Avaya Networking Solutions

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🏠 | Avaya Fabric Connect | Virtual Services Platform | Ethernet Routing Switch | Wireless LAN | BYOD, Guest Management and Access Control | Branch Routers | Network Management | Collaboration Pods

Avaya Networking Solutions

Avaya Fabric Connect

Virtual Services Platform 9000

Virtual Services Platform 8000

Virtual Services Platform 7000

Virtual Services Platform 4000

Ethernet Routing Switch 8800 Series

Ethernet Routing Switch 5600 Series

Ethernet Routing Switch 5500 Series
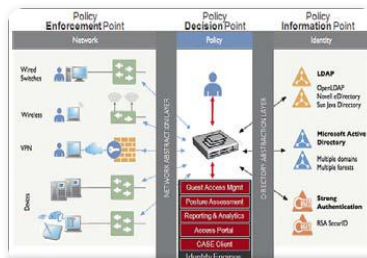
Ethernet Routing Switch 4800 Series

Ethernet Routing Switch 4500 Series

Ethernet Routing Switch 3500 Series

Wireless LAN 9100 Series

BYOD, Guest Management and Access Control

Branch Routers

Network Management

Collaboration Pods

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Avaya Fabric Connect | Virtual Services Platform | Ethernet Routing Switch | Wireless LAN | BYOD, Guest Management and Access Control | Branch Routers | Network Management | Collaboration Pods

Avaya Fabric Connect

Avaya Fabric Connect

Watch the Video	Customer Story Leeds Metropolitan University
Read More	Customer Story Oslo University Hospital
Customer Story Ajman University of Science and Technology (AUST)	

Specifically developed for real-time applications

• Fully featured portfolio from Data Center to branch

• Continued technology innovation: thousands of patents, over Ethernet 100M ports shipped

• Application driven; the foundation for collaborative applications

• Consists of the industry's first open, enterprise-wide virtualization architecture

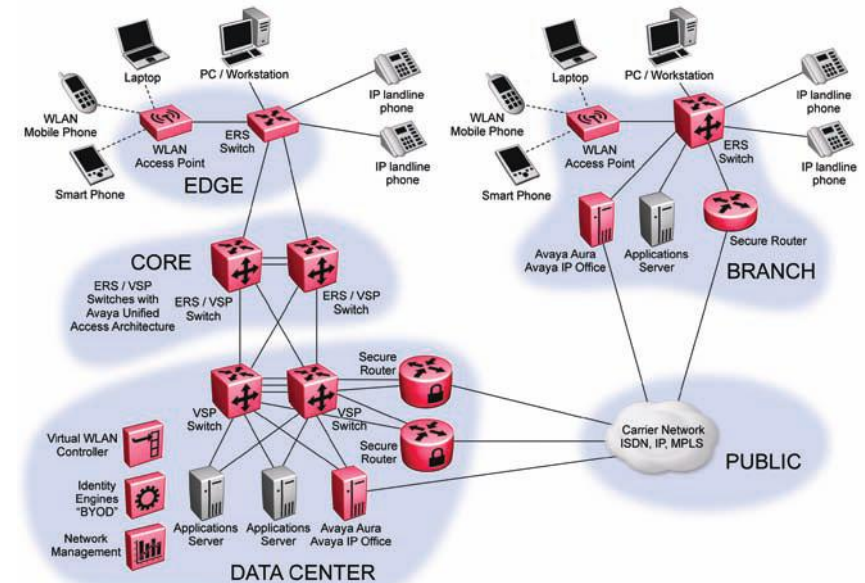**Solutions: Data Center, Video Surveillance, Multi Tenancy**

Virtual Services Platform 9000

| Read More | Customer Story
Sochi 2014 Olympic Winter Games |

- Scalable platform for growing infrastructures
  - High performance – architected to scale up to 27Tbps
  - Ready for 40 Gbps and 100 Gbps Ethernet

- High availability through fully redundant hardware
  - Load-sharing Switch Fabrics
  - Redundant hot-swappable power supplies
  - Dedicated internal control network

- High port density
  - 240 10GbE/chassis, 720/rack
  - 480 1GbE/chassis, 1440/rack

- Efficient
  - Optimized power consumption

- Network virtualization
  - Avaya VENA Fabric Connect extended Shortest Path Bridging
  - Virtual Routing & Forwarding (VRF)

