

使用未整形 VP 隧道的 LANE 和 CES (使用 PVC)

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简介

本文为LAN仿真(LANE)提供一配置示例和电路仿真服务(CES)以使用永久虚电路(PVC)在未整形的虚拟路径通道。

先决条件

要求

这些配置示例根据这些前提条件：

- 您需要传输CES和LANE在广域网间。所以，思科推荐在LS1010的ASP-PFQ保证好时钟操作。思科由于同样的原因也推荐在8540-MSR的RP-NetClock-3。
- 此示例使用未整形的VP隧道。
- 由于LANE使用未指明的比特率(UBR) SVC，CES使用恒定比特率(CBR) PVC。并且，因为此配置使用正常VP隧道，您必须有两个VP隧道(一每个服务类别的：CBR和UBR)。如果使用了分层的类型，您只也许使用一个VP隧道。
- 因为未整形的隧道可以是任何服务类别，此示例有能只包含CBR VC的一个CBR VP隧道。它使用CES CBR PVC (被标记VPI1在[网络图中](#))。注意：VPI编号是局部重要的对交换机端口。所以，您能有在同一交换机的同一个VPI编号，但是两不同的交换机端口。

- 由于CBR VP隧道不能传输非CBR VC，您必须创建(另一个VP隧道使用UBR服务类别VC)的LANE的。所以，第二个VP隧道(被标记VPI2在[网络图中](#))是与穿过它的UBR LANE SVC的一个UBR VP隧道。
- 您需要采购两VPs从服务提供商。这些是CBR和UBR。
- 在本例中，假设，CBR VP有10 Mbps峰值信元速率和500个信元信元延迟变化容限。
- 设备5500-asp-f是为VP交换。服务提供商典型地执行此功能。
- LANE服务在8540-MSR定义。LAN仿真客户端(LEC)是在8540-MSR和5500 aspe。注意：LANE服务在ATM交换机安置在本例中为了简化的。然而，那不是LANE服务的最佳位置。
- 两个专用分支交换(PBX)在本图中使用CES CBR电路。关于关于怎样的详细信息配置电路仿真，参考[CES文档](#)。

使用的组件

本文档不限于特定的软件和硬件版本。

规则

有关文档规则的详细信息，请参阅 [Cisco 技术提示规则](#)。

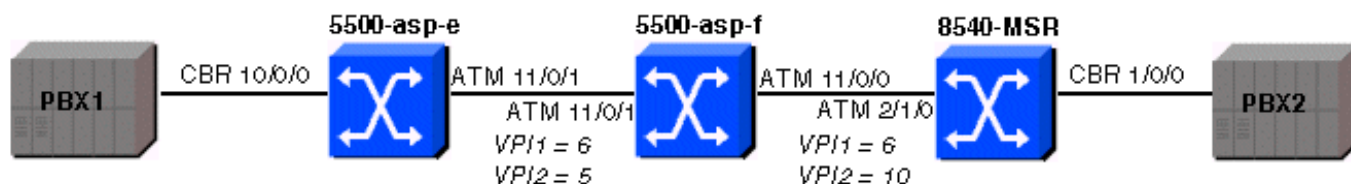
配置

本部分提供有关如何配置本文档所述功能的信息。

注意：要查找本文档所用命令的其他信息，请使用[命令查找工具](#)（[仅限注册用户](#)）。

网络图

本文档使用以下网络设置：



配置

本文档使用以下配置：

- [5500 aspe](#)
- [5500-asp-f](#)
- [8540-MSR](#)

5500 aspe

```
5500-asp-e# show running-config Building
```

```

configuration... Current configuration: ! version 11.3
no service pad service timestamps debug datetime msec
service timestamps log uptime no service password-
encryption ! hostname 5500-asp-e ! boot system flash
slot0:ls1010-wp-mz.120-3c.W5.9.bin ! ip host-routing !
atm connection-traffic-table-row index 64000 cbr pcr
10240 cdvt 500 atm lecs-address-default
47.0091.8100.0000.0090.2144.8401.0090.2144.8405.00 1 atm
address
47.0091.8100.0000.0050.537e.1401.0050.537e.1401.00 atm
router pnni no aesa embedded-number left-justified
node 1 level 56 lowest redistribute atm-static !
!
! interface CBR10/0/0 no ip address ces
circuit 0 circuit-name test ces pvc 0 interface
ATM11/0/1.6 vpi 6 vci 100 ! interface ATM11/0/1 no atm
signalling enable no ip address atm pvp 5 atm pvp 6
rx-cttr 64000 tx-cttr 64000 ! interface ATM11/0/1.5
point-to-point ! interface ATM11/0/1.6 point-to-point !
interface ATM13/0/0 no ip address atm maxvp-number 0 !
interface ATM13/0/0.1 multipoint ip address
100.100.100.2 255.255.255.0 lane client ethernet test !
interface Ethernet13/0/0 no ip address ! no
ip classless ! logging buffered 16000 debugging ! line
con 0 line aux 0 line vty 0 4 login ! end

