DTAG - Bonn Lab - Backup Scripts

Version 1.0 - January 30, 2012

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Document Release Notes

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# **INTRODUCTION**

This document is intended to outline the installation and operation process for the 4 (four) backup scripts created for the Amdocs Bonn Lab deployment that cover the following main applications: PCRF, DRA/SLF, SDB and BMS. Each backup script is installed in the crontab of the respective server and is configured to run on a periodic basis. The backup scripts produce a log file detailing the backup process. Backup file retention is handled by the scripts and the retention period is configurable. The BMS server has been designated as the central storage for all backup files. A further script was developed for the BMS server that automates the retrieval of the backup files from all the application servers to the local directory on the BMS server.

InstallatioN

* 1. *PCRF*
* Place the PCRF backup script (Backup\_BMS.sh) in any location with read/write

permissions for the ***BPC*** user (ex. /stage)

* The script should be given read/write permissions for the ***BPC*** user
* The script contains default RMA rules engine credentials that need to be updated accordingly for proper operation. Open the script up for editing and update the following variables with the latest RMA root credentials:

  XPC\_USERNAME="**<username>**"

  XPC\_PASSWORD="**<password>**"

* The retention period needs to be set within the script by updating the following variable accordingly:

# The age variable represent the retention period

age="<**age\_in\_days**>"

* The script will be run periodically within the crontab for the ***bpc*** user and needs to be installed as follows:

**<minute> <hour>** \* \* \* **<absolute path to script>**/Backup\_PCRF.sh

2> /dev/null

Where <minute> and <hour> is the daily time to run the script. Ex 23 15 \* \* \*

would make the script run at 15:23 GMT everyday.

*2.2 DRA*

* Place the DRA backup script (Backup\_DRA.sh) in any location with read/write

permissions for the ***BPC*** user (ex. /stage)

* The script should be given read/write permissions for the ***BPC*** user
* The script contains default credentials for the subscriber partition utility (INSTANCE/bin/rgmgr.sh) that need to be updated accordingly for proper operation. Open the script up for editing and update the following variables with the latest rgmgr root credentials:

  XPC\_USERNAME="**<username>**"

  XPC\_PASSWORD="**<password>**"

* The retention period needs to be set within the script by updating the following variable accordingly:

# The age variable represent the retention period

age="<**age\_in\_days**>"

* The script will be run periodically within the crontab for the ***bpc*** user and needs to be installed as follows:

**<minute> <hour>** \* \* \* **<absolute path to script>**/Backup\_DRA.sh

2> /dev/null

Where <minute> and <hour> is the daily time to run the script. Ex 23 15 \* \* \*

would make the script run at 15:23 GMT everyday.

*2.3 SDB*

* Create the following configuration file:

**touch /u01/app/oracle/widespan/backups/database\_backup.cf**

* Insert the following lines into the same file:

**targetuser=r6**

**targetpass=r6**

**destination=disk**

**directory=/u01/app/oracle/widespan/backups**

**retention=3**

**mailto=oracle**

* Add the following lines to the ***ORACLE*** crontab:

**# Pre-defined option 1 (daily full backup)  
0 6 \* \* \* /u01/app/oracle/widespan/backups/database\_backup.sh /u01/app/oracle/widespan/backups/database\_backup.cf full > /dev/null 2>&1**

**#cron entry added for backup\_purge\_07.sh script**

**0 7 \* \* 0-6 /u01/app/oracle/widespan/backups/backup\_purge\_07.sh /u01/app/oracle/widespan/backups/database\_backup.cf > /dev/null 2>&1**

             The considerations here are the following:

    i). Backup directory needs to be big enough to store 3 days worth of FULL backups which I estimate would be around 6-8Gb

          ii). Retention period directly affects space usage…Recommendation was for 3 days worth of full backups

         iii). *Targetuser/targetpass* need to be update according to the schema credentials

* 1. *BMS*
     1. Backup Script
* Place the BMS backup script (Backup\_BMS.sh) in any location with read/write

permissions for the ***BWC*** user (ex. /stage)

* The script should be given read/write permissions for the ***BWC*** user
* The script contains the default password for the postgres database user that needs to be updated accordingly for proper operation. Open the script up for editing and update the following variable with the latest postgres credentials:

#Update the following variable with the latest postgres user password

export PGPASSWORD=”<**postgres\_user\_password>**”

* The retention period needs to be set within the script by updating the following variable accordingly:

# The age variable represent the retention period

age="<**age\_in\_days**>"

* The script will be run periodically within the crontab for the ***BWC*** user and needs to be installed as follows:

**<minute> <hour>** \* \* \* **<absolute path to script>**/Backup\_BMS.sh

2> /dev/null

Where <minute> and <hour> is the daily time to run the script. Ex 23 15 \* \* \*

would make the script run at 15:23 GMT everyday.

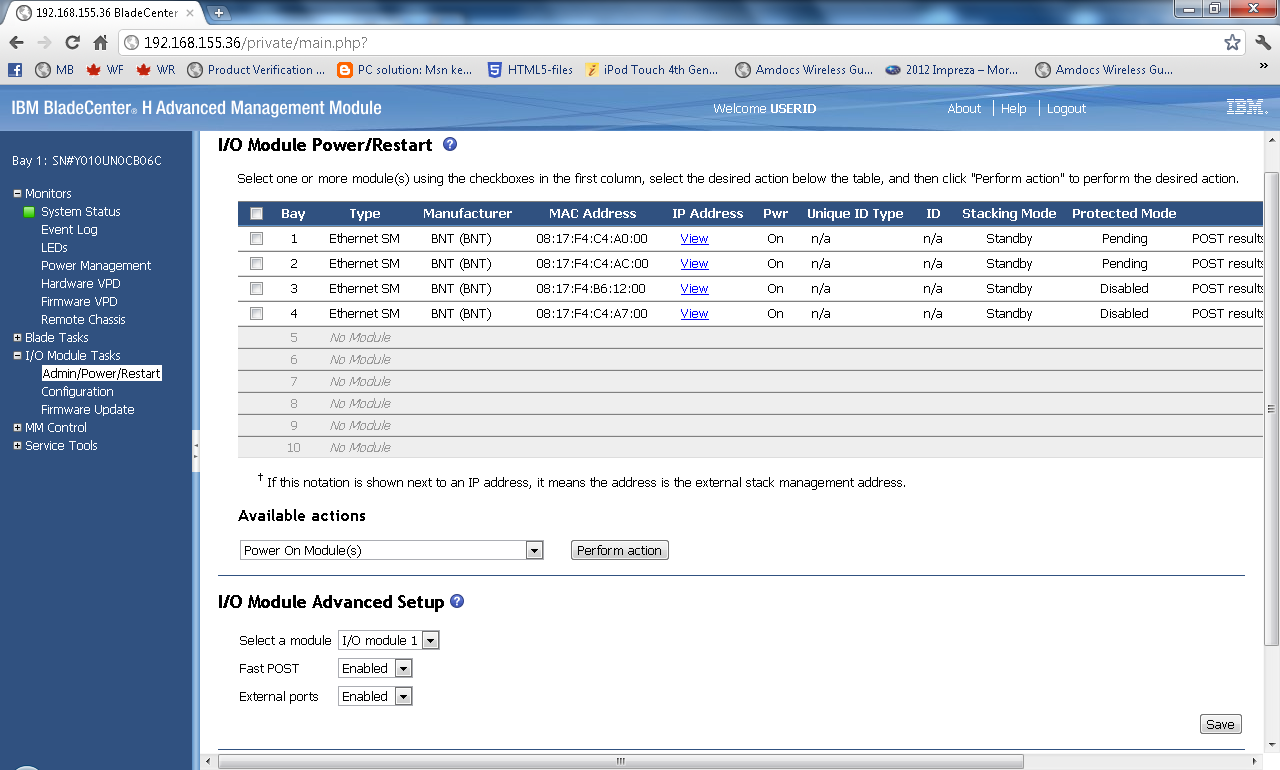
|  |  |
| --- | --- |
|  | - Connect a serial cable to the serial interface port of the switch and setup a serial interface session using putty or other terminal emulator software |
|  | Login to switch as admin (using putty or other serial terminal emulator) |
|  | Execute the following command:  **RS G8052>** **enable**  **RS G8052#** **configure terminal**  **RS G8052(config)# interface ip 1**  **RS G8052(config-ip-if)#** **ip address** *<management interface IPaddress>*  **RS G8052(config-ip-if)#** **ip netmask** *<IP subnet mask>*  **RS G8052(config-ip-if)#** **vlan 1**  **RS G8052(config-ip-if)#** **enable**  **RS G8052(config-ip-if)#** **exit**  **RS G8052(config)#** **ip gateway** *<gateway number>* **address** *<IPaddress>*  **RS G8052(config)#** **ip gateway** *<gateway number>* **enable** |

* Once this has been updated you should now be able to access the switch configuration through either a web browser or through telnet.

