



# Advanced Gateway 2330 Secure Router 4134/2330

## Software Release 10.3.3 Release Notes

### **1. Release Summary**

Release Date: April 30, 2012

Purpose: Software maintenance release to address customer found software issues.

### **2. Notes for Upgrade**

#### **2.1 General Upgrade Information**

Please see the technical documentation for the Secure Router 4134 and 2330 version 10.3 available at: <http://www.avaya.com/support> for details on how to upgrade your Secure Router unit.

#### **File Names for This Release**

| <b>Description</b>                            | <b>File Size</b> | <b>Version</b> | <b>File Name</b> | <b>BootRom Version</b> |
|---|------------------|----------------|------------------|------------------------|
| Secure Router 4134<br>Application Image       | 29 471 420       | 10.3.3         | SR4134.Z         | 62                     |
| Secure Router 2330<br>Application Image       | 30 524 235       | 10.3.3         | SR2330.Z         | 52                     |
| Advanced Gateway<br>2330 Application<br>Image | 30 524 235       | 10.3.3         | AG2330.Z         | 52                     |

## 2.2 SNMP Server

### **WARNING**

**After the upgrade to 10.3.3, the SNMP Server will not interoperate with the SNMP clients without updating the stored configuration if upgrading from 10.3 or before. Two SNMP commands do not exist that were in previous releases which are “trap-host” and “trap-version” which are replace with the “target-address” command.**

The SNMP Server with this new release supports SNMP version 3. There are two parts of the SNMP Server configuration that must be changed to restore the full functionality of SNMP Server. The first part is enabling SNMP clients to access the SNMP Server and the second part is setting up the SNMP trap host.

The following sections showing the upgrade procedures for SNMP Server are using the following SNMP stored configuration generated under 10.3 Release.

```
snmp-server
community public rw
chassis-id SR
enable traps
exit traps
trap-host 10.1.1.1 public
snmp-enable
exit snmp-server
```

Updated SNMP Server section after following the upgrade procedures:

```
snmp-server
engine-id
local 0000000c000000007f000001
exit engine-id
community public public-sec
chassis-id SR
enable traps
exit traps
group public-group public-sec v1
access-group public-group v1 noAuth read-view mgmt notify-view all-mibs
target-address v1addr 10.1.1.1 group-params group-tag timeout 1500 retry-count 3 remote-port 162
target-params group-params public-sec v1 noAuth
target-params group-params public-sec v1 noAuth
notify group-tag group-tag trap
notify-filter group-profile 1.3 included
notify-profile group-params group-profile
view mgmt 1.3.6.1 included
view all-mibs 1 included
snmp-enable
exit snmp-server
```

### **2.2.1 Configuring SNMP for version 1 access to the SNMP Server**

The SNMP community command has changed under this new release and requires a series of commands to enable an equivalent access for SNMP client to access SNMP Server.

**Procedure Steps****Step    Action**

- 1      To enter the configuration mode, enter:  
      `conf i gure t er mi nal`
- 2      To enter the SNMP Server configuration, enter:  
      `snmp- server`
- 3      Delete the previous community command, enter:  
      `no community publ ic rw`
- 4      Specify the community string with security level, enter:  
      `communi ty publ ic publ ic- sec`
- 5      Specify the group with the same security level and version 1, enter:  
      `group publ ic- group publ ic- sec v1`
- 6      Specify the access to the group, enter:  
      `access- group publ ic- group v1 noAuth read mgmt not ify all- mi bs`
- 7      To specify the read access, enter:  
      `vi ew mgmt 1. 3. 6. 1 i ncl uded`
- 8      To specify the notify access, enter:  
      `view all- mibs 1 i ncl uded`
- 9      To exit the SNMP Server configuration mode, enter:  
      `exi t`

**2.2.2 SNMP Server Configuration changes needed to support SNMP Trap Host****Procedure Steps****Step    Action**

- 1      To enter the configuration mode, enter:  
      `conf i gure t er mi nal`
- 2      To enter the SNMP Server configuration, enter:  
      `snmp- server`
- 3      Specify target parameters security, enter:  
      `target-params group-params public-sec v1 noAuth`
- 4      Specify the trap host address, enter:  
      `target-address vladdr 10.1.1.1 group-params group-tag`
- 5      Specify the trap notification, enter:  
      `notify group-tag group-tag trap`
- 6      Specify the notify profile, enter:  
      `notify-profile group-params group-profile`
- 7      To specify the notify filter, enter:  
      `notify-filter group-profile 1.3 i ncl uded`
- 8      To exit the SNMP Server configuration mode, enter:  
      `exi t`

## **2.3 SSM Upgrade procedure if upgrading from Release before 10.3**

Note:

1. These steps are applicable and need to be executed only when upgrading from 10.2.x to 10.3.x. These steps from not needed when upgrading from 10.3.x to 10.3.x
2. When SSM is disabled and enabled, then SSM configuration goes away, so make sure to note down previous SSM configuration.

Here are steps –

1. Disable the ssm if running.
  - a. Use command “SR# show ssm sip-server status” to confirm if SSM is running or not.
  - b. Use command “SR/configure/voice/service/voip/ssm# no enable” to disable SSM if it is running.
2. Remove SSM database using CLI “SR# clear ssm database”
3. Enable SSM using CLI “SR/configure/voice/service/voip/ssm# enable”
4. Perform SSM configuration as needed.

## **2.4 Converting between Advanced Gateway and Secure Router**

Both the Secure Router 2330 and Advanced Gateway 2330 hardware support the Secure Router and Advanced Gateway Product with the appropriate licensing and software support.

The "file version" command now shows both the version of the image and whether the image is for the Secure Router 2330 or Advanced Gateway 2330 product. The output of the command looks at follows:

```
host# file version
```

WARNING :

Do not remove the Compact Flash during this process  
Do not reboot this device during this process

Versions of files in /cf0/:

```
Filename:      Version:
-----
found compressed file - skipping file body checksum
SR2330.Z      10.3.3  Image Type = Secure Router
found compressed file - skipping file body checksum
AG2330.Z      10.3.3  Image Type = Advance Gateway
```

The show system licenses display in /cf0/:

## 2.4.1 Converting an Advanced Gateway to Secure Router

Converting the Advanced Gateway to Secure Router involves the following steps:

- Acquire an Advanced Gateway Upgrade License for Secure Router through Avaya Customer Support
- Install the Secure Router Software (SR2330.Z) on the 2330
- Set Boot Image to SR2330.Z
- Verify Boot Image with “file version” command
- configure system license to Secure Router
- system reboots as a Secure Router 2300

For acquiring the Advanced Gateway license to convert to the Secure Router product you will need the serial number of the Advanced Gateway. This is the Serial Number of slot 0 not the Chassis Serial Number. To determine the serial number of slot 0 use the **show chassis** command. The following page shows the output of the command and the actual serial number of slot 0 of this Advanced Gateway is highlighted:

```
host# show chassis
Chassis Model: AG2330
Chassis Operational Status: NORMAL
```

```
Chassis Serial number: LBNNTMJX9600GP
Chassis Rev: 11
```

| Slot/SubSlot | Card-Type | Status  | Serial#   |
|--------------|-----------|---------|---|
| 0            | MPU_A     | NORMAL  | LBNNTMJX960080 ← <b>Serial Number Needed for Licenses</b> |
| INT          | SCIM_A    | NORMAL  | LBNNTMJX97001H  |
| INT          | PVIM_A    | NORMAL  | LBNNTMJX98001P  |
| 0/7          | SFP       | Present | ---   |
| 0/8          | SFP       | Present | ---   |

INT - Mainboard internal module.

