

# Como aplicar as listas de acesso às interfaces de discagem com um servidor RADIUS

## Índice

[Introdução](#)

[Pré-requisitos](#)

[Requisitos](#)

[Componentes Utilizados](#)

[Convenções](#)

[Diagrama de Rede](#)

[Defina listas de acessos numeradas no roteador](#)

[Comandos para outros Cisco IOS Software Release](#)

[Configurações do servidor - Listas de acesso no roteador](#)

[Debug de Exemplo de Roteador](#)

[Defina Listas de acesso no server](#)

[Comandos para outros Cisco IOS Software Release](#)

[Configurações do Servidor](#)

[Debug de Exemplo de Roteador](#)

[Comandos debug](#)

[Informações Relacionadas](#)

## [Introdução](#)

Este documento demonstra como aplicar Listas de acesso às interfaces de discagem com um servidor Radius. Há dois métodos possíveis:

- Defina a lista de acessos numerada no roteador, a seguir proveja a lista de acessos numerada no servidor Radius. A maioria de software release de Cisco IOS® apoiam este. Por exemplo, defina a lista de acessos numerada no roteador e proveja-os no server.
- Defina a lista de acessos inteira no server. O Cisco IOS Software Release 11.3 ou Mais Recente é exigido para este método de usuário. Por exemplo, defina a lista de acessos no servidor Radius (um pouco do que no NAS). Quando o atendimento conecta, o NAS autentica o atendimento com o servidor Radius. Junto com toda a informação da autenticação, o server retorna a lista de acessos ao NAS que aplica então à interface de discagem.

**Nota:** Para o ISDN, você deve usar o **método de usuário** e você deve configurar Perfis virtuais no roteador. Estes são descritos para o Cisco IOS Software Release 11.3 em [configurar Perfis virtuais](#).

## [Pré-requisitos](#)

## Requisitos

Não existem requisitos específicos para este documento.

## Componentes Utilizados

As informações neste documento são baseadas nestas versões de software e hardware.

- Cisco IOS Software Release 11.1 ou Mais Recente (defina Listas de acesso no roteador)
- Cisco IOS Software Release 11.3 ou Mais Recente (defina Listas de acesso no server)
- Cisco Secure ACS UNIX ou Cisco Secure ACS for Windows 2.x ou radius livingston ou radius da merit

As informações neste documento foram criadas a partir de dispositivos em um ambiente de laboratório específico. Todos os dispositivos utilizados neste documento foram iniciados com uma configuração (padrão) inicial. Se você estiver trabalhando em uma rede ativa, certifique-se de que entende o impacto potencial de qualquer comando antes de utilizá-lo.

## Convenções

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

## Diagrama de Rede

Esta rede é usada em ambos os exemplos:

## Defina listas de acessos numeradas no roteador

### Configuração do roteador

```
Current configuration:
!
version 12.0
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname koala
!
aaa new-model
!
!--- The following three lines of the configuration !---
are specific to Cisco IOS Software Release 12.0.5.T and
later. !--- See below this configuration for commands !-
-- for other Cisco IOS Software Releases. ! aaa
authentication login default local group radius aaa
authentication ppp default if-needed group radius aaa
authorization network default group radius enable secret
5 $1$mznZQ$g6XdsgVnnYjEa.17v.Pij1 enable password ww !
username john password 0 doe ! ip subnet-zero ! cns
event-service server ! interface Ethernet0 ip address
10.31.1.5 255.255.255.0 no ip directed-broadcast no mop
enabled ! interface Serial0 ip address 11.11.11.11
255.255.255.0 no ip directed-broadcast no ip mroute-
```

```
cache no fair-queue ! interface Serial1 ip address
12.12.12.12 255.255.255.0 no ip directed-broadcast !
interface Async1 ip unnumbered Ethernet0 no ip directed-
broadcast encapsulation ppp no ip route-cache no ip
mroute-cache async mode dedicated peer default ip
address pool mypool fair-queue 64 16 0 no cdp enable ppp
authentication chap ! ip local pool mypool 1.1.1.1
1.1.1.5 ip classless ip route 0.0.0.0 0.0.0.0 10.31.1.1
ip route 9.9.9.0 255.255.255.0 11.11.11.12 ip route
15.15.15.0 255.255.255.0 12.12.12.13 no ip http server !
access-list 101 permit icmp 1.1.1.0 0.0.0.255 9.9.9.0
0.0.0.255 access-list 101 permit tcp 1.1.1.0 0.0.0.255
15.15.15.0 0.0.0.255 !--- This is the access-list that
is specified by the RADIUS server. dialer-list 1
protocol ip permit dialer-list 1 protocol ipx permit !
radius-server host 172.18.124.111 auth-port 1645 acct-
port 1646 radius-server key cisco ! line con 0 transport
input none line 1 modem InOut transport input all
stopbits 1 speed 115200 flowcontrol hardware line 2 16
line aux 0 line vty 0 4 password ww ! end
```

## [Comandos para outros Cisco IOS Software Release](#)

**Nota:** Para usar estes comandos, remova os comandos em corajoso da configuração acima e cole estes comandos dentro, como ditado por seu Cisco IOS Software Release.

### [Cisco IOS Software Release 11.3.3.T com 12.0.5.T](#)

```
aaa authentication login default radius local
aaa authentication ppp default if-needed radius local
aaa authorization network default radius
```

### [Cisco IOS Software Release 11.1 com 11.3.3.T](#)

```
aaa authentication login default radius
aaa authentication ppp default if-needed radius
aaa authorization network radius
```

## [Configurações do servidor - Listas de acesso no roteador](#)

Este procedimento envolve a configuração da lista de acessos própria no roteador. O servidor Radius é configurado com o access list number que é aplicado. Quando o atendimento autentica, o servidor Radius retorna o access list number ao NAS, que aplica então a lista de acessos correspondente.

