Unified Communicator® Advanced Administrator Guide

Issue 2.0, February 2009
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# Contents

## Tables

xi

## Figures

xiii

### About UC Advanced

- **Introduction** ...................................................... 2
- **About This Guide** ............................................. 2
  - **Audience** .................................................... 2
  - **Terminology** .................................................. 2
  - **Additional Documentation** ................................. 3
- **What’s New in UC Advanced 2.0?** .............................. 3
- **UC Advanced Features** ........................................ 5
- **About the Softphone Module** ................................ 6
- **About Presence** .................................................. 7
  - **Server Side** ................................................... 7
  - **Client Side** .................................................... 7
- **Licensable Features** ............................................ 8
- **3300 Feature Matrix** .......................................... 10
- **Supported Feature Access Codes** ............................. 15
- **Emergency Call Services Support** ............................ 16

### Deploying UC Advanced

17

- **Overview of UC Advanced Deployment** ....................... 19
- **UC Advanced Component Architecture** ........................ 20
- **Designing for Performance and Availability** .................. 21
  - **Determining How Many ICPs to Deploy** ...................... 21
  - **Designing UC Advanced Active Directory Topologies** ...... 22
- **Planning Client Deployment** .................................... 23
  - **Client Computer Requirements** ............................... 23
  - **Installation Options** ........................................... 25
  - **Client Firewalls** ............................................... 25
  - **Downloading UC Advanced** ..................................... 26
  - **Downloading Microsoft.NET Framework Version 2.0** ....... 26
  - **Using Installer Transforms** ................................... 26
Planning Server Deployment .................................................. 30
  Server Computer Requirements ........................................... 30
  Server Requirements for Co-Resident Installations .................... 31
  Software Firewalls .......................................................... 32

Deploying and Managing UC Advanced .................................... 34
  Adding Licenses ............................................................... 34
  Creating Extension Numbers for UC Advanced Users .................. 36
  Creating Class of Service and Zone Compression ....................... 39
  Updating the Telephone Directory ....................................... 42
  Setting Up Voice Mail for UC Advanced Users .......................... 43
  Configuring Teleworker Support ......................................... 45
  Configuring Multiple Incoming Call Support (Optional) ............... 49
  Installing and Configuring the UC Advanced Management Software . 52
  Upgrading the Unified Communications Administration Tool ........ 53
  Installing the UC Advanced Client ........................................ 57
  Upgrading the UC Advanced Client ...................................... 59
  Uninstalling the UC Advanced Client .................................. 59

Installing and Configuring the Collaboration Module (Optional) .... 60
  Preparing the Server ....................................................... 60
  Installing the Server ...................................................... 61
  Preparing the Client ....................................................... 61
  Installing the Client ....................................................... 61

Testing the Client Connection to the Server ............................. 61

Configuring a UC Advanced System ......................................... 62
  Adding Unified Communications Servers ................................ 63
  Activating licenses ......................................................... 65
  Defining Default Licensing Schemes ..................................... 67
  Adding ICP Switches and Scheduling Line Monitor Refreshes .......... 68
  Refreshing Line Monitor Caches ......................................... 70
  Enabling Corporate Directory Synchronizers ............................ 71
  Defining Pipes ............................................................... 79
  Adding Collaboration Servers ............................................. 80
  Configuring ACD Settings ................................................ 82
  Adding Users Manually .................................................... 83
  Configuring an RSS Feed for the Web Window ......................... 88
  Configuring a Local RSS Feed ........................................... 89
  Configuring an External RSS Feed ...................................... 90

Changing Unified Communications Server IP Addresses ............... 91
Table of Contents

Configuring Automatic Call Distribution (ACD) ........................................... 92
  Setting Up ACD on the 3300 ICP ......................................................... 92
  Setting Up Phones for ACD ............................................................... 94
  Setting Up ACD Busy Reasons and Account Codes .................................... 94

Managing USB Devices ............................................................................ 95
  Configuring User USB Device Settings .................................................. 95
  Adding USB Devices ............................................................................. 97
  Configuring USB Devices ..................................................................... 98
  Removing USB Devices ....................................................................... 99

Deploying the Your Assistant Collaboration Module .................................. 101

About the Your Assistant Collaboration Module ....................................... 102
  Architecture ....................................................................................... 102
  Network Environment ......................................................................... 103
  Bandwidth ......................................................................................... 103

Collaboration System Requirements ....................................................... 104
  Server Requirements .......................................................................... 104
  DMZ Settings ..................................................................................... 105
  Client Requirements .......................................................................... 106

Installation ............................................................................................. 109

Accessing the Collaboration Module Web Page ....................................... 109

Configuration and Management ............................................................. 111
  Setting Up Collaboration .................................................................... 111
  General System Settings ..................................................................... 112
  Web Services Settings ........................................................................ 113
  Configuring the Collaboration Server With Other Web Servers .............. 114
  Managing Accounts ........................................................................... 117
  Managing Conferences ...................................................................... 120
  Quality of Service (QoS) Levels .......................................................... 121

Security .................................................................................................. 122
  HTTPS and SSL/TLS Security ............................................................. 122
  Enabling Security ............................................................................... 122
  Using Certificates ............................................................................... 123
  Verifying that Security is Enabled ...................................................... 125

Backups and Restores ............................................................................ 126
## Troubleshooting UC Advanced

### Troubleshooting Tables
- Installation Problems .................................................. 128
- Standard Operation Problems ........................................ 129
- Collaboration Problems .................................................. 133
- Audio Problems .............................................................. 135

### Error and Warning Messages
- Initialization Messages .................................................... 137
- Configuration Change Messages ....................................... 139
- Teleworker Setup Message .............................................. 139
- File Sending Message ....................................................... 139
- ACD Messages ............................................................... 140
- PIM Integration Messages ................................................. 140

### Log Files and Troubleshooting Tools
- UC Advanced Client .......................................................... 141
- Unified Communications Server ...................................... 142
- Using UC Advanced Information Tools ............................. 145

### Configuring the MiTAI Client and Server Loggers
- MiTAI Client Logger .......................................................... 148
- MiTAI Server Logger .......................................................... 149
- MiTAI Error Codes ............................................................ 151

### Troubleshooting Tips
- Restarting Unified Communications Servers ................. 152
- Turning on Custom Trace .................................................... 152

### Appendix A: Softphone Module Network Guidelines

- Introduction ..................................................................... 154
- Assumptions ................................................................... 154
- Setting Priority Conversion .............................................. 154
- Bandwidth Provisioning ................................................... 155
Appendix B: VPN Guidelines 157

Introduction .................................................................................................................. 158
VPN Configuration Overview ...................................................................................... 158
  Teleworker Configuration ......................................................................................... 159
  Remote Office Configuration ..................................................................................... 160
  Mobile Configuration ............................................................................................... 161
Requirements .............................................................................................................. 162
  VPN Requirements .................................................................................................. 162
  Recommended VPNs ................................................................................................. 162
  Network Requirements ............................................................................................. 162
  Bandwidth Requirements .......................................................................................... 163
Firewall Configuration ................................................................................................. 164
  Corporate Firewall Configuration ........................................................................... 164
  VPN Inside Corporate Firewall ............................................................................... 164
  VPN Inside Outer Firewall – Supported Configuration .......................................... 165
  Remote Firewall Configuration ............................................................................... 165
  VPN with Built-in Firewall ....................................................................................... 165

Appendix C: Upgrading to UC Advanced 2.0 167

Upgrade Overview ....................................................................................................... 168
Downloading UC Advanced ......................................................................................... 168
Backing up the Server Database .................................................................................. 168
Upgrading Unified Communicator Server ..................................................................... 169
Activating the Server License ..................................................................................... 170
Upgrading Clients ......................................................................................................... 170
Troubleshooting Tips ................................................................................................... 171
### Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1</td>
<td>UC Advanced Licensable Features Configurations</td>
<td>8</td>
</tr>
<tr>
<td>Table 2</td>
<td>UC Advanced Licensable Features Configurations</td>
<td>9</td>
</tr>
<tr>
<td>Table 3</td>
<td>3300 Feature Matrix</td>
<td>10</td>
</tr>
<tr>
<td>Table 4</td>
<td>3300 Supported Feature Access Codes</td>
<td>15</td>
</tr>
<tr>
<td>Table 5</td>
<td>Required UC Advanced Components</td>
<td>20</td>
</tr>
<tr>
<td>Table 6</td>
<td>Optional UC Advanced Components</td>
<td>20</td>
</tr>
<tr>
<td>Table 7</td>
<td>Operating System and Software Requirements</td>
<td>23</td>
</tr>
<tr>
<td>Table 8</td>
<td>Hardware Requirements</td>
<td>24</td>
</tr>
<tr>
<td>Table 9</td>
<td>Modifiable Installer Properties</td>
<td>28</td>
</tr>
<tr>
<td>Table 10</td>
<td>Software Requirements for Unified Communications Server</td>
<td>30</td>
</tr>
<tr>
<td>Table 11</td>
<td>Hardware Requirements for Dedicated Unified Communications Server</td>
<td>31</td>
</tr>
<tr>
<td>Table 12</td>
<td>Hardware Requirements for Co-Resident Installations</td>
<td>31</td>
</tr>
<tr>
<td>Table 13</td>
<td>UC Advanced Ports</td>
<td>32</td>
</tr>
<tr>
<td>Table 14</td>
<td>Class of Service Options</td>
<td>39</td>
</tr>
<tr>
<td>Table 15</td>
<td>UC Advanced Components and Services</td>
<td>56</td>
</tr>
<tr>
<td>Table 16</td>
<td>Settings Tab Fields</td>
<td>69</td>
</tr>
<tr>
<td>Table 17</td>
<td>Cache Tab Fields</td>
<td>69</td>
</tr>
<tr>
<td>Table 18</td>
<td>User Settings Options</td>
<td>83</td>
</tr>
<tr>
<td>Table 19</td>
<td>Default User Settings</td>
<td>87</td>
</tr>
<tr>
<td>Table 20</td>
<td>Automatic Call Distribution Fields and Values</td>
<td>92</td>
</tr>
<tr>
<td>Table 21</td>
<td>SMDR Options Assignments and Values</td>
<td>93</td>
</tr>
<tr>
<td>Table 22</td>
<td>Paths and Groups</td>
<td>93</td>
</tr>
<tr>
<td>Table 23</td>
<td>Hardware Requirements for Dedicated Collaboration Servers</td>
<td>104</td>
</tr>
<tr>
<td>Table 24</td>
<td>Supported Operating Systems for Dedicated Collaboration Servers</td>
<td>104</td>
</tr>
<tr>
<td>Table 25</td>
<td>UC Advanced Installation Problems</td>
<td>128</td>
</tr>
<tr>
<td>Table 26</td>
<td>UC Advanced Standard Operation Problems</td>
<td>129</td>
</tr>
<tr>
<td>Table 27</td>
<td>Your Assistant Collaboration Module Problems</td>
<td>133</td>
</tr>
<tr>
<td>Table 28</td>
<td>UC Advanced Audio Problems</td>
<td>135</td>
</tr>
<tr>
<td>Table 29</td>
<td>Initialization Messages</td>
<td>137</td>
</tr>
<tr>
<td>Table 30</td>
<td>Configuration Change Messages</td>
<td>139</td>
</tr>
<tr>
<td>Table 31</td>
<td>Teleworker Setup Message</td>
<td>139</td>
</tr>
<tr>
<td>Table 32</td>
<td>File Sending Message</td>
<td>139</td>
</tr>
<tr>
<td>Table 33</td>
<td>ACD Messages</td>
<td>140</td>
</tr>
<tr>
<td>Table 34</td>
<td>PIM Integration Messages</td>
<td>140</td>
</tr>
<tr>
<td>Table</td>
<td>Description</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>----------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Table 35</td>
<td>UC Advanced Client Log Files and Troubleshooting Tools</td>
<td>141</td>
</tr>
<tr>
<td>Table 36</td>
<td>Unified Communications Server Log Files and Troubleshooting Tools</td>
<td>142</td>
</tr>
<tr>
<td>Table 37</td>
<td>MiTAI Error Codes</td>
<td>151</td>
</tr>
<tr>
<td>Table 38</td>
<td>Sample Recommended Network</td>
<td>156</td>
</tr>
<tr>
<td>Table 44</td>
<td>UC Advanced Installation Troubleshooting Tips</td>
<td>171</td>
</tr>
</tbody>
</table>
# Figures

- **Figure 1**: UC Advanced Main Window ........................................ 5
- **Figure 2**: Single Forest Topology .................................................. 22
- **Figure 3**: Component Interaction in a Single-Forest UC Advanced Deployment ............ 22
- **Figure 4**: Voice Mailbox Configuration .......................................... 43
- **Figure 5**: Peer Relationship Example .............................................. 77
- **Figure 6**: Personal Contact Information .......................................... 86
- **Figure 7**: Your Assistant Collaboration Module Web Page ...................... 109
- **Figure 8**: MiTAI Client Logger ....................................................... 148
- **Figure 9**: Recommended Teleworker Configuration ............................ 159
- **Figure 10**: Recommended Remote Office Configuration ........................ 160
- **Figure 11**: Recommended Mobile Configuration .................................. 161
- **Figure 12**: Recommended VPN Inside Corporate Firewall Configuration ............ 164
- **Figure 13**: Recommended VPN Inside Corporate Firewall Configuration ............ 165
About UC Advanced

Introduction ................................................................. 2
About This Guide ........................................................... 2
  Audience ........................................................................ 2
  Terminology .................................................................... 2
  Additional Documentation .............................................. 3
What’s New in UC Advanced 2.0? ......................................... 3
UC Advanced Features ....................................................... 5
About the Softphone Module ............................................... 6
About Presence ................................................................. 7
  Server Side ..................................................................... 7
  Client Side ...................................................................... 7
Licensable Features ............................................................ 8
3300 Feature Matrix ........................................................... 10
Supported Feature Access Codes .......................................... 15
Emergency Call Services Support ......................................... 16
Introduction

Mitel® Unified Communicator® (UC) Advanced is an intuitive PC-based application that converges the call control capabilities of the Mitel 3300 IP Communications Platform (ICP) with contact management and collaboration applications to simplify and enhance real-time communications.

UC Advanced with the Softphone Module also offers an embedded IP-based software phone. When remotely connected to the 3300 ICP via a secure network connection, mobile users can make and receive calls as though they were inside the corporate network. UC Advanced with the Softphone Module also lets users record calls on their computer.

About This Guide

This administrator guide contains information about installing and configuring UC Advanced on a 3300 ICP, and is organized as follows:

- **About UC Advanced** (this section)
- “Deploying UC Advanced” on page 17
- “Deploying the Your Assistant Collaboration Module” on page 101
- “Troubleshooting UC Advanced” on page 127
- “Appendix A: Softphone Module Network Guidelines” on page 153
- “Appendix B: VPN Guidelines” on page 157
- “Appendix C: Upgrading to UC Advanced 2.0” on page 167
- “Appendix D: Network Diagrams” on page 21
- “Appendix E: Non-English Emergency Call Services Support Disclaimers” on page 13

NOTE

This administrator guide assumes that you are familiar with the system administration tools for your Mitel 3300 ICP, and that you have already purchased UC Advanced and the necessary ICP licenses. Review the Release Notes before installing UC Advanced.

Audience

This document is intended for IT managers/system administrators.

Terminology

The following terms are used throughout this guide:

- The term PIM (Personal Information Manager) refers to a supported PIM application (for example, Outlook or Lotus Notes). See “What’s New in UC Advanced 2.0?” on page 3 for a list of the supported PIMs.
- The term softphone refers to the software-based IP phone that is included with the Softphone Module.
- The term deskphone refers to the physical IP phone set sitting on the user’s desk.
Additional Documentation

In addition to this Mitel Unified Communicator Advanced Administrator Guide, part number 835.3246, the following documentation is available for UC Advanced:

- **Unified Communications Administration Tool Online Help**: Embedded in the Unified Communications Administration Tool.
- **UC Advanced Desktop Client Help**: Embedded with the application. To open the online help, select UC Advanced Help in the Help menu.
- **Your Assistant Collaboration Module Help**: Accessed from the Your Assistant Collaboration Module interface.
- **Release Notes Teleworker**: Distributed with the application. You can also download it from Mitel Online.

What’s New in UC Advanced 2.0?

UC Advanced 2.0 provides the following new features and functionality:

- **Rebranding**: Previously known as Mitel Your Assistant, this product has been rebranded as Mitel Unified Communicator (UC) Advanced. In addition, the Your Assistant Lite product has been discontinued.
- **Support for Microsoft® Windows® Vista® 64-bit Operating Systems**: UC Advanced now supports Windows Vista 64-bit operating systems (see complete list below).
- **Support for two new Voice Over Internet Protocol handsets**: UC Advanced 2.0 supports the new Voice Over Internet Protocol (VoIP) Voice Cyberphone – V654 and V651USB handsets.
- **Default Color Scheme**: Previously the default color scheme for UC Advanced client was Steel Blue. For 2.0, the default color scheme is Light Blue. This Appearance option is available in the Configuration dialog box. In addition, you can select Glass or Metal for your Surface Style.
- **Communication platforms**: Supported Mitel 3300 IP Communications Platform (ICP) versions include:
  - 9.0 UR2
  - 9.0 UR1
  - 9.0
  - 8.0
About UC Advanced
What’s New in UC Advanced 2.0?

- **Server operating systems**: Supported operating systems for Unified Communications Server include:
  - Microsoft Windows XP Professional SP2
  - Microsoft Windows Server® 2003 (32-bit, SP1 R2 and 64-bit, SP1)
  - Microsoft Windows Server 2008 (32-bit and 64-bit)
  - Microsoft Windows Vista Ultimate SP1 (32-bit and 64-bit)
  - Citrix® Presentation Server (v4.0 and 4.5)
  - VMWare Server (1.0.4 and ESX Server 3.0.2, Update 1)

- **Client operating systems**: Supported operating systems for UC Advanced client include:
  - Microsoft Windows XP Pro, Service Pack (SP) 3, (32- and 64-bit)
  - Microsoft Windows Vista Home, Business, Enterprise and Ultimate, SP1, SP2 (32- and 64-bit)
  - Citrix Client (v4.0 and 4.5)

- **Mitel Phones**: Supported Mitel phones include:
  - 52xx
  - 5312
  - 5324
  - 5330
  - 5340
  - Navigator
  - Turret

- **Mitel Applications**: Supported Mitel applications include:
  - Mobile Extension 1.6, 1.7
  - Teleworker 4.5, 5.1
  - Your Assistant Collaboration Module 4.0, 4.1

- **Personal Information Managers (PIMs)**: Includes the following third-party applications:
  - Microsoft Outlook 2003, 2007
  - Lotus Notes 7.0, 8.0
  - ACT! 2007, 2008

- **Browsers**: Support for Microsoft Internet Explorer 7, 8
UC Advanced Features

UC Advanced is a desktop application that allows users to control their Mitel IP deskphone from their computer.

Figure 1. UC Advanced Main Window

With UC Advanced’s intuitive interface, users can:

- Make and receive calls
- Forward incoming calls
- Set up various call forwarding profiles
- Create speed dial/favorites
- Use drag-and-drop to manage conference calls
- Securely send instant messages to other UC Advanced users
- Monitor presence availability of other UC Advanced users and display availability
- Register and unregister softphone accounts when logging in from different PCs
- Monitor and use key lines
- Use the Launchpad to set up click to call, and to launch programs and URLs, and Windows folders from UC Advanced
- Launch calls from Microsoft Word, Outlook, Internet Explorer, and Lotus Notes
- Control calls with USB telephony devices

In addition, UC Advanced provides the following tools and features:

- Call timer and annotation tools
- Detailed call history
- Integration with Windows Messenger, MSN Messenger, Windows Live Messenger, and Microsoft Office Communicator
- Fully configurable user interface
- Call interface when using their PIM’s dialing application
- On-demand Web conferencing, including from Lotus Notes (optional)
- Merged corporate directory

See “Licensable Features” on page 8 and “3300 Feature Matrix” on page 10 for more information about features.
About UC Advanced
About the Softphone Module

About the Softphone Module

UC Advanced with the Softphone Module provides all the features of UC Advanced, plus:

- Embedded IP-based software telephone (Softphone Module)
- Call recording (calls are recorded as WAV files on the user’s computer)

For users with both a deskphone and a softphone, UC Advanced with the Softphone Module can be used in two ways.

- **Deskphone Mode**: In Deskphone Mode, UC Advanced is used as an interface to the user’s deskphone.
- **Softphone Mode**: In Softphone Mode, the Softphone Module is used as a standalone phone. If the softphone is not active, all calls are automatically forwarded to the deskphone.

Users select which mode they want when they start UC Advanced. Users can also change modes while UC Advanced is running, but to do so they must exit and restart their application.

The softphone and the deskphone each have different extension numbers.

**NOTE** It is recommended that users not publish their softphone extension number unless it is the only phone they use (i.e. they never use a deskphone).
About Presence

This section provides an overview of presence in UC Advanced.

Server Side

When the Unified Communications Server starts, it sets monitors on the UC Advanced clients’ lines through the telephony server. When a user line status changes from either on hook to off hook or vice versa, an event is sent to the presence service indicating the user’s current status.

Presence Reporting

Presence is reported by the 3300 to the Presence Server in real time. Presence is reported by the Presence Server to the UC Advanced client in real time.

The speed with which presence status updates on a particular phone depends on network traffic. For this reason, it is recommended that systems with high call volumes use On Demand Presence instead of Universal Presence.

Multi switch Presence

There is very little difference in presence functionality between single switch and multi switch environments. In a multi switch environment, two or more telephony events may happen simultaneously, but the Telephony Server will queue up all events and process them one after another.

Client Side

Universal Presence

When the UC Advanced client starts, it gets all of the corporate contacts’ presence status from the presence service, and will be notified of all of the status changes for each contact.

On Demand Presence

On Demand Presence is the same as Universal presence, except that users will see status information of only those contacts from whom they have specified they want to receive presence status updates.

In systems with many users, a considerable amount of network traffic is created when a user’s presence status changes. Presence status is updated every time a user lifts their deskphone handset. In environments where network resources are limited, presence status updates can be reduced by changing each of the users’ presence settings and the default user settings to use On-demand Presence. In this configuration, a user must specify which corporate contacts they wish to receive presence status updates from. The particular user presence setting can be changed to Universal Presence for those users that must have the presence updates for all the corporate contacts.
**Licensable Features**

Licensable features are enabled by the license key. The available licensable features depend on which configuration was purchased.

Table 1 shows the UC Advanced licensable features.

**Table 1. UC Advanced Licensable Features Configurations**

<table>
<thead>
<tr>
<th>User-licensable Features</th>
<th>UC Advanced</th>
<th>UC Softphone (Prerequisite: UC Advanced)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCBase</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Softphone</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Chat</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>MSN</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>AutoAnswer</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>DoNotDisturb</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>CallForwarding</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Collab (user)</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>ACD (optional purchasable)</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>WebWindow</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>KnowledgeManagement</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Presence</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>VoiceMail</td>
<td>✓</td>
<td></td>
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<tr>
<td>LCSPresence</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>DialFromExternal</td>
<td>✓</td>
<td></td>
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<tr>
<td>LaunchPad</td>
<td>✓</td>
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Table 2 describes the features that may be in a deployment license.

**Table 2. UC Advanced Licensable Features Configurations**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCBase</td>
<td>The base functionality of UC Advanced. This is the minimum licensed feature a user must have to run UC Advanced.</td>
</tr>
<tr>
<td>Softphone</td>
<td>The embedded software phone. Also needed for call recording.</td>
</tr>
<tr>
<td>Chat</td>
<td>Secure instant messenger.</td>
</tr>
<tr>
<td>MSN</td>
<td>Integration with Microsoft MSN Messenger, Windows Messenger, and Windows Live Messenger.</td>
</tr>
<tr>
<td>AutoAnswer</td>
<td>Allows user to set the auto answer ICP feature.</td>
</tr>
<tr>
<td>DoNotDisturb</td>
<td>Allows user to set the do not disturb ICP feature.</td>
</tr>
<tr>
<td>CallForwarding</td>
<td>Allows user to set the call forwarding ICP feature.</td>
</tr>
<tr>
<td>Collab</td>
<td>Client integration with the optional Web Collaboration Module.</td>
</tr>
<tr>
<td>ACD</td>
<td>Client integration with the optional Automatic Call Distribution Module.</td>
</tr>
<tr>
<td>WebWindow</td>
<td>The Web window feature.</td>
</tr>
<tr>
<td>KnowledgeManagement</td>
<td>The Knowledge Management Module.</td>
</tr>
<tr>
<td>Presence</td>
<td>Presence and availability.</td>
</tr>
<tr>
<td>VoiceMail</td>
<td>Notification and access to voice mail.</td>
</tr>
<tr>
<td>LCSPresence</td>
<td>Integration with Microsoft Office Communicator (LCS).</td>
</tr>
<tr>
<td>DialFromExternal</td>
<td>Dial from Internet Explorer and Smart Tags.</td>
</tr>
<tr>
<td>LaunchPad</td>
<td>The launch pad feature.</td>
</tr>
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</table>
### 3300 Feature Matrix

Table 3 provides the Mitel 3300 ICP feature matrix.