After acquiring the conversion license number for your Advanced Gateway you will need to download the Secure Router Application Image (SR2330.Z) and Secure Router MIB file (SR2330\_10.2.2MIBs.zip) from: <http://www.avaya.com/support>. Install SR2330.Z file on either /cf0 or cf1. For the conversion process described in these release notes it will be showing the install related to /cf0. Also install the Secure Router MIB files to management console which is being used to monitor the Advanced Gateway.

Below shows the sequence of converting to the Secure Router product:

```
HOST# show version
Runtime: 10.2.2.0
Created: Jun 18 2010, 18:44:48
Type : AG Image ← current Active Product – Advanced Gateway
  Boot: 0.0.0.42 (NORMAL Boot)
NorBoot: 0.0.0.40
GolBoot: 0.0.0.42
```

| Slot/SubSlot | Card-Type | Status | CPLD-Exp | CPLD-Main |
|--------------|-----------|--------|----------|-----------|
| 0/-          | MPU_A     | NORMAL | ---      | 0x16      |

```
host# show system licenses
```

Licensed for advance gateway  
 Licensed PVIM channels = 8  
 Licensed SSM user capacity = 25

host# **file ls**

CONTENTS OF /cf0:

| size     | date        | time     | name       |
|----------|-------------|----------|------------|
| 30524235 | JUN-22-2010 | 16:51:28 | SR2330.Z   |
| 1427     | JUN-23-2010 | 17:51:34 | system.cfg |
| 30524235 | JUN-22-2010 | 17:32:36 | AG2330.Z   |

Total bytes: 90188426  
 Bytes Free on /cf0: 36118528  
 host# **file version**

WARNING :

Do not remove the Compact Flash during this process  
 Do not reboot this device during this process

Versions of files in /cf0/:

Filename:           Version:  
 -----

found compressed file - skipping file body checksum  
 SR2330.Z           10.3.3.0       Image Type = Secure Router ← Secure Router Image Type  
 found compressed file - skipping file body checksum  
 AG2330.Z           10.3.3.0       Image Type = Advance Gateway ← Advanced Gateway Image Type  
 HOST#

host# **configure term**

host/configure# **boot\_params**

Boot dev [ftp,cf0,cf1] : cf0  
 Boot Ethernet Port [1-8] : 0  
 Boot file name        : AG2330.Z SR2330.Z ← **Changing Boot Image to Secure Router**  
 Server name           : host  
 Server IP address     : 192.168.24.1  
 My IP address         : 192.168.24.10  
 My subnet mask        : 255.255.0.0  
 Gateway IP address    :  
 User name             : demo  
 Password             :  
 Checksum enable [0:Disable,1:Enable]: 1  
 Show header enable [0:Disable,1:Enable]: 0  
 Save bootrom image [0:AutoUpdate,1:NormalBTupd,2:GoldenBTupd,3:NoUpd]: 0  
 display mode [0:minimum 1:maximum]: 0

BOOT PARAMETERS HAVE BEEN SAVED.

DO YOU WANT TO REBOOT: (Y/N) ? **n** ← **Do NOT reboot at this point**

host/configure# system licenses convertToRouter

Warning: Prior to converting the system to the Advance Gateway functionality.

Warning: Do the following steps

Warning: Download the Secure Router Image SR2330.Z to the boot device, either /cf0 or /cf1

Warning: Set the boot device and boot file name under the boot\_params command to SR2330.Z

Warning: If you proceed, system reboots upon successful conversion  
Continue with conversion ? (y/n) : y  
Enter License key: xxxxxx ← **Enter your license key**  
Completed...  
Conversion Completed...  
system reboots in 5 seconds  
Warning: If Boot failed, you need reprogram boot menu under boot process

<Mini-Twister Micro POST>  
BTS: NORMAL  
DDR2: READ MEM 1GB  
I2C: PASS  
<Mini-Twister Micro POST Completed>  
<Mini-Twister Micro POST>  
BTS: GOLDEN  
DDR2: READ MEM 1GB  
I2C: PASS  
\*\* Boot stage: M  
<Mini-Twister Micro POST Completed>

VxWorks System Boot

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PROCESSOR : MPC8347 TBG  
SYSTEM MEMORY : 1G  
VxWorks : VxWorks5.5.1  
BSP version : 1.1/0  
Boot version : 0.0.0.42 (GOLDEN Boot)  
Creation date : May 26 2010, 11:34:27  
NORMAL Bt ver : 0.0.0.52  
GOLDEN Bt ver : 0.0.0.52  
Baseline ver : 0.0.0.52 (Internal version for checking)  
System name : SR 2330

Press any key to stop auto-boot...  
Compact Flash Device: CF0, Filename: /cf0/SR2330.Z  
MODEL: SR -- allow SR image  
MODEL: SR -- allow SR image  
[SYSTEM] Runtime image loading done  
[SYSTEM] Bootrom image loading done  
[SYSTEM] Runtime image uncompressing  
[SYSTEM] Preparing to transfer control (loader)...

Starting runtime image...

Chassis Model: SR2330  
Chassis Operational Status: BOOT

Chassis Serial number: LBNNTMJX9600GP

Chassis Rev: 11

| Slot/SubSlot | Card-Type | Status  | Serial#        |
|--------------|-----------|---------|----------------|
| 0            | MPU_A     | NORMAL  | LBNNTMJX960080 |
| INT          | SCIM_A    | NORMAL  | LBNNTMJX97001H |
| INT          | PVIM_A    | NORMAL  | LBNNTMJX98001P |
| 0/7          | SFP       | Present | ---            |
| 0/8          | SFP       | Present | ---            |

Safenet VPN option installed.  
PVDM Link set at 100M/FD

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AVAYA (Secure Router SR2330)  
Version: 10.3.3.0  
Built: Apr 26 2012, 17:28:34 PST  
login: admin  
password:

admin logged in on Thu Apr 24 18:17:50 2010 from CONSOLE  
In system.cfg, Total commands executed: 44, Total errors: 0

host# show version  
Runtime: 10.3.3.0  
Created: Apr 27 2012, 10:51:46  
Type : SR Image ← **current Active Product – Secure Router**  
Boot: 0.0.0.52 (NORMAL Boot)  
NorBoot: 0.0.0.52  
GolBoot: 0.0.0.52

| Slot/SubSlot | Card-Type  | Status | CPLD-Exp | CPLD-Main |
|--------------|------------|--------|----------|-----------|
| 0/-          | MPU_A      | NORMAL | ---      | 0x16      |
| 1/-          | ADSL_ANX_A | NORMAL | ---      | 0x3       |

host# **show system licenses**  
Licensed for router  
Licensed PVIM channels = 8  
Licensed SSM user capacity = 25  
HOST#

**The conversion to Secure Router is complete**



## 2.4.2 Converting Secure Router to Advanced Gateway

### WARNING

All the Advanced Gateway functionality already exists in the Secure Router Product. Converting a Secure Router to the Advanced Gateway product does not require a license but to restore it back to a Secure Router after converting it to an Advanced Gateway will require a license.

