

## EXAMINATION BLUEPRINT

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

### 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 video conferencing.

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 video conferencing and Polycom 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 Polycom<sup>®</sup> RealPresence Clariti<sup>™</sup> collaboration infrastructure components.
- **Collaboration Installation, Configuration, & Troubleshooting RPIIT202:** A five-day classroom training.
- 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 RPIIT202 course, Collaboration Infrastructure Installation, Configuration, & Troubleshooting. This material and the corresponding exam questions are based on the following Polycom software releases:

- Polycom<sup>®</sup> RealPresence<sup>®</sup> Collaboration Server v8.7

- Polycom® RealPresence® Resource Manager v10.2
- Polycom® RealPresence® Distributed Media Application™ (DMA®) v9.0
- Polycom® RealPresence® Access Director™ 4.2
- Polycom® RealPresence® Web Suite 2.1

### Test Format and Approved Reference Material

Questions relating to the RealPresence Platform domains are ‘open book’, meaning that approved reference material will be provided during the examination, as follows:

- Polycom RealPresence Collaboration Server Administrator’s Guide, version 8.7
- Polycom Resource Manager System Operations Guide, version 10.2
- Polycom RealPresence DMA System Operations Guide, version 9.0
- Polycom RealPresence Access Director Administrator Guide version 4.2
- Polycom RealPresence Web Suite Administrators Guide version 2.1

### 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	18.8%
2. RealPresence Platform Implementation	27.5%
3. RealPresence Platform Configuration	27.5%
4. RealPresence Platform Troubleshooting	26.2%
<b>Total</b>	<b>100%</b>

The examination contains a total of **80 questions** and you will have **100 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.

#### 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 Distributed Media Application
  - 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
  - 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 Distributed Media Application

- 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)

- Identify explain RPAD Tunnel Configuration vs a single RPAD installation
- Identify and explain the use of split signaling configuration
- Understand installation behind a 1:1 NAT firewall

#### 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 Distributed Media Application

- 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

- 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 Polycom PCVE page <http://www.polycom.com/products-services/polycom-university/pcve.html>.