



cBR-8 as Auxiliary Video Core

The Cisco cBR-8 Converged Broadband Router can act as the video core, the DOCSIS core, and the principal core in a cable network. This chapter describes the use of a Cisco cBR-8 Converged Broadband Router as an auxiliary video core.

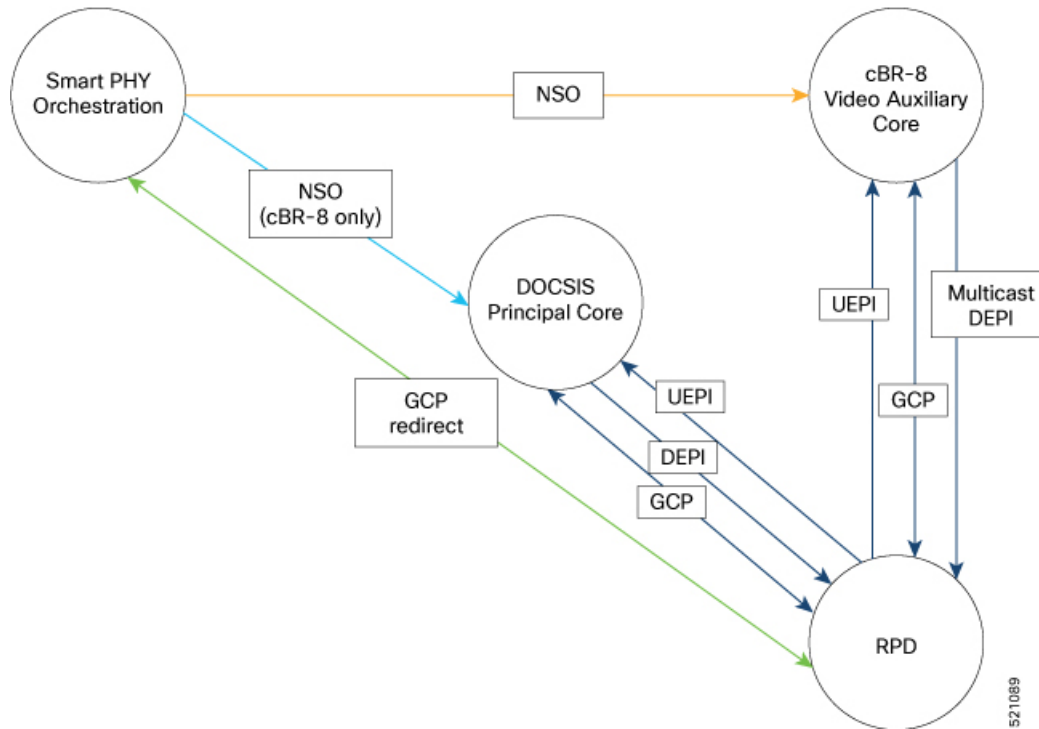
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Information About cBR-8 as Auxiliary Video Core

The Cisco cBR-8 supports both Generic Control Protocol (GCP) and Downstream External PHY Interface (DEPI) control and data planes. From Cisco IOS XE Amsterdam 17.3.1w release, you can configure a Cisco cBR-8 as an Remote PHY Auxiliary Video Core. Use the Cisco cBR-8 as an Auxiliary Video Core to support video and OOB with a Cisco cnBR or to support video on a separate Cisco cBR-8 other than the DOCSIS core.

This feature allows configuring a Cisco cBR-8 as an auxiliary video core without having DOCSIS configuration on the same Cisco cBR-8. The auxiliary video core, the DOCSIS core, and the principal core interface separately with RPDs.

Figure 1: Remote PHY Architecture with a Cisco cBR-8 as Auxiliary Video Core



Limitations

When you configure separate Cisco cBR-8s as DOCSIS and video cores, you must avoid RF channel reuse. A combined cBR-8 DOCSIS and Video Core ensures that RF channel reuse does not occur. Error detection occurs only when an RPD receives the configuration.

