

HALNy NETWORKS

ONT HALNy HGU

ONT Configuration on CALIX OLT e7-2

OLT CALIX with firmware version 3.4.10.35



Configuration is related to below ONTs:



HL-4GMV
4GE
2POTS
IEEE 802.11b/g/n/ac
GPON Uplink



HL-4GQV
4GE
2POTS
IEEE 802.11b/g/n/ac
GPON Uplink



HL-4GQVS
4GE
1POTS
IEEE 802.11b/g/n/ac
GPON Uplink



HL-4GMV2
4GE
1POTS
IEEE 802.11b/g/n/ac
GPON Uplink

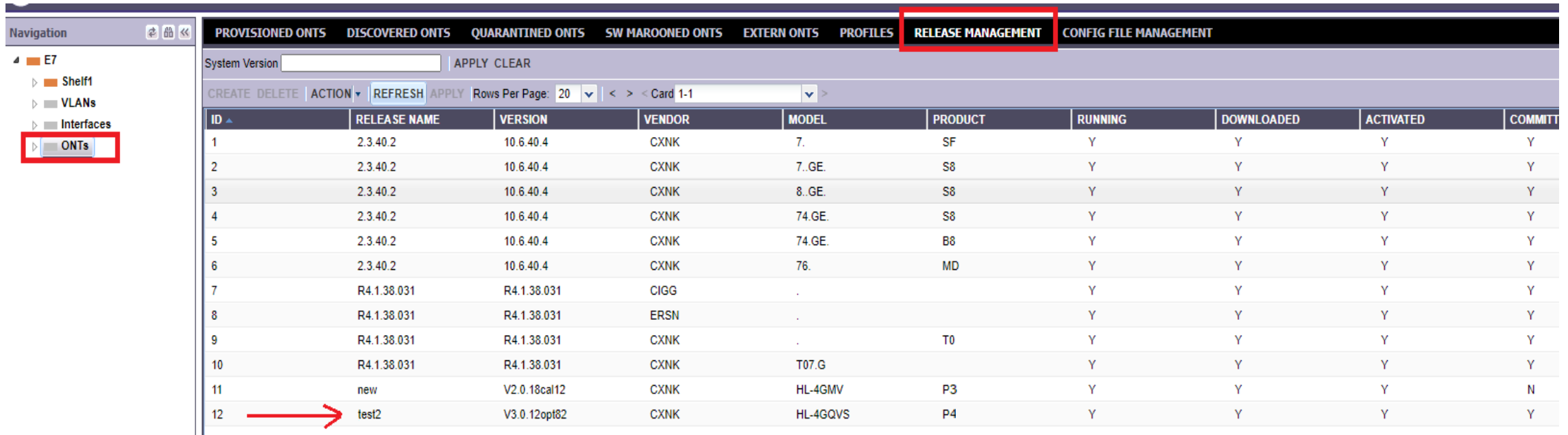
ONT HALNy HGU Configuration on CALIX OLT e7-2

1. Preparation

You will need:

- ONT firmware files (available to download from helpdesk.fibrain.pt)
- FTP server to store those files
- proper [manifestONT.xml](#) file

1.1 Check actual committed software

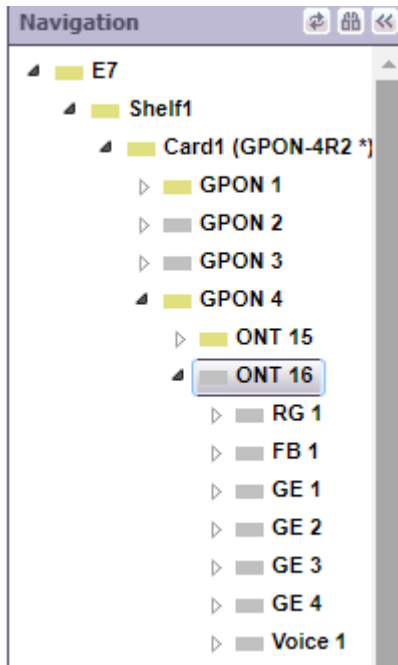


The screenshot shows the ONT management interface with the 'RELEASE MANAGEMENT' tab selected. The table below lists the ONT configurations, with the last row (ID 12) highlighted by a red arrow.

