

# Avaya Communication Server 1000

## A foundation for unified communications

Provide all your employees – whether they’re working from home, on the road, in a branch office or at headquarters – with access to communication and productivity enhancing capabilities. Communication Server 1000 is a tightly integrated access element of the Avaya Aura™ communications platform, that provides contextual based collaborative communications that can increase customer interaction and service – through improved employee contact, extended reach, and always-on communications.

### Communication Server 1000

The Avaya Communication Server 1000 is an enterprise communications platform and integrated access element of the Avaya Aura™ solution that enables a simple evolutionary path to unified communications. Communications Server 1000 offers a comprehensive suite of reliability and survivability mechanisms to help ensure the integrity of your network, while enabling communications security through a full suite of security features and capabilities. The Communication Server 1000 supports the delivery of business-

critical telephony features and Avaya Aura™ features and applications to any user — anywhere on the network.

### Resilient to ensure business continuity

Ensuring the integrity of your telephony infrastructure is critical to business success, which is why the Avaya Communication Server 1000 was specially designed with no single point of failure. The platform can also be deployed with an array of reliability and redundancy mechanism to help ensure business continues as usual even in adverse conditions.



### Campus redundancy

Communication Server 1000's fault tolerance and operational resilience enable active and inactive call servers to be physically separated on different floors or in different buildings across a campus environment. The separate redundant call servers connect over a high-speed, reliable data link. If a disaster such as a fire or flood causes one call server to fail, the redundant call server will automatically take over.

### Geographic redundancy

Since system failures are not always localized, enterprises must have broad-reaching failover mechanisms that provide continuity of service in the event of disasters or network failures. Implementing geographic redundancy enables networks to 'self-heal' in the event that the main call server is isolated from the rest of the network — allowing users to stay connected and business operations to continue.

### Branch survivability

Connectivity between remote sites and their network can be impacted without warning. To minimize exposure in the event of these unforeseen circumstances, it's critical that offices be able to support their telephony infrastructure in isolation. A full suite of survivable branch office solutions are available to address the needs and requirements of branch offices from small to large.

Communication Server 1000 Portfolio	
<b>Communication Server 1000E</b>	Communications Server 1000E (CS 1000E) is ideal for existing customer environments that are IP-centric and want a flexible, reliable and secure IP Telephony solution. CS 1000E integrates with Avaya Aura™ and supports a broad portfolio of productivity-enhancing applications and services.
<b>Communication Server 1000M</b>	Communication Server 1000M (CS 1000M) is well suited for Meridian 1 customers that are TDM-centric and want to maintain investment in their existing infrastructure - while evolving to enjoy the benefits of IP applications and services.

## Avaya Communication Server 1000 Highlights

- Fully integrated access element of Avaya Aura™ with Session Manager delivering SIP Trunk consolidation across CS 1000 networks as well as mixed CS 1000 and Avaya Communication Manager networks
- Centralized application deployment and management across the entire network including next generation Avaya Aura™ Conferencing, and Avaya Aura™ Messaging solutions
- SIP Peering extending application sequencing and foundation services to CS 1000 users across the network
- IP PBX functionality delivered over IP LAN and WAN infrastructures delivers a comprehensive suite of rich telephony features and applications
- Support for TDM, IP, and Session Initiation Protocol (SIP) clients on a single platform provides a smooth migration path for a cost of ownership advantage
- Scalability to meet growing enterprise requirements: 40,000 IP clients or 20,000 SIP clients per call server. A high scalability centrally managed solution supports up to 150,000 IP users
- Inherent reliability and multiple resiliency mechanisms to maintain business continuity during a network or system failure
- Supports IM (Instant Messaging) and presence capability
- Integration with best-in-class unified communications solutions from market-leading desktop application providers such as Microsoft and IBM
- Extensive client portfolio, including IP phones, soft clients, wireless handsets as well as digital and analog phones to meet a diverse set of customer needs

### Unified Communications Management

With Avaya Aura™ System Manager integrating the Avaya Unified Communications Management solution, network administrators have a common, comprehensive web-based management solution to manage voice, data and multimedia applications, utilizing a set of common services that serve as building blocks for unifying management applications. Key system and network management applications for Communication Server 1000, such as Element Manager, Network Routing Services Manager, and Subscriber Manager, are all deployed and accessed from a single secure domain within a consolidated navigation

environment. Avaya Aura™ System Manager supports all Communication Server 1000 deployment scenarios including high scalability centrally managed architecture.

