

Lab One: Configuring Radius Authentication

Lab Overview

In this lab you will configure the BBSM Server for Radius Authentication. You will test your configuration from your client notebook to access Web, FTP , Video and VPN.

Objectives

Upon completion of this lab, you will be able to:

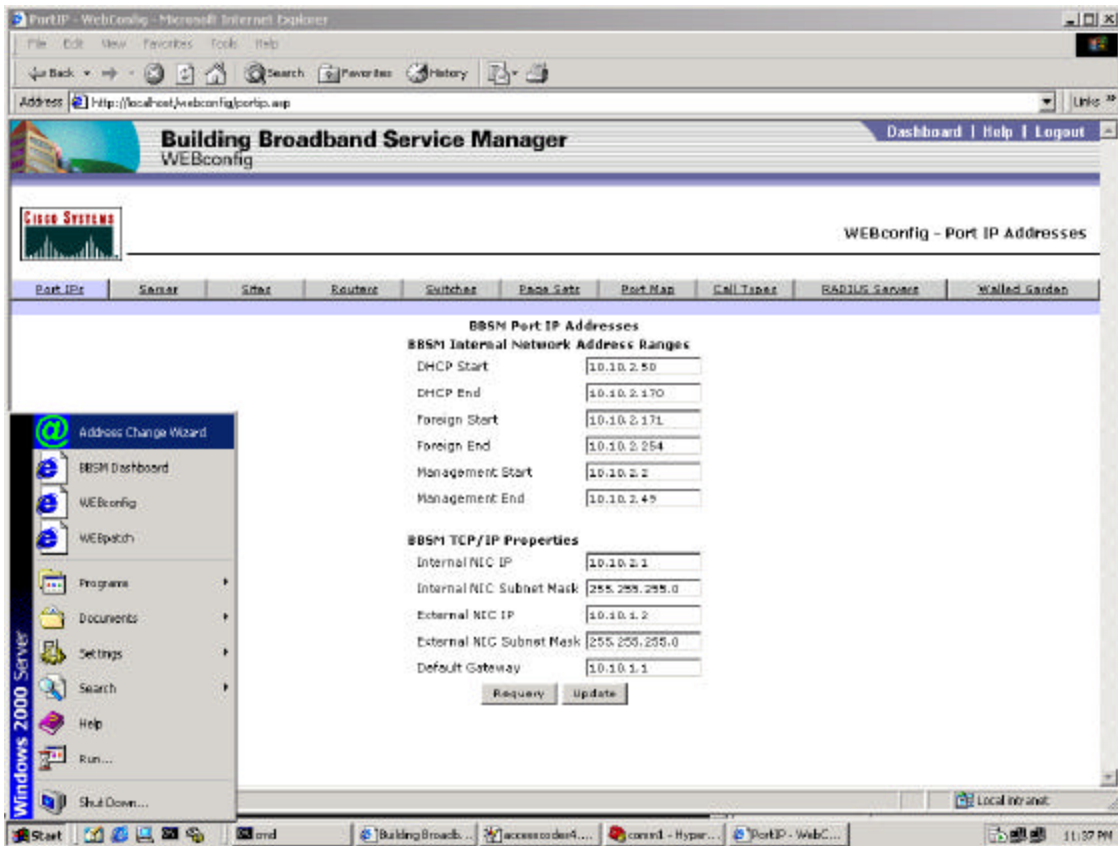
- Configure the BBSM 5.0 Server with Radius Authentication

Task One : Configure the Aironet Access Points

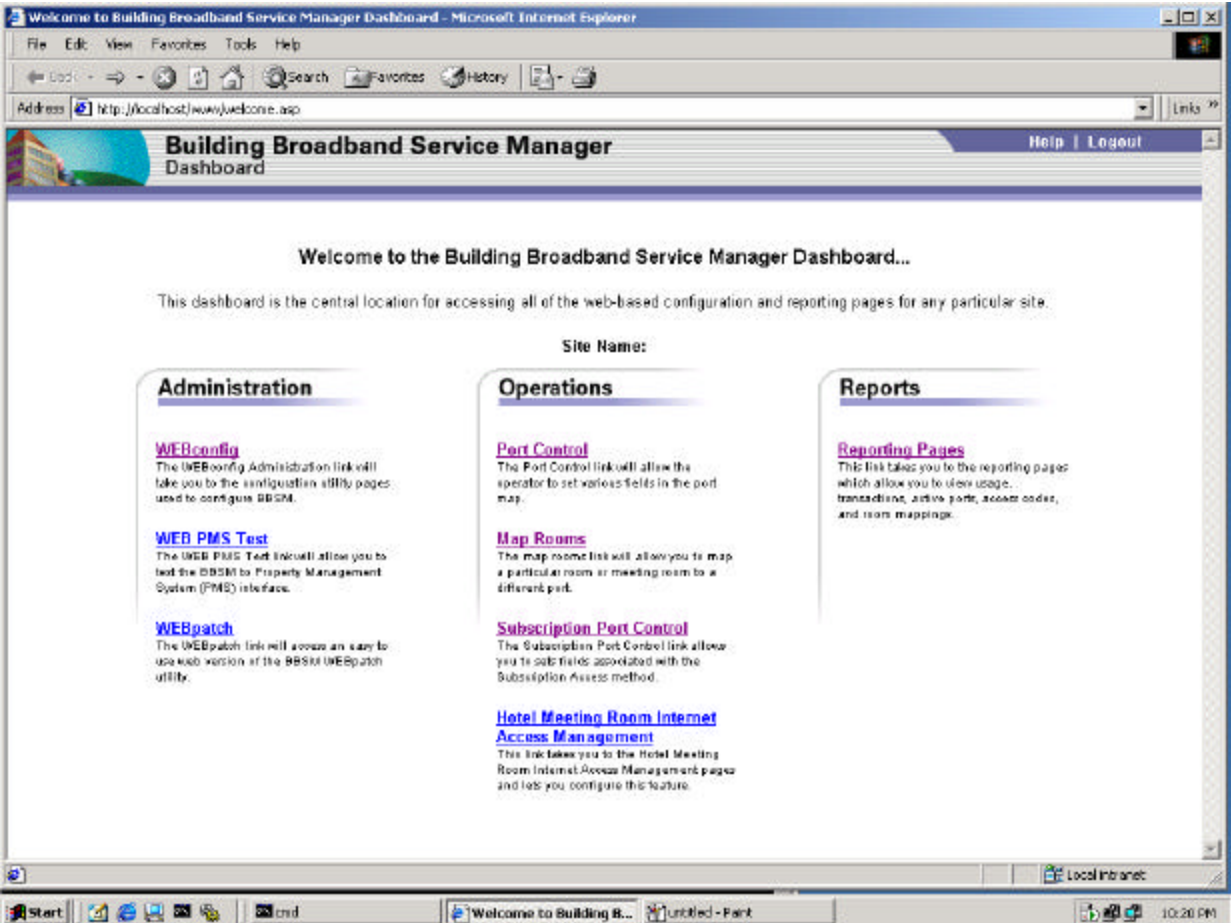
1. Refer to Aironet Access Points Configuration Labsheet on how to configure the Access Points and the Aironet Wireless Cards.
2. Ensure connectivity from the Clients by pinging the IP address of the Access Points.

