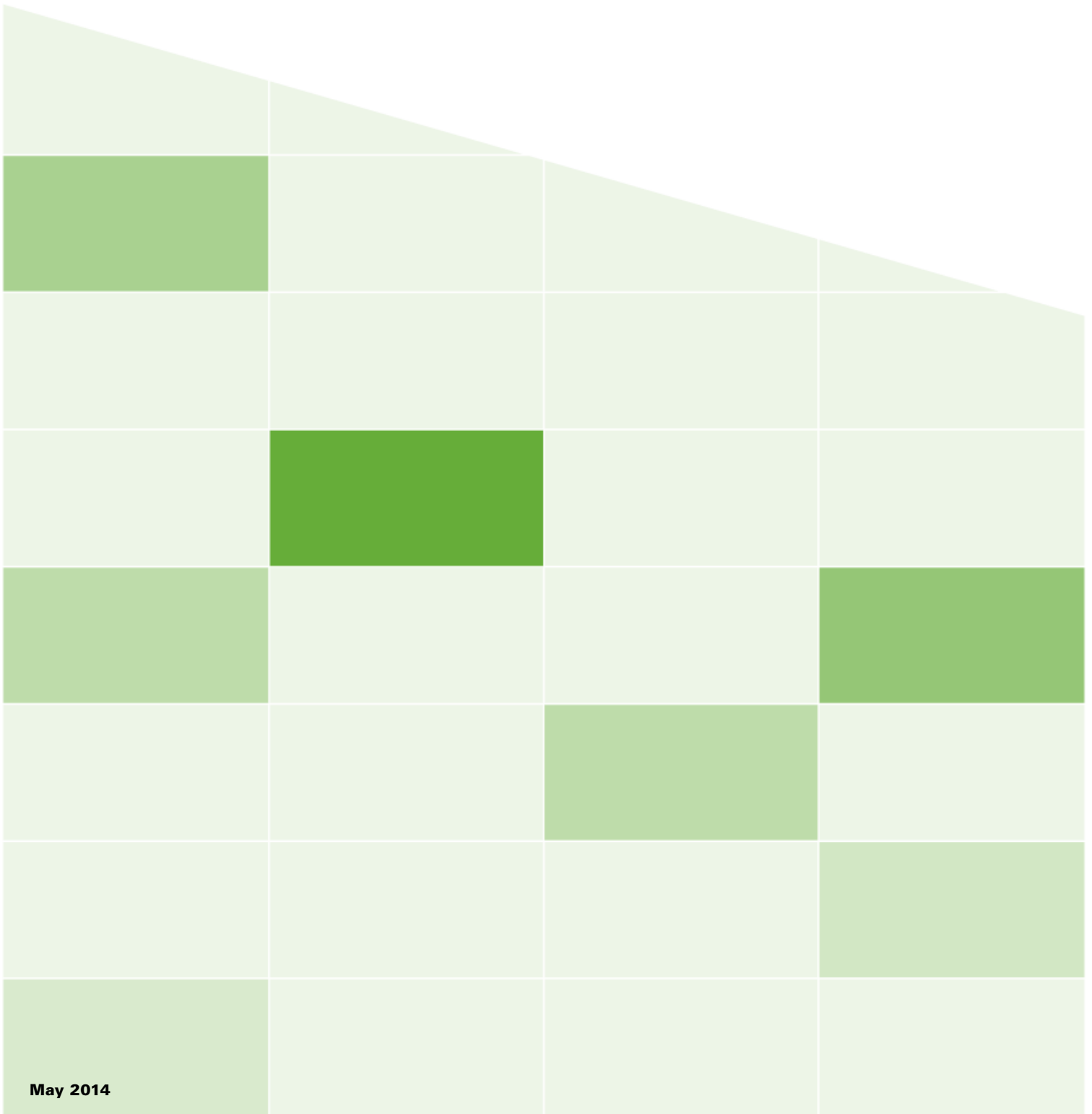




VBrick Lync Streaming Gateway

Lync 2013 Streaming Gateway v2.3

Software Installation Guide



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About VBrick Systems

Founded in 1997, VBrick Systems, an ISO 9001 certified vendor, is a privately held company that has enjoyed rapid growth by helping our customers successfully introduce mission critical video applications across their enterprise networks. Since our founding, VBrick has been setting the standard for quality, performance and innovation in the delivery of live and stored video over IP networks—LANs, WANs and the Internet. With thousands of video appliances installed world-wide, VBrick is the recognized leader in reliable, high-performance, easy-to-use networked video solutions.

VBrick is an active participant in the development of industry standards and continues to play an influential role in the Internet Streaming Media Alliance (ISMA), the MPEG Industry Forum, and Internet2. In 1998 VBrick invented and shipped the world's first MPEG Video Network Appliance designed to provide affordable DVD-quality video across the network. Since then, VBrick's video solutions have grown to include Video on Demand, Management, Security and Access Control, Scheduling, and Rich Media Integration. VBrick solutions are successfully supporting a broad variety of applications including distance learning and training, conferencing and remote office communications, security, process monitoring, traffic monitoring, business and news feeds to the desktop, webcasting, corporate communications, collaboration, command and control, and telemedicine. VBrick serves customers in education, government, healthcare, and financial services markets among others.

Contents

Lync 2013 Gateway v2.3 Software Installation Guide

Purpose	1
Required Hardware and Software	1
Pre-Installation Steps	2
1. Install .NET 3.5	2
2. Install .NET 4.5	3
3. Install "Desktop Experience" Feature	3
4. Install PowerShell 3.0	3
5. Install Lync 2013 Administrator Tools	3
6. Install UCMA 4.0	3
7. Verify Powershell.	4
8. Obtain Security Certificates	4
9. Create a New Trusted Application Pool and Application.	10
10. Install the Services	12
11. Installing VB Alert Admin Tool	13
12. Installing VB Configuration Administration Tool	13
13. Configure the VB VEMS Interface Service	13
14. Configure the VB BOT Service	14
Configuring Video Buddies	15
Configuring Presence Options	16
15. Configure the Certificate Settings (VB BOT Service).	18
16. Configure the Certificate Settings (VB VEMS Interface Service).	19
17. Give Port Permissions to the Services	19
18. Open Required Ports in the Firewall.	20
19. Configure the Software Version Number and Serial Number	23
20. Restart the VBrick Lync Streaming Gateway Server.	23
21. Troubleshoot.	23

Lync 2013 Gateway v2.3 Software Installation Guide

Purpose

This document provides instructions for installing the VBrick Lync Streaming Gateway software on hardware you did not purchase from VBrick. Table 1 shows required hardware and software components.

Note These instructions only apply if you purchased a software-only version of this product. If you purchased both hardware and software from VBrick, please contact VBrick Support Services (or your certified reseller) for help installing the Lync software and integrating the server into your environment.

Required Hardware and Software

Table 1. Minimum Streaming Gateway Server Requirements

Hardware/OS Component	Minimum Requirement
CPU	<ul style="list-style-type: none">• 64 bit, dual processor, quad-core 2.0 GHz+• 64 bit, 4-way processor, dual-core 2.0 GHz+
Operating System	64 bit – Windows Server 2012 Standard
Memory	8 GB
HDD	Local storage with at least 30 GB free disk space
Network	2 x 1 Gbps network adapter
Software Media	<ul style="list-style-type: none">• 64 bit – Microsoft Lync Server 2013 DVD †• VBrick 2013 Streaming Gateway CD / Download

† for access to support software.

Table 2. Additional Server Requirements

Server	Minimum Requirement
Additional Servers	<ul style="list-style-type: none">• Server – Microsoft Lync Server 2013• Server – Microsoft Exchange 2013• Server – VEMS 6.3.6 or later

Table 3. Desktop Requirements

Hardware/OS Component	Minimum Requirement
Windows Client PCs	<ul style="list-style-type: none">• Windows 2008 R2 / 7 / 8 / 8.1• Microsoft Lync 2013 Client 32 bit †• Microsoft Windows Media Player 9.0 or higher• Microsoft Internet Explorer 8.0 or higher• VBrick Video Buddy VEMS Client Add-On

† only 32 bit client currently supported.

