![Polycom®]

Polycom® RealAccess™

Cloud Edition

Contents

About This Guide

This guide provides the deployment information that you need to deploy the Cloud Edition of the Polycom® RealAccess™ service delivery platform. Once you've completed the deployment, see the *Polycom RealAccess Cloud Edition Operations Guide* for additional configuration and customization tasks you can perform.

RealAccess Service Delivery Platform Editions

The RealAccess service delivery platform is available in a Cloud Edition and an On-Premises Edition. The functionality described in this document applies to only the Cloud Edition; for information on deploying the On-Premises Edition, see the *Polycom RealAccess On-Premises Edition Deployment Guide*.

Audience, Purpose and Required Skills

This document is written for a technical audience. You must know or have the following:

- Basic computer and network system administration skills
- Virtual machine (VM) concepts
- Network configuration, including IP addressing, subnets, gateways, domains, DNS, time servers, and possibly network routing

If necessary, obtain the assistance of the appropriate IT or network administration personnel before proceeding.

Get Help

For more information about installing, configuring, and administering Polycom products, refer to **Documents and Downloads** at Polycom Support.

Polycom and Partner Resources

To find all Polycom partner solutions, see Strategic Global Partner Solutions.

The Polycom Community

The Polycom Community gives you access to the latest developer and support information. Participate in discussion forums to share ideas and solve problems with your colleagues. To register with the Polycom Community, simply create a Polycom online account. When logged in, you can access Polycom support personnel and participate in developer and support forums to find the latest information on hardware, software, and partner solutions topics.

Product Overview

Polycom RealAccess, Cloud Edition simplifies the process of adding services to your Polycom infrastructure deployment, making them available when and as needed. Reports gathered from data collected from the Polycom® RealPresence® Platform are automatically uploaded to the cloud-based RealAccess portal using a highly secure data extraction agent installed on the customer's premises.

The RealAccess, Cloud Edition features are summarized in the following table.

RealAccess, Cloud Edition Features

Feature	Description
Edition Features	Full-featured edition
Network Configuration Options	• DMZ configuration • NAT configuration
Onboarding Options	• Fee-based (optional) • Self-service
Video Meeting Room (VMR) Subscription Duration	30 days
SSO Integration Options	Fee-based only
Installation Components	One component to install (RealAccess Agent)

Supported Platform Environments

The RealAccess service delivery platform supports environments with Polycom® RealPresence® DMA® and Polycom® RealPresence® Resource Manager with single, dual, and grouped systems.

RealPresence DMA:

- A single RealPresence DMA server
- Dual-node local redundant RealPresence DMA servers
- Super-clustered RealPresence DMA systems

RealPresence Resource Manager:

- A single RealPresence Resource Manager server
- Dual-node local redundant RealPresence Resource Manager servers
- Geographically separate RealPresence Resource Manager servers if configured in an active/standby configuration

The following diagrams provide an overview of the environments supported by the RealAccess service delivery platform.