Converting the Secure Router to Advanced Gateway involves the following steps:

- Install the Advance Gateway Software (AG2330.Z) on the 2330
- Set Boot Image to AG2330.Z
- Verify Boot Image with “file version” command
- Configure system license to Advanced Gateway
- System reboots as an Advanced Gateway 2330

Below shows the sequence of converting to the Advanced Gateway product:

```
host# show version
Version: 10.3.3.0
Built: Apr 26 2012, 17:28:34 PST
Type : SR Image ← current Active Product – Secure Router
  Boot: 0.0.0.52 (NORMAL Boot)
NorBoot: 0.0.0.52
GolBoot: 0.0.0.52
```

```
Slot/SubSlot Card-Type Status CPLD-Exp CPLD-Main
-----
0/-   MPU_A   NORMAL --- 0x16
1/-   ADSL_ANX_A NORMAL --- 0x3
```

```
host# configure term
host/configure# boot_params
```

```
WARNING : Configuration changeBoot dev [ftp,cf0,cf1] : cf0
Boot Ethernet Port [1-8] : 0
Boot file name      : SR2330.Z AG2330.Z ← Changing Boot Image to Advanced Gateway
Server name        : host
Server IP address   : 192.168.24.1
My IP address       : 192.168.24.10
My subnet mask      : 255.255.0.0
Gateway IP address  :
User name           : demo
Password            :
Checksum enable     [0:Disable,1:Enable]: 1
Show header enable [0:Disable,1:Enable]: 0
Save bootrom image [0:AutoUpdate,1:NormalBTupd,2:GoldenBTupd,3:NoUpd]: 0
display mode        [0:minimum 1:maximum]: 1 0
```

BOOT PARAMETERS HAVE BEEN SAVED.

DO YOU WANT TO REBOOT: (Y/N) ? n ← **Do NOT reboot at this point**

HOST/configure# **system licenses convertToGateway**

Warning: Prior to converting the system to the Advance Gateway functionality.

Warning: Do the following steps

Warning: Download the Advance Gateway Image AG2330.Z to the boot device, either /cf0 or /cf1

Warning: Set the boot device and boot file name under the boot\_params command to AG2330.Z

Warning: If you proceed, system reboots upon successful conversion

Continue with conversion ? (y/n) : y

Completed...

Conversion Completed...

system reboots in 5 seconds

Warning: If Boot failed, you need reprogram boot menu under boot process

<Mini-Twister Micro POST>

BTS: NORMAL

DDR2: READ MEM 1GB

I2C: PASS

<Mini-Twister Micro POST Completed>

<Mini-Twister Micro POST>

BTS: GOLDEN

DDR2: READ MEM 1GB

I2C: PASS

\*\* Boot stage: Three

<Mini-Twister Micro POST Completed>

VxWorks System Boot

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PROCESSOR : MPC8347 TBG

SYSTEM MEMORY : 1G

VxWorks : VxWorks5.5.1

BSP version : 1.1/0

Boot version : 0.0.0.52 (GOLDEN Boot)

Creation date : Jun 10 2011, 11:09:20

NORMAL Bt ver : 0.0.0.52

GOLDEN Bt ver : 0.0.0.52

Baseline ver : 0.0.0.52 (Internal version for checking)

System name : AG 2330

Press any key to stop auto-boot...

Compact Flash Device: CF0, Filename: /cf0/AG2330.Z

MODEL: AG -- allow AG image

MODEL: AG -- allow AG image

[SYSTEM] Runtime image loading done

[SYSTEM] Bootrom image loading done

[SYSTEM] Runtime image uncompressing

[SYSTEM] Preparing to transfer control (loader)...

Starting runtime image...

Chassis Model: AG2330

Chassis Operational Status: BOOT

Chassis Serial number: LBNNTMJX9600GP

Chassis Rev: 11

| Slot/SubSlot | Card-Type | Status  | Serial#        |
|--------------|-----------|---------|----------------|
| 0            | MPU_A     | NORMAL  | LBNNTMJX960080 |
| INT          | SCIM_A    | NORMAL  | LBNNTMJX97001H |
| INT          | PVIM_A    | NORMAL  | LBNNTMJX98001P |
| 0/7          | SFP       | Present | ---            |
| 0/8          | SFP       | Present | ---            |

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 AVAYA (Advanced Gateway AG2330)  
 Version: 10.3.3.0  
 Built: Apr 26 2012, 17:28:34 PST

login:  
 In system.cfg, Total commands executed: 44, Total errors: 0  
 admin  
 password:

admin logged in on Wed Jul 27 21:27:32 2011 from CONSOLE  
 host# **show system licenses**  
 Licensed for advance gateway  
 Licensed PVIM channels = 8  
 Licensed SSM user capacity = 25

host## **show version**  
 Version: 10.3.3.0  
 Built: Apr 26 2012, 17:28:34 PST  
 Type : AG Image ← **current Active Product – Advanced Gateway**  
 Boot: 0.0.0.52 (NORMAL Boot)  
 NorBoot: 0.0.0.52  
 GolBoot: 0.0.0.52

| Slot/SubSlot | Card-Type | Status | CPLD-Exp | CPLD-Main |
|--------------|-----------|--------|----------|-----------|
| 0/-          | MPU_A     | NORMAL | ---      | 0x16      |

host#

**The conversion to Advanced Gateway is complete.**

### **3. Version of Previous Release**

Software Version 10.3.2

### **4. Compatibility**

N/A

## 5. New Features since 10.3 Release

### 5.1 Tunnel support using dynamically acquired IP Address

#### **WARNING**

**This feature only works with tunnel protection and can support only one remote dynamic IP address peer per tunnel. Only one tunnel can be setup to accept an unknown IP Address as its destination IP Address.**

This feature enables a tunnel between the branch router and head office where the branch office acquires its IP Address through the provider by DHCP. This tunnel can be setup as either an IPsec or GRE Tunnel with tunnel protection. The head office can have multiple VPN Site to Site and GRE/IPsec tunnels along with this new feature.

To show how to setup this feature on the Secure Router this section will give the procedure to update both the branch and head office as shown in Figure 1 to use a GRE tunnel with tunnel protection and OSPF to synchronize the routing between the head and branch office.

#### **5.1.1 Configuring Tunnel for Branch Office using DHCP acquired IP Address**

In this example the branch office is using SR 2330 with Ethernet 0/5 as its public DHCP acquired IP address and Ethernet 0/6 as its trusted side. The default route will be provided by DHCP and OSPF will be configured over the tunnel and redistributing static routes.

The tunnel source is set to the Ethernet name that is acquiring the DHCP address. The tunnel destination is set to the head office IP Address.

