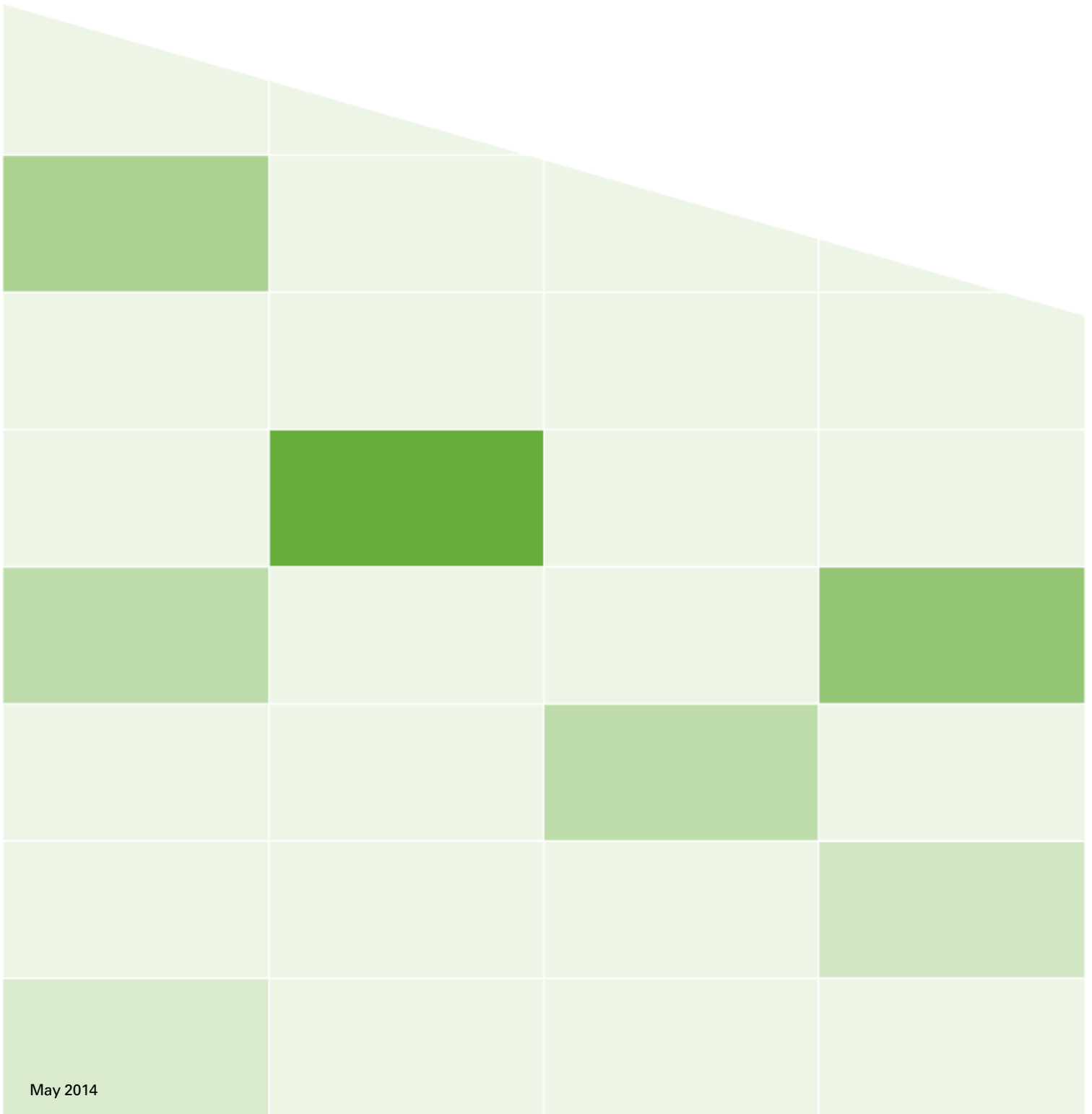# VBrick Lync Streaming Gateway

Lync 2013 Streaming Gateway v2.3
Server Integration Guide

Copyright

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 Server Integration Guide

Lync 2013 Gateway v2.3 Server Integration Guide

This document explains how to fully integrate the VBrick Lync Streaming Gateway at a customer site. **These steps are written for VBrick Professional Services, VBrick Support Services, or other designated representatives.** These detailed configuration procedures require a technical professional with networking expertise. They should not be performed by a customer.

Note All cross-references in this document refer to the corresponding pages in the *Lync Streaming Gateway Admin Guide.*

Topics in this document

Step 1. Attach the VBrick Lync Streaming Gateway Server

1. Plug the VBrick Lync Streaming Server into your network.
2. Start the server, and log in using the local admin user credentials:

   UID: `STRGW2008R2\administrator`

   Password: <`Password_Is_Blank`>
3. Configure the network settings as needed in your environment.

Step 2. Join the Domain

Note The VBrick Lync Streaming Gateway Server and the Lync Server must be on the same domain.

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1. Join the VBrick Lync Streaming Gateway Server to your domain and reboot it as necessary.
2. After the reboot, log into the VBrick Lync Streaming Gateway Server as your domain administrator. It is advised that you change the local admin password for security purposes.