RealAccess supported environments - RealPresence DMA
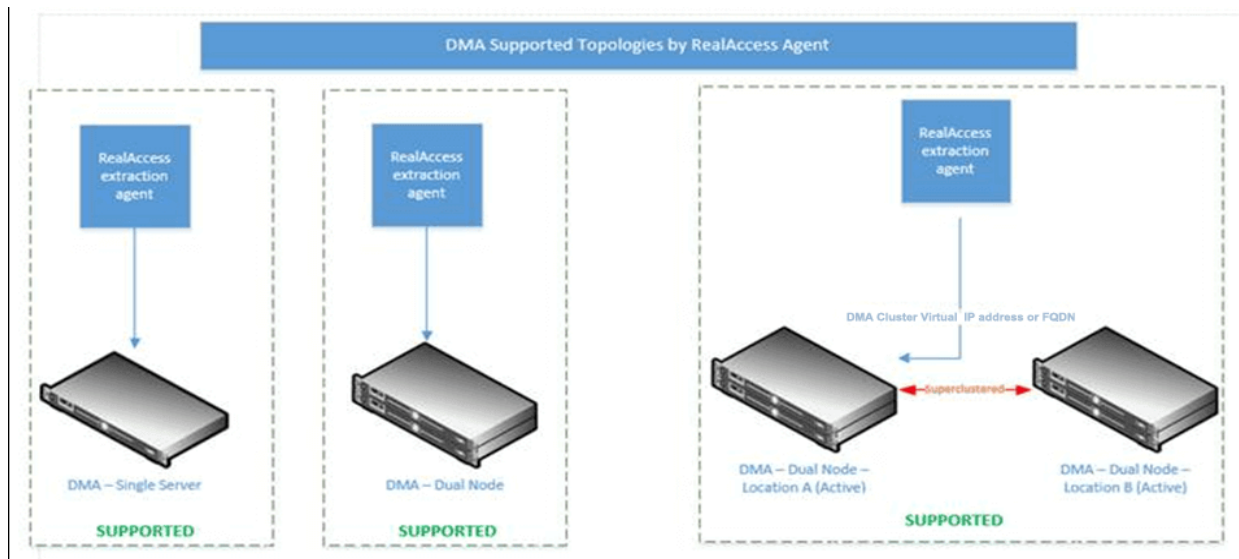
RealAccess supported environments - RealPresence Resource Manager
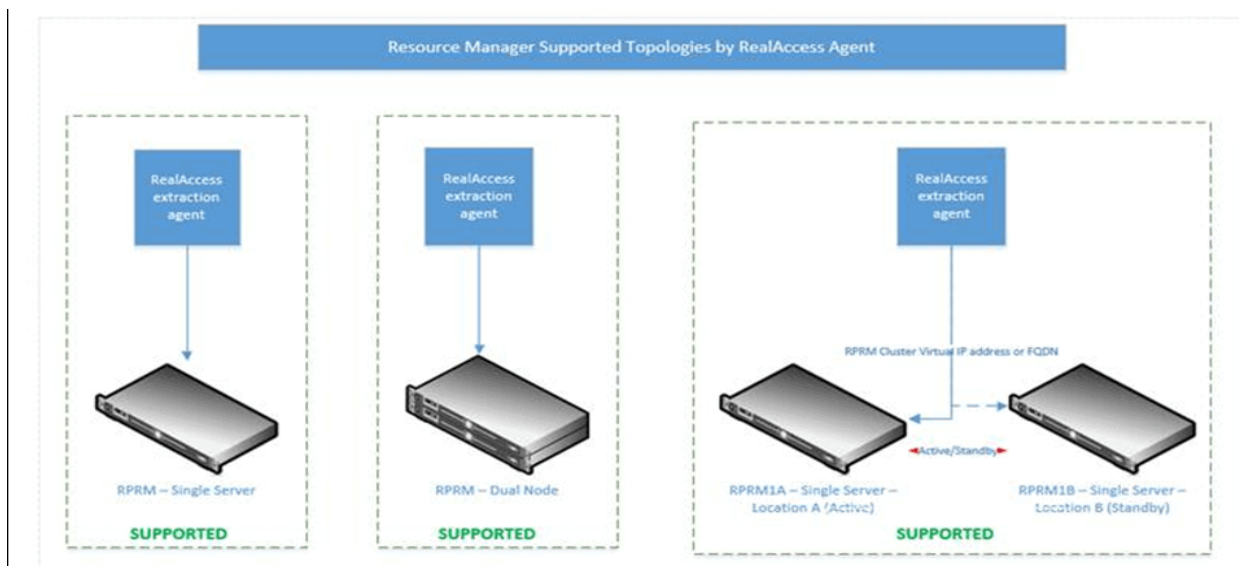
RealAccess, Cloud Edition Network Requirements

This section provides information on the supported network environments needed to deploy the RealAccess, Cloud Edition service delivery platform.