<table>
<thead>
<tr>
<th>Features</th>
<th>UC Advanced</th>
<th>UC Advanced Softphone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to work offline</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Account Codes – Default</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Account Codes – System</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Account Codes – Verified and Non-verified</td>
<td>Non-verified</td>
<td>Non-verified</td>
</tr>
<tr>
<td>ACD Support</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Add Held</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Advisory Message</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Auditory Alerts (accessibility/disability)</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Auto Answer</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Auto-Answer</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Auto-Hold</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Broker’s Call</td>
<td>N</td>
<td>N</td>
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<tr>
<td>Calculator</td>
<td>N</td>
<td>N</td>
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<tr>
<td>Call Duration Display</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Call Forward</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Call Forward – Cancel All</td>
<td>Y¹</td>
<td>Y¹</td>
</tr>
<tr>
<td>Call Forward – Delay</td>
<td>Y¹</td>
<td>Y¹</td>
</tr>
<tr>
<td>Call Forward – Follow Me – End Chaining</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Call Forward – Follow Me – Reroute when Busy</td>
<td>Y</td>
<td>N</td>
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<tr>
<td>Call Forward – Forced</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Call Forward – Override</td>
<td>Y¹</td>
<td>Y¹</td>
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<tr>
<td>Call Forward profiles</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Call History</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Call history/logs – local</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Call history/logs – server-based</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Call Me Back</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Call Park</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Call Park Retrieve</td>
<td>N</td>
<td>N</td>
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<tr>
<td>Call Pickup (Dialed, Directed, Clustered)</td>
<td>Y¹</td>
<td>Y¹</td>
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<tr>
<td>Call Privacy</td>
<td>N</td>
<td>N</td>
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<tr>
<td>Call timer and annotation tools</td>
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<td>Y</td>
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<tr>
<td>Call Waiting – Swap Automatic</td>
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<tr>
<td>Callback</td>
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### Table 3. 3300 Feature Matrix (Continued)

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<thead>
<tr>
<th>Features</th>
<th>UC Advanced</th>
<th>UC Advanced Softphone</th>
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<tbody>
<tr>
<td>Caller ID-based call routing</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Camp-on</td>
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<td>N</td>
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<tr>
<td>Clear All Features</td>
<td>N</td>
<td>N</td>
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<tr>
<td>Compression Support</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Conference</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Conference Application (controls Conference Unit)</td>
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<td>N</td>
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<tr>
<td>Conference Split</td>
<td>Y&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Y&lt;sup&gt;1&lt;/sup&gt;</td>
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<tr>
<td>Conference Unit Support (5305/5310)</td>
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<td>N</td>
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<tr>
<td>Contact sync from Outlook to UC Advanced</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Corporate Directory</td>
<td>Y&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Y&lt;sup&gt;1&lt;/sup&gt;</td>
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<tr>
<td>Corporate Directory – LDAP sync (inc. Active Directory)</td>
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<td>Y</td>
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<tr>
<td>Corporate Directory – sync to 3300 ICP directory</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Destination-based Call Display</td>
<td>N</td>
<td>N</td>
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<tr>
<td>Dial from PIM – Outlook</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Dial Tone – Outgoing Calls</td>
<td>Y</td>
<td>Y</td>
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<td>Dialed Number Editing</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Direct Outward Dialing (DOD)</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Direct Page – Initiate</td>
<td>Y&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Y&lt;sup&gt;1&lt;/sup&gt;</td>
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<td>Direct Page – Receive</td>
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<td>N</td>
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<tr>
<td>Do Not Disturb</td>
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<td>Y</td>
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<tr>
<td>Do Not Disturb</td>
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<td>Y</td>
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<td>Drag-and-drop conference calls</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Favorites menu</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Feature Keys</td>
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<td>N</td>
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<tr>
<td>Federated servers</td>
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<td>Y</td>
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<td>Flash – Calibrated</td>
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<td>N</td>
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<td>Flash – Switchhook</td>
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<td>Flash – Trunk</td>
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<td>Flexible Answer Point</td>
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<td>Y</td>
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<td>Gigabit Ethernet Stand Support</td>
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<td>Y</td>
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<td>Group Listen</td>
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<td>Group Page – Initiate</td>
<td>N</td>
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<td>Group Page – Receive</td>
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<td>Handset Receiver Volume Control</td>
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<td>Y</td>
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<tr>
<td>Handsfree Answerback</td>
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## Table 3. 3300 Feature Matrix (Continued)

<table>
<thead>
<tr>
<th>Features</th>
<th>UC Advanced</th>
<th>UC Advanced Softphone</th>
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<tbody>
<tr>
<td>Handsfree Operation</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Headset Mute Switch</td>
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<td>Y</td>
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<tr>
<td>Headset Operation</td>
<td>Y</td>
<td>Y</td>
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<td>Hold</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Hold Key Retrieves Last Held Call</td>
<td>Y&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Y&lt;sup&gt;1&lt;/sup&gt;</td>
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<tr>
<td>Hold on Hold</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Hot Desking</td>
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<td>N</td>
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<tr>
<td>Hot Line</td>
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<td>N</td>
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<tr>
<td>In-call control window allowing transfer, conference, hold and hang up</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Knowledge Management</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Language Change</td>
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<td>Y</td>
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<td>Launch of UC Advanced at computer start</td>
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<td>Y</td>
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<tr>
<td>LCS integration</td>
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<td>Y</td>
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<td>Licensing through the Mitel AMC</td>
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<td>Y</td>
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<td>Line Interface Module Support</td>
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<td>N</td>
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<tr>
<td>Line Types and Appearances</td>
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<td>Y</td>
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<tr>
<td>Meet Me Answer</td>
<td>N</td>
<td>N</td>
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<tr>
<td>Messaging – Advisory</td>
<td>Y&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Y&lt;sup&gt;1&lt;/sup&gt;</td>
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<tr>
<td>Messaging – Callback</td>
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<td>Messaging – Dialed</td>
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<td>Y</td>
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<tr>
<td>Mobile Extension</td>
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<td>MSN Integration</td>
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<td>Multiple Message Waiting Indicator</td>
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<tr>
<td>Music</td>
<td>Y</td>
<td>N</td>
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<td>Mute Key</td>
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<td>Y</td>
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<td>Off-Hook Voice Announce</td>
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<td>Override</td>
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<td>Override Security</td>
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<tr>
<td>PC Programming Application Support (Desktop Tool)</td>
<td>Y&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Y&lt;sup&gt;1&lt;/sup&gt;</td>
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<tr>
<td>Personal Directory</td>
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<td>Y</td>
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<tr>
<td>Phonebook</td>
<td>Y</td>
<td>Y</td>
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<td>PIM Integration – ACT!</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>PIM Integration – Lotus Notes</td>
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<td>Y</td>
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<tr>
<td>PIM Integration – Outlook</td>
<td>Y</td>
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</table>
Table 3. 3300 Feature Matrix (Continued)

<table>
<thead>
<tr>
<th>Features</th>
<th>UC Advanced</th>
<th>UC Advanced Softphone</th>
</tr>
</thead>
<tbody>
<tr>
<td>PKM Support</td>
<td>N</td>
<td>N</td>
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<tr>
<td>Presence Indicator – Busy Lamp Field (BLF)</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Presence Indicator – Computer</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Privacy Release</td>
<td>N</td>
<td>N</td>
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<tr>
<td>Record a Call</td>
<td>N</td>
<td>Y</td>
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<tr>
<td>Redial</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Redial – Saved Number</td>
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<td>Y</td>
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<tr>
<td>Release</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Reminder</td>
<td>N</td>
<td>N</td>
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<tr>
<td>Resiliency Support</td>
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<td>N</td>
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<tr>
<td>Ringer Control (Pitch and Volume)</td>
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<td>Y</td>
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<tr>
<td>Ringing Line Select</td>
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<td>N</td>
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<tr>
<td>Screen-pops on calls</td>
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<td>Y</td>
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<tr>
<td>Screen-pops on calls with ability to forward, send to voice mail</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Secure instant messaging (chat) with file transfer</td>
<td>Y</td>
<td>Y</td>
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<td>Silent Monitor</td>
<td>N</td>
<td>N</td>
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<tr>
<td>Simplified Account Code Entry</td>
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<td>N</td>
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<tr>
<td>SIP Support</td>
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<td>N</td>
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<tr>
<td>Softkey Support</td>
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<tr>
<td>Speaker Volume Control</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Speed Call – Pause</td>
<td>N</td>
<td>N</td>
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<tr>
<td>Speed Call – Personal</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Speed Call – System</td>
<td>N</td>
<td>N</td>
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<tr>
<td>Speed Call Keys</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Station-to-Station Dialing</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>SuperKey</td>
<td>N</td>
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<tr>
<td>Swap</td>
<td>Y</td>
<td>Y</td>
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<td>System tray status icon</td>
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<td>Y</td>
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<td>Tag Call (Malicious Call Trace)</td>
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<tr>
<td>Teleworker Support</td>
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<td>Y</td>
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<td>Tone Demonstration</td>
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<td>N</td>
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<td>Transfer</td>
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<td>Y</td>
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<td>Trunk Access</td>
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<td>Trunk Answer From Any Station (TAFAS)</td>
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<td>Visual Voice Mail</td>
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</table>
### Table 3. 3300 Feature Matrix (Continued)

<table>
<thead>
<tr>
<th>Features</th>
<th>UC Advanced</th>
<th>UC Advanced Softphone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voice Mail</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Web browser</td>
<td>Y¹</td>
<td>Y¹</td>
</tr>
<tr>
<td>Web window</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Wireless LAN Stand Support</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>UC Advanced management software on separate server</td>
<td>Y</td>
<td>Y</td>
</tr>
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</table>

1. Functionality is limited or provided in a way different than a non-UC Advanced deskset
### Supported Feature Access Codes

Table 4 provides the Mitel 3300 ICP Feature Access Codes (FACs).

<table>
<thead>
<tr>
<th>Feature Number</th>
<th>Feature Name</th>
<th>Desk Phone</th>
<th>Softphone</th>
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<tbody>
<tr>
<td>2</td>
<td>ACD Silent Monitor</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>ACD Agent Login</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>ACD Agent Logout</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>Make Busy Setup</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>6</td>
<td>Make Busy Cancel</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>10</td>
<td>Call Forwarding – Busy – External Only</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>11</td>
<td>Call Forwarding – Busy – External and Internal</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>12</td>
<td>Call Forwarding – Follow Me</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>13</td>
<td>Cancel Call Forwarding – Busy – External and Internal</td>
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<td>✓</td>
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<tr>
<td>16</td>
<td>Call Forwarding – Follow Me</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>17</td>
<td>Cancel Call Forwarding – Follow Me</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>21</td>
<td>Call Forwarding – I Am Here</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>22</td>
<td>Call Forwarding – No Answer – External Only</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>23</td>
<td>Call Forwarding – No Answer – External and Internal</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>24</td>
<td>Call Forwarding – No Answer – Internal Only</td>
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<td>✓</td>
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<tr>
<td>25</td>
<td>Cancel Call Forwarding – No Answer – External and Internal</td>
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<tr>
<td>27</td>
<td>Cancel All Forwarding</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>29</td>
<td>Call Hold – Remote Retrieve</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>32</td>
<td>Call Pickup – Dialed</td>
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<tr>
<td>33</td>
<td>Call Pickup – Directed</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>40</td>
<td>Do Not Disturb</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>41</td>
<td>Do Not Disturb – Cancel</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>42</td>
<td>Do Not Disturb – Cancel Remote</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>43</td>
<td>Do Not Disturb – Remote</td>
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<td>✓</td>
</tr>
<tr>
<td>47</td>
<td>Last Number Re-dial</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>48</td>
<td>Message Waiting – Activate</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>49</td>
<td>Message Waiting – Deactivate</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>50</td>
<td>Message Waiting – Inquire</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Emergency Call Services Support

When used in a remote location, UC Advanced with the Softphone Module is not suitable for providing reliable access to call for emergency services (for example, 911, 999 or 112). See the following warnings.

**WARNING**

Failure of a server results in the inability of that server's UC Advanced softphones to operate and place calls, including emergency calls. A server failure would not affect the functionalities of a deskphone.

Emergency Call Services Support Legal Disclaimer—English

**WARNING**

MITEL DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY OR REPRESENTATION THAT THE SOFTWARE WILL PERMIT OR ALLOW YOU ACCESS TO EMERGENCY CALL SERVICES, SUCH AS 911/999/112 OR SIMILAR EMERGENCY CALL SERVICES (IN THE APPLICABLE TERRITORY WHERE THE SOFTWARE IS USED). MITEL FURTHER DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY OR REPRESENTATION THAT, IN THE EVENT SUCH ACCESS IS AVAILABLE, THE SOFTWARE WILL RELAY ACCURATELY OR AT ALL, THE DEVICE IDENTIFICATION NUMBER OR PHONE NUMBER (ALSO KNOWN AS AN AUTOMATIC NUMBER IDENTIFICATION (ANI) OR CALLBACK) OR THE LOCATION (ALSO KNOWN AS AUTOMATIC LOCATION INFORMATION (ALI)) YOU ARE CALLING FROM, TO THE APPROPRIATE EMERGENCY RESPONSE CENTER (ALSO KNOWN AS A PUBLIC SAFETY ANSWERING POINT (PSAP)). MITEL RECOMMENDS THAT THE SOFTWARE NOT BE USED IN CONNECTION WITH OR TO UTILIZE EMERGENCY CALL SERVICES, SUCH AS 911/999/112 OR SIMILAR EMERGENCY CALL SERVICES.
Deploying UC Advanced

Overview of UC Advanced Deployment .................................................. 19
UC Advanced Component Architecture ................................................... 20
Designing for Performance and Availability .......................................... 21
  Determining How Many ICPs to Deploy .............................................. 21
  Designing UC Advanced Active Directory Topologies ......................... 22
Planning Client Deployment ................................................................. 23
  Client Computer Requirements .......................................................... 23
  Installation Options .............................................................................. 25
  Client Firewalls ................................................................................... 25
  Downloading UC Advanced ................................................................. 26
  Downloading Microsoft .NET Framework Version 2.0 .......................... 26
  Using Installer Transforms .................................................................. 26
Planning Server Deployment ................................................................. 30
  Server Computer Requirements .......................................................... 30
  Server Requirements for Co-Resident Installations ............................... 31
  Software Firewalls .............................................................................. 32
Deploying and Managing UC Advanced .................................................. 34
  Adding Licenses .................................................................................... 34
  Creating Extension Numbers for UC Advanced Users ....................... 36
  Creating Class of Service and Zone Compression ................................ 39
  Updating the Telephone Directory ....................................................... 42
  Setting Up Voice Mail for UC Advanced Users .................................... 43
  Configuring Teleworker Support .......................................................... 45
  Configuring Multiple Incoming Call Support (Optional) ....................... 49
  Installing and Configuring the UC Advanced Management Software .... 52
  Upgrading the Unified Communications Administration Tool .............. 53
  Installing the UC Advanced Client ...................................................... 57
  Upgrading the UC Advanced Client ..................................................... 59
  Uninstalling the UC Advanced Client .................................................. 59
Installing and Configuring the Collaboration Module (Optional) ............... 60
  Preparing the Server ........................................................................... 60
  Installing the Server ............................................................................ 61
  Preparing the Client ............................................................................ 61
  Installing the Client ............................................................................. 61
Testing the Client Connection to the Server ............................................ 61
## Configuring a UC Advanced System

- Adding Unified Communications Servers ............................................... 63
- Activating licenses .................................................................................. 65
- Defining Default Licensing Schemes .......................................................... 67
- Adding ICP Switches and Scheduling Line Monitor Refreshes .................. 68
- Refreshing Line Monitor Caches ................................................................. 70
- Enabling Corporate Directory Synchronizers .............................................. 71
- Defining Pipes ......................................................................................... 79
- Adding Collaboration Servers ................................................................... 80
- Configuring ACD Settings ........................................................................ 82
- Adding Users Manually ............................................................................ 83
- Configuring an RSS Feed for the Web Window ......................................... 88
- Configuring a Local RSS Feed .................................................................. 89
- Configuring an External RSS Feed ............................................................ 90

## Changing Unified Communications Server IP Addresses

- Configuring Automatic Call Distribution (ACD) ....................................... 92
  - Setting Up ACD on the 3300 ICP .............................................................. 92
  - Setting Up Phones for ACD ................................................................. 94
  - Setting Up ACD Busy Reasons and Account Codes ............................... 94

## Managing USB Devices

- Configuring User USB Device Settings .................................................... 95
- Adding USB Devices ............................................................................... 97
- Configuring USB Devices ....................................................................... 98
- Removing USB Devices ......................................................................... 99
Overview of UC Advanced Deployment

The UC Advanced deployment process includes the following designing, planning, installation, and configuration tasks:

- “Designing for Performance and Availability” on page 21
- “Planning Client Deployment” on page 23
- “Planning Server Deployment” on page 30
- “Deploying and Managing UC Advanced” on page 34
- “Installing and Configuring the Collaboration Module (Optional)” on page 60
- “Testing the Client Connection to the Server” on page 61
- “Configuring a UC Advanced System” on page 62
- “Changing Unified Communications Server IP Addresses” on page 91
- “Configuring Automatic Call Distribution (ACD)” on page 92
- “Managing USB Devices” on page 95
UC Advanced Component Architecture

Before beginning the design and deployment of UC Advanced, become familiar with the various components involved. The following tables summarize the most visible required and optional components of a UC Advanced system.

Table 5. Required UC Advanced Components

<table>
<thead>
<tr>
<th>Component (Required)</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>UC Advanced Clients</td>
<td>UC Advanced provides all the functionality of a Mitel deskphone. Additionally, UC Advanced presents a much easier interface to the deskphone functions and can optionally provide secure chat, Messenger and LCS integration, PIM integration, and call recording. Call logging and call annotation are also included in the base configuration.</td>
</tr>
<tr>
<td>Mitel Deskphone (optional if configured with the Softphone Module)</td>
<td>UC Advanced controls and complements the Mitel phone. Supported sets are: Supersets 4015, 4025, 4150 IP Phones: 5005, 5010, 5020, 5205, 5207, 5212, 5215, 5220, Navigator, 5224, 5330, 5340, 5560 IPT. IP Appliances: 5140, 5230, 5235, 5240</td>
</tr>
<tr>
<td>Mitel 3300 ICP</td>
<td>The IP PBX does all call control for deskphones and UC Advanced softphones.</td>
</tr>
</tbody>
</table>

Table 6. Optional UC Advanced Components

<table>
<thead>
<tr>
<th>Component (Optional)</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows Messenger, MSN Messenger, or Windows Live Messenger</td>
<td>UC Advanced can monitor Messenger presence and availability and send instant messages.</td>
</tr>
<tr>
<td>You Assistant Softphone Module</td>
<td>A UC Advanced integrated full-featured IP phone implemented in software.</td>
</tr>
<tr>
<td>Teleworker 6000 Release</td>
<td>Teleworker mode allows the user access the corporate voice network through the UC Advanced softphone from a remote location.</td>
</tr>
</tbody>
</table>

NOTE: UC Advanced supports only Single and Multicall lines. Key Line and BLF are not supported.
Designing for Performance and Availability

This section describes how to design your UC Advanced implementation for performance and availability.

Determining How Many ICPs to Deploy

UC Advanced 2.0 requires 3300 ICP software versions 9.0 UR2, 9.0 UR1, 9.0, or 8.0.

The 3300 ICP will support 1,000 line monitors. Therefore, these monitors must be apportioned among the deployed UC Advanced clients. For example, if 1,000 UC Advanced clients are deployed without softphone, each client can monitor one line. If 200 clients are deployed with softphone, and there are an equal number of lines for each softphone as there is for the associated deskphone, 150 clients can monitor two lines and the remaining 50 clients can monitor four lines (150 x 2 x 2 + 50 x 2 x 4 = 1,000).

Mitel System Engineering Tool

For the installation of a large UC Advanced solution, Mitel recommends the use of the Mitel System Engineering Tool (aka SET), a spreadsheet and documentation set that is released through the Lotus Notes database (DK112664). The SET includes a number of limitations and installation warnings.

Refer to the 3300 ICP guidelines for information on ICP connection paths and limitations.

Most external applications emulate 5220 sets and require similar resources when they connect to the 3300 ICP. They also use sockets and place monitors on the users’ sets.
Designing UC Advanced Active Directory Topologies

Unified Communications Server is designed to integrate with a single Active Directory controller. Topology options include Single-Forest and Multi-Forest topologies.

**Single-Forest Topology**

The topology for a single domain is shown in the following figure, Single Forest Topology. This is the simplest configuration in which Active Directory synchronization can be enabled.

*Figure 2. Single Forest Topology*

![Single Forest Topology Diagram](image)

The figure below, Component Interaction in a Single-Forest UC Advanced Deployment, illustrates the interaction of network components in a single-forest topology.

*Figure 3. Component Interaction in a Single-Forest UC Advanced Deployment*

![Component Interaction Diagram](image)

**Multi-Forest Topology**

UC Advanced supports multi-forest topologies. Once the first active directory has been defined, simply add additional active directories.
Planning Client Deployment

Plan your client deployment based on the client computer requirements, installation options, and firewall usage.

**IMPORTANT** Do not install the UC Advanced client and server on the same computer. If you uninstall the client or server on a client/server co-resident installation, the remaining application will not function. See page 129 for more information.

Client Computer Requirements

The table below describes the operating systems and software required to run the UC Advanced client.

### Table 7. Operating System and Software Requirements

<table>
<thead>
<tr>
<th>Software</th>
<th>Version/Service Pack Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating System</td>
<td></td>
</tr>
<tr>
<td>Windows XP Professional</td>
<td>SP3 (32-bit and 64-bit)</td>
</tr>
<tr>
<td>Windows Vista Homes, Business, Enterprise, and Ultimate</td>
<td>SP1, SP2 (32-bit and 64-bit)</td>
</tr>
<tr>
<td>Citrix Client</td>
<td>4.0, 4.5</td>
</tr>
<tr>
<td>Microsoft .NET Framework</td>
<td>2.0</td>
</tr>
<tr>
<td>Instant Messaging</td>
<td>Windows Messenger</td>
</tr>
<tr>
<td></td>
<td>MSN Messenger</td>
</tr>
<tr>
<td></td>
<td>Windows Live Messenger</td>
</tr>
<tr>
<td></td>
<td>Microsoft Office Communicator (LCS) 2005</td>
</tr>
<tr>
<td>PIMs (optional)</td>
<td>Microsoft Outlook 2003, 2007</td>
</tr>
<tr>
<td></td>
<td>Lotus Notes 7.0, 8.0</td>
</tr>
<tr>
<td></td>
<td>ACT! 2007, 2008</td>
</tr>
</tbody>
</table>

**NOTE** The Your Assistant Web Collaboration Module is not supported on Windows 64-bit operating systems.
The table below describes the hardware required to run the UC Advanced client.

**Table 8. Hardware Requirements**

<table>
<thead>
<tr>
<th>Hardware</th>
<th>UC Advanced</th>
<th>UC Advanced with Softphone Module</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU</td>
<td>Pentium 4 - 1.4 GHz</td>
<td>Pentium 4 - 1.4GHz</td>
</tr>
<tr>
<td>RAM</td>
<td>256 MB</td>
<td>256 MB</td>
</tr>
<tr>
<td>Free disk space</td>
<td>120 MB</td>
<td>120 MB</td>
</tr>
<tr>
<td>Network Interface Card</td>
<td>Full duplex 100 Mbps</td>
<td>Full duplex 100 Mbps</td>
</tr>
<tr>
<td>Sound Card</td>
<td>n/a</td>
<td>Full Duplex</td>
</tr>
<tr>
<td>Headsets</td>
<td>n/a</td>
<td>USB Headset</td>
</tr>
<tr>
<td>Deskphone 3300 ICP</td>
<td>Supersets: 4015, 4025, 4150</td>
<td>When UC Advanced is configured with the Softphone Module, a deskphone is not required. However, UC Advanced with Softphone can be operated in Deskphone mode. Any of the phones supported by UC Advanced can be monitored and controlled.</td>
</tr>
</tbody>
</table>

IP Phones: 5205, 5207, 5215, 5212, 5220, 5224, 5330, 5340, Navigator, Turret, 5560 IPT\(^1\)

IP Appliances: 5140, 5230, 5235, 5240

1. UC Advanced can monitor and control only one of the two prime DNs on the 5560.
Installation Options

The following options are available for UC Advanced client installation:

- **Software Distribution Point**: You can use a file server on your network as a software distribution point for the UC Advanced client. When you roll out, send an e-mail to users explaining the pending rollout and providing a link to the distribution point and any configuration details required by the installation wizard.

- **IntelliMirror**: Microsoft® IntelliMirror® management technologies can be used with Windows Installer to deploy and manage the installation of Mitel UC Advanced client. For more information, please see the Step-by-Step Guide to Software Installation and Maintenance (http://www.microsoft.com/windows2000/techinfo/planning/management/swinstall.asp).


- **SMS**: Where scheduling, inventory, status, reporting, and support for deployment across a wide area network is required, Microsoft recommends using Systems Management Server 2003 (SMS). For more information, see the Systems Management Server Home Web site (http://www.microsoft.com/smserver/default.mspx).

- **Group Policy**: You can create a Group Policy object to deploy UC Advanced clients. For more information, see Windows Server 2003 Product Help on the Microsoft Web site.

- **Citrix Server**: The UC Advanced client can be deployed using version 4.0 and 4.5 of the Citrix Presentation Server application delivery system. UC Advanced supports both Desktop mode (the Citrix ICA client) and Web mode.

  The following restrictions apply when the client is running on a Citrix server:

  - **Deskphone only**: UC Advanced acts as a deskphone controller under Citrix Presentation Server. The Softphone option is not available to the user at client startup, nor in the Configuration window’s Handle Calls Using panel. Softphone features such as call recording and Teleworker are not available.

  - **No collaboration**: The Collaboration feature is not available under Citrix. The Collab menu does not appear in the main window and collaboration invitations sent to a user running UC Advanced under Citrix do not cause an invitation pop-up to display.

  - **Access to Citrix-based resources only**: UC Advanced cannot access resources that reside on the client workstation. To be accessible to UC Advanced, these resources must reside on the Citrix server:

    - **PIM integration**: UC Advanced integrates normally with PIMs that are running on the Citrix server.

    - **Knowledge Management**: The Knowledge Management feature works the same on Citrix, provided the indexed Outlook folders and file paths are on the Citrix server.

    - **Instant Messaging**: UC Advanced integrates normally with Microsoft Messenger and Microsoft Office Communicator (LCS) clients that are running on the Citrix server.

  For information about setting up Citrix Presentation Server to run UC Advanced, refer to the Citrix product documentation.

---

Client Firewalls

A client computer that uses a firewall, such as Windows Firewall or a third-party firewall, must specify YA.exe and WAVE.exe as exceptions in the firewall’s configuration settings. This allows YA.exe and WAVE.exe to accept network traffic through the firewall. The UC Advanced 2.0 client installer adds these exceptions automatically.
**Downloading UC Advanced**

UC Advanced can be downloaded from the UC Advanced product portal on Mitel Online.

The zipped file you download contains the following items:

- Client Installer (UnifiedCommunicator.msi)
- Server Installer (UnifiedCommunicatorServer.msi)
- FCI (Field Change Instructions)
- Administrator Guide
- User Guide

**Downloading Microsoft .NET Framework Version 2.0**

UC Advanced requires the Microsoft .NET Framework 2.0.

**NOTE** Although UC Advanced does not support .NET 1.1 or .NET 3.0, there is no need to uninstall them if they are present.

To obtain the .NET Framework:

Download .NET 2.0 from the Microsoft Web site at:


**Using Installer Transforms**

Windows Installer packages can be customized with installer transforms. Installer Transforms are files that, when run with the installer package, modify certain installation properties and application features.

The UC Advanced installer package requires that the Unified Communications Server IP property be set at install time. If the installer package is executed without any command-line parameters setting this property, the installer package prompts the user for it.

Alternatively, a transform can be created that will set this property. The transform can be specified in the command string used to install UC Advanced or it can be specified when installing software using an Active Directory Group Policy.

If the server IP property is set in this way, the installer can be run with reduced or “silent” user interaction. More customization options can be found in the Windows Installer SDK documentation (http://msdn2.microsoft.com/en-us/library/aa367988.aspx).
Creating a Transform

