



NIT Reference Support for Broadcast QAM

This document provides information on the support for NIT reference and how to configure Cisco cBR series routers to avail the support.

Your software release may not support all the features that are documented in this module. For the latest feature information and caveats, see the release notes for your platform and software release. The Feature Information Table at the end of this document provides information about the documented features and lists the releases in which each feature is supported.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to <http://tools.cisco.com/ITDIT/CFN/>. An account on <http://www.cisco.com/> is not required.

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Hardware Compatibility Matrix for the Cisco cBR Series Routers



Note The hardware components that are introduced in a given Cisco IOS-XE Release are supported in all subsequent releases unless otherwise specified.

Table 1: Hardware Compatibility Matrix for the Cisco cBR Series Routers

Cisco CMTS Platform	Processor Engine	Interface Cards
Cisco cBR-8 Converged Broadband Router	<p>Cisco IOS-XE Release 16.5.1 and Later Releases</p> <p>Cisco cBR-8 Supervisor:</p> <ul style="list-style-type: none"> • PID—CBR-SUP-250G • PID—CBR-CCAP-SUP-160G 	<p>Cisco IOS-XE Release 16.5.1 and Later Releases</p> <p>Cisco cBR-8 CCAP Line Cards:</p> <ul style="list-style-type: none"> • PID—CBR-LC-8D30-16U30 • PID—CBR-LC-8D31-16U30 • PID—CBR-RF-PIC • PID—CBR-RF-PROT-PIC • PID—CBR-CCAP-LC-40G • PID—CBR-CCAP-LC-40G-R • PID—CBR-CCAP-LC-G2-R • PID—CBR-SUP-8X10G-PIC • PID—CBR-2X100G-PIC <p>Digital PICs:</p> <ul style="list-style-type: none"> • PID—CBR-DPIC-8X10G • PID—CBR-DPIC-2X100G <p>Cisco cBR-8 Downstream PHY Module:</p> <ul style="list-style-type: none"> • PID—CBR-D31-DS-MOD <p>Cisco cBR-8 Upstream PHY Modules:</p> <ul style="list-style-type: none"> • PID—CBR-D31-US-MOD



Note Do not use DPICs (8X10G and 2x100G) to forward IP traffic, as it may cause buffer exhaustion, leading to line card reload.

The only allowed traffic on a DPICs DEPI, UEPI, and GCP traffic from the Cisco cBR-8 router to Remote PHY devices. Other traffic such as DHCP, SSH, and UTSC should flow via another router, since DPICs cannot be used for normal routing.

Information About NIT Reference Support

The Cisco cBR Series Router provides support for Network Information Table (NIT) reference. This feature enables the operator to configure NIT PID from the IOS CLI. The NIT helps in conveying information about the physical organization of the multiplexes and transport streams (TS) carried through a specific network and also the characteristics of the network.

When the NIT PID is not configured, it falls back to the input stream's NIT PID. In this case, the NIT PID may be none or NIT PID based on the input stream.

Table 2: Test 1

Col 1	Col2 Col3	Col3
2	3	4
2	2	38
7	8	7

Table 3: Test 2

Col1	Col 2	Col3
1	3	2
4	42	3
3	3	1

Table 4: Test 3

Test col1	Test col2	Test col3
1	3	4
8	6	7
6	7	r5

How to Configure NIT Reference

This section contains the following topics:

Configuring NIT Reference

The following sample commands show how to configure NIT reference.

```
configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
```

```

cable video
  default-nit-reference ?
    <1-8190> 1-8190

  default-nit-reference 100
%%All existing sessions will be updated with default-nit-reference.
Re-configure Default NIT reference? [Yes/No][confirm]

```

Verifying the NIT Reference Configuration

The following example shows how to verify the NIT reference configuration.

```

video-LWR-S-A4#sh run | s cable vid
cable video
  multicast-uplink Port-channel23 access-list all-multicasts rp 2.23.1.1
  default-nit-reference 100
  mgmt-intf VirtualPortGroup 0
  encryption

```

Removing the NIT Reference

To remove the configured NIT PID, use the **no default-nit-reference <NIT PID>** command.

```

no default-nit-reference
%%All existing sessions will be updated with default-nit-reference.
Re-configure Default NIT reference? [Yes/No][confirm]

```

Configuration Example

This section provides example of Cisco cBR-8 Converged Broadband Router NIT reference configuration.

Example: NIT Reference Configuration

```

video-LWR-S-A4#conf term
Enter configuration commands, one per line. End with CNTL/Z.
video-LWR-S-A4(config)#cable video
video-LWR-S-A4(config-video)#default-nit-reference ?
  <1-8190> 1-8190

video-LWR-S-A4(config-video)#default-nit-reference 100
%%All existing sessions will be updated with default-nit-reference.
Re-configure Default NIT reference? [Yes/No][confirm]
video-LWR-S-A4(config-video)#

```

Troubleshooting Tips

The following tips help in troubleshooting issues:

- After configuring NIT PID, check whether the streams are in ACTIVE-PSI for the QAM

- Verify that the configured NIT PID is present in the PAT's program 0
- After removing the NIT reference configuration (NIT PID), verify the following,
 - If the input stream has NIT PID, the PAT's program 0 contains the input stream's NIT PID
 - If the NIT PID is not present in the input stream, the program 0 should not be present in the PAT

Feature Information for NIT Reference Support

Use Cisco Feature Navigator to find information about the platform support and software image support. Cisco Feature Navigator enables you to determine which software images support a specific software release, feature set, or platform. To access Cisco Feature Navigator, go to the <https://cfng.cisco.com/> link. An account on the Cisco.com page is not required.



Note The following table lists the software release in which a given feature is introduced. Unless noted otherwise, subsequent releases of that software release train also support that feature.

Table 5: Feature Information for NIT Reference Support

Feature Name	Releases	Feature Information
NIT Reference Support	Cisco IOS XE Fuji 16.7.1	This feature was integrated on the Cisco cBR Series Converged Broadband Routers.