Verify external ports are enabled

## Verify EXTERNAL ports are enabled via AMM (BladeCenter BNT switches only)

* Login to the AMM.
* Select the "I/O Module Tasks" and then “Admin/Power/Restart”.
* Scroll to the "I/O Module Advanced Setup" section.
* For each module in the "Select a module" dropbox, verify that the "External ports" option shows "Enabled". As each module is selected from the "Select a module" field, the value in the "External ports" field will reflect its status. Note the value may not appear to change if all the modules have the same value.
* Click “Save” if the "External ports" value is changed for any module(s).



factory default config block

|  |  |
| --- | --- |
|  | Login to switch as admin (using telnet) |
|  | If switch is currently set to use factory default config block you will be prompted with the following when logging  <…snip…>  The switch is booted with factory default configuration.  To ease the configuration of the switch, a "Set Up" facility which  will prompt you with those configuration items that are essential  to the operation of the switch is provided.  Jan 20 12:38:28 192.168.175.27 NOTICE mgmt: admin(admin) login from host 10.53.112.20  Would you like to run "Set Up" to configure the switch? [y/n] **n**  <…snip…>  >> Main# |

Selecting between BladeoS and ISCLI cli

* This document use iscli commands for the switch CLI . If the switch does not currently prompt for cli mode when logging in, these steps can be used to prompt for bladeos or iscli CLI:

## From bladeOS cli set switch to prompt for cli mode

|  |  |
| --- | --- |
|  | Login to switch as admin (using telnet) |
|  | Execute the following command:  **>> Main# /boot/mode iscli**  **Next boot will use mode "iscli".**  **>>**  **Jan 20 22:17:59 192.168.175.37 NOTICE mgmt: boot mode changed**  **Boot Options# /boot/prompt enable**  **Current Selectable boot mode: disabled**  **New Selectable boot mode: enabled**  **Next exit will use selectable boot mode.**  **>>**  **Jan 20 22:18:08 192.168.175.37 NOTICE mgmt: selectable boot mode changed** |

## From ISCLI cli set switch to prompt for cli mode

|  |  |
| --- | --- |
|  | Login to switch as admin (using telnet) |
|  | Execute the following commands:  **Router >enable**  **Enable privilege granted.**  **Router #configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **Router(config)#boot cli-mode prompt**  **Next exit boot will use selectable boot mode.**  **Router(config)#**  **Dec 21 9:44:23 192.168.175.27 NOTICE mgmt: selectable mode changed**  **Router(config)#** |

## Verify selectable CLI prompt next time you log in

|  |  |
| --- | --- |
|  | Login to switch as admin and select the “iscli” option  **login as: admin**  **Using keyboard-interactive authentication.**  **Enter password:**  **BNT 1/10Gb Uplink Ethernet Switch Module for IBM BladeCenter.**  **Select Command Line Interface mode (bladeos-cli/iscli): iscli**  <…snip…>  **Router>** |

Enable ssh and disable telnet

* By default telnet is enabled and ssh is disabled on the switch. The switch needs to have telnet disabled and ssh enabled.

## Enable ssh

|  |  |
| --- | --- |
|  | Login to switch as admin (using telnet) |
|  | Execute the following commands:  **Router>enable**  **Enable privilege granted.**  **Router#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **Router(config)#ssh enable**  **RSA host key generation starts ........**  **RSA host key generation completes (lasts 17998 ms)**  **RSA host key is being saved to Flash ROM, please don't reboot**  **the box immediately.**  **RSA server key generation starts .........**  **RSA server key generation completes (lasts 18826 ms)**  **RSA server key is being saved to Flash ROM, please don't reboot**  **the box immediately.**  **Router(config)#**  ( Note: you will only see RSA key generation if this is first time ssh is enabled ) |
|  | verify with “show running-config” command that “ssh enable” is listed in output  **Router(config)#show running-config**  **Current configuration:**  <…snip…>  **ssh enable**  <…snip…> |

## Disable telnet

|  |  |
| --- | --- |
|  | Login to switch as admin (using ssh) |
|  | Execute the following commands:  **Router>enable**  **Enable privilege granted.**  **Router#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **Router(config)#no access telnet enable**  **Router(config)#** |
|  | verify with “show running-config” command that “no access telnet enable” is listed in output  **Router(config)#show running-config**  **Current configuration:**  <…snip…>  **no access telnet enable**  <…snip…> |

## Save configuration

|  |  |
| --- | --- |
|  | Login to switch as admin (using ssh) |
|  | Execute the following commands:  **Router>enable**  **Enable privilege granted**.  **Router(config)#copy running-config startup-config**  **Confirm saving to FLASH (y/n) ? y**  **Copy running configuration to startup configuration**  **Switch is currently set to use factory default config block on next boot.**  **Do you want to change that to the active config block (y/n) ?**  **Jan 20 13:13:38 192.168.175.27 INFO mgmt: new configuration saved from ISCLI**  y  **Router(config)#**  Note1: depending on version of firmware you may or may not get the confirm saving to Flash prompt.  Note 2: you will get prompt to change to active config block if factory config block is setup for next boot. |

date and time

* ntp will be configured later to automatically adjust date and time, however before firmware upgrades, we need to set date and time to have proper date install stamps on firmware images.

## Set date and time

|  |  |
| --- | --- |
|  | Login to switch as admin (using ssh) |
|  | Execute the following commands:  **Router>enable**  **Enable privilege granted.**  **Router#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **Router(config)#system date 2011 12 28**  **System date set to 2:29:39 Wed Dec 28, 2011.**  **Router(config)#**  **Dec 28 2:29:39 192.168.175.37 NOTICE mgmt: System date set to 2:29:39 Wed Dec 28, 2011.**  **Router(config)#system time 16:04:00**  **System clock set to 16:04:00 Wed Dec 28, 2011.**  **Router(config)#**  **Dec 28 16:04:00 192.168.175.37 NOTICE mgmt: System clock set to 16:04:00 Wed Dec 28, 2011.**  **Router#show clock**  **16:04:23 Wed Dec 28, 2011** |

Updating firmware

* Firmware version of the switch should be at 6.7.3
* If current version of firmware is at 1.0.1 then ftp needs to be used to upgrade firmware to 6.3.1.1. Once at 6.3.1.1 then scp will be used to upgrade to 6.7.3

## Verify firmware version

|  |  |
| --- | --- |
|  | Login to switch as admin |
|  | Execute the following commands:  **Router>enable**  **Enable privilege granted.**  **Router#show boot**  **Currently set to boot software image1, active config block.**  **NetConfig: disabled, NetConfig tftp server: , NetConfig cfgfile:**  **Current CLI mode set to ISCLI with selectable prompt enabled.**  **Current FLASH software:**  **image1: version 6.3.1.1, downloaded 8:17:22 Wed Dec 28, 2011**  **NormalConnect**  **image2: version 6.3.1.1, downloaded 8:07:26 Wed Dec 28, 2011**  **NormalConnect**  **boot kernel: version 6.3.1.1**  **Currently scheduled reboot time: none**  If not at version 6.7.3 then perform following sections |

## Upgrade firmware Using ftp

* If firmware version is at 1.0.1, then perform following steps otherwise go to ”upgrading using scp section”:

**image1: version 1.0.1, downloaded 0:26:04 Sun Jan 1, 2000**

**image2: version 1.0.1, downloaded 0:26:04 Sun Jan 1, 2000**

**boot kernel: version 1.0.**

* Note: BladeCenter BNT switches and BNT Rack Mounted G8052 Switches use different images GbESM-1-10U-6.3.1.1\_OS.img and GbESM-1-10U-6.3.1.1\_Boot.img are specific for BladeCenter BNT switches.

### Upgrade firmware image2 from 1.0.1 to 6.3.1.1

|  |  |
| --- | --- |
|  | Login to switch as admin |
|  | Execute the following commands:  were <ipaddress> is ip address of the ftp server and <ftp\_user\_name> is ftp user  **Router>enable**  **Router#copy ftp image2**  **Address or name of remote host: <*ipaddress*>**  **Source file name: GbESM-1-10U-6.3.1.1\_OS.img**  **User name: <*ftp\_user\_name*>**  **Password:**  **image2 currently contains Software Version 1.0.1**  **that was downloaded at 0:26:04 Sun Jan 1, 2000.**  **New download will replace image2 with file "GbESM-1-10U-6.3.1.1\_OS.img"**  **from FTP/TFTP server 192.168.150.24.**  **Confirm download operation (y/n) ? y**  **Connecting to 192.168.150.24...**  **Connected to 192.168.150.24.**  **Escape character is '^]'.**  **220 kansparc024 FTP server ready.**  **331 Password required for bbaas.**  **230 User bbaas logged in.**  **200 Type set to I.**  **227 Entering Passive Mode (192,168,150,24,94,172)**  **Starting download...150 Opening BINARY mode data connection for GbESM-1-10U-6.3.1.1\_OS.img (5176669 bytes).**  **226 Transfer complete.**  **221-You have transferred 5176669 bytes in 1 files.**  **221-Total traffic for this session was 5177025 bytes in 1 transfers.**  **221-Thank you for using the FTP service on kansparc024.**  **221 Goodbye.**  **Connection closed by remote host.**  **Image download complete (5176669 bytes)**  **Writing to flash...This takes about 90 seconds. Please wait**  **Write complete (5176669 bytes), now verifying FLASH...**  **Verification of new image2 in FLASH successful.**  **image2 now contains Software Version 6.3.1.1**  **Updating the Switch Image 2 Version (0603WMR01001 )...**  **Updating the Switch Image 2 Name (AlteonOS Im2)...**  **Updating the Switch Image 2 Date (04/22/2010)...Switch is currently set to boot software image1.**  **Do you want to change that to the new image2? [y/n]**  **Dec 28 16:07:26 192.168.175.37 INFO mgmt: image2 downloaded from host 192.168.150.24, file 'GbESM-1-10U-6.3.1.1\_OS.img', software version 6.3.1.1**  **n**  **Software to be booted remains image1.**  **Dec 28 16:07:38 192.168.175.37 INFO mgmt: Firmware downloaded to image2**  **Router#** |

