

Configuring a BEC 7800TN Wireless ADSL Modem

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ATTENTION!

Before the modem is programmed and installed for the first time, it must have the latest firmware on it. This can be found by logging into the modem per the instructions below. On the “Device Info” page find “Software Version”, this should be **2.02e.RC3-dss3**. If it is not, the firmware will need to be update before proceeding.

See [Page 14](#) of this document for instructions on flashing new firmware to the modem.

Setting Up the PC

Before you can get into your new BEC 7800TN Wireless modem, you will need to have the computer's Ethernet interface to be set up for DHCP, or you will have to set up a static IP address.

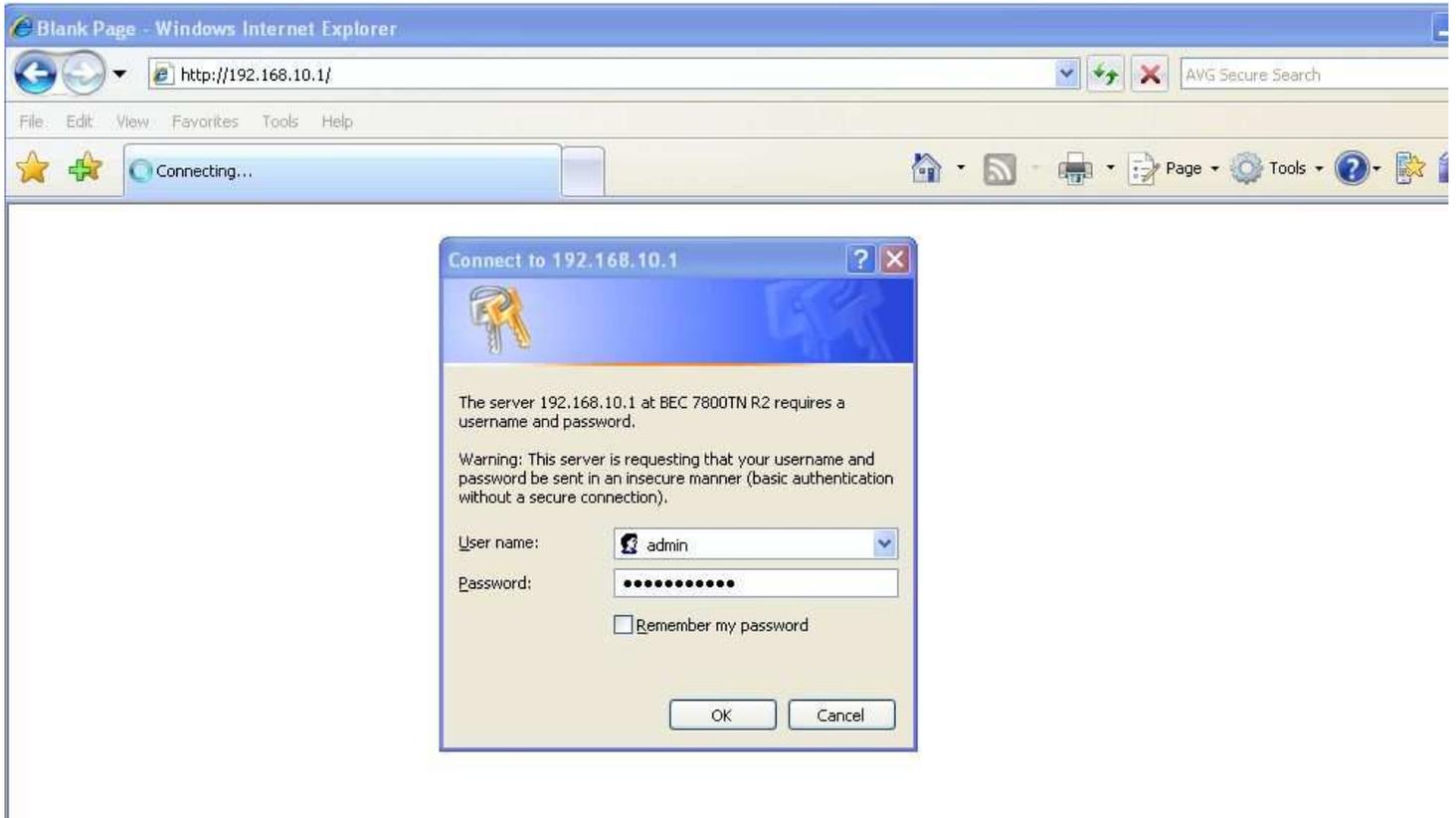
Use the following address information if setting up a static IP in the computer's Ethernet interface:

IP ADDRESS: **192.168.10.100**
SUBNET MASK: **255.255.255.0**
GATEWAY: **192.168.10.1**

PRIMARY DNS: **216.129.224.1**
SECONDARY DNS: **216.220.0.1**

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Logging Into the BEC 7800N



In order to log in, open a web browser (Internet Explorer works best for this), and in the address bar type in the following IP address.

192.168.10.1

After you input the IP address, press the "GO" button or press "ENTER" on your keyboard to access the page. If everything goes as anticipated, you will see a login screen prompting for username and password (Above).

At this point in the process, input the username and the password as follows:

USERNAME: **admin**
PASSWORD: **NEMONTadmin**

After inputting the username and password, simply click the "**OK**" button. You will be redirected to the default home page of the modem.

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Configuring Wireless

The screenshot shows the configuration interface for a BEC Technologies Dual WAN ADSL2+ Firewall Router. The left sidebar contains a navigation menu with the following items: Device Info, Quick Start, Advanced Setup, **Wireless** (highlighted with a red arrow), Basic, Security, MAC Filter, Wireless Bridge, Advanced, Station Info, and Management. The main content area is titled "Parameters" and includes the following settings:

- Wireless: Enable
- Hide SSID: Enable
- Clients Isolation: Enable
- Disable WMM Advertise: Enable
- Wireless Multicast Forwarding (WMF): Enable
- SSID: (highlighted with a red arrow)
- BSSID: 00:04:ED:DD:E2:82
- Country: UNITED STATES (dropdown menu)
- Max Clients: 16 [1-16]

Below the parameters is a table titled "Wireless - Guest/Virtual Access Points":