Pre-Installation Steps

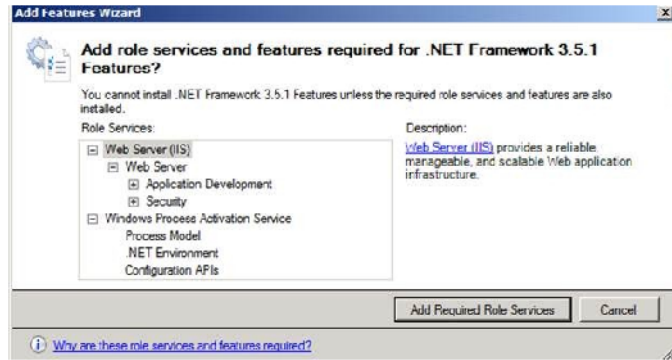
- Be sure you have the VBrick Product CD and the Microsoft Lync Server Product CD (see above).
- Be sure that all items in Chapter 2 of the *Lync Streaming Gateway Admin Guide* have been completed. This includes creating:
 - a service account.
 - the "VBrick Video" distribution group.
 - the administrative group for Video Blast.
- Configure the server on the domain. Assign a hostname for the server as desired, and configure the appropriate IP settings to join it to the customer's domain.
- Update the VBrick Lync Streaming Gateway Server. .NET 3.5 SP1, .NET 4.5 and Windows PowerShell v3 are required for the VBrick Lync Streaming Gateway software.

Note The following steps guarantee that all components get installed. However it may be faster to download the installer for .NET 3.5 SP1 or use some other method.

1. Install .NET 3.5

1. Verify that you can get to the Internet.
2. Install windows updates (repeat several times if necessary, i.e. until the server is completely up-to-date).
3. Verify that .NET Framework 3.5 SP1 is installed (it will be listed as an installed program). If not installed, follow these steps: (Note: to open the Server Manager interface, right click on Start > Computer and select Manage.)
 - a. In the Server Manager interface, select **Add Features** to display a list of possible features.
 - b. In the Select Features interface, expand **.NET Framework 3.5.1 Features**.
 - c. Once you expand **.NET Framework 3.5.1 Features** you will see two check boxes: one for **.NET Framework 3.5.1** and one for **WCF Activation**. Check the box next to **.NET 3.5.1 Framework** and click **Next**.

Note: If you do not expand **.NET Framework 3.5.1 Features** and check it, you will get a pop-up titled **Add Features Wizard** as shown below. If this happens, click **Cancel**, expand **.NET Framework 3.5.1 Features** and then check **.NET Framework 3.5.1** box at the bottom. You cannot install .NET Framework 3.5.1 features unless the required role services and features are also installed.



4. In the **Confirm Installation Selections** interface, review the selections and click **Install**.
5. Allow the installation process to complete and then click **Close**.

2. Install .NET 4.5

.NET 4.5 is required for the VBrick Lync 2013 Streaming Gateway software. It can be installed by downloading from the internet as follows:

1. Open a web browser.
2. Navigate to <http://www.microsoft.com/en-us/download/details.aspx?id=30653>
3. Download and run `dotNetFx45_Full_setup.exe`
4. Use the default settings.

3. Install "Desktop Experience" Feature

1. Open the Server Manager.
2. Select **Add Features**.
3. Check the box for "Desktop Experience."
4. Install using the default settings.

4. Install PowerShell 3.0

1. Open a web browser.
2. Navigate to <http://www.microsoft.com/en-us/download/details.aspx?id=34595>
3. Download and run `Windows6.1-KB2506143-x64.msu`
4. Use the default settings.

5. Install Lync 2013 Administrator Tools

Install Lync 2013 Administrative Tools (from Lync 2013 Server DVD). The VBrick Lync Streaming Gateway software requires components from the Lync Administrative Tools. Make sure you have Lync Product CD on hand.

1. Insert Microsoft Lync Server 2013 DVD or install media.
2. Browse to the DVD.
3. Navigate to folder on the DVD 'Setup\amd64'
4. Run setup.exe
5. Click Next and accept the default settings.
6. If prompted to install the "Microsoft C++ 2012 Redistributable" select "Yes."

-
7. If prompted to select an installation location, use the default.
 8. Accept the "Terms & Conditions."
 9. Select "Install Administrator Tools," accept the license agreement and complete the install. When finished, exit the "Deployment Wizard."

6. Install UCMA 4.0

Install the UCMA 4.0 Redistributable. The VBrick Lync Streaming Gateway software requires components from the Microsoft Unified Communications Managed API SDK. These components are installed via the UCMA Redistributable.

1. Browse to the \software\Admin folder on the Product CD.
2. Double click on the file UcmRuntimeSetup.exe and let it complete the configuration.
3. Accept the Terms & Conditions and use the default settings.

7. Verify Powershell

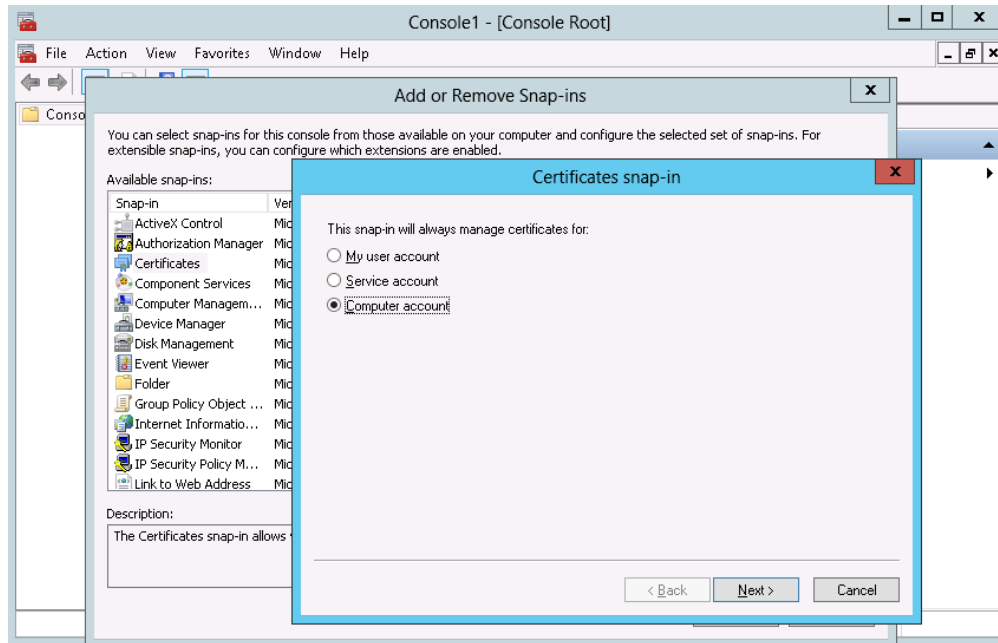
Verify that Windows PowerShell v3 is installed as required.

1. Select Start > Administrative Tools > Windows PowerShell Modules to open PowerShell.
2. Wait for the prompt (may take several seconds).
3. Type "\$Host.Version"
4. Verify that the value return is "3.0.0-1"
5. Type "Exit."

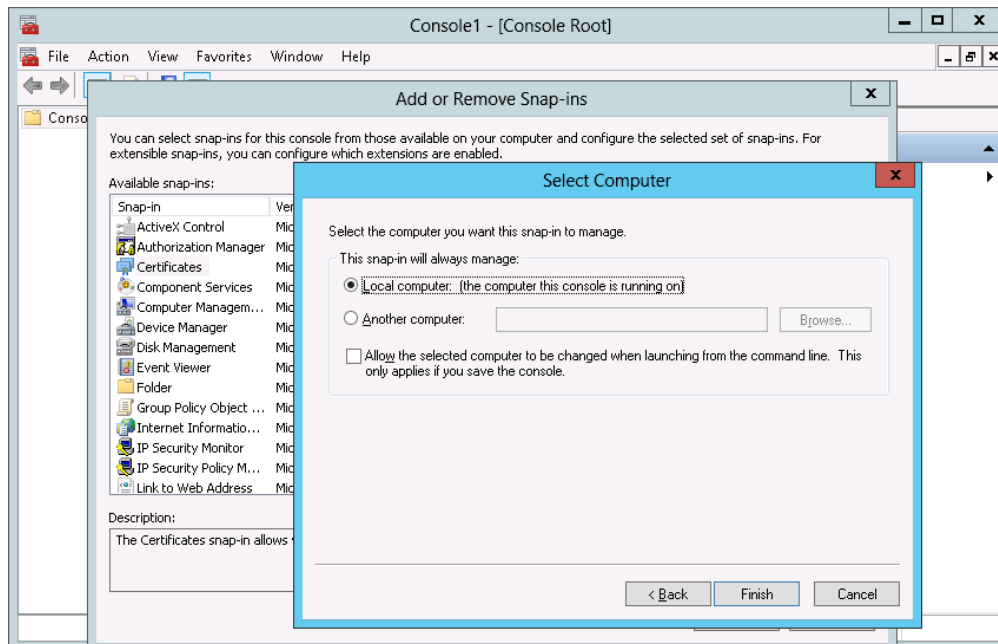
8. Obtain Security Certificates

Obtain Security Certificates. For proper communications between the VBrick Lync Streaming Gateway Server and the Active Directory, the necessary security certificates must be installed. Install Computer Certificate on Application server machine.