ID	RELEASE NAME	VERSION	VENDOR	MODEL	PRODUCT	RUNNING	DOWNLOADED	ACTIVATED	COMMITT
1	2.3.40.2	10.6.40.4	CXNK	7.	SF	Y	Y	Y	Y
2	2.3.40.2	10.6.40.4	CXNK	7..GE.	S8	Y	Y	Y	Y
3	2.3.40.2	10.6.40.4	CXNK	8..GE.	S8	Y	Y	Y	Y
4	2.3.40.2	10.6.40.4	CXNK	74.GE.	S8	Y	Y	Y	Y
5	2.3.40.2	10.6.40.4	CXNK	74.GE.	B8	Y	Y	Y	Y
6	2.3.40.2	10.6.40.4	CXNK	76.	MD	Y	Y	Y	Y
7	R4.1.38.031	R4.1.38.031	CIGG	.		Y	Y	Y	Y
8	R4.1.38.031	R4.1.38.031	ERSN	.		Y	Y	Y	Y
9	R4.1.38.031	R4.1.38.031	CXNK	.	T0	Y	Y	Y	Y
10	R4.1.38.031	R4.1.38.031	CXNK	T07.G		Y	Y	Y	Y
11	new	V2.0.18cal12	CXNK	HL-4GMV	P3	Y	Y	Y	N
12	test2	V3.0.12opt82	CXNK	HL-4QVVS	P4	Y	Y	Y	Y

ONT HALNy HGU Configuration on CALIX OLT e7-2

1.2 Check ONT firmware version



Operational Status	enable
Additional Status	present
Model	HL-4GQVS_001
Vendor	CXNK
CLEI	HL-4GQVS
Downstream SDBER Rate	5
System Uptime	0 day, 00:13:19
Optical Signal Level (dBm)	-12.396
Transmit Optical Lvl (dBm)	2.356
Receive Level at OLT (dBm)	-14.000
Current Downstream SDBER Rate (10^-n)	9
Current Upstream SDBER Rate (10^-n)	9
Range Length (meters)	101
Product Code	P4
Current Software Version	V3.0.12opt82
Alternate Software Version	V3.0.12opt82
Current Committed	true

ONT HALNy HGU Configuration on CALIX OLT e7-2

1.3 Prepare manifestONT.xml file

XML schema:

*This is just an example, do not focus on filename or firmware version.

```
<?xml version="1.0" encoding="UTF-8"?>
<Manifest type="ONT">
<Version release="new_test3" />
<Ident stream="ont_packager" timestamp="Fri Mar 20 22:01:20 2015" username="swbuild" view="" />
<OntMap model="HL-4GQVS" product="P4" tag="ONT-HL-4GQVS" vendor="CXNK" />
<File compat="3-3" crc="1468913809" fileversion="V3.0.12cal16" serverpath="" size="15038832" tag="ONT-HL-4GQVS"
targetfile="G_ONU_HL-4GQVS_V3-0-12cal16_001-enc.bin" targetpath="" type="ONTIMAGE,NOEXECUTE" />
</Manifest>
```

Where:

Version release: YOUR_RELEASE_NAME

product:

P4 - for HL-4GQV/GQVS/GMV2

P3 - for HL-4GMV/4G/1GE

tag: ONT_MODEL_NAME (or other string, it must match to tag in <File />

crc: CRC32_OF_FIRMWARE_FILE_IN_DECIMAL_SYSTEM

fileversion: FIRMWARE_VERSION

size: SIZE_OF_FIRMWARE_FILE

targetfile: FILE_PATH

If You want to add another firmware for a different ONT model, just follow the scheme - add <ONT Map/> and <File/>.

