



SmartMedia Minor upgrade

with minimal downtime

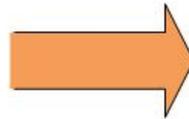
Introduction

- SmartMedia upgrade around the same Major release (fe. 2.8) is considered Minor upgrade (our example will present a 2.8.63 to 2.8.68 upgrade)
- start by downloading an appropriate SmartMedia software update from <http://www.patton.com/support/upgrades/> website
- 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.
- **please be sure that you have created and downloaded to your computer an up to date configuraton backup before proceeding with this procedure**

Non service affective

- 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'

```
root@SN00A0BA06E970:~  
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
```



```
root@SN00A0BA06E970:~  
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 Minor upgrade

Non service affective

- 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 pres 2x Escape button;** using '(q) Quit' will shutdown tboamapp process

```
tbx_cli_tools_remote
-----
Available remote hosts to control (TBX_GW_PC)
a : SN00A0BA06E970.gateway
b : SN00A0BA06E970.logtrace
c : SN00A0BA06E970.stream_server
d : SN00A0BA06E970.tboam_app
e : SN00A0BA06E970.tbsnmpagent
f : SN00A0BA06E970.tbsnmpmux
g : SN00A0BA06E970.tbuctwriter
h : SN00A0BA06E970.toolpack_engine
i : SN00A0BA06E970.toolpack_sys_mgr
j : SN00A0BA06E970.web_server
k : SN00A0BA06E970.web_status_client
```

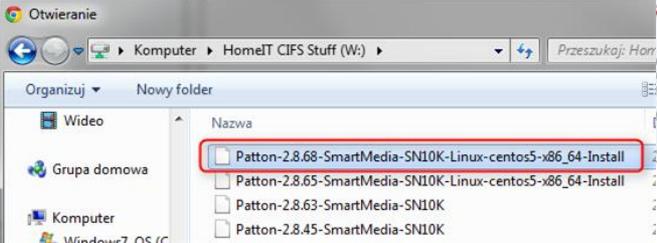
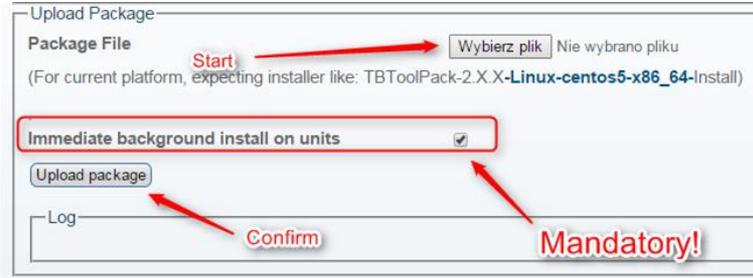


