

User Management Pack™ 365

Version 7.8



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Abbreviations and Terminology

Each abbreviation, unless widely used, is spelled out in full when first used.

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Documentation Feedback

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1 Introduction

User Management Pack 365 (UMP 365) is a software application for managing Skype for Business users on premises, hybrid or in pure Cloud PBX environments such as Skype for Business Online and Microsoft Teams with either a Microsoft Calling Plan subscription, or on premises PSTN connectivity using either Cloud Connector Edition (CCE) devices or Microsoft Direct Routing capabilities.

UMP 365 is also part of the CloudBond 365 solution, applicable to all CloudBond 365 editions for managing the user and device identities in single and multiple forest environments.

Starting from release version 7.8, the application has been redesigned into an asynchronous model. This implies that changes to users will only be applied after replication took place, either from scheduled tasks or by forcing a replication cycle from within the web application.

This document describes the following subjects:

- **Part I:** The Installation of the AudioCodes User Management Pack 365 (UMP 365) application version 7.8 for Skype for Business (see page 13).
- **Part II:** Using the AudioCodes User Management Pack 365 application version 7.8 day to day (see page 29).

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Part I

Installing User Management Pack 365

2 Requirements

This version of User Management Pack 365 is tested on the following operating systems:

- Windows Server 2012 R2
- Windows Server 2016

The operating system needs to run on a (virtual) server with the following minimum hardware requirements:

- Dual-core CPU
- 8GB RAM
- 80GB HDD space
- 1GB Ethernet

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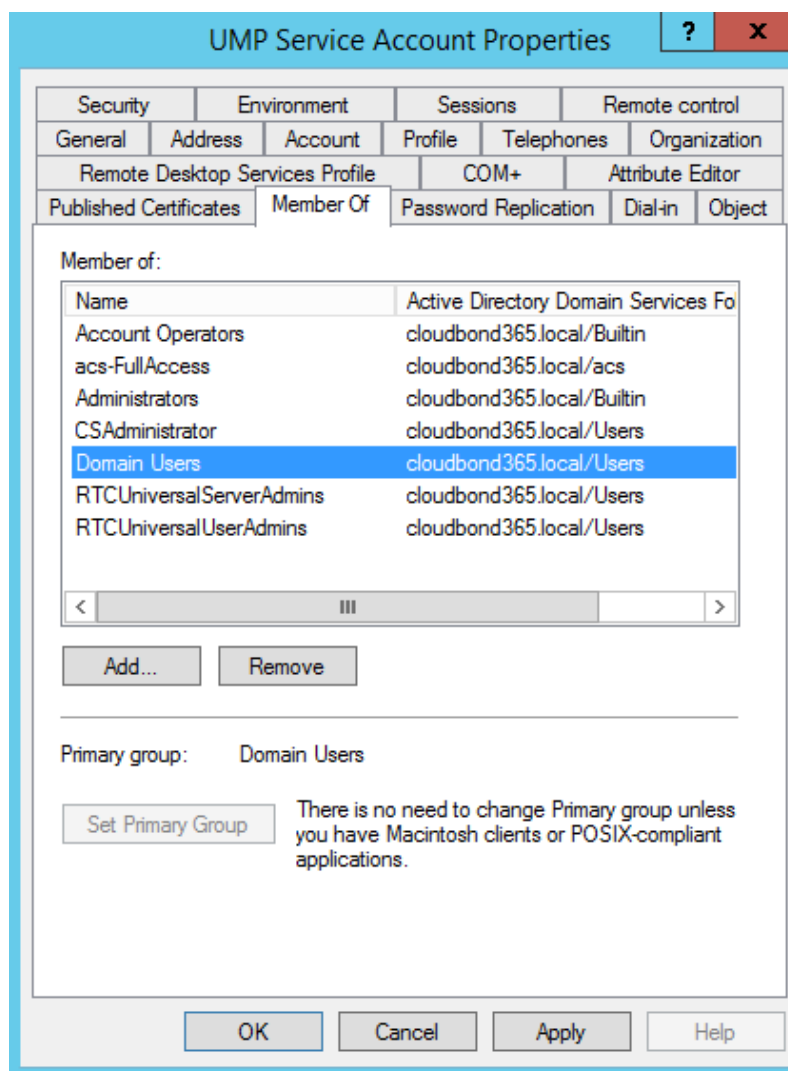
3 UMP 365 Installation

3.1 On Premises Pre-defined Requirements



Note: The user account specified by the `-username` parameter should be a member of BUILTIN\Administrators, BUILTIN\Account Operators, CSAdministrators, RTC Universal Server Admins and RTC Universal User Admins when used in an on premises deployment. For all other parameters, the default value will be used if they are not given in the command line.

Figure 3-1: UMP Service Account Properties



3.2 Installing UMP 365

To install User Management Pack 365 download and mount the installation ISO to your operating system and start the application ManagementSuite.exe from within a command line window according to the parameters described in the table below.

Figure 3-2: Management Suite

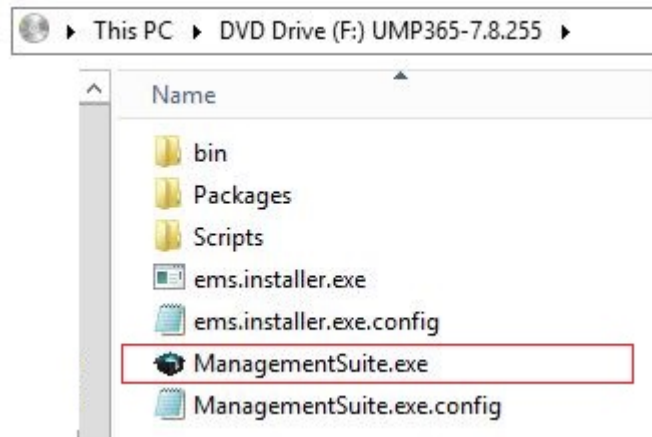


Table 3-1: ManagementSuite.exe command line parameters

Parameter Name	Description	Default value
--username	Specifying a username here in the format DOMAIN\Username will override the default behavior of using the username from the user currently signed on to use for the services and IIS Application pool. Note that overriding the identity requires you to provide the password to the entered account after starting the installation.	Username that started the application
-p, --installpath	The directory in which UMP 365 will be installed	C:\acs
--sql-instance	The SQL Instance to use for the UMP 365 Database	SQLSYSADMIN
--autorestart	Automatically restart the machine whenever needed (Use --autorestart "false" to stay in control)	TRUE

During the installation, progress is shown in the format of passing lines, where some components will take some time to install, so please wait patiently. Estimate installation time is up to 25 Min with SQL or up to 10 Min without SQL installation.

Figure 3-1: Installation Wizard

```

UMP365 Installation Wizard - Arguments: [-username cloudbond365\ump_svc]
PS C:\Users\Administrator> f:\ManagementSuite.exe --username cloudbond365\ump_svc
[16:16:27] INFO Logging to file:[C:\Users\Administrator\AppData\Local\Temp\2\output.log]
Please enter the password for: cloudbond365\ump_svc
*****
[16:16:59] DEBUG [PowerShell]Creating New Shell
[16:16:59] DEBUG [PowerShell]Initializing PowerShell
[16:16:59] DEBUG Starting PowerShell command: Get-Module -Refresh -ListAvailable | ? { $_.Name -eq "activedirectory" } |
select -expand Name -> ConvertTo-Json: True
[16:17:04] DEBUG [PowerShell]PowerShell Module:[activedirectory] available:[True]
[16:17:04] DEBUG Starting PowerShell command: Get-ADDomain | Select -expand NetBIOSName -> ConvertTo-Json: True
[16:17:05] DEBUG NetBIOS Name read from PowerShell: cloudbond365
[16:17:05] DEBUG Windows Account given for installation: cloudbond365\ump_svc
[16:17:06] DEBUG [DI]Current Thread: 1
[16:17:06] DEBUG [DI]Constructing new SimpleInjector Container
  
```

If a failure or error occurs during the installation process, it will be indicated with a red background.

Figure 3-4: Failure/Error occurs during the installation process

```

Package Name: UcmaRuntime.msp
Type: File
[16:17:30] DEBUG FileName: f:\Packages\UCMA\UcmaRuntime.msp
[16:17:30] DEBUG Entering Executable Queue: f:\Packages\UCMA\UcmaRuntime.msp
[16:17:30] DEBUG Exiting Executable Queue: f:\Packages\UCMA\UcmaRuntime.msp
[16:17:30] DEBUG Running Executable: f:\Packages\UCMA\UcmaRuntime.msp
[16:17:30] DEBUG RunExecutable(fileName = f:\Packages\UCMA\UcmaRuntime.msp, arguments = /quiet /norestart)
[16:17:30] DEBUG Process: f:\Packages\UCMA\UcmaRuntime.msp ExitCode: 1642
[16:17:30] FATAL Installation of component UCMA Runtime Patch completed with result: Failure
[16:17:30] DEBUG Setting AutoResetEvent for UCMA Runtime Patch
[16:17:30] DEBUG Component: UCMA Runtime Patch
RequiresConfiguration: False
RestartRequired: False
IsNegative: True
ResultState: Failure
[16:17:30] FATAL Installation of component UCMA Runtime Patch completed with result: Failure
[16:17:30] ERROR Required dependency UCMA Runtime Patch failed to install, reason: Failure
[16:17:30] FATAL One or more dependencies for component User Management Pack 365 failed to install.
[16:17:30] DEBUG Setting AutoResetEvent for User Management Pack 365
[16:17:30] DEBUG Component: User Management Pack 365
RequiresConfiguration: True
RestartRequired: False
IsNegative: True
ResultState: DependencyFailure
[16:17:30] FATAL One or more dependencies for component User Management Pack 365 failed to install.
[16:17:30] DEBUG After main install - result: DependencyFailure
[16:17:30] INFO The User Management Pack 365 Installation was unable to complete. For more information, see the error(s)
and/or warning(s) above.
[16:17:30] DEBUG End result: DependencyFailure
PS C:\Users\Administrator>
  
```

If restarting managementsuite.exe with the same parameters does not resolve the issue, all components to be installed can be found in the \packages folder within the installation iso file. Find the corresponding prerequisite and try to install it using its native setup program instead to determine why an installation failure might have occurred.

Once the installation has completed it will show the following message, indicating that the setup has been completed successfully:

Figure 3-4: Installation process completed successfully

```

[11:47:11] INFO Component: User Management Pack 365
RequiresConfiguration: True
RestartRequired: False
IsNegative: False
ResultState: ConfiguredSuccessfully
[11:47:11] INFO Configuration of component User Management Pack 365 completed successfully
[11:47:11] DEBUG After main install - result: ConfiguredSuccessfully
[11:47:11] INFO The User Management Pack 365 Installation has completed
[11:47:11] DEBUG End result: ConfiguredSuccessfully
PS C:\Users\Administrator>
  
```

If during the installation process, a server restart is required, the setup process attempts to proceed automatically. For this to function, the ISO should be mounted all the time and if ManagementSuite.exe is not found after restart, an empty command window is found open after signing in. To continue, close the window and remount the ISO, and then start ManagementSuite.exe with the same parameters as run before.

3.3 UMP Typical Deployment

After compilation successfully of the installation phase, please proceed to the next installation step according to the Deployment Type:

- **On Premises or Hybrid:** Please Proceed to Chapter 4 - Access to the Skype On-Premises RTCLOCAL Database.
- **Online (SfB or Teams):** Please proceed to Part II, Chapter 5 - User Management Pack 365.

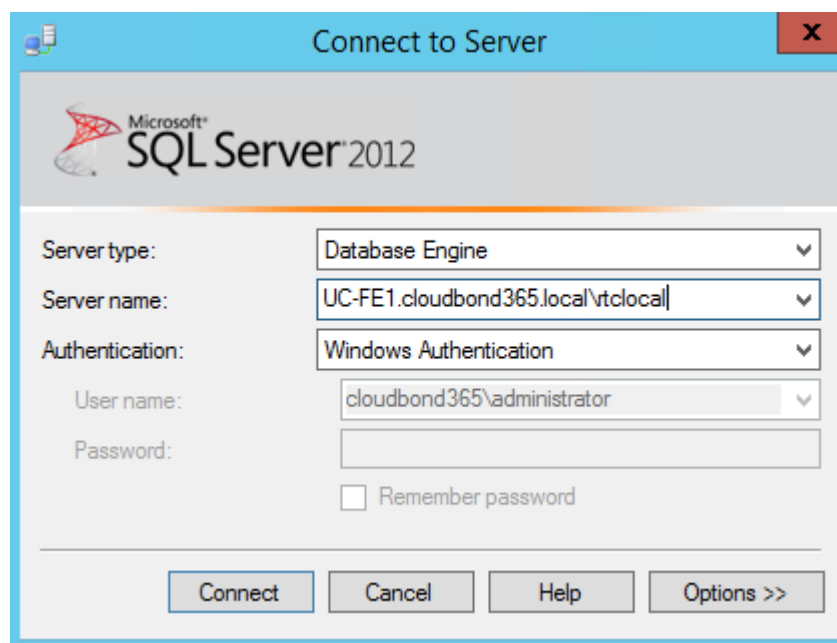
4 Access to the Skype On-Premises RTCLOCAL Database

User Management Pack 365 requires read-access to the Skype for Business RTCLOCAL database instances on all front end servers to be able to show the actual call forwarding settings for users in the on-premises environment.

To be able to achieve read access to these databases, the username used during the installation (or assigned to the “SysAdmin.CacheSrv” Windows Service) needs to be added to SQL RTCLocal database instance with read-access.

Also make sure that the server running UMP 365 has access to each Skype for Business Front End server SQL database over the network and that there are no firewall rules blocking the communication to the database. This can be verified by connecting SQL Management Studio to these databases from the server running UMP 365 as shown below:

Figure 4-1: Connect to SQL Server



4.1 Configuring Call Forwarding UCMA Service

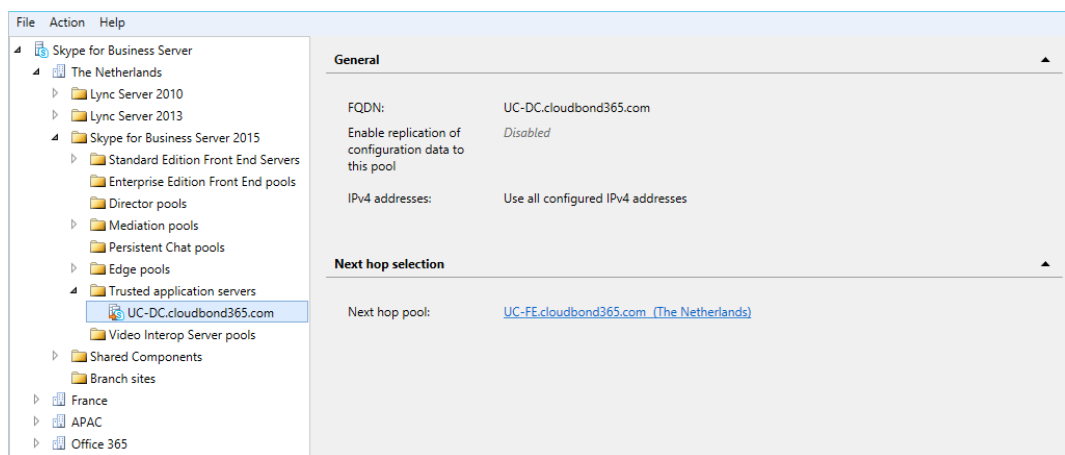
The SysAdmin.UCMA service is used to make changes to user call forwarding settings. For the UCMA service to work correctly, the conditions described must be met:

4.1.1 Trusted Application

Before the call forwarding UCMA application service can be used, the Skype for Business environment must be prepared for a new trusted application. To do this, perform the following steps:

1. Create a trusted application pool for the server that will be used to install the User Management Pack 365 application in the Skype for Business topology. In the example screenshot below, this computer is named UC-DC.cloudbond365.com instead of the default UC-DC.cloudbond365.local.

Figure 4-1: Add Trusted Application Server



2. Add a new trusted application to this application pool named presenceservice using the following cmdlet in the Skype for Business Management Shell:

```
New-CsTrustedApplication -ApplicationId presenceservice -
TrustedApplicationPoolFqdn uc-dc.cloudbond365.local -Port 6001
```

Where uc-dc.cloudbond365.local reflects the FQDN from the computer where the management pack will be installed.



Note: Another trusted application name and port can be chosen, however will require a change in the c:\acs\UCMAWebService\SysAdmin.UCMAService.exe.config file to reflect the same parameters.

3. Enable the new trusted application with the following cmdlet:

```
Enable-CsTopology
```

4.1.2 Certificate / PKI infrastructure

Communication between Skype for Business server components rely on MTLS secured connections. For this to function, a certificate should be requested for the computer hosting the User Management Pack 365 application, using the following cmdlet in the Skype for Business Management Shell:

```
Request-CsCertificate -New -Type default -FriendlyName
"trustedapps.contoso.com Pool" -CA ca.contoso.com\ContosoCA -
ComputerFQDN uc-dc.cloudbond365.local
```

More information can be found at <http://msdn.microsoft.com/en-us/library/lync/hh347354.aspx>

When the SysAdmin.UCMA windows service starts, it checks the local computer certificate store for a certificate that matches the computer FQDN automatically and that uses this certificate. If however, multiple certificates exist with the local computer FQDN, it might make sense to assign a specific certificate instead, making sure the certificate used is the one that was actually intended to be used. To assign a certificate manually, add a key named "CertificateFriendlyName" in the file c:\acs\UCMAWebService\SysAdmin.UCMAService.exe.config file, with the value of the certificate friendly name as shown in the example below:

Figure 4-2: Certificate Friendly Name

```
<appSettings>
  <!-- The unique identifier for the application in the deployment. It is assigned when the application is provisioned.-->
  <add key="ApplicationId" value="urn:application:presenceservice" />
  <!-- The part of the user agent string that identifies the application. Can be null. -->
  <add key="ApplicationName" value="presenceservice" />
  <add key="CertificateFriendlyName" value="trustedapps.contoso.com Pool" />
</appSettings>
```

4.1.3 DNS Requirements

The trusted UCMA application behaves like an "older" Lync / Skype client application, performing a DNS lookup for authentication on the SRV-record _sipinternaltls._tcp.<sipdomain FQDN> over TCP port 5061. Make sure that this record exists and has an A-record recorded to the internal Front End server pool IP address.