### Voice quality management

Equipment reliability doesn't mean a thing if the network can't provide high-quality service. Communication Server 1000 supports real-time monitoring and reporting of network conditions during calls — enabling quicker resolution to network problems to continue high-quality service.

Proactive Voice Quality Management (PVQM) enables network managers to deliver the overall quality of their IP Telephony deployments. PVQM continuously

and passively measures the user quality of experience (QoE) for IP Telephony communications, conducts system health checks for IP Telephony servers, and provides troubleshooting and resolution for any performance degradation or fault conditions to help maintain the quality of VoIP communications.

### Security

Increased user mobility combined with growing threats from legitimate and illegitimate users and devices represent a daunting challenge for companies who are trying to secure their networks. Fundamental to our architecture is a comprehensive layered defense approach that helps ensure the integrity and security of the network and its users. This offers numerous security capabilities that include firewall protection to secure against denial of service (DoS) attacks. Communication Server 1000 supports a number of capabilities for the security of its users, including the encryption of media and signaling traffic.

### Location-based emergency services

Communication Server 1000 employs intelligent emergency services globally (e.g., 911, 999, 112) that track the location of IP clients and direct calls to the appropriate emergency contact, even if that client is halfway around the world. Location-based emergency services are a core built-in capability of the Communication Server 1000 designed for simple, effective and reliable service you can count on when you need it the most.

### IP Phones and Clients

Avaya Communication Server 1000 supports one of the most extensive portfolios of IP clients and devices in the industry — allowing customers to choose the right mix of devices that best supports their business, user and mobility requirements:

- IP phones for desktops include the award-winning 1100 Series IP Deskphones and the value-oriented 1200 Series IP Deskphones. Each series includes models tailored to specific customer environments, budgets and/or requirements.
- Mobile handsets including the 6100 Series WLAN handsets and the 4000 Series DECT handsets for on-site mobility using enterprise-deployed wireless technologies. Handset choices range from modern sleek designs to specialized and rugged models designed to endure in harsh environments.
- Soft client options include the 2050 IP Softphone for Windows PCs and PDAs supporting Unified Communications, Avaya one-X® Mobile Lite and Avaya one-X® Communicator solutions.

- Any cell phone including the Apple iPhone can also be enhanced with the Communication Server 1000 features by using the Mobile Extension feature to pair it with the user's office phone.

Collectively the client portfolio provides ideal solutions for all types of users including office workers, contact center agents, remote workers, road warriors or campus mobile workers — delivering more effective employee communications and improved customer responsiveness. The tight integration of IP clients with the Communication Server 1000 system delivers streamlined management and provisioning for site administrators.

### Business-enhancing telephony and unified communications

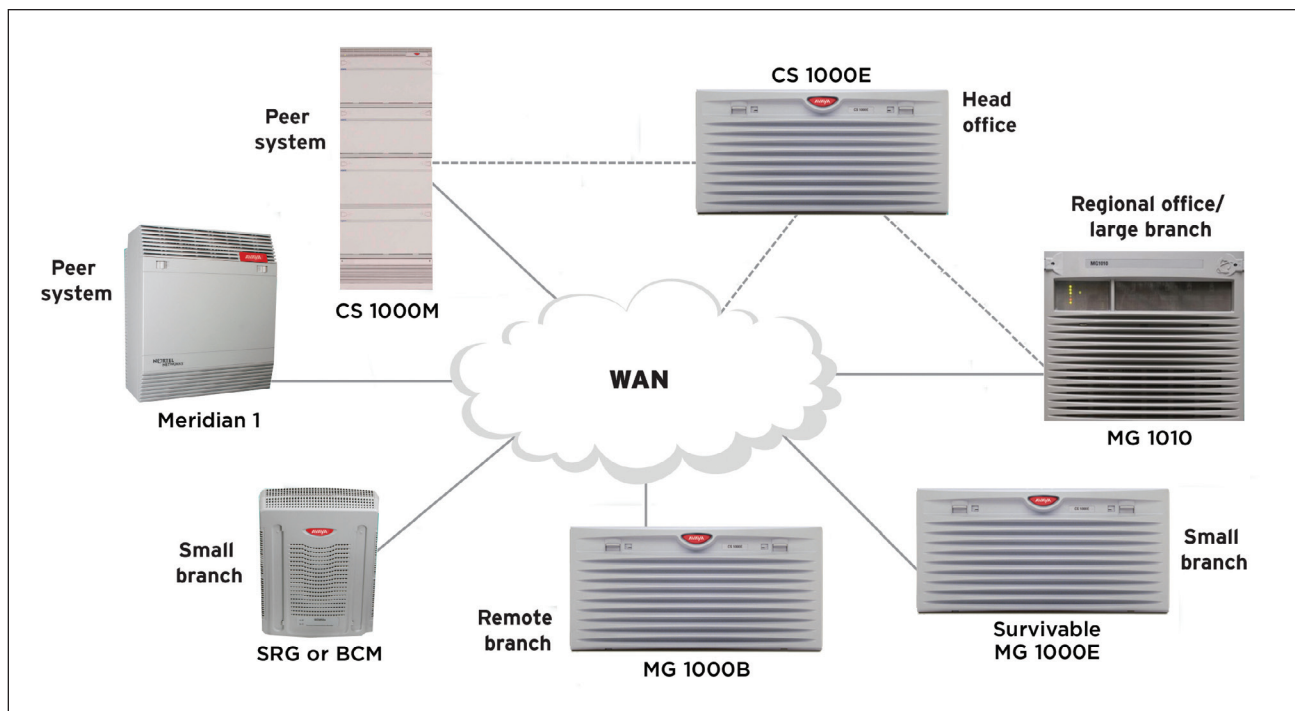
Communication Server 1000 leverages advances in technology, such as Session