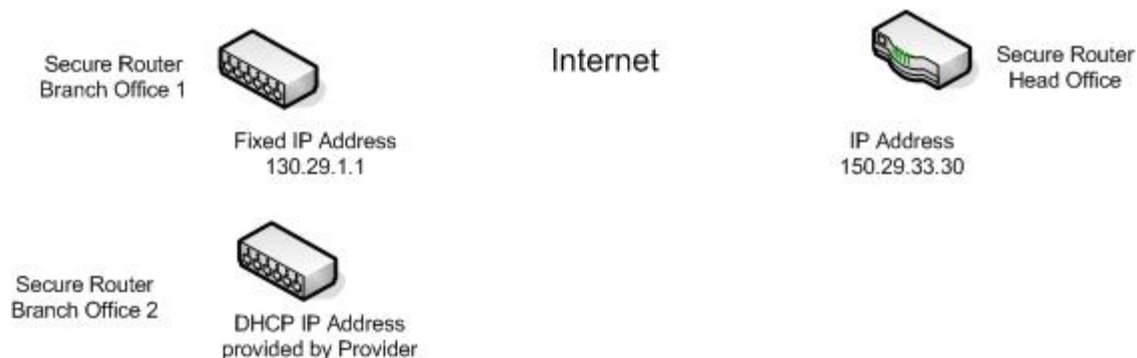


Figure 1 Network Topology with each Branch Office using a IPsec Protected Tunnel to the Head Office

## Procedure Steps

| Step | Action   |
|------|--|
| 1    | To enter the configuration mode, enter:<br><code>conf i gure t er mi na l</code>                   |
| 2    | Configure the Ethernet for DHCP, enter:<br><code>i nterface e t her net 0/5</code>                 |
| 3    | Specify to request default route, enter:<br><code>dhc p-clie nt reque st-de fault-ro uter</code>   |
| 4    | Specify to enable dhcp, enter:<br><code>dhc p-clie nt e nable</code>                               |
| 5    | To exit the Ethernet configuration, enter:<br><code>e xit</code>                                   |
| 6    | Specify tunnel configuration, enter:<br><code>i nterface t unnel ma in</code>                      |
| 7    | Specify the tunnel IP Address , enter:<br><code>i p a ddress 20.1.1.2 24</code>                    |
| 8    | Specify tunnel source address, enter:<br><code>t unnel s ource e t her net0/5</code>               |
| 9    | Specify tunnel destination address, enter:<br><code>t unnel d e stination 150.29.30.30</code>      |
| 10   | Specify tunnel type as GRE, enter:<br><code>t unnel mo de gre</code>                               |
| 11   | Specify tunnel protection, enter:<br><code>t unnel p rotection ma in ke y123</code>                |
| 12   | Specify tunnel as untrusted firewall interface, enter:<br><code>cr ypto untrus ted</code>          |
| 13   | To exit the tunnel configuration, enter:<br><code>e xit</code>                                     |
| 14   | Configure firewall internet zone, enter:<br><code>fire wall i nternet</code>                       |
| 15   | Specify Ethernet 0/ 5 on the untrusted side, enter:<br><code>i nterface e t her net0/5</code>      |
| 16   | Specify tunnel on the untrusted side, enter:<br><code>i nterface ma in</code>                      |
| 17   | Specify policy to allow icmp, enter:<br><code>p olicy 10 i n pe rmit p rotocol i c mp s elf</code> |
| 18   | To exit the policy, enter:<br><code>e xit</code>   |
| 19   | Specify policy to allow ike, enter:<br><code>p olicy 11 i n pe rmit s ervice i ke s elf</code>     |
| 20   | To exit the policy, enter:<br><code>e xit</code>   |
| 21   | To exit the firewall internet, enter:<br><code>e xit</code>  |
| 22   | Configure firewall corp zone, enter:<br><code>fire wall co rp</code>                               |
| 23   | Specify Ethernet 0/ 6 on the trusted side, enter:<br><code>i nterface e t her net0/6</code>        |
| 24   | To exit the firewall corp, enter:<br><code>e xit</code>  |
| 25   | Specify router-id for ospf, enter:<br><code>r ounter-i d 2.2.2.2</code>                            |

- 26 Specify OSPF configuration, enter:  
`router ospf 1`
- 27 Specify the tunnel network, enter:  
`network 20.1.1.0 0.0.0.255 area 0`
- 28 Specify redistribute static, enter:  
`redistribute static`
- 29 To exit the OSPF configuration, enter:  
`exit`
- 30 To exit the configuration mode, enter:  
`exit`

## 5.1.2 Configuring Tunnel for Head Office

In this example the head office is using SR 4134 with Ethernet 0/1 as its untrusted interface that the tunnel is configured on and Ethernet 0/2 is the interface that OSPF interfaces with the head office OSPF network. The default route is 150.29.30.1 which is over Ethernet 0/1.

The tunnel destination is set 0.0.0.0 (allow any to connect) and the tunnel source is set to the IP Address of Ethernet 0/1.

### Procedure Steps

| Step | Action  |
|------|---|
| 1    | To enter the configuration mode, enter:<br><code>configure terminal</code>              |
| 2    | Configure the untrusted Ethernet, enter:<br><code>interface ethernet 0/1</code>         |
| 3    | Specify to request default route, enter:<br><code>ip address 150.29.30.30 29</code>     |
| 4    | To exit the Ethernet configuration, enter:<br><code>exit</code>                         |
| 5    | Configure the trusted Ethernet, enter:<br><code>interface ethernet 0/2</code>           |
| 6    | Specify to request default route, enter:<br><code>ip address 130.20.1.1 24</code>       |
| 7    | To exit the Ethernet configuration, enter:<br><code>exit</code>                         |
| 8    | Specify the default static route, enter:<br><code>ip route 0.0.0.0/0 150.29.30.1</code> |
| 9    | Specify tunnel configuration, enter:<br><code>interface tunnel branch2</code>           |
| 10   | Specify the tunnel IP Address , enter:<br><code>ip address 20.1.1.1 24</code>           |
| 11   | Specify tunnel source address, enter:<br><code>tunnel source 150.29.30.31</code>        |
| 12   | Specify tunnel destination address, enter:<br><code>tunnel destination 0.0.0.0</code>   |
| 13   | Specify tunnel type as GRE, enter:<br><code>tunnel mode gre</code>                      |
| 14   | Specify tunnel protection, enter:<br><code>tunnel protection br2 key123</code>          |
| 15   | Specify tunnel as untrusted firewall interface, enter:                                  |

```

        crypto untrusted
16    To exit the tunnel configuration, enter:
        exit
17    Configure firewall internet zone, enter:
        firewall internet
18    Specify Ethernet 0/1 on the untrusted side, enter:
        interface ethernet0/1
19    Specify tunnel on the untrusted side, enter:
        interface branch2
20    Specify policy to allow icmp, enter:
        policy 10 in permit protocol icmp self
21    To exit the policy, enter:
        exit
22    Specify policy to allow ike, enter:
        policy 11 in permit service ike self
23    To exit the policy, enter:
        exit
24    To exit the firewall internet, enter:
        exit
25    Configure firewall internet zone, enter:
        firewall corp
26    Specify Ethernet 0/ 2 on the trusted side, enter:
        interface ethernet0/2
27    To exit the firewall corp, enter:
        exit
28    Specify router-id for ospf, enter:
        router-id 1.1.1.1
29    Specify OSPF configuration, enter:
        router ospf 1
30    Specify the tunnel network, enter:
        network 20.1.1.0 0.0.0.255 area 0
31    Specify the corp network, enter:
        network 130.20.1.0 0.0.0.255 area 0
32    To exit the OSPF configuration, enter:
        exit
33    To exit the configuration mode, enter:
        exit

```

## **5.2 OSPF Inbound Filtering using Route Maps with Distribution List**

OSPF supports route maps to filter outgoing routes that are sent by the redistribute command under the ospf section in the prior releases. This release enables the administrator to filter incoming OSPF routes received and block them from being set into the routing table. The new command distribution-list under the ospf section accepts a route map to specify what routes to accept. Both commands accept route-map which consists of access list entries of routes to permit and deny.

