Cisco VCS Starter Pack Express

Deployment Guide

Cisco VCS X7.2.1

D14618.07

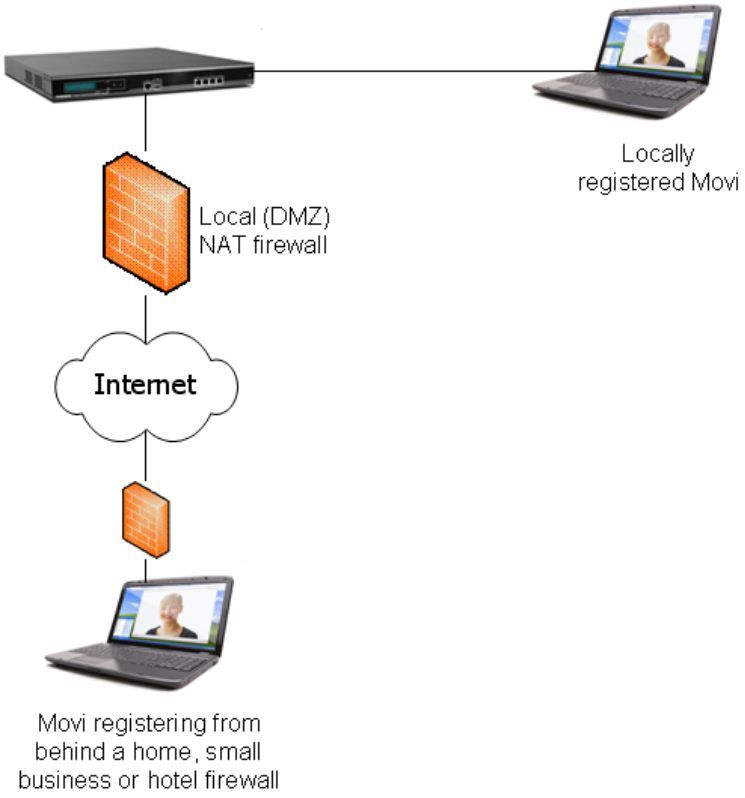
November 2012

Contents

Introduction

A Cisco TelePresence Video Communications Server (Cisco VCS) with the Starter Pack option key creates a Cisco VCS Starter Pack Express which acts as a standalone provisioning server, registrar and proxy server for endpoint devices, such as Movi / Jabber Video and Cisco Jabber for iPad.

The Cisco VCS Starter Pack Express may have endpoints register to it locally or register to it from behind a home, small business or hotel firewall.



If the Cisco VCS Starter Pack Express services endpoints that are behind a firewall, the VCS must have a public IP address – the local (DMZ) firewall must pass the specific public IP address traffic to the VCS.

The Dual Network interface option may be used on the Cisco VCS Starter Pack Express. When enabled, the VCS can be deployed behind a local static NAT firewall; the VCS is configured with the public IP address of the local (DMZ) NAT firewall so that when the VCS communicates with other devices it appears as an Internet routable device despite being behind the local NAT firewall.

You must ensure that sufficient bandwidth is available when making calls through firewalls and other infrastructure. For example, five simultaneous calls using 512kbps in each direction will require 2.5Mbps bandwidth for this video traffic on top of its normal operation.

Purpose of this guide

This deployment guide describes the configuration steps required to configure a Cisco VCS Starter Pack Express, including basic configuration, provisioning, device authentication and also how to configure user accounts so that Movi / Jabber Video clients are provisioned when users sign on to them.

Related documents

Document number	Title
D14049	Cisco VCS Administrator Guide
D14088	FindMe Express User Guide
D14427	Provisioning Troubleshooting Guide
D14525	Cisco VCS FindMe Deployment Guide
D14819	Cisco VCS Authenticating Devices Deployment Guide
D14410	Cisco TelePresence Movi / Jabber Video Administrator Guide
D14526	Authenticating Cisco VCS accounts using LDAP Deployment Guide

Configuring the VCS

This deployment guide assumes that the VCS is accessible on an IP network and has had a basic configuration implemented. This means that the VCS has been configured with:

- IP details
- DNS details
- NTP server details

Note: brief instructions on how to carry out this configuration are available in 'Appendix 1 – Basic Cisco VCS configuration' on page 18.

If the system is required to support calling to non-registered endpoints, a DNS zone should be configured together with a search rule that sends any calls to it that are not for the VCS's local SIP domain.

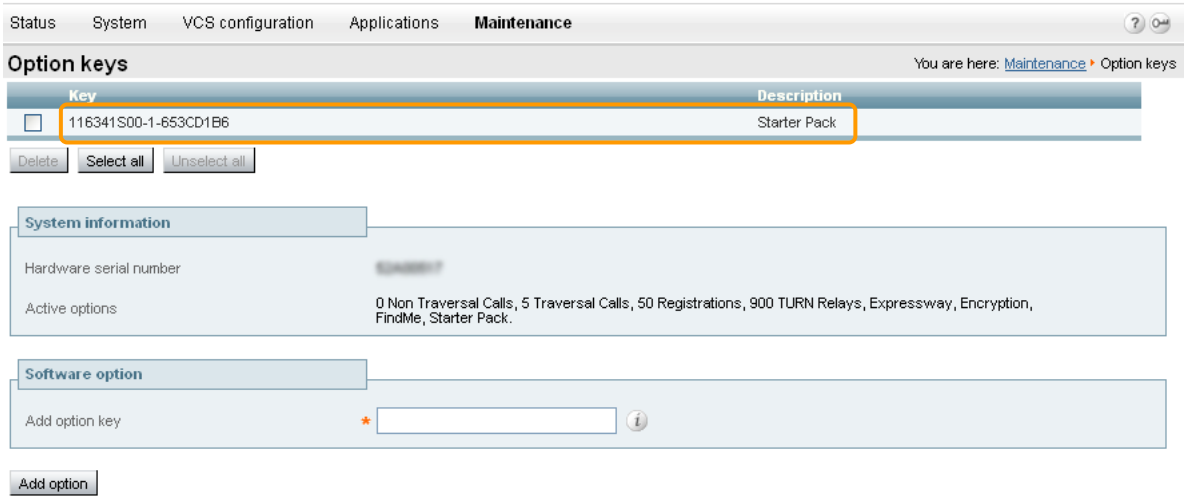
Firewall ports

If the VCS is placed in a DMZ, to enable SIP calls to be received the following IP ports must be open to the VCS through the firewall:

- 5060 (if basic SIP connection is required)
- 5061 (for SIP over TLS)
- 50000 to 52399 (for media)

Check option key

Ensure that Starter Pack is enabled: check that the **Starter Pack** option key is listed on the **Option keys** page (**Maintenance > Option keys**):



Call licenses

By default, the Starter Pack supports up to 5 simultaneous calls. Extra traversal call license option keys can be added if required; however the Starter Pack has a maximum limit of 25 simultaneous calls.

Note that the Starter Pack can only be licensed for traversal calls. It does support non-traversal calls but will consume a traversal license when a non-traversal call occurs.

