

Spectralink IP-DECT Server 400 and 6500

Spectralink IP-DECT Server 400 and 6500 and Microsoft® Lync™ Server Configuration Guide

Using a Spectralink IP-DECT Server 400 or Spectralink IP-DECT Server 6500 in a Microsoft Lync Server 2013 or Microsoft Lync Server 2010 Setup

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Chapter 1: Introduction

This configuration guide describes how to setup a Spectralink IP-DECT Server 400 or 6500 in a Microsoft® Lync™ Server 2013 or 2010 installation.

Overview

The configuration guide includes the following information:

- Transport Protocol
- Supported Features
- SIP User Authentication
- Settings required for Lync Server 2013 and 2010
- Settings required for Spectralink IP-DECT Server 400 and 6500
- Adding users to the Spectralink IP-DECT Server 400 and 6500

Firmware Compatibility

The Spectralink IP-DECT Server 400 and 6500 interoperate with Lync Server 2013 and 2010 from firmware version PCS12_. The Spectralink Microsoft Lync Interoperability is backward compatible with Microsoft® Office Communications Server 2007 R2.

The communication protocol between Spectralink IP-DECT Server 400 and 6500, Spectralink Media Resources, and Spectralink IP-DECT Base Stations is not backward compatible. This means that Spectralink Media Resources with firmware versions older than PCS08B_ and Spectralink IP-DECT Base Stations with firmware versions older than PCS08__ will not be able to connect to a Spectralink IP-DECT Server running firmware PCS08B_ or newer.

To minimize downtime, you need to update Spectralink Media Resources and Spectralink IP-DECT Server 400 or 6500 to firmware PCS012_ or newer and Spectralink IP-DECT Base Stations to firmware PCS12A_ or newer before rebooting any of these.

Transport Protocol

To interoperate with the Lync Server 2013 or 2010, the Spectralink IP-DECT Server 400 or 6500 support TLS as transport protocol for SIP signaling. This requires a Certificate Authority (CA) on the Spectralink IP-DECT Server 400 and 6500.

The Spectralink IP-DECT Server 400 and 6500 are delivered with a Certificate Authority bundle with common Certificate Authorities. This means that the Spectralink IP-DECT Server 400 and 6500 will accept certificates, for example, issued by VeriSign out-of-the-box. In addition to the CA-bundle, the

web GUI allows installation of a local CA certificate bundle. If the certificate is generated by a local authority (such as a service provider or the local IT department), you can import a certificate bundle in PEM-format (also known as base-64).

Furthermore, there is support for server certificate. Trusted Server PFX 12 certificate is required if you are using local CA authority. This is also known as PKCS#12 file with password protection

Chapter 2: Supported Features

- SIP User Authentication via Trusted Server or NTLM
- Telephony features:
 - Call hold
 - Call transfer
 - Call forward
 - Call waiting
 - Message Waiting Indication (MWI)
 - Redial from Call log
 - Call logs (missed/received/placed calls)
 - Call completed elsewhere
 - Ad hoc conferencing - enables users to participate in conference calls
- Centralized phone book via Active Directory and LDAP
- Supported codecs: G.711
- SBA - Survival Branch Appliance - enables users to register through the SBA
- CAC - Call admission control - protects the network against oversubscription
- ICE - Interactive Connectivity Establishment
- Media Bypass
- Supports federation with users on Microsoft® Office Communication Server 2007 R2 devices
- Basic Presence. In the Microsoft® Lync™ 2013 or 2010 client the presence status of each subscribed Spectralink Handset is displayed as either “Available”, “Inactive”, “Away” or “In a call”.



Note

An initial log-in to a Lync client with each DECT user is required to activate the presence functionality of the handset. Alternatively, you can use the Presence bootstrapping tool for Lync Server 2013 or 2010. For more information, see <http://support.microsoft.com/kb/2737277>.

