

# Avaya VDI Communicator Overview and Planning

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# **Chapter 1: Introduction**

## About this guide

This guide describes the Avaya VDI Communicator offer and its deployment options. It is written for anyone who is considering purchasing or using this offer.

This guide refers to other Avaya products in the context of how they integrate with Avaya VDI Communicator. You can get detailed information about these products from the Avaya Web site at <a href="http://www.avaya.com/support">http://www.avaya.com/support</a>.

## **Avaya VDI Communicator overview**

Corporations are increasingly using a hosted desktop model called Virtual Desktop Infrastructure (VDI) to effectively manage employee mobility and productivity. Using VDI, a corporate IT team can virtually deploy desktops to employees, whether the employees work from home, office, or any other location. The benefits in deploying VDI desktops compared to traditional desktops are centralized control over all end-user data, applications, preferences, and streamlined user provisioning. However, deploying real-time applications on virtual desktops pose unique challenges to corporations. For example, the challenge to provide real-time media management to improve call quality in a virtual environment.

Avaya VDI Communicator installed on thin clients or Personal Computers (PC) with Windows Operating SystemS enhances the audio and video quality of calls by processing the audio and video at the end-user device. The controlling clients such as Avaya one-X<sup>®</sup> Communicator is deployed on virtual desktops running in the data center and provides the user interface for unified communications. Users are required to use Avaya one-X<sup>®</sup> Communicator through virtual desktops. In normal operation, the user does not need to use the Avaya VDI Communicator user interface to make or handle calls.

## Usage mode

Avaya one-X<sup>®</sup> Communicator must be used in Desk Phone mode to enable shared control between Avaya one-X<sup>®</sup> Communicator and Avaya VDI Communicator. All Avaya one-X<sup>®</sup> Communicator

features are available to the users through virtualized desktop sessions while the audio is processed locally on the VDI endpoint to ensure high quality audio.

## Security

For secure implementation, the following options are available with Avaya VDI Communicator:

### **Connections through TLS**

Avaya one-X<sup>®</sup> Communicator in Desk Phone (Shared Control) mode uses TLS only. Avaya VDI Communicator must use TLS as the Transport Type to share control with Avaya one-X<sup>®</sup> Communicator.

### **User** authentication

Avaya VDI Communicator uses SIP extensions and corresponding passwords administered on Avaya Aura<sup>®</sup> Communication Manager for authentication of users.

## **Related documents**

Additional documentation includes:

Avaya VDI Communicator documents:

- Implementing, administering, and troubleshooting Avaya VDI Communicator
- Using Avaya VDI Communicator
- Avaya VDI Communicator Online Help (Integrated with the application)

Avaya one-X<sup>®</sup> Communicator documents:

- Avaya one-X<sup>®</sup> Communicator Overview and Planning
- Implementing one-X<sup>®</sup> Communicator
- Using Avaya one-X<sup>®</sup> Communicator
- Avaya one-X<sup>®</sup> Communicator Quick Start Guide
- Avaya one-X<sup>®</sup> Communicator Centralized Administration Tool Guide
- Avaya one-X® Communicator Online Help (Integrated with the application)

To obtain these documents and documents about other Avaya products mentioned in this guide, see the Avaya Web site at <u>http://www.avaya.com/support</u>.

## **Accessing Online Help**

### Procedure

- 1. Click the gear icon on the Avaya VDI Communicator user interface.
- 2. Select Help Contents.

# **Chapter 2: Features**

## **Key features**

### Shared control with Avaya one-X® Communicator

Avaya VDI Communicator leverages existing SIP shared control capability in Avaya one-X<sup>®</sup> Communicator to provide enterprise users with enhanced audio and video quality in a virtual environment.