Task Two : Configuring the BBSM server with Radius Authentication

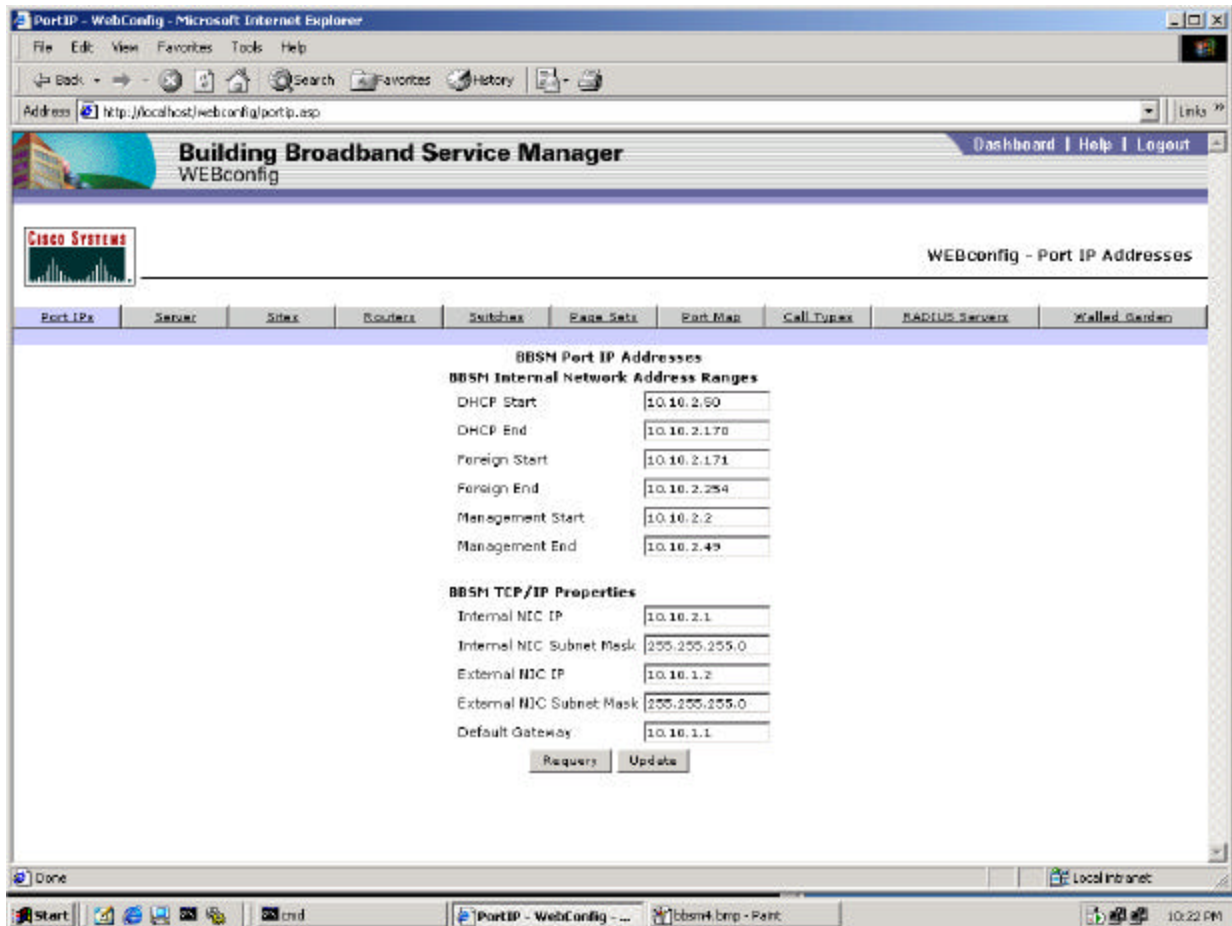
1. Turn on the BBSM server,
 - **Login : administrator**
 - **Password : changeme [DO NOT CHANGE THE PASSWORD]**
2. Use the “**Address Change Wizard**” to change the IP address (Internal and External NICs) of the BBSM according to the IP address table in Introduction. BBSM server will reboot automatically.



3. Login to the BBSM.
4. On the BBSM Server, open up browser and you'll see the following BBSM main admin page.



5. Click on **WEBconfig** and verify your network configuration is correct. Compare this with the IP address table shown in the Introduction.



6. Click on the **Switches** Tab and configure the below.

Site Number = 1

Stack Number = 1

Client Ports on Switch 1 = 2

Client Ports on Switches 2-n = 0

Stack IP address = < Refer to IP address table >

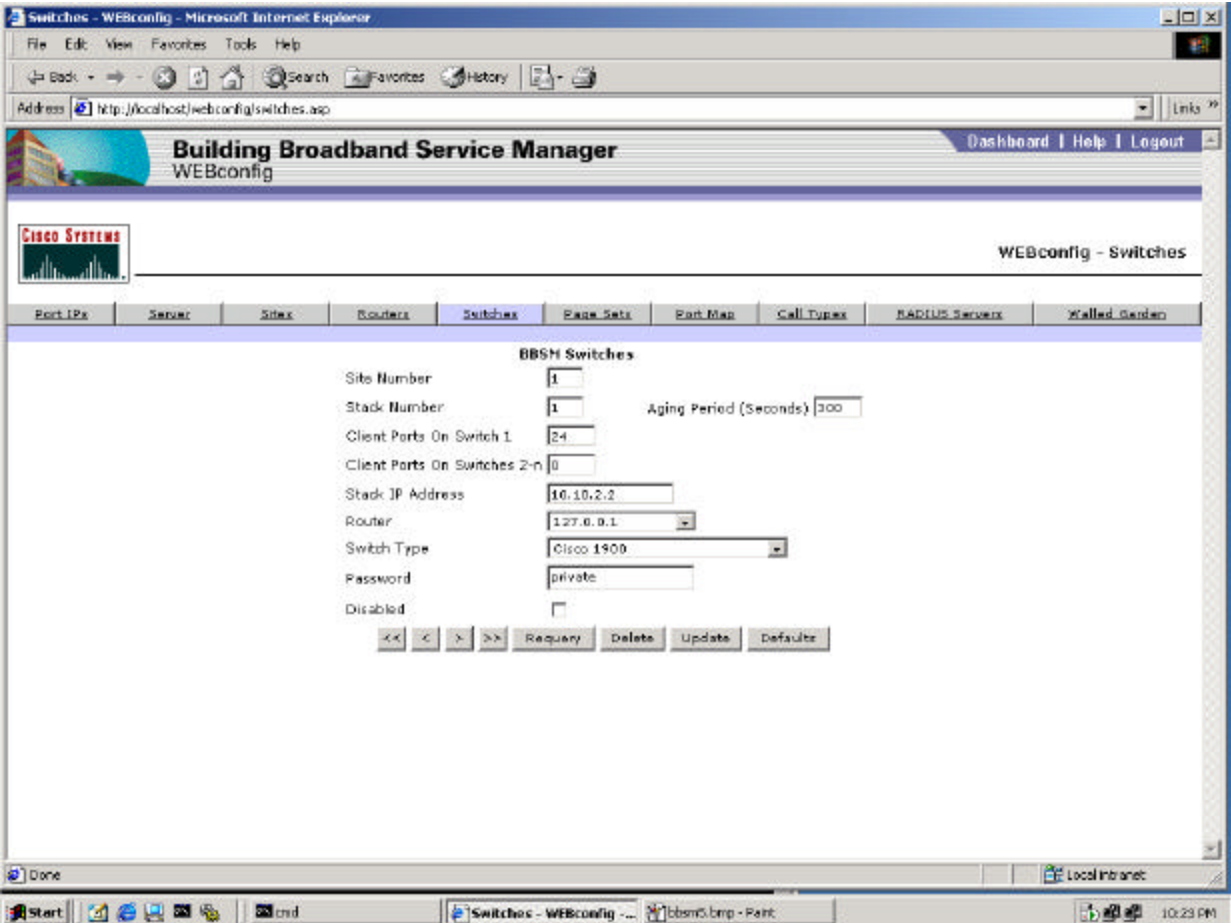
Router = 127.0.0.1

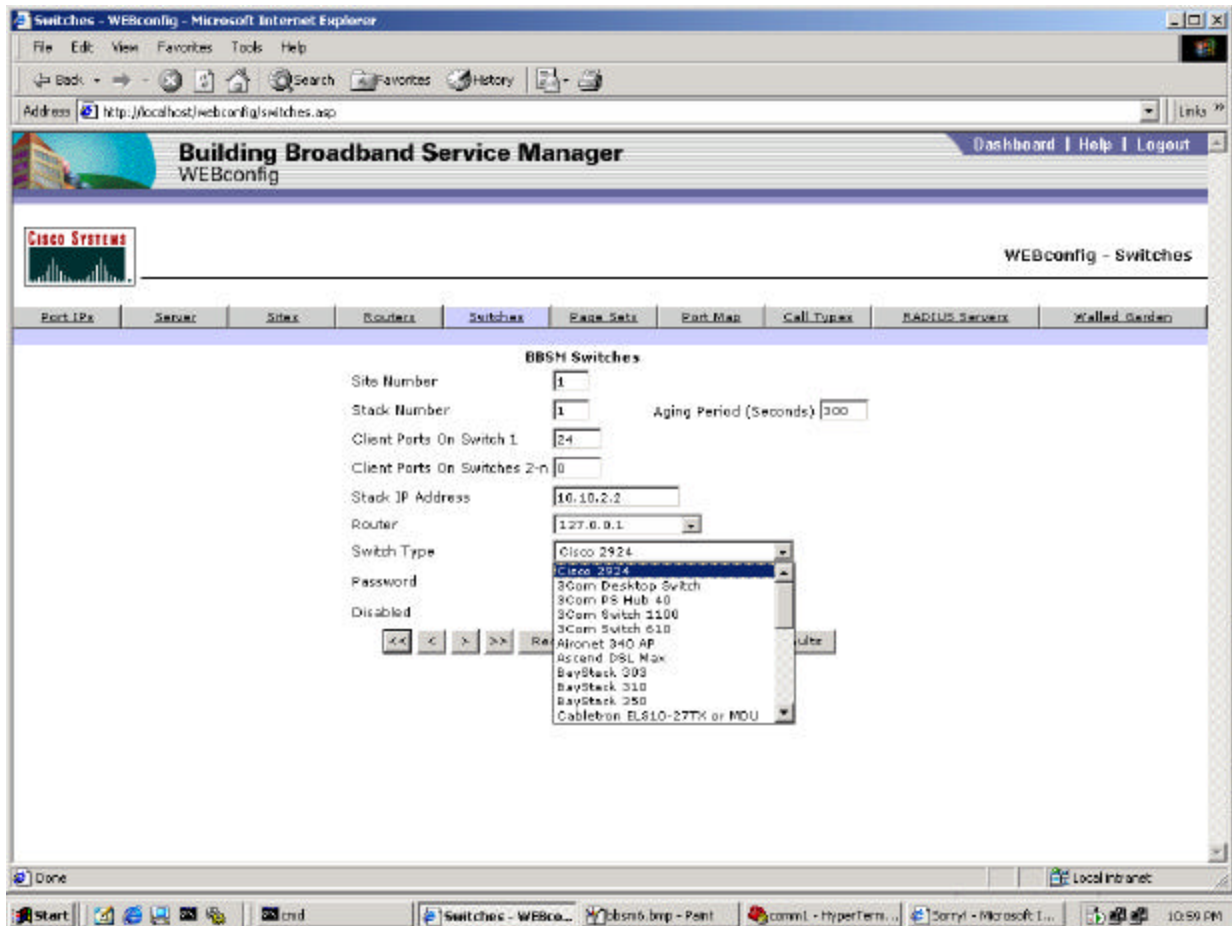
*Switch Type = Select "Generic without Link Status" [**There's a bug in the current version for Aironet Access Point 340**]*

