SDN Fx Healthcare



Avaya SDN Fx Healthcare offers a unique security and inventory management solution for medical devices and enables healthcare organizations to:

- Easily connect and segment medical devices, apps and networking traffic to radically improve security and protect against vulnerabilities
- Simplify and speed up device onboarding, mobility and management
- Automate inventory management
- Improve efficiency by enabling flow monitoring and control

Ethernet Routing Switch 5900 Series





- New family of fabric-enabled, premium Gigabit Ethernet stackable switches • Designed for campus networks and enterprise wiring closets
- 4 x SFP+ (1G or 10G) independent ports per unit, not shared
- MACSec-ready
- IEEE 802.3at PoE+ support
- Supports up to 8 units or up to 416 ports in a stacked configuration
- Field replaceable power supplies and fans
- Front to back or back to front cooling options

| Model | Description | Stacking Bandwidth | 10/100/1000 Mbps ports | 10/100/1000 Mbps POE+ ports | 10/100/1000 Mbps uPoE ports | 10 Gbps ports |
|------------------------|--|-----------------------|---------------------------|-----------------------------------|-----------------------------------|------------------|
| 5928GTS | Stackable Ethernet switch with 24x1G & 4x10G Fiber ports | 42 Gbps | 24 RJ45 | - | - | 4 SFP+1 |
| 5928GTS- PWR+ | Stackable Ethernet switch with 24x1G PoE+ & 4x10G Fiber ports | 42 Gbps | - | 24 RJ45 | - | 4 SFP+1 |
| 5952GTS | Stackable Ethernet switch with 48x1G & 4x10G Fiber ports | 42 Gbps | 48 RJ45 | - | - | 4 SFP+1 |
| 5952GTS- PWR+ | Stackable Ethernet switch with 48x1G PoE+ & 4x10G Fiber ports | 42 Gbps | - | 48 RJ45 | - | 4 SFP+1 |
| 5928GTS- UPWR+ | Stackable Ethernet Switch with 24x1000G PoE+ & 4x10G Fiber ports | 42 Gbps | - | - | 24 RJ45 | 4 SPF+ |
| 1/10G speeds supported | 4x10G Fiber ports | | | | | |

Ethernet Routing Switch 4000 Series

- For enterprise wiring closets, campuses and large branches
- Up to 8 units can be stacked; up to 400 GE/FE ports and 16 10GE ports with a max. stacking
- capacity of 384 Gbps Dynamic IP Routing capabilities campuses
- Supports PoE+ and SFP+
- Supports Avaya Fabric Connect (Shortest Path Bridging) as well as Fabric Attach
- Field replaceable, redundant power supplies

| Model | Description | Stacking Bandwidth | 10/100/1000 Mbps ports | 10/100/1000 Mbps POE+ ports | 1 Gbps ports | 10 Gbps ports |
|---|---|-----------------------|---------------------------|-----------------------------------|--------------------|---------------------|
| 4826GTS | Stackable Ethernet switch with 24x1G Copper, 2x1G Fiber & 2x10G Fiber ports | 48 Gbps | 24 RJ45 | - | 2 SFP ¹ | 2 SFP+ ² |
| 4826GTS- PWR+ | Stackable Ethernet switch with 24x1G POE+, 2x1G Fiber & 2x10G Fiber ports | 48 Gbps | - | 24 RJ45 | 2 SFP ¹ | 2 SFP+ ² |
| 4850GTS | Stackable Ethernet switch with 48x1G Copper, 2x1G Fiber & 2x10G Fiber ports | 48 Gbps | 48 RJ45 | - | 2 SFP ¹ | 2 SFP+ ² |
| 4850GTS- PWR+ | Stackable Ethernet switch with 48x1G POE+, 2x1G Fiber & 2x10G Fiber ports | 48 Gbps | - | 48 RJ45 | 2 SFP ¹ | 2 SFP+ ² |
| 4926GTS | Stackable Ethernet Switch with 24x1G Copper, & 2x10G Fiber ports | 52 Gbps | 24 RJ45 | - | - | 2SPF+ |
| 4926GTS- PWR+ | Stackable Ethernet Switch with 24x1G Copper POE+ & 2x10G Fiber ports | 52 Gbps | - | 24 RJ45 | - | 2SPF+ |
| 4950GTS | Stackable Ethernet Switch with 48x1G Copper & 2x10G Fiber Ports | 52 Gbps | 48 RJ45 | - | - | 2SPF+ |
| 4950GTS- PWR+ | Stackable Ethernet Switch with 48x1G Copper POE+ & 2x10G Fiber Ports | 52 Gbps | - | 48 RJ45 | - | 2SPF+ |
| ¹ Shared with 10/100 ² 1/10G speeds supp |)/1000M ports | | | | | |

