

## Avaya Data Solutions Management

Say ‘yes’ to an innovative unified management solution spanning data, voice and applications — including routers, switches, call servers, and more.

### HIGHLIGHTS OF AVAYA DATA SOLUTIONS MANAGEMENT

- Offers a common look and feel across applications
- Enables navigation to all management applications with single sign-on and centralized authentication
- Provides integrated workflows for managing unified communications networks
- Decreases the learning curve for IT personnel
- Delivers simplified deployment and system administration configuration
- Offers deployment flexibility (e.g., standalone, integrated, branch resiliency)
- Integrates with the Avaya Unified Communications Management (UCM) architecture providing voice and data management over a common platform
- Delivers a comprehensive management solution by seamlessly managing faults, configuration, performance and security

Unified Communications (UC) solutions from Avaya remove the barriers between voice, email, conferencing, video and other applications, resulting in a unified communications experience for businesses.

Avaya Unified Management provides comprehensive management capabilities across voice, data and multimedia applications, utilizing a set of Common Services that serve as a foundation for unifying management applications. Bottom line, Avaya Unified Management is the ‘glue’ that binds together distributed components to establish a true unified communications environment.

### Business Made Simple: Avaya Unified Management

Avaya’s Unified Management tools provide a single unified management domain, which enables your enterprise to improve workflows, reduce operational expenses related to training and decrease the complexity of managing a ‘hyperconnected’ network. And that’s just the beginning.

### A consistent user interface across the board

To simplify management and improve efficiency, Avaya Unified Management offers a consistent look and feel, including a standard and easy-to-use

web UI that applies to all unified communications-enabled products. Regardless of application, device or what is going on behind the scenes, the UI will always deliver a consistent experience to users.

### Reduced data entry and the potential for errors

Who hasn’t been frustrated by having to enter and re-enter user information? By leveraging a common data repository, Avaya Unified Management completely eliminates the need for users to enter user data multiple times.

For customers who have their own directory, such as Microsoft Active Directory, the Avaya Unified Management common data repository can serve as a cache of information for the Avaya applications — and be bulk-loaded and maintained through a convenient LDAP sync utility.

### Fewer servers, lower capital expenditure

Avaya Unified Management accommodates multiple network management applications on a single server. This co-residency of applications reduces the number of servers required, which can lead to a significant decrease in capital expenses.