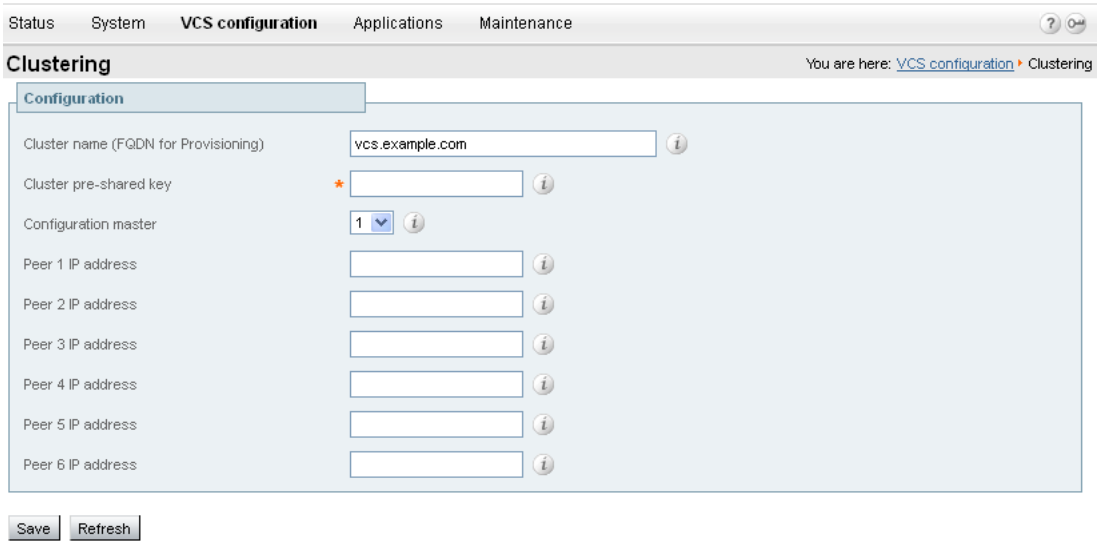
Configure the routable address of the VCS

The routable address of the VCS (its FQDN) is the address supplied by the provisioning system to the provisioned device for it to use as its SIP registrar (the address to which it sends registration requests).

1. Go to the **Clustering** page (**VCS configuration > Clustering**).
2. Configure the fields as follows:

Cluster name (FQDN for Provisioning)	Routable address of the VCS, ideally the DNS SRV address of the VCS, alternatively a DNS A record or an IP address. Typically your IT department will supply the FQDN for this VCS and ensure that the network is configured to route SIP calls, HTTPS and other IP traffic to this VCS when addressed to the FQDN.

   No other field on this page needs to be configured.
3. Click **Save**.



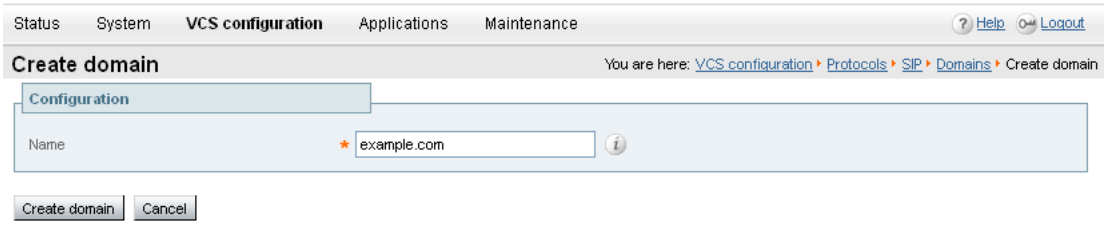
Ensure that VCS has a SIP domain configured

The VCS must be configured with the SIP domain to be used for this installation.

1. On the **Domains** page (**VCS configuration > Protocols > SIP > Domains**) if no domain is configured, click **New**.
2. Configure the fields as follows:

Name	The SIP domain to be used for this installation, for example, example.com

3. Click **Create domain**.



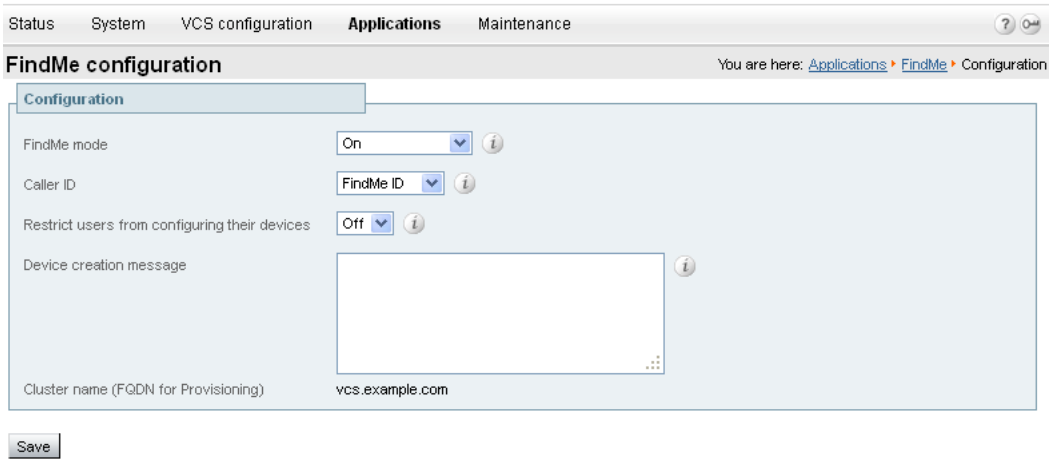
Enable FindMe

FindMe must be enabled and configured for use.

1. Go to the **FindMe configuration** page (**Applications > FindMe > Configuration**).
2. Configure the fields as follows:

FindMe mode	*On*
Caller ID	*FindMe ID*: the caller ID of a call being made through this VCS is replaced with the relevant FindMe ID.
Restrict users from configuring their devices	Controls if users are restricted from adding, deleting or modifying their own devices. The default is *Off*. By default FindMe users are allowed to configure further devices in addition to any principal or provisioned devices assigned to them by the system administrator. This setting can be used to stop users from adding their own devices and restrict them to being able to only maintain their locations and their associated devices.
Device creation message	Only visible when **FindMe mode** is *On*. The text entered here is displayed to users when they add a device to their FindMe configuration. A limited set of HTML markup is supported in the message which is previewed in the window at the bottom of the page when you click **Save**. Refer to the online help for more information on the tags supported. An example message might be: `Phone numbers: use the prefix <b>9</b>`

3. Click **Save**.



For more details on the use of Caller ID and FindMe ID, see “Appendix 6 – Determining the FindMe ID for a caller” on page 28.

Configure device authentication

You are recommended to use device authentication – verifying that endpoints can identify themselves with a username and password known to the VCS.

The VCS supports 3 different methods of verifying authentication credentials:

- against an on-box local database
- via an LDAP connection to an external H.350 directory service
- via direct access to an Active Directory server using a Kerberos connection (NTLM challenges only)

As from version X7.2, the VCS attempts to verify the credentials presented to it by first checking against its on-box local database of usernames and passwords.

If the username is not found in the local database, the VCS may then attempt to verify the credentials via a real-time LDAP connection to an external H.350 directory service. The directory service, if configured, must have an H.350 directory schema for either a Microsoft Active Directory LDAP server or an OpenLDAP server.

Along with one of the above methods, for those devices that support NTLM challenges, the VCS can alternatively verify credentials via direct access to an Active Directory server using a Kerberos connection. This method is only supported by a limited range of endpoints – at the time of writing, only Cisco Jabber for iPad, and Movi / Jabber Video 4.2 or later. If used, other non-supported endpoint devices will continue to authenticate using one of the other two authentication methods. See "Appendix 7 – Movi / Jabber Video and Active Directory (NTLM) authentication" for more information.

Note that appropriate prompts are given to set up the user's endpoint authentication credentials in the local database when configuring user accounts.

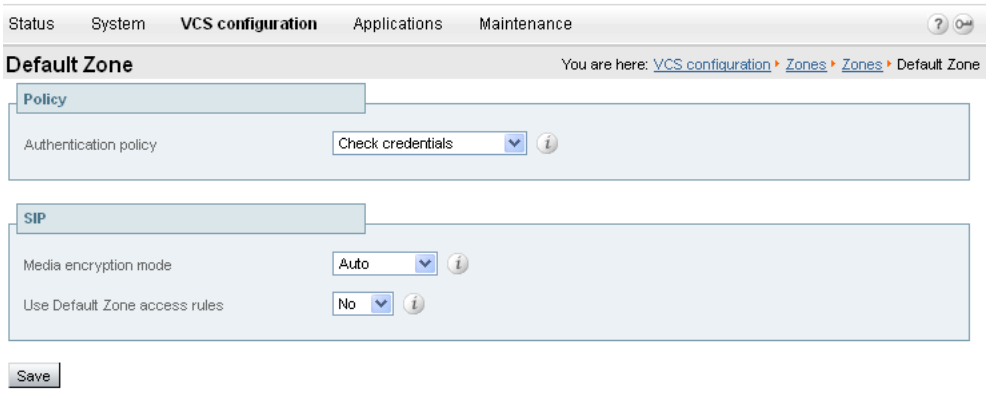
See *Device Authentication on Cisco VCS Deployment Guide* for more information.