RealAccess, Cloud Edition architecture
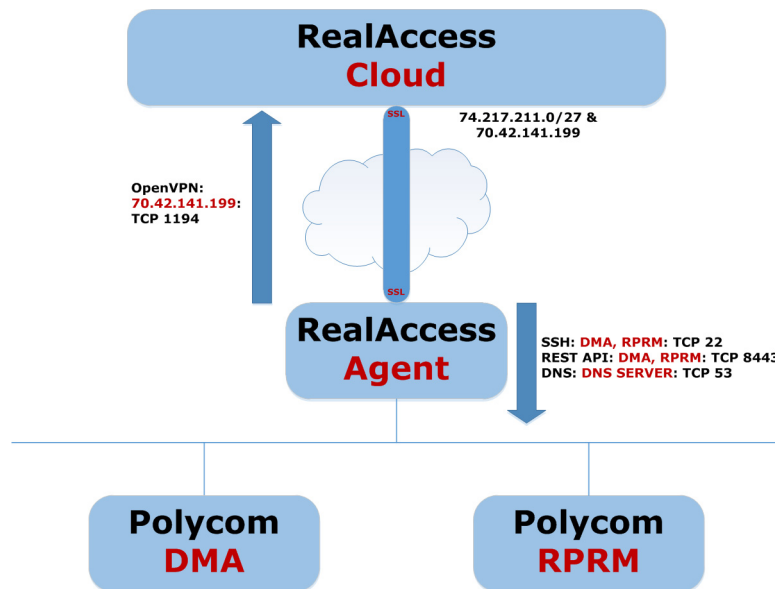
Supported Network Traversal Configurations

Your RealAccess, Cloud Edition deployment has two possible network configurations:

- DMZ configuration (between two firewalls)
- NAT configuration

The deployment options for both configurations are the same except for the IP address information:

- In the DMZ configuration, the internal IP address and external IP address are the same.
- In the NAT configuration, the internal IP address and external IP address are different.

The following diagrams provide an overview of the supported network configurations for the RealAccess, Cloud Edition service delivery platform.

DMZ configuration for the RealAccess service delivery platform agent

DMZ Deployment—RealAccess Agent

NAT configuration for the RealAccess service delivery platform agent

NAT Deployment—RealAccess Agent
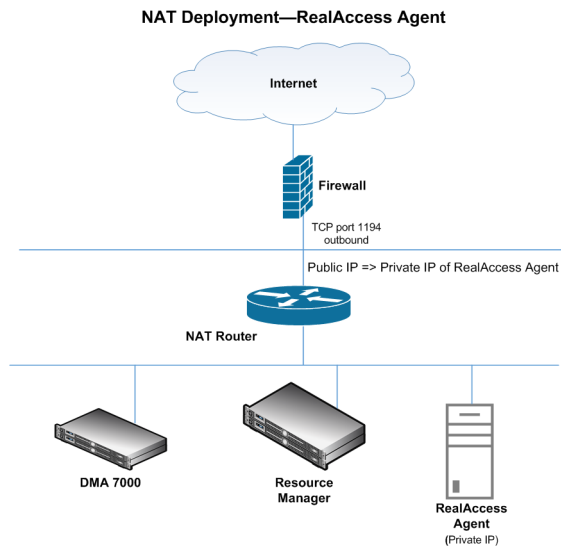
Ports and Protocols for Successful Network Traversal

This section illustrates and describes the ports and protocols that ensure successful network traversal for the RealAccess service delivery platform agent. Inbound and outbound port usage depends on the protocol and specific port that initiate those communications.

The following figure is an example of how various ports and protocols interact with the RealAccess service delivery platform agent.