### [Configuração do servidor - Cisco Secure ACS for Windows 2.X - RAI0](#)

Siga as etapas abaixo:

1. Nas configurações de usuário, preencha o nome e as senhas.
2. Nas configurações de grupo, verifique: Atributo 6 - **Framed** Atributo 7 - **PPP** Atributo 11 - **ID de filtro**. Na área abaixo, tipo **101.in** **Nota:** O atributo 11 especifica que a lista de acessos 101 é aplicada. Assegure-se de que o access-list 101 esteja configurado no roteador.

### [Configuração do servidor - RADIUS UNIX do Cisco Secure ACS](#)

```
rtp-evergreen# ./ViewProfile -p 9900 -u chaprtr
User Profile Information
user = chaprtr{
profile_id = 51
profile_cycle = 1
radius=Cisco {
check_items= {
2="chaprtr"
}
reply_attributes= {
6=2
7=1
11=101.in } } }
```

**Nota:** O atributo 11 especifica que o access-list 101 é aplicado. Assegure-se de que o access-list 101 esteja configurado no roteador.

## [Configuração do servidor - Radius livingston](#)

```
chaprtr Password = chaprtr
User-Service-Type = Framed-User,
Framed-Protocol = PPP,
Framed-Filter-Id = 101.in
```

**Nota:** Isto especifica que o access-list 101 é aplicado. Assegure-se de que o access-list 101 esteja configurado no roteador.

## [Debug de Exemplo de Roteador](#)

```
koala#show debug General OS: AAA Authentication debugging is on AAA Authorization debugging is
on PPP: PPP protocol negotiation debugging is on Radius protocol debugging is on koala# *Mar 1
00:55:36.307: As1 LCP: I CONFREQ [Closed] id 0 len 23 *Mar 1 00:55:36.311: As1 LCP: ACCM
0x00000000 (0x020600000000) *Mar 1 00:55:36.311: As1 LCP: MagicNumber 0x00004CDD
(0x050600004CDD) *Mar 1 00:55:36.315: As1 LCP: PFC (0x0702) *Mar 1 00:55:36.319: As1 LCP: ACFC
(0x0802) *Mar 1 00:55:36.319: As1 LCP: Callback 6 (0x0D0306) *Mar 1 00:55:36.323: As1 LCP: Lower
layer not up, Fast Starting *Mar 1 00:55:36.323: As1 PPP: Treating connection as a dedicated
line *Mar 1 00:55:36.327: As1 PPP: Phase is ESTABLISHING, Active Open [0 sess, 0 load] *Mar 1
00:55:36.331: As1 AAA/AUTHOR/FSM: (0): LCP succeeds trivially *Mar 1 00:55:36.335: As1 LCP: O
CONFREQ [Closed] id 26 len 25 *Mar 1 00:55:36.339: As1 LCP: ACCM 0x000A0000 (0x0206000A0000)
*Mar 1 00:55:36.343: As1 LCP: AuthProto CHAP (0x0305C22305) *Mar 1 00:55:36.343: As1 LCP:
MagicNumber 0xE0512B4A (0x0506E0512B4A) *Mar 1 00:55:36.347: As1 LCP: PFC (0x0702) *Mar 1
00:55:36.347: As1 LCP: ACFC (0x0802) *Mar 1 00:55:36.355: As1 LCP: O CONFREQ [REQsent] id 0 len
7 *Mar 1 00:55:36.355: As1 LCP: Callback 6 (0x0D0306) 00:55:36: %LINK-3-UPDOWN: Interface
Asyncl, changed state to up *Mar 1 00:55:36.479: As1 LCP: I CONFACK [REQsent] id 26 len 25 *Mar
1 00:55:36.483: As1 LCP: ACCM 0x000A0000 (0x0206000A0000) *Mar 1 00:55:36.483: As1 LCP:
AuthProto CHAP (0x0305C22305) *Mar 1 00:55:36.487: As1 LCP: MagicNumber 0xE0512B4A
(0x0506E0512B4A) *Mar 1 00:55:36.491: As1 LCP: PFC (0x0702) *Mar 1 00:55:36.491: As1 LCP: ACFC
(0x0802) *Mar 1 00:55:36.495: As1 LCP: I CONFREQ [ACKrcvd] id 1 len 20 *Mar 1 00:55:36.499: As1
LCP: ACCM 0x00000000 (0x020600000000) *Mar 1 00:55:36.503: As1 LCP: MagicNumber 0x00004CDD
(0x050600004CDD) *Mar 1 00:55:36.503: As1 LCP: PFC (0x0702) *Mar 1 00:55:36.507: As1 LCP: ACFC
(0x0802) *Mar 1 00:55:36.511: As1 LCP: O CONFACK [ACKrcvd] id 1 len 20 *Mar 1 00:55:36.515: As1
LCP: ACCM 0x00000000 (0x020600000000) *Mar 1 00:55:36.515: As1 LCP: MagicNumber 0x00004CDD
(0x050600004CDD) *Mar 1 00:55:36.519: As1 LCP: PFC (0x0702) *Mar 1 00:55:36.519: As1 LCP: ACFC
(0x0802) *Mar 1 00:55:36.523: As1 LCP: State is Open *Mar 1 00:55:36.527: As1 PPP: Phase is
AUTHENTICATING, by this end [0 sess, 1 load] *Mar 1 00:55:36.531: As1 CHAP: O CHALLENGE id 8 len
26 from "koala" *Mar 1 00:55:36.647: As1 LCP: I IDENTIFY [Open] id 2 len 18 magic 0x00004CDD
MSRASV4.00 *Mar 1 00:55:36.651: As1 LCP: I IDENTIFY [Open] id 3 len 21 magic 0x00004CDD MSRAS-1-
ZEKIE *Mar 1 00:55:36.655: As1 CHAP: I RESPONSE id 8 len 28 from "chaprtr" *Mar 1 00:55:36.663:
AAA: parse name=Asyncl idb type=10 tty=1 *Mar 1 00:55:36.667: AAA: name=Asyncl flags=0x11 type=4
shelf=0 slot=0 adapter=0 port=1 channel=0 *Mar 1 00:55:36.671: AAA/MEMORY: create_user
(0x4E9DF4) user='chaprtr' ruser='' port='Asyncl' rem_addr='asyncl' authen_type=CHAP service=PPP
priv=1 *Mar 1 00:55:36.675: AAA/AUTHEN/START (128288046): port='Asyncl' list='' action=LOGIN
```