```

5500-asp-f

```

!--- The switch is configured for VP switching. 5500-
asp-f# show running-config Building configuration...
Current configuration: ! version 11.3 no service pad
service timestamps debug uptime service timestamps log
uptime no service password-encryption ! hostname 5500-
asp-f ! ! atm connection-traffic-table-row index 64000
cbr pcr 10240 cdvt 500 atm address
47.0091.8100.0000.0050.5308.2401.0050.5308.2401.00 atm
router pnni no aesa embedded-number left-justified
node 1 level 56 lowest redistribute atm-static ! !
interface ATM11/0/0 no ip address ! interface ATM11/0/1
no ip address atm pvp 5 interface ATM11/0/0 10 atm
pvp 6 rx-cttr 64000 tx-cttr 64000 interface ATM11/0/0
6 ! interface ATM13/0/0 no ip address atm maxvp-
number 0 ! interface Ethernet13/0/0 no ip address ! ip
classless ! ! line con 0 line aux 0 line vty 0 4 login
! end

```

8540-MSR

```

8540-MSR# show running-config Building configuration...
Current configuration: ! version 12.0 no service pad
service timestamps debug uptime service timestamps log
uptime no service password-encryption ! hostname 8540-
MSR ! logging buffered 4096 debugging ! redundancy
main-cpu sync config startup sync config running
facility-alarm core-temperature major 53 facility-alarm
core-temperature minor 45 ip subnet-zero ! atm
connection-traffic-table-row index 63999 cbr pcr 10240
cdvt 500 atm lecs-address-default
47.0091.8100.0000.0090.2144.8401.0090.2144.8405.00 1 atm
address
47.0091.8100.0000.0090.2144.8401.0090.2144.8401.00 atm
router pnni no aesa embedded-number left-justified
node 1 level 56 lowest redistribute atm-static ! !
lane database PVP name test server-atm-address
47.00918100000009021448401.009021448403.01 ! !
interface CBR1/0/0 no ip address no ip directed-

```

```

broadcast ces circuit 0 circuit-name test ces pvc 0
interface ATM2/1/0.6 vpi 6 vci 100 ! interface ATM2/1/0
no atm signalling enable no ip address no ip directed-
broadcast atm pvp 6 rx-cttr 63999 tx-cttr 63999 atm
pvp 10 ! interface ATM2/1/0.6 point-to-point no ip
directed-broadcast ! interface ATM2/1/0.10 point-to-
point no ip directed-broadcast ! interface ATM0 no ip
address no ip directed-broadcast atm maxvp-number 0
lane config auto-config-atm-address lane config
database PVP ! interface ATM0.1 multipoint ip address
100.100.100.1 255.255.255.0 no ip directed-broadcast
lane server-bus ethernet test lane client ethernet
test ! interface Ethernet0 no ip address no ip
directed-broadcast !! ip classless ! ! line
con 0 transport input none line aux 0 line vty 0 4 !
end

```

验证

验证5500 aspe

本部分所提供的信息可用于确认您的配置是否正常工作。

[命令输出解释程序工具](#) ([仅限注册用户](#)) 支持某些 **show** 命令，使用此工具可以查看对 **show** 命令输出的分析。

- **show atm vp** —用于验证VP隧道是UP。5500-asp-e# **show atm vp** Interface VPI Type X-Interface X-VPI Status ATM11/0/1 5 PVP TUNNEL ATM11/0/1 6 PVP TUNNEL 5500-asp-e#