### Upgrade firmware image1 from 1.0.1 to 6.3.1.1

|  |  |
| --- | --- |
|  | Login to switch as admin |
|  | Execute the following commands  were <ipaddress> is ip address of the ftp server and <ftp\_user\_name> is ftp user |
|  | **Router#copy ftp image1**  **Address or name of remote host: <*ipaddress*>**  **Source file name: GbESM-1-10U-6.3.1.1\_OS.img**  **User name: <*ftp\_user\_name*>**  **image1 currently contains Software Version 1.0.1**  **that was downloaded at 0:26:04 Sun Jan 1, 2000.**  **New download will replace image1 with file "GbESM-1-10U-6.3.1.1\_OS.img"**  **from FTP/TFTP server 192.168.150.24.**  **WARNING: This operation will overlay the currently booting image.**  **Confirm download operation (y/n) ? y**  **Connecting to 192.168.150.24...**  **Connected to 192.168.150.24.**  **Escape character is '^]'.**  **220 kansparc024 FTP server ready.**  **331 Password required for bbaas.**  **230 User bbaas logged in.**  **200 Type set to I.**  **227 Entering Passive Mode (192,168,150,24,152,138)**  **Starting download...150 Opening BINARY mode data connection for GbESM-1-10U-6.3.1.1\_OS.img (5176669 bytes).**  **226 Transfer complete.**  **221-You have transferred 5176669 bytes in 1 files.**  **221-Total traffic for this session was 5177026 bytes in 1 transfers.**  **221-Thank you for using the FTP service on kansparc024.**  **221 Goodbye.**  **Connection closed by remote host.**  **Image download complete (5176669 bytes)**  **Writing to flash...This takes about 90 seconds. Please wait**  **Write complete (5176669 bytes), now verifying FLASH...**  **Verification of new image1 in FLASH successful.**  **image1 now contains Software Version 6.3.1.1**  **Dec 28 16:17:22 192.168.175.37 INFO mgmt: image1 downloaded from host 192.168.150.24, file 'GbESM-1-10U-6.3.1.1\_OS.img', software version 6.3.1.1**  **Router#**  **Dec 28 16:17:22 192.168.175.37 INFO mgmt: Firmware downloaded to image1**  **Router#** |

### Upgrade firmware boot-image from 1.0.1 to 6.3.1.1

|  |  |
| --- | --- |
|  | Login to switch as admin |
|  | Execute the following commands:  were <ipaddress> is ip address of the ftp server and <ftp\_user\_name> is ftp user |
|  | **Router#copy ftp boot-image**  **Address or name of remote host: <*ipaddress*>**  **Source file name: GbESM-1-10U-6.3.1.1\_Boot.img**  **User name: <*ftp\_user\_name*>**  **Password:**  **boot kernel currently contains Software Version 1.0.1**  **New download will replace boot kernel with file "GbESM-1-10U-6.3.1.1\_Boot.img"**  **from FTP/TFTP server 192.168.150.24.**  **Confirm download operation (y/n) ? y**  **Connecting to 192.168.150.24...**  **Connected to 192.168.150.24.**  **Escape character is '^]'.**  **220 kansparc024 FTP server ready.**  **331 Password required for bbaas.**  **230 User bbaas logged in.**  **200 Type set to I.**  **227 Entering Passive Mode (192,168,150,24,137,250)**  **Starting download...150 Opening BINARY mode data connection for boot.img (7802343 bytes).**  **226 Transfer complete.**  **221-You have transferred 7802343 bytes in 1 files.**  **221-Total traffic for this session was 7802704 bytes in 1 transfers.**  **221-Thank you for using the FTP service on kansparc024.**  **221 Goodbye.**  **Connection closed by remote host.**  **Boot image (FS, 7802343 bytes) download complete.**  **Writing to flash...This can take up to 90 seconds. Please wait**  **FS Sector now contains Software Version 6.3.1.1**  **Boot image (Kernel, 7802343 bytes) download complete.**  **Writing to flash...This can take up to 90 seconds. Please wait**  **Kernel Sector now contains Software Version 6.3.1.1**  **Boot image (Boot, 7802343 bytes) download complete.**  **Writing to flash...This can take up to 90 seconds. Please wait**  **Boot Sector now contains Software Version 6.3.1.1**  **Router#**  **Dec 28 16:14:33 192.168.175.37 INFO mgmt: boot kernel downloaded from host 192.168.150.24, file 'GbESM-1-10U-6.3.1.1\_Boot.img', software version 6.3.1.1**  **Dec 28 16:14:33 192.168.175.37 INFO mgmt: Firmware downloaded to boot kernel** |

### Reload new version of firmware

|  |  |
| --- | --- |
|  | Login to switch as admin |
|  | Execute the following commands |
|  | **Router#reload**  **Reset will use software "image1" and the active config block.**  **>> Note that this will RESTART the Spanning Tree,**  **>> which will likely cause an interruption in network service.**  **Confirm reload (y/n) ? y** |

## Upgrade firmware using SCP

* Note1: use if scp server is available otherwise use ftp steps to continue upgrade to 6.7.3
* Note2:only for firmware version 6.3.1.1 and higher
* Note3: BladeCenter BNT switche and BNT Rack Mounted G8052 Switche use different images GbESM-1-10U-6.7.3.0\_OS.img and GbESM-1-10U-6.7.3.0\_Boot.img are specific for BladeCenter BNT switches. G8052-6.7.3.0\_OS.img and G8052-6.7.3.0\_Boot.img are specific for G8052 BNT rack switches.

### Upgrade firmware image1 to 6.7.3

|  |  |
| --- | --- |
|  | From scp server, scp the current images to switch |
|  | Execute the following commands:  ( were <ipaddress> is ip address of the switch)  **# scp GbESM-1-10U-6.7.3.0\_OS.img admin@<*ipaddress*>:putimg1**  **Enter password:**  **Switch: executing scp command - putimg1.**  **GbESM-1-10U-6.7.3.0\_ 100% |\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*| 5418 KB 00:40**  **Received disconnect from 192.168.175.37: 11: Logged out.** |

### Upgrade firmware image2 to 6.7.3

|  |  |
| --- | --- |
|  | From scp server, scp the current images to switch |
|  | Execute the following commands:  ( were <ipaddress> is ip address of the switch)  **# scp GbESM-1-10U-6.7.3.0\_OS.img admin@<*ipaddress*>:putimg2**  **Enter password:**  **Switch: executing scp command - putimg2.**  **GbESM-1-10U-6.7.3.0\_ 100% |\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*| 5418 KB 00:40**  **AMM CodeLevel 3 : 0607WMR03000 BLADEOS Im2 09/29/2011**  **#**  **Received disconnect from 192.168.175.37: 11: Logged out.** |

### Upgrade firmware boot-image to 6.7.3

|  |  |
| --- | --- |
|  | From scp server, scp the current images to switch |
|  | Execute the following commands:  ( were <ipaddress> is ip address of the switch)  **# scp GbESM-1-10U-6.7.3.0\_Boot.img admin@<*ipaddress*>:putboot**  **Enter password:**  **Switch: executing scp command - putboot.**  **GbESM-1-10U-6.7.3.0\_ 100% |\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*| 7546 KB 00:56**  **#**  **Received disconnect from 192.168.175.37: 11: Logged out.** |

### Verify firmware version

|  |  |
| --- | --- |
|  | Login to switch as admin |
|  | Execute the following commands: |
|  | **Router>show boot**  **Currently set to boot software image1, active config block.**  **NetConfig: disabled, NetConfig tftp server: , NetConfig cfgfile:**  **Current CLI mode set to ISCLI with selectable prompt enabled.**  **Current FLASH software:**  **image1: version 6.7.3, downloaded 8:26:36 Wed Dec 28, 2011**  **NormalConnect**  **image2: version 6.7.3, downloaded 8:30:31 Wed Dec 28, 2011**  **NormalConnect**  **boot kernel: version 6.7.3**  **Currently scheduled reboot time: none** |

### Reload new version of firmware

|  |  |
| --- | --- |
|  | Login to switch as admin |
|  | Execute the following commands:  **Router#reload**  **Reset will use software "image1" and the active config block.**  **>> Note that this will RESTART the Spanning Tree,**  **>> which will likely cause an interruption in network service.**  **Confirm reload (y/n) ? y** |

hostname

## Set hostname

|  |  |
| --- | --- |
|  | - Setting hostname will also set snmp-server name |
|  | Login to switch as admin |
|  | Execute the following commands, were <hostname> is hostname of the switch  **Router>enable**  **Enable privilege granted.**  **Router#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **Router(config)#hostname <*hostname*>** |

DiSable Spanning-tree

## Disable on Bladecenter BNT switches when there is no danger of loops.

|  |  |
| --- | --- |
|  | - for certain configurations the spanning-tree can be disabled on the BNT switches  - With no connection between the bladecenter switches within the chassis, three is no danger of a loop. (no NIC bridging, but active-standby bond). And if there is no cross over connections to the External switches, then spanning tree protocol can be completely turned off in the bladecenter switches –  - Turn off globally and not by port. |
|  | Login to switch as admin |
|  | Execute the following commands to disable spanning tree:  **BNT2>enable**  **Enable privilege granted.**  **BNT2#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **BNT2 (config)#spanning-tree mode disable**  **Dec 29 0:09:00 BNT2 ALERT stg: STG 1, new root bridge**  **BNT2 (config)#**  verify spanning tree mode:  **BNT2(config)#show spanning-tree**  **Spanning Tree is shut down.**  **BNT2(config)#** |

