

# Espera

Real-Time & Historical Call Display for Microsoft Lync Response Groups

by AdvaTel



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#### 1 Introduction

Espera is a Microsoft Lync integration package, utilizing existing Lync infrastructure and call-routing capabilities. Espera provides Microsoft Lync Response Groups with Real-Time call waiting information. The call waiting information can be displayed with Espera Real-Time, installed onto any PC where call waiting information is required. (e.g. Agents, Supervisors, Managers, Wall Displays)

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## 2 Requirements

The following requirements must be attained to successfully install and configure the Espera Server service and Espera Client.

## 2.1 Installer / Administrator

#### Espera Server:

The Installer / Administrator *must* hold the below certification in order to successfully install and deploy the Espera server.

Minimum Qualification:

• MCITP: Lync Server Administrator 2010, or equivalent

#### **Espera Client:**

The Installer / Administrator *must* hold the below certification in order to successfully install/deploy the Espera client.

#### Minimum Qualification:

• MCTS: Lync Server 2010 Configuration, or equivalent

## 2.2 Microsoft Lync

- <u>Microsoft Lync Server 2010</u>
- <u>Microsoft Lync Monitoring Server</u> (Required for Espera Historical Reporting)

## 2.3 Espera Server

#### **Operating System:**

- Windows Server 2008 R2 Standard (64-bit)
- Windows Server 2008 R2 Enterprise (64-bit)
- Windows Server 2008 R2 Datacentre (64-bit)

#### Hardware:

• Minimum hardware requirements supported by chosen Operating System to support Lync Server 2010 (Application Server role)

For detailed information refer to: <u>http://technet.microsoft.com/en-us/library/gg398835.aspx</u>

- Minimum 15 GB free hard drive disk space
- Minimum 2 GB RAM

#### Software:

• Microsoft .Net Framework 4

Available from: http://www.microsoft.com/download/en/details.aspx?

displaylang=en&id=17718

• Microsoft Visual C++ 2005 Redistributable

Available from: <u>http://www.microsoft.com/download/en/details.aspx?id=21254</u>

## 2.4 Espera Client

#### **Operating System:**

- Windows XP SP3 (32 bit)
- Windows Vista SP2 (32/64 bit)
- Windows 7 SP1 (32/64 bit)
- Windows 8 (32/64 bit)
- Microsoft Server 2008 R2 (64 bit)

#### Hardware:

- Minimum hardware requirements supported by chosen Operating System to support Lync 2010
   For detailed information refer to: <u>http://technet.microsoft.com/en-us/library/gg412781.aspx</u>
- Minimum 100MB Hard drive disk free space

#### Software:

• Microsoft .Net Framework 4

Available from: <u>http://www.microsoft.com/download/en/details.aspx?</u>

#### displaylang=en&id=17718

- Microsoft Visual C++ 2005 Redistributable
  - x86 version available from: <u>http://www.microsoft.com/download/en/details.aspx?id=3387</u> x64 version available from: <u>http://www.microsoft.com/download/en/details.aspx?id=21254</u>



## 3 Installation

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## 3.1 Installation Overview

### 3.1.1 Espera Server

In order to successful install and run the Espera server, your need to provision a Lync Application server. This guide will provide a detailed step-by-step guide on the complete installation process. Please refer to the following chapters.

### 3.1.2 Espera Client

#### Standalone Installation:

1. Run the Espera Client "setup.exe"

#### **Group Policy Deployment:**

(Note: For details steps, refer to: http://support.microsoft.com/kb/816102)

## Note: The target PC(s) must have Microsoft Visual C++ 2005 Redistributable *and* Microsoft . Net Framework 4, installed *prior* to installing the Espera Client

- 1. Create a shared distribution folder for your installation (e.g. C:\Install), ensuring all users have at least "Read" permission to this folder.
- 2. Run the following from command line to extract the MSI installer: msiexec /a EsperaClientSetup. msi TARGETDIR="C:\Install"
- Create a Group Policy Object (GPO) on the server and link it directly to the whole domain. (ServerManagement>GroupPolicyManagement>"Current Domain">Create GPO and link to this domain)
- 4. Click <Edit> on the newly created GPO
- 5. Go to "Computer Config->Policies->SoftwareConfig->Software Installation" and select New Package from the context menu (alternatively installation can be linked to "Users").
- 6. Next, select the MSI installer created in step 2 (located in the shared folder)
- In the GPO settings, grant access to those PC's (or users) to which Espera is to be installed. (Note: set flags "Read" and "Apply Group Policy")

\*\* It is recommended to run "gpupdate /force" and "gpresult" now on a target machine in a test group, prior to full deployment.

## 3.2 Lync Application Server

Espera does not require a dedicated Lync Application Server to run on. It can be installed onto an existing Lync Application Server. However, if your wish to run Espera on it own Lync Application Server, this guide will provide you with the detailed instructions on the deployment of a new Lync Application Server.

## 3.2.1 Install the Windows Operating System

#### 3.2.1.1 Install the Operating System

Install the chosen Operating System (Windows Server 2008R2 Standard, Enterprise or Data Centre) as per the installation recommendations of that Operating System.

#### 3.2.1.2 Join Server to the Domain

The Lync Application server hosting the Espera Server must be joined to the same domain as the Lync Front End Server.

3.2.1.2.1 Join Server to the Domain - Step 1

- 1. Open the Server System Information Control Panel > System and Security > System
- 2. <Right-click> on the <Change Settings> link in the "Computer name, domain, and workgroup settings" section

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3.2.1.2.2 Join Server to the Domain - Step 2

From the "System Properties > Computer Name" tab, select <Change> to change the servers domain relationship.



3.2.1.2.3 Join Server to the Domain - Step 3

From the "Computer Name/Domain Changes" dialogue box, configure the following:

- Enter the correct name for the server in the <Computer Name> field
- Select <Domain> from the "Member of" section, and enter the <domain> to be joined too.
- When prompted, enter the username and password for a domain administrator, for the domain to joined to.

When successful, a popup will be displayed welcoming to the domain.



3.2.1.2.4 Join Server to the Domain - Step 4

Restart the Server to complete joining the server to the domain

🖥 Initia	l Configu	Iration Tasks		
		System		ws Server 2008 R2
IIIII	Perfo	orr 🖸 🖓 🕈 Control Panel 🔸 Syst	em and Security • System • 🚱 Search Control Panel	
	P	Control Panel Home	View basic information about your computer	•
		🚱 Device Manager	Windows edition	
		🔦 💮 Remote settings	Windows Server 2008 R2 Standard	
	Q	Advanced system settings	Copyright © 2009 Microsoft Corporation. All rights reserved. Service Pack 1	
	10		Microsoft Windows	
	2 U	p	You must restart your computer to apply these changes	_
	-		.40GHz 2.39 GHz Before restarting, save any open files and close all programs.	
	4	6	Restart Now Restart Later his Display	
	4		Computer name, domain, and workgroup settings	_
			Computer name: EXCH2010LAN-LAS (will change to Exch2010LAN-LAS5 after restarting this computer)	igs
	3 C	u	Full computer name: EXCH2010LAN-LAS.Exch2010.AdvaExperimental	
			Computer description: Lync Application Server 5	
	1.100	See also	Workgroup: Exch2010.AdvaExperimental	
	đ	Action Center	Windows activation	et.
	Ô	Configure Windows Firewall	Firewall: Domain: On	_
	Don	ot show this window at logon		Close

3.2.1.2.5 Join Server to the Domain - Step 5

Once the server has restarted, log into the server with a domain account that has sufficient rights to install software.

NOTE: You must use a domain account, not a local machine account at this step.



3.2.1.2.6 Join Server to the Domain - Step 6

Confirm the server is now connected to the same domain as the Lync Front End server.

背 Initia	l Conf	figuration Tasks				_ 8 ×
	Pe	rform the following tasks to configure this	server		Nine Standa	dows Server 2008 R2 ard
	1	Provide Computer Information	Specifying computer information			
ူ Activ		Activate Windows	Product ID:	55041-507-3120762-84641 (Activated)		
		Set time zone	Time Zone:	(UTC+10:00) Canberra, Melbourne, Sydney		
		Configure networking	Local Area Connection 2:	IPv4 address assigned by DHCP, IPv6 enabled	1	
		Provide computer name and domain	Full Computer Name: Domain:	Exch2010LAN-LAS5.Exch2010.AdvaExperime Exch2010.AdvaExperimental	ntal	
	2	Update This Server		2	Updating your Windows server	
		Enable automatic updating and feedback	Updates: Feedback:	Download updates only, using Windows Updat Windows Error Reporting off Not participating in Customer Experience Impro-		
		Pownload and install updates	Checked for Updates: Installed Updates:	Today at 7:03 AM 19/09/2011 1:18 PM		
	3	Customize This Server			Customizing your server	
		Add roles	Roles:	None		
		Add features	Features:	None		
		Senable Remote Desktop	Remote Desktop:	Disabled		
		Yonfigure Windows Firewall	Firewall:	Domain: On		<b>•</b>
		o not show this window at logon				Close

## 3.2.2 Add Espera Server as a Trusted Application Server

The Lync Application Server hosing the Espera Server (or any other Lync application) must be added to the "Trusted Application Servers" branch of the Lync Topology Builder as a "Trusted Application Pool".

NOTE: The following steps must be completed whilst logged in using a domain account, not a local machine account.

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## 3.2.2.1 Add Trusted Application Server - Step 1

Open the "Lync Server Topology Builder" from the Lync Front-End Server.

Recyde Bin		
<ul> <li>[6] Internet Explorer (64-bit)</li> <li>[6] Internet Explorer</li> <li>[7] Windows Update</li> <li>[7] Wireshark</li> </ul>		
Accessories	Administrator	
Espera Client Maintenance	Documents	
Microsoft Lync Server 2010 Lync Server 2010 Stress and Performance <sup>1</sup>	Computer	
Lync Server Control Panel     Lync Server Deployment Wizard	Network	
Lync Server Logging Tool Lync Server Management Shell	Control Panel	
Lync Server Topology Builder Resource Kit Tools Documentation	Devices and Printers	
Microsoft Silverlight Microsoft SQL Server 2008	Administrative Tools	
Microsoft SQL Server 2008 R2	Help and Support	
WinPcap	Run	
Back		
Search programs and files	🕐 Shut down 🕨	
🌆 🛃 🚺 💦		* 🕞 👘 🍁 2:29 PM

## 3.2.2.2 Add Trusted Application Server - Step 2

Select "Download Topology from existing deployment", then <OK>.

🏷 Lync Server 2010, Topology Builder		
File Action View Help		
Lync Server 2010	Define a new deployment from the Actions pane	Actions
		Lync Server 2010 🔺
		🔃 New Central Site
		Edit Properties
		New Topology
		Open Topology
	Topology Builder	Download Topology
	Welcome to Topology Builder. Select the source of the Lync Server 2010 topology document.	Save a copy of Topology
	C Download Topology from existing deployment	Publish Topology
	Retrieve a copy of the current topology from the Central Management Store	Install Database
	database and save it as a local file. Use this option if you are editing an existing deployment.	Merge 2007 or 2007 R2 T
	C Open Topology from a local file	Remove Deployment
	Open an existing Topology Builder file. Use this option if you have work in progress or if you have exported a topology from Planning Tool.	View 🕨
		<table-cell></table-cell>
	C New Topology Create a blank topology and save it to a local file. Use this option for defining	
	new deployments from scratch.	
	OK Cancel	
1		
<u> </u>		

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## 3.2.2.3 Add Trusted Application Server - Step 3

Expand the Lync Topology menu tree.

Lync Server 2010, Topology Builder			
File Action View Help			
Lync Server 2010	SIP domain		Actions
	SIP domain	<b>A</b>	Lync Server 2010 🔺
	Default SIP domain:	advatel.com.au	🔃 New Central Site
	Additional supported SIP	xyzshop.com	Edit Properties
	domains:	abcshop.com	New Topology
			Open Topology
	Simple URLs	<b>۸</b>	Download Topology
			Save a copy of Topology
	Phone access URLs:	Active Simple URL	Publish Topology
		https://dialin.advatel.com.au	Install Database
	Meeting URLs:	Active Simple URL SIP domain	Merge 2007 or 2007 R2 T
		https://meet.abcshop.com abcshop.com     https://meet.advatel.com.au advatel.com.au	Remove Deployment
		https://meet.xyzshop.com xyzshop.com	View 🕨
	Administrative access URL:	https://admin.exch2010.advaexperimental	👔 Help
	Central Management Serve	2 <b>r</b> •	
	Central Management Server:	s2.exch2010.advaexperimental (SouthMelbourne)	
I			

#### 3.2.2.4 Add Trusted Application Server - Step 4

<Right-click> on "Trusted application servers".



#### 3.2.2.5 Add Trusted Application Server - Step 5

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Select "New Trusted Application Pool".



#### 3.2.2.6 Add Trusted Application Server - Step 6

- 1. Enter the FQDN of the Lync Application Server to host the Espera Server.
- 2. Select "Single computer pool"
- 3. Select <Next>



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#### 3.2.2.7 Add Trusted Application Server - Step 7

- 1. From the drop-down list, select the "Front End pool" that is to be used as the next hop.
- 2. Select <Finish> to complete adding a new Trusted Application Server



#### 3.2.2.8 Add Trusted Application Server - Step 8

Ensure the newly created Trusted Application Server details correctly match that of the server hosting the Espera Server service.

🔀 Lync Server 2010, Topology Builder				_ 0 ×
File Action View Help				
🗇 🄿 🔰 🖬 🖬				
Lync Server 2010	General		_ Ac	ctions
GouthMelbourne     SouthMelbourne     Standard Edition Front End Servers			- e	xch2010lan-las5.exch20 🔺
Enterprise Edition Front End pools	FODN:	exch2010lan-las5.exch2010.advaexperimental		Edit Properties
Director pools     A/V Conferencing pools	Enable replication of	Enabled		Topology
🕀 🧰 SQL stores	configuration data to this pool.			View 🕨
File stores     Mediation pools	IP addresses:	Use all configured	×	🕻 Delete
PSTN gateways	11 000103503.		?	Help
Edge pools	Next hop selection		▲	
Tursted application servers     Turstpool.exch2010.advaexperiment     E    bp 2.exch2010.advaexperimental     E    Exch2010lan-las5-exch2010.advaex	Next hop pool:	s2.exch2010.advaexperimental (SouthMelbourne)		
<u> ا</u>				

#### 3.2.2.9 Add Trusted Application Server - Step 9

Publish the updated Lync Topology to the Lync Front End Server.

Action > Topology > Publish



3.2.2.10 Add Trusted Application Server - Step 10

Select <Next>

🔂 Lync Server 2010, Topology Builder				
File Action View Help				
Lync Server 2010				Actions
			<b>^</b>	exch2010lan-las5.exch20 🔺
Standard Edition Front End Servers     Enterprise Edition Front End p Publish Topology			×	Edit Properties
Director pools				
A/V Conferencing pools	stores Publish the topology stores liation pools			Topology •
GQL stores     File stores				View
He stores     Mediation pools				🗙 Delete
PSTN gateways				? Help
🛨 🚞 Monitoring Servers	Before you publish the topology, ensure that the following tasks have been completed:			
Archiving Servers	<ul> <li>A validation check on the root node did not return any errors.</li> </ul>			
Edge pools     Trusted application servers	<ul> <li>a Tusted application servers</li> <li>Tusted application servers</li> <li>a Tusted application servers</li> <li>b Tustpool.exh2010.advaexper</li> <li>c Tustpool.exh2010.advaexper</li> <lic li="" tustpool.exh2010.advaexper<=""> <lic td="" tustpool.exh2010.ad<=""><td></td></lic></lic></ul>			
E Branch sites				
		you are removing a Front End pool, all users, common area phones, analog devices, application contact jects, and conference directories have been removed from the pool.		
	When you are ready to proceed, click Next.			
	Heli	Back Next Cancel		
			-	
1				
1	F			
1		·	_	,

### 3.2.2.11 Add Trusted Application Server - Step 11

Ensure the "Publishing Wizard" completed without any errors.

If errors are received, correct these errors then republish the Lync Topology.



#### 3.2.3 Install the Lync Application Server

Install the Lync Application Server services and tools from the Lync Server Installation DVD.

NOTE: The Windows Firewall will need to be disabled from the proposed Lync Application Server for communication to the Lync Front End Server. Alternatively, firewall exceptions must be configured for all Lync and Espera ports. (The Default Espera port is 5999)

#### 3.2.3.1 Logon As Domain Administrator

Use a Domain Administrator account to run the Lync Deployment Wizard.
3.2.3.1.1 Logon as Domain Administrator - Step 1

By default, after the Server has joined the domain and rebooted, the server displays the previously logged in user details (local computer administrator account).



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### Espera Administration Manual

3.2.3.1.2 Logon as Domain Administrator - Step 2

Select <Switch User> and log into the server with a user account that has "Domain Administrator" privileges.



#### 3.2.3.2 Install .Net 3.5 SP1 Framework

The Lync Deployment Wizard requires the .Net 3.5 SP1 Framework to be pre-installed onto the server.

- 3.2.3.2.1 Install .Net 3.5 SP1 Framework Step 1
  - 1. Select <Add Roles> from "Initial Configuration Tasks" or "Server Manager"
  - 2. Expand ".Net Framework 3.5.1 Features"
  - 3. Select ".Net Framework 3.5.1"
  - 4. Select the <Next> button



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# Espera Administration Manual

3.2.3.2.2 Install .Net 3.5 SP1 Framew ork - Step 2

Confirm that the ".Net Framework 3.5.1" is to be installed, then select the <Install> button.

Tinitial Configuration Tasks		<u>_8×</u>
Perform the following tasks to configure this server Add Features Wizard		Windows Server 2008 R2 Standard
Provide Comp     Activate Window     Confirm Installat	tion Selections	
Set time zone     Features     Confirmation     Progress	To install the following roles, role services, or features, dick Install.	
Results	This server might need to be restarted after the installation completes.     O .NET Framework 3.5.1 Features     .NET Framework 3.5.1	
Opdate This 5 Enable automatic		
Ownload and in		
Oustomize Th Add roles		
Add features	Print, e-mail, or save this information	
Enable Remote		stall Cancel
Do not show this window at logon		Close

3.2.3.2.3 Install .Net 3.5 SP1 Framew ork - Step 3

Confirm that the installation is successful, then select <Close>.

🕌 Initial Configuration Tasks		<u>_8×</u>
Perform the following tasks to configure this server		Windows Server: 2008 R2 Standard
Provide Comp	llts	<u>^</u>
Set time zone     Features     Confirmation	The following roles, role services, or features were installed successfully:	
Configure networ Results	INET Framework 3.5.1 Features     Installation succee     The following features were installed:	ded
Provide compute	.NET Framework 3.5.1	
② Update This §		
K Enable automatik		
Download and in		
3 Customize Th		
Add roles		
Add features	Print, e-mail, or save the installation report	
Enable Remote	< Previous Next >	Close Cancel
Configure Windows Firewall Firewall	l: Domain: On	
Do not show this window at logon		Close

## 3.2.3.3 Install the Lync Application Server - Step 1

- 1. Insert the Lync Deployment Wizard DVD (or "run" the DVD iso image).
- 2. Accept and install any pre-requisites required to run the Lync Deployment Wizard

Tinitial	Conf	figuration Tasks			_ & ×
	Pe	rform the following tasks to configure	e this server		Windows Server 2008 R2 Standard
(	0	Provide Computer Information	on	2	Specifying computer information
			Product ID:	55041-507-3120762-84641 (Activated)	
		Set time zone	Time Zone:	(UTC+10:00) Canberra, Melbourne, Sydney	
		Configure networking	Local Area Connection 2:	IPv4 address assigned by DHCP, IPv6 enabl	ed
		Provide computer name and domain	Full Computer Name: Domain:	Exch2010LAN-LAS5.Exch2010.AdvaExperin Exch2010.AdvaExperimental	nental
(	2	Update This Server	Microsoft Lync Server 2010	×	Updating your Windows server
		Enable automatic updating and feedback		48 Package must be installed. Do you	ate ovement Program
		Download and install updates		Yes No	
(	3	Customize This Server		2	Customizing your server
		Add roles	Roles:	None	
		Add features	Features:	.NET Framework 3.5.1 Features	
		Sea Enable Remote Desktop	Remote Desktop:	Disabled	
		Marconfigure Windows Firewall	Firewall:	Domain: On	-
Г	D	o not show this window at logon			Close

# 3.2.3.4 Install the Lync Application Server - Step 2

Confirm the installation directory, then select <Install>.

🖥 Initial	Conf	figuration Tasks			_ B ×				
	Pe	Perform the following tasks to configure this server 2008 R2 Standard							
(	0	Provide Computer In	Iformation		Specifying computer information				
		Activate Windows	Product ID:	55041-507-3120762-84641 (Activated)					
		Set time zone	Time Zone:	(UTC+10:00) Canberra, Melbourne, Sydney					
		Configure networking	Microsoft Lync Server 2010		X				
		Provide computer name and	Microsoft*						
(	2	Update This Server	Lync Server 2	010	ur Windows server				
		Rable automatic updating a	Specify the location for the installation files. Any also go to this folder.	additional Lync Server components that you ir	nstall will				
		Download and install update	To install Lync Server 2010, Core Components a Installation Location: C:\Program Files\Microsoft Lync Server 2010		pram				
(	3	Customize This Serv		Install	Cancel your server				
		Add roles	Roles:	None					
		Add features	Features:	.NET Framework 3.5.1 Features					
		Enable Remote Desktop	Remote Desktop:	Disabled					
		Configure Windows Firewall	Firewall:	Domain: On	- -				
Г	D	o not show this window at logon			Close				

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## 3.2.3.5 Install the Lync Application Server - Step 3

Accept the license agreement and select <OK>.

Thitial Configuration Ta	sks			<u>_8×</u>
Perform the f	following tasks t	o configure this server		Windows Server 2008 R2 Standard
Provide	Computer Ir	formation	Specifying com	puter information
ူ Activate	e Windows	Product ID: 55041-507-3120762-84641 (Activated)		
Set time	zone	End User License Agreement	×	
💽 Configu	re networking	License Agreement		
🔊 Provide	computer name and	Please read the following license terms carefully		
Enable	This Server automatic updating ad and install updat ze This Serv 15	MICROSOFT SOFTWARE LICENSE TERMS MICROSOFT LYNC SERVER 2010 STANDARD AND ENTERPRISE EDITIONS FOR RESALE) If you leensed Microsoft Lync Server 2010 through Microsoft's Volume Licensing of MSDN Programs, your use of this software is subject to the terms and conditions applicable Program agreements. You may not use this software if you have not v acquired a license for the software from Microsoft or its licensed distributors. These license terms are an agreement between Microsoft Corporation (or based where you live, one of its affiliates) and you. Please read them. They apply to the ✓ 1 accept the terms in the license agreement OK	or of the validly on e	Mindows server
Add fea	tures		cuircu	
San Enable	e Remote Desktop	Remote Desktop: Disabled		
🍟 Configu	re Windows Firewall	Firewall: Domain: On		•
Do not show this	window at logon			Close

## 3.2.3.6 Install the Lync Application Server - Step 4

Wait for the "Prepare Active Directory" to show as "Completed", the select "Install or Update Lync Server System".

Note: If the "Prepare Active Directory" does not show "Completed" ensure the server is joined to the same domain as the Lync Front End Server, and the active user is a domain administrator, logged into the domain.