Step 3. Obtain Security Certificates

1. Start Certificates MMC snap-in by going to the Start Menu, choosing Run, and typing "mmc."

2. From Start menu, choose Run, type mmc and press "enter"

3. When the empty Console1 window opens, choose File > Add/Remove Snap-in.

4. When the Add/Remove Snap-in window opens, choose **Certificates** and click Add.
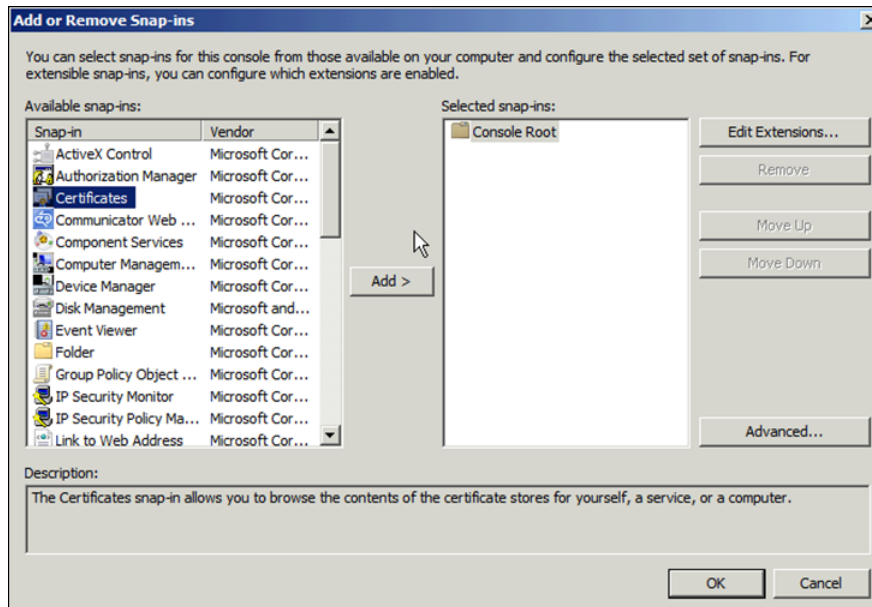
5. When the Certificates snap-in window opens, check the Computer account radio-button, and then press the **Next** button:
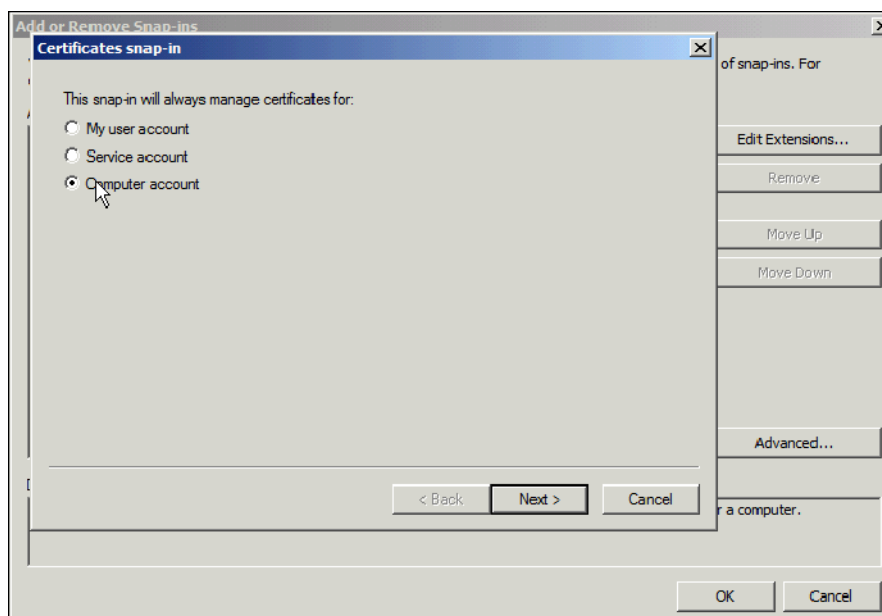
6. When the Select Computer window opens choose Local computer and press the **Finish** button:
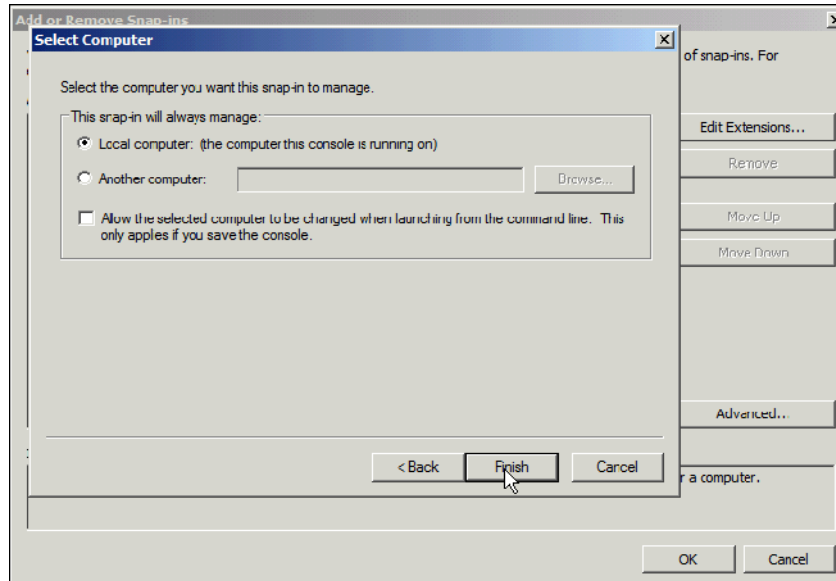
7. Click the **Finish**, **Close** and **OK** buttons as you return to the MMC interface.
8. On the MMC screen, expand "Certificates (local computer)" > "Trusted Root Certificate Authorities." Click on the "Certificates" sub category under "Trusted Root Certificate Authorities."
9. Verify that there is a certificate issued by this domain's Certificate Authority.
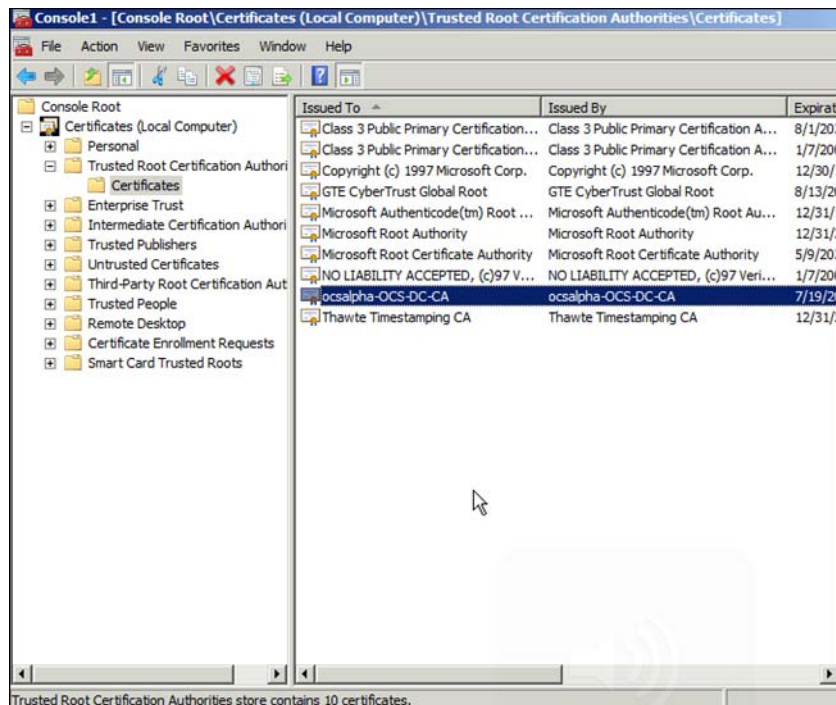
10. **If there is no certificate issued by this domains CA then you must obtain one and import it. Contact your administrator for assistance.**
11. On the MMC screen, expand "Certificates (local computer)" > "Personal."
12. Right click on "Personal" and from the menu go to "All Tasks" > "Request New Certificate."

13. You should be presented with the following screens. From the "Before You Begin" screen click **Next**.
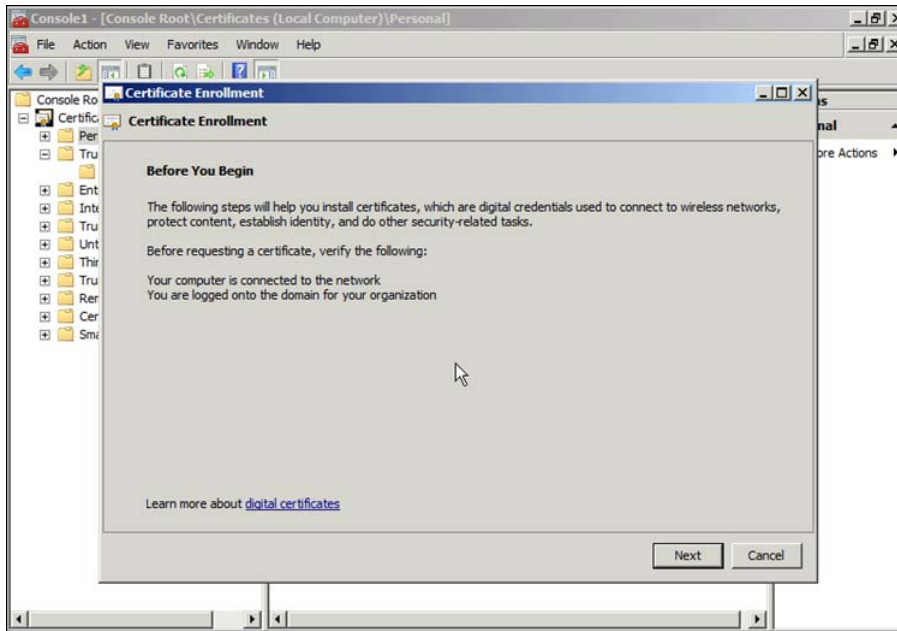
14. The next step is to select the desired Certificate Template. Please note the selected certificate <u>must</u> have both Server Authentication <u>and</u> Client Authentication. The preferred template to use is the "Web Server" template. The "Computer template can also be used if it supports the required authentication. If you are unsure of which template to use, please contact VBrick Support Services for assistance. Check the box next to the desired template and click **Next**.