Verify EXt ports ENABled

## Verify EXT4, EXT5 ports are not disabled (BladeCenter BNT switches only)

|  |  |
| --- | --- |
|  | - Verify Ext4, EXT5 Links are no set to disabled on BNT BladeCenter switch |
|  | Login to switch as admin |
|  | Execute the following commands to check ports:  **BNT2>enable**  **Enable privilege granted.**  **BNT2#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **BNT2(config)#show interface link**  **------------------------------------------------------------------**  **Alias Port Speed Duplex Flow Ctrl Link**  **------- ---- ----- -------- --TX-----RX-- ------**  **INT1 1 1000 full yes yes up**  **INT2 2 1000 full yes yes up**  **INT3 3 1000 full yes yes up**  **INT4 4 1000 full yes yes up**  **INT5 5 1000 full yes yes up**  **INT6 6 1000 full yes yes up**  **INT7 7 1000 full yes yes up**  **INT8 8 1000 full yes yes up**  **INT9 9 1000 full yes yes up**  **INT10 10 1000 full yes yes up**  **INT11 11 1000 full yes yes up**  **INT12 12 1000 full yes yes up**  **INT13 13 1000 full yes yes up**  **INT14 14 1000 full yes yes up**  **MGT1 15 100\* full\* yes\* yes\* up**  **MGT2 16 100\* full\* yes\* yes\* disabled**  **EXT1 17 10000 full no no disabled**  **EXT2 18 10000 full no no disabled**  **EXT3 19 10000 full no no disabled**  **EXT4 20 1000 full no no disabled**  **EXT5 21 1000 full no no disabled**  **EXT6 22 any any no no down**  **EXT7 23 any any no no down**  **EXT8 24 any any no no down**  **EXT9 25 any any no no down**  **\* = value set by configuration; not autonegotiated.**  **BNT2(config)#** |
|  | If EXT4,EXT5 ports are disabled, execute the following commands:  **BNT2(config)#interface port EXT4,EXT5**  **BNT2(config-if)#no shutdown**  **BNT2(config-if)#exit**  **BNT2(config)#** |
|  | Verify EXT4,EXT5 ports are no longer disabled:  **BNT2(config)#show interface link**  **------------------------------------------------------------------**  **Alias Port Speed Duplex Flow Ctrl Link**  **------- ---- ----- -------- --TX-----RX-- ------**  **INT1 1 1000 full yes yes up**  **INT2 2 1000 full yes yes up**  **INT3 3 1000 full yes yes up**  **INT4 4 1000 full yes yes up**  **INT5 5 1000 full yes yes up**  **INT6 6 1000 full yes yes up**  **INT7 7 1000 full yes yes up**  **INT8 8 1000 full yes yes up**  **INT9 9 1000 full yes yes up**  **INT10 10 1000 full yes yes up**  **INT11 11 1000 full yes yes up**  **INT12 12 1000 full yes yes up**  **INT13 13 1000 full yes yes up**  **INT14 14 1000 full yes yes up**  **MGT1 15 100\* full\* yes\* yes\* up**  **MGT2 16 100\* full\* yes\* yes\* disabled**  **EXT1 17 10000 full no no disabled**  **EXT2 18 10000 full no no disabled**  **EXT3 19 10000 full no no disabled**  **EXT4 20 1000 full no no up**  **EXT5 21 1000 full no no up**  **EXT6 22 any any no no down**  **EXT7 23 any any no no down**  **EXT8 24 any any no no down**  **EXT9 25 any any no no down**  **\* = value set by configuration; not autonegotiated.**  **BNT2(config)#** |

Setup SWITCH PoRTS

## BladeCenter BNT switches

* Example configuration for BNT1 and BNT2:

|  |  |  |
| --- | --- | --- |
| VLAN ID | Function | Port numbers |
| 813 | OAM Traffic | INT1,INT2,INT3,INT4,INT13,INT14,EXT4,EXT5 |
| **206** | Backup and Restore | INT1,INT2,INT3,INT4,INT13,INT14,EXT4,EXT5 |

* Example configuration for BNT3 and BNT4:

|  |  |  |
| --- | --- | --- |
| VLAN ID | Function | Port numbers |
| **440** | Production | INT1,INT2,INT3,INT4,INT13,INT14,EXT4,EXT5 |
| **615** | Inter BWS | INT1,INT2,INT3,INT4,INT13,INT14,EXT4,EXT5 |

* Blade configuration slot 1 to BNT1-4:

|  |  |  |  |
| --- | --- | --- | --- |
| Blade slot1 | IP device | BNT switch and port | VLAN ID |
| PCRF Blade 1a | eth0.813 | bnt-1 INT1 | **813** |
| eth1.813 | bnt-2 INT1 |
| eth0.206 | bnt-1 INT1 | **206** |
| eth1.206 | bnt-2 INT1 |
| eth2.440 | bnt-3 INT1 | **440** |
| eth3.440 | bnt-4 INT1 |
| eth2.615 | bnt-3 INT1 | **615** |
| eth3.615 | bnt-4 INT1 |

* Depending on which slot the Blades are in the BladeCenter will determine which INT ports than need to be configured (ie: Slot 1 = INT1 , Slot 14 = INT14)

### Enable tagging on EXT4 and EXT5 ports

|  |  |
| --- | --- |
|  | - This will allow multiple vlans on these external ports.  - Internal ports have tagging on by default, so this step does not include those interfaces. |
|  | Login to switch as admin |
|  | Execute the following commands:  **BNT2>enable**    **Enable privilege granted.**  **BNT2#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **BNT2(config)#interface port EXT4,EXT5**  **BNT2(config-if)#tagging**  **BNT2(config-if)#exit** |

### Enable tag-pvid on ports

|  |  |
| --- | --- |
|  | - Example uses ports INT1,INT2,INT3,INT4,INT13,INT14,EXT4,EXT5 |
|  | Login to switch as admin |
|  | Execute the following commands:  **BNT2>enable**    **Enable privilege granted.**  **BNT2#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **BNT2(config)#interface port INT1-INT4,INT13-INT14,EXT4-EXT5**  **BNT2(config-if)#tag-pvid**  **BNT2(config-if)#exit** |

### For BNT1 and BNT2, create “OAM Traffic” vlan and add members

|  |  |
| --- | --- |
|  | - Example uses vlan 813 and ports INT1,INT2,INT3,INT4,INT13,INT14,EXT4,EXT5  - Do NOT execute this step against BNT3 and BNT4  - Vlan will also be automatically assigned to a Spanning tree group. Switch default spanning-tree mode is pvrst. |
|  | Login to switch as admin |
|  | Execute the following commands:  **BNT2>enable**    **Enable privilege granted.**  **BNT2#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **BNT2(config)#vlan 813**  **VLAN number 813 with name "VLAN 813" created.**  **BNT2(config-vlan)#enable**  **BNT2(config-vlan)#name "VLAN 813 OAM Traffic"**  **BNT2(config-vlan)#member INT1-INT4,INT13-INT14,EXT4-EXT5**  **BNT2(config-vlan)#exit**  **BNT2(config)#** |

### For BNT3 and BNT4, create “Inter BWS” vlan and add members

|  |  |
| --- | --- |
|  | - Example uses vlan 615 and ports INT1,INT2,INT3,INT4,INT13,INT14,EXT4,EXT5  - Do NOT execute this step against BNT1 and BNT2  - Vlan will also be automatically assigned to a Spanning tree group. Switch default spanning-tree mode is pvrst. |
|  | Login to switch as admin |
|  | Execute the following commands:  **BNT2>enable**    **Enable privilege granted.**  **BNT2#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **BNT2(config)#vlan 615**  **VLAN number 615 with name "VLAN 615" created.**  **BNT2(config-vlan)#enable**  **BNT2(config-vlan)#name "VLAN 615 Inter BWS"**  **BNT2(config-vlan)#member INT1-INT4,INT13-INT14,EXT4-EXT5**  **BNT2(config-vlan)#exit**  **BNT2(config)#** |

### Remove ports from vlan 1

|  |  |
| --- | --- |
|  | - Example uses ports INT1,INT2,INT3,INT4,INT13,INT14,EXT4,EXT5 |
|  | Login to switch as admin |
|  | Execute the following commands:  **BNT2>enable**    **Enable privilege granted.**  **BNT2#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **BNT2(config)#vlan 1**  **BNT2(config-vlan)#no member INT1-INT4,INT13-INT14,EXT4-EXT5**  **BNT2(config-vlan)#exit**  **BNT2(config)#** |

### For BNT1 and BNT2, create “Backup and Restore” vlan and add members

|  |  |
| --- | --- |
|  | - Example uses vlan 206 and ports INT1,INT2,INT3,INT4,INT13,INT14,EXT4,EXT5  **-** Do NOT execute this step against BNT3 and BNT4  - Vlan will also be automatically assigned to a Spanning tree group. Switch default spanning-tree mode is pvrst. |
|  | Login to switch as admin |
|  | Execute the following commands:  **BNT2>enable**    **Enable privilege granted.**  **BNT2#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **BNT2(config)#vlan 206**  **VLAN number 206 with name "VLAN 206" created.**  **BNT2(config-vlan)#enable**  **BNT2(config-vlan)#name "VLAN 206 Backup and Restore"**  **BNT2(config-vlan)#member INT1-INT4,INT13-INT14,EXT4-EXT5**  **BNT2(config-vlan)#exit**  **BNT2(config)#** |