ONT HALNy HGU Configuration on CALIX OLT e7-2

1.4 Download new firmware to OLT memory

The screenshot shows a network management interface with the following components:

- Navigation:** A sidebar on the left with a tree view containing 'E7', 'Shelf1', 'VLANs', 'Interfaces', and 'ONTs' (highlighted with a red box).
- Tab Bar:** A horizontal bar at the top with tabs for 'PROVISIONED ONTs', 'DISCOVERED ONTs', 'QUARANTINED ONTs', 'SW MAROONED ONTs', 'EXTERN ONTs', 'PROFILES', and 'RELEASE MANAGEMENT' (highlighted with a red box).
- System Version:** A text input field with 'APPLY' and 'CLEAR' buttons.
- Table:** A table with columns: ID, ME, VERSION, VENDOR, MODEL, and PRODUCT. It contains 12 rows of ONT data.
- Context Menu:** An 'ACTION' dropdown menu is open over the first row, listing: Retrieve (highlighted with a red box), Download, Activate, Commit, Revert, Cancel, and Delete.

ID	ME	VERSION	VENDOR	MODEL	PRODUCT
1		10.6.40.4	CXNK	7.	SF
2		10.6.40.4	CXNK	7..GE.	S8
3		10.6.40.4	CXNK	8..GE.	S8
4		10.6.40.4	CXNK	74.GE.	S8
5		10.6.40.4	CXNK	74.GE.	B8
6		10.6.40.4	CXNK	76.	MD
7		R4.1.38.031	CIGG	.	
8	R4.1.38.031	R4.1.38.031	ERSN	.	
9	R4.1.38.031	R4.1.38.031	CXNK	.	T0
10	R4.1.38.031	R4.1.38.031	CXNK	T07.G	
11	new	V2.0.18cal12	CXNK	HL-4GMV	P3
12	7528_test2	V3.0.12opt82	CXNK	HL-4GQVS	P4

ONT HALNy HGU Configuration on CALIX OLT e7-2

- **Release name** MUST be the same like in `manifestONT.xml` -> `<Version release="new_test3" />`

Fill in the necessary credentials (login, password) and IP of Your FTP server, where firmware for ONT is stored.

Retrieve

Retrieve ONT Release

Release Name *

FTP Server *

FTP Username *

FTP Password *

FTP Directory Path

Download

Force

System Version

Ont Upgrade Status

CARD	TIME	STATUS
1-1	2021/03/03 14:26:25	do-ont-trans-pend

Card 1-1

Status

Time

Description

Bytes Transferred

Total ONTs

Successful ONTs

Failed ONTs

Skipped ONTs

Flash Needed (kb)

Flash Available (kb)

ONT HALNy HGU Configuration on CALIX OLT e7-2

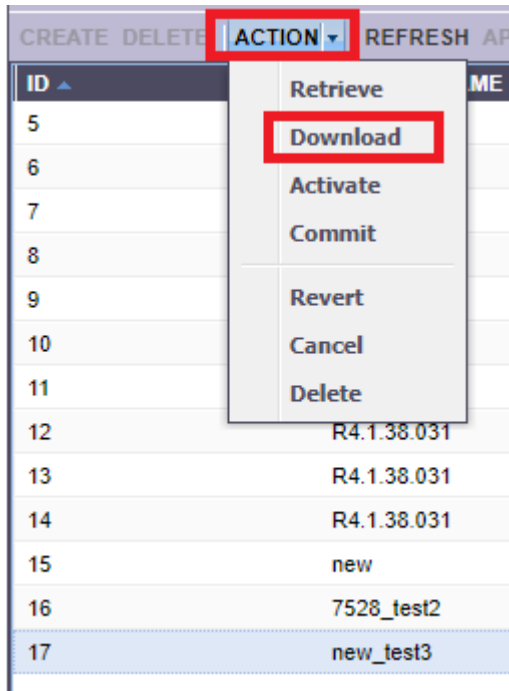
Check FTP logs, You will see if manifestONT.xml and ONT firmware download is in progress.
After successful download, a new firmware release will be stored in OLT memory