- IPv4/6 Routing in Hardware

Per Module/Per Chassis Densities:

Model	Description	10/100/1000 ports	SFP 1 GbE slots	SFP+ 1/10 GbE slots
9090SF	Switch Fabric Module			
9080CP	Control Processor Module			
9024XL	24 SFP+ 1G/10G Ethernet I/O Module	–	–	24
9048GB	48 SFP 100/1000 Ethernet I/O Module	–	48	–
9048GT	48 port 10/100/1000 Ethernet I/O Module	48	–	–

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Virtual Services Platform 9000   Virtual Services Platform 8000   Virtual Services Platform 7000   Virtual Services Platform 4000

Virtual Services Platform 8000

Read More

- High-performance 10/40 Gigabit Ethernet Switch

- 80 ports of 10 Gigabit Ethernet configured as SFP+ sockets

- 4 ports of 40 Gigabit Ethernet configured as QSFP+ sockets

- Efficient compact form-factor that reduces power and footprint consumption

- Supports both conventional IP Routing and/or Fabric-based networking deployments

Model	Description
8284XSQ	84-port Ethernet Switch, supporting 80 x 10GBASE-SFP+ & 4 x 40GBASE-QSFP+ ports. Includes single 800W AC Power Supply (no Power Cord), four Fan Trays, and Base Software

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Avaya Fabric Connect | **Virtual Services Platform** | Ethernet Routing Switch | Wireless LAN | BYOD, Guest Management and Access Control | Branch Routers | Network Management | Collaboration Pods

Virtual Services Platform 9000   Virtual Services Platform 8000   **Virtual Services Platform 7000**   Virtual Services Platform 4000

Virtual Services Platform 7000

- Application: Server connection in the Data Center as Top-of-Rack Switch

- 5th generation chipset supports:
  - Shortest Path Bridging (SPB)
  - PFC Lossless support
  - Energy Efficient Ethernet (EEE)

- Redundant, hot-swappable power supplies and fans

- Front-to-back or back-to-front cooling

- Future-ready for 100 Gigabit Ethernet

- Media Dependent Adapter slot offers expandability

- Distributed Top-of-Rack optimizes application performance, interconnecting up to 500 Switches with a virtual backplane of up to 280Tbps, supporting up to 16,000 ports of 10 Gigabit Ethernet

- Ultra-low latency and non-blocking switching

Model	Description	10GbE SFP+ Sockets	10GbE RJ45 Ports	40GbE QSFP+ Sockets
7024XLS	Avaya Virtual Services Platform 7024XLS 24-port1/10 Gigabit Ethernet SFP+ Switch	24	–	
7024XT	Avaya Virtual Services Platform 7024XT 24-port 10 Gigabit Ethernet 10GBASE-T Switch		24	
7002QQ	7002QQ 2-port 40 Gigabit Ethernet QSFP+ Media Dependent Adapter			2
7008XLS	7008XLS 8-port 1/10 Gigabit Ethernet SFP+ Media Dependent Adapter	8	–	
7008XT	7008XT 8-port 10GBASE-T Media Dependent Adapter	–	8	

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Virtual Services Platform 9000   Virtual Services Platform 8000   Virtual Services Platform 7000   **Virtual Services Platform 4000**

Virtual Services Platform 4000

- Industry's first "fabric-enabled" multiservice/multitenant edge device
- Extends Avaya Fabric Connect to the Campus, MAN, WAN edge
- Full SPBm edge platform supporting IP shortcuts, L3 VSNs and L2 VSNs
- Cost effective L2, L3 Virtualization for the mid market
- Supports PoE+ and SFP+
- Internal field replaceable, redundant power supplies

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Miercom Report: Ethernet Fabric

Model	10/100/1000 ports	IEEE 802.3at PoE+ ports	SFP 1GbE slots	SFP+ (1GbE or 10GbE)
VSP 4450GSX-PWR+	-	12	36	2**
VSP 4850GTS	48	-	2*	2**
VSP 4850GTS-PWR+	-	48	2*	2**
VSP 4850GTS-DC	48	-	2*	2**

* combo or shared ports with 10/100/1000 ports

** SFP+ slots support 1 Gbps or 10 Gbps modules

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8800 Series　　5600 Series　　5500 Series　　4800 Series　　4500 Series　　3500 Series