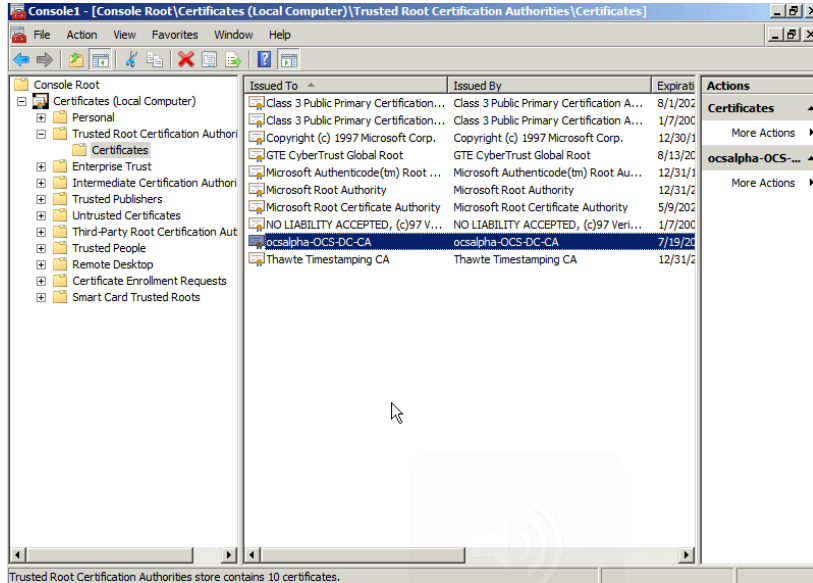
1. Start Certificates MMC snap-in by going to the Start Screen, type "mmc", then press the Enter key.
2. When the empty Console1 window opens, choose File > Add/Remove Snap-in.
3. When the Add Standalone Snap-in window opens choose Certificates and click the Add button.
4. When the Certificates snap-in window opens, check the Computer account radio-button, and then press the Next button:



5. When the Select Computer window opens choose Local computer and press the Finish button.



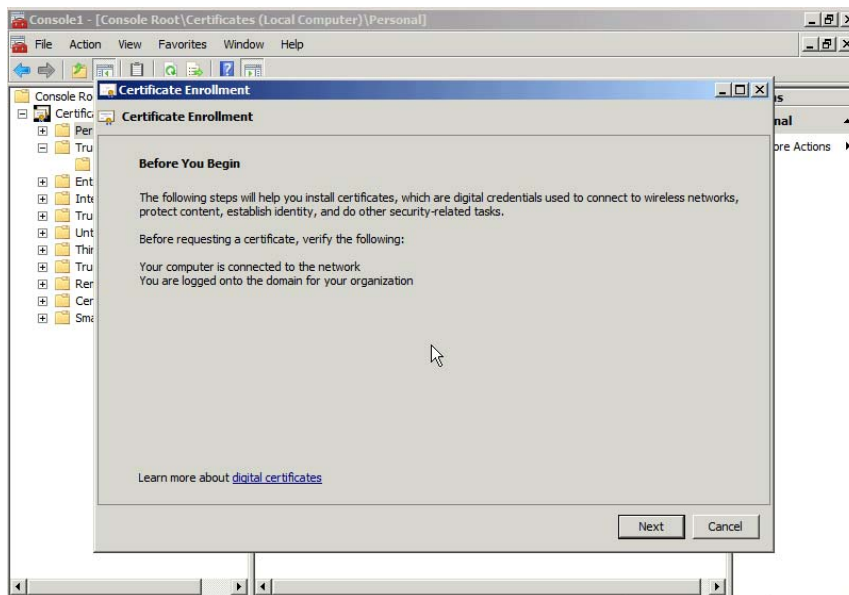
6. Then press Finish, Close, OK buttons as you return to the MMC interface.
7. On the MMC screen, expand "Certificates (local computer)" > "Trusted Root Certificate Authorities." Click on the "Certificates" sub category under "Trusted Root Certificate Authorities."
8. Verify that there is a certificate issued by the domain's Certificate Authority ("vblync-LDC-CA" in the example below).



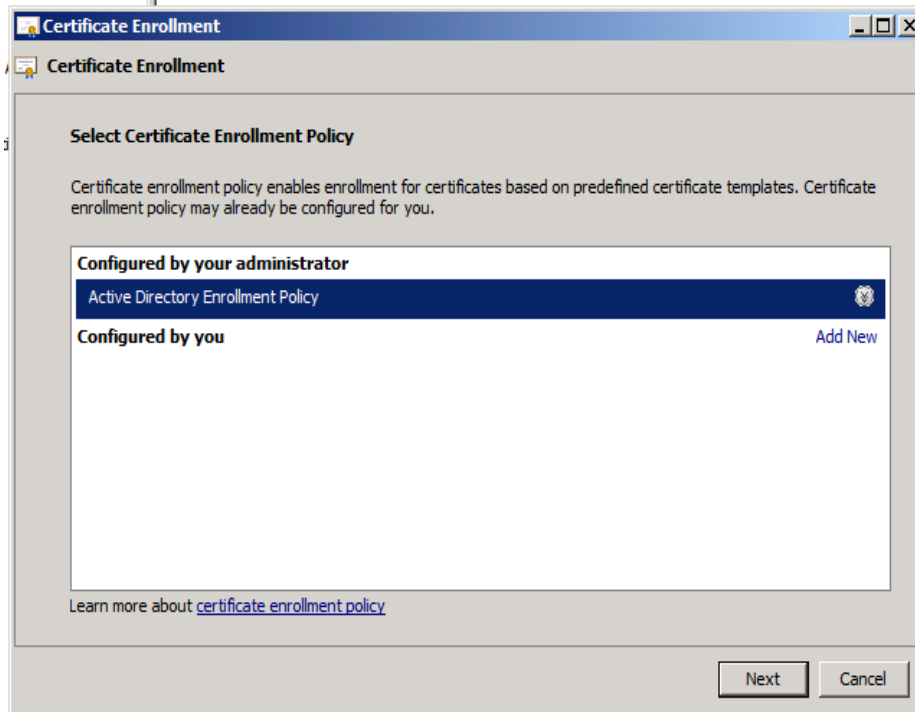
9. If there is no certificate issued by the domain's Certificate Authority (CA) then one must be obtained. Coordinate with the customer's IT personnel to obtain the trusted root certificate.
10. On the MMC screen, expand "Certificates (local computer)" > "Personal."
11. Right click on "Personal" and from the menu go to "All Tasks" > "Request New Certificate."

Note This next step is to obtain a Personal Certificate. **This certificate must have both Server Authentication and Client Authentication.**

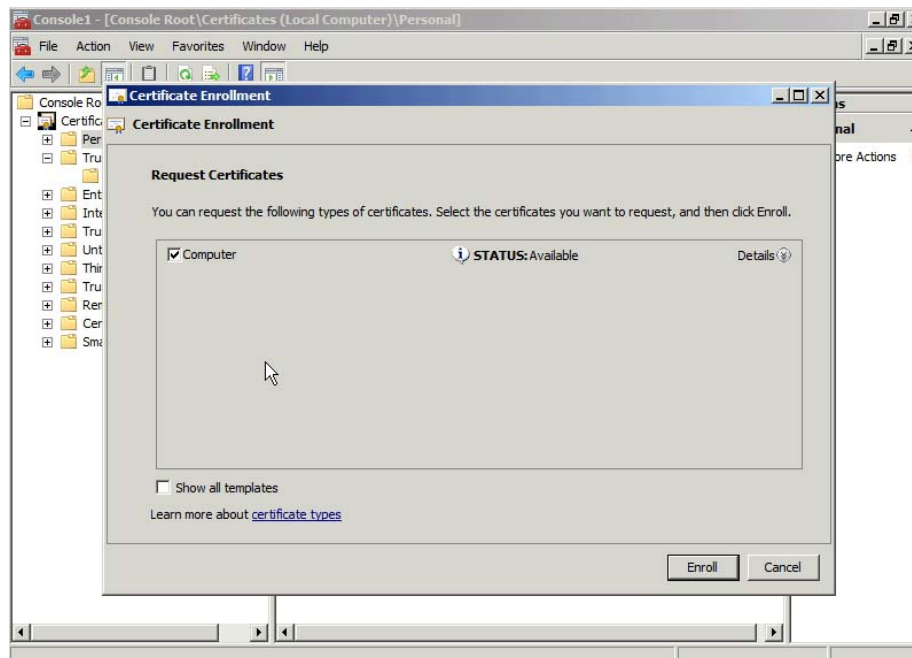
12. From the "Before You Begin" screen click "Next."



