



SmartMedia Major upgrade

with minimal downtime

Introduction

- SmartMedia upgrade between Major releases (fe. 2.7 to 2.8) is considered a Major Upgrade
- our example will present a 2.7.148 to 2.8.83 upgrade on an SN10200 Unit
- from SmartMedia release 2.7.148 onwards Major Upgrade can be delivered using WebPortal interface. Prior to that release procedure had to be performed by Patton Support
- upgrade procedure is divided into two parts:
 - ☞ **non service affective** – all activities will be performed in background and should be transparent for production traffic
 - ☞ **service affective** – SmartMedia software will be restarted, TelcoBoard will be taken offline for a while, calls will be dropped
- on SN10300 running N+1 it's possible to avoid service downtime since N+1 Backup Unit will kick in when Active Units will be upgraded. Still however calls will be dropped.

Prerequisites

- start by downloading an appropriate SmartMedia software update from <http://www.patton.com/support/upgrades/> website
(in this example we will use the following: *Patton-2.8.83-SmartMedia-SN10K-Linux-centos5-x86_64-Install*)
- SN10k system capabilities are described in a license file, which is unique for each SmartMedia Major Release
- be sure to contact Patton Support in order to obtain the license file valid for SmartMedia Major Release you plan to install
(fe. for unit SN00A0BA08CB50 to be upgraded towards release 2.8, you need the following license file:
SN00A0B008CB50_V2_8_license.dat)
- **please be sure that you have created and downloaded to your computer an up to date configuraton backup before proceeding with this procedure**

SmartMedia Major upgrade

Non service affective - monitoring

- further presented steps are transparent for the normal operations performed by SN10k Units
- good practice is to monitor the whole upgrade process from the 'System View' CLI application
- it allows to maintain a comprehensive overview of the performed tasks and progress
- log into the SSH CLI using 'admin' user and navigate to '8) Debugging Tools -> 1) System View'

```
Welcome to your SmartNode powered by SmartMedia

Control Menu
-----
1) Change password
2) Network configuration
3) Time Zone configuration
4) NTP management
5) System management
6) SmartMedia management
7) Publish CDR
8) Debugging tools
9) About
99) Exit

Enter your selection: 8
```



```
Welcome to your SmartNode powered by SmartMedia

Debugging tools
-----
1) System View
2) Capture signaling traces
3) Get debug dump
4) Get system logs
99) Back

Enter your selection: 1
```

SmartMedia Major upgrade

Non service affective - monitoring

- be sure to run your terminal in full screen mode
- in the first window of 'System View' tool navigate to 'tboam_app' application and press Enter
- using Tab key navigate to '-> Upgrade Mgr <-' view
- please remember that from this point on in order to exit tboam_app monitor you should press 2x Escape button;** using '(q) Quit' will shutdown tboamapp process

```

-----
Available remote hosts to control
a : SN00A0BA08CB50.gateway
b : SN00A0BA08CB50.logtrace
c : SN00A0BA08CB50.stream_serv
d : SN00A0BA08CB50.tboam_app
e : SN00A0BA08CB50.tbuctwriter
f : SN00A0BA08CB50.toolpack_en
g : SN00A0BA08CB50.toolpack_sy
h : SN00A0BA08CB50.web_server
i : SN00A0BA08CB50.web_status
-----
    
```



**** NOW REMOTELY CONTROLLING SN00A0BA08CB50.tboam_app. Press ESCAPE twice to disconnect. ****

(?) Help (q) Quit (tab) Next page
-> Upgrade Mgr <-
Config Mgr

Local host : SN00A0BA08CB50 (version RELEASE_V2_7_148_RC1)
 System Id : 12358, through interfaces 172.31.1.2 / 172.31.1.2
 Host role/state : Standalone / Ready (Elected, Master)

Current configuration and status:
 Current package home : /mnt/.0/tb/toolpack/pkg/
 Current package : 2.7.148
 Current build number : V2.7.148 rc1 : TB013397

Application	OAM State	Update State	Current state	HA state	Current bin path
SN00A0BA08CB50.tboam_app	Run		Ready	Active	
SN00A0BA08CB50.gateway	Run		Ready	Active	@{PKG_HOME}/2.7.148/bi
SN00A0BA08CB50.toolpack_sys_mgr	Run		Ready	Active	@{PKG_HOME}/2.7.148/bi
SN00A0BA08CB50.logtrace	Run		Ready	Active	@{PKG_HOME}/2.7.148/bi
SN00A0BA08CB50.toolpack_engine	Run		Ready	Active	@{PKG_HOME}/2.7.148/bi
SN00A0BA08CB50.stream_server	Run		Ready	Active	@{PKG_HOME}/2.7.148/bi
SN00A0BA08CB50.tbuctwriter	Run		Ready	Active	@{PKG_HOME}/2.7.148/bi
SN00A0BA08CB50.tbsnmpagent	Don't run		Not running	Not present	

SerialNb	OAM State	Update State	Current state	Build number
TB013397	Enabled		Ready/Active	V2.7.148 rc1

Toggle the top menu with <Tab> key

Still running 2.7 Major Release

SmartMedia Major upgrade

Non service affective – license installation

- before starting the SmartMedia installer you need to be sure the 2.8 license is installed
- login to the Web Portal and navigate 'Menu -> Status -> Hosts -> Control Host SN#'

SmartMedia Software Version: 2.7.148, Primary host
Logged as root

System | Calls | Hardware Units | **Hosts** | Applications | Tdm Lines | Sctp | SS7 | Tcap | Isdn | Iua | CAS | Sip

Info	Value
Name	system_1
System Date	2015-08-17 10:30:39
Up Time	2d 16h 50m 21s
Boot Time	August 14 2015, 17:40:18
Package	Running from package '2.7.148_package'
Current calls bridges	0

Call legs	Current	Highest	Cumulative
Created	0 (0/s)	0	0
Answered	0 (0/s)	0	0

Target configuration	Active configuration	Target package	Active package
---	config_1	---	2.7.148

System | Calls | Hardware Units | **Hosts** | Applications | Clock | TMS | Nap | H248

name	value
Ready cnt	1
Not ready cnt	0
Disk full cnt	0
Ready host list	SN00A0BA08CB50
Not ready host list	
Disk full host list	

Non service affective – license installation

- in the 'Host Control' section choose 'Upload license' option from the drop down list
- press 'Select File' and browse to the location of the license on your file system
- confirm the process with 'Apply action' button

The screenshot illustrates the steps for license installation in the SmartMedia interface. The 'Host' tab is selected, showing a table of host details:

Name	Value
Host	SN00A0BA08CB50
Host role	Standalone
Cam mode	Master
Cam state	Ready
Tmg host	Yes
Host platform	SN10200
Host package	x86_64-linux64_centos5
Host control action package bg install	true

In the 'Host Control' section, the 'Action' dropdown menu is open, with 'Upload License' highlighted. A yellow arrow points to the 'Host' tab. A red arrow points to the 'Select file' button. Another red arrow points to the 'Apply action' button. A third red arrow points to the license file name 'SN00A0BA08CB50_V2_8_license.dat' in a file explorer window.

Non service affective – license installation

- successfull upload and validation of the license file will be confirmed by a suitable 'Last Action Log' entry
- **this still doesn't mean that the license was installed!**

The screenshot shows a software interface with a 'Host Control' section. Below it is an 'Action' dropdown menu currently set to 'None'. Underneath is a 'Last Action Log' window containing the following text:

```
Upload License: Started at 2015-08-17 10:33:21+0200
Upload License: Validating license
Upload License: Copying license
Upload License: Deleting old license
Upload License: Flagging new license as ready to be installed on hardware
Upload License: License uploaded, should be installed within one minute. See Hardware Status page for installation status.
Upload License: Finished at 2015-08-17 10:33:21+0200
```