### For BNT3 and BNT4, create “Production” vlan and add members

|  |  |
| --- | --- |
|  | - Example uses vlan 440 and ports INT1,INT2,INT3,INT4,INT13,INT14,EXT4,EXT5  - Do NOT execute this step against BNT1 and BNT2  - Vlan will also be automatically assigned to a Spanning tree group. Switch default spanning-tree mode is pvrst. |
|  | Login to switch as admin |
|  | Execute the following commands:  **BNT2>enable**    **Enable privilege granted.**  **BNT2#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **BNT2(config)#vlan 440**  **VLAN number 440 with name "VLAN 440" created.**  **BNT2(config-vlan)#enable**  **BNT2(config-vlan)#name "VLAN 440 Production"**  **BNT2(config-vlan)#member INT1-INT4,INT13-INT14,EXT4-EXT5**  **BNT2(config-vlan)#exit**  **BNT2(config)#** |

### Display interface information

|  |  |
| --- | --- |
|  | - Check ports, vlan , tagging and pvid tag.  - vlan 4095 is configure by default for BladeCenter mgt vlan. |
|  | Login to switch as admin |
|  | Execute the following commands:  **BNT2>enable**    **Enable privilege granted.**  **BNT2#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z*.***  **BNT2(config)#show interface information**  **Alias Port Tag Type RMON Lrn Fld PVID NAME VLAN(s)**  **------- ---- --- ---------- ---- --- --- ----- -------------- -------------------------------**  **INT1 1 y Internal d e e 207\* INT1 207 804 4095**  **INT2 2 y Internal d e e 207\* INT2 207 804 4095**  **INT3 3 y Internal d e e 207\* INT3 207 804 4095**  **INT4 4 y Internal d e e 207\* INT4 207 804 4095**  **INT5 5 y Internal d e e 1 INT5 1 4095**  **INT6 6 y Internal d e e 1 INT6 1 4095**  **INT7 7 y Internal d e e 1 INT7 1 4095**  **INT8 8 y Internal d e e 1 INT8 1 4095**  **INT9 9 y Internal d e e 1 INT9 1 4095**  **INT10 10 y Internal d e e 1 INT10 1 4095**  **INT11 11 y Internal d e e 1 INT11 1 4095**  **INT12 12 y Internal d e e 1 INT12 1 4095**  **INT13 13 y Internal d e e 207\* INT13 207 804 4095**  **INT14 14 y Internal d e e 207\* INT14 207 804 4095**  **MGT1 15 y Mgmt d e e 4095\* MGT1 4095**  **MGT2 16 y Mgmt d e e 4095\* MGT2 4095**  **EXT1 17 n External d e e 1 EXT1 1**  **EXT2 18 n External d e e 1 EXT2 1**  **EXT3 19 n External d e e 1 EXT3 1**  **EXT4 20 y External d e e 207\* EXT4 207 804**  **EXT5 21 y External d e e 207\* EXT5 207 804**  **EXT6 22 n External d e e 1 EXT6 1**  **EXT7 23 n External d e e 1 EXT7 1**  **EXT8 24 n External d e e 1 EXT8 1**  **EXT9 25 n External d e e 1 EXT9 1**  **\* = PVID is tagged.**  **BNT2#** |

### Display vlan information

|  |  |
| --- | --- |
|  | - Check vlan |
|  | Login to switch as admin |
|  | Execute the following commands:  **BNT2>enable**    **Enable privilege granted.**  **BNT2#show vlan**  **VLAN Name Status MGT Ports**  **---- -------------------------------- ------ --- -------------------------**  **1 Default VLAN ena dis INT5-INT12 EXT1-EXT3**  **EXT6-EXT9**  **207 VLAN 207 ena dis INT1-INT4 INT13 INT14 EXT4**  **EXT5**  **804 VLAN 804 OAM Traffic ena dis INT1-INT4 INT13 INT14 EXT4**  **EXT5**  **4095 Mgmt VLAN ena ena INT1-INT14 MGT1 MGT2**  Example for BNT3/4  **VLAN Name Status MGT Ports**  **---- -------------------------------- ------ --- -------------------------**  **1 Default VLAN ena dis INT5-INT12 EXT1-EXT3**  **EXT6-EXT9**  **440 VLAN 440 Production ena dis INT1-INT4 INT13 INT14 EXT4**  **EXT5**  **615 VLAN 615 Inter BWS ena dis INT1-INT4 INT13 INT14 EXT4**  **EXT5**  **4095 Mgmt VLAN ena ena INT1-INT14 MGT1 MGT2** |

### Display spanning-tree information

|  |  |
| --- | --- |
|  | Login to switch as admin |
|  | Execute the following commands:  **BNT2>enable**    **Enable privilege granted.**  **BNT2#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z*.***  **BNT2(config)#show spanning-tree**  **------------------------------------------------------------------**  **Pvst+ compatibility mode enabled**  **------------------------------------------------------------------**  **Spanning Tree Group 1: On (PVRST)**  **VLANs: 1**  **Current Root: Path-Cost Port Hello MaxAge FwdDel**  **f001 08:17:f4:ca:c1:00 0 0 2 20 15**  **Parameters: Priority Hello MaxAge FwdDel Aging Topology Change Counts**  **61441 2 20 15 300 58**  **Port Prio Cost State Role Designated Bridge Des Port Type**  **------------- ---- ---------- ----- ---- ---------------------- -------- ----**  **INT5 0 0 DSB \***  **INT6 0 0 DSB \***  **INT7 0 0 DSB \***  **INT8 0 0 DSB \***  **INT9 0 0 DSB \***  **INT10 0 0 DSB \***  **INT11 0 0 DSB \***  **INT12 0 0 DSB \***  **EXT1 128 0! DSB**  **EXT2 128 0! DSB**  **EXT3 128 0! DSB**  **EXT6 128 0! DSB**  **EXT7 128 0! DSB**  **EXT8 128 0! DSB**  **EXT9 128 0! DSB**  **\* = STP turned off for this port.**  **! = Automatic path cost.**  **------------------------------------------------------------------**  **Spanning Tree Group 36: On (PVRST)**  **VLANs: 804**  **Current Root: Path-Cost Port Hello MaxAge FwdDel**  **8024 08:17:f4:a3:14:00 20000 EXT5 2 20 15**  **Parameters: Priority Hello MaxAge FwdDel Aging Topology Change Counts**  **61476 2 20 15 300 1**  **Port Prio Cost State Role Designated Bridge Des Port Type**  **------------- ---- ---------- ----- ---- ---------------------- -------- ----**  **INT1 0 0 FWD \***  **INT2 0 0 FWD \***  **INT3 0 0 FWD \***  **INT4 0 0 FWD \***  **INT13 0 0 FWD \***  **INT14 0 0 FWD \***  **EXT4 128 20000! DISC ALTN 8024-08:17:f4:a4:3d:00 801c P2P**  **EXT5 128 20000! FWD ROOT 8024-08:17:f4:a3:14:00 801c P2P**  **\* = STP turned off for this port.**  **! = Automatic path cost.**  **------------------------------------------------------------------**  **Spanning Tree Group 79: On (PVRST)**  **VLANs: 207**  **Current Root: Path-Cost Port Hello MaxAge FwdDel**  **804f 08:17:f4:a3:14:00 20000 EXT5 2 20 15**  **Parameters: Priority Hello MaxAge FwdDel Aging Topology Change Counts**  **61519 2 20 15 300 1**  **Port Prio Cost State Role Designated Bridge Des Port Type**  **------------- ---- ---------- ----- ---- ---------------------- -------- ----**  **INT1 0 0 FWD \***  **INT2 0 0 FWD \***  **INT3 0 0 FWD \***  **INT4 0 0 FWD \***  **INT13 0 0 FWD \***  **INT14 0 0 FWD \***  **EXT4 128 20000! DISC ALTN 804f-08:17:f4:a4:3d:00 801c P2P**  **EXT5 128 20000! FWD ROOT 804f-08:17:f4:a3:14:00 801c P2P**  **\* = STP turned off for this port.**  **! = Automatic path cost.**  **------------------------------------------------------------------**  **Spanning Tree Group 128: On (PVRST)**  **VLANs: 4095**  **Current Root: Path-Cost Port Hello MaxAge FwdDel**  **f080 08:17:f4:ca:c1:00 0 0 2 20 15**  **Parameters: Priority Hello MaxAge FwdDel Aging Topology Change Counts**  **61568 2 20 15 300 0**  **Port Prio Cost State Role Designated Bridge Des Port Type**  **------------- ---- ---------- ----- ---- ---------------------- -------- ----**  **INT1 0 0 FWD \***  **INT2 0 0 FWD \***  **INT3 0 0 FWD \***  **INT4 0 0 FWD \***  **INT5 0 0 DSB \***  **INT6 0 0 DSB \***  **INT7 0 0 DSB \***  **INT8 0 0 DSB \***  **INT9 0 0 DSB \***  **INT10 0 0 DSB \***  **INT11 0 0 DSB \***  **INT12 0 0 DSB \***  **INT13 0 0 FWD \***  **INT14 0 0 FWD \***  **MGT1 0 0 FWD \***  **MGT2 0 0 DSB \***  **\* = STP turned off for this port.** |

