

Changing the Default VLAN Subnets in the NetVanta 7100 or NetVanta 1355/6355

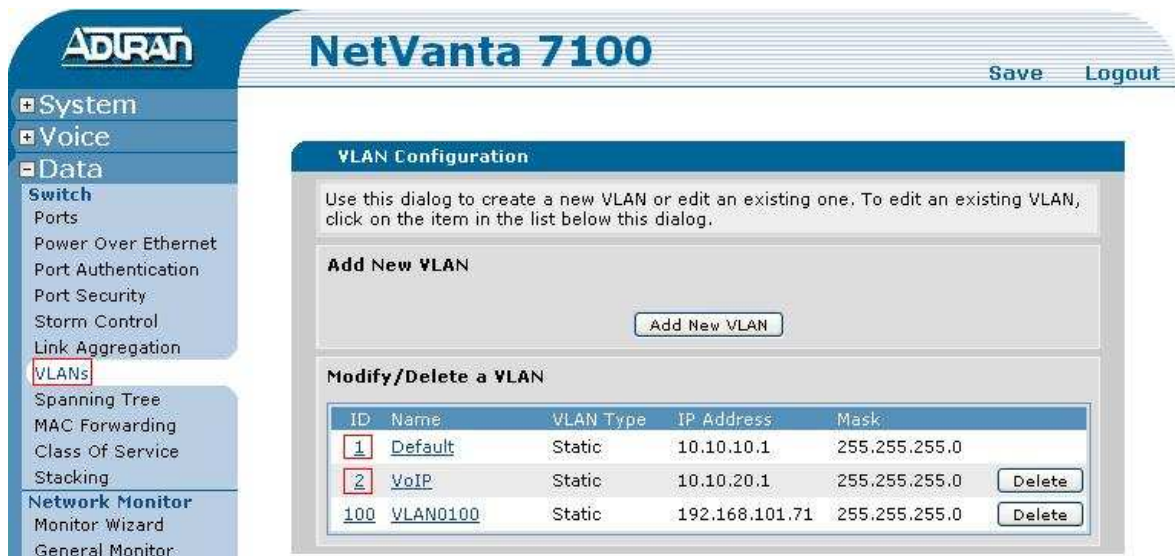
AOS Version Supported: 15.06.00.SA firmware and above

Description

It is often necessary to change the VLAN IP address scheme on a NetVanta 7100 from its factory default settings. This is usually done at the request of the customer or so that the NetVanta 7100 can reside in an existing network without requiring changes to devices currently running on this network. This document is designed to outline this process using an example. The factory default configuration includes a data VLAN of 10.10.10.0/24 and a voice VLAN of 10.10.20.0/24. This guide will demonstrate changing these VLANs to 192.168.201.0/24 for data (VLAN 1) and 192.168.202.0/24 for voice (VLAN 2). Several additional settings will need to be applied in order to have proper phone operation when VLAN subnet changes have been applied.

Step 1 – Change the VLAN IP Addresses

Select **VLANs** and then the particular **VLAN ID** to change the IP addresses.



The screenshot shows the NetVanta 7100 web interface. The left sidebar contains a navigation menu with the following items: System, Voice, Data, Switch (Ports, Power Over Ethernet, Port Authentication, Port Security, Storm Control, Link Aggregation), VLANs (highlighted), Spanning Tree, MAC Forwarding, Class Of Service, Stacking, Network Monitor (Monitor: Wizard, General Monitor). The main content area is titled 'VLAN Configuration' and contains the following text: 'Use this dialog to create a new VLAN or edit an existing one. To edit an existing VLAN, click on the item in the list below this dialog.' Below this text is an 'Add New VLAN' button. Underneath is a section titled 'Modify/Delete a VLAN' containing a table of VLANs:

ID	Name	VLAN Type	IP Address	Mask	
1	Default	Static	10.10.10.1	255.255.255.0	
2	VoIP	Static	10.10.20.1	255.255.255.0	Delete
100	VLAN0100	Static	192.168.101.71	255.255.255.0	Delete

Then modify the IP address in the **IP Settings** section of the VLAN configuration as shown below. Clicking **Apply** will make this change take effect. If this configuration change is made from a computer residing on the changed VLAN, the computer's IP address will need to be statically defined as an IP address on this new VLAN. An IP address for the computer, that would fit this example, would be 192.168.201.2/24.