Ports and protocols interacting with the RealAccess service delivery platform agent
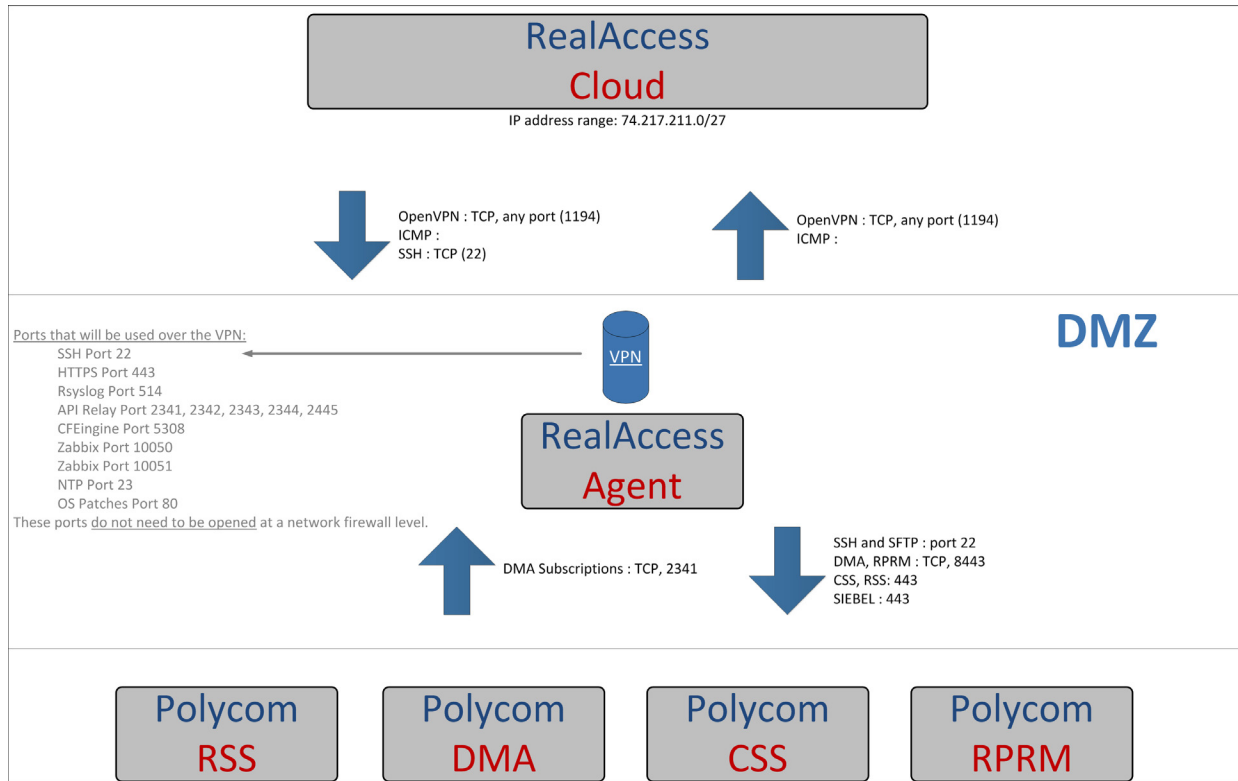
Unsupported Configurations

Polycom does not support two conditions that can negatively affect the RealAccess service delivery platform performance:

- **Joining the customer's domain**: The RealAccess service delivery platform does not support joining a customer domain. If the customer joins the service delivery platform to a customer domain, Polycom is not responsible for supporting the end result.

- **Installing antivirus software**: The RealAccess service delivery platform does not support installing customer-provided antivirus software. Customers who use antivirus software must install and configure it themselves. Polycom is not responsible for supporting the end result.

Preparing for System Deployment

The RealAccess service delivery platform monitors components of the Polycom RealPresence Platform, which enables standards-based video-conferencing collaboration using hardware and software endpoints from Polycom and other optional vendors. The RealAccess service delivery platform uses a data extraction software agent to provide detailed information about your RealPresence Platform components.

RealAccess Hardware and Software Requirements

This section details the hardware and software requirements and environments needed to deploy the RealAccess service delivery platform. For more information on RealPresence Platform requirements and products tested with the RealAccess service delivery platform, see the *Polycom RealAccess Cloud Edition Release Notes.*

Browser Requirements

Before deploying the RealAccess service delivery platform agent, verify that your browser meets the requirements outlined in the following table.

RealAccess Agent Minimum Browser Requirements

Browser	Version
Microsoft Internet Explorer®	11 (include realaccess.polycom.com in the Trusted sites list)
Mozilla Firefox®	14.0 or higher
Google Chrome™	30.0 or higher
Apple® Safari®	7.0 or higher

Virtual Machine Server Requirements

The RealAccess Agent is an instance operating as a virtual machine. Ensure that you have administrator login credentials to the virtual environment in which the agent is being installed.

The instance must be installed on a server that meets the minimum requirements in one of the supported virtual environments:

- VMware
- KVM
- Xen
- Hyper-V

VMware

The following table describes the requirements to deploy your RealAccess service delivery platform in a VMware environment.

RealAccess Portal Agent Minimum Server Requirements per VM Instance

Component	Description
CPU	Each instance must be hosted on a physical CPU with the following clock-speed characteristics: • ≥2.0 GHz (Intel Xeon E5 Series or better CPU) • ≥2.5 GHz (Intel Xeon 5500 Series or better CPU) Each instance must also support 64-bit installations.
Virtual Cores	2 virtual cores
RAM	4 GB
Accessible Storage	50 GB
.OVA File	Latest RealAccess agent .ova file, downloaded to your local machine.
One or more ESXi hosts	Each host must be v5.0 or higher and support 64-bit VM installations.
VMware vSphere vCenter Controller	Using a vSphere client, you must be able to access and administer VMware ESXi hosts either directly or via a vCenter host controller.