You can use third-party tools to create a transform. These tools are usually bundled with MSI authoring tools. However, the transform is simple and can be created with a simple script using COM components deployed on platforms supported by UC Advanced. The following script will create a transform called `transform.mst`.

```vbs
Option Explicit
Dim wi, basedb, newdb, fs, sh, infile, ip, sql, view
Const msiTransformValidationLanguage = 1
Const msiTransformErrorNone = 0
Const msiOpenDatabaseModeReadOnly = 0
Const msiOpenDatabaseModeTransact = 1
Set sh = CreateObject("WScript.Shell")
If WScript.Arguments.Count < 2 Then
    WScript.Echo "Usage: maketransform.vbs <input file> <ya server ip>"
    WScript.Quit
End If
Set fs = CreateObject("Scripting.FileSystemObject")
Set wi = CreateObject("WindowsInstaller.Installer")
infile = WScript.Arguments(0)
ip = WScript.Arguments(1)
fs.CopyFile infile, "tmp.msi"
Set basedb = wi.opendatabase(infile, msiOpenDatabaseModeReadOnly)
Set newdb = wi.opendatabase(“tmp.msi”, msiOpenDatabaseModeTransact)
sql = "INSERT INTO Property (Property.Property, Property.Value) VALUES" & 
    "('YOUR_ASSISTANT_SERVER_IP', " & ip & ")"
Set view = newdb.OpenView(sql)
view.Execute
newdb.Commit
newdb.GenerateTransform basedb, “transform.mst”
newdb.CreateTransformSummaryInfo basedb, “transform.mst”,
    msiTransformErrorNone, msiTransformValidationLanguage
Set view = Nothing
Set newdb = Nothing
Set wi = Nothing
Set sh = Nothing
fs.DeleteFile “tmp.msi”
Set fs = Nothing
The output is `transform.mst` and this transform file can be used to modify a UC Advanced installation.

NOTE
The following script is an example based on documentation provided by Microsoft. It is not a Mitel supported script and is provided for information only.
**Installer Properties**

The following table lists the UC Advanced installer properties that may be modified to create custom deployments.

**Table 9. Modifiable Installer Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Valid Values</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>YOUR_ASSISTANT_SERVER_IP</td>
<td>A valid IP address or computer name.</td>
<td>The PC running the UC Advanced management software where the user’s account is configured.</td>
</tr>
<tr>
<td>NH_LANGUAGE</td>
<td>en-US North American English, en-GB British English, nl-NL Dutch, fr-CA Canada French, de-DE German, pt-PT European Portuguese, it-IT Italian, es-MX Latin American Spanish, fr-FR European French, es-ES European Spanish, zh-CN Simplified Chinese, zh-TW Traditional Chinese</td>
<td>This is the language UC Advanced will use on its first startup.</td>
</tr>
</tbody>
</table>

The following properties are associated with Teleworker and are optional. With the exception of NH_DEF_TW_DN and NH_DEF_TW_GATEWAYIP, the default values are acceptable for most configurations.

All of these values are configurable in the UC Advanced client’s Teleworker Configuration panel and are provided in the installer as a convenience to administrators that may use a deployment mechanism like SMS or Active Directory Group Policies.

<table>
<thead>
<tr>
<th>Property</th>
<th>Valid Values</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NH_DEF_TW_DN</td>
<td>A numeric value 3 to 7-digits long. The default is blank.</td>
<td>The directory number of the Teleworker softphone that is being configured.</td>
</tr>
<tr>
<td>NH_DEF_TW_ENABLED</td>
<td>“True” or “False”. The default is “False”.</td>
<td>Whether or not Teleworker is enabled. If enabled, the user will still be required to get the certificate through the Teleworker configuration panel.</td>
</tr>
<tr>
<td>NH_DEF_TW_GATEWAYIP</td>
<td>A valid IP address (xxx.xxx.xxx.xxx). The default is blank.</td>
<td>The IP address of the Teleworker gateway. This must be an IP address, not a computer name.</td>
</tr>
<tr>
<td>NH_DEF_TW_YASERVERPORT</td>
<td>A numeric value between 1 and 65535. The default is 2114.</td>
<td>The port of the PC running the Unified Communications Server component of the UC Advanced Management Software.</td>
</tr>
<tr>
<td>Property</td>
<td>Valid Values</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>NH_DEF_TW_TELEPHONY SERVERPORT</td>
<td>A numeric value between 1 and 65535. The default is 2116.</td>
<td>The port of the PC running the UC Advanced Telephony Server component of the UC Advanced Management Software.</td>
</tr>
<tr>
<td>NH_DEF_TW_PRESENCES SERVERPORT</td>
<td>A numeric value between 1 and 65535. The default is 35000.</td>
<td>The port of the PC running the Unified Communications Server component of the UC Advanced Management Software.</td>
</tr>
<tr>
<td>NH_DEF_TW_COLLABSERVERPORT</td>
<td>A numeric value between 1 and 65535. The default is 37000.</td>
<td>The port of the PC running the Your Assistant Collaboration Server (if available).</td>
</tr>
</tbody>
</table>
Planning Server Deployment

Plan your server deployment based on the server computer requirements, and firewall usage.

**IMPORTANT** Do not install the UC Advanced client and server on the same computer. If you uninstall the client or server on a client/server co-resident installation, the remaining application will not function. See page 129 for more information.

Server Computer Requirements

Server hardware requirements depend on the number of UC Advanced users. There are two types of Unified Communications Server hardware installations:

- **Dedicated Installations**: In environments of more than 20 UC Advanced users, it is recommended that you run Unified Communications Server on a computer that is not running the Collaboration Server or any other applications, such as FTP or mail servers. (It is all right for the MiXML Server and Administration Tool to run on the same PC as Unified Communications Server).

- **Co-Resident Installations**: In environments of 20 or fewer UC Advanced users, Unified Communications Server can run on a computer with other applications, provided the requirements listed in Unified Communications Server Requirements for Co-Resident Installations (below) are met. See page 31 for co-resident requirements.

Unified Communications Server requires the software listed in the following table.

**Table 10. Software Requirements for Unified Communications Server**

<table>
<thead>
<tr>
<th>Software</th>
<th>Version/Service Pack Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating System</td>
<td></td>
</tr>
<tr>
<td>Windows XP Professional</td>
<td>SP2</td>
</tr>
<tr>
<td>Windows Vista Ultimate</td>
<td>SP1 (32 and 64-bit)</td>
</tr>
<tr>
<td>Windows 2003 Server</td>
<td>(32-bit, SP1 R2) (64-bit, SP1)</td>
</tr>
<tr>
<td>Windows 2008 Server</td>
<td>(32 and 64-bit)</td>
</tr>
<tr>
<td>Citrix Presentation Server</td>
<td>4.0, 4.5</td>
</tr>
<tr>
<td>Windows Update</td>
<td>Microsoft .NET Framework</td>
</tr>
<tr>
<td></td>
<td>2.0</td>
</tr>
</tbody>
</table>

**NOTE** Both 32-bit and 64-bit operating systems are supported. However, the MiXML component requires a 32-bit operating system.
The following table outlines the hardware requirements for computers running Unified Communications Server and, optionally, its tools and modules (MiXML Server, Collaboration Server, Administration Tool), but no other applications. If you will be running the Collaboration Server on its own computer, see “Collaboration System Requirements” on page 104 for information on Collaboration Server hardware requirements.

**Table 11. Hardware Requirements for Dedicated Unified Communications Server**

<table>
<thead>
<tr>
<th>Hardware</th>
<th>0–50 Clients</th>
<th>50–100 Clients</th>
<th>100–500 Clients</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU</td>
<td>Pentium 4 – 1.4 GHz</td>
<td>Pentium 4 – 2.0 GHz</td>
<td>Pentium 4 – 3.0 GHz</td>
</tr>
<tr>
<td>RAM</td>
<td>512 MB</td>
<td>512 MB</td>
<td>1 GB</td>
</tr>
<tr>
<td>Free disk space</td>
<td>5 GB</td>
<td>5 GB</td>
<td>5 GB</td>
</tr>
<tr>
<td>Network Interface Card</td>
<td>Full duplex 100 Mbps</td>
<td>Full duplex 100 Mbps</td>
<td>Full duplex 100 Mbps</td>
</tr>
</tbody>
</table>

The following ports must be available for use by Unified Communications Server:

- 22–23
- 80
- 389
- 443
- 1270
- 2114–2117
- 5000–5414
- 6800–6802
- 8000–8001
- 9000
- 9002
- 18000
- 35000
- 35002
- 37000
- 5000–50525

### Server Requirements for Co-Resident Installations

The environment specified in the following table has been certified to run UC Advanced, and UC Advanced Softphone for up to 20 users, provided:

- The Mitel Your Assistant Collaboration Server does not co-reside with Unified Communications Server.
- Unified Communications Server does not co-reside with any other application that includes one or more Mitel SDK components.
- The CPU cycles specified in the table are consistently available. Spikes in CPU usage may affect UC Advanced responsiveness.
- Unified Communications Server monitors no more than 20 users’ presence.
- The ports listed in Table 13 on page 32 are available for use by Unified Communications Server.

**Table 12. Hardware Requirements for Co-Resident Installations**

<table>
<thead>
<tr>
<th>Hardware</th>
<th>0–20 Clients</th>
<th>Resources Available to UC Server</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU(^1)</td>
<td>Pentium 4 – 3.0 GHz</td>
<td>15% CPU cycles</td>
</tr>
<tr>
<td>RAM</td>
<td>1 GB</td>
<td>100 MB</td>
</tr>
<tr>
<td>Free disk space</td>
<td>5 GB</td>
<td>4 GB</td>
</tr>
<tr>
<td>Network Interface Card</td>
<td>Full duplex 100 Mbps</td>
<td>100 Kbps</td>
</tr>
</tbody>
</table>

1. UC Advanced supports multiple-CPU servers.
Software Firewalls

Software firewalls such as Windows Firewall generally have no impact on UC Advanced. However, if an installed firewall product blocks outgoing traffic, the firewall must be configured to allow UC Advanced to make outbound connections. Some firewall products will display a prompt when an outbound connection is attempted, giving the user an opportunity to allow or block the program from making outbound connections. See your firewall’s product documentation.

Table 13. UC Advanced Ports

<table>
<thead>
<tr>
<th>Port</th>
<th>Type</th>
<th>Description</th>
<th>Host</th>
<th>Client</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Ports Between the Unified Communications Server and Client</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>TCP</td>
<td>SSH for Web Collaboration</td>
<td>UC Server</td>
<td>UC Client</td>
</tr>
<tr>
<td>23</td>
<td>TCP</td>
<td>Telnet for Web Collaboration</td>
<td>UC Server</td>
<td>UC Client</td>
</tr>
<tr>
<td>80</td>
<td>TCP</td>
<td>HTTP for Web Collaboration</td>
<td>UC Server</td>
<td>UC Client</td>
</tr>
<tr>
<td>443</td>
<td>TCP</td>
<td>HTTP for Web Collaboration</td>
<td>UC Server</td>
<td>UC Client</td>
</tr>
<tr>
<td>1270</td>
<td>TCP</td>
<td>Web Collaboration Port</td>
<td>YA Server</td>
<td>YA Client</td>
</tr>
<tr>
<td>2114</td>
<td>TCP</td>
<td>Client/Server Authentication</td>
<td>UC Server</td>
<td>UC Client</td>
</tr>
<tr>
<td>2115</td>
<td>TCP</td>
<td>Licensing Server</td>
<td>UC Server</td>
<td>UC Client</td>
</tr>
<tr>
<td>2116</td>
<td>TCP</td>
<td>Telephony Server</td>
<td>UC Server</td>
<td>UC Client</td>
</tr>
<tr>
<td>35000</td>
<td>TCP</td>
<td>UC Presence Server</td>
<td>UC Server</td>
<td>UC Client</td>
</tr>
<tr>
<td>37000</td>
<td>TCP</td>
<td>Web Collaboration Port</td>
<td>YA Server</td>
<td>YA Client</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ports Between the Unified Communications Server and Other Applications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>389</td>
<td>TCP</td>
<td>LDAP for Active Directory Synch</td>
<td>UC Server</td>
<td>ADC Server</td>
</tr>
<tr>
<td>2117</td>
<td>TCP</td>
<td>UC Administration Port</td>
<td>UC Server</td>
<td>Administration Tool</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ports Between the Unified Communications Server and 3300 ICP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8000</td>
<td>TCP</td>
<td>MiTAI</td>
<td>3300 ICP</td>
<td>UC Server</td>
</tr>
<tr>
<td>8001</td>
<td>TCP</td>
<td>Secure MiTAI</td>
<td>3300 ICP</td>
<td>UC Server</td>
</tr>
<tr>
<td>1800</td>
<td>TCP</td>
<td>MiXML Server</td>
<td>3300 ICP</td>
<td>UC Server</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ports Between the UC Advanced Client and 3300 ICP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6800</td>
<td>TCP</td>
<td>Minet Protocol</td>
<td>3300 ICP</td>
<td>UC Softphone client</td>
</tr>
<tr>
<td>6801</td>
<td>TCP</td>
<td>Secure Minet (SSL)</td>
<td>3300 ICP</td>
<td>UC Softphone client</td>
</tr>
<tr>
<td>6802</td>
<td>TCP</td>
<td>Secure Minet (AES)</td>
<td>3300 ICP</td>
<td>UC Softphone client</td>
</tr>
<tr>
<td>5000 to 5414</td>
<td>UDP</td>
<td>Voice (RTP) between UC Softphone and E2T (Prior to 3300 R6.0)</td>
<td>3300 ICP</td>
<td>UC Softphone client</td>
</tr>
</tbody>
</table>
### Table 13. UC Advanced Ports (Continued)

<table>
<thead>
<tr>
<th>Port</th>
<th>Type</th>
<th>Description</th>
<th>Host</th>
<th>Client</th>
</tr>
</thead>
<tbody>
<tr>
<td>9000</td>
<td>UDP</td>
<td>Voice (RTP) Channel 1</td>
<td>UC Softphone Client</td>
<td>Other UC Softphone client, IP phone or IP trunk</td>
</tr>
<tr>
<td>9002</td>
<td>UDP</td>
<td>Voice (RTP) Channel 2</td>
<td>UC Softphone Client</td>
<td>Other UC Softphone client, IP phone or IP trunk</td>
</tr>
<tr>
<td>50000 to</td>
<td>UDP</td>
<td>Voice (RTP) between UC Softphone and E2T (Post to</td>
<td>3300 ICP</td>
<td>Other UC Softphone client, IP phone or IP trunk</td>
</tr>
<tr>
<td>50255</td>
<td></td>
<td>3300 R6.0)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Deploying and Managing UC Advanced

This section describes the tasks related to deploying and managing UC Advanced.

Before deploying UC Advanced, complete the following network survey:

- Ensure UC Advanced client PCs meet minimum requirements (see page 23).
- Confirm that client phones are supported (see page 24).
- Ensure that the Unified Communications Server PC meets minimum requirements (see page 32).
- Maintain Mitel's prescribed LAN architecture (see Mitel Engineering Guidelines for the 3300 ICP).

For installation of a large UC Advanced solution, Mitel recommends the use of the Mitel System Engineering Tool which includes a number of limitations and installation warnings.

For a detailed explanation of how the network should be configured for the 3300 ICP, see the document Mitel Engineering Guidelines for the Implementation of MN3300 Platforms.

UC Advanced with the Softphone Module is directly affected by the design of the network topology. In configurations where the ICP is on a VLAN different than the VLAN for UC Advanced client PCs, these VLANs must be routable.

**NOTICE**

Only Mitel-certified 3300 technicians can configure the ICP.

**Adding Licenses**

It is recommended that you perform a system backup before you add licenses to the 3300 ICP, and that you perform a data restore once you are done. (See the 3300 Technician’s Handbook for more information).

Adding licenses to a 3300 ICP is service-affecting, and should be done during off peak hours.

**To add licenses to the 3300 ICP:**

1. Log on to the 3300 System Administration Tool.
2. In the Selection drop-down menu, select System Configuration.
3. Open the System Configuration folder, the System Capacity folder, and then select the License and Option Selection form.
4. Click **Change** to edit the License and Selection form.

![Image showing the License and Option Selection form]

5. Update the total number of IP user and device licenses you now have.

6. Ensure that MiTAI/TAPI Computer Integration is set to Yes. See below for more information about MiTAI/TAPI.

7. Enter your System Options Password in the Password field, and then click Save.

8. Reboot the 3300 ICP controller.

**NOTE** Additions to licensing do not require UC Advanced services to be restarted.

**About TAPI**

The TSP provided by Mitel allows for users to make calls from other applications. There is no direct interaction with UC Advanced and the TSP; UC Advanced monitors only the events from MiTAI that occur due to actions performed by the TSP on the PBX, e.g. Dialing from Outlook.

Below is a short description of TAPI and TSP.

- **TAPI**: TAPI stands for Telephony API, or Telephony Application Programming Interface. TAPI was developed jointly by Microsoft and Intel, with input from a number of telephony companies, and originally released in 1994. TAPI enables Windows applications to share telephony devices with each other and provides a common means of handling different media (voice, data, fax, video, etc.) on a wide range of hardware platforms.

- **TSP**: The term “service provider” is nothing more than a fancy name for a driver. A TAPI service provider (TSP) is a driver that allows TAPI applications to communicate with different types of TAPI hardware. When using telephony hardware other than modems, such as PBXs, voice processing cards, etc. you will typically use a TSP provided by the hardware vendor.
Creating Extension Numbers for UC Advanced Users

For users with both a deskphone and a softphone the 3300 MUST be reprogrammed to ensure:

- The deskphone has the attached voice mail (assuming the user has voice mail).
- The softphone has no attached voice mail.
- The softphone has a line appearance of the deskphone.

When the deskphone is dialed, both the deskphone and the softphone will ring. The softphone will be programmatically forwarded (CFA) to the deskphone upon shutdown of UC Advanced.

To create extension numbers for UC Advanced users:

1. Open the Devices folder, the IP Telephones folder, the Multiline IP Sets folder, and then select the Multiline IP Set Configuration form.
2. Click the Add button to add an extension number to the system.

![Image of Add Range Programming dialog]

3. Enter the information for the user (click Help for more information).
   - For a deskphone, set **Device Type** to the name of the device (5020 IP in the example above).
   - For a UC Advanced softphone, set **Device Type** to **App Server Port**.
4. Click **Save**.

**NOTES**

Adding a new DN to the 3300 or deleting an existing DN requires a restart of the UC Advanced services unless the DN changed is not a UC Advanced extension.
To create extension numbers for UC Advanced users with DNI phones

1. Open the Devices folder, the DNI Telephones folder, the Multiline DNI Sets folder, and then select the Multiline DNI Set Configuration form.

2. Select the circuit to be configured and click Change. The Change Range Programming form opens.

3. Enter the information for the user (click Help for more information).

4. Click Save.
Creating Class of Service and Zone Compression

For UC Advanced to function properly, you must group all UC Advanced deskphones and UC Advanced Softphone Modules in a separate Class of Service (COS), and ensure that the following options are properly set for that Class of Service:

<table>
<thead>
<tr>
<th>COS Option</th>
<th>Required Setting for</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCI/CTI/TAPI Call Control Allowed</td>
<td>Yes</td>
</tr>
<tr>
<td>HCI/CTI/TAPI Monitor Allowed</td>
<td>Yes</td>
</tr>
<tr>
<td>Voice Mail Softkey Allowed¹</td>
<td>No</td>
</tr>
<tr>
<td>Call Forwarding (External Destination)</td>
<td>(as desired)</td>
</tr>
</tbody>
</table>

1. If set to Yes, users will not be able to hang up from their voice mailbox when using UC Advanced.

To set Class of Service and zone compression:

1. In the Devices folder, select the Class of Service Options Assignment form.
2. Select an unused Class of Service number (4 in the example above), and then click Change to edit that Class of Service.

3. Enter a name for the Class of Service in the Comment field.

4. Ensure that the required Class of Service (COS) options are set properly (see Table 14 on page 39).

5. In the Devices folder, select the Station Service Assignment form.

6. Verify that all UC Advanced extensions:
   - Have the same Class of Service (COS 4 in the example above).
   - Verify that the UC Advanced Softphone Modules are not in the default compression zone (you may need to scroll horizontally to see the Compression Zone field).
7. To change an extension’s Class of Service or compression zone:
   a. Select the extension number.
   b. Click Change. The Change Station Service Assignment window opens.

   ![Change Station Service Assignment Window]

   c. Enter the new Class of Service and/or Compression Zone ID (for Class of Service, make sure that the Day, Night 1 and Night 2 COS conform to the information in step 5, on page 40).
   d. Click Save.

8. If you have more than one UC Advanced Softphone Module in a compression zone:
   a. Open the IP Telephones folder, and then select the Compression Zone Assignment form.

   ![Compression Zone Assignment Form]

   b. Verify that intra-zone compression is enabled for the compression zones with more than one Softphone Module.
c. Select the desired Compression Zone ID, and click Change. The Change Compression Zone window opens.

d. Set Intra-Zone Compression to Yes, and click Save.

**Updating the Telephone Directory**

You need to add a directory entry for each user device.

**NOTE**
When a UC Advanced user with the Softphone module has BOTH a deskphone and a softphone, Mitel recommends that you make the softphone extension private.

**To add users to the Telephone Directory:**

1. In the Selection drop-down menu, select System Administration.

2. Open the Telephony Directory Management folder, and then select the Telephony Directory Assignment form.
3. For each user device:
   a. Click **Add** to edit the 3300 ICP Telephone Directory.

   ![Telephone Directory dialog box](image)

   b. Enter the user information, and click **Save**.

### Setting Up Voice Mail for UC Advanced Users

If you are using the pre-configured extensions, voice mailboxes are already configured. Call the default voice mail extension and configure the users’ voice mailboxes using the interactive attendant. If new extensions are configured, new mailboxes can be configured.

**Figure 4. Voice Mailbox Configuration**

![Voice Mailbox Configuration](image)

**NOTE**

You do not need to create a voice mail account for the UC Advanced users that have BOTH a Softphone module and deskphone.
To add a voice mailbox extension:

1. In the Voice Mail folder, select the Voice Mailbox Configuration form.

2. For each user:
   a. Click Add to create a new voice mailbox.

   If a user needs to point to a different voice mail than the PBX default, it needs to be changed within the Unified Communications Administration Tool in the user properties for that specific user. The user cannot change it within their UC Advanced client configuration settings.

   Any changes to voice mail do not require restarting UC Advanced services.
Configuring Teleworker Support

To configure Teleworker support, the Managed Application Server (MAS) must be programmed to point to the 3300. The Teleworker phones point to the MAS's external public address, which proxies their traffic and sends it to the 3300.

To configure a Teleworker blade:

1. Log in to the MAS.
2. From the MAS select IP Telephony, Teleworker Solution, Main tab.

3. Enter the ICP name, IP Address and select the Mitel Networks ICP type from the drop down list.
4. The install password for Teleworker is hard set. The install password for UC Advanced client is not hard set.
5. Enter the public IP address of the Teleworker Gateway.
6. Click Save.
7. Repeat from step (1) for multiple ICPs.

NOTE
Only one public IP address for the Teleworker Gateway.

For more information refer to the Teleworker Solution server documentation.
To configure sets:

1. From the Configure Teleworker Solution form, select the Set Management tab.

   - Go button beside "Input set manually.
   - Type in the **MAC Address**, select the **ICP Name**, and type in the description of the set.
   - Click **Save**.

2. Click the Go button beside "Input set manually."

3. Type in the **MAC Address**, select the **ICP Name**, and type in the description of the set.

   - **NOTE**
     - The MAC Address is the virtual MAC address that is used by the softphone.
     - The format is MM:MM:MM:SS:SS:SS
     - To set up a user manually you will have to obtain the MAC address from the user. The user will be able find their MAC address in "%appdata%\NewHeights\YA\tunnel.ini" file. To quickly find the MAC Address try searching for “cn=".
     - A sample MAC address will look like cn=a1:21:00:00:71:7a

4. Click **Save**.

The first time a UC Advanced client tries to start in Teleworker mode, UC Advanced sends the softphone's MAC address to the Teleworker gateway. This displays the MAC address in the list on the MAS's Teleworker Solution “Set management” tab. The user will not be able to connect to the server until you have enabled the set. Select the **Enabled** check box to the left of the MAC address and click **Save**.
To enable UC Advanced support:

1. From the **Configure Teleworker Solution** form select the **UC Advanced** tab.

2. Type in the IP address of the internal UC server, UC Telephony server, UC Presence server and YA Collaboration server. Note that users must be configured to use the correct YA Collaboration server if they wish to use Collaboration features while in Teleworker mode.

3. Click **Save**.
To approve certificate request:

1. From the MAS, select **Security, Certificate Management**.

2. In the Queued CSRs, click the certificate request you want to approve.

3. Click the **Approve** button located at the bottom of the form.
Configuring Multiple Incoming Call Support (Optional)

Use this procedure to set up a monitored extension so that a UC Advanced user can manage multiple incoming calls at a time (that is, a user may have multiple appearances of the same line). The maximum number of line appearances a set can have is determined by the parameters set by the PBX.

To configure multiple incoming call support:

1. In the Selection drop-down menu, select System Configuration.

2. Open the Devices folder, the IP Telephones folder, the Multiline IP Sets folder, and then select the Multiline Set Key Assignment form.
3. For each user that requires multiline incoming call support:

Select the user’s extension number in the **Multiline Set Key Assignment** section (6601 in the example above).

Select button number 2 in the Softkeys section, and then click **Change Member** to edit that softkey.

![Softkeys Dialog](image)

Enter the user information. Make sure that:

- **Line Type** is set to **Multicall**.
- **Ring Type** is set to **Ring**.
- **Button Directory Number** is set to the directory number to monitor (enter the user’s extension if you want the user to answer multiple calls on the same line).

4. Click **Save**.

A user’s softphone/deskphone (A) can have one or more line appearances of the primary extension of another user’s softphone/deskphone (B) configured on their line. These line appearances belong to softphone/deskphone (A).

UC Advanced does not get updates from the switch when line appearances are reconfigured. When a line appearance is added to a device, UC Advanced keeps operating with an “old view” of the line configuration.

You will need to restart the UC Advanced services right after reconfiguring softphone/deskphone (A) for UC Advanced to recognize the new line appearance configuration.
To configure line appearance of another user:

1. Open the Devices folder, the IP Telephones folder, the Multiline IP Sets folder, and then select the Multiline Set Key Assignment Search form.

2. In the Multiline Set Key Assignment Search form, enter the directory number to which you are going to add the line appearance. Click Search.

In the button configuration panel titled Softkeys, select an unused button entry, and click Change Member to assign a line appearance to that button.
3. Enter the information for the line appearance you are adding. Make sure that:
   • **Line Type** is set to Multicall.
   • **Ring Type** is set to Ring.
   • **Button Directory Number** is set to the directory number to monitor.

4. Click **Save**.

**NOTE**

After reconfiguring the line appearance of a phone, the UC Advanced services MUST be restarted for UC Advanced to recognize the change in line appearance.

5. The ICP is now configured for UC Advanced.

### Installing and Configuring the UC Advanced Management Software

The UC Advanced management software is packaged in a single installer. Run the installer file to start the installation wizard where you can choose and install the components. For a simple install, the entire management software suite can be installed on a single hardware platform.

**Do not** install the UC Advanced client software on the management software suite hardware platform. If you uninstall the client or server on a client/server co-resident installation, the remaining application will not function. See page 129 for more information.

**CAUTION**

If the hardware platform fails on a single-server installation, UC Advanced softphones will not function. Softphone users will not be able to place and receive calls, including emergency calls. Hardware Platform failure does not affect deskphones.

The UC Advanced management software contains the following components:

- **Unified Communications Server**: Clients communicate directly with this component to receive their settings and presence information. A UC Advanced system can run a single Unified Communications Server or multiple Unified Communications Servers. Each client is associated with a single Unified Communications Server.

- **License Servers**: Unified Communications Servers communicate with license servers to authenticate users and user features. Each instance of Unified Communications Server has a License Server residing on the same computer.

- **Unified Communications Server Administration Tool**: This component is the front-end to the UC Advanced system and can be installed anywhere on the local network. Typically the Administration Tool is installed on a single computer, which is used to configure the entire UC Advanced system.

- **Web Collaboration Module Server**: This component allows clients to create and join a Web conference (optional). If this component is not part of the deployment plan, it is best if it does not get installed.

- **MiXML Server**: This component is installed in a system that requires synchronization with a 3300 telephone directory. Only one MiXML Server can connect to a particular 3300. If the MiXML Server IP changes or another PC is to be designated as the MiXML Server, the particular 3300 must be restarted. MiXML is not supported on 64-bit operating systems.

- **Telephony Server**: The telephony server is a proxy for UC Advanced clients to the 3300. This server reduces the number of 3300 ports used, as compared to direct UC Advanced client connection to the 3300.

- **Presence Server**: This component broadcasts presence information between the UC Advanced clients and Unified Communications Server. It also manages chats and file transfers.

For scalability, the servers listed above can be deployed on different PCs; each server has its own Licensing Server that resides on the same computer.
Deploying UC Advanced
Upgrading the Unified Communications Administration Tool

Upgrading the Unified Communications Administration Tool

To upgrade from a previous version to 2.0, refer to the Mitel Technical Release Notes included with your product for complete upgrade procedures.

Installing the UC Advanced Management Software requires elevated privileges. For servers running Windows XP or Windows Server 2003, log in as an administrator. For servers running Windows Vista, be prepared to provide User Account Control credentials or confirmation after you launch the installer.

To Install the UC Advanced Management Software:

1. On each PC where you wish to install Management Software components, double-click the UnifiedCommunicatorServer.msi file. The Unified Communications Server Setup wizard appears. Click Next.

   ![Unified Communications Server Setup](image)

   Welcome to the Unified Communications Server Setup Wizard

   The Setup Wizard will install Unified Communications Server on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
2. Review the license agreement. Select I accept the terms in the License Agreement and then click Next.

3. If you want to modify the default location for any of the components, click the component icon and select the installation location. Click Next.
4. Click **Install**. The components are installed.

5. Click **Finish**.
Confirm that the installation completed successfully by opening the Windows Services applet and finding the Service entries for the Management Software components.

The following table describes the various UC Advanced components and the services that each installs.

**Table 15. UC Advanced Components and Services**

<table>
<thead>
<tr>
<th>Component</th>
<th>Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unified Communications Server</td>
<td>Unified Communications Service</td>
</tr>
<tr>
<td></td>
<td>Unified Communications Telephony Service</td>
</tr>
<tr>
<td></td>
<td>Unified Communications Presence Service</td>
</tr>
<tr>
<td></td>
<td>Unified Communications License Service</td>
</tr>
<tr>
<td>Your Assistant Collaboration Module</td>
<td>Your Assistant Collaboration Server</td>
</tr>
<tr>
<td>MiXML Server&lt;sup&gt;1&lt;/sup&gt;</td>
<td>MiXML Service</td>
</tr>
</tbody>
</table>

1. MiXML is not supported on 64-bit operating systems.

Confirm that these services are **Started** and that the start up type is set to **Automatic**.

If the deployment plan includes the use of the LDAP Synchronizer or the AD Synchronizer, the Unified Communications Server must run as an account that is able to read the directory. For the AD Synchronizer, this simply means that the PC running Unified Communications Server must be a member of the domain.

**To enable a Unified Communications Server as an account in AD:**

1. Select Services, UC server, right click and select properties.
2. Select the **Logon** tab.
3. Enter the user information of someone in AD with read privileges.
   - domain name\user name
   - username and password
4. Click **OK**.
5. Restart the UCServer services.
Installing the UC Advanced Client

The UC Advanced client installer ships as a Windows Installer package. There is one property that must be set when installing: the IP address of the Unified Communications Server. The way that this property is set will depend on how UC Advanced is installed. See “Installation Options” on page 25.

Minimum Rights for UC Advanced Clients

Installing UC Advanced requires elevated privileges. In Windows XP, the user must be logged in with Windows administrative privileges to install the client. In Windows Vista, the user will be prompted to provide User Account Control credentials (standard user) or confirmation (administrator) to install the client. Running the client does not require administrative privileges.

UC Advanced must be able to read and write to the user's application data directory. You have to be able to control the MitelIPSrv service. Set the permissions on this service to allow “Everyone” to control the MitelIPSrv service. The UC Advanced client needs to be able to make outgoing network connections to the servers.

All data files that are modified (logs, config, contact database, recorded calls, etc.) when settings are updated (call forwarding profile, startup mode, etc.) are in the “C:\Documents and Settings\%username%\Application Data\NewHeights\YA” folder or subfolders.

Software Distribution Point

Installing UC Advanced using a distribution point is done with an administrative install of the installer package to a network share. The share point must be accessible to all users that will install UC Advanced. The command for the administrative installation is:

%>msiexec /a YourAssistant.msi

The administrative installation wizard will prompt you to enter a location for the administrative image. Users can be instructed to install UC Advanced from this folder via the network share. The users can run the installation wizard by clicking the file and entering the Unified Communications Server IP when prompted. Alternatively, a transform file (see above), or the Explorer shortcut that includes the IP property in the command parameters, could be provided:

%>msiexec /i YourAssistant.msi YOUR_ASSISTANT_SERVER_IP="192.168.1.66"

In this example, YOUR_ASSISTANT_SERVER_IP property is set to the IP of the Unified Communications Server.

Suppressing the installation wizard dialogs can further customize the installation by using the /qn flag. More customization options can be found in the Windows Installer SDK documentation at http://msdn2.microsoft.com/en-us/library/aa367988.aspx. If installing for all users that may log on to the target computer, add the argument ALLUSERS="1" to the command. If this argument is not added, the installer will install for the currently logged in user only.
IntelliMirror

Two policies must be addressed when deploying UC Advanced for IntelliMirror:

- User Data Management; and
- Software Installation and Maintenance.

UC Advanced persists user settings such as window settings, the call log, history, personal contacts, and favorites. These settings are saved in the user’s Application Data folder.

For deployment, UC Advanced should be assigned to users such that when a UC Advanced user logs in to a PC that does not have UC Advanced installed, UC Advanced gets installed.

The UC Advanced IP property should be set using an installer transform (see “Creating a Transform” on page 27).


Logon Script

Logon script use the same installation techniques as the software distribution point, except the mechanism used to run the installer is a script rather than an Explorer shortcut. The logon script is set through an Active Directory Group Policy. An example of a logon script that will install UC Advanced might be