If you're using the Cisco Catalyst Switch, select the appropriate switch type.

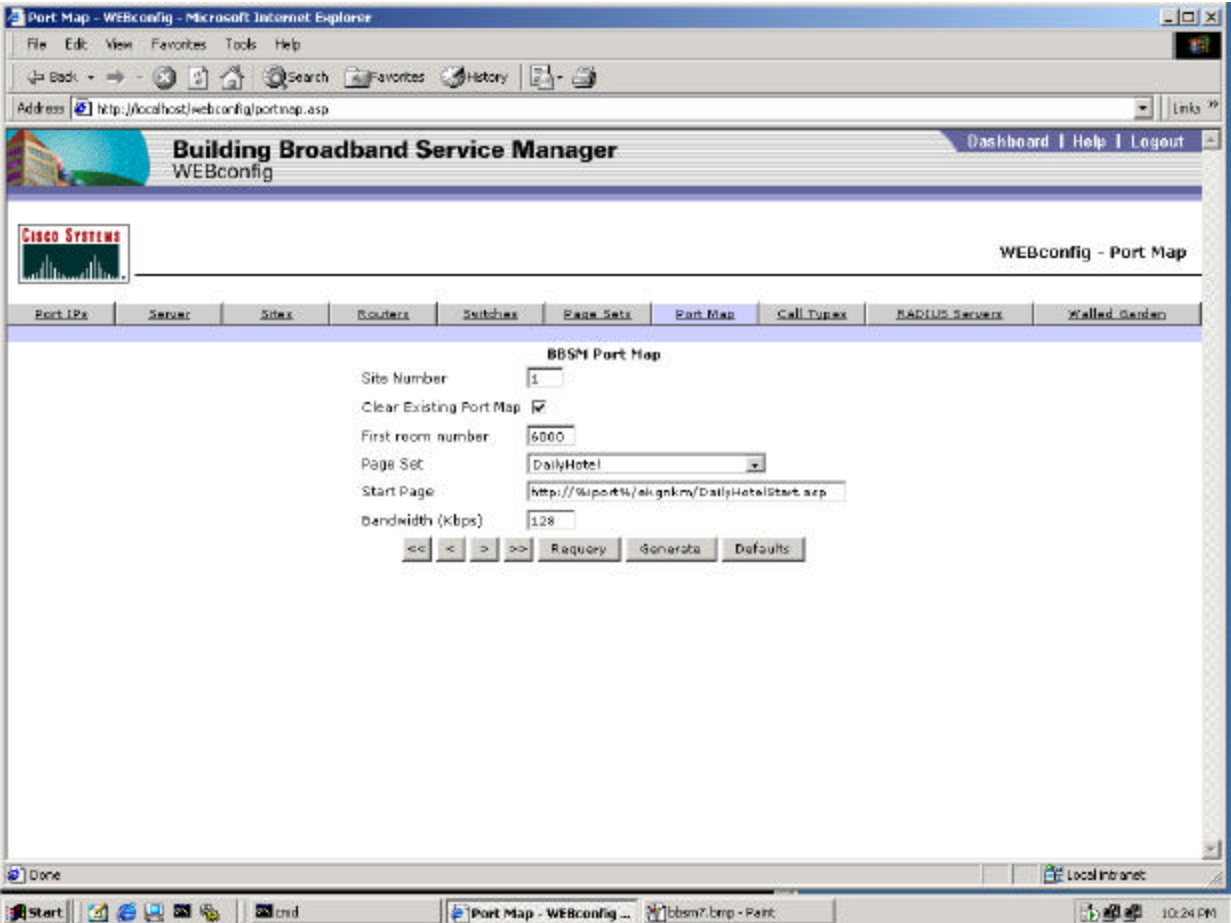
Password = private [the SNMP string configured on the LRE switch]

Disabled = unchecked





7. Click on **Update**
8. Click on **Port Map** tab and configure the below :
Page Set = Mega
Leave the rest as defaults



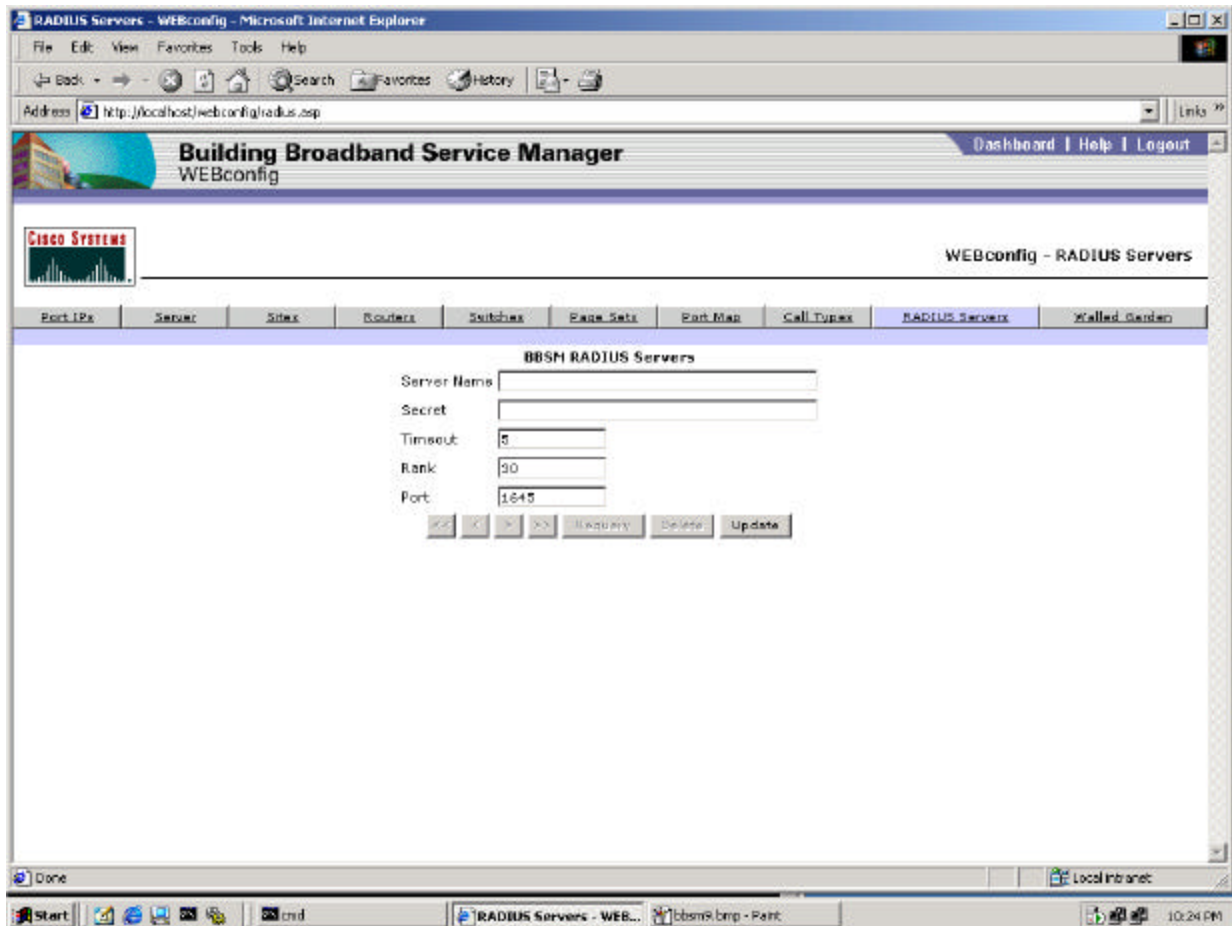
9. Click **Generate**

10. Click on **RADIUS Servers** tab and configure the below :

Server Name = 10.0.0.200

Secret = c1sc0 [numeric 1 and 0]