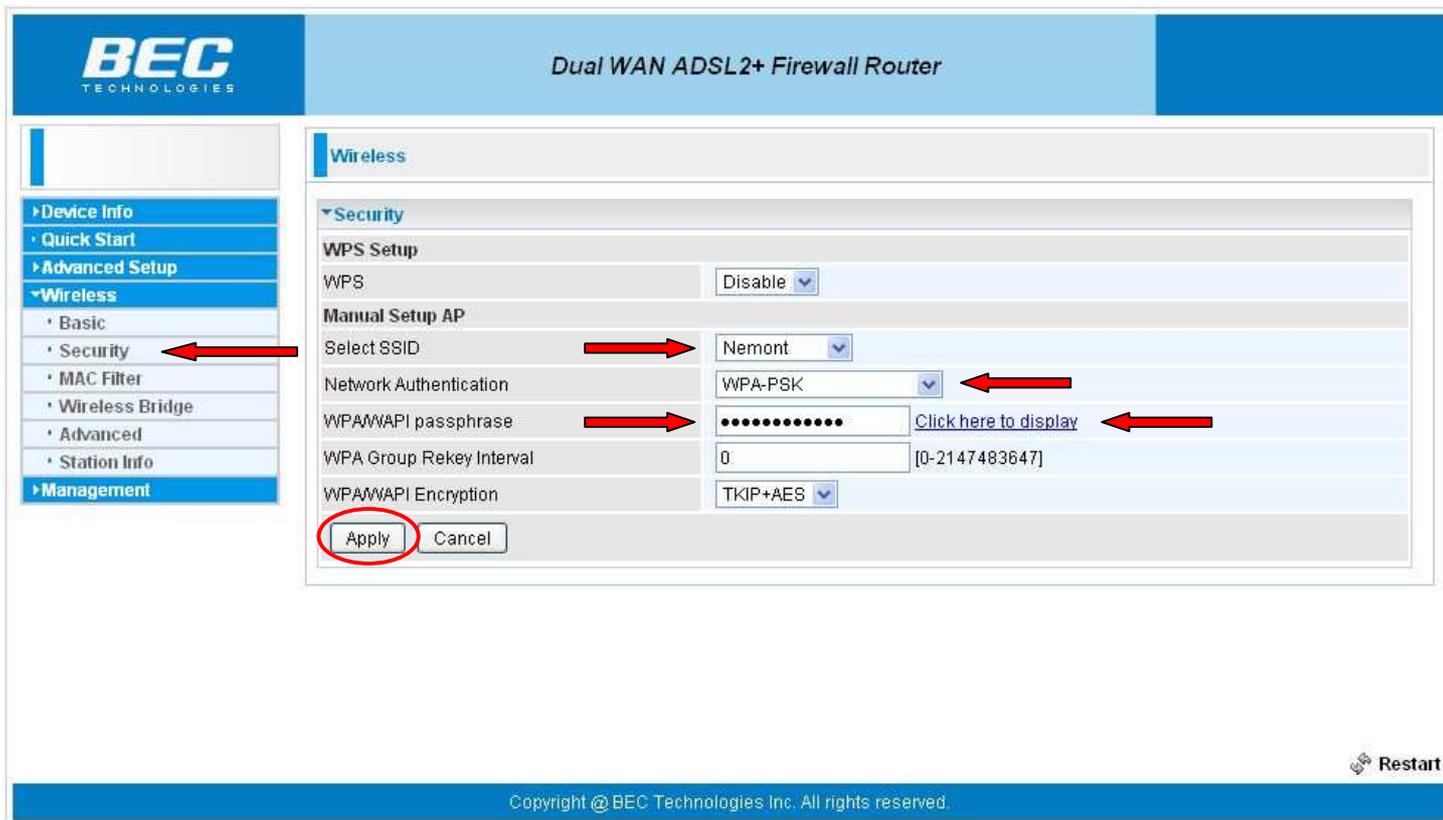
SSID	Hidden	Clients Isolation	Disable WMM Advertise	WMF	Max Clients	BSSID	Enable
<input type="text" value="wI0_Guest1"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16	N/A	<input type="checkbox"/>
<input type="text" value="wI0_Guest2"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16	N/A	<input type="checkbox"/>
<input type="text" value="wI0_Guest3"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16	N/A	<input type="checkbox"/>

At the bottom of the configuration area, there are two buttons: "Apply" (circled in red) and "Cancel". A "Restart" button is located in the bottom right corner of the page.

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After logging into the modem's home page, click "**Wireless**" on the left side of the page. Enter the "**SSID**" the customer would like to use. This is usually the customer's last name. Once entered, click the "**Apply**" button to save changes.

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To setup the wireless security click on the "**Security**" link on the left side of the page under "**Wireless**". The "**Select SSID**" should show the SSID you entered on previous page.

"**WPA/WAPI passphrase**" by default is the MAC address (uppercase letters) which is listed on the underside of the modem on the MAC address label. However, the password can be changed to anything the customer would prefer to use. The only restriction is that the new key is at least eight or more characters in length. The current passphrase can be viewed by clicking on the "**Click here to display**" link to the right of the passphrase box.

After modifying the information above, click the "**Apply**" button to save these settings.

***** **IMPORTANT** *****

If the customers wireless network card **DOES NOT** support WPA then this modem will not work with it. WEP encryption is **NOT** available. If customers wireless card will only do WEP then the "**Network Authentication**" will need to be set to "**None**"

Setup

If customer is ADSL/DHCP (Not FTTP), you are done configuring the BEC 7800TN modem! The modem is now ready for DHCP authentication.

If customer is FTTP/DHCP then skip to “Setup – Main Port” on page 12

*Proceed to the next page if the customer is NOT ADSL/DHCP or FTTP/DHCP.