service=PPP \*Mar 1 00:55:36.675: AAA/AUTHEN/START (128288046): using "default" list \*Mar 1  
00:55:36.679: AAA/AUTHEN (128288046): status = UNKNOWN \*Mar 1 00:55:36.679: AAA/AUTHEN/START  
(128288046): Method=radius (radius) \*Mar 1 00:55:36.683: RADIUS: ustruct sharecount=1 \*Mar 1  
00:55:36.687: RADIUS: Initial Transmit Async1 id 8 172.18.124.111:1645, Access-Request, len 78  
\*Mar 1 00:55:36.691: Attribute 4 6 0A1F0105 \*Mar 1 00:55:36.695: Attribute 5 6 00000001 \*Mar 1  
00:55:36.695: Attribute 61 6 00000000 \*Mar 1 00:55:36.695: Attribute 1 9 63686170 \*Mar 1  
00:55:36.699: Attribute 3 19 08E468A8 \*Mar 1 00:55:36.699: Attribute 6 6 00000002 \*Mar 1  
00:55:36.703: Attribute 7 6 00000001 \*Mar 1 00:55:36.835: RADIUS: Received from id 8  
172.18.124.111:1645, Access-Accept, len 40 \*Mar 1 00:55:36.839: Attribute 6 6 00000002 \*Mar 1  
00:55:36.843: Attribute 7 6 00000001 \*Mar 1 00:55:36.843: Attribute 11 8 3130312E \*Mar 1  
00:55:36.851: AAA/AUTHEN (128288046): status = PASS \*Mar 1 00:55:36.855: As1 AAA/AUTHOR/LCP:  
Authorize LCP \*Mar 1 00:55:36.855: As1 AAA/AUTHOR/LCP (821299011): Port='Async1' list=''  
service=NET \*Mar 1 00:55:36.859: AAA/AUTHOR/LCP: As1 (821299011) user='chaprtr' \*Mar 1  
00:55:36.859: As1 AAA/AUTHOR/LCP (821299011): send AV service=ppp \*Mar 1 00:55:36.863: As1  
AAA/AUTHOR/LCP (821299011): send AV protocol=lcp \*Mar 1 00:55:36.863: As1 AAA/AUTHOR/LCP  
(821299011): found list "default" \*Mar 1 00:55:36.867: As1 AAA/AUTHOR/LCP (821299011):  
Method=radius (radius) \*Mar 1 00:55:36.871: As1 AAA/AUTHOR (821299011): Post authorization  
status = PASS\_REPL \*Mar 1 00:55:36.871: As1 AAA/AUTHOR/LCP: Processing AV service=ppp \*Mar 1  
00:55:36.879: As1 CHAP: O SUCCESS id 8 len 4 \*Mar 1 00:55:36.883: As1 PPP: Phase is UP [0 sess,  
1 load] \*Mar 1 00:55:36.887: As1 AAA/AUTHOR/FSM: (0): Can we start IPCP? \*Mar 1 00:55:36.887:  
As1 AAA/AUTHOR/FSM (3701006396): Port='Async1' list='' service=NET \*Mar 1 00:55:36.891:  
AAA/AUTHOR/FSM: As1 (3701006396) user='chaprtr' \*Mar 1 00:55:36.891: As1 AAA/AUTHOR/FSM  
(3701006396): send AV service=ppp \*Mar 1 00:55:36.895: As1 AAA/AUTHOR/FSM (3701006396): send AV  
protocol=ip \*Mar 1 00:55:36.899: As1 AAA/AUTHOR/FSM (3701006396): found list "default" \*Mar 1  
00:55:36.899: As1 AAA/AUTHOR/FSM (3701006396): Method=radius (radius) \*Mar 1 00:55:36.903: As1  
AAA/AUTHOR (3701006396): Post authorization status = PASS\_REPL \*Mar 1 00:55:36.907: As1  
AAA/AUTHOR/FSM: We can start IPCP \*Mar 1 00:55:36.915: As1 IPCP: O CONFREQ [Closed] id 5 len 10  
\*Mar 1 00:55:36.915: As1 IPCP: Address 10.31.1.5 (0x03060A1F0105) \*Mar 1 00:55:36.923: As1  
AAA/AUTHOR/FSM: (0): Can we start CDPCP? \*Mar 1 00:55:36.923: As1 AAA/AUTHOR/FSM (3075092411):  
Port='Async1' list='' service=NET \*Mar 1 00:55:36.927: AAA/AUTHOR/FSM: As1 (3075092411)  
user='chaprtr' \*Mar 1 00:55:36.931: As1 AAA/AUTHOR/FSM (3075092411): send AV service=ppp \*Mar 1  
00:55:36.931: As1 AAA/AUTHOR/FSM (3075092411): send AV protocol=cdp \*Mar 1 00:55:36.935: As1  
AAA/AUTHOR/FSM (3075092411): found list "default" \*Mar 1 00:55:36.935: As1 AAA/AUTHOR/FSM  
(3075092411): Method=radius (radius) \*Mar 1 00:55:36.939: RADIUS: unknown proto "cdp" in acl-  
check \*Mar 1 00:55:36.943: RADIUS: Filter-Id 101 out of range for protocol cdp. Ignoring. \*Mar 1  
00:55:36.943: As1 AAA/AUTHOR (3075092411): Post authorization status = PASS\_REPL \*Mar 1  
00:55:36.947: As1 AAA/AUTHOR/FSM: We can start CDPCP \*Mar 1 00:55:36.951: As1 CDPCP: O CONFREQ  
[Closed] id 5 len 4 \*Mar 1 00:55:36.987: As1 CCP: I CONFREQ [Not negotiated] id 4 len 12 \*Mar 1  
00:55:36.991: As1 CCP: OUI (0x0002) \*Mar 1 00:55:36.991: As1 CCP: MS-PPC supported bits  
0x00007080 (0x120600007080) \*Mar 1 00:55:36.999: As1 LCP: O PROTREJ [Open] id 27 len 18 protocol  
CCP (0x80FD0104000C0002120600007080) \*Mar 1 00:55:37.003: As1 IPCP: I CONFREQ [REQsent] id 5 len  
40 \*Mar 1 00:55:37.007: As1 IPCP: CompressType VJ 15 slots CompressSlotID (0x0206002D0F01) \*Mar  