### Paired signon with Avaya one-X<sup>®</sup> Communicator

Avaya one-X<sup>®</sup> Communicator supports paired sign on with Avaya VDI Communicator in DeskPhone (Shared control) user mode. Avaya one-X<sup>®</sup> Communicator sends user credentials to Avaya VDI Communicator that is running on a thin client connected virtually. Using these credentials, Avaya VDI Communicator logs on. Logging out from Avaya one-X<sup>®</sup> Communicator also results in logging out from Avaya VDI Communicator even if the two were not connected using paired signon. In case of a connection failure at Avaya one-X<sup>®</sup> Communicator, users can still use Avaya VDI Communicator to make and handle calls.

#### Avaya VDI Communicator user interface

Avaya VDI Communicator user interface helps administrators and end users in configuring Avaya VDI Communicator and logging in to the application. Users can also make and handle voice and video calls using the Avaya VDI Communicator user interface when Avaya one-X<sup>®</sup> Communicator is not available for use through a virtual desktop session. The following voice call options are available through Avaya VDI Communicator user interface:

- Make a call
- · Receive a call
- Ignore a call
- · Hang up a call

### USB headset support

Avaya VDI Communicator supports USB headsets with audio volume adjustments.

### Supported on Linux and Windows OS

Avaya VDI Communicator can be installed on:

- Windows OS-based thin clients or PCs
- Wyse enhanced SUSE Linux Enterprise Thin Clients (SLETC)
- HP ThinPro OS-based thin clients (Supported on ThinPro 4.1, 4.2, 4.3 and 5.x)

### **Quality of Service monitoring**

Avaya VDI Communicator has provision for monitoring call quality through Quality of Service (QoS) that tracks the media stream and stores data for:

- Speech Metrics
- Noise Metrics
- Echo Level
- · Dead and Alive connections
- Packet loss
- Jitter
- Differentiated Services (Diffserv)/Type of Service (TOS) for audio Per-Hop Behavior (PHB) value
- 802.1P parameters for audio

### Avaya Aura Multiple Device Access and Dual Registration

Avaya VDI Communicator supports simultaneous registration and use with other Avaya SIP clients, and dual-registration with H.323 endpoints. In cases where the maximum endpoint limit has been exceeded and the Session Manager policy is to block new registration attempts, Avaya VDI Communicator displays appropriate dialog messages to the users.

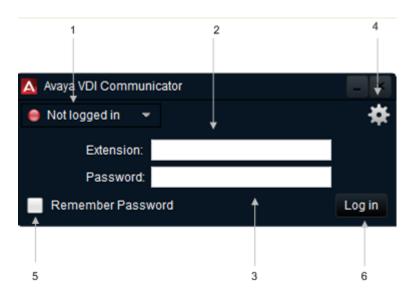
#### Certificate management and validation

Avaya VDI Communicator validates the server certificate on all secured connections against the platform trust store. Avaya VDI Communicator provides a mechanism to set a client identity certificate for the application. The client identity certificate is stored in the platform keystore. This identity certificate is presented during the TLS handshake process when requested by the server.

## **User interface**

## User interface before logging in

Following is an example of the user interface before a user logs in to the Avaya VDI Communicator application:



Number	Description
1	Login status
2	Extension
3	Password
4	Main Menu to select Settings page
5	Check box to select for remembering a password
6	Login button

## User interface after logging in

Following is an example of the user interface after a user logs in to the Avaya VDI Communicator application and the endpoint is connected:



Number	Description
1	Extension number of the user
2	Display field for the dialed digits
3	Audio call icon
4	Video call icon
5	Main Menu button to select the Settings page
6	Dialpad icon
7	Clear icon
8	Key to add to '+' to a phone number
9	Audio call icon on the dialpad

# **Chapter 3: Requirements**

## Hardware requirements

To set up and run Avaya VDI Communicator, you need a thin client or a Windows Personal Computer (PC). Using the thin client or the PC, you can access virtual desktops located on a remote central server at the data center using a Citrix Independent Computing Architecture (ICA) client, VMWare client, or other such clients.