Non service affective – license installation

- in order to confirm the license installer status go to the CLI 'System View' session
- license installation should take few seconds to complete

```
-----  
|17th, 10:33:21.368 HCTL: LicenseInstall: /tmp/SN00A0BA08CB50_V2_8_license.dat fDelete=1  
|17th, 10:33:21.369 HCTL: Upload License: Validating license  
|17th, 10:33:21.369 HCTL: Upload License: Copying license  
|17th, 10:33:21.371 HCTL: Upload License: Deleting old license  
|17th, 10:33:21.371 HCTL: Upload License: Flagging new license as ready to be installed on hardware  
|17th, 10:33:21.371 HCTL: Upload License: License uploaded, should be installed within one minute. See Hardware Status page for installation status.  
|17th, 10:33:21.371 HCTL: LicenseInstall: Done  
|17th, 10:33:21.372 HCTL: Upload License: Finished at 2015-08-17 10:33:21+0200  
|17th, 10:33:21.372 HCTL: Upload License: Started at 2015-08-17 10:33:21+0200  
|17th, 10:33:21.925 UDM : Adapter TB013397's license needs to be re-installed. Doing that now.  
|17th, 10:33:21.925 UDM : Now starting license installation for adapter 'TB013397' ()...  
|17th, 10:33:21.925 UDM : SN00A0BA08CB50-Not started: Starting to install license /lib/tb/toolpack/pkg/licenses/  
|17th, 10:33:21.928 UDM : SN00A0BA08CB50-Not started: 0% done.  
|17th, 10:33:21.928 UDM : SN00A0BA08CB50-Not started: Adapter discovered. Will start installing.  
|17th, 10:33:21.929 UDM : SN00A0BA08CB50-Searching license file: State entered (previous state was Not started)  
|17th, 10:33:21.930 UDM : SN00A0BA08CB50-Detecting adapter: State entered (previous state was Searching license file)  
|17th, 10:33:23.950 UDM : SN00A0BA08CB50-Listing packages: State entered (previous state was Detecting adapter)  
|17th, 10:33:24.046 UDM : SN00A0BA08CB50-Listing packages: Found package , version 2.7.94 rc 1.  
|17th, 10:33:24.046 UDM : SN00A0BA08CB50-Listing packages: Found package 2_7_94.1, version 2.7.94 rc 1.  
|17th, 10:33:24.046 UDM : SN00A0BA08CB50-Listing packages: Found package 02077f02, version 2.7.127 rc 2.  
|17th, 10:33:24.046 UDM : SN00A0BA08CB50-Listing packages: Found package 02079401, version 2.7.148 rc 1.  
|17th, 10:33:24.046 UDM : SN00A0BA08CB50-Deleting old packages: State entered (previous state was Listing packages)  
|17th, 10:33:24.046 UDM : SN00A0BA08CB50-Deleting old packages: Searching appropriate license from directory '/lib/tb/toolpack/pkg/licenses/'...  
-|17th, 10:33:24.048 UDM : SN00A0BA08CB50-Deleting old packages: ValidateLicenseFile: Warning: Ignoring duplicate license 'license_SN00A0BA08CB50_2.7.94.dat' (found SN00A0BA08CB50_2.7.94.license.dat which is more recent)  
|17th, 10:33:24.048 UDM : SN00A0BA08CB50-Deleting old packages: ValidateLicenseFile: Will install license file 'SN00A0BA08CB50_V2_7_license.dat'  
|17th, 10:33:24.048 UDM : SN00A0BA08CB50-Installing license: State entered (previous state was Deleting old packages)  
|17th, 10:33:24.048 UDM : SN00A0BA08CB50-Installing license: Installing license /lib/tb/toolpack/pkg/licenses//SN00A0BA08CB50_V2_7_license.dat...  
|17th, 10:33:24.908 UDM : SN00A0BA08CB50-Installing mezz license: State entered (previous state was Installing license)  
|17th, 10:33:24.908 UDM : SN00A0BA08CB50-Final reboot: State entered (previous state was Installing mezz license)  
|17th, 10:33:24.908 UDM : SN00A0BA08CB50-Final reboot: Install complete. Not rebooting adapter (please reboot adapter later).  
|17th, 10:33:24.908 UDM : SN00A0BA08CB50-Done: State entered (previous state was Final reboot)  
|17th, 10:33:24.997 UDM : License installation complete for adapter TB013397  
|17th, 10:34:36.886  
-----  
Enter your command>
```

WebPortal upload status

License Installer output

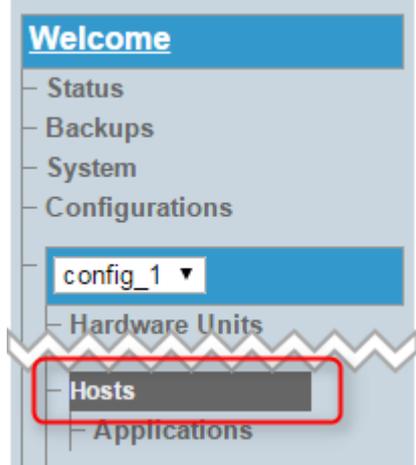
License successfully installed



SmartMedia Major upgrade

Non service affective – software package upload

- login to the Web Portal and navigate 'Menu -> current config -> Hosts'
- then press the 'Status' Tab on the 'Host Status List' page
- choose 'Control Host SN#'



Configuration **Status**

Host Status List

Status Options

Refresh every:

Host	Host role	Oam mode	Oam state	Tmg host
<u>SN00A0BA08CB50</u>	Standalone	Master	Ready	Yes

SmartMedia Major upgrade

Non service affective – software package upload

- in the 'Host Control' section of 'Host Status' page choose 'Upload package' from the drop down list
- press 'Select File' and browse to the location of the SmartMedia software package on your file system
- be sure to check 'Immediate background install on units' option**
- confirm the upload process with 'Upload action' button

Host	SN00A0BA08CB50
Host role	Standalone
Oam mode	Master
Oam state	Ready
Tmg host	Yes
Host platform	SN10200
Host package	x86_64-linux64-centos5
Host control action package bg install	true

Host Control

Action: Upload Package

Package File: Wybierz plik Nie wybrano pliku

Immediate background install on units

Apply action

Last Action Log

```
Upload License: Started at 2015-08-17 10:33:21+0200
Upload License: Validating license
Upload License: Copying license
Upload License: Deleting old license
Upload License: Flagging new license as ready to be installed on hardware
Upload License: License uploaded, should be installed within one minute. S
Upload License: Finished at 2015-08-17 10:33:21+0200
```

Otwieranie

Komputer

Organizuj Nowy folder

Nazwa

- Patton-2.8.83-SmartMedia-SN10K-Linux-centos5-x86_64-Install**
- Patton-2.8.68-SmartMedia-SN10K-Linux-centos5-x86_64-Install
- Patton-2.8.65-SmartMedia-SN10K-Linux-centos5-x86_64-Install
- Patton-2.8.63-SmartMedia-SN10K
- Patton-2.8.45-SmartMedia-SN10K

Nazwa pliku: Patton-2.8.83-SmartMedia-SN10K-Linux-centos5-x86_64-Install

Host Status - SN00A0BA08CB50

Status Options

Host Control

Action: None

- None
- Upload Package**
- Upload License
- Shutdown
- Validate Requirements
- Upgrade Linux Packages
- Force filesystem check
- Reset Host Role

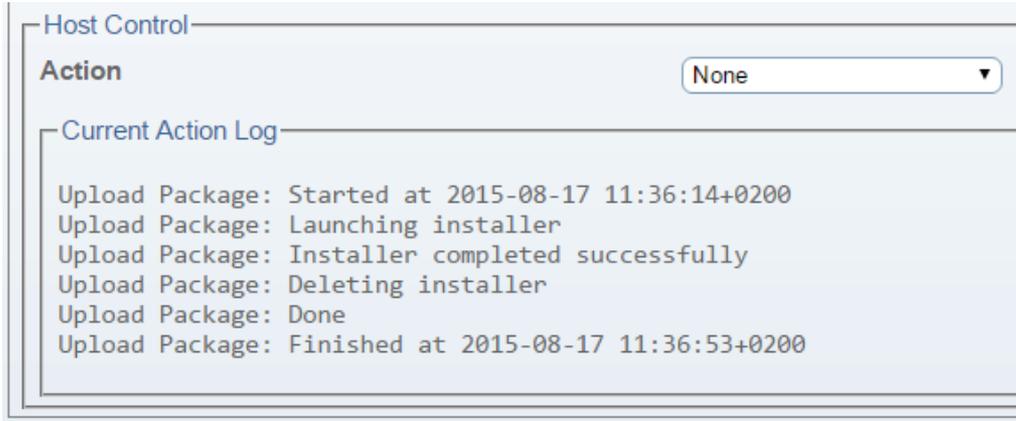
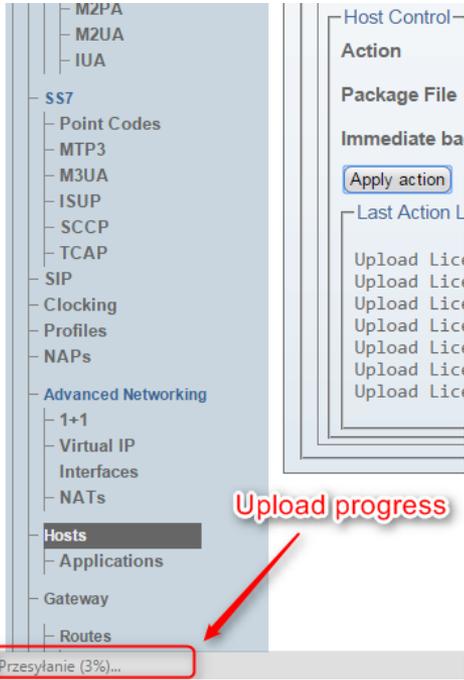
Last Action Log

```
Patton-2.8.83-SmartMedia-SN10K-Linux-centos5-x86_64-Install: Started at 2015-08-17 10:33:21+0200
Patton-2.8.83-SmartMedia-SN10K-Linux-centos5-x86_64-Install: Validating license
Patton-2.8.83-SmartMedia-SN10K-Linux-centos5-x86_64-Install: Copying license
Patton-2.8.83-SmartMedia-SN10K-Linux-centos5-x86_64-Install: Deleting old license
Patton-2.8.83-SmartMedia-SN10K-Linux-centos5-x86_64-Install: Flagging new license as ready to be installed on hardware
Patton-2.8.83-SmartMedia-SN10K-Linux-centos5-x86_64-Install: License uploaded, should be installed within one minute. S
Patton-2.8.83-SmartMedia-SN10K-Linux-centos5-x86_64-Install: Finished at 2015-08-17 10:33:21+0200
```

