



## TECHNICAL SUPPORT NOTE

### Introduction to the System Menu in the Web GUI

### Featuring ADTRAN OS and the Web GUI

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#### Introduction

This Technical Support Note shows the different options available in the System menu of the ADTRAN OS Web GUI.

#### System Menus

The System Menu contains several different screens that aid the user in configuring the system settings of the NetVanta.

##### System

- Getting Started
- System Summary
- Physical Interfaces
- Passwords
- IP Services
- DHCP Server
- Hostname / DNS
- LLDP

# Getting Started

The first menu is the Getting Started menu. The Getting Started menu contains links to options that will need to be configured in order to get the NetVanta in an operational state. These include such items as VLAN, WAN, and Routing configuration.

The screenshot shows the NetVanta 1224R management utility interface. On the left is a navigation menu with categories: System, Switch, Router, Firewall, and Utilities. The main content area displays the 'Getting Started' page, which includes a welcome message and several configuration sections: VLAN Configuration, WAN Configuration, Routing Configuration, Save the Configuration, and Advanced Getting Started Guide. Each section has a corresponding arrow pointing to a specific action.

**ADTRAN** NetVanta 1224R Save Logout

**System**  
Getting Started  
System  
Default Gateway  
Hostname / DNS  
DHCP Server  
IP Services  
Passwords  
QoS Maps

**Switch**  
Ports  
Link Aggregation  
VLANs  
Spanning Tree  
MAC Forwarding  
Class of Service

**Router**  
Physical Interfaces  
IP Interfaces  
Route Table  
Routing

**Firewall**  
Firewall Wizard  
General Firewall  
Security Zones

**Utilities**  
Port Mirroring  
Configuration  
Firmware  
Reboot Unit  
Telnet To Unit

**Welcome to the NetVanta 1224R Switch Management Utility.** This page provides an outline of the basic steps needed to configure your switch.

**VLAN Configuration**  
[Step 1 - Create your VLANs](#) ← Create VLANs  
The NetVanta 1224R ships with a single default VLAN. In order to separate the network into several "virtual" networks, go to the VLAN page to create additional VLANs.  
[Step 2 - Add Ports to the VLANs](#) ← Add Ports to VLANs  
By default all ports are members of the default VLAN. This step is used to change the membership of the ports.

**WAN Configuration**  
← Configure WAN  
The NetVanta 1224R can be equipped with a NIM to provide WAN connectivity. To configure WAN connectivity, [go to the "Physical Interfaces" page](#) and select the name of the interface to be configured. The page will lead you through the following steps to configure the interface:  

- Configure the physical interface
- Select the encapsulation to a virtual interface
- Configure the virtual interface

**Routing Configuration**  
[Step 1 - Routing](#) ← Configure Routing  
This step configures dynamic routing protocols, like RIP.  
[Step 2 - Route Table](#)  
This step creates static routes for the network.

**Save the Configuration**  
[Save the Configuration](#) ← Save Changes  
The configuration must now be saved to non-volatile memory to retain changes after a power cycle or reboot. The above link will take you to the "Configuration" page where you can then save the configuration.

**Advanced Getting Started Guide**  
[Advanced Getting Started Guide](#) ← Advanced Configuration  
The Advanced Getting Started Guide will assist you in setting up some advanced features like Firewall and Virtual Private Networks.

# Advanced Getting Started

The Advanced Getting Started screen contains links to system configuration options such as DNS and DHCP. It also outlines steps to configure the NetVanta security functions.

**ADIRAN** NetVanta 1224R Save Logout

System > Basic Getting Started Guide > Advanced Getting Started Guide

**System**  
Getting Started  
System  
Default Gateway  
Hostname / DNS  
DHCP Server  
IP Services  
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**Switch**  
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Class of Service

**Router**  
Physical Interfaces  
IP Interfaces  
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**Firewall**  
Firewall Wizard  
General Firewall  
Security Zones

**Utilities**  
Port Mirroring  
Configuration  
Firmware  
Reboot Unit  
Telnet To Unit

Welcome to the NetVanta Management Utility. This page outlines the basic steps needed to configure your NetVanta security appliance.

### Firewall and System Configuration

[Step 1 - Configure System Parameters](#) ← Configure Time/Date

On the "System" page, configure the System time and date.

