



Avaya Unified Communications for Teleworkers Solution Guide

18-602828

Issue 1.1

April 2008

© 2008 Avaya Inc.
All Rights Reserved.

Notice

While reasonable efforts were made to ensure that the information in this document was complete and accurate at the time of printing, Avaya Inc. can assume no liability for any errors. Changes and corrections to the information in this document may be incorporated in future releases.

For full legal page information, please see the complete document, Avaya Legal Page for Hardware Documentation, Document number 03-600759.

To locate this document on our Web site, simply go to <http://support.avaya.com> and search for the document number in the search box.

Documentation disclaimer

Avaya Inc. is not responsible for any modifications, additions, or deletions to the original published version of this documentation unless such modifications, additions, or deletions were performed by Avaya. Customer and/or End User agree to indemnify and hold harmless Avaya, Avaya's agents, servants and employees against all claims, lawsuits, demands and judgments arising out of, or in connection with, subsequent modifications, additions or deletions to this documentation to the extent made by the Customer or End User.

Link disclaimer

Avaya Inc. is not responsible for the contents or reliability of any linked Web sites referenced elsewhere within this documentation, and Avaya does not necessarily endorse the products, services, or information described or offered within them. We cannot guarantee that these links will work all of the time and we have no control over the availability of the linked pages.

Warranty

Avaya Inc. provides a limited warranty on this product. Refer to your sales agreement to establish the terms of the limited warranty. In addition, Avaya's standard warranty language, as well as information regarding support for this product, while under warranty, is available through the following Web site:

<http://support.avaya.com>

Copyright

Except where expressly stated otherwise, the Product is protected by copyright and other laws respecting proprietary rights. Unauthorized reproduction, transfer, and or use can be a criminal, as well as a civil, offense under the applicable law.

Avaya support

Avaya provides a telephone number for you to use to report problems or to ask questions about your product. The support telephone number is 1-800-242-2121 in the United States. For additional support telephone numbers, see the Avaya Web site:

<http://www.avaya.com/support>

Software License

USE OR INSTALLATION OF THE PRODUCT INDICATES THE END USER'S ACCEPTANCE OF THE TERMS SET FORTH HEREIN AND THE GENERAL LICENSE TERMS AVAILABLE ON THE AVAYA WEBSITE AT <http://support.avaya.com/LicenseInfo/> ("GENERAL LICENSE TERMS"). IF YOU DO NOT WISH TO BE BOUND BY THESE TERMS, YOU MUST RETURN THE PRODUCT(S) TO THE POINT OF PURCHASE WITHIN TEN (10) DAYS OF DELIVERY FOR A REFUND OR CREDIT.

Avaya grants End User a license within the scope of the license types described below. The applicable number of licenses and units of capacity for which the license is granted will be one (1), unless a different number of licenses or units of capacity is specified in the Documentation or other materials available to End User. "Designated Processor" means a single stand-alone computing device. "Server" means a Designated Processor that hosts a software application to be accessed by multiple users. "Software" means the computer programs in object code, originally licensed by Avaya and ultimately utilized by End User, whether as stand-alone Products or pre-installed on Hardware. "Hardware" means the standard hardware Products, originally sold by Avaya and ultimately utilized by End User.

License Type(s):

Designated System(s) License (DS). End User may install and use each copy of the Software on only one Designated Processor, unless a different number of Designated Processors is indicated in the Documentation or other materials available to End User. Avaya may require the Designated Processor(s) to be identified by type, serial number, feature key, location or other specific designation, or to be provided by End User to Avaya through electronic means established by Avaya specifically for this purpose.

Third-party Components

Certain software programs or portions thereof included in the Product may contain software distributed under third party agreements ("Third Party Components"), which may contain terms that expand or limit rights to use certain portions of the Product ("Third Party Terms"). Information identifying Third Party Components and the Third Party Terms that apply to them is available on Avaya's Web site at:

<http://support.avaya.com/ThirdPartyLicense/>

Interference

Using a cell, mobile, or GSM telephone, or a two-way radio in close proximity to an Avaya IP Telephone might cause interference.