Leave the rest as defaults



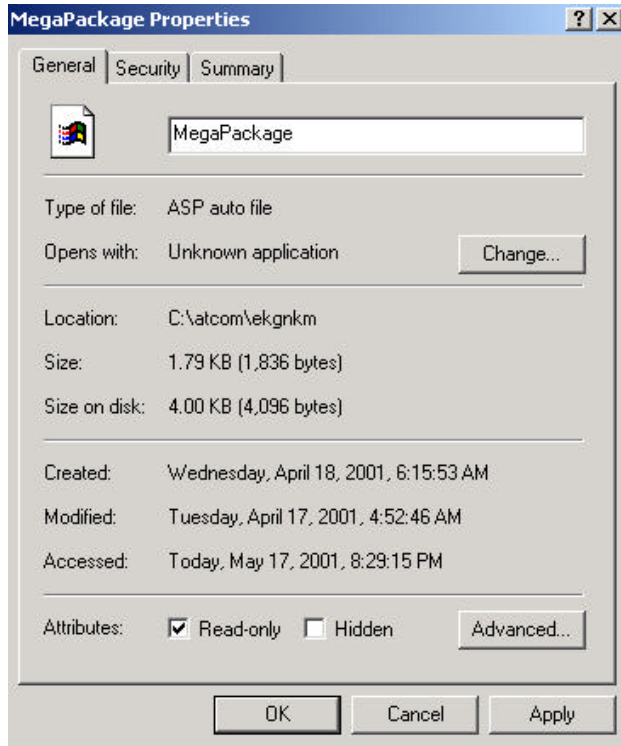
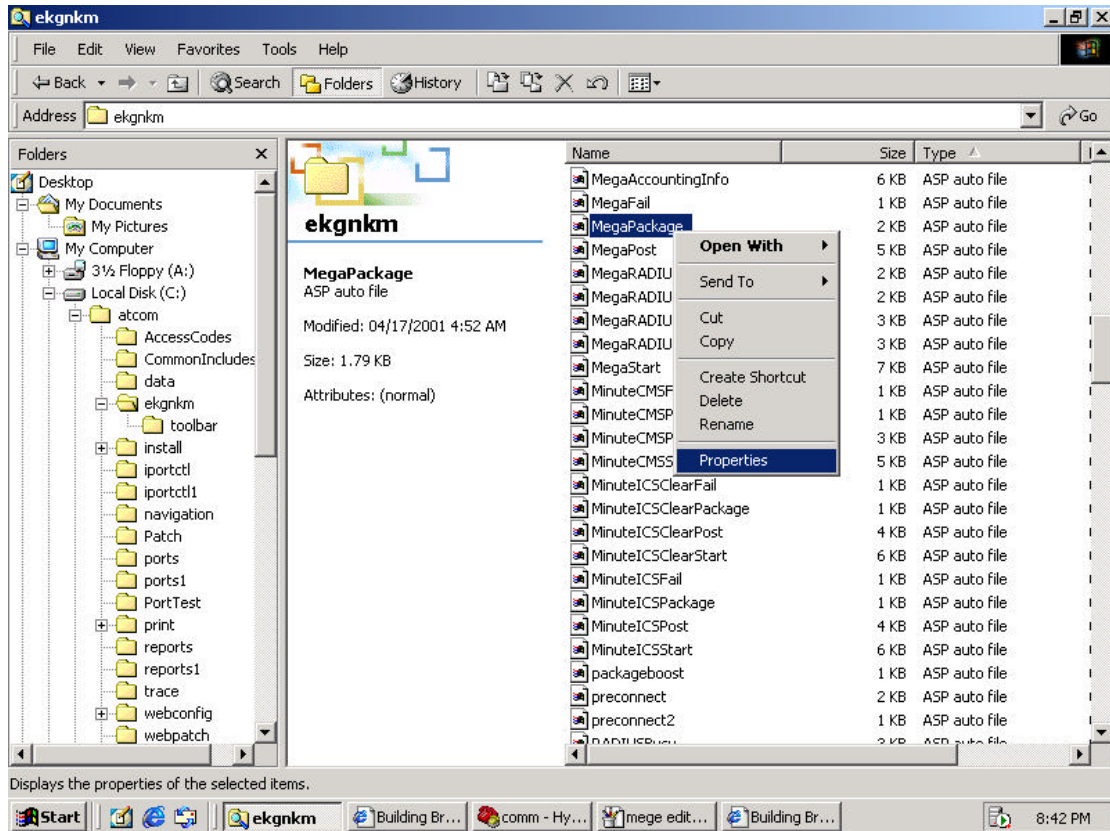
11. Click on **Update**.

12. Open Windows Explorer and goto c:\atcoms\ekgnkm.

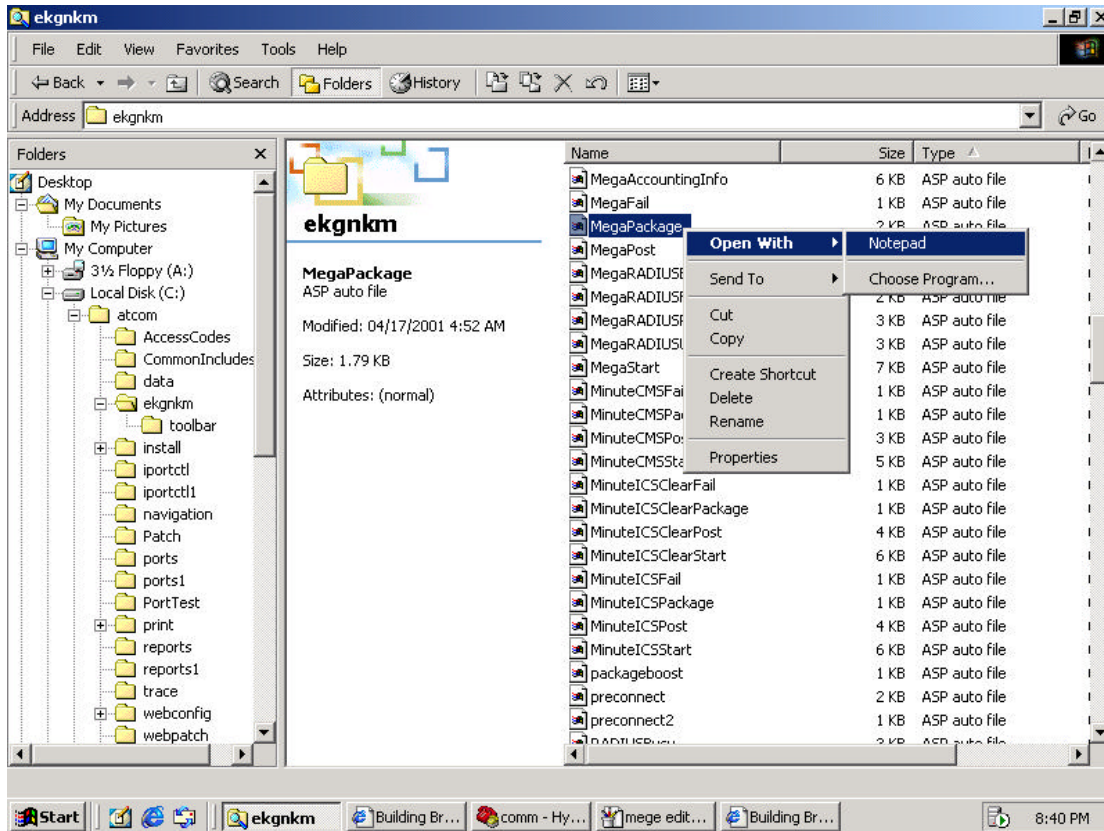
13. Right click xxxPost.asp files -> Properties and uncheck the Read-only checkbox from the Attribute

NOTE : If you're using Radius, change the filename : MegaRadiusPost.asp

If you're using Access Codes, change the filename : MegaAccessCodePost.asp



14. Right click the file again and open with Notepad to edit it.

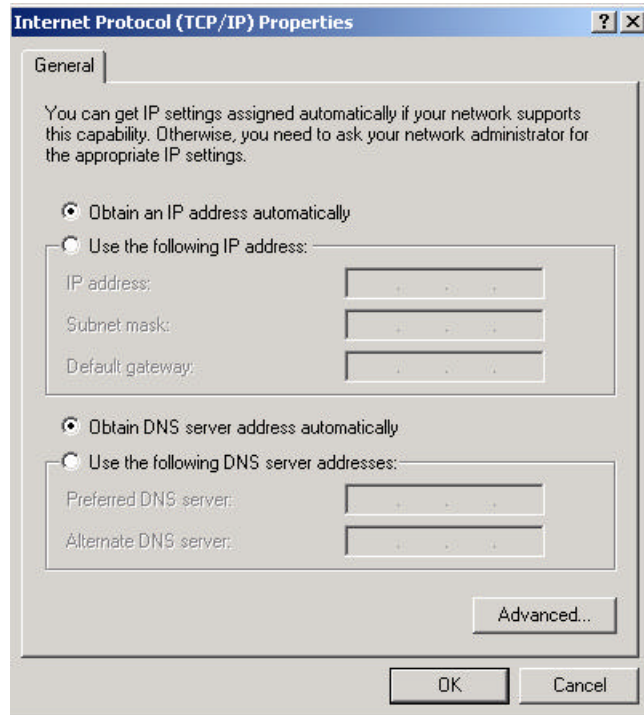


15. In Notepad, search for www.cisco.com. By default, the redirected site is www.cisco.com. Change the URL to <http://10.0.0.200>, which is the Web server.