Ethernet Routing Switch 3500 Series

- For SMEs, mid-market and small branch offices;
- includes Avaya IP Office Quick Start utility Fanless models for noise sensitive environments

¹Shared/Combination ports ²1/10G speeds supported

- Supports PoE+
- Up to 8 units (24 or 48 port units) can be stacked; up to 384 GE ports with a max. stacking capacity of 80 Gbps
- Local and static routing

| Model | Description | Stacking Bandwidth | 10/100 Mbps ports | 10/100 Mbps POE+ ports | 10/100/1000 Mbps ports | 10/100/1000 Mbps POE+ ports | 1 Gbps ports | 2.5G Gbps rear ports | 10 Gbps ports |
|------------------|--|-----------------------|-------------------------|------------------------------|---------------------------|-----------------------------------|--------------------|----------------------------|------------------|
| 3526Т | Fanless Stackable Ethernet switch with 24x100M Copper, 2x1G Copper/Fiber combination & 2x2.5G SFP rear ports | 10 Gbps | 24 RJ45 | - | 2 RJ45 ¹ | - | 2 SFP ¹ | 2 SFP | - |
| 3526T- PWR+ | Stackable Ethernet switch with 24x100M POE+, 2x1G Copper/ Fiber combination & 2x2.5G SFP rear ports | 10 Gbps | - | 24 RJ45 | 2 RJ45¹ | - | 2 SFP ¹ | 2 SFP | - |
| 3550T | Stackable Ethernet switch with 48x100M Copper, 2x1G Copper/ Fiber combination & 2x2.5G SFP rear ports | 10 Gbps | 48 RJ45 | - | 2 RJ45¹ | - | 2 SFP ¹ | 2 SFP | - |
| 3550T- PWR+ | Stackable Ethernet switch with 48x100M POE+, 2x1G Copper/ Fiber combination & 2x2.5G SFP rear ports | 10 Gbps | - | 48 RJ45 | 2 RJ45¹ | - | 2 SFP ¹ | 2 SFP | - |
| 3510GT | Fanless Standalone Ethernet Switch with 8x1G Copper & 2x1G Fiber ports | - | - | - | 8 RJ45 | - | 2 SFP | - | - |
| 3510GT- PWR+ | Standalone Ethernet Switch with 8x1G POE+ & 2x1G Fiber ports (Standalone. Fanless mode @ 60W POE budget, Fan operation mode @ 170W POE budget.) | - | - | - | - | 8 RJ45 | 2 SFP | - | - |
| 3524GT | Stackable Ethernet switch with 24x1G Copper, 4x1G Fiber & 2x2.5G SFP rear ports | 10 Gbps | - | - | 20 + 4 ¹ RJ45 | - | 4 SFP ¹ | 2 SFP | - |
| 3524GT- PWR+ | Stackable Ethernet switch with 24x1G POE+, 4x1G Fiber & 2x2.5G SFP rear ports | 10 Gbps | - | - | - | 20 + 41 RJ45 | 4 SFP ¹ | 2 SFP | - |
| 3549GTS | Stackable Ethernet switch with 48x1G Copper, 2x1G Fiber, 1x10G SFP+ & 2x2.5G SFP rear ports | 10 Gbps | - | - | 46 + 2¹ RJ45 | - | 2 SFP ¹ | 2 SFP | 1SFP+² |
| 3549GTS- PWR+ | Stackable Ethernet switch with 48x1G POE+, 2x1G Fiber, 1x10G SFP+ & 2x2.5G SFP rear ports | 10 Gbps | - | - | - | 46 + 21 RJ45 | 2 SFP ¹ | 2 SFP | 1SFP+² |