```vbscript
Set oShell = CreateObject("Wscript.Shell")
oShell.Run msiexec /i /q YourAssistant.msi
```


SMS

Again, refer to the syntax shown for Software Distribution Point to create the installer command that SMS will run to install UC Advanced on the client computer. See Systems Management Server Home (http://www.microsoft.com/smserver/) for more information on SMS.

Group Policy

For a network install, the installer can be assigned to users with a Group Policy object (GPO). The GPO should install the software from an administrative image installed on a network share. For a detailed explanation on how to install software using an Active Directory Group Policy, see Step-by-Step Guide to Software Installation and Maintenance (http://www.microsoft.com/windows2000/techinfo/planning/management/swinstall.asp).
Upgrading the UC Advanced Client

UC Advanced 2.0 supports upgrading from Mitel Your Assistant 5.0. To upgrade, simply install UC Advanced 2.0 to complete the upgrade. The following components are migrated to the newly installed version:

- Call log
- Personal contacts
- Settings

Before upgrading, refer to the Mitel Technical Release Notes included with your product for complete upgrade procedures.

Uninstalling the UC Advanced Client

Although users can safely upgrade by installing the latest UC Advanced versions, they may prefer to uninstall the previous version before installing the latest version.

To uninstall UC Advanced, remove the application using the Windows Add or Remove Programs function.

Remember the following when uninstalling the UC Advanced client on a user’s machine:

- The MiAUDIO component, which is installed by Mitel Your Assistant versions 4.0.x and lower, is not automatically uninstalled. You must uninstall it separately. Do not uninstall MiAUDIO if the computer is running some other Mitel application that requires it.

- User-specific files including configuration files, log files, license files, and databases, are not removed. To remove the older data, settings, and logs, rename or delete the following two folders:
  - C:\Documents and Settings\<username>\Application Data\YAx.x
  - C:\Documents and Settings\<username>\Local Settings\Application Data\NewHeights\YAx.x

- UC Sounds are not removed when you uninstall the application. To remove the sounds, remove the following registry key:
  
  HKEY_CURRENT_USER\AppEvents\Schemes\Apps\YA
Installing and Configuring the Collaboration Module (Optional)

To ensure the Mitel Your Assistant Collaboration Module is successfully deployed, it is important to ensure the network environment is prepared before starting the install process.

The preparation includes reviewing the hubs and switches on the corporate network, access control list (ACL) on routers, policies on firewalls, server and workstation operating systems and security settings in Internet Explorer are set to at least medium or lower.

The YA Collaboration client connects to the server over an open TCP socket connection. This open TCP socket model allows the client and server to deliver information back and forth in real time. The YA Collaboration Module is very efficient in managing the information it places on the network, but bandwidth is still an important factor. For a successful Collaboration Module deployment, it is critical to have sufficient bandwidth between the Collaboration server and clients.

Below are additional areas on a network to review to insure a successful deployment:

- **Networks**: You must ensure the existing network is not experiencing network issues like dropped packets and excessive collisions. Most network monitoring tools will be able to provide you with this information. If you are experiencing these issues, you must correct them before deploying the YA Collaboration Module.

- **Security Policies**: Some security policies in corporate networks can affect Conference communications. This includes but is not limited to:
  - Restricted use of TCP ports (see “Selecting Listening Ports” on page 111).
  - The use of firewalls or proxies to control incoming or outgoing TCP traffic.
  - Using ACL on a router to block incoming or outgoing TCP traffic.
  - Controlling the life of TCP socket connections.
  - Web traffic analysis programs.

- **Slow WAN links**: If you plan on connecting offices located in different geographical locations, you must ensure there is sufficient bandwidth between the locations. You can obtain this information by using a network-monitoring tool or contacting your WAN provider for more details. Slow WAN connections include:
  - DSL connections
  - Cable Modems
  - Fractional T1 - 128K, 256K, 512K
  - Frame Relay

- **WAN connections over frame relay**: Companies that use a frame relay connection between offices must insure the port speed on the router does not exceed the guaranteed speed through the frame cloud. Contact your provider for information on this issue.

Preparing the Server

The YA Collaboration Module server is the center hub for all Web conference sessions. The server runs as a Windows service or as an application in the system tray. The YA Collaboration Module is a self-contained application and is made up of the main server application, the Web services and database layer. This independent design imposes no dependencies on any external applications other than the operating system. Mitel also recommends the YA Collaboration Module server run on a server class OS and the computer can either be part of the Domain or a stand-alone server. However, in small deployments, the server may be installed with the other management software.

**NOTE**

Do not load the YA Collaboration Module server on the same server where another Web server is present and active.
Installing the Server

The Collaboration Server can now be installed on the same machine as Unified Communications Server. When prompted, during the installation of Unified Communications Server, for the Allowable Collaboration IP Prefix, place the IP of the Unified Communications Server in the text box.

On the computer where the server is to be installed, run the Unified Communications Server installer and configure YA Collaboration Server as this feature will be installed on local hard drive. Then step through the rest of the installation wizard until complete. The server starts automatically and is ready for configuration. When prompted, enter a space-delimited list of Unified Communications Server IPs that will be connecting to the Collaboration server.

Preparing the Client

The YA Collaboration client is the main application employed by users when participating in a conference. There are three user classifications when participating in a Web conference: host, presenter and participant. It is important to ensure each user has all the necessary components and security privileges on their computer before entering a conference session. These components and security privileges include:

- All the necessary service packs and drivers are installed
- Internet Explorer 5.5 or above is installed
- Internet Explorer security settings are set to ‘Medium’ or lower
- Sufficient bandwidth to the YA Collaboration Module server
- If the workstation sits behind a Proxy server, like Microsoft ISA server, the Proxy client must be installed on the computer

In some network configurations, it may take a significant amount of time for the client software to install automatically through Internet Explorer. In this case, you may want to install the YA Collaboration client manually. The installer package is located in `<Server installation directory>\YA Collaboration Server\setup.exe`.

Installing the Client

Install a UC Advanced client to test and verify the installation of the UC Advanced Management Software. Remember to install .NET 2.0 on the client PC before you install UC Advanced.

To install the YA Collaboration client the user must have at least IE 5.5 and the URL to the YA Collaboration server. Once connected, the server analyzes the computer and determines if the ActiveX client needs to be installed. If the ActiveX client is not present or outdated, the server pushes the most current version to the workstation.

The client installation is automated so the end user has no interaction with the install process. Once the ActiveX client has been installed, the user can close the window.

Ensure that all users set the ActiveX controls and plug-ins (found in IE ‘Internet Options | Security tab | Custom Levels’) to “Enable” or “Prompt”.

Testing the Client Connection to the Server

Start UC Advanced client from any desktop shortcut. If the client was configured correctly, the client will automatically be logged into the Unified Communications Server. If the server recognizes the user login ID, it will send the client configuration settings and the client starts. If the user is unrecognized or the server doesn’t respond, a dialog will display the error and ask if the user wants to start in Offline mode.
Configuring a UC Advanced System

The Unified Communications Administration Tool provides an easy-to-use interface for managing UC Advanced administrative tasks. When deploying UC Advanced for the first time, you must configure the deployment using the Administration Tool.

The high-level steps to configure a UC Advanced system include:

- “Adding Unified Communications Servers” on page 63
- “Activating licenses” on page 65
- “Defining Default Licensing Schemes” on page 67
- “Adding ICP Switches and Scheduling Line Monitor Refreshes” on page 68
- “Refreshing Line Monitor Caches” on page 70
- “Enabling Corporate Directory Synchronizers” on page 71
- “Defining Pipes” on page 79
- “Adding Collaboration Servers” on page 80
- “Configuring ACD Settings” on page 82
- “Adding Users Manually” on page 83
- “Configuring an RSS Feed for the Web Window” on page 88
- “Configuring a Local RSS Feed” on page 89
- “Configuring an External RSS Feed” on page 90

The Administration Tool allows you to perform UC Advanced administrative tasks remotely. Typically, the Administration Tool is installed on a single Unified Communications Server, which is used to manage administration of the entire UC Advanced system.

To run the Administration Tool:

Do one of the following:

- Select Start – All Programs – Mitel – Unified Communicator Advanced Administration Tools – Unified Communications Administration Tool.
- Double-click the Unified Communications Administration Tool desktop shortcut ( ).
Adding Unified Communications Servers

Initially, the Administration Tool main window will not list any Unified Communications Servers. You must add each Unified Communications Server using the Administration Tool.

Before adding a server, do the following:

- Start the server. You cannot add a server that is not running.
- If the server has not previously been configured using the Administration Tool and the server will use a SQL Server database, create the database. Name the database, but do not add any tables (the Unified Communications Server will configure the database). Create a SQL Server user account that has full access to the database.

To add a Unified Communications Server:

1. In the left pane of the Administration Tool's main window, right-click Mitel UC Administration and select Add Server.
2. Type in the server's IP address and port.
3. Click OK. The Administration Tool will attempt to resolve the server's IP address. If the address resolves successfully and the server has not been previously configured using the Administration Tool, you must also specify the server's name and database.
4. Type a name for the server. The name is used within the Administration Tool to identify the server.
5. Click the Database tab.
6. Select the type of database the server will use to store user settings: Microsoft Access or SQL Server. For systems with more than one Unified Communications Server, SQL Server is recommended.

7. If the server will use a Microsoft Access database, type the full path name of the database in the Database Path box and click OK. A node for the server will be added to the Mitel UC Administration tree.

8. If the server will use a SQL Server database, type the IP or domain name of the computer that is running SQL Server in the SQL Server box. Then complete the following fields:
   - Type the database name.
   - Type the user name of a SQL Server account that provides full access to the database.
   - Type the password that will authenticate the user name.
   - Click Test to verify the SQL Server settings that you have entered.

9. Click OK. A node for the server is added to the Mitel UC Administration tree.

   If you are changing to a new database and you want the records from the old database to carry over to the new database, you must import the records before you change the database settings in the Administration Tool.

   **To edit a server's database specification:**

   1. Right-click the desired server in the Mitel UC Administration tree and select Properties.

   2. Edit the database settings as desired.
Activating licenses

After you add Unified Communications Servers, you must activate the license.

To activate a license:

1. Right-click the server’s License Info node and select Activate License.
2. Select the Online Activation tab, enter your Application Record ID and click Activate.

The application connects to the Mitel Application Management Center, where you can download your license.
If the Administration Tool cannot access the Mitel Application Management Center, you must perform offline activation.

**To perform offline activation:**

1. Right-click the server’s **License Info** node and select **Activate License**.
2. Select the Offline Activation tab.

![License Activation](image)

3. Click **Save** to save the footprint file to your disk.
4. Deliver the disk to your Mitel Product Representative.
5. When the Mitel Product Representative delivers a license file to you, activate it by clicking the **Load** button and choosing the license file.
Defining Default Licensing Schemes

Each active directory must be assigned a licensing scheme defining the default features available to all accounts within that directory. Licensing schemes are created and maintained in the License Info node.

**To define a default licensing scheme:**

1. Expand the server's **License Info** node.
2. Right click the **Licensing Schemes** node, and then select **Add Licensing Scheme**.
3. Type a name for the new scheme in the **Name** field.

   ![New Licensing Scheme Properties](image)

   - **Feature**
     - YABase
     - Softphone
     - Chat
     - MSN
     - AutoAnswer
     - DoNotDisturb
     - CallForwarding
     - Collob
     - ACD
     - WebWindow
     - KnowledgeManagement
     - CollobConcurrent
     - Presence
     - VoiceMail
     - LCSPresence

   - **Description**
     - YABase
     - Softphone
     - Chat
     - MSN
     - AutoAnswer
     - DoNotDisturb
     - CallForwarding
     - Collob
     - ACD
     - WebWindow
     - KnowledgeManagement
     - CollobConcurrent
     - Presence
     - VoiceMail
     - LCSPresence

4. Use the check boxes to define which features will be included in the licensing scheme.
5. Click **OK** to finish.

The new licensing scheme is added to the tree below the Licensing Schemes node. Expand the node to view your schemes. Right-click a scheme and select **Properties** to modify it. If you require additional default licensing schemes (if you are intending to use multiple active directories, for example), repeat the steps above to add more schemes.
Adding ICP Switches and Scheduling Line Monitor Refreshes

If you need to add an ICP switch, follow the procedure below.

**CAUTION**

Schedule line monitor cache refreshing during low traffic periods. Clients are taken off line temporarily and automatically returned to service with the new line configuration. No server reboot is required.

To add an ICP switch:

1. Right-click the Switches node, and then select **Add Switch**.

![Switch Properties](image-url)
2. Configure the values for the Settings tab. See Table 16 for field descriptions.

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Label</td>
<td>A label that will appear in the next node in the tree.</td>
</tr>
<tr>
<td>Switch IP or Name</td>
<td>The name or IP address of the ICP switch.</td>
</tr>
<tr>
<td>Extension Length</td>
<td>The maximum number of digits in an extension number.</td>
</tr>
<tr>
<td>Registration Code</td>
<td>Set the Registration Code as configured on the 3300. The maximum length is 10 characters.</td>
</tr>
<tr>
<td>Dialing Prefix</td>
<td>The number users dial to get an outside line.</td>
</tr>
<tr>
<td>Voicemail Number</td>
<td>The default extension number for voice mail.</td>
</tr>
<tr>
<td>No Answer Time</td>
<td>An amount of time, in seconds, slightly less than the amount of time the ICP is configured to send unanswered calls to voice mail. This is used by UC Advanced client intelligent call routing.</td>
</tr>
<tr>
<td>Username</td>
<td>A user account configured on the 3300. This is used by the 3300 Corporate Directory Synchronizer.</td>
</tr>
<tr>
<td>Password</td>
<td>The password for the user account described above.</td>
</tr>
</tbody>
</table>

1. UC Advanced automatically adds the dialing prefix to the phone number in the Quick Connector box when the user makes a call by clicking a missed or received call in the call log or History shutter or the user makes a call from an imported contact whose contact details are not editable (provided the contact's number is not stored in the International Dialing Format). This saves the user from having to manually add the prefix to the number in the Quick Connector box in these situations. Note that the dialing prefix is never added to any number that is in the International Dialing Format. Refer to the UC Advanced User Guide for information on the International Dialing Format.

3. To schedule line monitor refreshes, click the Cache tab in the Switch Properties dialog box, and specify values for days of the week and start times. See Table 17 for field descriptions.

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refresh Line Monitor Cache Every</td>
<td>The automated schedule to refresh line monitor caches.</td>
</tr>
<tr>
<td>Starting at</td>
<td>The time of day when scheduled line monitor cache refreshes run.</td>
</tr>
</tbody>
</table>

On average, the Unified Communications Server takes 1 s per single line set and 2 s per 3- or 4-line set to reconfigure line monitors. For example, if the server monitors 40 line sets on a switch, reconfiguring the line monitors for the switch takes approximately 60s.
Refreshing Line Monitor Caches

Although UC Advanced does not react to an administrator reconfiguring line monitor cache configurations of the 3300 ICP, you can schedule daily refreshes or refresh switches manually. No server reboot is required.

**CAUTION**

Refresh the line monitor cache during low traffic periods. During the refresh, clients are taken off line temporarily, but are automatically returned to service with the new line configuration. No server reboot is required.

On average, the Unified Communications Server takes 1 s per single line set and 2 s per 3- or 4-line set to reconfigure line monitors. For example, if the server monitors 40 line sets on a switch, reconfiguring the line monitors for the switch takes approximately 60 s.

To manually refresh line monitor caches:

1. Select the **Switches** node in the **Mitel UC Administration** tree. Configured servers display in the right pane.
2. Right-click a node and select **Refresh Switch(es)**. The switch is refreshed.

![Unified Communications Administration Tool](image)

---

Application initialized **12/12/2008 11:56:55 AM**
Enabling Corporate Directory Synchronizers

The directory synchronizers provide a convenient method of adding and managing users. By configuring and enabling a directory synchronizer, many users can be added and configured automatically. When an account in the directory is updated, the change is automatically propagated to the Unified Communications Server.

There are three synchronizers:
- Active Directory Synchronizer
- LDAP Synchronizer
- Mitel 3300 Synchronizer

Enabling the Active Directory Synchronizer

The Active Directory Synchronizer connects with a domain controller in a Windows network. When users are added, deleted or modified, these changes are replicated in the Unified Communications Server.

To utilize AD Synch the UCServer service must run as a user that has permission to read the directory.

To configure Unified Communicator Server as a user:
2. Right-click Unified Communicator Server, and then select Properties.
3. From the Logon tab.
   a. Select this account.
   b. Enter the username and password of the user with read privileges.
4. Click OK.
Before setting up AD synchronization, each the switch IP field for each UC Advanced user must be populated. There is no default field in the AD schema, therefore, you must either extend the schema or use a field that would not otherwise be used (map this field in step 8a below). Only those users that have a switch IP will be retrieved.

To configure the Active Directory Synchronizer properties:

1. Expand the Synchronizers node.
2. Right-click the Active Directory Sync Properties node and select Add Domain. The Active Directory Synchronizer Properties dialog box appears.

3. Click the Settings tab.
4. Define a Label for the active directory.
5. Enter the path to the domain root in the LDAP Path field.

The synchronizer retrieves all the user objects that descend from this path. An LDAP path is of the form ldap://<domain controller>/dc=<domain component1>,dc=<domain component2>, etc.

For assistance locating the LDAP path, click the LDAP Path Assistant button. In the LDAP Path Assistant window that appears, enter the name of the Active Directory Domain Controller and click OK. The LDAP Path is inserted into the field.
6. Enter the name of the NetBIOS name (also known as the NT domain name) in the **Domain Name** field. This value is frequently a domain component but it does not have to be. To find the NetBIOS, the following script can be run on a domain PC logged into a domain account:

   ```vbs
   Set objNet = WScript.CreateObject("WScript.Network")
   netBiosName = objNet.UserDomain
   WScript.Echo netBiosName
   ```

7. Enter a domain user name and its associated password into the **User Name** and **Password** fields.

8. Click the **User Info** tab. If you have entered valid settings into the fields in the Settings tab, the User Info tab fields are automatically populated.

   If the User tab fields do not display the expected information, return to the Settings tab and correct the information there. Return to the User tab and click **Reset Properties** to populate the combo boxes and fields.

9. Map the Unified Communications Server fields to AD fields:
   a. In the **Account Info** tab, the fields Deskphone, Softphone, and Switch IP must be mapped.
   b. The Deskphone and Softphone fields contain acceptable defaults; change them if these do not work with your schema.
   c. The Switch IP field will default to the first field in the list. Change it to map to the field designated.
   d. Click the **Contact Info** tab. In the bottom half of the window, click the **Other Phones** sub-tab, all the other phone numbers will be retrieved. Add or remove fields as required.
e. In the Emails sub-tab, the AD mail field is already set to be retrieved. Add or remove fields as required.

f. If Windows Messenger, MSN Messenger, Windows Live Messenger, or Microsoft Office Communicator integration is used, specify the fields where IDs are to be retrieved (typically an e-mail address) in the IM Addresses sub-tab.

g. In the Contact Info panel, these fields are for display purposes with only the First Name and Last Name fields used elsewhere. The defaults for these fields are usually satisfactory.

10. Click the Default Licensing tab at the top of the window. Use the Licensing Scheme drop down menu to select the default licensing scheme applied to all users in the active directory (see “Defining Default Licensing Schemes” on page 67). This determines the default set of features accessible to the users in the active directory.

11. Click OK to add the active directory. The Active Directory Synchronizer Properties window will close and the newly added active directory will appear on the right side of the interface. If you wish to view or modify its properties at any time, right click it and select Properties from the context menu.

12. If you are creating a multi-forest UC Advanced deployment, simply repeat the above steps to add additional active directories.

**Enabling the LDAP Synchronizer**

The LDAP Directory Synchronizer connects with an LDAP directory on the network. When users are added, deleted or modified, these changes are replicated in the Unified Communications Server. To set up the LDAP Synchronizer, follow the instruction described for the Active Directory Synchronizer. However, note that you may need to change the LDAP search type depending on your LDAP server structure.

The LDAP Synchronizer allows you to specify the LDAP search scope. The LDAP search type is set to search subtrees by default. However, if you are using a LDAP server with a flat directory structure, such as a Domino server for Lotus Notes, you must change the search type to search only a single level.

**To configure the LDP Search Type:**

1. Expand the Synchronizers node.

2. Right-click LDAP Sync Properties node and select Properties.

3. In the Settings tab, select a Search Type.
Enabling the Mitel 3300 Synchronizer

The Mitel 3300 Synchronizer synchronizes with the telephone directory of a 3300 ICP.

During synchronization UC Advanced pulls the following information from the 3300 switch:
- Name - is parsed into FirstName MiddleName and LastName
- Phone number - is also used as the phone name
- Department - is used as part of the ForeignKey

**NOTE**
Only IP phones configured in the “Multiline IP set assignment” forms that are listed in the telephone directory are pulled in from the switch.

To configure a 3300 Synchronizer, a user account must exist on each 3300 (User Authentication Profiles in the Mitel 3300 System Administration Tool). This account must have Application Access set to True. The 3300 user name and password must be specified in the properties of each switch that will be synchronized.

Also, a PC must have the MiXML service feature installed (see “Installing the Server” on page 61). This PC is designated as the MiXML Server and can also be running UC Server. MiXML is not supported on 64-bit operating systems.

For MiXML synchronization it may be required to have the UCServer service to log in as “administrator” instead of “local account”.

**To configure Unified Communicator Server as an administrator:**

2. Right-click Unified Communicator Server, and then select Properties.
3. From the Logon tab.
   a. Select this account.
   b. Enter the username and password of the administrator.
4. Click OK.

The 3300 can only support a single connection to a PC running the MiXML Service. All other Unified Communications Servers that wish to synchronize with a particular 3300 that has a designated MiXML server must specify the MiXML server for that 3300.

**To specify a MiXML server:**

1. Expand the Synchronizers node.
2. Right-click Mitel 3300 Sync Properties node and select Properties.

   ![3300 Synchronizer Properties](image)

   

3. Type the MiXML server IP address in the box.
Deploying UC Advanced
Toggling the Synchronizer State

4. Type the MiXML port number in the box. The server port is available in the MiXML control panel applet on the MiXML Server. The default is 18000 but must be changed if the MiXML Server is operating on a different port.

5. Configure the frequency and time of day for the synchronization operation.

Once the synchronizer has been enabled and the accounts have been synchronized, each record must be updated to include the Windows domain login. This information is not available in the 3300 directory and is required for the Unified Communications Server to authenticate UC Advanced clients.

Also, remove any entries that are not associated with a phone extension. These may include ACD agent IDs, ACD paths, etc.

**WARNING**

Only one MiXML Server can connect to a particular 3300. If the MiXML Server IP changes or another PC is to be designated as the MiXML Server, the particular 3300 must be restarted.

**Toggling the Synchronizer State**

Right-click Active Directory/LDP/Mitel 3300 Sync Properties and select Enable/Disable to toggle the synchronizer state. Alternatively, right-click the server's Synchronizers node and select Properties then choose the synchronizer to enable or None to not use a synchronizer.
Defining Peer Relationships

Peer relationships allow Unified Communications Servers to share contact information. Shared contact information comes from two sources: corporate directories and manually added user accounts.

Defining a peer relationship causes a server to import the contact information from the other server. In a two-way relationship, each server imports the other server’s contact information. In a one-way relationship defined on server A, server A imports the contact information from the peer server.

The contacts are imported to a new folder under the Groups node. You provide a name for the folder when you define the peer relationship. There are up to two folders within the folder that you name:

- **Corporate Directory**: This folder contains the contacts that are imported from the peer server’s synchronized directory. If you have not enabled a directory synchronizer for the peer server, the Administration Tool does not create this folder.
- **Other Contacts**: This folder contains contacts for users that were added manually to the peer server. If you have not manually added any users to the peer server, the Administration Tool does not create this folder.

**Figure 5. Peer Relationship Example**

You can define a peer relationship between any two Unified Communications Servers, regardless of whether the directories are LDAP, Active Directory, or Mitel 3300.

Directory synchronizers make the local corporate directory available to UC Advanced users. Peer relationships make remote corporate directories available.

In addition, directory synchronizers provision the server with user accounts. Peer relationships do not provision user accounts.
To define a peer relationship:

1. Right-click Peer UC Servers and select **Add Peer UC Server**.

2. Type the IP address of the peer server.

3. In the **Group Name** box, type a name for the group that will hold the peer server's contact information. The Administration Tool creates the group automatically.

4. If you want to define a one-way relationship, clear the **Make the peer relationship two-way** check box. Otherwise, type a name for the group on the peer server that holds the imported contact information. The Administration Tool automatically creates the group under the **Groups** node on the peer server.

5. If you want UC Advanced users to see presence for the contacts you have imported, you must define pipes between presence servers. Use the UC Advanced Presence Service Console to define pipes. If you do not want to launch the Administration Tool to launch the Presence Service Console, clear the **Launch the presence server console to configure presence sharing** check box. You can launch the console at any time from the Windows Start menu.

6. Click **OK**.
Defining Pipes

Pipes allow Unified Communications Servers to share presence information.

Creating a pipe between two servers allows users on those servers to see presence icons for all the contacts on both servers. A user can click a presence icon to initiate a chat session with the contact, regardless of where the contact information originates.

NOTE
For a pipe between two servers to be useful, there must also be a peer relationship between the servers. The peer relationship causes the contacts to display in the People shutter, and the pipe causes the presence icons to display beside the contacts.

Pipes are created using the Unified Communicator Presence Service Console, which is installed with the Administration Tool.

To create a pipe:

1. Start the UC Advanced Presence Service Console from the Windows Start menu.
2. Select Add Server from the File menu.
3. Type the name of one of the servers that will get connected (this can simply be the IP of the server) in the Server field and the IP in the IP field and click OK.
4. Click the Connect button. The button's text will change to Disconnect when the connection is established.
5. Click the Pipes icon in the Console pane on the left.
6. Click the Add Pipe button in the command bar.
7. Select the new pipe entry and click the Edit Pipe button in the command bar.
8. Enter a name for the pipe in the Name field and the IP of the other server in the TCP/IP field in the Destination section. This server is the other Unified Communications Server that is to be connected by the pipe.
9. Click OK. It is not necessary to configure an account using the Account button.

The two servers are now configured to exchange presence information. All UC Advanced clients configured to use one server can see the presence status of UC Advanced clients configured on the second server. To add a third server, simply create a pipe to one of the two original servers and presence data will be exchanged between all three Unified Communications Servers and all the UC Advanced clients configured on those servers.

CAUTION
The UC Advanced Presence Service Console contains low-level tools for presence server configuration. No other functionality besides the pipe configuration operations is supported. Use of any other functionality could break the Unified Communications Server.
Adding Collaboration Servers

You must define the Collaboration Server port information in the following locations:

- The Unified Communications Administration Tool (below)
- The Your Assistant Collaboration Server Web interface (see page 81)

To add a collaboration server in the Administrator’s Tool:

1. Right-click Collaboration Servers, and then select Add Collaboration Server.

   ![Collaboration Server Properties dialog box](image)

2. In the Collaboration Server Properties dialog box, type the following information:
   - Type a name for the server in the Label field.
   - Type the IP address or hostname of the server in the IP Address or Name field.
   - If required, change the default port number (80). If the Collaboration server was configured to operate on port 80, you do not need to change this value.
   - Type the maximum number of users to allocate for this server in the Max Concurrent Users field.

3. Click OK.

You can add Collaboration Servers as needed, using the procedure above. Note that for users to access Collaboration features while in Teleworker mode, you must ensure that one of the Collaboration Servers is the same as that defined in the Teleworker Blade’s UC Advanced support settings. See page 47 for more information.
To modify your system settings in the Collaboration Server Web interface:

1. Log in to the Your Assistant Collaboration Module server with an administrative account.
2. Click the System link at the top of the page. The System page appears.

3. Modify the following settings as required:
   - **Local Ports**: Specify the listening ports for the conferencing server by editing the ports in the Local Ports field. If you make a change in this field, you must restart the Collaboration service, or reboot the server, for the port changes to take affect. Mitel recommends keeping the default port settings for trial evaluation.
   - **Local Host**: Specify the IP address of the Collaboration server.
   - **Bind local host address only**: Select this option when a second IP address is added to the operating system.
   - **Screen Host**: Specify the name/IP address that the client displays in a conference session. This is a cosmetic setting and, by default, is the same as the local host.

4. Click **Save Settings** to confirm your changes.

For more information on configurable settings, see “Installing and Configuring the Collaboration Module (Optional)” on page 60.
Configuring ACD Settings

You can use the Administrator’s Tool to configure ACD settings, including account codes and labels, busy reason labels and ACD group IDs, switch IPs and agents. Busy Codes cannot be edited.

To configure the ACD Settings:

1. In the left pane, select ACD Settings under the desired server node.
2. In the right pane, click the Busy Reasons tab. You can define labels for up to twelve busy codes. The first busy code’s label, ‘No Reason,’ is not editable.

To edit a busy reason code:
a. Right-click the code, and select Edit item.
b. Edit the Code and/or Label.
c. Click OK.

3. Click the Account Codes tab. Account code entries can be added, edited, or removed.

To edit an account code:
a. Right-click the code, and select Edit item.
b. Edit the Code and/or Label.
c. Click OK.
4. Click the **ACD Groups** tab.

<table>
<thead>
<tr>
<th>Busy Reasons</th>
<th>Account Codes</th>
<th>ACD Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group ID</td>
<td>Switch IP</td>
<td>Agents</td>
</tr>
<tr>
<td>7250</td>
<td>192.168.1.16</td>
<td>7251-7252</td>
</tr>
</tbody>
</table>

**To edit ACD Groups:**

a. Right-click the ACD Group, and select **Edit ACD Group**.

b. Specify the following for the ACD Group:
   - Group ID
   - Switch IP
   - Agents

c. Click **OK**.

When an ACD-licensed UC Advanced client starts, the ACD settings are sent to the client and used to populate the associated ACD shutter combo lists.

## Adding Users Manually

There are two ways to add users: through a corporate directory synchronizer or manually, as described below. A deployment can use both methods; however, a directory synchronizer is the faster and more convenient way of adding many users. For information on provisioning user accounts using a directory synchronizer, see “Enabling Corporate Directory Synchronizers” on page 71.

**To add users manually:**

1. Expand the **Accounts** node under the desired server.

2. Right-click **Users**, and then select **Add New User**.

3. Complete the information in the **User Properties** dialog box. See Table 18 for field descriptions.

**Table 18. User Settings Options**

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Login Settings Tab</strong></td>
<td></td>
</tr>
<tr>
<td>Domain Login</td>
<td>The user ID UC uses to log in to the UC server. This must be in one of the following two formats:</td>
</tr>
<tr>
<td></td>
<td>Within an Active Directory network: <code>&lt;Domain Name&gt;&lt;Domain Login&gt;</code></td>
</tr>
<tr>
<td></td>
<td>Without AD network: <code>&lt;PC Name&gt;&lt;Windows Login&gt;</code></td>
</tr>
<tr>
<td></td>
<td>Note: this format must be followed whether or not the Active Directory synchronizer is used.</td>
</tr>
<tr>
<td>Language</td>
<td>The default language for the user.</td>
</tr>
</tbody>
</table>
Deploying UC Advanced
Adding Users Manually

Table 18. User Settings Options (Continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country Code</td>
<td>This value is used to determine the DTMF tones that should be generated by the client. Enter the country code for the country where the user is located.</td>
</tr>
<tr>
<td>Switch</td>
<td>The switch this user’s phone(s) are configured on.</td>
</tr>
<tr>
<td>Deskphone Extension</td>
<td>The user’s deskphone extension.</td>
</tr>
<tr>
<td>Softphone Extension</td>
<td>The user’s softphone extension.</td>
</tr>
<tr>
<td><strong>Contact Information Tab</strong></td>
<td></td>
</tr>
<tr>
<td>First Name, Middle Name, Last Name</td>
<td>User details. Last name or company name are required fields.</td>
</tr>
<tr>
<td>Company Name</td>
<td>The company where the user works.</td>
</tr>
<tr>
<td>Address</td>
<td>User’s address.</td>
</tr>
<tr>
<td>Phone Numbers</td>
<td>Contains numbers that were specified.</td>
</tr>
<tr>
<td>E-mail Addresses</td>
<td>User e-mail addresses.</td>
</tr>
<tr>
<td>IM Addresses</td>
<td>Messenger and Communicator addresses. By default, the ID created for the Collaboration module is inserted automatically.</td>
</tr>
<tr>
<td><strong>Phone Settings Tab</strong></td>
<td></td>
</tr>
<tr>
<td>Extension Length</td>
<td>The length of internal extensions. Overrides user’s switch setting.</td>
</tr>
<tr>
<td>Voicemail Number</td>
<td>The user’s voice mail number. Overrides user’s switch setting.</td>
</tr>
<tr>
<td>Account Code Length</td>
<td>The maximum length of an account code; The recommended account code length is 12. If this property is not set, the UC client thinks the account code length is 0 and therefore strips the # at the end of the account code as it is not required.</td>
</tr>
<tr>
<td><strong>Collaboration Tab</strong></td>
<td></td>
</tr>
<tr>
<td>Username</td>
<td>Preconfigured name set by the collaboration module.</td>
</tr>
<tr>
<td>Password</td>
<td>The password to use in the Collaboration Module.</td>
</tr>
<tr>
<td>Screen Name</td>
<td>Preconfigured screen name set by the collaboration module.</td>
</tr>
<tr>
<td>Collab Server</td>
<td>The network address of the Collaboration Module server. Note that if the user is to have Collaboration features available to them while working in Teleworker mode, the Collab Server must be the same as that defined in the Teleworker Blade’s UC support settings (see page 47).</td>
</tr>
</tbody>
</table>
4. When you have finished adding information for the user, click **OK**.

Once a user has been added to the system using the Administration Tool, they automatically log onto the Unified Communications Server when they start their UC Advanced client. And, with UC Advanced’s hotdesking support, users automatically log in to their UC Advanced client when they log into their Windows domain.

UC Advanced stores user profile data on the Unified Communications Server, so users’ personal contacts and preferences are available to them regardless of where they log in on the local area network, as long as they use their domain login.

**NOTE**  
User profile data is carried to new workstations only if roaming profiles are properly configured in Microsoft Windows.

---

### Table 18. User Settings Options (Continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Licensed Features Tab</strong></td>
<td></td>
</tr>
<tr>
<td>Available features</td>
<td>The licensable features that can be set for the user.</td>
</tr>
<tr>
<td>Licensed Features</td>
<td>The licensed features that are set for the user.</td>
</tr>
<tr>
<td><strong>Web Window Tab</strong></td>
<td></td>
</tr>
<tr>
<td>URL</td>
<td>The network location of the Web resource to display in the Web window.</td>
</tr>
<tr>
<td>Always On</td>
<td>Sets whether the user can turn off the Web window.</td>
</tr>
<tr>
<td>User Modifiable</td>
<td>Sets whether the user can change what the Web window displays.</td>
</tr>
<tr>
<td>Universal Presence</td>
<td>Allows the user to see presence for all contacts.</td>
</tr>
<tr>
<td>(See page 7 for more information).</td>
<td></td>
</tr>
<tr>
<td>On-demand Presence</td>
<td>Allows the user to see presence for user-selected contacts only.</td>
</tr>
<tr>
<td>(See page 7 for more information).</td>
<td></td>
</tr>
</tbody>
</table>
Supported Account Codes

UC Advanced supports Forced Non-Verified account codes. The only supported account code characters are ^ (carat symbol) and # (pound symbol).

Forced Non-verified account codes are mandatory, but the account code values are not checked by the switch to ensure the code is valid.

Note the following regarding account codes:

- Non-Forced Non-Verified Account codes are not supported when using UC Advanced.
- Forced-Verified account codes are not supported when using UC Advanced.
- Forced Non-Verified account codes can be used with UC Advanced.

When using the quick connect option, enter account codes in the following format.

[dialed digits]^[AC]

For Example when dialing 613-592-2122 using account code 4444 the dialing string will be 96135922122^4444. The account code will be followed by # if the account length in the COS is set to greater than 4 digits.

When using/adding a contact in UC Advanced with an account code, place the account code in the AC field.

The length of account codes used in this field is specified in the switch settings of the Unified Communications Administration Tool, on the server. For account codes that are shorter than the length specified in the switch settings, terminate using a pound symbol (#).

Figure 6. Personal Contact Information

3300 ICP Programming

Ensure that account codes are working properly on the deskphones and reporting to SMDR before testing on UC softphone extensions. See ICP documentation help for setting up account codes in the PBX.

NOTE

Route must have Non-Verified Account Code enabled in Route Assignment form.

Account code length must be set in Class of Service for fixed length account codes. If account code length varies, a # (pound symbol) must be used to terminate the account code.
Default User Settings

When a user is added through a synchronizer, the user is configured with default settings. These default settings can be accessed and changed.

To edit the default user settings:

1. Expand the Accounts node under the desired server.
2. Right-click Users, and then select Default User Properties.
3. Change the default user settings. See Table 19 for field descriptions.

### Table 19. Default User Settings

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Login Settings Tab</strong></td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>The language for the UC Advanced client to start in. The language can be changed by the user.</td>
</tr>
<tr>
<td>Country Code</td>
<td>To enable the correct DTMF tones, set this field to the country code for the country that the user is in.</td>
</tr>
<tr>
<td>Switch</td>
<td>The switch that the user's phone is configured on.</td>
</tr>
<tr>
<td><strong>Phone Settings Tab</strong></td>
<td></td>
</tr>
<tr>
<td>Extension Length</td>
<td>Length of internal extensions.</td>
</tr>
<tr>
<td>Voice Mail Number</td>
<td>The voice mail number.</td>
</tr>
<tr>
<td>Account Code Length</td>
<td>The number of digits in an account code.</td>
</tr>
<tr>
<td><strong>Collaboration Tab</strong></td>
<td></td>
</tr>
<tr>
<td>Collab Server</td>
<td>A drop-down list of available Collaboration servers.</td>
</tr>
<tr>
<td><strong>Web Window Tab</strong></td>
<td></td>
</tr>
<tr>
<td>URL</td>
<td>The location of the content for the Web window.</td>
</tr>
<tr>
<td>Always On</td>
<td>Whether the Web window will always show for the client.</td>
</tr>
<tr>
<td>User Modifiable</td>
<td>Whether the user can modify the location of the content.</td>
</tr>
<tr>
<td>Universal Presence</td>
<td>Allows the user to see presence for all contacts.</td>
</tr>
<tr>
<td>On-demand Presence</td>
<td>Allows the user to see presence for user-selected contacts only.</td>
</tr>
</tbody>
</table>

4. When you have finished editing the default user settings, click OK.
Configuring an RSS Feed for the Web Window

The RSS feed feature allows you to automatically push Web content to UC Advanced users who are licensed to view the Web window.

A user who has the Web window open will see a scrolling list of items, each of which typically has a title, a date, and a brief summary. Clicking an item's title displays the item's full text in a new browser window.

The RSS feed feature is useful for posting corporate announcements, industry news, or any other items of interest that you want users to see. You can either define a local RSS feed, which involves specifying the feed's items in a local .xml file (rss.xml), or you can link to an external RSS feed, in which case the items are supplied by the external feed.

The RSS feed feature requires a PHP-enabled Web server.

Regardless of which type of RSS feed you are going to configure, local or external, you should first copy the contents of `<UC Server installation directory>`\Web Window Examples to a directory served by a PHP-enabled Web server.

The Web Window Examples directory contains:

- `rssdisplay.php`: This file controls the formatting and scrolling of the Web window's contents. Do not modify this file.
- `rss.xml`: This file contains the definition of a sample local RSS feed. If you will be configuring a local RSS feed, you will edit this file to specify the items in your feed.
- Files for the sample RSS feed: All the other files support the sample RSS feed that is provided with UC Advanced.

To view the sample RSS feed:

1. Log in to the UC Advanced client using an account that is licensed to view and modify the Web window URL.
2. Open the Configuration window (Tools – Configuration).
3. On the Web Window panel, select the Display the Web Window check box and type the fully-qualified URL of the `rssdisplay.php` file in the default URL box.
4. Close the Configuration window.
**Configuring a Local RSS Feed**

When composing items for a local RSS feed, remember that space is limited. A typical item will have a one-line title, one line for the date and time, and four lines for the description. If you exceed the available space, some of the text will not be visible.

Text wraps automatically, so if, for example, the title wraps to two lines, you will have one less line available for the description. Removing the image (<img> tag) that is embedded in the <title> tag will provide you with more room for text.

If you do not assign a value to a tag, that part of the item will be omitted in the Web window. Do not omit tags from the rss.xml file; use empty tags instead, for example, <pubDate></pubDate>.

**To configure a local RSS feed:**

1. Edit rss.xml using an RSS editor, XML editor, or text editor of your choosing.

2. Replace the items (<item> tags) in rss.xml with your own items. Each item should have the following tags. Do not modify anything else in rss.xml.
   - `<title>`: The item's title.
   - `<link>`: The fully qualified URL of the Web page that contains the item's full text. The page opens in a new browser window when the user clicks the title. If you omit the link's value, the title will not be clickable.
   - `<guid isPermaLink="false">`: A string that uniquely identifies the item.
   - `<pubDate>`: The date and time the item was made available in the RSS feed.
   - `<description>`: A brief summary of the item's contents.

3. If you are creating the RSS feed for the first time, you will have to deploy the feed as described in “Configuring an External RSS Feed” on page 90.

   **NOTE** Do not change the name of the .xml file or move it to a new location.

Whenever you update rss.xml, the new content becomes available the next time the user launches UC Advanced.
Deploying UC Advanced
Configuring an External RSS Feed

Configuring an External RSS Feed

The external feed must be accessible to the Web server on which the rssdisplay.php file resides.

To configure an external RSS feed, append a query string to the rssdisplay.php URL that specifies the URL of the external RSS feed.

For example, if your copy of rssdisplay.php is located at:

http://www.genericorp.com/ya/rssdisplay.php and the URL of the external feed is http://www.inewz.biz/newsrss.xml, then the Web window URL will be http://
newsrss.xml.

Always test your feed before deploying it to users, to make sure the text fits and the links work.

If you want to require display of the RSS feed, use the Administration Tool to edit the user accounts as follows: enter the fully-qualified URL for the RSS feed, select Always On, and clear the User Modifiable check box. You may also want to set the default user settings so new users automatically inherit these settings. Users will see the RSS feed the next time they launch UC Advanced.

For instructions on editing user accounts, see “Configuring a UC Advanced System” on page 62.

Users who are licensed to modify the Web window URL can enter the RSS feed URL themselves, as outlined on page 88. To deploy the feed, simply provide these users with the URL. Viewing the RSS feed is optional for these users.
Changing Unified Communications Server IP Addresses

If you change the IP address of the computer that Unified Communications Server runs on, you may have to update the IP address in UC Advanced.

To update UC Advanced to use a new server IP:

1. If you installed Unified Communications Server using the server's IP address instead of host name, run the UC Advanced IP Updater tool, IPUpdater.exe, and select the host name associated with the new IP address. The Unified Communications Server service must be running when you run the IP Updater tool.

   The IP Updater tool is located in <UCServer Installation Directory>\Unified Communications Server\Tools. The default installation directory for the Unified Communications Server is C:\Program Files\Mitel Networks.

2. If the Your Assistant Collaboration Server is installed on the same computer as the Unified Communications Server, the IP Updater tool will update the Collaboration Server IP at the same time that it updates the Unified Communications Server IP.

   If the Collaboration Server is running on a dedicated computer, log in to the Collaboration server as an administrator, click System, click Web Services, and enter the new server IP in the HTTP Post Address field.

3. Each UC Advanced client that was installed using the server's IP address instead of host name must be updated as follows: run the client installer, select the Repair option, and enter the server's host name when prompted.
Configuring Automatic Call Distribution (ACD)

Configuring ACD includes the following high-level steps:

- “Setting Up ACD on the 3300 ICP” on page 92
- “Setting Up Phones for ACD” on page 94
- “Setting Up ACD Busy Reasons and Account Codes” on page 94

Setting Up ACD on the 3300 ICP

The following procedure describes how to configure an ACD Class of Service (COS) on the Mitel 3300 ICP.

To create a new COS:

1. Start Internet Explorer and browse to the 3300 ICP.
2. Click System Administration Tool.
3. Select the System Configuration / Devices / Class of Service Options Assignment node in the left panel navigator.
4. Select a COS from the lower right details panel.
5. Click Change.
6. Enter the values according to the following tables or use values more appropriate to the site.

| **Table 20. Automatic Call Distribution Fields and Values** |
|-----------------|------------------|
| **ACD Field**   | **Value**        |
| ACD 2000 Logout Agent No Answer Time | 15 Seconds       |
| Work Timer      | 20 Seconds       |
| Account Codes   | Forced Non Verified |
| Account Code Length | 12               |
| SMDR External   | enabled          |
| SMDR Internal   | enabled          |
| ACD Silent Monitor Accept | enabled        |
| ACD Silent Monitor Allowed | enabled        |
| ACD Silent Monitor Notification | enabled        |
Table 21. SMDR Options Assignments and Values

<table>
<thead>
<tr>
<th>ACD Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extended Digit Length</td>
<td>enabled</td>
</tr>
<tr>
<td>MCD – Report Transfers</td>
<td>all</td>
</tr>
<tr>
<td>Report Account Codes</td>
<td>enabled</td>
</tr>
<tr>
<td>Report Incoming Calls</td>
<td>enabled</td>
</tr>
<tr>
<td>Report Internal Calls</td>
<td>enabled</td>
</tr>
<tr>
<td>Report Outgoing Calls</td>
<td>enabled</td>
</tr>
<tr>
<td>SMDR Meter Unit Per Station</td>
<td>enabled</td>
</tr>
<tr>
<td>SMDR Record Transfer</td>
<td>enabled</td>
</tr>
<tr>
<td>Account Code Reporting for Internal Calls</td>
<td>enabled</td>
</tr>
<tr>
<td>Path Reporting for Internal ACD2 Calls</td>
<td>enabled</td>
</tr>
</tbody>
</table>

Table 22. Paths and Groups

<table>
<thead>
<tr>
<th>Path</th>
<th>Primary Group</th>
<th>Primary Overflow Group</th>
<th>Secondary Overflow Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>4444</td>
<td>Group 1</td>
<td>Group 2</td>
<td>Group 4</td>
</tr>
<tr>
<td>5555</td>
<td>Group 2</td>
<td>Group 4</td>
<td>None</td>
</tr>
<tr>
<td>111</td>
<td>Group 101</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>222</td>
<td>Group 201</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>333</td>
<td>Group 301</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>666</td>
<td>Group 401</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

7. Click **Save**.

NOTE: ACD real time events option must be enabled on the 3300 for the Work timer feature to work properly with UC Advanced ACD.
Setting Up Phones for ACD

The following procedure describes how to configure phones for ACD on the Mitel 3300 ICP.

To set up a phone for ACD:

1. Select the System Configuration/Devices/Station Service Assignment node in the left panel navigator.
2. For each phone that will be configured to use ACD, select its corresponding entry in the right details panel and click Change.
   a. Change each Class of Service field to the ID of the COS updated above
   b. Click Save.
3. Select the System Configuration/Devices/IP Telephones/Multiline IP Sets/Multiline Set Key Assignment node in the left panel navigator.
4. For each phone that will be configured for ACD, select its corresponding entry in the middle right Multiline Set Key Assignment details panel.
5. Clear each member in the lower right Softkeys details panel. (An ACD set can only have one line appearance).
6. Select the System Configuration/Devices/IP Telephones/Multiline IP Sets/Multiline IP Set Configuration node in the left panel navigator.
7. For each phone that will be configured for ACD, select its corresponding entry in the lower right Multiline IP Set Configuration details panel.
8. Click Change.
9. Set the ACD Set option to Yes.
10. Click Save.

Setting Up ACD Busy Reasons and Account Codes

You can configure ACD busy reason and account codes in the Unified Communications Administration Tool.

- **Busy Reason Codes**: Busy Codes cannot be edited, but, with the exception of the first one, busy labels can be. The first busy code is always “No Reason” and its label is not editable.
- **Account Codes**: Account code entries can be added, edited, or removed.

When an ACD-licensed UC Advanced client starts, these settings are sent to the client and used to populate the associated ACD shutter combo lists. See “Configuring ACD Settings” on page 82.
Managing USB Devices

The Unified Communications Administration Tool supports the following options for USB telephony device management:

- You can configure standard-issue USB devices for all softphone users across your company and restrict users to view-only information about device configuration.
- You can provide standard button configurations and allow users to reconfigure their own USB devices as required.

Only USB softphone devices connected to a user’s PC display for configuration. The list may also include non-telephony USB devices and devices that do not fully support HIDs.

If the user is not provisioned for configuring USB devices, the drop-down list includes all USB devices connected to the computer that have been configured by the administrator.

Consult the UC Advanced Release Notes for information about recommended USB devices.

NOTE Before you perform the procedures in this section, make sure that the USB telephony devices you plan to use are connected to your work station and successfully installed by Windows plug and play.

Configuring User USB Device Settings

The procedure below describes how to configure user USB device settings.

To configure user USB device settings:

1. Expand the Accounts node in the Mitel UC Administration tree.
2. Right-click the Users node and select Add New User. The User Properties window opens to the Login Settings tab as shown.
3. Enter a node name for Domain Login.
4. Click the **USB Devices** tab, as shown in the following figure.

![User Properties Window](image)

5. Enable the **User Can Configure USB Devices** setting. Changes do not take effect until the user restarts the client.

**To disable the USB Devices setting for an existing user:**

1. Expand the **Accounts** node in the Mitel UC Administration tree.
2. Select the **Users** node. A list of existing users displays in the right pane.
3. Right-click a user, and then select **Properties**. The User Properties window opens.
4. Click the **USB Devices** tab.
5. Deselect the **User Can Configure USB Devices** setting. Changes do not take effect until the user restarts the client.
Adding USB Devices

The procedure below describes how to add a USB device using the Administrator’s Tool.

To add a USB device:

1. Right-click **USB Devices**, and then select **Add USB device**. The Add USB device window opens, as shown.

2. Select a USB device from the list box. Only supported USB devices that are not configured display in the list. Consult the UC Advanced Release Notes for information about supported USB devices.

3. Click **OK**.

4. Repeat this procedure to add other USB devices.
Configuring USB Devices

The procedure below describes how to configure a USB device using the Administrator’s Tool.

To configure a USB device:

1. Expand USB Devices in the Mitel UC Administration tree.
2. Right-click a device, and then select Configure USB Device. The USB Device Configuration window appears.

3. Click a USB device button to select and configure it.

   A flashing red outline appears around each button as you select it, and the message “Press a button now” flashes in the window. You can configure buttons in the Call Controls, Dial Pad, or Volume Controls areas.

   **NOTE** The Dial button is equivalent to the Call button on the Main Window.

4. Press the button you want to assign on the USB device. The red border on the button image in the USB Device Configuration window stops flashing and the button label text is highlighted.
5. Change the button label text in the USB Device Configuration window. Use a name that represents the button on the device. For example, type "red" below the Hang Up button in the window to program the device to end a call when users press the red button on the actual device. If you need to, you can clear all of the settings and start again by clicking Reset.

6. If needed, you can confirm button assignments using the USB Device Configuration window and the device. When you press a programmed button on the device, the corresponding button image in the window flashes a green border.

7. Click OK to apply the changes and close the USB Device Configuration window. Users will then have the settings you configured, and depending on user rights can view or customize the settings themselves.

Removing USB Devices

The procedure below describes how to remove a USB device using the Administrator’s Tool.

To remove a USB device:

1. Expand USB Devices in the Mitel UC Administration tree.
2. Right click a device. A confirmation dialog box appears prompting you to confirm the removal of the device.
3. Click Yes.
About the Your Assistant Collaboration Module

Your Assistant Collaboration Module is designed to overcome the physical barriers users face when they need to present information to remote co-workers or to users connected to the Internet. For example, a company may need to hold a meeting for its management staff who are located in different cities and do not want to travel to a central meeting location. Your Assistant Collaboration Module also provides an ideal method for a sales team to present a new product or service to customers directly over the Internet.

The Your Assistant Collaboration Module can also work for other real world business needs, such as real-time collaboration with document sharing, training and supporting users using desktop sharing, and co-browsing features.

The Mitel Your Assistant Collaboration Module offers end users easy to use, intuitive features and administrators the ease of an installable product, as opposed to a hosted solution.

This following information is designed to help organizations deploy the Your Assistant Collaboration Module.

Architecture

The Your Assistant Collaboration Module client is Web-based conferencing application designed for users to conduct online meetings and presentations, and to present interactive support and training. The Your Assistant Collaboration server is intended to deliver information between users in real time. In this application, user presence, documents, desktop views, annotation, chat, video data and all other conferencing information is moved between users in real time.

The Your Assistant Collaboration Module is a highly scalable, end-to-end, symmetrically multi-threaded application. The advanced multi-threaded design allows the server to take advantage of computers with multiple CPUs and to use the maximum amount of RAM allowed by the operating system. This means a dedicated Your Assistant Collaboration server with dual 2 GHz processors and 2 GB of RAM connected to a DS3 Internet connection can host several hundred active users.

The inherent complex design associated with a multi-threaded application places the Your Assistant Collaboration Module application in a league of its own.

The conferencing server has the ability to manage each active connection in a separate thread and isolate the processes in each thread. This makes the conferencing application very fast and stable. Your Assistant Collaboration Module’s speed and stability is evident when many users in a conference with multi-point video view a PowerPoint document.

The conference host can activate desktop sharing while other conference features are used. If any user in the conference experiences an issue, whether it's with the connection or the hardware, the others in the conference remain unaffected by the issue.
Network Environment

To ensure successful deployment of the Your Assistant Collaboration Module, prepare the network environment.

Ensure that the following requirements are met in preparation for deployment:

- Appropriate access control lists (ACLs) are up to date.
- Firewall policies will not prevent clients from communicating with the server.
- On the client workstations, instruct users to set Internet Explorer security settings to Medium (or more permissive), or the equivalent for other browsers.

Your Assistant Collaboration Module is very efficient in managing network traffic but it is still important to have sufficient bandwidth to host a conference. Below are additional network areas to review to ensure successful deployment of the Collaboration Module.

- **Resolve Network Issues**: Ensure the existing network is not experiencing network issues such as dropped packets and excessive collisions. If you are experiencing these issues, correct them before deploying the Collaboration Module.

- **Review Security Policies**: Some security policies in corporate networks can affect communications. These restrictions include:
  - Restricted use of TCP ports.
  - The use of firewalls or proxies to control incoming or outgoing TCP traffic.
  - Using ACL on a router to block incoming or outgoing TCP traffic.
  - Controlling the life of TCP connections.
  - Applications that analyze Web traffic (i.e. Webtrends).

- **Fix slow WAN links**: Using Your Assistant Collaboration Module between offices that are connected over slow links such as a dedicated 128K or 512K leased line will negatively affect conference features. The connection may already be used for other business activity and there may not be sufficient bandwidth for conferencing features like VoIP and multi-point video conferencing.

Bandwidth

Bandwidth is measured in two categories: the amount of bandwidth available for downloads (a.k.a. downstream), and the amount of bandwidth available for uploads (a.k.a. upstream). There is often a sizable difference between the bandwidth available upstream and downstream. This is based on the following factors:

- The type of connection a user is using, such as 56k, Cable, DSL, Frame, T1 or T3.
- The variation to the type of service offered by the provider. Example: iDSL, ADSL, and SDSL.

In general, cable modem and DSL connections typically have fast downstream (approximately 1Mbps) but relatively slow upstream (200 kbps). A user behind a T1 connection, on the other hand, will most likely have 1.5 Mbps downstream and as much as 1 Mbps upstream. Although these figures are typical, they are not consistent across providers. The best way to obtain this information is to consult your provider.