Ethernet Routing Switch 8800 Series

Miercom Report: Ethernet Fabric

- 720 Gbps raw capacity, 384 Mpps
- 3, 6 or 10 slot chassis
- Complete redundancy of all components (Switching Fabric/CPU, I/O Modules, power supplies, fans)
- 10/100/1000 Mbps and 10 Gbps connections
- Up to 96 10GE ports in 13 RU
- Up to 384 GE ports (fibre-optic or copper) in 13 RU
- Network virtualization
  - Avaya VENA Fabric Connect (enhanced & extended 802.1aq)
  - Virtual Routing & Forwarding (VRF)
  - MPLS IP VPN
  - IP VPN-Lite (IP-in-IP)
- IPv4/6 Routing in Hardware

Model	Description	10/100/1000 ports	SFP slots	10 GbE slots
8895SF	256 Gbps Switching Fabric			
8848GT	48 port 10/100/1000 I/O Module	48	–	–
8848GB	48 SFP I/O Module	–	48	–
8834XG	2 XFP 10GbE LAN + 24 SFP + 8 RJ-45 I/O Module	8	24	2 XFP
8812XL	12 SFP+ 10GbE LAN I/O Module	–	–	12 SFP+

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8800 Series | **5600 Series** | 5500 Series | 4800 Series | 4500 Series | 3500 Series

Ethernet Routing Switch 5000 Series

Read More

- For large enterprise wiring closets, data center top of rack and small enterprise cores
- Support for Switch Clustering (Avaya's active / active resiliency model)
- Up to 8 systems can be stacked, including mixed 5500 and 5600 models; up to 384 GE ports and 16 10GE ports with a max. stacking capacity of 1.152 Tbps

Ethernet Routing Switch 5600 Series

- Max. stacking capacity of 1.152 Tbps
- Industry's only 96-port stackable models
- Replaceable, redundant integrated power supplies
- Advanced IP functionality (IPv6 & multicast features)
- Fabric Attach auto-provisioning Fabric Attach auto-provisioning

Model	Stacking (Gbps)	10/100/1000 ports	IEEE 802.3 af Power over Ethernet ports	SFP 1 GbE slots	XFP 10 GbE slots
ERS 5698TFD	144	96	–	6*	2
ERS 5698TFD-PWR	144	96	96	6*	2
ERS 5650TD	144	48	–	–	2
ERS 5650TD-PWR	144	48	48	–	2
ERS 5632FD	144	–	–	24	8

* combo or shared ports with the 10/100/1000 ports

🏠 | Avaya Fabric Connect | Virtual Services Platform | **Ethernet Routing Switch** | Wireless LAN | BYOD, Guest Management and Access Control | Branch Routers | Network Management | Collaboration Pods

8800 Series | 5600 Series | **5500 Series** | 4800 Series | 4500 Series | 3500 Series

Ethernet Routing Switch 5500 Series
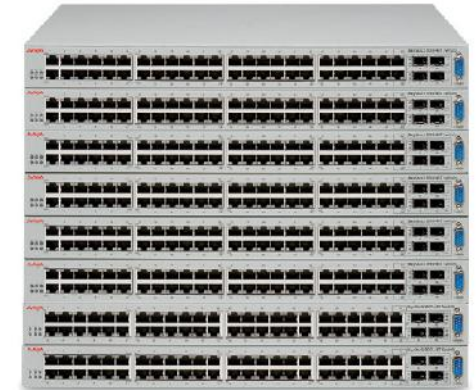
[Read More] [**Customer Story** Bayerische Zugspitzbahn Bergbahn AG]

- Max. stacking capacity of 640 Gbps
- Optional redundant power
- IP functionality (IPv4 & multicast features*)

  *supported on the ERS 5530 and 5520 models

Model	Stacking (Gbps)	10/100/1000 ports	IEEE 802.3 af Power over Ethernet ports	SFP 1 GbE slots	XFP 10 GbE slots
ERS 5510-24T	80	24	–	2*	–
ERS 5510-48T	80	48	–	2*	–
ERS 5520-24T-PWR	80	24	24	4*	–
ERS 5520-48T-PWR	80	48	48	4*	–
ERS 5530-24TFD	80	24	–	12*	2

