SAML 2.0-based applications.
- Advanced reporting and granular alerts.
- Active and passive device fingerprinting.
- Support for popular virtualizations platforms such as VMware vSphere Hypervisor (ESXi), Microsoft Hyper-V, CentOS KVM & Amazon AWS (EC2).

THE CLEARPASS DIFFERENCE

ClearPass is the only policy platform that centrally enforces all aspects of enterprise-grade access security for any industry. Granular policy enforcement is based on a user's role, device type and role, authentication method, EMM/MDM attributes, device health, traffic patterns, location, and time-of-day.

Deployment scalability supports tens of thousands of devices and authentications which surpasses the capabilities offered by legacy AAA solutions. Options exist for small to large organizations, from centralized to distributed environments.

ADVANCED POLICY MANAGEMENT

Enforcement and visibility for wired and wireless

With ClearPass, organizations can deploy wired or wireless using standards-based 802.1X enforcement for secure authentication. ClearPass also supports MAC address authentication for IoT and headless devices that may lack support for 802.1X. For wired environments where RADIUS based authentication cannot be deployed, OnConnect, offers an alternative using SNMP based enforcement.

Authentication methods can be used to concurrently support a variety of use-cases. It also includes support for multi-factor authentication based on log-in times, posture checks, and other context such as new user, new device, and more.

Attributes from multiple identity stores such as Microsoft Active Directory, LDAP-compliant directory, ODBC-compliant SQL database, token servers and internal databases across domains can be used within a single policy for fine- grained control.

Contextual data from these profiled devices allows for IT to define what devices can access either the wired, VPN, or wireless network. Device profile changes are dynamically used to modify authorization privileges. For example, if a Windows laptop appears as a printer, ClearPass policies can automatically deny access.

Secure device configuration of personal devices

ClearPass Onboard provides automated provisioning of any Windows, macOS, iOS, Android, Chromebook, and Ubuntu devices via a user driven self-guided portal. Network details, security settings and unique device identity certificates are automatically configured on authorized devices. Cloud identity services like Microsoft Azure Active Directory, Google G Suite and Okta can also be leveraged as identity providers with Onboard for secure certificate enrollment.

Device health checks

ClearPass OnGuard leverages persistent and dissolvable agents to perform advanced endpoint posture assessments over wireless, wired and VPN connections. OnGuard's health-check capabilities ensure compliance and network safeguards before devices connect.

Customizable visitor management

ClearPass Guest simplifies visitor workflow processes to enable employees, receptionists, and other non-IT staff to create temporary guest accounts for secure wireless and wired access. Highly customizable, mobile friendly portals provide easy-to-use login processes that include self-registration, sponsor approval, and bulk credential creation support any visitor needs – enterprise, retail, education, large public venue. Credentials can be delivered by SMS, email, printed badges, or input directly through cloud identity providers such as Facebook or Twitter.

Built in support for commercial oriented guest Wi-Fi hotspots with credit card billing and 3rd party advertising driven workflows make it simple to integrate into a wide variety of environments.

ARUBA 360 SECURITY EXCHANGE PROGRAM

Integrate with security and workflow systems

Support for the Aruba 360 Security Exchange Program is an integrated component of ClearPass. Using features like REST-based APIs, RADIUS Accounting Proxy, and Syslog ingestion help facilitate workflows with EMM/MDM, SIEM, firewalls, help-desk systems and more. Context is shared between each component for end-to-end policy enforcement and visibility.

The ClearPass Ingress Event Engine provides 3rd party systems the means to share information in real-time using Syslog. This enables ClearPass to respond to changing threats for users and devices after they have authenticated to the network. By utilizing an open dictionary approach, anyone can write a parsing ruleset without the need for costly add-ons or locked in 3rd party ecosystems.

ADVANCED REPORTING AND ALERTING

ClearPass Insight provides advanced reporting capabilities via customizable reports. Information about authentication trends, profiled devices, guest data, on-boarded devices, and endpoint health can also be viewed in an easy to use dashboard. Insight also has support for granular alerts and a watchlist to monitor specific authentication failures.

SPECIFICATIONS

Appliances

ClearPass is available as hardware or as a virtual appliance. Virtual appliances are supported on VMware vSphere Hypervisor (ESXi), Microsoft Hyper-V, CentOS KVM & Amazon EC2.

- VMware ESXi 5.5 up to 6.5 Update 1
- Microsoft Hyper-V 2012/2016 R2 and Windows 2012/2016 R2 Enterprise
- KVM on CentOS 6.6, 6.7 and 6.8
- Amazon AWS (EC2)

Platform

- Deployment templates for any network type, identity store and endpoint
- 802.1X, MAC authentication and captive portal support
- ClearPass OnConnect for SNMP-based enforcement on wired switches
- Advanced reporting, analytics and troubleshooting tools
- Interactive policy simulation and monitor mode utilities
- Multiple device registration portals – Guest, Aruba AirGroup, BYOD, and un-managed devices
- Admin/operator access security via CAC and TLS certificates