Collaboration System Requirements

While the Your Assistant Collaboration Module server has distinct requirements, the software required by the Your Assistant Collaboration Module client is dictated by the role the user plays in Web conference sessions. End users of the Your Assistant Collaboration Module can take on one of three roles at any given time: host, presenter or participant. Each role has its own set of requirements.

Server Requirements

The Your Assistant Collaboration server is the central hub for all Web conference sessions. All Web conferences require a server where the conference sessions are hosted, and all conference information flows through the server before being distributed to the client workstations.

The conferencing server is a self-contained application where all the application files and databases are contained in the same folder. The conferencing server is also a Web server, eliminating the need for external Web servers. Do not install Your Assistant Collaboration Server on the same server where another Web server is present and active.

The Your Assistant Collaboration Server operates on any 32-bit version of Windows, but a server-class OS such as Windows 2003 Server is recommended. The computer can be part of the corporate domain or a standalone server.

NOTE Web conferencing is SMP-enabled and will take advantage of multiple processors.

Table 23 lists the hardware requirements for dedicated collaboration servers.

Table 23. Hardware Requirements for Dedicated Collaboration Servers

<table>
<thead>
<tr>
<th>Hardware</th>
<th>50 Concurrent Users</th>
<th>250 Concurrent Users</th>
<th>500 Concurrent Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU</td>
<td>Pentium 4 – 1.8 GHz</td>
<td>Pentium 4 – 3 GHz</td>
<td>Pentium 4 – 3 GHz</td>
</tr>
<tr>
<td>RAM</td>
<td>512 MB</td>
<td>1 GB</td>
<td>2 GB</td>
</tr>
<tr>
<td>Disk</td>
<td>Fast disk subsystem</td>
<td>Fast disk subsystem</td>
<td>Fast disk subsystem</td>
</tr>
<tr>
<td>Network Interface Card</td>
<td>Full duplex 100 Mbps</td>
<td>Full duplex 100 Mbps</td>
<td>Full duplex 100 Mbps</td>
</tr>
</tbody>
</table>

Table 24 lists the supported operating systems for dedicated collaboration servers.

Table 24. Supported Operating Systems for Dedicated Collaboration Servers

<table>
<thead>
<tr>
<th>50 Concurrent Users</th>
<th>250 Concurrent Users</th>
<th>500 Concurrent Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows Vista Ultimate</td>
<td>Windows Vista Ultimate</td>
<td>Windows Vista Ultimate</td>
</tr>
</tbody>
</table>

NOTE Only 32-bit operating systems are supported.
In addition to the hardware and operating system requirements, the Collaboration server requires the following:

- Port 80 must be available on the server.
- The server must be on a static IP address. The IP address can be physical or mapped.
- For external conferencing, the server must be located in the DMZ, a co-location facility, or, if behind the firewall, the firewall must have port 80 open for in-bound and out-bound communication, and should allow ActiveX (recommended, but not required).
- Mitel recommends keeping the default port settings for trial evaluation.

DMZ Settings

If your site intends to use Your Assistant Collaboration Server for conferencing with external attendees, it is recommended that it be located within the DMZ. In this case, port settings must allow inbound and outbound traffic, and must allow ActiveX. In addition, the firewall must be configured to allow TCP sockets to stay active long enough for the 'keep alive' packets to reset the timer in the firewall. You can make additional port settings that restrict the above settings to specifically the conferencing server only, thereby protecting the integrity of any border security policies you may have.

If you wish to place the Your Assistant Collaboration Server inside the DMZ, your server will require the following additional preparation to ensure network security:

- Ensure that your operating system is up to date. Download and install the latest service pack and all critical MS security patches.
- Install and configure anti-virus protection for the server.
- Because Your Assistant Collaboration Module constantly runs several listening processes, create appropriate firewall rules so that the following ports remain open:
  - YA - port 80 TCP
  - YA - port 443 TCP
  - YA - port 1270 TCP
  - YAPS - port 35000, 35001, 35002 TCP
  - YA - port 37000 TCP
  - YA - ports 22, 23 TCP
- Remove the WINS entry, Netbios over TCP/IP, and any other unnecessary Windows components from the network settings of your network card.
- Disable and remove all services that are not required for the Your Assistant Collaboration Module. Your corporate security policies may dictate what services are required.
Client Requirements

The Your Assistant Collaboration Module client is the main application with which users interact when participating in a conference.

All client workstations require the following:

- One of the following browsers:
  - Microsoft® Internet Explorer® v5.0 or later
  - Mozilla® Firefox® v1.5 or later
  - AOL® Netscape® v7.0 or later
  - Opera v8.5 or later

- The URL, static IP address, or a fully qualified domain name of the Your Assistant Collaboration Server.

It is important to ensure each user has all the necessary components and security privileges on their computer before they enter a conference session. These components and security privileges include the following requirements:

- All the necessary service packs and drivers are installed (applies to Presenters and Hosts only).

- Internet Explorer security settings are set to Medium (or more permissive), or the equivalent for other browsers.

- If the workstation sits behind a Proxy server (such as Microsoft ISA server), the proxy client must be installed on the workstation.

Conference attendees can be divided into three groups:

- Hosts: Create and lead conferences and require the most system resources.

- Presenters: Use the sharing features to lead presentations, and therefore have higher video requirements than participants.

- Participants: View the conference only.

These roles are not fixed. Any user may host or attend a conference, but users tend to fall into a certain group.

Most of the work is executed on the Host and Presenter's computer, so it is important that these workstations have adequate power. One of the most useful additions to a Host or Presenter workstation is an accelerated video card, which will greatly improve the quality of video conferencing and the sharing features.
Deploying the Your Assistant Collaboration Module

Host Requirements

Hosts control conference options and content, although they may also simply attend and participate in conferences.

- Requirements:
  - Pentium 4 / 1.4 GHz
  - 256MB RAM
  - 100 Mbit Network card
  - Valid TCP/IP address
  - Microsoft® Windows XP, Windows 2003, or Windows Vista
  - Microsoft® PowerPoint® 97 and above for presentations (optional)

Recommended:

- Pentium 4 / 2 GHz
- 512MB RAM
- 100 Mbit Network card
- Video capture device for video conferencing (USB or FireWire Webcam recommended)
- Accelerated video card
- Valid TCP/IP address
- Microsoft Windows XP, Windows 2003, or Windows Vista

NOTE
Only 32-bit operating systems are supported.

- Microsoft PowerPoint® 97 and above for presentations (optional)

Presenter Requirements

Presenters attend conferences and present materials in the conference, but do not control conference options.

Requirements:

- Pentium 4 / 1.4 GHz
- 256MB RAM
- 100 Mbit Network card
- Valid TCP/IP address
- Microsoft Windows XP, Windows 2003, or Windows Vista

NOTE
Only 32-bit operating systems are supported.

- Microsoft PowerPoint 97 and above for presentations (optional)

Recommended:

- Pentium 4 / 2 GHz
- 512MB RAM
- 100 Mbit Network card
- Video capture device for video conferencing (USB or FireWire Webcam recommended)
- Accelerated video card
- Valid TCP/IP address
- Microsoft® Windows XP, Windows 2003, or Windows Vista
- Microsoft® PowerPoint® 97 and above for presentations (optional)
Deploying the Your Assistant Collaboration Module

Participant Requirements

Participants attend conferences but do not control the conference or its contents.

Requirements:

- Pentium 3 / 800 MHz
- 128 RAM
- 10/100 Mbit Network card
- Valid TCP/IP address
- Microsoft® Windows 95 SR2, 98, ME, NT4 (SP3), 2000, XP, 2003, or Vista

**NOTE** Only 32-bit operating systems are supported.

Recommended:

- Pentium 4 / 1.4 GHz
- 512 RAM
- 100 Mbit Network card
- Video capture device for video conferencing (USB or FireWire Webcam recommended)
- Valid TCP/IP address
- Microsoft® Windows XP or Windows Vista
Installation

Your Assistant Collaboration Module is included in the installation of Mitel Unified Communicator (UC) Advanced. The Your Assistant Collaboration Module client component is installed dynamically the first time a user joins a conference.

Accessing the Collaboration Module Web Page

You can access the Your Assistant Collaboration Module Web page by typing in the name or IP address of your Collaboration Module Server into your Web browser.

For example, in the graphic below, the server name (ya4) was entered into the browser to find the Web page. Using the server IP address (198.168.1.121) would have produced the same result.

Figure 7. Your Assistant Collaboration Module Web Page

The Your Assistant Collaboration Module default Web page displays all public conferences on the server and their details. The list of conferences is sorted by conference ID.

Options and settings for managing the server appear once you have logged into the Web page using an administrative account.
To log into the Web page:

1. Enter your User Name and Password into the appropriate fields in the Login panel.
   If you are logging in for the first time, log in as admin and use password as the password.
2. Click Login.
3. Change the default password:
   a. Click Accounts.
   b. Click the Edit button in the admin row.
   c. Edit the Password field and click Save.

**CAUTION**

Deploying the Your Assistant Web Conferencing Server with the default password leaves your network vulnerable to security breaches.

Change the default password before going live with the Your Assistant Web Conferencing Server.

For information on creating a strong password, visit the Microsoft site Creating Strong Passwords (http://www.microsoft.com/protect/yourself/password/create.mspx).
配置和管理

配置和管理

本节讨论配置和管理的 Your Assistant Collaboration Module Server。

设置协作

设置协作时，您可能需要添加用户并选择协作模块监听端口。

添加用户

通常，无需为Web Conference Server 添加用户。Your Assistant server 会自动将 UC Advanced 许可的协作用户 propagates（传递）到协作服务器。对于每个配置使用 Your Assistant Collaboration Module 的用户，Your Assistant Collaboration Server 会自动在 Web Server 用户帐户中创建一个帐户。这意味着“并发使用”Collab 许可证用于每个正在主导或参与 active conference 的人。

用户不需要帐户就可以加入会议。所有用户需要的是会议 URL 和浏览器，可以连接到 Web Conference Server。

Web Conference Module 的许可基于并发使用。您可以部署任意数量的 Web Conference 服务器，并为 UC Advanced 用户提供协作功能。许可不受服务器数量或用户数量的影响。

选择监听端口

默认情况下，协作服务器监听 TCP 端口 22、23、80、443、1270 和 37000。当服务器监听多个端口时，用户可以连接到 conferencing server 上的端口而不是 80 端口。因为整个会议会话在现实时间中进行，某些防火墙可能不允许这种类型的实时活动在端口 80 上。

当用户连接到特定端口的会议时，协作模块会终止所有尝试连接到 conferencing server 上的其他 TCP 端口的尝试。Host 可能会注意到当多人参与会议时，他们可能连接到 conferencing server 上的不同端口。

监听端口可以使用管理界面中的“系统”菜单进行更改。注意，如果未指定端口，连接将失败。如果 URL 中未指定 IP 地址，应在 Local Host 字段中更改为，应仅更改 if computer has more than one address assigned to the network card. 无效 IP 地址将影响尝试连接到服务器的用户。

注释

协作服务器不支持非-UC Advanced 用户帐户。

在任何情况下都不要修改由 Your Assistant Collaboration server 使用的 Unified Communications Administration Tool 创建的帐户。如果您这样做，更改将被 Your Assistant Collaboration server 覆盖。

注释

您必须重新启动 Your Assistant Collaboration Server 服务或重启服务器以使更改生效。
Deploying the Your Assistant Collaboration Module

General System Settings

The basic system settings in the System page define the basic properties of the Collaboration Module. These settings must be established before the server will operate.

To configure or edit your system settings:

1. Log in to the Your Assistant Collaboration Module server using your administrator username and password.

2. Click the **System** link at the top of the page. The System page appears.

3. Modify the following settings as required:
   - **Local Ports**: Specify the listening ports for the conferencing server by editing the ports in the Local Ports field. If you make a change in this field, you must restart the Collaboration Module service, or reboot the server, for the port changes to take affect. Mitel recommends using the default port settings for trial evaluation.
   - **Local Host**: Specify the IP address of the Collaboration server.
   - **Bind local host address only (not recommended)**: Select this option when a second IP address is added to the operating system.
   - **Screen Host**: Specify the name the client displays in a conference session. This is a cosmetic setting and, by default, is the same as the local host.

4. Click **Save Settings** to confirm your changes.
Web Services Settings

The Web Services settings define how the Your Assistant Collaboration server relates to the Web. These settings must be established before the server will operate.

To modify your Web Services settings:

1. Log in to the Your Assistant Collaboration Module server using your administrator username and password.
2. Click the **System** link at the top of the page.
3. In the System box at the left side of the page, click the **Web Services** link. The Web Services page appears.

4. Modify the following settings as required:
   - **Overview**: Contains links to various specifications, WDSL library, and other information. Information in the Overview section may not be modified, and is included simply for convenience.
   - **HTTP POST Address**: Contains the IP address of the Collaboration server.
   - **HTTP POST Allowed Senders IP Addresses**: Contains the addresses of servers allowed to connect to the Collaboration server. Ensure that the Mitel Unified Communicator server is among these addresses.

   **NOTE**

   The Last SOAP Request / Response field displays read-only information. This information cannot be edited, but is included to help administrators and developers to diagnose problems.

5. Click the **Save Settings** button to confirm your changes.
Configuring the Collaboration Server With Other Web Servers

The procedures below describe how to configure and run two Web servers: Your Assistant Collaboration server and Microsoft Internet Information (IIS) server.

If you are not familiar with the terms and process used in this section, forward the information in this section to your network administrator or the person who manages your network.

In the following procedures, the original IP address is 192.168.0.3 and the second IP address 192.168.0.4.

Adding an IP Address to the Network Interface Card

You may assign a second, static IP address to the Collaboration server using the following method. Note that the following instructions are for Windows Server 2003.

To add an IP address:

2. Right-click the Local Area Connection that is connected to your network and select Properties.
3. Select Internet Protocol (TCP/IP) and click Properties.
4. On the Advanced tab, click Add in the IP addresses section.
5. Enter the second IP address. This must be a static IP address. If you do not have a static IP address available, please contact your network administrator or your Internet Service Provider for this information.
6. Click OK to exit the network configuration windows.

After you complete this process, the Windows server computer has two IP addresses assigned to its network card.
Configuring the Collaboration Server for One IP Address

After you add a second address to the NIC, you must configure the Collaboration server to use the original IP address. The steps below discuss how to configure the Your Assistant Collaboration server to listen on only one of the IP addresses you assigned to the network card.

To configure the Collaboration server to listen on one IP address:

1. Log in to the Your Assistant Collaboration Module server using your administrator username and password.
2. Click the System link at the top of the page.
3. Ensure the Local Host field contains the correct IP address.
4. Select the Bind local host address only option.
5. Click Save.

After you configure the Collaboration server for one IP address, you must stop the Mitel Your Assistant Collaboration server Windows service.

To stop the Your Assistant Collaboration service:

1. Open Administrative Tools in the Windows Control Panel.
2. Open Services, and locate the Your Assistant Collaboration Server service.
3. Click the Stop the service link.
Configuring IIS for One IP Address

After you configure the Collaboration server to use the original address you must configure IIS to use the second IP address.

**To configure IIS for one IP address:**

1. Open a command prompt and type:
   ```
   net stop http /y
   ```
   This stops all IIS services.

2. Run `httpcfg.exe`. This utility is located in the support tools folder on a Windows Server 2003 CD-ROM (see `\support\tools\support.cab`).

3. At the command prompt, type the following command:
   ```
   httpcfg set iplist -i 192.168.0.4:80
   ```

4. If the command is successful, you will see the following message:
   ```
   HttpSetServiceConfiguration completed with 0
   ```
   In some situations it will be necessary to reboot the server after this change.

5. Start IIS by entering the following command:
   ```
   net start w3svc
   ```

6. Change to the folder `cd\IntePub\Admin Scripts`, and enter the following command:
   ```
   cscript adsutil.vbs set /smtpsvc/1/DisableSocketPooling true
   ```
Managing Accounts

The Your Assistant Collaboration server requires users to have an account before they can access any conferences.

There are two account options:

- The user may have an account for UC Advanced, which also serves as their account for Your Assistant Collaboration Module
- The user may have an exclusive account on the Your Assistant Collaboration server.

You can manage accounts on the Accounts page when you log in as an administrator.

To access the Accounts page:

1. Log in to the Your Assistant Collaboration Module server using your administrator username and password.
2. Click the Accounts link at the top of the page. The Accounts page appears.

The Accounts page shows all accounts on the server listed in alphabetical order, and provides links to create, edit, and delete accounts.
Creating Accounts

Use the Accounts page to create specific accounts for non-UC Advanced users only. To create collaboration accounts for UC Advanced accounts, use the Unified Communications Administration Tool.

To create a new account using the Collaboration server Accounts page:

1. Log in to the Your Assistant Collaboration Module server using your administrator username and password.
2. Click the Accounts link at the top of the page.
3. Click the Add Account link on the left side of the screen.
4. A blank Account Information page appears.
5. Complete the following fields to create the account:
   - **User Name**: Type the user name that the user logs in with.
   - **Password**: Type the password associated with the account.
   - **Enabled**: Select this option to enable the account. If you deselect this option, the account will exist, but it cannot be used.
   - **Administrator**: Select this option to provide administrator access to the account. Administrator accounts are not meant for ordinary users.
   - **Screen Name**: Type the screen name for the account. This is how the user is displayed to other users in the Your Assistant Collaboration Module.
   - **Video Enabled**: Select this option to enable videoconferencing for this account. You should leave this option checked for almost all users.
   - **Sharing Enabled**: Select this option to enable sharing for this account. You should leave this option checked for almost all users.
   - **Comments**: Type any notes you wish to add, such as why or when you created this account, or who the user is. The comments have no effect on the account.
6. Click **Save** to save the account.
Editing Accounts

You may edit any of the fields and options in an existing account.

To edit an account:

1. Log in to the Your Assistant Collaboration Module server using your administrator username and password.
2. Click the Accounts link at the top of the page.
3. On the Accounts page, click the Edit link at the right of the account you want to edit.
4. The Account Information page appears. Edit the account details as required.
5. Click Save to save your changes.

Deleting Accounts

Deleting an account removes it from the server so it cannot be used in the future.

To delete an account:

1. Log in to the Your Assistant Collaboration Module server using your administrator username and password.
2. Click the Accounts link at the top of the page.
3. On the Accounts page, click the Delete link at the right of the account listing.
Managing Conferences

You can create, remove, or modify conferences using the Collaboration Web page like other users. However, as an administrator, you can also do the following:

- remove and modify conferences that you do not own (i.e., that you did not create).
- view all conferences, not just public conferences.

To manage conferences:

1. Log in to the Your Assistant Collaboration Module server using your administrator username and password.
2. Click the Conferences link at the top of the page.

3. Make the required change to the conference and click Save.

Creating Conferences

You can create new conferences from the Conferences page. See the Mitel Your Assistant Collaboration User Guide, part number 835.3249, for more information.

Editing Conference Details

With administrative access, you can edit the following details of any conference on the server:

- Assign the Public or Private status to a conference.
- Assign a Password for a conference.
- Open or close the conference to new attendees.

See the Mitel Your Assistant Collaboration User Guide, part number 835.3249, for more information.

Ending Conferences

A conference does not automatically end when all attendees leave. Unattended conferences remain on the server in case the attendees are taking a break or the conference simply hasn't started yet. However, it is also possible that any given unattended conference should have been ended long ago, and is simply wasting space on the server.

As an administrator, you can end any conference, not just those that you own. See the Mitel Your Assistant Collaboration User Guide, part number 835.3249, for more information.
Quality of Service (QoS) Levels

As an administrator, you can limit the bandwidth requirements of conferences by placing a maximum limit on the video quality. This limitation may potentially improve the performance of conferences by increasing the socket buffer size.

To view or modify the QoS settings:

1. Log in to the Your Assistant Collaboration Module server using your administrator username and password.
2. Click the System link at the top of the page.
3. Click the Quality of Service link in the System links box. The Quality of Service page appears.
4. Modify the following Video and Audio Maximums settings as required. These settings apply to all conferences on the server.
   - **Video Maximum Size**: Specify the maximum size for video streams.
   - **Video Maximum Quality**: Specify the maximum quality for video streams.
   - **Video Maximum Frames**: Specify the maximum frame rate (FPS) for video streams.
5. If required, increase the Socket Buffer sizes to improve performance. Increasing the buffer size requires more server resources, but it may help to reduce problems like video glitches.
6. Click Save Settings to save your changes.
Security

In addition to securing conferences with accounts and passwords, Mitel Your Assistant Collaboration Module provides conference security using SSL 3.0/TLS 1.0. These encryption standards are based on the security standard published by the Internet Engineering Task Force (IETF).

HTTPS and SSL/TLS Security

HTTPS and SSL are two different encryption standards. Descriptions for both are provided below:

- **HTTPS**: An upper layer protocol intended to secure the communication between a Web browser (i.e. IE, Mozilla and Firefox) and a Web server (i.e. IIS and Apache). The TCP port assignment for HTTPS is TCP port 443.
- **SSL**: A lower layer protocol that is used to secure the communication in a client-server application. Unlike HTTPS, SSL can communicate over any TCP port providing the assigned port is available on the server computer.

The important thing to note is that HTTPS and SSL are different encryptions technologies and that they have no dependencies on each other.

Mitel Your Assistant Collaboration Module provides conference security using SSL 3.0/TLS 1.0.

Enabling Security

To enable security for conferences, you must enable the security option on the conferencing server.

**To enable security:**

1. Log in to the Your Assistant Collaboration Module server using your administrator username and password.
2. Click the **System** link at the top of the page.
3. Click the **Security** link in the System links box. The Security page appears.
4. Select the **Enable SSL/TLS** option to enable security. HTTPS is invoked automatically when this option is enabled.
5. Click the **Save Settings** button at the bottom of the page to confirm your changes.
6. Restart the Your Assistant Collaboration Module server Windows service for the security changes to take affect. Failure to do so may result in conferences not being secure to the level you have selected.
Using Certificates

Your Assistant Collaboration Module uses digital certificates as part of its security scheme. Certificates may be generated by an approved certificate authority such as VeriSign or Thawte, or you may have the server generate its own certificates.

Using the Certificate From an Approved Certificate Authority

The recommended method for using the secure option is to apply for a certificate from an approved certificate authority (CA). To apply for a certificate from a CA, you must first generate a certificate request, also known as a CSR, from the conferencing server. After the CSR is generated, send it to the CA and the CA will respond with the public key.

Contact the certificate authority or go to their Web site to obtain a certificate from them. The procedure for obtaining a certificate from a CA depends on the CA you are applying to. However, it is likely that the authority will require the following information:

- **Organization**: The name of your organization.
- **Organizational Unit**: Typically your company name or subdivision.
- **Country**: The name of your country. You can use abbreviations.
- **State or Province**: Your state or province.
- **Locality**: This is typically the name of your city.
- **Common Name**: This is the complete URL for your Web conferencing server. i.e. conference.widgetsinc.com.
- **E-mail**: A valid e-mail address. This is the e-mail address the CA will respond to with the public certificate.

Be sure to spell the name of your organization correctly. If there is a mistake in the spelling, the spelling mistake will be visible in the certificate when it is issued to your organization. The only way to correct the mistake is to re-apply for the certificate from the CA.

The method by which you receive your certificate from the CA depends on the CA. The certificate may be e-mailed in a zipped file that may or may not be password protected. Some CAs may upload the public certificate to a secure FTP site where you must log in to download the certificate. In most situations, the CA will respond to you via a separate e-mail with all the instructions.

If the CA sends back multiple files, the relevant file is the certificate file that ends with the .cer file extension, example: mycompany.cer.
Applying the Certificate

Once you have obtained the certificate, use the following procedure to apply it to conferencing.

To apply the certificate:

1. Open your certificate (.cer file) with a text editor.
2. Log in to the Your Assistant Collaboration Module server with an administrative account.
3. Click the System link at the top of the page.

5. Copy and paste the contents of your certificate from the open text editor to the Certificate field at the bottom of the page.
6. Click Save Settings at the bottom of the page to save your changes.
7. Restart the Your Assistant Collaboration Module server Windows service to activate the certificate. Failure to do so may result in conferences not being secure to the level you have selected.

Using an Auto Generated Certificate

The auto certificate option allows an organization to host secure conferences using an auto generated certificate instead of a certificate generated by a certificate authority (CA). The auto-generated certificate is an economical method for hosting a secure conference without the annual cost associated with a certificate from an approved CA such as VeriSign.

If you want to use this option, you must first create a certificate request feature. Once the certificate request is made, the Web conferencing server auto generates both the public and private keys.
To auto generate a certificate:

1. Log in to the Your Assistant Collaboration Module server with an administrative account.
2. Click the System link at the top of the page.
4. Under the security option, click the Create CSR link. The Create Certificate Signing Request page appears.
5. Enter the appropriate information into the fields required to generate a key request.
6. Click Create when complete.
7. You are returned to the Security page. The Certificate Signing Request and Private Key fields are completed.
8. Click Save Settings to save your changes.
9. Restart the Your Assistant Collaboration Module server Windows service to activate the certificate. Failure to do so may result in conferences not being secure to the level you have selected.

After the certificate request is complete, the Web conferencing server creates a private key, which is maintained only by the conferencing server. The public key is sent to the browser when a user attempts to connect to the conferencing server's HTTPS link. You must restart the Web conferencing server service for the public key to be generated.

To create a secure conference, enter the HTTPS link in your browser. The browser warns you that the certificate being used on the conferencing server was not issued by an approved CA, but you can ignore this warning.

Verifying that Security is Enabled

After enabling security, you can verify if the security setting is enabled by examining the yacs.log file. The yacs.log file is located in the folder where you installed the Web conferencing server. Open the file with a text editor and check to see if it contains security-related data (HTTPS, etc.).
Backups and Restores

Use the procedures below to back up and restore the Collaboration database.

**To back up the Collaboration server database:**

1. Locate the **Your Assistant Web Collaboration Server** folder on the computer. By default, this folder is located in the directory where the Collaboration server is installed: `C:\Program Files\Mitel Networks`.
2. Copy the folder to an external location.

**To restore the Collaboration server database:**

1. Stop the **Your Assistant Collaboration Server** service (Control Panel – Administrative Tools – Services).
2. Copy the backup of the **Your Assistant Web Collaboration Server** folder to the Collaboration server installation directory.
3. Restart the **Your Assistant Collaboration Server** service.
Troubleshooting UC Advanced

Troubleshooting Tables .......................................................... 128
  Installation Problems ......................................................... 128
  Standard Operation Problems .............................................. 129
  Collaboration Problems .................................................... 133
  Audio Problems ............................................................... 135

Error and Warning Messages .................................................. 137
  Initialization Messages ........................................................ 137
  Configuration Change Messages ......................................... 139
  Teleworker Setup Message ................................................ 139
  File Sending Message ...................................................... 139
  ACD Messages ................................................................. 140
  PIM Integration Messages .................................................. 140

Log Files and Troubleshooting Tools ........................................ 141
  UC Advanced Client .......................................................... 141
  Unified Communications Server ........................................ 142
  Using UC Advanced Information Tools ................................... 145

Configuring the MiTAI Client and Server Loggers ....................... 148
  MiTAI Client Logger .......................................................... 148
  MiTAI Server Logger .......................................................... 149
  MiTAI Error Codes ............................................................ 151

Troubleshooting Tips .......................................................... 152
  Restarting Unified Communications Servers .......................... 152
  Turning on Custom Trace .................................................... 152
Troubleshooting Tables

This section provides troubleshooting tables for the following types of problems:

- "Installation Problems" below
- "Standard Operation Problems" on page 129
- "Collaboration Problems" on page 133
- "Audio Problems" on page 135

Installation Problems

Table 25 provides troubleshooting information for installation problems.

<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error 1920 when installing Unified Communications Server - Failed to start Presence Service</td>
<td></td>
<td></td>
</tr>
<tr>