- **show atm vc interface atm x/y/z.n** —用于验证LANE SVC通过UBR VP隧道设立。5500-asp-e# **show atm vc interface atm11/0/1.5** Interface VPI VCI Type X-Interface X-VPI X-VCI Encap Status ATM11/0/1.5 5 3 PVC ATM13/0/0 0 68 SNAP UP ATM11/0/1.5 5 4 PVC ATM13/0/0 0 69 SNAP UP ATM11/0/1.5 5 5 PVC ATM13/0/0 0 67 QSAAL UP ATM11/0/1.5 5 16 PVC ATM13/0/0 0 66 ILMI UP ATM11/0/1.5 5 18 PVC ATM13/0/0 0 72 PNNI UP ATM11/0/1.5 5 43 SVC ATM13/0/0 0 94 LANE UP ATM11/0/1.5 5 44 SVC ATM13/0/0 0 95 LANE UP ATM11/0/1.5 5 45 SVC ATM13/0/0 0 96 LANE UP ATM11/0/1.5 5 46 SVC ATM13/0/0 0 97 LANE UP ATM11/0/1.5 5 47 SVC ATM13/0/0 0 103 LANE UP

- **show atm pnni neighbor** —如果LANE SVC不通过VP隧道出现，请使用此命令验证PNNI邻居是在FULL状态。5500-asp-e# **show atm pnni neighbor** Neighbors For Node (Index 1, Level 56) Neighbor Name: 8540-MSR, Node number: 9 Neighbor Node Id: 56:160:47.009181000000009021448401.009021448401.00 Neighboring Peer State: Full Link Selection Set To: minimize blocking of future calls Port Remote Port Id Hello state ATM11/0/1.6 ATM2/1/0.6 2way_in ATM11/0/1.5 ATM2/1/0.10 2way_in (Flooding Port) 5500-asp-e#

- **show lane client** —用于验证LEC是可操作的。5500-asp-e# **show lane client** LE Client ATM13/0/0.1 ELAN name: test Admin: up State: operational Client ID: 2 LEC up for 1 hour 7 minutes 39 seconds ELAN ID: 0 Join Attempt: 17 Last Fail Reason: Config VC being released HW Address: 0050.537e.1402 Type: ethernet Max Frame Size: 1516 ATM Address: 47.0091810000000050537E1401.0050537E1402.01 VCD rxFrames txFrames Type ATM Address 0 0 0 configure 47.009181000000009021448401.009021448405.00 94 1 6 direct 47.009181000000009021448401.009021448403.01 95 9 0 distribute 47.009181000000009021448401.009021448403.01 96 0 70 send 47.009181000000009021448401.009021448404.01 97 5 0 forward 47.009181000000009021448401.009021448404.01 103 11 14 data

```
47.009181000000009021448401.009021448402.01 5500-asp-e#
```

• **show atm vc interface atmx/y/z.n** —用于验证CES PVC通过CBR VP隧道。5500-asp-e# **show atm vc interface atm11/0/1.6**

Encap	Status	ATM11/0/1.6	VPI	VCI	Type	X-Interface	X-VPI	X-VCI
ATM11/0/1.6	6	4	PVC	ATM13/0/0	0	100	SNAP	UP
5	PVC	ATM13/0/0	0	99	QSAAL	UP	ATM11/0/1.6	6
ATM13/0/0	0	98	ILMI	UP	ATM11/0/1.6	6	18	PVC
102	PNNI	UP	ATM11/0/1.6	6	100	PVC	ATM-P10/0/3	0

```
asp-e#
```