Security

See <http://support.avaya.com/security> to locate and/or report known vulnerabilities in Avaya products. See <http://support.avaya.com> to locate the latest software patches and upgrades. For information about secure configuration of equipment and mitigation of toll fraud threats, see the Avaya Toll Fraud and Security Handbook at <http://support.avaya.com>.

Table of Contents

About this document	3
Solution overview.....	3
Products	4
Services.....	6
Avaya DevConnect partners	7
Technical specifications.....	7
Avaya one-X Portal	7
Client desktop - PC	7
Client desktop - Mac	8
Avaya one-X Portal server	8
Minimum server requirements	8
Avaya IP Softphone.....	8
Avaya Video Telephony Solution	8
Avaya IP Softphone R6.0 plus Avaya Integrator for Polycom Video R2.0 software	8
Client PC hardware specifications.....	8
Speaker hardware options (IP Softphone)	9
Network access.....	9
Color and monitor specifications.....	9
Recommended USB cameras	9
Avaya Communication Manager.....	9
Polycom VSX Room Systems	9
Polycom MGC Multipoint Control Units	10
Avaya one-X Desktop Edition.....	10
Extension to Cellular	10
Avaya one-X Mobile	10
Supported environments.....	10
Messaging.....	11
Directories.....	11
Server requirements	11
PC requirements for end user access	11
Mac requirements for end user access	11
Application Enablement Services.....	11
VPNremote Phone	11
Setting up the solution components.....	12
Setting up Avaya one-X Portal	12
Setting up IP Softphone	12
Setting up Avaya Video Telephony Solution	12
Setting up Avaya one-X Desktop Edition	12
Setting up Extension to Cellular	12
Setting up Avaya one-X Mobile.....	12
Setting up Application Enablement Services	13
Setting up VPNremote Phone	13
Product interactions and compatibility issues.....	14
Avaya one-X Portal and Avaya one-X Mobile.....	14
Avaya one-X Portal, Avaya one-X Desktop Edition, and Avaya IP softphone.....	14
Avaya one-X Mobile and Extension to Cellular.....	14
Avaya one-X Portal and Microsoft Office Communicator.....	14

Avaya one-X Mobile and Extension to Cellular	15
Related documents	15

About this document

This document gives an overview of the products and services that make up the Avaya Unified Communications for Teleworkers solution. It also contains technical specifications and requirements, product interactions, and links to documents that describe how to install, configure, and administer the products.

The intended audience for this document is Avaya Services, Authorized Business Partners, and customers who install, implement, and support the Avaya Unified Communications for Teleworkers solution.