1 00:55:37.011: As1 IPCP: Address 0.0.0.0 (0x030600000000) \*Mar 1 00:55:37.015: As1 IPCP:  
PrimaryDNS 0.0.0.0 (0x810600000000) \*Mar 1 00:55:37.019: As1 IPCP: PrimaryWINS 0.0.0.0  
(0x820600000000) \*Mar 1 00:55:37.023: As1 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000) \*Mar 1  
00:55:37.027: As1 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000) \*Mar 1 00:55:37.027: As1  
AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 0.0.0.0 \*Mar 1 00:55:37.031: As1  
AAA/AUTHOR/IPCP: Processing AV service=ppp \*Mar 1 00:55:37.035: **As1 AAA/AUTHOR/IPCP: Processing  
AV inacl=101 !--- Note that acl 101 is applied to the dialer interface.** \*Mar 1 00:55:37.035: As1  
AAA/AUTHOR/IPCP: Authorization succeeded \*Mar 1 00:55:37.039: As1 AAA/AUTHOR/IPCP: Done. Her  
address 0.0.0.0, we want 0.0.0.0 \*Mar 1 00:55:37.043: As1 IPCP: Pool returned 1.1.1.1 \*Mar 1  
00:55:37.047: As1 IPCP: O CONFREQ [REQsent] id 5 len 28 \*Mar 1 00:55:37.051: As1 IPCP:  
CompressType VJ 15 slots CompressSlotID (0x0206002D0F01) \*Mar 1 00:55:37.055: As1 IPCP:  
PrimaryWINS 0.0.0.0 (0x820600000000) \*Mar 1 00:55:37.059: As1 IPCP: SecondaryDNS 0.0.0.0  
(0x830600000000) \*Mar 1 00:55:37.063: As1 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000) \*Mar 1  
00:55:37.067: As1 IPCP: I CONFACK [REQsent] id 5 len 10 \*Mar 1 00:55:37.071: As1 IPCP: Address  
10.31.1.5 (0x03060A1F0105) \*Mar 1 00:55:37.075: As1 LCP: I PROTREJ [Open] id 6 len 10 protocol  
CDPCP (0x820701050004) \*Mar 1 00:55:37.079: As1 CDPCP: State is Closed \*Mar 1 00:55:37.183: As1  
IPCP: I CONFREQ [ACKrcvd] id 7 len 16 \*Mar 1 00:55:37.187: As1 IPCP: Address 0.0.0.0  
(0x030600000000) \*Mar 1 00:55:37.191: As1 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000) \*Mar 1  
00:55:37.191: As1 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 1.1.1.1 \*Mar 1  
00:55:37.195: As1 AAA/AUTHOR/IPCP: Processing AV service=ppp \*Mar 1 00:55:37.199: As1  
AAA/AUTHOR/IPCP: Processing AV inacl=101 \*Mar 1 00:55:37.199: As1 AAA/AUTHOR/IPCP: Authorization  
succeeded \*Mar 1 00:55:37.203: As1 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 1.1.1.1

```
*Mar 1 00:55:37.207: As1 IPCP: O CONFNAK [ACKrcvd] id 7 len 16 *Mar 1 00:55:37.211: As1 IPCP:
Address 1.1.1.1 (0x030601010101) *Mar 1 00:55:37.215: As1 IPCP: PrimaryDNS 172.18.125.3
(0x8106AC127D03) *Mar 1 00:55:37.327: As1 IPCP: I CONFREQ [ACKrcvd] id 8 len 16 *Mar 1
00:55:37.331: As1 IPCP: Address 1.1.1.1 (0x030601010101) *Mar 1 00:55:37.335: As1 IPCP:
PrimaryDNS 172.18.125.3 (0x8106AC127D03) *Mar 1 00:55:37.335: As1 AAA/AUTHOR/IPCP: Start. Her
address 1.1.1.1, we want 1.1.1.1 *Mar 1 00:55:37.343: As1 AAA/AUTHOR/IPCP (408915304):
Port='Async1' list='' service=NET *Mar 1 00:55:37.347: AAA/AUTHOR/IPCP: As1 (408915304)
user='chaprtr' *Mar 1 00:55:37.347: As1 AAA/AUTHOR/IPCP (408915304): send AV service=ppp *Mar 1
00:55:37.351: As1 AAA/AUTHOR/IPCP (408915304): send AV protocol=ip *Mar 1 00:55:37.355: As1
AAA/AUTHOR/IPCP (408915304): send AV addr*1.1.1.1 *Mar 1 00:55:37.355: As1 AAA/AUTHOR/IPCP
(408915304): found list "default" *Mar 1 00:55:37.359: As1 AAA/AUTHOR/IPCP (408915304):
Method=radius (radius) *Mar 1 00:55:37.363: As1 AAA/AUTHOR (408915304): Post authorization
status = PASS_REPL *Mar 1 00:55:37.367: As1 AAA/AUTHOR/IPCP: Reject 1.1.1.1, using 1.1.1.1 *Mar
1 00:55:37.375: As1 AAA/AUTHOR/IPCP: Processing AV service=ppp *Mar 1 00:55:37.375: As1
AAA/AUTHOR/IPCP: Processing AV inacl=101 *Mar 1 00:55:37.379: As1 AAA/AUTHOR/IPCP: Processing AV
addr*1.1.1.1 *Mar 1 00:55:37.379: As1 AAA/AUTHOR/IPCP: Authorization succeeded *Mar 1
00:55:37.383: As1 AAA/AUTHOR/IPCP: Done. Her address 1.1.1.1, we want 1.1.1.1 *Mar 1
00:55:37.387: As1 IPCP: O CONFACK [ACKrcvd] id 8 len 16 *Mar 1 00:55:37.391: As1 IPCP: Address
1.1.1.1 (0x030601010101) *Mar 1 00:55:37.395: As1 IPCP: PrimaryDNS 172.18.125.3 (0x8106AC127D03)
*Mar 1 00:55:37.399: As1 IPCP: State is Open *Mar 1 00:55:37.727: As1 IPCP: Install route to
1.1.1.1 *Mar 1 00:55:37: %LINEPROTO-5-UPDOWN: Line protocol on Interface Async1, changed state
to up koala#
```