## G8052 RACK BNT switches

* This example is for dual G8052 switches trunked together using following data:

|  |  |  |
| --- | --- | --- |
| Vlans | Function | Switch Port numbers |
| 206 | Backup and Restore | 17,20,28,29,41-44,45 |
| 813 | OAM Traffic | 17,19,20,28,29,41-44,46 |
| 440 | Production | 18,21,30,31,37-38,48 |
| 615 | Inter BWS | 18,21,30,31,39-40,47 |
| 801 | BladeCenter OAM | 1,41-44,46 |

|  |  |  |  |
| --- | --- | --- | --- |
| Server | IP Device | Switch and port | Vlan |
| Blade Centre 1 | AMM1 | 8052\_sw1-1 | 801 |
| AMM2 | 8052\_sw2-1 | 801 |
| BNT1 EXT4 (1GE) | 8052\_sw1-28 | 813,206 |
| BNT1 EXT5 (1GE) | 8052\_sw2-28 | 813,206 |
| BNT2 EXT4 (1GE) | 8052\_sw1-29 | 813,206 |
| BNT2 EXT5 (1GE) | 8052\_sw2-29 | 813,206 |
| BNT3 EXT4 (1GE) | 8052\_sw1-30 | 440,615 |
| BNT3 EXT5 (1GE) | 8052\_sw2-30 | 440,615 |
| BNT4 EXT4 (1GE) | 8052\_sw1-31 | 440,615 |
| BNT4 EXT5 (1GE) | 8052\_sw2-31 | 440,615 |
| M3 Server SDB 1 | eth0.813 | 8052\_sw1-17 | 813 |
| eth1.813 | 8052\_sw2-17 |
| eth0.206 | 8052\_sw1-17 | 206 |
| eth1.206 | 8052\_sw2-17 |
| eth2.440 | 8052\_sw1-18 | 440 |
| eth3.440 | 8052\_sw2-18 |
| eth2.615 | 8052\_sw1-18 | **615** |
| eth3.615 | 8052\_sw2-18 |
| IMM | 8052\_sw1-19 | **813** |
| M3 Server SDB2 (BMS) | eth0.813 | 8052\_sw1-20 | **813** |
| eth1.813 | 8052\_sw2-20 |
| eth0.206 | 8052\_sw1-20 | **206** |
| eth1.206 | 8052\_sw2-20 |
| eth2.440 | 8052\_sw1-21 | **440** |
| eth3.440 | 8052\_sw2-21 |
| eth2.615 | 8052\_sw1-21 | **615** |
| eth3.615 | 8052\_sw2-21 |
| IMM | 8052\_sw2-19 | **813** |

### Enable tagging and tag\_pvid on ports

|  |  |
| --- | --- |
|  | - This will allow multiple vlans on ports 17-18,20-21,28-31,41-44,46 |
|  | Login to switch as admin |
|  | Execute the following commands:  **RS G8052>enable**    **Enable privilege granted.**  **RS G8052#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **RS G8052(config)#** **interface port 17-18,20-21,28-31,41-44,46**  **RS G8052(config-if)# tagging**  **RS G8052(config-if)# tag-pvid**  **RS G8052(config-if)# exit** |

### Create “Blade Center OAM” vlan and add members

|  |  |
| --- | --- |
|  | - Example uses vlan 801 and ports 1,41-44,47-48  - Vlan will also be automatically assigned to a Spanning tree group. Switch default spanning-tree mode is pvrst. |
|  | Login to switch as admin |
|  | Execute the following commands:  **RG G8052>enable**    **Enable privilege granted.**  **RG G8052#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **RG G8052(config)#vlan 801**  **VLAN number 801 with name "VLAN 801" created.**  **VLAN 801 was assigned to STG 33.**  **RG G8052(config-vlan)#enable**  **RG G8052(config-vlan)#name "VLAN 801 Blade Center OAM"**  **RG G8052(config-vlan)#member 1,41-44,46**  **RG G8052(config-vlan)#exit**  **RG G8052(config)#** |

### Create “OAM Traffic” vlan and add members

|  |  |
| --- | --- |
|  | - Example uses vlan 813 and ports 17,19,20,28,29,41-44,46  - Vlan will also be automatically assigned to a Spanning tree group. Switch default spanning-tree mode is pvrst. |
|  | Login to switch as admin |
|  | Execute the following commands:  **RG G8052>enable**    **Enable privilege granted.**  **RG G8052#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **RG G8052(config)#vlan 813**  **VLAN number 813 with name "VLAN 813" created.**  **VLAN 813 was assigned to STG 45.**  **RG G8052(config-vlan)#enable**  **RG G8052(config-vlan)#**name **"VLAN 813 OAM Traffic"**  **RG G8052(config-vlan)#member 17,19,20,28,29,41-44,46**  **RG G8052(config-vlan)#exit**  **RG G8052(config)#** |

### Create “Backup and Restore” vlan and add members

|  |  |
| --- | --- |
|  | - Example uses vlan 206 and ports 17,20,28,29,41-44,45  - Vlan will also be automatically assigned to a Spanning tree group. Switch default spanning-tree mode is pvrst. |
|  | Login to switch as admin |
|  | Execute the following commands:  **RG G8052>enable**    **Enable privilege granted.**  **RG G8052#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **RG G8052(config)#vlan 206**  **VLAN number 206 with name "VLAN 206" created.**  **VLAN 206 was assigned to STG 78.**  **RG G8052(config-vlan)#enable**  **RG G8052(config-vlan)#name "VLAN 206 Backup and Restore"**  **RG G8052(config-vlan)#member 17,20,28,29,41-44,45**  **RG G8052(config-vlan)#exit**  **RG G8052(config)#** |

### Create “Production” vlan and add members

|  |  |
| --- | --- |
|  | - Example uses vlan 440 and ports 18,21,30,31,37-38,48  - Vlan will also be automatically assigned to a Spanning tree group. Switch default spanning-tree mode is pvrst. |
|  | Login to switch as admin |
|  | Execute the following commands:  **RG G8052>enable**    **Enable privilege granted.**  **RG G8052#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **RG G8052(config)#vlan 440**  **VLAN number 440 with name "VLAN 440" created.**  **VLAN 440 was assigned to STG 56.**  **RG G8052(config-vlan)#enable**  **RG G8052(config-vlan)#name "VLAN 440 Production"**  **RG G8052(config-vlan)#member 18,21,30,31,37-38,48**  **RG G8052(config-vlan)#exit**  **RG G8052(config)#** |

### Create “Inter BWS” vlan and add members

|  |  |
| --- | --- |
|  | - Example uses vlan 615 and ports 18,21,30,31,39-40,47  - Vlan will also be automatically assigned to a Spanning tree group. Switch default spanning-tree mode is pvrst. |
|  | Login to switch as admin |
|  | Execute the following commands:  **RG G8052>enable**    **Enable privilege granted.**  **RG G8052#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **RG G8052(config)#vlan 615**  **VLAN number 615 with name "VLAN 615" created.**  **VLAN 615 was assigned to STG 103.**  **RG G8052(config-vlan)#enable**  **RG G8052(config-vlan)#name "VLAN 615 Inter BWS"**  **RG G8052(config-vlan)#member 18,21,30,31,39-40,47**  **RG G8052(config-vlan)#exit**  **RG G8052(config)#** |

### Remove ports from vlan 1

|  |  |
| --- | --- |
|  | - Example uses ports 1,17-21,28-31,37-48 |
|  | Login to switch as admin |
|  | Execute the following commands:  **RG G8052>enable**    **Enable privilege granted.**  **RG G8052#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **RG G8052(config)#vlan 1**  **RG G8052(config-vlan)#no member 1,17-21,28-31,37-48**  **RG G8052(config-vlan)#exit**  **RG G8052(config)#** |

### Trunk ports 41-44

|  |  |
| --- | --- |
|  | - This is used for inter connecting switch 1 and switch 2 (vlan 801,813,206) |
|  | Login to switch as admin |
|  | Execute the following commands:  Note: this will assign ports 41-44 to portchannel 1 ( trunk 1)  **RG G8052>enable**    **Enable privilege granted.**  **RG G8052#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **RG G8052(config)#portchannel 1 port 41-44**  **RG G8052(config)#portchannel 1 enable**  **RG G8052(config)#exit**  **RG G8052(config)#** |

### Trunk ports 37-38

|  |  |
| --- | --- |
|  | - This is used for inter connecting switch 1 and switch 2 (vlan 440) |
|  | Login to switch as admin |
|  | Execute the following commands:  Note: this will assign ports 37-38 to portchannel 2 ( trunk 2)  **RG G8052>enable**    **Enable privilege granted.**  **RG G8052#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **RG G8052(config)#portchannel 2 port 37-38**  **RG G8052(config)#portchannel 2 enable**  **RG G8052(config)#exit**  **RG G8052#** |

### Trunk ports 39-40

|  |  |
| --- | --- |
|  | - This is used for inter connecting switch 1 and switch 2 (vlan 615) |
|  | Login to switch as admin |
|  | Execute the following commands:  Note: this will assign ports 39-40 to portchannel 3 ( trunk 3)  **RG G8052>enable**    **Enable privilege granted.**  **RG G8052#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **RG G8052(config)#portchannel 3 port 39-40**  **RG G8052(config)#portchannel 3 enable**  **RG G8052(config)#exit**  **RG G8052#** |

### Assign pvid

|  |  |
| --- | --- |
|  | - Assign specific pvid to ports |
|  | Login to switch as admin |
|  | Execute the following commands:  **RG G8052>enable**    **Enable privilege granted.**  **RG G8052#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **RS G8052(config)#** **interface port 17,19-20,28-29,46**  **RS G8052(config-if)# pvid 804**  **RS G8052(config)#** **interface port 1,41-44**  **RS G8052(config-if)# pvid 801**  **RS G8052(config)#** **interface port 18,21,30-31,39-40,47**  **RS G8052(config-if)# pvid 615**  **RS G8052(config)#** **interface port 37-38,48**  **RS G8052(config-if)# pvid 440**  **RS G8052(config)#** **interface port 45**  **RS G8052(config-if)# pvid 207**  **RS G8052(config-if)# exit**  **RG G8052#** |