Configure the Default Zone to check credentials

This ensures that the VCS checks the credentials of provisioning requests, and call requests from unregistered endpoints.

1. Go to the **Zones** page (**VCS configuration > Zones > Zones**).
2. Click on **DefaultZone** to go to the **Default Zone** page.
3. Configure the **Authentication policy** setting to *Check credentials*.

   Note that Movi / Jabber Video users will not be able to sign in if the **Authentication policy** setting is *Do not check credentials*.
4. Click **Save**.



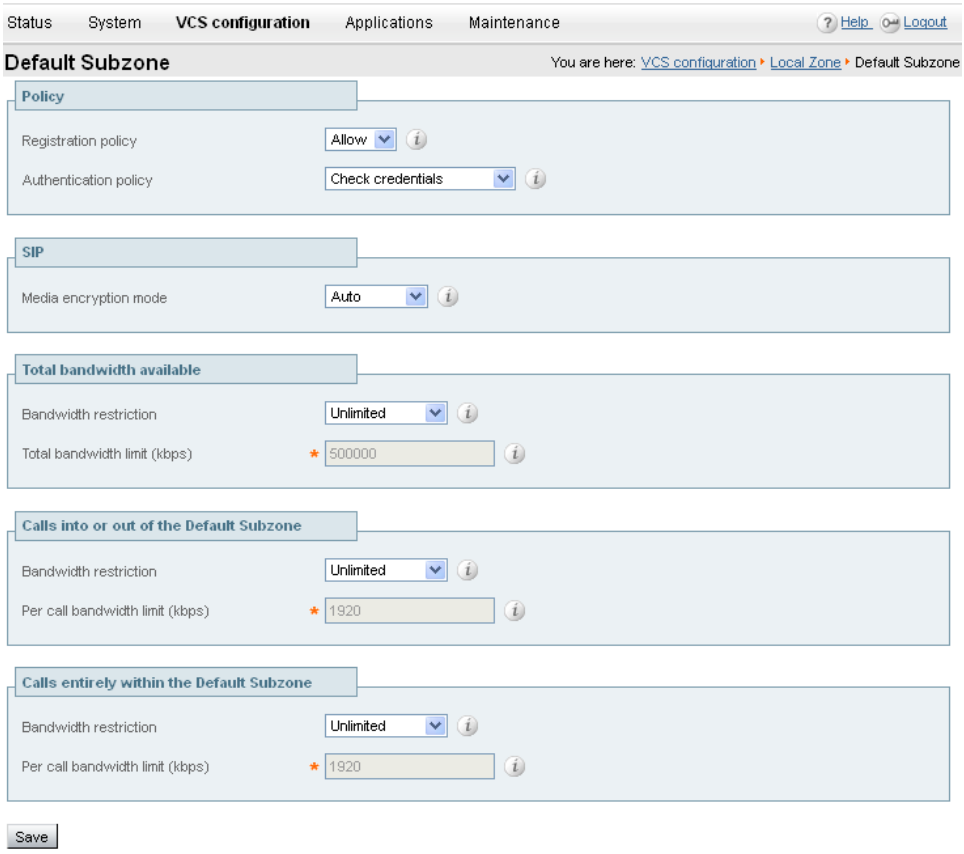
Configure the Default Subzone to check credentials

This ensures that the VCS checks the credentials of messages received through the Default Subzone. This includes registration requests, phone book requests and presence messages.

1. Go to the **Default Subzone** page (**VCS configuration > Local Zone > Default Subzone**).
2. Configure the **Authentication policy** setting to *Check credentials*.

   Note that endpoints will not be able to publish presence or use phone books if the **Authentication policy** setting is *Do not check credentials*.
3. Click **Save**.

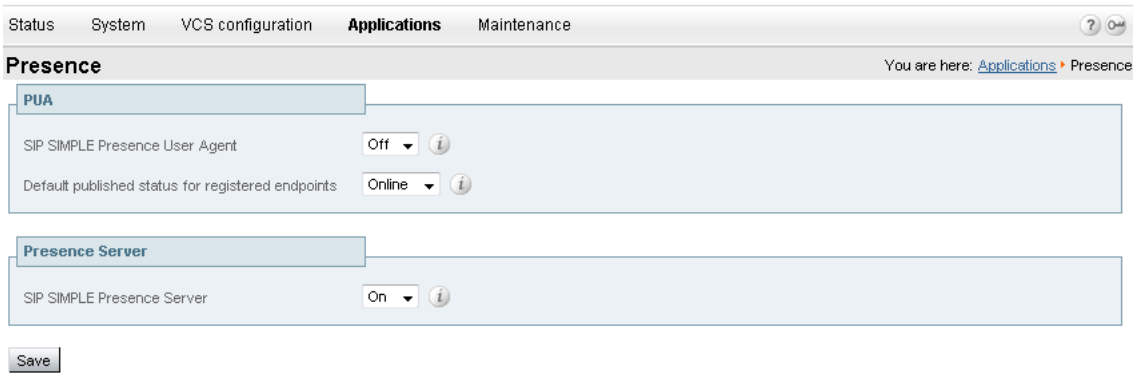
If you configure additional subzones, you are recommended to set the authentication policy of each of those subzones to also check credentials.



Enable Presence Server (optional)

The Presence Server allows provisioned clients to see the presence status (Online, Away, Busy in a call and Offline) of other clients.

1. Go to the **Presence** page (**Applications > Presence**).
2. Configure **SIP SIMPLE Presence Server** to *On*.
3. Click **Save**.