SIP Authentication

In a Lync Server setup, SIP users are authenticated against an Active Directory server. The following two authentication methods are supported:

System Authentication: Trusted Server

This is the recommended authentication method.

A CA and a Server (Host) Certificate is installed on the Spectralink IP-DECT Server 400 and 6500. TLS and MTLS are used to create a network of trusted servers and to ensure that all communications over the network are encrypted. All SIP communications between servers occur over MTLS. SIP communications from client to server occurs over TLS. Server-to-server connections rely on mutual TLS (MTLS) for mutual authentication. On a MTLS connection, the server that sends a message and the server that receives it exchange certificates from a mutually trusted CA. The certificates prove the identity of each server to the other.

User Authentication: NTLM

This authentication method is not recommended

Enter the credentials for each SIP user into the Spectralink IP-DECT Server 400 or 6500 either by using the web GUI or provisioning. It is not possible to change the Authentication Username or Password directly from the Spectralink DECT Handsets. It can only be changed via the Spectralink IP-DECT Server 400 or 6500.

Chapter 3: Configuration

Configuration Requirements

Several key systems need to be accessed and some settings need to be changed before the systems can integrate together.

Windows Lync Server 2013 or 2010 environment:

- Access to Microsoft Lync Server 2013 or 2010
- Access to Domain Name Service (DNS) Server
- Access to Microsoft Active Directory (AD), configuration, and administration
- Access to Certificate Authority (CA)
- Access to Internet Information Services (IIS) to create a Server Certificate

Spectralink IP-DECT Server 400 or 6500:

- Admin access to the Spectralink IP-DECT Server
- Spectralink Microsoft Lync Interop License (part no. 14075270) for Spectralink IP-DECT Server 6500
- Spectralink Microsoft Lync Interop License (part no. 14075510) for Spectralink IP-DECT Server 400
- External Syslog Server (recommended)



Note

To troubleshoot the system integration properly and to obtain errors from the Spectralink IP-DECT Server 400 or 6500, it is recommended that you use a Syslog Server to ensure that no critical errors from the Spectralink IP-DECT Server 400 or 6500 are left unresolved. You specify the Syslog settings in the Spectralink IP-DECT Server under General configuration -> Remote syslog. As a minimum, choose Error or Warning setting.

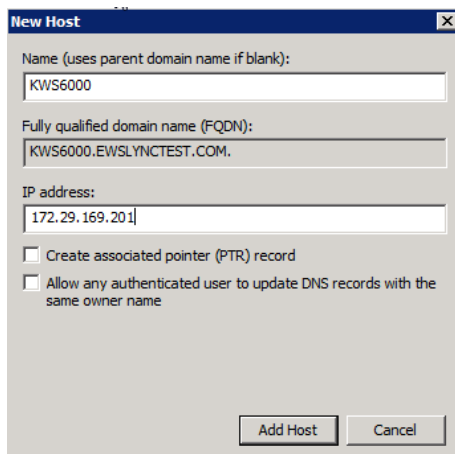
Chapter 4: Overview of Lync Server 2013 and 2010 Settings

- DNS entry for Spectralink IP-DECT Server 400 or 6500
- CA certificate from Domain
- Host certificate for Trusted Server
- Adding the Spectralink IP-DECT Server 400 or 6500 as Trusted application server

Configuring the Microsoft Lync Server 2013 and 2010 Setup

Step 1: Create a DNS Entry on the DNS Server

- 1 Create a hostname for the Spectralink IP-DECT Server 400 or 6500 and Domain DNS Server.
- 2 Add the Spectralink IP-DECT Server 400 or 6500 as New Host. The FQDN name will be used later in the configuration later. See page [13](#).
- 3 Click the **Add Host** button.



Step 2: Download a CA Certificate

This step describes how to export the CA certificate from a Microsoft Certificated Authority. If a different CA authority technology is deployed, please refer to the vendor documentation.



Note

The Spectralink IP-DECT Server 400 or 6500 accept a Base64 Encoded x.509 CA Certificate that uses a .cer extension.

