Highlights

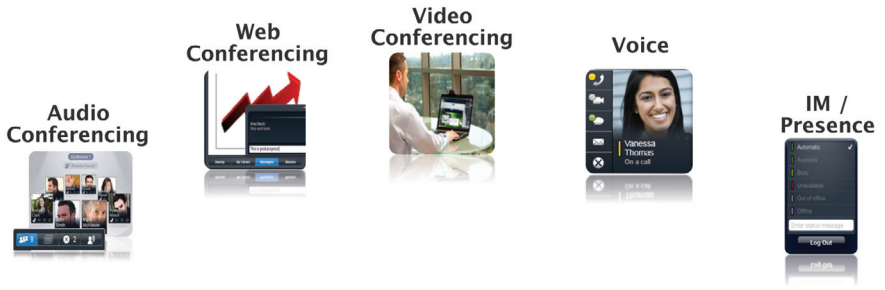
- **Simplify your installation with a pre-integrated virtualized solution**: VMware-based solution helps reduce infrastructure costs and time to deploy
- **Faster time to service**: Ready-made, pre-tested package reduces design, implementation and testing time
- **Best of breed components**: Comprised of leading technologies from Avaya, HP, EMC and VMware
- **Enhanced business continuity**: Redundant 5x9's hardware complemented by Avaya Aura® Platform survivability and VMware business continuity tools
- **Lower TCO**: Over 50% TCO savings versus appliance and "do-it-yourself" type deployment models
- **Improved Reliability**: Leveraging Avaya Fabric Connect, fully redundant hardware and virtualization technologies
- **Decreased Mean Time to Repair**: Single point of support for every Collaboration Pod component eliminates complex vendor relations
- **Consolidated management**: Integrated orchestration system manages and provisions all Collaboration Pod components

AVAYA

Engage The Power of We™

Avaya Collaboration Pod 4200 Series

Accelerating Cloud-based Avaya Customer and Team Engagement Time to Service



Accelerate time to service, increase application availability and simplify operations with the Avaya Collaboration Pod 4200 Series. Designed for rapid, lower risk deployment of cloud-based Avaya Engagement Solutions, the Collaboration Pod 4200 Series combines applications, servers, storage, networking and management components in an easy-to-deploy, ready-to-operate package.

The Collaboration Pod 4200 leverages industry-leading virtualization technology from VMware, server technology from HP, storage technology from EMC, and applications and networking from Avaya in a single integrated solution that comes complete with common orchestration and support.

Shown to deliver 50% or more in savings over traditional and "do it yourself" deployment models[1], Avaya Collaboration Pods represent a full-stack integrated solution that eliminates time consuming planning cycles and simplifies your operational environment.

Available in three different versions, the Avaya Collaboration Pod 4200 Series can accelerate the deployment of Avaya Team and Customer Engagement solutions in public, private and hybrid clouds:

- **Collaboration Pod for Enterprise Communications**: For enterprises providing Avaya Team Engagement and/or Customer Engagement services within their own firewall (private cloud) to their employees.
- **Collaboration Pod for delivering Unified Communications as a Service (UCaaS)**: For Cloud Service Providers offering hosted Avaya Team Engagement (or Unified Communications) services to their customer base.

[1] Based on TCO modeling as described in "Reduce your Total Cost of Ownership with Avaya Collaboration Pod", Avaya, May 2014.

- **Collaboration Pod for delivering Contact Center as a Service (CCaaS)**: For Cloud Service Providers offering hosted Customer Engagement (or Contact Center) services to their customer base.

Achieve faster time to service

Deploying a new virtualized application can take months or even longer. The Collaboration Pod 4200 is a pre-integrated and pre-tested solution that comes customized for your environment. It can eliminate the planning, deployment, cabling, testing and optimization phases of deploying new virtualized applications in the Data Center. Rather than months, the Collaboration Pod 4200 enables real-time applications to be deployed in just days.

Reduce Costs

Avaya Collaboration Pods can deliver more than 50% savings over a five year period versus Do-it-Yourself (DIY) and Appliance-based approaches due to reductions in engineering design and procurement, annual maintenance and ongoing monitoring costs[1] A key driver of these lower costs is the ability to bring all Collaboration Pod components under a single management interface. Layered dashboards make health monitoring, diagnostics, performance and reporting tasks easier. This simplified, streamlined management interface not only increases efficiency and collaboration between enterprise IT teams, but also leads to significant operational savings over the long term.

Enhance Business Continuity with a High-Availability Solution

The Collaboration Pod 4200 Series is designed from the ground up to ensure high-availability, non-stop operations. Its design incorporates both software resiliency and hardware redundancy features intended to ensure continuous operation even in the worst case scenario.

