

# Polycom University

## Deploying and Supporting Polycom Voice Solutions for Microsoft Lync: Level 3 - MICDSAT302

### Course Description

This course provides the skills to deploy and support Polycom Voice solutions to integrate into a Microsoft Lync environment.

### Level Definition

Polycom training provides a progressive learning path with courses starting at level one and progressing to level three. Polycom training provides a progressive learning path with courses starting at level one and progressing to level three. This course is categorized as a Level 3 course and assumes Level 2 knowledge. It provides in-depth understanding of Polycom solutions in a real-world environment.

### Course Goals

On completion of the course students will be able to:

- Deploy and configure Polycom's VVX phone series in a customer environment where Lync Server is used to provide enterprise voice
- Use Microsoft and UCS tools for troubleshooting

### Topics Include

This course will cover the following topics:

- Lync Qualified Endpoints and Software
- Deploying UCS Phones
- UCS 5.0 New Features
- Troubleshooting Tools
- Voice Selling Best Practices

### Target Audience

All technical

### Prerequisites

- Introduction to Voice and Video Technologies RPPAVOS105
- Introduction to Polycom Voice PLCMVOS102
- Positioning Desktop Voice RPVOS104
- Experience VVX Business Media Phone RPEOS113
  - Assessment for the above courses: Polycom Voice Level 1 PLCMVEX101
- Essential Communication Security Skills for Polycom Solutions (Level 2) ESCSIT202
  - Assessment: Communication Security Essentials CSEEX002
- Essential Network Infrastructure Security Skills for Polycom Solutions (Level 2) ESNIT203
  - Assessment: Network Infrastructure Security Essentials NIFEX001

### Duration

2 days

### Delivery Methodology

Instructor-led over video

## Materials

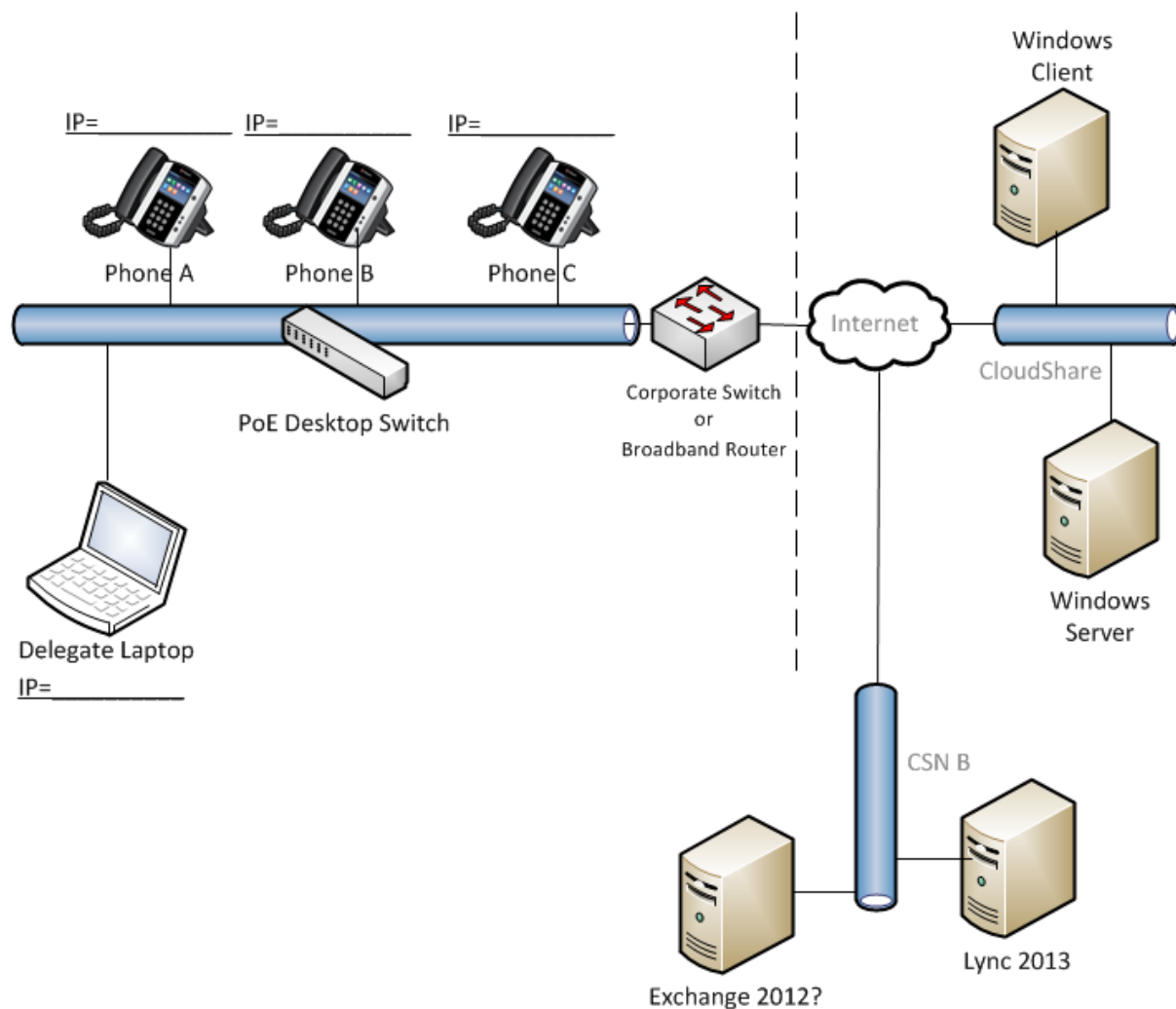
PDFs containing content and labs are provided for the training.