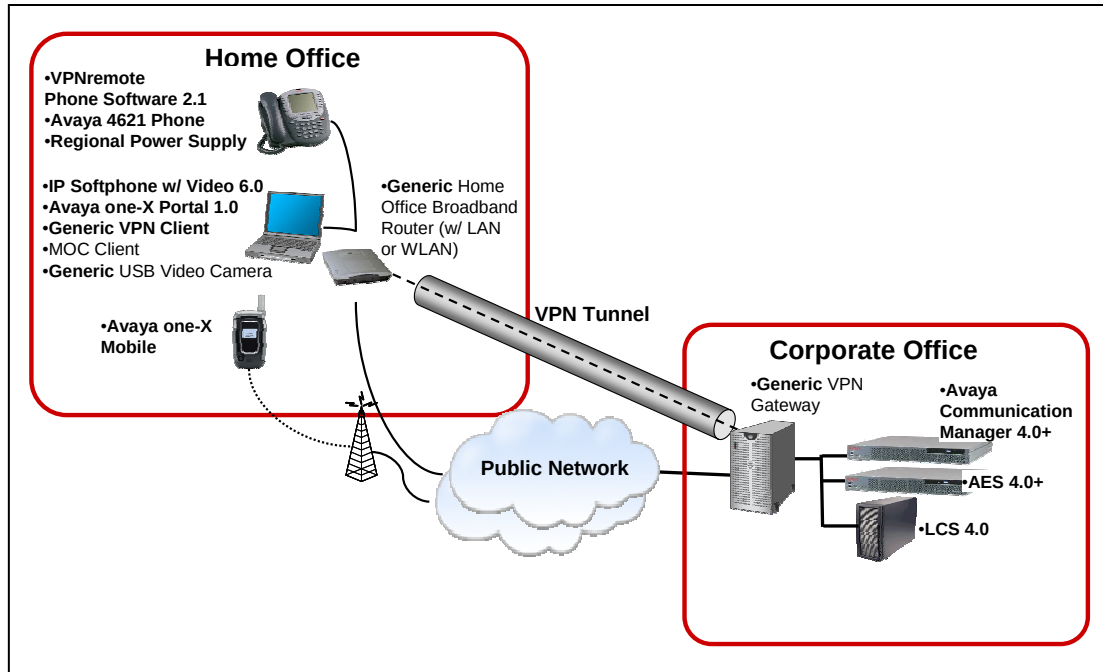
Solution overview

The Avaya Unified Communications for Teleworkers solution is a complete suite of technologies, services, and Avaya DeveloperConnection program partnerships that addresses the communications needs of dedicated and part-time teleworkers. Avaya Unified Communications for Teleworkers includes:

- Innovative communication tools that provide a headquarters communication experience to remote workers
- Expert planning, design, management and support services to augment internal IT capabilities
- Complementary partner technologies

The product components of the Avaya Unified Communications for Teleworkers solution consist of software and supporting endpoint hardware that provide enterprises the flexibility to choose the applications that best meet the needs of individual end users. Leveraging the UC Standard Edition package, the solution integrates with leading productivity suites such as IBM® Lotus® Sametime® and Microsoft® Office Communications Server to give enterprises both centralized and desktop deployment options.

The following illustration shows an example of the teleworker solution. For some teleworkers, a VPNremote Phone may not be necessary.



The teleworker solution also includes services that help you assess, design, and implement a solution that works for your enterprise and for end users. In addition to helping you understand how to use the technology, Avaya can show you how to change business processes and employee behavior to take advantage of the new technology and ensure a smooth transition.

Products

- **Avaya IP Softphone R6.0** — Avaya IP Softphone is a Computer Telephony Integration (CTI), Telephony Application Programming Interface (TAPI) enabled client-based telephony application for the PC or laptop running Microsoft Windows operating system. It offers a simple Graphical User Interface to access telephony features and Lightweight Directory Access Protocol (LDAP) compatible databases and integrates with contact managers such as Microsoft Outlook. The IP Softphone client can be configured for VoIP (Roadwarrior) mode, Dual Connect (Telecommuter) mode, or Shared Control mode. For toll-quality voice, home office workers can manage calls from the PC while directing voice traffic to any designated telephone — home or mobile. Release 6 offers additional integration with other communication applications such as Microsoft Office Communicator, Microsoft Windows Mobile 5, Lotus Sametime and Citrix Presentation Server. It also has native support for new Communication Manager 4.0 features: 9600 series phones, signal channel encryption, and 13 digit dialing support. IP Softphone also supports integration with the Avaya Video Telephony Solution.
- **Avaya Video Telephony Solution R4.0** — The Avaya Video Telephony Solution integrates premier video capability from Polycom into Avaya IP Telephony. The solution provides both point-to-point and multipoint capability. By leveraging the presence and instant messaging capabilities of Avaya IP Softphone, it gives users improved collaboration capability for real-time decision making. Using a single IP network for voice and video applications,

the Avaya Video Telephony Solution allows businesses to reduce costs, simplify network management, and make video a significant component of enterprise communications.