Avaya SDN Fx Architecture

A Fabric-Based SDN Model for Simplicity Everywhere

AUTOMATED CORE

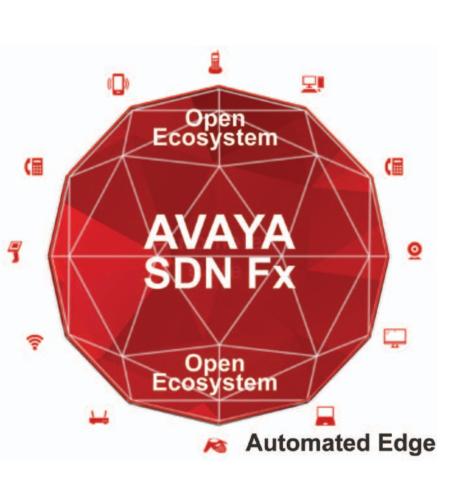
Single, network-wide Ethernet Fabric

OPEN ECOSYSTEM

Open Source integration for automation and programmability

AUTOMATED EDGE

Secure automated connectivity of users and IoT devices to their applications



Avaya Fabric Connect

- Automation of the network core based on Avaya's extended Shortest Path Bridging, enabling secure zoning of networks
- Full breadth of network services including: Layer 2 virtualized services, Layer 3 virtualized services (with multiple Virtual Routing and Forwarding instances), and fully integrated and optimized IP Routing and Multicast services (without any protocol overlays)

Avaya Fabric Extend

- Enables network-wide extension of Avaya Fabric Connect over private and service provider IP infrastructures for third party interworking and multi-site connectivity

Avaya Fabric Attach

- Enables automation at the network edge, using a standards-based approach for easily and securely connecting a broad range of user and IoT devices

Avaya Fabric Orchestrator

- Integrated management and SDN Controller* for managing and orchestrating the Ethernet Fabric and SDN-enabled devices. Will include Open API's as well as OpenDaylight and Open Stack integration

Open Networking Adapter

- A unique card-deck-size adapter that plugs into devices and automatically associates with an SDN controller and automatically places it into a tailored enterprise-wide virtual network



Accelerate your Business • Enrich your Applications • Enable Users and Devices

Virtual Services Platform 9000

- Scalable platform for growing infrastructures: architected to scale to multiple Tbps
- High availability through fully redundant hardware
- Load-sharing Switch Fabrics
- Redundant hot-swappable power supplies Dedicated internal control network
- High port density
- Up to 120 40GbE/chassis, 360/rack
- Up to 480 10GbE/chassis, 1440/rack - Up to 480 1GbE/chassis, 1440/rack
- Efficient
- Optimized power consumption
- Network virtualization Avaya Fabric Connect extended Shortest
- Path Bridging

24 port 10G Fiber I/O Module

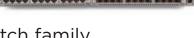
9048XS-2 48 port 10G Fiber Gen 2 I/O Module

| - Virtual | Routing & Forwarding (VRF) outing in Hardware | | | Ē | 0 000000 000000 0000 |
|-----------|---|---------------------------|-----------------|------------------|----------------------|
| Model | Description | 10/100/1000 Mbps ports | 1 Gbps ports | 10 Gbps ports | 40 Gbp ports |
| 0090 SF | Switch Fabric Module for 9012 Chassis | - | - | - | - |
| 0095 SF | Switch Fabric Module for 9010 Chassis | - | - | - | - |
| 9048GT | 48 port 1G Copper I/O Module | 48 RJ45 | - | - | - |
| 0048GB | 48 port 1G Fiber I/O Module | - | 48 SFP | - | - |

9012QQ-2 12 port 40G Fiber Gen 2 I/O Module - - 12 QSFP+

Virtual Services Platform 8000





- 48 SFP+^{1, 2}

- High-performance 10/40 Gigabit Ethernet Switch family • Efficient compact form-factor that reduces power and footprint consumption
- Supports both conventional IP Routing and/or Fabric-based networking
- VSP 8200 offers a fixed 80 ports of 10 Gigabit Ethernet & 4 ports of 40 Gigabit
- VSP 8400 offers modularity with support for up to 4 Ethernet Switch Modules - Supported ESMs are shown in the table below.
- Front to Back airflow only; One power supply included, optional internal redundant PS available