[Step 2 - Configure Hostname/DNS Information](#) ← Configure Hostname/DNS

Using this page, define a unique name for your NetVanta and set up a domain name. The domain name is used when hosts on the private network of the NetVanta use DNS queries to resolve domain names.

Also use this page to enter the DNS address (provided by your ISP) and enable DNS proxy. With DNS proxy enabled, your NetVanta acts as the DNS server for your local network.

[Step 3 - Run the Firewall Wizard](#) ← Firewall Wizard

The Firewall Wizard guides you through the following tasks:

- Enabling internet sharing (using NAT): The public interface IP address is used as the source for all outbound internet traffic.
- Configuring port-forwarding: Configure port-forwarding if you have servers (web, e-mail, etc.) on your private network that need to be accessed from the internet. Access to your private network from the internet will be blocked except for the servers that you set up here.

After running the Firewall Wizard, all computers on the private network will be able to access the internet.

[Step 4 - Save the Configuration](#) ← Save Changes

The configuration must now be saved to non-volatile memory to retain changes after a power cycle or reboot. The above link will take you to the "Configuration" page where you can then save the configuration.

### Optional Configuration

[Step 1 - Configure the DHCP Server](#) ← Configure DHCP Server

The DHCP server of your NetVanta assigns IP addresses to other elements of your network. Use this page to configure the address ranges that the server will use. Disable the server if you do not need it.

[Step 2 - Configure Security Zones](#) ← Configure firewall Security Zones

Use the Security Zones page to configure advanced firewall options that cannot be configured in the Firewall Wizard.

[Step 3 - Save the Configuration](#) ← Save Changes

The configuration must now be saved to non-volatile memory to retain changes after a power cycle or reboot. The above link will take you to the "Configuration" page where you can then save the configuration.

# System Summary

The System Screen allows the user to view general system information regarding the NetVanta. This includes the firmware version, the part number, serial number, and system uptime. System time and date may also be viewed (and set) by the user on this screen. Depending on your series of NetVanta product, a brief summary of each Ethernet interface is shown on this screen as well.

**NetVanta 2400** Save Logout

**System**

- Getting Started
- System Summary
- Interfaces
- Passwords
- IP Services
- DHCP Server
- Hostname / DNS
- LLDP
- Routing
- Route Table

**Firewall**

- Firewall Wizard
- General Firewall
- Security Zones

**VPN**

- VPN Wizard
- VPN Peers
- Certificates

**Utilities**

- Configuration
- Firmware
- Reboot Unit
- Factory Default
- Telnet To Unit

**System Status**

<b>Firmware Version</b>	08.01.00.E
<b>Part Number</b>	1202367L2
<b>Serial Number</b>	LBADTN000000000
<b>System Uptime</b>	21 hours 11 minutes 42 seconds
<a href="#">System Time</a>	15:21:57 CST
<a href="#">System Date</a>	12/21/2004
<a href="#">NTP Time Server</a>	172.22.48.76
<b>NTP Last Sync</b>	19:00:34 PM CST on 12/20/2004

← System Information

**Interface Eth 0/1**

<b>Link</b>	Up - 100Mbps/full
<a href="#">Type</a>	Static
<a href="#">IP Address</a>	10.19.218.240
<a href="#">Subnet Mask</a>	255.255.255.0
<a href="#">MAC Address (factory)</a>	00:A0:C8:0E:74:E1

← Port Summary

**Interface Eth 0/2**

<a href="#">Type</a>	No IP Address
<a href="#">MAC Address (factory)</a>	00:A0:C8:0E:74:E2

**Interface Eth 0/3**

<b>Link</b>	Down
<a href="#">Type</a>	PPPoE
<a href="#">User Name</a>	
<a href="#">Service Name</a>	
<a href="#">AC Name</a>	
<b>PPPoE State</b>	Down
<b>LCP State</b>	Negotiating
<b>IP State</b>	Negotiating
<b>IP Address</b>	0.0.0.0
<b>Peer IP Address</b>	0.0.0.0
<b>Primary DNS Server</b>	0.0.0.0
<b>Secondary DNS Server</b>	0.0.0.0
<a href="#">MAC Address (factory)</a>	00:A0:C8:0E:74:E3

**Interface Eth 0/4**

<a href="#">Type</a>	Disabled
<a href="#">MAC Address (factory)</a>	00:A0:C8:0E:74:E4

Configurable menu items such as system time and date are indicated by blue underlined text. The user may click on these items to make changes. Non-configurable items are shown in black text and are read-only status fields that may not be configured through this menu.

