



Microsoft®
**Office Communications
Server 2007**
Ignite Tour

**Manual Host Computer
Setup Guide**

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Introducing Microsoft Virtual PC 2007

This course is designed to use Microsoft® Virtual PC 2007. Microsoft Virtual PC is a technology that allows a single computer to act as a host for one or more virtual computers. Virtual computers use a set of virtual devices that may or may not map to the physical hardware of the host computer.

The software that is loaded onto the virtual computer is unmodified, full-version software that operates exactly the same as it does when it is installed onto physical hardware. The only exception is that when users log on to the guest operating system, they must press RIGHT-ALT + DELETE instead of CTRL + ALT + DELETE.

The following terms are used throughout the remainder of this document:

- *Virtual PC*. Virtual PC is an application that allows you to install and run other operating systems.
- *Host computer*. The host computer is the physical computer onto which an operating system and the Virtual PC application have been installed.
- *Host operating system*. The host operating system refers to the operating system that is running on the physical computer.
- *Virtual computer*. The virtual computer is the computer that is running inside of Virtual PC. In this document, *Virtual PC* refers to the application running on the host and *virtual computer* refers to the guest computer that is running in the application.
- *Guest operating system*. The guest operating system is the operating system that is running inside of the virtual computer.

By default, the virtual computer will run inside of a window on the host computer's desktop; however, you can run the virtual computer in full-screen mode by pressing RIGHT-ALT + ENTER. You can return to a windowed view with the same key combination.

Note Pressing CTRL + ALT + DELETE while working with a virtual computer will display the **Windows Security** dialog box or the **Task Manager** for the host operating system. If this is not wanted, press ESC. To access the **Windows Security** dialog box for a guest operating system, press RIGHT-ALT + DELETE.

Virtual computers can be configured so that they can communicate with other virtual computers on the same host computer, the host computer itself, virtual computers on other host computers, other host computers, and other physical computers on the network.

The instructions that you will follow as a part of this setup will configure Virtual PC and the virtual computers that will run on the host. Changing any of the configuration settings may render the practices for this course unusable.