- **Avaya one-X™ Desktop Edition** — Avaya one-X Desktop Edition is a flexible SIP endpoint that uses SIP for telephony, enterprise instant messaging, and presence. Softphone client-based control of phone calls and telephony features allows workers to use their desk phone in tandem with their PC while at the office, or direct the voice path to another phone to support virtual working. One-X Desktop supports a rich suite of SIP-based telephony features and can be integrated with Microsoft Outlook, Lotus Notes, LDAP, and Microsoft Internet Explorer. It can be used in any of the following modes of operation:
 - Peer- to-Peer mode with no SIP Infrastructure
 - Industry-standard SIP endpoint with 3rd party SIP infrastructure
 - Endpoint of Avaya SIP Solution with Avaya SIP Enablement Services and Avaya Communication Manager
- **Avaya one-X™ Portal R1.0** — Avaya one-X Portal is a web-based software solution that provides users with control of telephony and mobility services provided by Avaya Communication Manager. Users can also access corporate and personal contact information. Avaya one-X Portal consolidates access to all the critical voice applications that a user needs in a simple consistent interface. The solution complements the use of the desk phone while in the office, supports remote workers from any location, and is an ideal component of a business continuity strategy.
- **Extension to Cellular** — The powerful Extension to Cellular feature of Avaya Communication Manager can connect callers to employees wherever they are with just one call. Avaya Extension to Cellular delivers one-number access by enabling calls bound for an employee's business number to ring simultaneously on both their office phone and up to four mobile or wireline phones. While on a call, users can access advanced features such as transfer and conference. Extension to Cellular also offers significant cost savings on international calls as well as cost tracking information.
- **Avaya one-X™ Mobile** — Avaya one-X Mobile builds on the functionality of Extension to Cellular by providing a family of mobile clients web-based interface designed to further enhance the productivity of enterprise mobile workers. The family of Avaya one-X Mobile clients provides an intuitive graphical user interface and quick access to office phone functionality. The clients support all major mobile operating systems and devices ranging from high-end smart phones to lower-end feature phones, providing support for most enterprise environments, independent of the mobile devices deployed or wireless networks used.

Avaya one-X Mobile supports a broad number of devices across both its telephony and Unified Communication application integration deployment models. The telephony integration deployment supports mobile devices using Symbian and Windows Mobile 5 mobile operating systems. When using the Unified Communication application integration deployment model, Avaya one-X Mobile supports mobile devices which operate in Windows Mobile 5 and 6, Palm, RIM, iPhone, J2ME or WAP environments. For a full list of

supported devices by Avaya one-X Mobile client type, go to support.avaya.com for the most up to date listing.

- **VPNremote Phone** — VPNremote Phone is a software VPN (virtual private network) client built directly into the Avaya 4600 Series IP telephone, which allows the phone to be plugged in and used seamlessly with any broadband internet connection. The end user experiences the same IP telephone features, as if they were using the phone in the office, enhancing the teleworker's experience.

Historically, in order to securely deploy IP telephones remotely, it meant installing VPN gateway boxes in the homes of end users for each IP phone. This configuration is costly in terms of equipment expense as well as ongoing support.

VPNremote Phone greatly simplifies the solution for the home worker by eliminating the need for the separate VPN gateway box. Instead, the VPN functionality is provided via a software client that is installed within the firmware of the Avaya IP telephone. Setup is simple. The user's remote access credentials (login and password) along with their extension and password are configured and saved within the memory of the telephone. Integration with home broadband networks is simple, with the phone only requiring local power and an available 10/100 port from the broadband modem or home router.

- **Application Enablement Services R4.0** — Application Enablement Services is a server-based software solution that enables Microsoft Office Communicator to leverage the rich telephony capabilities of Avaya Communication Manager IP Telephony Software. After integrating the platform in the customer's enterprise network, end users can access the rich and robust set of "click to communicate" features, presence, and access to directory and contacts provided by Avaya with seamless integration in their Microsoft desktop environments.

Application Enablement Services also provides adjunct control of telephone calls (third party call control) through its TSAPI and Call Control API (Basic) licenses. These licenses provide functionality to support the Avaya one-X Portal and one-X Mobile functionality of the UC Standard Edition.