- 1 Open Microsoft **Certificate Authority** directly in your web browser. <IP address>/certsrv.

For example, <http://172.29.193.33/certsrv/>

- 2 Select Download a CA certificate.

Microsoft Active Directory Certificate Services – EWSLYNCTEST-HORL

Download a CA Certificate, Certificate Chain, or CRL

To trust certificates issued from this certification authority, [install](#)

To download a CA certificate, certificate chain, or CRL, select:

CA certificate:

Current [EWSLYNCTEST-HORLYNCTEST01-CA]

Encoding method:

DER
 Base 64

[Install CA certificate](#)

[Download CA certificate](#)

[Download CA certificate chain](#)

[Download latest base CRL](#)

[Download latest delta CRL](#)

- 3 Select the current CA certificate. Set the encoding method to **Base-64** (.CER)

- 4 Select **Download CA Certificate**

Select a task:

[Request a certificate](#)

[View the status of a pending certificate request](#)

[Download a CA certificate, certificate chain, or CRL](#)

- 5 The Certificate is downloaded to your browser and will be used later in the configuration of the Spectralink IP-DECT Server 400 or 6500. See page [19](#)



Note

Step 2 is not required if the Lync Server 2010 certificate is signed by a public CA

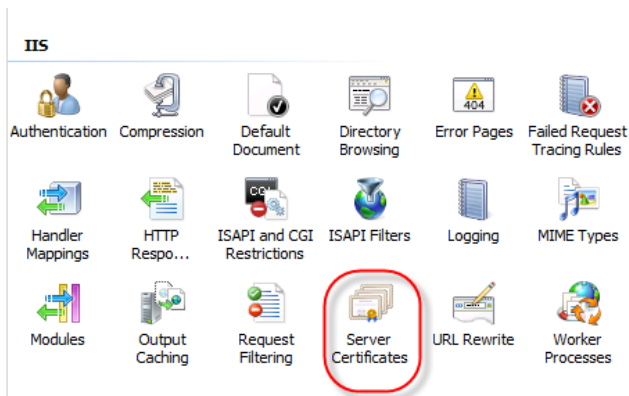
Step 3: Create a Host Certificate for Trusted Server

This action is performed on Internet Information Server (IIS) Cert SRV.

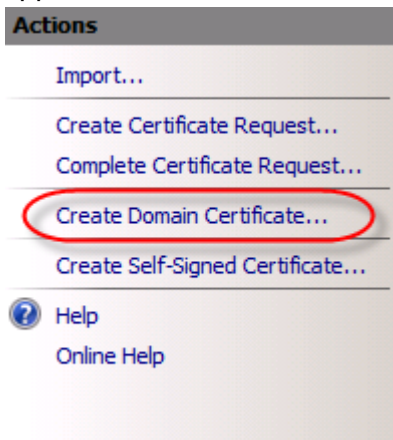
To request a security certificate for the Spectralink IP-DECT Server 400 or 6500 using IIS Manager 7, do the following.

- 1 On the Lync Server, select Start > All Programs > Administrative Tools > Internet Information Services (IIS) Manager (7.0) to open IIS 7.
- 2 Under **Connections**, double-click the server name.

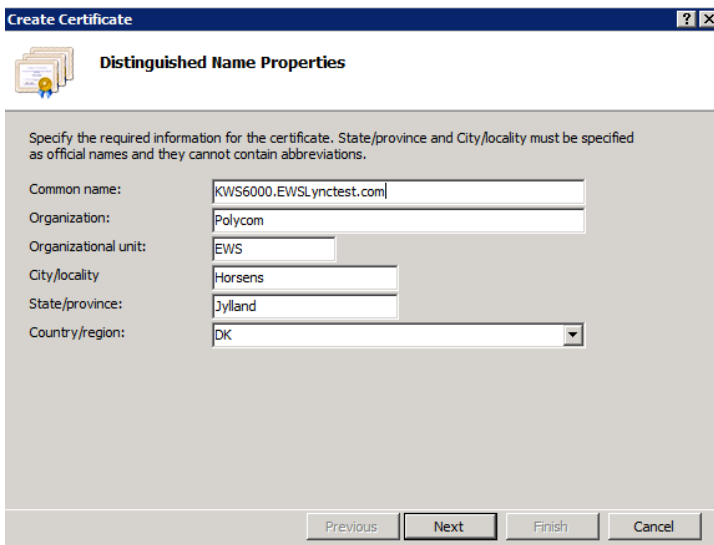
3 In the **Features View**, double-click **Server Certificates** under **IIS**.



