

# Polycom<sup>®</sup> Videoconferencing Engineer (PCVE) Examination Blueprint

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## Introduction

The Polycom Certified Videoconferencing Engineer (PCVE) examination verifies that the successful candidate has the necessary knowledge to perform implementation, configuration and troubleshooting operations for small to medium-sized deployments of the Polycom<sup>®</sup> RealPresence<sup>®</sup> Collaboration Infrastructure.

In addition, the PCVE exam will validate the individual's knowledge of networking models, standards and protocols relevant to Videoconferencing.

Successful completion will verify that the individual has the skills and knowledge to offer support to the customer and end-user, and understand the information that should be gathered when escalating more complex problems.

Any individual who feels he or she has the requisite experience can take the exam, and if successful they will be PCVE certified. For students who are new to Videoconferencing and Poly solutions, the following courses are highly recommended:

- **CompTIA Network+ certification** or equivalent knowledge to successfully complete the networking fundamentals portion.
- **Polycom Fundamentals (FSIT201)** eLearning modules which cover networking models, standards and protocols and are approximately two hours in duration.
- **Polycom System Administration (PLCMISFAT202)** eLearning modules which cover the basic skills and knowledge required to manage and operate the core RealPresence Clariti collaboration infrastructure components.
- **Collaboration Installation, Configuration, & Troubleshooting – Part 1 (RPIIT202/PCICT201):** A five-day classroom training covering deployment and configuration of a basic Clariti solution.
- Practical experience of the Collaboration Infrastructure and review of the product documentation.

## Software Versions Referenced

The current exam questions on the Polycom® RealPresence Clariti™ infrastructure components are sourced directly from content covered in the course, *Collaboration Infrastructure Installation, Configuration, and Troubleshooting - Part 1 (RPIT202/PCICT201)*. This material and the corresponding exam questions are based on the following Polycom software releases:

- Polycom® RealPresence® Collaboration Server v8.8
- Polycom® RealPresence® Resource Manager v10.5
- Polycom® RealPresence® Distributed Media Application™ (DMA®) v10.0.0.3
- Polycom® RealPresence® Access Director™ 4.2
- Polycom® RealPresence® Web Suite 2.2

## Permitted Reference Material

The PCVE version 5.0 exam is now a “closed book” assessment. No reference material will be provided during the exam and test-takers will be forbidden from accessing any other reference material during the exam.

## Domain Weighting and Objectives

The table below lists the domains measured by this examination and the extent to which they are represented:

Domain	% of Examination
1. Fundamentals	17.5%
2. RealPresence Platform Implementation	27.5%
3. RealPresence Platform Configuration	27.5%
4. RealPresence Platform Troubleshooting	27.5%
<b>Total</b>	<b>100%</b>

The examination contains a total of **80 questions** and you will have **90 minutes** to complete the examination.

**A score of 70% or higher is required to pass the exam.**

The objectives shown on the following domains are not exhaustive, and other related questions may be included in the examination. The objectives are subject to change without notice.

## Domain 1 – Fundamentals

- 1.1. Recognize an analog signal
  - Identify how a signal moves
  - Recognize how a signal changes
  - Identify how a signal is translated
  - Understand how an audio signal is measured
- 1.2. Identify the difference between an analog and digital signal
  - Understand how a digital signal is created, recognizing sampling, compression and pulse code modulation
  - Recognize how a digital signal moves
  - Identify how a digital signal is translated
- 1.3. Identify what video resolution is
  - Identify 'high definition' resolutions
  - Recognize resolutions provided by standard video codecs
- 1.4 Identify what a standard is, including umbrella standards
- 1.5 Identify H.323-related protocols and what they are used for
- 1.6 Identify SIP-related protocols and what they are used for
  - Recognize SIP messages
- 1.7 Identify network communication methods, including
  - The responsibilities of the OSI layers in the 7-layer model
  - The difference between the OSI and TCP/IP layer models

## Domain 2 – RealPresence Platform Implementation

Demonstrate an understanding of the implementation methods for RealPresence Platform solutions including:

- 2.1 RealPresence Resource Manager
  - Identify and understand the key steps in a Physical deployment
  - Identify and understand the key steps in a Virtual deployment
  - Understand how the solution is licensed
  - Understand deployment provisioning methods
- 2.2 RealPresence Collaboration Server
  - Identify and understand the key steps in a Physical deployment
  - Identify and understand the key steps in a Virtual deployment
  - Identify different models and capabilities
  - Recognize default connection methods
- 2.3 RealPresence DMA Core
  - Identify and understand the key steps in a Physical deployment
  - Identify and understand the key steps in a Virtual deployment

- Understand and identify the different deployment considerations
- 2.4 RealPresence Access Director and DMA Edge
- Identify and understand the key steps in a Physical deployment
  - Identify and understand the key steps in a Virtual deployment
  - Understand and identify the different deployment considerations
- 2.5 RealPresence Web Suite
- Identify and understand the key steps in a Virtual deployment

## Domain 3 – RealPresence Platform Configuration

Demonstrate an understanding of configuration methods for RealPresence Platform solutions including:

- 3.1 RealPresence Resource Manager
- Recognize external integration methods and their associated technologies
  - Define the licensing model
  - Recognize configuration required to configure scheduling
  - Identify the device types which can be provisioned
  - Understand user roles and associated permissions
  - Identify various reports, their contents and usage
- 3.2 RealPresence Collaboration Server
- Determine the use of system flags in configuration
  - Distinguish the difference between restore methods
  - Identify resource usage in Continuous Presence and Voice Switched Mode
  - Understand user roles and associated permissions
  - Recognize functions of entry queues, conference profiles and meeting rooms
- 3.3 RealPresence DMA Core
- Recognize external integration methods and their associated technologies
  - Understand user roles and associated permissions
  - Recognize Conference Manager functions
  - Identify MCU management techniques
  - Identify the differences between scalability, resiliency, and redundancy
- 3.4 RealPresence Access Director (RPAD) and DMA Edge
- Understand installation behind a 1:1 NAT firewall
  - Identify and explain Tunnel Configuration vs a single Edge server installation
  - Identify and explain the use of split signaling configuration
- 3.5 RealPresence Web Suite
- Identify and understand the two Web Suite components and functions
  - Review initial Web Suite configuration

## Domain 4 – RealPresence Platform Troubleshooting

Demonstrate an understanding of troubleshooting methods for RealPresence Platform solutions including:

### 4.1 RealPresence Resource Manager

- Understand common reasons for scheduling failure
- Select correct log types for fault escalation
- Identify gatekeeper registration issues
- Recognize user access and scheduling issues

### 4.2 RealPresence Collaboration Server

- Recognize basic error modes and how to resolve them
- Select correct log types for fault escalation
- Understand common reasons for call failure
- Select common reasons for unexpected call behavior

### 4.3 RealPresence DMA Core

- Recognize in-call troubleshooting options
- Understand common reasons for call failure
- Select correct log types for fault escalation
- Recognize integrated network troubleshooting methods

### 4.4 RealPresence Access Director and DMA Edge

- Recognize in-call troubleshooting options
- Select correct log types for fault escalation
- Understand common reasons for call failure
- Recognize integrated network troubleshooting methods

## Registering for the Examination

Registration information is posted on the [Poly PCVE page](#)