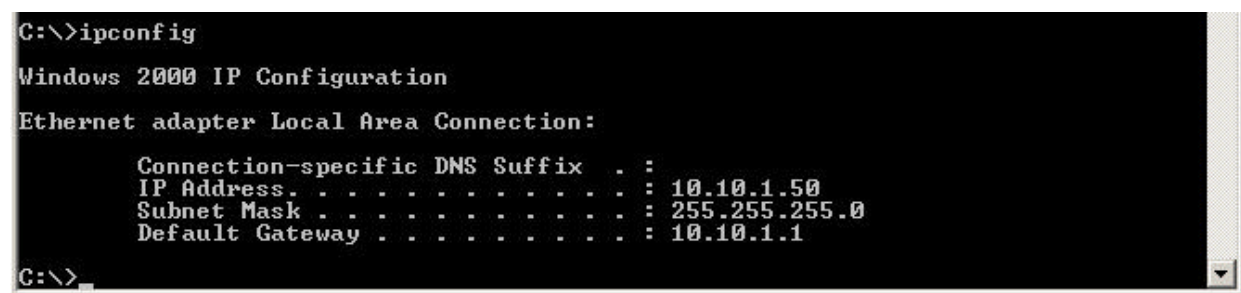
16. Save changes.

Task Three : Verifying your configuration with Dynamic IP address (DHCP) clients

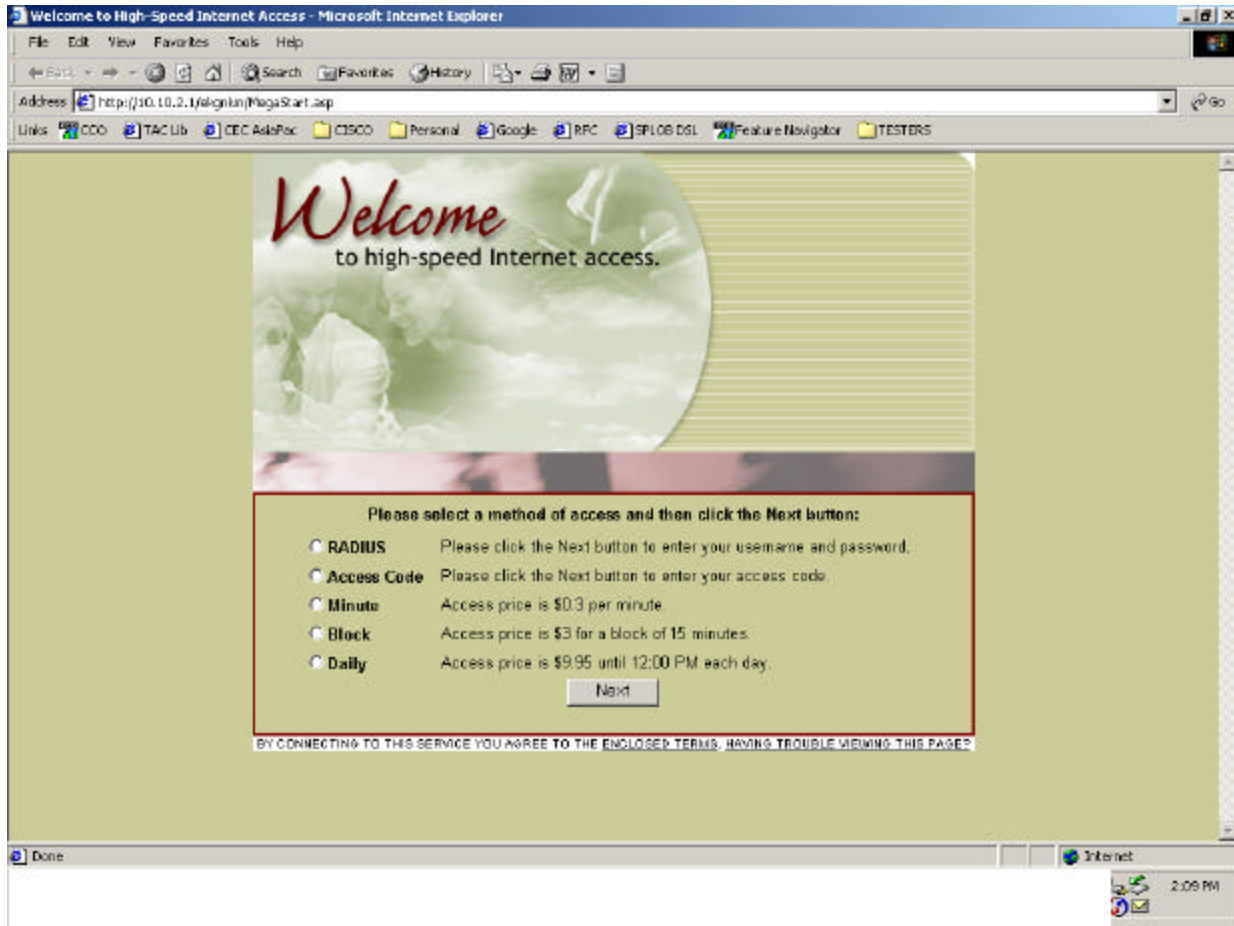
1. On your notebook, click the START button -> Settings -> Network and Dialup Connections -> Local Area Connections.



2. Make sure notebook obtains IP address automatically and no DNS is configured. Click OK to complete operation.
3. Verify your changes by running ipconfig from the MS-DOS prompt. You should get the IP address assigned by the BBSM server's DHCP pool.