## Defina Listas de acesso no server

**Nota:** As declarações de rota não têm que ser passadas para baixo do server ao roteador; o usuário do seletor pegara normalmente as rotas do roteador. A presença das declarações de rota no roteador depende sobre se as rotas devem ser passada para baixo do server ou ser pegadas do roteador. Contudo, neste exemplo, a lista de acessos e as declarações de rota são passadas para baixo.

```
ip route 9.9.9.0 255.255.255.0 11.11.11.12
ip route 15.15.15.0 255.255.255.0 12.12.12.13
```

Nesta configuração de exemplo, passar as rotas para baixo do server é somente para fins da ilustração.

### Configuração do roteador

```
Current configuration:
!
version 12.0
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname koala
!
aaa new-model
!
!--- The following three lines of the configuration are
!--- specific to Cisco IOS Software Release 12.0.5.T and
later. !--- See below this configuration for commands !-
-- for other Cisco IOS Software Releases. ! aaa
authentication login default group radius none aaa
authentication ppp default if-needed group radius aaa
authorization network default group radius enable secret
5 $1$mNzQ$g6XdsgVnnYjEa.l7v.Pijl enable password ww !
username john password 0 doe ! ip subnet-zero ! cns
event-service server ! interface Ethernet0 ip address
10.31.1.5 255.255.255.0 no ip directed-broadcast no mop
enabled ! interface Serial0 ip address 11.11.11.11
```



```

255.255.255.0 no ip directed-broadcast no ip mroute-
cache no fair-queue ! interface Serial1 ip address
12.12.12.12 255.255.255.0 no ip directed-broadcast !
interface Async1 ip unnumbered Ethernet0 no ip directed-
broadcast encapsulation ppp no ip route-cache no ip
mroute-cache async mode dedicated peer default ip
address pool mypool fair-queue 64 16 0 no cdp enable ppp
authentication chap ! ip local pool mypool 1.1.1.1
1.1.1.5 ip classless ip route 0.0.0.0 0.0.0.0 10.31.1.1
ip route 172.17.192.0 255.255.255.0 10.31.1.1 ip route
172.18.124.0 255.255.255.0 10.31.1.1 ip route
172.18.125.0 255.255.255.0 10.31.1.1 no ip http server !
dialer-list 1 protocol ip permit dialer-list 1 protocol
ipx permit ! radius-server host 172.18.124.111 auth-port
1645 acct-port 1646 radius-server key cisco ! line con 0
transport input none line 1 autoselect during-login
autoselect ppp modem InOut transport input all stopbits
1 speed 115200 flowcontrol hardware line 2 16 line aux 0
line vty 0 4 password ww ! end

```

## [Comandos para outros Cisco IOS Software Release](#)

**Nota:** Para usar estes comandos, remova os comandos em corajoso da configuração acima e cole estes comandos dentro, como ditado por seu Cisco IOS Software Release.

### [Cisco IOS Software Release 11.3.3.T com 12.0.5.T](#)

```

aaa authentication login default radius local
aaa authentication ppp default if-needed radius local
aaa authorization network default radius

```

### [Cisco IOS Software Release 11.3 com 11.3.3.T](#)

```

aaa authentication login default radius
aaa authentication ppp default if-needed radius
aaa authorization network radius

```

## [Configurações do Servidor](#)

### [Configuração do servidor - RADIUS UNIX do Cisco Secure ACS](#)

```

# ./ViewProfile -p 9900 -u chaptr
User Profile Information
user = chaptr{
profile_id = 31
profile_cycle = 1
radius=Cisco {
check_items= {
2="chaptr"
}
reply_attributes= {
6=2
7=1
9,1="ip:route#1=9.9.9.9 255.255.255.255 11.11.11.12"
9,1="ip:route#2=15.15.15.15 255.255.255.255 12.12.12.13"
9,1="ip:route#3=15.15.15.16 255.255.255.255 12.12.12.13"
9,1="ip:inacl#1=permit icmp 1.1.1.0 0.0.0.255 9.9.9.0 0.0.0.255" 9,1="ip:inacl#2=permit tcp
1.1.1.0 0.0.0.255 15.15.15.0 0.0.0.255" !--- The access-list to be applied is specified. !---
Note that the number after inacl# increments for each line of the access-list. } } }

```

## Configuração do servidor - Cisco Secure ACS for Windows 2.x - RAI0

Conclua estes passos:

1. Nas configurações de usuário, preencha o nome e as senhas.
2. Nas configurações de grupo, verifique: Atributo 6 - Framed Atributo 7 - PPP
3. Sob atributos de raio Cisco, verifique o par AV [009\001] e datilografe o seguinte texto na

caixa embaixo:

```
ip:route#1=9.9.9.9 255.255.255.255 11.11.11.12
ip:route#2=15.15.15.15 255.255.255.255 12.12.12.13
ip:route#3=15.15.15.16 255.255.255.255 12.12.12.13
ip:inacl#1=permit icmp 1.1.1.0 0.0.0.255 9.9.9.0 0.0.0.255 ip:inacl#2=permit tcp 1.1.1.0
0.0.0.255 15.15.15.0 0.0.0.255 !--- The access-list to be applied is specified. !--- Note
that the number after inacl# increments for !--- each line of the access-list.
```