Services

Avaya and its partners have more than 20 years of experience servicing multi-vendor voice and data networks, supporting hundreds of products and collaborating with other experts in the field. The Avaya Unified Communications for Teleworkers solution is backed by a comprehensive set of service offers from Avaya Global Services to help ensure a smooth transition to teleworking. Services include:

- **Assessment** — Avaya's collaborative consultation begins with developing an understanding of your current business strategy and ends with a report highlighting the financial and operational impacts of a teleworker program at your organization. Output includes a technology, demographic, security, and business continuity assessment; ranked change opportunities; business plan; implementation strategies; and performance metrics. The demographic assessment includes worker profiles and recommendations for configuring and using the applications that best suit each worker profile. Opportunities for

change are ranked by complexity and impact. This service is currently only available in North America.

- **Installation and configuration** — Implementation of your teleworker capabilities is made easy with knowledgeable technical and professional services associates available to help deploy your applications — freeing your critical IT resources to remain focused on supporting your core operations. These experts also provide an opportunity for knowledge sharing — avoiding costly project over-runs and achieving timely implementation through standard delivery best practices.
- **Diagnostics and monitoring** — Teleworking employees are critical to your company. Diagnostic and monitoring services ensure uptime to prevent work flow disruptions and give you peace of mind as the system grows with your company. Our patented tools and industry certified technical experts can remotely monitor your applications end-to-end, reducing the risk of encountering a major outage by resolving 98% of all system-generated alarms before you know they happen.
- **Support** — 24/7 support means help from the right expert is always near. Based on your business requirements, support can include technical guidance (for implementation, administration, features, and applications); product support; moves, adds, and changes (MACS); remote backup administration to ensure data availability; and system/network performance management.

Avaya DevConnect partners

To deliver a complete range of solutions for its customers, Avaya has assembled a strong network of partners that offer best-of-breed technology. With each enterprise taking a unique approach to its teleworker program, Avaya's partners ensure the right technology is always available for your company.

Industry leading vendors are selected by Avaya for their expertise in applications, hardware and services. From secure networking, to vertical specific applications, to quality-of-service solutions, as Avaya DevConnect members, partners' technology integrates smoothly with Avaya's teleworker portfolio.

For more information about DevConnect partners, go to the Avaya.com web site.

Technical specifications

This section contains hardware and software requirements for components of the Avaya Unified Communications for Teleworkers solution.

Avaya one-X Portal

Client desktop - PC

- Pentium III 800mhz or better, 512M RAM, 1.5 GB of free disk space, CD ROM or DVD ROM disk drive, keyboard, mouse, microphone, speaker and sound card, 10 MBS NIC or better
- Microsoft XP SP1 SP2 or better, Microsoft Internet Explorer 6.0 or greater or Mozilla Firefox 1.5 or greater

Client desktop - Mac

- 1.33 GHZ CPU, 512 RAM
- MAC OS 10 with Safari 2.0 or Mozilla Firefox 1.52 or better

Avaya one-X Portal server

- Dell 1950 Two (2) Dual-core processors @ 1.86 GHz or equivalent, 4GB RAM, 80 GB drive, 100 MBS NIC, DVD/CD Combo Drive
- Redhat Enterprise Linux ES 4.0 Update 4, WebSphere 6.0.2.x with Web Portal Plug-in 5.1.x.x

Minimum server requirements

- Avaya Communication Manager 4.0
- Modular Messaging 3.1 with the Avaya Message Storage Server
- Application Enablement Services 4.0
- Microsoft Active Directory Server 2003 SP1

Avaya IP Softphone

The Avaya IP Softphone is a TAPI-compliant application that functions over the IP network in conjunction with Avaya Communication Manager. The Avaya IP Softphone is connected either directly using a network interface card (NIC), by a dial-up modem with a point-to-point (PPP) account, or by an internet connection. The Avaya IP Softphone Release 6.X will run on Microsoft Windows 2000 or Windows XP. Avaya IP Softphones include the Remote Help Desk Support offer, which can help to simplify installation and ease deployment.

Avaya IP Softphone supports the G.711, G.729a, and G.723.1a audio Codecs.

