TECHNICAL SUPPORT NOTE

Using the GUI to Configure a NetVanta 1224R/STR for Internet Access using an Ethernet Port (Cable or DSL modem)

Featuring ADTRAN OS and the Web GUI

Introduction

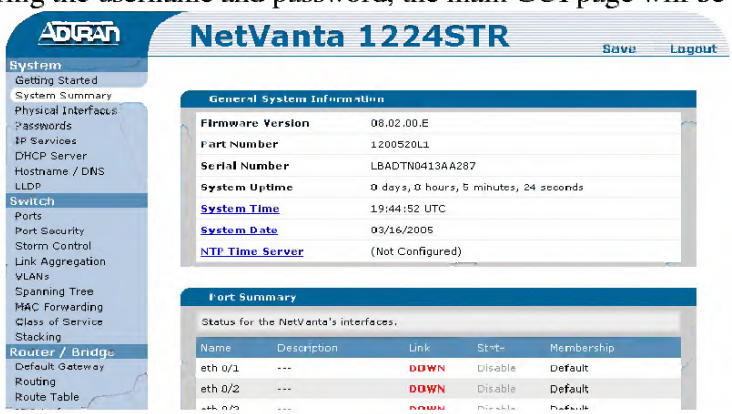
This Technical Support Note shows how to configure the NetVanta 1224R/STR for an Internet connection using an ethernet port. In this scenario, you will usually have a separate cable or DSL modem that will handle the WAN protocol and then provide ethernet to a port on the NetVanta.

Overview

Configuring the NetVanta 1224R/STR requires an understanding of the VLAN interface model. VLAN interfaces are used to create directly connected networks on the unit. Ports can then be defined as members of those VLANs. We will utilize VLAN interfaces to create a WAN and LAN segment for the 1224R. Next, we will add a default route and use the Firewall Wizard to setup basic Internet connection sharing (NAPT).

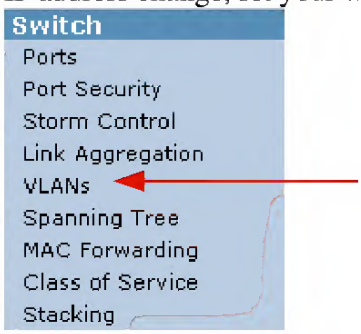
Step 1 – Logging into the unit.

The unit will come from the factory with an IP address of 10.10.10.1 on the default VLAN 1 interface. Set the IP address on your workstation to 10.10.10.2 with a subnet mask of 255.255.255.0 and a default gateway of 10.10.10.1. In this example, we will use the first port as our Internet access port. Make sure you have an ethernet cable attached from your workstation to any other free port on the unit. Open a web browser such as Microsoft Internet Explorer and type in 10.10.10.1 for the URL. You will be prompted for a username and password for which you should enter "admin" and "password" respectively since this is the factory default. After successfully entering the username and password, the main GUI page will be displayed.