4 In the **Actions** pane (far right), select **Create Domain Certificate**. The **Create Certificate** wizard appears.



5 In the **Distinguished Name Properties** panel, enter the required information in all fields. Do not leave any fields blank. All fields must be completed to finalize the configuration.



- 6 In the **Common name** field, enter the KWS6000 DNS FQDN of the Spectralink IP-DECT Server 400 or 6500 that you created in step 1 above, and then click **Next**.
- 7 In the **Online Certification Authority** panel, select a Certificate Authority from the list, and enter a friendly name in the field from the pop-up box.
- 8 Click **Finish**. Your certificate has been created.
- 9 Select the certificate you just created, and then, in the **Actions** pane (far right), select **Export**.
- 10 Choose the file export path, and specify a password for the certificate. The password is used when importing on Spectralink IP-DECT Server 400 or 6500. See page 19.

Step 4: Add a Spectralink IP-DECT Server as Trusted Application Server

Open Lync Management Shell and enter the 3 commands below. The text marked in bold should be replaced with your Lync Server 2013 or 2010 configuration names. If any database errors are displayed when you enter the information, run the **LYNC Server Management Shell** as Administrator.

- 1 Enter:

```
New-CsTrustedApplicationPool -Identity <FQDN of KWS6000> -Site <SiteID> -  
RequiresReplication $false -ThrottleAsServer $true -TreatAsAuthenticated  
$true -Registrar <FQDN of SBA/Lync frontend pool>
```

- 2 A warning is displayed. Click Y for Yes.

- 3 Enter:

```
New-CsTrustedApplication -ApplicationId dect -Port 5061 -  
TrustedApplicationPoolFqdn  
<FQDN of KWS6000>
```

- 4 Enter:

```
Enable-CsTopology
```

The following commands help you obtain the information for the commands above:

- To obtain **Site ID**, enter: `Get-CsSite`
- To obtain **FQDN**, enter: `Get-CsPool`



Note

All servers in the Lync domain have to be online.

Configuration example

1)

```
New-CsTrustedApplicationPool -Identity kws6000.ewslynctest.com -Site 1  
-RequiresReplication $false -ThrottleAsServer $true -TreatAsAuthenticated $true -  
Registrar ewslynctest.com
```

2)

```
New-CsTrustedApplication -ApplicationId dect -Port 5061 -TrustedApplicationPoolFqdn  
Horlynctest02.kws6000.ewslynctest.com
```

3)

```
Enable-CsTopology
```

Chapter 5: Required Settings for Spectralink IP-DECT Server 400 or 6500

When you configure a Spectralink IP-DECT Server 400 or 6500 for Lync Server 2013 or 2010, you need to configure the following settings:

- The Spectralink Microsoft Lync Interop License needs to be installed on the Spectralink IP-DECT Server 400 or 6500.
- Lync Server 2013 or 2010 support needs to be enabled.
- Trusted Server needs to be enabled (not if NTLM authentication is used).
- DNS Hostname needs to be entered.
- The Lync Server 2013 or 2010 domain needs to be configured.
- The Lync Server 2013 or 2010 Front End Pool(s) and SBA(s) needs to be configured.
- SRTP needs to be enabled (The Require Setting is optional and depends on your Lync setup).
- If NTLM is used, credentials have to be configured for each user.