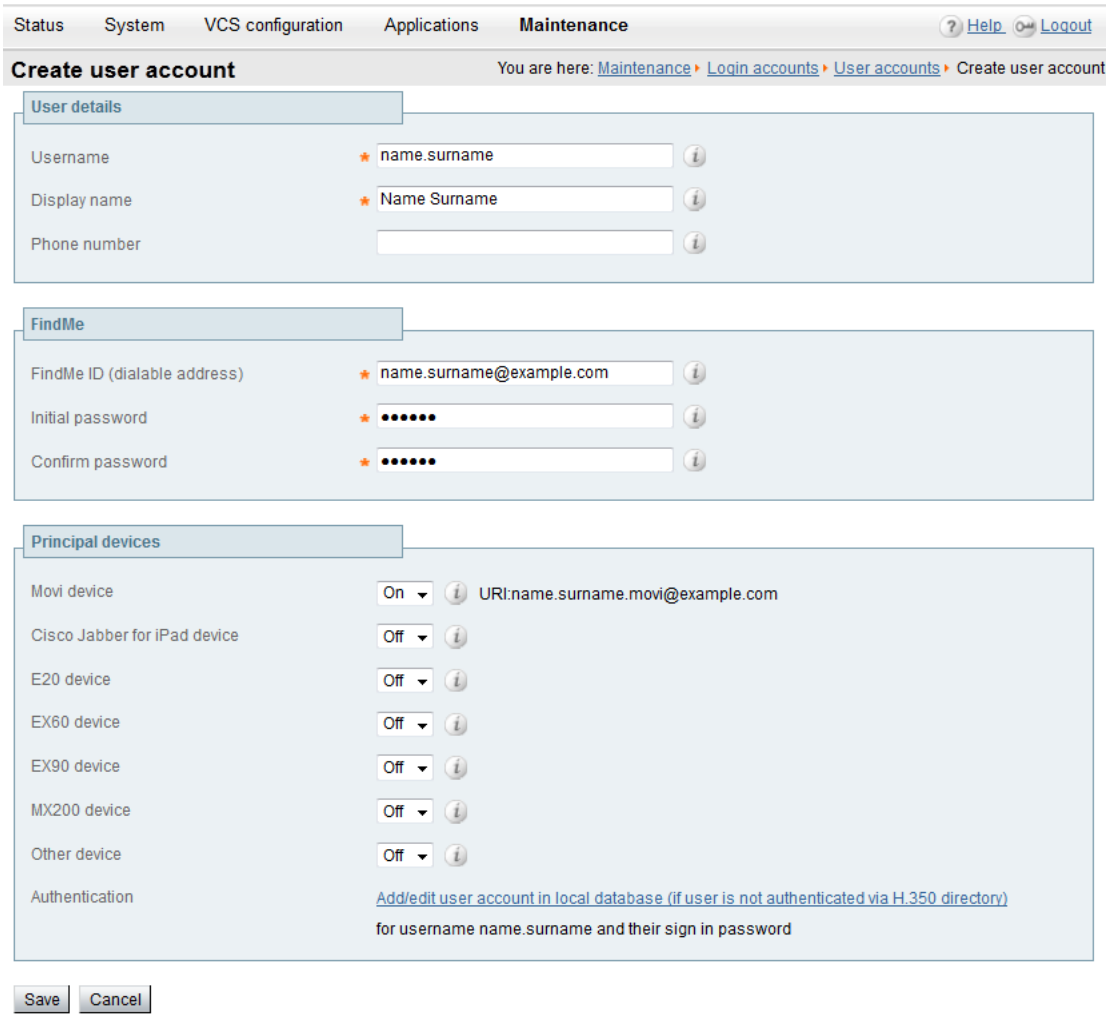
Create user accounts

You must configure an account for each user:

1. Go to the **User accounts** page (**Maintenance > Login accounts > User accounts**) and click **New**.
2. Configure the fields as follows:

Username	The username for logging into this user account, for example name.surname. Note that from X7.1 and later, the username is case insensitive. This same username must be used as the name in the local authentication database if device authentication is enabled. This username is also used to create the FindMe default device URI and the provisioned device URI. To create these as a valid SIP URI, the username must consist of alphanumeric characters but not spaces, the @ sign or extended characters (such as ö or â). For the full set of allowed characters, see ”Appendix 5 – Characters allowed in SIP URIs”.
Display name	The user’s name without formatting restrictions. It is displayed on the user search page and used in phone books. For example Name Surname
Phone number (optional)	The E.164 caller ID to be presented on outdialed H.323 calls, e.g. to ISDN gateways. It must only contain digits – do not include any spaces, hyphens or brackets. If calls may be placed to an ISDN gateway, ensure that the format of this phone number matches the requirements of the ISDN provider.
FindMe ID	The FindMe ID is a unique alias through which the user can be contacted on all of their endpoints. It can be a URI, an H.323 ID or an E.164 number. For use with SIP devices such as Movi / Jabber Video, the FindMe ID must be in the form of a SIP URI, for example, name.surname@example.com.
Initial and **Confirm password**	The password to log into the user’s account on the VCS. The password entries are only displayed if **User authentication source** is set to *Local* (see “Enable FindMe™“ on page 7.)
Principal devices	This section identifies the principal devices that can be provisioned for this user. These are also the devices that can be called when somebody dials the user’s FindMe ID. Select (set to *On*) all of the device types that apply to this user. The URI of each selected device is generated automatically based on a combination of the **Username**, **FindMe ID** and device type. It takes the format <username>.<device type>@<domain portion of FindMe ID>. You can also specify the URI of an additional **Other device**, such as a cell phone, to include in the user’s FindMe.

3. When a principle device is selected (set to *On*), an **Authentication** field is displayed with a link to the **Local authentication database** page. If you are using the local database as the authentication credentials store, click on the link to add or edit the user’s credentials in the local authentication database. See “Create authentication credentials for the user” below for details.
4. Click **Save.**
5. Repeat these steps to create accounts for all users.



Additional users can be added later, as and when required, by returning to the **User accounts** page and clicking **New**.

The Cisco VCS Starter Pack Express supports a maximum of 50 registered users.

After an account has been set up, its details (except the **Username**) can be edited by selecting the user on the **User accounts** page (**Maintenance > Login accounts > User accounts**) and then clicking **View/Edit**.

Create authentication credentials for the user

When device authentication (credential checking) has been enabled, the credentials entered into the VCS's local database must exactly match those used to sign on to Movi / Jabber Video – otherwise provisioning requests, registration requests, call requests and phone book requests will be rejected.

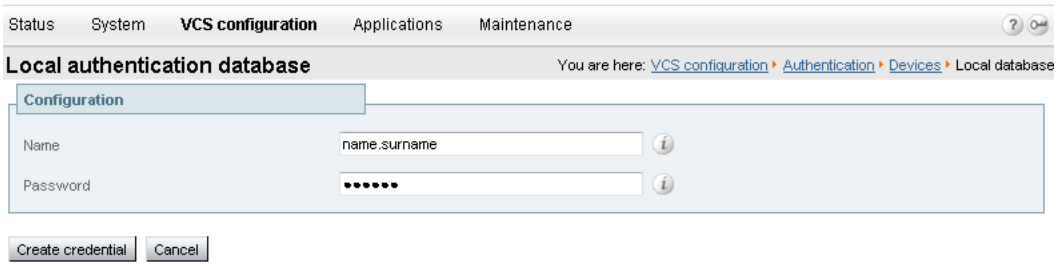
In a typical installation you are recommended to use the same password for both the user's Movi / Jabber Video authentication credentials and for their user account login (where users access their FindMe details).

1. From near the bottom of the **Create user account** or **Edit user account** pages, click on Add/Edit local authentication database. Alternatively using the menu go to the **Local authentication database** page (**VCS configuration > Authentication > Devices > Local database**).
2. Click **New**.
3. Configure the fields as follows:

Name	The credential name must be the same as the user account username – as indicated by the link on the **Create user account** and **Edit user account pages**.

	It is also the same as the Movi / Jabber Video sign in username. All the usernames must match. Note that from X7.1 and later, usernames are case insensitive.
Password	The password must be the same as the Movi / Jabber Video sign in password. (Typically this is also the same as the user account password used for accessing FindMe details.)

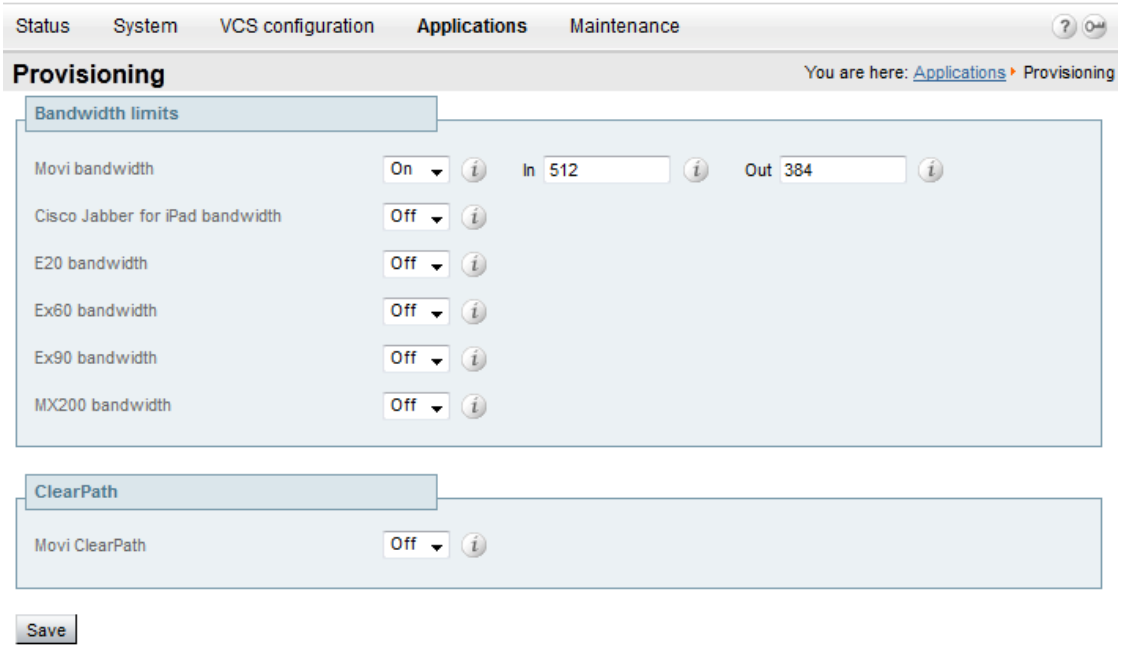
4. Click **Create credential**.
5. If appropriate, close any new window or tab that was opened to create this credential.



