

# El configurar devolución de llamada PPP con TACACS+

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## [Introducción](#)

Este documento muestra los ejemplos de configuración de un router y de un servidor de AAA para hacer el servicio repetido del Point-to-Point Protocol (PPP) con el TACACS+. Dos ejemplos son incluidos que uso que el número de devolución de llamada especificó por el servidor de AAA o por el cliente del Windows 2000.

- Realice las pruebas iniciales con la autenticación local y el servicio repetido (quite el **comando `aaa new-model`**). Si el servicio repetido no trabaja con la autenticación local, no trabaja con el TACACS+. Refiera a [configurar el servicio repetido MS entre un router y un PC de Windows](#) por un ejemplo de cómo utilizar la autenticación local.
- Realice la prueba adicional de la autenticación PPP con el TACACS+ sin el servicio repetido. Si usuarios no pueden autenticarse y/o la autorización sin el servicio repetido, autenticación y autorización no trabaja con el servicio repetido.
- Una vez que la autenticación local para el servicio repetido y la autenticación PPP con el TACACS+ trabajan, agregue la información del usuario local en el router (tal como dial-string del servicio repetido) al perfil de usuario en el servidor.

**Nota:** El cliente en estas pruebas es un cliente de Windows 2000 Professional, el DUN, configuración como de costumbre para una conexión PPP, con la configuración de devolución de llamada de Microsoft como “me pregunta durante la marca cuando el servidor ofrece.” La devolución de llamada de Microsoft se soporta en los Software Release 11.3.2.T y Posterior de

## prerrequisitos

### Requisitos

No hay requisitos específicos para este documento.

### Componentes Utilizados

La información que contiene este documento se basa en las siguientes versiones de software y hardware.

- Cisco IOS Software Release 12.1(7)AA
- Cisco Secure ACS UNIX 2.3(2)
- Cisco Secure ACS for Windows 3.3
- TACACS Daemon de freeware 4.0(3)

La información que contiene este documento se creó a partir de los dispositivos en un ambiente de laboratorio específico. Todos los dispositivos que se utilizan en este documento se pusieron en funcionamiento con una configuración verificada (predeterminada). Si la red está funcionando, asegúrese de haber comprendido el impacto que puede tener cualquier comando.

### Convenciones

Para obtener más información sobre las convenciones del documento, consulte las [Convenciones de Consejos Técnicos de Cisco](#).

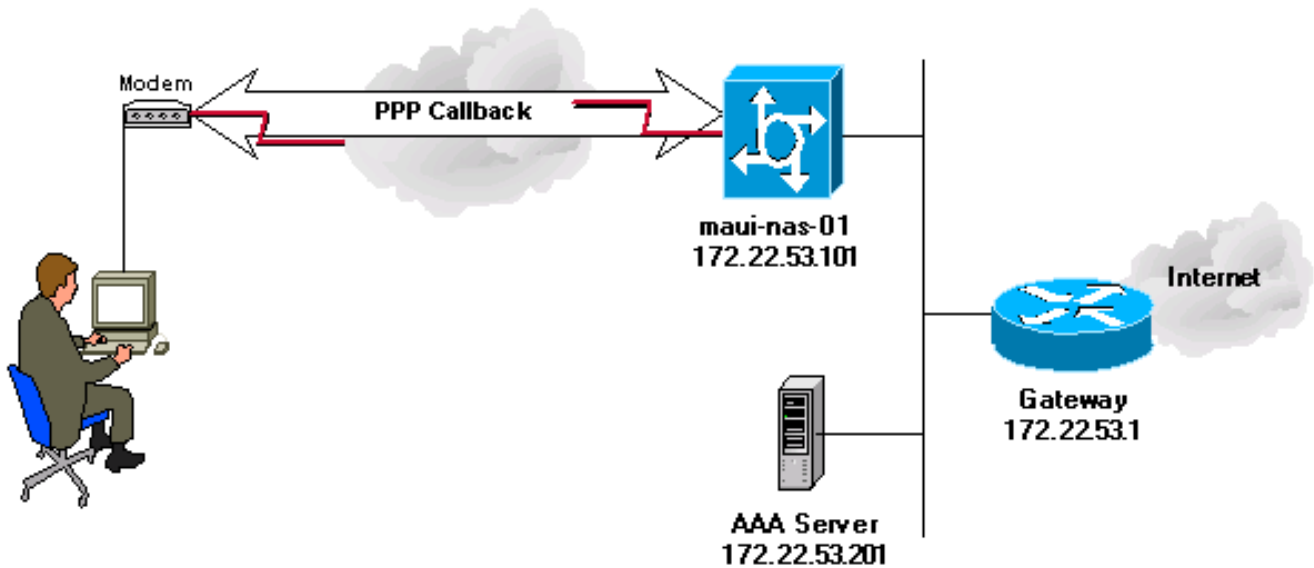
## Configurar

En esta sección encontrará la información para configurar las funciones descritas en este documento.

**Nota:** Para obtener información adicional sobre los comandos que se utilizan en este documento, use la Command Lookup Tool (solo para clientes [registrados](#)).

### Diagrama de la red

Este documento utiliza la configuración de red que se muestra en el siguiente diagrama.



## Devolución de llamadas del PPP con número especificado por el servidor

### Configuración del servidor

Éstas son las configuraciones de servidor AAA para la Devolución de llamada PPP con un número de teléfono especificado por el servidor de AAA.

#### *Configuración de servidor - Cisco Secure ACS for Windows*

- Para habilitar la opción LCP para el usuario y al grupo, vaya a la pantalla de la **configuración de la interfaz**, seleccionan **TACACS+ (Cisco IOS)**, y se aseguran de que el IP PPP y las opciones **PPP LCP** están marcados para saber si hay **usuario** y **grupo**.
- El servicio repetido se puede configurar en el grupo o los ajustes de usuario. **Configure a un grupo para el servicio repetido**: En la pantalla de la configuración de grupo, bajo servicio repetido, seleccione la opción **para utilizar las configuraciones del servicio repetido de la base de datos de Windows** (en la versión anterior del ACS esta opción se conoce como "configuraciones del servicio repetido de Microsoft NT del uso"). Entonces marque las opciones para IP y PPP LCP PPP. Seleccione la línea y el tipo **84007** del **servicio repetido** en el campo vacío. Para un usuario que sea un miembro del grupo, vaya a la **pantalla de configuración de usuario** y seleccione la **configuración de grupo del uso** bajo servicio repetido. Tecleo **Submit + Restart**. **Configure a un usuario individual para el servicio repetido**: En la pantalla de configuración de usuario, bajo servicio repetido, seleccione el **servicio repetido usando este número** y tipo **84007** en el campo vacío. Entonces marque las opciones para IP y PPP LCP PPP. Tecleo **Submit + Restart**.

#### *Configuración de servidor - Cisco UNIX seguro*

```
<coachella>/export/home/brownr> ViewProfile -p 9900 -u callback_user
User Profile Information
user = callback_user{
profile_id = 113
```

```

profile_cycle = 15
member = ccie_study
password = chap "*****"
service=ppp {
protocol=ip {
}
protocol=lcp {
set callback-dialstring=84007
}
}
}

```

### *Configuración de servidor - Freeware TACACS+*

```

user = callback_user {
chap= cleartext "chapuser"
service = ppp protocol = lcp {
callback-dialstring=84007
}
service = ppp protocol = ip {
}
}
}

```

## [Devolución de llamadas PPP con el número especificado por el usuario](#)

Los ejemplos anterior en este documento están de servicio repetido en un número predefinido (especificado en el servidor de AAA). El servicio repetido se puede también hacer en un número especificado por el usuario usando el número de devolución de llamada y se especifica como falta de información en el servidor de AAA. Esto hace que el router solicite al usuario un número de devolución de llamada. Las pruebas iniciales se deben hacer con la devolución de llamada local especificada. Refiera a la [devolución de llamada PPP asíncrona entre un servidor de acceso y un ejemplo PC](#) y observe que la “cadena de marcado de devolución de llamada” está especificada como citas (“”).

