

**Vanguard Applications Ware**  
**Release 7.0 Service Pak 1.0 (7.0S100)**  
**Advisory Notice**

## 1 Introduction

This notice contains information on software improvements and changes made by the Vanguard Applications Ware Release 7.0R00A Service Pak 7.0S100.

This notice supplements the Vanguard Applications Ware 7.0R00A Software Release Notice (Part Number T0284-01 Rev A)

This release supports several enhancements in SIP, MLPPP, Voice switching table operation, radius authentication method and DHCP server functionality. In addition known limitations have been addressed and resolved.

## 2 Install Service Pack

### Executable File

Follow these steps to install the Service Pack 7.0.S100 patch executable file:

#### Note

For more detailed patch installation instructions, refer to the *Vanguard Software Builder Manual* (Part Number T0030).

### Step Action

**1** If you have not already done so, install Vanguard Software Builder from any Vanguard Release 7.0.R000 CD-ROM (**Part Number 72608-38 A**).

**2** Download the 70S100.ZIP file from Vanguard Networks, please save the file to a local drive on your computer.

[http://www.vanguardnetworks.com/support/downloads/service\\_paks/](http://www.vanguardnetworks.com/support/downloads/service_paks/)

**3** Use WinZip® to extract the ZIP file. The 70S100.ZIP file contains the 70S100.EXE file and a copy of this advisory notice in PDF format.

**4** Run or open the 70S100.EXE executable file from your local drive.

**5** The patch executable file prompts you with installation instructions. Insert the Vanguard 7.0R00A CD-ROM into the CD-ROM drive and select its drive letter. Follow the installation instructions provided by the installer.

**Part No. 72608-38, Rev A**

**Build an Image** After you install the Service Pack Patch executable file, you must build a custom release and load the custom image. This table provides general instructions for these procedures:

**Note**

For detailed instructions on building a software image and using the Vanguard Software Loader, see the *Vanguard Software Builder Manual* (Part Number T0030) and the *Vanguard Software Loader Manual* (Part Number T0057).

**Viewing Alarms and Reports**

Alarms and Reports appear in the CTP or in your network management system. For explanations of Vanguard alarms and fatal error reports (FERs), see the *Vanguard Alarms and Reports Manual* (Part Number T0005), or visit the Alarms Search database on: [www.vanguardnetworks.com/support/](http://www.vanguardnetworks.com/support/)

**Step Action**

**1** Using Vanguard Software Builder, build a custom Release 70S100 Service Pack image by selecting the appropriate Release (7.0.S100 for example) from the **Release** drop-down menu. Select features or options that you want to include in the image.

**2** Load the custom image using the Vanguard Software Loader.

**Part No. 72608-38**, Rev A January, 2008

## **3 Summary of Enhancements**

### ***3.1 SIP Enhancements***

#### **3.1.1 SIP Registration Server (CR16974)**

- Allow SIP Registration Server IP Address under the SIP Node Parameters to be configured.
- Allow SIP Registration Server Domain Name under the SIP Node Parameters to be configured.

#### **3.1.2 SIP call transfer (CR16768)**

- Allow configurable parameter "Use Refer Method" under SIP Node Parameters, to enable/disable SIP call transfer method.

### ***3.2 Node Parameter Enhancement***

#### **3.2.1 Alternate DNS Server**

- Allow Alternate DNS Server IP Address under Node Parameters to be configured.

### ***3.3 MLPPP Enhancements***

#### **3.3.1 MLPPP Profile (CR16903)**

- Allow CIR (Committed Information Rate) to be configured in the ML/PPP profile record.

### ***3.4 CVS (Centralized Voice Switching Table) Table Enhancements***

#### **3.4.1 Voice Switch table entry, Call Parameter (CR16806)**

- Allows for blank entry to automatically insert node number and H323 hunt group number.

### ***3.5 Radius/SSH Enhancements***

#### **3.5.1 Authentication Method (CR17028)**

- Allow Authentication method "Remote-Then-Conditional-Remote" to be configured

### ***3.6 DHCP Enhancements***

#### **3.6.1 Starting Offset (CR17014)**

- Allow DHCP Subnet Auto IP address - Starting Offset. This allows the user to determine where in the range of Subnet addresses they wish to start, minimizing the use of exclusion statements.

### ***3.7 Billing Enhancement***

#### **3.7.1 Billing Record (CR17048)**

- Enhanced billing record for voice calls to display calling and called party numbers.