### One userID. One password. That’s it.

Avaya Unified Management provides Single Sign-On (SSO) navigation to all



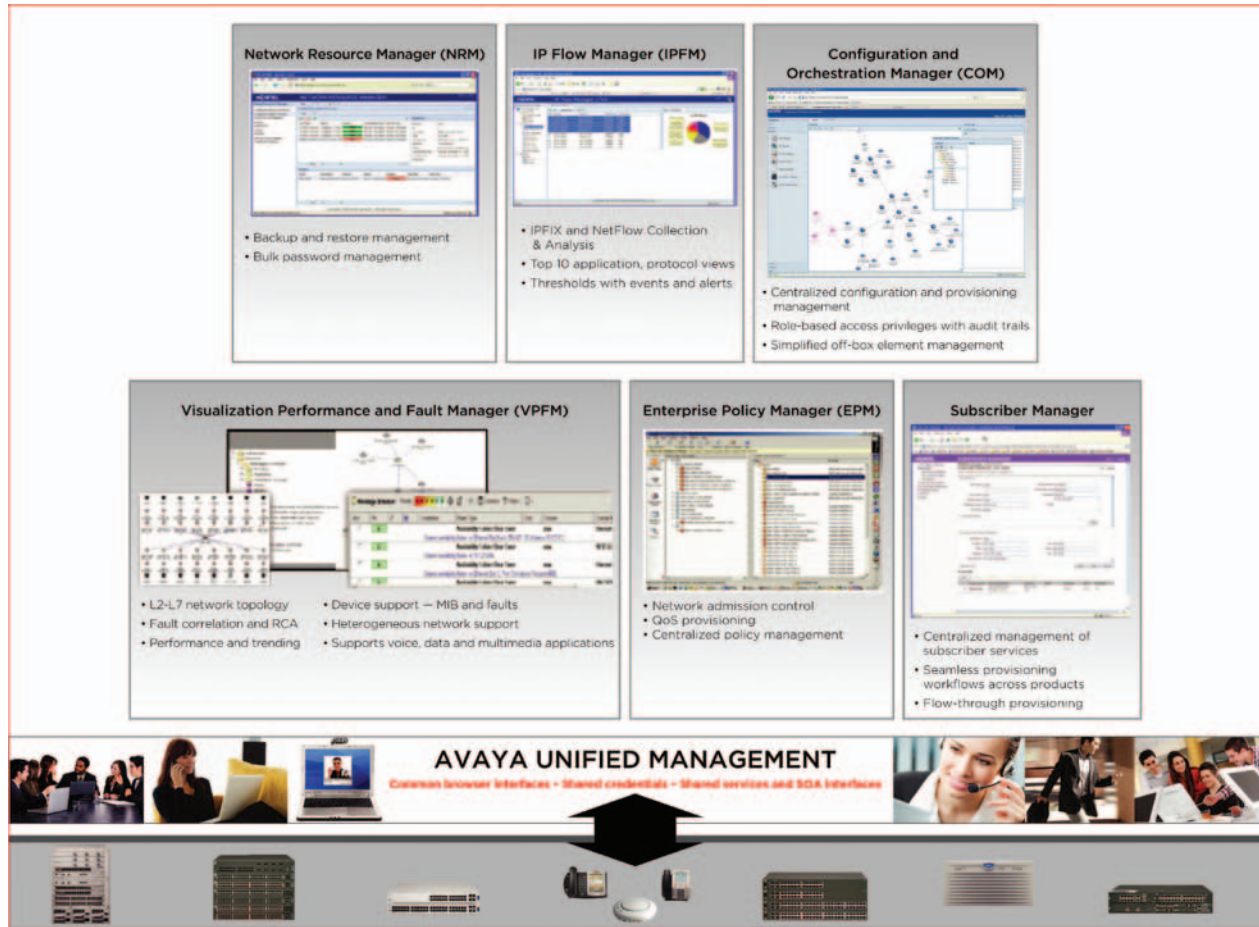


Figure 1. Overview of the Avaya Unified Management solution — management across voice, data and multimedia applications

applications, putting an end to swivel-chair management. With SSO, users are no longer required to log on to separate systems to perform different management functions. Once signed on, a user can navigate to any management functionality, whether it's network management or a specific element manager, such as a call server.

### Local resiliency and survivability, when needed

One of the most compelling features of Avaya Unified Management is the simplicity and convenience of centralized management from a simple-to-use browser. But what happens if some unplanned event, such as a hurricane, results in a branch office location being cut off from the rest of the network? Thanks to built-in survivability features, the isolated site can continue to be managed locally, ensuring that it's business as usual regardless of what happens.

### Easy addition of new capabilities as required

An enterprise's network management requirements might be simple at first, but can grow quickly as the business evolves. Through Avaya Unified Management, applications can be added easily as required. This means that your organization can start with one management solution, such as the Visualization Performance and Fault Manager, and then add others as business needs change.

### Standalone and integrated configurations

The Unified Management solution is based on Service Oriented Architecture (SOA) principles and also integrates JBOSS J2EE and Web-based technology. Application Programming Interfaces (APIs) are application- driven and

web-services-based, which means you can integrate Avaya Unified Management into parts of your own business solutions.

### Simple to use

The presence of easy-to-use templates and Wizards enables Avaya Unified Management applications to be managed by network administrators that aren't necessarily 'super users'. Rules are easy to define and manage in the Unified Management provisioning tools, lessening the need for expert, highly-paid personal. The implication of this simplification to ongoing operational expenses is very compelling.

### Convenient subscriber-based provisioning

The optional Subscriber Manager application enables network administrators to manage

subscriber services across various platforms. Rather than provisioning services separately in each system, Avaya Unified Management enables all services to be provisioned from one place, based on pre-determined templates. This capability is available initially for Communication Server 1000 provisioning, but will be extended to messaging, conferencing and other applications.

### Flexible deployment options: standalone and integrated

Avaya Unified Management offers configuration flexibility, including standalone or integrated options, enabling a unified workflow and management experience for administrators as they traverse the network's call servers and application servers.

## Avaya Unified Management applications at a glance

### Visualization Performance and Fault Manager (VPFM)

The VPFM has the ability to discover and monitor every IP/SNMP device on your network, even if equipment comes from a vendor other than Avaya. The application

transforms complex network topology into simple-to-use, hierarchy-based maps, giving a clear, end-to-end view that helps your IT personnel quickly determine if network issues are physical or logical in nature. Additionally, the VPFM offers a powerful fault management capability, including correlation and integration with network topologies. Finally, the VPFM's performance management capability can provide your enterprise with critical trending information that can be used to address capacity planning requirements — today, tomorrow and in the future.

### Configuration and Orchestration Manager (COM)

The COM delivers centralized configuration, provisioning and troubleshooting for enterprise-wide devices and technologies. It is a real-time Web-based application, enabling anytime, anywhere access for multiple authorized users. With role-based access privileges and audit trails, a high level of security is ensured.

COM simplifies network-wide configuration by offering a topology-driven GUI with workflow-based visibility. Complex configurations such as VLAN, SMLT/MLT, VRF and multicast are easily managed using templates and wizards.