El cliente en estas pruebas era un cliente de Windows 2000 Professional, configuración como de costumbre para una conexión PPP, con la configuración de devolución de llamada de Microsoft como “llamada yo detrás en los números abajo.”

**Nota:** [El diagrama de la red](#) y la [configuración del router](#) visualizados se aplican a las configuraciones de devolución de llamada discutidas aquí.

## [Configuración del servidor](#)

Se muestran aquí las configuraciones de servidor AAA para la Devolución de llamada PPP con un número de teléfono especificado por el usuario.

### *Configuración de servidor - Cisco seguro para Windows*

- Para habilitar la opción LCP para el usuario y al grupo, vaya a la pantalla de la **configuración de la interfaz**, seleccionan **TACACS+ (Cisco IOS)**, y se aseguran de que el **IP PPP** y las **opciones PPP LCP** están marcados para saber si hay **usuario** y **grupo**.
- El servicio repetido se puede configurar en el grupo o los ajustes de usuario. **Configure a un grupo para el servicio repetido:** En la pantalla de la configuración de grupo, bajo **servicio repetido**, seleccione la opción para el **cliente de marcación manual especifica el número de**

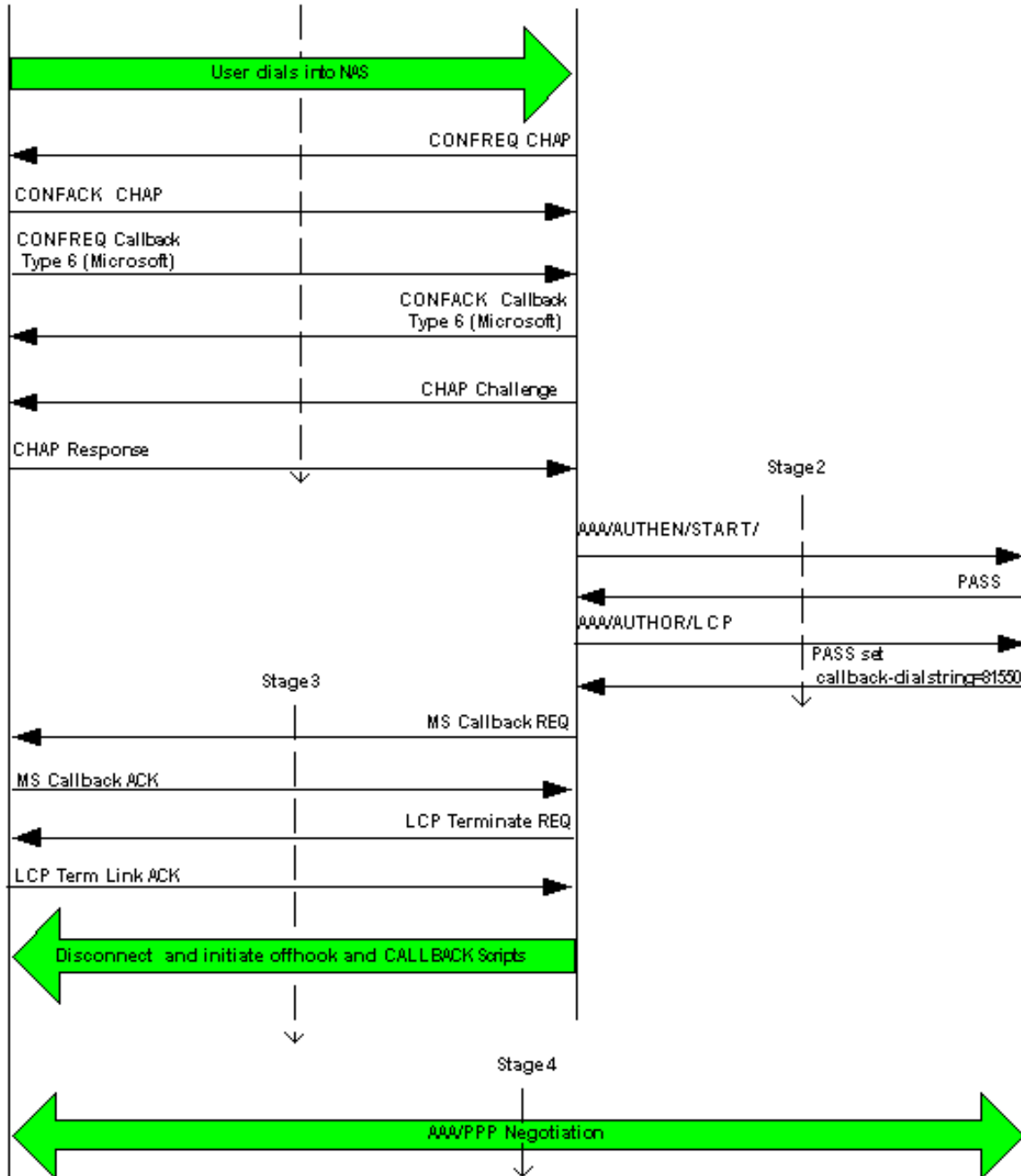
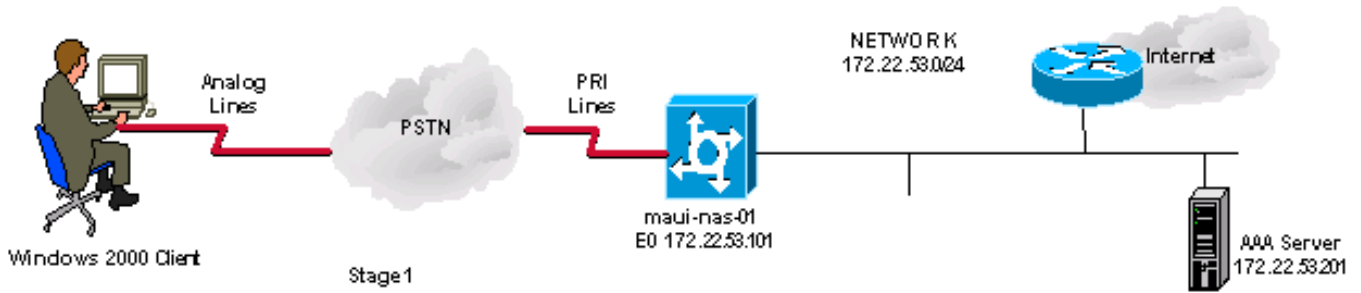
**devolución de llamada.** Entonces marque las opciones para **IP y PPP LCP PPP**. Para un usuario que sea un miembro del grupo, vaya a la **pantalla de configuración de usuario** y seleccione la **configuración de grupo del uso** bajo servicio repetido. Tecleo **Submit + Restart**. **Configure a un usuario individual para el servicio repetido:** En la pantalla de configuración de usuario, bajo servicio repetido, seleccione la opción para el **cliente de marcación manual específica el número de devolución de llamada**. Entonces marque las opciones para **IP y PPP LCP PPP**. Tecleo **Submit + Restart**.