```
_tboam_app_remote
*** NOW REMOTELY CONTROLLING SN00A0BA06E970.tboam_app. Press ESCAPE twice to disconnect. ****
| Main | Host Ctrl | VLAN Mgr | App Launch Mgr | DB Mgr | Perf Mon | -> Upgrade Mgr <- | Config Mgr |
-----
(?) Help (q) Quit (tab) Next page
Local host : SN00A0BA06E970 (version RELEASE V2 8 63 RC6)
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 : 2.8.63
Current build number : V2.8.63 rc6 : TB009981
-----
Application OAM State Update State Current state HA state Current bin path
1 SN00A0BA06E970.tboam_app Run Ready Active Active @ {PKG_HOME} / 2.8.63 / bin/release/x86_64-linux64/gateway
2 SN00A0BA06E970.gateway Run Ready Active Active @ {PKG_HOME} / 2.8.63 / bin/release/x86_64-linux64/toolpack_sys_manager
3 SN00A0BA06E970.toolpack_sys_mgr Run Ready Active Active @ {PKG_HOME} / 2.8.63 / bin/release/x86_64-linux64/tblogtrace
4 SN00A0BA06E970.logtrace Run Ready Active Active @ {PKG_HOME} / 2.8.63 / bin/release/x86_64-linux64/toolpack_engine
5 SN00A0BA06E970.toolpack_engine Run Ready Active Active @ {PKG_HOME} / 2.8.63 / bin/release/x86_64-linux64/tbstreamserver
6 SN00A0BA06E970.stream_server Run Ready Active Active @ {PKG_HOME} / 2.8.63 / bin/release/x86_64-linux64/tbuctwriter
7 SN00A0BA06E970.tbuctwriter Run Ready Active Active @ {PKG_HOME} / 2.8.63 / bin/release/x86_64-linux64/tbsnmpagent
8 SN00A0BA06E970.tbsnmpagent Run Ready Active Active @ {PKG_HOME} / 2.8.63 / bin/release/x86_64-linux64/tbstatus_monitor
9 SN00A0BA06E970.tbstatus_monitor Fault Not running Not present
-----
SerialNb OAM State Update State Current state Build number
1 TB009981 Enabled Ready/Active V2.8.63 rc6
-----
|15th, 09:03:51.475 OAM : Standalone (MASTER mode). OAM State: Ready. tbtoolpack_service active
```

SmartMedia Minor upgrade

Non service affective

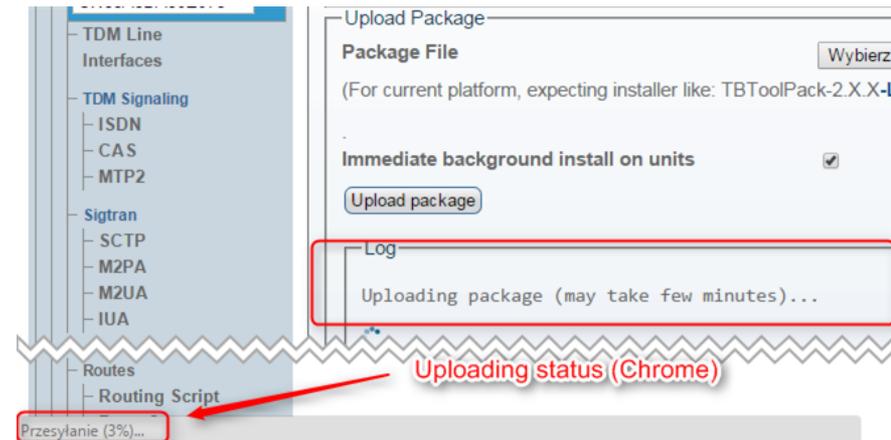
- login to the Web Portal and navigate 'Menu -> Maintenance -> Packages and Licenses'
- in the 'Upload Package' section choose the SmartMedia file downloaded to your computer
- **be sure to check 'Immediate background install on units' option**
- confirm the upload process with 'Upload package' button



SmartMedia Minor upgrade

Non service affective

- 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 Upload Log state „Installer completed succesfully” doesn't mean the Minor Upgrade is over!**



Non service affective

- 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 /mnt/.0/tb/toolpack/pkg directory; completing this task is reported with „Installer completed successfully“
- from this moment on background installation on TelcoBoards is started
- background installation uploads appropriate firmware on the TelcoBoard's flash storage

WebPortal will show exactly the same information in 'Upload Package -> Log'