* combo or shared ports with the 10/100/1000 ports
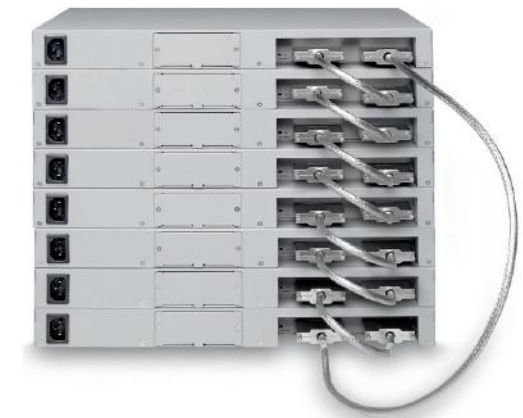
Ethernet Routing Switch 4800 Series

Read More   **Customer Story** Bayerische Zugspitzbahn Bergbahn AG

- For enterprise wiring closets, campuses and large branches
- Up to 8 systems 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
- Supports PoE+ and SFP+
- Supports Avaya Fabric Connect (Shortest Path Bridging) as well as Fabric Attach auto-provisioning
- Internal field replaceable, redundant power supplies

Model	Stacking (Gbps)	10/100/1000 ports	IEEE 802.3at PoE+ ports	SFP 1 GbE slots	SFP+ (1Gig or 10Gig) slots
ERS 4826GTS	48	24	–	2*	2**
ERS 4826GTS-PWR+	48	24	24	2*	2**
ERS 4850GTS	48	48	–	2*	2**
ERS 4850GTS-PWR+	48	48	48	2*	2**

* combo or shared ports with 10/100/1000 ports   **SFP+ slots support 1 Gbps or 10 Gbps modules

| Avaya Fabric Connect | Virtual Services Platform | **Ethernet Routing Switch** | Wireless LAN | BYOD, Guest Management and Access Control | Branch Routers | Network Management | Collaboration Pods |

8800 Series 5600 Series 5500 Series 4800 Series 4500 Series 3500 Series

Ethernet Routing Switch 4500 Series

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Customer Story
SITA Airport IT GmbH

Miercom Report: Plug and Play Switches

PoE+ Models

• Optional: internal, field-replaceable, redundant power supplies

Model	Stacking (Gbps)	10/100 ports	10/100/1000 ports	IEEE 802.3at PoE+ ports	SFP 1 GbE slots	SFP + 10 GbE slots
ERS 4526T-PWR+	48	24	–	24	2*	–
ERS 4550T-PWR+	48	48	–	48	2*	–

* Combo or shared with the 10/100 ports. SFP ports can support low speed SFPs such as 100FX.

Fast Ethernet Models

• Optional: external, redundant power supply

Model	Stacking (Gbps)	10/100 ports	10/100/1000 ports	IEEE 802.3af PoE ports	SFP 1 GbE slots	SFP + 10 GbE slots
ERS 4526FX	48	24x 100BASEFX	–	–	2*	–
ERS 4526T	48	24	–	–	2*	–
ERS 4526T-PWR	48	24	–	24	2*	–
ERS 4550T	48	48	–	–	2*	–
ERS 4550T-PWR	48	48	–	48	2*	–

* Combo or shared with the 10/100 ports. SFP ports can support low speed SFPs such as 100FX.

Gigabit Ethernet Models

• Optional: external, redundant power supply

Model	Stacking (Gbps)	10/100 ports	10/100/1000 ports	EEE 802.3af PoE ports	SFP 1 GbE slots	XFP 10 GbE slots
ERS 4524GT	48	–	24	–	4**	–
ERS 4524GT-PWR	48	–	24	24	4**	–
ERS 4526GTX	48	–	24	–	4*	2
ERS 4526GTX-PWR	48	–	24	24	4*	2
ERS 4548GT	48	–	48	–	4*	–
ERS 4548GT-PWR	48	–	48	48	4*	–

* Combo or shared with the 10/100/1000 ports.   ** Shared or combo with 10/100/1000 ports. SFP ports can support low speed SFPs (ie. 100 FX)

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8800 Series | 5600 Series | 5500 Series | 4800 Series | 4500 Series | **3500 Series**

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
- Supports PoE+
- Up to 8 systems can be stacked; up to 384 GE ports with a max. stacking capacity of 80 Gbps
- Local and static routing

