

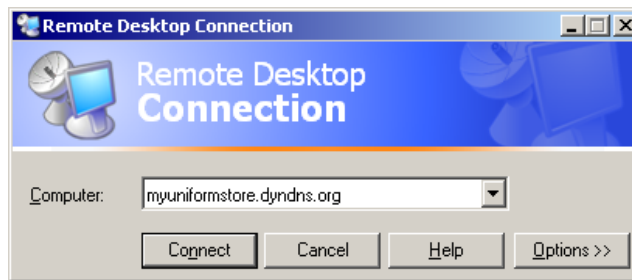
Remote Desktop Setup Guide



Windows XP Professional includes a hosting utility called Remote Desktop that can be used by the PC in your store to enable access to all of your applications from any PC with Windows XP (Home or Professional) and an internet connection. Remote Desktop is an absolutely fantastic utility that once setup at the host location, is easy to use and gives you the freedom to work from anywhere - just like you were at your store.

Experience Required!

The document provides a technical overview of how to setup Remote Desktop with a router using a dynamic IP address. In order to be able to perform a successful setup, the installer should have a working knowledge of manually configuring a PC's IP address, and working with a router's configuration utility.



Summary of Requirements

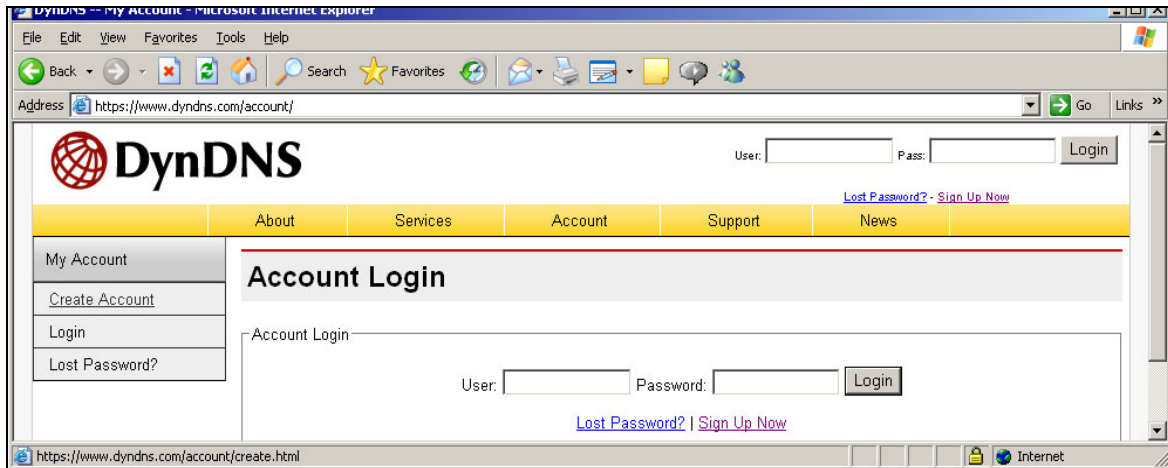
1. If you don't have DSL get it. There are many reasons to have "always on" internet access and using Remote Desktop is just one of them.
2. Get a router capable of "port forwarding" such as the Linksys WRT54GS router. This router has a hardware firewall to keep hackers out, but can forward remote desktop requests to the PC you would like to connect to at the store.
3. Since most DSL providers use a "Dynamic IP" address, you will want to create an account with DynDNS so you can type in a name like "myuniformstore.dyndns.org" in the Remote Desktop connection dialog to connect to your PC through your DSL router at your store.
4. The PC at your store must have Windows XP Professional. Any PC that will access the PC at the store must have Windows XP Home or Professional.