Avaya Video Telephony Solution

Avaya IP Softphone R6.0 plus Avaya Integrator for Polycom Video R2.0 software

- Integrated with Avaya Communication Manager as gatekeeper
- Supports hold, transfer, and coverage via Communication Manager
- Supports Avaya IP Softphone and Polycom VSX and MGC systems
- Supports send only and receive only for video, as well as video mute
- Supports USB Web Cams

Client PC hardware specifications

- Windows 2000, Service Pack 3 or higher, or Windows XP, Service Pack 1 or 2
- 1 GHz for USB camera
- 1.5 GHz to invoke H.264 codec (USB cameras only)
- USB support minimum USB 1.1 or 2.0

- RAM greater than 512 MB
- Hard drive space greater than 50 MB
- Microsoft DirectX software v9.0b or later

Speaker hardware options (IP Softphone)

- Road Warrior mode: full duplex sound card with headset or headphones
- Shared Control mode: Avaya 2400, 4600, or 6400 series phone

Network access

- Broadband and IP connection (LAN, DSL or Cable) - minimum 128 kbps upstream for internet connection
- Browser must be Microsoft Internet Explorer v6.0 or higher

Color and monitor specifications

- SVGA monitor resolution must be 1024 x 768 or better
- 256 colors or better
- 8 MB minimum video memory
- Microsoft DirectX software v9.0b or later

Recommended USB cameras

- Logitech QuickCam 4000
- Logitech QuickCam 5000
- Logitech Notebook
- Creative Notebook WebCam
- ViaVideo compatible

Avaya Communication Manager

- S8700 or S8500 server (supports 1000 video calls)
- S8300 server (supports 75 video calls)
- Communication Manager H.323 trunk to a third party gatekeeper

Polycom VSX Room Systems

- V500
- VSX 3000
- VSX 5000
- VSX 7000s
- VSX 7000e

- VSX 8000

Polycom MGC Multipoint Control Units

- MGC 25
- MGC 50
- MGC 100

Avaya one-X Desktop Edition

Avaya one-X Desktop Edition supports SIP capabilities as specified in IETF RFC 3261. It contains a set of components and drivers (DLL) including:

- Registration and connectivity functions
- Audio (VoIP) functions
- Call Control
- Presence and Instant Messaging
- Search Components for LDAP, Microsoft Outlook, Lotus Notes
- Local User information including contact lists, speed dial numbers and call history logs.

For PC requirements, see [One-X Desktop Edition Getting Started](#).

Extension to Cellular

The following must be in place prior to installation:

- All system hardware and software requirements.
- ISDN-PRI, SIP, or MFC trunks facilities.

Any Avaya media server running Communication Manager supports the Extension to Cellular feature.

Avaya media servers support the following maximum Extension to Cellular users:

- S8500 Media Server supports 2,000 users.
- S87XX Media Server supports 36,000 users.
- DEFINITY® Server SI supports 1,200 users.
- DEFINITY Server CSI supports 450 users.
- S8300 Media Server with G700 Media Gateway supports 450 users.

Avaya one-X Mobile

Supported environments

- For a Unified Communication application integration, Avaya Communication Manager version 4.0 and Cisco Unified Communication Manager versions 4.1.x and 5.0.x
- For a Telephony integration, Avaya Communication Manager version 4.0

Messaging

Avaya Modular Messaging R3.1 including the Avaya Message Storage Server and Microsoft Exchange, Cisco Unity version 4.x for Microsoft Exchange, and Cisco Unity Connection 1.1

Directories

Microsoft Active Directory 2000 or 2003 (recommended), DC Directory (for Cisco Unified Communication Manager 4.1.x installations), ASL (for Cisco Unified Communication Manager 5.0.x installations), and LDAP versions 2 and 3

Server requirements

- 2.4 GHz single processor Intel Pentium IV or higher
- 2 GB RAM
- 60 GB hard drive
- DVD ROM drive
- Two 10/100 Ethernet network interface cards
- Windows Server 2003 for one-X Mobile server installation

PC requirements for end user access

- Windows 98, ME, 2000, XP, or Vista
- Microsoft Internet Explorer 6.0.x and 7.0.x, and Mozilla Firefox 2.0.x

Mac requirements for end user access

- 1.33 GHZ CPU, 512 RAM
- MAC OS 10
- Safari 2.0 or Mozilla Firefox 1.52 or better

Application Enablement Services

Agent capacity for Application Enablement Services is the same as the number of users supported on the connected Communication Manager server. Application Enablement Services can connect up to 16 links to 16 different Communication Manager Platforms.