In this example the head office is using SR 4134 with Ethernet 0/1 as its untrusted interface that have a number of site to site VPN tunnels are configured on and Ethernet 0/2 is the interface that OSPF interfaces with the head office OSPF network. The remote networks on the VPN site to site tunnels need to be blocked so that the VPN site to site tunnels work.

**Procedure Steps****Step    Action**

- 1      To enter the configuration mode, enter:  
      `configure terminal`
- 2      Configure the untrusted Ethernet, enter:  
      `interface ethernet 0/1`
- 3      Specify to request default route, enter:  
      `ip address 150.29.30.30 29`
- 4      To exit the Ethernet configuration, enter:  
      `exit`
- 5      Configure the trusted Ethernet, enter:  
      `interface ethernet 0/2`
- 6      Specify to request default route, enter:  
      `ip address 130.20.1.1 24`
- 7      To exit the Ethernet configuration, enter:  
      `exit`
- 8      Specify the default static route, enter:  
      `ip route 0.0.0.0/0 150.29.30.1`
- 9      Specify a network to block in the access list, enter:  
      `access-list ospf-list-in deny 133.22.1.0/24`
- 10     Specify a different network to block in the access list, enter:  
      `access-list ospf-list-in deny 133.23.1.0/24`
- 11     Specify a different network to block in the access list, enter:  
      `access-list ospf-list-in deny 133.24.1.0/24`
- 12     Specify allowing the rest through in the access list, enter:  
      `access-list ospf-list-in permit any`
- 13     Specify the route map, enter:  
      `route-map ospf-filter-in permit 1`
- 14     Specify the access list to match against, enter:  
      `match ip address ospf-list-in`
- 15     To exit the route map configuration, enter:  
      `exit`
- 16     Specify router-id for ospf, enter:  
      `router-id 1.1.1.1`
- 17     Specify OSPF configuration, enter:  
      `router ospf 1`
- 18     Specify the corp network, enter:  
      `network 130.20.1.0 0.0.0.255 area 0`
- 19     Specify the routes to block, enter:  
      `distribution-list route-map ospf-filter-in in`
- 20     To exit the OSPF configuration, enter:  
      `exit`
- 21     To exit the configuration mode, enter:

**5.3 Secure FTP client (SFTP)**

A Secure FTP client is able under the new command `sftp`. There is support for only one SFTP client at a time and it does not support ipv6 addresses. The `sftp` command is at the root of the command tree. The syntax is as follows:

```
sftp hostname <cipher> <mac> <port>
```



| <b>Keyword Parameter</b> | <b>Value</b>  | <b>Type</b> | <b>Default Value</b> |
|--------------------------|---|-------------|----------------------|
| hostname                 | IP Address or<br>username@IP Address<br>If only IP Address is<br>specified assumes<br>logged in username. | Required    | none                 |
| cipher                   | none<br>des<br>blowfish<br>blowfish-cbc<br>3des-cbc<br>aes128-cbc<br>aes192-cbc<br>aes256-cbc             | Optional    | aes128-cbc           |
| mac                      | hmac-sha1<br>hmac-sha1-96<br>hmac-md5<br>hmac-md5-96<br>hmac-ripemd160                                    | Optional    | hmac-sha1            |
| port                     | 1 - 65535   | Optional    | 22                   |

### **5.4 SNMP Version 3**

The SNMP Version 3 has the following restrictions:

- To configure SNMP Server requires the administrator to be Level -1 User.
- SNMP sets are not supported
- ACLv6 views are not supported
- The maximum recommend number of SNMP communities, users, groups, target addresses, and views are:
  1. Community            16
  2. Users                    16
  3. Groups                 32
  4. Target Addresses    10
  5. Views                    512

SNMP configuration commands have many common parameters that specify a profile for both accessing and sending traps to a client. The commands are the same for all versions of SNMP except the community command for version 1 and 2c replaces the user command.

The common parameters are as follows and used in the sample configurations following:

**SECURITY\_NAME** - defined in the user command for snmp version 3 and in the community command in both version 1 and 2c. This name is used in the group and target\_params commands.

GROUP\_NAME is defined in the group command. This value is used in the access-group command.

SNMP\_VERSION is defined in the group command. This value is used in the access-group and target-params. The possible values are v1, 2c or v3.

SECURITY\_LEVEL is defined in the access-group command. This value is used in the target-params command. The possible values are NoAuth, AuthNoPriv, or AuthPriv. SNMP versions 1 and 2c only support NoAuth. The auth and priv configuration is specified in the user command.

TARGET\_PARAM\_NAME is specified in the target-params command. This value is used in the target-address and notify-profile command.

NOTIFY\_TAG is defined in the notify command. This value is used in the target-address command.

PROFILE\_NAME is defined in the notify-profile command. This value is used in notify-filter.

VIEW\_NAME is defined in the access-group command. This value is used in the view command. The VIEW\_NAME values can be different in the read, write\_view(not supported), and notify\_view parameter of the access-group command and define separate read and notify view inclusions and exclusions depending on the VIEW\_NAME.

### Sample SNMP Version 1 or 2c configuration

```
community community_name SECURITY_NAME
group GROUP_NAME SECURITY_NAME SNMP_VERSION
access-group GROUP_NAME SNMP_VERSION SECURITY_LEVEL read VIEW_NAME write-view VIEW_NAME notify-view
VIEW_NAME
target-params TARGET_PARAM_NAME SECURITY_NAME SNMP_VERSION SECURITY_LEVEL
target-address user1addr 47.152.227.120 TARGET_PARAM_NAME NOTIFY_TAG timeout 1500 retry-count 3
notify user1tag NOTIFY_TAG traps
notify-profile TARGET_PARAM_NAME PROFILE_NAME
notify-filter PROFILE_NAME 1.3.6.1 included
view VIEW_NAME 1.3 include
view VIEW_NAME 1.3.6.1.3.5 exclude
enable traps enable-all
```

### Sample SNMP Version 3 configuration

```
user SECURITY_NAME
group GROUP_NAME SECURITY_NAME SNMP_VERSION
access-group GROUP_NAME SNMP_VERSION SECURITY_LEVEL read VIEW_NAME write-view VIEW_NAME notify-view
VIEW_NAME
target-params TARGET_PARAM_NAME SECURITY_NAME SNMP_VERSION SECURITY_LEVEL
target-address user1addr 47.152.227.120 TARGET_PARAM_NAME NOTIFY_TAG timeout 1500 retry-count 3
notify user1tag NOTIFY_TAG traps
notify-profile TARGET_PARAM_NAME PROFILE_NAME
notify-filter PROFILE_NAME 1.3.6.1 included
view VIEW_NAME 1.3 include
view VIEW_NAME 1.3.6.1.3.5 exclude
enable traps enable-all
```

Under SNMP version 3 the SNMP user accounts can be setup with different security and authentication methods. The following type of users can be setup:

- User with noAuth (used for v1 and 2vC)
- User with sha1authNoPriv
- User with md5authNoPriv
- User with sha1authdesPriv
- User with md5authdesPriv
- User with sha1auth3desPriv
- User with md5auth3desPriv
- User with sha1authaes128Priv
- User with md5authaes128Priv