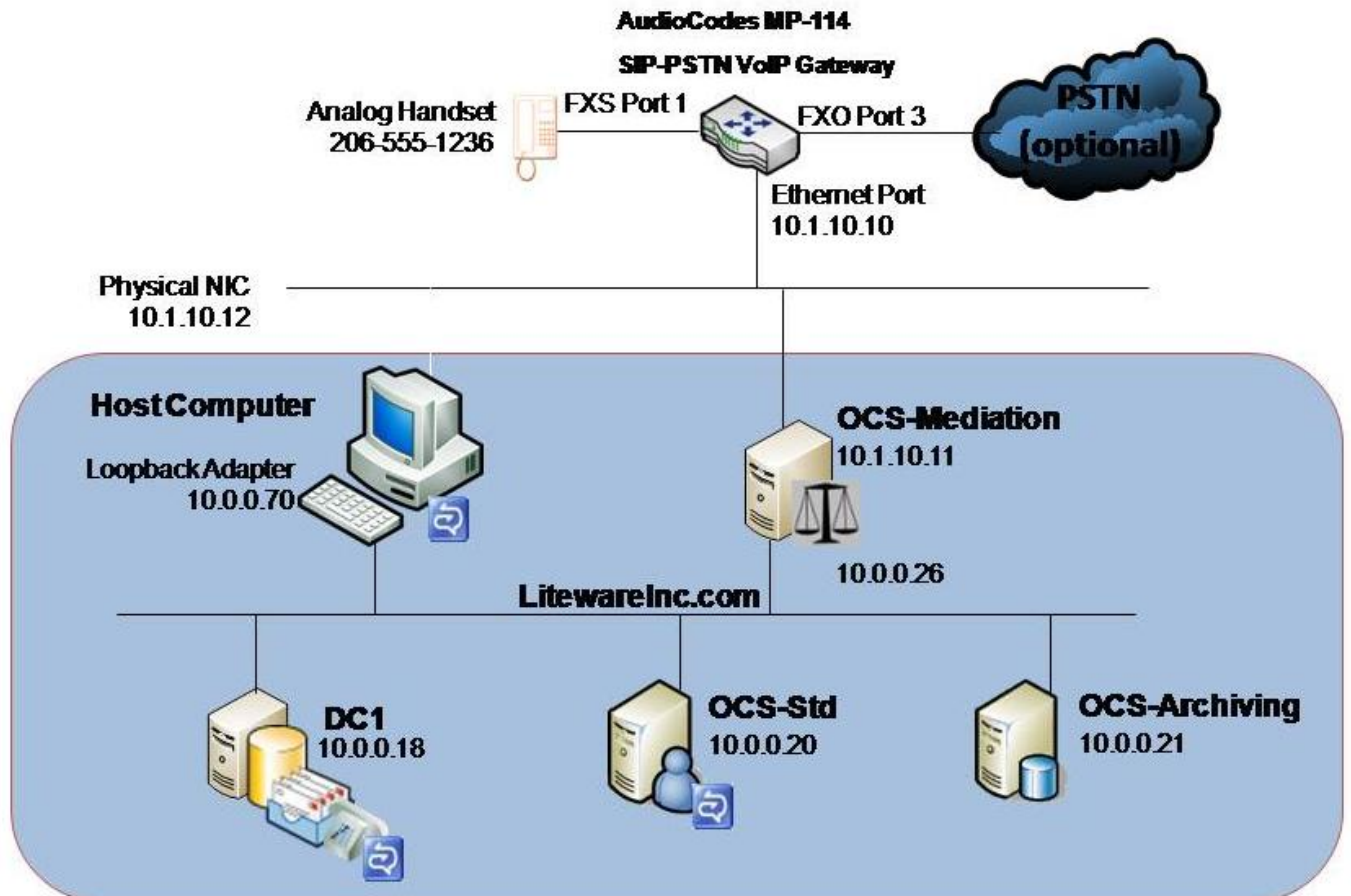
Setup Overview

Each host computer for the student or instructor will contain four virtual computers (DC1 OCS-Std, OCS-Mediation and OCS-Archiving). The four virtual computers will be able to communicate with each other and the host computer by using the virtual machine network services and by installing and configuring the Microsoft Loopback adapter.

The host computers must be set up with a default installation of either Microsoft® Windows® XP Professional or Microsoft® Windows® Vista. There is no need for the host computers to be able to communicate with one another on the network. Allowing the host computer to access the Internet or other networked computers is not covered in this setup guide and is not recommended. Note that the steps in this guide may need to be altered slightly to match your version of Windows.

With only 2 gigabytes (GB) of memory, it will not be possible to run all four virtual computers at the same time and have a good experience. There are instructions in the labs on when to start and when to shut down various servers. If you have additional resources and want to do so, you may leave all of the servers running.

The Office Communications Server 2007 Ignite environment:



Tip This slide and a user configuration reference slide are in the **Documentation** folder of the original content and may be printed for quick reference during setup and while going through the labs.

Host Computer Requirements

This course requires a minimum of one computer for each student. Before class begins, install and configure all computers by using the following information and instructions. The currently logged-in user of the host computer will need to be a local administrator to perform most of these instructions.

Hardware

The classroom computers require the following hardware:

- Pentium IV 3 GHz (gigahertz)
- PCI 2.1 bus
- 2 GB of RAM (This is the minimum; the virtual computers will need 1500 megabytes [MB] at certain points during the course.)

Important If the host machine is using more than 500 MB of RAM while idle, host machine applications must be turned off to free up memory, or more memory must be added to the host machine. If you have more than 2 GB of RAM, you can adjust the amount of RAM configured for each virtual computer in section 8, starting with the OCS-Std and DC1 virtual computers.

- 30 GB free hard disk space (Required)
- 512-kilobyte (KB) L2 cache
- Non-ISA network adapter (10/100 megabits per second [Mbps] full duplex required)
- 4-MB video adapter
- Super VGA (SVGA) monitor (17 inch)
- Microsoft Mouse or compatible pointing device
- Sound card
- Headset with microphone
- Web Camera
- AudioCodes MP-114 VoIP Gateway

Note Please verify that you have installed the drivers for your Web camera and sound, and that you have tested them. Please also make sure that you select the microphone of your headset as your default microphone and not the microphone of the Web camera.