15. If prompted for Enrolment Policy click **Next**.
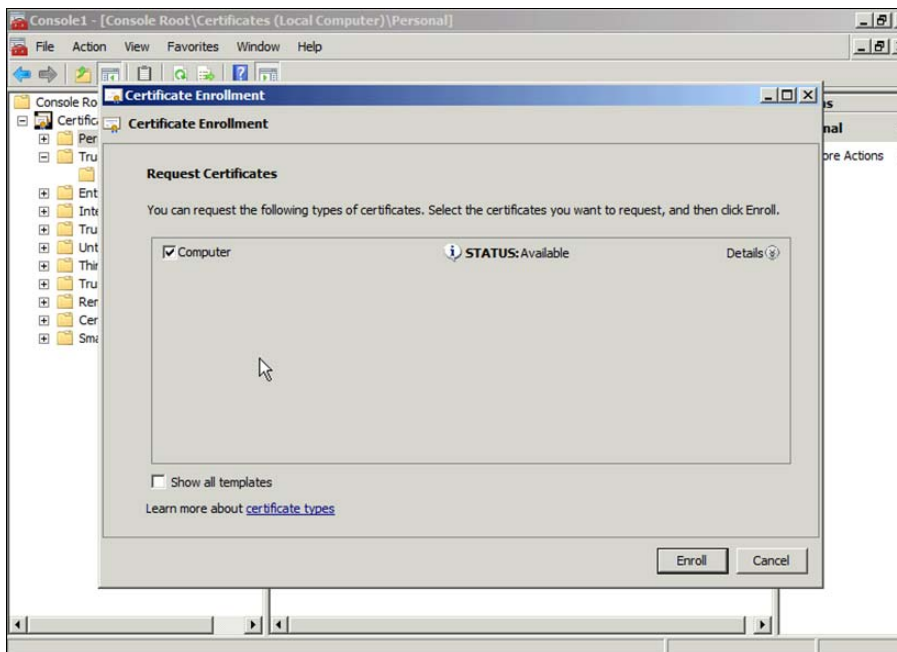
16. Upon enrolling, the system should obtain a new "Personal Certificate" from the CA. If successful, click **Finish**. Verify that the certificate is available by navigating through the certificate folder structure to "Certificates (local computer)" > "Personal" > "Certificates."
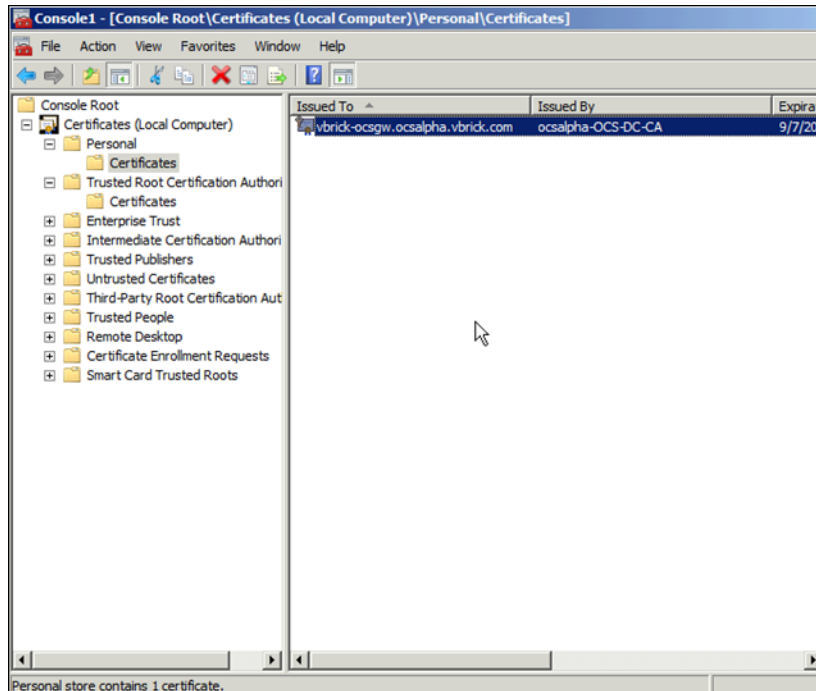
17. Double click the new certificate to open it.
18. Take note of both the **Issued By** and the **Issued To** values as you will need them later steps.
19. Click on the "Details" tab of the certificate and scroll all the way to the bottom where you should see the "Thumbprint" value. You will need this value in a later step. Copy and paste it to the clipboard and remove any leading or trailing characters.
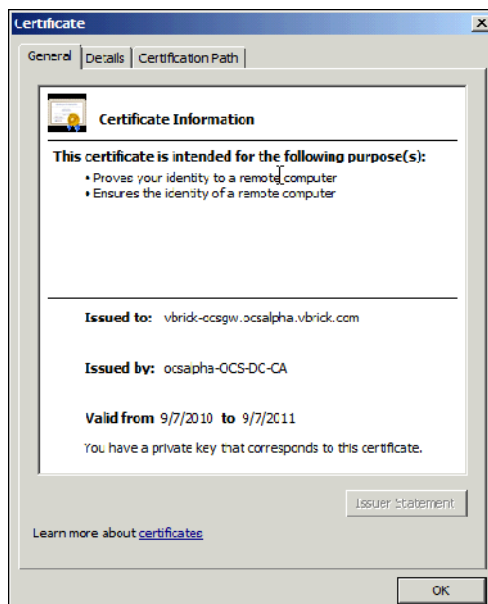
20. Click "OK" to close the certificate.
21. Right click on the new certificate and select "All Tasks" > "Manage Private Keys."
22. Click the "Add" button on the permissions window that appears.
23. In the "Select Users, Computers, or Groups" window, enter "`<Your Domain Name>\lyncvbservice`" in the "Enter the object names to select field" and click "Check Names."
24. Your "`lyncvbservice`" user should resolve and display the complete domain name.
25. Click "OK" and you will go back to the window displaying all users with access to this certificate. "`lyncvbservice`" should now be in that list with full control and read permissions.
26. Click "OK" to close the window.
27. If prompted to save the mmc window, click "No."
28. You are now done with the certificate steps.

Step 4. Update VBrick Lync Streaming Gateway Services to Use Domain User

The VBrick Lync Streaming Gateway Server's services need to be configured to use the "lyncvbservice" user created in "Create the Required Active Directory User" as explained in the Admin Guide.

▼ To configure services to use the "`lyncvbservice`" user:

1. Log into the VBrick Lync Streaming Gateway Server as the domain administrator.
2. From the "Start" menu on the VBrick Lync Streaming Gateway Server, right click "Computer" and select "Manage."
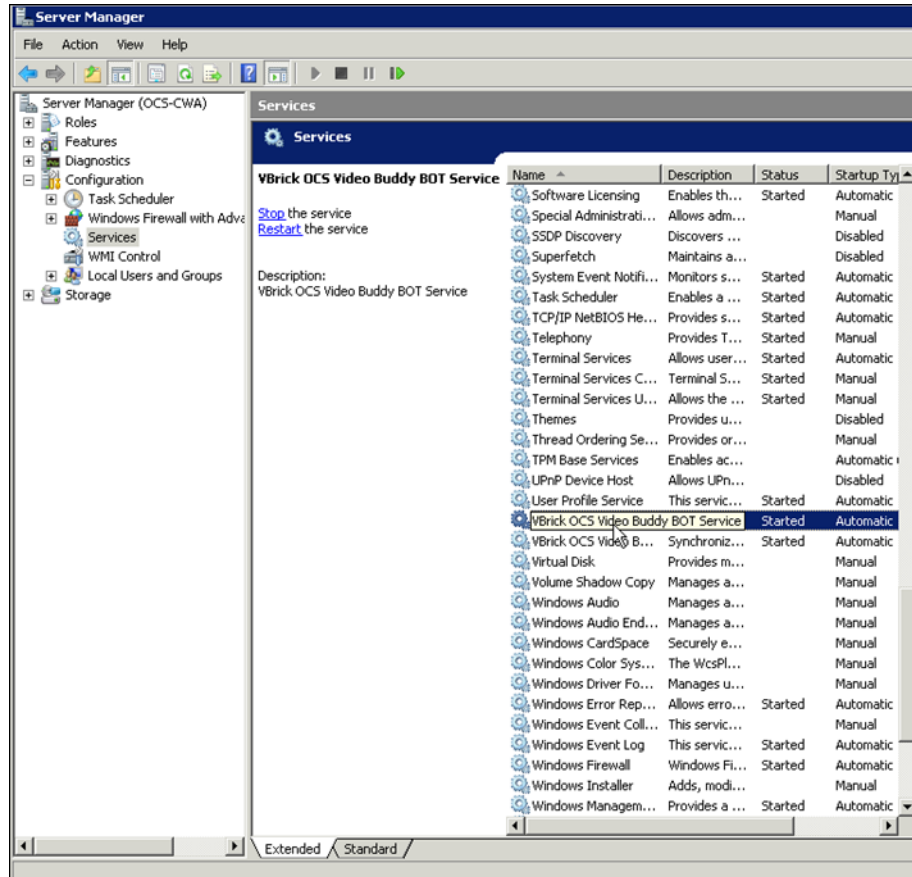
3. Right click on the "VBrick Lync Video Buddy Bot Service" and select **Properties**.