### Display interface information

|  |  |
| --- | --- |
|  | - Check ports, vlan , tagging and pvid tag.- |
|  | Login to switch as admin |
|  | Execute the following commands:  **RG G8052>enable**    **Enable privilege granted.**  **RG G8052#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z*.***  **RG G8052(config)#show interface information**  **Alias Port Tag RMON Lrn Fld PVID NAME VLAN(s)**  **------- ---- --- ---- --- --- ----- -------------- -------------------------------**  **1 1 y d e e 801\* 801**  **2 2 n d e e 1 1**  **3 3 n d e e 1 1**  **4 4 n d e e 1 1**  **5 5 n d e e 1 1**  **6 6 n d e e 1 1**  **7 7 n d e e 1 1**  **8 8 n d e e 1 1**  **9 9 n d e e 1 1**  **10 10 n d e e 1 1**  **11 11 n d e e 1 1**  **12 12 n d e e 1 1**  **13 13 n d e e 1 1**  **14 14 n d e e 1 1**  **15 15 n d e e 1 1**  **16 16 n d e e 1 1**  **17 17 y d e e 207\* 207 804**  **18 18 y d e e 440\* 440 615**  **19 19 y d e e 804\* 804**  **20 20 y d e e 207\* 207 804**  **21 21 y d e e 440\* 440 615**  **22 22 n d e e 1 1**  **23 23 n d e e 1 1**  **24 24 n d e e 1 1**  **25 25 n d e e 1 1**  **26 26 n d e e 1 1**  **27 27 n d e e 1 1**  **28 28 y d e e 207\* 207 804**  **29 29 y d e e 207\* 207 804**  **30 30 y d e e 440\* 440 615**  **31 31 y d e e 440\* 440 615**  **32 32 n d e e 1 1**  **33 33 n d e e 1 1**  **34 34 n d e e 1 1**  **35 35 n d e e 1 1**  **36 36 n d e e 1 1**  **37 37 y d e e 440\* 440**  **38 38 y d e e 440\* 440**  **39 39 y d e e 615\* 615**  **40 40 y d e e 615\* 615**  **41 41 y d e e 207\* 207 801 804**  **42 42 y d e e 207\* 207 801 804**  **43 43 y d e e 207\* 207 801 804**  **44 44 y d e e 207\* 207 801 804**  **45 45 y d e e 207\* 207**  **46 46 y d e e 801\* 801 804**  **47 47 y d e e 615\* 615**  **48 48 y d e e 440\* 440**  **XGE1 49 n d e e 1 1**  **XGE2 50 n d e e 1 1**  **XGE3 51 n d e e 1 1**  **XGE4 52 n d e e 1 1**  **\* = PVID is tagged.** |

### Display vlan information

|  |  |
| --- | --- |
|  | Login to switch as admin |
|  | Execute the following commands:  **RG G8052>enable**    **Enable privilege granted.**  **RG G8052#show vlan**  **VLAN Name Status Ports**  **---- -------------------------------- ------ -------------------------**  **1 Default VLAN ena 2-16 22-27 32-36 XGE1-XGE4**  **207 VLAN 207 Backup and restore ena 17 20 28 29 41-45**  **440 VLAN 440 Production ena 18 21 30 31 37 38 48**  **615 VLAN 615 Inter BWS ena 18 21 30 31 39 40 47**  **801 VLAN 801 Blade center OAM ena 1 41-44 46**  **804 VLAN 804 OAM Traffic ena 17 19 20 28 29 41-44 46** |

### Display spanning-tree information

|  |  |
| --- | --- |
|  | Login to switch as admin |
|  | Execute the following commands:  **RG G8052>enable**    **Enable privilege granted.**  **RG G8052#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z*.***  **RG G8052(config)#show spanning-tree**  **------------------------------------------------------------------**  **Pvst+ compatibility mode enabled**  **------------------------------------------------------------------**  **Spanning Tree Group 1: On (PVRST)**  **VLANs: 1**  **Current Root: Path-Cost Port Hello MaxAge FwdDel**  **8001 08:17:f4:a4:3d:00 0 0 2 20 15**  **Parameters: Priority Hello MaxAge FwdDel Aging Topology Change Counts**  **32769 2 20 15 300 52**  **Port Prio Cost State Role Designated Bridge Des Port Type**  **------------- ---- ---------- ----- ---- ---------------------- -------- ----**  **5 128 20000! FWD DESG 8001-08:17:f4:a4:3d:00 8005 P2P**  **! = Automatic path cost.**  **------------------------------------------------------------------**  **Spanning Tree Group 33: On (PVRST)**  **VLANs: 801**  **Current Root: Path-Cost Port Hello MaxAge FwdDel**  **8021 08:17:f4:a4:3d:00 0 0 2 20 15**  **Parameters: Priority Hello MaxAge FwdDel Aging Topology Change Counts**  **32801 2 20 15 300 1**  **Port Prio Cost State Role Designated Bridge Des Port Type**  **------------- ---- ---------- ----- ---- ---------------------- -------- ----**  **1 128 200000! FWD DESG 8021-08:17:f4:a4:3d:00 8001 P2P**  **! = Automatic path cost.**  **------------------------------------------------------------------**  **Spanning Tree Group 36: On (PVRST)**  **VLANs: 804**  **Current Root: Path-Cost Port Hello MaxAge FwdDel**  **8024 08:17:f4:a4:3d:00 0 0 2 20 15**  **Parameters: Priority Hello MaxAge FwdDel Aging Topology Change Counts**  **32804 2 20 15 300 1**  **Port Prio Cost State Role Designated Bridge Des Port Type**  **------------- ---- ---------- ----- ---- ---------------------- -------- ----**  **17 128 20000! FWD DESG 8024-08:17:f4:a4:3d:00 8011 P2P**  **19 128 200000! FWD DESG 8024-08:17:f4:a4:3d:00 8013 P2P**  **20 128 20000! FWD DESG 8024-08:17:f4:a4:3d:00 8014 P2P**  **28 128 20000! FWD DESG 8024-08:17:f4:a4:3d:00 801c P2P**  **29 128 20000! FWD DESG 8024-08:17:f4:a4:3d:00 801d P2P**  **! = Automatic path cost.**  **------------------------------------------------------------------**  **Spanning Tree Group 56: On (PVRST)**  **VLANs: 440**  **Current Root: Path-Cost Port Hello MaxAge FwdDel**  **8038 08:17:f4:a4:3d:00 0 0 2 20 15**  **Parameters: Priority Hello MaxAge FwdDel Aging Topology Change Counts**  **32824 2 20 15 300 1**  **Port Prio Cost State Role Designated Bridge Des Port Type**  **------------- ---- ---------- ----- ---- ---------------------- -------- ----**  **18 128 20000! FWD DESG 8038-08:17:f4:a4:3d:00 8012 P2P**  **21 128 20000! FWD DESG 8038-08:17:f4:a4:3d:00 8015 P2P**  **30 128 20000! FWD DESG 8038-08:17:f4:a4:3d:00 801e P2P**  **31 128 20000! FWD DESG 8038-08:17:f4:a4:3d:00 801f P2P**  **! = Automatic path cost.**  **------------------------------------------------------------------**  **Spanning Tree Group 79: On (PVRST)**  **VLANs: 207**  **Current Root: Path-Cost Port Hello MaxAge FwdDel**  **804f 08:17:f4:a4:3d:00 0 0 2 20 15**  **Parameters: Priority Hello MaxAge FwdDel Aging Topology Change Counts**  **32847 2 20 15 300 1**  **Port Prio Cost State Role Designated Bridge Des Port Type**  **------------- ---- ---------- ----- ---- ---------------------- -------- ----**  **17 128 20000! FWD DESG 804f-08:17:f4:a4:3d:00 8011 P2P**  **20 128 20000! FWD DESG 804f-08:17:f4:a4:3d:00 8014 P2P**  **28 128 20000! FWD DESG 804f-08:17:f4:a4:3d:00 801c P2P**  **29 128 20000! FWD DESG 804f-08:17:f4:a4:3d:00 801d P2P**  **! = Automatic path cost.**  **------------------------------------------------------------------**  **Spanning Tree Group 103: On (PVRST)**  **VLANs: 615**  **Current Root: Path-Cost Port Hello MaxAge FwdDel**  **8067 08:17:f4:a4:3d:00 0 0 2 20 15**  **Parameters: Priority Hello MaxAge FwdDel Aging Topology Change Counts**  **32871 2 20 15 300 1**  **Port Prio Cost State Role Designated Bridge Des Port Type**  **------------- ---- ---------- ----- ---- ---------------------- -------- ----**  **18 128 20000! FWD DESG 8067-08:17:f4:a4:3d:00 8012 P2P**  **21 128 20000! FWD DESG 8067-08:17:f4:a4:3d:00 8015 P2P**  **30 128 20000! FWD DESG 8067-08:17:f4:a4:3d:00 801e P2P**  **31 128 20000! FWD DESG 8067-08:17:f4:a4:3d:00 801f P2P**  **! = Automatic path cost.** |

Setup VLAn on SWITCH ip - G8052 rack swiTCh

|  |  |
| --- | --- |
|  | - Setup Switch IP on OAM vlan: |
|  | Login to switch as admin (using ssh) |
|  | Execute the following commands:  **RS G8052>enable**  **Enable privilege granted.**  **RS G8052#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **RS G8052(config)# interface ip 1**  **RS G8052(config-ip-if)#** **vlan 804**  **RS G8052(config-ip-if)#** **enable**  **RS G8052(config-ip-if)#** **exit** |