Installation

Perform the	folowing tasks to configure this server 쥲 Lync Server 2010 - Deployment Wizard	Vindows Server: Standard ×1
Provide	Unc Server 2010 Welcome to Lync Server deployment.	
8	Deploy	¢
Set ti	Prepare Active Directory Prepares the Active Directory schema, forest, and domain for Lync Server. Help	Prepare first Standard Edition server Prepares a single Standard Edition server to host Central Management Service. Note: This task requires local administrator rights. This task does not apply to Standard Edition Servers that are not planned to host the Central
Dpdate	Install or update a Lync Server Server deployment member system. This option installs Lync Server Server deployment member system. This option installs Lync Server server deployment member system. Note: Before installing a server, you need to have a valid topology created and published. Help >	Management Service, or for deployments that include Enterprise Edition. Install Topology Builder Installs the Topology Builder and Administrative Tools to the current system. Your deployment requires at least one installation
🍇 Enab		of the Topology Builder. Deploy Monitoring Server Reports Deploy Monitoring Server Reports to selected SQL Server Reporting Services (SSRS) instances.
(3) Custon		First Run Videos Click to view getting started videos. Documentation Click to view the latest Lync Server documentation online for deployment, planning, and operations.
Add i 🍂 Add		Tools and Resources Click to access tools and other resources online to help manage your Lync Server deployment.
San Ena		Read the privacy statement online
🔐 Confi		Back Exit

# 3.2.3.7 Install the Lync Application Server - Step 5

Select <Run> in "Step 1: Install Local Configuration Store".

📑 🎽 Initial		figuratio	on Ta	asks			<u>_ 8 ×</u>
	Pe	erform t	the	following	tasks to configure this server	Nir Stand	dows Server: 2008 R2
			-1	🐻 Lync S	erver 2010 - Deployment Wizard	×	
	1	Provi			Lync Server 2010 Welcome to Lync Server deployment.		
		AC AC	ctiv	Deploy > L	ync Server 2010	\$	
		🚽 Se	et ti		Install Local Configuration Store Installs local configuration store and populates with data from Central Management Store.	<u> </u>	
		🧕 🦉	onfi		Prerequisites > Run		
		🌉 Pr	rovi	Step 2:	Setup or Remove Lync Server Components Install and activate, or deactivate and uninstall Lync Server Components based on the topology definition.		
	2	Upda	ate		Not Available: Local configuration store not available. Prerequisites >		
	~	<i>d</i> =			Help > Run		
		88 Б	nab	Step 3:	Request, Install or Assign Certificates This step starts the Certificate Wizard. Create certificate request for local system. Install, and assign certificates for this system based on the topology definition.		
		🥭 D	owi		Not Available: Local configuration store not available.		
					Prerequisites > Run		
	3	Custo	on		Start Services Initiates a start request for all Lync Server services.		
		A	dd i		The set of		
					Not Available: Local configuration store not available.		
			dd 1		Prerequisites  Help  Run		
		<b>S</b>	Ena			•	
		🎁 Ca	onfi <del>a</del>		Intervation Domain. On Back	Exit	
							-
I		Do not sho	ow this	s window a'	t logon		Close

## 3.2.3.8 Install the Lync Application Server - Step 6

Select the correct destination to retrieve Lync Replication information and select <Next>.

🖥 Initial	Configuration T	īasks			_ 8 ×
	Perform the		sks to configure this server	Stand	dows Server <sup>,</sup> 2008 R2 ard
/	Provid		Server 2010		<u> </u>
(	PIOVID		Icome to Lync Server deployment.		
	💫 Activ	20	install Local Configuration Store		
	6	<u>Deploy</u> > Lyn		2	
	📌 Set ti	In	Configure Local Replica of Central Management Store	-	
	💽 Confi	Pr	•		
		He 	Data can be either retrieved directly from the Central Management Store or imported from a file.		
	🔊 Provi	Step 2: Se	Retrieve directly from the Central Management Store (Requires read access to the Central Management Store)		
		In: No	C Import from a file (Recommended for Edge Servers)		
(	2 Update	Pro	To generate a configuration file, run the Export-CsConfiguration cmdlet on a machine that has access to the Central Management Store.		
		He	Browse		
	🍇 Enab	Step 3: Re	UUUUU		
		Th			
		sy: No			
	🗳 Dowr	Pro			
		He			
6	Custon	Step 4: St			
		Ini			
	💦 Add i	No "S			
		No	Help Back Next Cancel		
	Add f	Pro	ndp buck next cance		
	George -	ne.		_	
	🛀 Ena		·		
	iii canta		Back	Exit	
	Conny		ewai mewai. Domain. On		-
	_				
ſ	Do not show the	nis window at log	n		Close

## 3.2.3.9 Install the Lync Application Server - Step 7

Check the log and ensure no error were received.

If no errors, select <Finish>, continue to next step.

If errors were generated, select <Finish>, correct the error, and return to Step 5 461.



# 3.2.3.10 Install the Lync Application Server - Step 8

When Step 1 of the Deployment Wizard displays as "Complete", select <Run> in "Step 2: Setup or Remove Lync Server Components".

<table-of-contents> Initial</table-of-contents>	Configuration 1	Tasks		
	Perform the	e following tasks to configure this server	Kin Stand	dows Server: 2008 R2 ard
	_	🔂 Lync Server 2010 - Deployment Wizard	×	
(	Provid	Velcome to Lync Server deployment.		
	ူ Activ	Deploy > Lync Server 2010	\$	
	💣 Set ti	Step 1: Install Local Configuration Store Installs local configuration store and populates with data from Central Management Store.	-	
	💽 Confi	Descendation	Run	
	📕 Provi	<sup>d</sup> Step 2: Setup or Remove Lync Server Components Install and activate, or deactivate and uninstall Lync Server Components based on the topology definition.		
6	2) Update	Prerequisites > 6 Help >	Run	
0	Gopuate			
	🎎 Enab	Step 3: Request, Install or Assign Certificates This step starts the Certificate Wizard. Create certificate request for local system. Install, and assign certifica system based on the topology definition.	ates for this	
		Prerequisites > Help >	Run	
	🥰 Dowi			
(	3 Custon	Step 4: Start Services Initiates a start request for all Lync Server services. Note: This step does not verify that the services have actually started. To do so, launch the Services MMC to "Service Status" step in the Deployment UI.	ool through the	
		Not Available: Not all certificate usages have been assigned.	_	
	Add i	Prerequisites > Help >	Run	
	Add f	Service Status (Optional) Starts the Services MMC tool, which displays the status of all Lync Server services.		
			Back Exit	
	Confi	igure minuows niewali niewali. Domain. On		- -
Г	Do not show th	this window at logon		Close

### 3.2.3.11 Install the Lync Application Server - Step 9

Select <Next>

📲 Initial	Configuration <sup>•</sup>	"asks		_ <u> ×</u>
	Perform the	: following tasks to configure this server	Ninda Standa	dows Server 2008 R2 Ird
6	Provid	Lync Server 2010		<b>_</b>
4		Welcome to Lync Server deployment.		
	ူ Activ	Setup Lync Server components		
	📌 Set ti	Step 1: In Setup Lync Server components	*	
	🔍 Confi	Pr		
	👞 Provi	He Install and activate, or deactivate and uninstall Lync Server Server Components based on the topology definition. This step may take several minutes, please be patient.		
4	🗟 Undata	Pn He		
ų	2 Update			
	🎎 Enab	Step 3: Re Th Sy		
	-	Nc		
	and 🖉 Down	Pr He —		
	a	Step 4: St		
(	3 Custon	Ini Nc		
	💫 Add i	"S No		
	Add f	Pr He Back Next Cancel		
	🔬 Ena	Service Status (Optional) Starts the Services IMIC tool, which displays the status of all Lync Server services.	<b>•</b>	
	~	Back	Exit	
	🎁 Confi	gue minoms memair memair de company de		
_				<u>-</u>
Г	Do not show t	nis window at logon		Close

## 3.2.3.12 Install the Lync Application Server - Step 10

Check the log and ensure no error were received.

If no errors, select <Finish>, continue to next step.

If errors were generated, select <Finish>, correct the error, and return to Step 8 49.

NOTE: This step will fail if the server has not been added as a "Trusted Application Server" in the Lync Topology Builder.



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### 3.2.3.13 Install the Lync Application Server - Step 11

When both "Step 1" and "Step 2" of the Deployment Wizard display "Completed", select <Run> in "Step 3: Request, Install or Assign Certificates".

背 Initial Configura					
Perform	_		tasks to configure this server	Stand	dows Server: 2008 R2 ard
~		👸 Lync Se	erver 2010 - Deployment Wizard	×	<b></b>
	Activ		ync Server 2010 Welcome to Lync Server deployment.		
6		Deploy > L	ync Server 2010	2	
ŕ	Set ti		Install Local Configuration Store Installs local configuration store and populates with data from Central Management Store.	<u> </u>	
	Confi		Prerequisites > Help > Complete Run		
1	Provi		Setup or Remove Lync Server Components Install and activate, or deactivate and uninstall Lync Server Components based on the topology definition.		
<u> </u>			Prerequisites >		
🕑 Upo	date		Help > Complete Kun Again		
88	Enab		Request, Install or Assign Certificates This step starts the Certificate Wizard. Create certificate request for local system. Install, and assign certificates for this system based on the topology definition.		
-			Prerequisites >		
	Dowi		Help >		
Cus	ston		Start Services Initiates a start request for all Lync Server services. Note: This step does not verify that the services have actually started. To do so, launch the Services MMC tool through the "Service Status" step in the Deployment UI.		
	Add		Not Available: Not all certificate usages have been assigned.		
	7001		Prerequisites > Run		
	Add 1		Help >		
<u> </u>	En:			<u> </u>	
24	Confin		Back	Exit	
	Coningen		S Tilewaii Domain. On		-
Do not s	show this	window at	t logon		Close

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# 3.2.3.14 Install the Lync Application Server - Step 12

Select <Request>

📲 Initial C	onfiguration T	isks		
		following tasks to configure this server		Windows Server 2008 R2 Standard
-	~	Lync Server 2010 - Deployment Wizard		× •
		Velcome to Lync Server deployment.		
	🔁 Activ	Deploy > Lync Server 2010		2
	🔐 Set ti	certificate Wizard		×
	💽 Confi	Select a Lync Server Certificate Type and then select a task. Expand the Certific	ate Type to perform advanced certificate usage tasks.	
		Certificate Status Friendly M	ame Expiration Date	Request
	📕 Provi	Default certificate     Unassigned		Assign
G	Undate			Remove
C.	Update			View
	🎎 Enab			
	ar Dowi			
_				
	Custon			
	<b>III</b>			
	Add ı	Help Refresh Import Certificate Process Pending Certific	ates	Close
	Add f			
		Service Status (Optional)		
	💁 Ena	Starts the Services MMC tool, which displays the status of all Lync Ser	er services.	<b>•</b> 1
			Back	Exit
	Confic	ne vinuuws niewali niewali. Dumain		
				-
Г	Do not show th	s window at logon		Close
	So that drive th			

# 3.2.3.15 Install the Lync Application Server - Step 13

Select <Next>

<sup>4</sup> Initial Configuration Tasks	_ B ×
Perform the following tasks to configure this server	Windows Server 2008 R2 Standard
🗟 Lync Server 2010 - Deployment Wizard	× •
Provid Unc Server 2010 Welcome to Lync Server deployment.	
Activ Certificate Request	
Set i Set a Ly	×
Provi Request a certificate for the Default certificate (Server default) Lync Server usages.	Assign
	Remove
O Update	View
Senat	
a Down	
③ Custon	
Add 1 Help	Close
Add Help Back Next Cancel	
Starts the Services MMC tool, which displays the status of all Lync Server services.	
Back	Exit
Configure vivilouws mewain mewain our	
Do not show this window at logon	Close

# 3.2.3.16 Install the Lync Application Server - Step 14

Select "Send the request immediately ...", then <Next>.

背 Initial	Configuration	Tasks			_ & ×
	Perform th	e following tas	ks to configure this server	Standa	dows Server: 2008 R2 rd
	_	Cync Server	r 2010 - Deployment Wizard	×	
(	Provid		Server 2010 come to Lync Server deployment.		
	ူ Activ		Certificate Request		
	鹶 Set	Select a Lyr	Delayed or Immediate Requests	×	
	Sont			juest	
	📕 Prov	i 🗸 Defa		sign	
			Send the request immediately to an online certification authority	nove	
(	2 Updat	6	C Prepare the request now, but send it later (offline certificate request)	ew	
	🍇 Enal				
	🦉 Dow				
(	3 Custor				
	💦 Add	Help	0	ose	
	Add		Help Back Next Cancel		
	💁 En	Start	s the Services MMC tool, which displays the status of all Lync Server services.	<b>•</b>	
	8 <b>0</b> -			Exit	
	Ten Con	ig <del>are winaows rire</del>	waii HEWAII. Dunnain. Un		-
Г	Do not show	this window at logo	n		Close

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## 3.2.3.17 Install the Lync Application Server - Step 15

Select the Certificate Authority (CA) Server from the drop down list, then <Next>

Initial Configuration Tasks			_ 8 ×
Perform the following tasks to configure this server		Stand	dows Server 2008 R2 ard
Concerning		×	<b>^</b>
Provid     Lync Server 2010     Welcome to Lync Server deployment.			
Activ Certificate Request	×		
Choose a Certification Authority (CA)		X	
		Request	
Select a certification authority to process your request. The Certificates Wizard will automatically import the selected CA's certificate chain if necessary.	1e		
Select a CA from the list detected in your environment		Assign	
DC1.Exch2010.AdvaExperimental\Exch2010-DC1-CA		Remove	
Update     C Specify another certification authority		View	
Seat Seat			
Down			
O Custon			
💦 Addı			
Help		Close	
	ancel		
S€ Starts the Services MMC tool, which displays the status of all Lync Server services.		J	
💘 En		<u> </u>	
20 a	ack	Exit	
Configure windows riewain riewain. Donnain: On			<b>.</b>
Do not show this window at logon			Close
Do hot show this window at logon			Close

## 3.2.3.18 Install the Lync Application Server - Step 16

- 1. If required, enter alternative credentials to retrieve the certificate from the CA.
- 2. Select <Next>

In	stallation	57
E <sup>Y</sup> Initial Configuration Tasks		<u>_8×</u>
Perform the following tasks to configure this server	Standard	Server 2008 R2
Current Server 2010 - Deployment Wizard	×	
Provide Lync Server 2010     Welcome to Lync Server deployment.		
Activ	2	
Set ti Select a Lyn	X	
Confi  Specify alternate credentials for the certification authority User Name:	Request Assign	
Update     Password:       Rest     Password:	Remove View	-
Down		
Custon     Rodi     Help     Help     Help     Se	Close	
Starts the Services MMC tool, which displays the status of all Lync Server services.	Exit	
Do not show this window at logon		Close

# 3.2.3.19 Install the Lync Application Server - Step 17

- 1. If applicable, specify an alternate (custom) certificate template for the CA.
- 2. Select <Next>





## 3.2.3.20 Install the Lync Application Server - Step 18

- 1. Enter a "Friendly Name" for the imported certificate.
- 2. Select <Next>

	Installation	59
¥Y Initial Configuration Tasks		
Perform the following tasks to configure this server	<b>Standard</b>	s Server:2008 R2
ELync Server 2010 - Deployment Wizard	<u>×</u>	
Provid     Welcome to Lync Server deployment.		
Activ Benov > I vn	× 2	
Set ti Select a Lyr	×	
Confi	Request	
Provi     P	Assign	
② Updat∉ Friendly Name:	Remove	
exch2010lan-las5.exch2010.advaexperimental	View	
Bit length: 2048		
Dow Mark the certificate's private key as exportable		
3 Custon		
Re Add I Help	Close	
Add Help Back Next Cancel		
Starts the Services MMC tool, which displays the status of all Lync Server services.	· ·	
Configure vincours risewaii risewaii risewaii. Domani. On	Exit	
		<b>•</b>
Do not show this window at logon		Close

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# 3.2.3.21 Install the Lync Application Server - Step 19

Enter the requested details, then select <Next>

Tnitia	l Configuration T	Fasks		
	Perform the	following tasks to configure this server	Nin Standa	dows Server 2008 R2 ard
		🔂 Lync Server 2010 - Deployment Wizard	×	
	Provid	Lync Server 2010 Welcome to Lync Server deployment.		[
	ူ Activ		1	
	Set ti		X	
	💽 Confi 🔊 Provi	Enter your organization's name and your organization unit. This is typically the legal name of your organization • Defa and the name of your division or department.	Request Assign	
		For further information, consult the certification authority's web site.	Remove	
	2 Update	Organization:		
		AdvaTel	View	
	🎎 Enab	Organizational Unit:		
	ar Down	Espera Technical Support		
	3 Custon			
	💫 Add i	Help	Close	
	Add f	Help Back Next Cancel		
	🕥 Eni	Back	Exit	
	U Coning	gue minoms i liewaii i liewaii. Donitain, on		-
	Do not show th	his window at logon		Close

3.2.3.22 Install the Lync Application Server - Step 20

Select <Next>

HT Initial Configuration Tasks		_ & ×
Perform the following tasks to configure this server	Stand	dows Server: 2008 R2
🔂 Lync Server 2010 - Deployment Wizard	×	
Provid     Lync Server 2010     Welcome to Lync Server deployment.		
Activ	× 🖈	
Set i     S	×	
Confi	Request	
Provi Defa		
Subject Name:	Assign	
exch2010lan-las5.exch2010.advaexperimental	Remove	
Update     Subject Alternate Name:	View	
Senat:		
Down		
O Custon		
Add 1		
Add Help Help Back Next Cancel	Close	
Starts the Services MMC tool, which displays the status of all Lync Server services.		
En a Back	Exit	
	Exit	] -
		•
Do not show this window at logon		Close

## 3.2.3.23 Install the Lync Application Server - Step 21

- 1. If required, enter additional "Subject Alternative Names" for the imported certificate.
- 2. Select <Next>



## 3.2.3.24 Install the Lync Application Server - Step 22

Review the imported certificate summary, then select <Next>

Tinitia	l Configuration Ta	isks						_ & ×
			ks to configure t				Stand	dows Server 2008 R2 ard
			r 2010 - Deploymer	nt Wizard			×	<u> </u>
	Provid		Server 2010 come to Lync Server d	leployment.				
	🔁 Activ	Denlov > I vn	🖗 Certificate Reque	est		×	2	
	👚 Set ti	Certificat Select a Lyı	Certif	ficate Request Summary			×	
	Sconfi	V Defa	To generate a reque	st with the following information, click Next			Request	
	Novi 🌉	↓ Deic	Property	Value		<b></b>	Assign	
	<b>Update Second Constraints Enat Oracle Constraints</b>		Certificate Use Country/Region State/Province City/Locality Friendly Name Key Size Exportable Organizational Unit Subject Name (SN)	Server default AU Victoria South Melbourne exch2010lan- las5.exch2010.advaexperimental 2048 True AdvaTel Espera Technical Support exch2010lan- las5.exch2010.advaexperimental			Remove View	
	3 Custon							
	Add i	Help 5e	Help		Back	ext Cancel	Close	
	🔦 Eni	Star	ts the Services MMC to	ol, which displays the status of all Lync Sen	ver services.		-	
	Confirm		- 202 (#14	Incwai. Domain.		Back	Exit	
	U Coninge	ale minuoma fin		Domain.	- OII			•
	Do not show this	s window at logo	n					Close

## 3.2.3.25 Install the Lync Application Server - Step 23

Check the log and ensure no error were received.

If no errors, select <Next> and continue to next step.

If errors were generated, select <Next>, correct the error, and return to Step 11 52.

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# 3.2.3.26 Install the Lync Application Server - Step 24

<Check> the "Assign this certificate...." checkbox, then select <Finish>

Tnitial	Configuration 1	Tasks		_ <del>_</del> <del>_</del> <del>_</del> <del>_</del> <del>_</del> <del>_</del> <del>_</del> <del>_</del>
	Perform the	e following tasks to configure this server	Standa	dows Server 2008 R2 ard
	a	🔂 Lync Server 2010 - Deployment Wizard	×	<b>^</b>
0	Provid	Lync Server 2010 Welcome to Lync Server deployment.		
	💫 Activ			
	⁵ —— <sup>®</sup> Setti	Certificat Online Certificate Request Status	2 ×	
	🧕 Confi	Select a Lyı		
	🛸 Provi	A certificate with thumbprint B8D5212BBE253B4AC068D51034C3F60E638A1A6B has been added to the local certificate store.	equest Assign	
(	2 Update		emove View	
	🍇 Enab	✓ Assign this certificate to Lync Server certificate usages		
	a Down	Note: If you choose not to assign the certificate now, you can assign it at a later time by using the Assign task in the Certificate Wizard		
(	3 Custon			
	💫 Add i	Help Back Finish Cancel	Close	
	Add f			
	💁 Ena	Starts the Services MMC tool, which displays the status of all Lync Server services.	-	
		Back	Exit	
	🞁 Confi	guie trinuons tilevali tilevali. Dollalit. Oli	CAR	
				-
Г	Do not show t	his window at logon		Close

# 3.2.3.27 Install the Lync Application Server - Step 25

Select <Next>

Tinitial Configuration Tasks		<u>_ 8 ×</u>
Perform the following tasks to configure this server	Nin Stand	dows Server: 2008 R2 ard
🔂 Lync Server 2010 - Deployment Wizard	×	
Provid Unc Server 2010 Welcome to Lync Server deployment.		1
Activ Certificate Assignment	×	
Set to Se		
Corfi Assign the returned certificate to the Lync Server usages on this server.	Request	
Assign the returned certificate to the Lync Server usages on this server.	Assign	
2 Update	Remove	
Senat		
Down		
O Custon		
Add 1 Help	Close	
Add Help Back Next Cance		
Starts the Services MMC tool, which displays the status of all Lync Server services.		
Configure THROWST THEWAIL DOITING OF Back	Exit	
		<b>•</b>
Do not show this window at logon		Close

## 3.2.3.28 Install the Lync Application Server - Step 26

Select <Next>

🖣 Initia	al Configuration Tasks			<u>_ 8 ×</u>
		ing tasks to configure this server	Standa	dows Server 2008 R2 ard
	-	c Server 2010 - Deployment Wizard	×	
	Provid	Lync Server 2010 Welcome to Lync Server deployment.		
	Activ Deploy	Certificate Assignment	2	
	Set ti Selec	ificat Certificate Assignment Summary	×	
	Sconfi	To assign the following certificate to the Lync Server usages listed, click Next Def:	Request	
	FIOVI -	Property Value	Assign	
	Dipdate	Friendly Name exch2010lan- las5.exch2010.advaexperimental penpers personal penpersonal pen	Remove View	
	Custon			
	Add t	Back Next Cancel	Close	
	🦕 Eni	Starts the Services MMC tool, which displays the status of all Lync Server services.  Back	Exit	
	👕 Confi <del>gure wind</del>	JUWS HIEWAII. DOITAIH, OIL		
				<u>•</u>
	Do not show this window	w at logon		Close

## 3.2.3.29 Install the Lync Application Server - Step 27

Check the log and ensure no error were received.

If no errors, select <Next> and continue to next step.

If errors were generated, select <Next>, correct the error, and return to Step 11 52.