Note: The a-record referenced in the SRV record should have the same <sipdomain FQDN> as the SRV record because Microsoft UCMA applications will not register if the domain name in the A records differs from the domain name in the SRV record.

4.2 Configuring Initial Replication - Scheduled Tasks

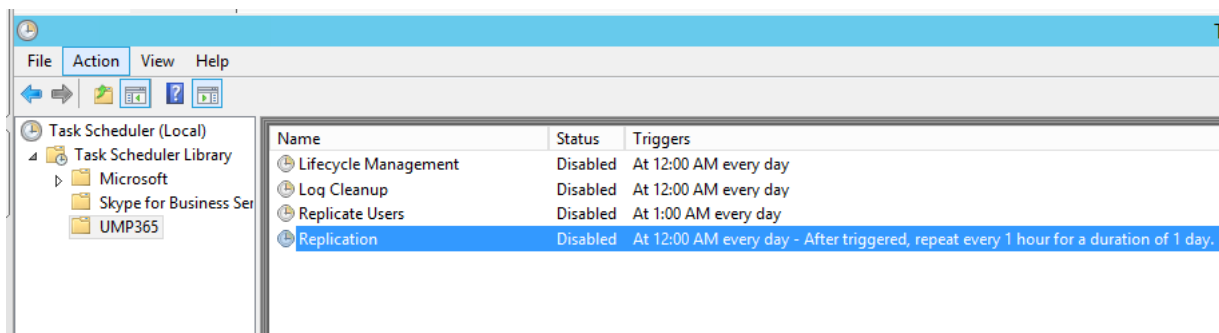
During the User Management Pack 365 installation, the following Windows Scheduled tasks are created that are used for background synchronization:

Table 4-1: Background Synchronization:

Task Name	Description
Lifecycle Management:	Used in a resource forest deployment to automate the creation of Skype for Business users based on Active Directory Security Group membership.
Log Cleanup	Cleanup the content of the c:\acs\logs folder for files that are older than 14 days.
Replicate Users	Used in a resource forest deployment to synchronize user attributes (like lastname, display name etc.) from user forests to the resource forest and from the resource forest to the user forests for the Skype-specific MSRTCSTip attributes.
Replication	Asynchronous process to synchronize environmental changes into the UMP 365 backend database and to run operational cmdlets that are placed in the queue by a UMP 365 administrator

These tasks can be found in the UMP365 folder as shown below and are disabled by default. The required tasks should be enabled after installation to be able to start using UMP 365.

Figure 4-3: Replication



Important: The Scheduled task named “**Replication**” should be enabled and run to populate data into the UMP 365 web application.



Warning: The lifecycle management scheduled task should only run on one Management server in a multi-server environment. If multiple Management servers are installed for redundancy, the scheduled tasks on the redundant servers should be disabled and only enabled if the Primary server fails to prevent Stale objects from being created in the Active Directory.

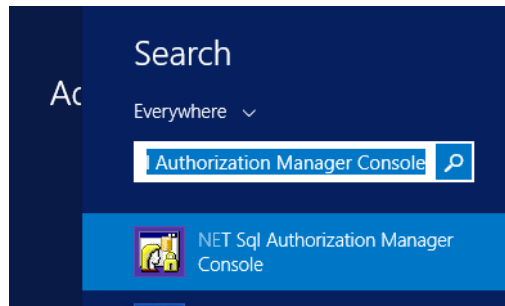
4.3 NET Sql Authorization Manager Console

Access to the UMP 365 web application is controlled via an application called NET Sql Authorization, where Windows Security Groups or individual users can be given access to specific features within the web application. Though the installation wizard automatically adds the user specified during the installation to the proper full access level, custom access rights might be required.

➤ **To connect to the database, perform the following steps:**

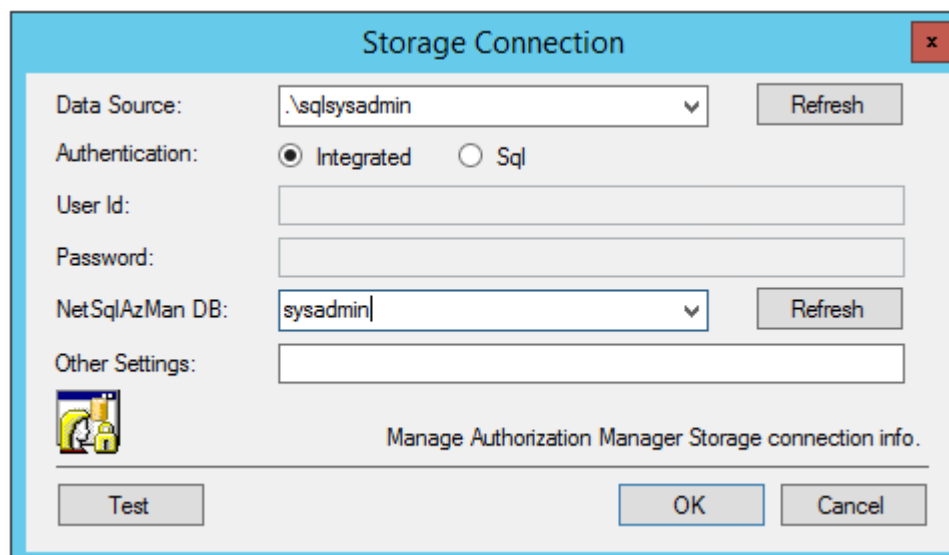
1. Start the .NET Sql Authorization Manager Console:

Figure 4-4: Console



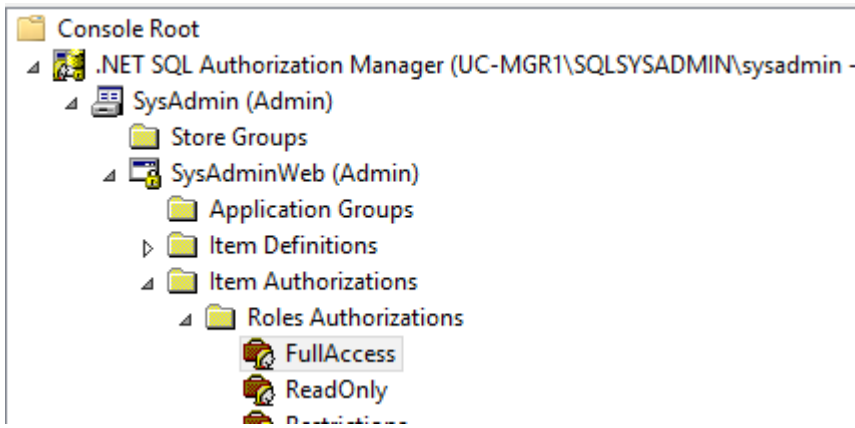
2. Connect to the sysadmin database:

Figure 4-5: Storage Connection



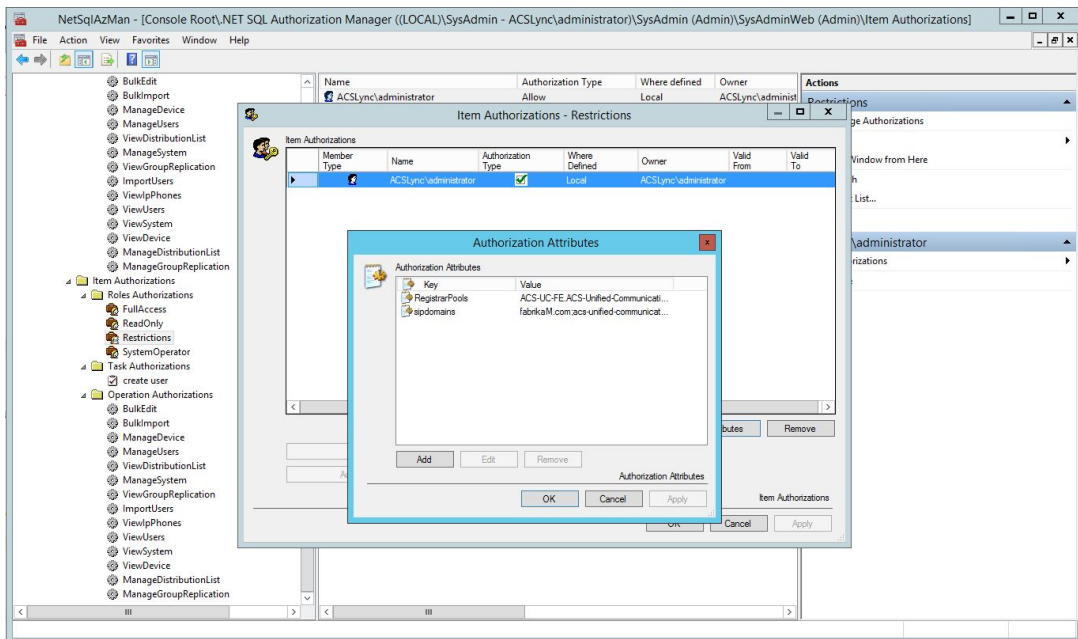
3. Navigate to the particular Operation Authorizations under Item Authorizations as shown below and then right-click to select **Manage Authorizations**.

Figure 4-6: Console Root



4. Within the Item Authorizations page, select **Add Windows Users and Groups** and add the domain local security group or user that you want to explicitly grant or deny permissions.
5. Under Attributes further refinements can be made for the objects RegistrarPools and sipdomains, to further limit the administrative permissions as shown below:

Figure 4-7: Authorization Attributes



The table below describes the Operation Authorization attributes:

Operation Authorization	Description
BulkEdit	Controls Bulk Edit; if authorization is denied, Administrators cannot edit users in bulk.
BulkImport	Controls Bulk Import; if authorization is denied, Administrators cannot import users in bulk.
ImportUsers	Controls Individual User import; if authorization is denied, Administrators cannot import individual users.
ManageDevice	Controls Device Management; if authorization is denied, Administrators cannot create or edit individual devices.

Operation Authorization	Description
ManageDistributionList	Controls Access to DistributionList replication; if authorization is denied, Administrators cannot add or remove distribution lists from the replication logic.
ManageGroupReplication	Controls Access to Lifecycle Management; if authorization is denied, Administrators cannot add, remove or edit security groups or policies from the replication logic.
ManageSystem	Controls Access to the System Configuration pages; if authorization is denied, the System Configuration section is inaccessible.
ManageUsers	Controls User Management; if authorization is denied, Administrators cannot create or edit individual users.
ViewDevice	Controls View-only access to devices.
ViewDistributionList	Controls View-only access to distribution lists.
ViewGroupReplication	Controls View-only access to lifecycle management.
ViewIpPhones	Controls View-only access to the IP Phones tab.
ViewSystem	Controls View-only access to the System Configuration tab.
ViewUsers	Controls View-only access to User management.

4.4 Updating the Environment

The User Management Pack in pure Cloud PBX environments (where users are homed only in Office 365 and not on premises) is a new addition to the product, which is still fully under development. As there are known issues in the product site, administrators are advised to perform an update of the Web application after the initial installation, by starting the C:\acs\UmpCce\wyupdate.exe application.



Note: This version is currently released to field test partners, and improvements will be made in a release in the upcoming weeks.

Figure 4-8: wyupdate.exe File

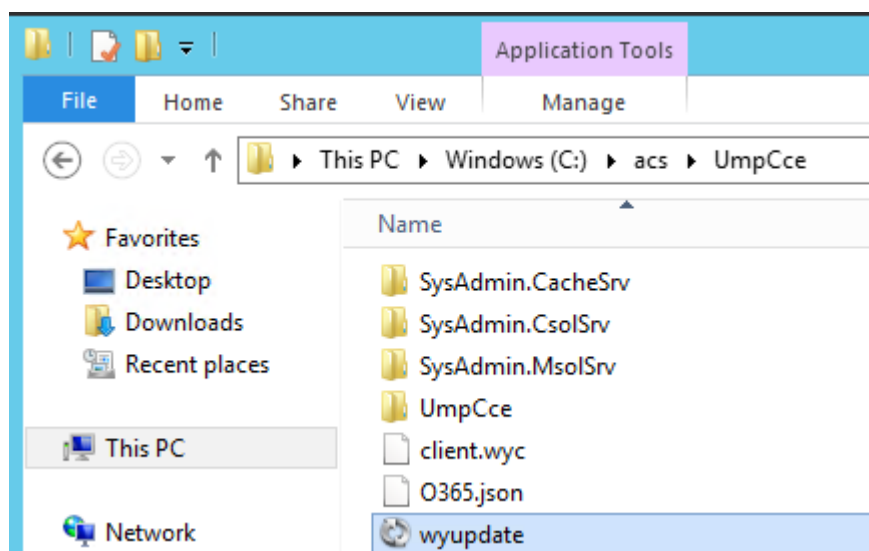
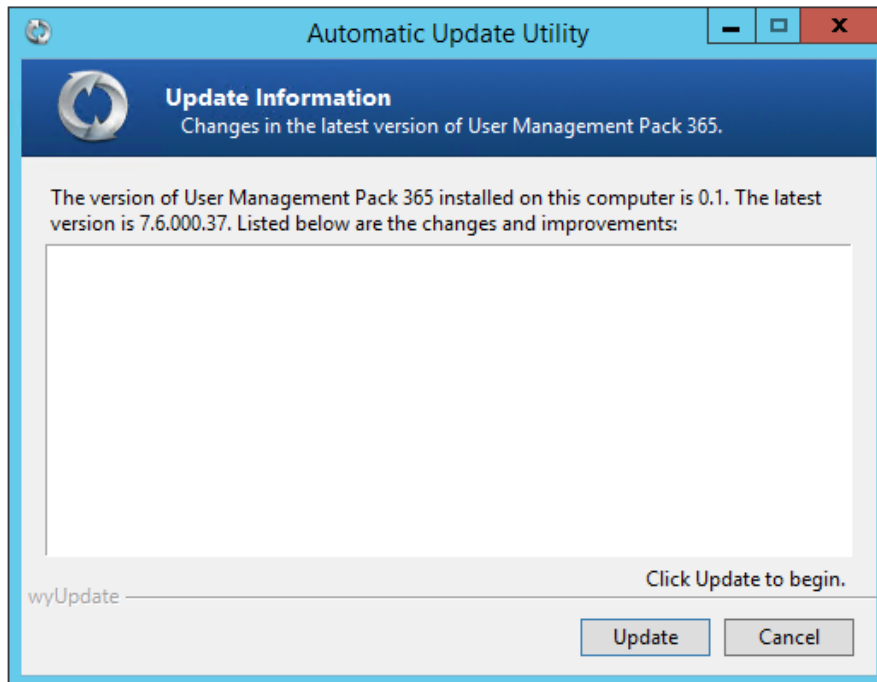


Figure 4-9: Automatic Update Utility



Part II

Using User Management Pack 365

5 User Management Pack 365

In a typical Skype for Business deployment, performing day-to-day administration tasks can be quite complex. Skype for Business relies on the creation of user accounts using Active Directory utilities, then, for user accounts and other Skype for Business settings to be modified using the Skype for Business control panel, and for further tasks to be carried out within the Skype for Business Management Shell environment and Microsoft online portal.

User Management Pack 365 is a powerful software application that simplifies User Lifecycle & Identity management across Skype for Business / Microsoft Teams environments, maintaining the availability of all these Microsoft tools, however providing a much simpler web-based administration utility. UMP 365 does not attempt to remove or re-write these Microsoft tools, and they remain available for other advanced configuration purposes.

UMP 365 provides a simplified web based administration utility (aka SysAdmin) with a strong focus on telephony and Hybrid Office 365 features, including migration to Microsoft Teams, that allows System Administrators to carry out day-to-day maintenance activities, without the need for access to multiple complicated Microsoft Management Tools and challenging PowerShell commands, requiring lengthy professional training.

5.1 General Access to UMP 365

The UMP 365 application is Web-based, and can be accessed via any Web browser. There is also an icon on the desktop of the server where UMP 365 is installed.

To access UMP 365 enter the following URL:

http://<SERVER FQDN where UMP365 is installed>/SysAdmin

You can also use the IP address. For example, **http://192.168.0.100/SysAdmin**.



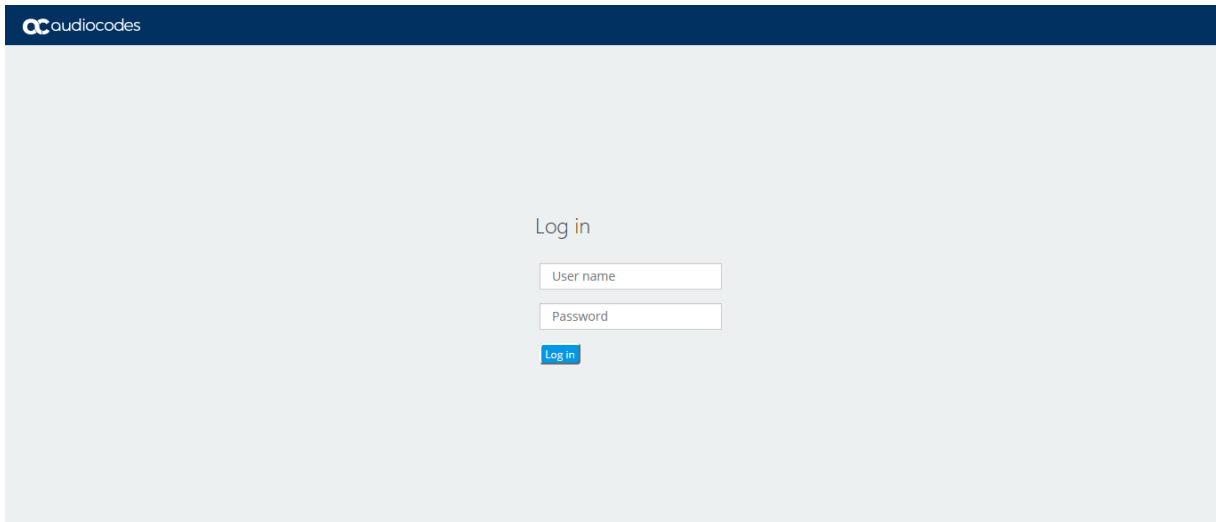
Note: UMP 365 is installed as the default management application in the AudioCodes CloudBond appliances and by default accessible on the following URL **http://<CloudBond 365 ManagementServer>.<CloudBond 365 FQDN>/SysAdmin** where <CloudBond 365 ManagementServer> is the name of the CloudBond 365 Management Server, and <CloudBond 365 FQDN> is the domain specified for the CloudBond 365 Skype for Business Appliance.