SmartMedia Major upgrade

Non service affective – software package upload

- wait until the package is uploaded to the Control Host
- Smart Media package is around 200 MB
- upload speed is directly related to the connection you have with SN10k Unit
- fe. Chrome browser informs you about the HTTP POST operation progress on the window bottom status bar
- **please note that 'Current Action Log' state „Installer completed succesfully” doesn't mean the Major Upgrade is over!**



Non service affective – software package upload

- switch to 'System View' terminal and observe the current upload status
- after the package is uploaded, SmartMedia installer copies the binaries to the Control Host filesystem - completing this task is reported as „Installer completed successfully”
- from this moment on background installation on TelcoBoards is started
- background installation uploads appropriate firmware on the TelcoBoard/HW Unit flash storage

```
-----  
|17th, 11:36:14.739 HCTL: ToolpackUpgrade: /tmp/Patton-2.8.83-SmartMedia-SN10K-Linux-centos5-x86_64-Install fDelete=1  
|17th, 11:36:14.739 HCTL: Upload Package: Launching installer  
|17th, 11:36:15.969 HCTL: Upload Package: Started at 2015-08-17 11:36:14+0200  
|17th, 11:36:40.035 OAM : Validating package '2.8.83' from folder '/lib/tb/toolpack/pkg'...  
|17th, 11:36:40.037 CTBOAMUdm::ValidatePackage: Files are missing. Package seems to have been incompletely installed, or is still being installed (in that case don't worry!) (82000022)  
| Pkg is '/lib/tb/toolpack/pkg/2.8.83'. CTBOAMUdm.cpp:1062  
|17th, 11:36:53.744 HCTL: Upload Package: Installer completed successfully  
|17th, 11:36:53.744 HCTL: Upload Package: Deleting installer  
|17th, 11:36:53.852 HCTL: Upload Package: Done  
|17th, 11:36:53.852 HCTL: ToolpackUpgrade: Done  
|17th, 11:36:53.852 HCTL: Upload Package: Finished at 2015-08-17 11:36:53+0200  
|17th, 11:36:55.037 OAM : Validating package '2.8.83' from folder '/lib/tb/toolpack/pkg'...  
|17th, 11:36:55.038 CM : Insert package (2.8.83) in database.  
|17th, 11:36:55.042 CM : *****  
|17th, 11:36:55.042 CM : * Marking package '2.8.83' for background install on Tmedia units...  
|17th, 11:36:55.042 CM : *****  
|17th, 11:37:04.307 UDM : TEST_ADAPTER-Canceled: State entered (previous state was Not started)  
|17th, 11:37:04.307 UDM : Will background install package '2.8.83' (2.8.83 RC1) on all adapters.  
|17th, 11:37:04.313 UDM : Now starting Background package installation for adapter 'TB013397' (/lib/tb/toolpack/pkg/2.8.83/bin)...  
-|17th, 11:37:04.313 UDM : SN00A0BA08CB50-Not started: Starting to install package from directory '/lib/tb/toolpack/pkg/2.8.83/bin' and license from directory /lib/tb/toolpack/pkg/licen  
|17th, 11:37:24.665  
-----  
Enter your command>_
```

Similar log entry in WebPortal

Background install started

Non service affective – background installation

- please note that the system is still running the old software release
- background installation process may take even up to 15 minutes per TelcoBoard/HW Unit, depending on the processed traffic
- please monitor the background upgrade status using 'System View' application

```
**** NOW REMOTELY CONTROLLING SN00A0BA08CB50.tbaoam_app. Press ESCAPE twice to disconnect. ****
```

```
| Main | Host Ctrl | VLAN Mgr | App Launch Mgr | DB Mgr | Perf Mon | -> Upgrade Mgr <- | Config Mgr
```

```
(?) Help (q) Quit (tab) Next page
```

```
Local host : SN00A0BA08CB50 (version RELEASE_V2_7_148_RC1)
System Id : 12358, through interfaces 172.31.1.2 / 172.31.1.2
Host role/state : Standalone / Ready ( Elected, Master )
```

Still running 2.7 release

```
Current configuration and status:
```

```
Current package home : /mnt/.0/tb/toolpack/pkg/
Current package : 2.7.148
Current build number : V2.7.148 rc1 : TB013397
Background install : V2.8.83 rc1 : TB013397
```

Application	OAM State	Update State	Current state	HA state	Current bin path
SN00A0BA08CB50.tbaoam_app	Run		Ready	Active	
SN00A0BA08CB50.gateway	Run		Ready	Active	@{PKG_HOME}/2.7.148/bin/release/x86_64-linux64/gateway
SN00A0BA08CB50.toolpack_sys_mgr	Run		Ready	Active	@{PKG_HOME}/2.7.148/bin/release/x86_64-linux64/toolpack_sys_ma
SN00A0BA08CB50.logtrace	Run		Ready	Active	@{PKG_HOME}/2.7.148/bin/release/x86_64-linux64/tblogtrace
SN00A0BA08CB50.toolpack_engine	Run		Ready	Active	@{PKG_HOME}/2.7.148/bin/release/x86_64-linux64/toolpack_engine
SN00A0BA08CB50.stream_server	Run		Ready	Active	@{PKG_HOME}/2.7.148/bin/release/x86_64-linux64/tbstreamserver
SN00A0BA08CB50.tbstreamserver	Run		Ready	Active	@{PKG_HOME}/2.7.148/bin/release/x86_64-linux64/tbstreamserver
SN00A0BA08CB50.tbstreamwriter	Run		Ready	Active	@{PKG_HOME}/2.7.148/bin/release/x86_64-linux64/tbstreamwriter
SN00A0BA08CB50.tbsnmpagent	Don't run		Not running	Not present	

Background installation progress

```
SerialNb OAM State Update State Current state Build number
TB013397 Enabled Installing V2.7.148 rc1
```

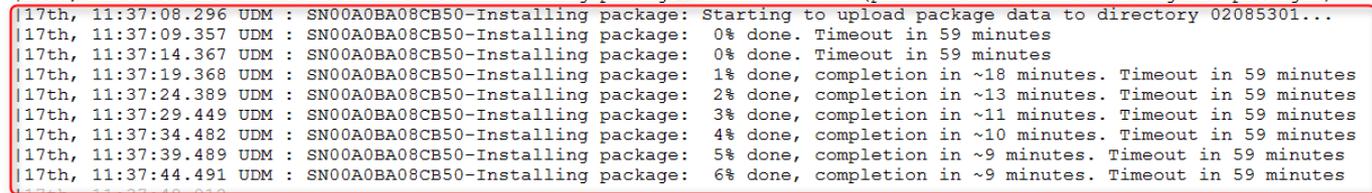
```
Background package installation: Installing package from directory /lib/tb/toolpack/pkg/2.8.83/bin to adapter's directory 02085301. 16 sec elapsed, timeout in 3583 sec
|+++++|
|++|
```