In addition, COM can provide network discovery, password management and serve as a platform for downloading, launching and hosting off-box device management. With centralized off-box element management, COM also streamlines the managing of inventory, updates as well as device and user access controls.

### Enterprise Policy Manager (EPM)

The EPM is a network-level application that enables network administrators to manage bandwidth, prioritize traffic streams, set network access policies and control energy consumption. It provides tools for policy provisioning and closed-loop analysis, which enable your network manager to monitor policies and assess the impact of new ones on applications and services in the network.

The Enterprise Policy Manager also performs an important role in Avaya's Proactive Voice Quality Management solution by providing QoS configuration capabilities that can provide acceptable levels of performance and reliability for VoIP applications, unified communications and all other business functions that are critically important to your enterprise.

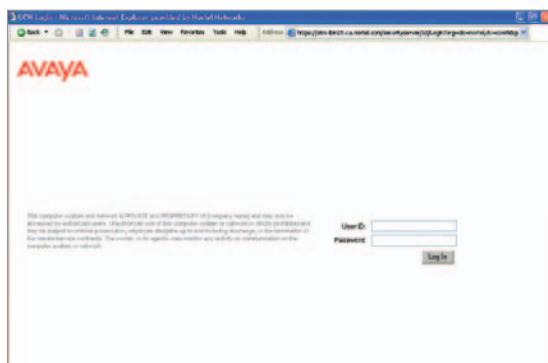


Figure 2. Avaya Unified Management Common Authentication Page. From this page, administrators can login to access all Unified Communications Management applications providing single sign-on access.



Figure 3. Avaya Unified Management Navigation Page. From this page, administrators can navigate to any network management (i.e., voice, data and application) or network element. Several applications can be opened at the same time.

## IP Flow Manager (IPFM)

The IPFM is a unique network management software tool that enables administrators to monitor, view and diagnose problems at the application level and then use this flow-based data to make informed decisions about the network.

The IPFM works in conjunction with Avaya's Ethernet Switch (ERS) portfolio, which includes ERS 8600, ERS 8300, ERS 5600, ERS 5500 and ERS 4500. Data is collected via the ERS, on a per-port basis, and forwarded to the IPFM, which performs monitoring, analysis and presentation of application issues and usage.

## Network Resource Manager (NRM)

The NRM was designed to simplify bulk backup and restore services for switches in your network, including Avaya Ethernet Routing Switches, Secure Network Access Switches, Secure Routers (i.e., Avaya Secure Routers 1000 and 3000 series) and VPN Routers (1000 through 5000 series).

The Network Resource Manager can significantly reduce the time a network administrator spends configuring devices by automating configuration and software updates, backups and other services, such as centralized password management, across multiple devices in the network from a Web-based interface.

## Subscriber Manager

The Subscriber Manager introduces centralized management of all subscriber services provided by Avaya applications

## AVAYA'S COMMUNICATIONS-ENABLED NETWORK MANAGEMENT IT APPLICATIONS

Did you know that Avaya has developed industry-leading, communications-enabled unified management software that leads to faster IT response times, improved user satisfaction and lower operating costs? It's true. By embedding communications capabilities such as Presence, Click to Call/Bridge, Instant Messaging and Context-sharing within your enterprise, you can simplify maintenance and upgrade processes, resolve IT problems faster, and improve employee and customer satisfaction.

Avaya's unified management suite of software products offers Web services-based configuration, policy and network management applications that create a communications-enabled, application-aware management environment. As such, it enables contextual information to be passed seamlessly between applications while enabling administrators to easily and effectively communicate and share information with team members working on a project or task at hand.

Thanks to the real-time communications and context-sharing capabilities integrated directly into the network management applications, collaboration and productivity are significantly enhanced. The end result? Faster decision making, reduced costs, and more satisfied employees and customers.

within the UC domain. Administrators can view all of a subscriber's services — including telephony, messaging and conferencing — in one convenient place. Additionally, the application enables you to create, move or change services easily from a central interface, using pre-defined service templates.

Subscriber Manager can also take the administrator to a particular element manager for more detailed management of the service parameters. This capability enables non-technical personnel without

in-depth understanding of each platform's management interfaces to use established tools to provision services for subscribers. The application can also work in a "Flow-Through Provisioning" mode where it takes action automatically based on information in an enterprise's LDAP directory, and without the need to access the user interface.

Learn more about the Avaya Data Solutions Management portfolio by contacting your Avaya Sales representative.

## About Avaya

Avaya is a global provider of business collaboration and communications solutions, providing unified communications, contact centers, data solutions and related services to companies of all sizes around the world. For more information please visit [www.avaya.com](http://www.avaya.com).

The Avaya logo consists of the word "AVAYA" in a bold, red, sans-serif font. The letters are closely spaced and have a slight shadow effect.

The Power of We™

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References to Avaya include the Nortel Enterprise business, which was acquired as of December 18, 2009.

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