Hyper-V

The following table describes the requirements to deploy your RealAccess service delivery platform in a Hyper-V environment.

RealAccess Portal Agent Minimum Server Requirements per Hyper-V Instance

Component	Description
CPU	Each instance must be hosted on a physical CPU with the following clock-speed characteristics: • ≥2.0 GHz (Intel Xeon E5 Series or better CPU) • ≥2.5 GHz (Intel Xeon 5500 Series or better CPU) Each instance must also support 64-bit installations.
Virtual Cores	2 virtual cores
RAM	4 GB
Accessible Storage	50 GB
.VHD File	Latest RealAccess software Agent .vhd file, downloaded to your local machine.
One or more Hyper-V hosts	Each host must support 64-bit VM installations.
Any software client	Access to the host machine.

KVM

The following table describes the requirements to deploy your RealAccess service delivery platform in a KVM environment.

RealAccess Portal Agent Minimum Server Requirements per KVM Instance

Component	Description
CPU	Each instance must be hosted on a physical CPU with the following clock-speed characteristics: • ≥2.0 GHz (Intel Xeon E5 Series or better CPU) • ≥2.5 GHz (Intel Xeon 5500 Series or better CPU) Each instance must also support 64-bit installations.
Virtual Cores	2 virtual cores
RAM	4 GB
Accessible Storage	50 GB
.qcow2 File	Latest RealAccess Agent .qcow2 file, downloaded to your local machine.
One or more KVM hosts	Each host must be v1.0 or higher and support 64-bit VM installations.
Any software client	Access to the host machine to run KVM management commands.

Xen

The following table describes the requirements to deploy your RealAccess service delivery platform in a Xen environment.

RealAccess Portal Agent Minimum Server Requirements per Xen Instance

Component	Description
CPU	Each instance must be hosted on a physical CPU with the following clock-speed characteristics: • ≥2.0 GHz (Intel Xeon E5 Series or better CPU) • ≥2.5 GHz (Intel Xeon 5500 Series or better CPU) Each instance must also support 64-bit installations.
Virtual Cores	2 virtual cores
RAM	4 GB
Accessible Storage	50 GB
.qcow2 File	Latest RealAccess Agent .qcow2 file, downloaded to your local machine.
One or more KVM hosts	Each host must be v4.0 or higher and support 64-bit VM installations.
Any software client	Access to the host machine to run Xen management commands.

Firewall Rules Checklist

The following table provides a checklist of firewall rules for RealAccess, Cloud Edition.

RealAccess, Cloud Edition Firewall Rules Checklist

Source	Source Port	Destination	Dest. Port	Protocol	Usage
RealAccess portal (74.217.211.0/27 70.42.141.199)	Any	RealAccess Agent address		ICMP	Ping (troubleshooting only)
		RealAccess Agent address	22	TCP	SSH (troubleshooting only)
		RealAccess Agent address	1194 443	TCP	OpenVPN (required)
Federation Server address	Any	RealAccess portal (74.217.211.0/27 70.42.141.199)	1194	TCP	OpenVPN
RealAccess Agent	Any	Local DNS 1 or 2 server	53	TCP	DNS
RealAccess Agent address	Any	SAML integration	443	TCP	SSO
Note: The following section pertains to communication between the RealAccess Agent and the RealPresence Platform.					
RealAccess Agent address	Any	RealPresence DMA VIP address	8443	TCP	API calls
			22	TCP	SSH
		RealPresence Resource Manager address	8443	TCP	API calls
			22	TCP	SSH (troubleshooting only)
RealPresence DMA VIP address		RealAccess Agent address	2341	TCP	Subscription messages
RealPresence Resource Manager address		RealAccess Agent address	2341	TCP	Subscription messages

Complete the Setup Worksheets

This section provides setup worksheets that help you deploy the RealAccess service delivery platform.

Print the worksheets and complete the fields in the **My System Values** column of each. Then use the information in the worksheets to help you perform the installation and configuration procedures.