IP Settings

Address Type: *Set to 'None' if connecting to a [Bridge](#) with [IP routing](#) disabled.*

IP Address: . . . *IP address for this numbered interface*

Subnet Mask: . . . *Subnet Mask for this numbered interface*

Dynamic DNS: *Used to register this interface's IP address with a DNS Name.*

Secondary IP Settings

IP Address	Mask
Add a new Secondary IP Address	

Media-Gateway

IP Address Type: *RTP traffic will flow over the selected IP address.*

Monitoring

RTP Monitoring: *Enables [RTP monitoring](#) on this interface.*

After logging back into the NetVanta 7100, the administrator should then make the change for VLAN 2. In this example, VLAN 2 should get an IP address of 192.168.202.1/24.

Step 2 – Modify DHCP Pools to Reflect the New Subnets

Modify DHCP pools by selecting **DHCP Server** and then the particular DHCP pool name. Similar changes will need to be made to both DHCP pools that correspond to the newly configured subnets.

System

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

Voice

Data

Monitoring

Utilities

DHCP Server Settings

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:

Modify/Delete a DHCP Server Pool

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

<input type="checkbox"/>	Name	Subnet/Host	IP Address
<input type="checkbox"/>	VoIP_pool	subnet	10.10.20.0/24
<input type="checkbox"/>	LAN_pool	subnet	10.10.10.0/24

Below is an example of the modified **Required Configuration** for the LAN_pool.

The screenshot shows the 'DHCP Server > DHCP Pool "LAN_pool"' configuration page. The 'Required Configuration' tab is active. The configuration includes:

- IP Addresses:** The radio button 'Assign IP addresses to all DHCP clients on a subnet.' is selected. The Subnet Address is 192.168.201.0 and the Subnet Mask is 255.255.255.0.
- DHCP Options:** The Default Gateway is 192.168.201.1 and the Primary DNS is 192.168.201.1. The Lease Time is set to 1 day, 0 hours, and 0 minutes.

Buttons for 'Cancel' and 'Apply' are visible at the bottom.

Optional Configuration settings should also correspond to the new VLAN scheme.

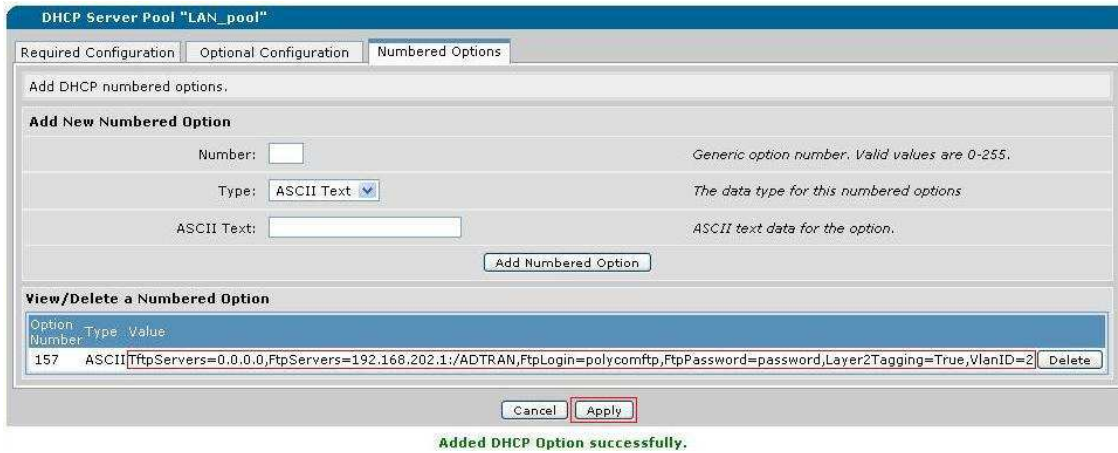
The screenshot shows the 'Optional Configuration' tab for the DHCP Server Pool "LAN_pool". The configuration includes:

- Domain Name:** (empty field)
- Secondary DNS:** (empty field)
- Primary WINS:** (empty field)
- Secondary WINS:** (empty field)
- TFTP Server:** tftp://192.168.201.1
- NTP Server:** 192.168.201.1
- Timezone offset:** -6

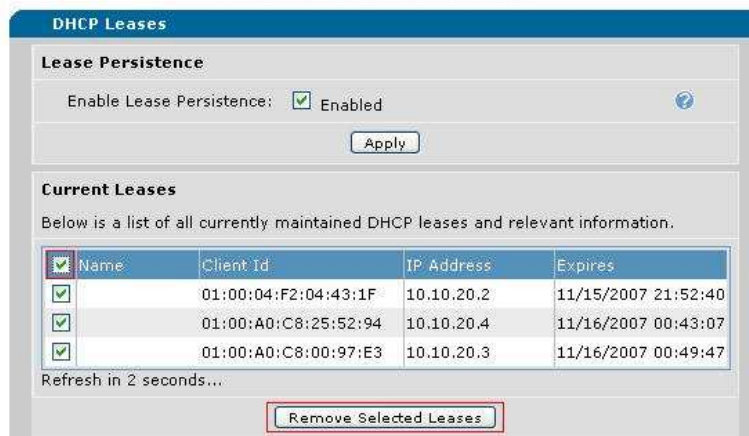
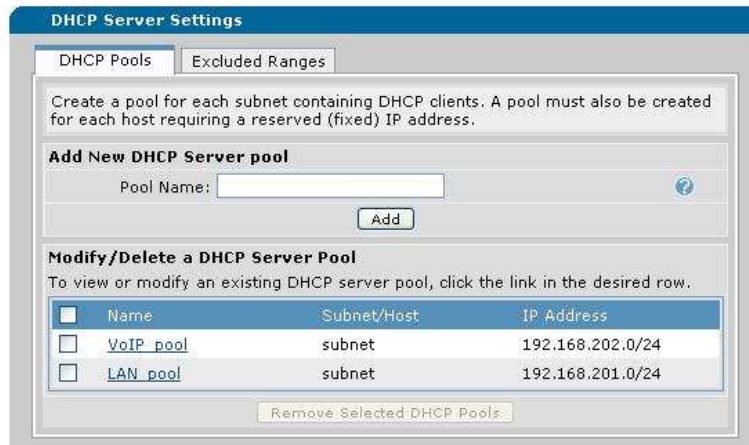
Buttons for 'Cancel' and 'Apply' are visible at the bottom.

If using ADTRAN IP7XX phones, the administrator will need to make sure that the required **Numbered Option 157** is modified as well. A copy and paste to a text editor

will be helpful here since the current option will need to be deleted and then recreated with the new changes.



After modifying and clicking **Apply** for both DHCP pools, the administrator will need to remove any persistent DHCP leases that reference the older IP addressing scheme. This process is shown below.



Step 3 – Apply New Boot Settings and Default Settings

New **Boot Settings** must be applied so that phone configuration files will be properly rebuilt to reflect the subnet change. Select **IP Phone Configs** and then the **Boot Settings** tab. Verify that the page looks similar to the screenshot below and then click **Apply** to build the new files.

The screenshot displays the 'IP Phone Configs' web interface. On the left is a navigation menu with categories: Voice (Stations, Trunks, Applications, System Setup, Reports), Stations (User Accounts, IP Phone Configs, Ring Groups, Operator Group), Trunks (Trunk Accounts, Trunk Groups, Shared Line Accounts), Applications (Voicemail Settings, Auto Attendants, Audio Prompts, Dial-By-Name Dirs, Status Groups), System Setup (Classes of Service, Dial Plan, ISDN Num Templates, Codec Lists, System Speed Dial, Call Coverage Lists, System Parameters, SIP Server Settings, SIP Client Locations, VoIP Settings), and Reports (Extensions List). The main content area is titled 'IP Phone Configs' and contains a sub-header: 'From this page you can create and manage configuration files and settings for your IP phones.' Below this are tabs for 'Phone Configs', 'Global Directory', 'Boot Settings', 'Default Settings', and 'Global Files'. The 'Boot Settings' tab is active, showing a note: 'The configuration values on this tab affect how Polycom IP phones boot and register with the system.' There are two sub-tabs: 'Local Phones' and 'Remote Phones'. Under 'Local Phones', settings include: Phone VLAN (2 - DHCP Pool "VoIP_pool"), DHCP Enabled (checked), VLAN Address (192.168.202.1), and Boot Server (Internal IP Address: 192.168.201.1). Under 'Remote Phones', there are no visible settings. Below these are sections for 'FTP Settings' (FTP Filesystem: Compact Flash (Recommended), User Name: polycomftp, Password: password) and 'Phone Settings' (Admin Password: 456). At the bottom are 'Cancel' and 'Apply' buttons, with the 'Apply' button highlighted by a red box.