## 4 Limitations resolved in this release

<b>Change Request Number</b>	<b>Release Where Problem was reported</b>	<b>Interim Patch Release Replaced By 7.0S100</b>	<b>Problem Description</b>
16918	6.5P20H	None	Quad FXS voice ports report "HW BOARD FAILURE, CAUSE: BACKGROUND DIAGNOSTIC" and go into a failed state requiring a node boot to recover.
16987	6.5T25B	None	The alarm "IP.84 rte to 000000ac is DOWN is being generated" .
17022	7.0R000	None	BGP is not being imported into OSPF
17042	7.0R000	None	SSH is not authenticating with latest PuTTY releases 0.59 & 0.60.
17069	7.0R00A	None	SIP entries not always registering with SIP server upon bootup.
17046	7.0R00A	None	VG S/W Builder requires Security License to allow you to select SSH.
17013	6.5T30D	None	VG products do not allow changing to new Time Zone for Venezuela of -4:30
16996	6.5R00A	None	PPP/MLPPP link will stay down if connected across a T1 link after a T1 link cycle. Requires a port boot to recover.
17004	6.5R00A	None	RTP compression/decompression of NONTCP over MLPPP links, Does not work.
17003	6.5T30B	None	QoS trunk conditioning is not accurate.
17052	7.0R00A	None	6840/41 Unable to send packet size 1522 bytes onto the lan.
16978	6.4TD1H	None	Stats misses last digit when over 100 stations
16866	6.5T24A	6.5T24C	CCS ports configured for PSTN_XXXX were not passing cause code in RELEASE message.
16295	6.5P04E	None	SSH Server now supports window adjustment flow control compatible with putty version 0.58

## 5 Known Limitations

**CR16384** [SNMP]: Node Crash due to querying AAM port status with non-AAM port numbers such as virtual FRI, X.25 and other port types.

Workaround: None. Do not perform this type query.

**CR17077** [SSH] Using PuTTY versions 0.59 & 0.60, After logging into the Vanguard routers CTP menu, <ENTER> key works as <BACKSPACE>.

Note:

PuTTY version 0.59 introduced a new parameter, “Don’t allocate a pseudo terminal” this must be checked.

Workaround: Type Control+N right after logging into the CTP menu, thereafter <ENTER> works correctly.

**CR17080** [SSH]: Window Adjustment size issue with PuTTY 0.59 and 0.60. PuTTY 0.59 and 0.60 stops showing a Fatal Error Report or CLI getscript data.

Note: PuTTY Version 0.58 had this issue but has been resolved in this service pack (Ref CR16295 Limitations resolved).

Workaround: Needs to press <ENTER> key to resume to get the rest of the data.

**CR17081** [SSH]: Node crashes if the SSH image doesn't include Radius. When using SSH, an image must include Radius. Otherwise, the node will crash during SSH Authentication procedures.

Workaround: Include Radius in the image when using SSH.

## **6 New Applications Supported in this release**

### ***6.1 SIP Registration Server***

With the implementation of this new parameter a separate registration server can be supported. Prior to this, the SIP server had to also fill the roll of the registrar as well.

### ***6.2 Alternate DNS Server***

An Alternate DNS server is now supported by this parameter.

### ***6.3 SIP Call Transfer (\*Use Refer Method)***

Before the addition of this parameter, a call transfer was handled internally in the Vanguard router (the gateway).

With the “Refer Method” enabled, the Vanguard router (the Gateway), uses a refer message sent to the SIP server which informs the two endpoints of the transfer request. The two endpoints then connect directly.

### ***6.4 Radius Authentication Method***

A new authentication method has been introduced “Remote-then-conditional-Local” Client authenticates remotely through RADIUS. If remote authentication fails only because of RADIUS server communication loss, then attempts to authenticate client locally through the Vanguard Router.

### ***6.5 MLPPP “Tx CIR”***

This new parameter is entered in k/bits per second. When configured for a none zero value, the port will clamp down and discard all traffic that exceeds this bandwidth. This allows the user to control the maximum information rate that is allowed onto the link.

### ***6.6 Voice Switch Table Entry “Call Parameter”***

This is not a new parameter, but it is an enhancement to the way the existing parameter works. When this field is left blank and the H323\_IP\_Address is specified in the next parameter (Voice Switching Features) and a destination Ip address is specified in the last parameter of this entry, the blank call parameters will be filled in with the node number and local H323 hunt group number. This enables the switch to table entry to be shared by multiple nodes all accessing the central switch table.