For example, **http://UC-DC.cloudbond365.local/SysAdmin**.

When accessing UMP 365, you will be prompted to enter the user ID and password of the UMP 365 / CloudBond 365 administrator before proceeding. The user who administers the UMP 365 environment should be a member of the following UMP 365 Active Directory Domain Local security groups:

- **acs-FullAccess** allows the user to perform every aspect of management.
- **acs-ReadOnly** only allows the user to *view* management pages. Customization can be performed, however, it is outside the scope of this document. Contact AudioCodes for your special access levels.

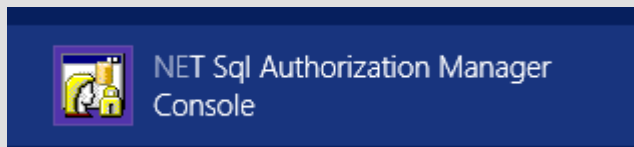
Figure 5-1: UMP 365 Authentication



Note: Screens shown in the documentation as “Menu Items” may differ to the installed Web interface due to the fact that specific configurations support different Web pages. For example, in a Cloud - Only configuration mode, fewer options are supported in the User Management and System Configuration menus.



Note: When installed in a cloud only environment, the security groups acs-FullAccess and acs-ReadOnly do not exist. To access the environment, you should use the NET Sql Authorization Manager Console:



[Configure the user\(groups\) under SysAdminWeb > Item Authorizations > Roles Authorizations as outlined in NET Sql Authorization Manager Console.](#)

5.2 Accessing UMP 365 for the First Time

Before UMP 365 can be used in a production environment, an initial configuration needs to be performed including the configuration of the Office 365 Settings and loading of a license into the environment.

5.2.1 Office 365 Settings

If User Management Pack 365 is used in either a pure cloud environment (Users exist only as Skype or Teams users in Microsoft Office 365) or in a hybrid environment (users exist in Office 365 and on premises), the Office 365 Settings under System Configuration must be completed first.

Figure 5-2: Office 365 Settings

The screenshot shows the 'Office 365 Settings' page within the 'User Management Pack 365' interface. The page is divided into a left sidebar and a main content area. The sidebar, under the 'SYSTEM' section, lists various configuration options, with 'Office 365 Settings' highlighted in blue. The main content area, titled 'Office 365 Settings', contains several input fields and a 'Save Office365 settings' button. The fields are: 'User Name' (admin@qa-lab.microsoftonline.com), 'Password' (empty), 'Confirm password' (empty), 'Host' (sipfed.online.lync.com), 'Migration Override Url' (https://admin0e.online.lync.com/HostedMigration/hostec), and 'Override Admin Domain' (qa-lab.onmicrosoft.com).

Where the following information is required:

- **User Name:**
The login name of your Office 365 Skype Administrator
- **Password:**
The Office 365 Skype Administrator password
- **Host:**
The location where your Office 365 environment is hosted
- **Migration Override URL:**
Explained further in this document
- **Override Admin Domain:**
Your original Office 365 domain prior to applying vanity domain names

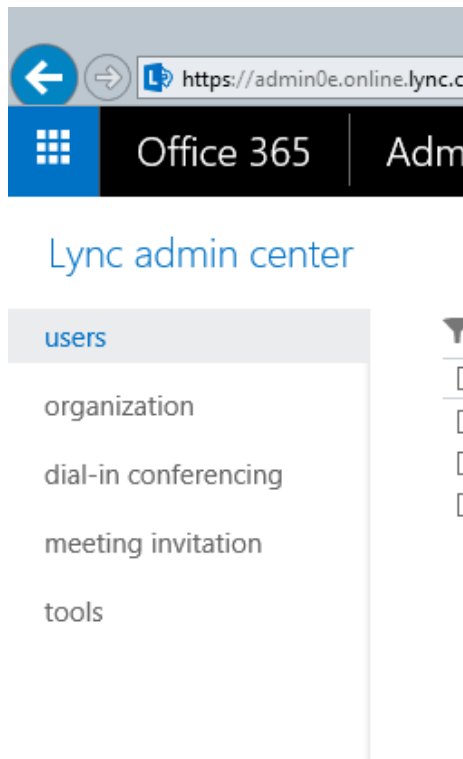
5.2.1.1 Determining the Hosted Migration Service Override URL

This section describes how to determine the Hosted Migration Service Override URL.

To determine the Hosted Migration Service Override URL for your Office 365 tenant:

1. Log in to your Office 365 tenant as an administrator.
2. Open the Skype for Business legacy admin center.

Figure 5-3: Office 365 Skype for Business Legacy Admin Center



3. With the **Skype for Business legacy admin center** displayed, select and copy the URL in the address bar up to **.com**. An example URL looks similar to the following: <https://webdir0e.online.lync.com/lscp/?language=en-US&tenantID=>

Replace "webdir" in the URL with "admin", resulting in the following:
<https://admin0e.online.Lync.com>

4. Append the following string to the URL:
</HostedMigration/hostedmigrationservice.svc>
5. The resulting URL, which is the value of the **HostedMigrationOverrideUrl**, should look like the following:
<https://admin0e.online.lync.com/HostedMigration/hostedmigrationservice.svc>

5.2.1.2 Determining Override Admin Domain

The Override Admin Domain is usually the default sign up domain "example.onmicrosoft.com". Your Office 365 Administrator can supply this value.

5.2.2 Installing the UMP 365 License

On a new UMP 365 system, you are required to upload and install a License file or obtain the license online from One Voice Operations Center license server. AudioCodes will supply a demonstration time limited trial license or a full license with each system.

The System ID required for Licensing is displayed on the **System Configuration > Licensing Information** page:

Figure 5-4: Licensing

The screenshot displays the 'Licensing' page in the AudioCodes User Management Pack 365 interface. The left sidebar shows a navigation menu with 'Licensing' selected. The main content area displays the following information:

System ID:	ad8fddcf-d88d-497b-a850-cbd62a8c16de
Product key:	
Expiration date:	
Licensed Users:	0
Licenses In Use:	0
Customer:	
Order Number:	
PO Number:	
Standard Edition servers:	0
Pro Edition servers:	0
Enterprise Edition servers:	0

At the bottom, there is an 'Upload license file:' section with a 'Select a file ([*.v2c],[*.lic])' button and an 'Upload' button.



Important: If you intend to use User Management Pack 365 in a Cloud only environment, you first need to sign in and complete the "Office 365 Settings" under "System Configuration" to be able to obtain the license file as the license is bound to the Office 365 tenant. Detailed information on these settings can be found in section [Office 365 settings](#) in this document.

You can obtain the UMP 365 license in the following ways:

- Installing the UMP 365 License from a File
- Installing the UMP 365 License from the One Voice Operations Center License Server

5.2.2.1 Installing the UMP 365 License from a File

This section describes how to obtain the UMP license from a file.

➤ **To install the UMP 365 license from a file:**

1. Install the product according to the instructions in the Installation Manual.
2. Obtain your product's Fingerprint (Serial Number) according to the instructions in "Licensing the Product" section of the Installation Manual.

Activate your product through AudioCodes License Activation tool at <http://www.audiocodes.com/swactivation>.

You need your Product Key and Fingerprint (Serial Number) for this activation process.

An e-mail will subsequently be sent to you with your Product License.

3. Install the Product License according to the instructions in "Installing the Product License" section of the Installation Manual.

The "Product Key" is a unique key that represents the UMP 365 / CloudBond 365 initial order and is used for online license generation. The "Product Key" is used for future orders for the same system, such as a license upgrade.

5.2.2.2 Installing the UMP 365 License from the One Voice Operations Center License Server

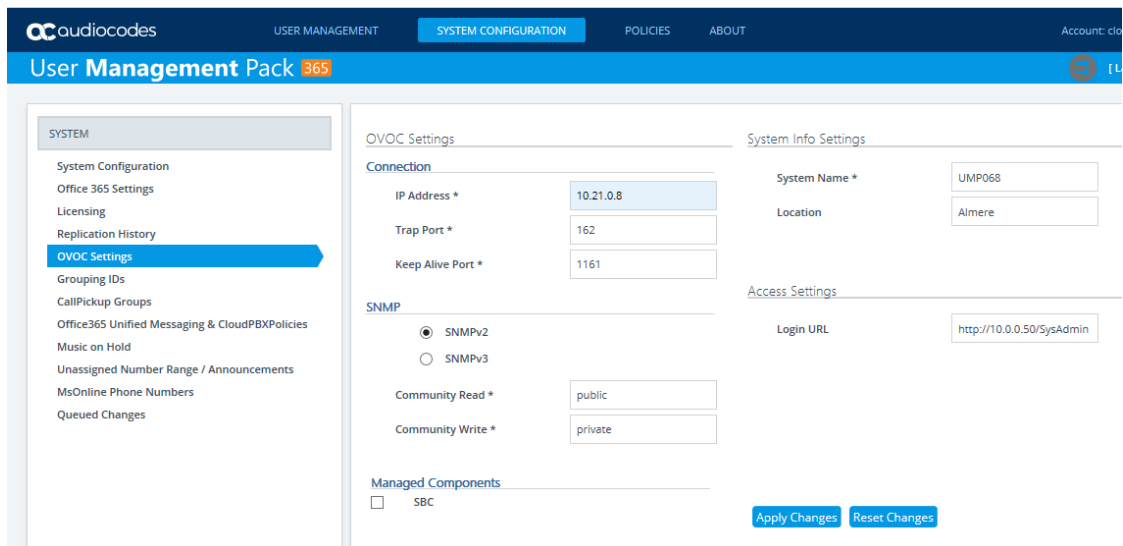
To obtain the license from the AudioCodes Element Management Server (One Voice Operations Center) license server, the CloudBond server must connect to the One Voice Operations Center via SNMP.

Follow the instructions below to retrieve your UMP 365 license from One Voice Operations Center:

- To install the UMP 365 license from the One Voice Operations Center license server:

1. Click **OVOC settings** under **System Configuration**. The following screen is displayed:

Figure 5-5: Set One Voice Operations Center Configuration



2. System Info Settings:
 - System Name – The name of the system. In an environment with multiple UMP servers, this value must be unique.
 - Location – Optional field to describe the system location.
3. Configure the following connection settings:
 - IP Address – the IP address of the One Voice Operations Center server
 - Trap Port – Destination port to which to send traps (default value is 162)
 - Keep Alive Port – Destination port to send Keep-alive requests over SNMP (default is 1161)

4. Configure the SNMP user settings:

All the settings of the SNMP protocol must be identical to the settings of the current UMP entity in the One Voice Operations Center (to support connecting the UMP entity to the One Voice Operations Center using Auto detection, you should configure the default values in parenthesis).

 - SNMP V2:
 - ◆ Community Read – Access string for SNMP get requests ('public')
 - ◆ Community Write – Access string for SNMP set requests ('private')
 - SNMP V3:
 - ◆ Security Name – Identify the SNMP user ('OVOCUser')
 - ◆ Authentication Protocol - Protocol type that used to encrypt the Security Name field ('SHA').
 - ◆ Authentication Key – Security Name encryption key. The field is valid only if Authentication Protocol selected ('123456789').
 - ◆ Private Protocol – Protocol type that is used to encrypt the SNMP message ('AES-128').
 - ◆ Private Key – SNMP message encryption key. The field is valid only if Private Protocol selected ('123456789').
5. If you would like the One Voice Operations Center to monitor the SBC in your CloudBond system, select the **SBC** button.

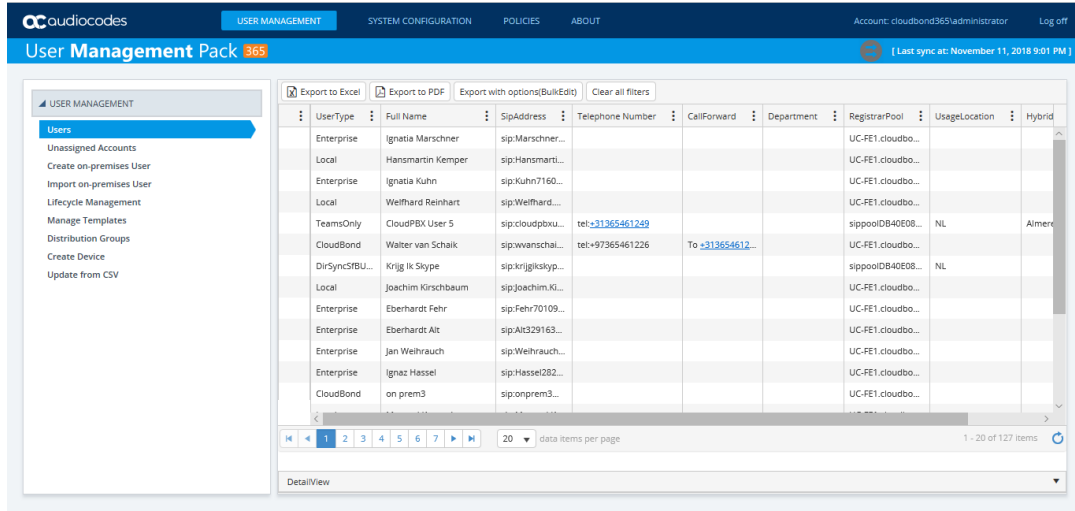
When you choose this option, the SBC in the CloudBond system is monitored in the One Voice Operations Center as part of the CloudBond system. SBC alarms will be displayed in the One Voice Operations Center as part of the CloudBond system.
6. Click **Apply**.

The UMP 365 server connects to the One Voice Operations Center server.
7. Once the system is successfully detected on the One Voice Operations Center (OVOC) server, follow the instructions in the *One Voice Operations Center User's* manual to allocate a license from the One Voice Operations Center License Pool.
8. After you have completed the license configuration in the One Voice Operations Center, the UMP 365 server will retrieve the license from the One Voice Operations Center and you may login to the system.

5.3 UMP 365 Managing Users

After successful authentication, User Management Pack 365 loads the Users section under User Management, where the users and devices that are enabled for Skype for Business and Microsoft Teams are shown.

Figure 5-6: UMP 365 Home page



Note: If the initial replication has not been completed yet, the Users list will be empty. Right-click the Last Sync Never message on the upper right hand corner to initiate a full replication cycle.



Alternately, run the Windows scheduled task called "Replication" on the server hosting the UMP 365 application.

To edit user settings, select one or multiple users using the <Shift> and/or <Ctrl> keys and then right-click on the selection. Depending on the users selected and options available edit options are displayed:

Figure 5-7: Single user Edit:

⋮	UserType	⋮	Full Name ↑
	PureOnlineS...		CCE USER1.1
	HybridOnlin...		[User Name]
	DirSyncSff...		[User Name]
	CloudBon...		[User Name]
	TeamsOnl...		[User Name]
	TeamsOnl...		[User Name]
	Local		Didi Retzlaff
	Local		Diethart Sattler
	Enterprise		Eberhard Kost
	Enterprise		Eberhard Kost

- Edit this user
- Assign site
- Assign Phone Number
- Move To On Premises
- Migrate To Teams
- Replicate this user

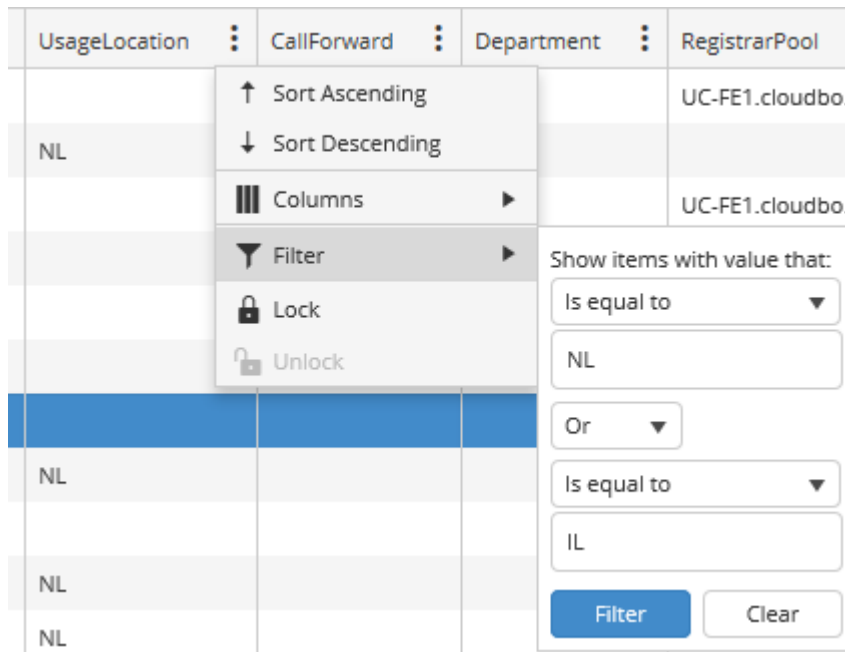
Figure 5-8: Multiple user Edit:

	HybridOnlin...	Jeroen Raven	sip:jern...
	HybridOnlin...	O365 Hybrid Voice	sip:O3...
	HybridOnlin...	[User Name]	sip:sje...
	HybridOnlin...	second hybrid voice user	sip:sec...
	HybridOnlin...	user without onprem attrib...	sip:nom...