# 3.2.3.30 Install the Lync Application Server - Step 28

Select <Close>

Tnitial Configuration Ta	sks					_ 8 ×
Perform the t	following tasks to configure th	is server			Nin Standa	dows Server 2008 R2 ard
	C Lync Server 2010 - Deployment	t Wizard			×	
Provide	Lync Server 2010 Welcome to Lync Server de	eployment.				
🔁 Activ	Deploy > Lync Server 2010				æ	
	Certificate Wizard				×	
💽 Confi	Select a Lync Server Certificate Type	and then select a ta	sk. Expand the Certificate Type to per	form advanced certificate usage t	asks.	
	Certificate	Status	Friendly Name	Expiration Date	Request	
🏓 Provi	<ul> <li>Default certificate</li> </ul>	Assigned	exch2010lan-las5.exch2010.advae:	21/09/2013 4:23:59 PM	Assign	
					Remove	
2 Update					View	
69 - 1						
🍇 Enab						
aw Down						
Custon						
Custon	I					
💦 Add i						
	Help Refresh In	port Certificate Pr	ocess Pending Certificates		Close	
Add f	Service Status (Optional	)				
🕥 Enz	Starts the Services MMC too	l, which displays the	status of all Lync Server services.			
				Back	Exit	
😭 Configu		TITEWOII.	Domain. On	Dack		
<b>144</b>						•
Do not show this	window at logon					Close

#### 3.2.3.31 Install the Lync Application Server - Step 29

When steps 1, 2, and 3 of the Lync Deployment Wizard display "Complete", installation of the Lync Applications Server is completed.

<table-of-contents> Initial</table-of-contents>	Con	figuration 1	Fasks			_ B ×
	Pe	erform the	e followin <u>c</u>	g tasks to configure this server		dows Server 2008 R2
	_		🐻 Lync S	erver 2010 - Deployment Wizard	×	
(	1	Provid		Lync Server 2010 Welcome to Lync Server deployment.		
					-	
			Deploy > I	Lync Server 2010	\$	
		d Set ti	Step 1:	Install Local Configuration Store Installs local configuration store and populates with data from Central Management Store.	Î	
		Sconfi		Prerequisites > Help → Complete Run		
		📕 Provi	Step 2:	Setup or Remove Lync Server Components Install and activate, or deactivate and uninstall Lync Server Components based on the topology definition.		
	_			Prerequisites >		
(	2)	Update		Help > Complete Kun Again		
		🎎 Enab	Step 3:	Request, Install or Assign Certificates This step starts the Certificate Wizard. Create certificate request for local system. Install, and assign certificates for this system based on the topology definition.		
		-		Prerequisites >		
		ar Dowi		Help > Complete Run Again		
(	3	Custon	Step 4:	Start Services Initiates a start request for all Lync Server services. Note: This step does not verify that the services have actually started. To do so, launch the Services MMC tool through the "Service Status" step in the Deployment UI.		
		💦 Add i		Prerequisites > Run		
		Add t		Help > Service Status (Optional) Starts the Services MMC tool, which displays the status of all Lync Server services.		
		0		Run	_	
		🔊 Ena			<u> </u>	
		2 <b>0</b>		Back	Exit	
		Confi	gare windor	ns niewali niewali. Dullali . Oli		
Г		)o not show th	his window a	at logon		Close

## 3.2.4 Export / Import the Lync Front End Server Certificate

The Espera Client allows the currently logged in Lync user to Sign In and Out of its "Lync Response Groups", using the Espera sidebar.

The Lync Front End Server certificate must be imported into the Lync Application server in order for the "Sign In / Out" feature (available on the Espera Client) to work.

The profile assigned to run the Espera Server (default is "Network Service") must also be assigned "Read" permission to allow for the Espera Server to "use" the imported certificate.

#### 3.2.4.1 Export the Lync Front End Server Certificate

Exporting the required certificate for the "Sign In/Out" feature is completed from the Lync Front End Server.

3.2.4.1.1 Export the Lync Front End Server Certificate - Step 1

Start the Microsoft Management Console (mmc.exe), and add the "Certificates" (Computer Account\Local Computer) Snap-in.

🔚 Console1 - [Console Root]								
🚡 File Action View Fa	vorites Window Help	_ & ×						
♦ ♦ 🗖 😖 2 🗖								
Console Root	Name	Actions						
	There are no items to show in this view.							
	Add or Remove Snap-ins							
	You can select snap-ins for this console from those available on your computer and configure the selected set of snap-ins. For extensible snap-ins, you can configure which extensions are enabled.							
	Available snap-ins: Selected snap-ins:							
	Snap-in Vendor Console Root Edit Extensions							
	ActiveX Control Microsoft Cor							
	Certificates Microsoft Cor							
	Component Services Microsoft Cor							
	A Computer Managem Microsoft Cor							
	Device Manager Microsoft Cor     Move Down     Microsoft and     Add >							
	Event Viewer Microsoft Cor							
	Folder Microsoft Cor							
	Group Policy Object Microsoft Cor							
	UP Security Monitor Microsoft Cor							
	Link to Web Address Microsoft Cor							
	Advanced							
	Description:							
	The Certificates snap-in allows you to browse the contents of the certificate stores for yourself, a service, or a computer.							
	OK Cancel							
		J						

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3.2.4.1.2 Export the Lync Front End Server Certificate - Step 2

Select the "InternalCA" certificate that contains a "Private Key".

le Action View Fav							
onsole Root	Issued To 🔺	Issued By	Expiration Date	Intended Purposes	Friendly Name	Actions	-
Certificates (Local Com	🛱 s2.exch2010.advaexperimental	Exch2010-DC1-CA	1/03/2013	Server Authentication	LyncServer	Certificates	
Personal	🛱 s2.exch2010.advaexperimental	Exch2010-DC1-CA	14/11/2012	Server Authentication	InternallCA		_
Certificates	WMSvc-S2	WMSvc-S2	2/11/2020	Server Authentication		More Actions	
E 🧮 Trusted Root Certii						s2.exch2010.advae	
Intermediate Certif							-
Trusted Publishers						More Actions	
🛯 🧰 Untrusted Certifica							
🛯 🧮 Third-Party Root C							
📔 Trusted People							
📔 Remote Desktop							
Certificate Enrollme							
Smart Card Truster							
Trusted Devices							

3.2.4.1.3 Export the Lync Front End Server Certificate - Step 3

Export the certificate.

Action > All Tasks > Export...


3.2.4.1.4 Export the Lync Front End Server Certificate - Step 4

Select <Next>

Certificate Export Wizard  Welcome to the Certificate Export Wizard  This wizard helps you copy certificates, certificate trust is and certificate is on a certificate is and certificate are network are enclosed as the stabilities are network correctors. A certificate to be able system area where certificate are legt.  Te continue, dick Next.  Certificate figure Certificate area methods Certifi	Console1 - [Console Root\C	ertificates (Local Computer)\Personal\Certificates]	1			_	<u> B</u> ×
Wizard         The wizard helps you copy certificates, certificate trust last and certificate revocation lists from a certificate trust last certificate wich is used by a certification authority, is a confination of our identity and contains information used to protect data or to establish secure network corrections. A certificate site is system area where certificates are kept.       Internded Purposes       Priered y Name       Actions         VIZIO       Server Authentication       Internded Purposes       Priered y Name       Actions         VIZIO       Server Authentication       Internded Purposes       Priered y Name       Actions         VIZIO       Server Authentication       Internded Purposes       Priered y Name       Actions         VIZIO       Server Authentication       Internded Purposes       Priered y Name       Actions         VIZIO       Server Authentication       Internded Purposes       Priered y Name       Actions         VIZIO       Server Authentication       Internded Purposes       Priered y Name       Actions         VIZIO       Server Authentication       Internded Purposes       Priered y Name       Actions         VIZIO       Server Authentication       Internded Purposes       Prive Authentication       More Actions         VIZIO       Server Authentication       Internded Purposes       Purpose       More Actions         V	Certificate Export Wizard	×				_	8×
Image: Construction of point delay you copy certificates, certificate trust late and certificate involution late from a certificate such as the system area where certificates area to be appendix of the certificate area to be appendix				1			
This ward helps you copy certificates, certificate trust lists and certificate revocation lists from a certificate struct by your disk.       14/11/2012       Server Authentication       More Actions         A certificate are exception of your identity and contains information contronation contronations. A certificate store is the system area where certificate are kept.       InternaliCA       More Actions       Wore Actions         To continue, click Next.       Continue, click Next.       Cancel       More Actions       More Actions	-	Wizaru				Actions	
Ists and certificate records in lists from a certificate store to your dok.     A certificate, which is issued by a certification authority, is a confination of your identity and contains information used to protect data or to establish secure retork, connections. A certificate store is byte system area where certificates are expt     Variable is information is information used to protect data or to establish secure retork, connections. A certificate set expt.     More Actions     More Actions						Certificates	-
A certificate, which is issued by a certification authority, is a confirmation of your identity and contains information used to protect data or to establish secure network correctors. A certificate store is the system area where certificates area relexpt. To continue, dick Next.		lists and certificate revocation lists from a certificate			InternallCA	More Actions	F
A confirmation of your identity and contains information used to protect data or to establish secure network connections. A certificate store is the system area where certificates are kept.      To continue, dick Next.      (Back Next > Cancel		A certificate, which is issued by a certification authority, is				s2.exch2010.advae	
		a confirmation of your identity and contains information used to protect data or to establish secure network connections. A certificate store is the system area where certificates are kept.				More Actions	F
		<back next=""> Cancel</back>					

3.2.4.1.5 Export the Lync Front End Server Certificate - Step 5

1. Select "Yes, export the private key"

2. Select <next>

NOTE: If the "Yes...." option is not available, than the selected certificate is incorrect. Export the "InternalCA" certificate that contains a "Private Key".

				Installa	tion	75
usole1 - [Console Root\Certificates (Local Computer)\Personal\Certificates] tificate Export Wizard	×				L	_ 5
Export Private Key	<u> </u>					_ 8
You can choose to export the private key with the certificate.		Expiration Date	Intended Purposes	Friendly Name	Actions	
		1/03/2013 14/11/2012	Server Authentication Server Authentication	LyncServer InternaliCA	Certificat	tes
Private keys are password protected. If you want to export the private key with the certificate, you must type a password on a later page.		2/11/2020	Server Authentication		More	Actions
Do you want to export the private key with the certificate?					s2.exch2	010.advae
<ul> <li>Yes, export the private key</li> </ul>					More	Actions
C No, do not export the private key						
earn more about <u>exporting private keys</u>						
	_					
< Back Next > Cancel	1					
				<u> </u>	1	

3.2.4.1.6 Export the Lync Front End Server Certificate - Step 6

- 1. Check the following options:
  - a) "Include all certificates ... "
  - b) "Export all extended properties"
- 2. Select <Next>



3.2.4.1.7 Export the Lync Front End Server Certificate - Step 7

- 1. Create and confirm a password for the certificate
- 2. Select <Next>

				Installa	tion	77
nsole1 - [Console Root\Certificates (Local Computer)\Personal\Certificates]	1				L	_ 8
tificate Export Wizard	×					_ 8
Password						
To maintain security, you must protect the private key by using a password.		Expiration Date	Intended Purposes	Friendly Name	Actions	
	_  _	1/03/2013	Server Authentication	LyncServer	Certificates	
Type and confirm a password.		14/11/2012	Server Authentication	InternalICA		
		2/11/2020	Server Authentication		More Act	ions
Password:					s2.exch201	0.advae
					More Act	ions
Type and confirm password (mandatory):						
••••••						
< Back Next > Cancel						
→ <b>→</b>						

3.2.4.1.8 Export the Lync Front End Server Certificate - Step 8

- 1. Select a shared folder and filename (accessible to the Lync Application Server hosting the Espera Server) to save the certificate into
- 2. Select <Next>

Console 1 - [Console Root\Certificates (Local Computer)\Personal\Certificates] Certificate Export Wizard	×				_ 문 ×
File to Export Specify the name of the file you want to export		Expiration Date	Intended Purposes	Friendly Name	Actions
E		1/03/2013	Server Authentication	LyncServer	
		14/11/2012	Server Authentication	InternalICA	Certificates 🔺
File name:		2/11/2020	Server Authentication	Internalica	More Actions
\\10.0.0.1\WorkArea\Espera\s2.exch2010.lyncserver.pfx Browse		2/11/2020	Server Addienteedon		
					s2.exch2010.advae 🔺
					More Actions
< Back Next > Cancel					
				•	1

3.2.4.1.9 Export the Lync Front End Server Certificate - Step 9

- 1. Confirm the certificate export details
- 2. Select <Finish>

					Installa	tion	79
Console1 - [Console Root\(	Certificates (Local Computer)\Personal\Certificates]	×					<u>_ 8 ×</u>
							_ <u>-</u>
	Completing the Certificate Export						
	Wizard		Expiration Date	Intended Purposes	Friendly Name	Actions	
			1/03/2013	Server Authentication	LyncServer	Certificates	_
	You have successfully completed the Certificate Export wizard.		14/11/2012	Server Authentication	InternalICA	More Action	s •
			2/11/2020	Server Authentication		More Action	5,
	You have specified the following settings: File Name \\10.0.					s2.exch2010.a	dvae 🔺
	Export Keys Yes					More Action	s 🕨
	Include all certificates in the certification path Yes						
	File Format Person:						
	< Back Finish Cancel						
	Carcel						
					Þ		
						,	

3.2.4.1.10 Export the Lync Front End Server Certificate - Step 10

If the certificate has exported successfully, select <OK> to the popup.

If the certificate generates an error, correct the error and return to Step 2 72.

Console1 - [Console Root\Cer Certificate Export Wizard	tificates (1 ocal Computer)\Personal\Certificates]	×				B_×
	Completing the Certificate Export Wizard					
	wizaru		Expiration Date	Intended Purposes	Friendly Name	Actions
			1/03/2013	Server Authentication	LyncServer	Certificates
	You have successfully completed the Certificate Export wizard.		14/11/2012 2/11/2020	Server Authentication Server Authentication	InternalICA	More Actions
	You have specified the following settings: File Name \\10.0.					s2.exch2010.advae 🔺
						More Actions
	Export Keys Yes Include all certificates in the certification path Yes					
	File Format Person;					
	Certificate	Export 14	/izard 🗙			
	Certificate	Export w				
	The expor	t was succe	essful.			
	< Back Finish		ОК			
		_				
					•	<u> </u>

### 3.2.4.2 Import the Lync Front End Server Certificate into the Application Server

Importing the Lync Front End Server certificate is completed from the Lync Application Server server hosting the Espera Server.

3.2.4.2.1 Import the Lync Front End Server Certificate into the Application Server - Step 1

Start the Microsoft Management Console (mmc.exe), and add the "Certificates" (Computer Account\Local Computer) Snap-in.

📅 Console1 - [Console Root]	
🚋 File Action View Favorites Window Help	_ & ×
Console Root Name	Actions
There are no items to show in this view.	Console Root 🔺
	More Actions
Add or Remove Snap-ins       X         You can select snap-ins for this console from those available on your computer and configure the selected set of snap-ins. For extensions are enabled.         Available snap-ins;       Selected snap-ins:         Snap-in       Vendor         Authorization Manager       Microsoft Cor         Authorization Manager       Microsoft Cor         Computer Managem       Microsoft Cor         Device Manager       Microsoft Cor         Disk Management       Microsoft Cor         Folder       Microsoft Cor         Disk Management       Microsoft Cor         To play block Up Up       Move Down         Move Down       Move Down         Microsoft Cor       Microsoft Cor         To play block Up Up Up       Microsoft Cor         Disk Management       Microsoft Cor         To play Collect Up Up Up Up Up Up       Move Down         Move Down       Move Down         Add >       Microsoft Cor         The Certificates and Gro       Microsoft Cor         The Certificates snap-in allows you to browse the contents of the certificate stores for yourself, a service, or a computer.	More Actions
OK Cancel	

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3.2.4.2.2 Import the Lync Front End Server Certificate into the Application Server - Step 2

Expand and select "Certificates" in the "Personal" branch.

Console1 - [Console Root	t\Certificates (Local Computer)\Pe	rsonal\Certificates]					_ 8
File Action View Fav							_ 8
• 🔿   🖄 📰 🔂   🙆							
Console Root	Issued To 🔺	Issued By	Expiration Date	Intended Purposes	Friendly Name	Actions	
Certificates (Local Com	🙀 j3.exch2010.advaexperimental	Exch2010-DC1-CA	27/09/2013	Server Authentication	J3 (Default) CS	Certificates	
Personal     Certificates						More Actions	
Trusted Root Certi							
🗉 📔 Enterprise Trust							
🛨 🚞 Intermediate Certif							
Trusted Publishers							
🕀 🚞 Untrusted Certifica							
Third-Party Root C     Trusted People							
Certificate Enrolline     Smart Card Truster							
Trusted Devices							
<b>I</b>	•				Þ		
sonal store contains 1 certific	<u> </u>						

3.2.4.2.3 Import the Lync Front End Server Certificate into the Application Server - Step 3

Import the certificate.

Action > All Tasks > Import...

Image: Provide Service Window Help       Image: Provide Service Servic						Installa	tion	83
Al Table Al			nal\Certificates]					<u>_ 8 ×</u>
New Undow from Here     Jurgot Lu     sued By     Expiration Date     Intended Purposes     Friendly Name     Actions       Refresh     Advanced Operations     Intended Purposes     Friendly Name     Actions     Intended Purposes     Friendly Name     Actions       Refresh     Export Lat     Image: Part Public Pu			(					_8×
Cons       New Jaskpad View       Advanced Operations       used By       Expiration Date       Intended Purposes       Friendly Name       Actions         New Jaskpad View       Advanced Operations       Intended Purposes       Friendly Name       Actions       Certificates         B       Boort List       Expiration Date       Intended Purposes       Friendly Name       Actions         B       B       Trusted Publishers       Hindraft Pipela       33 (Default) CS       Certificates         B       Urbusted Certifica       Entraft Pepipe       Server Authentication       33 (Default) CS       More Actions         B       Urbusted Certifica       Entraft Pepipe       Certificate Entraft       Wore Actions       More Actions         B       Optimized Pepipe       Entraft Pepipe       Entraft Pepipe       Entraft Pepipe       Entraft Pepipe       Entraft Pepipe         B       Trusted Devices       Entraft Pepipe       Entraft Pepipe       Entraft Pepipe       Entraft Pepipe       Entraft Pepipe       Entraft Pepipe         B       Entraft Pepipe       Entraft Pepipe       Entraft Pepipe       Entraft Pepipe       Entraft Pepipe       Entraft Pepipe         B       Entraft Pepipe       Entraft Pepipe       Entraft Pepipe       Entraft Pepipe       En								
Ref     Balance       Export List     More Actions       Bebort List     More Actions       Current Problems     Current Problems       Current Problems     Current								
Refresh Export List b teleb Trusted Poblishers Trusted People Smart Card Truster Trusted Devices Trusted Devices More Actions More Actions More Actions	New Taskpad View	Advanced Operations	kch2010-DC1-CA	27/09/2013	Server Authentication	J3 (Default) CS	Certificates	
	B     Export List       B     Elep       Crusted Publishers       Curvisted Certifica       Crusted Party Root C       Cartificate Enrolme       Certificate Enrolme       Card Trusted							vna i
						Þ		

3.2.4.2.4 Import the Lync Front End Server Certificate into the Application Server - Step 4

- 1. Select <Browse...> and select the exported Lync Front End Server certificate.
- 2. Select <Next>



3.2.4.2.5 Import the Lync Front End Server Certificate into the Application Server - Step 5

- 1. Enter the certificates password
- 2. <Check> all available options
- 3. Select <Next>

				Installa	tion	8
Console1 - [Console Root\Certificates (Local Computer)\Personal\Certificates]						
ertificate Import Wizard	×					
Password						
To maintain security, the private key was protected with a password.		Expiration Date	Intended Purposes	Friendly Name	Actions	
	_	27/09/2013	Server Authentication	J3 (Default) CS	Certificate	5
Type the password for the private key.					More A	ctions
Password:						
•••••						
private key is used by an application if you enable this option.  Mark this key as exportable. This will allow you to back up or transport your keys at a later time.  I Include all extended properties.  Learn more about protecting private keys	-					
				Þ		

3.2.4.2.6 Import the Lync Front End Server Certificate into the Application Server - Step 6

- 1. Select 'Place all certificates in the following store"
- 2. Select <Browse> and nominate the "Personal" store
- 3. Select <next>



<u>Console1 - [Console Root\Ce</u> ertificate Import Wizard		×				6
Certificate Store						
Certificate stores are sys	tem areas where certificates are kept.		Expiration Date	Intended Purposes	Friendly Name	Actions
			27/09/2013	Server Authentication	J3 (Default) CS	
Windows can automatical the certificate.	y select a certificate store, or you can specify a	location for				More Actions
C Automatically select	t the certificate store based on the type of cert	tificate				
Place all certificate	s in the following store					
Certificate store:						
Personal		Browse				
Learn more about <u>certificate s</u>	tores					
	< Back Next >	Cancel				
					Þ	

3.2.4.2.7 Import the Lync Front End Server Certificate into the Application Server - Step 7

- 1. Confirm the certificate import details
- 2. Select <Finish>

ficate Import Wizard	ertificates (Local Computer)\Personal\Certificates]				
	Completing the Certificate Import Wizard	Expiration Date	Intended Purposes	Friendly Name	Actions
	The certificate will be imported after you click Finish.	27/09/2013	Server Authentication	J3 (Default) CS	
	You have specified the following settings:          Certificate Store Selected by User       Personal         Content       PFX         File Name       \\10.0.0.1\WorkArea				
	< Back Finish Cancel				

3.2.4.2.8 Import the Lync Front End Server Certificate into the Application Server - Step 8

- 1. <Right-click> on the imported Lync Front End Server certificate
- 2. Select "All Tasks > Manage Private Keys..."

88



3.2.4.2.9 Import the Lync Front End Server Certificate into the Application Server - Step 9

Select <Add...>

🚡 Console1 - [Console Root	:\Certificates (Local Computer)\Pe	rsonal\Certificates]				_ & ×
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Personal     Certificates	🙀 s2.exch2010.advaexperimental	Exch2010-DC1-CA	14/11/2012	Server Authentication	InternalICA	More Actions
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Intermediate Certif      Trusted Publishers			1			More Actions
Insted Publishers     Untrusted Certifica	Group or user names:		- 11			
🕀 🧮 Third-Party Root C	SYSTEM (IN)					
🕀 🧰 Trusted People	& Administrators (J3\Ad	iministrators)				
Certificate Enrollme     Smart Card Truster	ap 3-1-3-3-0-107764					
Smart Card Truster     Trusted Devices						
		Add Remove				
			- 11			
	Permissions for SYSTEM	Allow Deny	- II			
	Full control					
	Read					
	Special permissions					
	For special permissions or click Advanced.	advanced settings, Advanced				
	click Advanced.		- 11			
	Learn about access control	ol and permissions				
		OK Cancel Apply				
		Caricer Apply				
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						I

3.2.4.2.10 Import the Lync Front End Server Certificate into the Application Server - Step 10

- 1. Enter the object name as "Network Service", select <Check Names> to confirm the object
- 2. Select <OK>

Console1 - [Console Root\Certificates (Local Computer)\Personal\Certificates]								
☐         File         Action         View         Favorites         Window         Help          []         <								
	r	Lecued By	Expiration Date	Intended Purposes	Friendly Name	Actions		
Console Root	Issued To A [3]3.exch2010.advaexperimental [3]s2.exch2010.advaexperimental [3]Permissions for Interm	service Accounts, or Groups  curity principals  al  elect (examples):  OK  advanced settings. Advanced	Expiration Date           27/09/2013           14/11/2012           XI           Object Types           Locations           Check Names           Cancel	Intended Purposes Server Authentication Server Authentication	Friendly Name, 33 (Default) CS InternalICA	Actions Certificates More Actions S2.exch2010.advae More Actions		
		OK Cancel Apply						
	•				Þ			

3.2.4.2.11 Import the Lync Front End Server Certificate into the Application Server - Step 11

- 1. Assign "Read" permission to the user "Network Service"
- 2. Select <OK>

This step allows the Espera Server to access the imported Lync Front End Server certificate for the 'Sign In/Out" feature.