Framework and protocol support

- RADIUS, RADIUS CoA, TACACS+, web authentication, SAML v2.0
- EAP-FAST (EAP-MSCHAPv2, EAP-GTC, EAP-TLS)
- PEAP (EAP-MSCHAPv2, EAP-GTC, EAP-TLS, EAP-PEAP-Public, EAP-PWD)
- TTLS (EAP-MSCHAPv2, EAP-GTC, EAP- TLS, EAP-MD5, PAP, CHAP)
- EAP-TLS
- PAP, CHAP, MSCHAPv1 and 2, EAP-MD5
- OAuth2
- Windows machine authentication
- SMB v2/v3
- Online Certificate Status Protocol (OCSP)
- SNMP generic MIB, SNMP private MIB
- Common Event Format (CEF), Log Event Extended Format (LEEF)

Supported identity stores

- Microsoft Active Directory
- RADIUS
- Any LDAP compliant directory
- MySQL, Microsoft SQL, PostGRES and Oracle 11g ODBC-compliant SQL server
- Token servers
- Built-in SQL store, static hosts list
- Kerberos
- Microsoft Azure Active Directory
- Google G Suite

RFC standards

2246, 2248, 2407, 2408, 2409, 2548, 2759, 2865, 2866, 2869, 2882, 3079, 3576, 3579, 3580, 3748, 3779, 4017, 4137, 4301, 4302, 4303, 4308, 4346, 4514, 4518, 4809, 4849, 4851, 4945, 5216, 5246, 5280, 5281, 5282, 5755, 5759, 6818, 6960, 7030, 7296, 7321, 7468, 7815, 8032, 8247

Internet drafts

Protected EAP Versions 0 and 1, Microsoft CHAP extensions, dynamic provisioning using EAP-FAST, TACACS+, draft-ietf-curdle-pkix-00 EdDSA, Ed25519, Ed448, Curve25519 and Curve448 for X.509, draft-nourse-scep-23 (Simple Certificate Enrollment Protocol)

Profiling methods

- Active: Nmap, WMI, SSH, SNMP
- Passive: MAC OUI, DHCP, TCP, Netflow v5/v10, IPFIX, sFLOW, 'SPAN' Port, HTTP User-Agent, IF-MAP
- Integrated & 3rd Party: Onboard, OnGuard, ArubaOS, EMM/MDM, Rapid7, Cisco device sensor

IPv6 Support

- Web and CLI based management
- IPv6 addressed authentication & authorization servers
- IPv6 accounting proxy
- IPv6 addressed endpoint context servers
- Syslog, DNS, NTP, IPsec IPv6 targets
- IPv6 Virtual IP for high availability
- HTTP Proxy
- Ingress Event Engine Syslog sources

Information assurance validations

- FIPS 140-2 – Certificate #2577
- Common Criteria NDcPP + Authentication Server (ClearPass)

	C1000 Appliance (JZ508A)	C2000 Appliance (JZ509A)	C3000 Appliance (JZ510A)
APPLIANCE SPECIFICATIONS			
Hardware Model	Unicom S-1200 R4	HPE DL20 Gen 9	HPE DL360 Gen 9
CPU	(1) Eight Core 2.4GHz Atom C2758	(1) Xeon 3.5Ghz E3-1240v5 with Four Cores (8 Threads)	(2) Xeon 2.4GHz E5-2620_V3 with Six Cores (12 Threads)
Memory	8 GB	16 GB	64 GB
Hard drive storage	(1) SATA (7.3K RPM) 1TB hard drive	(2) SATA (7.2K RPM) 1TB hard drives, RAID-1 controller	(6) SAS (10K RPM) 600GB Hot-Plug hard drives, RAID-10 controller
Out of Band Management	N/A	HPE Integrated Lights-Out (iLO) Standard	HPE Integrated Lights-Out (iLO) Advanced
Serial Port	Yes (RJ-45)	Yes (Virtual Serial via iLO)	Yes (DB-9)
Performance & Scale	Please refer to the ClearPass Scaling & Ordering Guide	Please refer to the ClearPass Scaling & Ordering Guide	Please refer to the ClearPass Scaling & Ordering Guide
FORM FACTOR			
Rackmount	Included	1U SFF Easy Install Rail 1U Cable Management Arm	1U SFF Easy Install Rail 1U Cable Management Arm
Dimensions (WxHxD)	17.2" x 1.7" x 11.3"	17.11" x 1.70" x 15.05"	17.1" x 1.7" x 27.5"
Weight (Max Config)	8.5 Lbs	Up to 19.18 Lbs	Up to 33.3 Lbs
POWER			
Power supply	200 watts max	HPE 900W AC 240VDC Power Input FIO Module*	HPE 500W Flex Slot Platinum Hot Plug Power Supply
Power redundancy	N/A	Optional	Optional
AC input voltage	100/240 VAC auto-selecting	100/240 VAC auto-selecting	100/240 VAC auto-selecting
AC input frequency	50/60 Hz auto-selecting	50/60 Hz auto-selecting	50/60 Hz auto-selecting
ENVIRONMENTAL			
Operating temperature	5° C to 35° C (41° F to 95° F)	10° to 35°C (50° to 95°F)	10° C to 35° C (50° F to 95° F)
Operating vibration	0.25 G at 5 Hz to 200 Hz for 15 minutes	Random vibration at 0.000075 G^2/Hz, 10Hz to 300Hz, (0.15 G's nominal)	Random vibration at 0.000075 G^2/Hz, 10Hz to 300Hz, (0.15 G's nominal)
Operating shock	1 shock pulse of 20 G for up to 2.5 ms	2 G's	2 G's
Operating altitude	-16 m to 3,048 m (-50 ft to 10,000 ft)	3,050 m (10,000 ft).	3,050 m (10,000 ft)

* The HPE 900W Redundant Power Supply supports100VAC to 240VAC and also supports 240VDC.