From a software perspective, the Collaboration Pod enables nonstop availability of communications services by combining inherent Avaya Aura® Platform architectural reliability – including survivable core and software duplication and active-active redundancy – with VMware tools, such as vMotion, Dynamic Resource Scheduler and High Availability. This enhances overall Avaya Engagement solutions resiliency, while reducing administrative support. If a host fails, virtual appliances can move dynamically and routine maintenance can easily be performed without scheduled maintenance windows.

Additionally, the Collaboration Pod 4200 system has been designed to provide complete system redundancy. Even in the event of an individual component failure, the Collaboration Pod 4200 can maintain non-stop operation.

The Collaboration Pod 4200 also supports multi-site geographical redundancy in conjunction with other Collaboration Pod 4200 or 2400 Series systems (see Figure 1). This capability is enabled both through Avaya Fabric Connect technology, as well as through Avaya Aura built-in redundancy features.

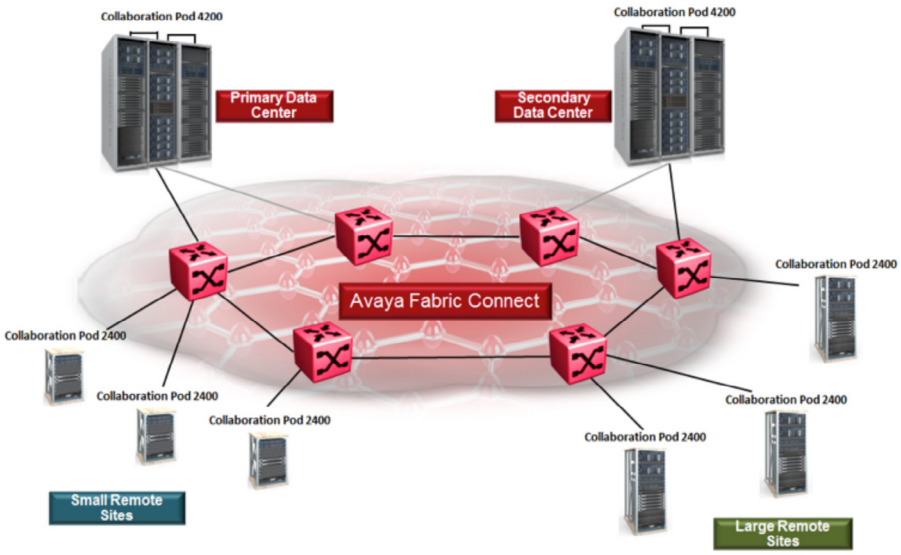


Figure 1. Multi-site Geographical Redundancy Options with Collaboration Pod

Compute, Gateway and Storage Extension Pods

Designed for your specific needs

The Collaboration Pod 4200 Series can be customized for a wide variety of service provider and enterprise data center needs. In addition to the three base variants (enterprise, UCaaS and CCaaS), the Collaboration Pod 4200 comes pre-configured to match your specific environment. Simply select the applications you would like to deploy and our sophisticated tools will ensure that your Collaboration Pod 4200 is configured with the appropriate amount of compute, storage and networking resources. You can also specify optional components, including gateways and session border controllers. The final solution is configured to your unique needs and shipped pre-assembled to your site.

Scaling the Collaboration Pod 4200

The Collaboration Pod 4200 Series comes sized to your specific application requirements. As you add subscribers / users and/or services, you can scale your Collaboration Pod 4200 resources by running multiple instances of the virtualized applications. Alternatively, you can extend your deployment with additional Collaboration Pod or via Avaya Extension Pods.

Avaya Extension Pods can be used to host additional gateways, storage or compute servers outside the deployed Collaboration Pod base system. All Extension Pods have a minimum of two switches (either Avaya Virtual Services Platform (VSP) 4000 or VSP 7000) and one management-proxy server, plus whatever resources are required for the installation.

Extension Pods are flexible and can be used to scale the number of servers, storage arrays or gateways (including any mix) or can be used to deploy other user-defined applications or services.

Collaboration Pod Components

Compute

The Collaboration Pod 4200 uses high-powered, VMware ESXi compatible servers from HP. These servers are configured with dual core processors and with 128 GB RAM along with two 300 GB drives in a RAID 1 configuration. The servers come loaded with VMware vSphere (ESXi), the Avaya applications and the management and orchestration applications. They are configured in a VMware High Availability cluster and run in hot standby, and can be replaced or added to the cluster without downtime. The number of deployed servers is based on capacity and service requirements of the individual customer.

Storage

In order to store, protect and manage data and for backup and recovery, virtualized applications require storage. The Avaya Collaboration Pod 4200 leverages the EMC VNX 5300 mid-tier unified storage system. Providing full redundancy with dynamic failover/failback plus the ability to perform in-service hardware and software upgrades, this powerful system contributes to the Collaboration Pod's overall reliability.