```
14.617 SER : AlmMgmt: LaunchLib: (SN00A0BA06E970.tbcli_remote, Pid 0) Add host (0x02011FAC00002327) SN00A0BA06E970/tbcli_remote
14.618 ALM : OnMgmtReady: New application (tbcli_remote) hProc=23 state=Hostlib started
14.618 OAM : RfsSrv: Host SN00A0BA06E970.tbcli_remote added.
19.637 ALM : OnMgmtReady: Application (tbcli_remote) hProc=23 state=Not using ALM msgs
15th, 11:45:51.918 HCTL: ToolpackUpgrade: /tmp/Patton-2.8.68-SmartMedia-SN10K-Linux-centos5-x86_64-Install fDelete=1
15th, 11:45:51.918 HCTL: Upload Package: Launching Toolpack installer now
15th, 11:45:52.522 HCTL: Upload Package: Started at 2015-07-15 11:45:51+0200
15th, 11:46:17.877 OAM : Validating package '2.8.68' from folder '/lib/tb/toolpack/pkg'...
15th, 11:46:17.877 CTBOAMUdm::ValidatePackage: Files are missing. Package seems to have been incompletely installed, or is still being installed (in that case
Pkg is '/lib/tb/toolpack/pkg/2.8.68'. CTBOAMUdm.cpp:920
15th, 11:46:32.564 OAM : Validating package '2.8.68' from folder '/lib/tb/toolpack/pkg'...
15th, 11:46:32.564 CTBOAMUdm::ValidatePackage: Files are missing. Package seems to have been incompletely installed, or is still being installed (in that case
Pkg is '/lib/tb/toolpack/pkg/2.8.68'. CTBOAMUdm.cpp:920
15th, 11:46:37.616 HCTL: Upload Package: Installer completed successfully
15th, 11:46:37.616 HCTL: Upload Package: Deleting installer
15th, 11:46:37.756 HCTL: Upload Package: Done
15th, 11:46:37.756 HCTL: ToolpackUpgrade: Done
15th, 11:46:37.756 HCTL: Upload Package: Finished at 2015-07-15 11:46:37+0200
15th, 11:46:47.561 OAM : Validating package '2.8.68' from folder '/lib/tb/toolpack/pkg'...
15th, 11:46:47.562 CM : Insert package (2.8.68) in database.
15th, 11:46:47.569 CM :
15th, 11:46:47.569 CM : * Marking package '2.8.68' for background install on Tmedia units..
15th, 11:46:47.569 CM :
-15th, 11:46:52.171
```

Installer for the uploaded package is launched.

Application packages were deployed on Control Host. Firmware upgrade on TelcoBoards/MGW Units is still pending!

Firmware upgrade on TelcoBoards/MGW Units is initiated

Enter your command>_

Non service affective

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