## Configuração do servidor - Radius da merit

**Nota:** Este as configurações são válidas para as versões da versão 3.6b ou mais recente dos radius da merit que apoiam pares Cisco AV.

```
chaprtr Password = "chaprtr",
Service-Type = Framed,
Framed-Protocol = PPP,
Framed-IP-Address = 255.255.255.254
Cisco:Avpair="ip:route#1=9.9.9.9 255.255.255.255 11.11.11.12"
Cisco:Avpair="ip:route#2=15.15.15.15 255.255.255.255 12.12.12.13"
Cisco:Avpair="ip:route#3=15.15.15.16 255.255.255.255 12.12.12.13"
Cisco:Avpair="ip:inacl#1=permit icmp 1.1.1.0 0.0.0.255 9.9.9.0 0.0.0.255"
Cisco:Avpair="ip:inacl#2=permit tcp 1.1.1.0 0.0.0.255 15.15.15.0 0.0.0.255" !--- The access-list
to be applied is specified. ! --- Note that the number after inacl# increments for each line of
the access-list.
```

## [Debug de Exemplo de Roteador](#)

A configuração do usuário RADIUS para debugar abaixo era:

```
RADIUS user password = "radiususer",
Service-Type = Framed,
Framed-Protocol = PPP,
Framed-IP-Address = 255.255.255.254
cisco-avpair = "ip:route#1=9.9.9.0 255.255.255.0 11.11.11.12"
cisco-avpair = "ip:route#2=15.15.15.0 255.255.255.0 12.12.12.13"
cisco-avpair = "ip:inacl#1=permit icmp 1.1.1.0 0.0.0.255 9.9.9.0 0.0.0.255 log"
cisco-avpair = "ip:inacl#2=permit tcp 1.1.1.0 0.0.0.255 15.15.15 .0 0.0.0.255 log"
```

