

# LANE e CES (usando PVCs) em túneis VP não moldados

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## [Introdução](#)

Este documento fornece uma configuração de exemplo para o LAN Emulation (LANE) e os serviços de emulação de circuitos (CES) o uso dos circuitos permanentes (PVC) em túneis sem modelagem do caminho virtual (VP).

## [Pré-requisitos](#)

### [Requisitos](#)

Estas configurações de amostra são baseadas nestas condições prévias:

- Você precisa de transportar o CES e o LANE através de WAN. Conseqüentemente, Cisco recomenda o ASP-PFQ no LS1010 assegurar boas operações cronometrando. Cisco igualmente recomenda RP-NetClock-3 no 8540-MSR pela mesma razão.
- Este exemplo usa túneis de VP sem modelagem.
- Porque o LANE usa a taxa de bits não especificada (CBR) SVC, o CES usa a taxa de bits constante (CBR) PVC. Também, desde que esta configuração usa túneis de VP regulares, você deve ter dois túneis de VP (um para cada categoria de serviço: CBR e UBR). Você pôde usar somente um túnel de VP se você usou o tipo hierárquico.

- Desde que os túneis não moldados podem ser de qualquer categoria de serviço, este exemplo tem um túnel de VP CBR que possa somente conter o VCS CBR. É usado para CES CBR PVC (etiquetado **VPI1** no [diagrama da rede](#)). **Note:** O número VPI é localmente - significativo à porta de switch. Consequentemente, você pode ter o mesmo número VPI no mesmo interruptor, mas duas portas de switch diferentes.
- Porque um túnel de VP CBR não pode transportar o VCS NON-CBR, você deve criar um outro túnel de VP para o LANE (que usa o VCS da categoria de serviço UBR). Consequentemente, o segundo túnel de VP (etiquetado **VPI2** no [diagrama da rede](#)) é um túnel de VP UBR com UBR LANE SVC que passa através dele.
- Você precisa de comprar dois VP do provedor de serviços. Estes são CBR e UBR.
- Neste exemplo, supõe-se que o VP CBR tem uma taxa de célula de pico (PCR) do 10 Mbps e uma tolerância de variação de retardo da célula (CDVT) de 500 pilhas.
- O dispositivo 5500-asp-f é para o switching VP. O provedor de serviços executa tipicamente esta função.
- Os serviços de pista são definidos em 8540-MSR. Os clientes de LAN Emulation (LEC) estão em 8540-MSR e em 5500-asp-e. **Note:** Os serviços de pista são colocados no switch ATM neste exemplo para simplificar. Contudo, aquela não é a ótima localização para serviços de pista.
- Os dois centrais telefônica privada (PBX) no uso do diagrama um circuito CES CBR. Para detalhes em como configurar a simulação de circuito, refira a [documentação do CES](#).

## [Componentes Utilizados](#)

Este documento não se restringe a versões de software e hardware específicas.

## [Convenções](#)

Para obter mais informações sobre convenções de documento, consulte as [Convenções de dicas técnicas Cisco](#).

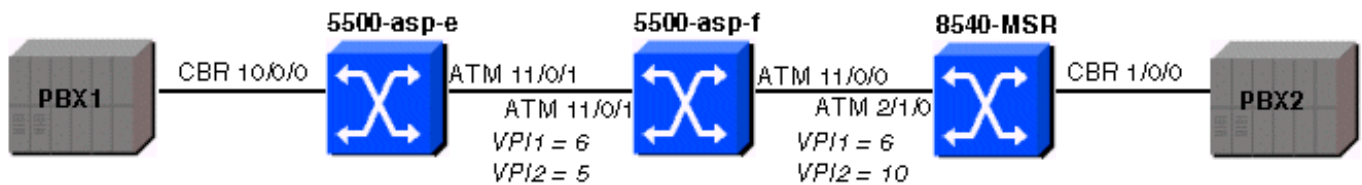
## [Configurar](#)

Nesta seção, você encontrará informações para configurar os recursos descritos neste documento.