- Migrate To Teams
- Replicate this user

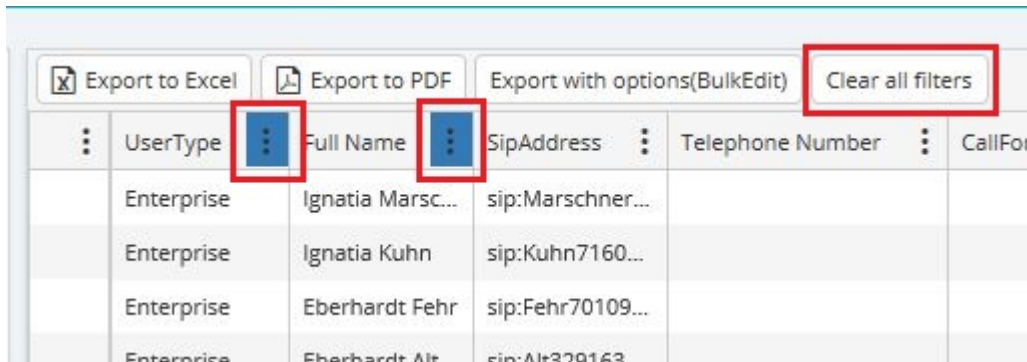
Users can be sorted alphabetically by clicking the column header or filtered by clicking the three dots in the column header:

Figure 5-9: Sort Users



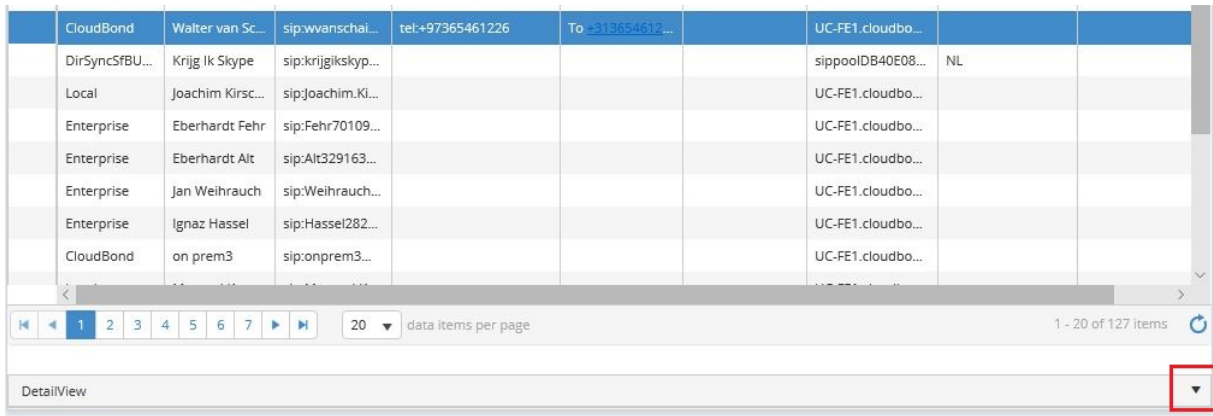
Once a filter is set on a column, the color of the three dots will change and the filter can be removed again, either per column or for all columns at once by clicking the “Clear all filters” button above the user list:

Figure 5-10: Clear All Filters



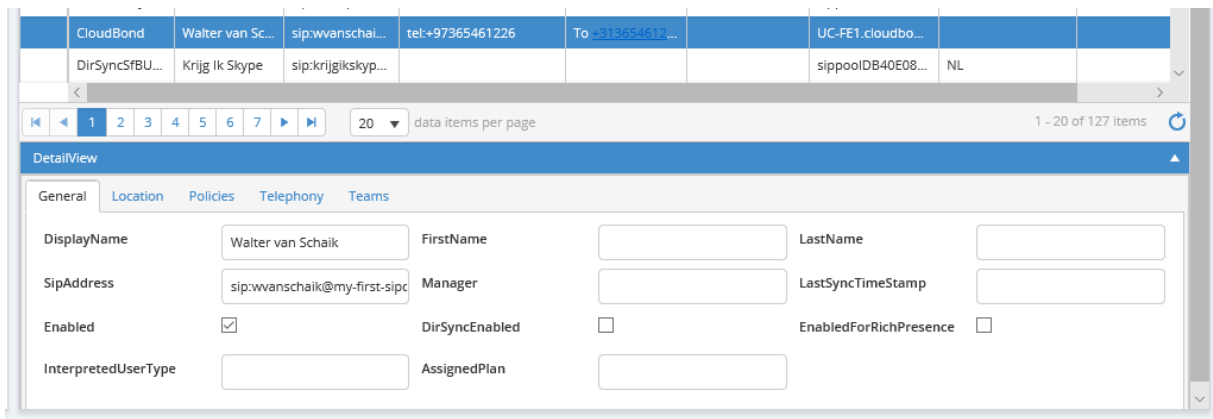
On the bottom of the user list, there is an option to show the user detail view. This option is minimized by default to allow more space for displaying users, however can be expanded by clicking the Detail View expansion icon:

Figure 5-11: Detail View



This results in the following:

Figure 5-12: Detailed View Expanded



Clicking the icon again will minimize the window to the default setting.

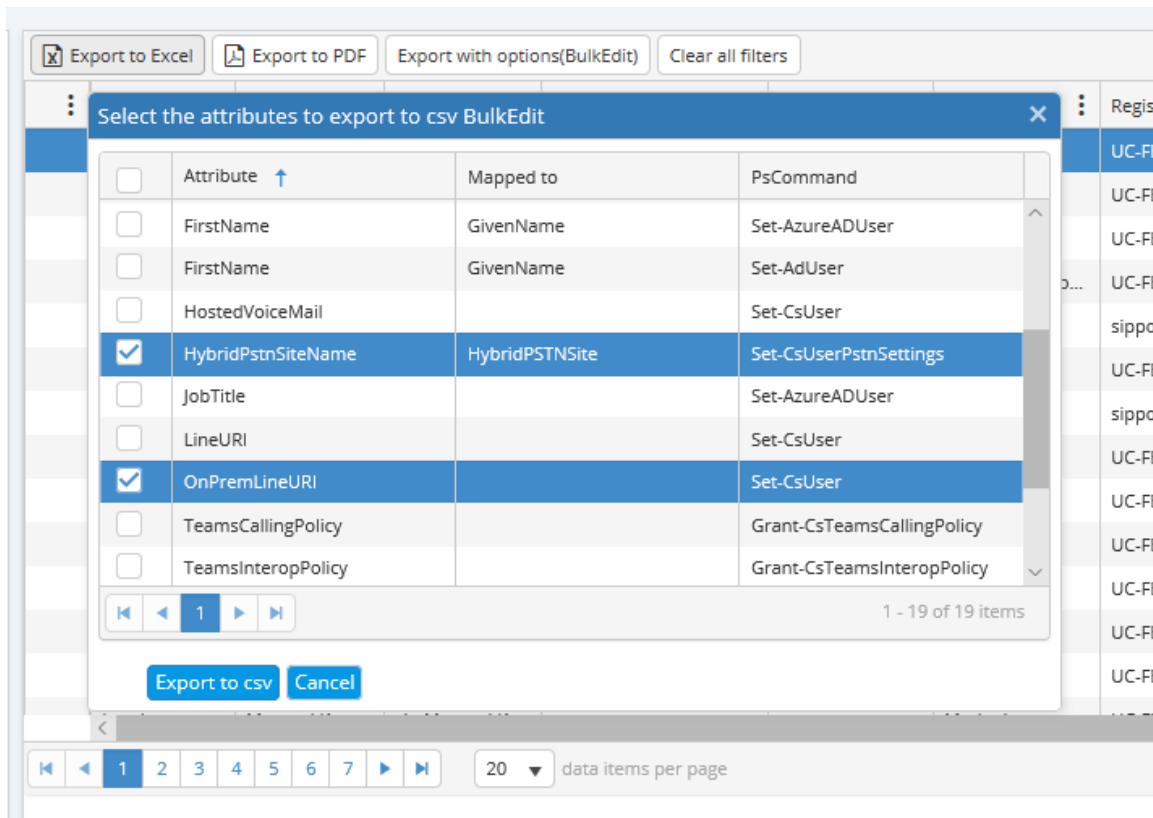


Note: The DetailView Pane is not intended to directly perform edits. To edit an individual user, right-click that user object and select Edit.

5.3.1 Exporting the User Table

A selection of the users in the users table can be exported into Excel or PDF. An additional export option is available named "Export with options (BulkEdit)". This export option will allow the selection of attributes to be exported in .CSV file format for editing in a program like Microsoft Excel.

Figure 5-13: Export to Excel



This results in the following:

Figure 5-14: Exported Users Table

AutoSave Off

File Home Insert Draw Page Layout Formulas Data Review View De

G11 :

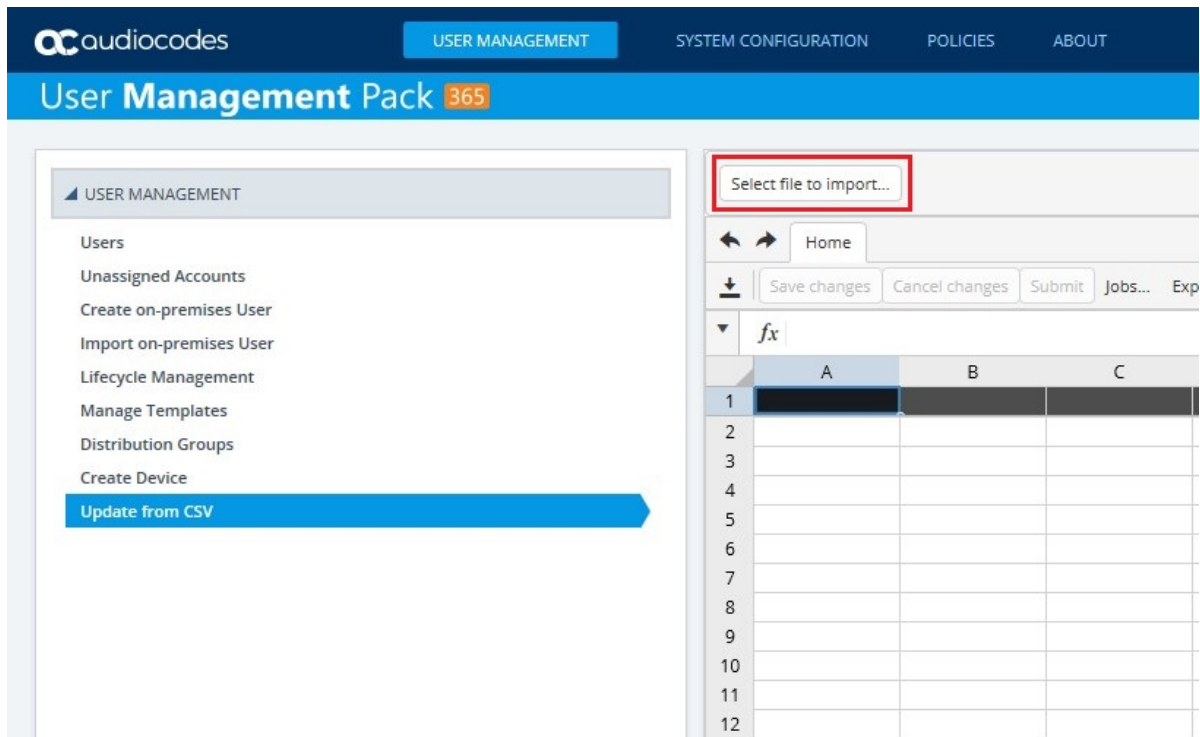
	A	B	C	D
1	SipAddress	HybridPstnSiteName	OnPremLineURI	
2	sip:Marschner112685@my-first-sipdomain.com			
3	sip:Hansmartin.Kemper@my-first-sipdomain.com			
4	sip:Kuhn716032@my-first-sipdomain.com			
5	sip:Welfhard.Reinhart@my-first-sipdomain.com			
6	sip:cloudpbxuser5@activecommunications.eu	Almere-HQ		
7	sip:wvanschaik@my-first-sipdomain.com			
8	sip:krijgikskype@activecommunications.eu			

Once the CSV file is updated with the proper configuration data again, it can be imported into UMP365 using the Update from CSV option as described in section [Update from CSV](#).

5.3.2 Update from CSV

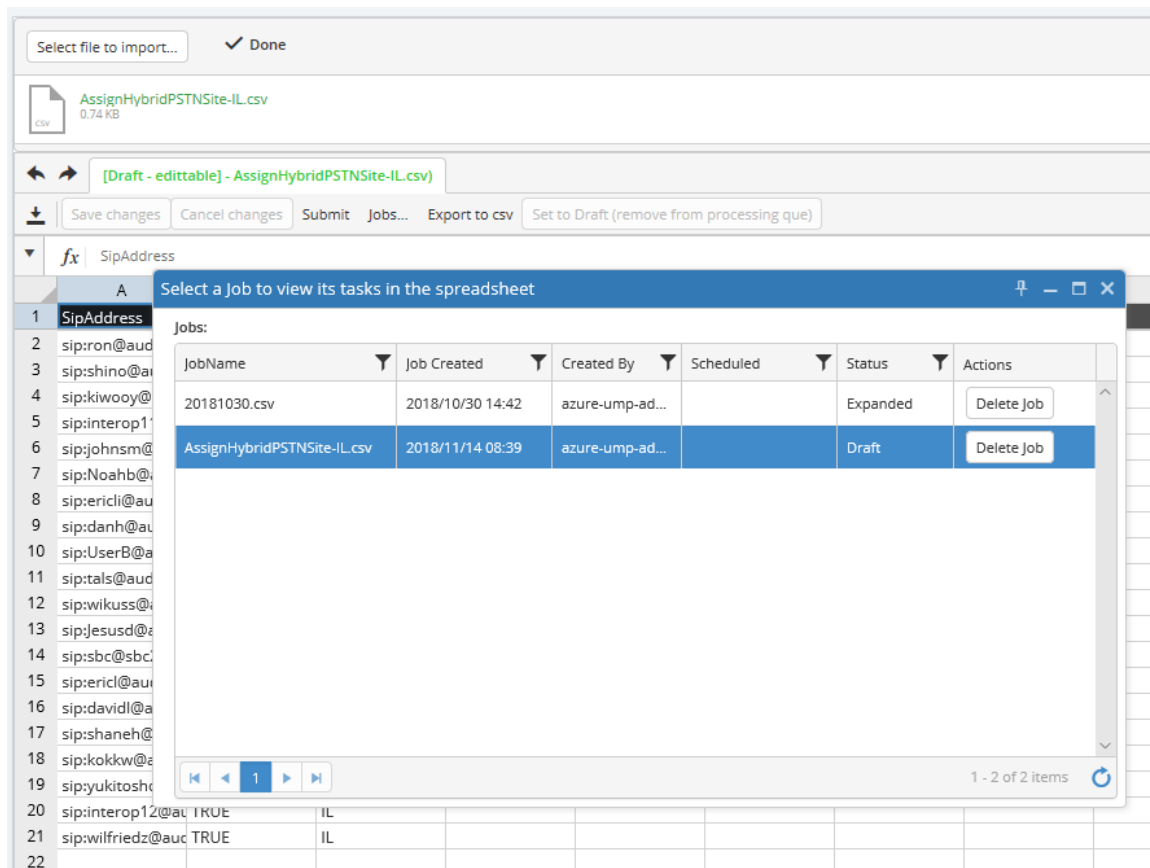
Using the Update from CSV option, administrators can use familiar tools, like Microsoft Excel to perform bulk operations on users. An example or baseline CSV file can be exported on the user list and manipulated in Excel as described in Section [Exporting the user table](#) and once updated it should be uploaded by using the “Select file to Import...” button on the top of this page:

Figure 5-15: Update from CSV



A pop-up window will allow you to select a file to import, resulting in a job-selection grid as shown below. The data is also loaded in the background in the Update from CSV page itself and the job selection can be used to use another job instead if there are multiple jobs in the system. To continue with the file just selected for the import, close the job selection pop-up window.

Figure 5-16: Select a Job to View



If required, you can make more changes in the grid, followed by the “Save changes” button and when finished click the “Submit” button to submit the changes to the queue to be processed. Note that the “Submit” will be greyed out until the changes are saved. By using the “Jobs” button, another job can be selected instead, thereby ignoring all the changes made.

Figure 5-17: Save Changes

The screenshot shows a software interface with a 'Save changes' button highlighted in red. Below the button is a table with columns A through I. Row 7, column C contains the value 'NL', which is also highlighted with a red box.

	A	B	C	G	H	I
1	SipAddress	EnterpriseVoiceE	HybridPstnSiteNa			
2	sip:ron@audioco	TRUE	IL			
3	sip:shino@audioc	TRUE	IL			
4	sip:kiwooy@audi	TRUE	IL			
5	sip:interop11@au	TRUE	IL			
6	sip:johnsm@audi	TRUE	IL			
7	sip:Noahb@audi	TRUE	NL			
8	sip:ericli@audioc	TRUE	IL			

5.3.3 Lifecycle Management

Lifecycle Management allows automated user management, based on Active Directory or Office 365 security group membership. Users added to a security group will automatically be enabled for Skype for Business or Microsoft Teams and will have policies and telephony settings like numbers applied based on the defined “persona” templates.

The lifecycle management feature is built on three components, where it is critical to configure the components in the following order, because the completion of the configuration for each component is dependent on the previous one.

1. Configure unassigned number ranges, so numbers can be assigned to a template
2. Configure templates, holding policies and telephony settings
3. Configure lifecycle management, binding templates to security groups

5.3.3.1 Managing Unassigned Number Ranges

The Unassigned Number Range allows an administrator to define ranges with numbers that belong to the organization and should be configured under **System Configuration -> Unassigned Number Ranges / Announcements**.

If numbers in these ranges are unassigned to users, callers will hear a greeting, which can be a recorded wav file or a text to speech message, after which they will be transferred to a SIP endpoint, which can be the SIP address from a response group representing the operator.