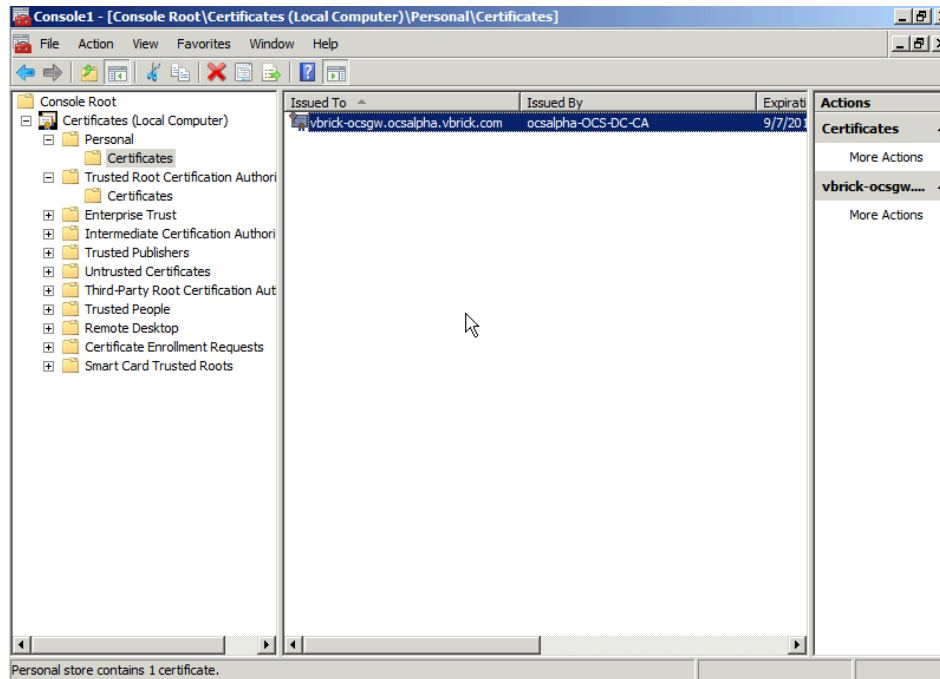
13. Select the default "Enrollment Policy" (Active Directory Enrollment Policy) and click Next.



14. Select the checkbox next to "Computer" and click "Enroll."
15. Note: If the "Computer" template is not available, check the box named "Show all templates." A list of templates will then be displayed. If the "Web Server" template is available use this template. If neither template is available, coordinate with the customer's IT personnel to obtain a Personal Certificate which has both Server Authentication and Client Authentication.



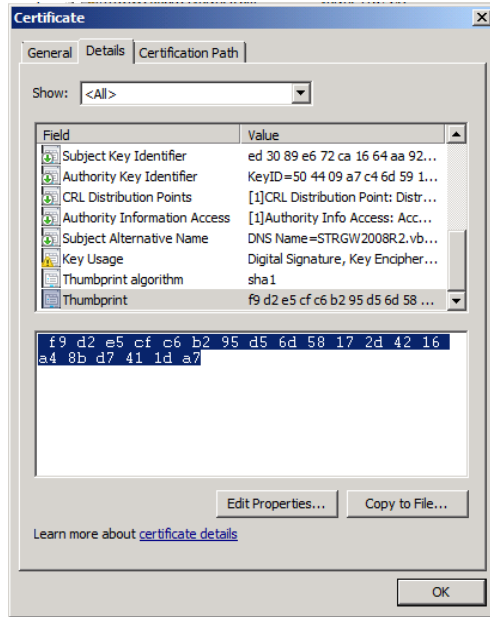
-
16. Upon enrolling, the system should obtain a new "Personal Certificate" from the CA. If successful, click "Finish." Verify that the certificate is available by navigating through the certificate folder structure to Certificates (local computer) > Personal > Certificates.



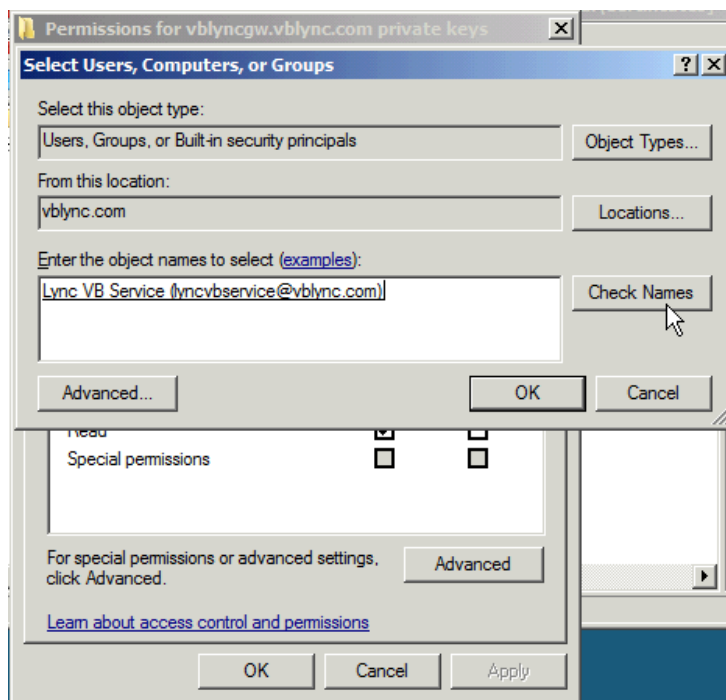
17. Issued By. Write down the "Issued By" value of the Personal Certificate. This information will be needed later.
18. Issued To. Write down the "Issued To" value of the Personal Certificate. This information will be needed later.

Note Please record this information on the Integration Worksheet provided in the Admin Guide.

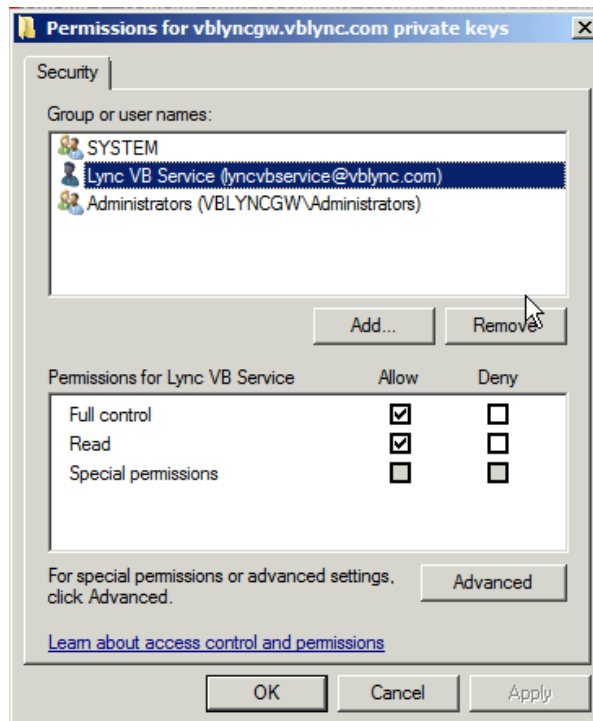
19. Thumbprint
- Double-click on the new Personal Certificate
 - Click on the "Details" tab
 - Select the "Thumbprint" field



- d. Copy & paste the value displayed into Notepad and save the file (you will need this value later in the installation)
 - e. Right click on the new certificate and select "All Tasks" > "Manage Private Keys."
 - f. Click the "Add" button on the permissions window that appears.
20. In the Select Users, Computers, or Groups window in the field titled "Enter the object names to select", enter domain\username where this is the domain and username of the service account created in step #2 of the Admin Guide. In the example below, this is "vblync\lyncvbservice." Click "Check Names." The result should look like the image below:



21. Click "OK" to return to the previous window. It should now look like the image below:



22. Click "OK" to close the window.

23. Close the console window. If prompted to save, say "No."

9. Create a New Trusted Application Pool and Application

The purpose of this section is to create a Trusted Application pool and a Trusted Application associated to that pool. In Lync all these are created/provisioned using PowerShell.

PowerShell 3.0 is a required component. When you install the UCMA 4.0 Redistributable it would have installed the necessary modules for PowerShell to interact with Lync modules.