Note

The Spectralink Microsoft Lync Interop License (part no. 14075270 or part no. 14075510) must be installed on the Spectralink IP-DECT Server 400 or 6500. The Lync Interop License includes the Spectralink Software Security Package (HTTPS, TLS, and SRTP), which is needed for the RTP encryption (SRTP) towards the Lync Server 2013 or 2010.

Chapter 6: Spectralink IP-DECT Server 400 or 6500 Configuration

The following configuration settings must be entered in the Spectralink IP-DECT Server 400 or 6500.

Log in to the system via your browser, and enter the IP address of the system as well as the User Name and Password (default: admin/ip6000). If the IP address of the system is not known, the server can be discovered via UpnP and the server will be discovered with the serial number (S/N) written on the label at the back of the server. Otherwise, if a handset is subscribed to the server you can use the command (**999*00 + Off Hook). This gives you the IP address of the system the handset is registered to.

Step 1: Configuring Spectralink IP-DECT Server 400 or 6500 for MS Lync Server 2013 or 2010 Support

Add a Lync license to the Spectralink IP-DECT Server 400 or 6500

- 1 Click **Administration** and then click **License**.
- 2 In the **License** field, enter the License code.

Licenses

Load license

License ** Load

- 3 Click the **Load** button. The license is loaded and new window states that Lync license has been loaded.

License successfully loaded

Please reboot to activate the new license

License information	
License	3a1970e88f442a0fe055672efcf3ab184c8778300000000041000000000000
License users	0
License features	Lync, Security

OK

- 4 Reboot the Spectralink IP-DECT Server 400 or 6500 when prompted

Enable Lync support

- 1 Click **Configuration** and then click **Lync**.
- 2 Select **Enable Lync support**.
- 3 Select **Trusted Server**.



Step: 2 Configuring SIP Settings for MS Lync Server 2013 or 2010

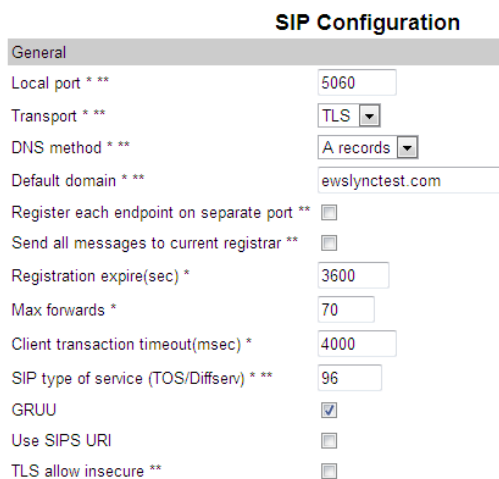
- 1 Click **Configuration**, and then click **SIP**.
- 2 Set **Transport** to TLS.
- 3 Set **DNS method** to A records.
- 4 Set **Default domain** to the SIP domain name of the Lync Server 2013 or 2010. For example, Jim.kander@ewslynctest.com should be “ewslynctest.com” entered in default domain.



Note

SIP domain name refers to the Lync Server 2013 or 2010 - SIP domain name, not the AD domain name, if they are different.

- 5 Select **GRUU**.
- 6 Deselect **Use SIPS URI**.



Proxies			
	Priority	Weight	URI
Proxy 1 **	1	100	sip:horlynctest02.ewslynctest.com
Proxy 2 **	2	100	
Proxy 3 **	3	100	
Proxy 4 **	4	100	

7 Set the proxies to the prioritized list of **FQDN(s) the Front End Pool(s) and the SBA.**



Note

If SBA is being used, use the SBA as primary proxy and front end as secondary proxy.

- 8 Select Ignore SDP version.
- 9 Select Enable RTP encryption.
- 10 Select Require RTP encryption. This setting is optional, depending on your Lync Server 2013 or 2010 setting.
- 11 Select Include lifetime in SDES offers.
- 12 Select Include MKI in SDES offers.