```
-----  
Local host      : SN00A0BA06E970 (version RELEASE V2.8.63 RC6)  
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      : 2.8.63  
Current build number : V2.8.63 rc6 : TB009981  
Background install   : V2.8.68 rc1 : TB009981  
-----  
Application | OAM State | Update State | Current state | HA state | Current bin path  
-----  
1 SN00A0BA06E970.tbaoam_app | Run | | Ready | Active | @({PKG_HOME})/2.8.63/bin/release/x86_64-linux64/gateway  
2 SN00A0BA06E970.gateway | Run | | Ready | Active | @({PKG_HOME})/2.8.63/bin/release/x86_64-linux64/toolpack_sys_manage  
3 SN00A0BA06E970.toolpack_sys_mgr | Run | | Ready | Active | @({PKG_HOME})/2.8.63/bin/release/x86_64-linux64/tbologtrace  
4 SN00A0BA06E970.logtrace | Run | | Ready | Active | @({PKG_HOME})/2.8.63/bin/release/x86_64-linux64/toolpack_engine  
5 SN00A0BA06E970.toolpack_engine | Run | | Ready | Active | @({PKG_HOME})/2.8.63/bin/release/x86_64-linux64/tbstreamserver  
6 SN00A0BA06E970.stream_server | Run | | Ready | Active | @({PKG_HOME})/2.8.63/bin/release/x86_64-linux64/tbuctwriter  
7 SN00A0BA06E970.tbuctwriter | Run | | Ready | Active | @({PKG_HOME})/2.8.63/bin/release/x86_64-linux64/tbstatus_monitor  
8 SN00A0BA06E970.tbsnmpagent | Run | | Ready | Active | @({PKG_HOME})/2.8.63/bin/release/x86_64-linux64/tbsnmpagent  
9 SN00A0BA06E970.tbstatus_monitor | Fault | | Not running | Not present |  
-----  
SerialNb | OAM State | Update State | Current state | Build number  
-----  
1 TB009981 | Enabled | | Installing | V2.8.63 rc6  
-----  
[3%] - Background package installation, state Installing package (installing package from directory /lib/tb/toolpack/pkg/2.8.68/bin to adapter's directory 02084401)  
-----  
15th, 11:46:53.720 UDM : SN00A0BA06E970-Searching license file: State entered (previous state was Not started)  
15th, 11:46:53.720 UDM : SN00A0BA06E970-Detecting adapter: State entered (previous state was Searching license file)  
15th, 11:46:55.740 UDM : SN00A0BA06E970-Listing packages: State entered (previous state was Detecting adapter)  
15th, 11:46:55.833 UDM : SN00A0BA06E970-Listing packages: Found package 2_6_60.2, version 2.8.60 rc 2.  
15th, 11:46:55.833 UDM : SN00A0BA06E970-Listing packages: Found package 02083f06, version 2.8.63 rc 6.  
15th, 11:46:55.833 UDM : SN00A0BA06E970-Listing packages: Found package 02081901, version 2.8.25 rc 1.  
15th, 11:46:55.833 UDM : SN00A0BA06E970-Deleting old packages: State entered (previous state was Listing packages)  
15th, 11:46:55.833 UDM : SN00A0BA06E970-Deleting old packages: Analyzing 4 packages to find those that can be deleted...  
15th, 11:46:55.833 UDM : SN00A0BA06E970-Deleting old packages: Not deleting package /, was not installed by CAF OAM (directory name not CAF OAM format 02063c02)  
15th, 11:46:55.833 UDM : SN00A0BA06E970-Deleting old packages: Not deleting package 2_6_60.2, was not installed by CAF OAM (directory name not CAF OAM format 02063c02)  
15th, 11:46:55.833 UDM : SN00A0BA06E970-Deleting old packages: Not deleting package 02083f06, it's current boot directory  
15th, 11:46:55.833 UDM : SN00A0BA06E970-Deleting old packages: Deleting package 02081901 (RELEASE V2.8.25_RC1). No more required.  
15th, 11:46:57.801 UDM : SN00A0BA06E970-Installing package: State entered (previous state was Deleting old packages)  
15th, 11:46:57.801 UDM : SN00A0BA06E970-Installing package: Starting to upload package data to directory 02084401...  
15th, 11:46:58.726 UDM : SN00A0BA06E970-Installing package: Current state 0% done. Timeout in 59 minutes (total progress: ~ 0%)  
15th, 11:47:03.751 UDM : SN00A0BA06E970-Installing package: Current state 0% done. Timeout in 59 minutes (total progress: ~ 0%)  
15th, 11:47:08.756 UDM : SN00A0BA06E970-Installing package: Current state 1% done, completion in -18 minutes. Timeout in 59 minutes (total progress: ~ 0%)  
15th, 11:47:13.826 UDM : SN00A0BA06E970-Installing package: Current state 2% done, completion in -13 minutes. Timeout in 59 minutes (total progress: ~ 1%)  
15th, 11:47:18.827 UDM : SN00A0BA06E970-Installing package: Current state 3% done, completion in -11 minutes. Timeout in 59 minutes (total progress: ~ 2%)  
15th, 11:47:23.828 UDM : SN00A0BA06E970-Installing package: Current state 3% done, completion in -14 minutes. Timeout in 59 minutes (total progress: ~ 2%)  
15th, 11:47:28.830 UDM : SN00A0BA06E970-Installing package: Current state 4% done, completion in -12 minutes. Timeout in 59 minutes (total progress: ~ 3%)  
-----  
15th, 11:47:29.785  
-----  
Enter your command_
```

Non service affective

- please wait until tboam_app monitor presents a „Background package installation complete” log entry
- now you can be sure that the firmware is properly installed on the TelcoBoard(s)