Configure bandwidths provisioned to endpoints (optional)

The VCS can provision bandwidth limits to Movi / Jabber Video clients and other endpoints. This configures the client with default values for it to use for incoming and outgoing bandwidth control.

1. Go to the **Provisioning** page (**Applications > Provisioning**).
2. Set **Movi bandwidth** to *On*.
   a. Check and set the maximum incoming bandwidth to, for example, 512kbps.
   b. Check and set the maximum outgoing bandwidth to, for example, 384kbps.
3. Enable bandwidth provisioning for other device types as required.
4. Set **Movi ClearPath** to *On*.
5. Click **Save**.



Note that VCS links and pipes can also be used for more advanced bandwidth control.

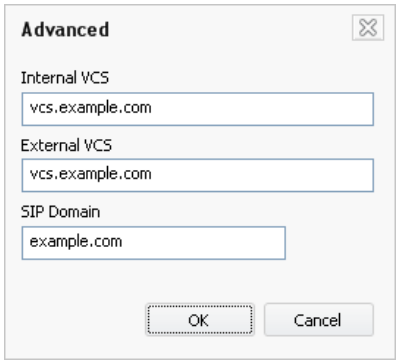
Installing and configuring Movi / Jabber Video

As part of the Cisco TelePresence VCS Starter Pack Express solution, the latest version of the Jabber Video for TelePresence (Movi) software client can be downloaded from www.cisco.com. Jabber Video (Movi) can be installed by IT administrators, or more typically will be supplied to end users for them to install.

After Movi / Jabber Video has been installed, it must be configured with user credentials and connection details for the VCS Starter Pack Express:

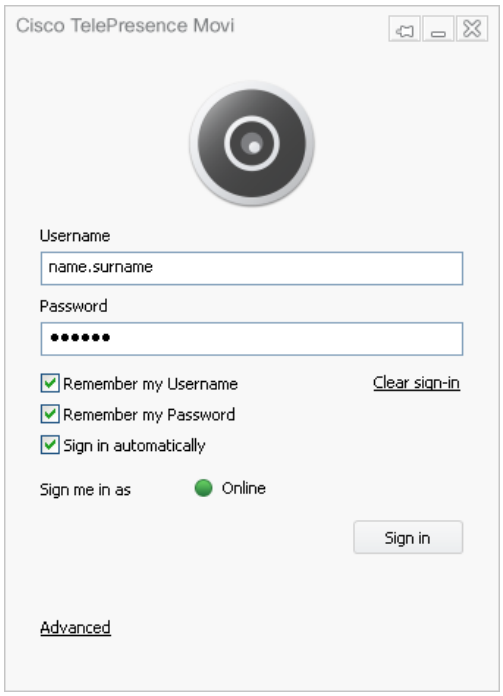
1. Start Movi / Jabber Video.
2. Click **Advanced** (at the bottom of the sign-in page).
3. Configure the fields as follows:

Internal VCS	The DNS name or IP address of the private side of the VCS.
External VCS	The DNS name or IP address of the public side of the VCS.
SIP Domain	The SIP Domain should be the same as configured on the VCS's **Domains** page (**VCS configuration > Protocols > SIP > Domain**).



4. Click **OK** to return to the sign in page.
5. Configure the fields as follows:

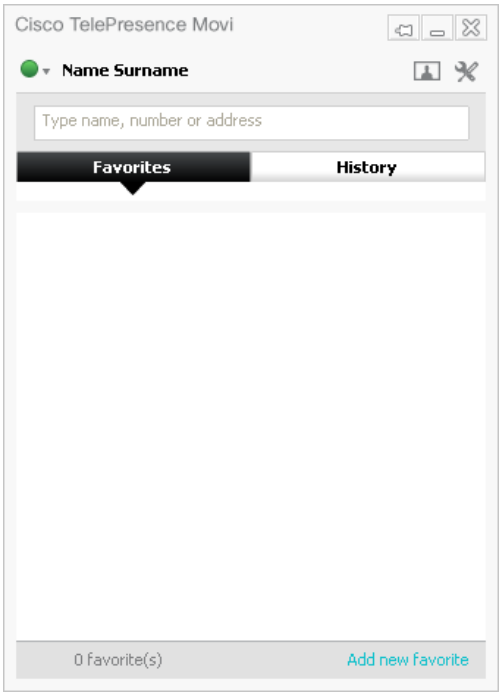
Username	The same username as entered on the VCS in the **Create user account** page (**Maintenance > Login accounts > User accounts**) and as stored in the local database (**VCS configuration > Authentication > Devices > Local database**).
Password	This must be the same password as the authentication credential password entered for this user (**VCS configuration > Authentication > Devices > Local database**). Typically this will be the same as the user's account password on the VCS.
Remember my Username	Select this to save you from typing in your username every time you start Movi / Jabber Video.
Remember my Password	Select this if you are the only user of the PC that Movi / Jabber Video is installed on and you are happy to have the password automatically applied.
Sign in automatically	Select this if Movi / Jabber Video should start and sign in automatically when you log in to your computer.
Sign me in as	Select the initial presence status to display to other users when you sign in.



6. Click **Sign in**.

Making calls

When you are signed in to Movi / Jabber Video, calls can be made by entering the FindMe ID of another user in the **Type name, number or address** field and then pressing **Enter**.



Testing the Starter Pack installation

Local system testing

Start by testing Movi / Jabber Video devices locally registered to the Cisco VCS Starter Pack Express.

1. Configure three users, including their associated credentials.
2. Install three Movi / Jabber Video clients.
3. Connect the three Movi / Jabber Video PCs to the same network as the Cisco VCS Starter Pack Express.
4. With each of the Movi / Jabber Video clients sign in as a different user (for example User1, User2 and User3):
   - Ensure that sign in is successful.
   - Ensure that each Movi user can call the others by entering another user's FindMe ID in the **Type name, number or address** field and then pressing **Enter**.

Result matrix – local only		Receiving Movi		
		User1 (local)	User2 (local)	User3 (local)
Calling Movi	User1 (local)			
	User2 (local)			
	User3 (local)			

Public network testing

When local system testing is successful, test Movi in the public network.

1. Sign out of two of the Movi clients (User2 and User3) and connect these two Movi / Jabber Video PCs to the public internet.
2. With the public internet Movi / Jabber Video clients, sign in as User2 and User3:
   - Ensure that sign in is successful.
   - Ensure that each Movi / Jabber Video user can call the others by entering another user's FindMe ID in the **Type name, number or address** field and then pressing **Enter**.

Result Matrix – local and internet		Receiving Movi / Jabber Video		
		User1 (local)	User2 (internet)	User3 (internet)
Calling Movi / Jabber Video	User1 (local)			
	User2 (internet)			
	User3 (internet)			

Behind home, small business or hotel firewall testing

When public network testing is successful, test Movi / Jabber Video behind a firewall.

1. Sign out of the two Movi / Jabber Video clients in the public network and connect them behind a home, small business or hotel firewall.
2. With the Movi / Jabber Video clients sign connected behind the firewall, sign in as User2 and User3:
   - Ensure that sign in is successful.
   - Ensure that each Movi user can call the others by entering another user's FindMe ID in the **Type name, number or address** field and then pressing **Enter**.