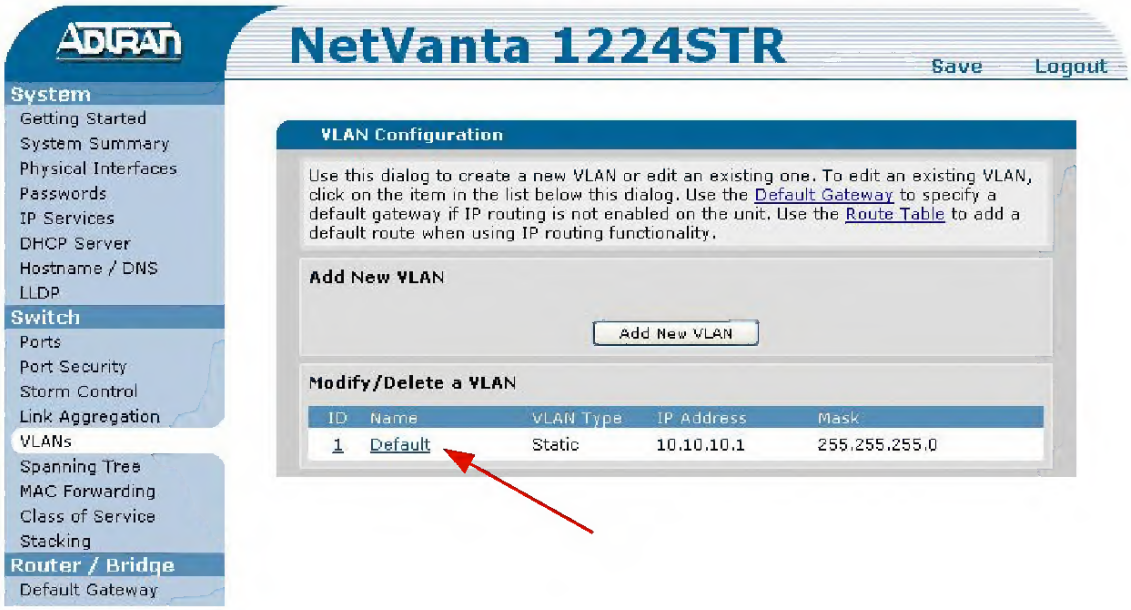


Step 2 – Setting up the Private VLAN Interface

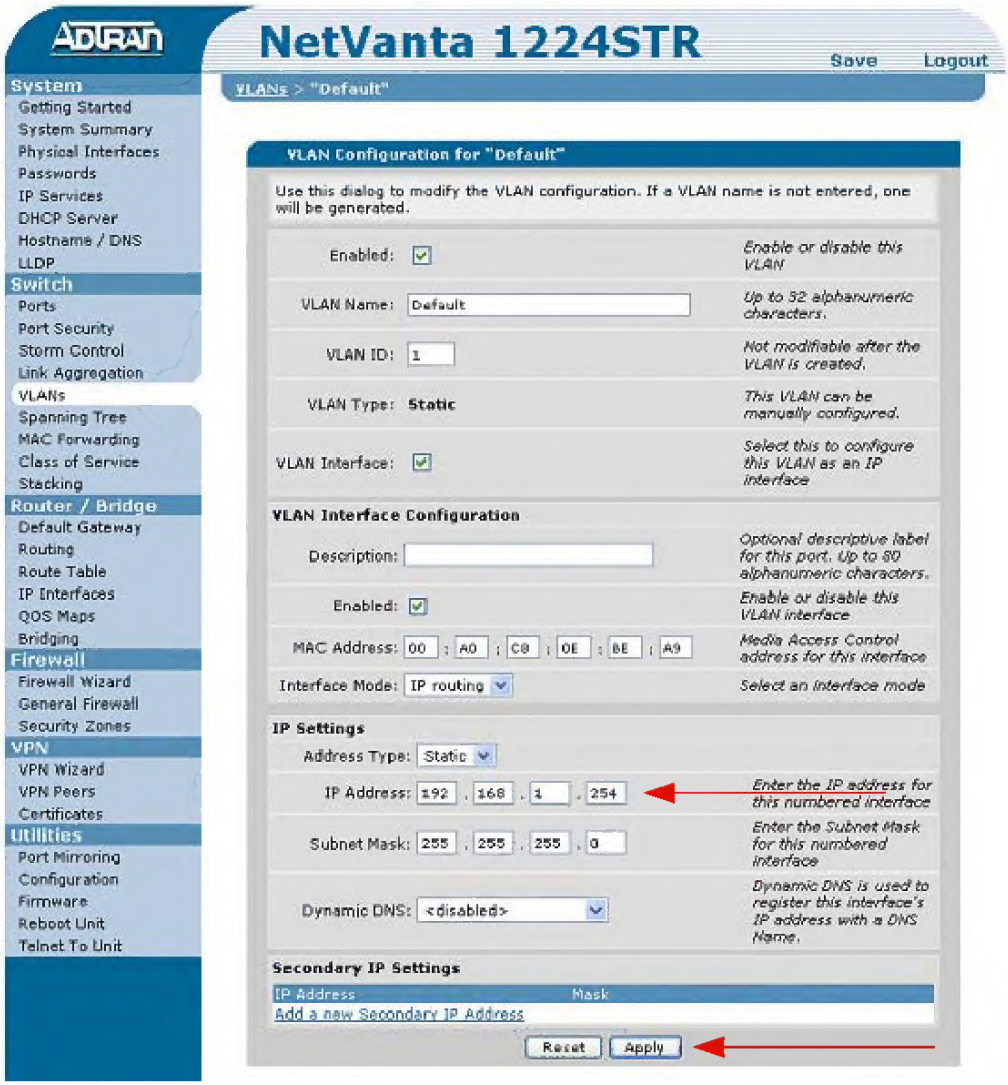
Click the "VLANs" link to setup the IP addresses for the unit. In the following diagrams, we will change the default IP address to 192.168.1.254. Note: When you submit the default IP address change, you will need to change your workstation IP address to match up with the new subnet and reconnect to the NetVanta using the new IP address. For example, after making the IP address change, set your workstation IP address to 192.168.1.1.



You will see the default VLAN listed with the 10.10.10.1 IP address. You can click this VLAN and change the private IP address to the private IP address you have chosen.