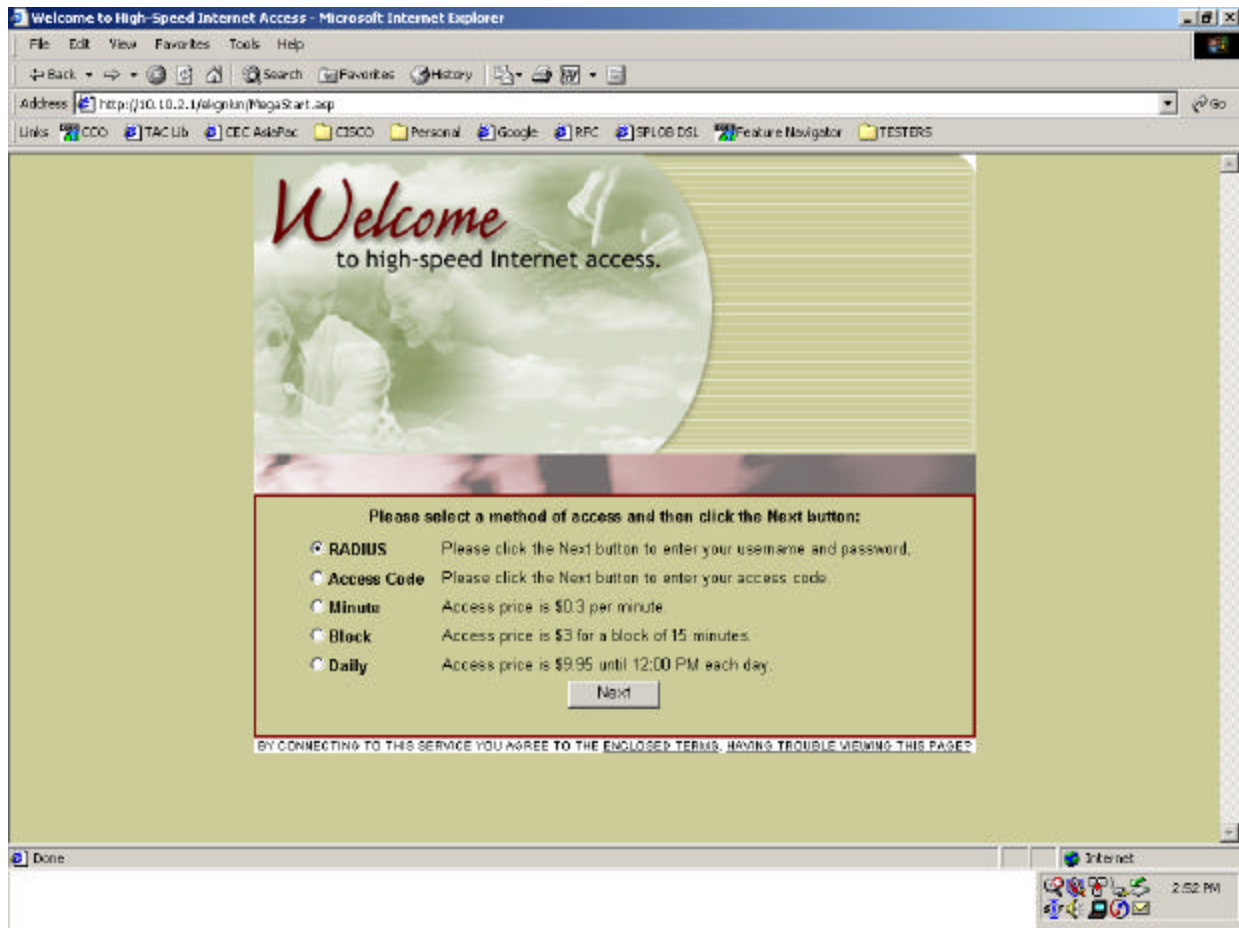


4. From your notebook, open up your browser and you'll be shown the Splash page as below.
Note : If you do not have a Home page configure in your browser, just type anything on the URL and you'll see the below page.



5. Check **Radius** and click **Next**

Note : the URL is redirected to **https://** which requires **SSL (Secured Socket Layer)** to be enabled on the **BBSM** first (pls refer to separate document that explains how to enable **SSL** on **BBSM**). To overcome this problem, remove the **s** from the URL to **http://** .

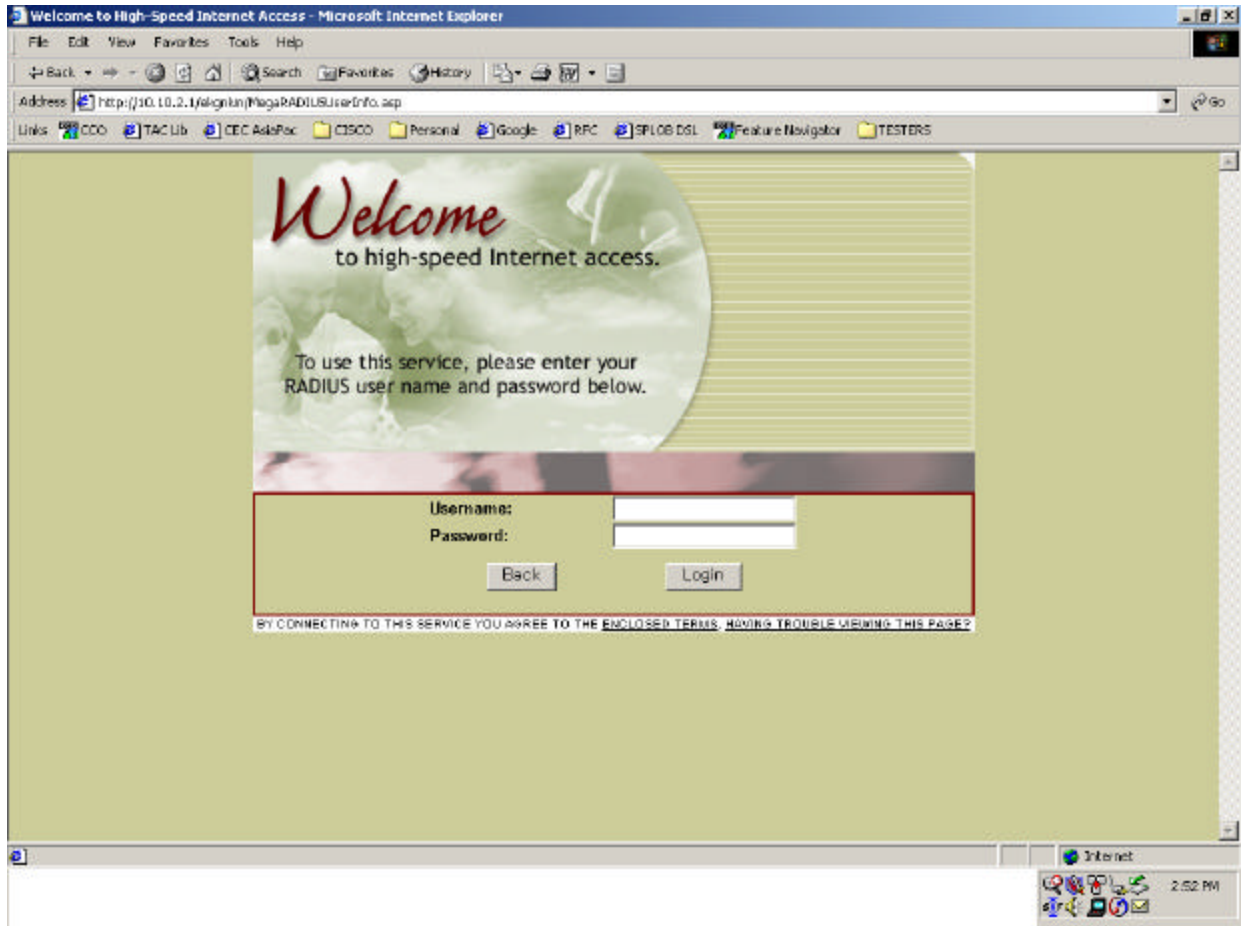


6. Enter

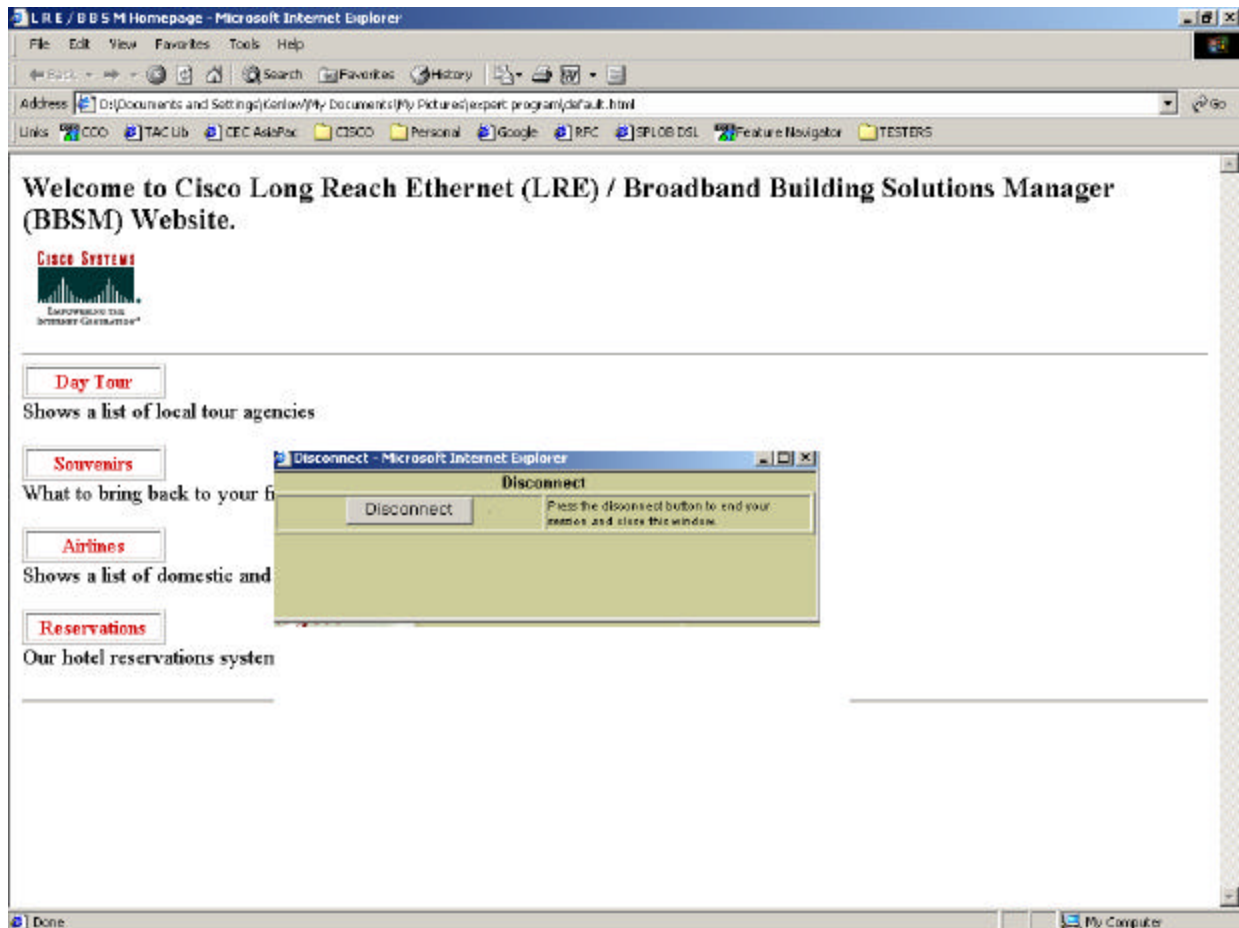
Username : studentX [where X is your student number]

Password : studentX [where X is your student number]

Click **Login**.