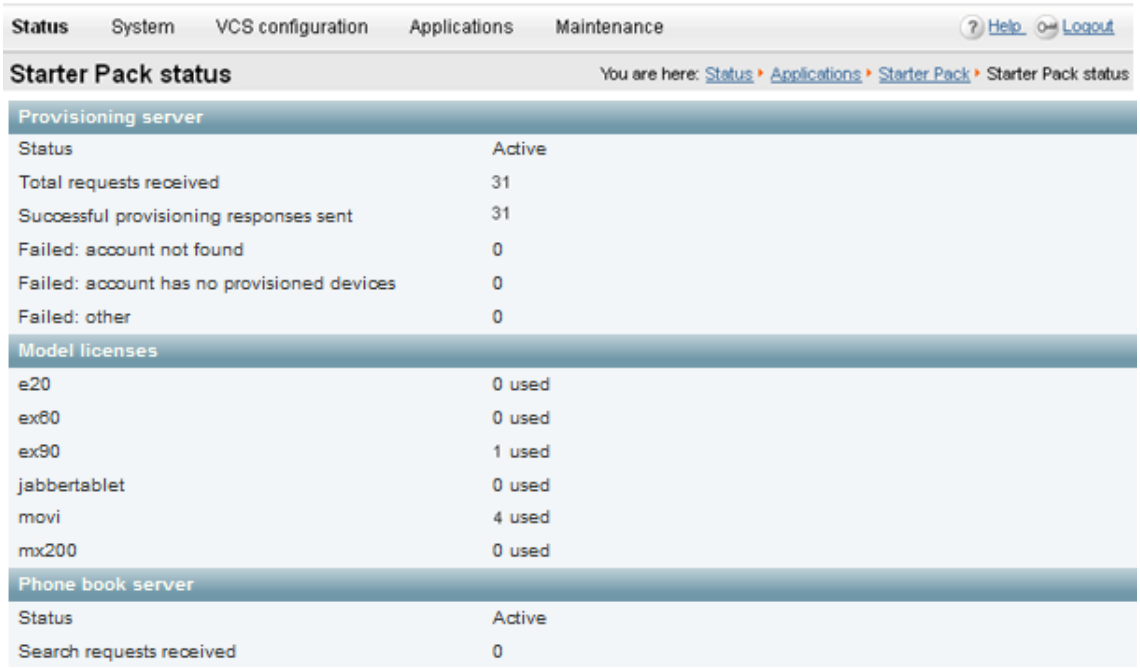
Result matrix – local and behind firewall		Receiving Movi / Jabber Video		
		User1 (local)	User2 (firewall)	User3 (firewall)
Calling Movi / Jabber Video	User1 (local)			
	User2 (firewall)			
	User3 (firewall)			

Checking the status of the Provisioning Server

You can check the status of the Provisioning Server to monitor the provisioning requests received, and to see a list of the devices that have been provisioned.

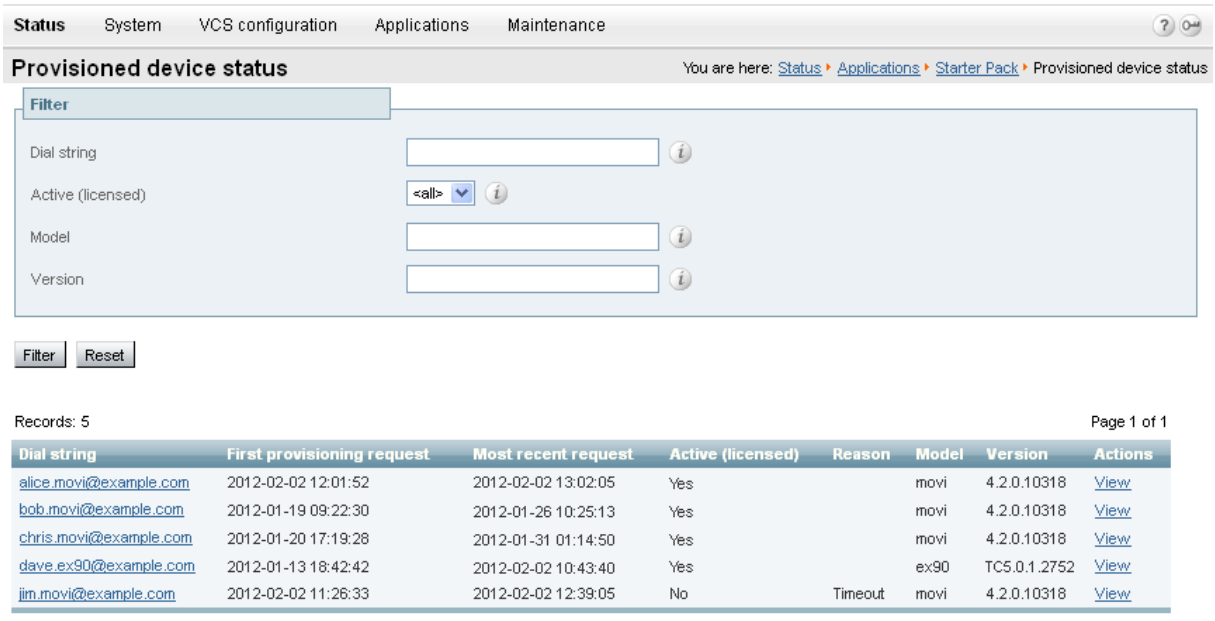
Checking the current status of the Provisioning Server

Go to the **Starter Pack status** page (**Status > Applications > Starter Pack > Starter Pack status**) to check on the status of the Provisioning Server and to view how many devices are currently being provisioned (per device type).



Checking provisioned devices

Go to the **Provisioned device status** page (**Status > Applications > Starter Pack > Provisioned device status**) to see a list of all of the devices that have submitted provisioning requests to the Provisioning Server.



Appendix 1 – Basic VCS configuration

Follow the process specified in *Cisco VCS Getting Started Guide* to connect, power up, configure the IP address, change passwords and gain access to the VCS via the web browser.

System name

1. Go to **System > System** and set **System name** to a name that represents this VCS, for example "VCS Movi server".
2. Enable or disable Telnet, SSH, HTTP and HTTPS as required.

Note that HTTP is just a redirect to HTTPS; turning off HTTPS will prevent web access to the VCS.

DNS

1. Go to **System > DNS** and configure a default DNS server address in the Default DNS server **Address 1** field. If other DNS servers are available, they can be added for DNS server resilience.
2. Set **Local host name** to be the DNS hostname for this VCS; this name must not have any spaces in it.
3. Set **Domain name** to be the suffix which when added to an unqualified DNS name makes it into an FQDN.

Note that <Local host name>.<DNS domain name> = FQDN of this VCS.

NTP

1. Go to **System > Time** and configure the **NTP server 1** address and **Time zone** in which the VCS is located.
2. Check that after clicking **Save** and returning to this page the **State** shows Synchronized.

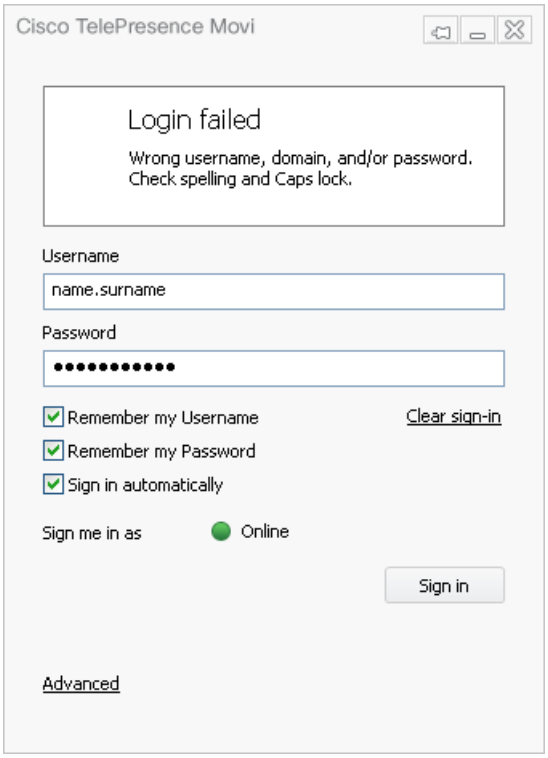
Further information

For further details on the configuration and operation of VCS, see *Cisco VCS Administrator Guide*.