- Unassigned Number Ranges can be used in Lifecycle Management to automatically assign telephone numbers on user creation.
- The creation of unassigned Number Ranges is a two-step process, where the first step is to create the announcement.



Note: For an unassigned number range that is meant to be used in a pure online environment, there is no need for the creation of an announcement. Proceed directly to step 2 and select O365 for the AnnouncementServerFQDN.

- **To configure an unassigned number range:**
- 1. Open the Add Announcement screen (**System Configuration** → **Unassigned Number Range**) and add a new announcement.

Figure 5-18: Add Announcement



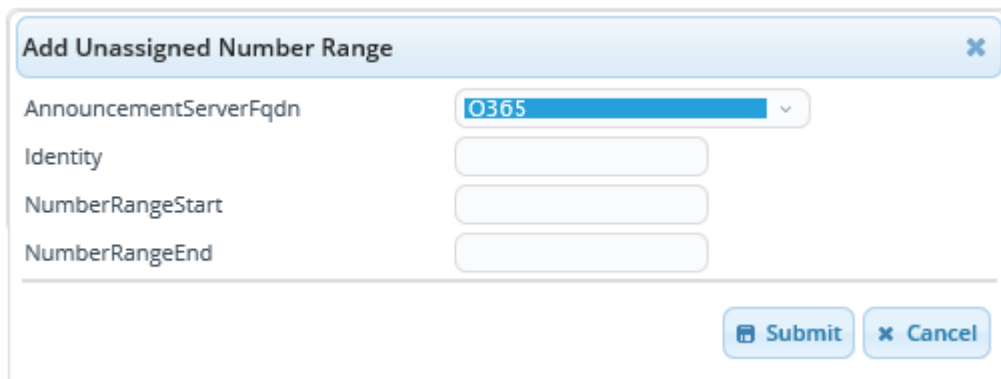
Note: The TargetUri needs to start with SIP; if this is forgotten, the server will print an internal server error.

- 2. Assign a range with numbers to this announcement.

Figure 5-19: Add Unassigned Number Range

When the number range is meant to be used for the Office 365 environment, select O365 as AnnouncementServerFqdn. The “Add Unassigned Number Range” pop-up will then remove the unnecessary parameters automatically.

Figure 5-20: Add Unassigned Number Range



The screenshot shows a dialog box titled "Add Unassigned Number Range". It has a close button (X) in the top right corner. The dialog contains the following fields:

- AnnouncementServerFqdn: A dropdown menu with "O365" selected.
- Identity: An empty text input field.
- NumberRangeStart: An empty text input field.
- NumberRangeEnd: An empty text input field.

At the bottom right of the dialog, there are two buttons: "Submit" and "Cancel".

5.3.3.2 Managing Templates

Templates are created under **User Management → Manage Templates** and will be assigned to security groups in Lifecycle management to automate policy and number assignment for users, as well as to create the user objects for deploying in a resource forest environment managing the Skype for Business Resources.

➤ **To create a new template, perform the following steps :**

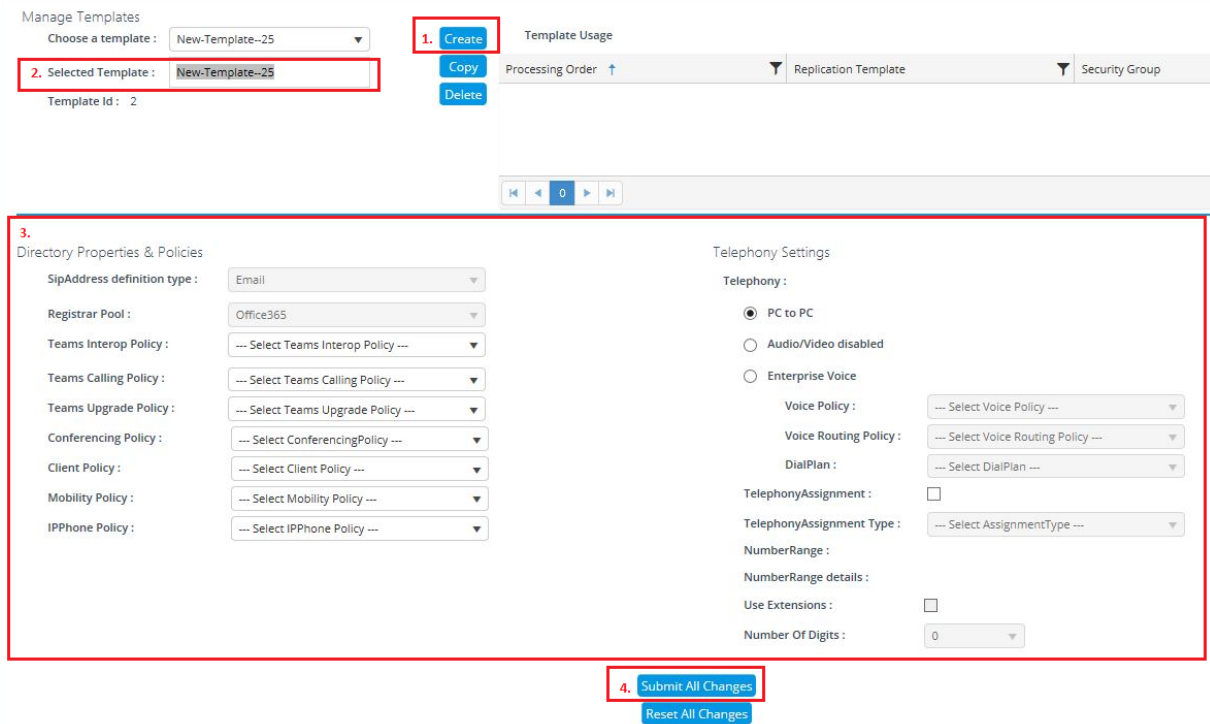
1. Click **Create**. A new template will be created with a random number (like New-Template-25 below).
2. In the Selected Template box, you can override the default text with the desired name.
3. Complete the Policy and Telephony settings section and select the policies you want to assign.



Note: Depending on the Registrar Pool selected, different policies will be shown for use in Office 365 or an on premises deployment.

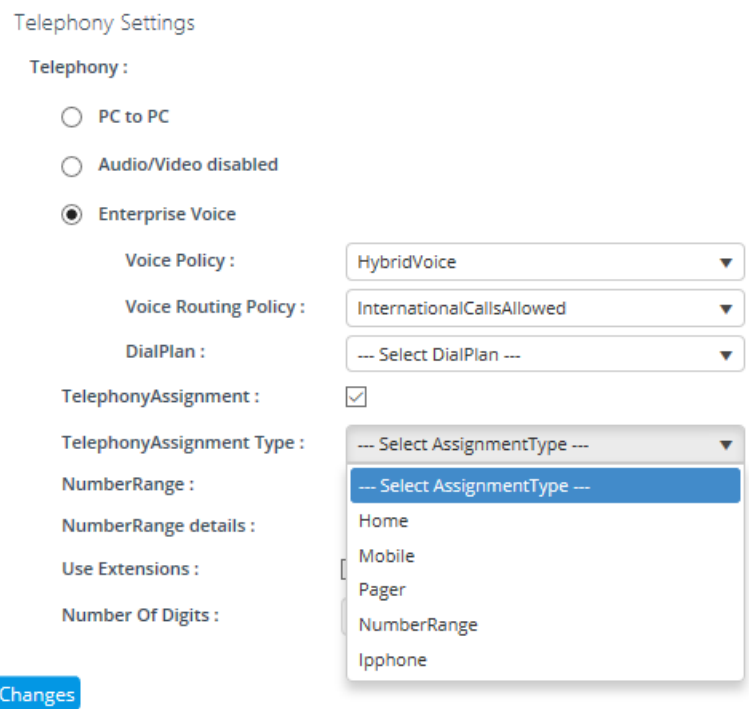
4. Click **Submit All Changes** to save the template.

Figure 5-21: Create New Template



When configuring enterprise voice in a template, a telephone number can automatically be assigned on user creation. When selecting the TelephonyAssignment checkbox, a choice can be made from a selection of source numbers as follows:

Figure 5-22: Telephony Settings





Note: Telephone numbers are only assigned during the automatic creation of the user and unlike policies not enforced / changed during the lifecycle scheduled policy replication.

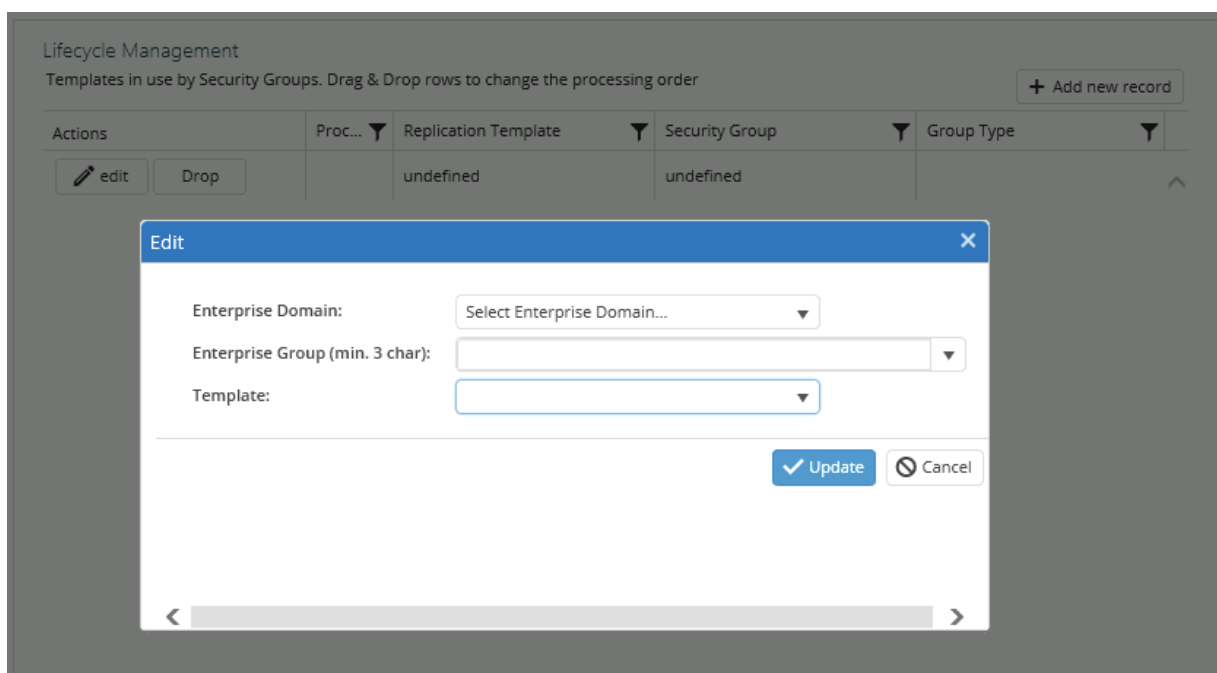
5.3.3.3 Assigning Templates to Security Groups

This section describes how to assign templates to Security Groups.

➤ **To assign templates to security groups:**

1. Have the user forest Domain Administrators created one or more universal security groups, and added members to these groups.
2. In the Lifecycle Management section, click the **Add New Record** button to add a new group to the list.
3. In the pop-up window, select the remote user forest, type at least three characters in the search list and select a template to be assigned to the group selected.

Figure 5-23: Assign Template to Security Group



4. Repeat steps 1-3 to add other groups to the list.
5. Reorder the groups as required using drag and drop technology in the Web page. A scheduled task named Lifecycle management will apply the policies according to these templates. The list is read top-down so if a user is a member of multiple security groups, the policies from the lowermost group will be applied and will overwrite any policies that would have been assigned by a group above.

- You can remove a security group from replication by selecting the “Drop” button in front of the group:

Figure 5-24: Remove Security Group

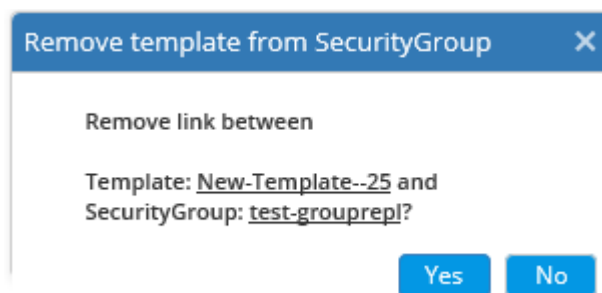
Lifecycle Management

Templates in use by Security Groups. Drag & Drop rows to change the processing order

Actions	Proc...	Replication Template	Security Group
<input type="button" value="edit"/> <input type="button" value="Drop"/>	1	New-Template--25	test-grouprepl
<input type="button" value="edit"/> <input type="button" value="Drop"/>	1	New-Template--25	Domain Users

After which a pop-up message will ask on confirmation:

Figure 5-25: Confirm Security Group Removal



Warning: Removing a security group from Lifecycle management will also remove the corresponding users from Skype for Business if they are not part of another security group.



Warning: If you remove a user from a security group in the customer forest, this user will be automatically removed from Skype for Business if the following entry is added to the <appSettings> section in the C:\acs\AcsGroupReplication\AcsGroupReplication.exe.config file:

```
<add key="DeleteEnabled" value="True" />
```

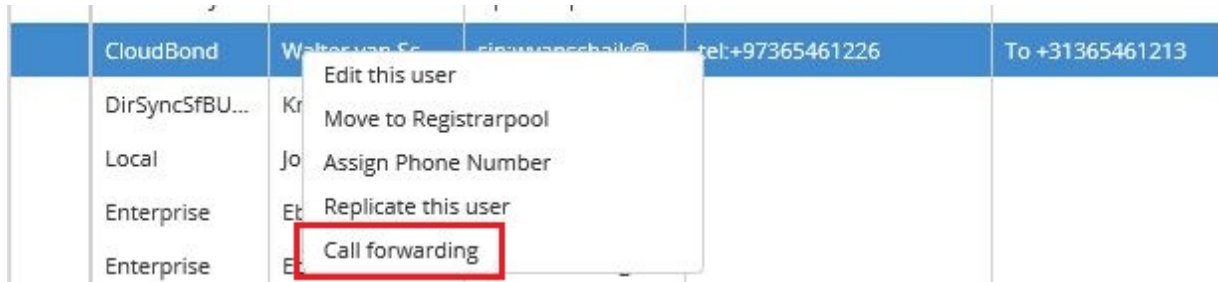
This implies that the Buddy List and Skype for Business Scheduled Meetings will be deleted for these users as well. Consequently, if such a user was deleted by mistake and then later re-added to the security group, the Buddy List and previously scheduled meetings will also be removed.

The default System Settings is to not delete the user.

5.3.4 Call Forward Settings

When on-premises users are enabled for Enterprise Voice, the contextual edit menu (right-click on a user) will contain an option to change the Call Forward and Simultaneous ring settings on behalf of this user.

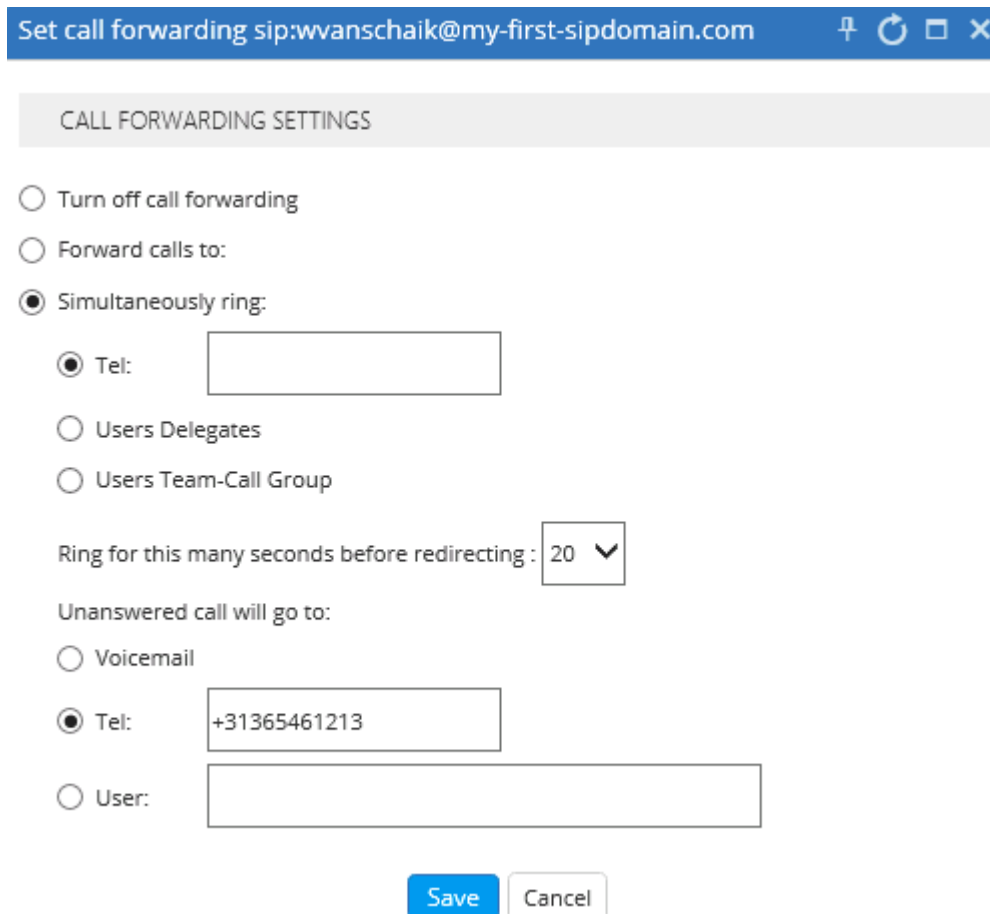
Figure 5-26: Call Forwarding



The following shows the various screens for entering call forwarding settings:

- **Simultaneous Ring**

Figure 5-27: Setting a User for Simultaneous Ring



■ Call Forward (Call Forward All)