Getting Started

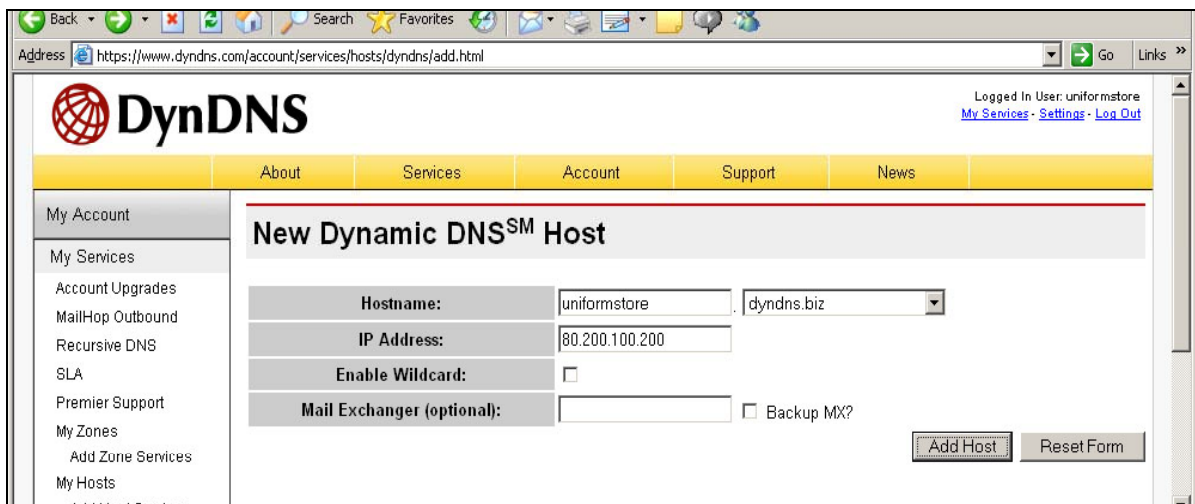
If you have a router capable of updating a dynamic domain name service and also forwarding IP addresses and ports, you may be able to use Remote Desktop with very little effort.

The first thing to do is determine what kind of router you have and if it will support a dynamic domain name service like DynDNS.org. DynDNS.org offers a free service that helps you access your dynamic IP address easily. Linksys routers have a section in their menus called DDNS for dynamic DNS. If your router supports DynDNS.org, follow the instructions below.

1. Create a DynDNS Account:

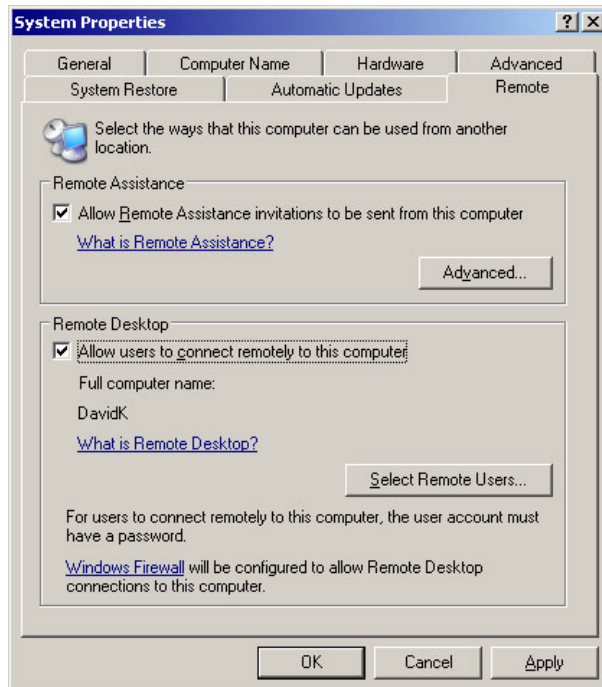


- From the computer that you want to connect to remotely, go to <http://www.dyndns.com/>, click on Account, and then click Create Account. Select a username and password to create an account. Enter your email address and password and click the Create Account button. In a few minutes, an email will be sent to you to confirm your account.



- Click the link in the email that is sent to you and log in to your account. Click on Services, then click on Dynamic DNS, and then click Add Dynamic DNS. This is where you set your hostname prefix. This can be any word or phrase that is not already taken, so you will simply have to try one to see if it is accepted. This is added to any one of the extensions available. *Example: uniformstore.dyndns.org or uniformstore.dyndns.biz.* This is what you will use later as a computer name to log in to your computer remotely.
- Click the Add Host button, and then Log Out of the website.

2. Enabling Remote Desktop:



- The next thing to do is to enable Remote Desktop on the computer that you will connect to. Right click on My Computer, select Properties, and click on the Remote tab. Check the box that says Allow users to connect remotely to this computer.
- To use Remote Desktop, you must also have a password set for your Windows username. If you do not log into Windows using a password, click on Start > Settings > Control Panel > User Accounts. Then select the user that you log in as and create a password.