Appendix 2 – Troubleshooting

Movi / Jabber Video sign in messaging

If there are problems signing in to Movi / Jabber Video, a status message is displayed, for example:



Possible messages include:

Login failed – Wrong username, domain, and / or password

- Check and correct these items either at the Movi sign in, or on the VCS. Mistyped domain names are a common cause of this problem (see **VCS configuration > Protocols > SIP > Domains**). The Movi SIP domain must match a SIP domain on the VCS that is provisioning the Movi and that Movi will register to.
- Check that VCS allow / deny lists are not preventing the registration.
- Check that the Default Zone is configured with an **Authentication policy** of *Check credentials* or *Treat as authenticated*.
  - Movi sign ins will fail if the **Authentication policy** is *Do not check credentials*.
  - If authentication is set to *Check credentials* (recommended) the appropriate username and password must be configured in the local authentication database.
- Check that the account username, the authentication credential name, and the Movi sign in username all match (note that from X7.1 and later, usernames are case insensitive).
  - If the Movi sign in username and the authentication credential name do not match then the initial Subscribe will be rejected as unauthorized.
  - If the Movi sign in username and the account username do not match then the Subscribe is authenticated but the Notify is sent with Reason: rejected; Content length: 0.

Login failed – Out of licenses

- Check the number of registered users; a maximum of 50 simultaneous registrations is supported.
- Make sure that Movi is trying to connect to the correct IP address for the VCS.

Login failed – The server did not respond in time

This means the provisioning request was acknowledged by the server, but no provisioning message was received by Movi.

- Make sure that no firewalls are blocking communication from the VCS to Movi.
- Make sure that the VCS can contact the IP address of the Movi (or if behind a home, small business or hotel firewall, the outside IP address of that firewall).

Login failed – Could not find server in DNS

The term "server" refers to the provisioning server before the Movi is provisioned, and the VCS after Movi is provisioned.

- Check that the **Internal VCS** and **External VCS** names on the Movi **Advanced** dialog are resolvable by the Movi PC, for example by attempting to ping the DNS names. (These are the addresses Movi uses when requesting to be provisioned.)
- Check that the **Cluster name (FQDN for provisioning)** on the **VCS configuration > Clustering** page of VCS is resolvable by the Movi PC, for example by attempting to ping the DNS name.

Login failed – Unable to connect to server

The term "server" refers to the provisioning server before the Movi is provisioned, and the VCS after Movi is provisioned.

- Check that the **Internal VCS** and **External VCS** names on the Movi **Advanced** dialog are resolvable by the Movi PC and resolve to the Starter Pack address, for example by attempting to ping the DNS names. (These are the addresses Movi uses when requesting to be provisioned.)
- Check that the **Cluster name (FQDN for provisioning)** on the **VCS configuration > Clustering** page of VCS is resolvable by the Movi PC and resolves to the Starter Pack address, for example by attempting to ping the DNS name.
- Check that **TCP mode** and **TLS mode** are both set to *On*. (Check this on the **VCS configuration > Protocols > SIP > Configuration** page.)
- Make sure the VCS is configured to listen on the ports Movi is trying to access, by default **TCP port** = 5060 and **TLS port** = 5061. (Check this on the **VCS configuration > Protocols > SIP > Configuration** page.)

Call failed – The user could not be found. The user is offline or does not exist.

Check the called ID entered in the **Type name, number or address** field (past entries are available under the **Recent calls** tab).

If this is correct, check:

- Is the called party offline?
- Is the called party dialable on this network?

Call failed – The user could not be found

Check the called ID entered in the **Type name, number or address** field (past entries are available under the **Recent calls** tab).

If this is correct, check:

- Is the called party offline?
- Is the called party dialable on this network?

Call failed – The user could not be reached. Please try again later.

The user did not respond.

Call failed – An error was received from the server

The call was rejected by the VCS. The error message received from the server is in the user's Audit.log. See the Movi troubleshooting section in the Cisco TMS Provisioning troubleshooting guide.

Call failed – Not enough call licenses

All available licenses may be in use. Check the call licenses usage on the VCS **Overview** page.

Phone book searches do not return any entries

Phone book search requests are rejected if the Default Subzone is configured with an **Authentication policy** of *Do not check credentials*.

- You are recommended to set the Default Subzone authentication to *Check credentials* and configure the appropriate usernames and passwords in the local authentication database.

Failed to update presence

Movi displays a "Failed to update Presence" message if the Default Subzone is configured with an **Authentication policy** of *Do not check credentials*.

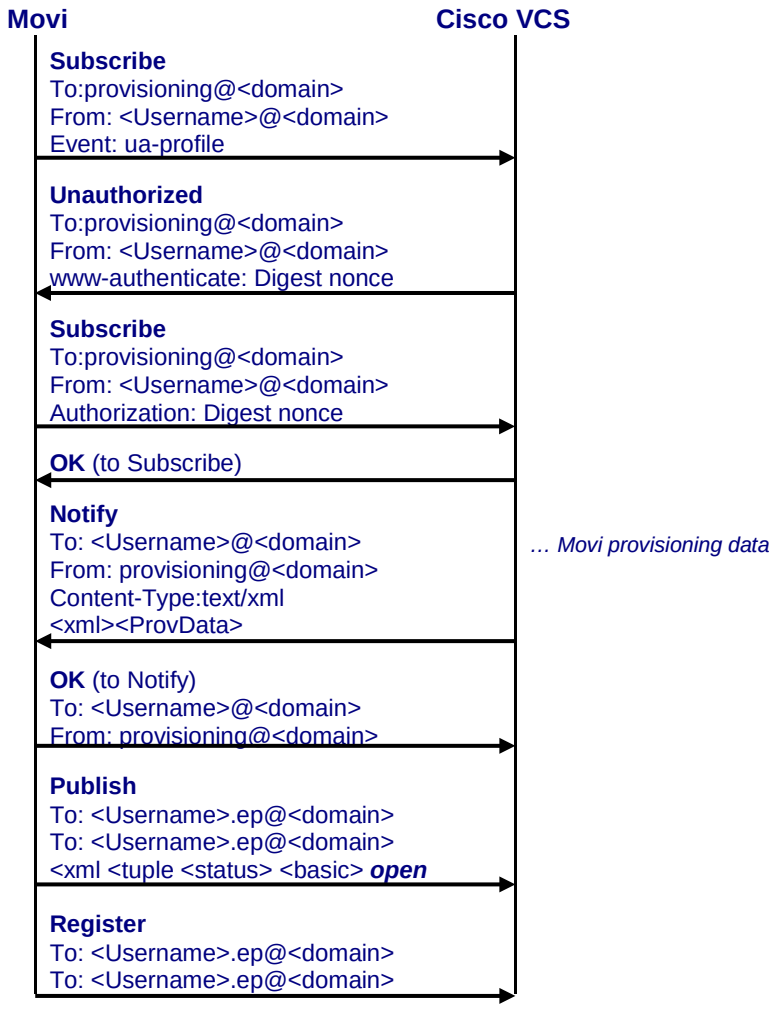
- You are recommended to set the Default Subzone authentication to *Check credentials* and configure the appropriate usernames and passwords in the local authentication database.

Signaling level troubleshooting

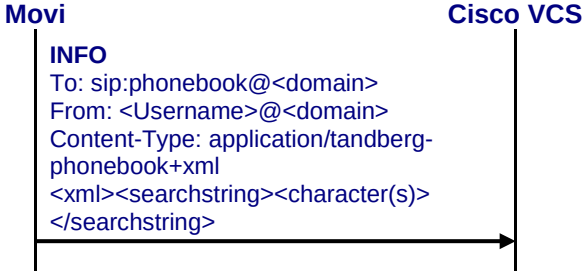
Troubleshooting is usually best carried out in the first instance by taking a Wireshark (a free, open-source packet analyzer) trace on the PC running Movi.