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Dual WAN ADSL2+ Firewall Router

Device Info

Device Information

Model Name	BEC 7800TN R2
Host Name	home.gateway
System Up-Time	7 Minute(s)
Date/Time	Thu Jan 1 00:07:01 1970
Software Version	2.02d.dc2
LAN IPv4 Address	192.168.10.1
LAN IPv6 Address	fe80::204:edff:fedd:e282/64
MAC Address	00:04:ed:dd:e2:82
DSL PHY and Driver Version	A2pD032c.d23e
Wireless Driver Version	5.60.120.11.cpe4.06L03.8

WAN

Line Rate - Upstream (Kbps)	0
Line Rate - Downstream (Kbps)	0
Default Gateway	
Connection Time	
Primary DNS Server	0.0.0.0
Secondary DNS Server	0.0.0.0
Default IPv6 Gateway	

Navigation menu:
Device Info
Quick Start
Advanced Setup
Wireless
Management

After logging into the modem's home page, click the **"Advanced Setup"** link at the left of the page to begin configuring your modem.

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Device Info

Quick Start

Advanced Setup

WAN

LAN

NAT

Security

Parental Control

Quality of Service

Routing

DNS

DSL

UPnP

DNS Proxy

Static DNS

Interface Grouping

Certificate

Multicast

Wireless

Management

Advanced Setup

WAN Interface

WAN Interface

Main Port (Current Main Port: DSL)

ATM Interface

Layer2 Interface

Interface	VPI	VCI	Category	Link Type	Connection Mode	IP QoS	Scheduler Alg	Queue Weight	Group Precedence	Remove
atm0	0	35	UBR	EoA	DefaultMode	Enabled	SP			<input type="checkbox"/>

Next you need to click on the **"WAN"** link at the left of the page.

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Setup – Static IP

This section is only for customers with a static IP.
If customer is DHCP then proceed to “**Setup – Main Port**” on page 12

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Advanced Setup

WAN Service

WAN Setup

Interface	Description	Type	Vlan8021p	VlanMuxId	Igmp	NAT	IPv6	Mld	Remove	Edit
atm0	ipoe_0_0_35	IPoE	N/A	N/A	Disabled	Enabled	Disabled	Disabled	<input type="checkbox"/>	Edit
eth4	ipoe_eth4	IPoE	N/A	N/A	Disabled	Enabled	Disabled	Disabled	<input type="checkbox"/>	Edit

Add Remove

Restart

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To configure the modem with the customers static IP click on the "**WAN Service**" link to the left. Here you'll see two different interfaces.

If the modem is on an **ADSL** connection then click the "**Edit**" button for the interface "**atm0**" and proceed to the next page.

If the modem is on a **FTTP** connection then click the "**Edit**" button for the interface "**eth4**" and proceed to the next page.

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Advanced Setup

WAN Service

Parameters

Obtain an IP address automatically	<input type="checkbox"/> Enable	
Option 60 Vendor ID	<input type="text"/>	
Option 61 IAID	<input type="text"/>	8 hexadecimal digits
Option 61 DUID	<input type="text"/>	hexadecimal digits
Option 125	<input checked="" type="radio"/> Disable <input type="radio"/> Enable	
WAN IP Address	<input type="text" value="76.75.52.2"/>	
WAN Subnet Mask	<input type="text" value="255.255.255.0"/>	
WAN gateway IP Address	<input type="text" value="76.75.52.1"/>	
Obtain DNS	<input type="checkbox"/> Automatic	
Primary DNS	<input type="text" value="216.129.224.1"/>	
Secondary DNS	<input type="text" value="216.220.01"/>	

Back **Next**

First uncheck the “**Enable**” checkbox next to “**Obtain an IP address automatically**”. Now enter the customers static IP address in the “**WAN IP Address**” box. The subnet mask will go in the “**WAN Subnet Mask**” box and their gateway IP will go in the “**WAN gateway IP Address Box**”.

Next the DNS information will need to be put in. Enter these in the “**Primary DNS**” and “**Secondary DNS**” boxes and then click the “**Next**” button.