3. Setting a Fixed IP Address:

- The next thing to do is to make sure the computer to which you want to connect has a fixed IP address. To do this, right click on My Network Places and select Properties, then right click on Local Area Connection and select Status.
- Click the Support tab. If the Address Type does not say Manually Configured, take note of the IP address, click the General tab, and click the Properties button. Then select Internet Protocol(TCP/IP) from the list and click the Properties button. Select *Use the following IP address*, type the IP address manually, and press the tab key to move to the subnet mask field to let it populate itself. Enter the IP address of the router into both the Default Gateway field and the Preferred DNS server field (usually 192.168.1.1). Then press OK.

4. Setting Up the Router

The last thing to do is set up your router to update the dynamic DNS service, and then to forward a remote request to the appropriate IP address. If your router supports UPnP (Universal Plug n' Play) forwarding you can use any port number from 1 to 65535 that is not being used. Generally, ports 49152 through 65535 are unused. This is available with the Linksys WRV54G router.

You can also accomplish the port forwarding using a Port Range forwarding feature with the port number 3389 (this is the default port number that Remote Desktop uses). This is available with the Linksys WRT54G router.

- To access your router's settings, open your internet browser, and type the router's IP address in the address bar. Check your router's documentation to determine the correct IP address and username and password. Linksys routers use 192.168.1.1 as their IP address.
- You will definitely want to set your own username and password for the router to ensure greater security. This is done under the Administration section.

Illustrations and brief instructions for setting up a dynamic dns service and port forwarding are listed below for the Linksys WRV54G and WRT54G routers. All other Linksys routers that support dynamic dns will appear similar to one of these. Other types of routers may be used as long as they support dynamic dns and have equivalent settings for port forwarding.

Configuration of a Linksys WRV54G - Wireless-G VPN Router:

The screenshot shows the Linksys WRV54G configuration interface. The top navigation bar includes 'Setup', 'Wireless', 'Security', 'Access Restrictions', 'Applications & Gaming', 'Administration', and 'Status'. The 'Setup' section is expanded, showing 'Basic Setup', 'DDNS', 'MAC Address Clone', 'Advanced Routing', and 'Hot Spot'. The 'DDNS' sub-section is active, displaying the 'DynDNS.org' service selection. Below this, there are input fields for 'User Name' (uniformstore), 'Password' (password), and 'Host Name' (uniformstore.dyndns.org). The 'Internet IP Address' is set to 80.240.180.210, and the 'Status' indicates 'DDNS is enabled'. A note on the right explains that DDNS can be used with the router if an account with DynDNS.org or TZO.com is provided.

In the DDNS section under Setup, enter the username and password as well as the host name you set up when you registered with DynDNS.org. Be sure to click Save Settings at the bottom of the page.

The screenshot shows the Linksys WRV54G configuration interface. The top navigation bar includes 'Setup', 'Wireless', 'Security', 'Access Restrictions', 'Applications & Gaming', 'Administration', and 'Status'. The 'Applications & Gaming' section is expanded, showing 'Port Range Forwarding', 'Port Triggering', 'UPnP Forwarding', and 'DMZ'. The 'UPnP Forwarding' sub-section is active, displaying a table for configuring forwarding rules. The table has columns for 'Application', 'Ext. Port', 'Int. Port', 'Protocol', 'IP Address', and 'Enabled'. The first row is pre-filled with 'POS1', '65535', '3389', 'Both', '192.168.1.13', and the 'Enabled' checkbox is checked. Below the table, a note explains that UPnP Forwarding can be used to set up public services on the network, allowing users to make requests on the network and forward them to computers equipped to handle the requests.

Application	Ext. Port	Int. Port	Protocol	IP Address	Enabled
POS1	65535	3389	Both	192.168.1.13	<input checked="" type="checkbox"/>
	0	0	Both	192.168.1.0	<input type="checkbox"/>
	0	0	Both	192.168.1.0	<input type="checkbox"/>
	0	0	Both	192.168.1.0	<input type="checkbox"/>

Navigate to the UPnP Forwarding section under Applications & Gaming. Enter any number between 49152 and 65535 for the Ext. Port. The Int. Port must be 3389. Enter the last digits of the IP address, and then check the Enabled box. You may enter anything in the Application field simply for your reference such as the computer name or "remote desktop". Be sure to click Save Settings at the bottom of the page.