<td>When installing Unified Communications Server, you may see the following error on Windows 2003/Windows XP machines: “Error 1920-YA Presence Service failed to start. Verify that you have sufficient privileges to start the services.”</td>
<td>To resolve this, you must enable DEP for Windows programs and services only:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Right-click My Computer and select Properties.</td>
<td>2. On the Advanced tab, in the Performance area, click Settings.</td>
</tr>
<tr>
<td></td>
<td>3. On the Data Execution Prevention tab, select Turn on DEP for essential Windows programs and services only. You should now be able to install Unified Communications Server.</td>
<td></td>
</tr>
<tr>
<td>Windows Installer generates an Error 1722 when attempting to install UC Advanced.</td>
<td>The Windows Installer will generate an error 1722 when attempting to install the UC Advanced client on a machine that already has Mitel Desktop TAPI installed.</td>
<td>To successfully complete the UC Advanced client installation, the Mitel Desktop TAPI will have to be uninstalled first. In the case of the 6140 Agent Portal client, the Desktop TAPI is not necessary for the application to run, and can be removed.</td>
</tr>
<tr>
<td>Licensing - multiple NIC.</td>
<td>The MAC address of a network adapter is used to generate a license. When the licensing server loads the license it verifies that the network adapter is present in the machine it is running on. The NIC that the MAC is retrieved from does not need to be the NIC that is actually being used by the licensing server, but the NIC does still need to reside in the machine that the licensing server is running on.</td>
<td></td>
</tr>
</tbody>
</table>
## Standard Operation Problems

Table 26 provides troubleshooting information for standard operation problems.

### Table 26. UC Advanced Standard Operation Problems

<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admin Tool – When you try to open the Admin Tool, the following error message is displayed: “An error occurred while initializing this UC server. Error: could not get server settings. This server is disconnected”.</td>
<td>Both the server and client components were installed on the same hardware platform and then the client was uninstalled.</td>
<td>Do not install the server and client on the same hardware platform. If you do so and then uninstall the client, the uninstaller removes an ActiveX® file required for IM and Presence. By default, this file (ESDK.ocx) is installed in the Mitel\Unified Communicator Advanced\Bin\ directory. Conversely, if you uninstall the server, the ESDK.ocx file is removed and the client cannot access IM and Presence information.</td>
</tr>
<tr>
<td>ACD work timer not functioning properly.</td>
<td>ACD real-time events option is not enabled on the 3300.</td>
<td>Enable ACD real-time events option on the 3300.</td>
</tr>
<tr>
<td>AD synch issues</td>
<td>Not configured properly.</td>
<td>Unified Communications Server needs to be part of the same domain as the Active Directory. AD is dependent on DNS server.  &lt;ul&gt;&lt;li&gt;Is the Unified Communications Server pointing to the correct DNS server?&lt;/li&gt;&lt;li&gt;Is the LDAP path correct?&lt;/li&gt;&lt;li&gt;The Unified Communications Server service must run as a user that has “read” permissions in AD.&lt;/li&gt;&lt;li&gt;Only users with “switch IP address” will be retrieved.&lt;/li&gt;&lt;/ul&gt;</td>
</tr>
</tbody>
</table>
No devices available.

UC Advanced cannot set a MiTAI monitor, or there is a firewall blocking or other network issue.

- On 3300 check system options to ensure “MiTAI TAPI computer” is set to Yes.
  - Ensure 3300 COS for the UC Advanced sets has “HCI” enabled.
  - Ping 3300.
  - Ping set.
- Does the deskphone have the same issue? (independent of UC Advanced)
- Is the problem local or remote?
  - Are VLAN’s configured properly?
  - Check VPN.
- Is telephony service started?
  - Check telephony server logs for errors.
  - Stop and restart telephony server service.
- Use MiTAI test tool to verify if it is a MiTAI issue.
  - If it fails check the 3300 programming.
- If using a softphone:
  - check IP phone emulator and ensure the correct IP address and green light is on.

Presence service will not start.

Incorrect settings.

1. Start the Presence Server Console.
2. Select Server Settings.
3. Make sure the “Audit and reporting” check box on the Reporting tab is cleared.

If this doesn’t work, see the following issue for more possible solutions.

<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
</table>
| No devices available.     | UC Advanced cannot set a MiTAI monitor, or there is a firewall blocking or other network issue. | • On 3300 check system options to ensure “MiTAI TAPI computer” is set to Yes.  
  - Ensure 3300 COS for the UC Advanced sets has “HCI” enabled.
  - Ping 3300.
  - Ping set.
- Does the deskphone have the same issue? (independent of UC Advanced)
- Is the problem local or remote?
  - Are VLAN’s configured properly?
  - Check VPN.
- Is telephony service started?
  - Check telephony server logs for errors.
  - Stop and restart telephony server service.
- Use MiTAI test tool to verify if it is a MiTAI issue.
  - If it fails check the 3300 programming.
- If using a softphone:
  - check IP phone emulator and ensure the correct IP address and green light is on. |
| Presence service will not start. | Incorrect settings. | 1. Start the Presence Server Console.  
  2. Select Server Settings.  
  3. Make sure the “Audit and reporting” check box on the Reporting tab is cleared.  
  If this doesn’t work, see the following issue for more possible solutions. |
<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>No presence or client keeps changing from online to offline.</td>
<td>UC Advanced client or Unified Communications Server not communicating with the presence server.</td>
<td>Has the presence server service started?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Is the Unified Communications Server communicating with the Presence server on the right port?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Check the YAserverHost.exe.config and yas.log file for ports.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Telephony server might not be working properly.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Is the UC Advanced client communicating with the Presence server?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Check ucc.log and verify the ports.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• UC Advanced client firewall blocking necessary ports.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Check Presence server log and see if it is updating.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Check telephony server logs to see if it keeps losing connectivity.</td>
</tr>
<tr>
<td>Microsoft Messenger presence not displayed, but other forms of presence are available.</td>
<td>Messenger has been damaged.</td>
<td>Reinstall Messenger.</td>
</tr>
<tr>
<td>The Dial from External feature was removed from the user’s account, but the click to call functionality is still enabled on the user’s computer.</td>
<td>The Dial from External feature was not completely removed from the account.</td>
<td>To remove the Dial from External feature (and disable click to call on the user’s computer):</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Remove the Dial from External feature from the user’s account using the UC Advanced Admin Tool.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Reinstall the client on the user’s computer.</td>
</tr>
<tr>
<td>UC Advanced client is unable to dial from Outlook.</td>
<td>The user has configured UC Advanced to use the Teleworker Gateway.</td>
<td>The user should deselect the ‘Enable Teleworker Mode’ setting on the UC Advanced client’s Teleworker tab. This tab can be accessed by navigating to Tools/Configuration/ Teleworker.</td>
</tr>
<tr>
<td>“Failed to initialize VBox” message appears, interface locks up.</td>
<td>UC Advanced is conflicting with VBox. VBox is an anti-piracy / copy protection application that is included in a number of applications, including ACT!.</td>
<td>If you are using ACT!, ensure that it is fully licensed rather than using a trial version. If this error is occurring regardless of the status of your ACT! license, please contact your software provider.</td>
</tr>
</tbody>
</table>
### Table 26. UC Advanced Standard Operation Problems (Continued)

<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>UC Advanced Client Interface fails to display completely or stops responding.</td>
<td>UC Advanced is running on a computer that has an out-of-date video driver.</td>
<td>Update the computer’s video driver with a current version.</td>
</tr>
</tbody>
</table>
| The UC Advanced client will not function properly if the deskset and/or softphone are configured with Suite Services. | When trying to dial from Outlook the client may receive an error in Outlook indicating an Internal Software Error has occurred. Dialing from MS Phone Dialer, the client may receive an error indicating that the line/device is busy, and please ensure that it has power, etc. | • Ensure that the NAME and IP ADDRESS fields in the Switch Properties on the Unified Communications Server are both programmed with the IP Address of the 3300 ICP.  
  • Shut down and launch the UC Advanced client application again in order to pull the information from the server.  
  If the above steps do not resolve the issue, please check the following:  
  • Launch the Registry Editor on the UC Advanced client PC.  
    (Start - Run - regedit)  
    Browse to the following location:  
    HKEY_LOCAL_MACHINE\SOFTWARE\Mitel Networks\Mitel Networks TAPI Service Provider\Providerx\Adapterx\Switch0.  
    (You may have more than one adapter listed. Please check all of the adapters have the correct settings).  
    • Highlight the Switch0 key, there is a Name field in the window on the right side. Please make sure the value for this field is the IP Address of the 3300 ICP. If it is blank, or has 0.0.0.0, please open the field and enter the correct IP Address. |
### Collaboration Problems

Table 27 provides troubleshooting information for the Your Assistant Collaboration Module.

<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>When trying to access a Web conference within the Collaboration Server you receive the error “Licenses exceeded.”</td>
<td>IP Address of the Unified Communications Server is not listed.</td>
<td>To resolve this issue:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Log in via the Collaboration start page as administrator (the default password is password).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Click System.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Click Web Services. You should see a box titled “HTTP Post Allowed Senders Address”.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Ensure the IP Address of the Unified Communications Server is listed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If the Unified Communications Server’s IP address is not listed, enter the IP and save the settings.</td>
</tr>
<tr>
<td>Collab printer error.</td>
<td>Required .dll files may be missing.</td>
<td>Perform the steps below on the UC Advanced client PC:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Copy the following three files from:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C:\WINDOWS\system32\spoool\drivers\w32x86\3unidrv.dll</td>
</tr>
<tr>
<td></td>
<td></td>
<td>unires.dll</td>
</tr>
<tr>
<td></td>
<td></td>
<td>undrvui.dll</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Place the copied files in one folder above to C:\WINDOWS\system32\spoool\drivers\w32x86.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Retry the document share feature.</td>
</tr>
<tr>
<td>Cannot use sharing features, even as a presenter or host.</td>
<td>The Mitel Printer is not installed.</td>
<td>If the Mitel Printer is not installed, install the printer using the Windows Control Panel “Printers and Faxes”. To install the Mitel Printer, you must have Windows administrator rights. Once the printer is installed, click the File menu in the Collaboration Module and select the “Share Files Automatically” check box on the General tab.</td>
</tr>
</tbody>
</table>
Troubleshooting UC Advanced Collaboration Problems

Table 27. Your Assistant Collaboration Module Problems (Continued)

<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>UC Advanced user accounts not propagating over to the</td>
<td>Unified Communications Server not talking to the Collab server.</td>
<td>Unified Communications Administration Tool collaboration settings (IP address and ports) need to coincide with the Collab Server system information settings.</td>
</tr>
<tr>
<td>Collaboration server.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cannot launch Collab session from UC Advanced client.</td>
<td>Client cannot route to the collaboration server.</td>
<td>On the client:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Can the user log in through the URL interface?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Is it routable to collaboration server?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Ping the Collab server from the client.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Is the client firewall blocking ports?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Is the client licensed for Collab?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Check the client log file for an error message.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>On the server:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Are the Collab server and Unified Communications Server programmed with the same ports?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Try manually launching the Collab module.exe.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• During Unified Communications Server install, was the IP address of the server entered?</td>
</tr>
</tbody>
</table>
## Audio Problems

Table 28 provides troubleshooting information audio problems.

<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
</table>
| When using softphone the call “breaks up” while using other programs in my PC. | Some Windows tasks run at elevated priorities, briefly preventing other applications from performing their own tasks. Windows Desktop tasks can run at the highest of priorities. A common problem is the animation used when minimizing and maximizing windows. This animation takes about 200 ms (1/5th of a second) and produces a noticeable break in a conversation. | **To disable the animation in XP:**
1. In the Windows Control Panel, select **Performance and Maintenance**.
2. Select **System Properties**.
3. On the Advanced tab, click the **Performance "Settings" button.**
| One-way audio or no audio. | Firewall blocking or call path cannot route. | **Check gateway IP address. Is default gateway aware of all networks?**
- In DMZ - NIC of external firewall.
- Ensure firewall isn’t blocking any necessary ports.
- Is it a fully routable path? |
| When using Plantronics headset:  
- MUTE button on the volume control of the headset turns on by itself, and will not turn off.  
- Disconnecting and reconnecting the headset to the PC causes the system to freeze and require a power down and restart.  
- Windows loses the connection to the USB headset. Windows no longer detects the headset. | Headset is defective or misconfigured on the PC. | **Contact Plantronics Technical Support in order to ensure that the headsets are configured and operating as intended by Plantronics.** |
Table 28. UC Advanced Audio Problems (Continued)

<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>When using Plantronics headset:</td>
<td>In order to provide an enjoyable and reliable UC Advanced softphone experience, it is important to make sure that the USB headset connected to the UC Advanced client PC is functioning correctly.</td>
<td>Ensure that the USB connection between the headset and the PC is secure.</td>
</tr>
<tr>
<td>• Loss of audio during a phone call, while the call window stays up.</td>
<td></td>
<td>• Ensure that Microsoft Windows is detecting the USB connected headset. (Windows - Hardware Devices).</td>
</tr>
<tr>
<td>• Answering or making a softphone call using, and experiencing no audio.</td>
<td></td>
<td>• Verify with the headset manufacturer that the correct drivers and firmware have been installed for the Microsoft Operating System installed on the UC Advanced client PC.</td>
</tr>
<tr>
<td>• Loud hissing, static or popping heard through the headset speakers.</td>
<td></td>
<td>• Check the headset manufacturer's Web site for white papers and support articles for related symptoms with the headsets. (i.e. Intermittent loss of audio, disconnects and reconnects causing system failure, etc.).</td>
</tr>
<tr>
<td>• Windows loses the USB connection to the headset.</td>
<td></td>
<td>• Check the PC manufacturer's Web site for articles relating to USB device connectivity problems. (Root USB Controller vs. front USB ports, USB power distribution, etc.).</td>
</tr>
<tr>
<td>• UC Advanced no longer detects the USB headset.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Error and Warning Messages

This section provides common error and warning messages for the following situations:

- "Initialization Messages" below
- "Configuration Change Messages" on page 139
- "Teleworker Setup Message" on page 139
- "File Sending Message" on page 139
- "ACD Messages" on page 140
- "PIM Integration Messages" on page 140

### Initialization Messages

Table 29 lists client initialization messages and their possible causes.

<table>
<thead>
<tr>
<th>Message</th>
<th>Possible Cause</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>UC Advanced failed to connect to server xxx.xxx.xxx.xxx on port 2114. UC Advanced will startup in Offline mode. Do you wish to continue?</td>
<td>• The Unified Communications Server is not running.</td>
<td>• Show Details</td>
</tr>
<tr>
<td></td>
<td>• There is no route to the Unified Communications Server.</td>
<td>• OK</td>
</tr>
<tr>
<td></td>
<td>• UC Advanced cannot set a MiTAI monitor on the extension number.</td>
<td>• Cancel</td>
</tr>
<tr>
<td></td>
<td>• It may be a firewall/network issue or 3300 configuration problem.</td>
<td></td>
</tr>
<tr>
<td>There are no devices available (deskphone:&lt;ext&gt; or softphone &lt;ext&gt; on switch xxx.xxx.xxx.xxx). Would you like to work offline?</td>
<td>• The Unified Communications Server has not finished configuring.</td>
<td>• OK</td>
</tr>
<tr>
<td></td>
<td>• The telephony server is a MiTAI proxy from the Unified Communications Server to the 3300. If the telephony server loses connectivity to the 3300 then UC Advanced loses it’s MiTAI monitor of the UC Advanced extension.</td>
<td>• Cancel</td>
</tr>
<tr>
<td>UC Advanced failed to retrieve a license from server xxx.xxx.xxx.xxx, port 2114. UC Advanced will startup in Offline mode. Do you wish to continue?</td>
<td>The Unified Communications Server is not licensed.</td>
<td>• Show Details</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• OK</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Cancel</td>
</tr>
<tr>
<td>Your default device (&lt;device type&gt; &lt;ext&gt; on switch xxx.xxx.xxx.xxx is not available. Please choose another device type.</td>
<td>The softphone DN was removed from the Unified Communications Server.</td>
<td>OK</td>
</tr>
<tr>
<td>Irreconcilable discrepancy between the UC Advanced client’s set of lines and the PBX’s set of lines. Restart UC Advanced.</td>
<td>• Line changes have been made on the switch.</td>
<td>OK</td>
</tr>
<tr>
<td></td>
<td>• UC Advanced and the PBX switch are out of synch.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Solution: Restart the Unified Communications Server.</td>
<td></td>
</tr>
<tr>
<td>UC Advanced cannot find your userid in the UC Server database. The missing userid is MITEL\jjones. UC Advanced will startup in Offline mode. Do you wish to continue?</td>
<td>Userid not found on the Unified Communications Server.</td>
<td>• OK</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Cancel</td>
</tr>
</tbody>
</table>
## Table 29. Initialization Messages (Continued)

<table>
<thead>
<tr>
<th>Message</th>
<th>Possible Cause</th>
<th>Options</th>
</tr>
</thead>
</table>
| UC Advanced failed to connect to server through the Teleworker Gateway. UC Advanced will startup in Offline mode. Do you wish to continue? | Userid not found on the Unified Communications Server.                        | • Show Details  
|                                                                         |                                                                                | • OK  
|                                                                         |                                                                                | • Cancel |
| Your device appears to be out of service. Please contact your system administrator for assistance. Would you like to go to offline mode now? Click OK to continue to use UC Advanced in offline mode. Click Cancel to quit UC Advanced. | Deskphone not plugged in.                                                      | • OK  
|                                                                         |                                                                                | • Cancel |
| The telephony service has become unavailable. Switching to offline mode. | While using UC Advanced in softphone mode the UC Advanced connection to the telephony server has become temporarily unavailable. | OK         |
| The telephony service has become unavailable again. Switching to offline mode. | The telephony service is available again, UC Advanced is now in Online mode.   | OK         |
| This is a Demo version of UC Advanced and will startup in Offline mode. For a fully licensed copy of UC Advanced, please contact your System Administrator. Do you wish to continue? | • If the Unified Communications Server is licensed (a license key has been applied) but the user trying to log in does not appear in the Unified Communications Server (Administration Tool> user accounts) then they will receive this message and be able to login offline.  
• The user logging in may be listed as an account on the Unified Communications Server, but doesn't have a UC Advanced base license assigned to it, will get this error and be able to login in offline mode. | • OK  
|                                                                         |                                                                                | • Cancel |
### Configuration Change Messages

Table 30 provides configuration change warning messages and their possible causes.

<table>
<thead>
<tr>
<th>Message</th>
<th>Possible Cause</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes to the call handling device will not take effect until you restart UC Advanced.</td>
<td>This message is displayed when the call handling setting has been changed.</td>
<td>OK</td>
</tr>
<tr>
<td>Changes to the user interface language will not take effect until you restart UC Advanced.</td>
<td>This message is displayed when the language settings have been changed.</td>
<td>OK</td>
</tr>
</tbody>
</table>
| There are changes made to the configuration of UC Advanced that have not been applied yet. Please choose what you would like to do with them. | This message is displayed when configuration changes have been made then the user cancels out of the configuration screen without saving or applying the changes. | • Apply  
  • Review  
  • Discard |
| Your audio device change will not take place until UC Advanced has been restarted. FOR YOUR OWN SAFETY Please be sure to adjust the volume level on the selected audio device. | This is displayed when one of the Microphone, Speaker or alert audio settings are changed. | OK          |

### Teleworker Setup Message

Table 31 provides a teleworker setup message.

<table>
<thead>
<tr>
<th>Message</th>
<th>Possible Cause</th>
<th>Options</th>
</tr>
</thead>
</table>
| Directory number is not valid. Please type in the correct value and try again. | An invalid directory number was entered (non numeric)  
Resolution: Re-enter the directory number. | OK          |

### File Sending Message

Table 32 provides a file sending message.

<table>
<thead>
<tr>
<th>Message</th>
<th>Possible Cause</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>The file or files you attempted to send exceed the maximum file transfer size of 10 megabytes.</td>
<td>While in the People shutter or chat window attempting to send a file over 10 megabytes to another UC user.</td>
<td>OK</td>
</tr>
</tbody>
</table>
ACD Messages

Table 33 provides ACD errors and their possible causes.

<table>
<thead>
<tr>
<th>Message</th>
<th>Possible Cause</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Either the agent does not exist, is already logged in elsewhere, or the phone you are monitoring is not configured for ACD. Press OK to return to UC Advanced.</td>
<td>• An incorrect Agent ID has been entered.</td>
<td>OK</td>
</tr>
<tr>
<td></td>
<td>• Agent selected is already logged in elsewhere.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Phone not configured for ACD.</td>
<td></td>
</tr>
<tr>
<td>The Agent ID is invalid. The Agent ID cannot be blank.</td>
<td>The agent Id has not been entered.</td>
<td>OK</td>
</tr>
</tbody>
</table>

PIM Integration Messages

Table 34 provides PIM integration messages and their possible causes.

<table>
<thead>
<tr>
<th>Message</th>
<th>Possible Cause</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft Outlook is running under another profile. Please restart this application under the default profile.</td>
<td>User selected some profile other than the default mail profile (set in the Windows Control Panel “Mail”) when the PIM was started.</td>
<td>OK</td>
</tr>
<tr>
<td>UC Advanced is experiencing issues using Microsoft Outlook. Please make sure this application is working properly and try again.</td>
<td>The PIM is malfunctioning in an unspecified way.</td>
<td>OK</td>
</tr>
<tr>
<td>Please install and set up any of these supported applications before using this feature:</td>
<td>User attempted to select PIM folders for importing or indexing contacts when no PIM was installed.</td>
<td>OK</td>
</tr>
<tr>
<td>• Windows Address Book</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Act</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Microsoft Outlook</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Lotus Notes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Microsoft Outlook is not responding. Please make sure this application is working properly and try again.</td>
<td>The PIM is not responding and should be restarted.</td>
<td>OK</td>
</tr>
<tr>
<td>Microsoft Outlook appears to be unavailable. Please make sure this application is working properly and restart UC Advanced when convenient.</td>
<td>The PIM is not available. UC Advanced must be restarted when the PIM is working again.</td>
<td>OK</td>
</tr>
</tbody>
</table>
### Log Files and Troubleshooting Tools

This section provides information about log files and troubleshooting tools for:
- “UC Advanced Client” below
- “Unified Communications Server” on page 142

#### UC Advanced Client

Table 35 provides information about the UC Advanced client log files and troubleshooting tools.

The default installation directory for UC Advanced client is:

\[ \text{C:\Program Files\Mitel\Unified Communicator Advanced} \]

**Table 35. UC Advanced Client Log Files and Troubleshooting Tools**

<table>
<thead>
<tr>
<th>Location</th>
<th>Log File/Tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>&lt;client installation directory&gt;\Assemblies</code></td>
<td>YA.exe.config</td>
<td>IP settings/ports for the Unified Communications Server, Collaboration server and telephony server of client NHtraceswitch settings for logging</td>
</tr>
<tr>
<td><code>&lt;client installation directory&gt;\Assemblies</code></td>
<td>Ya.exe</td>
<td>Executable to launch UC Advanced client application</td>
</tr>
<tr>
<td><code>&lt;client installation directory&gt;\Assemblies</code></td>
<td>YAInfoTool.exe</td>
<td>Tool used to collect client log files for troubleshooting</td>
</tr>
<tr>
<td>For XP: <code>C:\Documents and Settings\&lt;username&gt;\Application Data\Mitel Corporation\UC</code> For Vista: <code>C:\Documents and Settings\&lt;username&gt;\Application Data\Roaming\Mitel Corporation\UC</code></td>
<td>uc.mdb</td>
<td>Client database contains call log, contacts, groups, and messenger IDs.</td>
</tr>
<tr>
<td><code>C:\Documents and Settings\&lt;username&gt;\Application Data\Mitel Corporation\UC</code></td>
<td>ucc.log</td>
<td>Client log file</td>
</tr>
<tr>
<td><code>C:\Documents and Settings\&lt;username&gt;\Application Data\Mitel Corporation\UC</code></td>
<td>uc.cfg</td>
<td>Uc.cfg contains all persistent settings of the application, including configuration settings and GUI layout settings. Deleting this file resets UC Advanced to default settings.</td>
</tr>
<tr>
<td><code>C:\Documents and Settings\&lt;username&gt;\Local Settings\Temp</code></td>
<td>ya3install.log</td>
<td>Log file created by InstallShield during installation. Contains a detailed record of the steps taken by the installer.</td>
</tr>
</tbody>
</table>
Unified Communications Server

Table 36 provides information about the Unified Communications Server log files and troubleshooting tools. The default installation directory for Unified Communications Server is:

C:\Program Files\Mitel\Unified Communications Server

<table>
<thead>
<tr>
<th>Location</th>
<th>Log File/Tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;server installation directory&gt;\MiAUDIODESKTOP EDITION\Tools</td>
<td>P:\phone.exe</td>
<td>Basic phone application (This folder and tool are created for UC Advanced 4.0.x and lower versions only).</td>
</tr>
<tr>
<td>&lt;server installation directory&gt;\MiTAl\Logger Configuration</td>
<td>mitaiapps.init</td>
<td>Logger Configuration File for the MiTAl Applications</td>
</tr>
<tr>
<td>&lt;server installation directory&gt;\MiTAl\Tools</td>
<td>MitaiClientLogger.exe</td>
<td>set settings, see description of mitaiServerLogger</td>
</tr>
<tr>
<td>&lt;server installation directory&gt;\MiTAl\Tools</td>
<td>MitaiServerLogger.exe</td>
<td>The MiTAl Client and Server Loggers log whatever MiTAl events are received by the system. This may be useful to use when UC Advanced has issues with MiTAl. In such case, the UC Advanced log contains an error message prefixed with SXERR. This logging may also be useful when the phone system is generally unresponsive.</td>
</tr>
</tbody>
</table>
### Mitel® Unified Communicator® Advanced Administrator Guide – Issue 2.0, February 2009

**Table 36. Unified Communications Server Log Files and Troubleshooting Tools (Continued)**

<table>
<thead>
<tr>
<th>Location</th>
<th>Log File/Tool</th>
<th>Description</th>
</tr>
</thead>
</table>
| <server installation directory>\ MiTAI\Tools | MitaiTestTool.exe | Mitai Diagnostics Tool Tests:  
- Tests SDK software option communication with one ICP.  
- Tests MiTAI monitoring of DN displayed in tool GUI.  
- Tests MiTAI answering an incoming call. (user makes call from another phone to DN monitored by tool)  
- Tests outgoing voice stream for soft phone by playing pre-recorded voice file.  
- Tests incoming voice stream for soft phone by recording voice data received, and then plays recorded voice data.  
- Tests DTMF functionality by prompting user at remote phone to press DTMF digits, then show digits received.  
- Tests MiTAI disconnecting call.  
- Tests procedure for stopping monitor and disconnecting from MiTAI Server in ICP. |
| C: Program files\Mitel Networks\YACC | Yacc.exe | Client collaboration module executable |
| C: Program files\Mitel Networks\YACC | Yacc.ini | - yacc config settings |
| C: Program files\Mitel Networks\YACC | Yacfp.exe | The collaboration module provides the ability to record the video in flash media format. The Yacfp.exe is used for playing the recorded video file. |
| <server installation directory>\ MiTAI\Tools | MitaiTestTool.txt | Instruction on how to perform MitaiTestTool |
| <server installation directory>\ MiTAI\Log Files | MisntoolTest.log | Output from mitaitestool.exe |
| <server installation directory>\ MiTAI\Log Files | Mitaibrowser.log | Output from Mitai browser tool |
| <server installation directory>\ MiTAI\Log Files | Mitaiapps.log | General Mitai log file |
### Table 36. Unified Communications Server Log Files and Troubleshooting Tools (Continued)

<table>
<thead>
<tr>
<th>Location</th>
<th>Log File/Tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;server installation directory&gt;\MiXML Server Edition\Service\</td>
<td>AppGW.exe</td>
<td>Mitel XML service, used by the Unified Communications Server to retrieve contacts information from the ICP. The end users are not supposed to use this application directly.</td>
</tr>
<tr>
<td>&lt;server installation directory&gt;</td>
<td>ServerInfo.exe</td>
<td>A tool that is used to collect the log files and version information of the Unified Communications Administration Tool, Unified Communications Server, UC Advanced Telephony Server, UC Advanced Licensing Server and UC Advanced Presence Server. Usually, the end user should include the output file in their bug report.</td>
</tr>
<tr>
<td>&lt;server installation directory&gt;\UC Web Collaboration Server\</td>
<td>YACS.exe</td>
<td>Your Assistant Collaboration Module server service, end user does not need to interoperate with this application except starting and stopping the service from the service control panel.</td>
</tr>
<tr>
<td>&lt;server installation directory&gt;\UC Web Collaboration Server\</td>
<td>YACSV.exe</td>
<td>A viewer of the Collaboration server; not for use by end users</td>
</tr>
<tr>
<td>&lt;server installation directory&gt;\UC Web Collaboration Server\</td>
<td>joinff.exe joinie.exe setup.exe</td>