Figure 5-28: Setting a User for Call Forwarding

Set call forwarding sip:wvanschaik@my-first-sipdomain.com

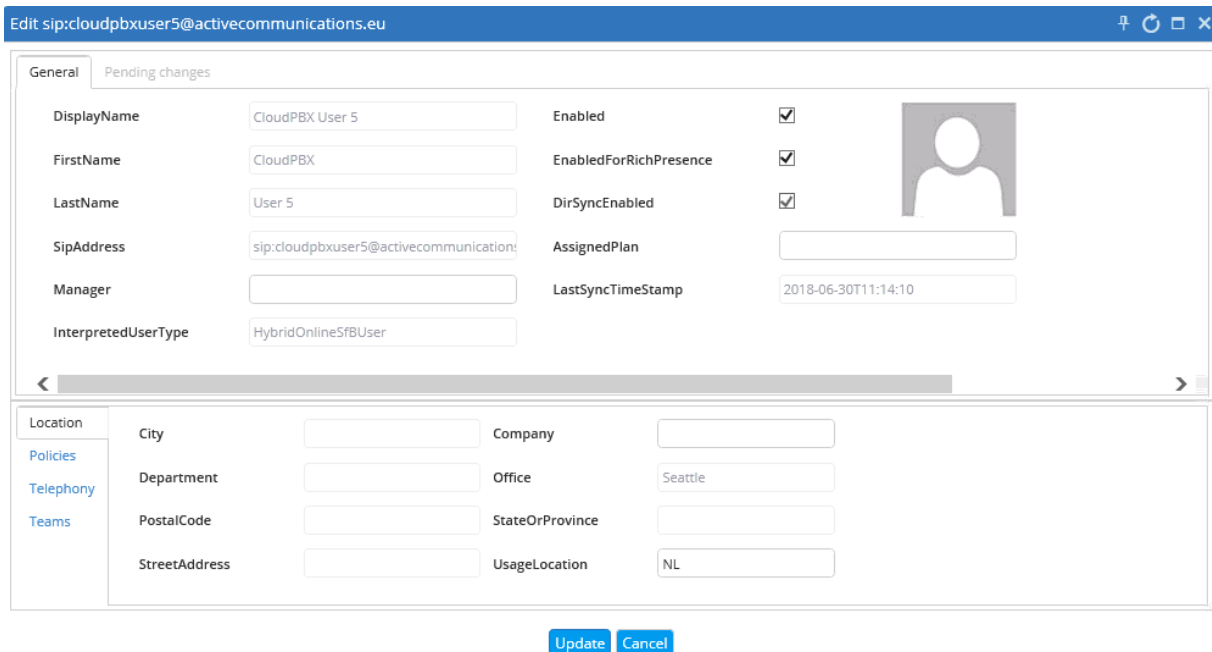
CALL FORWARDING SETTINGS

Turn off call forwarding
 Forward calls to:
 Voicemail
 Tel:
 User:
 Simultaneously ring:

5.3.5 Editing an Individual User

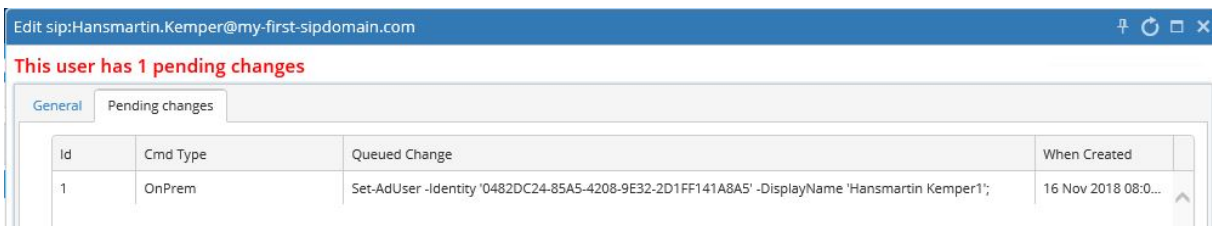
When an individual user is selected for editing, the individual user details are displayed on a new page, and can be modified. The general Account Information is displayed on top of the screen. In the lower section of the page, you may select individual sub-tabs to modify Telephony (Enterprise Voice), Policies, Location information and Microsoft Teams settings.

Figure 5-29: Editing an Individual User



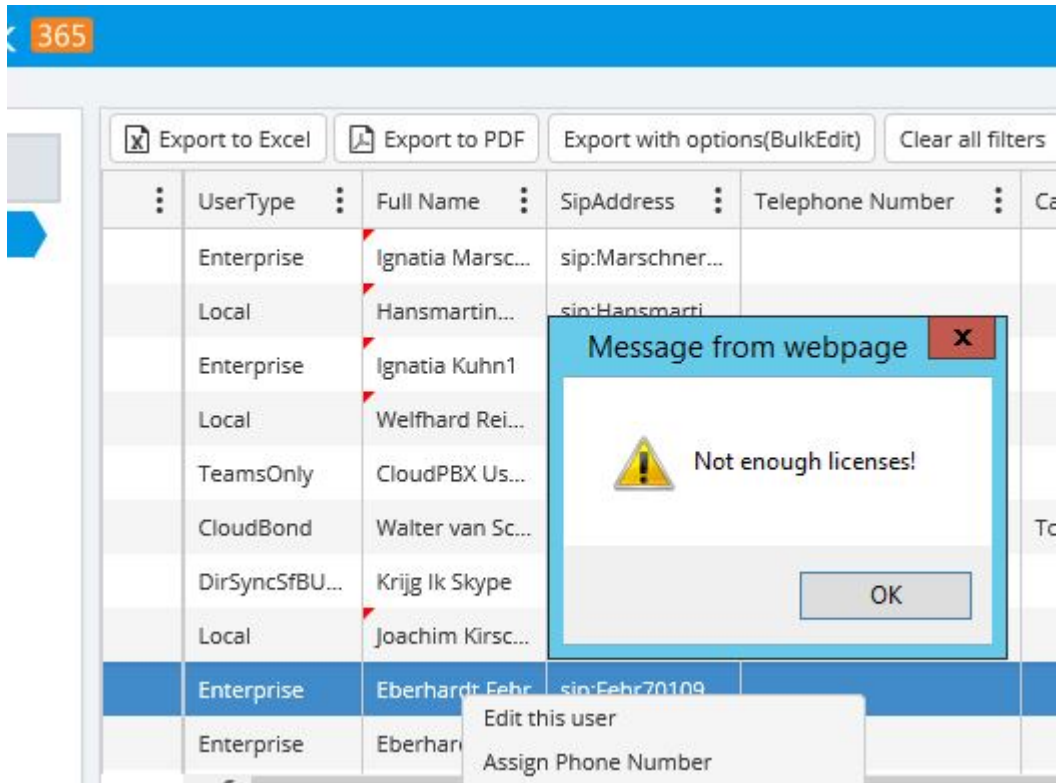
If a user already has pending changes in queue, an indication will be shown on top of the edit window and the actual pending changes can be seen in the Pending changes tab.

Figure 5-30: Pending Changes



Once the maximum number of licensed users is reached, a pop-up window will appear on individual user edit that there are no more licenses remaining. Previously edited users that were can still be edited.

Figure 5-31: Licenses Expired



Warning: Once the maximum number of licensed users is reached, it is also no longer possible to automatically add users through Lifecycle management, nor is it possible to import users or create local users and devices.

5.3.5.1 Editing an Individual User (Telephony Settings)

Within the Telephony tab, you can choose between PC-to-PC (Skype for Business peer to peer calls), or Enterprise Voice (full PSTN access).

If the Enterprise Voice is selected, you may select a Voice Policy and Dial Plan from those already defined within Skype for Business. Details of the selected Voice Policy will be displayed.

If Enterprise Voice is selected, you must also allocate a Line URI in E.164 format. i.e., Tel:+xxxxx.

Figure 5-32: Editing an Individual User (Telephony)

The screenshot shows a web-based configuration interface for editing a user. The window title is "Edit sip:cloudpbxuser5@activecommunications.eu". The interface is divided into several sections:

- General (Pending changes):**
 - DisplayName: CloudPBX User 5
 - FirstName: CloudPBX
 - LastName: User 5
 - SipAddress: sip:cloudpbxuser5@activecommunication:
 - Manager: (empty field)
 - InterpretedUserType: HybridOnlineSfBUser
 - Enabled:
 - EnabledForRichPresence:
 - DirSyncEnabled:
 - AssignedPlan: (empty dropdown)
 - LastSyncTimeStamp: 2018-06-30T11:14:10
- Telephony:**
 - AudioVideoDisabled:
 - EnterpriseVoiceEnabled:
 - LineServerURI: (empty field)
 - TenantDialPlan: (empty dropdown)
 - VoiceRoutingPolicy: InternationalCallsA... (dropdown)
 - DialPlan: (empty dropdown)
 - LineURI: tel:+31365461249
 - PrivateLine: (empty field)
 - VoicePolicy: HybridVoice (dropdown)

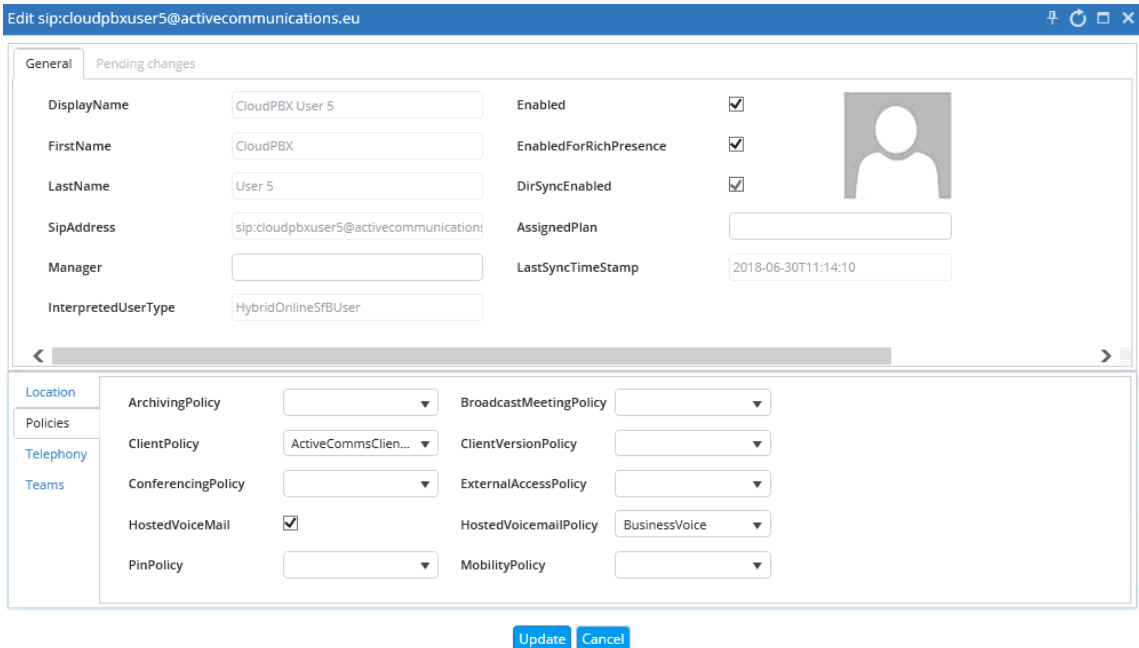
At the bottom of the window, there are two buttons: "Update" and "Cancel".

5.3.5.2 Editing an Individual User (Policies)

The **Policies** tab allows you to determine which existing Skype for Business policies cover this user's External access and Conferencing features.

These External Access and Conferencing policies are defined in the Skype for Business Control Panel.

Figure 5-33: Editing an Individual User (Policies)



Once you have completed any changes to the Users settings, click **Update** or **Cancel**.

5.3.5.3 Microsoft Teams settings

On the Teams policies tab, specific Teams related policies can be assigned.

Figure 5-34: Microsoft Teams policies

5.3.6 Create On-Premises User (Local user)

Selecting **Create On-Premises User** allows you to enter details for a user not in the Enterprise Active Directory. This allows you to create temporary accounts, accounts for visitors and contractors who do not need network privileges, or even accounts for external parties. These users are Local to the CloudBond 365 domain only.

An account is created for these users within the CloudBond 365 Active Directory; however not within the Enterprise Active Directory.

To create an account for an Enterprise Active Directory user, use the Import on-premises user pages.

Enter details for the user, and then click **Create User** at the bottom of the page.



Note: Mandatory fields are marked with an asterisk.

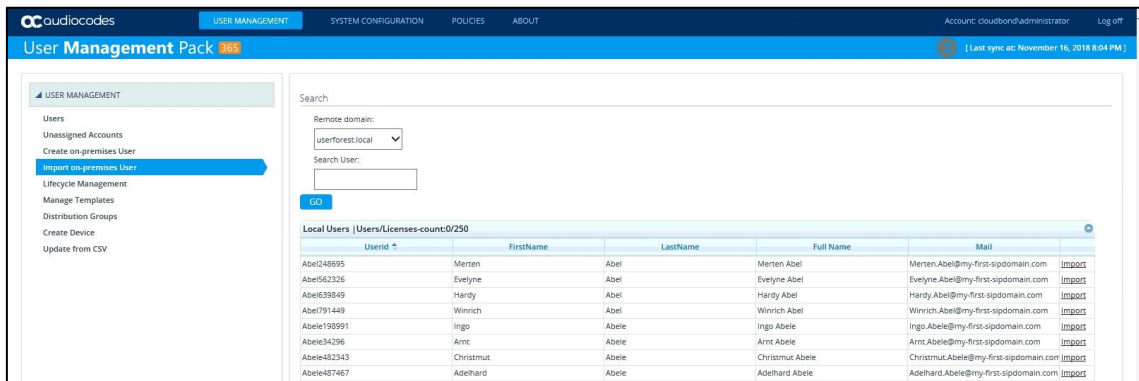


Note: The password selected must comply with the domain password complexity group policy. Failure to meet the complexity requirements will result in an error.

5.3.7 Import On-Premises Users

The Import User page allows Active Directory users from the Enterprise Domain to be imported into the CloudBond 365 Domain and configured for use within Skype for Business. Use the Remote Domain and Search User fields to locate an Enterprise User, then click corresponding **Import** action link to import the user to CloudBond 365.

Figure 5-35: Import User: Select Source Domain



Note: The mail attribute is required for User Import. If it is not set in the user Active Directory, it can temporarily be added on the User Import page, to be able to continue the import. However, once the ACSUserReplication scheduled task runs, it overwrites the CloudBond Active Directory mail attribute again with the empty entry from the user forest. This leads to the Skype for Business client's inability to contact the Exchange Web Service (EWS) for features like Calendar Integration and Conversation History. This implies that for a full-featured client experience, the mail attribute should be populated after import as well, within the user Active Director environment.

An individual User Import page will appear with settings for this user. Modify the individual settings to meet requirements, then click **Import Now** to add the user to CloudBond 365, or **Back** to cancel the import. Individual user settings are discussed in Section 5.3.55.3.5.

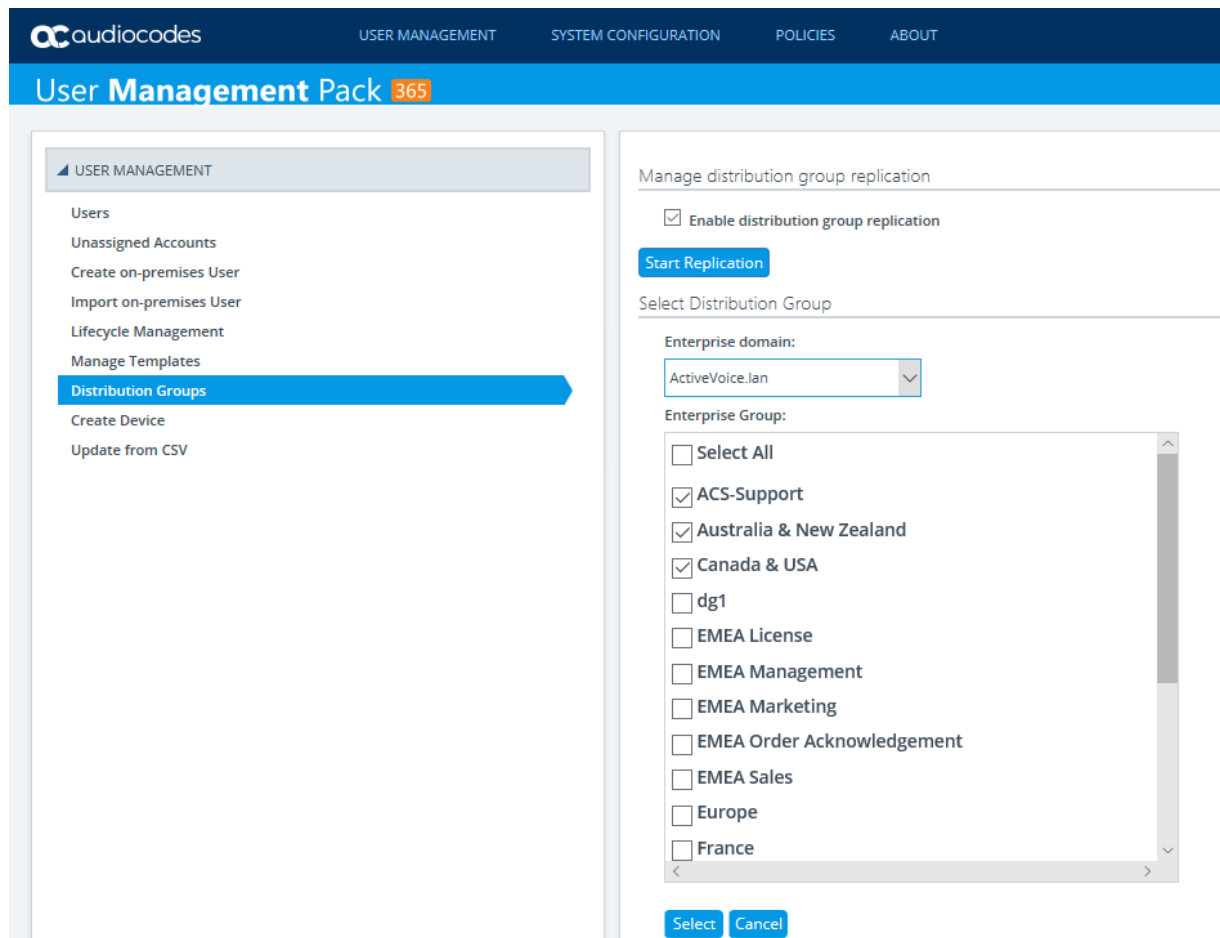


Note: Remember to change the **Domain Name** field if appropriate. This field is used for sign in on Skype for Business clients, and usually matches the customer external domain.

