



Table Based Configuration

The table-based video is a local session management that provisions using CLI. The statically allocated local video sessions can be either unicast or multicast video stream.

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Information About Table Based Configuration

Table-based video session configuration can be performed for a range or an individual session under each Quadrature Amplitude Modulation (QAM) carrier that is being assigned to a table-based Logical Edge Device (LED). In cBR-8, you can create multiple LEDs for table-based video sessions; each LED manages one set of QAM carriers for table-based sessions. Table-based sessions can be configured as a pass-through, remap, or a data piping session.

Configuring Table Based Session

To configure the encryption type for a VOD session, perform the following steps:

```
enable
configure terminal
cable video
table-based
vcg vcg-name
rf-channel n-m
session sess-name input-port id start-udp-port udp port number
num-sessions-per-qam 1-80 processing-type remap start-program n jitter
10-200 msec [cbr | vbr]
exit
```

Configuration Example

The following is a sample in which two sessions are created per RF channel, HBO-1 and HBO-2 are for channel 0, HBO-3 and HBO-4 are for channel 1. The destination IP address is obtained from VCG (if any), otherwise from the LED broadcast.

```
Router(config)#cable video
Router(config-video)#table-based
Router(config-video-tb)#vcg bcast
Router(config-video-tb-vcg)#rf-channel 0-1
Router(config-video-tb-vcg-sess)# session HBO input-port 10 start-udp-port 1
num-sessions-per-qam 2 processing-type remap start-program 1 jitter 100 cbr
Router(config-video-tb-vcg-sess)# session HBO bundle-id 1 start-udp-port 49152
num-sessions-per-qam 2 processing-type program start-program 1 jitter 100 cbr
```

Virtual Edge Input Bundling

Virtual Edge Input Bundling assists with load balancing from the Head End. This allows multiple VEIs to be accessed via a gateway, since it is unknown at the time of configuration which VEI the stream will come in on. Thus, when the Head End sends a stream to the gateway, it enters the cBR-8 in on any VEI in the bundle. VEI bundling can be performed only if table based protocol is used for a particular LED.

To bundle the VEIs, perform the following steps:

Before You Begin

- All video sessions must have unique UDP ports for the Head End.
- Create two or more Virtual Edge Inputs using the following command:

```
virtual-edge-input-ip ipaddr vrf vrfname input-port-number #
```



Note Same IP address cannot be used in more than one bundle.

```
enable
configure terminal
cable video
logical-edge-device
protocol table-based
vei-bundle id input-port-number #
exit
```

Verifying Virtual Edge Input Data

To verify the VEI data, use the following command:

```
Router# show cable video logical-edge-device [all | id | name]
```

Example:

```
Router# show cable video logical-edge-device id 1
Logical Edge Device: led-vei
Id: 1
Protocol: Table-based
Service State: Active
```

```
Discovery State: Disable
Number of Virtual Carrier Groups: 1
Number of Share Virtual Edge Input: 5
Number of Physical Qams: 5
Number of Sessions: 0
No Reserve PID Range
```

Virtual Edge Input:

Input Port ID	VEI IP	Slot/Bay	Bundle ID	Gateway IP
11	11.11.11.11	7/0	-	-
22	22.22.22.22	7/0	-	-
66	66.66.66.66	7/0	40000	177.0.10.3
77	77.77.77.77	7/0	40000	177.0.10.3
222	222.222.222.222	7/0	40000	177.0.10.3

Virtual Carrier Group:

ID	Name	Total VEI	Total RF-channel	Service-Distribution-Group Name	Service-Distribution-Group ID
1	vcg-vei	5	5	sdg-vei	1

Integrated Cable	Physical QAM ID	Admin State	Operational State	TSID	ONID	Output Port	VCG ID	SDG ID	Encryption Capable
7/0/3:0	208	ON	UP	0	0	1	1	1	clear
7/0/3:1	209	ON	UP	1	0	2	1	1	clear
7/0/3:2	210	ON	UP	2	0	3	1	1	clear
7/0/3:3	211	ON	UP	3	0	4	1	1	clear
7/0/3:4	212	ON	UP	4	0	5	1	1	clear

Verifying VEI Bundles

To view the VEI bundles, use the following command:

```
Router# show cable video vei-bundle all
```

Example:

This is a sample output of the show command that displays the VEI bundle details.

```
Router# show cable video vei-bundle all
```

```
Total VEI Bundles: 1
```

Bundle ID	LED ID	Input Port ID	VEI IP	Slot/Bay	Gateway IP
40000	1	33	33.33.33.33	7/0	177.0.10.3
40000	1	44	44.44.44.44	7/0	177.0.10.3
40000	1	66	66.66.66.66	7/0	177.0.10.3
40000	1	77	77.77.77.77	7/0	177.0.10.3
40000	1	222	222.222.222.222	7/0	177.0.10.3

Configuration Example

The following is a sample in which five VEIs are created on VCG and bundled:

```
cable video
  service-distribution-group sdg-vei id 1
```

```

rf-port integrated-cable 7/0/3
virtual-carrier-group vcg-vei id 1
  virtual-edge-input-ip 111.111.111.111 input-port-number 111
  virtual-edge-input-ip 222.222.222.222 input-port-number 222
  virtual-edge-input-ip 33.33.33.33 input-port-number 33
  virtual-edge-input-ip 44.44.44.44 input-port-number 44
  virtual-edge-input-ip 55.55.55.55 vrf Video-VOD-Vrf input-port-number 55
  rf-channel 0-4 tsid 0-4 output-port-number 1-5
virtual-carrier-group vcg-veil id 2
  virtual-edge-input-ip 111.111.111.111 input-port-number 111
  virtual-edge-input-ip 222.222.222.222 input-port-number 222
  virtual-edge-input-ip 33.33.33.33 input-port-number 33
  virtual-edge-input-ip 44.44.44.44 input-port-number 44
  rf-channel 5-10 tsid 5-10 output-port-number 5-10
bind-vcg
  vcg vcg-vei sdg sdg-vei
  vcg vcg-veilsdg sdg-vei
logical-edge-device led-vei id 1
  protocol table-based
    virtual-edge-input-ip 11.11.11.11 input-port-number 11
    virtual-edge-input-ip 22.22.22.22 input-port-number 22
    virtual-edge-input-ip 66.66.66.66 input-port-number 66
    virtual-edge-input-ip 77.77.77.77 input-port-number 77
    virtual-edge-input-ip 222.222.222.222 vrf Mgmt-MPEG-video-intf-vrf input-port-number
222
  vcg vcg-vei
  vei-bundle 40000 input-port-number 33,44,66,77,222
active

```

Feature Information for Table Based Configuration

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 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 Information for Table Based Configuration

Feature Name	Releases	Feature Information
Table based configuration	Cisco IOS XE Everest 16.6.1	This feature was integrated on the Cisco cBR Series Converged Broadband Routers.