VP 中 VP 和 VC 的显示命令

请使用**show atm vc interface atm11/0/1.6**命令此部分查看关于每个VP和VC的详细信息在VP内。

在本例中，为了保证信令VC通过两VPs，信令在主接口禁用。用于的命令执行此是没有**ATM信令 enable (event)**。同样是完成在8540-MSR。

著名的VC更换他们的从零的VPI编号到VP隧道的VPI编号。著名的VC也是服务类别和VP隧道一样。所以，为了一个VP隧道发信号的VC是UBR和其他是CBR。请使用**show atm vp interface atm11/0/1 5**和**show atm vc interface atm11/0/1.6 6 5**命令查看关于服务类别的信息。

```
5500-asp-e# show atm vp interface atm11/0/1 5 Interface: ATM11/0/1, Type: oc3suni VPI = 5
Status: TUNNEL Time-since-last-status-change: 01:15:49 Connection-type: PVP Cast-type: point-
to-point Usage-Parameter-Control (UPC): pass Wrr weight: 2 Number of OAM-configured connections:
0 OAM-configuration: disabled OAM-states: Not-applicable Threshold Group: 5, Cells queued: 0 Rx
cells: 0, Tx cells: 0 Tx Clp0:0, Tx Clp1: 0 Rx Clp0:0, Rx Clp1: 0 Rx Upc Violations:0, Rx cell
drops:0 Rx Clp0 q full drops:0, Rx Clp1 qthresh drops:0 Rx connection-traffic-table-index: 1 Rx
service-category: UBR (Unspecified Bit Rate) Rx pcr-clp01: 7113539 Rx scr-clp01: none Rx mcr-
clp01: none Rx cdvt: 1024 (from default for interface) Rx mbs: none Tx connection-
traffic-table-index: 1 Tx service-category: UBR (Unspecified Bit Rate) Tx pcr-clp01: 7113539 Tx
scr-clp01: none Tx mcr-clp01: none Tx cdvt: none Tx mbs: none 5500-asp-e# show atm vp
interface atm11/0/1 6 Interface: ATM11/0/1, Type: oc3suni VPI = 6 Status: TUNNEL Time-since-
last-status-change: 00:06:25 Connection-type: PVP Cast-type: point-to-point Usage-Parameter-
Control (UPC): pass Wrr weight: 2 Number of OAM-configured connections: 0 OAM-configuration:
disabled OAM-states: Not-applicable Threshold Group: 1, Cells queued: 0 Rx cells: 0, Tx cells:
0 Tx Clp0:0, Tx Clp1: 0 Rx Clp0:0, Rx Clp1: 0 Rx Upc Violations:0, Rx cell drops:0 Rx Clp0 q
full drops:0, Rx Clp1 qthresh drops:0 Rx connection-traffic-table-index: 64000 Rx service-
category: CBR (Constant Bit Rate) Rx pcr-clp01: 10240 Rx scr-clp01: none Rx mcr-clp01: none
Rx cdvt: 500 Rx mbs: none Tx connection-traffic-table-index: 64000 Tx service-
category: CBR (Constant Bit Rate) Tx pcr-clp01: 10240 Tx scr-clp01: none Tx mcr-clp01: none
Tx cdvt: 500 Tx mbs: none 5500-asp-e# show atm vc interface atm11/0/1.6 6 5
Interface: ATM11/0/1.6, Type: oc3suni VPI = 6 VCI = 5 Status: UP Time-since-last-status-
change: 00:10:22 Connection-type: PVC Cast-type: point-to-point Packet-discard-option: enabled
Usage-Parameter-Control (UPC): pass Wrr weight: 15 Number of OAM-configured connections: 0 OAM-
configuration: disabled OAM-states: Not-applicable Cross-connect-interface: ATM13/0/0, Type:
ATM Swi/Proc Cross-connect-VPI = 0 Cross-connect-VCI = 99 Cross-connect-UPC: pass Cross-
connect OAM-configuration: disabled Cross-connect OAM-state: Not-applicable Encapsulation:
AALQSAAL Threshold Group: 6, Cells queued: 0 Rx cells: 131, Tx cells: 134 Tx Clp0:134, Tx Clp1:
0 Rx Clp0:65, Rx Clp1: 66 Rx Upc Violations:0, Rx cell drops:0 Rx pkts:131, Rx pkt drops:0 Rx
connection-traffic-table-index: 2 Rx service-category: CBR (Constant Bit Rate) Rx pcr-clp01: 424
Rx scr-clp01: none Rx mcr-clp01: none Rx cdvt: 1024 (from default for interface) Rx
mbs: none Tx connection-traffic-table-index: 2 Tx service-category: CBR (Constant Bit Rate) Tx
pcr-clp01: 424 Tx scr-clp01: none Tx mcr-clp01: none Tx cdvt: none Tx mbs: none Crc
Errors:0, Sar Timeouts:0, OverSizedSDUs:0 BufSzOvfl: Small:0, Medium:0, Big:0, VeryBig:0,
Large:0 5500-asp-e# show atm vc interface atm11/0/1.5 5 5 Interface: ATM11/0/1.5, Type:
oc3suni VPI = 5 VCI = 5 Status: UP Time-since-last-status-change: 01:09:56 Connection-type:
PVC Cast-type: point-to-point Packet-discard-option: enabled Usage-Parameter-Control (UPC):
pass Wrr weight: 15 Number of OAM-configured connections: 0 OAM-configuration: disabled OAM-
states: Not-applicable Cross-connect-interface: ATM13/0/0, Type: ATM Swi/Proc Cross-connect-
VPI = 0 Cross-connect-VCI = 67 Cross-connect-UPC: pass Cross-connect OAM-configuration:
```