**Note:** Para localizar informações adicionais sobre os comandos usados neste documento, utilize a Ferramenta Command Lookup (somente clientes [registrados](#)).

## [Diagrama de Rede](#)

Este documento utiliza a seguinte configuração de rede:



## Configurações

Este documento utiliza as seguintes configurações:

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

### 5500-asp-e

```

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
47.009181000000009021448401.009021448403.01
!
!
interface CBRL/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
```

## [Verificar](#)

### [Verifique 5500-asp-e](#)

Esta seção fornece informações que você pode usar para confirmar se sua configuração está funcionando adequadamente.

A [Output Interpreter Tool](#) ([somente clientes registrados](#)) oferece suporte a determinados comandos show, o que permite exibir uma análise da saída do comando show.

- **mostre o vp atm** — Usado para verificar que o túnel de VP está acima.

```
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 atmX/y/z.n** — Usado para verificar que o LANE SVC está estabelecido através do túnel de VP UBR.

```
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

- **mostre o vizinho do pnni atm** — Se o LANE SVC não vem acima através do túnel de VP, use este comando verificar que os vizinhos de PNNI estão no estado completo.

```
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
Neighbor 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#
```

- **cliente LANE da mostra** — Usado para verificar que o LEC é operacional.

```
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** — Usado para verificar que o CES PVC atravessa o túnel de VP CBR.

```
5500-asp-e# show atm vc interface atm11/0/1.6
```

Interface	VPI	VCI	Type	X-Interface	X-VPI	X-VCI	Encap	Status
-----------	-----	-----	------	-------------	-------	-------	-------	--------

ATM11/0/1.6	6	3	PVC	ATM13/0/0	0	100	SNAP	UP
ATM11/0/1.6	6	4	PVC	ATM13/0/0	0	101	SNAP	UP
ATM11/0/1.6	6	5	PVC	ATM13/0/0	0	99	QSAAL	UP
ATM11/0/1.6	6	16	PVC	ATM13/0/0	0	98	ILMI	UP
ATM11/0/1.6	6	18	PVC	ATM13/0/0	0	102	PNNI	UP
ATM11/0/1.6	6	100	PVC	ATM-P10/0/3	0	16		UP

5500-asp-e#

## Comandos de Exibição (Show) para VPs e VCs no VP

Use os **comandos show** nesta seção ver detalhes sobre cada VP e VC dentro do VP.

Neste exemplo, a fim assegurar-se de que o VCS de sinalização atravessasse ambos os VP, sinalizando é desabilitado na interface principal. O comando usado para fazer isto não é **nenhuma sinalização atm permite**. O mesmo foi feito no 8540-MSR.

Mudança conhecida do VCS seu número VPI de zero ao número VPI do túnel de VP. O VCS conhecido é igualmente da mesma categoria de serviço que o túnel de VP. Consequentemente, porque um túnel de VP o VC de sinalização é UBR, e o outro é o CBR. Use os **comandos show atm vp interface atm x/y/z n m** e **show atm vc interface atm x/y/z.n n m** ver a informação sobre as categorias de serviço.

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

Use o comando **show atm interface resource atmX/y/z n** ver que recursos estão disponíveis em cada túnel e que recursos são reservados pelo VCS que atravessam o túnel.

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**

## [Verifique 5500-asp-f](#)

Esta seção fornece informações que você pode usar para confirmar se sua configuração está funcionando adequadamente.

A [Output Interpreter Tool \(somente clientes registrados\)](#) oferece suporte a determinados comandos show, o que permite exibir uma análise da saída do comando show.

- **mostre o vp atm** — Usado para verificar que o VP é operacional.

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#
```

- **atmx/y/z do show atm interface resource** — Usado para ver os recursos reservados por estes dois VP em uma relação.

```
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](#)

Esta seção fornece informações que você pode usar para confirmar se sua configuração está funcionando adequadamente.

A [Output Interpreter Tool \(somente clientes registrados\)](#) oferece suporte a determinados comandos show, o que permite exibir uma análise da saída do comando show.

- **mostre o vp atm** — Usado para verificar que o túnel de VP está acima.