Software

Please note that unless otherwise indicated, this software is not included. This course was developed and tested on the following software, which is required for the host computers:

- Windows XP Professional
- Windows Vista
- Microsoft Office 2007

-
- Required:
 - Microsoft Office Outlook®
 - Microsoft Office Word
 - Microsoft Office PowerPoint®
 - Microsoft Office OneNote®
 - Microsoft Office Shared Features
 - Microsoft Office Tools
 - A trial version of Microsoft Office 2007 is available for download from <http://office.microsoft.com/en-us/products/HA101687261033.aspx>
 - Microsoft Virtual PC 2007
 - Microsoft Virtual PC 2007 is included on the Ignite in a Box DVD and is also available for download from <http://www.microsoft.com/windows/downloads/virtualpc/default.mspx>

Important You must add the Microsoft Loopback Adapter to the host PC before installing Virtual PC 2007. See section 2, **Install and Configure Microsoft Loopback Adapter**.

- Adobe Acrobat Reader Version 6 or later
 - A free version of Acrobat Reader is available for download from <http://www.adobe.com/products/acrobat/readstep2.html>

Host Computer Configuration

Each computer will serve as the host for four virtual computers that will run in the Microsoft Virtual PC 2007 environment. The domain or workgroup membership of the host computer does not matter. However, the following computer names cannot be used for any of the host computers: **DC1**, **OCS-Std**, **OCS-Mediation**, and **OCS-Archiving**. The virtual computer files total nearly 22 GB in size; please allow plenty of time to extract the zipped files and to copy them to the local hard drive.

Use the instructions in the following sections to set up the host computer manually. Before starting the installation of the host computer, Windows XP Professional or Windows Vista must be installed on the computer. Outlook 2007 must also have been installed. Please verify that you are logged in as a local administrator.

Each computer should be connected directly to the AudioCodes gateway by using a crossover cable connected to the **Ethernet** port on the gateway. An analog phone should be connected to the gateway's **FXS Port 1**. If available, connect an outside line to the **FXO Port 3**.

Important Turn off all firewalls, including Windows Firewall, on all network interfaces. This is known to cause communication problems.

Estimated time to set up the classroom: 2+ hours, depending on drive speed

1. Configure the Host Computer's Network Adapter

1. Click **Start** and then click **Control Panel**. (*This course assumes that all computers are configured with the default Windows XP or Vista Start menu and not the Classic Start Menu.*)
2. Double-click **Network Connections**.
3. In Vista, double-click **Network and Sharing Center**, and then click **Manage network connections**.
4. Right-click the **Local Area Connection #<your number>** that corresponds to the physical network adapter installed on the host computer that is connected to the Voice over IP (VoIP) gateway, and then click **Properties**.
5. In the **This connection uses the following items** list box, select **Internet Protocol (TCP/IP)** and then click **Properties**.
6. Click the **Use the following IP address** option.
7. In the **IP address** text box, type **10.1.10.12**
8. In the **Subnet mask** text box, type **255.0.0.0**
9. In the **Default gateway** text box, type **10.1.10.10**
10. Leave the DNS entries empty, click **OK**, and then click **Close**.

Important Turn off all firewalls, including Windows Firewall, on all network interfaces. This is known to cause communication problems.

11. Close Control Panel.
12. Connect this adapter directly to the AudioCodes' **Ethernet** port by using a crossover cable.

2. Install and Configure Microsoft Loopback Adapter

1. Click **Start** and then click **Control Panel**. (*This course assumes that all computers are configured with the default Windows XP or Vista Start menu and not the Classic Start Menu.*)
2. Double-click **Add hardware**.
3. In the **Add Hardware Wizard**, click **Next**.
4. Click the **Install hardware I manually select from a list (Advanced)** option and then click **Next**.
5. In the **Common hardware types** list box, select **Network adapters** and then click **Next**.
6. In the **Manufacturer** list box, select **Microsoft**.
7. In the **Network Adapter** list box, click **Microsoft Loopback adapter**, click **Next**, and then click **Next** again.
8. Click **Finish**.
9. In Control Panel, double-click **Network Connections**.
10. In Vista, double-click **Network and Sharing Center**, and then click **Manage network connections**.

11. Right-click the **Local Area Connection #<your number>** that corresponds to Microsoft Loopback Adapter under **Device Name**, and then click **Properties**.
12. In the **This connection uses the following items** list box, select **Internet Protocol (TCP/IP)** and then click **Properties**.
13. Click the **Use the following IP address** option.
14. In the **IP address** text box, type **10.0.0.70**
15. In the **Subnet mask** text box, type **255.255.255.0**
16. In the **Default gateway** text box, type **10.0.0.18**
17. In the **Preferred DNS Server** text box, type **10.0.0.18**
18. Click **OK**, and then click **Close**.