	Installation	<u>n</u> 91
Console 1 - [Console Root \Certificates (Local Computer)\Personal\Certificates]  File Action View Favorites Window Help  Console Root  Certificates (Local To  Issued By Esch2010-advaexperimental Exch2010-PC1-CA 27(09/2013 Server Authentication  Certificates Certif	Friendly Name J3 (Default) CS InternalCA S2.ex	 
For special permissions or advanced settings. Advanced     Icick Advanced.     Learn about access control and permissions     OK Cancel Apply		

# 3.2.5 Lync Application Server access to Lync database

Espera collates Real-Time and Historical information from Lync's databases. In order for Espera to read this information, a login must be created within Lync's SQL database for use by Espera. The login can be either a dedicated specific username or by the machine name of the Lync Application Server hosting the Espera server (preferred method).

The following steps will guide through creating an SQL login for the Lync Application Server hosting the Espera server. Creation of a dedicated username login is via a similar method, substituting the machine name with the desired username.

NOTE: If the "LcsCDR" database is hosted on a sperate SQL server, the following steps will need to be repeated for the SQL server hosting the "LcsCDR" database.

### 3.2.5.1 Lync Application Server access to Lync database - Step 1

Start Microsoft SQL Server Management Studio and connect to the Lync RTC server.

K Microsoft SQL Server Management Studio		_ [#] ×
File Edit View Tools Window Community Help		
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Object Explorer	+ † ×	
Connect - 🛃 🖳 🔳 🍸 📓		
	Connect to Server	×
	Microsoft*	
		erver 2008 R2
	C JÁL2	
	Server type:	Database Engine
	Server name:	SZIRTC V
	Authentication:	Windows Authentication
	User name:	EXCH2010\administrator
	Password:	
		Remember password
	Connect	Cancel Help Options >>
Output		+ 4 ×

## 3.2.5.2 Lync Application Server access to Lync database - Step 2

- 1. Expand the menu tree.
- 2. Expand the Security menu
- 3. <Right-click> on "Logins" and select <New Login...>

Installa	tion	93
Nicrosoft SQL Server Management Studio	L	_ 8 ×
File Edit View Debug Tools Window Community Help		
👷 New Query 📭 😨 😨 📭 🖉 🔙 🖆 🙀		
Object Explorer + 7 ×		
Connect 📲 👯 🔳 🍸 🛃 🍒		
S22RTC (SQL Server 10.0.4000 - EXCH2010)pdministrator)         B       Databases         Image: Security         Image: Security		- + ×
Ready		

Installation

### 3.2.5.3 Lync Application Server access to Lync database - Step 3

Enter the login name of the Lync Application Server hosting the Espera Server, in the format of: "<domain>\<server name>\$"

The "\$" allows the the Network Service account of the Lync Application Server account access to this login.

Set the "Default database" to "master", and the "Default language" as "<default>".

94

K Microsoft SQL Server Management Studio					_ 8 ×
File Edit View Debug Tools Window Community	/ Help				
😫 New Query 📑 📸 📸 🖏 📑 🖉 🗐 🎒	Login - New				
Object Explorer	Select a page	🛒 Script 🝷 📑 Help			
Connect 🕶 🜉 🜉 👕 🍸 👩 🍒	🚰 General				
🖃 🐻 S2\RTC (SQL Server 10.0.4000 - EXCH2010\administrat	Server Roles	Login name:	EXCH2010\J4\$		Search
🛨 🚞 Databases	Securables	Windows authentication			
Security	Status	C SQL Server authentication			
Logins     A: ##MS PolicyEventProcessingLogin##					
##MS_PolicyTsqlExecutionLogin##		Password:	1		
BUILTIN\Administrators		Confirm password:			
BUILTIN\Users		Specify old password			
EXCH2010\exch2010lan-j5\$ EXCH2010\Exch2010lan-j6\$		Old password:			
EXCH2010 [EXCH2010 lain-303 EXCH2010 [EXCH2010 lain-303		Enforce password police			
EXCH2010\j2\$		Enforce password expire			
EXCH2010\J3\$		User must change pass			
EXCH2010\J4\$ EXCH2010\RTCComponentUniversalService			word at next login		
EXCH2010 (KTCComponentoniversalservice		C Mapped to certificate	]	<b>v</b>	
EXCH2010\RTCUniversalConfigReplicator		C Mapped to asymmetric key		<b>v</b>	
EXCH2010\RTCUniversalReadOnlyAdmins		Map to Credential		<b>v</b>	Add
EXCH2010\RTCUniversalServerAdmins	Connection	Mapped Credentials			
a j2		Mapped Credenidas	Credential	Provider	
A NT AUTHORITY SYSTEM	Server: S2\RTC				
MT SERVICE MSSQL \$RTC	Connection:				
S2\RTC Component Local Group S2\RTC Local Administrators	EXCH2010\administrator				
S2 KTC Local Administrators	View connection properties				
Output					1
	Progress				Remove
	Ready		master	•	
		Default database:	-		
		Default language:	<default></default>	<u> </u>	
				OK	Cancel
Ready					

## 3.2.5.4 Lync Application Server access to Lync database - Step 4

In the "Server Roles" menu, select "public".

Espera does not require access to create/modify any database tables or entries.



Ready

#### 3.2.5.5 Lync Application Server access to Lync database - Step 5

In the "User Mappings" menu, Espera requires mapping to the following databases:

- LcsCDR
- rgsconfig
- rgsdyn
- rtc
- rtcdyn
- xds

The role membership required for each database is:

- db\_datareader
- public

NOTE: Espera does not require access to create/modify any database tables or entries.

😫 New Query   🕞   📸 📸 🌇   📑   📂 🔙 🍮   💈	📕 Login - New				
bject Explorer	Select a page	Script •	Help		
Ubject Explorer         Connect          Image: Security         Image: Security	General Server Roles User Mapping Securables Status	Users may Map	pped to this login: Database madb QoEMetrics rgscorfig rgsdyn rtc rtcab	Default Schema	Cancel

### 3.2.5.6 Lync Application Server access to Lync database - Step 6

- 1. Select the "..." button in "Default Schema" to open the "Select Schema" dialogue box.
- 2. Select the "Browse..." button to browse the available schema objects.

Microsoft SQL Server Management Studio					_
e Edit View Debug Tools Window Co	mmunity Help				
🗋 New Query   🛅   📸 📸 🖏 🗋   📑 🔛	🛃 🚦 Login - New				
ect Explorer	Select a page	🔄 Script 🝷 📑 Help			
nect 🕶 📴 Select Schema		×			
Select these object types:		this login:	- Lu		
Datal     Select these object types:     Datal     Schemas	Ohi	ect Types	User	Default Schema	
		Vetrics			
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Enter the object names to select (					
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	OK Cancel	Help t enabled for:	rasconfia		
EXCH2010 (RTCUniversalReadOnlyA)					
🏂 EXCH2010\RTCUniversalServerAdm 👌 j2	ins Connection	Database role membership for: I	gscontig		
🐴 J2 🚴 jamie		db_accessadmin db_backupoperator			
AUTHORITY SYSTEM	Server: S2\RTC	✓ db_datareader			
MT SERVICE MSSQL \$RTC	Connection:	db_datawriter db_ddladmin			
S2\RTC Local Administrators	EXCH2010\administrator	db_denydatareader			
S2\RTC Local Config Replicator	View connection properties	db_denydatawriter db_owner			
vut		db_securityadmin			
	Progress	public     ReadOnlyRole			
	Ready	ReadWriteRole			
				ОК	

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## 3.2.5.7 Lync Application Server access to Lync database - Step 7

Select the "[dbo]" object, then "OK"

K Microsoft SQL Server Management Studio						_ <del>-</del> - ×
File Edit View Debug Tools Window Communit						
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Object Explorer	Select a page	🔄 Script 👻 📑 Hel	p			
Connect - 🛃 🛐 Select Schema		×				
□ S2\RTC ( ⊕ Datal		2	< pgin:			
				User	Default Schema	<b>_</b>
L 17 objects were found matching the t	ypes you selected.		s			
A Matching objects:			-	EXCH2010\J4\$		
		Type 🔺				
E Name		Sche				
[db_owner]		Sche				
d 🔽 🛃 [db_securityadmin]		Sche				
		Sche				
Guest]		Sche				-
[sys]		Sche				
d		. 1 1	abled for: rgsd	onfig		
25 D	OK Cancel		hip for: rgsc			
E	Connection	db accessadmi		brilig		
amie	Server:	db_backupoper				
	S2\RTC	✓ db_datareader db_datawriter				
NT SERVICE WSSQL \$RTC	Connection:	db_ddladmin				
S2\RTC Local Administrators	EXCH2010\administrator	db_denydatarea				
S2\RTC Local Config Replicator	View connection properties	db_owner	iter			
Output	Progress	db_securityadm	in			< C
		public     ReadOnlyRole				
	Ready	ReadWriteRole				
	L I				01	Court 1
					ОК	Cancel
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## 3.2.5.8 Lync Application Server access to Lync database - Step 8

Confirm that the [dbo] object is selected, then press "OK"

Nicrosoft SQL Server Management Studio						<u>- 8 ×</u>
File Edit View Debug Tools Window Community	/ Help					
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Object Explorer	Select a page	🔄 Script 🝷 [ 🔓	Help			
Connect - 🛃 Select Schema		×				
S2/RTC ( Datal Select these object types:			this login:	1		
Data     Schemas	Object	Types	ase	User	Default Schema	<b>^</b>
			Vetrics			
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	-s).		n			
Enter the object names to select (example		Names				
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	OK Cancel	Help				
			t enabled for: rgscor	nfig		
EXCH2010/RTCUniversalReadOnlyAdmins		Database role m	 embership for: rascon	fiq		
EXCH2010\RTCUniversalServerAdmins	Connection	db accessa	dmin	-		
🧟 jamie	Server:	db_backupo	perator			
	S2\RTC	db_dataread				_
S2\RTC Component Local Group	Connection: EXCH2010\administrator	db_ddladmin				
S2\RTC Local Administrators S2\RTC Local Config Replicator	View connection properties	db_denydata				
Output		db_owner				
	Progress	☐ db_securitya ✓ public	iamin			
	Ready	ReadOnlyRo				
	Ready		ole			
		1				
					ОК	Cancel
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Ready						

## 3.2.5.9 Lync Application Server access to Lync database - Step 9

Confirm the Default Schema for the checked database is "dbo".

K Microsoft SQL Server Management Studio						_ 8 ×
File Edit View Debug Tools Window Community	/ Help					
😫 New Query   🛅   📸 📸 🖏 🗋   🚔 🗐 🎒	📕 Login - New					
Object Explorer	Select a page	Script -	Help			
Connect 🕶 📑 📑 🍸 🛃 📓	General					
🖃 🐻 S2\RTC (SQL Server 10.0.4000 - EXCH2010\administra	Server Roles	Users map	ped to this login:			
🗉 🚞 Databases	Securables	Мар	Database	User	Default Schema	<b>▲</b>
Security     Dogins	🚰 Status		msdb			
Logins Logins ##MS_PolicyEventProcessingLogin##			QoEMetrics			
##MS_PolicyTsqlExecutionLogin##		<b>V</b>	rgsconfig	EXCH2010\J4\$	dbo	
BUILTIN\Administrators			rgsdyn			
BUILTIN\Users			rtc			
EXCH2010\exch2010lan-j5\$			rtcab			
EXCH2010\Exch2010lan-J6\$ EXCH2010\EXCH2010-LAS4\$			rtcab1			
EXCH2010 (EXCH2010-EXS+\$) EXCH2010 (i2\$			rtcdyn			
EXCH2010\J3\$			tempdb			
EXCH2010\J4\$			xds			<b>-</b>
EXCH2010\RTCComponentUniversalService	2	'				
EXCH2010\RTCHSUniversalServices			account enabled for: rgsc			
EXCH2010\RTCUniversalConfigReplicator		Guest	account enabled for: rgsc	oning		
EXCH2010 RTCUniversalServerAdmins		Database	role membership for: rgsci	onfig		
j2	Connection	db ac	cessadmin			
🤱 jamie	Server:	db_ba	ckupoperator			
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MT SERVICE MSSQL \$RTC	Connection:	db_da				
S2\RTC Component Local Group S2\RTC Local Administrators	EXCH2010\administrator		nvdatareader			
S2/RTC Local Config Replicator	View connection properties		nydatawriter			
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		✓ public     Read(				
	Ready	Read\				
	A 10.	_				
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## 3.2.5.10 Lync Application Server access to Lync database - Step 10

Repeat steps 5 to 9 for all the required databases (LcsCDR, rgsconfig, rgsdyn, rtc, rtcdyn & xds).

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File Edit View Debug Tools Window Community	Help					
😫 New Query   🕞 📸 📸 🌇 📑 💕 😹 🎒	Login Properties - EXCH2010	0\J4\$				- 🗆 ×
Object Explorer	Select a page	Script -	Help			
Connect 🕶 📑 📑 👕 🔁 🍒	😭 General	- and a compression				
	Server Roles	Users mad	ped to this login:			
Edgins 2. Logins 2. ##MS_PolicyEventProcessingLogin##	User Mapping	Map	Database	User	Default Schema	
##MS_PolicyTsqlExecutionLogin##	Status		msdb			
BUILTIN\Administrators BUILTIN\Users EXCH2010\exch2010lan-i5\$	_		QoEMetrics			
		<b>V</b>	rgsconfig	exch2010\J4\$	dbo	
EXCH2010 Exch2010lan-36\$		•	rgsdyn	exch2010\J4\$	dbo	
EXCH2010/EXCH2010-LAS4\$		V	rtc	exch2010\J4\$	dbo	
EXCH2010\j2\$			rtcab			
EXCH2010\J3\$ EXCH2010\J4\$			rtcab1			
EXCH2010 043     EXCH2010 \RTCComponentUniversalService			rtcdyn	exch2010\J4\$	dbo	
EXCH2010\RTCHSUniversalServices			tempdb			
EXCH2010\RTCUniversalConfigReplicator		<b>V</b>	xds	exch2010\J4\$	dbo	
EXCH2010\RTCUniversalReadOnlyAdmins     EXCH2010\RTCUniversalServerAdmins     I2     j2     i2		Guest account enabled for; xds				
A NT AUTHORITY SYSTEM			role membership for: xds	1		
MT SERVICE\MSSQL\$RTC	Connection	Consu				
S2/RTC Local Administrators	Server: S2\RTC		cessadmin ckupoperator			
S2\RTC Local Config Replicator		✓ db_da	tareader			
S2\RTC Local Read-only Administrators	Connection: EXCH2010\administrator	🗌 db_da				
S2\RTC Server Local Group	View connection properties	db_dd	ladmin nydatareader			
	View connection properties		nydatawriter			ĸ
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	Ready	Publish	nerRole			
	~4 b*	Replic	atorRole			
					OK	Cancel
						///
Ready						

#### 3.2.5.11 Lync Application Server access to Lync database - Step 11

No settings are required in the "Securables" menu.

K Microsoft SQL Server Management Studio								_ 8 ×
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Connect - 📑 📑 🍸 🗃 🏹	🚰 General							
E S2\RTC (SQL Server 10.0.4000 - EXCH2010\administrat	Prover Roles Prover Mapping	Login name:	EXCH201	0\J4\$				
🛨 🧰 Databases	Securables	Securables:					Search	
Security     D    D    D    D    D    D	🚰 Status						1 -	
Logins		Name					Туре	
##MS_PolicyTsqlExecutionLogin##								
BUILTIN\Administrators								
BUILTIN\Users								
EXCH2010\Exch2010lan-J6\$								
EXCH2010\EXCH2010-LAS4\$								
▲ EXCH2010\j2\$ ▲ EXCH2010\J3\$								
EXCH2010 034								
EXCH2010\RTCComponentUniversalService								
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EXCH2010/RTCUniversalReadOnlyAdmins								
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	Server: S2\RTC	Permission		Grantor	Grant	With Grant	Deny	
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S2\RTC Component Local Group	Connection: EXCH2010\administrator							
S2\RTC Local Administrators S2\RTC Local Config Replicator	View connection properties							
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Ready								

#### 3.2.5.12 Lync Application Server access to Lync database - Step 12

- 1. In the "Status" menu, "Grant" permission to connect to database engine, and set the "Login" to "Enabled".
- 2. Select <OK> to complete the creation of the SQL login



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#### 3.2.5.13 Lync Application Server access to Lync database - Step 13

Confirm that the new login has been created.

The newly created login may take up to 15 minutes to update and be useable.



# 3.3 Espera Service Account

Espera requires a dedicated Active Directory account not previously associated to an existing Lync user (it is recommended to create a new account with the login name of "Espera"). This account is then used to enable a Lync user, with the URI of "sip:espera@<domain>". Espera server acts as a Lync application endpoint and, therefore, needs a Lync user to bind to. This account can also be used to send scheduled email reports if the optional Historical reporting package is available.

### 3.3.1 Create the Espera Active Domain Account

#### 3.3.1.1 Create new AD User - Step 1

From the Domain Controller, create a new Active Directory User.

Server Manager > Roles > Active Directory Domain Services > Active Directory Users and Computers > <domain> > Users > New > User

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11130			

<mark>- Server Manager</mark> ile Action View Help					
Server Manager (DC1) Users 69	objects [Filter Activated]			Actions	
Roles		Type	Description	Users	
Contraction Certificate Services	rator	User	Built-in account		
Administ	RODC Password Replication Group	Security Group	Members in this	More Actions	
<ul> <li>Active Directory Users and Computers [DC1.Exc</li> <li>Exch2010.AdvaExperimental</li> </ul>		User		1	
Builtin & Cert Put	blishers	Security Group	Members of thi	1	
Computers & CSAdmir		Security Group	Members of th	1	
	/ingAdministrator	Security Group	Members of thi		
EsperaInstall	-	Security Group			
	ionAdministrator	Security Group			
	onseGroupAdministrator	Security Group			
	Administrator	Security Group		1	
	Administrator	Security Group		1	
Users	OnlyAdministrator	Security Group		1	
Active Directo Delegate Control	Administrator	Security Group	Members of thi	1	
# DHCP Server Find	RODC Password Replication Group	Security Group		1	
DNS Server      New      Computer      Computer		Security Group	Members who I	1	
		Security Group		1	
Web Server (IIS)	D919BA05-46A6	User		1	
Web Server (IIS) View     InetOrgPerson		User		1	
Features Refresh msExchDynamicDi	stributionList	User		1	
Diagnostics Export List msImaging-PSPs		Security Group	DNS Administra	1	
Configuration MSMO Queue Alia	s	Security Group	DNS dients wh	1	
Properties Printer		Security Group	Designated adı	1	
Help User		Security Group	All workstation	1	
Shared Folder		Security Group	All domain cont	1	
2 Domain	Guests	Security Group	All domain gue:	1	
Sector Se	Users	Security Group	All domain user	1	
Senterpri 88	se Admins	Security Group	Designated adı	1	
Senterpri 🎎	se Read-only Domain Controllers	Security Group	Members of thi	1	
👢 Espera S	Server	User		1	
& EsperaD	eployment	Security Group		1	
🗜 Federat	edEmail.4c1f4d8b-8179-4148-93bf	User			
💄 Glenn Fi	sher	User			
🧟 Group P	olicy Creator Owners	Security Group	Members in thi: 🖵		
ा भ गै				1	

## 3.3.1.2 Create new AD User - Step 2

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Enter "Espera" as the <First name> and <User logon name>

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F New Object - User	×			
Create in: Exch2010.AdvaExperimental/Users				
Create in: Exch2010.AdvaExperimental/Osers	r Activated]			Actions
		Type	Description 🔺	Users 🔺
First name: Espera Initials:		User	Built-in account	More Actions
	rd Replication		Members in thi:	
Last name:		User		
Full name: Espera		Security Group		
		Security Group		
User logon name:	tor	Security Group		
espera @Exch2010.AdvaExperimer	+=1 =	Security Group Security Group		
Jesperal Jesperal	ninistrator	Security Group Security Group		
User logon name (pre-Windows 2000):	linistrator	Security Group		
EXCH2010\ espera		Security Group		
Loopera joopera	tor	Security Group		
	con	Security Group		
	d Replication			
< Back Next >	Cancel	Security Group		
		Security Group		
Web Server (IIS)	scoverySearchMailbox {D919BA05			
Windows Deployment Services	nitry Nikitin	User		
	nitry Test	User		
E Diagnostics	nsAdmins	Security Group	DNS Administra	
	nsUpdateProxy	Security Group	DNS dients wh	
	omain Admins	Security Group	Designated adı	
8. Do	omain Computers	Security Group	All workstation	
	omain Controllers	Security Group	All domain cont	
	omain Guests	Security Group		
	omain Users	Security Group	All domain user	
	terprise Admins	Security Group	-	
	nterprise Read-only Domain Contro		Members of thi	
	pera Server	User		
	peraDeployment	Security Group		
	ederatedEmail.4c1f4d8b-8179-414			
	enn Fisher	User		
	oup Policy Creator Owners	Security Group	Members in thi:	

#### 3.3.1.3 Create new AD User - Step 3

Create a password for the Espera user.

Recommendation is to set the password as non-changeable, and to never expire.



#### 3.3.1.4 Create new AD User - Step 4

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Confirm that the details for the Espera user are correct.


#### 3.3.1.5 Create new AD User - Step 5

Check that the Espera user has been created, and is appearing under the "Users" folder.

ile Action View Help					
• 🔿 🔟 🐺 🖄 🗱 🗸 🗊					
Server Manager (DC1)	Users 69 objects [Filter Activated]			Actions	
Roles	Name	Type	Description 🔺	Users	
Active Directory Certificate Services	SHelpDesk	Security Group		More Actions	
<ul> <li>Active Directory Domain Services</li> <li>Active Directory Users and Computers [DC1.Exc</li> </ul>	SLocationAdministrator	Security Group		More Actions	
Active Directory Users and Computers [ DC1.Exc Exch2010.AdvaExperimental	SResponseGroupAdministrator	Security Group		Espera	
Builtin	& CSServerAdministrator	Security Group			
Computers	& CSUserAdministrator	Security Group		More Actions	
Domain Controllers	& CSViewOnlyAdministrator	Security Group			
EsperaInstal	& CSVoiceAdministrator	Security Group		1	
ForeignSecurityPrincipals	& Denied RODC Password Replication Group	Security Group		1	
LyncTestUsers	& DHCP Administrators	Security Group		1	
⊞ Managed Service Accounts     ■	A DHCP Users	Security Group		1	
Microsoft Exchange Security Groups	DiscoverySearchMailbox {D919BA05-46A6	User		1	
Contraction Contra	L Dmitry Nikitin	User		1	
Active Directory Sites and Services	L Dmitry Test	User		1	
DHCP Server     DNS Server     DNS Server     DNS Server     DNS Services	& DnsAdmins	Security Group	DNS Administra	1	
BNS Server	& DnsUpdateProxy	Security Group		1	
	& Domain Admins	Security Group		1	
Network Policy and Access Services	& Domain Computers	Security Group		1	
Web Server (IIS)	& Domain Controllers	Security Group		1	
Windows Deployment Services	& Domain Guests	Security Group		1	
Features	& Domain Users	Security Group	-	1	
Diagnostics	& Enterprise Admins	Security Group		1	
	Renterprise Read-only Domain Controllers	Security Group	-	1	
🚝 Storage	Espera	User	Members of the	1	
	& EsperaDeployment	Security Group		1	
	FederatedEmail.4c1f4d8b-8179-4148-93bf			1	
	Glenn Fisher	User		1	
	Gienn Fisher     Group Policy Creator Owners	Security Group	M 1 1 11	1	
	Group Policy Creator Owners	Security Group	Members in thi: Built-in account	1	
			Built-In account	1	
	InTouch Deployment Users InTouch Licensing	Security Group		1	
		User		1	
	InTouch Test	User		1	
	Jamie Wyatt	User	Jamie Test Acc	1	
► I	💑 Lee Davis	User	▼   }	1	

## 3.3.2 Create the Espera Microsoft Exchange Mailbox

Espera Historical reporting can be configured to email scheduled reports. It is recommended to have these reports sent from a mailbox that is configured to be able to send, but not receive emails.