Model	Stacking (Gbps)	10/100 ports	10/100/1000 ports	IEEE 802.3at PoE+ ports	SFP 1 Gbps/SFP+ 10 Gbps ports
ERS 3510GT (fanless)	–	–	8	–	2 SFP
ERS 3510GT-PWR+ (fanless mode @ 60W power budget)	–	–	8	8	2 SFP
ERS 3526T (fanless)	10	24	2*	–	2 SFP**
ERS 3526T-PWR+	10	24	2*	24	2 SFP **
ERS 3524GT	10	–	24	–	4 SFP*/2 SFP**
ERS 3524GT-PWR+	10	–	24	24	4 SFP*/2 SFP**
ERS 3549GTS	10	–	48	–	1 SFP+/2 SFP*/ 2 SFP**
ERS 3549GTS-PWR+	10	–	48	48	1 SFP+/2 SFP*/ 2 SFP**

* combo or shared ports with the 10/100 or the 10/100/1000 ports

** shared with the stacking ports. Can only be used when the switch is operating standalone.

Wireless LAN 9100 Series   Wireless LAN 8100 Series

Wireless LAN 9100 Series

Read More

- Next Generation 802.11ac Wireless LAN solution
- Cost effective, two-tier architecture (distributed controller in every AP)
- Granular Visibility and Control for 1300+ applications
  - Ensures business apps are not compromised by personal apps
- Software Upgradeable from 802.11n to 802.11ac
- 70% more bandwidth per AP
- Premise and Cloud based management
- Advanced Radio Frequency (RF) Management

Model	Description
WAP9122XX-E6	WLAN 9122 Indoor Access Point, 802.11N (Upgradable To 11AC), Dual Radio 2x2 MIMO, Omni-Directional Antenna, Integrated Wireless Controller
WAP9123XX-E6	WLAN 9123 Indoor Access Point, 802.11N (Upgradable To 11AC), Dual Radio 3x3 MIMO, Omni-Directional Antenna, Integrated Wireless Controller
WAP9132XX-E6	WLAN 9132 Indoor Access Point, 802.11AC, Dual RadiO 2x2 MIMO, Omni-Directional Antenna, Integrated Wireless Controller
WAP9133XX-E6	WLAN 9133 Indoor Access Point, 802.11AC, Dual Radio 3x3 MIMO, Omni-Directional Antenna, Integrated Wireless Controller
WAO9122XX-E6	WLAN 9122 Outdoor Access Point, 802.11N, Dual Radio 2x2 MIMO, Omni-Directional Antenna, Integrated Wireless Controller
WAT911360-E6	WLAN 9100 Antenna 2.4GHz/5GHz, Omni-Directional 360 Degree, 1x1 "Rubber Duck" For WAO9100
WAT912030-E6	WLAN 9100 Antenna 2.4GHz/5GHz, Supports 2 Radios, 14dBi, 30 Degree, 2X2 Panel With N-Female Connectors For WAO9100
WAT912090-E6	WLAN 9100 Antenna 2.4GHz/5GHz, Supports 1 Radio, 6/7dBi, 90 degree, 2x2 panel with N-Female Connectors For WAO9100.
WOS9100-E	WLAN Orchestration System For WLAN 9100 Series, Software Base Only. Requires Ap Licenses

Wireless LAN 9100 Series   **Wireless LAN 8100 Series**

Wireless LAN 8100 Series

- Enterprise-grade 802.11n wireless LAN solution

- Enables wireless network access and campus roaming

- http://www.miercom.com/pdf/reports/20111017.pdf

<div>Read More</div>

<div>Miercom Report: Wireless LAN</div>

Model	Description
WC 8180-16L*	WLAN Controller – 16 licenses version
WC 8180	WLAN Controller
WLAN AP 8120	Indoor Dual Radio, IEEE 802.11n Access Point with integrated antennas
WLAN AP 8120-E	Indoor Plenum-rated Dual Radio, IEEE 802.11n Access Point for use with external antennas
WLAN AP 8120-O	Outdoor Dual Radio, IEEE 802.11n Access Point for use with external antenna

* Can be upgraded to WC 8180 with licence

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BYOD, Guest Management and Access Control