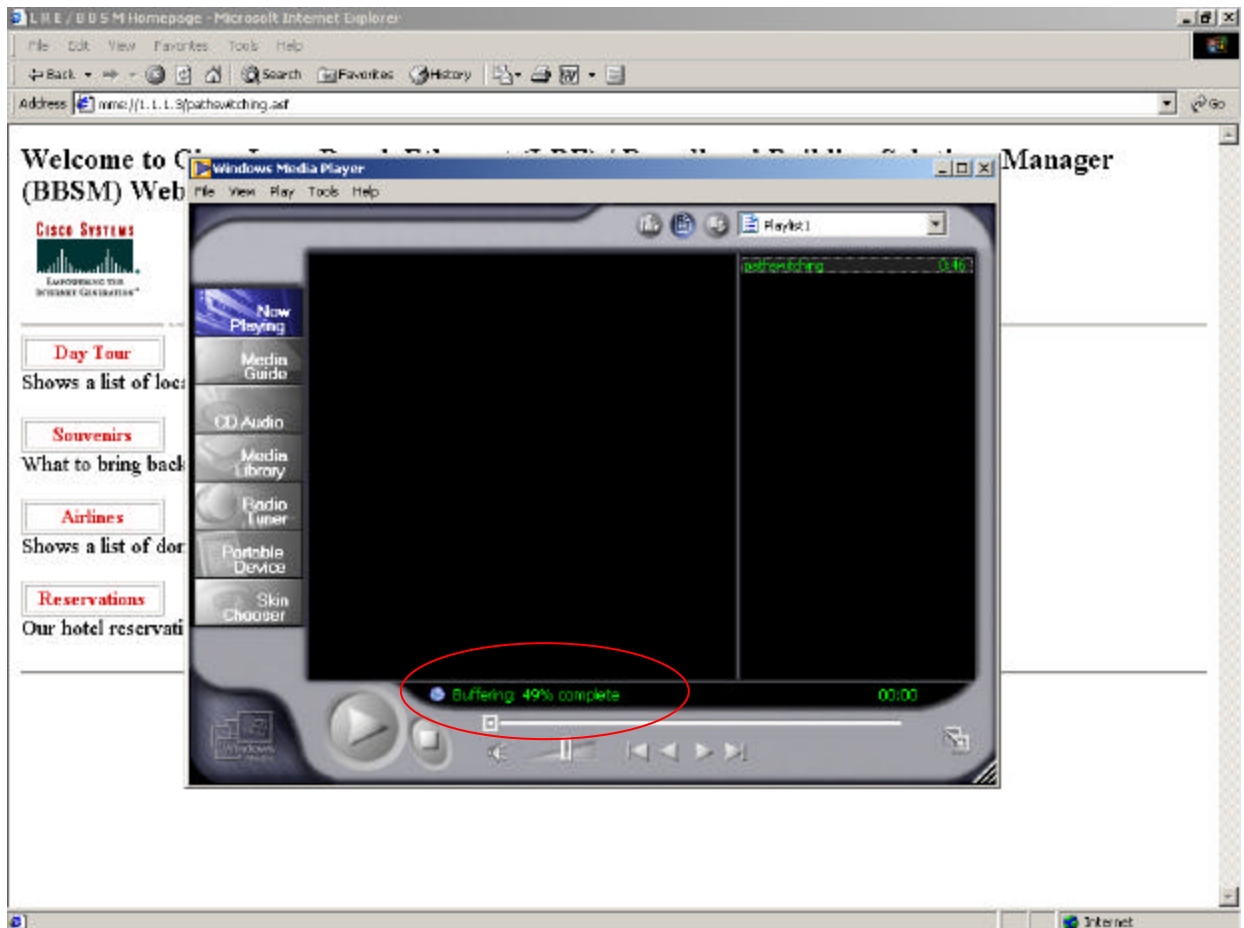


7. Once authenticated by the Radius server, you'll be redirected to the default portal which is configured as www.cisco.com [However, for our lab, I've changed the portal to a page on the Web server.]



8. Testing video streaming :

From your browser, type <mms://10.0.0.200/pathswitching.asf> . This will open up a video stream from the Video server.



Realize that the Media Player is streaming the video file from the server.

9. Testing File Transfer Rate :

From your notebook, open MS-DOS prompt and type

ftp 10.0.0.200

Login : student Password : student

bin

get pathswitching.asf

```
ftp> get pathswitching.asf
200 PORT command successful.
150 Opening BINARY mode data connection for pathswitching.asf(16948486 bytes).
226 Transfer complete.
ftp: 16948486 bytes received in 19.65Seconds 862.61Kbytes/sec.
ftp> bye
221
```

10. Testing VPN Client :

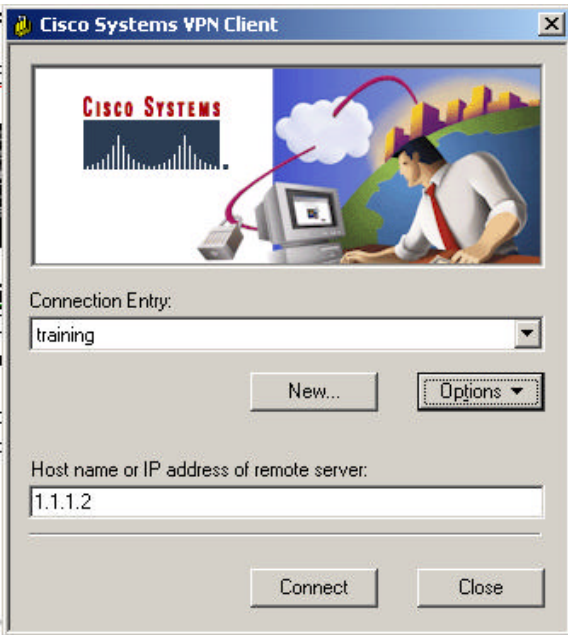
You should have VPN client installed onto your notebook already. If not, refer to the CD given out in the class. Launch the Cisco VPN Client v3.0 and configure according to the below info :

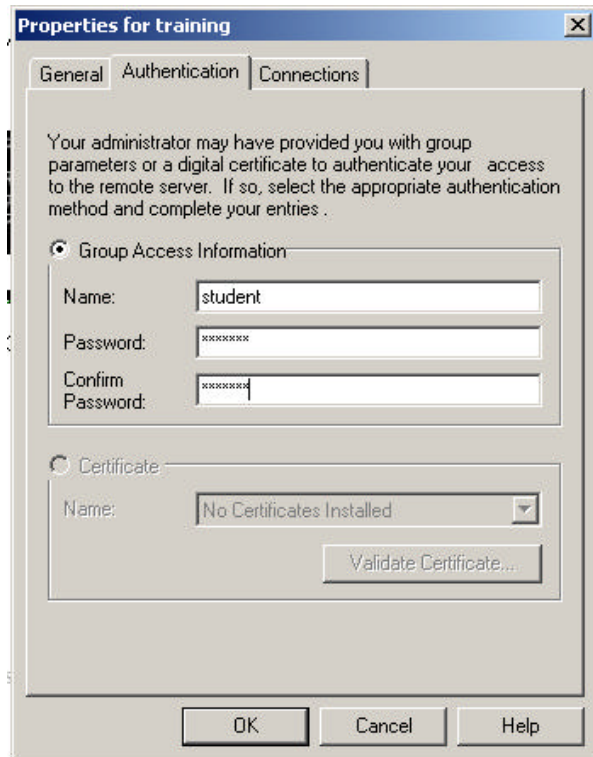
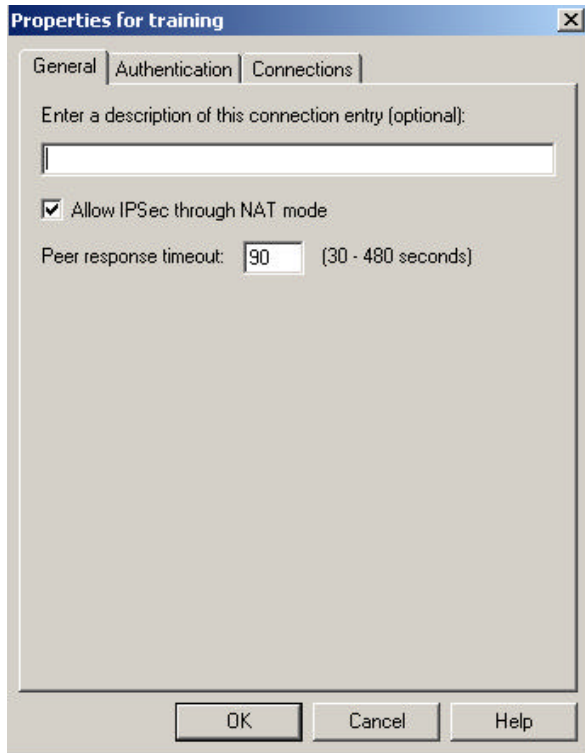
Group Name : student