```
-----  
Local host      : SN00A0BA06E970 (version RELEASE V2.8.63 RC6)  
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/ Stillon 2.8.63  
Current package      : 2.8.63  
Current build number : V2.8.63 rc6 : TB009981  
-----  
-----  
Application | OAM State | Update State | Current state | HA state | Current bin path  
-----  
1 SN00A0BA06E970.tboam_app | Run | | Ready | Active | @({PKG_HOME})/2.8.63/bin/release/x  
2 SN00A0BA06E970.gateway | Run | | Ready | Active | @({PKG_HOME})/2.8.63/bin/release/x  
3 SN00A0BA06E970.toolpack_sys_mgr | Run | | Ready | Active | @({PKG_HOME})/2.8.63/bin/release/x  
4 SN00A0BA06E970.logtrace | Run | | Ready | Active | @({PKG_HOME})/2.8.63/bin/release/x  
5 SN00A0BA06E970.toolpack_engine | Run | | Ready | Active | @({PKG_HOME})/2.8.63/bin/release/x  
6 SN00A0BA06E970.stream_server | Run | | Ready | Active | @({PKG_HOME})/2.8.63/bin/release/x  
7 SN00A0BA06E970.tbuctwriter | Run | | Ready | Active | @({PKG_HOME})/2.8.63/bin/release/x  
8 SN00A0BA06E970.tbsnmpagent | Run | | Ready | Active | @({PKG_HOME})/2.8.63/bin/release/x  
9 SN00A0BA06E970.tbstatus_monitor | Fault | | Not running | Not present | @({PKG_HOME})/2.8.63/bin/release/x  
-----  
-----  
SerialNb | OAM State | Update State | Current state | Build number  
-----  
1 TB009981 | Enabled | | Ready/Active | V2.8.63 rc6  
-----  
-----  
[15th, 12:02:44.642 UDM : SN00A0BA06E970-Validating package: Current state 25% done, completion in ~10 seconds. Timeout in 9 minutes (total p  
[15th, 12:02:49.652 UDM : SN00A0BA06E970-Validating package: Current state 69% done, completion in ~3 seconds. Timeout in 9 minutes (total p  
[15th, 12:02:53.154 UDM : SN00A0BA06E970-Validating package: Package '02084401' successfully validated!  
[15th, 12:02:53.154 UDM : SN00A0BA06E970-Final reboot: State entered (previous state was Validating package)  
[15th, 12:02:53.154 UDM : SN00A0BA06E970-Final reboot: Install complete. Not rebooting adapter (please reboot adapter later).  
[15th, 12:02:53.154 UDM : SN00A0BA06E970-Done: State entered (previous state was Final reboot)  
[15th, 12:02:53.208 UDM : Background package installation complete for adapter TB009981  
[15th, 12:02:53.208 UDM : Updating packages list for adapter TB009981: Marking package 02084401 (V2.8.68 rc1) as valid  
[15th, 12:02:53.221 UDM : Summary of packages found on adapter TB009981:  
[15th, 12:02:53.221 UDM : 02084401 (2.8.68 rc1): Valid  
[15th, 12:02:53.221 UDM : 02081901 (2.8.25 rc1): Valid  
[15th, 12:02:53.221 UDM : 02083f06 (2.8.63 rc6): Valid  
[15th, 12:02:53.221 UDM : 2_6_60.2 (2.6.60 rc2): Valid  
[15th, 12:02:53.221 UDM : / (2.6.60 rc2): Not yet validated  
[15th, 12:02:53.222 UDM :  
[15th, 12:02:54.576 UDM : Package to install in background (2.8.68 RC1) is now installed on all adapters. No more need to background update.  
[15th, 12:03:16.641 UDM : Updating packages list for adapter TB009981: Deleting package 02081901 (V2.8.25 rc1) (no more present on adapter)  
[15th, 12:03:16.647 UDM : Summary of packages found on adapter TB009981:  
[15th, 12:03:16.647 UDM : 02084401 (2.8.68 rc1): Valid  
[15th, 12:03:16.647 UDM : 02083f06 (2.8.63 rc6): Valid  
[15th, 12:03:16.647 UDM : 2_6_60.2 (2.6.60 rc2): Valid  
[15th, 12:03:16.647 UDM : / (2.6.60 rc2): Not yet validated  
[15th, 12:03:16.647 UDM :  
-----
```

Non service affective

- we can confirm the TelcoBoard firmware status from WebPortal
- go to the Web Portal and navigate 'Menu -> Maintenance -> Packages and Licenses'
- in the 'Background install' section choose 'Packages status'
- on the next window you can confirm the informations presented by 'System View' application

Configuration Status

List

Packages & Licenses

Upload License

License File Nie wybrano pliku

Log

Upload Package

Package File Nie wybrano pliku

(For current platform, expecting installer like: TBToolPack-2.X.X-Linux-centos5-x86_64-install)

Immediate background install on units

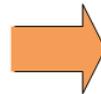
Log

Background install package

Package

This package will be installed in background (without interrupting calls handling) on all units of the system, simultaneously. Once all units are pre-installed with a package, switching to that package will be much faster.
Note: You will still need to Activate the package later. Background installation does not activate the package automatically.

Packages status can be monitored here:



Configuration Status

Packages Status on Units

Status Refresh

Refresh every:

	Version 2.6.60 rc 2	Version 2.8.63 rc 6	Version 2.8.68 rc 1	Current upgrade
SN00A0BA06E970	READY	READY	READY	NONE

SmartMedia Minor upgrade

Non service affective - 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'
- process may take a while and after down successfully you should receive a 'Package is valid' result
- you can follow the validation process in 'System View' CLI



Requirements for package activation

- **the new SmartMedia release is ready for activation ONLY if:**
 - ☞ **appropriate firmware version is available on TelcoBoards/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 Minor upgrade

Service affective

- **steps described from this point on will lead to disturbances in service availability and loss of active calls**
- be sure you are still running the 'System View' CLI
- start in WebPortal 'Menu -> System'
- you can perform another package validation
- if all „requirements for package activation” are met you can proceed with the 'Activate Package' section dropdown list, choose the appropriate software package and press Activate
- **please be sure what software version you are Activating, 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**



2. If package is valid/Active it

Package 2.8.68

Activate

Validate package

Package 2.8.68

Validate

1. Validate package - may take a while

Validation succeeded:
Package '2.8.68' is valid.

Service affective

- 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; this is nothing to be worried and no actions are required – just wait until done
- you will notice few states reported by 'System View'
- 'Database update' – performing data scheme upgrade