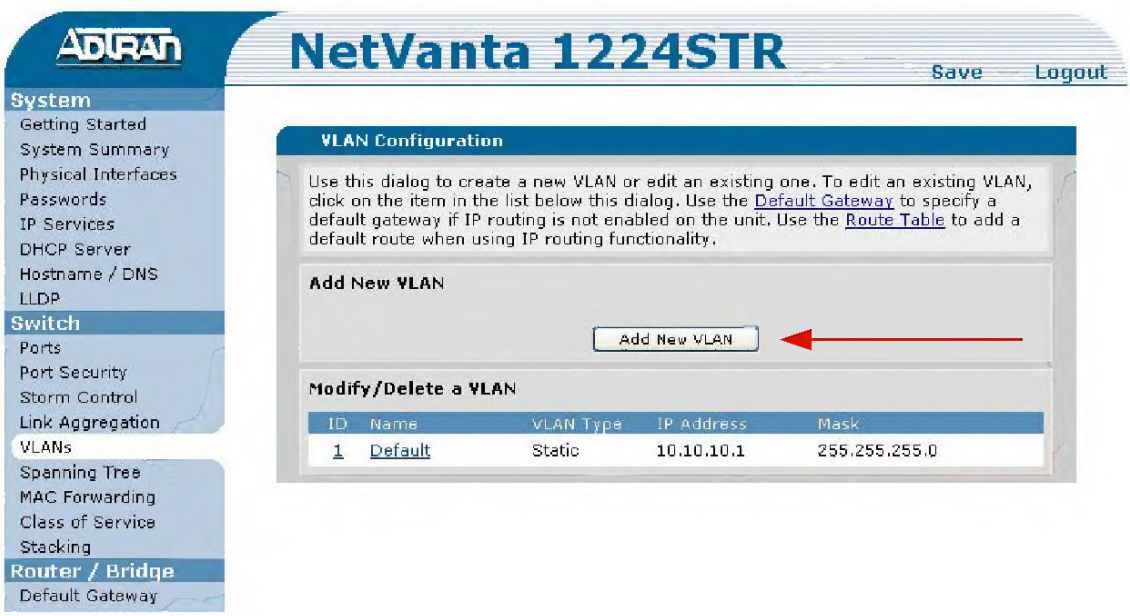


Change the IP address to 192.168.1.254. After changing the default VLAN interface IP address, be sure to change your workstation IP address to match this network. For example, you could use 192.168.1.1 as your workstation IP address with a default gateway of 192.168.1.254.

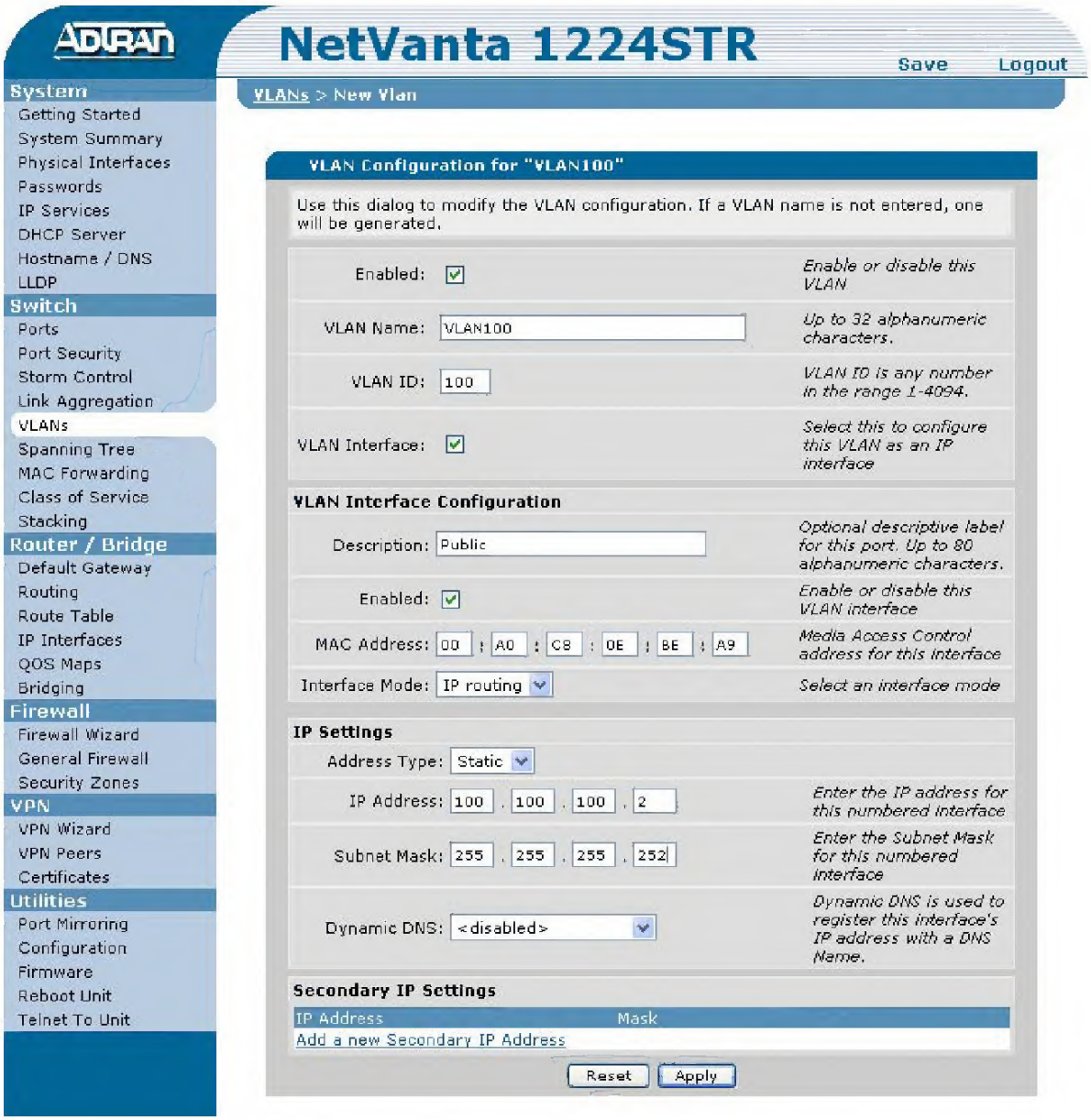


Step 3 – Add a New VLAN for the Public Subnet (Port)