Initiation Protocol (SIP), to provide users the flexibility to choose the type of media or device they need to communicate most effectively. SIP, a powerful protocol for IP Telephony and core architecture technology of Avaya Aura™, supports a wide range of media sessions allowing users to engage in real-time, integrated business communications regardless of location, media type or device.

Communication Server 1000 natively integrates unified communications capabilities for simple and cost-effective services, ideal for small to large organizations looking to take advantage of the latest productivity-enhancing applications.

Communication Server 1000 users also have equal access to feature-rich applications from Avaya including Avaya Aura™ Conferencing, Avaya Aura™ Messaging and Avaya CallPilot™, Avaya Hospitality

Figure 1. Example of network deployment



Messaging Server 400, Avaya NES Contact Center, Avaya Agile Communication Environment™ and more. These applications enable employees to improve their productivity, stay connected and actively engaged.

## Investment protection and freedom to evolve

As enterprises face increasingly tighter capital and IT budgets, an evolutionary approach can provide significant savings. Our investment protection philosophy and migration program helps ensure that when an enterprise is ready to implement the latest technology that Avaya Aura™ unified communications delivers, they can upgrade with minimal to no disruption — enabling users to remain productive and engaged with customers and colleagues regardless of time or distance.

## Partnering to deliver unified communications

To deliver on the promise of open unified communications, we work with leading desktop vendors such as Microsoft and IBM to deliver integrated telephony across the entire enterprise.

Enterprises can take advantage of Communication Server 1000 telephony features and capabilities integrated into Microsoft applications. These applications include Microsoft Office Communications Server 2007 (OCS) and Microsoft Exchange Server 2007 Unified Messaging. And with IBM, our rich telephony capabilities are extended to Lotus Notes and Sametime users. Additionally, through our DevConnect Partner Program, innovation continues with eco-system partners to accelerate the deployment of enhanced next-generation solutions.

## Conclusion

Avaya is delivering unified communications solutions that allow users to experience enhanced communications while leveraging their existing investments in telephony. The Avaya Communication Server 1000, with its tight integration with Avaya Aura™, is helping enterprises maximize each interaction, reinforce each relationship and deliver innovative new services.

## Learn More

To learn more about Avaya Communication Server 1000, Avaya Aura, or our other award-winning solutions and Avaya Global Services, contact your Avaya Account Manager or Authorized Partner. Or visit us at [www.avaya.com](http://www.avaya.com).

## 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).



© 2011 Avaya Inc. All Rights Reserved.

Avaya and the Avaya Logo are trademarks of Avaya Inc. and are registered in the United States and other countries. All trademarks identified by ®, ™, or SM are registered marks, trademarks, and service marks, respectively, of Avaya Inc. All other trademarks are the property of their respective owners. Avaya may also have trademark rights in other terms used herein. References to Avaya include the Nortel Enterprise business, which was acquired as of December 18, 2009.

06/11 • UC5161-03

[avaya.com](http://www.avaya.com)