Below show sample configuration for a SNMP user setup for each of these modes:

```
Community community_name USER_NAME
group GROUP_NAME USER_NAME SNMP_VERSION
access-group GROUP_NAME SNMP_VERSION SECURITY_LEVEL read VIEW_NAME write-view VIEW_NAME notify-view
VIEW_NAME
target-params TARGET_PARAM_NAME USER_NAME SNMP_VERSION SECURITY_LEVEL
target-address user1addr 47.152.227.120 TARGET_PARAM_NAME NOTIFY_TAG timeout 1500 retry-count 3
notify user1tag NOTIFY_TAG traps
notify-profile TARGET_PARAM_NAME PROFILE_NAME
notify-filter PROFILE_NAME 1.3.6.1 included
view VIEW_NAME 1.3 in
enable traps enable-all
```

```
user USER_NAME
group GROUP_NAME USER_NAME SNMP_VERSION
access-group GROUP_NAME SNMP_VERSION SECURITY_LEVEL read VIEW_NAME write-view VIEW_NAME notify-view
VIEW_NAME
target-params TARGET_PARAM_NAME USER_NAME SNMP_VERSION SECURITY_LEVEL
target-address user1addr 47.152.227.120 TARGET_PARAM_NAME NOTIFY_TAG timeout 1500 retry-count 3
notify user1tag NOTIFY_TAG traps
notify-profile TARGET_PARAM_NAME PROFILE_NAME
notify-filter PROFILE_NAME 1.3.6.1 included
view VIEW_NAME 1.3 in
enable traps enable-all
```

User with noAuth:

```
-----
user user1
group guser1 user1 v3
access-group guser1 v3 noAuth read two write-view two notify-view two
target-params user1params user1 v3 noAuth
target-address user1addr 47.152.227.120 user1params user1tag timeout 1500 retry-count 3
notify user1tag user1tag traps
notify-profile user1params user1profile
notify-filter user1profile 1.3.6.1 included
view two 1.3 in
enable traps enable-all
```

User with sha1authNoPriv:

```
-----
user usersha1 auth-type sha1 auth-password shapassword
group gusersha1 usersha1 v3
access-group gusersha1 v3 authNoPriv read two write-view two notify-view two
target-params usersha1params usersha1 v3 authNoPriv
```

```
target-address usersha1addr 47.152.227.120 usersha1params usersha1tag timeout 1500 retry-count 3
notify usersha1tag usersha1tag traps
notify-profile usersha1params usersha1profile
notify-filter usersha1profile 1.3.6.1 included
enable traps enable-all
```

User with md5authNoPriv:

```
-----
user usermd5 auth-type md5 auth-password md5password
group gusermd5 usermd5 v3
access-group gusermd5 v3 authNoPriv read two write-view two notify-view two
target-params usermd5params usermd5 v3 authNoPriv
target-address usermd5addr 47.152.227.120 usermd5params usermd5tag timeout 1500 retry-count 3
notify usermd5tag usermd5tag traps
notify-profile usermd5params usermd5profile
notify-filter usermd5profile 1.3.6.1 included
enable traps enable-all
```

User with shalauthdesPriv:

```
-----
user usersha1des auth-type sha1 auth-password shapassword encrypt-type des encrypt-password despassword
group gusersha1des usersha1des v3
access-group gusersha1des v3 authPriv read two write-view two notify-view two
target-params usersha1desparams usersha1des v3 authPriv
target-address usersha1desaddr 47.152.227.120 usersha1desparams usersha1destag timeout 1500 retry-count 3
notify usersha1destag usersha1destag traps
notify-profile usersha1desparams usersha1desprofile
notify-filter usersha1desprofile 1.3.6.1 included
enable traps enable-all
```

User with md5authdesPriv:

```
-----
user usermd5des auth-type md5 auth-password md5password encrypt-type des encrypt-password despassword
group gusermd5des usermd5des v3
access-group gusermd5des v3 authPriv read two write-view two notify-view two
target-params usermd5desparams usermd5des v3 authPriv
target-address usermd5desaddr 47.152.227.120 usermd5desparams usermd5destag timeout 1500 retry-count 3
notify usermd5destag usermd5destag traps
notify-profile usermd5desparams usermd5desprofile
notify-filter usermd5desprofile 1.3.6.1 included
enable traps enable-all
```

User with shalauth3desPriv:

```
-----
user usersha13des auth-type sha1 auth-password shapassword encrypt-type 3des encrypt-password 3despassword
group gusersha13des usersha13des v3
access-group gusersha13des v3 authPriv read two write-view two notify-view two
target-params usersha13desparams usersha13des v3 authPriv
target-address usersha13desaddr 47.152.227.120 usersha13desparams usersha13destag timeout 1500 retry-count 3
notify usersha13destag usersha13destag traps
notify-profile usersha13desparams usersha13desprofile
notify-filter usersha13desprofile 1.3.6.1 included
enable traps enable-all
```

User with md5auth3desPriv:

```
-----
user usermd53des auth-type md5 auth-password md5password encrypt-type 3des encrypt-password 3despassword
group gusermd53des usermd53des v3
access-group gusermd53des v3 authPriv read two write-view two notify-view two
target-params usermd53desparams usermd53des v3 authPriv
target-address usermd53desaddr 47.152.227.120 usermd53desparams usermd53destag timeout 1500 retry-count 3
notify usermd53destag usermd53destag traps
notify-profile usermd53desparams usermd53desprofile
notify-filter usermd53desprofile 1.3.6.1 included
enable traps enable-all
```

User with shalauthaes128Priv:

```
-----
user usersha1aes128 auth-type sha1 auth-password shapassword encrypt-type aes128 encrypt-password aes128password
group gusersha1aes128 usersha1aes128 v3
access-group gusersha1aes128 v3 authPriv read two write-view two notify-view two
target-params usersha1aes128params usersha1aes128 v3 authPriv
target-address usersha1aes128addr 47.152.227.120 usersha1aes128params usersha1aes128tag timeout 1500 retry-count 3
notify usersha1aes128tag usersha1aes128tag traps
notify-profile usersha1aes128params usersha1aes128profile
notify-filter usersha1aes128profile 1.3.6.1 included
enable traps enable-all
```

User with md5authaes128Priv:

```
-----
user usermd5aes128 auth-type md5 auth-password md5password encrypt-type aes128 encrypt-password aes128password
group gusermd5aes128 usermd5aes128 v3
access-group gusermd5aes128 v3 authPriv read two write-view two notify-view two
target-params usermd5aes128params usermd5aes128 v3 authPriv
target-address usermd5aes128addr 47.152.227.120 usermd5aes128params usermd5aes128tag timeout 1500 retry-count 3
notify usermd5aes128tag usermd5aes128tag traps
notify-profile usermd5aes128params usermd5aes128profile
notify-filter usermd5aes128profile 1.3.6.1 included
enable traps enable-all
```

## **5.4.1 New CLI SNMP Configuration Commands**

The SNMP configuration for version v1, 2c does not specify any user configuration. But must still setup the group access and

### **5.4.1.1 community**

This command configures a v1/v2 community string and aligns it to a security name

#### **Syntax**

*[no] community [community-name] [security- name]*

| <b>Keyword Parameter</b> | <b>Value</b>                | <b>Type</b> | <b>Default Value</b> |
|--------------------------|-----------------------------|-------------|----------------------|
| community-name           | String<br>max 32 characters | Required    | none                 |
| security-name            | String<br>max 32 characters | Required    | none                 |

#### **Example:**

SR/configure/snmp-server#community public publicsec-name

### **5.4.1.2 engine-id**

This command configures a local or a remote engine id. The remote engine id are used to allow SNMP v3 informs to be set up to a remote NMS