The EMC storage array can be managed through EMC's Unisphere management software, which provides dashboards and reports for the EMC storage array. The EMC management software can be further integrated into VMware vCenter management via APIs to synchronize storage set-up with the virtualized applications.

Networking

The Collaboration Pod leverages the Avaya Virtual Services Platform (VSP) 7000 for top-of-rack data center switching. This innovative, highly reliable platform offers high-density

10 Gigabit Ethernet connectivity with dual 640 Gbps interconnect ports. These high-speed ports can interconnect multiple Collaboration Pods and Extensions Pods into clusters to enable resource sharing among them. The Collaboration Pod also leverages Avaya Virtual Services Platform (VSP) 4850 for Layer 2 aggregation within the Pod itself, as well as for external connection to the customer's network.

Collaboration Pod with Avaya Fabric Connect

The Collaboration Pod 4200 VSP platforms support Avaya Fabric Connect, one of the industry's most fully featured network virtualization technologies.

Fabric Connect is based on an enhanced implementation of the IEEE / IETF standard, Shortest Path Bridging. This technology can offer significant benefits:

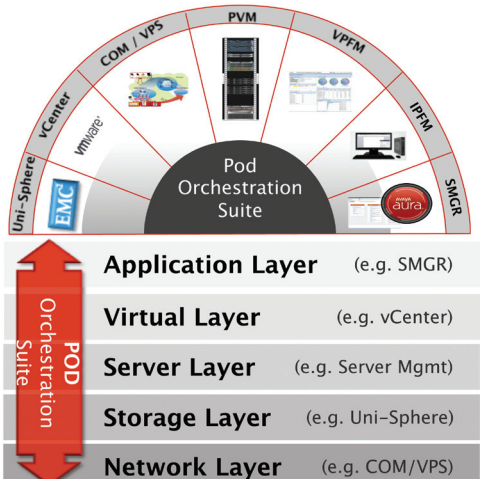
- Ability to extend the clustering ability across the Wide Area Network so that customers can disperse applications across multiple locations for geographical redundancy.
- Ability to easily support unrestricted virtual machine mobility (across subnets and across geographically dispersed data centers) through simple end point provisioning.
- Improves performance of real-time applications with the shortest latent path dynamically created between source and destination.
- Greater network agility with the ability to deploy services quickly by provisioning each end point. The network core does not need to be reconfigured to deploy new services or change existing services.
- Simplifies networking by being the only network virtualization technology on the market that supports L2/3 virtualized services with integrated routing and multicast – with a single protocol.

Orchestration

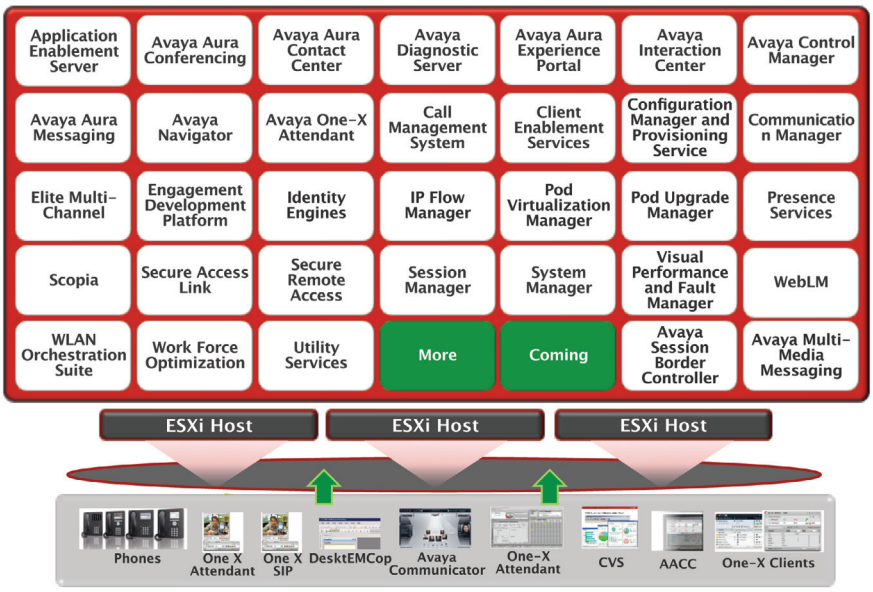
The Avaya Pod Orchestration Suite (POS) is the orchestration layer for the Collaboration Pod 4200. This powerful suite of tools provides single sign on, consistent look and feel, specialized fault and performance dashboards, remote physical views of the Pod, and more.