koala#

koala#

```
4d05h: As1 AAA/AUTHOR/FSM: (0): LCP succeeds trivially
4d05h: %LINK-3-UPDOWN: Interface Async1, changed state to up
4d05h: AAA: parse name=Async1 idb type=10 tty=1
4d05h: AAA: name=Async1 flags=0x11 type=4 shelf=0 slot=0
adapter=0 port=1 channel=0
4d05h: AAA/MEMORY: create_user (0x552AB4) user='radiususer'
ruser='' port='Async1' rem_addr='async' authen_type=CHAP
service=PPP priv=1
4d05h: AAA/AUTHEN/START (624846144): port='Async1' list=''
action=LOGIN service=PPP
4d05h: AAA/AUTHEN/START (624846144): using "default" list
4d05h: AAA/AUTHEN (624846144): status = UNKNOWN
```



```
4d05h: AAA/AUTHEN/START (624846144): Method=radius (radius)
4d05h: RADIUS: ustruct sharecount=1
4d05h: RADIUS: Initial Transmit Async1 id 9 172.18.124.111:1645,
    Access-Request, len 81
4d05h: Attribute 4 6 0A1F0105
4d05h: Attribute 5 6 00000001
4d05h: Attribute 61 6 00000000
4d05h: Attribute 1 12 72616469
4d05h: Attribute 3 19 1672E16F
4d05h: Attribute 6 6 00000002
4d05h: Attribute 7 6 00000001
4d05h: RADIUS: Received from id 9 172.18.124.111:1645,
    Access-Accept, len 287
4d05h: Attribute 6 6 00000002
4d05h: Attribute 7 6 00000001
4d05h: Attribute 8 6 FFFFFFFE
4d05h: Attribute 26 52 00000009012E6970
4d05h: Attribute 26 55 0000000901316970
4d05h: Attribute 26 70 0000000901406970
4d05h: Attribute 26 72 0000000901426970
4d05h: AAA/AUTHEN (624846144): status = PASS
4d05h: As1 AAA/AUTHOR/LCP: Authorize LCP
4d05h: As1 AAA/AUTHOR/LCP (3679631149): Port='Async1' list=''
    service=NET
4d05h: AAA/AUTHOR/LCP: As1 (3679631149) user='radiususer'
4d05h: As1 AAA/AUTHOR/LCP (3679631149): send AV service=ppp
4d05h: As1 AAA/AUTHOR/LCP (3679631149): send AV protocol=lcp
4d05h: As1 AAA/AUTHOR/LCP (3679631149): found list "default"
4d05h: As1 AAA/AUTHOR/LCP (3679631149): Method=radius (radius)
4d05h: RADIUS: cisco AVPair "ip:route#1=9.9.9.0 255.255.255.0
    11.11.11.12" not applied for lcp
4d05h: RADIUS: cisco AVPair "ip:route#2=15.15.15.0 255.255.255.0
    12.12.12.13" not applied for lcp
4d05h: RADIUS: cisco AVPair "ip:inacl#1=permit icmp 1.1.1.0 0.0.0.255
    9.9.9.0 0.0.0.255 log" not applied for lcp
4d05h: RADIUS: cisco AVPair "ip:inacl#2=permit tcp 1.1.1.0 0.0.0.255
    15.15.15.0 0.0.0.255 log" not applied for lcp
4d05h: As1 AAA/AUTHOR (3679631149): Post authorization
    status = PASS_REPL
4d05h: As1 AAA/AUTHOR/LCP: Processing AV service=ppp
4d05h: As1 AAA/AUTHOR/FSM: (0): Can we start IPCP?
4d05h: As1 AAA/AUTHOR/FSM (231623628): Port='Async1' list=''
    service=NET
4d05h: AAA/AUTHOR/FSM: As1 (231623628) user='radiususer'
4d05h: As1 AAA/AUTHOR/FSM (231623628): send AV service=ppp
4d05h: As1 AAA/AUTHOR/FSM (231623628): send AV protocol=ip
4d05h: As1 AAA/AUTHOR/FSM (231623628): found list "default"
4d05h: As1 AAA/AUTHOR/FSM (231623628): Method=radius (radius)
4d05h: RADIUS: Using NAS default peer
4d05h: RADIUS: Authorize IP address 0.0.0.0
4d05h: RADIUS: cisco AVPair "ip:route#1=9.9.9.0 255.255.255.0
    11.11.11.12"
4d05h: RADIUS: cisco AVPair "ip:route#2=15.15.15.0 255.255.255.0
    12.12.12.13"
4d05h: RADIUS: cisco AVPair "ip:inacl#1=permit icmp 1.1.1.0 0.0.0.255 9.9.9.0 0.0.0.255 log"
4d05h: RADIUS: cisco AVPair "ip:inacl#2=permit tcp 1.1.1.0 0.0.0.255 15.15.15.0 0.0.0.255 log"
!--- The access list is sent down from the RADIUS server. 4d05h: As1 AAA/AUTHOR (231623628):
Post authorization status = PASS_REPL 4d05h: As1 AAA/AUTHOR/FSM: We can start IPCP 4d05h: As1
AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 0.0.0.0 4d05h: As1 AAA/AUTHOR/IPCP:
Processing AV service=ppp 4d05h: As1 AAA/AUTHOR/IPCP: Processing AV addr=0.0.0.0 4d05h: As1
AAA/AUTHOR/IPCP: Processing AV route#1=9.9.9.0 255.255.255.0 11.11.11.12 4d05h: As1
AAA/AUTHOR/IPCP: Processing AV route#2=15.15.15.0 255.255.255.0 12.12.12.13 4d05h: As1
AAA/AUTHOR/IPCP: Processing AV inacl#1=permit icmp 1.1.1.0 0.0.0.255 9.9.9.0 0.0.0.255 log
4d05h: As1 AAA/AUTHOR/IPCP: Processing AV inacl#2=permit tcp 1.1.1.0 0.0.0.255 15.15.15.0
```

```

0.0.0.255 log 4d05h: As1 AAA/AUTHOR/IPCP: Authorization succeeded 4d05h: As1 AAA/AUTHOR/IPCP:
Done. Her address 0.0.0.0, we want 0.0.0.0 4d05h: As1 AAA/AUTHOR/IPCP: Start. Her address
0.0.0.0, we want 1.1.1.3 4d05h: As1 AAA/AUTHOR/IPCP: Processing AV service=ppp 4d05h: As1
AAA/AUTHOR/IPCP: Processing AV addr=0.0.0.0 4d05h: As1 AAA/AUTHOR/IPCP: Processing AV
route#1=9.9.9.0 255.255.255.0 11.11.11.12 4d05h: As1 AAA/AUTHOR/IPCP: Processing AV
route#2=15.15.15.0 255.255.255.0 12.12.12.13 4d05h: As1 AAA/AUTHOR/IPCP: Processing AV
inacl#1=permit icmp 1.1.1.0 0.0.0.255 9.9.9.0 0.0.0.255 log 4d05h: As1 AAA/AUTHOR/IPCP:
Processing AV inacl#2=permit tcp 1.1.1.0 0.0.0.255 15.15.15.0 0.0.0.255 log 4d05h: As1
AAA/AUTHOR/IPCP: Authorization succeeded 4d05h: As1 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0,
we want 1.1.1.3 4d05h: As1 AAA/AUTHOR/IPCP: Start. Her address 1.1.1.3, we want 1.1.1.3 4d05h:
As1 AAA/AUTHOR/IPCP (2383669304): Port='Async1' list='' service=NET 4d05h: AAA/AUTHOR/IPCP: As1
(2383669304) user='radiususer' 4d05h: As1 AAA/AUTHOR/IPCP (2383669304): send AV service=ppp
4d05h: As1 AAA/AUTHOR/IPCP (2383669304): send AV protocol=ip 4d05h: As1 AAA/AUTHOR/IPCP
(2383669304): send AV addr*1.1.1.3 4d05h: As1 AAA/AUTHOR/IPCP (2383669304): found list "default"
4d05h: As1 AAA/AUTHOR/IPCP (2383669304): Method=radius (radius) 4d05h: RADIUS: Using NAS default