#### **Syntax**

*[no] engine-id [local [ id ]] | [remote [id] [remote host ipAddr] ]*

| Keyword Parameter | Value   | Type                        | Default Value |
|-------------------|---|-----------------------------|---------------|
| Type              | Local<br>remote                                 | Required                    | none          |
| id                | String<br>min 5 characters<br>max 32 characters | Required                    | none          |
| Ip Addresss       | Ip address in dot<br>format (a.b.c.d)           | Required<br>for remote type | none          |
| remote-port       | min 1024<br>max 65535                           | Optional<br>for remote type | 162           |

**Example:**

```
SR/configure/snmp-server#engine-id local 000c0a0a0ac8
SR/configure/snmp-server#engine-id remote 000c0a0a0a2f 10.4.4.3
```

**5.4.1.3 user**

Add a v3 user

**Syntax:**

```
[no] user [user name] <auth-type {md5 | sha1} [auth-pass] [password] < encrypt-type {aes128 | des |
3des} [encrypt-pass] [password]> <engineid [remote id]>
```

| Keyword Parameter | Value                       | Type     | Default Value  |
|-------------------|-----------------------------|----------|--|
| security-name     | String<br>max 32 characters | Required | none   |
| auth-type         | md5<br>sha1                 | Optional | none   |
| auth-password     | String<br>max 32 characters | Optional | none<br>Requires auth-type to<br>be specified if used    |
| encrypt-type      | des<br>3des<br>aes128       | Optional | none   |
| encrypt-password  | String<br>max 32 characters | Optional | none<br>Requires encrypt-type<br>to be specified if used |
| engineid          | String<br>max 64 characters | Optional | none   |

**Example:**

```
SR/configure/snmp-server#user bill
SR/configure/snmp-server#user nancy auth-type md5 auth-pass 456pass1
SR/configure/snmp-server#user tasman engineid 000c0a0a0a98
```

**5.4.1.4 group**

Assign a v1/v2 security name or a v3 user to a group

**Syntax:**

*[no] group [group name] [security name | user name] [version]*

| Keyword Parameter | Value                       | Type     | Default Value |
|-------------------|-----------------------------|----------|---------------|
| groupname         | String<br>max 32 characters | Required | none          |
| username          | String<br>Max 32 characters | Required | none          |
| snmp version      | v1<br>v2c<br>v3             | Required | none          |

**Example:**

```
SR/configure/snmp-server#group v1group publicsec-name v1
SR/configure/snmp-server#group v3group v3
```

**5.4.1.5 access-group**

Define access level to a group

**Syntax:**

*[no] access-group [group name] [version] [security-level] <read-view [viewname] > <write-view [viewname]> <notify-view [viewname]> <acl-view [IP rule set name]>*

| Keyword Parameter | Value                            | Type     | Default Value |
|-------------------|----------------------------------|----------|---------------|
| groupname         | String<br>max 32 characters      | Required | none          |
| snmp version      | v1<br>v2c<br>v3                  | Required | none          |
| security level    | noAuth<br>authNoPriv<br>authPriv | Required | none          |
| read-view         | String<br>max 32 characters      | Optional | none          |
| write-view        | String<br>max 32 characters      | Optional | none          |
| notify-view       | String<br>max 32 characters      | Optional | none          |
| acl-view          | String<br>max 20 characters      | Optional | none          |

**Example:**

```
SR/configure/snmp-server#access-group v1group v1 noAuth read-view test notify-view testnotify
SR/configure/snmp-server#access-group v3group v3 authNoPriv read-view v3view notify-view v3view
acl-view ipv4acl
```

### **5.4.1.6 view**

Configure a view subtree

**Syntax:**

*[no] view [view-name] [OID or the sub-tree] [option]*

| <b>Keyword Parameter</b> | <b>Value</b>                | <b>Type</b> | <b>Default Value</b> |
|--------------------------|-----------------------------|-------------|----------------------|
| viewname                 | String<br>max 32 characters | Required    | none                 |
| sub-tree                 | OID or SNMP sub-tree        | Required    | none                 |
| action                   | excluded<br>included        | Required    | none                 |

**Example:**

```
SR/configure/snmp-server#view test iso included
SR/configure/snmp-server#view test ipAddrTable excluded
SR/configure/snmp-server#view test system excluded
SR/configure/snmp-server#view test 1.3.6.1.2.1.1.0 included
```

### **5.4.1.7 target-address**

Configure target address attributes for traps/notifications and informs

**Syntax:**

*[no] target-address [target addr name] [NMS ip] [target params name] [target tag name] <retry-count> <timeout> <NMS port>*

| <b>Keyword Parameter</b> | <b>Value</b>                          | <b>Type</b> | <b>Default Value</b> |
|--------------------------|---------------------------------------|-------------|----------------------|
| groupname                | String<br>max 32 characters           | Required    | none                 |
| Address-name             | String<br>Max 32 characters           | Required    | none                 |
| IP Addresss              | IP address in dot<br>format (a.b.c.d) | Required    | none                 |
| param-name               | String<br>max 32 characters           | Required    | none                 |
| tag-list                 | String<br>max 32 characters           | Required    | none                 |
| timeout                  | String<br>max 32 characters           | Optional    | 1500                 |
| retry-count              | String<br>max 20 characters           | Optional    | 3                    |
| remote-port              | min 1024<br>max 65535                 | Optional    | 162                  |

**Example:**

```
SR/configure/snmp-server#target-address Addr1 10.1.1.1 Param1 BranchDevice
```



**5.4.1.8 target-params**

Configure target parameters

**Syntax:**

*[no] target-params [target params name] [v1/v2 security name / v3 username] [version] [security-level]*

| <b>Keyword Parameter</b> | <b>Value</b>                     | <b>Type</b> | <b>Default Value</b> |
|--------------------------|----------------------------------|-------------|----------------------|
| param-name               | String<br>max 32 characters      | Required    | none                 |
| security-name            | String                           |             |                      |
| snmp version             | v1<br>v2c<br>v3                  | Required    | none                 |
| security-level           | noAuth<br>authNoPriv<br>authPriv | Required    | none                 |

**Example:**

SR/configure/snmp-server#target-params Param1 nortel v3 authNoPriv

**5.4.1.9 notify**

Define notify parameters

**Syntax:**

*[no] notify [notify name] [target tag] [traps | informs ]*

| <b>Keyword Parameter</b> | <b>Value</b>                | <b>Type</b> | <b>Default Value</b> |
|--------------------------|-----------------------------|-------------|----------------------|
| notify-name              | String<br>max 32 characters | Required    | none                 |
| notify-tag               | String<br>max 32 characters | Required    | none                 |
| type-value               | traps<br>inform             | Required    | none                 |

**Example:**

SR/configure/snmp-server#notify Notification BranchDevice traps

**5.4.1.10 notify-profile**

Define profiles for a notify

**Syntax:**

*[no] notify-profile [target params name] [profile name]*

| <b>Keyword Parameter</b> | <b>Value</b> | <b>Type</b> | <b>Default Value</b> |
|--------------------------|--------------|-------------|----------------------|
|--------------------------|--------------|-------------|----------------------|

|              |                             |          |      |
|--------------|-----------------------------|----------|------|
| params-name  | String<br>max 32 characters | Required | none |
| profile-name | String<br>max 32 characters | Required | none |