On the **Default Settings** tab, **Apply** settings to New and Existing Configurations.

- Voice**
 - Stations
 - User Accounts
 - IP Phone Configs
 - Ring Groups
 - Operator Group
 - Trunks
 - Trunk Accounts
 - Trunk Groups
 - Shared Line Accounts
 - Applications
 - VoiceMail Settings
 - Auto Attendants
 - Audio Prompts
 - Dial-By-Name Dirs
 - Status Groups
 - System Setup
 - Classes of Service
 - Dial Plan
 - ISDN Num Templates
 - Codec Lists
 - System Speed Dial
 - Call Coverage Lists
 - System Parameters
 - SIP Server Settings
 - SIP Client Locations
 - VoIP Settings
 - Reports
 - Extensions List
 - SIP Registration List
 - RTP Channel Stats
 - RTP Session Stats
 - Trunk Statistics
 - VoiceMail Status
 - SPRE Command List
- Data**
- Utilities**

IP Phone Configs

From this page you can create and manage configuration files and settings for your IP phones.

Phone Configs | Global Directory | Boot Settings | Default Settings | Global Files

The following values will automatically be applied to new phone configurations created on this page or in the [User Accounts](#) page. Additionally, all existing configurations can be updated if the New and Existing Configurations radio button is selected before clicking Apply.

SIP Server: VLAN Address: 192.168.202.1

Other IP

Interface: vlan 2 - 192.168.202.1

Custom:

Extension Dial Strings:

```
0
911
9,911
[1-8]xxx
9,[2-9]xxxxxxT
9,[2-9]xx[2-9]xxxxxx
9,[0-1][2-9]xx[2-9]xxxxxx
9,011xxx.T
*[[2-9][0123456789*]].T
*1xx
```

Remove ?

Add Entry Change Entry

Add

Shared Line Account Dial Strings:

```
0
911
[2-9]xxxxxx.T
[2-9]xx[2-9]xxxxxx
[0-1][2-9]xx[2-9]xxxxxx
011xxx.T
xx.#
```

Remove ?

Add Entry Change Entry

Add

Dial String Timeout: seconds ?

Line Keys: ?

Apply Settings To: New Configurations Only New and Existing Configurations ?

Cancel Apply

Boot settings updated successfully

Next, select the **Phone Configs** tab and **Rebuild Config Files** for all phones.



All config files updated successfully. Phones must be synced and rebooted in order to apply the changes.

Step 4 – Verify All Firewall Settings Reflect VLAN changes

It is likely that some **Security Zone** settings will need to be modified. Verify that no policies in any **Security Zone** reference the old VLAN subnets. Delete those that do reference the old subnets and create new rules that correspond to the new VLANs. Consult <http://kb.adtran.com/> to find more information and guides regarding the firewall and **Security Zone** settings.

Step 5 – Factory Default Any Existing Polycom Phones

If this configuration change is being made on a NetVanta 7100 with existing Polycom users, those phones will need to be restored to factory defaults. Use the following menu sequence to reset the phones.

Menu Button -> Settings -> Advanced -> 456 -> Admin Settings -> Reset to Default -> Reset Device Setting

Step 6 – Verify Operation of any Existing Phones and Save Configuration

After verifying that any existing phones have rebooted and are working properly, save the configuration to NVRAM by clicking the **Save** link at the top right corner of the GUI or issuing a “copy running-config startup-config” in the CLI. Lastly, copies of the startup-config should be saved along with other network configuration backups. Configurations can be downloaded by clicking **Configuration** in the Utilities section of the web GUI.