Configuration of a Linksys WRT54G - Wireless-G Broadband Router:

The screenshot shows the Linksys WRT54G configuration interface. The top header includes the Linksys logo and 'A Division of Cisco Systems, Inc.' on the left, and 'Firmware Version: v2.02.7' on the right. Below the header, a navigation bar shows 'Setup' as the active tab, with sub-tabs for 'Basic Setup', 'DDNS', 'MAC Address Clone', and 'Advanced Routing'. The 'DDNS' sub-tab is selected. The main content area is titled 'DDNS' and contains the following fields:

- DDNS Service:
- User Name:
- Password:
- Host Name:
- Internet IP Address: 60.100.110.190
- Status: DDNS is updated successfully

At the bottom of the form are two buttons: 'Save Settings' and 'Cancel Changes'. The Cisco Systems logo is visible in the bottom right corner.

In the DDNS section under Setup, enter the username and password as well as the host name you set up when you registered with DynDNS.org. Be sure to click Save Settings at the bottom of the page.

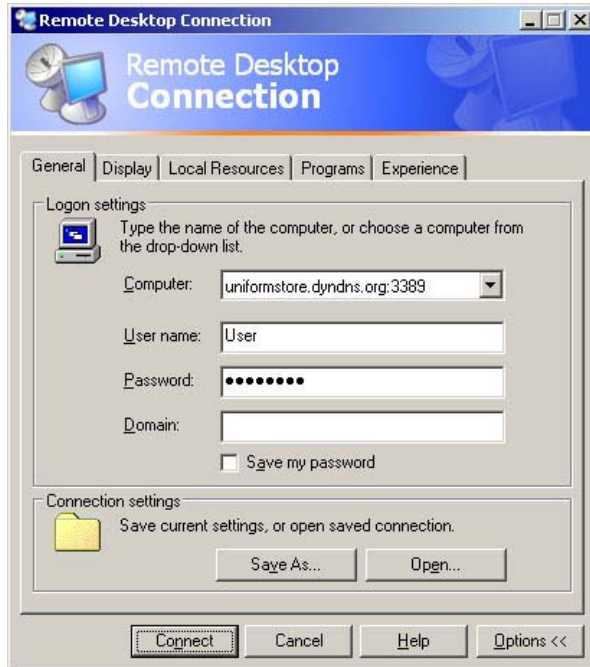
The screenshot shows the Linksys WRT54G configuration interface. The top header is the same as the previous screenshot. The navigation bar shows 'Applications & Gaming' as the active tab, with sub-tabs for 'Port Range Forward' and 'DMZ'. The 'Port Range Forward' sub-tab is selected. The main content area is titled 'Port Range Forward' and contains a table with the following columns: Application, Start, End, Protocol, IP Address, and Enable.

Application	Start	End	Protocol	IP Address	Enable
rdp	3389	3389	Both	192.168.1.100	<input checked="" type="checkbox"/>
	0	0	Both	192.168.1.0	<input type="checkbox"/>
	0	0	Both	192.168.1.0	<input type="checkbox"/>

At the bottom of the form are two buttons: 'Save Settings' and 'Cancel Changes'. The Cisco Systems logo is visible in the bottom right corner.

If your router supports Port Range forwarding only, set the start and end ports to 3389 and direct it to the appropriate IP address. You may enter anything in the Application field simply for your reference such as the computer name or "remote desktop". Click the Enable checkbox and be sure to click Save Settings at the bottom of the page.

5. Connecting to another computer through Remote Desktop:



- Click the Start button, select Programs > Accessories > Communications > Remote Desktop Connection. Enter the alias computer name you set up with DynDNS, and add a semi-colon and the port number you set up in the router. The port number will be the Ext. Port number if you used the UPnP Forwarding, or 3389 if you used the Port Range Forwarding. Example:
'uniformstore.dyndns.org:63000',
or
'uniformstore.dyndns.org:3389'.
If you wish, you can enter the user name and password for the computer you are connecting to before you try to connect. If you do not, it will require you to enter them when it actually connects.

Remote Desktop Options:



- There are several options that can be set according to your preferences. On the Local Resources tab, you may want to check the Disk drives box to allow access to your local computer's files while you are logged in remotely.