BYOD, Guest Management and Access Control

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Identity Engines

- Visibility, Management and Control
  - **Who** can use **which** network resources **when** and **where**?
- Centralized, enterprise-wide user and device authentication and authorization
- Provision guest accounts in less than 10 seconds
- Single Sign On for Avaya Aura® applications
- Embrace BYOD securely with device fingerprinting and auto-registration
- Auto-configuration of 802.1x and MS-NAP
- Facilitates compliance with legal requirements
- Integration in existing directory services (Microsoft AD, Novell eDirectory, Sun Directory, Oracle Internet Directory, LDAP, Kerberos, RSA SecurID, token-based services)
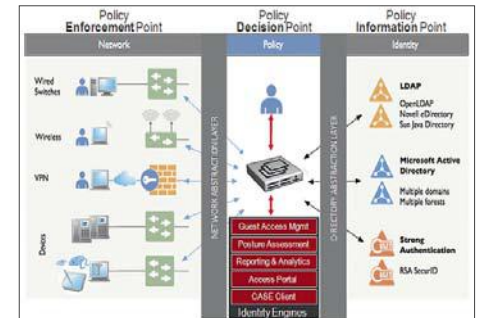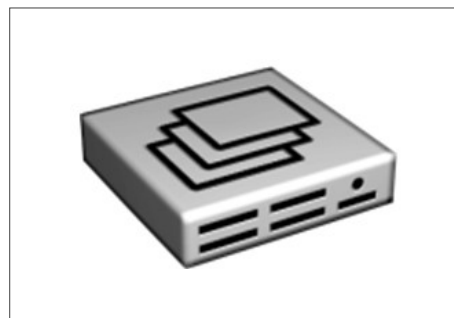

Identity Engines
Overview of the system architecture

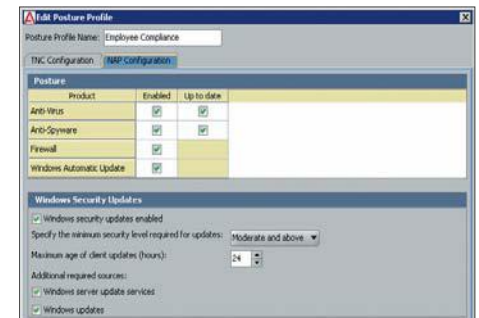### Ignition Access Portal and CASE Wizard

Ignition Server™
Authentication and authorization server Identity and rule-based

Ignition Guest Manager™
Customizable, Java-based solution for guest access

Microsoft NAP Integration
Posture for Microsoft NAP environments

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Branch Routers

Branch Routers

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- IP Services
  - IPv4, IPv6, RIPv1/v2, OSPFv2, BGPv4, ECMP, NAT/PAT,
    Multicast (IGMP, PIM-SM & PIM-SSM)

- WAN functionality
  - PPP, Multilink PPP, Frame Relay (incl. fragmentation), Multilink Frame Relay

- Quality of Service
  - IEEE 802.1Q/p, Differentiated Services, Packet Classification, Metering, Policing/Shaping,
    Congestion Management, Bandwidth Management, Hierarchical Queuing

- Multimedia Ready
  - NAT & Firewall ALGs for VoIP (H.323, SIP), cRTP
  - Survivable SIP Gateway

- VPN
  - Secure IPSec

- Security
  - Stateful Firewall and integrated ACLs, SNMPv2, SSH, SFTP

SR 2330
Converged Access Router for small and medium-sized offices or branches

SR 4134
Converged Access Router for medium-sized and large branches

AG 2330
Survivable SIP Gateway for small and medium-sized offices or branches (upgradeable to SR 2330 via licence)

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Avaya Fabric Connect | Virtual Services Platform | Ethernet Routing Switch | Wireless LAN | BYOD, Guest Management and Access Control | Branch Routers | **Network Management** | Collaboration Pods