- SDP answer with preferred codec
- SDP answer with a single codec
- Ignore SDP version
- Enable media encryption (SRTP) **
- Require media encryption (SRTP)
- Include lifetime in SDES offers
- Include MKI in SDES offers



Note

When SRTP is enabled between the Spectralink IP-DECT Server 400 or 6500 and the Lync Server 2013 or 2010, the number of voice channels will be reduced from 32 to 16 voice channels (with G.729 codec card from 24 to 16 channels). For maximum security, it is possible to enable SRTP between the Spectralink IP-DECT Server 400 or 6500 and the Spectralink IP-DECT Base Stations. Please note that this will reduce the number of voice channels on each of the Spectralink IP-DECT Base Stations from 11 to 6.

13 In the **Certificates Configuration tab** (Configuration -> Certificates), import the CA certificate exported above.

CA Certificates

Common Name	Organization	SHA1 fingerprint
EWSLYNCTEST-HORLYNCTEST01-CA	<Not Part Of Certificate>	24:3d:08:cf:20:22:56:8a:4c:89:f5:ec:3f:fd:b4:d4:dc:98:e7:ad



Note

Step 13 is not required if the certificate of the Lync Server 2013 or 2010 is signed by a public CA.

14 In the **Certificates Configuration tab**, import the Host Certificate exported above. Choose PKCS#12, enter the password, and then select **Import certificate**.

Host certificate chain

Certificate file:
 Key file: Password: Type: X.509 PKCS#12

Subject	Validity	SHA1 fingerprint	Issuer
PMKWS6000.EWSLYNCTEST.COM, Polycou	14-02-2012 - 13-02-2014	36:8c:b5:51:c3:2b:e3:ca:27:6e:de:a7:1c:f9:41:df:90:81:8f:88	EWSLYNCTEST-HORLYNCTEST01-CA

Domain:

15 Enter the DNS **Hostname**. Use the DNS Hostname created above.

DNS

Hostname **

Domain

Adding Users to Spectralink IP-DECT Server 400 or 6500

The authentication method determines which information you need to enter when you add a user.

System Authentication (Trusted Server)

If System Authentication is used for authentication, the following information is required:

- Username/Extension field: SIP username (without domain)

The **Display name** and **Standby text** are optional, but recommended.

User Authentication (NTLM)

If User Authentication is used for authentication, the following information is required:

- Username/Extension field: SIP username (without domain)
- Authentication Username: AD login name
- Authentication Password: AD login password

The authentication username must be the same username as specified in the Active Directory without the domain. The password must be the same password as specified in the Active Directory.

The **Display name** and **Standby text** are optional, but recommended.

User

DECT	
IPEI	<input type="text" value="05003 0070387"/>
Access code	<input type="text"/>
Standby text	<input type="text" value="Jim Kander"/>
SIP	
Username / Extension *	<input type="text" value="jim.kander"/>
Domain	<input type="text"/>
Displayname	<input type="text" value="Jim Kander"/>
Authentication user	<input type="text"/>
Authentication password	<input type="password"/>
Disabled	<input type="checkbox"/>
Features	
Call forward unconditional	<input type="text"/>

*) Required field

Chapter 7: Known Issues

The following issues have been identified on software version PCS 12A.

- **RFC3489-Biz02:** System administrators can enable support for this protocol by using a special command. This command enables the support for RFC3489 on the Spectralink IP-DECT Server 400 or 6500. The default setting is False (not supported). The following line enables the feature: (http://<host>config/set?sip.media.rfc3489=true)
- **Third party endpoints:** If you experience problems with interoperability with other Lync Certified endpoints, please contact Spectralink support at technicalsupport@spectralink.com.

Chapter 8: Known Limitations

Presence

The presence information changes when a Spectralink DECT user is in a call or in idle state.