Important Turn off all firewalls, including Windows Firewall, on all network interfaces. This is known to cause communication problems.

19. Close Control Panel.

3. Install Microsoft Virtual PC 2007

This course requires that Microsoft Virtual PC 2007 be installed on each student computer. Install Microsoft Virtual PC 2007 on each student computer by following the setup instructions included with the software. A trial version of Microsoft Virtual PC 2007 is included in the **VPC2007** folder of the original content and can also be installed from the Installation page on the DVD autorun shell.

Important You must add the Microsoft Loopback Adapter to the host PC before installing Virtual PC 2007. If you install Virtual PC 2007 before adding the Loopback Adapter, you must manually go into the settings of each virtual computer and on the **Networking settings** section, select **Microsoft Loopback Adapter** in the drop-down list. You need to select Microsoft Loopback Adapter even if it is already showing in the drop-down list.

4. Create a Desktop Shortcut for Virtual PC

- Click **Start**, point to **All Programs**, right-click **Microsoft Virtual PC**, point to **Send To**, and then click **Desktop (create shortcut)**.

5. Install Virtual Disk Files

Important The setup of the virtual computers and the batch file used to configure the server are path-dependent. If you do not use the same paths as those described in this Setup Guide, you will have to manually configure the server as described in each section.

1. On the host computer, create a folder on the **C** drive called **VPC**.

Important You can put the VPC folder on other drives, but the ConfigureHostPC.bat file is written to use the C drive and won't work. If you use a different drive letter, you will have to manually configure the host computer as described later in this guide.

2. Copy the contents of the OCSVPC folder of the original content to the C:\VPC folder on the host computer. This includes:
 - a. **Extras folder**
 - b. **Labs folder**
 - c. **DC1.VMC**
 - d. **DC1.VHD**
 - e. **OCS-STD.VMC**
 - f. **OCS-STD.VHD**
 - g. **OCS-MEDIATION.VMC**
 - h. **OCS-MEDIATION.VHD**
 - i. **OCS-ARCHIVING.VMC**
 - j. **OCS-ARCHIVING.VHD**
 - k. **WWSRVBASE1.VHD**

6. Install the 2007 Office Hotfix

1. In the **Hotfix** folder of the original content, double-click **office2007-kb936864-fullfile-x86-en-us.exe**

Note This Hotfix is also available online at <http://support.microsoft.com/kb/936864>

2. On the Microsoft Software License Terms page, select **Click here to accept the Microsoft Software license terms** and then click **Continue**.
3. After the hotfix has been installed, click **Yes** to reboot the computer.

7. Run ConfigureHostPC.bat

The **ConfigureHostPC.bat** batch file will:

- Register all of the virtual computers with Microsoft Virtual PC.
- Add the LitwareIncCA certificate to the Local Computer Trusted Root Certification Authorities store.
- Create an Outlook 2007 profile for Vivian Atlas.
- Create an Autodiscover entry in the host computer's Hosts file.

Note This autodiscover entry will only be created on Windows XP operating systems. On host computers with Windows Vista, follow the instructions in **Section 10** for manually creating this entry.

This batch file assumes you have already copied the images to **C:\VPC** of the host computer.

⏪ Run ConfigureHostPC.bat

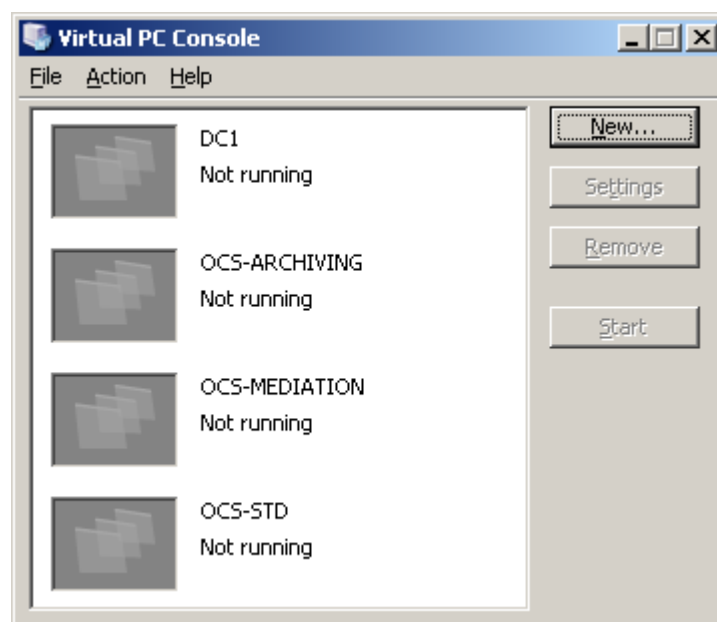
1. On host computers running Windows XP, click **Start** and then click **Run**.
2. In the **Run** text box, type **CMD** and then click **OK**. Skip to **step 4**.
3. On host machines running Windows Vista, click **Start** → **All Programs** → **Accessories** right-click **Command Prompt** and then click **Run As Administrator**.