4. Select the "Logon" tab.

5. Enter the appropriate Username and Password for the "`lyncvbservice`" user which was created in Section 1.a. Make sure you enter the user name with the correct domain name, for example "lyncvbservice@lyncdev.vbrick.com" if your domain were "lyncdev.vbrick.com"
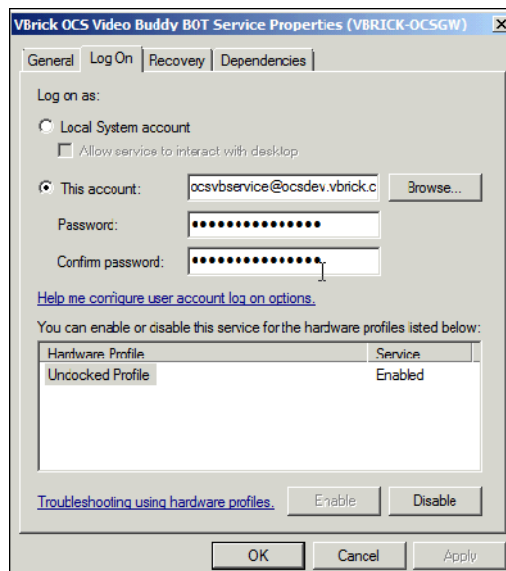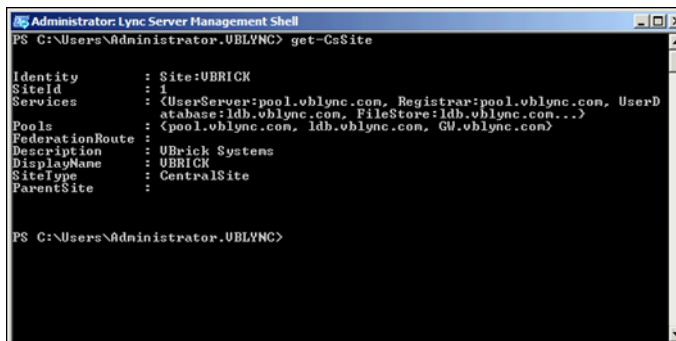
6. Select "OK."

7. Repeat this same process for the "VBrick Lync Video Buddy VEMS Interface Service."

Step 5. 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.

▼   To create a Trusted Application Pool and Application:

1. On the Lync server, open the Lync Server Management Shell (Program Files > Microsoft Lync Server 2010 > Lync Server Management Shell).

2. Run the command: `get-CsSite`

3. This command will provide information about the Lync site.
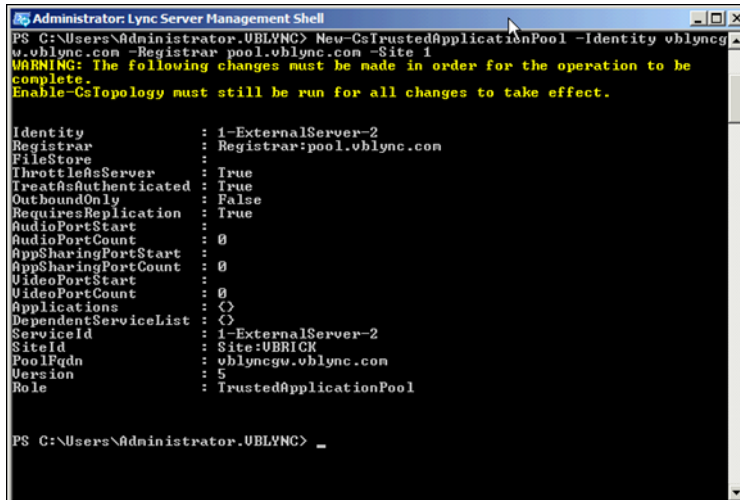
4. Note the SiteId, Pools and Registrar. The pool and registrar could normally be the same (usually the name of the pool itself). In the case of a Lync Standard Edition, it could be the FQDN of the Front End server itself. If there are multiple sites and/or multiple pools, identify the correct site/pool to use as follows:

   a. Check the VBrick Streaming Gateway Pre-Installation Form. The desired site/pool should have been specified in the Q&A section.

   b. Ask the customer's Lync Administrator which site/pool should be used.

   c. Open the Lync Server Management Shell. Run the command `Get-CsService -Registrar`. Note the site and pool.

5. Run the following command:

   ```
   New-CsTrustedApplicationPool -Identity <Your application server/GWY FQDN>  -
   Registrar <FQDN of pool or front end as seen from get-cssite command> -Site
   <SiteID from get-cssite command>
   ```

6. Run the following command:

```
New-CsTrustedApplication -ApplicationId  lyncvideobuddy  -
TrustedApplicationPoolFqdn  <Your application/GWY server FQDN> -Port 6050
```


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

8. Run the command: **Get-CsTrustedApplication**
9. Run the command: **Get-CsTrustedApplicationPool**

These commands should list the Application pool and Application you created in the above steps:

Step 6. Configuring the VB Bot Service

This topic explains how to edit the VB BOT Service config file to match the required data for your domain. See the *Admin Guide* for a list of all configurable parameters.

▼   To configure the VB Bot Service:

1. Obtain the FQDN of the VEMS Server.
    a. Log into the VEMS server desktop.
    b. Open the Start menu on the VEMS.
    c. Right click on "My Computer" and select "Properties."
    d. Take note of the "Full computer name." This is your FQDN.
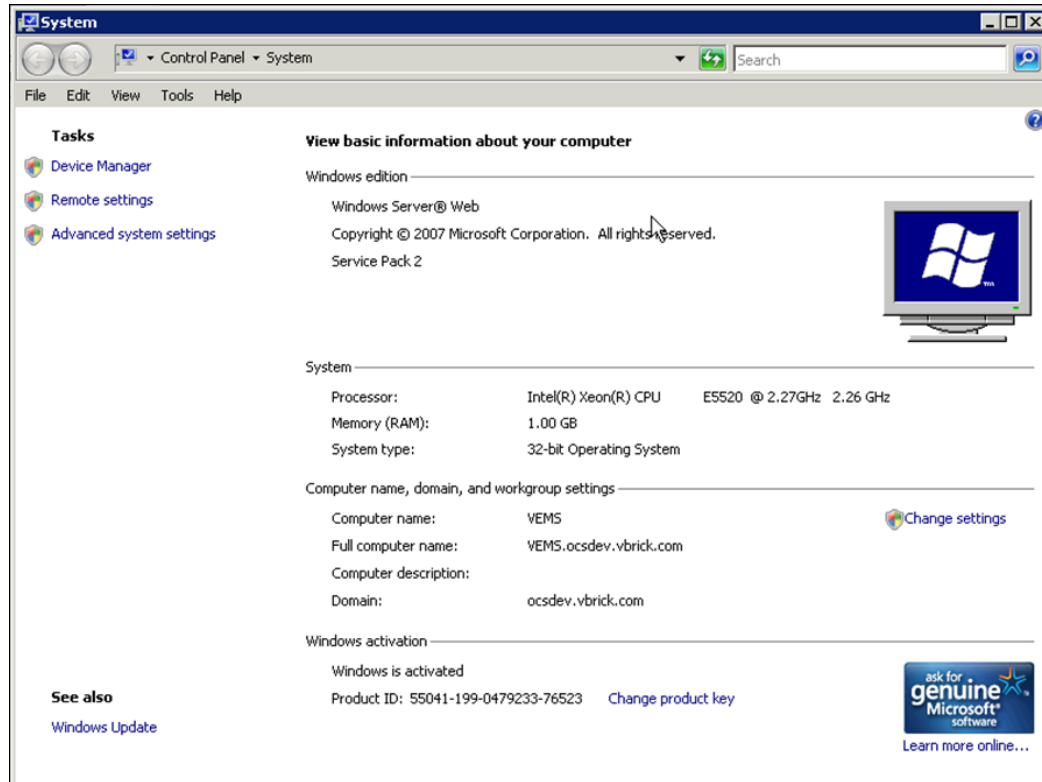
2. Obtain the FQDN of the VBrick Lync Streaming Gateway
    a. Log into the VBrick Lync Streaming Gateway server desktop.
    b. Open the Start menu on the VEMS.
    c. Right click on "My Computer" and select "Properties"
    d. Take note of the "Full computer name." This is your FQDN.
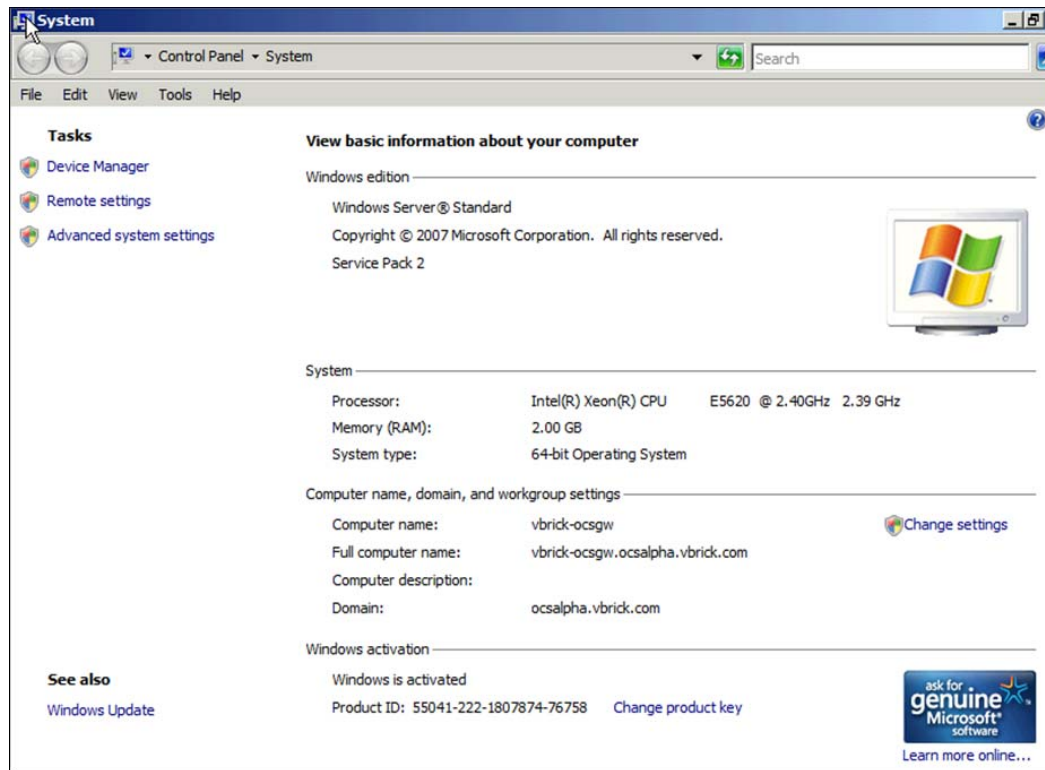
3. Navigate to the location where the VB Bot Service was installed. By default it should be "C:/Program Files/VBrick/VBrick VB Bot Service/."

4. Open the file "VBBOTService.exe.config" in Notepad. This is the VB Bot Service configuration file. Once opened, modify the areas in black and red (below) to match the required data for your domain. You will need the "Issued by" and "Issued to" and "Thumbprint" information from the personal security certificate obtained in Step 18 on page 5.

```xml
<?xml version="1.0"?>
<configuration>
  <configSections>
    <sectionGroup name="applicationSettings"
type="System.Configuration.ApplicationSettingsGroup, System, Version=2.0.0.0,
Culture=neutral, PublicKeyToken=b77a5c561934e089" >
      <section name="VBrick.OCSVideoBuddy.VBBOTService.Properties.Settings"
type="System.Configuration.ClientSettingsSection, System, Version=2.0.0.0,
Culture=neutral, PublicKeyToken=b77a5c561934e089" requirePermission="false" />
    </sectionGroup>
  </configSections>
  <appSettings>
    <add key="LoggingLevel" value="5" />
    <add key="LogFile" value="vbbot_service_log" />
    <add key="LogDirectory" value="C:/ProgramData/VBrick/" />
    <add key="MaxLogFileSize" value="5" />
    <add key="MaxLogFiles" value="10" />
    <add key="ProcessChannelIntervalInMinutes" value="1" />
    <add key="NewEndPointEstDelayInMinutes" value="1" />
    <add key="UCReestablishDelayInMinutes" value="1" />
    <add key="VB_VIDEO_PLAY_MESSAGE" value="play" />
    <add key="VB5.x_PLAYER_PAGE" value="http://vems.vblync.com/OCS/
OCSLaunch.aspx?ocsusersip=%OCS-USER-SIP%&amp;ocsvbsip=%OCS-VB-SIP%" />
```

```xml
            <add key="VB_MYSTRO_PLAYER_PAGE" value="http://maduro/vemsweb/
    MSUCEmbed.html?contentID=%VEMS6.0-CONTENT-ID%" />
            <add key="VideoBuddySource" value="mystro" />
            <add key="SIPDomainForVBContacts" value="lync.com" />
            <add key="IsVBContactAutomaton"  value="false"  />
            <add key="VBAutomatonContactStatusMessage"  value="Video"  />
            <add key="XMLLocation" value="" />
            <add key="EncodeSpecialCharacters" value="[ ][-20],[#][-23]" />
            <add key="VBApplicationGUID"  value="{DEDE2D07-5E2B-4C0B-B80B-
    DECA80E11930}"  /> </appSettings>
<applicationSettings>
        <VBrick.OCSVideoBuddy.VBBOTService.Properties.Settings>
            <setting name="ApplicationName" serializeAs="String">
                <value>LyncVideoBuddy</value>
            </setting>
            <setting name="CertificateIssuer" serializeAs="String">
                <value><INSERT 'ISSUED BY' VALUE FROM Step 18 on page 5 HERE></value>
            </setting>
            <setting name="CertificateIssuedTo" serializeAs="String">
                <value> <INSERT 'ISSUED TO' VALUE FROM Step 18 on page 5 HERE></value>
            </setting>
            <setting name="CertThumbprint" serializeAs="String">
                <value><INSERT 'Thumbprint' VALUE FROM Step 18 on page 5 HERE></value>
            </setting>
</VBrick.OCSVideoBuddy.VBBOTService.Properties.Settings>
    </applicationSettings>
    <system.serviceModel>
        <services>
            <!-- This section is optional with the new configuration model
                 introduced in .NET Framework 4. -->
            <service name="VBrick.OCSVideoBuddy.VBBOTService.OCSInterface"
behaviorConfiguration="OCSInterfaceBehavior">
                <host>
                    <baseAddresses>
                        <add baseAddress="http://localhost:8000/OCSInterfaceWCFService/
service"/>
                    </baseAddresses>
                </host>
                <!-- this endpoint is exposed at the base address provided by host: http://
localhost:8000/OCSInterfaceWCFService/service  -->
                <endpoint address="" binding="wsHttpBinding"
contract="VBrick.OCSVideoBuddy.VBBOTService.IOCSInterfaceWCFService" />
                <!-- the mex endpoint is exposed at http://localhost:8000/
ServiceModelSamples/service/mex -->
                <endpoint address="mex" binding="mexHttpBinding"
contract="IMetadataExchange" />
            </service>
        </services>
        <behaviors>
            <serviceBehaviors>
                <behavior name="OCSInterfaceBehavior">
                    <serviceMetadata httpGetEnabled="true"/>
                    <serviceDebug includeExceptionDetailInFaults="true"/>
                </behavior>
            </serviceBehaviors>
        </behaviors>
    </system.serviceModel>
```
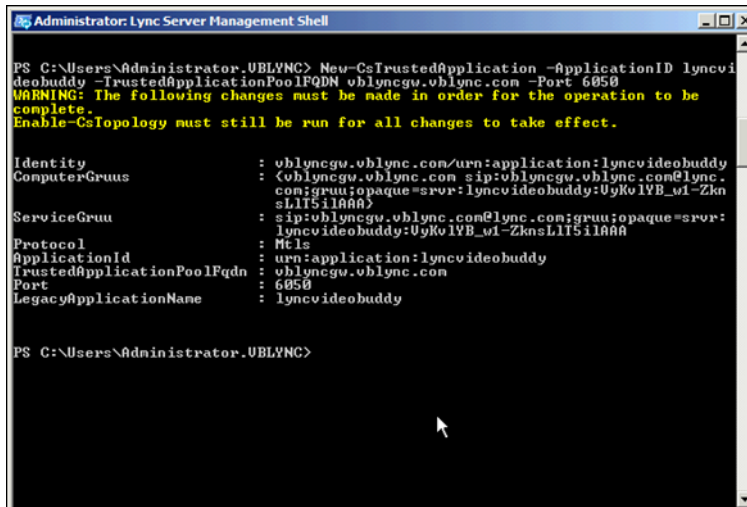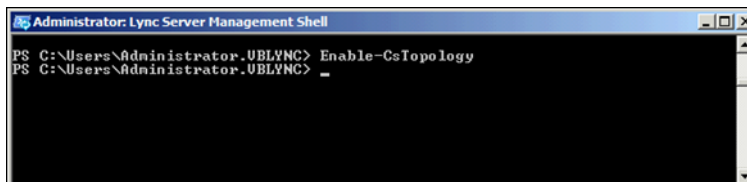
```
</configuration>
```