#### *Configuración de servidor - Cisco UNIX seguro*

```
<coachella>ViewProfile -p 9900 -u callback_user
User Profile Information
user = callback_user{
profile_id = 113
profile_cycle = 15
member = ccie_study
password = chap "*****"
service=ppp {
protocol=ip {
}
protocol=lcp {
set callback-dialstring=""
}
}
}
}
```

#### *Configuración de servidor - Freeware TACACS+*

```
user = callback_user {
chap= cleartext "chapuser"
service = ppp protocol = lcp {
callback-dialstring=""
}
service = ppp protocol = ip {
}
}
```



## Configuración del router

Configuración de NAS
AS5200
maui-nas-01# <b>show run</b> Building configuration...
Current configuration : 2882 bytes

```
!  
version 12.1  
no service pad  
service tcp-keepalives-in  
service timestamps debug datetime msec localtime show-  
timezone  
service timestamps log datetime msec localtime show-  
timezone  
service password-encryption  
!  
hostname maui-nas-01  
!  
logging buffered 4096 debugging  
no logging console guaranteed  
no logging console  
!--- Basic AAA configuration using TACACS+ as the  
primary method, !--- local if the ERROR is received  
during negotiation. !--- Disable AAA authentication and  
authorization on console port. aaa new-model aaa  
authentication login default group tacacs+ local aaa  
authentication login NO_AUTHEN none aaa authentication  
ppp default if-needed group tacacs+ local aaa  
authorization exec default group tacacs+ local aaa  
authorization exec NO_AUTHOR none aaa authorization  
network default group tacacs+ local enable secret  
<snipped> ! username admin password <snipped> spe 1/0  
1/23 firmware location feature_card_flash spe 2/0 2/4 !  
resource-pool disable ! clock timezone CST -6 clock  
summer-time CST recurring modem recovery action none ip  
subnet-zero no ip source-route no ip finger no ip  
domain-lookup ip name-server 172.22.53.210 ! no ip bootp  
server isdn switch-type primary-ni ! !--- Chat scripts  
"offhook" and "CALLBACK" !--- used intuitively to go  
offhook and callback clients. chat-script CALLBACK ABORT  
ERROR ABORT BUSY "" "AT" OK "ATDT \T" TIMEOUT 30 CONNECT  
\c chat-script offhook "" "ATH1" OK \c ! controller T1 0  
framing esf clock source line primary linecode b8zs pri-  
group timeslots 1-24 ! interface Ethernet0 ip address  
172.22.53.101 255.255.255.0 no ip route-cache no ip  
mroute-cache no cdp enable ! interface Serial0:23 no ip  
address encapsulation ppp no ip route-cache isdn switch-  
type primary-ni isdn incoming-voice modem isdn bchan-  
number-order ascending no cdp enable ! interface Group-  
Async1 ip unnumbered Ethernet0 encapsulation ppp no ip  
route-cache ip tcp header-compression passive no ip  
mroute-cache async mode interactive peer default ip  
address pool IP_POOL no cdp enable !--- Allows "group-  
async 1" to accept PPP callback requests from clients.  
!--- Use Challenge Authentication Protocol (CHAP) for  
authentication !--- on incoming calls. ppp callback  
accept ppp authentication chap callin group-range 1 48 !  
ip local pool IP_POOL 172.22.53.141 172.22.53.148 ip  
default-gateway 172.22.53.1 no ip http server ip  
classless ip route 0.0.0.0 0.0.0.0 172.22.53.1 ! no cdp  
run tacacs-server host 172.22.53.201 key <snipped> !  
line con 0 authorization exec NO_AUTHOR login  
authentication NO_AUTHEN transport input none line 1 48  
!--- Specifies chat scripts used during callback to  
clients. script modem-off-hook offhook script callback  
CALLBACK modem InOut transport preferred none transport  
input all transport output none autoselect during-login  
autoselect ppp callback forced-wait 5 line aux 0 line  
vty 0 4 ! ntp server 172.22.53.1 end
```

## Verificación

Actualmente, no hay un procedimiento de verificación disponible para esta configuración.

## Troubleshooting

En esta sección encontrará información que puede utilizar para solucionar problemas de configuración.

### Comandos para resolución de problemas

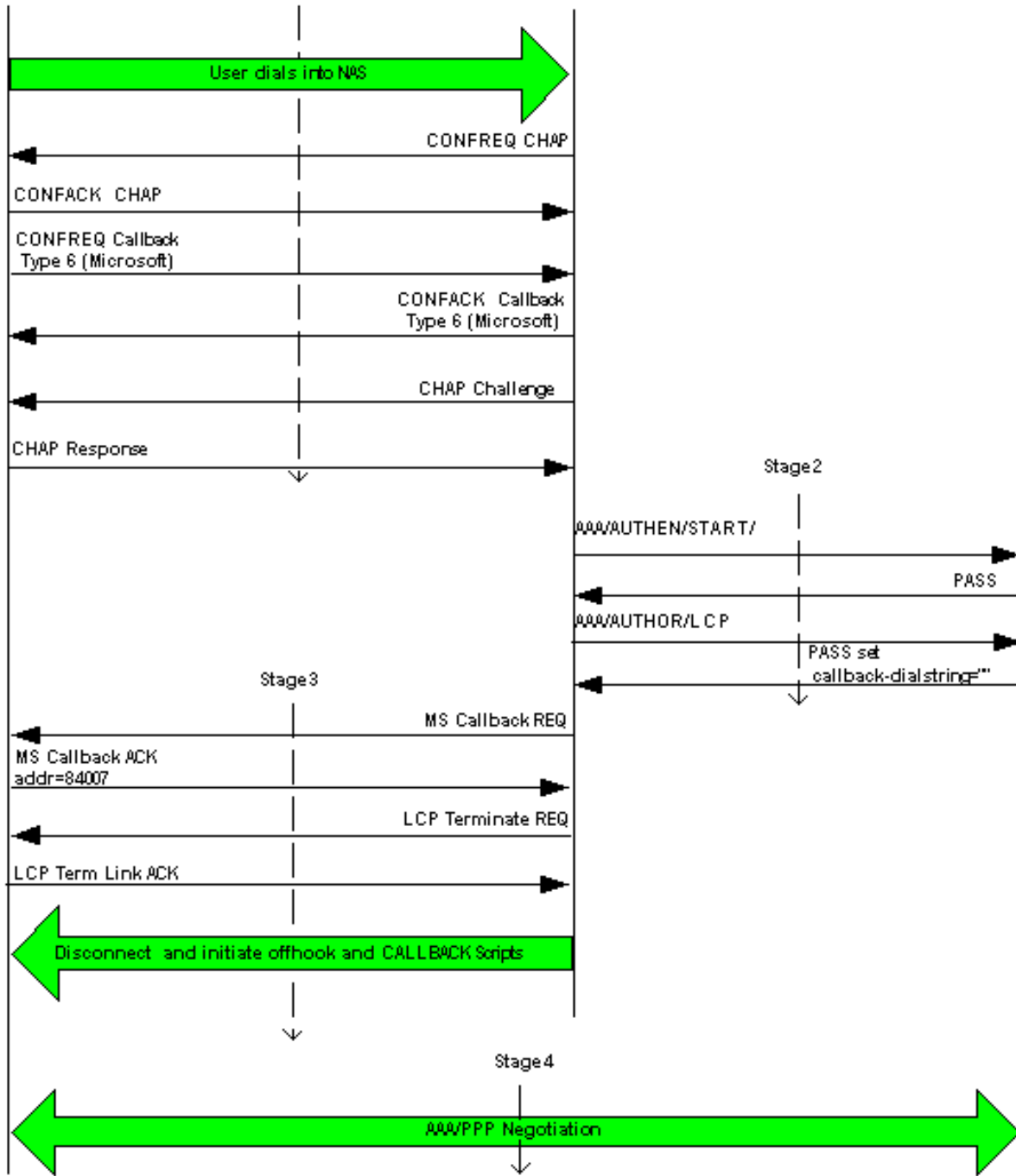
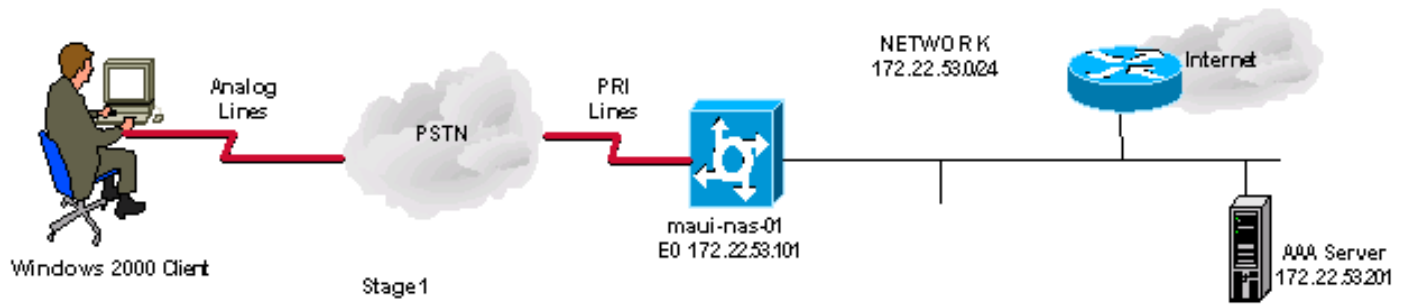
**Nota:** [Antes de ejecutar un comando de depuración, consulte Información importante sobre comandos de depuración.](#)