## 6.7 DHCP server subnet table “Auto IP address - Starting Offset”

This allows the user to determine where in the range of Subnet addresses they wish to start, minimizing the use of exclusion statements.

## 6.8 Voice Billing Records

Enhanced billing record for voice calls to display calling and called party numbers.

Example;

(1),645671,645671,645672,124,69,0,0,6013,3385,00,BA,00,04,97, **12345,67890**

### New Billing Record fields

<b>Voice Calling Number 24 ASCII</b>	<b>Variable length string</b>	<b>Voice calling address</b>
<b>Voice Called Number 30 ASCII</b>	<b>Variable length string</b>	<b>Voice called address</b>

## 7 Configuration

### 7.1 *New DHCP Configuration Parameter*

#### 7.1.1 **New DHCP IP Address Starting offset**

\*Auto IP Addresses - Starting Offset: 0/?

Range = 0-254

Default = 0

This parameter specifies an optional offset to the start of automatically assigned IP addresses in the subnet

A complete re-boot of the router is recommended if applying a change to a running configuration

\*Note: A change to this parameter requires a node boot to take effect.

### 7.2 *New Radius Authentication method Configuration Parameter*

#### 7.2.1 **New Radius Authentication Method**

Authentication Method: Remote-then-Local/?

Range = Remote-then-Local, Local-Only, Remote-Only,  
Remote-then-conditional-Local

Default = Remote-then-Local

Authentication method the application is going to use.

Remote-then-Local:

Client authenticates remotely through RADIUS. If remote authentication fails for any reason, then attempt to authenticate client locally through the Vanguard Router.

Local-Only:

Client only authenticates locally through Vanguard Router.

Remote-Only:

Client only authenticates remotely through RADIUS.

Remote-then-conditional-Local:

Client authenticates remotely through RADIUS.

If remote authentication fails only because of RADIUS server communication loss, then attempt to authenticate client locally through the Vanguard Router.



### ***7.3 New PPP Profile Configuration Parameter***

#### **7.3.1 New PPP Tx CIR Parameter**

Tx CIR Kbit/sec rate (when non-zero): 256/?

Range = 0-2048

Default = 0

This parameter optionally specifies a Tx Committed Information Rate.

ENABLE - A non-zero CIR value (as kbits/sec)

DISABLE - The default value of zero disables Transmit CIR enforcement

Notes:

The PPP port(s) associated with this PPP/MLP profile must have MLP enabled

### ***7.4 New SIP Configuration Parameters***

#### **7.4.1 SIP Registration Server Domain Name**

SIP Registration Server Domain Name: (blank)/?

Range = 0-255 alphanumeric characters, use the space character to blank field

Default = (blank)

Enter the domain name of the SIP registration server.

Use the space bar to blank the parameter.

Set to blank in order to configure the SIP registration server IP address parameter.

If neither domain name or ip address is configured for the registration server, REGISTER requests will be sent to the active Primary/Alternate SIP server.

#### **7.4.2 SIP Registration Server IP Address**

SIP Registration Server IP Address: 0.0.0.0/?

Range = A valid IP address in dotted notation

Default = 0.0.0.0

Enter the IP address of the SIP registration server.

Set to 0.0.0.0 in order to configure the SIP registration server domain name parameter.

If neither domain name or ip address is configured for the registration server, REGISTER requests will be sent to the active Primary/Alternate SIP server.

### **7.4.3 \*Use REFER Method**

\*Use REFER Method: Enabled/?

Range = Disabled,Enabled

Default = Enabled

This parameter enables/disables SIP call transfers using the REFER method.

Disabled - SIP-to-SIP call transfers are handled internally to the gateway.

Enabled - SIP-to-SIP call transfers use the REFER method between SIP endpoints.

\*Note: A change to this parameter requires a node boot to take effect.

## ***7.5 New Node Configuration Parameters***

### **7.5.1 Alternate DNS Server IP Address**

Alternate DNS Server IP Address: 0.0.0.0/

Range = A valid IP address in dotted notation

Default = 0.0.0.0

Enter the IP address of the alternate DNS server.

All DNS queries are sent to the alternate DNS server if the primary DNS server is unreachable.