## Lab Environment

The labs are based on the architecture shown in the image below with the Lync environment and a provision server provided by the Polycom training team.

**Important Note:** Students must provide the following equipment in order to complete the course:

- 3 x VVX 500 or 600
- POE Desktop Switch
- DHCP to provide IP addresses for the phones
- Internet connectivity for the phones



## Topic 1: Lync Qualified Endpoints and Software

- Lync Qualification
- Polycom Lync Desktop Solutions
- VVX Multi-platform Business Media Phones
- Polycom CX Desktop Phones
- UCS Versions

### Lab 0: Prevent the Phone Determining Provisioning Server Using DHCP

- Exercise 0.1: Determine whether a phone as located a Provisioning Server
- Exercise 0.2: Prevent a phone from locating a Provisioning Server using the default DHCP settings

## Topic 2: Deploying UCS Phones

- Network Requirements for UCS Phones
- AutoDiscover
- AutoDiscover and Microsoft DNS Server – Internal
- AutoDiscover and Microsoft DNS Server – External
- AutoDiscover and NSLOOKUP
- Dynamic Host Configuration Protocol (DHCP)
- DHCP Servers
- Requesting IP Settings
- DHCP Options
- DHCP Options for Phones Registering to Lync
- GMT Offset
- DHCP Option 43
- VLAN Setup & Discovery
- DHCP VLAN Discovery (DVD)
- UCS Lync Boot Sequence
- Software Archive Zip Files
- Differences Between Split and Combined Images
- Lync Software Archive Zip Files
- Benefits of Deploying a Provisioning / Boot server
- Setting Up a Provisioning Server
- How a Phone Locates Configuration Files
- All Zeros (Master) Configuration File
- Phone-Specific Configuration Files
- Using All Zeros and MAC-Specific Configuration Files
- Provisioning Server Directory Structure Best Practice
- Polycom Zero Touch Provisioning (ZTP)
- Device CA Certificates
- Manually Obtaining the Root CA Certificate
- Certificate Configuration File Example
- Manual Configuration File Import
- Certificate Locations
- Registering a Polycom Phone Using the Lync Base Profile
- Registering a Polycom Phone Using a Configuration File
- Logging-In Using a Static Configuration File
- Logging-In Using Active Directory Credentials
- Logging-In Using PIN Authentication

### **Lab 1: UCS Setup & Deployment**

- Exercise 1.1: VLAN
- Exercise 1.2: Using NSLookup to Verify DNS Records
- Exercise 1.3: Use DHCPUtil.exe to Configure and Verify Phone Options
- Exercise 1.4: Download a Root CA Certificate
- Exercise 1.5: Lync Base Profile Setup
- Exercise 1.6: Factory Default a VVX Phone
- Exercise 1.7: Static Configuration Setup
- Exercise 1.8: Provisioning Server Setup
- Exercise 1.9: Configure Polycom Phone using a Provisioning Server

### **Topic 3: UCS 5.0 New Features**

- UCS 5.0 New Features
- Boss/Admin
- Boss/Admin Lync Client Configuration
- Boss/Admin Screen and Call Flow – Part 1
- Boss/Admin Screen and Call Flow – Part 2
- Better Together Over Ethernet (BTOE)
- Lync Device Update Service Compatibility
- Address Book Search
- Call Park
- Lync Status Screen
- Extended Features
- More Extended Features
- Line of Business Applications on the Phone

### **Lab 2: Exploring UCS 5.0 Features**

- Exercise 2:1: Holding, Resuming, and Transferring Calls
- Exercise 2:2: Forwarding a call
- Exercise 2:3: Conferencing Calls
- Exercise 2:4: Voicemail
- Exercise 2.5: Boss/Admin
- Exercise 2:6: Better Together over Ethernet (optional)
- Exercise 2.7: Performing a Directory Search
- Exercise 2:8: Using the Call Park Feature

### **Lab 3: Polycom Extended Features**

- Exercise 3.1: Polycom VVX Phones Screen Capture
- Exercise 3.2: Customizing the Microbrowser
- Exercise 3.3: Branding/Customizing the VVX Phone
- Exercise 3.4: Calendar Integration
- Exercise 3.5: Configuring Group Paging
- Exercise 3.6: Configuring Push To Talk
- Exercise 3.7: Call Recording (Optional)
- Exercise 3.8: Diagnostics

## Topic 4: Troubleshooting Tools

- Challenges with Lync Troubleshooting
- Lync Server Logging Tool
- Snooper Log Reader
- PC Client Logger
- PC Client Configuration Information
- UCS 5.0 Lync Status Screen
- UCS Logging Options
- Lync Logging Example
- Configure Phone to Log to Boot Server
- Diagnostic Ping and Configuration Files Display
- 911 Location Information and Lync Registration
- Software Version
- Configuration Dump Using the Web UI
- Configuration Dump Using the Phone UI
- Telnet / Serial Connection
- sipprt Shell Command
- configparamname Shell Command
- Screen Capture
- Performance
- Testing Hardware
- Support Resource

### Lab 4: UCS Troubleshooting

- Exercise 4:1: Logging Basics
- Exercise 4:2: Viewing Log Files by using Telnet
- Exercise 4:3: Enabling Logging by using Configuration Files
- Exercise 4:4: Extracting the Lync Client Logs

## Voice Selling Best Practices

- Making the Right Choice for Microsoft Lync
- Making the Right Choice – CX vs VVX
- Hardware Comparison
- Polycom Value Proposition
- Why We Win
- Tips and Tricks to Winning with Polycom Voice