Non service affective – background installation

- background upgrade status via 'System View' application

```
Background package installation: Installing package from directory /lib/tb/toolpack/pkg/2.8.83/bin to adapter's directory 02085301. 39 sec elapsed, timeout in 3560
|+++++|
|+++++|
=====
|17th, 11:37:06.440 UDM : SN00A0BA08CB50-Listing packages: Found package 02077f02, version 2.7.127 rc 2.
|17th, 11:37:06.440 UDM : SN00A0BA08CB50-Listing packages: Found package 02079401, version 2.7.148 rc 1.
|17th, 11:37:06.440 UDM : SN00A0BA08CB50-Deleting old packages: State entered (previous state was Listing packages)
|17th, 11:37:06.440 UDM : SN00A0BA08CB50-Deleting old packages: Searching appropriate license from directory '/lib/tb/toolpack/pkg/licenses/'...
|17th, 11:37:06.442 UDM : SN00A0BA08CB50-Deleting old packages: ValidateLicenseFile: Will install license file 'SN00A0BA08CB50_V2_8_license.dat'
|17th, 11:37:06.442 UDM : SN00A0BA08CB50-Deleting old packages: Analyzing 4 packages to find those that can be deleted...
|17th, 11:37:06.442 UDM : SN00A0BA08CB50-Deleting old packages: Not deleting package , was not installed by CAF OAM (directory name not CAF OAM format 02075e01)
|17th, 11:37:06.442 UDM : SN00A0BA08CB50-Deleting old packages: Not deleting package 2_7_94.1, was not installed by CAF OAM (directory name not CAF OAM format 02075e01)
|17th, 11:37:06.442 UDM : SN00A0BA08CB50-Deleting old packages: Deleting package 02077f02 (RELEASE V2_7_127_RC2). No more required.
|17th, 11:37:06.442 UDM : SN00A0BA08CB50-Deleting old packages: Not deleting package 02079401, it's current boot directory
|17th, 11:37:08.296 UDM : SN00A0BA08CB50-Installing package: State entered (previous state was Deleting old packages)
|17th, 11:37:08.296 UDM : SN00A0BA08CB50-Installing package: Starting to upload package data to directory 02085301...
|17th, 11:37:09.357 UDM : SN00A0BA08CB50-Installing package: 0% done. Timeout in 59 minutes
|17th, 11:37:14.367 UDM : SN00A0BA08CB50-Installing package: 0% done. Timeout in 59 minutes
|17th, 11:37:19.368 UDM : SN00A0BA08CB50-Installing package: 1% done, completion in ~18 minutes. Timeout in 59 minutes
|17th, 11:37:24.389 UDM : SN00A0BA08CB50-Installing package: 2% done, completion in ~13 minutes. Timeout in 59 minutes
|17th, 11:37:29.449 UDM : SN00A0BA08CB50-Installing package: 3% done, completion in ~11 minutes. Timeout in 59 minutes
|17th, 11:37:34.482 UDM : SN00A0BA08CB50-Installing package: 4% done, completion in ~10 minutes. Timeout in 59 minutes
|17th, 11:37:39.489 UDM : SN00A0BA08CB50-Installing package: 5% done, completion in ~9 minutes. Timeout in 59 minutes
|17th, 11:37:44.491 UDM : SN00A0BA08CB50-Installing package: 6% done, completion in ~9 minutes. Timeout in 59 minutes
|17th, 11:37:48.812
```

Status also reported in log file



SmartMedia Major upgrade

Non service affective – background installation

- you can monitor the installation status also from Web Portal
- go to 'Menu -> config -> HW Units' and then 'HW Unit Status' Tab located in the page header
- mind the 'Installed Firmware Versions' section, which currently doesn't report version 2.8.83 as available
- **this strictly indicates that 2.8.83 background installation ISN'T done and package ISN'T ready to be activated!**

Welcome

- Status
- Backups
- System
- Configurations

config_1

Hardware Units

SN00A0BA08CB50

- IP Interfaces
- TDM Line Interfaces

Configuration | **Hardware Unit Status** | TMS Network Status

Units Status

Status Options

Refresh every: Don't refresh [v] Now

Serial number	Type	Enabled	Updating	State	Reboot required	License expired	Fault	Cpu usage
SN00A0BA08CB50	T1/E1/J1 Gateway	Enabled	No	Ready/Active	No	false	(no fault)	Cpu0(26%), Cpu1(2%)

Installed firmware versions

	Version 2.7.94 rc 1	Version 2.7.127 rc 2	Version 2.7.148 rc 1
SN00A0BA08CB50	READY	READY	READY

Mind that 2.8.83 version still isn't ready on the HW Unit!

Non service affective – background installation

- in the 'Unit Status' page click on the HW Unit SN#
- state of the installation process will be presented in 'Oam current upgrade status' option

Unit Status - SN00A0BA08CB50

Status Options

Refresh every:

Status Level

States Usage Sensors Licensed features

Name	Value
Reboot unit required	Reboot is not required now
Reboot unit	<input type="text" value="No"/>
Oam target state	Enabled
Oam target update state	Enabled
Oam current state	Ready/Active
Oam current upgrade status	Installing package
Oam last upgrade result	Ok, running 2.7.148
Oam last upgrade time	1970-01-01 01:00:00+0200
Oam last license install result	Successfully installed license SN00
Oam last license install time	2015-08-17 10:33:24+0200
Oam last configuration result	Unit successfully configured
Configuration state	Ready
Fault state	(no fault)
Cpu usage	Cpu0(19%), Cpu1(2%)
Hours in service	93

Non service effective – background installation

- upon the end, a successful background installation process will present following information to the CLI
 - HW Unit 'Current state' will change back to 'Ready/Active'
 - log entry informing about 'Background package installation' will be present
 - an installed package summary will present 2.8.83 as 'valid'

```
-----  
SerialNb | OAM State | Update State | Current state | Build number  
TB013397 | Enabled | | Ready/Active | V2.7.148 rc1  
-----  
|17th, 11:51:19.790 UDM : SN00A0BA08CB50-Installing package: 99% done, completion in ~8 seconds. Timeout in 45 minutes  
|17th, 11:51:24.840 UDM : SN00A0BA08CB50-Installing package: 99% done, completion in ~8 seconds. Timeout in 45 minutes  
|17th, 11:51:29.407 UDM : SN00A0BA08CB50-Installing license: State entered (previous state was Installing package)  
|17th, 11:51:29.407 UDM : SN00A0BA08CB50-Installing license: Installing license /lib/tb/toolpack/pkg/licenses//SN00A0BA08CB50_V2_8_license.dat...  
|17th, 11:51:29.913 UDM : SN00A0BA08CB50-Installing license: 0% done. Timeout in 14 seconds  
|17th, 11:51:31.407 UDM : SN00A0BA08CB50-Installing mezz license: State entered (previous state was Installing license)  
|17th, 11:51:31.407 UDM : SN00A0BA08CB50-Validating package: State entered (previous state was Installing mezz license)  
|17th, 11:51:31.407 UDM : SN00A0BA08CB50-Validating package: Validating package just installed  
|17th, 11:51:34.926 UDM : SN00A0BA08CB50-Validating package: 33% done, completion in ~7 seconds. Timeout in 4 minutes  
|17th, 11:51:39.948 UDM : SN00A0BA08CB50-Validating package: 75% done, completion in ~2 seconds. Timeout in 4 minutes  
|17th, 11:51:42.566 UDM : SN00A0BA08CB50-Validating package: Package '02085301' successfully validated!  
|17th, 11:51:42.566 UDM : SN00A0BA08CB50-Final reboot: State entered (previous state was Validating package)  
|17th, 11:51:42.566 UDM : SN00A0BA08CB50-Final reboot: Install complete. Not rebooting adapter (please reboot adapter later).  
|17th, 11:51:42.566 UDM : SN00A0BA08CB50-Done: State entered (previous state was Final reboot)  
|17th, 11:51:42.584 UDM : Background package installation complete for adapter TB013397  
|17th, 11:51:42.584 UDM : Updating packages list for adapter TB013397: Marking package 02085301 (V2.8.83 rc1) as valid  
|17th, 11:51:42.586 UDM : Summary of packages found on adapter TB013397:  
|17th, 11:51:42.586 UDM : 02085301 (2.8.83 rc1): Valid  
|17th, 11:51:42.586 UDM : 02079401 (2.7.148 rc1): Valid  
|17th, 11:51:42.586 UDM : 02077f02 (2.7.127 rc2): Valid  
|17th, 11:51:42.586 UDM : 2_7_94.1 (2.7.94 rc1): Valid  
|17th, 11:51:42.586 UDM : / (2.7.94 rc1): Not yet validated  
|17th, 11:51:42.586 UDM :  
|17th, 11:51:47.485 UDM : Package to install in background (2.8.83 RC1) is now installed on all adapters. No more need to background update.  
|17th, 11:56:43.754
```

2.8.83 installed on HW Unit, bt still not Activated!