RealAccess Deployment Setup Worksheets

Configuration Information	My System Values	Description
RealAccess Agent Network Configuration		
Internal IP address		Provided by your network or IT administrator
External IP address		Public-facing IP address that enables a secure connection between the RealAccess Cloud and the agent
Subnet Mask		Provided by your network or IT administrator
Default Gateway		Provided by your network or IT administrator
DNS 1		Primary DNS
DNS 2		Secondary DNS
RealPresence DMA Information		
IP Address		Use the virtual IP address if you have a redundant configuration
User Name		User name for your system account (account must have a minimum of auditor and provisioning roles)
Password		Password for your system account (account must have a minimum of auditor and provisioning roles)
RealPresence Resource Manager Information		
IP Address		Use the virtual IP address if you have a redundant configuration
User Name		User name for your system account (account must have a minimum of device administrator, auditor, and operator roles)
Password		Password for your system account (account must have a minimum of device administrator, auditor, and operator roles)
Virtual Machine Environment – VMware (ESXi)		
Name and Location		
Host/Cluster		
Storage Destination		

RealAccess Deployment Setup Worksheets

Configuration Information	My System Values	Description
Provisioning Policy		
Virtual Machine Environment – Hyper-V		
Name and Location		
Network Adapter		
Virtual Machine Environment – KVM		
Name and Location		
Network Adapter		
Virtual Machine Environment – Xen		
Name and Location		
Network Adapter		

Onboarding

The first step in deploying your RealAccess, Cloud Edition service delivery platform is to determine which onboarding option you want to use when setting up your system. There are two options for onboarding: a fee-based option or a self-service option.

Fee-Based Onboarding

If you select the fee-based onboarding option, Polycom personnel performs all of the onboarding steps needed to start your RealAccess service delivery platform deployment. Once the onboarding phase is complete, you are then responsible for installing the RealAccess service delivery platform agent in your virtual environment.

Fee-based onboarding has optional single sign on (SSO) integration that is managed by a Polycom project manager.

If you select the fee-based onboarding option, your Polycom RealAccess Analytics start of service coincides with the date of project completion sign-off.

Self-Service Onboarding

The self-service onboarding option enables you to perform the onboarding steps for the RealAccess service delivery platform yourself. Once you have completed the self-service onboarding phase, you can then download and install the RealAccess service delivery platform agent in your virtual environment.

Active Directory/SSO integration requires the fee-based onboarding option and is not supported by self-service onboarding.

If you select the self-service onboarding option, your Polycom RealAccess Analytics start of service is thirty (30) days after your customer account is created and you are notified by email.

Complete the Self-Service Onboarding Form

To initiate the self-service onboarding process, you must first fill out the self-service onboarding form. The form contains the following information that is submitted to Polycom:

- **Account Information**   These fields provide Polycom more detailed information about your RealAccess service delivery platform request, including aspects of your infrastructure.
  - ➢ **Customer Information**   Information about the organization that is onboarding RealAccess.
  - ➢ **Polycom Representative Information**   Your contact (for example, a Polycom account manager or systems engineer) if you have issues during onboarding.
  - ➢ **Polycom RealPresence Platform Information**   Serial number and software release information about your RealPresence Platform. To be eligible for RealAccess, your RealPresence Platform product(s) must be entitled under an active service contract (Polycom Premier, Partner Premier, Polycom Advantage, Partner Advantage, or Polycom Elite) and meet the software version requirements outlined in the latest *Polycom RealAccess Cloud Edition Release Notes*.
- **Requester Information**   These fields provide Polycom basic information about your request for the RealAccess service delivery platform.
  - ➢ **Contact Information**   Who to contact if questions arise during the onboarding process.
  - ➢ **RealAccess Administrator Information**   Technical contact responsible for administering the connection between the RealPresence Platform deployment and RealAccess.

To complete the Self-Service onboarding form:

1 Go to **realaccess.polycom.com/onboarding**.

2 Enter all required fields, using the online tooltips ❓ to guide you through the process.

A few things to note about filling in your onboarding form:

- ➢ Some of your contacts in the onboarding form may be the same person (for example, the requester is also the administrator). If that is the case, check the **Same as contact information** box to auto-populate what you enter in the **Contact Information** section.
- ➢ In the **Polycom RealPresence Platform Information** fields, use the following options for entering your product information:
  - ◆ For Appliance Editions, enter the RealPresence DMA or RealPresence Resource Manager system's serial number
  - ◆ For Virtual Editions, enter the system identifier.
  - ◆ For products purchased through RealPresence One, enter your serial number in the **Primary DMA** field.