```
-----
| Main | Host Ctrl | VLAN Mgr | App Launch Mgr | DB Mgr | Perf Mon | -> Upgrade Mgr <- | Config Mgr
-----
(?) Help      (g) Quit      (tab) Next page
-----
Local host      : SN00A0BA06E970 (version RELEASE_V2_8_63_RC6)
System Id      : 12358, through interfaces 172.31.1.2 / 172.31.1.2
Host role/state : Standalone / Updating database ( Elected, Master )
-----
Current configuration and status:
Current package home : /mnt/.0/tb/toolpack/pkg/
Current package      : 2.8.63
Target package       : 2.8.68
Target build number  : V2.8.63 rc6      : TB009981
-----
Application | OAM State | Update State | Current state | HA state |
-----|-----|-----|-----|-----|
1 SN00A0BA06E970.tboam_app | Run | | Ready | Active |
2 SN00A0BA06E970.gateway | Run | | Ready | Active |
3 SN00A0BA06E970.toolpack_sys_mgr | Run | | Ready | Active |
4 SN00A0BA06E970.logtrace | Run | | Ready | Active |
5 SN00A0BA06E970.toolpack_engine | Run | | Ready | Active |
6 SN00A0BA06E970.stream_server | Run | | Ready | Active |
7 SN00A0BA06E970.tbuctwriter | Run | | Ready | Active |
8 SN00A0BA06E970.tbsnmpagent | Run | | Ready | Active |
9 SN00A0BA06E970.tbstatus_monitor | Fault | | Not running | Not present |
-----
SerialNb | OAM State | Update State | Current state | Build number |
-----|-----|-----|-----|-----|
1 TB009981 | Enabled | | Ready/Active | V2.8.63 rc6 |
-----
```

Service affective

- 'Switching new package' – performing application upgrade (switching binaries)
- TelcoBoard update – reconfiguring the flash storage to boot up with appropriate firmware

```
| -> Main <- | Host Ctrl | VLAN Mgr | App Launch Mgr | DB Mgr | Perf Mon | Upgrade Mgr | Config Mgr
-----
(?) Help      (q) Quit      (tab) Next page
-----
Local host    : SN00A0BA06E970 (version RELEASE_V2_8_68_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_8/2014-07-25_1533_podo_lab
Primary state  : Master: Up, Validated, ODBC:SERVER=127.0.0.1;PORT=3306;UID=tbdb;PWD=tbdbpw;
-----
Application name : Target state | Pid
-----
1 tbsnmpmux      : Run          | 10726
2 web_status_client : Run          | 10395
3 tbstatus_monitor : Fault        |
4 toolpack_engin : Run          | 10514
5 toolpack_sys_mgr : Run          | 10475
6 tbuctwriter    : Run          | 10630
7 stream_server  : Run          | 10569
8 tbsnmpagent    : Run          | 10659
9 tbcli_remote   : Run          | 8999
10 gateway       : Run          | 10398
11 logtrace      : Run          | 10249
12 web_server    : Run          | 10371
(more application below, press 'm' to move down)
-----
Serial number : Target state | Current State | ctrl0 | ctrl1
-----
1 TB009981- V2.8.63 rc6 : Updating     | Not configured |      |
```

Runing new SmartMedia

Service affective

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