disabled Cross-connect OAM-state: Not-applicable Encapsulation: AALQSAAL Threshold Group: 6, Cells queued: 0 Rx cells: 917, Tx cells: 921 Tx Clp0:921, Tx Clp1: 0 Rx Clp0:449, Rx Clp1: 468 Rx Upc Violations:0, Rx cell drops:0 Rx pkts:909, Rx pkt drops:0 Rx connection-traffic-table-index: 6 Rx service-category: **UBR (Unspecified Bit Rate)** Rx pcr-clp01: 424 Rx scr-clp01: none Rx mcr-clp01: none Rx cdvt: 1024 (from default for interface) Rx mbs: none Tx connection-traffic-table-index: 6 Tx service-category: **UBR (Unspecified Bit Rate)** Tx pcr-clp01: 424 Tx scr-clp01: none Tx mcr-clp01: none Tx cdvt: none Tx mbs: none Crc Errors:0, Sar Timeouts:0, OverSizedSDUs:0 BufSzOvfl: Small:2, Medium:0, Big:0, VeryBig:0, Large:0

请使用**show atm interface resource atmX/y/z.n**命令发现什么资源是可用的在每个通道，并且哪些资源由通过通道的VC保留。

```
5500-asp-e# show atm interface resource atm11/0/1.5 Resource Management configuration:
Service Categories supported: ubr Link Distance: 0 kilometers Best effort connection
limit: disabled 0 max connections Max traffic parameters by service (rate in Kbps,
tolerance in cell-times): Peak-cell-rate RX: none ubr Peak-cell-rate TX: none
ubr Minimum-cell-rate RX: none ubr Minimum-cell-rate TX: none ubr CDVT
RX: none ubr CDVT TX: none ubr Resource Management state: Best effort connections: 5
pvcs, 5 svcs 5500-asp-e# show atm interface resource atm11/0/1.6 Resource Management
configuration: Service Categories supported: cbr Link Distance: 0 kilometers Best
effort connection limit: disabled 0 max connections Max traffic parameters by service (rate
in Kbps, tolerance in cell-times): Peak-cell-rate RX: none cbr, Peak-cell-rate
TX: none cbr, Minimum-cell-rate RX: Minimum-cell-rate TX: CDVT RX: none
cbr, CDVT TX: none cbr, Resource Management state: Available bit rates (in Kbps):
7986 cbr RX, 7986 cbr TX, 0 vbr RX, 0 vbr TX, 0 abr RX, 0 abr TX, 0 ubr RX, 0
ubr TX Allocated bit rates: 1741 cbr RX, 1741 cbr TX, 0 vbr RX, 0 vbr TX, 0
abr RX, 0 abr TX, 0 ubr RX, 0 ubr TX
```

[验证5500-asp-f](#)

本部分所提供的信息可用于确认您的配置是否正常工作。

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- **show atm vp** —用于验证VP是可操作的。5500-asp-f# **show atm vp** Interface VPI Type X-Interface X-VPI Status ATM11/0/0 6 PVP ATM11/0/1 6 UP ATM11/0/0 10 PVP ATM11/0/1 5 UP ATM11/0/1 5 PVP ATM11/0/0 10 UP ATM11/0/1 6 PVP ATM11/0/0 6 UP 5500-asp-f#
- **show atm interface resource atmX/y/z** —用于发现这两保留的资源在接口的VPs。5500-asp-f# **show atm interface resource atm11/0/1** Resource Management configuration: Service Classes: Service Category map: c1 cbr, c2 vbr-rt, c3 vbr-nrt, c4 abr, c5 ubr Scheduling: RS c1 WRR c2, WRR c3, WRR c4, WRR c5 WRR Weight: 8 c2, 1 c3, 1 c4, 1 c5 Pacing: disabled 0 Kbps rate configured, 0 Kbps rate installed Service Categories supported: cbr,vbr-rt,vbr-nrt,abr,ubr Link Distance: 0 kilometers Controlled Link sharing: Max aggregate guaranteed services: none RX, none TX Max bandwidth: none cbr RX, none cbr TX, none vbr RX, none vbr TX, none abr RX, none abr TX, none ubr RX, none ubr TX Min bandwidth: none cbr RX, none cbr TX, none vbr RX, none vbr TX, none abr RX, none abr TX, none ubr RX, none ubr TX Best effort connection limit: disabled 0 max connections Max traffic parameters by service (rate in Kbps, tolerance in cell-times): Peak-cell-rate RX: none cbr, none vbr, none abr, none ubr Peak-cell-rate TX: none cbr, none vbr, none abr, none ubr Sustained-cell-rate: none vbr RX, none vbr TX Minimum-cell-rate RX: none abr, none ubr Minimum-cell-rate TX: none abr, none ubr CDVT RX: none cbr, none vbr, none abr, none ubr CDVT TX: none cbr, none vbr, none abr, none ubr MBS: none vbr RX, none vbr TX Resource Management state: Available bit rates (in Kbps): 137503 cbr RX, 137503 cbr TX, 137503 vbr RX, 137503 vbr TX, 137503 abr RX, 137503 abr TX, 137503 ubr RX, 137503 ubr TX Allocated bit rates: 10240 cbr RX, 10240 cbr TX, 0 vbr RX, 0 vbr TX, 0 abr RX, 0 abr TX, 0 ubr RX, 0 ubr TX Best effort connections: 1 pvcs, 0 svcs 5500-asp-f#

