Secure Remote Desktop

Juniper SSL VPN and Windows Remote Desktop
For Windows XP

Dynamic
INTRODUCTION

Remote Desktop is an application that is built-into Windows operating systems providing a means to connect to one computer (call the host) from another computer (called the client) that is located at a physically different place. It will give you the sense of actually sitting at the host computer such as at your office. At UMass Boston, it is mandatory that you also have a VPN account. This is because Remote Desktop by itself is not secure. In addition, you will need to obtain some information about and perform some preliminary configuration on the host computer. The information provided here pertains to the Windows XP Operating system. Anything specific to Windows Vista or Windows 7 will be addressed in a separate document.

CLIENT COMPUTER
VPN CONNECTION & PERMITTING REMOTE DESKTOP CONNECTIONS

In order to connect securely to your office computer using Windows Remote Desktop, it is essential that you have a VPN account. A request form for a new VPN account must be submitted to the IT Service Desk in order to obtain one. You must also know how to use the information about the host computer to use secure Remote Desktop to connect your office computer.

VPN

To use VPN, you must have a VPN account. Once you have received notification that a VPN account has been created for you, you may begin to use it. A copy of the form may be obtained at the URL: http://umb.edu/uploads/File/it/services/security/vpn_form-1(1).pdf. Please be sure to provide all of the information requested on the form. Otherwise the application might be rejected and considered incomplete. The form should be sent to the IT Service Desk, Healey, 3rd floor, room 007. If the application is approved, you will receive an email message from IT-Security@umb.edu. Your username and password will be your UMB email username and UMB email password.

The other information will instruct you on how to configure Windows Firewall and how to establish a VPN session. Windows Firewall and connecting to VPN are also contained in this document. Connecting to VPN involves two stages: the initial connection and all subsequent connections. This will also be explained in this document.
Initial logon to VPN

After receiving notification that a VPN account has been created for you, go to https://tunnel.umb.edu/VPN. Enter your UMB email username and UMB email password. Select UMB-VPN-Dynamic as the domain. Click Sign In.

You may or may not get the following prompt to install JuniperSetupSP1.cab as shown below.

If you do, click on the text that says “Click here to install...”.
Then you will then see the menu below. Click on “Install This Add-on”.

You then might get a security warning as shown below. If you do, click on **Install**.
Once your credentials have been accepted, you will see the screen shown below. Click on Start. Only click on this once. Please wait. This can take some time.

Next you might set the screen below. Be patient and wait.

Installing application, please wait...
During the installation, you might also see the screen below where the connection is being negotiated. Be patient and wait.

![Network Connect](image1)

Once a connection is established this will go away and you will be back to the screen shown below.

![Network Connect](image2)
You’re done and you have successfully established a VPN connection. To verify that a connection exists, look down in the lower right-hand corner of your task bar and look for an icon that looks like the one below.

If you hover the mouse pointer over the icon, it might even say connected.

Another way to determine if you are connected it to use the command line. Click Start and then click Run…. As shown below.

You will then see a screen similar to the one shown below.
Type in cmd to the right of **Open:** and click **OK.**

You will next see a screen like the one below.
Type in `ipconfig`. You will next see a screen similar to the one below.

![Image of ipconfig output]

Press the **Enter** key. If you see a line that says

**Ethernet adapter Network Connect Adapter:** and another line that says

**IP Address. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . : 158.121.12.36,** then you have established a VPN connection.

You will notice that the IP address is one that UMB uses. It starts out with the number 158.

![Image of detailed ipconfig output]

You are done.
Subsequent logons to VPN

For all subsequent logons to VPN, you can go to the Juniper Networks folder and click on the Network Connect icon shown below. Just go to All Programs and look for Juniper Networks.

After you click on Network Connect you will see the logon shown below. Just enter your UMB email username and UMB email password. Select UMB-VPN-Dynamic and click Sign In.

You can determine if you have entered a session as described above.
Now that you have established a VPN session, you can run Windows Remote Desktop. Click **Start**, click **All Programs**, and click **Accessories**. You should see a screen similar to the one below. Click on **Remote Desktop Connection**.
You will next see a logon prompt as shown below. This is the place where you will enter either the IP address or the host name of the remote computer to which you would like to connect.

![Remote Desktop Connection](image)

Type in the IP address or host name of the host computer. In this example, I typed in **158.121.200.169**. Click **Connect**.
The screen should now change and you should get the screen to logon to the host computer to which you are trying to connect. Enter your username and password like you would do usually and this should allow you to logon to your office computer.
HOST COMPUTER
INFORMATION AND CONFIGURATION

Information about the configuration of the host computer is summarized below.

- Enable remote connections on the host
- Configure Windows Firewall on host
- Obtain either or both the IP address and/or host name of the host computer

ENABLE REMOTE CONNECTIONS

Go to **Control Panel. Double-click on the icon that reads System.**

Select the tab that says **Remote.** Look under **Remote Assistance.** Remove the check in the box at “**Allow Remote Assistance invitations to be sent from this computer**”. Look under **Remote Desktop.** Place a check in the box at “**Allow users to connect remotely to this computer**”. Click “**OK**”.

![System Properties](image-url)
CONFGURE WINDOWS FIREWAL

Go to **Control Panel**. Double-click on the icon that reads **Windows Firewall**.

Make sure that **On (recommended)** is selected and that **Don't allow exceptions** is **NOT** selected. Click the **Exceptions** tab.
Place a check in the box to the left of Remote Desktop. Make sure that UPnP Framework is NOT checked. Highlight Remote Desktop and click Edit.

![Windows Firewall dialog box](image1)

Click the Change scope button.

![Edit a Service dialog box](image2)
Select **Custom list** and enter the following IP address: **158.121.12.0/255.255.255.0**.

Click “OK”.

Click “OK”.

Click “OK”.
In order to connect to the remote computer, you must obtain either the IP address or the host name of the host computer. In order to do so, you must get this information from the host computer.

**How to get the IP address**

Click Start and then click Run…. As shown below.

You will then see a screen similar to the one shown below.
Type in **cmd** to the right of the text that says **Open**: and click **OK**.

You will next see a screen like the one below.
Type in `ipconfig`. You will next see a screen similar to the one below.

![ipconfig output](image)

Press the **Enter** key. You should see a screen like the one below. You will see a line like `IP Address: 158.121.200.169`. The numbers 158.121.200.169 is the IP address.

![Detailed ipconfig output](image)
How to get the host name

In order to find the host name, you will need to know the IP address. In some cases using the IP address to connect using Remote Desktop will not work but using the host name might. The host name never changes but it is possible that the IP address will.

Click Start and then click Run.... As shown below.

You will then see a screen similar to but not exactly like the one shown below.
Type in `cmd` to right of the text that says `Open:` and click `OK`.

![Run dialog box](image)

You will next see a screen like the one below.

![Command prompt](image)
Type in `nslookup` followed by a space and then the IP address. In this case you would type `nslookup 158.121.200.88`. You should see the following screen. In the line that reads `Name: 2DLCXB1.200dhcp-090.umb.edu`, `2DLCXB1.200dhcp-090.umb.edu` is the host name. If the IP address for this particular machine ever changes, the host name will stay the same.