1. On the Lync server, open the Lync Server Management Shell (Start > All Programs > Microsoft Lync Server 2013 > Lync Server Management Shell).
2. Run the command: `get-CsSite`. This command will provide information about the Lync site.

```

Administrator: Lync Server Management Shell
PS C:\Users\Administrator.UBLYNC> get-CsSite

Identity           : Site:UBRICK
SiteId             : 1
Services           : <UserServer:pool.vblync.com, Registrar:pool.vblync.com, UserD
                   : atabase:ldb.vblync.com, FileStore:ldb.vblync.com...>
Pools              : <pool.vblync.com, ldb.vblync.com, GW.vblync.com>
FederationRoute   :
Description        : UBrick Systems
DisplayName        : UBRICK
SiteType           : CentralSite
ParentSite         :

PS C:\Users\Administrator.UBLYNC>

```

3. Make a note of SiteId, Pools and Registrar. The pool and registrar could normally be the same (usually the name of the pool itself). In the case of a Lync Standard Edition, it could be the FQDN of the Front End server itself.
4. Run the Command: `New-CsTrustedApplicationPool -Identity <myFQDN> -Registrar <poolFQDN > -Site <siteID>`
 - <myFQDN> – FQDN of Gateway server, i.e. STRGW2008R2.vblync.com
 - <poolFQDN> – FQDN of pool, i.e. pool.vblync.com
 - <siteID> – Site ID from get-CsSite command

```

Administrator: Lync Server Management Shell
PS C:\Users\Administrator.UBLYNC> New-CsTrustedApplicationPool -Identity vblyncgw.vblync.com -Registrar pool.vblync.com -Site 1
WARNING: The following changes must be made in order for the operation to be complete.
Enable-CsTopology must still be run for all changes to take effect.

Identity           : 1-ExternalServer-2
Registrar          : Registrar:pool.vblync.com
FileStore          :
ThrottleAsServer  : True
TreatAsAuthenticated : True
OutboundOnly      : False
RequiresReplication : True
AudioPortStart    :
AudioPortCount    : 0
AppSharingPortStart :
AppSharingPortCount : 0
VideoPortStart    :
VideoPortCount    : 0
Applications       : <>
DependentServiceList : <>
ServiceId         : 1-ExternalServer-2
SiteId            : Site:UBRICK
PoolFqdn          : vblyncgw.vblync.com
Version           : 5
Role              : TrustedApplicationPool

PS C:\Users\Administrator.UBLYNC> _

```

5. Run the command: `New-CsTrustedApplication -ApplicationId lyncvideobuddy -TrustedApplicationPoolFqdn <myFQDN> -Port 6050`
 <myFQDN> – FQDN of server, i.e. vblyncgw.vblync.com

```

Administrator: Lync Server Management Shell

PS C:\Users\Administrator.UBLYNC> New-CsTrustedApplication -ApplicationID lyncvideobuddy -TrustedApplicationPoolFQDN vblyncgw.vblync.com -Port 6050
WARNING: The following changes must be made in order for the operation to be complete.
Enable-CsTopology must still be run for all changes to take effect.

Identity           : vblyncgw.vblync.com/urn:application:lyncvideobuddy
ComputerGrnuus    : <vblyncgw.vblync.com sip:vblyncgw.vblync.com@lync.com;gruu;opaque=srvr:lyncvideobuddy:UyKvIYB_w1-ZknsLIT5i1AAA>
ServiceGrnuu      : sip:vblyncgw.vblync.com@lync.com;gruu;opaque=srvr:lyncvideobuddy:UyKvIYB_w1-ZknsLIT5i1AAA
Protocol          : Mtls
ApplicationId     : urn:application:lyncvideobuddy
TrustedApplicationPoolFqdn : vblyncgw.vblync.com
Port              : 6050
LegacyApplicationName : lyncvideobuddy

PS C:\Users\Administrator.UBLYNC>

```

6. Run the command: **Enable-CsTopology**

```

Administrator: Lync Server Management Shell

PS C:\Users\Administrator.UBLYNC> Enable-CsTopology
PS C:\Users\Administrator.UBLYNC> _

```

7. Run the command: **Get-CsTrustedApplication** and review the displayed information for accuracy.

```

Administrator: Lync Server Management Shell

Port              : 6050
LegacyApplicationName : lyncvideobuddy

PS C:\Users\administrator.UBLYNC> Enable-CsTopology
PS C:\Users\administrator.UBLYNC> Get-CsTrustedApplication

Identity           : vblyncgw.vblync.com/urn:application:lyncvideobuddy
ComputerGrnuus    : vblyncgw.vblync.com sip:STRGW2008R2.vblync.com@lync.com;gruu;opaque=srvr:lyncvideobuddy:s01JUvFrgFqYto1afJHdHwAA}
ServiceGrnuu      : sip: vblyncgw.vblync.com@lync.com;gruu;opaque=srvr:lyncvideobuddy:s01JUvFrgFqYto1afJHdHwAA
Protocol          : Mtls
ApplicationId     : urn:application:lyncvideobuddy
TrustedApplicationPoolFqdn : vblyncgw.vblync.com
Port              : 6050
LegacyApplicationName : lyncvideobuddy

PS C:\Users\administrator.UBLYNC>

```

8. Run the command: **Get-CsTrustedApplicationPool** and review the displayed information for accuracy.



```

Administrator: Lync Server Management Shell
PS C:\Users\Administrator.UBLYNC> Get-CsTrustedApplicationPool

Identity           : TrustedApplicationPool:vblyncgw.vblync.com
Registrar          : Registrar:pool.vblync.com
FileStore          :
ThrottleAsServer   : True
TreatAsAuthenticated : True
OutboundOnly       : False
RequiresReplication : True
AudioPortStart     :
AudioPortCount     : 0
AppSharingPortStart :
AppSharingPortCount : 0
VideoPortStart     :
VideoPortCount     : 0
Applications       : <urn:application:lyncvideobuddy>
DependentServiceList : <>
ServiceId          : 1-ExternalServer-2
SiteId             : Site:UBRICK
PoolFqdn           : vblyncgw.vblync.com
Version            : 5
Role               : TrustedApplicationPool

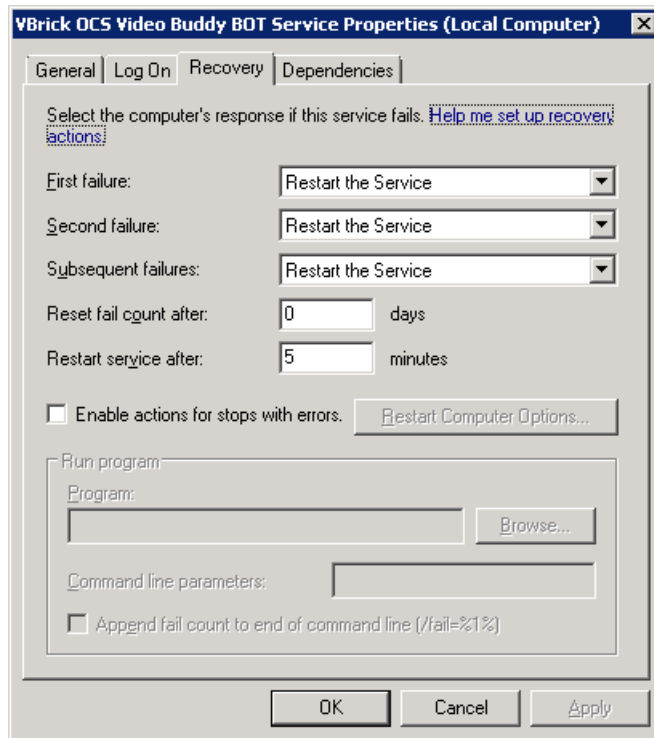
PS C:\Users\Administrator.UBLYNC> _

```

9. Type "Exit."

10. Install the Services

1. Navigate to `VBLync2013StreamingGW` folder on the Product CD.
2. Run `setup.exe`. Select the default values on the installation screens.
3. During the service installation you will twice be requested to enter the credentials of the service account. Enter the username and password of the "lyncvbservice@domain" account created in step #2 of the Admin Guide.
4. Once installation is complete, navigate to the Windows Service Manager (Start > Administrative Tools > Services).
5. Find the "VBrick OCS Video Buddy BOT Service," right-click on it, and select "Properties." Click on the "Recovery" tab. Update the Recovery parameters as shown below.
6. Repeat Step 5 above for the "VBrick OCS Video Buddy VEMS Interface Service".



11. Installing VB Alert Admin Tool

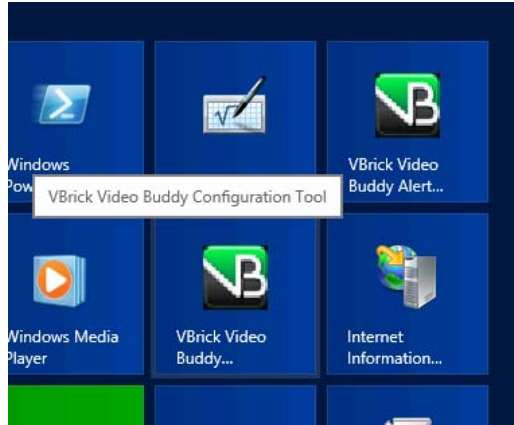
1. Navigate to the \VBAAlertAdminSetup folder on the Product CD.
2. Run VBAAlertAdmin.msi. Select the default values on the installation screens.

12. Installing VB Configuration Administration Tool

1. Navigate to the \VBConfigTool folder on the Product CD.
2. Run VBConfigToolSetup.msi. Select the default values on the installation screens.