ID ▲	RELEASE NAME	VERSION	VENDOR	MODEL	PRODUCT	RUNNING	DOWNLOADED	ACTIVATED	COMMITT
5	2.3.40.2	10.6.40.4	CXNK	7.	SF	Y	Y	Y	Y
6	2.3.40.2	10.6.40.4	CXNK	7..GE.	S8	Y	Y	Y	Y
7	2.3.40.2	10.6.40.4	CXNK	8..GE.	S8	Y	Y	Y	Y
8	2.3.40.2	10.6.40.4	CXNK	74.GE.	S8	Y	Y	Y	Y
9	2.3.40.2	10.6.40.4	CXNK	74.GE.	B8	Y	Y	Y	Y
10	2.3.40.2	10.6.40.4	CXNK	76.	MD	Y	Y	Y	Y
11	R4.1.38.031	R4.1.38.031	CIGG	.		Y	Y	Y	Y
12	R4.1.38.031	R4.1.38.031	ERSN	.		Y	Y	Y	Y
13	R4.1.38.031	R4.1.38.031	CXNK	.	T0	Y	Y	Y	Y
14	R4.1.38.031	R4.1.38.031	CXNK	T07.G		Y	Y	Y	Y
15	new	V2.0.18cal12	CXNK	HL-4GMV	P3	Y	Y	Y	N
16	7528_test2	V3.0.12opt82	CXNK	HL-4GQVS	P4	Y	Y	Y	Y
17	new_test3	V3.0.12cal16	CXNK	HL-4GQVS	P4	Y	N	N	N

ONT HALNy HGU Configuration on CALIX OLT e7-2

1.5 Download new firmware to ONT memory

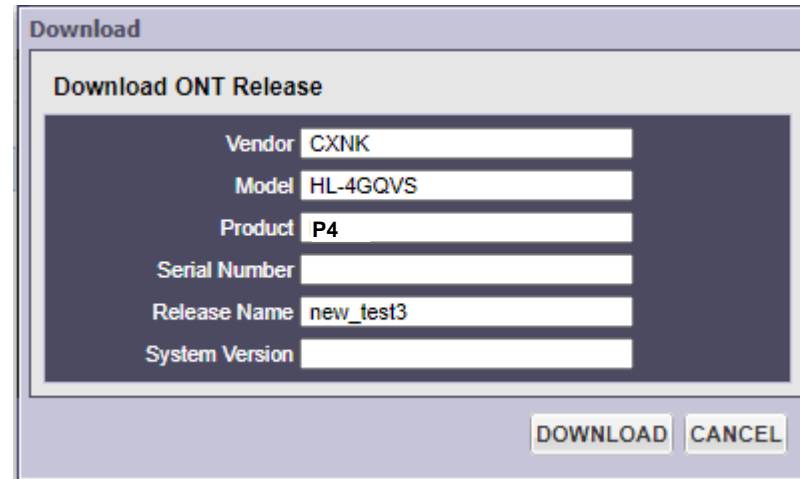
ONTs-> Release Management->Action>Download



The screenshot shows a table of ONT releases with an 'ACTION' dropdown menu open. The 'Download' option is highlighted with a red box. The table contains the following data:

ID	Release Name
5	
6	
7	
8	
9	
10	
11	
12	R4.1.38.031
13	R4.1.38.031
14	R4.1.38.031
15	new
16	7528_test2
17	new_test3

If You leave the Serial number empty, then all ONT HL-4GVQS will be affected.



The screenshot shows a dialog box titled 'Download ONT Release' with the following fields:

- Vendor: CXNK
- Model: HL-4GVQS
- Product: P4
- Serial Number: (empty)
- Release Name: new_test3
- System Version: (empty)

Buttons: DOWNLOAD, CANCEL

ONT HALNy HGU Configuration on CALIX OLT e7-2

1.6 Activate firmware

PROVISIONED ONTS			DISCOVERED ONTS			QUARANTINED ONTS		
ID	ME	VERSION	ID	ME	VERSION	ID	ME	VERSION
5		10.6.40.4						
6		10.6.40.4						
7		10.6.40.4						
8		10.6.40.4						
9		10.6.40.4						
10		10.6.40.4						
11		R4.1.38.031						
12	R4.1.38.031	R4.1.38.031						
13	R4.1.38.031	R4.1.38.031						
14	R4.1.38.031	R4.1.38.031						
15	new	V2.0.18cal12						
16	7528_test2	V3.0.12opt82						
17	new_test3	V3.0.12cal16						

NOTE: this step is **SERVICE AFFECTING!** ONT will restart itself in order to startup from new firmware!
ONTs-> Release Management->Action>Activate

Activate

Activate ONT Release

Vendor	CXNK
Model	HL-4GQVS
Product	P4
Serial Number	
Release Name	new_test3

ACTIVATE CANCEL

ONT HALNy HGU Configuration on CALIX OLT e7-2

1.7 Check if ONT work with new firmware

Now ONT has a new firmware set as current software, but not committed yet.