- **haga el debug de la autenticación aaa** — Visualiza la información sobre la autenticación AAA.
- **debug aaa authorization** — Visualiza la información sobre la autorización AAA.
- **debug callback** — Visualiza los eventos de devolución de llamada cuando el router utiliza un módem y un chat script a la devolución de llamada en un línea de la terminal.
- **charla del debug** — Caracteres de las visualizaciones enviados entre el servidor de acceso a la red (NAS) y el PC. Un comando de conversación es un conjunto de pares de la cadena esperar-enviar que define la entrada en contacto entre el equipo de terminal de datos (DTE) y DTE o entre DTE y los dispositivos de equipos de comunicaciones de datos (DCE).
- **debug modem** – Muestra la actividad de la línea del módem en un servidor de acceso.
- **debug ppp negotiation** — Muestra los paquetes PPP transmitidos durante el inicio PPP, durante el cual se negocian las opciones PPP.
- **debug ppp authentication** - Muestra los mensajes del protocolo de autenticación, incluidos el intercambio de paquetes del Protocolo de autenticación por desafío mutuo (CHAP) y los intercambios del Protocolo de autenticación de contraseña (PAP).
- **debug tacacs+** — Visualiza la información de debugging detallada asociada al TACACS+.

### Ejemplo de resultado del comando debug

Las etapas individuales en este diagrama corresponden a la **salida de los debugs** real que se visualiza después de este diagrama. Observe que una cierta salida se ha envuelto sobre dos líneas debido a las consideraciones del espaciamiento.





## Etapa 1

```
maui-nas-01#debug aaa authentication
maui-nas-01#debug aaa authorization
```

```
maui-nas-01#show debug
```

General OS:

AAA Authentication debugging is on

AAA Authorization debugging is on

```
!--- AAA negotiation begins, aborted because PPP is autoselected. Aug 1 09:23:53.320 CST: AAA:
parse name=tty6 idb type=10 tty=6 Aug 1 09:23:53.320 CST: AAA: name=tty6 flags=0x11 type=4
shelf=0 slot=0 adapter=0 port=6 channel=0 Aug 1 09:23:53.324 CST: AAA: parse name=Serial0:4 idb
type=12 tty=-1 Aug 1 09:23:53.328 CST: AAA: name=Serial0:4 flags=0x51 type=1 shelf=0 slot=0
adapter=0 port=0 channel=4 Aug 1 09:23:53.332 CST: AAA/MEMORY: create_user (0x2A0AA0) user='
ruser=' port='tty6' rem_addr='async/81560' authen_type=ASCII service=LOGIN priv=1 Aug 1
09:23:53.336 CST: AAA/AUTHEN/START (2776623843): port='tty6' list='' action=LOGIN service=LOGIN
Aug 1 09:23:53.340 CST: AAA/AUTHEN/START (2776623843): using "default" list Aug 1 09:23:53.344
CST: AAA/AUTHEN/START (2776623843): Method=tacacs+ (tacacs+) Aug 1 09:23:53.348 CST: TAC+: send
AUTHEN/START packet ver=192 id=2776623843 Aug 1 09:23:53.572 CST: TAC+: ver=192 id=2776623843
received AUTHEN status = GETUSER Aug 1 09:23:53.576 CST: AAA/AUTHEN (2776623843): status =
GETUSER Aug 1 09:23:55.548 CST: AAA/AUTHEN/ABORT: (2776623843) because Autoselected. Aug 1
09:23:55.552 CST: TAC+: send abort reason=Autoselected Aug 1 09:23:55.668 CST: AAA/MEMORY:
free_user (0x2A0AA0) user=' ruser=' port='tty6' rem_addr='async/81560' authen_type=ASCII
service=LOGIN priv=1 Aug 1 09:23:58.124 CST: %LINK-3-UPDOWN: Interface Async6, changed state to
up Aug 1 09:23:58.148 CST: As6 AAA/AUTHOR/FSM: (0): LCP succeeds trivially Aug 1 09:23:58.912
CST: AAA: parse name=Async6 idb type=10 tty=6 Aug 1 09:23:58.916 CST: AAA: name=Async6
flags=0x11 type=4 shelf=0 slot=0 adapter=0 port=6 channel=0 Aug 1 09:23:58.916 CST: AAA: parse
name=Serial0:4 idb type=12 tty=-1 Aug 1 09:23:58.920 CST: AAA: name=Serial0:4 flags=0x51 type=1
shelf=0 slot=0 adapter=0 port=0 channel=4 !--- AAA Authentication start packet is sent to AAA
server. Aug 1 09:23:58.924 CST: AAA/MEMORY: create_user (0x2984EC) user='callback_user'ruser='
port='Async6' rem_addr='async/81560' authen_type=CHAP service=PPP priv=1 Aug 1 09:23:58.932 CST:
AAA/AUTHEN/START (3527356355): port='Async6' list='' action=LOGIN service=PPP Aug 1 09:23:58.936
CST: AAA/AUTHEN/START (3527356355): using "default" list Aug 1 09:23:58.936 CST: AAA/AUTHEN
(3527356355): status = UNKNOWN Aug 1 09:23:58.940 CST: AAA/AUTHEN/START (3527356355):
Method=tacacs+ (tacacs+) !--- Receive PASS from AAA server. Aug 1 09:23:58.944 CST: TAC+: send
AUTHEN/START packet ver=193 id=3527356355 Aug 1 09:23:59.172 CST: TAC+: ver=193 id=3527356355
received AUTHEN status = PASS Aug 1 09:23:59.172 CST: AAA/AUTHEN (3527356355): status = PASS !---
- AAA Authorization request sent to AAA server for LCP. Aug 1 09:23:59.180 CST: As6
AAA/AUTHOR/LCP: Authorize LCP Aug 1 09:23:59.184 CST: As6 AAA/AUTHOR/LCP (1701401119):
Port='Async6' list='' service=NET Aug 1 09:23:59.188 CST: AAA/AUTHOR/LCP: As6 (1701401119)
user='callback_user' Aug 1 09:23:59.192 CST: As6 AAA/AUTHOR/LCP (1701401119): send AV
service=ppp Aug 1 09:23:59.196 CST: As6 AAA/AUTHOR/LCP (1701401119): send AV protocol=lcp Aug 1
09:23:59.196 CST: As6 AAA/AUTHOR/LCP (1701401119): found list "default" Aug 1 09:23:59.200 CST:
As6 AAA/AUTHOR/LCP (1701401119): Method=tacacs+ (tacacs+) !--- Receive PASS from AAA server, set
the callback dialstring !--- via the "callback-dialstring" Attribute Value Pair. Aug 1
09:23:59.204 CST: AAA/AUTHOR/TAC+: (1701401119): user=callback_user Aug 1 09:23:59.208 CST:
AAA/AUTHOR/TAC+: (1701401119): send AV service=ppp Aug 1 09:23:59.212 CST: AAA/AUTHOR/TAC+:
(1701401119): send AV protocol=lcp Aug 1 09:23:59.440 CST: TAC+: (1701401119): received author
response status = PASS_ADD Aug 1 09:23:59.448 CST: As6 AAA/AUTHOR (1701401119): Post
authorization status = PASS_ADD Aug 1 09:23:59.452 CST: As6 AAA/AUTHOR/LCP: Processing AV
service=ppp Aug 1 09:23:59.456 CST: As6 AAA/AUTHOR/LCP: Processing AV protocol=lcp Aug 1
09:23:59.456 CST: As6 AAA/AUTHOR/LCP: Processing AV callback-dialstring=81550
```