Important The setup of the virtual computers and the batch file used to configure the server are path-dependent. If you do not use the same paths as those described in this Setup Guide, you will have to manually configure the server as described in each section.

4. At the command prompt, type **cd ** and then press ENTER.
5. At the command prompt, type **cd C:\VPC\Extras** and then press ENTER.
6. Type **ConfigureHostPC.bat** and then press ENTER.
7. If you see the Welcome to the New Virtual Machine Wizard, click **Cancel**.
8. If you receive a warning about Virtual Machine versions, click **Cancel**.
9. Close the Command prompt.

8. Verify Virtual PC Configuration

1. Double-click the Virtual PC shortcut you created on the desktop.
2. Verify that you have four virtual computers registered as seen in the following snapshot.



3. In the Virtual PC Console, click **DC1** and then click **Settings**.

4. Verify that the DC1 settings are the same as those shown in the following table.

Setting	Current value
Filename	DC1
Memory	512 MB (If you have more than 2 GB of memory on your host computer, increase this amount to at least 1024 MB.)
Hard Disk 1	DC01.vhd (<i>There should be no additional hard disk files.</i>)
Undo Disks	Enabled
CD/DVD	Secondary controller
Floppy Disk	Auto detected
<i>No COM or LPT ports are configured.</i>	
Networking	Network adapters:1 <i>Click Networking and verify that Adapter 1 is set to Microsoft Loopback Adapter.</i>
Sound	Enabled
Hardware Virtualization	Not Available
Mouse	No pointer integration (<i>This changes to "Pointer integration on" when the VPC is started.</i>)
Shared Folders	Not installed
Display	Default
Close	Show message

5. In the Settings window, click **OK**.
6. In the Virtual PC Console, click **OCS-Archiving** and then click **Settings**.
7. Verify that the OCS-Archiving settings are the same as those shown in the following table.

Setting	Current value
Filename	OCS-Archiving
Memory	512 MB
Hard Disk 1	OCS-Archiving.vhd (<i>There should be no additional hard disk files.</i>)
Undo Disks	Enabled
CD/DVD	Secondary controller
Floppy Disk	Auto detected
<i>No COM or LPT ports are configured.</i>	
Networking	Network adapters:1 <i>Click Networking and verify that</i>

	<i>Adapter 1 is set to Microsoft Loopback Adapter.</i>
Sound	Disabled
Hardware Virtualization	Not Available
Mouse	No pointer integration (<i>This changes to "Pointer integration on" when the VPC is started.</i>)
Shared Folders	Not installed
Display	Default
Close	Show message

8. In the Settings window, click **OK**.
9. In the Virtual PC Console, click **OCS-Mediation** and then click **Settings**.
10. Verify that the OCS-Mediation settings are the same as those shown in the following table.

Setting	Current value
Filename	OCS-Mediation
Memory	512 MB
Hard Disk 1	OCS-Mediation.vhd (<i>There should be no additional hard disk files.</i>)
Undo Disks	Enabled
CD/DVD	Secondary controller
Floppy Disk	Auto detected
<i>No COM or LPT ports are configured.</i>	
Networking	Network adapters:2 <i>Click Networking and verify that Adapter 1 is set to Microsoft Loopback Adapter and that Adapter 2 is set to the Physical NIC of the host computer.</i>
Sound	Disabled
Hardware Virtualization	Not Available
Mouse	No pointer integration (<i>This changes to "Pointer integration on" when the VPC is started.</i>)
Shared Folders	Not installed
Display	Default
Close	Show message