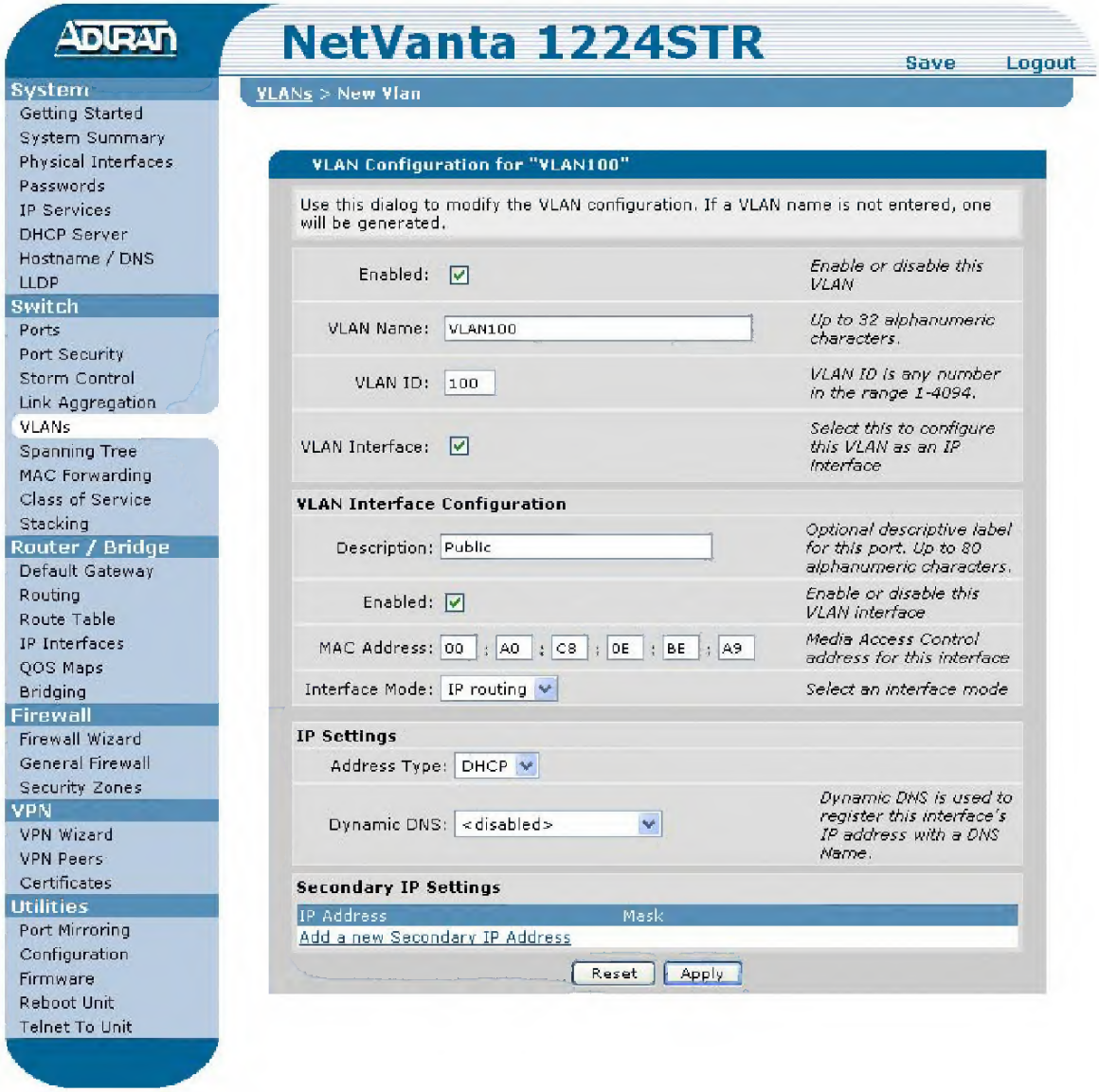
The public VLAN will be configured in one of three different modes, (A) IP Routing with a Static IP, (B) IP Routing using DHCP, or (C) PPPoE. DHCP is normally used when connected to a cable modem and PPPoE is often used when connected to a DSL modem set in pass-through or bridge mode. The following pages will show an example of each different scenario. We will use VLAN 100 for the public VLAN and 100.100.100.2/30 as the public IP address when a static IP address is used. When a static IP address is used, we need to make sure that a static default route is entered on the "Route Table" page. Add a new VLAN by clicking the "VLAN" link and then clicking the "Add a New VLAN" button.