#### 3.3.2.1 Create Espera Exchange Mailbox - Step 1

From the Exchange Management Console, create a new mailbox.

Exchange Management Console > Recipient Configuration > New Mailbox...



## 3.3.2.2 Create Espera Exchange Mailbox - Step 2

Select <User Mailbox>

🔀 Ex	change Management Cor	nsole		<u>_ 8 ×</u>
		Aailbox	12 objects	Actions Mailbox
	<ul> <li>Introduction</li> <li>User Type</li> <li>New Mailbox</li> <li>Completion</li> </ul>	<ul> <li>This witzard helps you create a new mailbox, resource mailbox, or linked mailbox. You can also use this witzard to mail-enable an existing user.</li> <li>Choose mailbox type.</li> <li>User Mailbox</li> <li>This mailbox is owned by a user to send and receive messages. This mailbox cannot be used for resource scheduling.</li> <li>Room Mailbox</li> <li>The room mailbox is for most scheduling and is not owned by a user. The user account associated with resource mailbox will be disabled.</li> <li>Equipment Mailbox</li> <li>Linked Mailbox</li> <li>Linked Mailbox</li> <li>Linked mailbox is the name for a mailbox that is accessed by a security principal (user) in a separate, trusted forest.</li> </ul>	Recipient Type Details User Mailbox	<ul> <li>Modify the Maximum Num</li> <li>Find</li> <li>New Malibox</li> <li>Export List</li> <li>View</li> <li>Refresh</li> <li>Help</li> </ul>
	Help	< Back Next > Cancel		

## 3.3.2.3 Create Espera Exchange Mailbox - Step 3

- 1. Select <Existing users:>, then <+Add...>
- 2. Select the "Espera" user account and <OK>



## 3.3.2.4 Create Espera Exchange Mailbox - Step 4

Enter "espera" as the mailbox alias.

🔀 Exchange Managen	nent Console	-	
	Ne <del>w</del> Mailbox	12 objects	Actions Mailbox
Introduction User Type Mailbox S New Mailbox Completion Help	annara.	Recipient Type Details         . User Mailbox         . User Mailbox	Mooify the Maximum Num     Find     New Mailbox     Export List     View     Refresh     Help
			,

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## 3.3.2.5 Create Espera Exchange Mailbox - Step 5

Select <Finish> to complete the creation of the new mailbox.

🔀 Ex	change Management Conso	le		<u>_ 8 ×</u>
File				
<b>&lt;</b>	New Mai	ilbox		
			12 objects	Actions
	<ul> <li>Introduction</li> <li>User Type</li> <li>Malbox Settings</li> <li>New Malbox</li> <li>Completion</li> </ul>	Completion The wizard completed successfully. Click Finish to close this wizard. Elapsed time: 00:00:02 Summay: 1 tem(s). 1 succeeded, 0 failed. Espera Completed Completed Enable-Mallbox -identity Exch2010.AdvaExperimental/Users/Espera' -Alias 'espera' Elapsed Time: 00:00:02	Recipient Type Details User Mailbox	Hailbox     Image: Constraint of the Maximum Num       Image: Constraint of the Maximum Nu
•	Help	To copy the contents of this page, press CTRL+C.		

## 3.3.2.6 Create Espera Exchange Mailbox - Step 6

Check that the Espera mailbox has been created, and is appearing under the "Mailbox" folder.

Microsoft Exchange	🎊 Mailbox - Entire F	orest		13 obiects	Actions	
Microsoft Exchange           Microsoft Exchange           Microsoft Exchange On-Premises (c           Image: Comparison on Figuration           Image: Server Configuration           Image: Comparison on Figuration           Image: Comparison on Figuration           Image: Comparison on Figuration           Image: Comparison on Figuration           Image: Comparison of Comparison           Image: Comparison of Comparison of Comparison           Image: Comparison of Comparison of Comparison of Comparison           Image: Comparison of Co	Verate Filter	Alias Administrator BrendanEvans DiscoverySearchMailbox{ DmitryNiktin espera GlennFisher InTouch.Licensing JamieWyatt LeeDavis user1 user2 user2 user3	Organizational Unit exch2010.advaexperimen exch2010.advaexperimen exch2010.advaexperimen exch2010.advaexperimen exch2010.advaexperimen exch2010.advaexperimen exch2010.advaexperimen exch2010.advaexperimen exch2010.advaexperimen exch2010.advaexperimen exch2010.advaexperimen exch2010.advaexperimen exch2010.advaexperimen		Actions Hailbox Mailbox Molify the Maximum I Find Export List View C Refresh Help Espera Fable Archive Disable Remove Fable Unified Messaa New Local Move Requ Remove Move	ging equ missi
					? Help	

## 3.3.2.7 Create Espera Exchange Mailbox - Step 7

The following 3 steps will block the "Espera" mailbox from receiving email.

<Right-click> on the "Espera" account and select <Properties>



#### 3.3.2.8 Create Espera Exchange Mailbox - Step 8

Select the <Mail Flow Settings> tab. Highlight <Message Delivery Restrictions> and click on <Properties>.

Espera Properties	×	
Image: Constraint of the second sec	13 objects	Actions Mailbox
Mail Row Settings     Mailbox Features     Calendar Settings       Properties     Properties     Properties       Pelvery Options     Message Size Restrictions       Message Delivery Restrictions       Description       Message delivery restrictions define which senders can and which senders cannot send messages to this recipient.       OK     Cancel	Organizational Unit         Recipient Type Details           exch2010.advaexperimen         User Malibox           x{         exch2010.advaexperimen         User Malibox           x{         exch2010.advaexperimen         User Malibox           exch2010.advaexperimen         User Malibox	Solution Modify the Maximum Num  Solution  Modify the Maximum Num  Find  New Malbox  Export List  View  Refresh  Help  Espera  Call Help  Espera  Call Help  Espera  Manage Archive  Manage Send As Permissi  Manage Full Access Permi  Send Mail  Properties  Help  Hel

## 3.3.2.9 Create Espera Exchange Mailbox - Step 9

- 1. Select <Only senders in the following list:> and <Add> a single non used account (e.g. Administrator).
- 2. Click <OK> to complete the restriction settings.

The Espera mailbox is now configured to send, but not receive email messages.

ie Action View Help		
Espera Properties		
Mig Connert Line Information Address and Diseas Comparisation Assault Message Delivery Restrictions	13 objects	Actions
	Organizational Unit         Recipient Type Details           exch2010.advaexperimen         User Malibox           x         User Malibox           exch2010.advaexperimen         User Malibox	Hailbox         Modify the Maximum Num         Find         Find         Export List         View         Refresh         Help         Espera         Bable         Remove         Enable Unified Messaging         New Local Move Request
OK Cancel		<ul> <li>New Remote Move Requ</li> <li>Manage Send As Permissi</li> <li>Manage Full Access Permi</li> <li>Send Mail</li> <li>Properties</li> <li>Help</li> </ul>

# 3.3.3 Enable the Espera Lync User

## 3.3.3.1 Enable Espera Lync User - Step 1

Start the "Lync Server Control Panel" from the Lync Front End server.

Start > Programs > Microsoft Lync Server 2010 > Lync Server Control Panel

Installation

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# Espera Administration Manual

## 3.3.3.2 Enable Espera Lync User - Step 2

Enter the required credentials to access the Lync Server Control Panel

1	Microsoft Lync Server 2010 Control Panel	
Re		
	Windows Security X Connecting to S2.Exch2010.AdvaExperimental.	
	administrator	
	Domain: EXCH2010	
	Remember my credentials	
	OK Cancel	

#### 3.3.3.3 Enable Espera Lync User - Step 3

## Select "Users"



#### Espera Administration Manual

#### 3.3.3.4 Enable Espera Lync User - Step 4

Select "Enable users"



## 3.3.3.5 Enable Espera Lync User - Step 5

Select "Add ... "

iici 030	ft Lync Server 2010 Control		
X	Lync Server 2010		Administrator   Sign ou
æ.	Lyric Server 2010		4.0.7577
	Home	User Search	
22	Users		
24	Topology	New Lync Server User	
Ģ	IM and Presence	🔆 Enable 🗶 Cancel	0
6	Voice Routing	Users:*	<u> </u>
6	Voice Features	Display name Status Add	
23	Response Groups	Remove	
Ð	Conferencing		
	Clients	Assign users to a pool:*	
-	External User	<b>•</b>	
許	Access	Generate user's SIP URI:	
	Monitoring	• Use user's email address	
-	and Archiving	Use the user principal name (UPN)	
9	Security	Use the following format:	
	Network	<firstname>.<lastname> @   Use the following format:</lastname></firstname>	
9	Configuration	<samaccountname> @</samaccountname>	
		Specify a SIP URI:	
		sip:example @	
1		Telephony:	
		PC-to-PC only	
		Line URI:	

## 3.3.3.6 Enable Espera Lync User - Step 6

- 1. Enter "espera" then select <Find> to search for the Espera Active Directory account.
- 2. Highlight the Espera account in the results area, then select <OK>

🌄 М	icroso	ft Lync Ser	ver 2010 Cor	itrol Panel				_ & ×
	Sale of the second seco		Server 2	010			Admir	nistrator   Sign out
		Lyric .	Selvel 2	010				4.0.7577.0
		Home		User Search				
	22	Users	Select fro	om Active Directory	1		<b>∂</b> ×	
	N	Topolog	• Search	LDAP search				
	ę	IM and F	espera		×	Find + Add filter	×	0
	G	Voice Ro					Search results: 1	
	6	Voice Fe	Name 🔺	Display name	Email	User principal name (UP)	N) First name	
	22,	Respons	Espera	Espera	espera@exch2010.advaexperime	ntal espera@Exch2010.AdvaEx;	perimental Espera	/
	Ð	Conferer						
	•	Clients						
	141 141	External Access						$\mathbb{P}$
		Monitori and Arch						
	4	Security						
	Ŷ	Network Configur						
			◀				•	
							OK	
				PC-to-PC	only	<b>v</b> ?		
				Line U	RI:			
>								

#### 3.3.3.7 Enable Espera Lync User - Step 7

- 1. Select the Lync Front End server from the <Assign user to a pool> drop down list.
- 2. Select "Specify a SIP URI", and enter "sip:espera". Then select your primary domain from the drop down list.
- 3. Select "Enterprise Voice" (recommended) or "PC-to-PC Only" from the <Telephony> drop down list.

Installation	
molunation	

X	Lync Server 2010				Administrator   Sign
æ.	Lyric Scrver 2010				4.0.75
	Home	ser Search			
3	Users				
4	Topology	New Lync Server User			
þ	IM and Presence	🔆 Enable 🔀 Cancel			0
2	Voice Routing	Users:*			<b>^</b>
	Voice Features	Display name	Status	Add	
3	Response Groups	Espera		Remove	
þ	Conferencing				
	Clients	Assign users to a pool:*			
2		s2.exch2010.advaexperiment	al	•	
5	External User Access	Generate user's SIP URI:			
_	Monitoring	Use user's email address	s		
	and Archiving	O Use the user principal n			
1	Security	Use the following formation			
-	Network	<firstname>.<lastname< p=""></lastname<></firstname>		T	
2	Configuration	<samaccountname> @</samaccountname>		T	
		Specify a SIP URI:			
		sip:espera	@ advatel.com.au	•	
		Telephony:			
		PC-to-PC only		▼ ?	
		-		• ~	
		Line URI:			•

#### 3.3.3.8 Enable Espera Lync User - Step 8

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Confirm the Espera user is <Enabled> Enabled for Lync

licroso	ft Lync Server 2010 Co	ntrol Panel						
-	Microsoft						Administra	tor   Sign ou
Ø.	Lync Server2	010						4.0.7577
	Home	User Search						
22	Users							
×	Topology	<ul> <li>Search</li> </ul>	LDAP search	1				
Ģ	IM and Presence	espera			×	Find 😽 📘 + Add	d filter	♦
		-					Search	results: 0
۲	Voice Routing	Stepable u	sers 🔻 🧪 Edit	▼ Action ▼				0
S	Voice Features		y name	Enabled	SIP address	Registrar pool	Telephony	
23	Response Groups	Espera		1	sip:espera@advatel.com.au	s2.exch2010.advaexperimental	PC-to-PC only	
Ð	Conferencing							
	Clients							
論	External User Access	4						
	Monitoring and Archiving							
4	Security							
Ŷ	Network Configuration							

# 3.4 Espera Server Installation

The Espera Server is implemented as a Windows service and is run as the "Network Service" account by default. The Windows service name is "EsperaServer". Post installation, the service is started automatically, however the administrator should check that this service has started successfully.

## 3.4.1 Espera Server Installation - Step 1

- 1. Open the folder containing the Espera Server Setup files
- 2. Run the Espera Server Setup exactable. If displayed, accept any Windows security warning relating to the installation of the Espera Server setup.

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# 3.4.2 Espera Server Installation - Step 2

Select <Next>

le Bin	Espera_Server	👻 😭 Search Es	pera_Server
		, <b></b> ,	
erver	Organize 🔻 🖻 Open Share with 💌	New folder	
	🔶 Favorites 👘 Espera Serve	er Setup	Size
	Desktop     Downloads     S     Recent Places     Libraries	Welcome to the Espera Server Setup Wizard	er P 29,849 KB 460 KB
	Documents     Music     Pretures     Videos	The Setup Wizard will install Espera Server on your computer. Click Next to continue or Cancel to exit the Setu Wizard.	p
	Computer		
	🙀 Network		
		Back Next Cancel	
	setup Date modified: 7/12/ Application Size: 459 k		

# 3.4.3 Espera Server Installation - Step 3

- 1. Read then "Accept" the Espera License Agreement
- 2. Select <Next>



# 3.4.4 Espera Server Installation - Step 4

- 1. Confirm the destination folder to install the Espera Server into.
- 2. Select <Next>



# 3.4.5 Espera Server Installation - Step 5

Select <Install> to confirm installation

Espera_Server				_O×
🕥 🚺 🔸 Espera	a_Server	👻 🚺 Search B	Espera_Server	2
Organize 👻 🛅 Open	Share with 👻 New folder		:== •	
🔆 Favorites	🖶 Espera Server Setup	۱ ـ	Size	
Desktop Downloads	Ready to install Espera Server		er P 29,84	49 KB 50 KB
Libraries Documents Music Pictures Videos	Click Install to begin the installation. Click Back to revie installation settings. Click Cancel to exit the wizard.	w or change any of your		
📜 Computer				
🙀 Network				
	Back [[	Instal Cance	<u>1</u>	
setup D Application	ate modified: 7/12/2012 1:16 AM Date created: 7/1: Size: 459 KB	2/2012 1:16 AM		

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## 3.4.6 Espera Server Installation - Step 6

When the installation has completed, select <Finish>

e Bin	Espera_Server				_ 🗆 ×
_	🕞 🖟 - Espera	_Server	👻 🚺 S	earch Espera_Server	<u> </u>
l.	Organize 🔻 🖬 Open	Share with 🔻 New folder			iii 👻 🔟 📀
_Server	🔆 Favorites	Espera Server Setup	1 1		Size
	Desktop Downloads Recent Places		Completed the Espera Server Setu Wizard	р <sup>эг р</sup>	29,849 KB 460 KB
	Documents Music Pictures Videos	ESPEFA by AdvaTel for Lync	Click the Finish button to exit the Setup Wizard.		
	📜 Computer				
	🙀 Network				
			Zuaunch Espera Server Configurator		
			Back Finish	Cancel	
	setup Da				
	Application	ite modified: 7/12/2012 1:16 AM Size: 459 KB	Date created: 7/12/2012 1:16 AM		

## 3.4.7 Espera Server Installation - Step 7

- 1. The "Espera Server Configuration Manager" will automatically start.
- 2. Select <Auto Configuration> to allow the Espera Server to attempt to retreive configuration information from the Lync Front End Server.

Install	ation
notan	auon

Espera Server Configuration Manager				_ 8 ×
Espera AdvaTel E	spera Server Config	uration		
Settings		Server Status		1
Communication type:	Lync and TCP	Licence	NotInstalled	Details
Server mode:	Lync	Print Service	Failed	Details
Administrator URI:	sip:admin@your-company.com	TCP endpoint Lync endpoint	OK Failed	Details
Lync address (or DNS):	your-server	Lync RGS SQL connection	Failed	Details
Lync port (5061 is default):	5061	Lync Sign-in/out Service	Failed	Details
Espera endpoint URI:	sip:espera@your-domain	History Service	ОК	Details
Lync Connection Strings:	Configure			
Historical DB storage:	Configure			
Admin Simple URL:	admin.your-domain			]
		- Licensing		
🗹 Enable wrap-up		Log-ons:	N/A	
Wrap-up timeout:	60	Historical:	N/A	
	Configure Mail Sending	Expires (yyyy-MM-dd):	N/A	
Allowed Email Domains:				
Default Printer			nstall new Licence	)
Maintenance		Actions		
Configure Maintenance			Apply & Restart ) (Auto	Configuration
				oomigaration

## 3.4.8 Espera Server Installation - Step 8

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Please wait whilst the Lync Front End Server is being polled for information. This may take several minutes.

🚱 Espera Server Configuration Manager				_ 8 ×
AdvaTel Es	spera Server Config	uration		
	Lync and TCP   Lync  sip:admin@your-company.com			Details Details Details Details
	your-server 5061 🔹 sip:espera	Lync RGS SQL connection Lync Sign-in/out Service	Failed Failed OK	Details Details Details
	admin.you O Gathering	g information		
✓ Enable wrap-up Wrap-up timeout	60 Configure Mail Sending		1000 Yes N/A	
	×		nstall new Licence	
Maintenance Configure Maintenance			Apply & Restart Auto (	Configuration

## 3.4.9 Espera Server Installation - Step 9

Review the details retrieved by the "Auto Configuration".

NOTE: The "Auto Configuration" is an assertive feature, and the administrator MUST check all fields obtained automatically.

	Espera Server Confi	guiadon		
Settings		Server Status		
Communication type: Server mode:	Lync and TCP	Licence Print Service	NotInstalled Failed	Detail Detail
Administrator URI:	sip:administrator@advatel.com.au	TCP endpoint Lync endpoint	OK Failed	Detail Detail
Lync address (or DNS): Lync port (5061 is default):	s2.exch2010.advaexperimental	Lync RGS SQL connection Lync Sign-in/out Service History Service	Failed Failed OK	Detail Detail
Espera endpoint URI: Lync Connection Strings:	sip:espera@advatel.com.au	Auto Config	Done	Detai Detai
Historical DB storage:	Configure			
Admin Simple URL:	admin.exch2010.advaexperimental	Licensing		
🗹 Enable wrap-up		Log-ons:	1000	
Wrap-up timeout:	60 Configure Mail Sending	Historical: Expires (yyyy-MM-dd):	Yes N/A	
Allowed Email Domains:	A			
Default Printer	<b></b>		stall new Licence	

## 3.4.10 Espera Server Installation - Step 10

- 1. Update / Add any missing information.
- 2. Select the <Install new License...> button in the "Licensing section, Browse to the "Espera.lic" license file provided by AdvaTel, then <OK>.
- 3. When all details appear correct, select < Apply & Restart>

The Espera Server will save the configuration information and restart the "EsperaServer" service. This may take several minutes.

NOTE: The "Administrator URI" must be populated with a valid Lync user. This Lync user is the Espera administrator required to perform initial Espera Client configuration [166].

136	Espera Administration Manual
	Lync SQL Server Connections
	SQL Connection String (RTC)
	Data source: s2.exch2010.advaexperimer
	✓ Integrated security
	User name:
	Password:
	Call Detail Recording Connection String
	Data source: s2.exch2010.advaexperimer
	✓ Integrated security
	User name:
	Password:
	$\frown$
	Save Cancel

FQDN od RTC and CDR databases and SQL login information

Historical d	atabase Co	onfiguration	
Select database type:	Embedded DB		•
	MS SQL Server Connec	tion String	
	Data source:	yourserver\RTC	
		Integrated security	
	User name:		
	Password:		
			- 1
	Save	Cancel	

Historical Database settings: Embeded DB or External SQL. If External SQL, set FQDN and Login information of SQL server

	mtp.advatel.com		
	Windows account credentials		SSL
Username: e	espera.reporter@advatel.com	From Address:	espera.reporter@advatel.cor
Password: 📕	*******	Email Subject:	Report ready
Please find your	ır report in the email attachment.		

SMTP settings for emailed reports

Maintenar	ice Service Configuration
Keep database er Save Directory: C:	ntries for: 1 year(s) 0 month(s) Users\administrator.EXCH2010\AppData\Local\AdvaTel\Espera Server\Data\
<ul> <li>One Time</li> <li>Daily</li> <li>Weekly</li> <li>Monthly</li> </ul>	Start date: 8/12/2012 15 23 : 00
	Save Cancel

Maintenance configuration for archiving of the embeded historical DB

Espera Server Configuration Man	ager			
AdvaTe	l Espera Server Config	uration		
	Lync and TCP			C
	Lync	Print Service TCP endpoint		
	sip:administrator@advatel.com.au	Lync endpoint		
	s2.exch2010.advaexperimental			i
	5061			C
	sip:espera			
	admin.exc O Applying cor	nfig & restarting		
Enable wrap-up			1000	
	60		1000 Yes	
	Configure Mail Sending	Expires (yyyy-MM-dd):	N/A	
	advatel.com			
	Microsoft XPS Document Writer		nstall new Licence	

## 3.4.11 Espera Server Installation - Step 11

When all "Server Status" messages display "OK" proceed with Espera Client Installation 1411.

If a "Server Status" message displays as "Failed", select <Details> for further information as to the cause of the failure, and recommended solutions to rectify the failure.

NOTE: Any Server failures (status lines marked as "Failed") have been accurately documented. The <Details> button provides access to the documentation detailing the course of actions the administrator should take in order to rectify the problem.

Installation	141		
-			

AdvaTel Es	spera Server Config	uration		
Settings		Server Status		
Communication type: Server mode: Administrator URI: Lync address (or DNS): Lync port (5061 is default): Espera endpoint URI: Lync Connection Strings: Historical DB storage:	Lync v Lync v sip:administrator@advatel.com.au s2.exch2010.advaexperimental 5061 v sip:espera@advatel.com.au Configure	Licence Print Service TCP endpoint Lync RGS SQL connection Lync CDR SQL connection History Service Lync endpoint	Installed OK OK OK OK OK	Details Details Details Details Details Details
Admin Simple URL:	admin.exch2010.advaexperimental	Licensing —		
✓ Enable wrap-up Wrap-up timeout:	60 Configure Mail Sending	Log-ons: Historical: Expires (yyyy-MM-dd):	1000 Yes N/A	
Allowed Ernail Domains: Default Printer	advatel.com		install new Licence	
Maintenance Configure Maintenance		Actions	Apply & Restart Auto	Configuration

# 3.5 Additional Espera Server Configuration

The Espera Server has no additional configuration. All administrative and user configuration is performed with the Espera Client.