11. In the Settings window, click **OK**.
12. In the Virtual PC Console, click **OCS-Std** and then click **Settings**.

13. Verify that the OCS-Std settings are the same as those shown in the following table.

Setting	Current value
Filename	OCS-Std
Memory	512 MB (If you have more than 2 GB of memory on your host computer, increase this amount to at least 1024 MB.)
Hard Disk 1	OCS-Std.vhd (<i>There should be no additional hard disk files.</i>)
Undo Disks	Enabled
CD/DVD	Secondary controller
Floppy Disk	Auto detected
<i>No COM or LPT ports are configured.</i>	
Networking	Network adapters:1 <i>Click Networking and verify that Adapter 1 is set to Microsoft Loopback Adapter.</i>
Sound	Enabled
Hardware Virtualization	Not Available
Mouse	No pointer integration (This changes to "Pointer integration on" when the VPC is started.)
Shared Folders	Not installed
Display	Default
Close	Show message

14. In the Settings window, click **OK**.

15. Close the Virtual PC Console.

9. Create Virtual Computers

Perform the steps in this section only if you do not have the four virtual servers registered in Microsoft Virtual PC as shown in the previous section.

1. On the desktop, double-click the **Microsoft Virtual PC** shortcut.
2. Click **New**, and then on the Welcome page, click **Next**.
3. On the Options page, select **Add an existing virtual machine** and then click **Next**.
4. In the Existing Virtual Machine Name and Location window, type **C:\VPC** and then click **Browse**.
5. Select **DC1.vmc**, click **Open**, and then click **Next**.
6. Clear the **When I click Finish, open Settings** check box, and then click **Finish**.

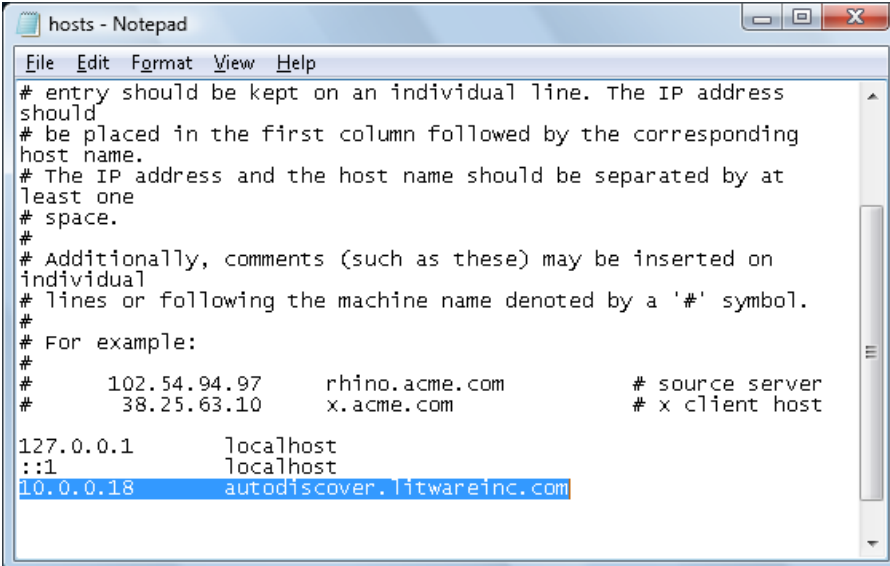
- Repeat steps 2 through 6 for **OCS-Std.vmc**, **OCS-Mediation.vmc**, and **OCS-Archiving.vmc**.
- Repeat the **Verify Virtual PC Configuration** section above to confirm the configuration of the virtual computers.

Note Do not start any virtual computers yet. You will be instructed when to start the required virtual computers. The password for all virtual computers and users for this course is **pass@word1**

10. Verify Settings

⏪ Verify the hosts file entry

- On host machines running Windows XP, click **Start** → **All Programs** → **Accessories** → **Windows Explorer**.
- Navigate to **C:\Windows\System32\Drivers\Etc** and open **Hosts** with Microsoft Notepad. Skip to **step 6**.
- On host machines running Windows Vista, click **Start** → **All Programs** → **Accessories** right-click **Command Prompt** and then click **Run As Administrator**.
- At the command prompt, type **cd \windows\system32\drivers\etc** and then press ENTER.
- At the command prompt, type **notepad hosts** and then press ENTER.
- Verify that you have a hosts entry that looks exactly like the highlighted line in the image below.



```
hosts - Notepad
File Edit Format View Help
# entry should be kept on an individual line. The IP address
# should
# be placed in the first column followed by the corresponding
# host name.
# The IP address and the host name should be separated by at
# least one
# space.
#
# Additionally, comments (such as these) may be inserted on
# individual
# lines or following the machine name denoted by a '#' symbol.
#
# For example:
#
# 102.54.94.97 rhino.acme.com # source server
# 38.25.63.10 x.acme.com # x client host
127.0.0.1 localhost
::1 localhost
10.0.0.18 autodiscover.litwareinc.com
```

- If you have a hosts entry for **autodiscover.litwareinc.com**, skip to the next section, **Verify Trusted Root CA Certificate Installation**.
- If you do not have a hosts entry, add this line and then save the changes.
- Close **Notepad**.