## Etapa 2

```
maui-nas-01#debug aaa authentication
maui-nas-01#debug aaa authorization
```

```
maui-nas-01#show debug
```

General OS:

AAA Authentication debugging is on

AAA Authorization debugging is on

```
!--- AAA negotiation begins, aborted because PPP is autoselected. Aug 1 09:23:53.320 CST: AAA:
parse name=tty6 idb type=10 tty=6 Aug 1 09:23:53.320 CST: AAA: name=tty6 flags=0x11 type=4
shelf=0 slot=0 adapter=0 port=6 channel=0 Aug 1 09:23:53.324 CST: AAA: parse name=Serial0:4 idb
type=12 tty=-1 Aug 1 09:23:53.328 CST: AAA: name=Serial0:4 flags=0x51 type=1 shelf=0 slot=0
adapter=0 port=0 channel=4 Aug 1 09:23:53.332 CST: AAA/MEMORY: create_user (0x2A0AA0) user='
ruser=' port='tty6' rem_addr='async/81560' authen_type=ASCII service=LOGIN priv=1 Aug 1
09:23:53.336 CST: AAA/AUTHEN/START (2776623843): port='tty6' list='' action=LOGIN service=LOGIN
Aug 1 09:23:53.340 CST: AAA/AUTHEN/START (2776623843): using "default" list Aug 1 09:23:53.344
CST: AAA/AUTHEN/START (2776623843): Method=tacacs+ (tacacs+) Aug 1 09:23:53.348 CST: TAC+: send
```

AUTHEN/START packet ver=192 id=2776623843 Aug 1 09:23:53.572 CST: TAC+: ver=192 id=2776623843 received AUTHEN status = GETUSER Aug 1 09:23:53.576 CST: AAA/AUTHEN (2776623843): status = GETUSER Aug 1 09:23:55.548 CST: AAA/AUTHEN/ABORT: (2776623843) because Autoselected. Aug 1 09:23:55.552 CST: TAC+: send abort reason=Autoselected Aug 1 09:23:55.668 CST: AAA/MEMORY: free\_user (0x2A0AA0) user='' ruser='' port='tty6' rem\_addr='async/81560' authen\_type=ASCII service=LOGIN priv=1 Aug 1 09:23:58.124 CST: %LINK-3-UPDOWN: Interface Async6, changed state to up Aug 1 09:23:58.148 CST: As6 AAA/AUTHOR/FSM: (0): LCP succeeds trivially Aug 1 09:23:58.912 CST: AAA: parse name=Async6 idb type=10 tty=6 Aug 1 09:23:58.916 CST: AAA: name=Async6 flags=0x11 type=4 shelf=0 slot=0 adapter=0 port=6 channel=0 Aug 1 09:23:58.916 CST: AAA: parse name=Serial0:4 idb type=12 tty=-1 Aug 1 09:23:58.920 CST: AAA: name=Serial0:4 flags=0x51 type=1 shelf=0 slot=0 adapter=0 port=0 channel=4 *!--- AAA Authentication start packet is sent to AAA server.* Aug 1 09:23:58.924 CST: AAA/MEMORY: create\_user (0x2984EC) user='callback\_user'ruser='' port='Async6' rem\_addr='async/81560' authen\_type=CHAP service=PPP priv=1 Aug 1 09:23:58.932 CST: AAA/AUTHEN/START (3527356355): port='Async6' list='' action=LOGIN service=PPP Aug 1 09:23:58.936 CST: AAA/AUTHEN (3527356355): status = UNKNOWN Aug 1 09:23:58.940 CST: AAA/AUTHEN/START (3527356355): Method=tacacs+ (tacacs+) *!--- Receive PASS from AAA Server.* Aug 1 09:23:58.944 CST: TAC+: send AUTHEN/START packet ver=193 id=3527356355 Aug 1 09:23:59.172 CST: TAC+: ver=193 id=3527356355 received AUTHEN status = PASS Aug 1 09:23:59.172 CST: AAA/AUTHEN (3527356355): status = PASS *!--- AAA Authorization request sent to AAA server for LCP.* Aug 1 09:23:59.180 CST: As6 AAA/AUTHOR/LCP: Authorize LCP Aug 1 09:23:59.184 CST: As6 AAA/AUTHOR/LCP (1701401119): Port='Async6' list='' service=NET Aug 1 09:23:59.188 CST: AAA/AUTHOR/LCP: As6 (1701401119) user='callback\_user' Aug 1 09:23:59.192 CST: As6 AAA/AUTHOR/LCP (1701401119): send AV service=ppp Aug 1 09:23:59.196 CST: As6 AAA/AUTHOR/LCP (1701401119): send AV protocol=lcp Aug 1 09:23:59.196 CST: As6 AAA/AUTHOR/LCP (1701401119): found list "default" Aug 1 09:23:59.200 CST: As6 AAA/AUTHOR/LCP (1701401119): Method=tacacs+ (tacacs+) *!--- Receive PASS from AAA Server, set the callback dialstring !--- via the "callback-dialstring" Attribute Value Pair.* Aug 1 09:23:59.204 CST: AAA/AUTHOR/TAC+: (1701401119): user=callback\_user Aug 1 09:23:59.208 CST: AAA/AUTHOR/TAC+: (1701401119): send AV service=ppp Aug 1 09:23:59.212 CST: AAA/AUTHOR/TAC+: (1701401119): send AV protocol=lcp Aug 1 09:23:59.440 CST: TAC+: (1701401119): received author response status = PASS\_ADD Aug 1 09:23:59.448 CST: As6 AAA/AUTHOR (1701401119): Post authorization status = PASS\_ADD Aug 1 09:23:59.452 CST: As6 AAA/AUTHOR/LCP: Processing AV service=ppp Aug 1 09:23:59.456 CST: As6 AAA/AUTHOR/LCP: Processing AV protocol=lcp Aug 1 09:23:59.456 CST: As6 AAA/AUTHOR/LCP: Processing AV callback-dialstring=81550

### Etapa 3

maui-nas-01#show debug

General OS:

Modem control/process activation debugging is on

PPP:

PPP protocol negotiation debugging is on

Chat Scripts:

Chat scripts activity debugging is on

Callback:

Callback activity debugging is on

Aug 1 09:33:38.862 CST: As7 MCB: User callback\_user Callback Number  
- Server 81550

Aug 1 09:33:38.870 CST: Async7 PPP: O MCB Request(1) id 1 len 7

Aug 1 09:33:38.874 CST: Async7 MCB: O 1 1 0 7 3 3 0

Aug 1 09:33:38.874 CST: As7 MCB: O Request Id 1 Callback Type  
Server-Num delay 0

Aug 1 09:33:38.878 CST: As7 PPP: Phase is CBCP

Aug 1 09:33:39.018 CST: Async7 PPP: I MCB Response(2) id 1 len 7

Aug 1 09:33:39.022 CST: Async7 MCB: I 2 1 0 7 3 3 C

Aug 1 09:33:39.026 CST: As7 MCB: Received response

Aug 1 09:33:39.026 CST: As7 MCB: Response CBK-Server-Num 3 3 12

Aug 1 09:33:39.034 CST: Async7 PPP: O MCB Ack(3) id 2 len 7

Aug 1 09:33:39.034 CST: Async7 MCB: O 3 2 0 7 3 3 C

Aug 1 09:33:39.038 CST: As7 MCB: O Ack Id 2 Callback Type Server-Num delay 12

Aug 1 09:33:39.042 CST: As7 MCB: Negotiated MCB with peer

*!--- NAS sends LCP Terminate Request from client.* Aug 1 09:33:39.182 CST: As7 LCP: I TERMREQ

[Open] id 6 len 16 (0x566260A7003CCD7400000000) *!--- NAS receives Terminate Acknowledge from client.* Aug 1 09:33:39.186 CST: As7 LCP: O TERMACK [Open] id 6 len 4 Aug 1 09:33:39.190 CST: As7 MCB: Peer terminating the link Aug 1 09:33:39.194 CST: As7 MCB: Link terminated by peer, Callback Needed Aug 1 09:33:39.198 CST: As7 MCB: Initiate Callback for callback\_user at 81550 using Async Aug 1 09:33:39.202 CST: As7 MCB: Async-callback in progress Aug 1 09:33:39.206 CST: As7 PPP: Phase is TERMINATING *!--- NAS disconnects and initiates offhook and CALLBACK chat scripts.* Aug 1 09:33:39.210 CST: TTY7 Callback PPP process creation Aug 1 09:33:39.218 CST: TTY7 Callback process initiated, user: dialstring 81550 Aug 1 09:33:40.110 CST: %ISDN-6-DISCONNECT: Interface Serial0:5 disconnected from unknown , call lasted 19 seconds Aug 1 09:33:40.294 CST: TTY7: Async Int reset: Dropping DTR Aug 1 09:33:41.210 CST: As7 LCP: TIMEOUT: State TERMSent Aug 1 09:33:41.210 CST: As7 LCP: State is Closed Aug 1 09:33:41.214 CST: As7 PPP: Phase is DOWN Aug 1 09:33:41.218 CST: As7 PPP: Phase is ESTABLISHING, Passive Open Aug 1 09:33:41.226 CST: As7 LCP: State is Listen Aug 1 09:33:42.298 CST: %LINK-5-CHANGED: Interface Async7, changed state to reset Aug 1 09:33:42.318 CST: As7 LCP: State is Closed Aug 1 09:33:42.318 CST: As7 PPP: Phase is DOWN Aug 1 09:33:45.302 CST: As7 IPCP: Remove route to 172.22.53.147 Aug 1 09:33:45.306 CST: TTY7 Callback forced wait = 5 seconds Aug 1 09:33:47.302 CST: %LINK-3-UPDOWN: Interface Async7, changed state to down Aug 1 09:33:47.322 CST: As7 LCP: State is Closed Aug 1 09:33:50.310 CST: CHAT7: Matched chat script offhook to string offhook Aug 1 09:33:50.314 CST: CHAT7: Asserting DTR Aug 1 09:33:50.318 CST: CHAT7: Chat script offhook started Aug 1 09:33:50.322 CST: CHAT7: Sending string: ATH1 Aug 1 09:33:50.322 CST: CHAT7: Expecting string: OK Aug 1 09:33:50.634 CST: CHAT7: Completed match for expect: OK Aug 1 09:33:50.638 CST: CHAT7: Sending string: \c Aug 1 09:33:50.638 CST: CHAT7: Chat script offhook finished, status = Success Aug 1 09:33:50.642 CST: CHAT7: Matched chat script CALLBACK to string CALLBACK Aug 1 09:33:50.650 CST: CHAT7: Asserting DTR Aug 1 09:33:50.650 CST: CHAT7: Chat script CALLBACK started Aug 1 09:33:50.654 CST: CHAT7: Sending string: AT Aug 1 09:33:50.658 CST: CHAT7: Expecting string: OK Aug 1 09:33:50.686 CST: CHAT7: Completed match for expect: OK Aug 1 09:33:50.686 CST: CHAT7: Sending string: ATDT \T<81550> Aug 1 09:33:50.694 CST: CHAT7: Expecting string: CONNECT Aug 1 09:34:04.051 CST: %ISDN-6-CONNECT: Interface Serial0:0 is now connected to 81550 Aug 1 09:34:17.543 CST: CHAT7: Completed match for expect: CONNECT Aug 1 09:34:17.547 CST: CHAT7: Sending string: \c Aug 1 09:34:17.547 CST: CHAT7: Chat script CALLBACK finished, status = Success

#### Etapa 4

```
maui-nas-01#debug aaa authentication
maui-nas-01#debug aaa authorization
maui-nas-01#debug ppp authentication
```

```
maui-nas-01#show debug
```

```
General OS:
```

```
AAA Authentication debugging is on
```

```
AAA Authorization debugging is on
```

```
PPP:
```

```
PPP authentication debugging is on
```

```
PPP protocol negotiation debugging is on
```

```
!--- AAA/ PPP negotiation begins. Aug 1 09:42:15.096 CST: TTY8: Callback starting PPP directly with valid auth info Aug 1 09:42:15.104 CST: TTY8: destroy timer type 1 Aug 1 09:42:15.104 CST: TTY8: destroy timer type 0 Aug 1 09:42:15.160 CST: As8 LCP: I CONFREQ [Closed] id 0 len 47 Aug 1 09:42:15.164 CST: As8 LCP: ACCM 0x00000000 (0x020600000000) Aug 1 09:42:15.168 CST: As8 LCP: MagicNumber 0x5FA259DE (0x05065FA259DE) Aug 1 09:42:15.172 CST: As8 LCP: PFC (0x0702) Aug 1 09:42:15.172 CST: As8 LCP: ACFC (0x0802) Aug 1 09:42:15.176 CST: As8 LCP: MRRU 1614 (0x1104064E) Aug 1 09:42:15.180 CST: As8 LCP: EndpointDisc 1 Local Aug 1 09:42:15.184 CST: As8 LCP: (0x131701DC57FC8B1CEA4CCEA064C0D958) Aug 1 09:42:15.188 CST: As8 LCP: (0x82667300000000) Aug 1 09:42:15.192 CST: As8 LCP: Lower layer not up, Fast Starting Aug 1 09:42:15.196 CST: As8 PPP: Treating connection as a callout Aug 1 09:42:15.200 CST: As8 PPP: Phase is ESTABLISHING, Active Open Aug 1 09:42:15.204 CST: AAA/MEMORY: dup_user (0x4DDDF8) user='callback_user' ruser='' port='Async8' rem_addr='async/81560' authen_type=CHAP service=PPP priv=1 source='AAA dup lcp_reset' Aug 1 09:42:15.212 CST: AAA/MEMORY: free_user (0x2F5418) user='callback_user' ruser='' port='Async8' rem_addr='async/81560' authen_type=CHAP service=PPP priv=1 Aug 1 09:42:15.216 CST: As8 AAA/AUTHEN: Method=IF-NEEDED: no authentication needed. user='callback_user' port='Async8' rem_addr='async/81560' Aug 1 09:42:15.224 CST: As8 AAA/AUTHOR/FSM: (0): LCP succeeds trivially Aug 1 09:42:15.228 CST: As8 LCP: O CONFREQ [Closed] id 2 len 20 Aug 1 09:42:15.232 CST: As8 LCP: ACCM 0x000A0000 (0x0206000A0000) Aug 1 09:42:15.236 CST: As8 LCP: MagicNumber 0x6530AEA5 (0x05066530AEA5) Aug 1 09:42:15.240 CST: As8 LCP: PFC
```