# 3.6 Espera Client Installation

🚱 Espera Server Configuration Manager

The Espera Client can be installed manually per PC using the Setup.exe executable from the "Espera Client" folder.

Alternatively, the Espera Client may be deployed via group policy using the EsperaClientSetup.msi. The following steps will detail installation of the Espera Client via the manual installation method. Deployment via group policy should be performed as per the companies corporate policy.

NOTE: The following installation must be performed by a user with "Administrative" privileges. Alternatively, the installation must be "Run as administrator".

# 3.6.1 Espera Client Installation - Step 1

Microsoft Lync 2010 client must be pre-installed



# 3.6.2 Espera Client Installation - Step 2

Run the "Setup.exe" executable.

Recycle Bin							574
				🚺 Microsoft Ly	/nc		
	Correction - Espera_Clie	ent	✓ 4 <sub>2</sub>	Search Espera_Client			© •
Espera_Client	Organize 🔻 🖬 Open	Share with 🔻 New folder			- 1	0	
	🔶 Favorites	Name	Date modified	Туре	Size	2	
	🧮 Desktop	😽 EsperaClientSetup	10/12/2012 2:30 PM	Windows Installer	21,951 KB		2
	Downloads Recent Places	🐻 setup	10/12/2012 2:30 PM	Application	460 KB		0= -
	<ul> <li>□ Libraries</li> <li>□ Documents</li> <li>□ Music</li> <li>□ Pictures</li> <li>□ Videos</li> <li>□ Computer</li> <li>□ Network</li> </ul>					e	
							au - Presenc
1	setup Date Application	e modified: 10/12/2012 2:30 PM Size: 459 KB	Date created: 8/12/2012 1:18 AM	<u>8</u> .8	antonvarang		lays 👻

# 3.6.3 Espera Client Installation - Step 3

<Accept> and <Install> all prerequisites required by the Espera Client.

Recycle Bin							
				Microsof	t Lync		22
						6	ô •
	Spera_Clie	ent	🔂 Espera Client Setup	×	Q	5	÷3
Espera_Client	Organize 🔻 🖻 Open	Share	For the following components:		H - 1 0		_
	Favorites	Name	Microsoft .NET Framework 4 (x86 and x64)		Size	P 🎧	· )
	Desktop Downloads	🔂 Espe		e rest	. 21,951 KB 460 KB		₽ -
	<ul> <li>ibraries</li> <li>i Documents</li> <li>i Music</li> <li>i Pictures</li> <li>ii Videos</li> <li>iii Computer</li> </ul>		MICROSOFT SOFTWARE SUPPLEMENTAL LICENSE TERMS MICROSOFT .NET FRAMEWORK 4 FOR MICROSOFT WINDOWS OPERATING SYSTEM	Ť		e	
	🙀 Network		Vew EULA for printing Do you accept the terms of the pending License Agreement? If you choose Don't Accept, install will close. To install you must accept this agreement.				
			Accept Don't Accept			m.au - Presenc days	
	setup Date	modified	10/12/2012 2:30 PM Date created: 8/12/2012 1:18 AM			uays	
	Application		10/22/2012 2:50 FW Date created: 6/12/2012 1:10 AW		currorwarding is on	days	Ŧ
## 3.6.4 Espera Client Installation - Step 4

Select <Next>

Recycle Bin		L Microsoft	t Lync		×
Espera_Client	► Espera_Client	✓ 49 Search Espera_Client	•	Ô	) -
	Organize ▼	Welcome to the Espera Client Setup Wizard The Setup Wizard will install Espera Client on your computer. Click Next to continue or Cancel to exit the Setup Wizard.	BEE ▼ □ 0 Size 21,951 KB 460 KB	p 11	_
		Back Next Cancel		m.au - Presenc	
	setup Date modified: 10/12/2012 2:30 Application Size: 459 KB	PM Date created: 8/12/2012 1:18 AM	can forwarding to on	days days	•

## 3.6.5 Espera Client Installation - Step 5

- 1. Read the 'Espera License Agreement"
- 2. Check the <I accept ....> checkbox
- 3. Select <Next>





### 3.6.6 Espera Client Installation - Step 6

- 1. Confirm the destination folder to install the Espera Client into.
- 2. Select <Next>

Recycle Bin		Microsoft Lync	
Espera_Client	Organize       Image: Construction of the second seco		
	Setup Date modified: 10/12/2012 2:30 PM Date created: 8/12 Application Size: 459 KB	/2012 1:18 AM	m.au - Presenc days days <del>-</del>

### 3.6.7 Espera Client Installation - Step 7

Select <Install> to proceed with the installation

Recycle Bin			Microsoft Lync	
	COC → Despera_CI	ient 👻 🕯	ے اے ایک Search Espera_Client	)
spera_Client	Organize 👻 🖻 Open	😸 Espera Client Setup		
	🔶 Favorites	Ready to install Espera Client	Size . 21,951 KB	
	<ul> <li>Downloads</li> <li>Recent Places</li> <li>Libraries</li> <li>Documents</li> <li>Music</li> <li>Pictures</li> <li>Videos</li> <li>(Music)</li> <li>(Music</li></ul>	Click Install to begin the installation. Click Back to review or change a installation settings. Click Cancel to exit the wizard.	460 KB	e =
				m.au - Presenc days
	setup Dat Application	e modified: 10/12/2012 2:30 PM Date created: 8/12/2012 1:18 A Size: 459 KB	AM	days 👻

# 3.6.8 Espera Client Installation - Step 8

Select <Finish> to complete the installation

Recycle Bin		Microsoft	Lync		8
Espero_Glient	Organize   Corganize   Corganize   Corganize   Convoloads   Downloads   Recent Places   Libraries   Documents   Music   Pictures   Videos   Videos   Videos   Videos   Network	Completed the Espera Client Setup Wizard Click the Finish button to exit the Setup Wizard.	□ ■ 23	©	_
	setup Date modified: 10/12/2012 2:30 F Application Size: 459 KB	PM Date created: 8/12/2012 1:18 AM		m.au - Presenc days days	•

### Espera Administration Manual

### 3.6.9 Espera Client Installation - Step 9

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The Espera Client will now automatically start and display when Microsoft Lync is operating.





# 4 Espera Client Sidebar

The Espera Client and Espera Client Sidebar is automatically started when the Microsoft Lync client is launched.

The following chapters detail the Espera sidebar features.



## 4.1 Espera Client Sidebar - "Connection Status" Button

The "Connection Status" icon displays the current connection state of the Espera Client to the Espera Server.

Green = Connected Amber = Connecting / Attempting to connect

#### Red = Connection Failed

NOTE: If the connection status is "Red", ensure the Lync client is signed in, and the Espera Server is online/accessible from the Espera Client. Contact your network administrator for further information.



## 4.2 Espera Client Sidebar - "Espera Wallboard" Button

The "Real Time Window" options are:

- Dock Real Time Window Top Docks the Real Time Window to the top of the screen
- Dock Real Time Window Bottom Docks the Real Time Window to the bottom of the screen
- Arrange Real Time Window Topmost The Real Time Window cannot be covered by any another window
- Show / Hide the Real Time Window



## 4.3 Espera Client Sidebar - "Configuration" Button

The "Configuration" button displays the Configuration Options menu, allowing the user to select the area of configuration (<u>Real Time</u>166), <u>Historical</u>197) or <u>Messaging</u>231) they wish to change.

NOTE: The "Configuration" button is not available to "Agent" or "Wallboard" User Roles 1661.





156	Espera Administration Manual	
	Configuration Options	
	Real-time Configuration Historical Configuration	
	Messaging	
	Close	

# 4.4 Espera Client Sidebar - "Sign In" Button

-

The "Sign In" button allows the currently logged in user to sign-in to any or all "Response Groups" listed in the popup window.

The "Sign In" button also allows the Espera Client user to "Sign Out" of specific "Response Group" whilst remaining logged into all other "Response Groups". The sign-in status is depicted as a <check> next to the "Response Group" name on the popup window.



# 4.5 Espera Client Sidebar - "Sign Out" Button

The "Sign Out" button allows the currently logged in user to sign-out of all "Response Groups" with a single mouse click.

NOTE: The sign-out button will not affect the "informal" agents.





# 4.6 Espera Client Sidebar - "Wrap-up" Button

The "Wrap-up" button allows the nomination of the default dictionary to be displayed by the wrap-up dialog box after a call is completed. <u>Administrators</u> [166] or <u>Supervisors</u> [232] also have configuration access to the wrap-up dictionaries.



# 4.7 Espera Client Sidebar - "Supervisor Screen" Button

Available to <u>Administrators</u> and <u>Supervisors</u> 232 only. The "Supervisor Screen" button allows onscreen or printed ad-hoc historical reporting from the configured historical reports for the selected time period (Last 10 minutes, Last 60 minutes or Today).

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-----	--

Advaītel	Queue	s									~ >>	Queues (Screen) • Last 10 minutes • Last 60 minutes • Today Oueues
Queue Name	Total Calls Receiv ed	Total Queue Calls Answ d	Total Calls Aband	% Calls Aband	Avg Talk Time	Avg Queue Time	Avg Wait Time	Longest Wait	Total Calls Overfl ow	Total Calls Interfl ow		× Select All Support Queue dmitryqueue3
Support Queue	0	0	0	0.00%	00:00:00	00:00:00	00:00:00	00:00:00	0	0		Everyone
dmitryqueue3	0	0	0	0.00%	00:00:00	00:00:00	00:00:00	00:00:00	0	0		Sales Queue
Everyone	3	1	2	66.67%	00:00:09	00:00:01	00:00:26	00:01:08	0	0		Reception Queue
Sales Queue	0	0	0	0.00%	00:00:00	00:00:00	00:00:00	00:00:00	0	0		dmitryqueue2 Development Queu
Reception Queue	7	2	5	71.43%	00:00:10	00:00:02	00:00:18	00:01:14	0	0		dmitryqueue1
dmitryqueue2	0	0	0	0.00%	00:00:00	00:00:00	00:00:00	00:00:00	0	0		ABC Recep Oueue
Development Queue	0	0	0	0.00%	00:00:00	00:00:00	00:00:00	00:00:00	0	0		<
dmitryqueue1	0	0	0	0.00%	00:00:00	00:00:00	00:00:00	00:00:00	0	0		Agents
ABC Recep Queue	0	0	0	0.00%	00:00:00	00:00:00	00:00:00	00:00:00	0	0		*
Max Queue	7	6	1	14.29%	00:00:04	00:00:02	00:00:08	00:00:15	0	0		Select All
Total	17	9	8	47.06%	00:00:06	00:00:02	00:00:15	00:01:14	0	0		✓ sip:brendan@advat
Esperar Evalutioner									Pa	ge 1 of '	1	<ul> <li>✓ sip:user1@advatel.cot</li> <li>✓ sip:user3@advatel.cot</li> <li>✓ sip:user3@advatel.cot</li> <li>✓ sip:user2@advatel.cot</li> <li>✓ sip:user2@advatel.cot</li> <li>✓ sip:user1@advatel.cot</li> </ul>

# 4.8 Espera Client Sidebar - "Help" Button

Launches the online Espera User Manual



## 4.9 Espera Client Sidebar - "About" Button

Launches the "About Espera" dialogue containing:

- Espera Client Version Information
- License Agreement



• Export Log (Exports the Espera Client log file for use by support)



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# 5 Espera Client Configuration

The level of configuration settings for the Espera Client is controlled by the "User's" role, as configured by the administrator in the Espera Configuration Manager.

Initial setup and configuration of the Espera Real Time display can only be performed by the Lync user whose URI is specified as the "administrator URI" in the Espera Server Configuration Manager, or, if partitioning is enabled, by the Lync user whose URI is specified as the "administrator URI" for that specific domain.

## 5.1 Espera Client Roles

The Espera has provision for four (4) User 172 roles:

- Administrator 166
- Supervisor 232
- <u>Agent</u> 233
- Wallboard 234

## 5.2 Administrator Configuration

Administrators have full and unrestricted access to all configuration options available at the Espera client.

Administrators configure "<u>User Sets</u> 168]", assign "<u>Users</u> 172]" to the "User Sets", allocate a role to the "User" and configure Real Time displays for either individual "Users", "User Sets" or "<u>Default</u> <u>Configuration</u> 167]"..

### 5.2.1 Real Time Configuration

Configuration Options
Real-time Configuration
Messaging
Close

### 5.2.1.1 Create/Modify the Real-Time Display "Default Configuration"

The "Default Configuration" applies to all "User Sets" and/or "Users" whose Real Time display configuration is displayed as "Inherited". "Inherited" is the default for all newly created "User Sets" and "Users". If Real Time display configuration has been previously assigned to a "User Set" or "User" it can be reset to "Inherited" by clicking on the <Reset> button.

If the "Default Configuration" is "Inherited", then an Espera User will receive NO Real Time display, if no "Custom" Real Time display configuration is assigned to the "User Set" or "User".

5.2.1.1.1 Create/Modify the Real-Time Display "Default Configuration" - Step 1

Select < Default Configuration>

🥙 Espera Configuration		x
Sepera User Set Config	uration	
Default Configuration		
User Sets:	Users:	
Add	Add	
	Apply Cancel	

#### Espera Administration Manual

5.2.1.1.2 Create/Modify the Real-Time Display "Default Configuration" - Step 2

Select	<fdit></fdit>	to create	the	"Default	Configuration"	template
OCICCI	Lair		ui i C	Delaun	Configuration	template

8		
🤹 Espera Configurat	ion	
Default Configuration		
User Sets:	Users:	
	Agent board configuration for <b>DEFAULT</b> :	
	Currently selected configuration: INHERITED	
	Reset Edit Cancel	
Add	Add	
	Apply Cancel	

#### 5.2.1.1.3 Create/Modify the Real-Time Display "Default Configuration" - Step 3

Follow directions from Create/Modify a "Custom" Real-Time Display- Step 3 180 onwards

### 5.2.1.2 Create/Modify "User Sets"

A "User Set" is a group of Users (not to be confused with Microsoft Lync Response Groups). "User Sets" introduce a way to assign the same Real-Time display configuration to multiple "Users" at once. The Real-Time configuration assigned to a "User Set" will be applicable to all "Users" added to the set unless the "User" has an individual "Custom" Real-Time display configuration assigned to it.

5.2.1.2.1 Create/Modify "User Sets" - Step 1

Select <Add> from the "User Sets" column

era Configuration		
🕵 Espera User Set Config	uration	
Default Configuration		
User Sets:	Users:	
Add	Add	
	Apply Cancel	
	(hpp) Galicer	

### Espera Administration Manual

5.2.1.2.2 Create/Modify "User Sets" - Step 2

Create a name for the User Set

Espera Co	spera Configuration				
	Set Espera User Set	Configuration			
	Default Configuration				
	User Sets:	Users:			
		Enter User Set Name			
		Add Cancel			
	Add	Add			
		Apply Cancel			

5.2.1.2.3 Create/Modify "User Sets" - Step 3

Select <Add> to confirm the newly created "User Set"

Espera Configuration		đ	×
🤹 Espera User Set C	onfiguration		
Default Configuration			
User Sets:	Users:		
	Enter User Set Name		
	Sales		
	Add Cancel		
Add			
	(Apply) (Cancel)		

### 172 Espera Administration Manual

5.2.1.2.4 Create/Modify "User Sets" - Step 4

Confirm the "User Set" has created correctly by selecting the name of the newly created "User Set". The <Add> button in the "Users" column will now be active.

🛃 Espera Configuration 📃 🖬						
Sepera User Set Configur	ration					
Default Configuration						
User Sets:	Users:					
Sales 🔍 😿						
Add	Add					
	Apply Cancel					

### 5.2.1.3 Assign "Users" to "User Sets"

Espera "Users" and Microsoft Lync Users are the same and are identified by their SIP URI.

When a "User" logs into Microsoft Lync, Espera will automatically provide that user with the Real-Time Display assigned to it.

- 5.2.1.3.1 Assign "Users" to "User Sets" Step 1
  - 1. Select the name of the "User Set" to add users into.
  - 2. Select the <Add> button in the "Users" column.

Espera Configuration			đ
🤹 Espera User Set Configur	ation		
Default Configuration			
User Sets:	Users:		
Sales 🔍 🔀			
		ł	
Add	Add		
	Apply Cancel		

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Espera Administration Manual

5.2.1.3.2 Assign "Users" to "User Sets" - Step 2

Scroll, or enter the users name in the "Filter", to find the user to add into the "User Set"

😻 Espera Configuration	ð	
Separa User Set Configuration		
Default Configuration		
User Sets:       Sales         Sales       Filter:         *       Conferencing Announcement Serv CAAPrivateContactObject-43b72e Audio Test Service Call Park Service RGS Presence Watcher Announcement Service Conferencing Announcement Serv CAAPrivateContactObject-43b72e Audio Test Service Conference Watcher Call Park Service RGS Presence Watcher Announcement Service development         Add       Cancel		
Add Add		
Apply Cancel		

5.2.1.3.3 Assign "Users" to "User Sets" - Step 3

- 1. Select the user name to add into the "User Set"
- 2. Select <Add>

Espera Configuration		7
Separation		
Default Configuration	)	
User Sets: Select User		
Sales  Filter:		
Add Add	J	
Apply Cancel		

## Espera Administration Manual

5.2.1.3.4 Assign "Users" to "User Sets" - Step 4

Select the "User" role 166 from the drop down list

Espera Configuration		
Cefault Configuration	ration	
User Sets:	Users:	
Sales	user3 sip:user3@advatel.com.au Agent Agent WallBoard Supervisor Administrator	
Add	Add	
	Apply Cancel	

5.2.1.3.5 Assign "Users" to "User Sets" - Step 5

Once all "Users" have been added to the "User Set" (with the appropriate role), select <Apply> to confirm the updated configuration into the Espera Server.

🖑 Espera Configuration		x
Sepera User Set Configuration		
Default Configuration		
User Sets: Users:		
Sales Supervisor	^	
User2		
sip:user2@advatel.com.au		
Agent		
user3 🖏 🏹		
sip:user3@advatel.com.au	=	
Agent		
Sales Wall Panel		
sip:saleswallpanel@advatel.com.au		
WallBoard		
Add Add		
(Apply) Cancel		

### 5.2.1.4 Create/Modify a "Custom" Real-Time Display

The Real-Time Display can be either "INHERITED" or "CUSTOM".

"INHERITED" is using the Real-Time Display configuration from the parent associated to *that* configuration (i.e. a <u>User's 172</u>) parent is the <u>User Set</u> [168], which that user is assigned too. A <u>User</u> <u>Set's 168</u>] parent is the <u>Default Configuration [167</u>]).

A "CUSTOM" Real-Time Display, is a customized Real-Time Display configuration belonging to that User Set 168 or User 172.

#### 5.2.1.4.1 Create/Modify a "Custom" Real-Time Display - Step 1

1. Select the "User Group" to create the "Custom" Real-Time Display configuration.

2. Click on the <sup>1</sup>/<sub>2</sub> icon to select the template options

178	Espera Administration Manual	
		d x
	Espera Configuration           Default Configuration	
	User Sets: Sales Support All	
	(Apply) Cancel	

5.2.1.4.2 Create/Modify a "Custom" Real-Time Display - Step 2

Select <Edit> to create a "Custom" Real-Time Display configuration

OR

-

Select <Reset> to reset the Real-Time Display configuration to "INHERITED" (i.e. use the parent configuration)

🤹 Espera Configuratio	on	
Default Configuration		
User Sets:	Users:	
Sales		
Support	sip:user1@advatel.com.au Supervisor	
	Agent board configuration for Sales: Currently selected configuration: CUSTOM Reset Edit Cancel	
Add	Add	
	Apply Cancel	

5.2.1.4.3 Add a Real-Time Display Row

A "Custom" Real-Time Display configuration can contain one (1) or many rows to display field information for one (1) or multiple Microsoft Lync Queues.

5.2.1.4.3.1 Add a Real-Time Display Row - Step 1

Select <Add> to create a "Row" to display in the Espera Real-Time Display.

Espera Configuration	
Average Delay (All Queues)	Add
Average Delay (Queue)	
Longest Delay (All Queues)	
Longest Delay (Queue)	
Calls In All Queues	
Calls In Queue	
Agents Assigned (All Queues)	
Agents Assigned (Queue)	
Agents Available (All Queues)	
Agents Available (Queue)	
Agents Busy (All Queues)	
Agents Busy (Queue)	
Agents DND (All Queues)	
Agents DND (Queue)	
Agents Logged In (All Queues)	
Agents Logged In (Queue)	
Agents Logged Out (All Queues)	Save Cancel
5.2.1.4.3.2 Add a Real-Time Display Row - Step 2

Select <Add> again to create as many "Rows" as required to be displayed in the Espera Real-Time Display.



5.2.1.4.4 Add Fields to a Row

A "Row" can contain zero or many fields to be displayed on the Espera Real-Time Display.

5.2.1.4.4.1 Add Fields to a Row - Step 1

To assign fields to a row, drag and drop the required field from the available list into the desired location in the required row (if multiple rows have been created).



#### 5.2.1.4.4.2 Add Fields to a Row - Step 2

Continue adding fields to the row(s), until all required fields are added and located in the desired position within the row(s).



5.2.1.4.5 Create / Modify Field Thresholds

Each field can be configured to change it's display characteristics based on threshold settings.

Characteristics available to each individual threshold setting are:

Font Color - White, Green, Amber, Red

Background Color - Green, Amber, Red, Transparent, White

Animation - Static, Flashing, Pulsating

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#### 5.2.1.4.5.1 Create / Modify Field Thresholds - Step 1

Click on the <sup>1</sup>/<sub>2</sub> icon in each assigned field, to edit that fields threshold settings







5.2.1.4.5.2 Create / Modify Field Thresholds - Step 2

Select the 🕂 icon to add additional threshold settings

😻 Espera Configuration	
Average Delay (All Queues)         Average Delay (Queue)         Calls in Queue         Longest Delay (Queue)         Agents Available (Queue)	
Long 🔍 Configure Real Time Settings	
Configure Thresholds for "Calls In Queue"	
Agent Font Colour: White Background Colour: Transparent Animation: Static Agent	
Age	
Agent	
Apply Cancel	
Apply Cancel	
Agents Logged In (Queue)	
Agents Logged Out (All Queues) Save Cancel	

5.2.1.4.5.3 Create / Modify Field Thresholds - Step 3

- 1. Configure the threshold settings as required for the desired field
- 2. Select <Apply> when completed



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Espera Configuration		
Average	Delay (Queue) Calls In Queue Longest Delay (Queue) Agents Available (Queue)	
Long	Configure Real Time Settings	
Cont	īgure Thresholds for "Agents Available (Queue)"	
Agent	Font Colour: White  Background Colour: Red  Animation: Flashing	0,
Age	Threshold value: 0	
Agent	Font Colour: White   Background Colour: Red   Animation: Pulsating	
Age X	Threshold value: 1	
Age	Font Colour: White Background Colour: Amber Animation: Static	
	Threshold value: 2	
Age	Font Colour: White   Background Colour: Green   Animation: Static	
A		
Agents	Apply Cancel	
Agents Lo	gged In (Queue)	
Agents Logge	ed Out (All Queues)	

5.2.1.4.5.4 Create / Modify Field Thresholds - Step 4

- 1. If the entered threshold settings are invalid, the invalid entries will be displayed in pink
- 2. Correct any invalid entries before selecting <Apply>

NOTE: The <Apply> button will not be available when any of the values is invalid



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Espera Configuration Average	Delay (All Queues)		Add				
	e Delay (Queue)		Calls in Queue	Longest Delay (	Queue) Ag	gents Available ((	
Long Loi	Configure Rea	al Time S	ettings				
Co	nfigure Thresholds for <b>"Lo</b>	ongest Delay (C	Jueue)"				
Agent	Font Colour:	hite 🗸	Background Colour:	Green	Animation:	Static 🗸	· _ Q
Age	Threshold value:	00:10					
Agent	Font Colour:	hite 🔹	Background Colour:	Amber 🔹	Animation:	Static 🗸	
Age	Threshold value:	00:15					
Age	Font Colour:	hite 🔹	Background Colour:	Red	Animation:	Pulsating 🚽	
	Threshold value:	00:30					
Age	Font Colour:	hite 🔹	Background Colour:	Red	Animation:	Flashing 🚽	•
A			Apply Can	cel			
Agents							
Agents L	ogged In (Queue)						
Agents Log	ged Out (All Queues)		Live Preview				

5.2.1.4.5.5 Create / Modify Field Thresholds - Step 5

- 1. Complete all field that require threshold settings to change the characteristics of the displayed information.
- 2. Select <Save> to complete the configuration

🐮 Espera Configuration				
Average Delay (All Queues)	Add			
Average Delay (Queue)				
Longest Delay (All Queues)	Calls in Queue	Longest Delay (Queue)	Agents Available (Queue)	
Longest Delay (Queue)				
Calls In All Queues	0	00:00	0	
Calls In Queue				Q,
Agents Assigned (All Queues)		*		
Agents Assigned (Queue)				
Agents Available (All Queues)				
Agents Available (Queue)				
Agents Busy (All Queues)				
Agents Busy (Queue)				
Agents DND (All Queues)				
Agents DND (Queue)				
Agents Logged In (All Queues)				
Agents Logged In (Queue)	•			•
Agents Logged Out (All Queues)	Live Preview		Save Cance	

#### 5.2.1.4.6 Add Lync Queue(s) to a Row

Multiple Lync Queues can be assigned to a row. If multiple Lync Queues are assigned to a row then the data fields which are applicable to a single queue will rotate their values at the configurable interval. The row will display the current Queue name for which the values are displayed on the left of the data fields. The data fields that are applicable to multiple Queues will always display an aggregated value for all queues assigned to the row.