8540-MSR

本部分所提供的信息可用于确认您的配置是否正常工作。

[命令输出解释程序工具 \(仅限注册用户 \)](#) 支持某些 **show** 命令，使用此工具可以查看对 **show** 命令输出的分析。

- **show atm vp** —用于验证VP隧道是UP。8540-MSR# **show atm vp**

Interface	X-VPI	Status	ATM2/1/0	VPI	Type	X-Interface	X-VPI	X-VCI	Encap
PVP	TUNNEL			6					
- **show atm vc interface atm x/y/z.n** —用于验证CES PVC通过CBR VP隧道。8540-MSR# **show atm vc interface atm2/1/0.10**

Interface	VPI	VCI	Type	X-Interface	X-VPI	X-VCI	Encap
Status ATM2/1/0.10	10	3	PVC	ATM0	0	140	SNAP
10	4	PVC	ATM0	0	141	SNAP	UP
ATM0	0	139	QSAAL	UP	ATM2/1/0.10	10	16
138	ILMI	UP	ATM2/1/0.10	10	18	PVC	ATM0
ATM2/1/0.10	10	43	SVC	ATM0	0	149	LANE
44	SVC	ATM0	0	132	LANE	UP	ATM2/1/0.10
ATM0	0	150	LANE	UP	ATM2/1/0.10	10	46
136	LANE	UP	8540-MSR#				