| Model | Description | 1 Gbps ports | 10 Gbps ports | 40 Gbps ports |
|-------------------------|--|--------------------|----------------------|------------------|
| 8284XSQ ¹ | Fixed Compact Form Factor Core Switch with 80x10G Fiber & 4x40G Fiber ports | - | 80 SFP+ ³ | 4 QSFP+ |
| 8404 | VSP 8400 Modular Compact Form Factor Chassis - Core/ Spine Switch with 4 I/O Ethernet Switch Module (ESM) slots | - | - | - |
| 8024XT ¹ | 24 port 10G Copper Ethernet Switch Module | - | 24 RJ45 ⁴ | - |
| 8024XS ¹ | 24 port 10G Fiber Ethernet Switch Module | - | 24 SFP+ ³ | - |
| 8418XSQ ^{1, 2} | 16x10G Fiber & 2x40G Fiber port combination Ethernet Switch Module | - | 16 SFP+ ³ | 2 QSFP+ |
| 8408QQ ^{1, 2} | 8 port 40G Fiber Ethernet Switch Module | - | - | 8 QSFP+5 |
| 8424GS | 24 port 100M/1G Fiber Ethernet Switch Module | 24 SFP | - | - |
| 8424GT | 24 port 10/100/1000M Copper Ethernet Switch Module | 24 RJ45 | - | - |
| 8418XTQ ^{1,2} | 16x10G Copper & 2x40G Fiber port combination Ethernet Switch Module | - | 16 RJ45 ⁴ | 2 QSFP+ |
| ¹MACsec supported o | on 10G ports, ² MACsec supported on 40G channelized (10G) sub-ports, ³ 1/10G speeds suppo | orted, 4100M/1G/10 | OG speeds supporte | d |

Avaya Fabric Networking delivers a solution that can result in:

11x FASTER

Implementation Time

7x FASTER

Configuration Time

7x FASTER

Troubleshooting Time

2,553x **FASTER**

Failover Time

100% IMPROVEMENT

Outages Due to Human Error

Virtual Services Platform 7200 Series

- High-density 10 Gigabit ports for Server connectivity or midsize core environments
- Flexible 40 Gigabit ports for uplink and DToR connectivity
- Feature-rich support for Standards-based VLAN, MLT, STP, and SPB technologies

| Model | Description | 10 Gbps ports | 40 Gbps ports |
|------------------------|--|----------------------|---------------|
| 7254XTQ ^{1,4} | Fixed Compact Form Factor ToR/Leaf switch with 48x10G Copper & 6x40G Fiber ports | 48 RJ45 ² | 6 QSFP+ |
| 7254XSQ⁴ | Fixed Compact Form Factor ToR/Leaf switch with 48x10G Fiber & 6x40G Fiber ports | 48 SFP+ ³ | 6 QSFP+ |
| 7254XTQ⁴ | Port Licensed Fixed Compact Form Factor ToR/Leaf switch with 24x10G Copper & 4x40G Fiber ports enabled. The remaining 24x10G Copper & 2x40G Fiber ports can be enabled with optional Port license. | 48 RJ45² | 6 QSFP+ |
| 7254XSQ⁴ | Port Licensed Fixed Compact Form Factor ToR/Leaf switch with 24x10G Fiber & 4x40G Fiber ports enabled. The remaining 24x10G Fiber & 2x40G Fiber ports can be enabled with optional Port license. | 48 SFP+ ³ | 6 QSFP+ |

³1/10G speeds supported

- Industry's first "fabric-enabled" multiservice/multitenant edge device
- Full SPBm edge platform supporting IP shortcuts, L3 VSNs and L2 VSNs
- Some models support PoE+
- One power supply included, optional internal redundant PS available

| Model | Description | 10/100/1000 Mbps ports | 10/100/1000 Mbps POE+ ports | 1 Gbps ports | 10 Gbp: port: |
|--------------|---------------------------------|---------------------------|-----------------------------------|--------------------|---------------------|
| | Small Core/Fabric Edge switch | | | | |
| 4450GSX-PWR+ | with 12x1G POE+, 36x1G Fiber & | - | 12 RJ45 | 36 SFP | 2 SFP+ |
| | 2x10G Fiber ports | | | | |
| | Small Core/Fabric Edge switch | | | | |
| 4450GTX-HT- | with 48x1G POE+, 2x1G Fiber & | | 48 RJ45 | 2 SFP ² | 2 SFP- |
| PWR+ | 2x10G Fiber ports - Temperature | | 40 KJ45 | 2 31 F | 2 31 F |
| | Hardened | | | | |
| | Small Core/Fabric Edge switch | | | | |
| 4850GTS | with 48x1G Copper, 2x1G Fiber & | 48 RJ45 | - | 2 SFP ² | 2 SFP |
| | 2x10G Fiber ports | | | | |
| | Small Core/Fabric Edge switch | | | | |
| 4850GTS-PWR+ | with 48x1G POE+, 2x1G Fiber & | - | 48 RJ45 | 2 SFP ² | 2 SFP |
| | 2x10G Fiber ports | | | | |

Avaya offers advanced management capabilities that bring visibility, automation and enhanced troubleshooting to your network. Eliminate human error, enable new services faster and reduce operational costs with these powerful solutions.