## **Client hardware**

You can install Avaya VDI Communicator on the following thin clients and PCs:

#### Linux OS-based thin clients

To install Avaya VDI Communicator on Linux OS-based thin clients, you need any one of the following thin clients:

- Dell Wyse Z50D
- HP t510
- HP t520
- HP t610
- HP t620
- HP t820

#### Windows OS-based thin clients

To install Avaya VDI Communicator on Windows OS-based thin clients, you need any one of the following thin clients:

- HP t510
- HP t520
- HP t610
- HP t620
- HP t820
- Dell Wyse D90D7
- Dell Wyse D90Q7
- Dell Wyse D90D8

- Dell Wyse D90Q8
- Dell Wyse Z50D
- Dell Wyse Z90D7
- Dell Wyse Z90D8
- Dell Wyse Z90Q8

#### Windows PCs

You can also use Windows PCs as clients to install Avaya VDI Communicator. PCs with the following Windows operating systems can be used as clients:

- Windows 7 (32-bit and 64-bit)
- Windows 8 (64-bit)
- Windows 8.1 (64-bit)
- Windows 10 (64-bit)

#### Other client hardware

You need the following hardware to use Avaya VDI Communicator:

- Monitor
- Keyboard
- Mouse
- A camera (Refer to the list of supported cameras provided in the Release Notes)
- USB Headset or handset with manual control (Refer to the list of supported headsets or handsets provided in the Release Notes)

## Supported headsets

Avaya VDI Communicator supports the following USB headsets:

Client Operating System	Client Hardware	Supported headsets
Wyse SLETC	Dell Wyse D90D7	Blackwire C300 (C310 and C320)
	Dell Wyse	Blackwire C420
	D90Q7	Blackwire C435
	Dell Wyse D90D8	Blackwire C600 (C610 and C620)
	Dell Wyse D90Q8	DA45/H-top
	Dell Wyse Z50D	Voyager Legend
	Dell Wyse Z90D7	Savi 700 (Savi 710, Savi 720, Savi 730, Savi 740, and Savi 745)
	Dell Wyse Z90D8	Savi 400 (Savi 430 and 440)
	Dell Wyse Z90Q8	Calisto P620-M

Table continues...

Client Operating System	Client Hardware	Supported headsets
	Dell Wyse Z50D	Calisto P800 (P820, P825, P830, and P835)
HP ThinPro 4.1	• HP t510	Blackwire C300 (C310 and C320)
HP ThinPro 4.2	• HP t520	Blackwire C420
HP ThinPro 4.3	• HP t610	Blackwire C435
HP ThinPro 5.x	• HP t620	Blackwire C600 (C610 and C620)
	• HP t820	DA45/H-top
		Voyager Legend
		Calisto P620-M
		Calisto P800 (P820, P825, P830, and P835)
WES 7	• HP t510	Blackwire C300 (C310 and C320)
	• HP t520	Blackwire C420
	• HP t610	Blackwire C435
	• HP t620	Blackwire C600 (C610 and C620)
	• HP t820	Blackwire C700 (C710 and C720)
		DA45/H-top
		Voyager Legend
		Savi 700 (Savi 710, Savi 720, Savi 730, Savi 740, and Savi 745)
		Savi 400 (Savi 430 and Savi 440)
		Calisto P620-M
		Calisto P800 (P820, P825, P830, and P835)
Windows 7, 8, 8.1,	Windows PC	Blackwire C300 (C310 and C320)
or 10		Blackwire C420
		Blackwire C435
		Blackwire C600 (C610 and C620)
		Blackwire C700 (C710 and C720)
		DA45/H-top
		Voyager Legend
		Savi 700 (Savi 710, Savi 720, Savi 730, Savi 740, and Savi 745)
		Savi 400 (Savi 430 and Savi 440)
		Calisto P620-M
		Calisto P800 (P820, P825, P830, and P835)

## Software requirements

The software required for setting up and running a virtual desktop infrastructure can be broadly classified into server software and client software. The server software refers to the software required at the data center while the client software is required on the thin clients.