13. Configure the VB VEMS Interface Service

1. Open the VBrick Video Buddy Configuration Tool.
2. Select Start > VBrick Video Buddy Configuration Tool.



3. Click "Browse."
4. Navigate to C:\Program Files\VBrick\Lync2013StreamingGW\VBVEMSIInterfaceService.
5. Double-click on VBVEMSIInterfaceService.exe.config
6. Modify the configuration settings as follows:
 - a. OcsAdminUserName – Set to the username of the VEMS account being used by the server to access VEMS content. The recommended/default settings is "lyncadmin."
 - b. OcsAdminUserPassword – Set to the password of the VEMS account being used by the server to access VEMS content, i.e. the password for the username specified by OcsAdminUserName.
 - c. VemsIpAddress – Set to the IP address of the VEMS server.
 - d. MystroServiceUrl – Modify the hostname specified in the URL to reference the hostname of the VEMS server, i.e. change "maduro" to the VEMS hostname.
 - e. SIPDomainForVBContacts – Modify to specify the desired SIP domain on which the Video Buddies will be created.
 - f. MystroAutomatonCustomFieldName – Specifies the name of the custom field in VEMS Mystro which is used to determine if a Video Buddy is an automaton or not. The value of the custom field should be "yes" to indicate it is an automaton and "no" to indicate it is not.
7. Save your changes.

14. Configure the VB BOT Service

1. Select "Browse" from the VBrick Video Buddy Configuration Tool.
2. Navigate to C:\Program Files\VBrick\Lync2013StreamingGW\VBBOTService.
3. Double-click on VBBOTService.exe.config.
4. Modify the configuration settings as follows:
 - a. VB_MYSTRO_PLAYER_PAGE – Modify the hostname specified in the URL to reference the hostname of the VEMS server, i.e. change "maduro" to the VEMS hostname.
 - b. SIPDomainForVBContacts – Modify to specify the desired SIP domain on which the Video Buddies will be created.
5. Save your changes.

Configuring Video Buddies

When configuring the VB Bot Service and the VB VEMS Interface Service you will need to specify where your Video Buddies are defined using the `videoBuddySource` parameter. If your Video Buddies are sourced from a VEMS server, you simply need to enter `VEMS5.x` or `VEMS6.0` as appropriate. You can also define your Video Buddies in an `.xml` file. If using an `.xml` file, you can create the file manually (see example below) or you can use the template which is located in: `C:\Program Files\VBBrick\templates\template.xml`. When done, the `XMLLocation` will point to the location where this file is saved.

Creating a Video Buddy .xml File

- ▼ To create and use an `.xml` file for Video Buddy definitions:
 1. Create a text file in Notepad or a similar editor or simply copy/edit the template. See sample file below.
 2. Create a separate entry for each Video Buddy and save the file in a known location that can be reached by the server—either local or remote.
 3. Specify the complete path to this location in the `XMLLocation` key in the VB VEMS Interface Service (see [13. Configure the VB VEMS Interface Service](#) on page 14).

Sample .XML File

```
<VideoBuddies>
  <VideoBuddy>
    <Number>36</Number>
    <Name>RemoteXML</Name>
    <Program>Remote XML Test</Program>
    <Active>YES</Active>
    <Status>UP</Status>
    <Automation>NO</Automation>
    <URL>http://vbosstv.com/wpa/ocs.html</URL>
  </VideoBuddy>
</VideoBuddies>
```

Parameter	Description
Number	Unique channel number.
Name	Name of Video Buddy.
Program	Current program, e.g. "Larry King Live."
Active	Yes = Video Buddy exists. No = Video Buddy does not exist.
Status	Up = video stream is up. Down = video stream is down.
Automation	Yes = Video Buddy presence will not change. No = Video Buddy presence will change when changed in XML file.
URL	Fully qualified URL to a web page with a video player.

Configuring Presence Options

In a standard Lync Streaming Gateway installation, Video Buddy presence icons are used to indicate the availability of a stream. *However due to certain constraints in the Microsoft Lync Server, you may need to change this default behavior if more than 600 concurrent users are likely to have the same Video Buddy on their desktop.* There are three configurable behaviors (see Table 4) associated with Video Buddy presence icons: in the standard (default) scenario, the presence icons change color according to the status of the stream (available or offline) and each stream will have a unique title; in the modified scenario, the presence icons are always green and each stream will always have the same title.

Note In the standard (default) scenario, the presence icons change color according to the stream status (available or offline) and each stream has a unique title. If you wish to change this behavior you should do so in advance, before rolling out the Video Buddy functionality for users.

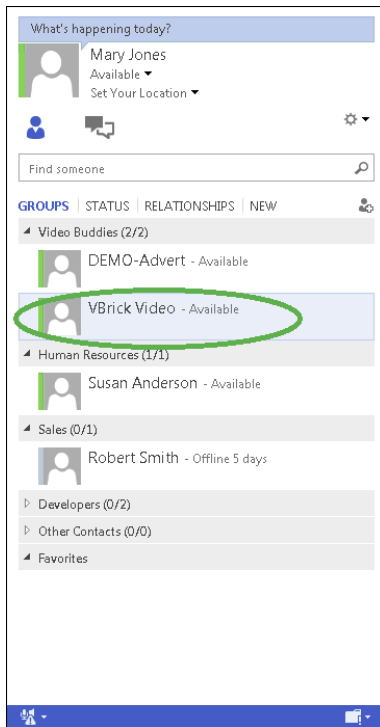


Figure 1. Video Buddy Presence Icon

Table 4. Presence Icon Behavior

Option	Description
Dynamic Presence	Default behavior (less than 600 users). The presence icons change color depending on the availability of the stream. The stream title is different for each stream and is configured in VEMS. See "Adding Gateway Streams." ● (green) – Available (or current program title) ● (orange) – Offline

Option	Description
Static Presence	Modified Behavior (more than 600 users). The presence icons are always green. The stream title is the same for all streams and is configured in the Lync Gateway server. See 14. Configure the VB BOT Service on page 15. ● (green) – Available
Mixed Presence	A configuration setting is used to determine on a per-stream basis whether or not the presence behavior is "static" or "dynamic." In this scenario, the "IsVBContactAutomaton" must be set to "no." For each stream, the value of the custom field in VEMS Mystro (as specified in the VEMS Mystro Interface Service) is checked. If the custom field is "yes," then the stream will exhibit static behavior. If the custom field is not "yes," the stream will exhibit dynamic behavior. <i>If no custom field is defined, all streams will exhibit dynamic behavior.</i> Note that if XML is used instead of VEMS Mystro, the XML attribute "Automaton" is used to specify the per-stream behavior.

As noted, the default behavior shown in Table 4 is configured by default. If you expect to have less than 600 concurrent users with the same Video Buddy on their desktop, no further action is required and you are good to go. If however you expect to have more than 600 users with the same Video Buddy you will need to modify two parameters in the VB Bot Service as explained below.

Table 5. VBBOTService.exe.config

Logging Level	Determine the amount of debugging information to include in the log files. The range of values are as follows: 1. Errors 2. Add Warnings 3. Add Informational Messages 4. Add Debug Messages 5. Add Full Tracing
LogFile	Name of the file where logging information is stored.
LogDirectory	Folder where the log file is written to.
MaxLogFileSize	The maximum size (in MB) of each log file (after which a new log file will be created). Max = 25MB.
MaxLogFiles	The maximum number of log files that will be created by the service
ProcessChannelIntervalInMinutes	Frequency (in minutes) with which the Video Buddy server updates it's list of channels (Video Buddies).
NewEndPointEstDelayInMinutes	Number of minutes required for a new Video Buddy to be synchronized.
UCReestablishDelayInMinutes	Frequency in which the server attempts to recover from detected failures, such as the Lync Server being down.
VB_VIDEO_PLAY_MESSAGE	This field indicates the text which a user must enter to initiate video streaming with a Video Buddy. This text string must be entered at the beginning of a chat window. Entering this text is only required if the client add-on has not been installed on the client desktop.
VB5.x_PLAYER_PAGE	Deprecated.

VB_MYSTRO_PLAYER_PAGE	This field specifies the URL that the Lync client will use to load the VBrick player for the specified Video Buddy and user. The identifying information for the Video Buddy and use are dynamically inserted into this URL.
EncodeSpecialCharacters	Determines how special characters are encoded. Should not be modified.
VideoBuddySource	Depending on where the Video Buddy definitions are retrieved from, set this parameter to: VEMS 5.X, MYSTRO, or XML.
SIPDomainForVBContacts	The customer's SIP domain. For example, if the end user logs in as harry.potter@lync.com, the SIP domain is "lync.com."
XMLLocation	For XML, modify this parameter to reference the location of the .xml definition file.
IsVBContactAutomaton	Default = False. This field indicates if Video Buddies should be created as automatons. When Video Buddies are created as automatons, the presence color is always green and the status description is always the same (see VBAutomatonContactStatusMessage below).
VBAutomatonContactStatusMessage	Default = Video. Indicates the text which should be displayed for a Video Buddy which has been created as an automaton. This text will always be displayed for all Video Buddies which have been created as an automaton.
VBApplicationGUID	Unique identifying ID of the client-side application. It should not be necessary to change this value.