How to Configure cBR-8 as Auxiliary Video Core

When you configure a Cisco cBR-8 as an auxiliary video core, downstream RPDs receive video configuration from the auxiliary video core. The RPDs receive DOCSIS configuration and other management configuration from the DOCSIS core and the principal core respectively. The DOCSIS core can also be the principal core.

You can configure the auxiliary core such that RPDs receive video, OOB, and NDF-NDR configurations. Alternately, you can configure these features on the principal core.



Note

- The Viavi system allows Narrowband Digital Forward (NDF) and Narrowband Digital Return (NDR) configuration only from the principal core as it relies on MIBs from the principal core.
- If the Auxiliary Video Core and RPD are in separate PTP domains, you have to configure the downstream controller-profile channel type as Video Async.

Configure DOCSIS Principal Core

To configure the DOCSIS principal core, run the following commands.

```
cable rpd <RPD name>
  identifier <RPD ID>
  rpd-ds <port-ID> downstream-pilot-tone profile <ID>
  core-interface <slot/subslot/port>
    principal
      rpd-ds <port-ID> downstream-cable <slot/subslot/port> profile <ID>
      rpd-us <port-ID> upstream-cable <slot/subslot/port> profile <ID>
  r-dti <ID>
  rpd-event profile <ID>
  rpd-55d1-us-event profile <ID>
```

Configure cBR-8 as Auxiliary Video Core

To configure a Cisco cBR-8 as an auxiliary video core, run the following commands.

```
cable rpd <RPD name>
  identifier <RPD ID>
  core-interface <slot/subslot/port>
    rpd-ds <ID> downstream-cable <slot/subslot/port> profile <ID>
  core-interface <slot/subslot/port>
    rpd-ds <ID> downstream-cable <slot/subslot/port> profile <ID>
    rpd-ds <ID> downstream-cable <slot/subslot/port> profile <ID>
  rpd-event profile <ID>
  rpd-55d1-us-event profile <ID>
```

Configuration Examples for cBR-8 as Auxiliary Video Core

Example: Configuring cBR-8 as Auxiliary Video Core

The following example shows how to configure a Cisco cBR-8 as an auxiliary video core.

```
cable rpd RPD-A
  identifier 0053.0014.be8e
  core-interface Te9/1/0
    rpd-ds 0 downstream-cable 9/0/1 profile 2
  core-interface Te9/1/6
    rpd-ds 0 downstream-cable 9/0/31 profile 31
    rpd-ds 0 downstream-cable 9/0/30 profile 32
  rpd-event profile 0
  rpd-55d1-us-event profile 0
```

Example: Configuring cBR-8 as Auxiliary Video and OOB Core

The following example shows how to configure a Cisco cBR-8 as auxiliary video and OOB core.

```
cable rpd RPD-A
  identifier 0053.0014.be8e
  core-interface Te9/1/0
    rpd-ds 0 downstream-cable 9/0/1 profile 2
    rpd-ds 0 downstream-oob-vom 1 profile 1
    rpd-us 0 upstream-oob-varpd 1 profile 1
  core-interface Te9/1/6
    rpd-ds 0 downstream-cable 9/0/31 profile 31
    rpd-ds 0 downstream-cable 9/0/30 profile 32
```

```
rpd-event profile 0
rpd-55d1-us-event profile 0
```

Example: Configuring DOCSIS Principal Core

The following example shows how to configure the DOCSIS principal core.

```
cable rpd RPD-RI01
identifier 0053.0014.be8e
rpd-ds 0 downstream-pilot-tone profile 1
core-interface Te9/1/2
principal
rpd-ds 0 downstream-cable 9/0/8 profile 1
rpd-us 0 upstream-cable 9/0/22 profile 1
r-dti 2
rpd-event profile 0
rpd-55d1-us-event profile 0
```

Feature Information for cBR-8 as Auxiliary Video Core

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 1:

Feature Name	Release	Feature Information
cBR-8 as Auxiliary Video Core	Cisco IOS XE Amsterdam 17.3.1w	This feature was introduced on the Cisco cBR-8 Converged Broadband Router.