# Interfaces/Physical Interfaces

This option lists all physical interfaces in the device. Such as Ethernet, T-1, DDS, etc and allows you to configure them.

**ADIRAN** NetVanta 3305 Save Logout

**System**  
Getting Started  
System Summary

**Physical Interfaces**  
Passwords  
IP Services  
DHCP Server  
Hostname / DNS  
LLDP

**Router / Bridge**  
Default Gateway  
Routing  
Route Table  
IP Interfaces  
QoS Maps  
Bridging  
Spanning Tree

**Firewall**  
Firewall Wizard  
General Firewall  
Security Zones

**VPN**  
VPN Wizard  
VPN Peers  
Certificates

**Utilities**  
Configuration  
Firmware  
Reboot Unit  
Telnet To Unit

**Physical Interfaces**

This is a list of all the physical interfaces that are either physically tied to the product or connected via a plug-in module. View or edit the configuration of an interface by clicking its name.

Name	Logical Interface	Line Status	Type
<a href="#">eth 0/1</a>	none	Up	Ethernet
<a href="#">eth 0/2</a>	none	Interface Disabled	Ethernet
<a href="#">t1 1/1</a>	fr 1	Up	WAN-T1
<a href="#">t1 2/1</a>	fr 2	Up	WAN-T1

Click on a port will allow you to change it settings

Lists all physical interfaces in the router

# Password

Passwords for various access methods may be configured in the Password Menu.

The screenshot shows the configuration interface for a NetVanta 1224STR device. On the left is a navigation menu with categories: System, Switch, Router / Bridge, Firewall, VPN, and Utilities. The main content area is titled 'NetVanta 1224STR' and includes 'Save' and 'Logout' buttons. The 'Add / Modify / Delete Users' section contains fields for Username, Password, and Confirm Password, each with a description of the format. Below this is a 'Modify/Delete User' table with one entry 'admin'. The 'Service Authentication' section has an 'AAA Mode Enabled' checkbox and tabs for 'Enable Password', 'Telnet/SSH/Console', 'HTTP', 'FTP', and 'Radius Server'. Under 'Enable Password', there are radio buttons for 'Use remote RADIUS server' and 'Use password', with corresponding password fields.

← If using the local user list for authentication, the user must specify usernames and passwords for each user in the list. Once usernames and passwords are created, they may be changed or deleted from the list at the bottom.

← The enable password needed to access the 'Enable' security level can be configured here.

← Passwords for Telnet/SSH/Console, HTTP, FTP, and also Radius authentication can be configured here

## IP Services

SNMP, FTP, HTTP and HTTPS IP services may be enabled or disabled from this screen by checking the box next to the corresponding server.

The screenshot displays the NetVanta 1224STR Web GUI. The left sidebar contains a navigation menu with categories: System, Switch, Router / Bridge, Firewall, VPN, and Utilities. The main content area is divided into two panels. The top panel, titled "IP Services Enable/Disable", contains a table of services with checkboxes and port numbers. The bottom panel, titled "Web Access Configuration", contains fields for "Inactivity Timeout" and "Max Sessions".

Service	Enabled	Port	Description
SNMP Server	<input type="checkbox"/>		Check to enable the NetVanta's SNMP server.
FTP Server	<input type="checkbox"/>		Check to enable the NetVanta's FTP server.
TFTP Server	<input type="checkbox"/>		Check to enable the NetVanta's TFTP server.
HTTP Server	<input checked="" type="checkbox"/>	80	Disabling the HTTP server will cause the basic web interface to stop functioning.
HTTP Server Port		<input type="text" value="80"/>	The HTTP Server runs on this TCP Port.
HTTPS Server	<input checked="" type="checkbox"/>		Disabling the HTTPS server will cause the secure web interface to stop functioning.
HTTPS Server Port		<input type="text" value="443"/>	The HTTPS Server runs on this TCP Port.