Operational Status	enable
Additional Status	present
Model	HL-4GQVS_001
Vendor	CXNK
CLEI	HL-4GQVS
Downstream SDBER Rate	5
System Uptime	0 day, 00:01:21
Optical Signal Level (dBm)	-12.262
Transmit Optical Lvl (dBm)	2.342
Receive Level at OLT (dBm)	-13.000
Current Downstream SDBER Rate (10 ⁻ⁿ)	9
Current Upstream SDBER Rate (10 ⁻ⁿ)	9
Range Length (meters)	102
Product Code	P4
Current Software Version	V3.0.12cal16
Alternate Software Version	V3.0.12opt82
Current Committed	false
RG Config File Version	
VoIP Config File Version	
Current Customer Version	
Alternate Customer Version	
ONT MAC	e0:5a:9f:66:b1:e0

ONT HALNy HGU Configuration on CALIX OLT e7-2

1.8 Commit new firmware

ONTS-> Release Management->Action>Commit

PROVISIONED ONTS		DISCOVERED ONTS		QUARANTINED ONTS	
ID	NAME	ME	VERSION		
5			10.6.40.4		
6			10.6.40.4		
7			10.6.40.4		
8			10.6.40.4		
9			10.6.40.4		
10			10.6.40.4		
11			R4.1.38.031		
12	R4.1.38.031		R4.1.38.031		
13	R4.1.38.031		R4.1.38.031		
14	R4.1.38.031		R4.1.38.031		
15	new		V2.0.18cal12		
16	7528_test2		V3.0.12opt82		
17	new_test3		V3.0.12cal16		

Commit

Commit ONT Release

Release Name

ID	RELEASE NAME	VERSION	VENDOR	MODEL	PRODUCT	RUNNING	DOWNLOADED	ACTIVATED	COMMITTED
5	2.3.40.2	10.6.40.4	CXNK	7.	SF	Y	Y	Y	Y
6	2.3.40.2	10.6.40.4	CXNK	7.GE.	S8	Y	Y	Y	Y
7	2.3.40.2	10.6.40.4	CXNK	8.GE.	S8	Y	Y	Y	Y
8	2.3.40.2	10.6.40.4	CXNK	74.GE.	S8	Y	Y	Y	Y
9	2.3.40.2	10.6.40.4	CXNK	74.GE.	B8	Y	Y	Y	Y
10	2.3.40.2	10.6.40.4	CXNK	76.	MD	Y	Y	Y	Y
11	R4.1.38.031	R4.1.38.031	CIGG	.		Y	Y	Y	Y
12	R4.1.38.031	R4.1.38.031	ERSN	.		Y	Y	Y	Y
13	R4.1.38.031	R4.1.38.031	CXNK	.	T0	Y	Y	Y	Y
14	R4.1.38.031	R4.1.38.031	CXNK	T07.G		Y	Y	Y	Y
15	new	V2.0.18cal12	CXNK	HL-4GMV	P3	Y	Y	Y	N
16	new_test3	V3.0.12cal16	CXNK	HL-4GOVS	P4	Y	Y	Y	Y

ONT HALNy HGU Configuration on CALIX OLT e7-2

1.9 Check again ONT firmware. As You can see, current firmware has been committed.

Vendor	CXNK
CLEI	HL-4GQVS
Downstream SDBER Rate	5
System Uptime	0 day, 00:05:46
Optical Signal Level (dBm)	-12.232
Transmit Optical Lvl (dBm)	2.354
Receive Level at OLT (dBm)	-13.000
Current Downstream SDBER Rate (10^-n)	9
Current Upstream SDBER Rate (10^-n)	9
Range Length (meters)	102
Product Code	P4
Current Software Version	V3.0.12cal16
Alternate Software Version	V3.0.12opt82
Current Committed	true

THANK YOU



High Availability Local Networks