Interface	VPI	VCI	Type
X-Interface ATM2/1/0.6	6	3	PVC
153	SNAP	UP	ATM2/1/0.6
ATM2/1/0.6	6	5	PVC
16	PVC	ATM0	0
ATM0	0	155	PNNI
16	UP		
- **show atm vp interface atm x/y/z n m** —用于查看服务类别信息。8540-MSR# **show atm vp interface atm2/1/0 10**
Interface: ATM2/1/0, Type: oc3suni VPI = 10 Status: TUNNEL Time-since-last-status-change: 01:25:46 Connection-type: PVP Cast-type: point-to-point Usage-Parameter-Control (UPC): pass Wrr weight: 2 Number of OAM-configured connections: 0 OAM-configuration: disabled OAM-states: Not-applicable Threshold Group: 5, Cells queued: 0 Rx cells: 0, Tx cells: 0 Tx Clp0:0, Tx Clp1: 0 Rx Clp0:0, Rx Clp1: 0 Rx Upc Violations:0, Rx cell drops:0 Rx Clp0 q full drops:0, Rx Clp1 qthresh drops:0 Rx connection-traffic-table-index: 1 Rx service-category: UBR (Unspecified Bit Rate) Rx pcr-clp01: 7113539 Rx scr-clp01: none Rx mcr-clp01: none Rx cdvt: 1024 (from default for interface) Rx mbs: none Tx connection-traffic-table-index: 1 Tx service-category: UBR (Unspecified Bit Rate) Tx pcr-clp01: 7113539 Tx scr-clp01: none Tx mcr-clp01: none Tx cdvt: none Tx mbs: none
8540-MSR# **show atm vp interface atm2/1/0 6**
Interface: ATM2/1/0, Type: oc3suni VPI = 6 Status: TUNNEL Time-since-last-status-change: 01:04:52 Connection-type: PVP Cast-type: point-to-point Usage-Parameter-Control (UPC): pass Wrr weight: 2 Number of OAM-configured connections: 0 OAM-configuration: disabled OAM-states: Not-applicable Threshold Group: 1, Cells queued: 0 Rx cells: 0, Tx cells: 0 Tx Clp0:0, Tx Clp1: 0 Rx Clp0:0, Rx Clp1: 0 Rx Upc Violations:0, Rx cell drops:0 Rx Clp0 q full drops:0, Rx Clp1 qthresh drops:0 Rx connection-traffic-table-index: 63999 Rx service-category: CBR (Constant Bit Rate) Rx pcr-clp01: 10240 Rx scr-clp01: none Rx mcr-clp01: none Rx cdvt: 500 Rx mbs: none Tx connection-traffic-table-index: 63999 Tx service-category: CBR (Constant Bit Rate) Tx pcr-clp01: 10240 Tx scr-clp01: none Tx mcr-clp01: none Tx cdvt: 500 Tx mbs: none
- **show atm interface resource atm x/y/z.n** —用于发现什么资源是可用的在每个通道，并且哪些资源由通过通道的VC保留。8540-MSR# **show atm interface resource atm 2/1/0.6**
Resource Management configuration: Service Categories supported: cbr Link Distance: 0 kilometers Best effort connection limit: disabled 0 max connections Max traffic parameters by service (rate in Kbps, tolerance in cell-times): Peak-cell-rate RX: none cbr, Peak-cell-rate TX: none cbr, Minimum-cell-rate RX: Minimum-cell-rate TX: CDVT RX: none cbr, CDVT TX: none cbr, Resource Management state: Available bit rates (in Kbps): 7986 cbr RX, 7986 cbr TX, 0 vbr RX, 0 vbr TX, 0 abr RX, 0 abr TX, 0 ubr RX, 0 ubr TX Allocated bit rates: 1741 cbr RX, 1741 cbr TX, 0 vbr RX, 0 vbr TX, 0 abr RX, 0 abr TX, 0 ubr RX, 0 ubr TX
8540-MSR# **show atm interface resource atm 2/1/0.10**
Resource Management configuration: Service Categories supported: ubr Link Distance: 0 kilometers Best effort connection limit: disabled 0 max connections Max traffic parameters by

```

service (rate in Kbps, tolerance in cell-times):          Peak-cell-rate RX: none ubr
Peak-cell-rate TX: none ubr          Minimum-cell-rate RX: none ubr          Minimum-cell-rate
TX: none ubr          CDVT RX: none ubr          CDVT TX: none ubr Resource Management state:
    Best effort connections: 5 pvcs, 4 svcs

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- **show atm pnni neighbor** —用于验证PNNI邻居是在FULL状态。8540-MSR# **show atm pnni neighbor** Neighbors For Node (Index 1, Level 56) Neighbor Name: 5500-asp-e, Node number: 10 Neighbor Node Id: 56:160:47.0091810000000050537E1401.0050537E1401.00 Neighboring Peer State: Full Link Selection Set To: minimize blocking of future calls Port Remote Port Id Hello state ATM2/1/0.6 ATM11/0/1.6 2way_in ATM2/1/0.10 ATM11/0/1.5 2way_in (Flood Port)

- **显示通道**—用于显示在仿真LAN (ELAN)配置的在接口或其子接口，在一指定的子接口，或者所有LANE组件的详细信息。8540-MSR# **show lane** LE Config Server ATM0 config table: PVP Admin: up State: operational LECS Mastership State: active master list of global LECS addresses (23 seconds to update): 47.009181000000009021448401.009021448405.00 <----- me ATM Address of this LECS: 47.009181000000009021448401.009021448405.00 (auto) vcd rxCnt txCnt callingParty 128 3 3 47.009181000000009021448401.009021448403.01 LES test 0 active cumulative total number of unrecognized packets received so far: 0 cumulative total number of config requests received so far: 6 cumulative total number of config failures so far: 0 LE Server ATM0.1, Elan name: test, Admin: up, State: operational Type: ethernet, Max Frame Size: 1516 locally set elan-id: not set elan-id obtained from LECS: not set ATM address: 47.009181000000009021448401.009021448403.01 LECS used: 47.009181000000009021448401.009021448405.00 connected, vcd 126 control distribute: vcd 132, 2 members, 17 packets proxy/ (ST: Init, Conn, Waiting, Adding, Joined, Operational, Reject, Term) lecid ST vcd pkts Hardware Addr ATM Address 1P O 131 9 0090.2144.8402 47.009181000000009021448401.009021448402.01 2P O 149 9 0050.537e.1402 47.0091810000000050537E1401.0050537E1402.01 LE BUS ATM0.1 ELAN name: test Admin: up State: operational type: ethernet Max Frame Size: 1516 ATM address: 47.009181000000009021448401.009021448404.01 data forward: vcd 136, 2 members, 34 packets, 3 unicasts lecid vcd pkts ATM Address 1 135 93 47.009181000000009021448401.009021448402.01 2 150 79 47.0091810000000050537E1401.0050537E1402.01 LE Client ATM0.1 ELAN name: test Admin: up State: operational Client ID: 1 LEC up for 1 hour 28 minutes 44 seconds ELAN ID: 0 Join Attempt: 8 Last Fail Reason: Locally deactivate HW Address: 0090.2144.8402 Type: ethernet Max Frame Size: 1516 ATM Address: 47.009181000000009021448401.009021448402.01 VCD rxFrames txFrames Type ATM Address 0 0 0 configure 47.009181000000009021448401.009021448405.00 130 1 9 direct 47.009181000000009021448401.009021448403.01 VCD rxFrames txFrames Type ATM Address 133 17 0 distribute 47.009181000000009021448401.009021448403.01 134 0 93 send 47.009181000000009021448401.009021448404.01 137 17 0 forward 47.009181000000009021448401.009021448404.01

- **显示ces circuit** —用于显示CBR接口的详细的电路信息。8540-MSR# **show ces circuit** Interface Circuit Circuit-Type X-interface X-vpi X-vci Status CBR1/0/0 0 HardPVC ATM2/1/0.6 6 100 UP 5500-asp-e# **show ces circuit** Interface Circuit Circuit-Type X-interface X-vpi X-vci Status CBR10/0/0 0 HardPVC ATM11/0/1.6 6 100 UP

- **show atm connection-traffic-table** —请使用连接流量表指定不同的服务类别和流量参数。一旦指定参数，请使用索引配置VC和VP类别和流量参数。要查看连接流量表设置，请使用**show atm connection-traffic-table命令**。8540-MSR# **show atm connection-traffic-table** Row