```
-----  
| -> Main <- | Host Ctrl | VLAN Mgr | App Launch Mgr | DB Mgr | Perf  
-----  
(?) Help      (q) Quit      (tab) Next page  
-----  
Local host      : SN00A0BA06E970 (version RELEASE_V2_8_68_RC1)  
System Id      : 12358, through interfaces 172.31.1.2 / 172.31.1.2  
Host role/state : Standalone / Ready ( Elected, Master )  
-----  
Databases state : Connected: toolpack_2_8/2014-07-25_1533_podo_lab  
Primary state   : Master: Up, Validated, ODBC:SERVER=127.0.0  
-----  
Application name : Target state | Pid  
1 tbsnmpmux      : Run          | 10726  
2 web_status_client : Run          | 10395  
3 tbstatus_monitor : Fault        |  
4 toolpack_engine : Run          | 10514  
5 toolpack_sys_mgr : Run          | 10475  
6 tbusmgr        : Run          | 10630  
7 stream_server  : Run          | 10569  
8 tbsnmpagent    : Run          | 10659  
9 tbcli_remote   : Run          | 8999  
10 gateway        : Run          | 10398  
11 logtrace       : Run          | 10249  
12 web_server     : Run          | 10371  
(more application below, press 'm' to move down)  
-----  
Serial number   : Target state | Current State |  
1 TB009981- V2.8.68 rc1 : Enabled      | Not configured |  
-----
```

Waiting for TelcoBoard/MGW Unit to boot up



SmartMedia Minor upgrade

Service affective

- after the TelcoBoards are back to 'Ready/Active' state the upgrade procedure is over

```
| Main | Host Ctrl | VLAN Mgr | App Launch Mgr | DB Mgr | Perf Mon | -> Upgrade Mgr <- | Config Mgr
-----
(?) Help      (q) Quit      (tab) Next page
-----
Local host    : SN00A0BA06E970 (version RELEASE V2 8 68 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      : 2.8.68
  Current build number : V2.8.68 rc1      : TB009981
-----
Application | OAM State | Update State | Current state | HA state | Current bin path
-----
1 SN00A0BA06E970.tboam_app | Run | | Ready | Active | @{{PKG_HOME}}/2.8.68/bin/release
2 SN00A0BA06E970.gateway | Run | | Ready | Active | @{{PKG_HOME}}/2.8.68/bin/release
3 SN00A0BA06E970.toolpack_sys_mgr | Run | | Ready | Active | @{{PKG_HOME}}/2.8.68/bin/release
4 SN00A0BA06E970.logtrace | Run | | Ready | Active | @{{PKG_HOME}}/2.8.68/bin/release
5 SN00A0BA06E970.toolpack_engine | Run | | Ready | Active | @{{PKG_HOME}}/2.8.68/bin/release
6 SN00A0BA06E970.stream_server | Run | | Ready | Active | @{{PKG_HOME}}/2.8.68/bin/release
7 SN00A0BA06E970.tbuctwriter | Run | | Ready | Active | @{{PKG_HOME}}/2.8.68/bin/release
8 SN00A0BA06E970.tbsnmpagent | Run | | Ready | Active | @{{PKG_HOME}}/2.8.68/bin/release
9 SN00A0BA06E970.tbstatus_monitor | Fault | | Not running | Not present | @{{PKG_HOME}}/2.8.68/bin/release
-----
SerialNb | OAM State | Update State | Current state | Build number
-----
1 TB009981 | Enabled | | Ready/Active | V2.8.68 rc1
```

Upgrade done, running 2:8.68

SmartMedia Minor upgrade

End of procedure

- you can proceed to the WebPortal which will be running a new software release
- **please note that the new version of WebPortal will be available for login just after switching the SmartMedia package**

The screenshot shows the PATTON Smart Media Software login interface. The header is blue and contains the PATTON logo on the left and the text 'Smart Media Software | Version: 2.8.68, Primary host' on the right. The version number '2.8.68' is highlighted with a red box. Below the header is a login form with the following elements:

- Label: Login:
- Field: Username
- Field: Password
- Button: Login