VPNremote Phone

- VPNremote Phone is supported on 4600 Series Telephones running the H.323 protocol.
- VPNremote Phone supports the IPSec VPN security protocol.
- VPNremote Phone supports standard IKE key management protocol.
- VPNremote Phone supports the standard ISAKMP protocol for IPSec.

Setting up the solution components

This section provides links to documents that have information about setting up the components of the Avaya Unified Communications for Teleworkers solution.

Setting up Avaya one-X Portal

Refer to the following documents:

- [Avaya one-X Portal Implementation Workbook](#)
- [Implementing Avaya one-X Portal](#)
- [Administration Application online help](#)

Setting up IP Softphone

Refer to the following documents:

- [IP Softphone with Microsoft Office Communicator 2005 Integration Getting Started](#)
- [IP Softphone with Microsoft Office Communicator 2005 Integration Quick Setup Guide](#)
- [IP Softphone and Video Integrator Getting Started](#)
- [Avaya IP Softphone Technical Notes](#)

Setting up Avaya Video Telephony Solution

Refer to the following documents:

- [IP Softphone and Video Integrator Getting Started](#)
- [Avaya Video Telephony Solution Release 4.0 Networking Guide](#)

Setting up Avaya one-X Desktop Edition

Refer to the following documents:

- [Avaya one-X Desktop Edition Getting Started](#)
- [Avaya one-X Desktop Edition Administration](#)
- [Application Notes for Configuring Radware DefensePro 3020 in an Avaya SIP Telephony Environment – Issue 1.0](#)
- [Application Notes for the Hitachi Communication Technologies NT-SG with Avaya SIP Enablement Services and Avaya Communication Manager - Issue 1.0](#)

Setting up Extension to Cellular

Refer to the following documents:

- [Feature Description and Implementation for Avaya Communication Manager](#)

Setting up Avaya one-X Mobile

For the application server installation and configuration, refer to the following documents:

- [Avaya one-X Mobile Pre-Installation Checklist](#)
- [Avaya one-X Mobile Site Survey](#)

- [Avaya one-X Mobile Installation Guide](#)
- [Avaya one-X Mobile Integration Guide](#)
- [Avaya one-X Mobile System Acceptance/Signoff](#)
- [Avaya one-X Mobile Administration and Maintenance Guide](#)

For the Web User Interface Client, refer to the following document:

- [Avaya one-X Mobile Web User Guide](#)

For the JAVA client, refer to the following document:

- [Avaya one-X Mobile User Guide for J2ME](#)

For the Palm client, refer to the following document:

- [Avaya one-X Mobile User Guide for Palm Treo](#)

For the RIM client, refer to the following document:

- [Avaya one-X Mobile User Guide for RIM BlackBerry](#)

For the Symbian Dual-Mode client, refer to the following document:

- [Avaya one-X Mobile for S60 3rd Edition Dual Mode Installation and Administration Guide R4.3](#)

For the Symbian Single-Mode client, refer to the following document:

- [Avaya one-X Mobile Edition for S60 User Documentation Version 4.0](#)

For the Windows Mobile client, refer to the following documents:

- [Avaya one-X Mobile for Windows Mobile 5 Pocket PC and Treo Edition Install, Admin & User Guide R4.0](#)
- [Avaya one-X Mobile for Windows Mobile 5 Smartphone Edition User Guide](#)
- [Avaya one-X Mobile for Windows Mobile 6 Professional Pocket PC Edition Installation, Administration, and User Guide](#)
- [Avaya one-X Mobile for Windows Mobile 6 Standard Smartphone Edition Installation, Administration, and User Guide](#)