5. Save and close the configuration file.

6. From the **Start** menu, launch the **VBrick Video Buddy Configuration Tool**.

7. When the tool launches, click the browse button and navigate to the configuration file from Step 4 on page 12 which you just saved and closed (`C:/Program Files/VBrick/ VBrick VB Bot Service/VBBotService.exe.config`). Open this file in the configuration tool.

8. Depending on where the Video Buddy definitions are retrieved from, set the `VideoBuddySource` to: `MYSTRO` or `XML`.

9. Modify to reflect the correct player page:

   a. For VEMS Mystro, set the `VB_MYSTRO_Player_Page` to reflect the FQDN of the VEMS Mystro server.

   b. For XML, modify the `XMLLocation` to reference the location of the `.xml` definition file.
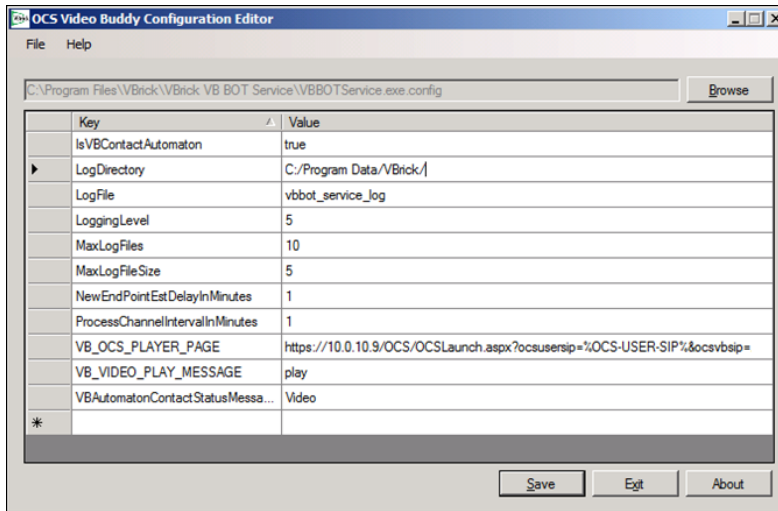
10. Save and close the configuration tool.

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 `Mystro`. In addition 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\VBrick\templates\template.xml`. When done, the `XMLLocation` will point to the location where this file is saved. If you are only defining your Video Buddies in .xml, set the `VideoBuddySource` parameter to "`xml`".

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 <u>Step 7. Configuring the VB VEMS Interface Service</u> on page 18).

Sample .XML File

```
<VideoBuddies>
    <VideoBuddy>
        <Number>36</Number>
        <Name>RemoteXML</Name>
        <Program>Remote XML Test</Program>
        <Active>YES</Active>
        <Status>UP</Status>
        <automaton>NO</automaton>
        <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.
automaton	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 1) associated with Video Buddy presence icons: in the *dynamic* (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 *static* scenario, the presence icons are always green and each stream will always have the same title. In the *mixed* scenario, some icons change color according to the status of the stream and some are always green.

Note In the dynamic (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.
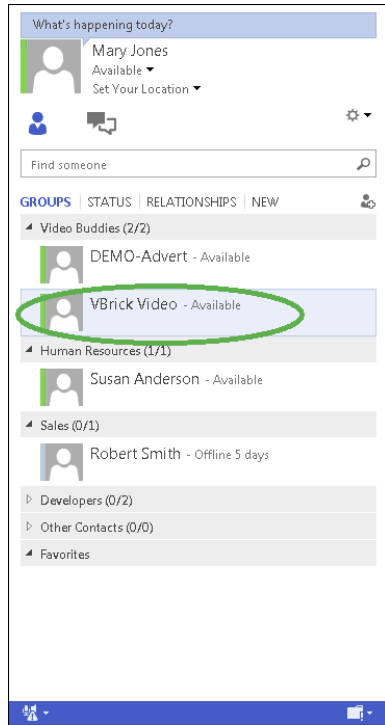
Figure 1. Video Buddy Presence Icon

Table 1. 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
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 "Step 6. Configuring the VB Bot Service" on page 10. 🟢 (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. *If no custom field is defined, all streams will exhibit dynamic behavior.* 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 1 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.

Note If you have more that 600 concurrent users and use the default configuration, you may get `Presence unknown` messages and/or other unpredictable or erratic behavior.

▼ To modify the VB Bot Service:

1. Go to the **Start** menu and launch the **VBrick Video Buddy Configuration Tool**.
2. Open the `VBBOTService.exe.config` file.
3. Find the `IsVBContactAutomaton` parameter and change the value to `True`.
4. Find the `VBAutomatonContactStatusMessage` parameter and enter the title (default = `Video`) that will be displayed for all streams.
5. Set the `SIPDomainForVBContacts` to the SIP domain used by the customer. The SIP domain is the domain associated with the end user's login address. For example, if the user logs in as harry.potter@lync.com, then the SIP domain is "`lync.com.`"
6. Reboot the server when done.

Table 2. 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
`ProcessChannelInterval InMinutes`	Frequency (in minutes) with which the Video Buddy server updates it's list of channels (Video Buddies).
`NewEndPointEstDelayInM inutes`	Number of minutes required for a new Video Buddy to be synchronized.
`UCReestablishDelayInMi nutes`	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.

Step 7. Configuring the VB VEMS Interface Service

This topic explains how to edit the VB VEMS Interface Service config file to match the required data for your domain. See Table 3 on page 22 for a list of all configurable parameters.

▼   To configure the VB VEMS Interface Service:

1. Using Windows Explorer, navigate to the location where the VB VEMS Interface Service was installed. By default it should be "C:/Program Files/VBrick/VBrick VB VEMS Interface Service/."

2. Open the file "VBVEMSInterfaceService.exe.config" in Notepad. This is the VBrick VEMS Interface Service configuration file. Once opened, modify the areas in black and red (below) to match the required data for your domain. Again, you will need the personal security certificate information from Step 18 on page 5.