5.4 Distribution Groups

The distribution groups option replicates mail enabled universal distribution groups from the Enterprise AD. A mail enabled group can then be searched for in the Skype for Business client and added to the buddy list. The buddy list shows the members of the group. This way it is easy to pre-populate buddy lists.

Figure 5-36: Adding Distribution Groups



5.5 Create Devices

The Create Device option allows the creation of Analog Devices or Common Area Phones in the Skype for Business environment, without the need to use the Skype for Business Server Management Shell, or to manually create AD contact objects.

Common Area Phones are objects within Skype for Business that represents physical handsets. These devices are typically not associated with an individual user.

Analog Devices are objects within Skype for Business that represent analog devices connected to Skype for Business through a media gateway. These objects include analog handsets, fax machines etc.

Figure 5-37: Creating Common Area Phone

The screenshot shows the Audiocodes User Management Pack 365 interface. The left sidebar lists navigation options under 'USER MANAGEMENT', with 'Create Device' highlighted. The main content area is titled 'Create Analog Device or Common Area Phone' and contains the following fields:

- Device Type #: Common Area Phone (dropdown menu)
- LineUri #: 'tel:+' and E.164 format (text input)
- RegistrarPool #: - select item - (dropdown menu)
- DisplayName #: No leading/trailing spaces allowed (text input)

A 'Create device' button is located at the bottom of the form.

Figure 5-38: Creating Analog Device

The screenshot shows the Audiocodes User Management Pack 365 interface. The left sidebar lists navigation options under 'USER MANAGEMENT', with 'Create Device' highlighted. The main content area is titled 'Create Analog Device or Common Area Phone' and contains the following fields:

- Device Type #: Analog Device (dropdown menu)
- Analog Fax: (checkbox)
- Gateway #: 10.0.0.10 (dropdown menu)
- LineUri #: tel:+31365461213 (text input)
- RegistrarPool #: UC-FE1.cloudbond365.local (dropdown menu)
- DisplayName #: Analog Device reception (text input)

A 'Create device' button is located at the bottom of the form.

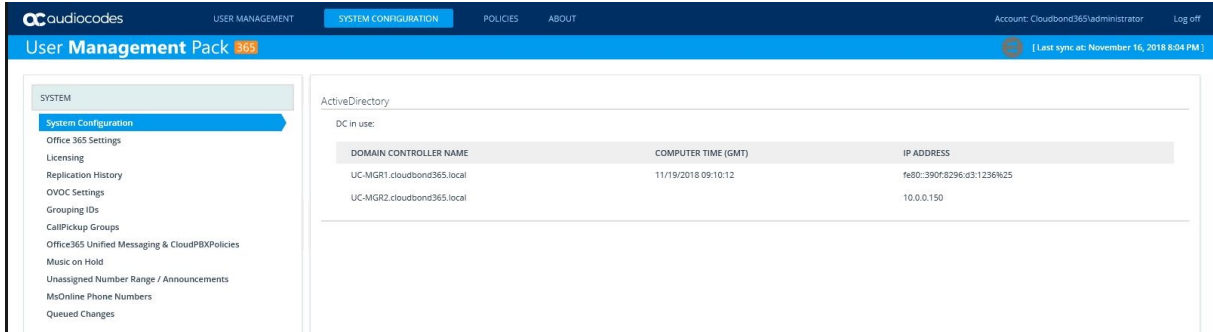
6 System Configuration

In the System Configuration global site specific settings can be configured. These settings are general settings that are periodically updated; the majority of these settings apply to clean installations.

6.1 System Configuration

The System Configuration page contains general information about the CloudBond 365 Skype for Business Appliance and its uptime.

Figure 6-1: System Configuration Page



6.2 Office 365 Configuration

Refer to the *AudioCodes CloudBond 365 Installation Manual* document for details on how to configure Office 365 integration with UMP 365. This document also contains information on how to obtain values required for the Office 365 Configuration screen within the UMP 365.

After completing the pre-requisite setup steps for Office 365 Integration, the process can be completed by supplying the following information on the SysAdmin page:

- **User Name:**
 - The login name of your Office 365 Administrator
- **Host:**
 - The location where your Office 365 environment is hosted
- **Migration Override URL:**
 - Refer to the document *AudioCodes CloudBond 365 Installation Guide*
- **Override Admin Domain:**
 - Your original Office 365 domain prior to applying vanity domain names
- **Password:**
 - The Office 365 Administrator password

Figure 6-2: Office 365 Connector Settings

The screenshot displays the 'Office 365 Settings' configuration page. On the left, a sidebar lists system configuration options, with 'Office 365 Settings' highlighted. The main area contains the following fields:

- User Name:** skypeadmin@ocshost.emea.microsoftonline.com
- Password:** (empty field)
- Confirm password:** (empty field)
- Lync Online Host:** sipfed.online.lync.com
- Migration Override Url:** https://admin1e.online.lync.com/HostedMigration/hostedmigrations
- Override Admin Domain:** ocslab.onmicrosoft.com

A 'Save Office365 settings' button is located at the bottom of the form.

Once the Office 365 connector is fully configured and the first synchronization has been performed, it is possible to assign users to each system (CloudBond 365 or Office 365).

6.2.1 Office 365 Unified Messaging (UM) and Cloud PBX Policies

To be able to support the Office 365 Unified Messaging (UM) and Cloud PBX feature, Voice Routing Policies need to be created to hold the PSTN Usage records that are allowed to be called by Cloud PBX users with On-Premise PSTN breakout.

The Voice Routing Policies are created in the CloudPBX VoiceRoutingPolicies Management screen. Once created, they can be assigned to the PSTN Usage Records.



Note: UMP 365 provides native integration to Office 365 Unified Messaging (UM) by means of an intuitive interface. Once the prerequisites of Office 365 integration as outlined in the *AudioCodes CloudBond 365 Office 365 Integration Configuration Note Ver. 7.2* are configured, you can use this capability.

➤ **Do the following:**

1. Select / create a Voice Routing Policy.
2. Select the check boxes for the PSTN Usage records to bind to this policy.
3. Click **Save VRP/PstnUsages settings** to save the settings to the backend environment.

Figure 6-3: Voice Routing Policies and PSTN Usages

After the Voice Routing Policies have been created, they can be assigned to the user on the **Telephony** tab in User Edit mode.

➤ **To enable the Office 365 UM feature:**

1. Open the Office 365 Unified Messaging & CloudPBX Policies page under the System Configuration menu.
2. Select the 'Enable Office 365 UM' check box.
3. From the 'RegistrarPool' drop-down list, select a Registrar pool.
4. From the 'sipDomain' drop-down list, select a sipDomain.
5. In the 'Displaynum*' field, enter the telephone number to be used.
6. In the organization field, add the office365 domain to be used (use the overrideadmindomain if there are multiple domains registered within Office 365).

Once enabled, users can be assigned Office 365 UM capabilities in the User Edit screen by enabling the 'Office365 Exchange UM policy' check box.

6.3 Licensing Information

The Licensing Information page displays information about your system license, including:

- Number of users
- Number of servers
- When the license will expire

This page also allows the installation of a new license, by simply browsing to the new license file, then clicking **Upload**. The system cannot function without an installed license file . UMP 365 will cease to operate once the license date expires.

Figure 6-4: UMP 365 License

The screenshot shows the Audiocodes User Management Pack 365 interface. The top navigation bar includes 'USER MANAGEMENT', 'SYSTEM CONFIGURATION' (highlighted), 'POLICIES', and 'ABOUT'. The main header is 'User Management Pack 365'. On the left, a sidebar menu lists various system settings, with 'Licensing' highlighted. The main content area displays the following license information:

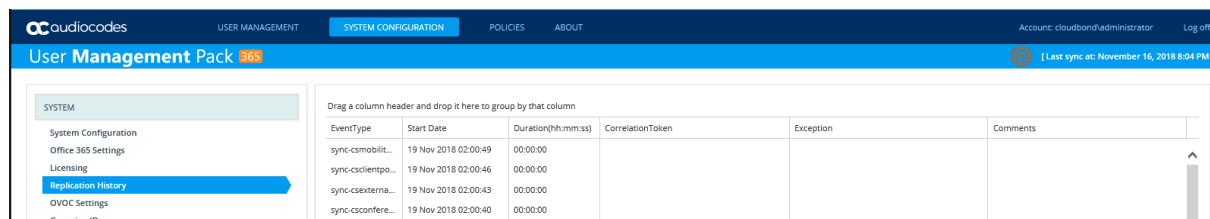
System ID:	915082ca-27ec-448f-94ba-129a1dc8063b
Product key:	
Expiration date:	2050-01-01
Licensed Users:	250
Licenses In Use:	6
Customer:	
Order Number:	
PO Number:	
Standard Edition servers:	0
Pro Edition servers:	0
Enterprise Edition servers:	0

At the bottom, there is an 'Upload license file:' section with a 'Select a file (*.v2c],[*.lic))' button and an 'Upload' button.

6.4 Replication History

In replication history, an administrator can view the last run replication cycle, including errors that might have occurred during replication:

Figure 6-5: Replication History



EventType	Start Date	Duration(h:mm:ss)	CorrelationToken	Exception	Comments
sync-csmobilit...	19 Nov 2018 02:00:49	00:00:00			
sync-csclientpo...	19 Nov 2018 02:00:46	00:00:00			
sync-csexterna...	19 Nov 2018 02:00:43	00:00:00			
sync-csconfere...	19 Nov 2018 02:00:40	00:00:00			

6.5 Monitoring CloudBond 365 in One Voice Operations Center

The CloudBond 365 system can be monitored remotely by the One Voice Operations Center server. This monitoring includes the following features:

- Displays the CloudBond system info and status:
 - The type of the CloudBond system
 - Health status of the system
 - Name of the system
 - Location of the system
 - Skype for Business version
 - Sip domains
 - Number of users
- Displays the CloudBond system components:

The CloudBond 365 status screen in the One Voice Operations Center contains all the components of the CloudBond environment with the following information:

 - Name
 - Component health status
 - Type
 - FQDN
 - IP Addresses
 - Serial number (if applicable)
 - OS version
 - SfB CU version (if applicable)
 - Component up time
- The following types of alarms and events are raised on the CloudBond 365 system and are displayed in the One Voice Operations Center alarm browser:
 - Alarms about services that down in the components
 - Alarms about performance counter threshold exceed in the components
 - Events from components event log
 - Alarms about license problems
 - Alarms from SBC – (if monitored)



Note: To increase the efficiency of the alarm reporting, the monitoring parameters may be manual configured according to system activity.

- Obtain the license from the One Voice Operations Center License pool:
This option replaces the need for a file license. The CloudBond system retrieves its license from a license pool in the One Voice Operations Center. All the license management is performed from the One Voice Operations Center.

6.5.1 Configuring the CloudBond 365 and One Voice Operations Center Server Connection

This section describes how to manage the connection settings between the CloudBond devices and the One Voice Operations Center server. If you initially obtained your CloudBond license from the One Voice Operations Center server, you already initially configured most of these settings in Section 5.2.2.2.

➤ To configure the CloudBond 365 One Voice Operations Center server connection:

1. Open the OVOC Settings screen (**System Configuration > OVOC Settings**).
2. Configure the following connection settings:
 - IP Address – the IP address of the One Voice Operations Center server
 - Trap Port – Destination port to which to send traps (default value is 162)
 - Keep Alive Port – Destination port to send Keep-alive requests over SNMP (default is 1161)
3. Configure the SNMP user settings:
All the settings of the SNMP protocol must be identical to the settings of the current CloudBond system in the One Voice Operations Center. Note that if you wish to connect the CloudBond 365 devices to the One Voice Operations Center with auto detection, then you must use the default settings shown below in parenthesis:
 - SNMPv2:
 - ◆ Community Read – Access string for SNMP get requests (default 'public')
 - ◆ Community Write – Access string for SNMP set requests (default 'private')
 - SNMPv3:
 - ◆ Security Name – Identify the SNMP user ('OVOCUser')
 - ◆ Authentication Protocol - Protocol type that used to encrypt the Security Name field ('SHA').
 - ◆ Authentication Key – Security Name encryption key. The field is valid only if Authentication Protocol selected ('123456789').
 - ◆ Private Protocol – Protocol type that is used to encrypt the SNMP message ('AES-128').
 - ◆ Private Key – SNMP message encryption key. The field is valid only if Private Protocol selected ('123456789').
4. If you would like the One Voice Operations Center to monitor the SBC in your CloudBond system, select the **SBC** button.
When you choose this option, the SBC in the CloudBond system is monitored in the One Voice Operations Center as part of the CloudBond system. SBC alarms will be displayed in the One Voice Operations Center as part of the CloudBond system.
5. Configure the System Info settings:
 - **System Name** – The name of the system. In an environment with multiple CloudBond devices, this value must be unique.
 - **Location** – Optional field to describe the system location.

- Enter the Login URL – the URL of the CloudBond Admin login page. When you enter this URL, you can access the CloudBond Management login page from the One Voice Operations Center. The link from the One Voice Operations Center is valid only when the Admin user has HTTP/S access to the CloudBond Management Admin.

Figure 6-6: EMS Settings-SNMPv2

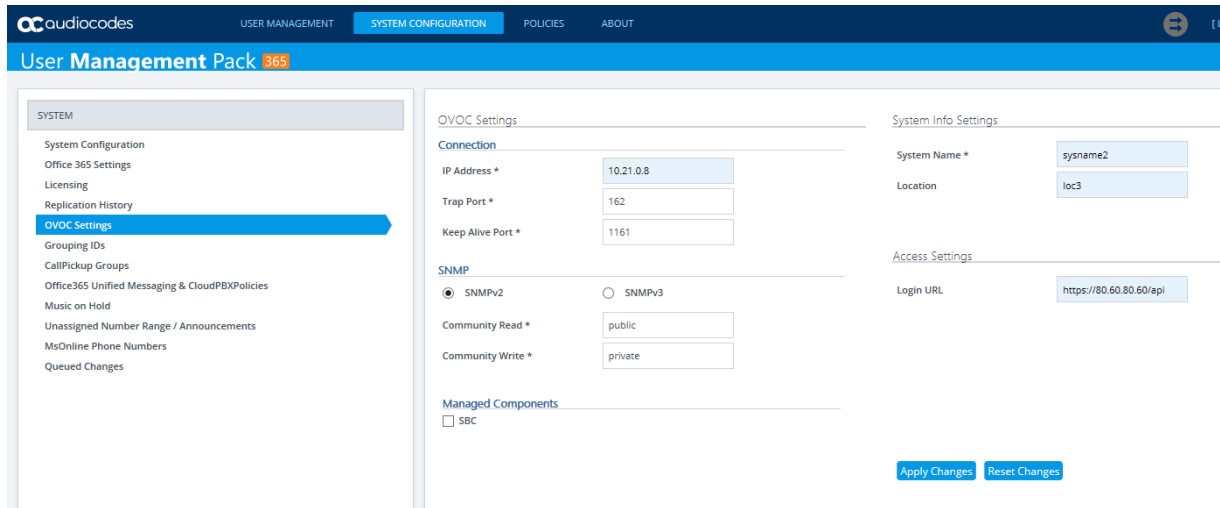
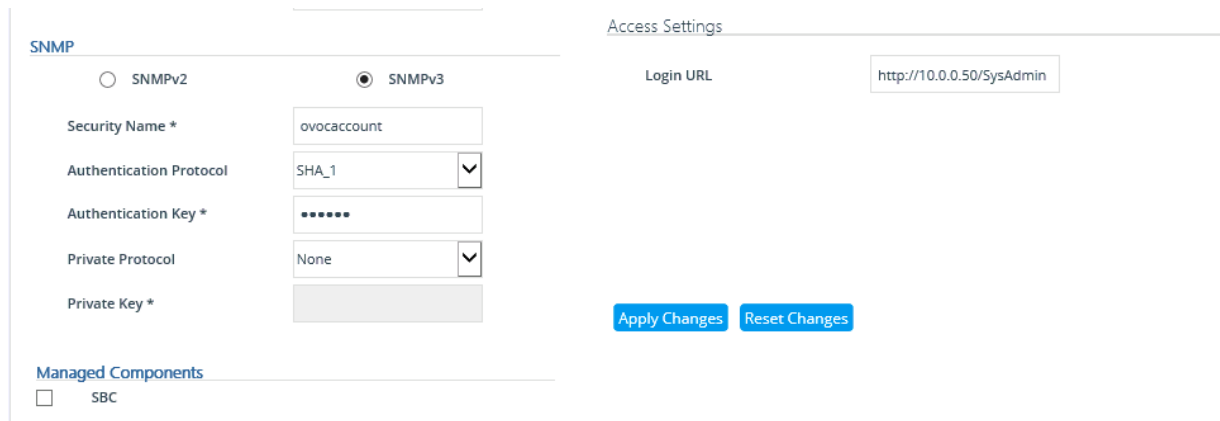


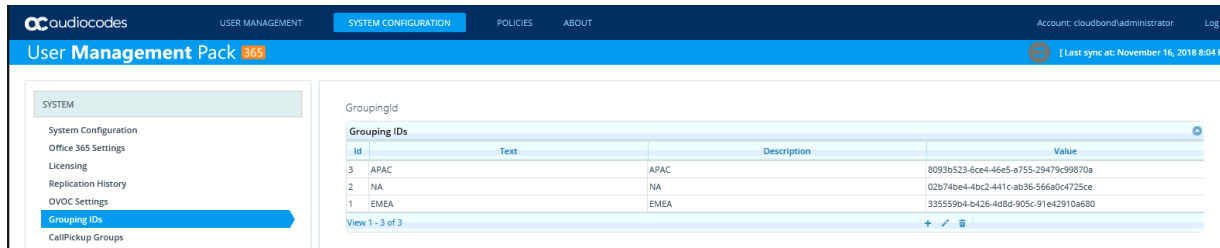
Figure 6-7: EMS Settings-SNMPv3



6.6 Grouping IDs

Grouping IDs allow Skype for Business contacts to be separated and segregated into groups. This allows you to restrict which Skype for Business users can view which contacts within the Skype for Business environment. Grouping IDs defined on this page are available to be applied to individual users in the User Management pages.