Annotations on the right side of the screenshot:

- Enable/Disable Servers (points to the checkboxes in the IP Services table)
- Inactivity Timer (points to the Inactivity Timeout field)
- Max Web Sessions (points to the Max Sessions field)

If you are logged into the unit through the Web GUI, disabling the HTTP server will cause you to lose your connection.

# DHCP Server

In order for the NetVanta to act as a DHCP server, the user must create a DHCP server pool, which the NetVanta will use to assign IP address information to requesting devices.

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**DHCP Server**  
 Hostname / DNS  
 LLDP

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 Port Security  
 Storm Control  
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 Spanning Tree  
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 Class of Service  
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**Router / Bridge**  
 Default Gateway  
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**Firewall**  
 Firewall Wizard  
 General Firewall  
 Security Zones

**VPN**  
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 Reboot Unit  
 Telnet To Unit

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**Add / Modify / Delete DHCP Server Pool**

Create a pool for each subnet containing DHCP clients. A pool must also be created for each host requiring a reserved (fixed) IP address.

**Add New DHCP server pool**

Pool Name:  *For example, use "Local PCs" for a subnet or "Web Server" for a host reservation.*

**Modify/Delete a DHCP Server Pool**

To view or modify an existing DHCP server pool, click the link in the desired row.

Name	Subnet/Host	IP Address	
<a href="#">TEST</a>	subnet	10.19.218.0/24	<input type="button" value="Delete"/>
<a href="#">MARK LAPTOP</a>	host	10.19.218.22	<input type="button" value="Delete"/>

← Add/Modify DHCP Server Pool

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**(Optional) Add / Delete DHCP Excluded Ranges**

Exclude ranges of IP addresses reserved for hosts with static IP settings. The server will not assign IP addresses from the start IP address through the end IP address.

**Add an Excluded Range**

Start IP Address:  .  .  .  *Starting with this IP address, the server will not assign IP addresses to DHCP clients.*

End IP Address:  .  .  .  *If an end IP address is not entered, only the start address will be excluded. (Optional)*

**Excluded Ranges**

Start Address	End Address
There are no excluded ranges in the DHCP database.	

← Define DHCP addresses to exclude

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**Current Leases**

Below is a list of all currently maintained DHCP leases and relevant information.

Showing 0 to 3 of 3

Name	MAC Address	IP Address	Expires
ICP	00:A0:C8:02:DA:91	10.19.218.1	Dec 21 2004 16:52:58
gooeyp2	00:0F:1F:BB:73:6D	10.19.218.22	Dec 22 2004 08:29:45
TSRW-1	00:10:A4:7E:17:44	10.19.218.2	Dec 22 2004 11:45:53

← Current Leases



# DHCP Server Pool

The DHCP server pool is created to define the network, default gateway, DNS server, WINS server, and lease time period to be assigned to DHCP clients.

**Add / Modify / Delete DHCP Server Pool**

Create a pool for each subnet containing DHCP clients. A pool must also be created for each host requiring a reserved (fixed) IP address.

**Add New DHCP server pool**

Pool Name:  For example, use "Local PCs" for a subnet or "Web Server" for a host reservation.

**Modify/Delete a DHCP Server Pool**

To view or modify an existing DHCP server pool, click the link in the desired row.

Name	Subnet/Host	IP Address	
<a href="#">TEST</a>	subnet	10.19.218.0/24	<input type="button" value="Delete"/>
<a href="#">MARK LAPTOP</a>	host	10.19.218.22	<input type="button" value="Delete"/>



**DHCP Server Pool "MyPool"**

Configure a "Subnet" or "Fixed IP Host" for this pool and values for the DHCP options.

**IP Addresses**

Assign IP addresses to all DHCP clients on a subnet. *The IP addresses on this subnet that are NOT excluded will be assigned to clients. Clients will be assigned this subnet mask.*

Subnet Address:  .  .  .

Subnet Mask:  .  .  .

Reserve a fixed IP address for a single host. *Host will always be assigned this IP address and network mask. Typically the MAC address is set to the host's Ethernet adapter MAC.*

MAC Address:  :  :  :  :  :

IP Address:  .  .  .

Subnet Mask:  .  .  .