15. Configure the Certificate Settings (VB BOT Service)

1. Open the Notepad file containing the Thumbprint value saved previously
2. Edit the file C:\Program Files\VBrick\Lync2013StreamingGW\VBBOTService\VBBOTService.exe.config in Notepad.
3. Under <applicationSettings> modify the settings as follows:
 - a. Set CertificateIssuer to the "Issued By" value of the Personal Certificate (vblync-LDC-CA in the example below).
 - b. Set CertificateIssuedTo to the "Issued To" value of the Personal Certificate (lyncgw.vblync.com in the example below).
 - c. Open the file containing the Certificate Thumbprint saved earlier. Copy and paste the value into the CertThumbprint value (00000000... in the example below).

```
<applicationSettings>
  <VBrick.OCSVideoBuddy.VBBOTService.Properties.Settings>
    <setting name="ApplicationName" serializeAs="String">
      <value>LyncVideoBuddy</value>
    </setting>
    <setting name="CertificateIssuer" serializeAs="String">
      <value>vblync-LDC-CA</value>
    </setting>
    <setting name="CertificateIssuedTo" serializeAs="String">
      <value>lyncgw.vblync.com</value>
    </setting>
    <setting name="CertThumbprint" serializeAs="String">
```

```

        <value>000000000000000000000000000000000000000000000000000</value>
    </setting>
</VBrick.OCSVideoBuddy.VBBOTService.Properties.Settings>
</applicationSettings>

```

4. Save and exit Notepad.

16. Configure the Certificate Settings (VB VEMS Interface Service)

1. Open the Notepad file containing the Thumbprint value saved previously
2. Edit the file C:\Program Files\VBrick\Lync2013StreamingGW\VBVEMSIInterfaceService\VBVEMSIInterfaceService.exe.config in Notepad.
3. Under <applicationSettings> modify the settings as follows:
 - a. Set CertificateIssuer to the "Issued By" value of the Personal Certificate (vblync-LDC-CA in the example below).
 - b. Set CertificateIssuedTo to the "Issued To" value of the Personal Certificate (vblyncgw.vblync.com in the example below).

```

<applicationSettings>
  <VBrick.OCSVideoBuddy.VBVEMSIInterface.Properties.Settings>
    <setting name="ApplicationName" serializeAs="String">
      <value>LyncVideoBuddy</value>
    </setting>
    <setting name="CertificateIssuer" serializeAs="String">
      <value>vblync-LDC-CA</value>
    </setting>
    <setting name="CertificateIssuedTo" serializeAs="String">
      <value>vblyncgw.vblync.com</value>
    </setting>
    <setting name="VEMSService_VemsSdk_MCSWebSDK" serializeAs="String">
      <value>http://vems.vblync.com/MCSWebSDK/MCSWebSDK.asmx</value>
    </setting>
  </VBrick.OCSVideoBuddy.VBVEMSIInterface.Properties.Settings>
</applicationSettings>
</configuration>

```

17. Give Port Permissions to the Services

By Default, Windows 2008 Server will not allow access to the http ports needed by the VBrick Lync Streaming Gateway services. The follow commands allows access to the necessary port.

1. From the "Start" menu, launch a command prompt window.
2. From the command prompt, enter the following command with the user specified being the domain/username of the service account specified in step #2 of the Admin Guide. In the example below, the domain/username is "vblync.com\lyncvbservice."

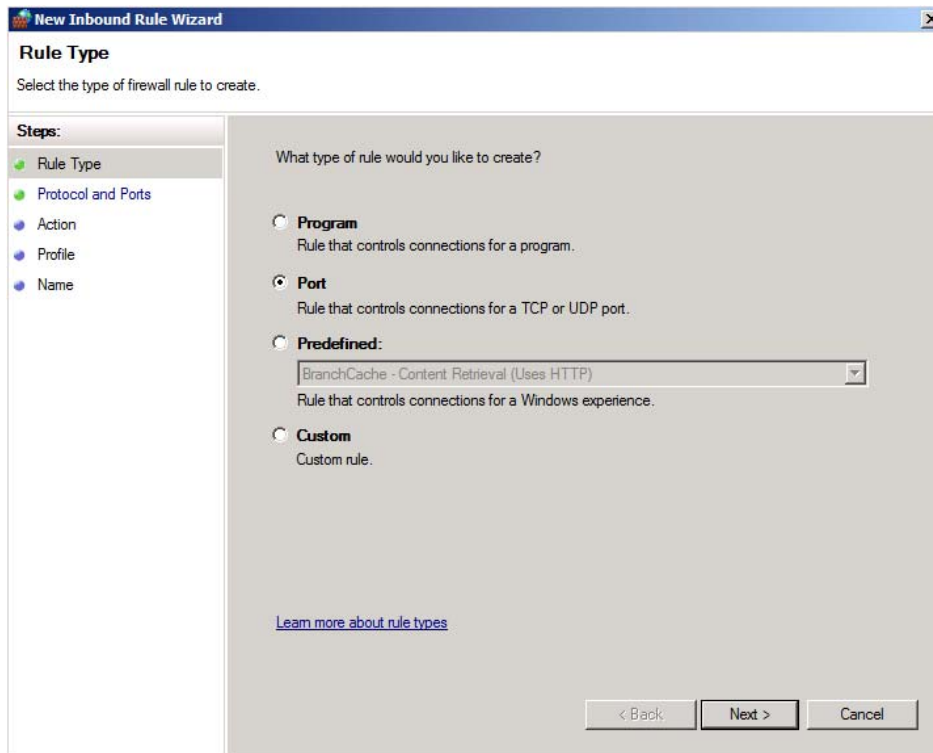
```
netsh http add urlacl url=http://+:8000/ user=vblync.com\lyncvbservice
```

3. If successful, you should see the response "URL reservation successfully added".

18. Open Required Ports in the Firewall

By default, Windows 2008R2 Server firewall blocks necessary VBrick Lync Streaming Gateway Server ports. We must open one.

1. Select Start > Control Panel.
2. Click "Check Firewall Status" (or "Windows Firewall").
3. Click on "Advanced Settings."
4. Click on "Inbound Rules."
5. Click on "New Rule."
6. Select "Port" then "Next" to open the "New Inbound Rule Wizard."



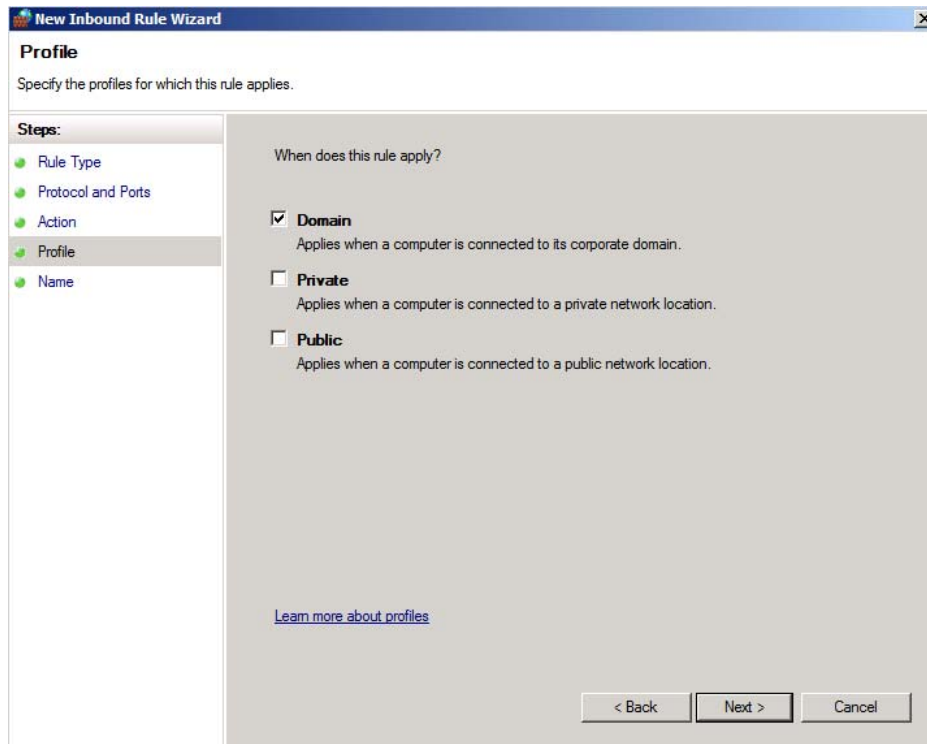
7. Select "TCP" and "Specific local ports", then enter "6050." Click "Next."