By default the Spectralink DECT Handset is set to “Away” because the user is on a DECT phone and away from the Lync Client. The different presence settings for the Spectralink DECT Handsets are:

- **Available** - green icon (lasts for 5 minutes after a call has been completed)
- **Inactive** - yellow icon (is set automatically after 5 minutes of inactivity from “Available” state)
- **Away** - yellow icon (is set automatically after 5 minutes of inactivity from “Inactive” state)
- **In a Call** - red icon

The presence information option “Offline” is not available for Lync users that use a Spectralink DECT Handset.



Note

An initial log-in to a Lync client with each DECT user is required to activate the presence functionality of the handset. Alternatively you can use the Presence bootstrapping tool for Lync Server 2013 or 2010. For more information, see: <http://support.microsoft.com/kb/2737277>.

Characters in Spectralink DECT Handsets

The following describes the SIP limitations of the Spectralink DECT and how the Spectralink DECT Handsets handles them:

- **Incoming call number SIP-URI** - In SIP-URI the Spectralink DECT Handset can handle up to 64 characters in incoming calls and call logs. The “sip:” at the beginning of a possible SIP address is included in the 64 characters. A SIP URI of more than 64 characters is not saved in the handset call log. Only the call party name will be saved. However, it is not possible to redial this call because the number is not present.
- **Call party name** - When the SIP URI is over 64 characters, the handset truncates the call party name to a maximum of 24 characters, and only the first 24 characters of the name are displayed.

Microsoft Lync 2013 or 2010 Attendant

During Beta test, a number of issues regarding blind transfer of external calls from the Lync Attendant were reported. This information is taken into consideration for future development.

Lync response groups and delegates

Spectralink DECT Handsets can receive calls to a response group and/or delegated persons, but due to limited display capacity the designated response group or delegated persons cannot be displayed. The call will be displayed as a normal call and only the caller will be identified.

E911

This feature is not supported because in a campus environment the location cannot be determined exactly, since the Spectralink DECT Handset is a portable device.

Invite to an ad-hoc conference call (App invite)

When a conference call is initiated from Lync, an invitation is sent to all devices of the invitees to allow both Video and Audio participation. The Spectralink IP-DECT Server 400 or 6500 only makes an audio response in order to receive this type of call. If the user has a Lync video enabled device in addition to a Spectralink DECT Handset, the conference will only be received by the video enabled device.

Appendix

Presence Description

The following screenshots show how presence is indicated on a Lync Client, when a Spectralink DECT Handset is idle or in use.

IDLE Spectralink DECT Handset

Spectralink Handset status:



Status in Microsoft Lync client:

Online (2)



Helle Eskesen - Available Voice Only



Sofia Rasmussen - Available Voice Only

The users in this example only have a Spectralink DECT Handset and are not logged on with a Lync Client. That is why **Voice Only** is displayed.

Spectralink DECT Handset in conversation

Spectralink handset status (active call)

Connected with



Sofia 1129

sip:Sofia.Rasmussen



Status in Microsoft Lync client:

Online (2)



Helle Eskesen - In a call No IM



Sofia Rasmussen - In a call No IM

The users in the example only have a Spectralink DECT handset and are not logged on with a Lync client. Because the Spectralink DECT handset does not accept Instant Messages from the Lync client, **No IM** appears.

To activate the presence functionality of the handset, an initial log-in to a Lync client with each DECT user is required.

Alternatively, you can use the Presence bootstrapping tool for Lync Server 2010. For more information, see: <http://support.microsoft.com/kb/2737277>.

Overview of presence statuses in the Lync client

The handset's presence status is set to "Available" for 5 minutes after it has been used.

▲ Online (2)



Helle Eskesen - Available Voice Only



Sofia Rasmussen - Available Voice Only

After 5 minutes, the handset status changes to "Inactive" if the handset is not used.



Helle Eskesen - Inactive 5 mins - Voice Only

After 10 minutes, the handset status changes to "Away" if the handset is not used.