3 Click **Submit**.

Polycom verifies your request and sends a welcome email to the person identified as the RealAccess Administrator with instructions to continue onboarding.

> After submitting the onboarding form, it takes approximately two hours to receive your welcome email. You may need to check your spam or junk email folder to find the email. If you have not received the email after two hours, contact your Polycom representative.

Register Your RealAccess Account

Once you have submitted the onboarding form and received the welcome email, you can register your RealAccess account to continue the onboarding process.

To register your RealAccess account:

1 Click the registration link in the RealAccess welcome email.

You are directed to the registration page (**realaccess.polycom.com/register**).

2 Enter the email and password you want to associate with your RealAccess administrator account, then click **Register**.

Polycom sends an account verification email to the address you submitted.

3 When you receive the account verification email, click the link to verify your account.

Create a New Configuration

After you've initiated the onboarding process and registered your account, you must create a new configuration and add your RealPresence DMA and RealPresence Resource Manager information. This configuration provides the technical information necessary for Polycom to create your RealAccess Agent.

You need the information you filled out in the Complete the Setup Worksheets section to complete this process.

To create a new configuration:

1 Using a browser, go to **realaccess.polycom.com** and log in using your RealAccess account information.

When you initially log in, it is normal to not see any reporting data displayed. This is because your RealPresence Platform is not yet connected to RealAccess.

2 Enable the **I accept** check box to accept the Terms and Conditions and click **Submit**.

3 On the RealAccess home page, click the **Admin** link at the bottom of the page.

4 Select **Setup > Agent**.

5 In the **Agent** section, click **Create a new config** and enter the information needed to create your agent instance:

6 In the **Commands** column, click **Update** to create an agent configuration.

7 In the **DMA** section, click **Add a new DMA** and enter the information related to your RealPresence DMA system.

8 Click **Update** to add the RealPresence DMA system.

9   In the **Resource Manager** section, click **Add a new RPRM** and enter the information related to your RealPresence Resource Manager system.

10 Click **Update** to add the RealPresence Resource Manager system.

Request the RealAccess Agent Deployment File

This section provides procedures to select the virtual environment information needed to build your custom RealAccess Agent deployment file.

To request the RealAccess Agent build:

1   In the **Download Agent** section, choose the virtual machine environment from the **Select agent type** drop-down list:
    ➢ VMware (ESXi)
    ➢ Hyper-V (hyperv)
    ➢ Xen (qcow2)
    ➢ KVM (qcow2)

2   Select the port, 1194 or 443, over which the agent will communicate with RealAccess.

3   Click **Request Agent Build**.

    The RealAccess service delivery platform creates your agent deployment file. When the file is ready to download, you receive an email notification.

    After submitting the request to build your RealAccess Agent file, it takes approximately one hour to receive your notification email. You may need to check your spam or junk email folder to find the email. If you have not received the email after one hour, contact your Polycom representative.

System Installation

Once you have completed the onboarding phase, you are ready to install the RealAccess service delivery platform software in your virtual machine environment.

Downloading the Agent Software

You can download the RealAccess Agent software two ways:

- From the link in your notification email
- Directly from the RealAccess portal

Download from Email

You can download the RealAccess Agent software directly from the link embedded in your notification email.

To download the RealAccess Agent software from the email link:

1 Click on the link embedded in your RealAccess Agent notification email. If the link does not work properly, copy the link and paste it into a Chrome browser.

2 Follow the prompts to download the software and save the RealAccess agent deployment file to your local drive.

Your agent is downloaded and ready to be deployed on a virtual machine.

Download from the Portal

You can download the RealAccess Agent software from the RealAccess portal.

To download the RealAccess Agent software from the portal:

1 Log into **realaccess.polycom.com**.

2 Click on the **Admin** link at the bottom of the page.

3 Navigate back to the **Setup |Agent** page.

4 Click the **Download Agent** button and save the RealAccess agent deployment file to your local drive.

Your agent is downloaded and ready to be deployed on a virtual machine.