SmartMedia Major upgrade

Non service affective – background installation

- you can also confirm CLI messages in the WebPortal
- the earlier mentioned 'Installed Firmware Versions' option will present release 2.8.83 in active state

Configuration Hardware Unit Status TMS Network Status

Units Status

Status Options

Refresh every: **2.8.83 ready to be Activated**

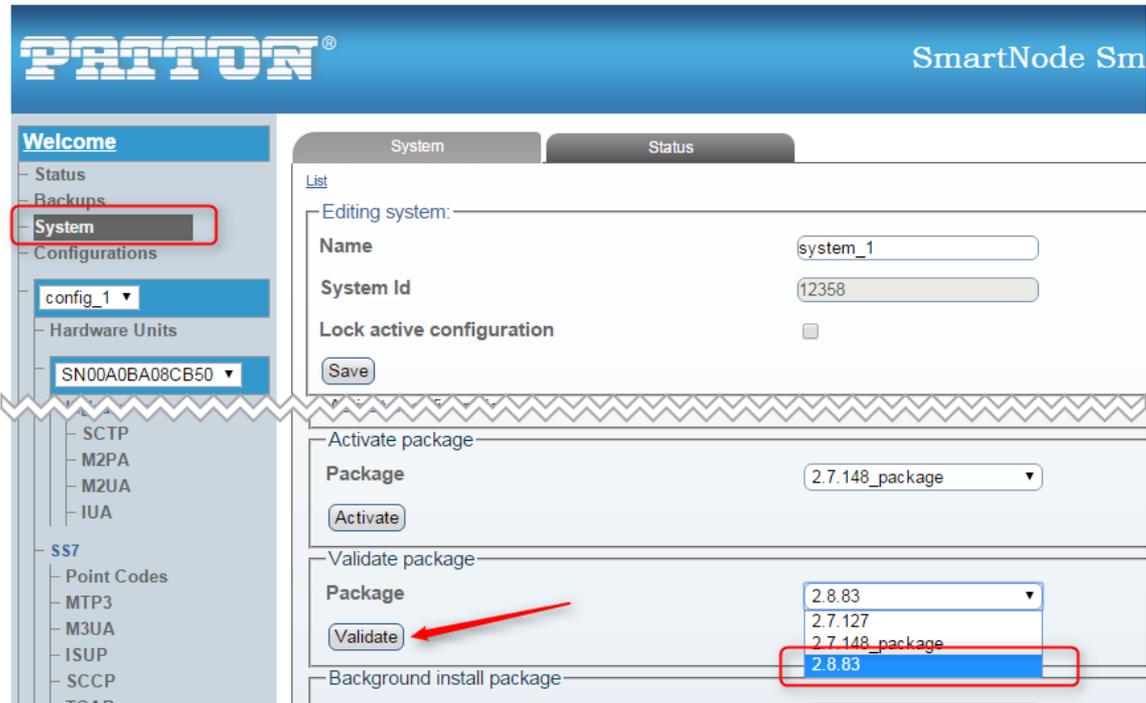
Serial number	Type	Enabled	Updating	State	Reboot required	License expired	Fault	Cpu usage
SN00A0BA08CB50	T1/E1/J1 Gateway	Enabled	No	Ready/Active	No	false	(no fault)	Cpu0(0%), Cpu1(2%)

Installed firmware versions

SN00A0BA08CB50	Version 2.7.94 rc 1 READY	Version 2.7.148 rc 1 READY	Version 2.8.83 rc 1 READY
----------------	------------------------------	-------------------------------	------------------------------

Non service affective – package validation

- in order to receive a final confirmation of the upgrade process and simulate a package switchover (including database upgrade) proceed with Web Portal to 'Menu -> System'
- from the 'Validate package' section drop down list choose the SmartMedia release you would like to test and press 'Validate'



Non service affective – package validation

- process may take a while
- after completed successfully you should receive a 'Package is valid' result

The screenshot displays a web-based interface for package management. It is divided into two main sections: 'Activate package' and 'Validate package'. In the 'Activate package' section, a dropdown menu is set to '2.7.148_package' and an 'Activate' button is visible. The 'Validate package' section has a dropdown menu set to '2.8.83' and a 'Validate' button. Below the 'Validate' button, a green message box with a red border states 'Validation succeeded: Package is valid.'.

Section	Package	Action
Activate package	2.7.148_package	Activate
Validate package	2.8.83	Validate

Validation succeeded:
Package is valid.

SmartMedia Major upgrade

Non service affective – package validation

- you can follow the validation process invoked through WebPortal in ‘System View -> tboam’ CLI as well

```
|17th, 11:51:47.485 UDM : Package to install in background (2.8.83 RC1) is now installed on all adapters. No more need to background
|17th, 11:51:55.488 UDM : Updating packages list for adapter TB013397: Deleting package 02077F02 (V2.7.127 rc2) (no more present on
|17th, 11:51:55.489 UDM : Summary of packages found on adapter TB013397:
|17th, 11:51:55.489 UDM : 02085301 (2.8.83 rc1): Valid
|17th, 11:51:55.489 UDM : 02079401 (2.7.148 rc1): Valid
|17th, 11:51:55.489 UDM : 2_7_94.1 (2.7.94 rc1): Valid
|17th, 11:51:55.489 UDM : / (2.7.94 rc1): Not yet validated
|17th, 11:51:55.489 UDM :
|17th, 11:58:01.866 UDM : TEST_ADAPTER-Canceled: State entered (previous state was Not started)
|17th, 11:58:01.866 UDM : SN00A0BA08CB50-Not started: Searching appropriate license from directory '/lib/tb/toolpack/pkg/licenses'.
|17th, 11:58:01.867 UDM : SN00A0BA08CB50-Not started: ValidateLicenseFile: Will install license file 'SN00A0BA08CB50_V2_8_license.d
|17th, 11:58:01.867 UDM : SN00A0BA08CB50-Canceled: State entered (previous state was Not started)
|17th, 11:58:01.867 UDM : Validation of package 2.8.83 (2.8.83): Result is Package is valid.
|17th, 11:58:19.708
```

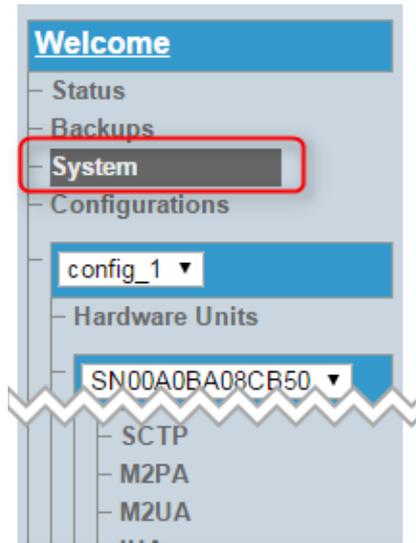
Requirements for package activation

- **the new SmartMedia release is ready for activation ONLY if:**
 - ☞ **appropriate firmware version is available on TelcoBoards/HW Units**
 - and**
 - ☞ **validation of the new SmartMedia release is successful**
- remember that the newly installed software package doesn't need to be immediately Activated; you can wait for example for a maintenance window

SmartMedia Major upgrade

Service affective – prerequisites

- **steps described from this point onwards will lead to disturbances in service availability and loss of active calls**
- be sure you are still running the 'System View -> tboam' CLI
- start in WebPortal 'Menu -> System'
- you can perform another package validation if you like

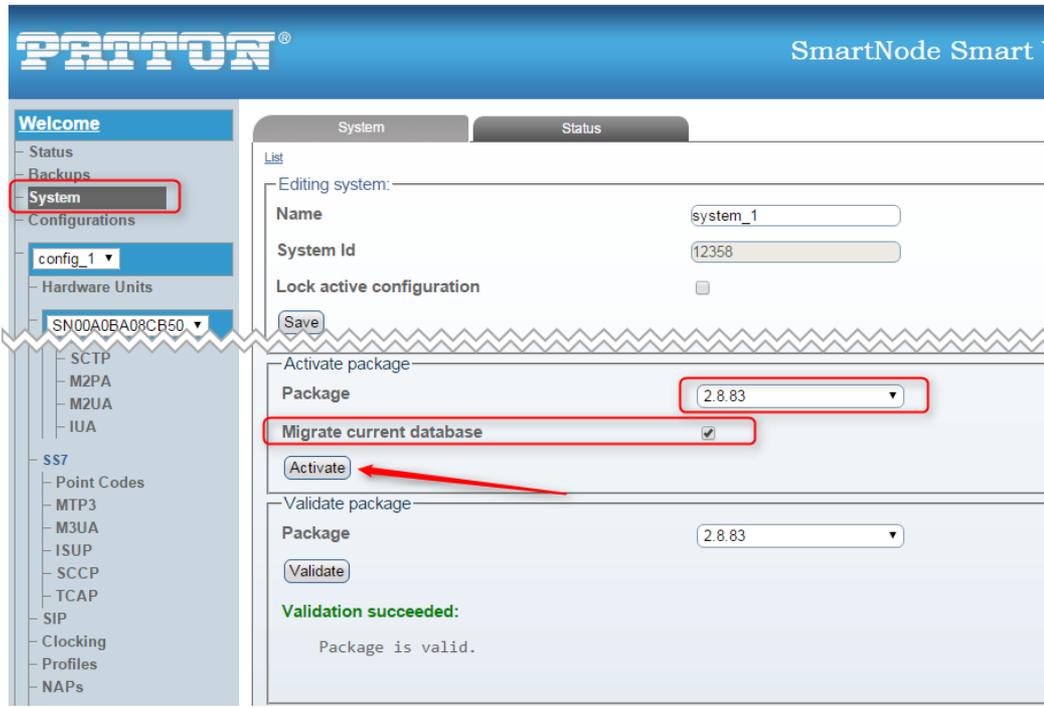


- before continuing please be sure that following requirements are met:
 - ☞ **all „requirements for package activation” are met**
 - ☞ **you are sure which software version to activate, because from this point on there is no possibility to Cancel the process, other then wait until it's done and issue a software release rollback**