**Example:**

SR/configure/snmp-server#notify-profile Param1 Profile1

**5.4.1.11 notify-filter**

Filter rules for notify

**Syntax:**

*[no] notify-filter [profile name] [OID / subtree] [option]*

| <b>Keyword Parameter</b> | <b>Value</b>                | <b>Type</b> | <b>Default Value</b> |
|--------------------------|-----------------------------|-------------|----------------------|
| Profile-name             | String<br>max 32 characters | Required    | none                 |
| sub-tree                 | OID or SNMP sub-tree        | Required    | none                 |
| action                   | excluded<br>included        | Required    | none                 |

**Example:**

SR/configure/snmp-server#notify-filter Profile1 1.3.6.1 included

**5.4.2 CLI Display Commands**

|                            |   |
|----------------------------|---|
| show snmp communities      | Displays the communities and associated security name   |
| show snmp target-address   | Displays the Target address attributes  |
| show snmp views            | Displays all the views configured   |
| show snmp view [view name] | Displays the specified view configured  |
| show snmp target-params    | Displays info about the target parameters   |
| show snmp users            | Displays the information of all users configured with type of authentication / encryption if any. |
| show snmp access-group     | Displays access-privilege of groups configured  |
| show snmp user-groups      | Display the association between groups and v1/v2 communities or v3 usernames.                     |

|                          |   |
|--------------------------|---|
| show snmp engine-id      | Display the identification of the local SNMP engine and all remote engines that have been configured on the router. |
| show snmp notify         | List of notify tables   |
| show snmp notify-filter  | Notify table filters configured   |
| show snmp notify-profile | Profiles of notify table  |

## **5.5 Proxy ARP support over Vlans**

Proxy ARP is now configurable for Vlans and is configured under the ip sub-tree of vlan configuration. A new cli command “show ip proxy-arp” will display the interfaces configured with proxy-arp.

### **5.5.1 Cli Commands**

#### **5.5.1.1 ip proxy-arp**

This command configures proxy arp under both Ethernet and vlan interfaces. The ip proxy\_arp command under the Ethernet interface has been deprecated. The ip proxy\_arp command will still be accepted and work properly in existing configuration files but the new command ip proxy-arp command will be stored in new configuration files generated with this and future releases.

**Syntax**

*[no] ip proxy-arp*

**Example:**

```
host/configure/vlan vlan200##ip proxy-arp
```

#### **5.5.1.2 show ip proxy-arp**

This command shows the interfaces that are configured to support proxy-arp

**Syntax**

*show ip proxy-arp*

**Example:**

```
host #show ip proxy-arp
Proxy Arp Interfaces
  ethernet6
  vlan202
host#
```

## 6. Problems Resolved in the 10.3.3 Release

| Bug Reference | Subsystem | Description  |
|---------------|-----------|--|
| wi00905714    | VOIP      | Attendant Transfer failed among 12xx & 96xx due to wrong 'Replace' header parse by SSM   |
| wi00951356    | VOIP      | Attendant Transfer fails between 96x0 phones when Transferor & Transferee are on different transports  |
| wi00954235    | VPN       | IPTK increments the SDP version in 200OK even if SDP content is same in both 183 and 200   |
| wi00958083    | VOIP      | Phone Call pickup issue  |
| wi00958136    | VPN       | Memory leak in firewall related to traffic classified as Other Protocol  |
| wi00960016    | VPN       | 9640 VPN phones connected to SR2330 fail every two weeks   |
| wi00961430    | VOIP      | SIP to PSTN call transfer not working  |
| wi00961771    | Routing   | ROUTING warn: NSM: FIB[default:10.50.254.0/24]: Bulk Add FIB in h/w  |
| wi00967348    | ACL       | Random traffic loss on Ethernet switch card when packet-filters are used   |
| wi00971313    | Platform  | Bundles flap on 8 port cards in E1 mixed mode  |
| wi00971316    | Platform  | SR 2330 IIC driver potential lockup given a specific read/write sequence   |
| wi00971321    | CLI       | SSH connection freezes when "show bgp ipv4" command is executed  |
| wi00971401    | GRE       | Router crashes when sending large pings across a GRE/protected tunnel with tunnel debug enabled  |
| wi00971695    | CLI       | SSH connections hang with multiple SSH sessions and various show commands are run  |
| wi00973571    | CLI       | WAN module configuration syntax example on CLI are invalid   |
| wi00974876    | VOIP      | Active FXS-FXS call will drop while failback from Failover mode to Normal Mode with SM-6.2   |
| wi00977347    | Firewall  | Router crashes in NAT  |
| wi00978652    | SIP       | IKE key can not contain a "n" character, if it does, when you try to save the config it will reboot  |
| wi00979418    | SNMP      | SNMP does not give the proper value for the IfAlias field under the ifXTable(1.3.6.1.2.1.31.1.1)   |
| wi00979934    | VPN       | Router becomes unstable with VPN connections when syslog server enabled and debug crypto enabled   |
| wi00981772    | BGP       | Stale routes redistributed through BGP   |
| wi00983626    | CLI       | Router console locks when "write mem" and various other commands executed from console   |
| wi00989696    | VOIP      | isdn to sip call fails when calling party number is not available  |
| wi00990297    | VOIP      | Prefix based dialing doesn't work when SIP DOMAIN has configured under sip-ua  |
| wi00996695    | VRRP      | VRRP interface tracking does not work when tracking frame relay bundle   |
| wi00996855    | VPN       | License error on 1100 and 1200 with SR2330. Nortel phones are treating SR 2330 due to missing header information.  |
| wi01001697    | VRRP      | VRRP unable to track vlan interfaces   |
| wi01001700    | Routing   | Static route not working on switch cards in certain cases when static route applied and ip address of the next hop is changed to different physical port |
| wi01005094    | VLAN      | LLDP packet causing double-free which corrupts QOS configuration   |

## **7. Outstanding Issues**

N/A

## **8. Known Limitations**

- The `secure_passwords` command uses `nvr` to store the key for encrypting/decrypting the stored passwords in the configuration file. To transfer the `system.cfg` to another router that has secured passwords, the administrator needs first disable secure passwords by executing a `no secure_passwords` command and resave the configuration file. This new configuration file can then be loaded on another router and then execute the `secure_passwords` command and save local to protect the passwords on the new router.
- Wildcard character '%' keeps getting added on the CLI command "dial-per voice pots-destination pattern" on a save local and reboot

## **9. Documentation Corrections**

- Document Name: Troubleshooting Avaya Secure Router 2330/4134 10.3  
Document Number: NN47263-700\_04\_01  
Document Release: 10.3

On page 88 it states "Link Aggregation is supported on the non-CPU Ethernet ports only." However, LACP is supported on all Ethernet ports.

## **10. Notes**

- A new cli command "tcp-seq-except-bgp-self-port" under the dos-protect section of the firewall global settings allows BPG to use MD5 signatures through when `tcp-seq-number-predict` and `tcp-seq-number-range` command are set under the dos protect section. It allows for any TCP connection with the BGP destination port of 179 not to have the tcp connection resequenced which causes the MD5 digest to fail.
- ISDN BRI voice bundle with default TE1 mode value of Point to Multipoint will not come up until the bundle is manually changed to point-to point.
- Syntax of rule under "voice translation-rule" was allowing "\+". The backslash (\) was used as an escape character to support "+". Since "+" can be used without the support of "\", use of backslash in the translation rules is redundant and no longer required. Hence backslash (\) is removed from the syntax of rule.

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