Install the Software

The RealAccess Agent interoperates with RealPresence Platform components and standard IT infrastructure elements provided by the deploying organization. You can install RealAccess, Cloud Edition in the following virtual environments:

● VMware

● KVM

● Xen

● Hyper-V

> Polycom recommends that a virtual environment administrator install virtual machine software. After the deployment, additional configuration should be done by someone who understands video conferencing.

Use your standard virtual environment tools to deploy the RealAccess Agent software.

To deploy the portal agent software:

1 Refer to the documentation of your virtual environment tools for instructions on installing a virtual instance.

2 Install an instance of the RealAccess, Cloud Edition software in your virtual environment.

   Use the following settings if deploying in a Hyper-V environment:

   ➢ **Specify Generation:** Generation 1

   ➢ **Startup Memory:** 4096

   ➢ **Configure Disk | New Size:** 50

3 Do one of the following:

   ➢ In a VMware environment, restart the server after deployment is complete and click **Finish**.

   ➢ In a Hyper-V environment, do the following:

     ◆ Right-click the RealAccess Agent virtual machine name and select **Start**. This starts the agent and changes the **State** of the agent to **Running**.

     ◆ Right-click the RealAccess Agent virtual machine and select **Connect** to confirm that the Agent is working.

       If a **Virtual Machine Connection** window appears with a login prompt, the Agent is deployed and running successfully.

Once the Agent instance has been created and powered on, it will try to connect to the RealAccess cloud. If you have successfully deployed the Agent, you can begin using your RealAccess service delivery platform.

Test Connections

Once you've installed the RealAccess service delivery platform software, test your connection to the RealAccess portal.

Before you begin this section, ensure that the Firewall Checklist is complete.

If you see pages without data, there might be a connectivity issue. Try the following to reset your connection:

● You can troubleshoot these issues on the **Support** page where you can test the connections to the RealAccess Agent, RealPresence DMA, and RealPresence Resource Manager.

● Check the solution connectivity by using the ping utility in RealPresence DMA and RealPresence Resource Manager to check these network connections.

To test the RealAccess connectivity:

1 Click **Support**, then select **Status**.

   This page shows the RealAccess connectivity tests you can run.

2 Select the **Test All Connections** button to run the connectivity tests.

   ➢ If you see a green **Active** in the **Results** column, you have a successful connection.

   ➢ If you see a red **Inactive** in the **Results** column, you have an unsuccessful connection. Use the following table to troubleshoot some possible scenarios:

RealAccess Connectivity Troubleshooting Scenarios

Test Scenario	Possible Solution(s) for Unsuccessful Tests
External Address ICMP Connection	Make sure that the relevant ports on your firewall are open.
External Address SSH Connection (TCP Port 22)	
OpenVPN Connection	
OpenVPN SSH Connection (TCP Port 22)	
RealPresence Resource Manager TCP Port 8443 (RealPresence Resource Manager IP address)	• If any of these tests fail, ping the agent IP address using the ping utility for the RealPresence DMA or RealPresence Resource Manager system. If ICMP is disabled on your network, do a trace route instead. • If you are successful with a ping or trace route, check that TCP ports 8443 and 2341 are open in both directions between the agent's IP address and RealPresence DMA and RealPresence Resource Manager systems.
RealPresence DMA TCP Port 8443 (DMA IP address)	

RealAccess Connectivity Troubleshooting Scenarios (continued)

Test Scenario	Possible Solution(s) for Unsuccessful Tests
RealPresence DMA CDR	
RealPresence Resource Manager Inventory	• A "204" response message means the command has been successfully received • A 401 message means that either the username or password is incorrect. • A "403" message means the user does not have permission to request information.
RealPresence DMA MCU Utilization	NOTE: These roles must be enabled: • RealPresence DMA: auditor and provisioning • RealPresence Resource Manager: device administrator, auditor, and operator
RealPresence Resource Manager CDR	
If all tests are unsuccessful	Reboot the agent and run the tests again.

If your RealAccess Agent and RealPresence Platform products appear to be configured properly after troubleshooting the connections, but you still do not see data on the **Asset Management** or **Analytics** pages, do the following:

● Check the RealAccess **About** page to verify that your service agreement has not expired.

● Contact your local Polycom representative.

If your subscriptions are active and you are still having connectivity issues, contact *Polycom Support*.