SmartMedia Major upgrade

Service affective – package activation

- next step is to choose the appropriate SmartMedia release from 'Activate Package' section dropdown list
- **be sure to check the 'Migrate current database' option, otherwise the Major Upgrade will fail**
- press 'Activate' to confirm



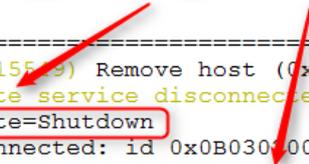
SmartMedia Major upgrade

Service affective – package switchover

- go back to 'System View' CLI
- please be advised that you may experience a restart of the 'System View' monitor caused by the SmartMedia package switchover
- it means that SmartMedia installer just invoked a new instance of 'tboam_app' dispatcher process
- this is nothing to be worried and no actions are required – just wait until done
- be sure to navigate back to „Upgrade Mgr” using Tab when 'tboam' monitor is back

```
_tboam_app_remote
*** NOW REMOTELY CONTROLLING SN00A0BA08CB50.tboam_app. Press ESCAPE twice to disconnect. ****
-----
| -> Main <- | Host Ctrl | VLAN Mgr | Perf Mon | Upgrade Mgr
-----
(?) Help      (q) Quit      (tab) Next page
-----
|17th, 11:58:41.537 SER : AlmMgmt: LaunchLib: (SN00A0BA08CB50.toolpack_engine, Pid 15549) Remove host (0x02011FAC00003CBD) SN
|17th, 11:58:41.537 SER : CTBCAFServiceStatusClient: CTBCAFServiceStatusClient remote service disconnected from host SN00A0BA
Recovery1We58P4it537rAMingOnMgmtShutdown: Application (toolpack_engine) hProc=8 state=Shutdown exit_code=unknown
|17th, 11:58:41.537 SER : CmMgmtServer: OnServiceDisconnected: Remote service disconnected: id 0x0B030000 on SN00A0BA08CB50.t
|
| 0x02011FAC00003CBD)
|17th, 11:58:41.537 CM : OnServiceDisconnected: Application disconnected (SN00A0BA08CB50.toolpack_engine)
```

Apps shutting down and disconnecting



SmartMedia Major upgrade

Service affective – package switchover

- ‘System View -> tboam’ monitor will report few different states
- ‘Creating database’/‘Database update’ – performing data scheme upgrade

```
_tboam_app_remote
*** NOW REMOTELY CONTROLLING SN00A0BA08CB50.tboam_app. Press ESCAPE twice to disconnect. ****

| -> Main <- | Host Ctrl | VLAN Mgr | App Launch Mgr | DB Mgr | Perf Mon

(??) Help      (q) Quit      (tab) Next page

Local host      : SN00A0BA08CB50 (version RELEASE_V2_8_83_RC1)
System Id       : 12358, through interfaces 172.31.1.2 / 172.31.1.2
Host role/state : Standalone / Creating database ( Elected, Master )
Recovery state  : Validating System Id (connecting to database...)
Recovery Web Portal running...

Databases state : Not connected: /XML file:tboamapp.xml
Primary state    : TentativeMaster: Up, Not validated, ODBC:SERVER=127.0.0.1;PORT=3306;UID=tbdb;PWD=tbdbpw;DATABASE=toolpack_2_8;

Application name : Target state | Pid
1 web_status_client : Run | 26599
2 tbcli_remote      : Run | 24032
3 logtrace          : Run | 26547
4 web_server        : Run | 26578

Serial number    : Target state | Current State | ctrl0 | ctrl1
TB013397 - V2.7.148 rc1 : VLAN check | Management | 172.31.1.1 | 0.0.0.0
```

Running 2.8 release!

DB migration

Service affective – package switchover

- ‘Applying initial config’ – newly launched dispatcher creates the environment for new versions of application binaries

```
_tboam_app_remote
**** NOW REMOTELY CONTROLLING SN00A0BA08CB50.tboam_app. Press ESCAPE twice to disconnect. ****
-----
| -> Main <- | Host Ctrl | VLAN Mgr | App Launch Mgr | DB Mgr | Perf Mon | Upgrade Mgr | Config Mgr
-----
(?) Help      (q) Quit      (tab) Next page
-----
Local host      : SN00A0BA08CB50 (version RELEASE_V2_8_83_RC1)
System Id       : 12358, through interfaces 172.31.1.2 / 172.31.1.2
Host role/state : Standalone / Applying initial configuration ( Elected, Master )
-----
Databases state : Connected: toolpack_2_8/config_1
Primary state   : Master:   Up,      Validated, ODBC:SERVER=127.0.0.1;PORT=3306;UID=tbdb;PWD=tbdbpw;DATABASE=toolpack_2_8;
-----
Application name : Target state | Pid
-----
1 tbsnmpagent    : Don't run  |
2 tbuctwriter    : Run        | 26697
3 stream_server  : Run        | 26732
4 toolpack_engine : Run        | 26765
5 toolpack_sys_mgr : Run        |
6 gateway        : Run        |
7 tbcli_remote   : Run        | 24032
8 logtrace       : Run        | 26547
9 web_server     : Run        | 26673
-----
Serial number   : Target state | Current State | ctrl0 | ctrl1
-----
1 TB013397- V2.7.148 rc1 : Probation | Ready/Active | 172.31.1.1 | 0.0.0.0
=====
```

Switching Apps versions

Service affective – package switchover

- ‘Switching new package’ – the actual upgrade process
 - ☞ binaries switchover – old applications are terminated and new versions are launched
 - ☞ TelcoBoard / HW Units upgrade – firmware is loaded on the Units

„-> Main <-“ view

```
_tboam_app_remote
**** NOW REMOTELY CONTROLLING SN00A0BA08CB50.tboam_app. Press ESCAPE twice to disconnect. ****
-----
| -> Main <- | Host Ctrl | VLAN Mgr | App Launch Mgr | DB Mgr | Perf Mon | Upgrade Mgr | Config Mgr
-----
(?) Help      (q) Quit      (tab) Next page
-----
Local host    : SN00A0BA08CB50 (version RELEASE_V2_8_83_RC1)
System Id     : 12358, through interfaces 172.31.1.2 / 172.31.1.2
Host role/state : Standalone / Switching to new package ( Elected, Master )
-----
Databases state : Connected: toolpack_2_8/config_1
Primary state  : Master: Up, Validated, ODBC:SERVER=127.0.0.1;PORT=3306;UID=tbdb;PWD=tbdbpw;DATABASE=toolpack_2_8;
-----
Application name : Target state | Pid
1 web_status_client : Run | 26880
2 tbsnmpagent      : Don't run |
3 tbuctwriter      : Run | 26697
4 stream_server    : Run | 26732
5 toolpack_engine  : Run | 26765
6 toolpack_sys_mgr : Run | 26801
7 gateway          : Run | 26830
8 tbcli_remote     : Run | 24032
9 logtrace         : Run | 26547
10 web_server      : Run | 26673
-----
Serial number  : Target state | Current State | ctrl0 | ctrl1
1 TB013397- V2.7.148 rc1 : Updating | Not configured | 172.31.1.1 | 0.0.0.0
```

Switching HW Unit firmware

SmartMedia Major upgrade

Service affective – package switchover

- finished 'binaries switchover' will report all applications running from 2.8.83 filesystem path