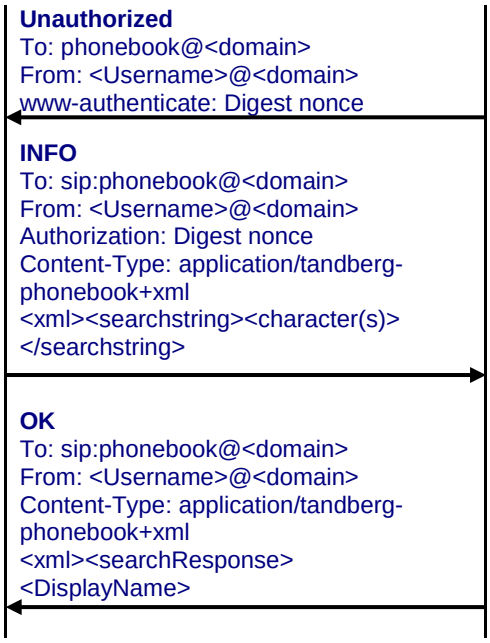
Note, however, that if Movi is communicating over TLS then messages will be encrypted and not decodable. If possible, turn off TLS or use SIP logging.

On the Wireshark trace check that the following sequence is observed:



When Movi looks for phone book information the message flow is:





As more characters are typed in Movi's **Type name, number or address** field, further INFO messages (with Authorization header) are sent with more searchstring characters specified. For each INFO message an OK comes back with the first 10 phone book entries that match that searchstring.

Note: 401 Unauthorized or 407 Proxy authentication required may extend the trace.

- **Failure to get any response to the initial subscribe**: the wrong Internal VCS / External VCS values may have been configured (or DNS is wrongly converting the name to IP address).
- **401 Unauthorized for a second time to the initial subscribe**: the Username / Password credentials on Movi do not match those configured in the authentication page of VCS.
- **No OK to Register**: check that the SIP domain configured in Movi matches the SIP domain configured on VCS
  - check that Allow and Deny lists are not blocking this registration
  - check the VCS Event Log (**Status > Logs > Event Log**)

Appendix 3 – Comparison of Starter Pack provisioning and Cisco TMS provisioning

	Cisco VCS Starter Pack Express Provisioning	Cisco VCS with Cisco TMS Provisioning and Management
Movi / Jabber Video provisioning	✓	✓
Cisco Jabber for iPad provisioning	✓	✓
E20 provisioning	✓	✓
Ex60 / Ex90 provisioning	✓	✓
MX200 provisioning	✓	✓
Architecture	Centralized	Centralized/Distributed
Registrations	50	2500 per VCS
Cluster support	✗	✓
Failover	✗	✓
No of concurrent calls	5 (but additional traversal call licenses can be added)	Up to 500 non-traversal and 100 traversal calls per VCS
Registration capacity	50	2,500 per VCS, 10,000 per cluster
Presence Server	50 registrations	10,000 registrations
Interworking gateway	✗	✓
FindMe™	50 users	Optional
Group FindMe™	✗	✓
Multiway support	✗	✓
SIP support	✓	✓
ICE support	✓	✓
Provisioning of Movi / Jabber Video	Basic	Advanced
Cisco TMS management	✗	✓
AD import of user details	✗	✓
Individual settings per user (bandwidth, phone books, encryption setting)	✗	✓ (Global, Group and/or User)
Phone books	Local only	✓
Multiple user groups	✗	✓
Reporting	✗	✓
Scheduling and booking	✗	✓

	Cisco VCS Starter Pack Express Provisioning	Cisco VCS with Cisco TMS Provisioning and Management
Endpoint management	✗	✓
Automatic Movi / Jabber Video Software update alert	✗	✓

Appendix 4 – Known limitations

Modifying a user's display name

Any change to a user account **Display name** is immediately reflected in phone books and the display name returned in FindMe searches.

However, the caller ID display name in SIP messaging is only updated after the relevant Movi is re-provisioned (for example, after signing out and signing back in again).

Appendix 5 – Characters allowed in SIP URIs

The following character set is allowed in SIP URIs (further details may be found in RFC 3261):

```
a-z / A-Z / 0-9 / "-" / "_" / "." / "!" / "~" / "*" / "'"/ "(" / ")" "&" /
"=" / "+" / "$" / "," / ";" / "?" / "/"
```

If other characters are needed they must be “escaped” using "%" HexDigit HexDigit

where HexDigit HexDigit is the ASCII value for the required character.

For example john%20doe@example.com - %20 is the space character

Appendix 6 – Determining the FindMe ID for a caller

VCS can only overwrite the Caller ID with a FindMe ID if:

- the call signaling passes through the VCS (or VCS cluster) where the FindMe data is held
- the VCS can identify a FindMe as the owner of the endpoint caller ID

If either of these conditions are not met, the incoming caller ID will be passed through unchanged.

The VCS identifies a FindMe as the owner of the endpoint caller ID if the incoming caller ID provided in the call:

- matches a FindMe device which is only found in a single FindMe account

or

- matches a single principal FindMe device (if the same device address is associated with more than one FindMe profile)

Principal devices

Note that principal devices are designed to be key devices for the user who owns them:

- A device is identified as a principal device if it has been configured by the VCS administrator in the **Principal devices** section of the user account page (**Maintenance > Login accounts > User accounts**, then select or create an account).
- Users cannot delete principal devices from the list of FindMe devices in an account.

Appendix 7 – Movi / Jabber Video and Active Directory (NTLM) authentication

This section provides summary details about how to configure the VCS so that Movi / Jabber Video (version 4.2 or later) can authenticate via direct access to an Active Directory server (using NTLM challenges).

It also configures the VCS user account (FindMe) authentication source to use an LDAP connection to the remote directory service.

Note that this section only provides summary details. For full information, see:

- *Device Authentication on Cisco VCS Deployment Guide*
- *Authenticating Cisco VCS accounts using LDAP Deployment Guide*

Configure Active Directory server details in Cisco VCS

1. Go to **VCS configuration > Authentication > Devices > Active Directory Service**.
2. Set **Connect to Active Directory Service** to *On*.
3. Set **NTLM protocol challenges** to *Auto***.**
4. Enter the configuration details for the Active Directory Service:

AD domain	This must be the fully qualified domain name (FQDN) of the AD domain.
Short domain name	This is also known as the NetBIOS domain name.
Username and **Password**	Enter the AD domain administrator username and password. The password is case sensitive.

5. Click **Save** to store the configuration and join the AD domain.

   The VCS should join the AD domain. If you receive an error message, check the following:

   - the configuration settings on this page, including the username and password
   - the VCS's CA certificate, private key and server certificate

   You can also check the Status area at the bottom of the Active Directory Service page for more information about the status of the connection to the AD domain.

Configure the user login account (FindMe) authentication source

1. Go to the **Login account authentication configuration** page (**Maintenance > Login accounts > Configuration**).
2. Set **User authentication source** to *Remote*.
   This means that when users log in to the VCS to configure their FindMe account, they will be authenticated against a remote directory service over LDAP.
3. Go to the **Login account LDAP configuration** page (**Maintenance > Login accounts > LDAP configuration**) and configure the details of the LDAP connection to the remote directory service. See *Authenticating Cisco VCS accounts using LDAP Deployment Guide* for more information.

Create user accounts

1. Set up a user account as described in "Create user accounts" on page 10 for each user in Active Directory that requires a Movi / Jabber Video account:
   - The **Username** must be the same name as configured in Active Directory.
     Note that account password details are not requested because the login account **User authentication source** is set to *Remote*.
   - The **FindMe ID** must be in the form of a SIP URI, such as name.surname@example.com.
   - In the **Principal devices** section, set **Movi device** to *On*.

- It is not necessary to configure each user's FindMe user account / authentication credentials in the local authentication database (providing that the login account **User authentication source** is set to *Remote*).

Sign in to Movi / Jabber Video

Users should now be able to sign in to Movi / Jabber Video using their Active Directory credentials. Ensure that their Movi / Jabber Video is set up as described in "Installing and configuring Movi / Jabber Video".

1. Sign in to Movi / Jabber Video:
   a. In the **Username** field, configure <AD Short Domain Name>\username (this field is not case sensitive).
   b. In the **Password** field, enter the password as configured in the Active Directory database for the chosen user.
2. Click **Sign in**.

   A successful registration confirms that authentication of provisioning and registration of Movi to a VCS now works using Active Directory database (direct) authentication.

See *Device Authentication on Cisco VCS Deployment Guide* if more details or troubleshooting information are required.