```
<?xml version="1.0" encoding="utf-8" ?>
<configuration>
    <configSections>
        <sectionGroup name="applicationSettings"
type="System.Configuration.ApplicationSettingsGroup, System, Version=2.0.0.0,
Culture=neutral, PublicKeyToken=b77a5c561934e089" >
            <section
name="VBrick.OCSVideoBuddy.VBVEMSInterface.Properties.Settings"
type="System.Configuration.ClientSettingsSection, System, Version=2.0.0.0,
Culture=neutral, PublicKeyToken=b77a5c561934e089" requirePermission="false" />
        </sectionGroup>
    </configSections>
    <appSettings>
      <!-- Logger Settings -->
      <!-- logging levels : Error (1), Warning (2), Info (3), Debug (4), Trace (5)
-->
      <add key="LoggingLevel" value="3" />
      <add key="LogFile" value="" />
      <add key="LogDirectory" value="" />
```

```
      <!-- -->
      <!-- Log File settings Log File size is in MB and can have a max value of 25
-->
      <add key="MaxLogFileSize" value="5" />
      <add key="MaxLogFiles" value="10" />
      <!-- -->
      <add key="OCSAdminUserName" value="lyncadmin" />
      <add key="OCSAdminUserPassword" value="jg/4OjWKhr4=" />
      <add key="VemsIpAddress" value="10.0.10.9" />
      <add key="LDAPServerIpAddress" value="" />
      <add key="VemsWebServiceUrl" value="http://vems.lyncalpha.vbrick.com /
MCSWebSDK/MCSWebSDK.asmx" />
      <add key="MystroServiceUrl" value="http://maduro/MaduroSLL/MaduroSLL.svc/
      soap"/>
           <!-- -->
      <!-- Active Channels Lookup interval in minutes. default is 5 minutes. -->
      <add key="ActiveChannelLookupIntervalInMinutes" value="5"/>
      <!-- All Channels Lookup interval in minutes. default is 30 minutes. -->
      <!-- AllChannelLookupIntervalInMinutes should be in multiples of
ActiveChannelLookupIntervalInMinutes value -->
      <add key="AllChannelLookupIntervalInMinutes" value="30"/>
      <!-- -->
      <add key="DistributionGroup" value="VBrickVideo" />
      <add key="FirstName" value="VBrick" />
      <!-- -->
       <add key="EncodeSpecialCharacters" value="[ ][-20],[#][-23]" />
      <!-- <add key="EncodeSpecialCharacters" value="[ ][%20],[#][%23]" />  -->
      <add key="VideoBuddySource" value="Mystro" />
      <add key="XMLLocation" value="" />
      <add key="SIPDomainForVBContacts" value="lync.com" />
      <add key="MystroautomatonCustomFieldName" value="Lyncautomaton" />
      <add key="ChannelNameAppendage" value=""/>
         </appSettings>
    <system.serviceModel>
<binding name="WSHttpBinding_IOCSInterfaceWCFService" closeTimeout="00:01:00"
         openTimeout="00:01:00" receiveTimeout="00:10:00" sendTimeout="00:01:00"
         bypassProxyOnLocal="false" transactionFlow="false"
hostNameComparisonMode="StrongWildcard"
         maxBufferPoolSize="524288" maxReceivedMessageSize="65536"
messageEncoding="Text"
         textEncoding="utf-8" useDefaultWebProxy="true" allowCookies="false">
         <readerQuotas maxDepth="32" maxStringContentLength="8192"
maxArrayLength="16384"
           maxBytesPerRead="4096" maxNameTableCharCount="16384" />
         <reliableSession ordered="true" inactivityTimeout="00:10:00"
           enabled="false" />
         <security mode="Message">
           <transport clientCredentialType="Windows" proxyCredentialType="None"
             realm="" />
           <message clientCredentialType="Windows"
negotiateServiceCredential="true"
             algorithmSuite="Default" establishSecurityContext="true" />
         </security>
       </binding>
       <binding name="WSHttpBinding_IMaduroSLL" closeTimeout="00:01:00"
         openTimeout="00:01:00" receiveTimeout="00:10:00" sendTimeout="00:01:00"
```

```xml
        bypassProxyOnLocal="false" transactionFlow="false"
hostNameComparisonMode="StrongWildcard"
        maxBufferPoolSize="524288" maxReceivedMessageSize="65536"
messageEncoding="Text"
        textEncoding="utf-8" useDefaultWebProxy="true" allowCookies="false">
        <readerQuotas maxDepth="32" maxStringContentLength="8192"
maxArrayLength="16384"
          maxBytesPerRead="4096" maxNameTableCharCount="16384" />
        <reliableSession ordered="true" inactivityTimeout="00:10:00"
          enabled="false" />
        <security mode="Message">
          <transport clientCredentialType="Windows" proxyCredentialType="None"
            realm="" />
          <message clientCredentialType="Windows"
negotiateServiceCredential="true"
            algorithmSuite="Default" />
        </security>
      </binding>
      <binding name="WSHttpBinding_IMaduroSLL1" closeTimeout="00:01:00"
        openTimeout="00:01:00" receiveTimeout="00:10:00" sendTimeout="00:01:00"
        bypassProxyOnLocal="false" transactionFlow="false"
hostNameComparisonMode="StrongWildcard"
        maxBufferPoolSize="524288" maxReceivedMessageSize="65536"
messageEncoding="Text"
        textEncoding="utf-8" useDefaultWebProxy="true" allowCookies="false">
        <readerQuotas maxDepth="32" maxStringContentLength="8192"
maxArrayLength="16384"
          maxBytesPerRead="4096" maxNameTableCharCount="16384" />
        <reliableSession ordered="true" inactivityTimeout="00:10:00"
          enabled="false" />
        <security mode="Message">
          <transport clientCredentialType="Windows" proxyCredentialType="None"
            realm="" />
          <message clientCredentialType="Windows"
negotiateServiceCredential="true"
            algorithmSuite="Default" />
        </security>
      </binding> <client>
        <endpoint address="http://localhost:8000/OCSInterfaceWCFService/
service"
          binding="wsHttpBinding"
bindingConfiguration="WSHttpBinding_IOCSInterfaceWCFService"
          contract="OCSInterfaceWCFService.IOCSInterfaceWCFService"
          name="WSHttpBinding_IOCSInterfaceWCFService">
          <identity>
            <userPrincipalName value="lyncvbservice@<INSERT YOUR DOMAIN
HERE>" />
          </identity>
        </endpoint>
        <endpoint address="http://win-tq5r77v6g3q.vb.loc/MaduroSLL/
          MaduroSLL.svc/soap"
            binding="wsHttpBinding"
          bindingConfiguration="WSHttpBinding_IMaduroSLL"
            contract="MaduroService.IMaduroSLL"
          name="WSHttpBinding_IMaduroSLL">
            <identity>
              <servicePrincipalName value="host/WIN-TQ5R77V6G3Q.vb.loc" />
            </identity>
```