„-> Upgrade Mgr <-“ view

```
_tboam_app_remote
*** NOW REMOTELY CONTROLLING SN00A0BA08CB50.tboam_app. Press ESCAPE twice to disconnect. ****

Main Host Ctrl VLAN Mgr App Launch Mgr DB Mgr Perf Mon -> Upgrade Mgr <- Config Mgr

(?) Help (g) Quit (tab) Next page

Local host : SN00A0BA08CB50 (version RELEASE_V2_8_83_RC1)
System Id : 12358, through interfaces 172.31.1.2 / 172.31.1.2
Host role/state : Standalone / Switching to new package ( Elected, Master )

Current configuration and status:
Current package home : /mnt/.0/tb/toolpack/pkg/
Current package : 2.8.83
Current build number : V2.8.83 rc1 : TB013397

Application | OAM State | Update State | Current state | HA state | Current bin path
1 SN00A0BA08CB50.tboam_app | Run | | Ready | Active | @({PKG_HOME})/2.8.83/bin/release/x86_64-linux64/gateway
2 SN00A0BA08CB50.gateway | Run | | Ready | Standby | @({PKG_HOME})/2.8.83/bin/release/x86_64-linux64/toolpack_sys_manager
3 SN00A0BA08CB50.toolpack_sys_mgr | Run | | Ready | Active | @({PKG_HOME})/2.8.83/bin/release/x86_64-linux64/tblogtrace
4 SN00A0BA08CB50.logtrace | Run | | Ready | Standby | @({PKG_HOME})/2.8.83/bin/release/x86_64-linux64/toolpack_engine
5 SN00A0BA08CB50.toolpack_engine | Run | | Ready | Active | @({PKG_HOME})/2.8.83/bin/release/x86_64-linux64/tbstreamserver
6 SN00A0BA08CB50.stream_server | Run | | Ready | Active | @({PKG_HOME})/2.8.83/bin/release/x86_64-linux64/tbctwriter
7 SN00A0BA08CB50.tbctwriter | Run | | Ready | Active | @({PKG_HOME})/2.8.83/bin/release/x86_64-linux64/tbctwriter
8 SN00A0BA08CB50.tbsnmpagent | Don't run | | Not running | Not present |

SerialNb | OAM State | Update State | Current state | Build number
1 TB013397 | Enabled | Updating | Not configured | unknown (not present)
```

Binaries running new versions

HW Unit pending detection

Service affective – package switchover

- TelcoBoard / HW Units upgrade
 - ☞ upgrade without flashing – requires only setting the boot process and restart if the Unit
 - ☞ flashing process – in case Unit needs to have FPGAs reprogrammed it will undergo flashing

```
-----  
SerialNb | OAM State | Update State | Current state | Build number  
1 TB013397 | Enabled | Updating | Management | V2.8.83 rc1  
-----  
|17th, 11:59:46.695 CM : BuildApplicationList: Validating/Creating Unique Ids  
|17th, 11:59:46.727 CM : BuildApplicationList: Done cfgId=1 Nb apps=8 Adding 0, Removing 0  
|17th, 11:59:48.066 UDM : Adapter 'TB013397' now ready to be installed. Rebooting to target package '02085301'  
|17th, 11:59:48.066 UDM : Send adapter reboot command for 0XCA013397  
|17th, 11:59:48.764 COMM: 08/17/2015 11:59:48: TB013397:172.31.1.1 gw0 DOWN (Socket closed in a clean manner)  
|17th, 11:59:48.762.8 release written to flash: TB013397 (0xCA013397) removed (cause: Socket closed in a clean manner)  
|17th, 11:59:49.962 ALM : OnMgmtReady: Application (web_status_client) hProc=11 state=Not using ALM msgs  
|17th, 12:01:21.453 COMM: TbxHostSendAdapterAddedEvent: 08/17/2015 12:01:21: TB013397 (0xCA013397) added  
|17th, 12:01:21.453 COMM: 08/17/2015 12:01:21: TB013397:172.31.1.1 gw0 UP  
|17th, 12:01:21.476 VIM: TB013397: Inserting physical Ethernet port host in the DB  
|17th, 12:01:21.770 UDM : *****  
|17th, 12:01:21.770 UDM : * Adapter sync: TB013397:  
|17th, 12:01:21.770 UDM : * Querying adapter information...  
|17th, 12:01:21.770 UDM : *****  
|17th, 12:01:21.872 UDM : *****  
|17th, 12:01:21.872 UDM : * Adapter TB013397 requires update to POLO (flashing)  
|17th, 12:01:21.872 UDM : * It runs version V2.8.83 rc1, and ROM V2.7.94 rc1  
|17th, 12:01:21.872 UDM : *****
```

SmartMedia Major upgrade

Service affective – package switchover

- TelcoBoard / HW Units upgrade
- initial detection

```
-----  
SerialNb | OAM State | Update State | Current state | Build number  
1 TB013397 | Enabled | Updating | Not configured | V2.8.83 rc1  
=====
```

- validating package installed during 'background install'

```
-----  
SerialNb | OAM State | Update State | Current state | Build number  
1 TB013397 | Enabled | Updating | Installing | V2.8.83 rc1  
| 6% - Package installation, state Validating package (Validating package 02085301) |  
=====
```

- reboot in Maintenance mode

```
-----  
SerialNb | OAM State | Update State | Current state | Build number  
1 TB013397 | Enabled | Updating | Installing | unknown (not present)  
| 30% - Package installation, state Rebooting maintenance mode (Rebooting adapter in maintenance mode) |  
=====
```

- perform FPGA flash and reboot

```
-----  
SerialNb | OAM State | Update State | Current state | Build number  
1 TB013397 | Enabled | Updating | Installing | V2.8.83 rc1  
| 99% - Package installation, state Final reboot (Flash complete. Rebooting adapter.) |  
=====
```

Service affective – package switchover

- TelcoBoard / HW Units upgrade
- waiting for TelcoBoard/HW Unit to bootup with the new firmware

Application	OAM State	Update State	Current state	HA state	Current bin path
1 SN00A0BA08CB50.tbocam app	Run		Ready	Active	@{PKG_HOME}/2.8.83/bin/release/x86_64-linux64/gatew
2 SN00A0BA08CB50.gateway	Run		Ready	Standby	@{PKG_HOME}/2.8.83/bin/release/x86_64-linux64/toolp
3 SN00A0BA08CB50.toolpack_sys_mgr	Run		Ready	Active	@{PKG_HOME}/2.8.83/bin/release/x86_64-linux64/tblog
4 SN00A0BA08CB50.logtrace	Run		Ready	Active	@{PKG_HOME}/2.8.83/bin/release/x86_64-linux64/toolp
5 SN00A0BA08CB50.toolpack engine	Run		Ready	Standby	@{PKG_HOME}/2.8.83/bin/release/x86_64-linux64/toolp
6 SN00A0BA08CB50.stream_server	Run		Ready	Active	@{PKG_HOME}/2.8.83/bin/release/x86_64-linux64/tbstr
7 SN00A0BA08CB50.tbuctwriter	Run		Ready	Active	@{PKG_HOME}/2.8.83/bin/release/x86_64-linux64/tbuct
8 SN00A0BA08CB50.tbsnmpagent	Don't run		Not running	Not present	

SerialNb	OAM State	Update State	Current state	Build number
1 TB013397	Enabled		Not configured	V2.8.83 rc1