⏪ Verify Trusted Root CA Certificate Installation

1. Click **Start** and then click **Run**.
2. In the **Run** box, type **MMC** and then press ENTER.
3. In the blank MMC, click **File**→**Add/Remove Snap-in**.
4. On the Add or Remove Snap-ins page, click **Certificates** and then click **Add**.
5. On the Certificates snap-in page, select **Computer account** and then click **Next**.
6. On the Select Computer page, click **Finish** and then click **OK**.
7. In the Certificates console, expand **Certificates (Local Computer)**, expand **Trusted Root Certification Authorities**, and then click **Certificates**.
8. Verify that LitewareIncCA is listed.
 - If LitewareIncCA is listed, skip to the next section, **Verify Outlook Profile Creation**.
 - If LitewareIncCA is not listed, continue to the next step of this section.
9. In **Trusted Root Certification Authorities**, right-click **Certificates**, click **All Tasks**, and then click **Import**.
10. On the Welcome page, click **Next**.
11. On the File to Import page, in the **File Name** box, type **C:\VPC\Extras\Config\LitewareIncCA.crt** and then click **Next**.
12. On the Certificate Store page, verify that the **Certificate Store** is set to **Trusted Root Certification Authorities**, and then click **Next**.
13. On the Completion page, click **Finish**.
14. In the **Certificate Import Wizard** prompt, click **OK**.
15. Close the Certificates console and save it as **Certificates.msc** in the default location.

⏪ Verify Outlook profile creation

1. Start the DC1 virtual computer as instructed in **Lab 1, Exercise 0**, and wait for the server to completely boot up.
2. Verify that all services have successfully started.
3. On the host computer, click **Start** and then click **Microsoft Office Outlook**.
4. Wait for Outlook to open.
5. In the **Connect to dc1.litwareinc.com** login prompt, type **va@litwareinc.com** for the username and **pass@word1** for the password.
 - If you do not receive this login prompt, leave the virtual computer running, cancel out of Outlook and skip to the next procedure to manually configure the Outlook profile.
6. Select the **Remember my password** check box and then click **OK**.
 - If you receive another prompt, enter the same information again.
 - If you see a Privacy Options page, clear all selections and then click **OK**.

- If you receive a Microsoft Office Outlook prompt regarding Instant Search, select the **Do not show this again** check box and then click **No**.
7. Wait for the profile to be copied locally and then close **Outlook**.
 8. Shut down the virtual computers without saving the changes and then skip to the next section, **Verify Connectivity to AudioCodes Gateway**

⚡ **Manually configure the Outlook profile for Vivian Atlas**

1. On the host computer, click **Start**, right-click **Microsoft Office Outlook**, and then click **Properties**.
2. On the **General** tab, click **Add**.
3. In the **Profile Name** text box, type **Vivian Atlas** and then click **OK**.
4. On the Auto Account Setup page, in the **Your Name** field, type **Vivian Altas**; in the **E-mail Address** field, type **va@litwareinc.com**; and in the **Password** and **Re-type Password** fields, type **pass@word1** and then click **Next**.
5. In the **Connect to dc1.litwareinc.com** login prompt, type **va@litwareinc.com** for the username and **pass@word1** for the password.
6. Select the **Remember my password** check box and then click **OK**.
7. On the Congratulations page, click **Finish**.
8. In the **Mail** dialog box, verify that **Always Use this profile** is selected and that **Vivian Atlas** shows in the drop-down list, and then click **OK**.

11. Verify Connectivity to the AudioCodes Gateway

1. On the host machine, click **Start**→ **All Programs**→ **Internet Explorer**.
2. In Internet Explorer, in the **Address** bar, type **http://10.1.10.10** and then press ENTER.

You should receive an Enter Network Password login page.

3. Click **Cancel** and then close Internet Explorer.

If you do not receive this login page, verify your network settings, IP addresses and cable placement and try again.