Network Management

- Avava Fabric Orchestrator (for 250 nodes and above)
- Powerful appliance-based solution

⁵6 ports supported, 2 reserved for future use

- Unified Management: discovery & visualization, fault & diagnostics, configuration & orchestration, virtualization & performance management.
- SDN Controller: Plans for Open APIs and OpenStack / Open Daylight integration



 Avaya Visualization Performance and Fault Manager

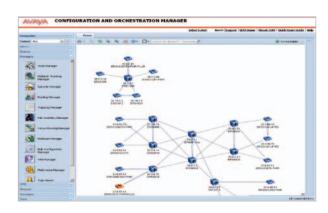
management for

and technologies.

(for fewer than 250 nodes) - Discovery, visualization, fault and performance

multi-vendor networks.

- Avaya Configuration and **Orchestration Manager** (for fewer than 250 nodes) Centralized configuration, bulk provisioning and back-up and recovery for Avaya Networking devices



Pod Fx

- Industry's first "full stack" solution for real-time applications
- Rapid, risk free deployments real time applications running in hours/days as opposed to weeks/ months
- Streamlined management and troubleshooting with common
- Simplified vendor relations with single call support
- Architected for maximum reliability non-stop operations Supports 10's of thousands of endpoints and or agents in a flexible footprint
- Avaya Fabric Connect integration for improved resiliency and simplified deployment of multiple tenants / multiple instances
- Base components:

Pod Fx Components

- VMware Compatible Servers: preloaded with Avaya Applications and the Pod Orchestration Suite
- Avaya Networking (VSP 7000, VSP 4000)
- EMC VNX Storage Array Optional components
- G450 Gateway
- Session Border Controller

- Non-blocking, wire-speed switching architecture
- Integrated design that is optimized for low latency

| 1odel | Description | 10 Gbps ports | 40 Gbps ports |
|------------------------|--|----------------------|---------------|
| ′254XTQ ^{1,4} | Fixed Compact Form Factor ToR/Leaf switch with 48x10G Copper & 6x40G Fiber ports | 48 RJ45² | 6 QSFP+ |
| /254XSQ⁴ | Fixed Compact Form Factor ToR/Leaf switch with 48x10G Fiber & 6x40G Fiber ports | 48 SFP+ ³ | 6 QSFP+ |
| /254XTQ⁴ | Port Licensed Fixed Compact Form Factor ToR/Leaf switch with 24x10G Copper & 4x40G Fiber ports enabled. The remaining 24x10G Copper & 2x40G Fiber ports can be enabled with optional Port license. | 48 RJ45² | 6 QSFP+ |
| /254XSQ⁴ | Port Licensed Fixed Compact Form Factor ToR/Leaf switch with 24x10G Fiber & 4x40G Fiber ports enabled. The remaining 24x10G Fiber & 2x40G Fiber ports can be enabled with optional Port license. | 48 SFP+ ³ | 6 QSFP+ |

Virtual Services Platform 4000



- Extends Avaya Fabric Connect to the Campus, MAN, WAN edge
- Cost effective L2, L3 Virtualization for the mid market

| Model | Description | 10/100/1000 Mbps ports | 10/100/1000 Mbps POE+ ports | 1 Gbps ports | 10 Gbps ports |
|---------------------|--|---------------------------|-----------------------------------|--------------------|------------------------|
| 4450GSX-PWR+ | Small Core/Fabric Edge switch with 12x1G POE+, 36x1G Fiber & 2x10G Fiber ports | - | 12 RJ45 | 36 SFP | 2 SFP+ ^{1, 3} |
| 4450GTX-HT- PWR+ | Small Core/Fabric Edge switch with 48x1G POE+, 2x1G Fiber & 2x10G Fiber ports - Temperature Hardened | - | 48 RJ45 | 2 SFP ² | 2 SFP+ ^{1, 3} |
| 4850GTS | Small Core/Fabric Edge switch with 48x1G Copper, 2x1G Fiber & 2x10G Fiber ports | 48 RJ45 | - | 2 SFP ² | 2 SFP+ ³ |
| 4850GTS-PWR+ | Small Core/Fabric Edge switch with 48x1G POE+, 2x1G Fiber & 2x10G Fiber ports | - | 48 RJ45 | 2 SFP ² | 2 SFP+ ³ |

²Shared with 10/100/1000M ports ³1/10G speeds supported



reduced form factor solution

optimized for mid-market and

mid-sized enterprises offering

and/or Contact Center services.