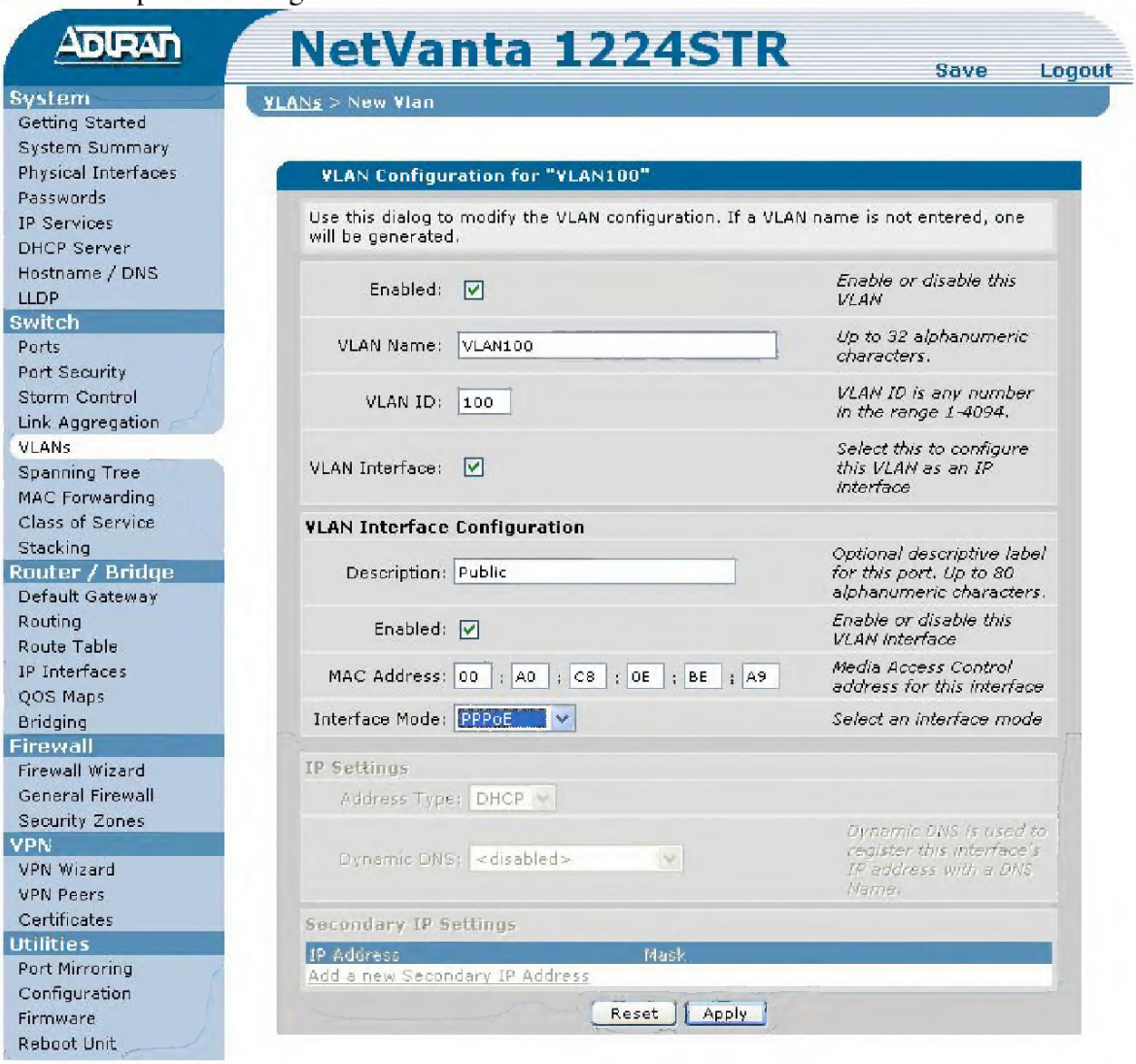
(Option A) – IP Routing with a Static IP Configuration. The IP address 100.100.100.2 is used as an example. The IP address information should have been provided to you by your Internet Service Provider (ISP).



(Option B) – IP Routing Using DHCP. This is a typical cable modem setup.