ORDERING GUIDANCE

Please refer to the ClearPass Scaling & Ordering Guide for detailed information on appropriate sizing and required licensing to deploy ClearPass. This can be found on the Aruba support website in the ClearPass documentation section.

ORDERING INFORMATION

Part Number	Description
Hardware Appliances	
JZ508A	Aruba ClearPass C1000 S-1200 R4 HW-Based Appliance
JZ509A	Aruba ClearPass C2000 DL20 Gen9 HW-Based Appliance
JZ510A	Aruba ClearPass C3000 DL360 Gen9 HW-Based Appliance
Virtual Appliances	
JZ399AAE	Aruba ClearPass Cx000V VM-Based Appliance E-LTU
Power Supplies	
JX923A	Aruba ClearPass DL20 Spare Power Supply
JX922A	Aruba ClearPass-Airwave DL360 500W Spare Power Supply
Hardware/Virtual Appliance Warranty	
Hardware	1 year parts*
Software	90 days*
Perpetual Licenses	
JZ400AAE	Aruba ClearPass New Licensing Access 100 Concurrent Endpoints E-LTU
JZ401AAE	Aruba ClearPass New Licensing Access 500 Concurrent Endpoints E-LTU
JZ402AAE	Aruba ClearPass New Licensing Access 1K Concurrent Endpoints E-LTU
JZ403AAE	Aruba ClearPass New Licensing Access 2500 Concurrent Endpoints E-LTU
JZ404AAE	Aruba ClearPass New Licensing Access 5K Concurrent Endpoints E-LTU
JZ405AAE	Aruba ClearPass New Licensing Access 10K Concurrent Endpoints E-LTU
Perpetual Licenses Warranty	
Software	90 days*
Subscription Licenses (1 Year)	
JZ409AAE	Aruba ClearPass New Licensing Access 100 Concurrent Endpoints 1yr E-STU
JZ410AAE	Aruba ClearPass New Licensing Access 500 Concurrent Endpoints 1yr E-STU
JZ411AAE	Aruba ClearPass New Licensing Access 1K Concurrent Endpoints 1yr E-STU
JZ412AAE	Aruba ClearPass New Licensing Access 2500 Concurrent Endpoints 1yr E-STU
JZ413AAE	Aruba ClearPass New Licensing Access 5K Concurrent Endpoints 1yr E-STU
JZ414AAE	Aruba ClearPass New Licensing Access 10K Concurrent Endpoints 1yr E-STU
Subscription Licenses (3 Year)	
JZ418AAE	Aruba ClearPass New Licensing Access 100 Concurrent Endpoints 3yr E-STU
JZ419AAE	Aruba ClearPass New Licensing Access 500 Concurrent Endpoints 3yr E-STU
JZ420AAE	Aruba ClearPass New Licensing Access 1K Concurrent Endpoints 3yr E-STU
JZ421AAE	Aruba ClearPass New Licensing Access 2500 Concurrent Endpoints 3yr E-STU
JZ422AAE	Aruba ClearPass New Licensing Access 5K Concurrent Endpoints 3yr E-STU
JZ423AAE	Aruba ClearPass New Licensing Access 10K Concurrent Endpoints 3yr E-STU

* Extended with support contract

ORDERING INFORMATION

Part Number	Description
Subscription Licenses (5 Year)	
JZ427AAE	Aruba ClearPass New Licensing Access 100 Concurrent Endpoints 5yr E-STU
JZ428AAE	Aruba ClearPass New Licensing Access 500 Concurrent Endpoints 5yr E-STU
JZ429AAE	Aruba ClearPass New Licensing Access 1K Concurrent Endpoints 5yr E-STU
JZ430AAE	Aruba ClearPass New Licensing Access 2500 Concurrent Endpoints 5yr E-STU
JZ431AAE	Aruba ClearPass New Licensing Access 5K Concurrent Endpoints 5yr E-STU
JZ432AAE	Aruba ClearPass New Licensing Access 10K Concurrent Endpoints 5yr E-STU
Expandable application software	
ClearPass Onboard – device configuration and certificate management	Refer to ClearPass Onboard Datasheet
ClearPass OnGuard – endpoint device health	Refer to ClearPass OnGuard Datasheet

* Extended with support contract

a Hewlett Packard Enterprise company

3333 SCOTT BLVD | SANTA CLARA, CA 95054
1.844.473.2782 | T: 1.408.227.4500 | FAX: 1.408.227.4550 | INFO@ARUBANETWORKS.COM

www.arubanetworks.com