Unified Communications

Collaboration Pod 2400: A Collaboration Pod 4200: For large

enterprises deploying Unified

Providers delivering Unified

Communications and/or

Contact Center services.

Communications and/or Contact

Center solutions, and for Service

Wireless LAN 9100 Series











- Granular Visibility and Control for 1400+ applications Software Upgradeable from 802.11n to 802.11ac
- Intuitive management for simplified deployments Advanced Radio Frequency (RF) Management
- 70% more bandwidth per AP; 4 radio APs for high density environments
- Software Programmable Radios to optimize WLAN to end user environment Plug and Play APs (Avava Fabric to the wireless edge)

| Model | Description |
|--------------|--|
| WAP911200-E6 | WLAN 9112 Wall mount AP/switch, 802.11ac, Dual Radio 2x2, for hotel rooms, dormitories, offices and similar locations |
| WAP911400-E6 | WLAN 9114 Enterprise Class, cost effective AP, 802.11ac, Dual Radio 2x2 MIMO, Omni-directional Antenna, Integrated Wireless Controller |
| WAP912200-E6 | WLAN 9122 Indoor AP, 802.11n (Upgradable to 11ac), Dual Radio 2x2 MIMO, Omni-Directional Antenna, Integrated Wireless Controller |
| WAP912300-E6 | WLAN 9123 Indoor AP, 802.11n (Upgradable to 11ac), Dual Radio 3x3 MIMO, Omni-Directional Antenna, Integrated Wireless Controller |
| WAP913200-E6 | WLAN 9132 Indoor AP, 802.11ac, Dual Radio 2x2 MIMO, Omni-Directional Antenna, Integrated Wireless Controller |
| WAE913200-E6 | WLAN 9132 Plenum Rated Indoor AP, 802.11ac, Dual Radio 2x2 MIMO, Integrated Wireless Controller |
| WAP913300-E6 | WLAN 9133 Indoor AP, 802.11ac, Dual Radio 3x3 MIMO, Omni-Directional Antenna, Integrated Wireless Controller |
| WAP914400-E6 | WLAN 9144 Indoor AP, 802.11ac Wave 2, Dual Radio 4x4 MU-MIMO, Omni-Directional Antenna, Integrated Wireless Controller |
| WAP917200-E6 | WLAN 9172 Indoor 4-Radio AP, 802.11ac, 2x2 MIMO, Integrated Wireless Controller |
| WAP917300-E6 | WLAN 9173 Indoor 4-Radio AP, 802.11ac, 3x3 MIMO, Integrated Wireless Controller |
| WAO912200-E6 | WLAN 9122 Outdoor AP, 802.11n, Dual Radio 2x2 MIMO, Omni-Directional Antenna, Integrated Wireless Controller |
| WAO913200-E6 | WLAN 9132 Outdoor AP, 802.11ac, Dual Radio 2x2 MIMO, Integrated Wireless Controll |

WLAN Orchestration System For WLAN 9100 Series, Software Base Only. 10 AP

Secure Access and Edge Automation Secure Access and Edge Automation

attachment

- Tunneling Server

- Centralized Fabric Attach Policy Server automating FA Clients network

- Centralized, enterprise-wide user and device authentication and service

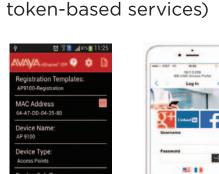
Licenses, includes Identity Engines Lite

- Secure Guest Access - In less than 10 seconds, IT Hands-free and full auditable guest access
- Social Media Login
- Embrace BYOD securely with device fingerprinting and auto-registration - MDM integration with Citrix XenMobile and VMware AirWatch - Facilitates compliance with legal requirements Analytics

Sun Directory, Oracle Internet Directory, LDAP, Kerberos, RSA SecurID,

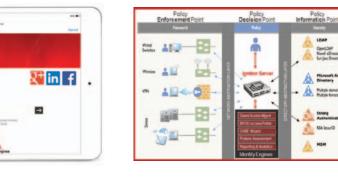
- Visibility into who uses network service, when, where and with which device

Integration with existing directory services (Microsoft AD, Novell eDirectory,











0800 - GO AVAYA 0800 - 46 28292

www.avaya.com www.avaya.com/businesspartner