HW Unit upgrade done, pending detection by SmartMedia

Service affective – package switchover

- after the TelcoBoards are back to 'Ready/Active' state the **upgrade procedure is over**
- our Lab Unit package switchover took about 5 minutes, which was exactly the time of 'service unavailability'

```
**** NOW REMOTELY CONTROLLING SN00A0BA08CB50.tbom_app. Press ESCAPE twice to disconnect. ****
Main Host Ctrl VLAN Mgr App Launch Mgr DB Mgr Perf Mon -> Upgrade Mgr <- Config Mgr
( ? ) Help ( q ) Quit ( tab ) Next page
-----
Local host      : SN00A0BA08CB50 (version RELEASE V2 8 83 rc1)
System Id      : 12358, through interfaces 172.31.1.2 / 172.31.1.2
Host role/state : Standalone / Ready ( Elected, Master )
-----
Current configuration and status:
Current package home : /mnt/.0/tb/toolpack/pkg/
Current package      : 2.8.83
Current build number : V2.8.83 rc1      : TB013397
-----
Application      OAM State  Update State  Current state  HA state  Current bin path
-----
1 SN00A0BA08CB50.tbom_app      Run        Run        Ready         Active    @ {PKG_HOME}/2.8.83/bin/release/x86_64-linux64/gateway
2 SN00A0BA08CB50.gateway      Run        Run        Ready         Active    @ {PKG_HOME}/2.8.83/bin/release/x86_64-linux64/toolpack_sys_manager
3 SN00A0BA08CB50.toolpack_sys_mgr  Run        Run        Ready         Active    @ {PKG_HOME}/2.8.83/bin/release/x86_64-linux64/tblogtrace
4 SN00A0BA08CB50.logtrace      Run        Run        Ready         Active    @ {PKG_HOME}/2.8.83/bin/release/x86_64-linux64/toolpack_engine
5 SN00A0BA08CB50.toolpack_engine  Run        Run        Ready         Active    @ {PKG_HOME}/2.8.83/bin/release/x86_64-linux64/tbstreamserver
6 SN00A0BA08CB50.stream_server  Run        Run        Ready         Active    @ {PKG_HOME}/2.8.83/bin/release/x86_64-linux64/tbstreamserver
7 SN00A0BA08CB50.tbuctwriter    Run        Run        Ready         Active    @ {PKG_HOME}/2.8.83/bin/release/x86_64-linux64/tbuctwriter
8 SN00A0BA08CB50.tbsnmpagent    Don't run  Not present  Not running   Not present
-----
SerialNb        OAM State  Update State  Current state  Build number
-----
1 TB013397      Enabled    Run        Ready/Active   V2.8.83 rc1
-----
17th, 12:03:46.973 UDM : *****
17th, 12:03:46.973 UDM : * Adapter sync: TB013397:
17th, 12:03:46.973 UDM : * Querying adapter information...
17th, 12:03:46.973 UDM : *****
17th, 12:03:46.977 OAM : OAM State changing from Switching to new package -> Ready
17th, 12:03:47.733 UDM : updating packages list for adapter TB013397: Deleting package 02079401 (V2.7.148 rc1) (no more present on adapter)
17th, 12:03:47.735 UDM : Summary of packages found on adapter TB013397:
17th, 12:03:47.735 UDM : 02085301 (2.8.83 rc1): Valid
17th, 12:03:47.735 UDM : 2_7_94.1 (2.7.94 rc1): Valid
17th, 12:03:47.735 UDM : / (2.7.94 rc1): Not yet validated
17th, 12:03:47.735 UDM :
17th, 12:03:47.735 UDM : Summary of packages found on adapter TB013397:
17th, 12:03:47.735 UDM : 02085301 (2.8.83 rc1): Valid
17th, 12:03:47.735 UDM : 2_7_94.1 (2.7.94 rc1): Valid
17th, 12:03:47.735 UDM : / (2.7.94 rc1): Not yet validated
17th, 12:03:47.735 UDM :
17th, 12:03:49.201 SER : CTBCAFServiceStatusClient: OnServiceConnected: Remote service connected: id 0x0b050200 on SN00A0BA08CB50.toolpack_engine (handle 0x0xcc042001, application
|
| 0x02011FAC0000688D)
17th, 12:03:49.202 SER : CTBCAFServiceStatusClient: CTBCAFServiceStatusClient remote service detected from host SN00A0BA08CB50.toolpack_engine, from IP 172.31.1.2
17th, 12:03:49.202 SER : CTBCAFServiceStatusClient: OnServiceConnected: Created service instance for remote service 0x0xcc042001
17th, 12:03:49.289 SER : CTBCAFServiceStatusClient: OnServiceConnected: Remote service connected: id 0x0b050200 on SN00A0BA08CB50.gateway (handle 0x0xcc044001, application
|
| 0x02011FAC0000688E)
17th, 12:03:49.289 SER : CTBCAFServiceStatusClient: CTBCAFServiceStatusClient remote service detected from host SN00A0BA08CB50.gateway, from IP 172.31.1.2
17th, 12:03:49.289 SER : CTBCAFServiceStatusClient: OnServiceConnected: Created service instance for remote service 0x0xcc044001
-17th, 12:04:05.989
Enter your command>
```

Running release 2.8.83

Upgrade done
- start 11:58:41
- done 12:03:46

Service affective – package switchover in SN10300 N+1

- in SN10300 with N+1 failover TelcoBoard/MGW Unit upgrade process will run a following loop:
 - ☞ Unit1 upgrade is triggered
 - ☞ N+1 Backup Unit takes over
 - ☞ Unit1 upgrade is finished
 - ☞ Unit1 is rebooted
 - ☞ Unit1 is reported as 'Ready'
 - ☞ N+1 performs fallback to Unit1
 - ☞ Unit1 becomes 'Active'
 - ☞ Backup Unit is restarted (config reset)
 - ☞ N+1 Group reaches 'Protected' state
 - ☞ next Unit is upgraded (fe. Unit2)

SmartMedia Major upgrade

End of procedure – WebPortal validation

- you can proceed to the WebPortal which will be running a new software release
- **new version of WebPortal will be available for login just few minutes after 'package switchover' starts**
- please note that 'System' section in the 'Menu -> Status' will report running package 2.8.83
- similar revision should be available on the top of the WebPortal page

The screenshot displays the Patton SmartMedia WebPortal interface. At the top right, a status bar indicates 'Smart Media Software | Version: 2.8.83, Primary host' and 'Logged as root'. The left sidebar contains a navigation menu with 'Status' selected. The main content area shows the 'system_1' status page. A 'System' tab is active, displaying a table with system information:

Info	
Name	system_1
System Date	2015-08-17 12:04:21
Up Time	5m 32s
Boot Time	August 17 2015, 11:58:48
Package	Running from package '2.8.83'

The 'Package' row is highlighted with a red box. To the right of the table, there are buttons for 'Call legs', 'Answered', and 'Total'. Above the table, there are tabs for 'System', 'Calls', 'Hardware Units', and 'Applications', and a row of buttons for 'Isdn', 'lua', 'CAS', 'Sip', 'Clock', and 'Nap'.

SmartMedia Major upgrade

End of procedure – WebPortal validation

- HW Units / TelcoBoard version validation
- go to 'Menu -> config -> HW Units' then open 'HW Unit Status' Tab and point towards HW Unit SN#
- please be advised that sometimes 'Build name' isn't corresponding with 'Rom build name', which is caused by the FPGA flashing process not being always required

Configuration Hardware Unit Status

Units Status

Status Refresh

Refresh every: Don't refresh

Serial number	Type	Enabled	Updating	State	Reboot required
SN00A0BA08CB50	T1/E1/J1 Gateway	Enabled	No	Ready/Active	No

List Unit Status - SN00A0BA08CB50

Status Refresh

Refresh every: Don't refresh

Status Level: Level 2

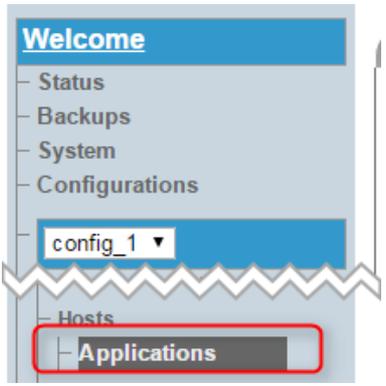
States Usage Sensors Licensed features

Name	Value
Unique Id	13397
Reboot unit required	Reboot is not required now
Reboot unit	No
Oam target state	Enabled
Oam target update state	Enabled
Oam current state	Ready/Active
Oam current upgrade status	No install in progress
Oam current upgrade percentage	NONE
Oam last upgrade result	Ok, running 2.8.83
Oam last upgrade time	2015-08-17 12:03:46+0200
Oam last license install result	Successfully installed package 2.8.83
Build name	RELEASE_V2_8_83_RC1
Rom build name	RELEASE_V2_8_83_RC1
Rom firmware version	34099969
Firmware version	34099969

SmartMedia Major upgrade

End of procedure – WebPortal validation

- applications version validation
- go to 'Menu -> config -> Hosts -> Applications' then open 'Status' Tab
- verify that each binary is running from 2.8.83 directory



Configuration **Status**

Application Status List

Status Refresh: Refresh every:

Application name	Host	Oam current state	Current bin path	Oam ha current state
gateway	SN00A0BA08CB50	Ready	/lib/tb/toolpack/pkg/2.8.83/bin/release/x86_64-linux64/gateway	Active
logtrace	SN00A0BA08CB50	Ready	/lib/tb/toolpack/pkg/2.8.83/bin/release/x86_64-linux64/tblogtrace	Active
stream_server	SN00A0BA08CB50	Ready	/lib/tb/toolpack/pkg/2.8.83/bin/release/x86_64-linux64/tbstreamserver	Active
tboamapp	SN00A0BA08CB50	Ready		Active
tbsnmpagent	SN00A0BA08CB50	Not running		Not present
tbuctwriter	SN00A0BA08CB50	Ready	/lib/tb/toolpack/pkg/2.8.83/bin/release/x86_64-linux64/tbuctwriter	Active
toolpack_engine	SN00A0BA08CB50	Ready	/lib/tb/toolpack/pkg/2.8.83/bin/release/x86_64-linux64/toolpack_engine	Active
toolpack_sys_mgr	SN00A0BA08CB50	Ready	/lib/tb/toolpack/pkg/2.8.83/bin/release/x86_64-linux64/toolpack_sys_manager	Active