Specific functionality provided by the Pod Orchestration Suite includes:

- **Real-time Health Monitoring Dashboard**: Through a GUI-based representation of the Pod, status indicators show the real-time health of the Pod components and enable administrators to drill down quickly for detailed fault and performance information.
- **Fault and Performance Management**: The Fault and Performance management component of the Pod Orchestration Suite enables network discovery, topology visualization, and performance and fault management for included Pod components.
- **Configuration Management**: Configuration Management tools are available for network devices, Avaya Aura® Platform virtual appliances and the storage array. Intuitive workflows make it easy to drill down into any configuration tool.
- **Application Flow Analysis**: This tool lets administrators monitor, view and diagnose problems and resource consumption at the application level.
- **Endpoint Diagnostics and Network Monitoring**: These tools enable users to remotely diagnose their IP phones as well as proactively monitor end-to-end network connections between Avaya devices.
- **vMotion Synchronous Switch and Storage Provisioning**: Helping ensure that networking and storage resources are provisioned appropriately, this capability enables alerts to be received from VMware vCenter when new VM activations, deletions or moves occur.



Pod Orchestration Suite: Support from the Application to the Network Layer



Virtualized Solutions and Applications for your Business Needs

- **Policy Control**: Avaya's Identity Engines Management system provides identity-based network, BYOD and guest access. Using role-based access controls and customized rules, different user types (for example, employees, contractors and guests) are allowed different levels of access to the Collaboration Pod applications.
- **Pod Management Server Console**: The Management Server Console automates the deployment of additional virtualized applications on the Collaboration Pod, after installation at the customer site. It allows users to seamlessly add applications to their existing Collaboration Pod deployment as their service mix changes.

Gateway (Optional)

The Avaya G450 Media Gateway seamlessly integrates traditional circuit-switched and IP-switched interfaces. Depending on design requirements, gateways can be deployed either within the Pod, or on customer premises / closer to endpoints. The number of gateways required in a deployment can vary and is dependent on the customer's requirements.

Session Border Controller (Optional)

The Collaboration Pod 4200 offers the ability to integrate the Avaya Session Border Controller for Enterprise. This solution provides industry-leading security risk mitigation for Unified Communications solutions, helping to protect against toll fraud and malicious attacks. It can also be used to provide signaling interworking, remote worker support, NAT traversal, quality of service and admission control mechanisms. The Collaboration Pod 4200 for Enterprise Communications supports either the Avaya SBCE virtualized (VE) or hardware-based version.

Collaboration Pod Enclosure Specifications

- Dimensions:
  height: 82" (208cm);
  width: 24" (61cm);
  depth: 51" (130cm)
- Weight: Max configuration: 2400lbs
- Power: 6 x 220VAC/20A or 30A Power Input (includes redundancy)
- Cooling: 12 x 200CFM Rear Door Fans
- Max Watts: Max configuration: 15,000 Watts
- Max BTU: 51,200
- Operating Temp (Celsius): 10-35
- Storage Temp (Celsius): -5-60
- Relative Humidity%: 20-80

Specifications:	
Standard Components	
Compute	**HP DL360 Compute Servers**
Networking	**Avaya VSP 7024-XLS with 10 Gig expansion module for Top of Rack Switching (x2)** 24 SFP+ ports supporting 10 Gbps or 1Gbps Ethernet transceiver, plus 8 ports of 10GBase-T; 4 x Fabric Interconnect ports totaling 640 Gbps of capacity **Avaya VSP 4850GTS (x 2)** 48 ports of 10/100/1000 with 2 Combo SFP/RJ45 ports and 2 x SFP+ ports
Storage	**EMC VNX 5300 Storage Array**
Applications	**Avaya Aura Virtualized Solutions and Applications** Custom solutions supporting today's and tomorrow's business needs
Virtualization	**VMware** vSphere v5.5
Management	Avaya Pod Orchestration Suite EMC Unisphere Manager VMware vCenter Server Avaya Diagnostic Server
Optional Components	
Gateway	**Avaya G450 Media Gateway** Up to 320 x DSP resources; 8 x T1/E1 interfaces, 3U form factor
Session Border Controller	**Avaya Session Border Controller for Enterprise (ASBCE)** Supported as a virtual application (Collaboration Pod for Enterprise Communications) or as a hardware-based solution
Videoconferencing	**Avaya Scopia Video Collaboration** Scopia Desktop VE, Scopia Management VE, Scopia Gateway VE, Scopia Pathfinder, Scopia Elite 6140 MCU components available
WLAN Management	**Avaya WLAN 9100 Orchestration System** Management software for Avaya's WLAN 9100
Increased Access Security	**Avaya Identity Engines** Policy-based controls for consistent and predictable network access

About Avaya

Avaya is a leading, global provider of customer and team engagement solutions and services available in a variety of flexible on-premise and cloud deployment options. Avaya's fabric-based networking solutions help simplify and accelerate the deployment of business critical applications and services. For more information, please visit **www.avaya.com**.

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