<td>Client Collaboration module, used to set up the collaboration client. End users do not need to use this specifically since the first time the user launches a conference session, these files will be downloaded from the Collaboration server and installed in the client.</td>
</tr>
<tr>
<td>C:\Program Files\Mitel\Unified Communications Admin Tool</td>
<td>yaadmin.exe</td>
<td>Unified Communications Administration Tool. A desktop shortcut of this executable file is automatically created when you install the server.</td>
</tr>
<tr>
<td>C:\Program Files\Mitel\Unified Communications Presence Server</td>
<td>YAPCon.exe</td>
<td>Presence server console. End users should not use it.</td>
</tr>
<tr>
<td>C:\Program Files\Mitel\Unified Communications Licensing Server</td>
<td>YALicensingServerHost.exe</td>
<td>Licensing server service.</td>
</tr>
<tr>
<td>C:\Program Files\Mitel\Unified Communications Presence Server</td>
<td>YAPS.exe</td>
<td>Presence server service.</td>
</tr>
<tr>
<td>C:\Program Files\Mitel\Unified Communications Presence Server</td>
<td>YAPSV.exe</td>
<td>Presence server service viewer. Can be used to monitor the presence status of all users.</td>
</tr>
<tr>
<td>C:\Program Files\Mitel\Unified Communications Presence Server</td>
<td>YAPSA.exe XSSvc.exe</td>
<td>Used by YAPS.exe, users are not supposed to use these files.</td>
</tr>
</tbody>
</table>
Using UC Advanced Information Tools

The information tools are used to collect log files to help with support and troubleshooting. When you open a trouble ticket with the vendor, you must provide the files generated by the Info Tools.

There are two information tools, one for the client and one for the server.

Client Information Tool

The location and contents of the client information tool are as follows:

- **Location:**
  The client information tool is located in:
  ```
  <client installation directory>\Assemblies\UCInfoTool.exe
  ```
  The default installation directory for the UC Advanced 2.0 client is:
  ```
  C:\Program Files\Mitel\Unified Communicator Advanced
  ```

- **Contents:**
  - **System Info:** OS Name, OS Version, .NET Version, System Name, User Name, User Domain Name, Outlook Version, MiAudio Version
  - **UC Sys Info:** Installation Directory, Version
  - **UC AppSettings:** This information becomes available after UC Advanced has been run the first time. Contains information on settings such as audio devices, Collaboration settings, phone model, and so on.
  - **UC Client Log:** Contents of the log file, if there is any.
To use the Client Information tool:

1. Double-click **UCInfoTool.exe** or the UCInfoTool shortcut icon ( ) to start the Info Tool.

2. Click the tab for the information you want to view.

3. Click **Save** to save the information to a specified file.

4. Click **Exit** to exit the tool.
Server Information

The location and contents of the server information tool are as follows:

- **Location:**
  The server information tool is located in:
  
  `<server installation directory>\ServerInfo.exe`
  
  The default installation directory for the Unified Communications server is:
  
  `C:\Program Files\Mitel\Unified Communications Server`

- **Contents:**
  - **System Info:** OS Name, OS Version, .NET Version, System Name, User Name, User Domain Name, Outlook Version, MiAudio version
  - **Admin Log:** Administration Tool log
  - **Presence Log:** Presence server log
  - **Collab Log:** Collaboration server log
  - **Licensing Log:** Licensing server log
  - **Server Log:** Unified Communications Server log
  - **UC Telephony Log:** Telephony server log
  - **UC System Info:** Locations and versions of the Administration Tool, Presence server, Collaboration server, Licensing server, Unified Communications Server, Telephony server, database settings

To use the Server Information tool:

1. Double-click **ServerInfo.exe** or the ServerInfo shortcut icon ( ) to start the Info Tool.

2. Click the tab for the information you want to view.

3. Click **Save** to save the information to a specified file.

4. Click **Exit** to exit the tool.
Configuring the MiTAI Client and Server Loggers

The MiTAI Client and Server Loggers log whatever MiTAI events are received by the system. This may be useful to use when UC Advanced has issues with MiTAI. In such case, the logs contain an error message prefixed with SXERR. This logging may also be useful when the phone system is generally unresponsive.

MiTAI Client Logger

The default location for the MiTAI client logger is:

C: \Program Files\Mitel\Unified Communicator Advanced\MiTAI\Tools.

Execute the logger by double-clicking the MiTAIClientLogger.exe file. The following window appears.

Figure 8. MiTAI Client Logger

Ensure that you enable all log levels on the left, and create a high log size. If you enter 0, it means an unlimited size (but be aware that it may not be cleaning itself up if it ever grows too big, so there are risks involved when doing this). Press OK. The log file’s default location is:

C:\Program Files\Mitel\Unified Communicator Advanced\MiTAI\Log Files\MiTAIApps.log.
MiTAI Server Logger

The MiTAI Server Logger must be installed. The default location for the installer is:

C:\Program Files\Mitel\Unified Communicator Server\MiTAI\Tools

To install and configure the MiTAI server logger:

1. Locate and double-click MiTAIServerLogger.exe.

2. Follow the instructions to install the logger. The default installation location is

   C:\Program Files\Mitel\Unified Communicator Server\MiTAI\MiTAI Server Logger.

3. Execute the server logger from the start menu. The following window appears:

   ![MiTAI Server Logger Window]

4. Enter the fully qualified domain name or IP Address for the Mitel 3300 server.

   You can log MiTAI server events on more than one server simultaneously.
To add another server to the MiTAI Server Logger:

1. Click **Add**. A new tab is added.
2. Click the tab. The following window appears:

![MiTAI Server Logger window](image)

3. Configure the MiTAI Event File fields. Guidelines are as follows:
   - Mitel recommends that the Auto shutoff value be as large as possible.
   - The log file size value should also be large, especially for the 6160: 0 (no limit) is recommended.
   - Select Both Formats in the drop down box on the lower-right.
4. After you have entered the required values, click the **Minimize** button to minimize the window. The MiTAI Server Logger icon now appears in your computer’s taskbar.
## MiTAI Error Codes

Table 37 provides troubleshooting information about MiTAI error codes.

### Table 37. MiTAI Error Codes

<table>
<thead>
<tr>
<th>MiTAI Error Code</th>
<th>Description</th>
<th>Probable Cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>SXERR_DEVICE_ALREADY_MONITORED</td>
<td>An attempt was made to monitor the same device more than once.</td>
<td>UC Advanced has attempted to monitor the same device more than once. This error should be treated more as a warning.</td>
</tr>
<tr>
<td>SXERR_FEATURE_NOT_ALLOWED</td>
<td>A MiTAI call processing service invocation failed because the device was in a state in which the service could not be completed.</td>
<td>A switch configuration is preventing the completion of an operation on a call.</td>
</tr>
<tr>
<td>SXERR_INVALID_CALL_ID</td>
<td>The specified call-ID is not valid. The call-ID can change at the device before the application invokes a call manipulation routine or the call-ID was never valid.</td>
<td>A race condition.</td>
</tr>
<tr>
<td>SXERR_INVALID_PBX_HANDLE</td>
<td>An hPbxObject supplied to a MiTAI routine was not valid. The ICP was previously closed or never opened.</td>
<td>Internal UC Advanced error resulting from a race condition.</td>
</tr>
<tr>
<td>SXERR_INVALID_DN</td>
<td>A specified SX_DN is not valid.</td>
<td>UC Advanced is attempting to monitor an invalid extension. The extension no longer exists on the switch.</td>
</tr>
<tr>
<td>SXERR_NO_CALL_TO_CLEAR</td>
<td>A MiTAI call manipulation routine attempted to clear a call when none was present at the specified device.</td>
<td>A race condition occurred when both parties hung up at the same time.</td>
</tr>
<tr>
<td>SXERR_NO_CALL_TO_ANSWER</td>
<td>A MiTAI call manipulation routine attempted to answer a call. No active call existed, possibly because the call had cleared before the routine took effect.</td>
<td>A race condition occurred when the caller hung up at the same time the call was answered.</td>
</tr>
<tr>
<td>SXERR_PRIVILEGE_VIOLATION</td>
<td>The invoker of the MiTAI service does not have sufficient privileges.</td>
<td>UC Advanced is attempting to perform an operation that is not allowed by the device’s class of service.</td>
</tr>
<tr>
<td>SXERR_UNSPECIFIED</td>
<td>An error of unknown origin.</td>
<td>A GPF occurred within the MiTAI library as a result of passing bad data to it. This is a UC Advanced internal error.</td>
</tr>
</tbody>
</table>
Troubleshooting Tips

This section provides additional troubleshooting tips for UC Advanced.

Restarting Unified Communications Servers

UC Advanced does not handle changes in phone configuration: this is all done on the switch. See the following guidelines about restarting the Unified Communications Servers:

- **Changing a DN on the Switch**: If a UC Advanced account is referencing a DN, changing the line configuration of that DN requires a restart of the UC Advanced services and the UC Advanced client using it.
- **Adding a New DN on the Switch**: Adding a new DN to the Mitel 3300 does not necessitate a restart of the UC Advanced services as long as no UC Advanced account has been programmed to use that device.
- **Deleting an Existing DN**: Deleting an existing DN does not necessitate a restart of the UC Advanced services as long as no UC Advanced account is referencing that device.
- **Changing Voice Mail**: Changing voice mail number and licensing do not require restarting UC Advanced services.

Turning on Custom Trace

If you receive an error message popup telling you to turn on custom tracing in order to troubleshoot, follow these steps to enable trace logging on the server.

To turn on custom trace:

1. Open the Unified Communications Administration Tool.
2. Right-click the Unified Communications Server node, and then select **View Presence Service Console**.
3. Select the Presence Server and click **Connect**.
4. Hold down the left Ctrl key and the left Shift key, and then click **Server Settings** in the Presence Service Console. A tab labeled Custom appears in the Settings pane.
5. Click the **Custom** tab.
6. On the Custom tab enable **Activate server trace**.
Appendix A: Softphone Module Network Guidelines

Introduction ................................................................. 154
Assumptions ................................................................. 154
Setting Priority Conversion .......................................... 154
Bandwidth Provisioning ............................................... 155
Appendix A: Softphone Module Network Guidelines

Introduction

This appendix provides networking guidelines when using the UC Advanced Softphone Module to ensure timely delivery of voice packets.

Assumptions

These network guidelines assume the following:

- Voice and data devices are segmented on separate VLANs (Voice and Data).
- The user’s computer resides on the Data or Default VLAN.
- The ICP controller and the IP sets are on the Voice VLAN.
- A router or Layer 3 switch provides connectivity between the Voice and Data VLANs.
- For best performance, the Layer 2 switches are configured to provide TOS (Type of Service) to Priority/COS (Class of Service) conversion. Some routers also provide this function.
- Bandwidth provisioning in the LAN ensures bottlenecks don't occur.

Setting Priority Conversion

When a computer is connected to the network through a Mitel IP Phone, there are two distinct data streams (voice and data) through the one connection between the phone and the network. Both streams go through a single LAN connection, but are handled by separate Virtual Local Area Networks (VLANs). The voice data is handled by the voice VLAN, and the computer data by the data (default) VLAN, as determined by the phone and computer’s IP addresses.

Under normal conditions, the priority assigned to the data VLAN on the Layer 2 switch port is low. But because the Softphone Module also uses the computer’s IP address, and thus is handled by the data VLAN, a different priority must be assigned using the TOS information to support the voice streaming data from the Softphone Module. The VLAN and priority information must be added by the Layer 2 switch port since the computer’s NIC is not VLAN-aware.

To assign a higher priority to computers with a Softphone Module, set the TOS field (or COS) to a priority of 6, minimum delay, for each corresponding layer 2 switch port (the priority in the voice VLAN is normally assigned a 6).

It is important that the Layer 2 switches in the network support this feature to ensure proper performance from UC Advanced. Some routers, especially those using virtual ports, also provide this function.

Priority is needed where there are potential bottlenecks and where the network is busy. In a network where there is a low level of traffic, or where bandwidth is not an issue, it is not likely that congestion will occur and priority will give little benefit. However, Mitel recommends that you use TOS to set priority wherever possible to offset any future network congestion.
Bandwidth Provisioning

Because each UC Advanced computer is connected to the data VLAN, and the ICP controller is connected to the voice VLAN, you need a Layer 3 switch or router to communicate between these 2 subnets (voice and data VLANs). All communication between UC Advanced and the ICP controller is through the Layer 3 switch or router. Therefore, some allowance should be made when the connection is over a WAN link. Generally, about 2 kbits/sec should be allocated for each UC Advanced session when idle. This allows for simple events such as display updates.

The diagram below shows an example of a network following the guidelines outlined in this section.

Table 38 on page 156 identifies the equipment in the diagram above and provides the recommended settings.
### Table 38. Sample Recommended Network

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  ICP Controller (100 Base-T, full duplex connection)</td>
<td>Voice LAN</td>
</tr>
<tr>
<td>2  Layer 3 switch/router</td>
<td>VLAN 2 inbound, untagged outbound.</td>
</tr>
<tr>
<td></td>
<td>VLAN 1 inbound, untagged outbound.</td>
</tr>
<tr>
<td>3  Layer 2 (Ethernet) switch/router</td>
<td>—</td>
</tr>
<tr>
<td>4  IP Phone</td>
<td>Voice VLAN (134.199.62.x)</td>
</tr>
<tr>
<td></td>
<td>Priority = 6</td>
</tr>
<tr>
<td>5  Dual-port IP Phone (100 Mbps connection)</td>
<td>Voice (134.199.61.x)</td>
</tr>
<tr>
<td></td>
<td>Priority = 6</td>
</tr>
<tr>
<td>6  Computer with UC Advanced and Softphone Module</td>
<td>Untagged Data (134.199.61.x)</td>
</tr>
<tr>
<td></td>
<td>Priority = 0=</td>
</tr>
<tr>
<td>7  Unified Communications Server</td>
<td>Untagged Data VLAN (134.199.61.x)</td>
</tr>
<tr>
<td></td>
<td>Priority = 0</td>
</tr>
<tr>
<td>8  Mitel 6000 Managed Application Server</td>
<td>Mitel 6010 Teleworker Solution Blade</td>
</tr>
</tbody>
</table>
Appendix B: VPN Guidelines

Introduction .......................................................... 158

VPN Configuration Overview ........................................ 158
  Teleworker Configuration ........................................... 159
  Remote Office Configuration ........................................ 160
  Mobile Configuration ............................................... 161

Requirements ...................................................... 162
  VPN Requirements .................................................. 162
  Recommended VPNs .................................................. 162
  Network Requirements ............................................. 162
  Bandwidth Requirements .......................................... 163

Firewall Configuration ............................................. 164
  Corporate Firewall Configuration ................................. 164
  VPN Inside Corporate Firewall .................................... 164
  VPN Inside Outer Firewall – Supported Configuration .......... 165
  Remote Firewall Configuration .................................... 165
  VPN with Built-in Firewall ........................................ 165
Appendix B: VPN Guidelines

Introduction

This section provides guidelines for configuring UC Advanced in a remote configuration, such as with Mitel Teleworker. For more information, refer to the FAQ and the product-specific VPN configuration guidelines available on the UC Advanced product portal on Mitel Online.

This appendix contains the following information:

- “VPN Configuration Overview” below
- “Requirements” on page 162
- “Firewall Configuration” on page 164

For instructions about using UC Advanced with a VPN client, refer to the UC Advanced 2.0 User Guide, part number 835.3247.

VPN Configuration Overview

UC Advanced can be used in the following remote configurations:

- **Teleworker**: The user works from home or a remote office, and is connected to the corporate LAN directly through the Internet via the MAS 6000 (see page 159).
- **Remote Office**: The user works from a remote office, which is connected to the corporate LAN via a tunnel over the Internet (see page 160).
- **Mobile Worker**: The user has no dedicated connection to the corporate LAN. The mobile worker typically connects to the corporate LAN via a VPN connection (see page 161).
Teleworker Configuration

In this configuration, it is recommended that the computer with UC Advanced be connected to the second port of the Teleworker IP Phone. The IP Phone handles QoS (Quality of Service), automatically controls the voice and data bandwidths, and ensures that the voice channel receives priority. If you connect the computer and phone in parallel to the network switch, voice quality may degrade due to bandwidth competition.

*Figure 9. Recommended Teleworker Configuration*

Table 39. *Teleworker Configuration Equipment*

<table>
<thead>
<tr>
<th></th>
<th>Equipment</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Computer with UC Advanced</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Teleworker IP Phone (dual phone)</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>Modem/router</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>VPN Gateway</td>
<td>2</td>
</tr>
</tbody>
</table>
Remote Office Configuration

In this configuration, the remote office typically has a dedicated VPN connection to the corporate LAN, and the ICP resides at the corporate site.

**Figure 10. Recommended Remote Office Configuration**

![Remote Office Configuration Diagram]

**Table 40. Remote Office Configuration Equipment**

<table>
<thead>
<tr>
<th></th>
<th>Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Computer with UC Advanced</td>
</tr>
<tr>
<td>2</td>
<td>IP Phone</td>
</tr>
<tr>
<td>3</td>
<td>VPN Gateway/router</td>
</tr>
<tr>
<td>4</td>
<td>Firewall</td>
</tr>
<tr>
<td>5</td>
<td>ICP</td>
</tr>
</tbody>
</table>
Mobile Configuration

In this configuration, the mobile user has only a laptop (no physical IP set), and does not use any specialized communication hardware. For example, the user may call from a hotel room or a client’s location using a high-speed internet connection.

Figure 11. Recommended Mobile Configuration

Table 41. Mobile Configuration Equipment

<table>
<thead>
<tr>
<th></th>
<th>Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Computer with UC Advanced Softphone Module</td>
</tr>
<tr>
<td>2</td>
<td>Modem/Router</td>
</tr>
<tr>
<td>3</td>
<td>Firewall</td>
</tr>
<tr>
<td>4</td>
<td>VPN gateway and router</td>
</tr>
<tr>
<td>5</td>
<td>ICP</td>
</tr>
</tbody>
</table>
Appendix B: VPN Guidelines

Requirements

This section provides the network requirements for UC Advanced remote configurations.

VPN Requirements

UC Advanced operates on any standards-compliant IPSec or PPTP VPN meeting the following criteria:

- Client is able to acquire the IP address of the VPN tunnel.
- Both voice and data paths travel over the VPN.
- VPN must be able to traverse a corporate firewall.
- VPN must be able to traverse a NAT device.
- VPN must be able to traverse a client-side firewall. In particular, the VPN client (or client-side firewall built into the VPN) must not block outbound or inbound UDP packets.
- The VPN gateway must be routable from the ICP controller E2T (Ethernet to TDM). If it is not, you may experience one-way audio.

Recommended VPNs

- Mitel 6000 Managed Application Server (PPTP)
- Mitel Teleworker Solution
- AT&T managed VPN
- Cisco
- SonicWall
- OpenBSD
- CheckPoint
- Shiva

NOTE

The UC Advanced softphone will not communicate directly with Teleworker gateway component of the Mitel Teleworker Solution but can work across a PPTP or IPSEC VPN created using the 6000 MAS operating system included as part of the Teleworker Solution.

Network Requirements

To support UC Advanced in Teleworker Softphone mode, the network must be configured as follows:

- For optimum bandwidth and voice quality, G.729 compression should be used for all remote connections.
- High-speed Internet connection (standard cable/DSL minimum).
- No client-side hubs (switches or cable/DSL routers only).
Bandwidth Requirements

All bandwidth requirements are bidirectional. If your connection does not have symmetrical upload/download speeds, use the lowest value for your calculations.

Corporate Bandwidth

Apart from other data applications, the corporate data connection from the VPN concentrator to the internet must have at least:

- 40 kbits/s of available bandwidth per simultaneous G.729 full-duplex call.
- A connection speed of 256 kbits/s for quality audio.

Additionally, the connection should not be used at more than 40% of maximum capacity to achieve high voice quality, assuming no QoS is available across the Internet.

For example, on a 1Mbit/s connection, you can expect \((40\% \times 1024\text{kbits/s}) / (40\text{kbits/s}) = 10\) simultaneous G.729 full-duplex phone conversations.

Remote Bandwidth

Each remote site must have a minimum bidirectional bandwidth of 256 kbits/s.

For example, for a typical high-speed DSL connection with 1 Mbits/s download speed and 256 kbits/s upload speed, and assuming no other data traffic, this gives a maximum of \((40\% \times 256\text{kbits/s}) / (40\text{kbits/s}) = 2\) simultaneous G.729 calls. With only one call active, this leaves 60 kbits/s bandwidth for your other data applications.

Again, these figures do not take into account the overhead for the VPN connection, or of other data traffic on the connection. Lack of sufficient bandwidth may cause degraded voice quality, slow response, or loss of service.

Remote ISP Bandwidth Quotas

Some ISPs place a quota on the monthly bandwidth available for upload and/or download by a user. UC Advanced with the Softphone Module operating with G.729a will use approximately 10 MB of data per hour (in each direction). UC Advanced also uses approximately 2kbits/sec for signaling, when idle (or 43 MB per month if UC Advanced is always on). Use your ISP quota to determine your available talk-time.

NOTE: This does not take into account the overhead of the VPN itself, which may add considerable bandwidth to each call.
Appendix B: VPN Guidelines  
Firewall Configuration

This section provides firewall configuration information for UC Advanced remote configurations.

Corporate Firewall Configuration

The following corporate firewall configurations are supported:

- VPN gateway inside corporate firewall.
- VPN gateway outside corporate firewall, with firewall set up to trust packets from VPN.

No special ports need to be opened in the corporate firewall to support UC Advanced. You need to set up the corporate firewall to allow normal operation of the VPN gateway only.

NOTE: It is not recommended that you open ports on the corporate firewall for voice/data channels to the ICP, as this poses a security risk.

VPN Inside Corporate Firewall

In this configuration, the VPN gateway/router encapsulates all traffic to and from UC Advanced, including traffic on various ports. The corporate network sees VPN traffic on the open VPN port only.

Figure 12. Recommended VPN Inside Corporate Firewall Configuration

Table 42. VPN Inside Corporate Firewall Configuration

<table>
<thead>
<tr>
<th></th>
<th>Firewall</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Firewall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>VPN gateway/router</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>ICP</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix B: VPN Guidelines

VPN Inside Outer Firewall – Supported Configuration

In this configuration, Mitel only supports a firewall set up to trust all packets from the VPN gateway, regardless of port.

**Figure 13. Recommended VPN Inside Corporate Firewall Configuration**

Remote Firewall Configuration

The following remote firewall configurations are supported:

- Remote corporate firewall
- Client-side firewall (software on computer, or built-in a NAT box or cable/DSL router)

These types of firewalls must allow VPN to tunnel through the firewall automatically. No ports need to be opened, other than those needed to ensure the VPN works.

VPN with Built-in Firewall

Some VPN clients include their own built-in firewalls. These firewalls are there to prevent outside users from getting onto the corporate network so they often block certain traffic to the corporate side (outbound traffic) as well as traffic inbound to the computer.

When the VPN is implicitly trusted by the firewall, any access through the VPN in either direction is passed. So, unsolicited traffic from “unknown” ports on the ICP should pass through the client firewall to UC Advanced correctly (it is simply encapsulated within the VPN).

In some cases, a firewall built into the VPN client can be problematic. For example:

- Some VPN firewalls block incoming packets from ports to which UC Advanced has not sent data. For example, UC Advanced may be trying to connect with an outside line; the ICP controller E2T (Ethernet to TDM) receives UC Advanced's UDP voice packets on port 5000, but sends UDP packets back to UC Advanced from port 5002. The client VPN firewall discards those return packets as unsolicited packets, since it didn't see any outgoing packets from the client to the ICP on port 5002.

- The VPN firewall may block certain outgoing packets to the corporate side in an effort to protect the corporate network. In this case, the firewall resides at the client but it is actually blocking outbound connections in addition to connections inbound to the user's computer. It may block these packets even if the computer initiated them. In this case, the user experiences one-way audio. The remote user can hear, but the corporate-side user does not receive audio from the remote user. Those packets are blocked at the source.
Appendix C: Upgrading to UC Advanced 2.0

Upgrade Overview .................................................................................................................. 168
Downloading UC Advanced ................................................................................................. 168
Backing up the Server Database .......................................................................................... 168
Upgrading Unified Communicator Server ............................................................................. 169
Activating the Server License .............................................................................................. 170
Upgrading Clients ................................................................................................................ 170
Troubleshooting Tips .......................................................................................................... 171
Appendix C: Upgrading to UC Advanced 2.0
Upgrade Overview

When you perform an upgrade, you must upgrade all installed components, including the Unified Communications Server, clients, the Your Assistant Collaboration server, and the MiXML server.

Upgrade Overview

When you perform an upgrade, you must upgrade all installed components, including the Unified Communications Server, clients, the Your Assistant Collaboration server, and the MiXML server.

NOTE
Prior to this release, Mitel Unified Communicator (UC) Advanced 2.0 was known as Mitel Your Assistant 5.0. Some directories and tools may reference Your Assistant or YA 5.0.

Upgrade steps from Your Assistant 5.0 to UC Advanced 2.0:
1. “Downloading UC Advanced” below.
2. “Backing up the Server Database” below.
5. “Upgrading Clients” on page 170.

Downloading UC Advanced

All of the components for UC Advanced are included in a zip file on Mitel Online.

To download Your Assistant:
2. Select Products.
4. Select Unified Communicator Advanced.
5. Under Related Links, click Software Downloads.
6. Select Unified Communicator 2.0 Download.

The downloaded file, UC_2.0_****.zip, contains the following:
- Product release notes
- Client installer (UnifiedCommunicator.msi)
- Server installer (UnifiedCommunicatorServer.msi).

Backing up the Server Database

Back up the existing Your Assistant Server database by copying the database file yadirectory.mdb from <server installation directory>\Your Assistant Server to another location.
Appendix C: Upgrading to UC Advanced 2.0
Upgrading Unified Communicator Server

Upgrading Unified Communicator Server

Upgrade the Unified Communicator server using the UnifiedCommunicatorServer.msi file.

To upgrade Unified Communicator Server:

1. Unzip the downloaded program files.
2. Double-click UnifiedCommunicatorServer.msi, and then click Run.
3. The installation wizard appears. Click Next.
4. Accept the license agreement, and then click Next.
5. Click Next to install the Unified Communicator Server components:
   - Unified Communicator System Servers:
     o Unified Communicator Server: Maintains client connections and presence.
     o Unified Communicator Web Collaboration Server: The hub for all Web conferences.
     o Unified Communicator MiXML Server: Provides Mitel 3300 phonebook integration.
   - Unified Communicator Administration Tool: Provides an interface to configure and manage UC Advanced clients.

   NOTE If you want to change the default installation for any of the components, select the component and make your changes.

6. Click Install. The components are installed.
7. Click Finish.

You must complete several additional steps to maintain the same functionality as in previous versions.

To maintain previous functionality:

1. Relicense your Your Assistant 5.0 Server with your new Unified Communicator Advanced 2.0 license file/Application Record ID (obtained from the AMC). See “Activating the Server License” on page 170 for instructions.
2. Add new licenses to every UC Advanced user in the Administration Tool, as needed. See “Deploying and Managing UC Advanced” on page 34 for instructions.
3. For users with a softphone, change the softphone's Device Type in the ICP's System Administration Tool to App Server Port. See “Creating Extension Numbers for UC Advanced Users” on page 36 for instructions.
4. For users with both a deskphone and a softphone, in the Mitel 3300 program a line appearance of the deskphone extension on their softphone for each user. Refer to the Mitel 3300 ICP guide for details.
5. Restart the telephony server.
Activating the Server License

You must obtain a new license key to activate the Unified Communicator Server. For details about license activation, see “Activating licenses” on page 65.

To activate the server license:

1. In the Unified Communications Administration Tool, right-click License Info, and then select Activate Licensing.
2. For online activation, enter your Application Record ID and click Activate. The Unified Communications Server connects to the AMC to obtain the licensing details.

After you have activated the server license, add the required licenses to users. Ensure that you relicense to accommodate newly-licensable features. See the following sections for additional details:

- “Defining Default Licensing Schemes” on page 67
- “Adding Users Manually” on page 83

Upgrading Clients

To upgrade all clients to UC Advanced 2.0, determine the way you want to install the client. See “Installation Options” on page 25 for additional information.

To upgrade UC Advanced clients:

1. If the client's machine has the MiAUDIO component installed, uninstall it, provided it is not required by another Mitel application.
   
   To uninstall MiAUDIO:
   
   a. Go to Start – Control Panel – Add or Remove Programs.
   b. Select MiAUDIO Desktop Edition, and click Remove.

   After uninstalling, the Mitel IP Phone Emulation Settings will no longer appear in the Control Panel's IP Phone Emulation.

2. Run UnifiedCommunicator.msi on each client machine.
Troubleshooting Tips

Table 44 lists some installation troubleshooting tips.

Table 44. UC Advanced Installation Troubleshooting Tips

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>You installed UC Advanced for a user who is configured for both deskphone and softphone. However, only the deskphone shows as an option.</td>
<td>UC Advanced provides the softphone option only if it detects that an input/output audio device is installed.</td>
</tr>
<tr>
<td>Users cannot drag contacts from Lotus Notes.</td>
<td>Instruct users to remove the “always on top” option from UC Advanced. In addition, users should reduce the size of Lotus Notes so that they have both UC Advanced and Lotus Notes visible on their monitors. They can then drag their contacts from Lotus Notes to UC Advanced.</td>
</tr>
<tr>
<td>Users are experiencing difficulty with dialing rules.</td>
<td>To control how UC Advanced dials numbers, users should configure Windows dialing rules and use the International Dialing Format. Refer to the UC Advanced 2.0 User Guide, part number 835.324, for information.</td>
</tr>
<tr>
<td>A user’s DSS/BLF status is not showing in UC Advanced.</td>
<td>Ensure that the user does not have a Key Line appearance of their extension on another set.</td>
</tr>
</tbody>
</table>