Network Management

Network Management

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- Centralized, integrated set of network management tools
- Comprehensive management functions for all Avaya Networking products, switches, routers, WLAN
- Uniform user interface for all tools
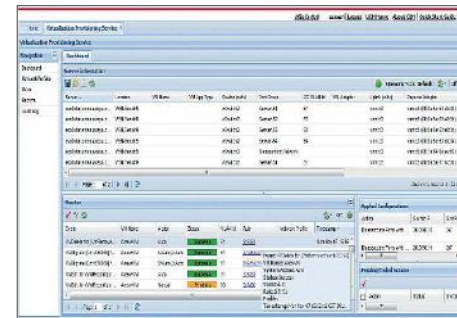- Essential components of an Avaya Enterprise Solution
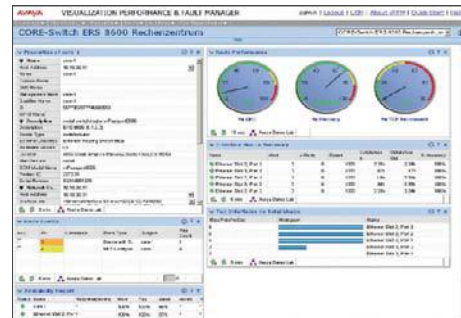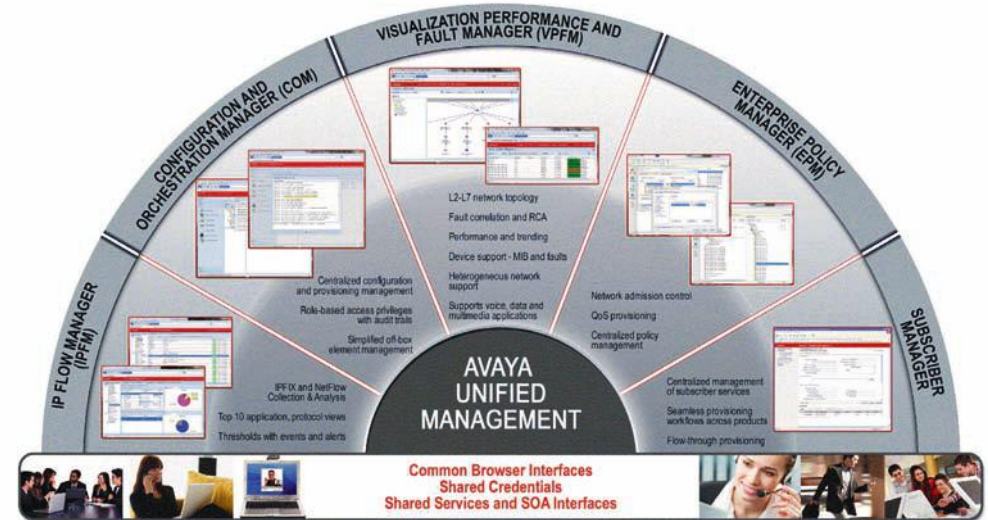
Visualization Performance and Fault Manager
Industry-wide network representation, root cause analysis, network topology
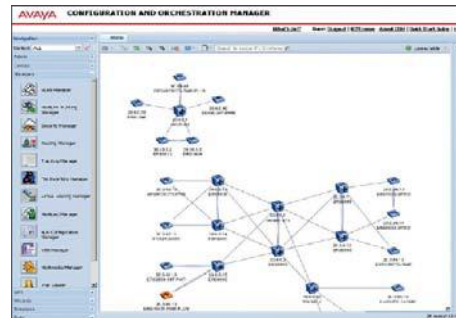
Configuration and Orchestration Manager
Configuration, component, backup, recovery and virtualization management

Virtualization Provisioning Service
Automation, visualization and reporting for data centers on physical and virtualized levels

IP Flow Manager
IP Flow Information eXport (IPFIX) Collector, Representation, Analysis and Reporting

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Collaboration Pods

Collaboration Pods

[Read More]   [Watch the Video]

- Industry's first "full stack" solution for real-time applications
- Flexible compute and storage footprint which is highly scalable
- Rapid, risk free deployments – real time applications running in hours/days as opposed to weeks/ months
- Streamlined management and troubleshooting with common orchestration
- Streamlined vendor relations with single call support
- Architected for maximum reliability – non-stop operations
- Avaya Fabric Connect integration for geo-redundancy and for Infrastructure as a Service initiatives.

Collaboration Pod Components:

- Base components:
  - VMware Compatible Servers: preloaded with Avaya Aura® Applications and Pod Orchestration Suite
  - Avaya Networking (VSP 7000, VSP 4000)
  - EMC VNX 5300 Storage Array

- Optional components
  - G450 Gateway
  - Session Border Controller