## Server software requirements

Operating system	Windows Server 2008 R2
	Windows Server 2012 R2
	Windows Server 2012 R2 HyperV
	Windows 7 (32-bit and 64-bit)
	Windows 8 (64-bit)
	Windows 10 (64-bit)
Virtualization software	Citrix XenDesktop Release 5, 7, 7.5, and 7.6
	HP Remote Graphics Software (RGS) 6.0 for HP ThinPro clients
	VMWare Horizon View 6.x
	VMWare ESXi Hypervisor 5.1 and later
	Citrix XenApp 6.x, 7, 7.5 and 7.6
	Microsoft Terminal Server 2008 R2
	Microsoft RDS for Windows Server 2012 R2

## **Client software requirements**

The requirements are as follows:

- Avaya VDI Communicator Release 2.1
- Avaya one-X<sup>®</sup> Communicator Release 6.2 FP 10

Windows 7
Windows 8 and 8.1
Windows 10
Windows Embedded Standard 7 (WES 7)
Windows Embedded Standard 8 (WES 8)
HP ThinPro 4.1, 4.2, 4.3, and 5.x
Wyse enhanced Suse Linux Enterprise for Thin Clients (SLETC) 11 SP1 and SP2

## Licenses

Avaya controls the use of Avaya VDI Communicator through licenses that customers must purchase. For each Avaya VDI Communicator, customers need a separate license.

For more information on licensing Avaya one-X<sup>®</sup> Communicator, see the Avaya one-X<sup>®</sup> Communicator Overview and Planning guide.

### Avaya one-X<sup>®</sup> Communicator in SIP Mode

This deployment option requires a station form on Avaya Aura<sup>®</sup> Communication Manager and a user id and media extension on Avaya Aura<sup>®</sup> Session Manager for each user. The deployment does not require the use of the Avaya one-X<sup>®</sup> Communicator registration limit in Communication Manager nor softclient licenses on either Session Manager or Communication Manager.

### Other products

For licensing requirements of the products that you integrate with Avaya one-X<sup>®</sup> Communicator, refer to the product documentation for the specific product.

# **Chapter 4: Deployment planning**

## **Deployment overview**

You can deploy Avaya VDI Communicator in VDI network environments that support the SIP protocol.

## **Planning for implementation**

You must plan before implementing Avaya VDI Communicator. Use the following steps as a guide for your planning activities:

### Procedure

1. Determine how your enterprise will deploy Avaya VDI Communicator. Deployment options follow:

Thin client	Operating system
Dell Wyse R50L	WYSE enhanced Suse Linux Enterprise for Thin Clients
Dell Wyse Z50D	(SLETC) 11 SP1 and SP2
HP t5565	HP ThinPro 4.1, HP ThinPro 4.2, HP ThinPro 4.3 and HP
HP t510	ThinPro 5
HP t610	
HP t620	
HP t820	
HP t5740e	Windows Embedded System 7 (WES 7)
HP t510	
HP t610	
HP t620	
HP t820	
VXL Itona F24	
Personal Computer or Laptop	Windows 7 (32-bit and 64-bit)

Table continues...

Thin client	Operating system
	Windows 8 (64-bit)
	Windows 10 (64-bit)

- 2. Ensure that you have all the product licenses available.
- 3. Ensure that the end user and enterprise environments can support Avaya VDI Communicator. For your deployment option, consider the following:
  - · Is the required hardware available with you?
  - · Have all related Avaya software products been installed and administered?
  - · Have all related third-party software products been installed and administered?
- 4. Determine how to install Avaya VDI Communicator software on the thin clients or PCs of your employees. You can:
  - Use HP Device Manager, Wyse Device Manager, or XLmanage to install Avaya VDI Communicator remotely from the data center.
  - Use a File Transfer Protocol (FTP) server to keep the Avaya VDI Communicator installer file and access the FTP server from the thin clients to install Avaya VDI Communicator.
  - Use a installation process that requires end users to manually install Avaya VDI Communicator.
- 5. Ensure that end users can access the following Avaya VDI Communicator implementation and administration documents:
  - Implementing, administering, and troubleshooting Avaya VDI Communicator guide
  - Using Avaya VDI Communicator guide.

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