Setup NTP servers

|  |  |
| --- | --- |
|  | Login to switch as admin |
|  | Execute the following commands:  **Router>enable**  **Enable privilege granted.**  **Router#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **Router(config)#ntp enable**  **Router(config)#ntp primary-server** *<NTP primary server IPaddress>*  **Router(config)#ntp secondary-server** *<NTP secondary server IPaddress>*  **Router(config)#exit** |

Setup SNMP

## Placeholder - Details to be added at later date

|  |  |
| --- | --- |
|  | Login to switch as admin (using ssh) |
|  | Execute the following commands:  **Router>enable**  **Enable privilege granted.**  **Router#configure terminal**  **Enter configuration commands, one per line. End with Ctrl/Z.**  **Router(config)#** |

Verify Swicth Configs

## Verify BladeCenter BNT switch configuration

|  |  |
| --- | --- |
|  | Login to switch as admin |
|  | Execute the following commands:  **BNT2>enable**    **Enable privilege granted.**  **BNT2#show running-config**  **Current configuration:**  **!**  **version "6.7.3"**  **switch-type "BNT 1/10Gb Uplink Ethernet Switch Module for IBM BladeCenter"**  **!**  **system timezone 0**  **! No timezone configured**  **system daylight**  **!**  **ssh enable**  **!**  **hostname "rtbntsw02"**  **!**  **!**  **no access telnet enable**  **!**  **interface port INT1**  **tag-pvid**  **pvid 804**  **exit**  **!**  **interface port INT2**  **tag-pvid**  **pvid 804**  **exit**  **!**  **interface port INT3**  **tag-pvid**  **pvid 804**  **exit**  **!**  **interface port INT4**  **tag-pvid**  **pvid 804**  **exit**  **!**  **interface port INT13**  **tag-pvid**  **pvid 804**  **exit**  **!**  **interface port INT14**  **tag-pvid**  **pvid 804**  **exit**  **!**  **interface port EXT4**  **tagging**  **tag-pvid**  **pvid 804**  **exit**  **!**  **interface port EXT5**  **tagging**  **tag-pvid**  **pvid 804**  **exit**  **!**  **vlan 1**  **member INT5-INT12,EXT1-EXT3,EXT6-EXT9**  **no member INT1-INT4,INT13-INT14,EXT4-EXT5**  **!**  **vlan 207**  **enable**  **name "VLAN 207 Backup and Restore"**  **member INT1-INT4,INT13-INT14,EXT4-EXT5**  **!**  **vlan 804**  **enable**  **name "VLAN 804 OAM Traffic"**  **member INT1-INT4,INT13-INT14,EXT4-EXT5**  **!**  **!**  **spanning-tree stp 36 vlan 804**  **spanning-tree stp 79 vlan 207**  **!**  **snmp-server name "rtbntsw02"**  **!**  **!**  **!**  **!**  **!**  **ntp enable**  **ntp primary-server 192.168.22.7**  **ntp secondary-server 192.168.16.7**  **!**  **end** |

## Verify G8052 rack BNT switch configuration

|  |  |
| --- | --- |
|  | Login to switch as admin |
|  | Execute the following commands:  **RS G8052>enable**    **Enable privilege granted.**  **RS G8052#show running-config**  **Current configuration:**  **!**  **version "6.7.3"**  **switch-type "Blade Network Technologies RackSwitch G8052"**  **!**  **system timezone 0**  **! No timezone configured**  **!**  **ssh enable**  **!**  **no system dhcp**  **hostname "rtsw01"**  **!**  **!**  **no access telnet enable**  **!**  **interface port 1**  **pvid 801**  **exit**  **!**  **interface port 17**  **tagging**  **tag-pvid**  **pvid 804**  **exit**  **!**  **interface port 18**  **tagging**  **tag-pvid**  **pvid 615**  **exit**  **!**  **interface port 19**  **pvid 804**  **exit**  **!**  **interface port 20**  **tagging**  **tag-pvid**  **pvid 804**  **exit**  **!**  **interface port 21**  **tagging**  **tag-pvid**  **pvid 615**  **exit**  **!**  **interface port 28**  **tagging**  **tag-pvid**  **pvid 804**  **exit**  **!**  **interface port 29**  **tagging**  **tag-pvid**  **pvid 804**  **exit**  **!**  **interface port 30**  **tagging**  **tag-pvid**  **pvid 615**  **exit**  **!**  **interface port 31**  **tagging**  **tag-pvid**  **pvid 615**  **exit**  **!**  **interface port 37**  **pvid 440**  **exit**  **!**  **interface port 38**  **pvid 440**  **exit**  **!**  **interface port 39**  **pvid 615**  **exit**  **!**  **interface port 40**  **pvid 615**  **exit**  **!**  **interface port 41**  **tagging**  **tag-pvid**  **pvid 801**  **exit**  **!**  **interface port 42**  **tagging**  **tag-pvid**  **pvid 801**  **exit**  **!**  **interface port 43**  **tagging**  **tag-pvid**  **pvid 801**  **exit**  **!**  **interface port 44**  **tagging**  **tag-pvid**  **pvid 801**  **exit**  **!**  **interface port 45**  **pvid 207**  **exit**  **!**  **interface port 46**  **tagging**  **tag-pvid**  **pvid 804**  **exit**  **!**  **interface port 47**  **pvid 615**  **exit**  **!**  **interface port 48**  **pvid 440**  **exit**  **!**  **vlan 1**  **member 2-16,22-27,32-36,XGE1-XGE4**  **no member 1,17-21,28-31,37-48**  **!**  **vlan 207**  **enable**  **name "VLAN 207 Backup and Restore"**  **member 17,20,28-29,41-45**  **!**  **vlan 440**  **enable**  **name "VLAN 440 Production"**  **member 18,21,30-31,37-38,48**  **!**  **vlan 615**  **enable**  **name "VLAN 615 Inter BWS"**  **member 18,21,30-31,39-40,47**  **!**  **vlan 801**  **enable**  **name "VLAN 801 BladeCenter OAM"**  **member 1,41-44,46**  **!**  **vlan 804**  **enable**  **name "VLAN 804 OAM Traffic"**  **member 17,19-20,28-29,41-44,46**  **!**  **portchannel 1 port 41**  **portchannel 1 port 42**  **portchannel 1 port 43**  **portchannel 1 port 44**  **portchannel 1 enable**  **!**  **portchannel 2 port 37**  **portchannel 2 port 38**  **portchannel 2 enable**  **!**  **portchannel 3 port 39**  **portchannel 3 port 40**  **portchannel 3 enable**  **!**  **!**  **spanning-tree stp 33 vlan 801**  **spanning-tree stp 36 vlan 804**  **spanning-tree stp 56 vlan 440**  **spanning-tree stp 79 vlan 207**  **spanning-tree stp 103 vlan 615**  **!**  **!**  **!**  **!**  **!**  **!**  **!**  **interface ip 1**  **ip address 10.244.102.198 255.255.255.0**  **vlan 804**  **enable**  **exit**  **!**  **ip gateway 1 address 10.244.102.1**  **ip gateway 1 enable**  **!**  **!**  **!**  **!**  **!**  **!**  **!**  **!**  **ntp enable**  **ntp primary-server 192.168.22.7**  **ntp secondary-server 192.168.16.7**  **!**  **end** |

Save SwiTch Configs

## Save configuration to startup-config

|  |  |
| --- | --- |
|  | Login to switch as admin (using ssh) |
|  | Execute the following commands:  **BNT2>enable**  **Enable privilege granted**.  **BNT2(config)#copy running-config startup-config**  **Confirm saving to FLASH (y/n) ? y**  **Copy running configuration to startup configuration**  **Jan 2 8:03:44 BNT2 INFO mgmt: new configuration saved from ISCLI BNT2(config)#** |

## Save configuration to file on server using ftp

|  |  |
| --- | --- |
|  | Login to switch as admin |
|  | Execute the following commands:  **Router>enable**  **Enable privilege granted**.  **BNT2#copy running-config ftp**  **Address or name of remote host: <*ipaddress*>**  **Destination file name: <*filename*>**  **User name: <*ftp\_user\_name*>**  **Password:**  **Connecting to 192.168.150.24...**  **Connected to 192.168.150.24.**  **Escape character is '^]'.**  **220 kansparc024 FTP server ready.**  **331 Password required for bbaas.**  **230 User bbaas logged in.**  **200 Type set to I.**  **227 Entering Passive Mode (192,168,150,24,52,39)**  **Starting upload...**  **150 Opening BINARY mode data connection for test1.**  **Upload in progress**  **226 Transfer complete.**  **221-You have transferred 227 bytes in 1 files.**  **221-Total traffic for this session was 560 bytes in 1 transfers.**  **221-Thank you for using the FTP service on kansparc024.**  **221 Goodbye.**  **Connection closed by remote host.**  **Current config successfully ftp'd to 192.168.150.24:test1**  **BNT2#** |

## Save configuration from server to file using scp

|  |  |
| --- | --- |
|  | From scp server, scp the current configuration from switch |
|  | Execute the following commands:  Execute the following commands:  ( were <ipaddress> is ip address of the switch and <local filename> is saved file name on scp server)  **# scp admin@***<switch IP address>***:getcfg** *<local filename>*  **Enter password:**  **Switch: executing scp command - getcfg.**  **getcfg 100% |\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*| 966 00:00**  **Received disconnect from 192.168.175.37: 11: Logged out.** |