At this time the “Primary DNS” is 216.129.224.1 and the “Secondary DNS” is 216.220.0.1

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The screenshot displays the configuration interface for a BEC Technologies Dual WAN ADSL2+ Firewall Router. The left sidebar contains a navigation menu with the following items: Device Info, Quick Start, Advanced Setup (expanded), WAN (expanded), WAN Interface, WAN Service, LAN, NAT, Security, Parental Control, Quality of Service, Routing, DNS, DSL, UPnP, DNS Proxy, Static DNS, Interface Grouping, Certificate, and Multicast. The main content area is titled 'Advanced Setup' and features a 'WAN Service' section. Under 'Parameters', there are three rows: 'NAT' with an 'Enable' checkbox checked, 'Fullcone NAT' with an 'Enable' checkbox unchecked, and 'IGMP Multicast' with an 'Enable' checkbox unchecked. At the bottom of this section are 'Back' and 'Next' buttons, with the 'Next' button circled in red. A 'Restart' button is located in the bottom right corner. The footer contains the text 'Copyright © BEC Technologies Inc. All rights reserved.'

And now click on the "Next" button again.

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Dual WAN ADSL2+ Firewall Router

Advanced Setup

WAN Service

Summary

Make sure that the settings below match the settings provided by your ISP.

Type	IPoE
NAT	Enabled
Fullcone NAT	Disabled
IGMP Multicast	Disabled
Quality of Service	Disabled

Back Apply

Restart

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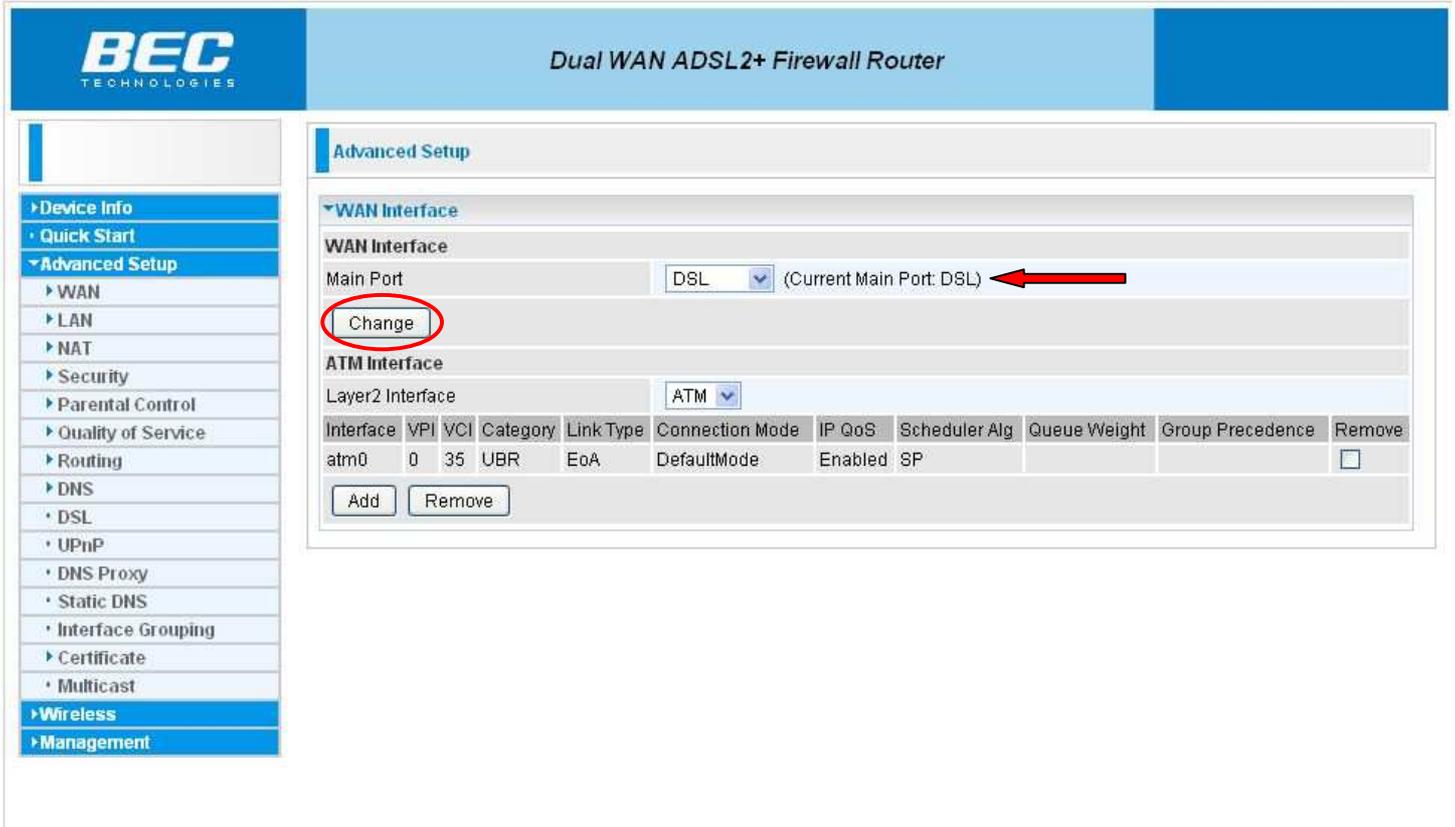
And now click on the “**Apply**” button to save the changes.