Figure 6-8: CloudBond 365 Grouping IDs



- **To add a new Grouping ID:**
 1. Click the **+** icon.
 2. Enter **Text** (name) and **Description**.
 3. Click **Submit**.

Figure 6-9: Adding a Grouping

The 'Add Record' form contains two input fields: 'Text' and 'Description'. Below the fields are two buttons: 'Submit' (with a save icon) and 'Cancel' (with an 'X' icon).

- **To Edit a Grouping ID:**
 - Click the **Pencil** icon.

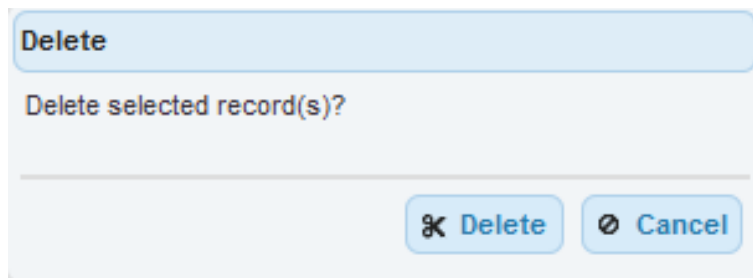
Figure 6-10: Editing a Group Record

The 'Edit Record' form shows the 'Text' field containing 'test' and the 'Description' field containing 'test group id'. Navigation arrows are visible on the left side of the form. At the bottom are 'Submit' and 'Cancel' buttons.

➤ **To Delete a Grouping ID:**

- Click the **Trash** icon.

Figure 6-11: Deleting a Record

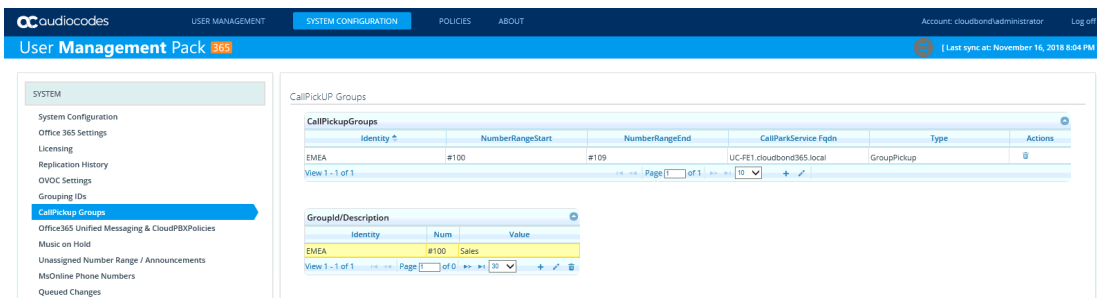


6.7 CallPickup Groups

CallPickup Groups are a feature of Skype for Business which allows members of the group to pickup calls ringing on another extension within the group.

To make configuration of CallPickup Groups easier, the feature has been added to the SysAdmin Web pages.

Figure 6-12: Defining CallPickup Groups



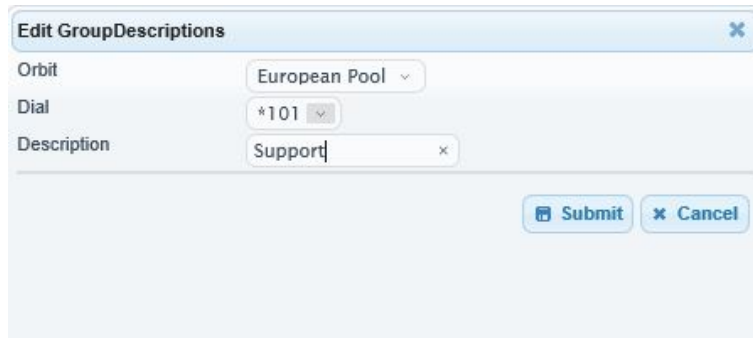
➤ **To configure a CallPickup group:**

1. Create a new callpark orbit in the top section (CallPickupGroups). The orbit should contain enough extensions to support the number of simultaneous calls for the group. Click the + to create a new orbit.

Figure 6-13: Defining the CallPickup Orbit



2. Create a group id and assign it to the orbit. The Call Pickup Group ID is allocated to all users within the group. As part of the ID, you must select a pickup code from one of the orbit numbers.

Figure 6-14: Defining the Call Pickup Group ID

The screenshot shows a dialog box titled "Edit GroupDescriptions" with a close button (X) in the top right corner. It contains three fields: "Orbit" with a dropdown menu showing "European Pool", "Dial" with a dropdown menu showing "*101", and "Description" with a text input field containing "Support". At the bottom right, there are two buttons: "Submit" and "Cancel".

3. Edit the selected Skype for Business users, and assign them to the **CallPickupGroup ID** under the **Group Management** tab.

6.8 Music on Hold

Music on Hold (MoH) files can be centrally administered using the Music on Hold page under the System Configuration menu in the sysadmin web pages:

Before you start managing MoH, create a new share ['lyncMOH'] with read permissions for everyone on your selected Skype for Business Front End Server.

➤ **To configure MoH (refer to the corresponding numbers in the figure below):**

1. Select the 'Enable Client Music on Hold policy' check box.

When selected, the global client policy entry EnableClientMusicOnHold is enabled, in which case, this file is played to a caller when placed on hold by a Skype client. If this option is cleared, the EnableClientMusicOnHold entry is disabled.

Note that if a MusicOnHoldAudioFile entry is present and this option is disabled, then the file will not be removed from the policy.

2. From the 'Set ApplicationServer to upload MOH-files' drop-down list, select the Front End Application server that will be used to store the MoH file.
3. Use the button to browse for and upload a MoH file to the server.
4. In the WorkFlows table, select the check box for the WorkFlow entry to set a custom MOH file.

This feature enables you to upload and assign a MOH file for the selected "Response Group" workflow.

5. Use the browse button to browse to a MoH file to upload for the selected workflow.
6. Displays the current assigned MoH file for response groups.
7. Allows changing the default MoH file for response groups.

This feature enables you to assign a default "Response Group" MOH file to play if you did not assign an MOH file to an individual Response Group" workflow in step 4.

Figure 6-15: Music on Hold

The screenshot shows the 'MusicOnHold' configuration page. The left sidebar contains a navigation menu with 'Music on Hold' selected. The main content area includes the following sections:

- System Configuration:** Includes instructions to create a share and a note about the 'Choose/Upload file' button.
- Set default global Music On Hold File:**
 - 1. Enable Client Music on Hold policy.
 - 2. Set ApplicationServer to upload MOH-files to: **ACS-UIC-FE.acs.unified-communications.net**
 - 3. **Choose/Upload file (C:\web\T\mms)**
- Workflow Music On Hold Configuration:**
 - 4. Select a workflow row to set a Custom Music on Hold file to

WorkFlow	Application Server	MusicOnHoldFile
<input checked="" type="checkbox"/> Support RIG	ACS-UIC-FE.acs.unified-communications.net	Alarm01.wav
<input type="checkbox"/> Support Group	ACS-UIC-FE.acs.unified-communications.net	Alarm03.wav

 - 5. **Set Custom Music On Hold File to Worklow**
- ResponseGroups Default Music On Hold Configuration:**
 - 6. **Alarm09.wav**
 - 7. **Set Default Music On Hold File to ResponseGroup**

6.9 MsOnline Phone Numbers

The MsOnline Phone Numbers section displays the numbers that are available and in use in the Microsoft Calling Plan subscription:

Figure 6-16: MsOnline Phone Numbers

Telephone Number	SipAddress	TargetType	O365Region	CityCode	ActivationState
31367998020			EMEA	EMEA-NL-ALL-FL-AL	Activated
31367998220			EMEA	EMEA-NL-ALL-FL-AL	Activated
31367998221			EMEA	EMEA-NL-ALL-FL-AL	Activated
31367998222			EMEA	EMEA-NL-ALL-FL-AL	Activated
31367998223			EMEA	EMEA-NL-ALL-FL-AL	Activated
31367998224			EMEA	EMEA-NL-ALL-FL-AL	Activated
31367998225	sip:HD440-CAP@activecommunications.eu	user	EMEA	EMEA-NL-ALL-FL-AL	Activated
31367998226	sip:cloudpbxuser1@activecommunications.eu	user	EMEA	EMEA-NL-ALL-FL-AL	Activated
31367998227			EMEA	EMEA-NL-ALL-FL-AL	Activated
31367998228			EMEA	EMEA-NL-ALL-FL-AL	Activated
31367998229			EMEA	EMEA-NL-ALL-FL-AL	Activated

6.10 Queued Changes

Changes made to users, either through user edit or update from CSV will be queued for processing. On the queued changes page you can see the actual queue with new and already applied changes. You can also enforce processing of the queue for either all or a subset of users.

Figure 6-17: Queued Changes

Id	SipAddress	Cmd Type	Queued Change	Execution Status	Execution Result	When Created	When Updated
9	sip:Marschner112685@my-first-sipdomain.c...	OnPrem	Set-CsUser -Identity 'sip:Marschner112685@...	New	-	19 Nov 2018 02:51:28	null
8	sip:Marschner112685@my-first-sipdomain.c...	OnPrem	Grant-CsVoicePolicy -Identity 'sip:Marschner...	New	-	19 Nov 2018 02:51:28	null
7	sip:Marschner112685@my-first-sipdomain.c...	OnPrem	Set-AdUser -Identity '01301E62-0566-4DFD...	New	-	19 Nov 2018 02:50:51	null
6	sip:Marschner112685@my-first-sipdomain.c...	OnPrem	Set-AdUser -Identity '01301E62-0566-4DFD...	Ok	-	16 Nov 2018 08:07:49	16 Nov 2018 08:11:44
5	sip:Joachim.Kirschbaum@my-first-sipdomal...	OnPrem	Set-AdUser -Identity '0f30FA15-04D8-4622-A...	Ok	-	16 Nov 2018 08:07:38	16 Nov 2018 08:11:44
4	sip:wanschalk@my-first-sipdomain.com	OnPrem	Set-AdUser -Identity '0AE1D27C-2CAB-4885-...	Ok	-	16 Nov 2018 08:07:16	16 Nov 2018 08:11:44
3	sip:Welfhard.Reinhart@my-first-sipdomain.c...	OnPrem	Set-AdUser -Identity '078325BA-2EE8-448A-...	Ok	-	16 Nov 2018 08:06:53	16 Nov 2018 08:11:44
2	sip:Kuhn716032@my-first-sipdomain.com	OnPrem	Set-AdUser -Identity '0615CFA0-0047-455D-...	Ok	-	16 Nov 2018 08:01:25	16 Nov 2018 08:04:26
1	sip:Hansmartin.Kemper@my-first-sipdomal...	OnPrem	Set-AdUser -Identity '0482DC24-85A5-4208-...	Ok	-	16 Nov 2018 08:01:16	16 Nov 2018 08:04:26

Changes in a queue can be ordered on a column by dragging this column into the highlighted section as shown in the picture above, resulting in the following output (where the queue is now sorted on the sipaddress column):

Figure 6-18: Queue Changes-Column Order

↑ SipAddress X

	Id	SipAddress	Cmd Type	Queued Change	Execution Status	Execution Result	When Created	When Updated
▲ SipAddress: sip:Hansmartin.Kemper@my-first-sipdomain.com								
	1	sip:Hansmartin.Kemper@my-first-sipdomai...	OnPrem	Set-AdUser -Identity '0482DC24-85A5-4208-...	Ok	-	16 Nov 2018 08:01:16	16 Nov 2018 08:04:26
▲ SipAddress: sip:Joachim.Kirschbaum@my-first-sipdomain.com								
	5	sip:Joachim.Kirschbaum@my-first-sipdomai...	OnPrem	Set-AdUser -Identity '0F30FA15-04D8-4622-A...	Ok	-	16 Nov 2018 08:07:38	16 Nov 2018 08:11:44
▲ SipAddress: sip:Kuhn716032@my-first-sipdomain.com								
	2	sip:Kuhn716032@my-first-sipdomain.com	OnPrem	Set-AdUser -Identity '0615CFAC-0047-455D-...	Ok	-	16 Nov 2018 08:01:25	16 Nov 2018 08:04:26
▲ SipAddress: sip:Marschner112685@my-first-sipdomain.com								
	9	sip:Marschner112685@my-first-sipdomain.c...	OnPrem	Set-CsUser -Identity 'sip:Marschner112685@...	New	-	19 Nov 2018 02:51:28	null
	8	sip:Marschner112685@my-first-sipdomain.c...	OnPrem	Grant-CsVoicePolicy -Identity 'sip:Marschner...	New	-	19 Nov 2018 02:51:28	null
	7	sip:Marschner112685@my-first-sipdomain.c...	OnPrem	Set-AdUser -Identity '01301E62-0566-4DFD-...	New	-	19 Nov 2018 02:50:51	null
	6	sip:Marschner112685@my-first-sipdomain.c...	OnPrem	Set-AdUser -Identity '01301E62-0566-4DFD-...	Ok	-	16 Nov 2018 08:07:49	16 Nov 2018 08:11:44
▲ SipAddress: sip:Welfhard.Reinhart@my-first-sipdomain.com								
	3	sip:Welfhard.Reinhart@my-first-sipdomain.c...	OnPrem	Set-AdUser -Identity '078325BA-2EEB-448A-...	Ok	-	16 Nov 2018 08:06:53	16 Nov 2018 08:11:44
▲ SipAddress: sip:wvanschalk@my-first-sipdomain.com								
	4	sip:wvanschalk@my-first-sipdomain.com	OnPrem	Set-AdUser -Identity '0AE1D27C-2CA8-4B85-...	Ok	-	16 Nov 2018 08:07:16	16 Nov 2018 08:11:44

This page is intentionally left blank.

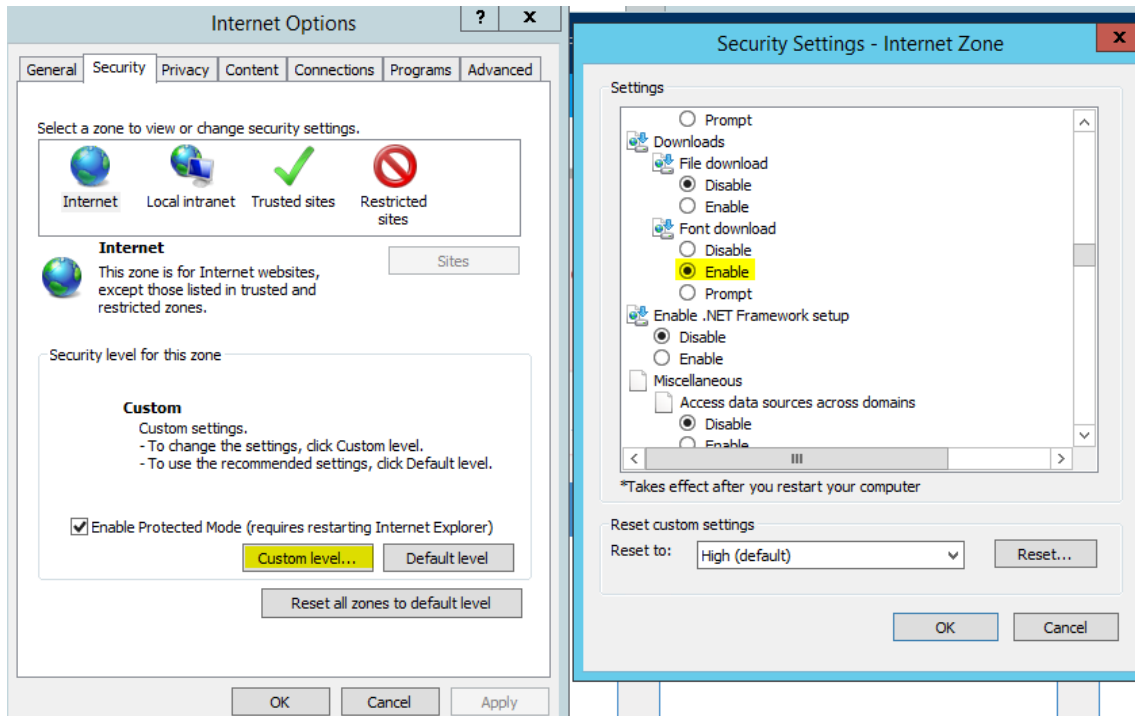
7 Troubleshooting UMP 365

This section provides guidance with troubleshooting issues for User Management Pack 365

7.1 Incomplete Browser Pages

Depending on the Internet security settings, the “X” character for closing the window might not be visible. To resolve this issue, change the Internet security settings for the particular zone, by **enabling** the **Font download**, which is disabled by default on servers.

Figure 7-1: Enabling Font Download



International Headquarters

1 Hayarden Street,
Airport City
Lod 7019900, Israel
Tel: +972-3-976-4000
Fax: +972-3-976-4040

AudioCodes Inc.
200 Cottontail Lane
Suite A101E
Somerset NJ 08873
Tel: +1-732-469-0880
Fax: +1-732-469-2298

Contact us: <https://www.audiocodes.com/corporate/offices-worldwide>

website: <https://www.audiocodes.com/>

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