**DHCP Options**

Domain Name:  (Optional) *The Domain that the DHCP Clients will be a member of.*

Default Gateway:  .  .  .  *The default-gateway IP address that the DHCP server will assign to clients.*

Primary DNS:  .  .  .  *Typically set to the IP address of a local NetVanta interface.*

Secondary DNS:  .  .  .  (Optional) *Clients will use secondary DNS if name resolution with primary fails.*

Primary WINS:  .  .  .  (Optional) *Needed for Microsoft Networking so clients can resolve NetBIOS names.*

Secondary WINS:  .  .  .  (Optional) *Clients will typically use secondary WINS if NetBIOS name resolution fails with primary.*

Lease Time: Days  Hours  Minutes  *Clients must renew IP settings after this time. Typically set to 1-8 days.*

- ← Specify DHCP Server address lease range
- ← Configure a fixed IP address for a single host
- ← Specify DHCP Servers parameters that will be assigned to the DHCP clients

# Hostname/DNS

Hostname and DNS options are configured on this screen.

The screenshot shows the NetVanta 3305 configuration interface. The left sidebar contains a navigation menu with categories: System, Router / Bridge, Firewall, VPN, and Utilities. The main content area is titled "DNS Setup" and includes the following sections:

- DNS Setup:** A form for configuring the hostname and domain name. It includes fields for Host Name (3305-2), Domain, Primary DNS IP Address, and Secondary DNS IP Address. There are also checkboxes for "Enable DNS Lookup" (checked) and "Enable DNS Proxy" (unchecked). Descriptive text explains the purpose of each field.
- Add / Modify / Delete DNS Host Entries:** A section explaining that the NetVanta can act as a DNS Server. It provides an example: "Host: **fileserver** IP: **10.10.10.2** will be resolved as **fileserver**".
- Add a New DNS Host Entry:** A form for adding static DNS entries. It includes fields for Host and IP Address, with an "Add" button.
- Modify/Delete Entries:** A section explaining that this is a list of all hosts that the DNS server will resolve. It includes a table with columns for Host Name, IP Address, and Type. The table is currently empty, displaying the message "There are no hosts in the DNS Server Database".

Annotations on the right side of the image point to specific elements:

- An arrow points to the Host Name field with the text: "The Hostname of the Netvanta and DNS information may be changed under the DNS Setup menu."
- An arrow points to the "Enable DNS Lookup" checkbox with the text: "DNS lookup may be enabled in order to allow DNS translations."
- An arrow points to the "Add a New DNS Host Entry" section with the text: "Allows you to enter static DNS entries for LAN devices"

# LLDP

LLDP allows the NetVanta to see other devices to which it is connected, such as another NetVanta across a WAN link.

The screenshot shows the NetVanta 3305 web interface with the LLDP configuration page. The left sidebar contains a navigation menu with categories: System, Router / Bridge, Firewall, VPN, and Utilities. The main content area is divided into three sections: LLDP Setup, Enable LLDP on Specific Interfaces, and LLDP Neighbors. Annotations with arrows point to specific parts of the interface.

**LLDP Setup**

These parameters modify how often Link Layer Discovery Protocol (LLDP) packets are sent out.

Transmit Interval:	<input type="text" value="30"/>	Valid values are 5-32768 (seconds).
Minimum Transmit Interval:	<input type="text" value="2"/>	Valid values are 1-8192 (seconds).
TTL Multiplier:	<input type="text" value="4"/>	Valid values are 2-10.

Buttons:

Annotation: LLDP packet settings

**Enable LLDP on Specific Interfaces**

Use this form to enable the ability to transmit LLDP updates, receive LLDP updates or both.

Interface Name	TX Count	RX Count	TX	RX	TX/RX
eth 0/2	0	0	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
fr 2.200	20898	20897	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
eth 0/1	20903	9243	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
fr 1.100	20898	20898	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ppp 1	0	0	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Buttons:

Annotation: Interfaces to send and receive LLDP packets

**LLDP Neighbors**

This is a list of Ethernet Neighbors learned through LLDP.

Name	Platform	Local Interface	Unit Access
<a href="#">3305-1</a>	NetVanta 3305	fr 2.200	N/A
<a href="#">1224STR</a>	NetVanta 1224STR	eth 0/1	<input type="button" value="Browse"/> <input type="button" value="Telnet"/>
<a href="#">3305-1</a>	NetVanta 3305	fr 1.100	N/A

Annotation: Devices found via LLDP