peer 4d05h: RADIUS: Authorize IP address 1.1.1.3 4d05h: RADIUS: cisco AVPair "ip:route#1=9.9.9.0
255.255.255.0 11.11.11.12" 4d05h: RADIUS: cisco AVPair "ip:route#2=15.15.15.0 255.255.255.0
12.12.12.13" 4d05h: RADIUS: cisco AVPair "ip:inacl#1=permit icmp 1.1.1.0 0.0.0.255 9.9.9.0
0.0.0.255 log" 4d05h: RADIUS: cisco AVPair "ip:inacl#2=permit tcp 1.1.1.0 0.0.0.255 15.15.15.0
0.0.0.255 log" 4d05h: As1 AAA/AUTHOR (2383669304): Post authorization status = PASS_REPL 4d05h:
As1 AAA/AUTHOR/IPCP: Processing AV service=ppp 4d05h: As1 AAA/AUTHOR/IPCP: Processing AV
addr=1.1.1.3 4d05h: As1 AAA/AUTHOR/IPCP: Processing AV route#1=9.9.9.0 255.255.255.0 11.11.11.12
4d05h: As1 AAA/AUTHOR/IPCP: Processing AV route#2=15.15.15.0 255.255.255.0 12.12.12.13 4d05h:
As1 AAA/AUTHOR/IPCP: Processing AV inacl#1=permit icmp 1.1.1.0 0.0.0.255 9.9.9.0 0.0.0.255 log
4d05h: As1 AAA/AUTHOR/IPCP: Processing AV inacl#2=permit tcp 1.1.1.0 0.0.0.255 15.15.15.0
0.0.0.255 log !--- Access list from the RADIUS server is applied. 4d05h: As1 AAA/AUTHOR/IPCP:
Authorization succeeded 4d05h: As1 AAA/AUTHOR/IPCP: Done. Her address 1.1.1.3, we want 1.1.1.3
4d05h: As1 AAA/AUTHOR/PER-USER: Event IP_UP 4d05h: As1 AAA/AUTHOR: IP_UP 4d05h: As1 AAA/PER-
USER: processing author params. 4d05h: As1 AAA/AUTHOR: Parse 'IP route 9.9.9.0 255.255.255.0
11.11.11.12' 4d05h: As1 AAA/AUTHOR: Parse returned ok (0) 4d05h: As1 AAA/AUTHOR: enqueue peruser
IP txt=no IP route 9.9.9.0 255.255.255.0 11.11.11.12 4d05h: As1 AAA/AUTHOR: Parse 'IP route
15.15.15.0 255.255.255.0 12.12.12.13' 4d05h: As1 AAA/AUTHOR: Parse returned ok (0) 4d05h: As1
AAA/AUTHOR: enqueue peruser IP txt=no IP route 15.15.15.0 255.255.255.0 12.12.12.13 4d05h: As1
AAA/AUTHOR: Parse 'ip access-list extended Async1#0' 4d05h: As1 AAA/AUTHOR: Parse returned ok
(0) 4d05h: As1 AAA/AUTHOR: Parse 'permit icmp 1.1.1.0 0.0.0.255 9.9.9.0 0.0.0.255 log' 4d05h:
As1 AAA/AUTHOR: Parse returned ok (0) 4d05h: As1 AAA/AUTHOR: Parse 'permit tcp 1.1.1.0 0.0.0.255
15.15.15.0 0.0.0.255 log' 4d05h: As1 AAA/AUTHOR: Parse returned ok (0) 4d05h: As1 AAA/AUTHOR:
enqueue peruser IP txt=no ip access-list extended Async1#0 4d05h: As1 AAA/AUTHOR: Parse
'interface Async1' 4d05h: %LINEPROTO-5-UPDOWN: Line protocol on Interface Async1, changed state
to up 4d05h: As1 AAA/AUTHOR: Parse returned ok (0) 4d05h: As1 AAA/AUTHOR: Parse 'IP access-group
Async1#0 in' 4d05h: As1 AAA/AUTHOR: Parse returned ok (0) 4d05h: As1 AAA/AUTHOR: enqueue peruser
IP txt=interface Async1 no IP access-group Async1#0 in koala#show ip access-list Extended IP
access list 101 permit icmp 1.1.1.0 0.0.0.255 9.9.9.0 0.0.0.255 log (5 matches) permit tcp
1.1.1.0 0.0.0.255 15.15.15.0 0.0.0.255 log (11 matches) Extended IP access list Async1#0 (per-
user) permit icmp 1.1.1.0 0.0.0.255 9.9.9.0 0.0.0.255 log permit tcp 1.1.1.0 0.0.0.255
15.15.15.0 0.0.0.255 log !--- Verify that the access list is applied to the AS1 dial interface.
koala#show ip route Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP D -
EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area N1 - OSPF NSSA external type 1, N2 -
OSPF NSSA external type 2 E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP i - IS-
IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area * - candidate default, U -
per-user static route, o - ODR P - periodic downloaded static route Gateway of last resort is
10.31.1.1 to network 0.0.0.0 1.0.0.0/32 is subnetted, 1 subnets C 1.1.1.3 is directly connected,
Async1 172.17.0.0/24 is subnetted, 1 subnets S 172.17.192.0 [1/0] via 10.31.1.1 172.18.0.0/24 is
subnetted, 2 subnets S 172.18.124.0 [1/0] via 10.31.1.1 S 172.18.125.0 [1/0] via 10.31.1.1
9.0.0.0/24 is subnetted, 1 subnets U 9.9.9.0 [1/0] via 11.11.11.12 !--- The static user route
specified by the RADIUS server is applied. 10.0.0.0/24 is subnetted, 1 subnets C 10.31.1.0 is
directly connected, Ethernet0 11.0.0.0/24 is subnetted, 1 subnets C 11.11.11.0 is directly
connected, Serial0 12.0.0.0/24 is subnetted, 1 subnets C 12.12.12.0 is directly connected,
Serial1 15.0.0.0/24 is subnetted, 1 subnets U 15.15.15.0 [1/0] via 12.12.12.13 !--- The static
user route specified by the RADIUS server is applied. S* 0.0.0.0/0 [1/0] via 10.31.1.1

```

## Comandos debug

- **debugar a autenticação aaa** - Indica a informação sobre a autenticação de AAA.
- **debug aaa authorization** - Indica a informação sobre a autorização de AAA.
- **debugar o aaa por usuário** - Informação dos indicadores sobre os ajustes de configuração por usuário no roteador ou servidor de acesso que são enviados de um servidor AAA.
- **debugar o raio** - Indica a informação detalhada sobre debug associado com o RAI0.
- **debug ppp negotiation** - Exibe pacotes PPP transmitidos durante a inicialização de PPP, em que as opções de PPP são negociadas.

Para a informação de Troubleshooting, veja [Listas de acesso do Troubleshooting em interfaces de discagem](#).

## Informações Relacionadas

- [Documentação para Cisco Secure ACS for UNIX](#)
- [Cisco Secure ACS para página de suporte do Windows](#)
- [Documentação para Cisco Secure ACS for Windows](#)
- [Field Notice dos produtos de segurança \(que incluem Cisco UNIX seguro\)](#)
- [Página de suporte RADIUS](#)
- [Configurando o RAI0](#)
- [Solicitações de Comentários \(RFCs\)](#)
- [Suporte Técnico - Cisco Systems](#)