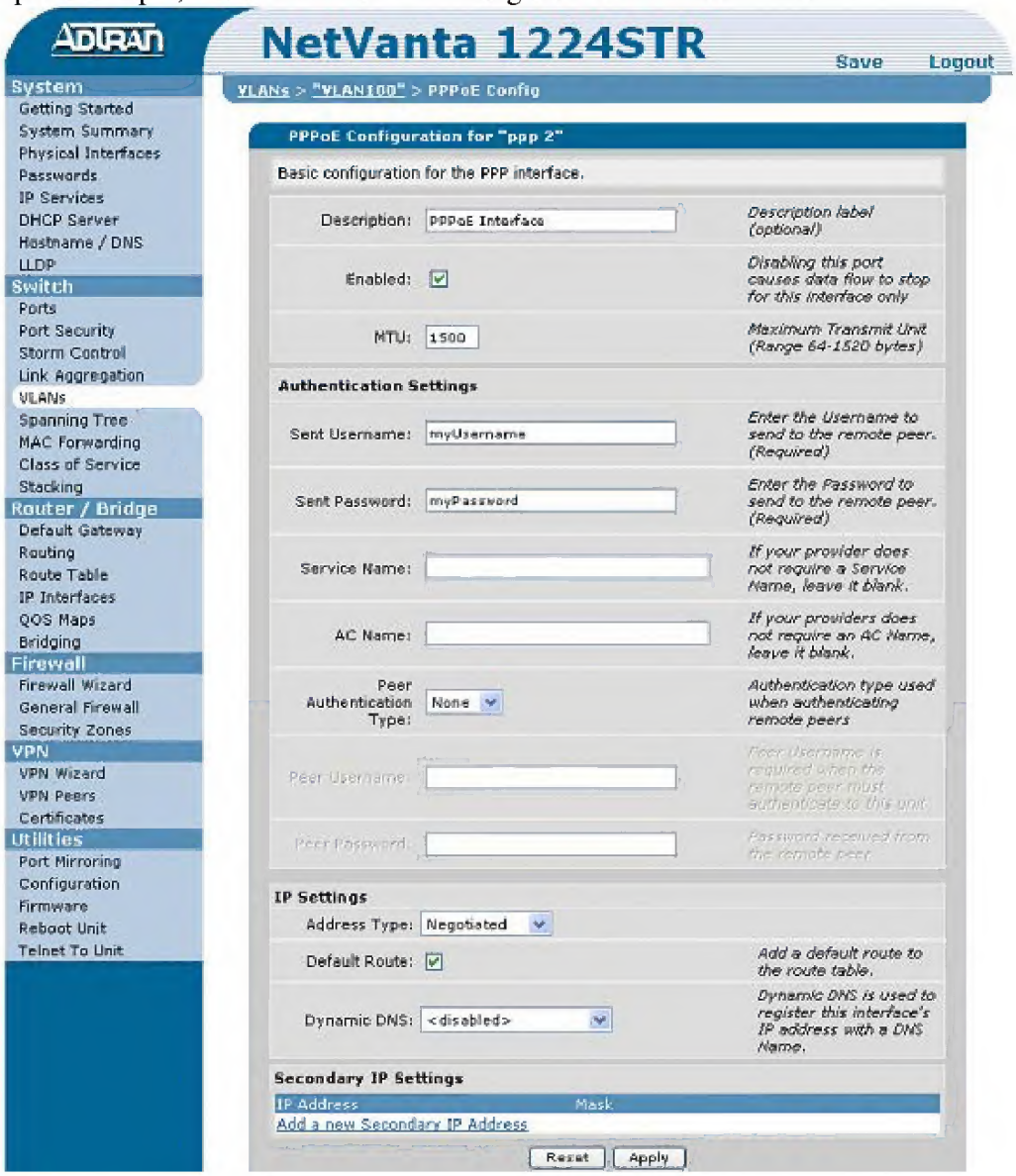


(Option C) – PPPoE (ADSL modem set to pass-through mode)
Set the Interface Mode to PPPoE and click "Apply". Clicking "Apply" will open a new page to set PPPoE specific settings.



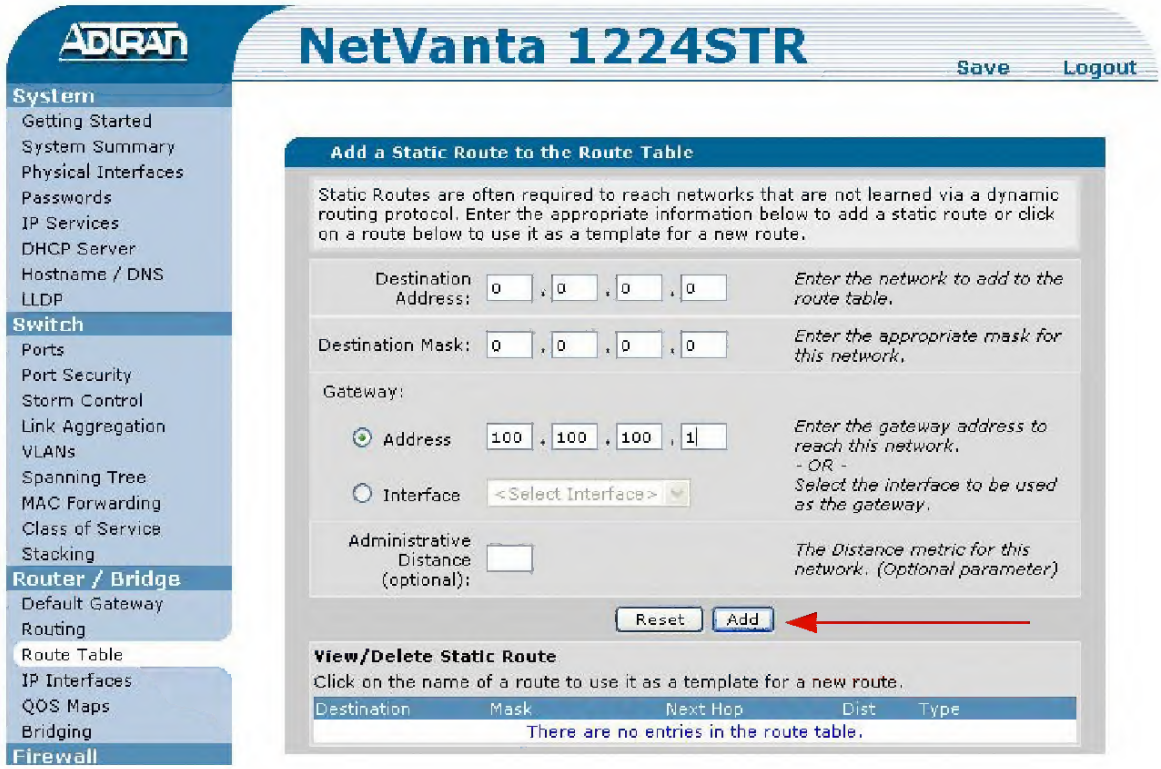
(Option C) – PPPoE specific settings

A username and password are required for PPPoE. Service Name and AC Name are rarely used but should be entered if provided by the ISP. Peer Authentication type should almost always be set to "None". Also, PPPoE should be set for "Negotiated" IP address unless the ISP has specified a static IP address. Whenever a static IP address is used, you will need to complete the optional step 4, which shows how to configure a static default route.



Step 4 – Adding a Default Route when using a Static IP Address

This step is not required when learning a default route dynamically as in step 3 (option B) when we used DHCP. You need to add a static default route when using IP Routing with a static IP address or PPPoE with a static IP address. Click the "Route Table" link and then add a static default route by specifying the destination network and subnet mask as 0.0.0.0. In our example, the static IP address assigned to us by our ISP is 100.100.100.2 and the default route gateway IP address set below is 100.100.100.1.