```

Service-category pcr scr/mcr mbs cdvt 1 ubr
7113539 none none 2 cbr
424 none 3 vbr-rt 424
424 50 none 4 vbr-nrt 424 424
50 none 5 abr 424 0 none
6 ubr 424 none none 63999
cbr 10240 500 64000 cbr
1741 none 2147483637 ubr 149760
none none 2147483638 ubr 149760
none none 2147483639 ubr 149760
none none 2147483640 ubr 149760

```



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none                none 2147483645* ubr                0
none                none 2147483646* ubr                1
none                none 2147483647* ubr                7113539
none                none 5500-asp-e# show atm connection-traffic-table Row
Service-category   pcr          scr/mcr      mbs          cdvt 1      ubr
7113539            none                none 2          cbr
424                none 3          vbr-rt      424
424                50            none 4          vbr-nrt     424      424
50                none 5          abr         424        0
6                 ubr          424        none                none 63999
cbr                1741                none 64000      cbr
10240                500 2147483637 ubr          149760
none                none 2147483638 ubr          149760
none                none 2147483639 ubr          149760
none                none 2147483640 ubr          149760
none                none 2147483645* ubr                0
none                none 2147483646* ubr                1
none                none 2147483647* ubr                7113539
none                none 5500-asp-f# show atm connection-traffic-table Row
Service-category   pcr          scr/mcr      mbs          cdvt 1      ubr
7113539            none                none 2          cbr
424                none 3          vbr-rt      424
424                50            none 4          vbr-nrt     424      424
50                none 5          abr         424        0
6                 ubr          424        none                none 64000
cbr                10240                500 2147483645* ubr
0                 none                none 2147483646* ubr          1
none                none 2147483647* ubr          7113539
none                none

```

故障排除

目前没有针对此配置的故障排除信息。

相关信息

- [ATM技术支持](#)
- [技术支持&说明文件Cisco系统](#)