(0x0702) Aug 1 09:42:15.240 CST: As8 LCP: ACFC (0x0802) Aug 1 09:42:15.248 CST: As8 LCP: O CONFREQ [REQsent] id 0 len 8 Aug 1 09:42:15.252 CST: As8 LCP: MRRU 1614 (0x1104064E) Aug 1 09:42:15.260 CST: %LINK-3-UPDOWN: Interface Async8, changed state to up Aug 1 09:42:15.368 CST: As8 LCP: I CONFACK [REQsent] id 2 len 20 Aug 1 09:42:15.372 CST: As8 LCP: ACCM 0x000A0000 (0x0206000A0000) Aug 1 09:42:15.376 CST: As8 LCP: MagicNumber 0x6530AEA5 (0x05066530AEA5) Aug 1 09:42:15.380 CST: As8 LCP: PFC (0x0702) Aug 1 09:42:15.384 CST: As8 LCP: ACFC (0x0802) Aug 1 09:42:15.404 CST: As8 LCP: I CONFREQ [ACKrcvd] id 1 len 43 Aug 1 09:42:15.408 CST: As8 LCP: ACCM 0x00000000 (0x020600000000) Aug 1 09:42:15.412 CST: As8 LCP: MagicNumber 0x5FA259DE (0x05065FA259DE) Aug 1 09:42:15.412 CST: As8 LCP: PFC (0x0702) Aug 1 09:42:15.416 CST: As8 LCP: ACFC (0x0802) Aug 1 09:42:15.420 CST: As8 LCP: EndpointDisc 1 Local Aug 1 09:42:15.424 CST: As8 LCP: (0x131701DC57FC8B1CEA4CCEA064C0D958) Aug 1 09:42:15.428 CST: As8 LCP: (0x82667300000000) Aug 1 09:42:15.432 CST: As8 LCP: O CONFACK [ACKrcvd] id 1 len 43 Aug 1 09:42:15.436 CST: As8 LCP: ACCM 0x00000000 (0x020600000000) Aug 1 09:42:15.440 CST: As8 LCP: MagicNumber 0x5FA259DE (0x05065FA259DE) Aug 1 09:42:15.444 CST: As8 LCP: PFC (0x0702) Aug 1 09:42:15.448 CST: As8 LCP: ACFC (0x0802) Aug 1 09:42:15.452 CST: As8 LCP: EndpointDisc 1 Local Aug 1 09:42:15.456 CST: As8 LCP: (0x131701DC57FC8B1CEA4CCEA064C0D958) Aug 1 09:42:15.460 CST: As8 LCP: (0x82667300000000) Aug 1 09:42:15.460 CST: As8 LCP: State is Open Aug 1 09:42:15.468 CST: As8 AAA/AUTHOR/LCP: Authorize LCP Aug 1 09:42:15.468 CST: As8 AAA/AUTHOR/LCP (2679858087): Port='Async8' list='' service=NET Aug 1 09:42:15.472 CST: AAA/AUTHOR/LCP: As8 (2679858087) user='callback\_user' Aug 1 09:42:15.476 CST: As8 AAA/AUTHOR/LCP (2679858087): send AV service=ppp Aug 1 09:42:15.480 CST: As8 AAA/AUTHOR/LCP (2679858087): send AV protocol=lcp Aug 1 09:42:15.484 CST: As8 AAA/AUTHOR/LCP (2679858087): found list "default" Aug 1 09:42:15.488 CST: As8 AAA/AUTHOR/LCP (2679858087): Method=tacacs+ (tacacs+) Aug 1 09:42:15.492 CST: AAA/AUTHOR/TAC+: (2679858087): user=callback\_user Aug 1 09:42:15.492 CST: AAA/AUTHOR/TAC+: (2679858087): send AV service=ppp Aug 1 09:42:15.496 CST: AAA/AUTHOR/TAC+: (2679858087): send AV protocol=lcp Aug 1 09:42:15.724 CST: TAC+: (2679858087): received author response status = PASS\_ADD Aug 1 09:42:15.732 CST: As8 AAA/AUTHOR (2679858087): Post authorization status = PASS\_ADD Aug 1 09:42:15.736 CST: As8 AAA/AUTHOR/LCP: Processing AV service=ppp Aug 1 09:42:15.740 CST: As8 AAA/AUTHOR/LCP: Processing AV protocol=lcp Aug 1 09:42:15.740 CST: As8 AAA/AUTHOR/LCP: Processing AV callback-dialstring=81550 Aug 1 09:42:15.748 CST: As8 PPP: Phase is UP Aug 1 09:42:15.752 CST: As8 AAA/AUTHOR/FSM: (0): Can we start IPCP? Aug 1 09:42:15.756 CST: As8 AAA/AUTHOR/FSM (3644410406): Port='Async8' list='' service=NET Aug 1 09:42:15.760 CST: AAA/AUTHOR/FSM: As8 (3644410406) user='callback\_user' Aug 1 09:42:15.764 CST: As8 AAA/AUTHOR/FSM (3644410406): send AV service=ppp Aug 1 09:42:15.768 CST: As8 AAA/AUTHOR/FSM (3644410406): send AV protocol=ip Aug 1 09:42:15.768 CST: As8 AAA/AUTHOR/FSM (3644410406): found list "default" Aug 1 09:42:15.772 CST: As8 AAA/AUTHOR/FSM (3644410406): Method=tacacs+ (tacacs+) Aug 1 09:42:15.776 CST: AAA/AUTHOR/TAC+: (3644410406): user=callback\_user Aug 1 09:42:15.780 CST: AAA/AUTHOR/TAC+: (3644410406): send AV service=ppp Aug 1 09:42:15.784 CST: AAA/AUTHOR/TAC+: (3644410406): send AV protocol=ip Aug 1 09:42:16.016 CST: TAC+: (3644410406): received author response status = PASS\_ADD Aug 1 09:42:16.020 CST: As8 AAA/AUTHOR (3644410406): Post authorization status = PASS\_ADD Aug 1 09:42:16.028 CST: As8 AAA/AUTHOR/FSM: We can start IPCP Aug 1 09:42:16.032 CST: As8 IPCP: O CONFREQ [Closed] id 1 len 16 Aug 1 09:42:16.036 CST: As8 IPCP: CompressType VJ 15 slots (0x0206002D0F00) Aug 1 09:42:16.040 CST: As8 IPCP: Address 172.22.53.101 (0x0306AC163565) Aug 1 09:42:16.048 CST: As8 LCP: I IDENTIFY [Open] id 2 len 18 magic 0x5FA259DEMSRASV5.00 Aug 1 09:42:16.052 CST: As8 LCP: I IDENTIFY [Open] id 3 len 29 magic 0x5FA259DEMSRAS-1-RBROWN-LAPTOP Aug 1 09:42:16.056 CST: As8 CCP: I CONFREQ [Not negotiated] id 4 len 10 Aug 1 09:42:16.060 CST: As8 CCP: MS-PPC supported bits 0x00000001 (0x120600000001) Aug 1 09:42:16.068 CST: As8 LCP: O PROTREQ [Open] id 3 len 16 protocol CCP (0x80FD0104000A120600000001) Aug 1 09:42:16.080 CST: As8 IPCP: I CONFREQ [REQsent] id 5 len 40 Aug 1 09:42:16.084 CST: As8 IPCP: CompressType VJ 15 slots CompressSlotID (0x0206002D0F01) Aug 1 09:42:16.088 CST: As8 IPCP: Address 0.0.0.0 (0x030600000000) Aug 1 09:42:16.092 CST: As8 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000) Aug 1 09:42:16.096 CST: As8 IPCP: PrimaryWINS 0.0.0.0 (0x820600000000) Aug 1 09:42:16.100 CST: As8 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000) Aug 1 09:42:16.104 CST: As8 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000) Aug 1 09:42:16.108 CST: As8 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 172.22.53.148 Aug 1 09:42:16.112 CST: As8 AAA/AUTHOR/IPCP: Processing AV service=ppp Aug 1 09:42:16.116 CST: As8 AAA/AUTHOR/IPCP: Processing AV protocol=ip Aug 1 09:42:16.120 CST: As8 AAA/AUTHOR/IPCP: Authorization succeeded Aug 1 09:42:16.120 CST: As8 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 172.22.53.148 Aug 1 09:42:16.128 CST: As8 IPCP: O CONFREQ [REQsent] id 5 len 22 Aug 1 09:42:16.132 CST: As8 IPCP: PrimaryWINS 0.0.0.0 (0x820600000000) Aug 1 09:42:16.136 CST: As8 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000) Aug 1 09:42:16.144 CST: As8 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000) Aug 1 09:42:16.184 CST: As8 IPCP: I CONFACK [REQsent] id 1 len 16 Aug 1 09:42:16.188 CST: As8 IPCP: CompressType VJ 15 slots (0x0206002D0F00) Aug 1 09:42:16.192 CST: As8 IPCP: Address 172.22.53.101 (0x0306AC163565) Aug 1 09:42:16.680 CST: As8 IPCP: I CONFREQ [ACKrcvd] id 6 len 22 Aug 1 09:42:16.684 CST: As8 IPCP:

CompressType VJ 15 slots CompressSlotID (0x0206002D0F01) Aug 1 09:42:16.688 CST: As8 IPCP: Address 0.0.0.0 (0x030600000000) Aug 1 09:42:16.692 CST: As8 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000) Aug 1 09:42:16.696 CST: As8 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 172.22.53.148 Aug 1 09:42:16.700 CST: As8 AAA/AUTHOR/IPCP: Processing AV service=ppp Aug 1 09:42:16.704 CST: As8 AAA/AUTHOR/IPCP: Processing AV protocol=ip Aug 1 09:42:16.708 CST: As8 AAA/AUTHOR/IPCP: Authorization succeeded Aug 1 09:42:16.708 CST: As8 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 172.22.53.148 Aug 1 09:42:16.716 CST: As8 IPCP: O CONFNAK [ACKrcvd] id 6 len 16 Aug 1 09:42:16.720 CST: As8 IPCP: Address 172.22.53.148 (0x0306AC163594) Aug 1 09:42:16.724 CST: As8 IPCP: PrimaryDNS 172.22.53.210 (0x8106AC1635D2) Aug 1 09:42:16.748 CST: %LINEPROTO-5-UPDOWN: Line protocol on Interface Async8, changed state to up Aug 1 09:42:16.852 CST: As8 IPCP: I CONFREQ [ACKrcvd] id 7 len 22 Aug 1 09:42:16.856 CST: As8 IPCP: CompressType VJ 15 slots CompressSlotID (0x0206002D0F01) Aug 1 09:42:16.860 CST: As8 IPCP: Address 172.22.53.148 (0x0306AC163594) Aug 1 09:42:16.864 CST: As8 IPCP: PrimaryDNS 172.22.53.210 (0x8106AC1635D2) Aug 1 09:42:16.868 CST: As8 AAA/AUTHOR/IPCP: Start. Her address 172.22.53.148, we want 172.22.53.148 Aug 1 09:42:16.876 CST: As8 AAA/AUTHOR/IPCP (4022385425): Port='Async8' list=''service=NET Aug 1 09:42:16.880 CST: AAA/AUTHOR/IPCP: As8 (4022385425) user='callback\_user' Aug 1 09:42:16.884 CST: As8 AAA/AUTHOR/IPCP (4022385425): send AV service=ppp Aug 1 09:42:16.888 CST: As8 AAA/AUTHOR/IPCP (4022385425): send AV protocol=ip Aug 1 09:42:16.892 CST: As8 AAA/AUTHOR/IPCP (4022385425): send AV addr\*172.22.53.148 Aug 1 09:42:16.892 CST: As8 AAA/AUTHOR/IPCP (4022385425): found list "default" Aug 1 09:42:16.896 CST: As8 AAA/AUTHOR/IPCP (4022385425): Method=tacacs+ (tacacs+) Aug 1 09:42:16.900 CST: AAA/AUTHOR/TAC+: (4022385425): user=callback\_user Aug 1 09:42:16.904 CST: AAA/AUTHOR/TAC+: (4022385425): send AV service=ppp Aug 1 09:42:16.908 CST: AAA/AUTHOR/TAC+: (4022385425): send AV protocol=ip Aug 1 09:42:16.912 CST: AAA/AUTHOR/TAC+: (4022385425): send AV addr\*172.22.53.148 Aug 1 09:42:17.140 CST: TAC+: (4022385425): received author response status = PASS\_REPL Aug 1 09:42:17.148 CST: As8 AAA/AUTHOR (4022385425): Post authorization status = PASS\_REPL Aug 1 09:42:17.156 CST: As8 AAA/AUTHOR/IPCP: Reject 172.22.53.148, using 172.22.53.148 Aug 1 09:42:17.164 CST: As8 AAA/AUTHOR/IPCP: Processing AV service=ppp Aug 1 09:42:17.164 CST: As8 AAA/AUTHOR/IPCP: Processing AV protocol=ip Aug 1 09:42:17.168 CST: As8 AAA/AUTHOR/IPCP: Processing AV addr\*172.22.53.148 Aug 1 09:42:17.172 CST: As8 AAA/AUTHOR/IPCP: Authorization succeeded Aug 1 09:42:17.176 CST: As8 AAA/AUTHOR/IPCP: Done. Her address 172.22.53.148, we want 172.22.53.148 Aug 1 09:42:17.180 CST: As8 IPCP: O CONFACK [ACKrcvd] id 7 len 22 Aug 1 09:42:17.184 CST: As8 IPCP: CompressType VJ 15 slots CompressSlotID (0x0206002D0F01) Aug 1 09:42:17.192 CST: As8 IPCP: Address 172.22.53.148 (0x0306AC163594) Aug 1 09:42:17.196 CST: As8 IPCP: PrimaryDNS 172.22.53.210 (0x8106AC1635D2) Aug 1 09:42:17.200 CST: As8 IPCP: State is Open Aug 1 09:42:17.220 CST: As8 IPCP: Install route to 172.22.53.148

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- [Página de soporte TACACS/TACACS+](#)
- [TACACS+ en documentación de IOS](#)
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