Bo Suurballe - Away 35 mins - No IM

When a Spectralink DECT Handset is in use the presence status is "In a call".

▲ Online (2)



Helle Eskesen - In a call No IM



Sofia Rasmussen - In a call No IM

NTLM:

Windows Challenge/Response (NTLM) is the authentication protocol used on networks that include systems running the Windows operating system and on stand-alone systems. NTLM credentials are based on data obtained during the interactive logon process and consist of a domain name, a user name, and a one-way hash of the user's password. NTLM uses an encrypted challenge/response protocol to authenticate a user without sending the user's password over the wire. Instead, the system requesting authentication must perform a calculation that proves it has access to the secured NTLM credentials.

TLS/MTLS:

TLS and MTLS protocols provide encrypted communications and endpoint authentication on the Internet. Microsoft Lync Server 2010 uses these two protocols to create the network of trusted servers and to ensure that all communications over that network are encrypted. All SIP communications between servers occur over MTLS. SIP communications from client to server occur over TLS.

TLS enables users, through their client software, to authenticate the Lync Server 2010 servers to which they connect. On a TLS connection, the client requests a valid certificate from the server. To be valid, the certificate must have been issued by a CA that is also trusted by the client and the DNS name of the server must match the DNS name on the certificate. If the certificate is valid, the client uses the public key in the certificate to encrypt the symmetric encryption keys to be used for the communication, so only the original owner of the certificate can use its private key to decrypt the contents of the communication. The resulting connection is trusted and from that point is not challenged by other trusted servers or clients. Within this context, Secure Sockets Layer (SSL) as used with Web services can be associated as TLS-based.

Server-to-server connections rely on mutual TLS (MTLS) for mutual authentication. On an MTLS connection, the server originating a message and the server receiving it exchange certificates from a mutually trusted CA. The certificates prove the identity of each server to the other. In Lync Server 2010 deployments, certificates issued by the enterprise CA that are during their validity period and not revoked by the issuing CA are automatically considered valid by all internal clients and servers because all members of an Active Directory domain trust the Enterprise CA in that domain. In federated scenarios, the issuing CA must be trusted by both federated partners. Each partner can use a different CA, if desired, so long as that CA is also trusted by the other partner. This trust is most easily accomplished by the Edge Servers having the partner's root CA certificate in their trusted root CAs, or by use of a third-party CA that is trusted by both parties.

TLS and MTLS help prevent both eavesdropping and man-in-the-middle attacks. In a man-in-the-middle attack, the attacker reroutes communications between two network entities through the attacker's computer without the knowledge of either party. TLS and Lync Server 2010 specification of trusted servers (only those specified in Topology Builder) mitigate the risk of a man-in-the-middle attack partially on the application layer by using end-to-end encryption coordinated using the Public Key cryptography between the two endpoints, and an attacker would have to have a valid and trusted certificate with the corresponding private key and issued to the name of the service to which the client is communicating to decrypt the communication. Ultimately, however, you must follow best security practices with your networking infrastructure (in this case corporate DNS). Lync Server 2010 assumes that the DNS server is trusted in the same way that domain controllers and global catalogs are trusted, but DNS does provide a level of safeguard against DNS hijack attacks by preventing an attacker's server from responding successfully to a request to the spoofed name.

(Source: <http://technet.microsoft.com/en-us/library/gg195752.aspx>)

CAC (Call Admission Control) Administrators have the option to set limits the amount of Lync Server 2010 voice and video traffic carried on constrained network links, and specify the action taken if an offered session exceeds the limit. The action may include routing the session via an alternate path or refusing the session. Separate routes for voice and video allow administrators to prioritize these media types differently and specify preferred and alternate routes for various media types. Lync Server 2010 Call Admission Control is network-agnostic and does not require any vendor-specific networking equipment or setup.

(Source: <http://technet.microsoft.com/en-us/library/gg398529.aspx>)

Specifications subject to change without notice.

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