```
            </endpoint>
                </client>
    </system.serviceModel>
    <applicationSettings>
        <VBrick.OCSVideoBuddy.VBVEMSInterface.Properties.Settings>
            <setting name="ApplicationName" serializeAs="String">
                <value>LyncVideoBuddy</value>
            </setting>
            <setting name="CertificateIssuer" serializeAs="String">
                <value><INSERT 'ISSUED BY' VALUE FROM Step 18 on page 5 HERE></
value>
            </setting>
            <setting name="CertificateIssuedTo" serializeAs="String">
                <value><INSERT 'ISSUED TO' VALUE FROM Step 18 on page 5 HERE></
value>
            </setting>
            <setting name="VEMSService_VemsSdk_MCSWebSDK" serializeAs="String">
                <value>http://<INSERT FQDN OF YOUR VEMS SERVER HERE> /MCSWebSDK/
MCSWebSDK.asmx</value>
            </setting>
        </VBrick.OCSVideoBuddy.VBVEMSInterface.Properties.Settings>
    </applicationSettings>
</configuration>
```

3. Save and close the configuration file.
4. Go to **Start > VBrick Video Buddy Configuration Tool**.
5. When the tool launches, click the Browse button and navigate to the configuration file from Step 2 on page 18 which you just saved and closed (`C:/Program Files/VBrick/ VBrick VB VEMS Interface Service/VBVEMSInterfaceService.exe.config`). Open this file in the configuration tool.
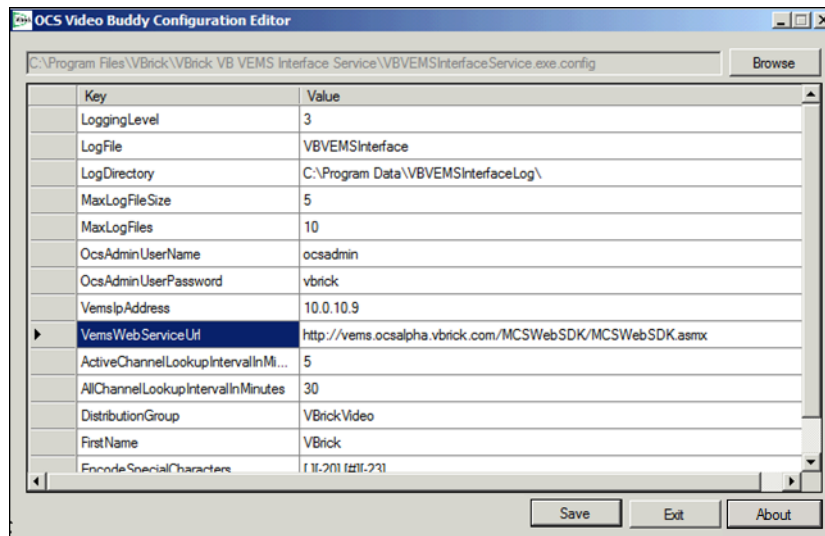
▼ **Mystro**

1. Modify the `VemsIpAddress` field to accurately reflect the IP address of your Mystro server.
2. Modify the `OCSAdminUserPassword` to reflect the password you gave to the "LyncAdmin" user in VEMS. (This assumes you are using authentication.)

3. Modify the field labeled `MystroServiceURL` to accurately reflect the FQDN of the VEMS server on your LAN. For example, replace "vems.ocsalpha.vbrick.com" (shown above) with the FQDN of your VEMS server.

4. Set the `VideoBuddySource` to `Mystro`.

5. Set the `SIPDomainForVBContacts` to the SIP domain used by the customer. The SIP domain is the domain associated with the end user's login address. For example, if the end user logs in as harry.potter@lync.com, the the SIP domain is "`lync.com`."

▼ **XML**

1. Set the `VideoBuddySource` to XML.

2. Set the `XMLLocation` to reference the location of the `.xml` definition file.

Table 3. VBVEMSInterfaceService.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
`OcsAdminUserName`	Service will log into and retrieve data from VEMS using this username.
`OcsAdminUserPassword`	Service will log into and retrieve data from VEMS using this password.
`VemsIpAddress`	IP address of VEMS.
`LDAPServerIPAddress`	IP address of LDAP server if applicable.
`VemsWebServiceUrl`	URL of the web service which will be used to communicate with VEMS 5.x server.
`MystroWebServiceUrl`	URL of the WCF service which will be used to communicate with VEMS 6.0 server.
`ActiveChannelLookupIntervalInMinutes`	Frequency (in minutes) with which the service requests data from VEMS in order to determine if there has been any change to the status of a channel. Reduce this number to increase the speed with which changes to Video Buddy status are reflected on the client desktop. Note: This setting must always be greater than any replication delays in the Active Directory site configuration.

`AllChannelLookupIntervalInMinutes`	Frequency (in minutes) with which the service requests data from VEMS in order to determine if any channels have been added or removed. Reduce this number to increase the speed with which new channels will be detected and become available for users to add to the client desktop. <u>Note</u>: AllChannelLookupIntervalInMinutes should be an integer multiple of ActiveChannelLookupIntervalInMinutes. <u>Note</u>: This setting must always be greater than any replication delays in the Active Directory site configuration.
`DistributionGroup`	Name of the Distribution Group into which all Video Buddies will be added.
`FirstName`	First name which will be applied to all Video Buddies created by the service.
`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, VEMS Mystro, or XML.
`XMLLocation`	For XML, modify this parameter to reference the location of the .xml definition file.
`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`."
`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.
`ChannelNameAppendage`	Not used. Do not modify.

Step 8. Give Port Permissions to the Services
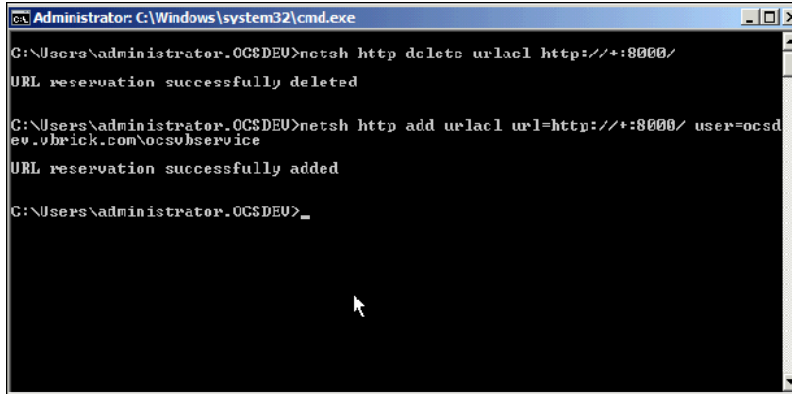
1. From the **Start** menu, launch a Command Prompt window.
2. Delete any URL reservations already assigned to `http://+:8000/` by entering the command "`netsh http delete urlacl http://+:8000/`" and pressing enter.

   You will either receive confirmation of deletion (see below) or, if there were no reservations to delete then you will see a message stating such.

```
C:\Users\administrator.OCSDEV>netsh http delete urlacl http://+:8000/
URL reservation successfully deleted

C:\Users\administrator.OCSDEV>_
```

3. Next, enter the following command and press the "Enter" key. <u>Note</u>: the command below is all one line, not two separate commands. `netsh http add urlacl url=http://+:8000/ user=<Your_Domain>\lyncvbservice`

4. The image below shows this command being successfully entered (after the previous command)

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

Step 9. Remove Old Log Files

▼   To remove old log files:

1. Browse to "`C:/ProgramData`." By default this is a hidden folder. Either change your folder settings to display hidden folders or manually type the location in to the path bar on file explorer.

2. Delete the "VBrick" folder. This is done to remove any log files which were created with the original domain user. Failure to remove these old log files may result in the inability of the VBrick VEMS Lync Streaming Gateway to log important information.

3. Reboot the server, the VBrick Lync Streaming Gateway server is now configured and ready for use.

Step 10. Troubleshoot

The "Request new certificate" option (see Step 11 on page 3) is not available.

- Possible Solution: Verify that the VBrick-LyncGW server is on the domain
- Possible Solution: Verify that you are logged into the VBrick-LyncGW server as a domain admin (it is easy to log in as the local admin by accident)

When requesting the Personal Certificate (see Step 14 on page 4) I don't see a checkbox.

- Possible Solution: Verify that the VBrick-LyncGW server is on the domain
- Possible Solution: Verify that the VBrick-LyncGW server has the Trusted Root Certificate from the Certificate Authority for the domain

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," "Issued By," and "Thumbprint" sections (see Step 4 on page 12).

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 (see Step 4 on page 12).

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

- Possible Solution: Verify that the 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.
- Possible Solution: The VEMS username specified in the VEMS Interface Service configuration file must have privilege to access the channel. Login to VEMS and verify that this user has privilege to access the channel.

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

- Possible Solution: Verify that the 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: 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 OC 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.
- Verify that the `VideoBuddySource` has been set properly in both configuration files.

My log files aren't updating

- Possible Solution: Make sure to delete the old log files and folders under "`C:/ProgramData/VBrick`" (see <u>Step 9. Remove Old Log Files</u> on page 24).

When you type "play" in the chat window, you get a message: "Could not display a form related to this conversation, which may prevent access to some options. If this problem persists, contact your system administrator".

- Possible Solution: A registry setting is required for the use of Video Buddies on a client PC. If it is not properly set, this message may appear (see "Client-Side Registry Edits" in the Admin Guide.)
- Possible Solution: The VEMS server must be a "Trusted Site" of Internet Explorer on the client PC. If it is not, this message may appear.

When you type "play" in the chat window, you get an "error ID 504" message and the player window does not open.

Possible Solution: The Streaming Gateway Server may be unable to communicate with the Lync Server. Most often this is due to a bad Personal Certificate on the Streaming Gateway Server. Check that the Personal Certificate exists and that it supports both Server and Client Authentication. If it does not, delete this certificate and create a new Personal Certificate using Step 3. Obtain Security Certificates on page 2. If the problem persists, contact Support Services.

Video Buddies do not work properly when configured for SSL.

- Possible Solution: Verify that VEMS is properly configured for SSL. For details see "Configuring for SSL" topic in *Portal Server Admin Guide.*
- Possible Solution: Verify that SSL was turned on. See "HTTPS Configuration" in the *Admin Guide.*
- Possible Solution: The URLs specified in the configuration files must use a fully qualified domain name (e.g. "`vems.vblync.com`" not "`VEMS.`" Please verify the following settings:

  `VBVEMSInterfaceService.exe.config`

  - VEMS Mystro: `MystroService_URL`

  `VBBOTService.exe.config`

  - VEMS Mystro: `VB_Mystro_Player_Page`

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