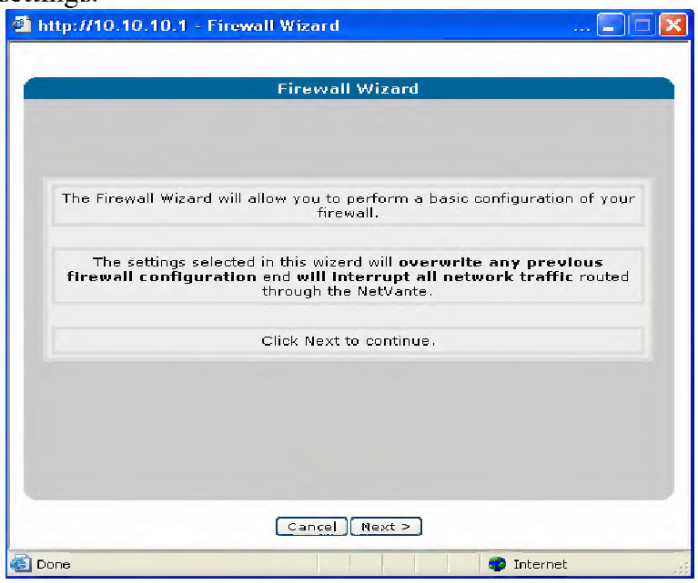
Step 5 – Assign an Ethernet Port to be a member of the Public VLAN

In the example below, we are setting the first Ethernet port as a member of VLAN 100 and setting it to "edgeport" mode to allow this port to come up immediately. This port should be plugged into your Internet connection. Make sure your workstation is not plugged into this port and remember to click the "Apply" button. Also, it is probably a good idea after making this change to click the "Save" button to save the configuration in nonvolatile memory.

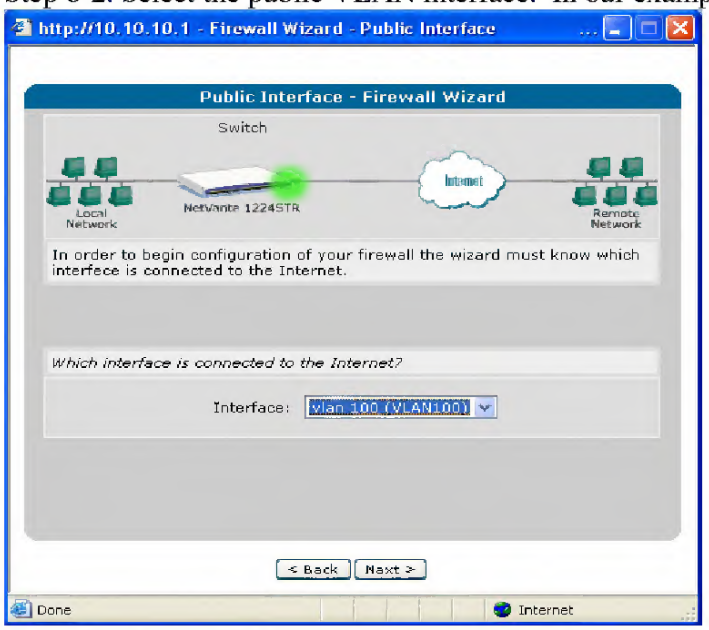
Step 6 – Using the Firewall Wizard to Setup Internet Connection Sharing (NAPT)

We will use the Firewall Wizard to setup the "Security Zones" on the router. You can also setup some basic port forwarding using this wizard. Note: You only want to use this wizard for the initial configuration. All future firewall settings should be added using the "Security Zones" link.

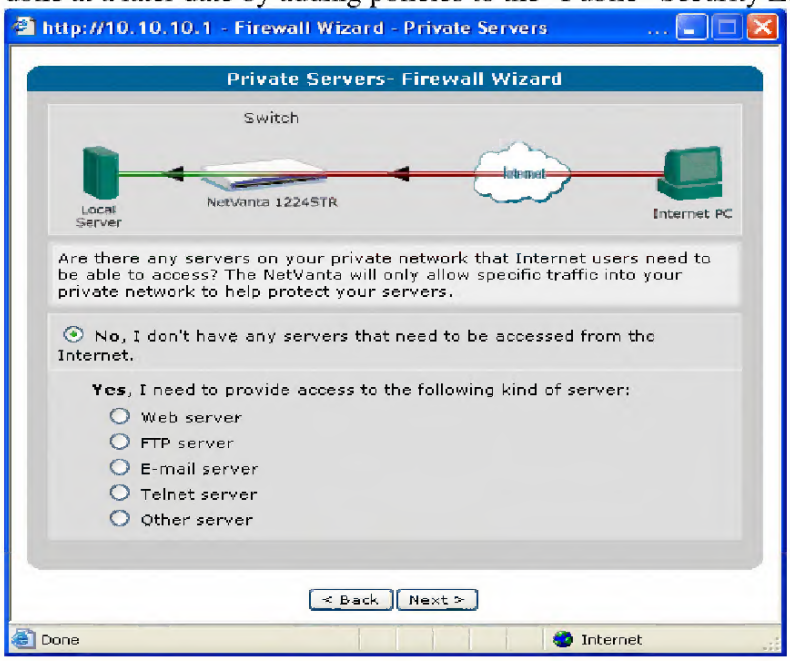
Step 6-1. The first wizard page is just a warning that this will overwrite any previous firewall settings.