# NOTE: If no queues are configures for a row, nothing will be displayed. You MUST always assign at least one queue to every row in the Real-Time display configuration.

5.2.1.4.6.1 Add Lync Response Group(s) to a Row - Step 1

Click on the icon next to the row to assign a Lync Response Group(s)					
8					×
Average Delay (Queue)	Calls in Queue	Longest Delay (Queue)	Agents Available (Queue)		* *
Longest Delay (All Queues)		, , , , , , , , , , , , , , , , , , , ,			
Longest Delay (Queue)					
Calls In Queues	0	00:00	U		
Calls In Queue					
Agents Assigned (All Queues)				<b>Q</b> )	

5.2.1.4.6.2 Add Lync Response Group(s) to a Row - Step 2

Select <Add>

😻 Espera Configuration	n				-0	
	Delay (All Que	╧═╤┨╟┝	Add			
Avera	ge Delay (Queu		Calls In Queue	Longest Delay (Queue)	Agents Available (Queue)	
Longest	Delay (All 🥤					
Longe	est Delay (Q	& Configure	Real Time Settin	gs	Here	
Call	s In All Que					
C	alls In Queu					<b>Q</b> ,
Agents A	ssigned (All					
Agents	Assigned (					
Agents A	vailable (All		Rotation Interval (m	im:ss): 00:05		
Agents	Available (					
Agents	Busy (All Q					
Agen	nts Busy (Qu					
Agents	DND (All Q	Add				
Agen	nts DND (Qu		Apply Can	cel		
Agents Lo	gged In (Al					
Agents	Logged In (Que	eue)		m		_,
Agents Log	gged Out (All Q	ueues)	Live Preview		Save Cancel	

5.2.1.4.6.3 Add Lync Response Group(s) to a Row - Step 3

192

From the drop down list, select the desired Lync Response Group "Queue"

🈻 Espera Configuration			
Average Delay (All Queues) Average Delay (Queue)	Calls In Queue Longest I	Delay (Queue) Agents /	Available (Queue)
Longest Delay (All 🤇			
Longest Delay (Q	ure Real Time Settings		Here
Calls In All Que			V
Calls In Queu			<b>Q</b> ,
Agents Assigned (All	Select Queue		
Agents Assigned (	Available Queues:		
Agents Available (All		<b>,</b>	
Agents Available (	Support Queue Everyone Sales Queue		
Agents Busy (All Q	Reception Queue		
Agents Busy (Qu	Development Queue ABC Recep Queue		
Agents DND (All Q Add			
Agents DND (Qu	Apply Cancel		
Agents Logged In (Al			
Agents Logged In (Queue)			
Agents Logged Out (All Queues)	C Live Preview	Save	Cancel

5.2.1.4.6.4 Add Lync Response Group(s) to a Row - Step 4

# Select <Add>

😻 Espera Configuration		
Average Delay (All Queue Average Delay (Queue		
Longest Delay (All 🧉	Calis In Queue Longest Delay (Queue)	Agents Available (Queue)
Longest Delay (Q	Configure Real Time Settings	Here
Calls In All Que		
Calls In Queu		<b>Q</b>
Agents Assigned (All	Select Queue	
Agents Assigned (	Available Queues:	
Agents Available (All	Sales Queue	
Agents Available (		
Agents Busy (All Q	Add Cancel	
Agents Busy (Qu		
Agents DND (All Q	Add	
Agents DND (Qu	Apply Cancel	
Agents Logged In (Al		
Agents Logged In (Queu		
Agents Logged Out (All Qu		

5.2.1.4.6.5 Add Lync Response Group(s) to a Row - Step 6

If no additional Lync Response Group "Queues" are to be displayed, select <Apply>

#### OR

If additional Lync Response Group "Queues" are to be displayed to the row, select <Add> and assign additional "Queues".

194	Espera Administration Manual
4	Espera Configuration
	Average Delay (All Queues)
	Calls in Queue Longest Delay (Queue) Agents Available (Queue)
	Longest Delay (All Configure Real Time Settings
	Calls In All Que Sales Queue 🕅
	Calls In Queu
	Agents Assigned (All
	Agents Assigned (
	Agents Available (All Rotation Interval (mm:ss): 00:05
	Agents Available (
	Agents Busy (All Q
	Agents Busy (Qu
	Agents DND (All Q Add Add
	Agents DND (Qu Apply Cancel
	Agents Logged In (Al
	Agents Logged In (Queue)
	Agents Logged Out (All Queues) Save Cancel

5.2.1.4.6.6 Add Lync Response Group(s) to a Row - Step 7

Configure the "Rotation interval" for each "Queue". The "Rotation interval" is the length of this that "Queue" will be displayed before scrolling to display the next assigned "Queue".

Select <Apply> when all settings have been configured.

# 195

8						
Average Delay (All Que	eues)	🛉 Add				^ []]
Average Delay (Queu	ie)				(	
Longest Delay (All Que	ues)	Calls In Queu	e Longest Delay (Q	ueue) Agents Ava	ilable (Queue)	
Longest Delay (Queu	ie)	Drag &	Prop 5	ields l	Here	
Calls In Queues		0	00:0		0	
Calls In Queue	💁 Configure	Agent Boa	rd Line			<b>Q</b> ,
Agents Assigned (All Q	Sales Queue					
Agents Assigned (Qu	Everyone	×				E
Agents Available (All Q						
Agents Available (Qu						
Agents Busy (All Que		Rotation	nterval (mm:ss): 00:05			
Agents Busy (Queu						
Agents DND (All Que						
Agents DND (Queu						
Agents Logged In (All Q	Add					
Agents Logged In (Qu						
Agents Logged Out (All		Apply	Cancel			
Agents Leaged Out (Or						

# 5.2.2 Real Time Datafields

Real Time datafields are available for display in the Real Time Window panel.

Total Abandoned Calls (All Queues)	This field represents the number of calls which
	were abandoned on all queues (terminated by the
	remote party before answering). If a call was
	transferred by overflow from one queue to another
	- it will be counted as abandoned on the last
	queue only.
Total Abandoned Calls	This field represents the number of calls which
	were abandoned on the queue (terminated by the
	remote party before answering). If a call was
	transferred by overflow from one queue to another
	- it will be counted as abandoned on the last
	queue only.
Avg Wait (All Queues)	Total Wait Time (All Queues) / Total Calls
	Received (All Queues) (queue calls only)
Avg Wait	Total Wait Time / Total Calls Received (queue
	calls only)
Longest Wait (All Queues)	Wait time of the longest call to all queues.
Longest Wait	Wait time of the longest call to the queue. Call
-	wait time is the aggregation of all time intervals
	when calls were waiting in all queues (when
	overflow) regardless whether it was alerting to any
	agents. Only calls which were initially offered in to

	this queue is taken into account. E.g. The only call was ringing to Queue 1 for a minute and then
	was transferred by overflow to Queue 2 and was
	ringing for 5 minutes. Then Queue 1 Longest Wait
	will be 6 minutes and Queue 2 — zero.
Calls Answered in Threshold (All Queues)	Number of call answered in the configured time
	interval for all queues
Calls Answered in Threshold	Number of call answered in the configured time
	interval to the queue
% Service Level (All Queues)	Percentage of calls answered within the
	configured time interval for all queues
% Service Level	Percentage of calls answered within the
	configured time interval for the queue
Calls Waiting (All Queues)	Number of calls waiting in all queues
Calls Waiting	Number of calls waiting in the queue
Total Calls Received (All Queues)	Number of calls offered in to all queues. If call
	was transferred by overflow from one queue to
	another - it will be counted as received on both
	queues.
Total Calls Received	Number of calls offered in to the queue. If call was
	transferred by overflow from one queue to another
	- it will be counted as received on both queues.
Agents Assigned (All Queues)	Number of agents assigned to all queues
Agents Assigned	Number of agents assigned to the queue
Agent Available (All Queues)	Number of available (idle) agents in all queues
Agent Available	Number of available (idle) agents in the queue
Agents Busy (All Queues)	Number of agents in a busy state, in all queues
Agents Busy	Number of agents in a busy state, in the queues
Agents DND (All Queues)	Number of agents in a DND state, in all queues
Agents DND	Number of agents in a DND state, in the queues
Agents Logged In (All Queues)	Number of agents logged into all queues
Agents Logged in	Number of agents logged into the queue
Agents Logged Out (All Queues)	Number of agents logged out of all queues
Agents Logged Out	Number of agents logged out of the queue
Agents Offline (All Queues)	Number of agents offline from all queues
Agents Offline	Number of agents offline from the queue
Agents On A Call (All Queues)	Number of agents on a call (talk state) in all
	queues
Agents On A Call	Number of agents on a call (talk state) in the
	queue

# 5.2.3 Historical Configuration

Configuration Options
Real-time Configuration
Historical Configuration Messaging
Close

## 5.2.3.1 Historical Datafields

Historical datafields are available in the Historical Report Template Editor, for use in manual and/or scheduled reports and the supervisor screen.

#### 5.2.3.1.1 Queue Datafields

F	
Avg # of Agents	Average Number of agent signed in to the queue over report period. =SignTotalMinutes / ReportingPeriod, where SignTotalMinutes is the total number of minutes (sum) across all agents that were signed in to the queue during the reporting period, therefore, when this number is divided by the reporting period, we get the average number of agents available per time unit during the period. For example, 2 agents available over 3 hours period. Agent 1 was available for 1:30 hrs while Agent 2 was available during the whole 3 hours. So the value of SignTotalTime will be 90 +180=270 minutes and the reporting period is 180 minutes. 270/180=3/2=1.5 agents on average over 3 hours
Avg Queue Time	Total Queue Time / Total Calls Received (queue calls only)
Avg Ring Time	Total Ring Time / CallsCount, where CallsCount is number of calls summed up in the Total Ring Time field.See Total Ring Time for more details.
Avg Speed of Answer	Total Ring Time / Total Queue Calls Answd
Avg Talk Time (Queued Calls)	Total Talk Time / Total Queue Calls Answd

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Avg Wait Time	Total Wait Time / Total Calls Received (Queue calls only)
Avg Wrapup Time	Total Wrap-up Time / Total Queue Calls Answd
Longest Wait	Wait time of the longest call to the queue. Call
	wait time is the aggregation of all time intervals
	when calls were waiting in all queues (when
	overflow) regardless whether it was alerting to any
	agents. Only calls which were initially offered in to
	this queue is taken into account. E.g. The only
	call was ringing to Queue 1 for a minute and then
	was transferred by overflow to Queue 2 and was
	ringing for 5 minutes. Then Queue 1 Longest Wait
	will be 6 minutes and Queue 2 — zero.
Calls Aband (0-30 sec)	Same as Total Calls Aband except that this field
	includes only calls with wait time in the interval
	from 0 to 30 seconds.
Calls Aband (30-60sec)	Same as Total Calls Aband except that this field
	includes only calls with wait time in the interval
Calla Abard (CO 120 as a)	from 30 to 60 seconds.
Calls Aband (60-120 sec)	Same as Total Calls Aband except that this field
	includes only calls with wait time in the interval from 60 to 120 seconds.
Calls Aband (120+ sec)	Same as Total Calls Aband except that this field
Calls Aballu (120+ Sec)	includes only calls with wait time more than 120
	seconds.
Calls Aband (0-60 sec)	Same as Total Calls Aband except that this field
	includes only calls with wait time in the interval
	from 0 to 60 seconds.
Calls Aband (0-90 sec)	Same as Total Calls Aband except that this field
	includes only calls with wait time in the interval
	from 0 to 90 seconds.
Calls Aband (0-120 sec)	Same as Total Calls Aband except that this field
	includes only calls with wait time in the interval
	from 0 to 120 seconds.
Calls Answd (0-30 sec)	Same as Total Calls Answd except that this field
	includes only calls with wait time in the interval
	from 0 to 30 seconds.
Calls Answd (30-60 sec)	Same as Total Calls Answd except that this field
	includes only calls with wait time in the interval from 30 to 60 seconds.
Calls Answd (60-120 sec)	Same as Total Calls Answd except that this field
00-120 300)	includes only calls with wait time in the interval
	from 60 to 120 seconds.
Calls Answd (120+ sec)	Same as Total Calls Answd except that this field
	includes only calls with wait time more than 120
	seconds.
Calls Answd (0-60 sec)	Same as Total Calls Answd except that this field
	includes only calls with wait time in the interval
	from 0 to 60 seconds.
Calls Answd (0-90 sec)	Same as Total Calls Answd except that this field
· · · · ·	includes only calls with wait time in the interval
	from 0 to 90 seconds.
Calls Answd (0-120 sec)	Same as Total Calls Answd except that this field

	includes only calls with wait time in the interval
	from 0 to 120 seconds.
% Calls Aband	Calls Aband / Total Calls Received * 100% (queue
	calls only)
% Calls Aband (0-30 sec)	Calls Aband (0-30 sec) / Total Calls Received *
	100% (queue calls only)
% Calls Aband (30-60 sec)	Calls Aband (30-60 sec) / Total Calls Received *
/	100% (queue calls only)
% Calls Aband (60-120 sec)	Calls Aband (60-120 sec) / Total Calls Received *
	100% (queue calls only)
% Calls Aband (120+ sec)	Calls Aband (120+ sec) / Total Calls Received *
/	100% (queue calls only)
% Calls Aband (0-60 sec)	Calls Aband (0-60 sec) / Total Calls Received *
	100% (queue calls only)
% Calls Aband (0-90 sec)	Calls Aband (0-90 sec) / Total Calls Received *
	100% (queue calls only)
% Calls Aband (0-120 sec)	Calls Aband (0-120 sec) / Total Calls Received *
	100% (queue calls only)
% Calls Answd (0-30sec)	Calls Answd (0-30 sec) / Total Calls Received *
/ Calls Allswu (0-505eC)	100% (queue calls only)
% Calls Answd (30-60 sec)	Calls Answd (30-60 sec) / Total Calls Received *
/ Calls Allswu (30-60 Sec)	100% (queue calls only)
% Calls Answd (60-120 sec)	Calls Answd (60-120 sec) / Total Calls Received *
% Calls Allswu (60-120 Sec)	
9/ Calle Angud (120 Leas )	100% (queue calls only)
% Calls Answd (120+ sec )	Calls Answd (120+ sec) / Total Calls Received *
9/ Calla Annud (0.00 ca c)	100% (queue calls only)
% Calls Answd (0-60 sec)	Calls Answd (0-60 sec) / Total Calls Received *
	100% (queue calls only)
% Calls Answd (0-90 sec)	Calls Answd (0-90 sec) / Total Calls Received *
	100% (queue calls only)
% Calls Answd (0-120 sec)	Calls Answd (0-120 sec) / Total Calls Received *
	100% (queue calls only)
Total Calls Answd	The number of calls which were answered on the
	queue by one of the agents selected for the
	report. If a call is transferred by overflow from one
	queue to another - it will be counted as answered
	on the last queue only. Note, if the answering
	party is not an agent (e.g. some unknown user
	picks up the call from the queue), this call will be
Tatal Lawson din Tima	counted as well.
Total Logged-in Time	Aggregated duration of time intervals when at
	least one of the agents selected for the report is
Tatal Oalla Abandanad	signed-in to the queue.
Total Calls Abandoned	The number of calls which were abandoned on the
	queue (terminated by the remote party before
	answering). If a call was transferred by overflow
	from one queue to another - it will be counted as
	abandoned on the last queue only.
Total Calls Received	The number of calls offered in to the queue. If call
	was transferred by overflow from one queue to
	another - it will be counted as received on both
	queues.
Total Calls Overflow	Number of calls which was first ringing on the

	guous and then ringing on another succes. Notes in
	queue and than ringing on another queue. Note: is always 0 for Workflow
Total Calls Interflow	Number of calls which was first ringing on another
	queue and than ringing on the queue.
Total Queued Time	Total Wait Time - Total Ring Time. Shows time
	when call was in the queue, but there was no
	agents available.
Total Ring Time	This field is a sum of ring time for all queue calls
-	(the calls that were alerting at agent's phone).
	Call ring time is the aggregation of all time
	intervals when calls were waiting in the queue and
	alerting to at least one of the agents selected for
	the report. If a call was ringing for 2 minutes to 3
	agents at the same time, aggregated call ring
	time will be 2 minutes (not 6). Note: is always
	zero for Workflows.
Total Talk Time (Queue)	Total talk time of the agent. Talk time is the
	elapsed time between the time an agent connects
	to a call and when the call is disconnected or
	transferred.
Total Wait Time	Sum of wait time for all queue calls (the calls that
	were offered in to the queue). Call wait time is
	the aggregation of all time intervals when calls
	were waiting in the queue regardless whether it
	was alerting to any agents. For Workflows it
	shows time until call is offered in to the queue (it
	includes greeting time and IVR time).

#### 5.2.3.1.2 Agent Datafields

Avg Speed of Answer	Total Ring Time / Total Queue Calls Answd
Avg Talk Time (Non Queue Calls)	Total Talk Time (Non Queue) / Total Calls Answd
	(Non Queue)
Ava Talk Tima (Quana Calla)	
Avg Talk Time (Queue Calls)	Total Talk Time / Total Queue Calls Answd
Avg Wrap Up Time	Total Wrap-up Time / Total Queue Calls Answd
% Calls Answd (0-60 sec)	Calls Answd (0-60 sec) / Total Calls Received *
	100% (queue calls only)
Total Calls Answered	Total number of queued calls that have been
	connected to the agent.
Total Outgoing Calls	Number of all answered outgoing calls (non-
	queue) which was initiated (made) by the agent.
	Call is counted only if the agent is subscribed to
	at least one queue at the time of the call.
Total Talk Time (Queue)	Sum of talk durations for all calls which were
	answered on one of the queues selected for the
	report by the agent.
Total Busy Time	Total Wrap-up time + Total Talk Time in the row
% Calls Answd (0-120 sec)	Calls Answd (0-120 sec) / Total Calls Received *
· · ·	100% (queue calls only)
Total Incoming Calls Answd	This field represents number of all calls (queue
	and non-queue) which was answered by one of

	the agents selected for the report. And the answered agent should be subscribed to at least one queue at the time of answer .
Total Calls Aband	This field represents the number of calls which were abandoned on one of the queues selected for the report.
% Calls Answd (0-90 sec)	Calls Answd (0-90 sec) / Total Calls Received * 100% (queue calls only)
Total Queued Time	Total Wait Time - Total Ring Time in the row. Shows time when call was in the queue, but there was no agents available.

5.2.3.1.3 Queue By Agent Datafields

Avg Speed of Answer	Total Ring Time / Total Queue Calls Answd
Avg Talk Time (Queue Calls)	Total Talk Time / Total Queue Calls Answd
Total Outgoing Calls	Number of all answered outgoing calls (non-
	queue) which was initiated (made) by the agent.
	Call is counted only if the agent is subscribed to
	at least one queue at the time of the call .
Total Calls Answered	This field represents the number of calls which
	were answered on the queue by one of the agents
	selected for the report. If a call is transferred by
	overflow from one queue to another - it will be
	counted as answered on the last queue only.
	Note, if the answering party is not an agent (e.g.
	some unknown user picks up the call from the
	queue), this call will be counted as well.
% Calls Answd (0-90 sec)	Calls Answd (0-90 sec) / Total Calls Received *
	100% (queue calls only)

5.2.3.1.4 Agent By Queue Datafields

Avg Speed of Answer	The average time that elapsed between the call ringing at an agent extension and the agent connecting to the call.
Avg Talk Time (Queue Calls)	Average talk time for all calls that agent has handled.
Total Outgoing Calls	Number of all answered outgoing calls (non- queue) which was initiated (made) by one of the agents selected for the report. Call is counted only if the agent is subscribed to at least one queue at the time of the call.
% Calls Aband	Calls Aband / Total Calls Received * 100% (queue calls only)
Total Calls Answered	This field represents number of calls which were answered on the queue by an agent.
% Calls Aband (0-90 sec)	Calls Aband (0-90 sec) / Total Calls Received * 100% (queue calls only)

## 5.2.3.2 Historical Report Templates

To display a report in the Supervisor Screen or generate a Historical Report, you must fist create a Historical Report Template. The following topics cover the elements available to be displayed in a template.