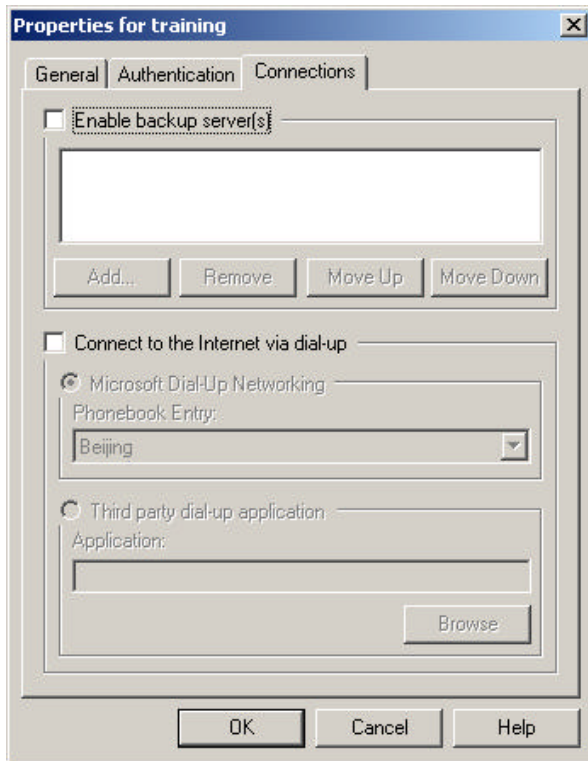
Group Password : student

Client Login : studentX [where X is the student # assigned to you]

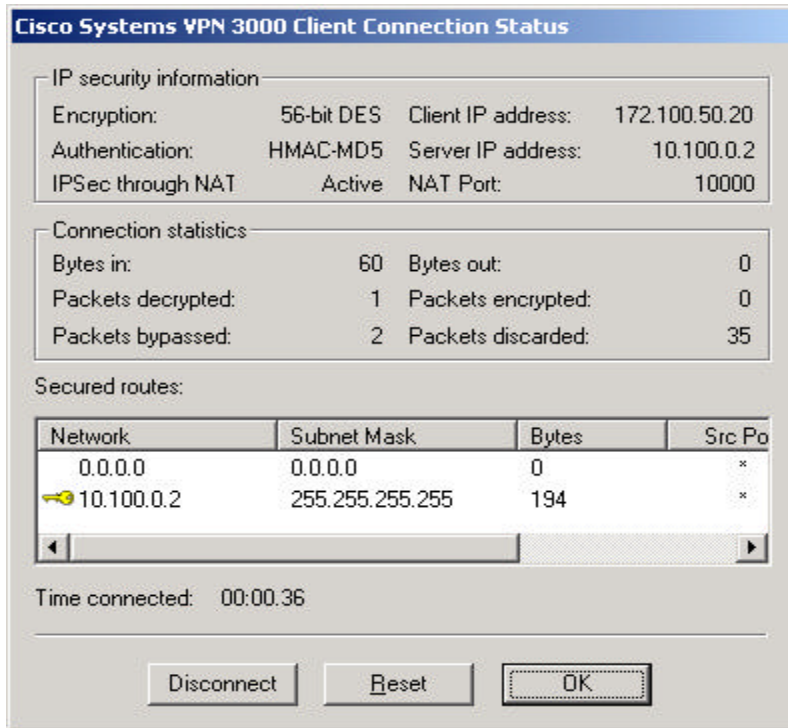
Client Password : studentX







Verify that your VPN connection is ok : check there's a lock icon on the right-hand side of your bottom status bar.



11. Verifying Accounting :

From the BBSM server , open the browser and click on Reporting Pages under Reports -> Transaction History tab. Note that the state should change from 'inactive' to 'active', reflecting the correct IP address, MAC address etc.

Building Broadband Service Manager - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://localhost/reports1/transaction.asp

Usage | **Transaction History** | Active Ports | Access Codes | Room Mappings | Walled Garden

CISCO SYSTEMS Site 1, LRE/BBSM
Transaction History - Reports Menu

Transaction History
You can sort the information below by clicking on the underlined column headings

Start Date May 16 2001 End Date May 17 2001 Requery

Date / Time	Type	IP	Previous	New	Amount	PortID	MAC	Room	Duration	B-KI
5/17/2001 6:30:27 PM	Accounting authorization success	10.10.1.50	Active	Active	\$10.00	0001000100001	00 10 a4 8d 0b 47	6000	0d 00h:00m:00s	0
5/17/2001 6:30:27 PM	Accounting authorization request	10.10.1.50			\$10.00	0001000100001	00 10 a4 8d 0b 47	6000	0d 00h:00m:00s	0
5/17/2001 6:30:27 PM	State change	10.10.1.50	Inactive	Active	\$0.00	0001000100001	00 10 a4 8d 0b 47	6000	1d 20h:21m:42s	0
5/17/2001 6:30:27 PM	Activate session request	10.10.1.50	Inactive	Inactive	\$0.00	0001000100001	00 10 a4 8d 0b 47	6000	0d 00h:00m:00s	0
5/17/2001 6:16:31 PM	State change	10.10.1.176	Active	Inactive	\$0.00	0001000100001	00 10 a4 eb 8c 10	6000	0d 00h:33m:47s	0
5/17/2001 6:16:31 PM	Switch port no longer active, disconnected	10.10.1.176	Active	Active	\$0.00	0001000100001	00 10 a4 eb 8c 10	6000	0d 00h:00m:00s	0
5/17/2001 5:51:31 PM	State change	10.10.1.174	Active	Inactive	\$0.00	0001000100002	00 10 a4 8d 0b 47	6001	0d 00h:40m:44s	0
5/17/2001 5:51:31 PM	Switch port no longer active, disconnected	10.10.1.174	Active	Active	\$0.00	0001000100002	00 10 a4 8d 0b 47	6001	0d 00h:00m:00s	0
5/17/2001 5:42:44 PM	Sale	10.10.1.176	Active	Active	\$0.00	0001000100001	00 10 a4 eb 8c 10	6000	0d 00h:00m:00s	0
5/17/2001 5:42:44 PM	Accounting authorization success	10.10.1.176	Active	Active	\$0.00	0001000100001	00 10 a4 eb 8c 10	6000	0d 00h:00m:00s	0
5/17/2001 5:42:44 PM	Accounting authorization request	10.10.1.176			\$0.00	0001000100001	00 10 a4 eb 8c 10	6000	0d 00h:00m:00s	0
5/17/2001 5:42:44 PM	State change	10.10.1.176	Inactive	Active	\$0.00	0001000100001	00 10 a4 eb 8c 10	6000	0d 00h:01m:03s	0
5/17/2001 5:42:44 PM	Activate session request	10.10.1.176	Inactive	Inactive	\$0.00	0001000100001	00 10 a4 eb 8c 10	6000	0d 00h:00m:00s	0

Done Local intranet

Start ftproot Building Broadba... comm - HyperTerminal min report1 - Paint 6:32 PM

12. Click on **Active Ports** Tab and verify that the port you're connecting to is ON and your login and logout time is correct.


Building Broadband Service Manager - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://localhost/reports1/Active.asp>

Building Broadband Service Manager Reporting [Dashboard](#) | [Help](#) | [Logout](#)

[Usage](#) | [Transaction History](#) | **Active Ports** | [Access Codes](#) | [Room Mappings](#) | [Walled Garden](#)






 Site 1, LRE/BBSM
[Active Ports - Reports Menu](#)

Active Ports

You can sort the information below by clicking on the underlined column headings

<u>IP</u>	<u>Start</u>	<u>PortID</u>	<u>Room</u>	<u>Access Policy</u>	<u>Accounting Policy</u>	<u>BandwidthKt</u>
10.10.1.50	5/17/2001 6:30:27 PM	0001000100001	6000	Minute	Hotel	0

Done Local intranet

Start      6:31 PM

13. Click the **Disconnect** button to Quit.