Setting up Application Enablement Services

Refer to the following documents:

- [Avaya MultiVantage Application Enablement Services Implementation Guide for Microsoft Live Communications Server](#)
- [Application Enablement Services Installation and Upgrade Guide for a Bundled Server](#)
- [Application Enablement Services Installation Guide for a Software-Only Offer](#)
- [Application Enablement Services Administration and Maintenance Guide](#)

Setting up VPNremote Phone

Refer to the following documents:

- [VPNremote for 4600 Series IP Telephone User Installation and Configuration Quick Start - Pre-Deployment](#)

- [VPNremote for 4600 Series IP Telephone User Installation and Configuration Quick Start - Self Installer](#)
- [VPNremote for the 4600 Series IP Telephones Release 2.1 Administrator Guide](#)
- [Application Notes for Configuring Avaya VPNremote Phone with Juniper Secure Services Gateway using Policy-Based IPsec VPN and XAuth Enhanced Authentication – Issue 1.0](#)
- [Application Notes for Configuring Avaya WebLM License Manager for Avaya VPNremote Phone Release 2 – Issue 1.0](#)
- [Configuring Cisco PIX Security Appliance using Cisco Adaptive Security Device Manager \(ASDM\) VPN Wizard to Support Avaya VPNremote Phones – Issue 1.0](#)
- [Configuring Cisco PIX Security Appliance with Microsoft Internet Authentication Service and Active Directory using RADIUS to Support Avaya VPNremote Phones – Issue 1.0](#)
- [Configuring Cisco VPN Concentrator to Support Avaya VPNremote Phones – Issue 1.0](#)

Product interactions and compatibility issues

Integration with Microsoft Office Communicator (via AES R4.0) or with the Avaya Video Telephony Solution is not supported if Avaya IP Softphone is installed on a computer running the Microsoft Vista operating system.

Avaya one-X Portal is not compatible with Avaya Communication Manager R5.0, or with Application Enablement Services R4.1.

Avaya one-X Portal and Avaya one-X Mobile

Avaya does not recommend that you use one-X Portal and one-X Mobile with the same telephone extension. If your telephone extension is configured for one-X Mobile and one-X Portal on Avaya Communication Manager, you may experience some inconsistency of experience in certain situations.

Avaya one-X Portal, Avaya one-X Desktop Edition, and Avaya IP softphone

Only one softphone application can control your business telephone extension. You cannot use one-X Portal at the same time as you use IP Softphone or one-X Desktop Edition to handle calls to your extension. You can install IP Softphone and one-X Desktop Edition on the same computer that you use to access one-X Portal, but you cannot use them simultaneously.

Avaya one-X Mobile and Extension to Cellular

If a call is sent back and forth between a desk phone with the Extension to Cellular feature and a cell phone with the one-X Mobile feature several times, the call may be dropped.

Avaya one-X Portal and Microsoft Office Communicator

If Call Forwarding is enabled or disabled from one-X Portal, the status change is not updated in Microsoft Office Communicator and vice versa.

Avaya one-X Mobile and Extension to Cellular

When using Avaya one-X Mobile and Extension to Cellular for a single extension, the Extension to Cellular feature should not be enabled or disabled from a desk phone. For this configuration, use one-X Mobile to enable or disable the Extension to Cellular feature.

Related documents

Click the following links to view the documents referenced in this guide and other helpful documents for each solution component:

- [Avaya one-X Portal](#)
- [Avaya IP Softphone](#)
- [4600 Series IP Telephones](#)
- [Avaya one-X Desktop Edition](#)
- [Extension to Cellular](#)
- [Avaya one-X Mobile for Java client](#)
- [Avaya one-X Mobile for Palm client](#)
- [Avaya one-X Mobile for RIM client](#)
- [Avaya one-X Mobile for Symbian Dual-Mode client](#)
- [Avaya one-X Mobile for Symbian Single-Mode client](#)
- [Avaya one-X Mobile for Windows Mobile client](#)
- [Application Enablement Services](#)
- [VPNremote Phone](#)
- [Communication Manager](#)