The screenshot shows the 'New Inbound Rule Wizard' dialog box, specifically the 'Protocol and Ports' step. The title bar reads 'New Inbound Rule Wizard'. The main heading is 'Protocol and Ports' with the instruction 'Specify the protocols and ports to which this rule applies.' On the left, a 'Steps:' pane lists 'Rule Type', 'Protocol and Ports', 'Action', 'Profile', and 'Name', with 'Protocol and Ports' selected. The main area contains two questions: 'Does this rule apply to TCP or UDP?' with radio buttons for 'TCP' (selected) and 'UDP'; and 'Does this rule apply to all local ports or specific local ports?' with radio buttons for 'All local ports' and 'Specific local ports' (selected). A text box next to 'Specific local ports' contains '6050' and has an example below it: 'Example: 80, 443, 5000-5010'. At the bottom, there are buttons for '< Back', 'Next >', and 'Cancel'. A link 'Learn more about protocol and ports' is also present.

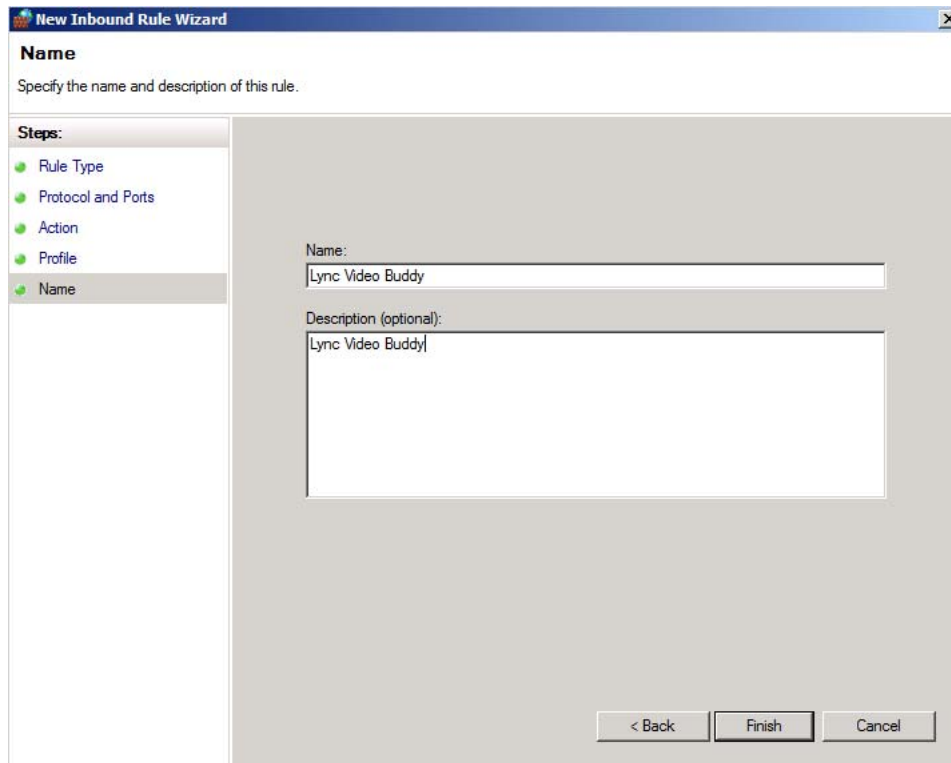
8. Check "Allow the connection" and hit "Next."

The screenshot shows the 'New Inbound Rule Wizard' dialog box, specifically the 'Action' step. The title bar reads 'New Inbound Rule Wizard'. The main heading is 'Action' with the instruction 'Specify the action to be taken when a connection matches the conditions specified in the rule.' On the left, a 'Steps:' pane lists 'Rule Type', 'Protocol and Ports', 'Action', 'Profile', and 'Name', with 'Action' selected. The main area contains the question 'What action should be taken when a connection matches the specified conditions?' with three radio button options: 'Allow the connection' (selected), 'Allow the connection if it is secure', and 'Block the connection'. The 'Allow the connection if it is secure' option has a 'Customize...' button next to it. At the bottom, there are buttons for '< Back', 'Next >', and 'Cancel'. A link 'Learn more about actions' is also present.

9. Check "Domain." Uncheck "Private" and "Public." Click "Next."



10. Type in "Lync Video Buddy"



-
11. Click "Finish."
 12. Verify that the new rule is listed.

19. Configure the Software Version Number and Serial Number

- ▼ To configure the software version:
 1. Navigate to the \admin folder on the Product CD.
 2. Double-click on "SetVersion.bat"
- ▼ To enter the serial number:
 1. Navigate to the \admin folder on the Product CD.
 2. Double-click on vbOCSSerialNumberUpdate.exe
 3. Enter the "software-only" serial number (with hyphens) from the "Welcome to VBrick" customer letter that was shipped with your order.
 4. Click **Save** and **Close**.

20. Restart the VBrick Lync Streaming Gateway Server

From the "Start" menu, reboot the server. Installation and configuration are complete.

21. Troubleshoot

The "Request new certificate" option is not available.

- Possible Solution: Verify that the Streaming Gateway Server is on the domain.
 - Possible Solution: Verify that you are logged into the Streaming Gateway Server as a domain admin (it is easy to log in as the local admin by accident).
-

When requesting the Personal Certificate I don't see a checkbox.

- Possible Solution: Verify that the Streaming Gateway Server is on the domain.
 - Possible Solution: Verify that the Streaming Gateway Server has the Trusted RootCertificate from the Certificate Authority for the domain.
-

Application Provisioner tool crashes or will not create an Application Pool.

- Possible Solution: Verify that you are logged in as the LyncVBSservice user when attempting to use the Application Provisioner tool.
 - Possible Solution: Verify that the LyncVBSservice user is part of the groups "RTCUniversalServerAdmins" and "RTCUniversalUserAdmins"
-

The VB Bot Service fails to start.

If the service fails to start, it is always helpful to increase the logging level for that service.

▼ To increase the logging level:

1. Open the configuration file using the "VBrick Video Buddy Configuration Tool" and set the "Logging Level" to 5. This will enable very robust logging. Remember to turn it back to 3 when done to reduce log file size.
 2. Once the logging level is set to 5, delete or backup and remove the old log files for the VB Bot service. By default, log files are located in "C:/ProgramData/VBrick" which is a hidden folder.
 3. Attempt to start the service.
 4. If it fails again or has problems of any sort, review the log files which should have just been created.
 5. The errors should be displayed. Verify that there are no typos in the configuration, and that all FQDNs are accurate. Common errors for the VB Bot service are typically errors in the configuration file relating to the "Issued To" and "Issued By" sections (see Step 4 on page 23).
-

The VB VEMS Interface Service fails to start.

If the service fails to start, it is always helpful to increase the logging level for that service.

▼ To increase the logging level:

1. Open the configuration file using the "VBrick Video Buddy Configuration Tool" and set the "Logging Level" to 5. This will enable very robust logging. Remember to turn it back to 3 when done to reduce log file size.
 2. Once the logging level is set to 5, delete or backup and remove the old log files for the VB Bot service. By default, log files are located in "C:/ProgramData/VBrick" which is a hidden folder.
 3. Attempt to start the service.
 4. If it fails again or has problems of any sort, review the log files which should have just been created.
 5. The errors should be displayed. Verify that there are no typos in the configuration, and that all FQDNs are accurate. Common errors for the VB Bot service are typically errors in the configuration file relating to the "Issued To" and "Issued By" sections.
-

New Video Buddies can't be found when searching for them on the Lync client.

- Possible Solution: Verify VB Bot Service and VB VEMS Interface Service are running
 - Possible Solution: Check the log files for the VB Bot Service and the VB VEMS Interface services to see if they are experiencing problems
 - Possible Solution: The timer settings in the VB Bot Service and VB VEMS Interface Service configuration files introduce delay in creating new buddies. The default configuration settings may introduce up to a 30 minute delay in creating a new Video Buddy. The reason for this is to keep unnecessary load to a minimum on both the VBrick VEMS server and the Lync system. While VBrick suggests using the default delay settings, you may modify the delay settings for both services as needed.
-

I can't find the "VBrickVideo" distribution group to add to my Lync client.

- Possible Solution: If you have just recently created the VBrickVideo distribution group it may take up to 24 hours for Lync to make that group available to Lync Clients.

My "VBrick Video" distribution group is not populating with new Video Buddies.

- Possible Solution: It may take up to 24 hours for the Lync system to update the distribution group on the client. This is an Lync behavior and is not related to the VBrick VEMS Lync Streaming Gateway Server.