#### 5.2.3.2.1 Create/Modify Historical Report Template - New Template

Press <New> to begin creating a new Historical Template, OR <Edit> to edit the currently selected Historical Template



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🤽 Report Editor		
☑ Enable Page Header	_	
A4 Port	rait 🔹	
Apply Cancel		

5.2.3.2.2 Create/Modify Historical Report Template - Static Image Box

Static images can be inserted anywhere into the template. To insert an image into the template:

- 1. Drag the Image icon to the location on the template for the image
- 2. Click the sicon to edit the Image Box
- 3. <Browse> and select the image file
- 4. < Apply> to save the image
- 5. The image can be resized in the template by highlighting the image and adjusting the size with the handles



Select Image
<text><text><text><text><text></text></text></text></text></text>



5.2.3.2.3 Create/Modify Historical Report Template - Static Text Box

Static Text can be inserted anywhere into the template. To insert a Text Box into the template:

- 1. Drag the Text icon to the location on the template for the text box.
- 2. Click the  $\bigcirc$  icon to edit the Text Box
- 3. Enter the required text. You can also change the font, size, font color, background color, justification, wrap settings, or insert variable text)
- 4. <Apply> to save the text box contents
- 5. The Text Box can be resized in the template by highlighting the text box and adjusting the size with the handles

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TEST REPORT	
Apply Cance	



5.2.3.2.4 Create/Modify Historical Report Template - Queue Statistics

A Queue Table can be inserted into the body of the template. To insert a Queue Table into the template:

- 1. Drag the Queue Table icon into the body of the template
- 2. Click the Queue Table
- 3. Select the datafield(s) to be reported on in table and <Add> to the right-hand column
- 4. The order of the datafields can be changed with the <Up> & <Down> buttons
- 5. < Apply> to save the configuration



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Select Columns			
% Calls Answd (0-10 sec) % Calls Answd (10-30 sec) % Calls Answd (30-60 sec) % Calls Answd (60-120 sec) % Calls Answd (120+ sec) % Calls Answd (0-60 sec) % Calls Answd (0-90 sec) % Calls Answd (0-120 sec) % Calls Answd (0-120 sec) Total Logged-in Time Total Calls Overflow Total Calls Overflow Total Calls Interflow Total Calls Interflow Total Queued Time Total Ring Time Total Ring Time Total Talk Time Total Wait Time	Add >> << Remove	Avg Queue Time Avg Talk Time Total Queue Calls Answd Total Calls Aband Total Calls Received	
	Apply Cano	cel	

5.2.3.2.5 Create/Modify Historical Report Template - Agent Statistics

An Agents Table can be inserted into the body of the template. To insert an Agent Table into the template:

- 1. Drag the Agent Table icon into the body of the template
- 2. Click the <sup>Q</sup> icon to edit the Agent Table
- 3. Select the datafield(s) to be reported on in table and <Add> to the right-hand column
- 4. The order of the datafields can be changed with the <Up> & <Down> buttons
- 5. < Apply> to save the configuration



5.2.3.2.6 Create/Modify Historical Report Template - Queues Grouped By Agents

A Queues By Agent Table can be inserted into the body of the template. To insert a Queues By Agent Table into the template:

- 1. Drag the Queues By Agent Table icon into the body of the template
- 2. Click the <sup>Q</sup> icon to edit the Queues By Agent Table
- 3. Select the datafield(s) to be reported on in table and <Add> to the right-hand column
- 4. The order of the datafields can be changed with the <Up> & <Down> buttons
- 5. < Apply> to save the configuration

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🕵 Report Editor				
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TEST	REPORT			
Avg Queue Time	Avg Talk Time	Total Queue Calls Answd	Total Calls Aband	Total Calls Received 🔍
Avg Speed of A	Inswer	Avg Talk Time	Avg	g Wrap-up Time
4	Queue by Agent			A4 Portrait •
		Apply Cancel		

Select Columns			
Avg Talk Time Total Ring Time Total Talk Time	Add >> << Remove	Avg Speed of Answer Total Queue Calls Answd	Down <b>▼</b>
C	Apply Cance	el	

5.2.3.2.7 Create/Modify Historical Report Template - Agents Grouped By Queues

An Agents By Queue Table can be inserted into the body of the template. To insert an Agents By Queue Table into the template:

- 1. Drag the Agents By Queue Table icon into the body of the template
- 2. Click the <sup>Q</sup> icon to edit the Agents By Queue Table
- 3. Select the datafield(s) to be reported on in table and <Add> to the right-hand column
- 4. The order of the datafields can be changed with the <Up> & <Down> buttons
- 5. < Apply> to save the configuration

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TEST REPORT®	
Avg Queue Time Avg Talk Time Total Queue Calls Answd	Total Calls Aband Total Calls Received
Avg Speed of Answer Avg Talk Time	Avg Wrap-up Time 🔍
Avg Speed of Answer	Total Queue Calls Answd
Agent by Rueue	A4 Portrait •
Apply Cancel	)

Select Columns			
Avg Speed of Answer Total Queue Calls Answd Total Logged-in Time Total Ring Time	Add >> << Remove	Avg Talk Time Total Talk Time Up ▲	Down <b>V</b>
	Apply Cance		

5.2.3.2.8 Create/Modify Historical Report Template - Wrap Up Statistics

A Wrap Up Table can be inserted into the body of the template. To insert a Wrap Up Table into the template:

- 1. Drag the Wrap Up Table icon into the body of the template
- 2. Click the  $\bigcirc$  icon to edit the Agent Table
- 3. Select the Wrap Up Dictionary to be reported on in table
- 4. <Apply> to save the configuration

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Avg Queue Time	Avg Talk Time	Total Queue	Calls Answd	Tot	tal Calls Aband	Total Calls Re	eceived 🔍
Avg Speed of A	nswer	Avg Ta	lk Time		Avg	Wrap-up Time	<b>Q</b> ,
A	vg Speed of Answer				Total Queue Calls Ar	iswd	<b>Q</b> ,
	Avg Talk Time				Total Talk Time		<b>Q</b> ,
	Wrap-up ble					A4 F	Portrait •
*							) 
		Apply	Cancel				

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Select Wrap up dictionary
Default Dictionary

5.2.3.2.9 Create/Modify Historical Report Template - Time Intervals

A Time Interval Table can be inserted into the body of the template. To insert a Time Interval Table into the template:

- 1. Drag the Time Interval Table icon into the body of the template
- 2. Click the <sup>Q</sup> icon to edit the Agent Table
- 3. Select the datafield(s) to be reported on in table and <Add> to the right-hand column
- 4. The order of the datafields can be changed with the <Up> & <Down> buttons
- 5. Select the time interval required from the drop down list
- 6. < Apply> to save the configuration


5.2.3.2.10 Create/Modify Historical Report Template - Pie Charts

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A Pie Chart can be inserted anywhere in the body of the template. To insert a Pie Chart into the template:

- 1. Drag the Pie Chart icon to the location on the template for the Pie Chart
- 2. Click the <sup>Q</sup> icon to edit the Pie Chart
- 3. Select the field to be report in the Pie Chart
- 4. <OK> to save the Pie Chart configuration
- 5. The Pie Chart can be resized in the template by highlighting the Pie Chart and adjust the size with the handles



Select Field	
Avg Busy Time	
Avg Busy Time 😽	
Avg Speed of Answer	
Avg Talk Time (Non Queued Calls)	
Avg Talk Time	
Avg Wrap-up Time	
Total Busy Time	$\mathcal{I}$
Total Queue Calls Answd	
Total Incoming Calls Answd	
Total Call Answd (Non Queue)	
Total Logged-in Time	
Total Outgoing Calls	
Total Ring Time	
Total Talk Time (Non Queue)	
Total Talk Time	
Total Wrap-up Time	

5.2.3.2.11 Create/Modify Historical Report Template - Bar Graph

A Bar Graph can be inserted anywhere in the body of the template. To insert a Bar Graph into the template:

- 1. Drag the Bar Graph icon to the location on the template for the Bar Graph
- 2. Click the <sup>Q</sup> icon to edit the Bar Graph
- 3. Select the field to be report in the bar graph along with the time interval
- 4. <OK> to save the Bar Graph configuration
- 5. The Bar Graph can be resized in the template by highlighting the Bar Graph and adjust the size with the handles



- 5.2.3.2.12 Create/Modify Historical Report Template Template Name
  - 1. When the template has been created in the desired format, select <Apply>
  - 2. Enter a name for the Historical Report Template, then click <Save> to save the template.



### 5.2.3.3 Historical Report Schedules

Historical Reports can be scheduled to run at pre-determined days/times. The following steps will guide you through creating/modifying a report schedule.

5.2.3.3.1 Create/Modify Historical Report Schedules - Step 1

Click <New> to start a new report schedule, or <Edit> to edit an existing report schedule

Schedules	
New Edit	Delete

5.2.3.3.2 Create/Modify Historical Report Schedules - Step 2

1. Select the pre configured template from the Template list.

Template		•			
🔘 Yesterda	y 🔿 Last Week 🔎 Last Mor	nth 🔘 Las	st 12 I	Nonth	
O Specified	d date range:				
Start date:	1/12/2012	15	time:	00:00	-
End date:	31/12/2012	15	time:	23 : 59	<b>A</b>
Queues:	All				▼
Agents:	All				•
Report		ancel			
	Next C Parameters	ancel			
Template	Parameters	ancel			
Template O Yesterda	Parameters Agents (Screen) Agents by Queues (Screen)	ancel	121	Nonth	
Template O Yesterda	Parameters	ancel	12 1	Aonth	
Template O Yesterda	Parameters Agents (Screen) Agents by Queues (Screen) Agents by Queues Agents Queues (Screen)	ancel	t 12 N ime:	Aonth 00 : 00	4
Template O Yesterda O Specified	Parameters Agents (Screen) Agents by Queues (Screen) Agents by Queues Agents Queues (Screen) Queues by Agents (Screen) Queues by Agents	ancel		00 : 00	<b>▲</b> <b>↓</b>
Template O Yesterda O Specified Start date:	Parameters Agents (Screen) Agents by Queues (Screen) Agents Queues (Screen) Queues (Screen) Queues by Agents (Screen)		ime: ime:	00 : 00	<ul> <li>▲</li> <li>▲</li> <li>↓</li> <li>↓</li> <li>↓</li> </ul>
Template Yesterda Specified Start date: End date:	Parameters Agents (Screen) Agents by Queues (Screen) Agents Queues (Screen) Queues by Agents Queues		ime: ime:	00 : 00	<ul> <li>↓</li> <li>↓</li></ul>

5.2.3.3.3 Create/Modify Historical Report Schedules - Step 3

- 1. Select from the predetermined date ranges, or specify a date range for the report
- 2. Select the Queue or Queues for the report
- 3. Select the Agent or Agents for the report
- 4. Select <Next> to continue

NOTE: The "Report Parameters" MUST contain at least one (1) "Queue" and one (1) "Agent" to generate a report.

Template	Agents (Screen)	•
🔘 Yesterda	y 🔿 Last Week 🍳 Last M	onth 🔘 Last 12 Month
O Specified	d date range:	
Start date:	1/12/2012	15 time: 00 : 00 🖨
End date:	31/12/2012	15 time: 23 : 59 🖨
Queues:	All	
Agents:	All	
_		

5.2.3.3.4 Create/Modify Historical Report Schedules - Step 4

- 1. Select the report frequency:
  - One Time Report will run "One Time" only at the specified date/time and not repeat.
  - Daily Report will run every x number of day(s), at the specified time, starting from the specified date
  - Weekly Report will run on the selected days, every x week(s)
  - Monthly Report will run every x month(s), on the specified day of the month
- 2. Select "Send to default printer" if the report is to be printed to the default printer on the Espera Server.
- 3. Select "Send to e-mail" and specify an email address, if the report is to be sent by email.
  - Select the format for the report from the drop down list. Options are: Xps For viewing the report onscreen or manually printing; Csv - Format allowing the report data to be used by other database programs.

|

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4. Press <Save> to save the scheduled report

Report Sch	eduling
Report Template: Age	ents (Screen), from 1/12/2012 12:00:00 AM to 31/12/2012 11:5!
<ul> <li>One Time</li> <li>Daily</li> <li>Weekly</li> <li>Monthly</li> </ul>	Start date: 2/01/2013 is time: 23 : 00 Recurs Every 1 week(s) Sunday Monday Tuesday Wednesday Thursday Friday Saturday
Send to defaul	t printer
✓ Send to e-mail	Espera.Support@advatel.com.au
Select format:	Xps 🗸
	Back Save Cancel

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5.2.3.3.5 Create/Modify Historical Report Schedules - Step 5

Confirm the schedule has been created and has the correct schedule details.

🐮 Espera Configuration	
Espera Historical	
Report Templates         Agents (Screen)         Agents by Queues (Screen)         Agents Green)         Queues (Screen)         Queues by Agents (Screen)         Queues by Agents (Screen)         Queues         Wrap-up by agents - default dictionary	Schedules Scheduled report for template 'Agents (Screen)', Weekly at 01/02/2013 23:00:00
New Edit Run Delete	New Edit Delete
C	lose

### 5.2.3.4 Run Historical Report

Historical Reports can be run manually at any time. The following steps will guide you through running a manual historical report.

5.2.3.4.1 Run Historical Report - Step 1

Select <Run> from the Historical Configuration screen, or <Print> from the Supervisor Screen.

Report Templates	
Agents (Screen)	
Agents by Queues (Screen)	
Agents by Queues	
Agents	
Queues (Screen) Queues by Agents (Screen)	
Queues by Agents (Screen)	
Queues	
Wrap-up by agents - default dictionary	
New Edit Run	Delete
-	

### **Historical Configuration**

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Adva <b>ī</b> el	ll Queue	es								<<		Queues (Screen) Last 10 minutes Last 60 minutes Today
Queue Name	Total Calls Receiv ed	Total Queue Calls Answ d	Total Calls Aband	% Calls Aband	Avg Talk Time	Avg Queue Time	Avg Wait Time	Longest Wait	Total Calls Overfl ow	Total Calls Interfl ow	1	ueues ∗ Select All ✓ Support Queue ✓ dmitryqueue3
Support Queue	0	0	0	0.00%	00:00:00	00:00:00	00:00:00	00:00:00	0	0		V Everyone
dmitryqueue3	0	0	0	0.00%	00:00:00	00:00:00	00:00:00	00:00:00	0	0		Sales Queue
Everyone	3	1	2	66.67%	00:00:09	00:00:01	00:00:26	00:01:08	0	0		Reception Queue
Sales Queue	0	0	0	0.00%	00:00:00	00:00:00	00:00:00	00:00:00	0	0		dmitryqueue2
Reception Queue	7	2	5	71.43%	00:00:10	00:00:02	00:00:18	00:01:14	0	0		Development Queue dmitryqueue1
dmitryqueue2	0	0	0	0.00%	00:00:00	00:00:00	00:00:00	00:00:00	0	0		ABC Recep Oueue
Development Queue	0	0	0	0.00%	00:00:00	00:00:00	00:00:00	00:00:00	0	0	- III	۲ III
dmitryqueue1	0	0	0	0.00%	00:00:00	00:00:00	00:00:00	00:00:00	0	0	A	gents
ABC Recep Queue	0	0	0	0.00%	00:00:00	00:00:00	00:00:00	00:00:00	0	0		*
Max Queue	7	6	1	14.29%	00:00:04	00:00:02	00:00:08	00:00:15	0	0		Select All
Total	17	9	8	47.06%	00:00:06	00:00:02	00:00:15	00:01:14	0	0		sip:brendan@advate
Espera- tybeliestes									Pa	ge 1 of 1		sip:user1@advatel.com     sip:user3@advatel.com     sip:user3@advatel.com     sip:user3@advatel.com     sip:demity@advatel.com     sip:lee@advatel.com.     sip:lee@advatel.com.     sip:lee@advatel.com     sip:len@advatel.com     sip:len@adva

Supervisor Screen

#### 5.2.3.4.2 Run Historical Report - Step 2

- 1. Select the pre configured template from the Template list.
- 2. Select from the predetermined date ranges, or specify a date range for the report
- 3. Select the Queue or Queues for the report
- 4. Select the Agent or Agents for the report
- 5. Select <Next> to continue

NOTE: The "Report Parameters" MUST contain at least one (1) "Queue" and one (1) "Agent" to generate a report.

Template	Agents (Screen)	•	
O Yesterda	y 🔿 Last Week 🔍 Last Mon	th 🔘 Last 12 Mor	nth
O Specified	date range:		
Start date:	1/12/2012	15 time: 00	: 00 🜲
End date:	31/12/2012	15 time: 23	: 59 🔶
Queues:	All		•
Agents:	All		▼
			_

5.2.3.4.3 Run Historical Report - Step 3

The Report Preview allows printing of the report using the printer icon, or exporting to a CSV file via the <Export> button.

Agent Name         Total Logged-in Time         Total Incoming Calls Answd         Avg Talk Time           Brendan Evans         11:36:17         0         00:00:00           User1         11:36:17         0         00:00:00           Max Vasiliev         11:36:17         0         00:00:00           user3         11:36:17         0         00:00:00           Dmitry Nikitin         11:36:17         0         00:00:00           User2         11:36:17         0         00:00:00           Lee Davis         11:36:17         0         00:00:00           Glenn Fisher         11:36:17         0         00:00:00           Wallboard Q. Display-o-Mat         11:36:17         0         00:00:00           d5         11:36:17         0         00:00:00:00           d1         11:36:17         0         00:00:00:00           d2         11:36:17         0         00:00:00:00           Total         6 d 06:51:44         0         00:00:00:00	Report Preview <ul> <li> <ul> <li> <li> <ul> <li> <li> <ul> <li>Agents</li> </ul> </li></li></ul></li></li></ul></li></ul>				
Brendan Evans         J         J         O         000000           User1         11:36:17         0         000000           Max Vasiliev         11:36:17         0         000000           user3         11:36:17         0         000000           Dmitry Nikitin         11:36:17         0         000000           User2         11:36:17         0         0000000           User3         11:36:17         0         0000000           User2         11:36:17         0         0000000           Glenn Fisher         11:36:17         0         0000000           Wallboard Q. Display-o-Mat         11:36:17         0         0000000           d4         11:36:17         0         0000000           d5         11:36:17         0         0000000           d2         11:36:17         0         0000000		Total Logged-in Time	Total Incoming Calls Answd	Avg Talk Time	_
User1         11:36:17         0         00:00:00           Max Vasiliev         11:36:17         0         00:00:00           user3         11:36:17         0         00:00:00           Dmitry Nikitin         11:36:17         0         00:00:00           User2         11:36:17         0         00:00:00           User3         11:36:17         0         00:00:00           Glenn Fisher         11:36:17         0         00:00:00           Wallboard Q. Display-o-Mat         11:36:17         0         00:00:00           d4         11:36:17         0         00:00:00           d5         11:36:17         0         00:00:00           d1         11:36:17         0         00:00:00           d2         11:36:17         0         00:00:00	, ,			-	—
user3         11:36:17         0         00:00:00           Dmitry Nikitin         11:36:17         0         00:00:00           User2         11:36:17         0         00:00:00           Lee Davis         11:36:17         0         00:00:00           Glenn Fisher         11:36:17         0         00:00:00           Wallboard Q. Display-o-Mat         11:36:17         0         00:00:00           d4         11:36:17         0         00:00:00           d5         11:36:17         0         00:00:00           d1         11:36:17         0         00:00:00           d2         11:36:17         0         00:00:00					
Dmitry Nikitin         11:36:17         0         00:00:00           User2         11:36:17         0         00:00:00           Lee Davis         11:36:17         0         00:00:00           Glenn Fisher         11:36:17         0         00:00:00           Wallboard Q. Display-o-Mat         11:36:17         0         00:00:00           d4         11:36:17         0         00:00:00           d5         11:36:17         0         00:00:00           d1         11:36:17         0         00:00:00           d2         11:36:17         0         00:00:00	Max Vasiliev	11:36:17	0	00:00:00	
User2         11:36:17         0         00:00:00           Lee Davis         11:36:17         0         00:00:00           Glenn Fisher         11:36:17         0         00:00:00           Wallboard Q. Display-o-Mat         11:36:17         0         00:00:00           d4         11:36:17         0         00:00:00           d5         11:36:17         0         00:00:00           d1         11:36:17         0         00:00:00           d2         11:36:17         0         00:00:00	user3	11:36:17	0	00:00:00	
User2         11:36:17         0         00:00:00           Lee Davis         11:36:17         0         00:00:00           Glenn Fisher         11:36:17         0         00:00:00           Wallboard Q. Display-o-Mat         11:36:17         0         00:00:00           d4         11:36:17         0         00:00:00           d5         11:36:17         0         00:00:00           d1         11:36:17         0         00:00:00           d2         11:36:17         0         00:00:00	Dmitry Nikitin	11:36:17	0	00:00:00	_
Glenn Fisher         11:36:17         0         00:00:00           Wallboard Q. Display-o-Mat         11:36:17         0         00:00:00           d4         11:36:17         0         00:00:00           d5         11:36:17         0         00:00:00           d1         11:36:17         0         00:00:00           d2         11:36:17         0         00:00:00	-	11:36:17	0	00:00:00	
Wallboard Q. Display-o-Mat         11:36:17         0         00:00:00           d4         11:36:17         0         00:00:00           d5         11:36:17         0         00:00:00           d1         11:36:17         0         00:00:00           d1         11:36:17         0         00:00:00           d2         11:36:17         0         00:00:00	Lee Davis	11:36:17	0	00:00:00	
d4         11:36:17         0         00:00:00           d5         11:36:17         0         00:00:00           d1         11:36:17         0         00:00:00           d2         11:36:17         0         00:00:00	Glenn Fisher	11:36:17	0	00:00:00	
d5         11:36:17         0         00:00:00           d1         11:36:17         0         00:00:00           d2         11:36:17         0         00:00:00	Wallboard Q. Display-o-Mat	11:36:17	0	00:00:00	_
d1         11:36:17         0         00:00:00           d2         11:36:17         0         00:00:00	d4	11:36:17	0	00:00:00	_
d2 11:36:17 0 00:00:00	d5	11:36:17	0	00:00:00	_
	d1	11:36:17	0	00:00:00	_
Total         6 d 06:51:44         0         00:00:00	d2	11:36:17	0	00:00:00	_
	Total	6 d 06:51:44	0	00:00:00	_
m					

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Espera Configuration				ð
🕵 Report Pre	view			
遷 Save As				
CO V Ibraries	Documents     Search Documents			-
Organize 🔻 New fold	ler 🗄 🔻 🔞			
★ Favorites ■ Desktop	Documents library Includes: 2 locations Arrange by: Folder			
🔰 Downloads	Name Date modified Type	ning Calls Answd	Avg Talk Time	
🔛 Recent Places		0	00:00:00	
Ξ	No items match your search.	0	00:00:00	
📜 Libraries		0	00:00:00	
Documents		0	00:00:00	
J Music		0	00:00:00	
Pictures		0	00:00:00	
🛃 Videos		0	00:00:00	<u> </u>
🖳 Computer 🗸 🔻	۸ (	0	00:00:00	<u> </u>
		0	00:00:00	
File <u>n</u> ame: Ager	nts Report 🔹	0	00:00:00	
Save as <u>t</u> ype: CSV f	iiles (*.csv) 🔻	0	00:00:00	
		0	00:00:00	
Hide Folders	<u>Save</u> Cancel	0	00:00:00	
	ان. ۳			
•				,
	Export Close			

# 5.2.4 Messaging

Administrators [168] and Supervisors [232] can send ad-hoc messages to a single or multiple User Set [168] or Users [172] displayed onto the Users Real Time display for the selected time period.

Configuration Options
Real-time Configuration Historical Configuration
Messaging
Close



# 5.3 Supervisor Configuration

Supervisors have access to modify (only) the Real-Time Display configuration(s) for any "User Set", "User" and the "Default Configuration".

All agents log in now!

Refer to Create/Modify the <u>"Default Configuration"</u> [167] or <u>"Custom"</u> [177] Real-Time Display for further information.

NOTE: Supervisors cannot create/delete "User Sets" and assign/unassign "Users".

# 5.4 Agent Configuration

Agents have no access to the "Configuration" button.

Agents can move or resize the Espera Real-Time display, and use the "Sign In/Out" function.

NOTE: The "Sign In" & "Sign Out" buttons will only allow the Microsoft Lync user to Sing In/Out of "Formal" Response Groups assigned to that Microsoft Lync user. Refer to <u>this</u> Microsoft article for more information on "Formal" and "Informal" groups.



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# 5.5 Wallboard Configuration

Wallboards have no access to any configuration.

Wallboards can move or resize the Espera Real-Time display, and use the "Sign In/Out" function.

NOTE: The "Sign In" & "Sign Out" buttons will only allow the Microsoft Lync user to Sing In/Out of "Formal" Response Groups assigned to that Microsoft Lync user. Refer to <u>this</u> Microsoft article for more information on "Formal" and "Informal" groups.







