

22 NODE SOFTWARE & CONFIGURATION MANAGEMENT

22.1 Node Configuration Upload/Download

Node configuration can be saved to a file using either tftp or SCP.

This can be done for the CTM or any channel card installed. The command is as shown,

```
save ipaddr filename [cc_slot|node|logs] [scp]
```

An example is shown below for both CTM and a channel card in slot 5.

```
[A]OMP_8816_33* % save 192.168.10.142 /Users/ian/MPLS-Configs/Node_33.txt scp
Username: ian
Password: Config saved via scp to 192.168.10.142
```

```
[A]OMP_8816_33* % save 192.168.10.142 /Users/ian/MPLS-
Configs/Node_33_slot5.txt 5 scp
Username: ian
Password: Config saved via scp to 192.168.10.142
```

22.2 Software Installation

The OMP system offers two options to upgrade unit software from any CLI session:

- Using secure copy (scp)
- Using TFTP

Each unit has 2 banks of memory available for software as shown below. The software that is currently running is labelled as an active bank and the other bank is labelled as a backup bank.

The active bank is not used when upgrading the software which protects the unit from being corrupted during upgrade failures such as power cycle during upgrades.

OMP Unit File system

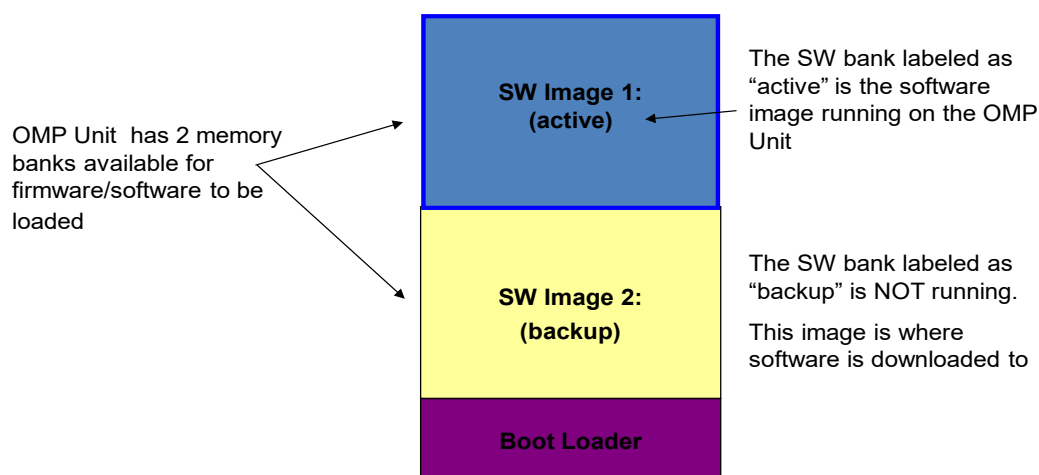


Figure 22-1 OMP Unit File System

OMP CTM CLI Commands:

```
show status system : displays software version in each SW memory bank.
config system image : to change the software image running on OMP CTM
```

OMP Channel Card CLI Commands:

```
show info : displays software version in each SW memory bank.
restore backup-image : to change the software image running on the CC
```

22.3 CTM Software

The current software version on the unit can be viewed using the 'show status system' command. The running version as well as the backup version is shown (see highlighted text below).

```
System Status:
-----
Product Type: OMP8816
Product Code: P31020.23--003
Product S-code: S62010.01
HW Version: 0300
Serial Number: 7D8563385
IP Address: 10.20.212.33
Sub Net Mask: 255.255.255.0
MAC Address: 00:0E:8A:03:BF:C0
Default Gateway: 10.20.212.254
Node IP Address: 192.168.197.33
FPGA Version: 2.0 [241107.1506]
SW Version: 5.40
SW Build: 250130.1410
Boot Loader: R1.0.160101.0101
Software Image Information:
  Image 1: (active) 5.40 [250130.1410]
  Image 2: (backup) 5.40 [250129.0019]
Card Type: F0C1
Unit Power Status: good
Core Temperature: 60
Unit Uptime: 2:02:09:05
Primary RADIUS Address (0.0.0.0): unreachable
Secondary RADIUS Address (0.0.0.0): unreachable
Installed Operating Mode: main
Current Operating Mode: main
Active Trunk: A
Other Trunk Status: down
Other Trunk Sync In: down
System Eth Link inactive inactive inactive inactive
System GEth Link(1..4) inactive active inactive inactive
System GEth Link(5..8) inactive inactive inactive inactive
System XEth Link active inactive inactive inactive
```

To change the running software image, use the following command:

```
config system image X, where X is the image number to be invoked.
save flash
reboot
```

The backup software image will become active after reboot.

To download software to a node, the **'install'** command can be used.

```
install <ipaddr> <filename> [scp] [username] [password]
install trunks <ipaddr> <filename> [scp] [username] [password]
install main <ipaddr> <filename> [scp] [username] [password]
install backup <ipaddr> <filename> [scp] [username] [password]
```

These commands are executed on the **active** controller.

The **'install'** and **'install trunks'** command downloads the software to both the active and the standby controllers sequentially and automatically using the specified protocol (scp or tftp).

If the keyword 'scp' is used in the command, the scp protocol will be used for the transfer with the user being prompted for a username and password for authentication purposes on the scp server.

Otherwise, the TFTP protocol will be used which does not require authentication.

The **'install main'** command downloads the software to only the **active** controller using the specified protocol (scp or tftp).

The **'install backup'** command downloads the software to only the **standby** controller using the specified protocol (scp or tftp).

22.4 Channel Card Software

Use the slot command to enter the selected channel card.

For example, use 'slot 5' to enter the CLI for the channel card located in slot 5.

The current software version on the unit can be viewed using the 'show info' command from within the 'slot command'. The active version as well as the backup version is shown (see highlighted text below).

```
Channel Card Info:
-----
Card Name:                E1-4
P-Code:                   P31030.01--005
S-Code:                   S31030.01
HW Version:               0500
Serial Number:            7D8567670
IP Address:               0.0.0.0
Subnet Mask:              0.0.0.0
MAC Address:              00:0E:8A:04:95:DD
FPGA Version:             1.0 [230308.1201]
Boot Loader Version:      R1.0.160101.0101
SW Version (active):      5.40 [240810.1136]
SW Version (backup):      5.40 [240810.1023]
Active Trunk:             A
HW Types:                 0100
Timing Status:            up down up down
```

To change the running software image to the backup image, use the following command:

```
restore backup-image  
reboot
```

The backup software image will become active after reboot.

To install a new version of software, the following commands can be used:

```
install <ipaddr> <filename> [scp]
```

If the keyword 'scp' is used in the command, the scp protocol will be used for the transfer with the user being prompted for a username and password for authentication purposes on the scp server.

Otherwise, the TFTP protocol will be used which does not require authentication.

22.5 System Event Logging

The syslog protocol is supported by the OMP system with both alarms and events being recorded to a nominated syslog server.

To enable this service, enter the following commands:

```
config system syslog [enable|disable]  
save flash
```