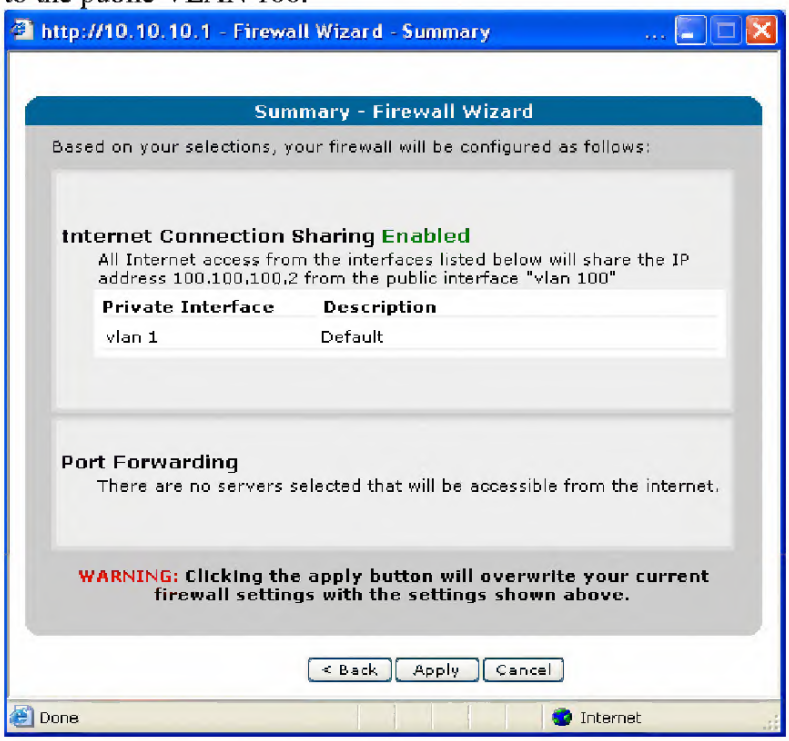
Step 6-2. Select the public VLAN interface. In our example, this is VLAN 100.



Step 6-3. This step will allow you to setup some basic port forwarding. Port forwarding can be done at a later date by adding policies to the "Public" Security Zone.

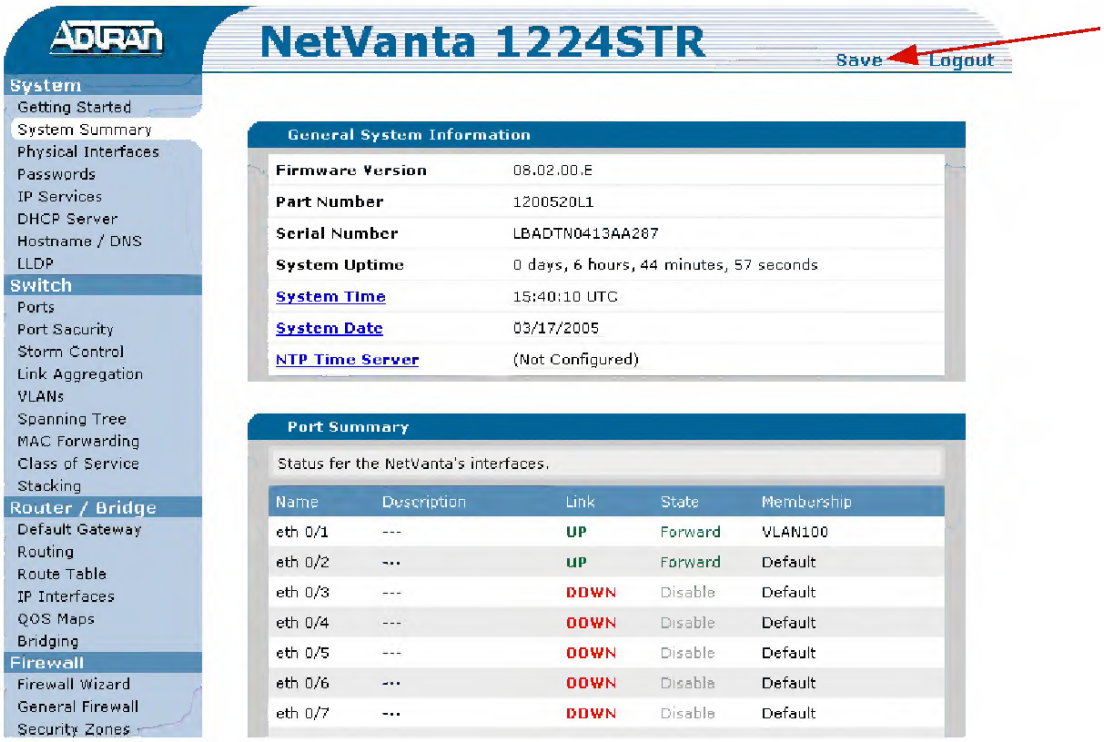


Step 6-4. The final step is to confirm that the default VLAN 1 will share the IP address applied to the public VLAN 100.



Step 7 – Save Your Changes

The basic configuration should be complete after using the Firewall Wizard. Be sure to click "Save" after you make any configuration changes. This will ensure that the configuration will be maintained in the unit by storing it in the NVRAM.



Step 8 – Consult Additional Documentation

Additional Documentation is available at www.adtran.com using the "Service/Support" link or doing a search for "ADTRAN OS Web GUI". There you can find an introduction document for each menu. If you experience any problems with your ADTRAN product, please contact Technical Support at 888-423-8726.