```
8540-MSR# show atm vp
```

```
Interface    VPI    Type  X-Interface    X-VPI    Status
ATM2/1/0     6      PVP   TUNNEL         TUNNEL
ATM2/1/0     10     PVP   TUNNEL         TUNNEL
```

- **show atm vc interface atmx/y/z.n** — Usado para verificar que o CES PVC está atravessando o túnel de VP CBR.

```
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	UP
ATM2/1/0.10	10	4	PVC	ATM0	0	141	SNAP	UP
ATM2/1/0.10	10	5	PVC	ATM0	0	139	QSAAL	UP
ATM2/1/0.10	10	16	PVC	ATM0	0	138	ILMI	UP
ATM2/1/0.10	10	18	PVC	ATM0	0	142	PNNI	UP
ATM2/1/0.10	10	43	SVC	ATM0	0	149	LANE	UP
ATM2/1/0.10	10	44	SVC	ATM0	0	132	LANE	UP
ATM2/1/0.10	10	45	SVC	ATM0	0	150	LANE	UP
ATM2/1/0.10	10	46	SVC	ATM0	0	136	LANE	UP

8540-MSR# **show atm vc interface atm2/1/0.6**

Interface	VPI	VCI	Type	X-Interface	X-VPI	X-VCI	Encap	Status
ATM2/1/0.6	6	3	PVC	ATM0	0	153	SNAP	UP
ATM2/1/0.6	6	4	PVC	ATM0	0	154	SNAP	UP
ATM2/1/0.6	6	5	PVC	ATM0	0	152	QSAAL	UP
ATM2/1/0.6	6	16	PVC	ATM0	0	151	ILMI	UP
ATM2/1/0.6	6	18	PVC					

```
ATM0          0      155   PNNI   UP
ATM2/1/0.6   6      100   PVC    ATM-P1/0/3  0      16          UP
```

- **atmx/y/z n m do show atm vp interface** — Usado para ver a informação da categoria de serviço.

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** — Usado para ver que recursos estão disponíveis em cada túnel e que recursos são reservados pelo VCS que atravessam o túnel.

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
```

- **mostre o vizinho do pnni atm** — Usado para verificar que os vizinhos de PNNI estão no estado completo.

```
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)
```

- **pista da mostra** — Usado para indicar a informação detalhada para todos os componentes de LANE configurados em uma relação ou em alguma de suas subinterfaces, em uma subinterface especificada, ou em uma LAN simulada (ELAN).

```
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
```

- **mostre o circuito dos ces** — Usado para indicar informação de circuito detalhada para a interface CBR.

```
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

```

- **mostre a tabela de tráfego de conexão atm** — Use a tabela de tráfego de conexão para especificar categorias de serviço e parâmetros de tráfego diferentes. Uma vez que você especifica os parâmetros, use o deslocamento predeterminado para configurar o VC e a categoria e os parâmetros de tráfego do VP. Para ver os ajustes da tabela de tráfego de conexão, use o comando **show atm connection-traffic-table**.

```
8540-MSR# show atm connection-traffic-table
```

```

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

none                none
2147483638  ubr                149760     none
2147483639  ubr                149760     none
2147483640  ubr                149760     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
2         cbr                424
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
2147483646*  ubr                1          none
2147483647*  ubr                7113539   none

```

## [Troubleshooting](#)

Atualmente, não existem informações disponíveis específicas sobre Troubleshooting para esta configuração.

## [Informações Relacionadas](#)

- [Apoio de tecnologia ATM](#)
- [Suporte Técnico e Documentação - Cisco Systems](#)