If the customer is **FTTP** then proceed to the next page “**Setup – Main Port**”

If the customer is **ADSL** then the modem configuration is done. If the customer is DHCP, the modem is now ready for DHCP authentication. If customer has static IP the modem setup should be complete.

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Setup – Main Port



The screenshot shows the 'Advanced Setup' page for a BEC Dual WAN ADSL2+ Firewall Router. The left sidebar contains a navigation menu with the following items: Device Info, Quick Start, Advanced Setup (selected), WAN, LAN, NAT, Security, Parental Control, Quality of Service, Routing, DNS, DSL, UPnP, DNS Proxy, Static DNS, Interface Grouping, Certificate, Multicast, Wireless, and Management. The main content area is titled 'Advanced Setup' and contains the following sections:

- WAN Interface**
 - WAN Interface
 - Main Port: DSL (Current Main Port: DSL) ←
 - Change
- ATM Interface**
 - Layer2 Interface: ATM

Interface	VPI	VCI	Category	Link Type	Connection Mode	IP QoS	Scheduler Alg	Queue Weight	Group Precedence	Remove
atm0	0	35	UBR	EoA	DefaultMode	Enabled	SP			<input type="checkbox"/>

 - Add
 - Remove

On this page one can change the “Main Port” from “DSL” to “Ethernet” for use with a FTTP connection. The modem will use the “EWAN” port for its WAN connection instead of the “DSL” port. To set modem up for use on a FTTP choose “Ethernet” from this dropdown box.

Once you have picked what port type to use click the “Change” button.

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Finished

Now you are done configuring your BEC 7800TN modem! If the customer is DHCP, the modem is now ready for DHCP authentication. If customer has static IP the modem setup should be complete.

Congratulations! You are now done configuring your BEC 7800TN Wireless ADSL modem.

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Firmware Update

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Dual WAN ADSL2+ Firewall Router

Device Info

Device Information

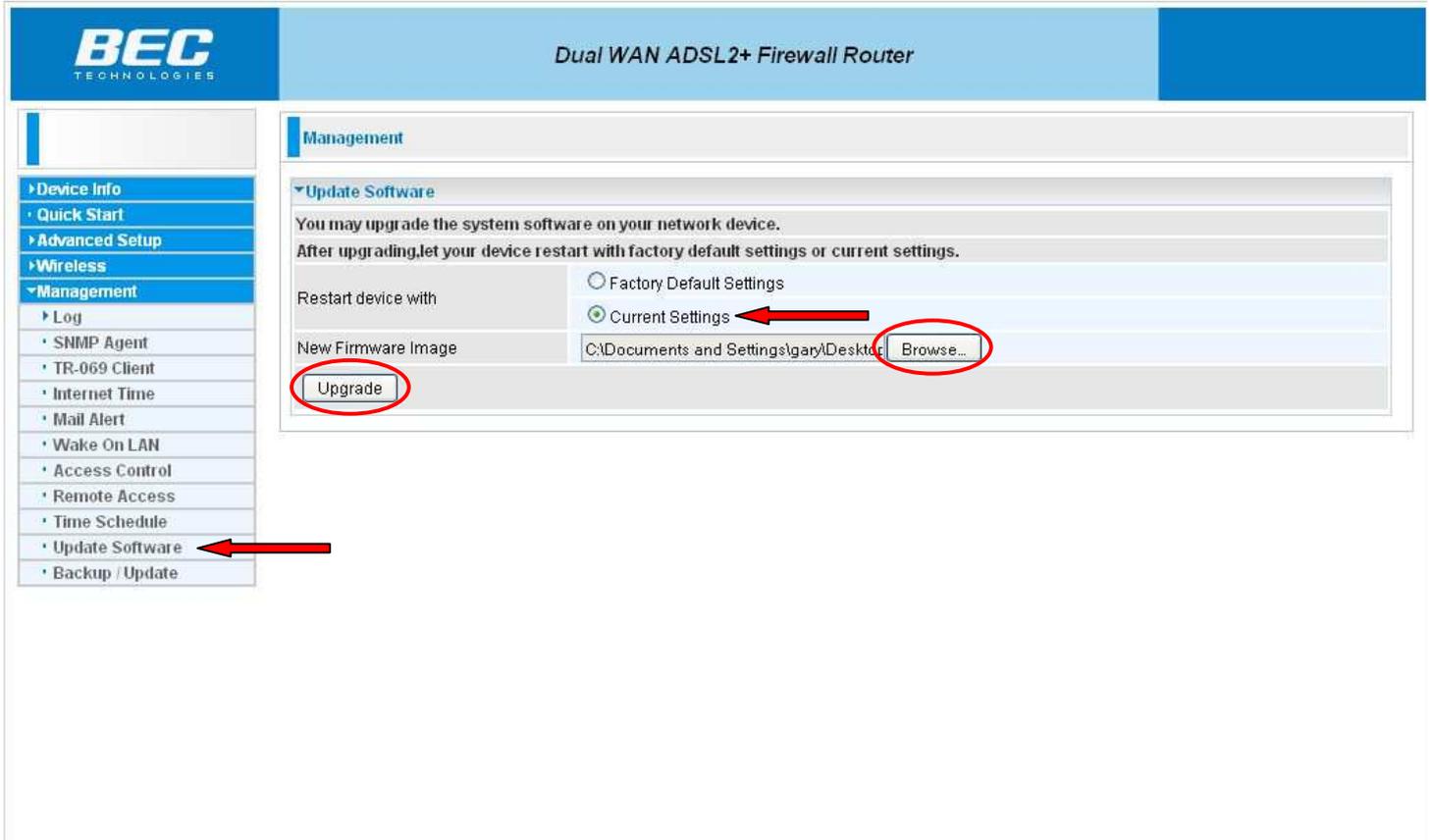
Model Name	BEC 7800TN R2
Host Name	home.gateway
System Up-Time	6 Hour(s) 16 Minute(s)
Date/Time	Wed Sep 21 22:08:33 2011
Software Version	2.02e_RC3-dss3
LAN IPv4 Address	192.168.10.1
LAN IPv6 Address	fe80::204:edff:fedd:e282/64
MAC Address	00:04:ed:dd:e2:82
DSL PHY and Driver Version	A2pD032c.d23e
Wireless Driver Version	5.60.120.11.cpe4.06L03.8

WAN

Line Rate - Upstream (Kbps)	510
Line Rate - Downstream (Kbps)	1536
Default Gateway	atm0
Connection Time	
Primary DNS Server	216.129.224.1
Secondary DNS Server	216.220.30.1
Default IPv6 Gateway	

Start the firmware update process by clicking on “**Management**” on the left side of the page.

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Next click on “**Update Software**” listed under “**Management**” on the left hand side of the page. If this is the first time this modem is used it doesn’t matter which “**Restart device with**” option is chosen. If this modem is currently installed and you want all your current settings to be saved during the update choose “**Current Setting**”.

Next click on the “**Browse**” button and select the firmware file “**BEC7800R2_2.02e.RC3-dss3.rfw**” located on your computer. Once selected click on the “**Upgrade**” button. The upgrade process may take several minutes to complete.

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