Configuration de la fonction PPP Callback avec TACACS+

Table des matières

Introduction

Ce document montre des exemples de configuration d'un routeur et d'un serveur AAA pour effectuer un rappel PPP (Point-to-Point Protocol) avec TACACS+. Deux exemples sont inclus qui utilisent le numéro de rappel spécifié par le serveur AAA ou par le client Windows 2000.

- Effectuez le test initial avec l'authentification locale et le rappel (supprimez la commande aaa new-model). Si le rappel ne fonctionne pas avec l'authentification locale, il ne fonctionne pas avec TACACS+. Référez-vous à [Configuration du rappel MS entre un routeur et un PC Windows](#) pour un exemple de la façon d'utiliser l'authentification locale.

- Effectuez d'autres tests d'authentification PPP avec TACACS+ sans rappel. Si les utilisateurs ÉCHOUENT à l'authentification et/ou à l'autorisation sans rappel, l'authentification et l'autorisation ne fonctionnent pas avec le rappel.

- Une fois que l'authentification locale pour le rappel et l'authentification PPP avec TACACS+ fonctionnent, ajoutez les informations de l'utilisateur local sur le routeur (telles que la chaîne de numérotation de rappel) au profil de l'utilisateur sur le serveur.

Remarque : dans ces tests, le client est un client Windows 2000 Professionnel, DUN, configuré comme d'habitude pour une connexion PPP, avec la configuration de rappel Microsoft comme « Me demander pendant la numérotation lorsque le serveur offre ». Le rappel Microsoft est pris en

charge dans le logiciel Cisco IOS® versions 11.3.2.T et ultérieures.

Conditions préalables

Exigences

Aucune exigence spécifique n'est associée à ce document.

Composants utilisés

Les informations contenues dans ce document sont basées sur les versions de matériel et de logiciel suivantes :

- Logiciel Cisco IOS Version 12.1(7)AA

- Cisco Secure ACS UNIX 2.3(2)

- Cisco Secure ACS pour Windows 3.3

- Démon logiciel gratuit TACACS 4.0(3)

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Conventions

Pour plus d'informations sur les conventions utilisées dans ce document, reportez-vous à [Conventions relatives aux conseils techniques Cisco](#).

Configurer

Cette section vous fournit des informations pour configurer les fonctionnalités décrites dans ce document.

Remarque : Pour en savoir plus sur les commandes utilisées dans le présent document, utilisez [l'outil de recherche de commandes](#) (clients [inscrits](#) seulement).

Diagramme du réseau

Ce document utilise la configuration réseau indiquée dans le diagramme suivant.

Rappel PPP avec numéro spécifié par le serveur

Configurations du serveur

Il s'agit des configurations du serveur AAA pour le rappel PPP avec un numéro de téléphone

spécifié par le serveur AAA.

Installation du serveur - Cisco Secure ACS pour Windows

- Pour activer l'option LCP pour l'utilisateur et le groupe, accédez à l'écran Interface Configuration, sélectionnez TACACS+ (Cisco IOS), et assurez-vous que les options PPP IP et PPP LCP sont sélectionnées pour l'utilisateur et le groupe.

- Le rappel peut être configuré dans les paramètres Groupe ou Utilisateur.

  ◦ Configurer un groupe pour le rappel : dans l'écran Group Setup, sous Callback, sélectionnez l'option Use Windows Database Callback Settings (dans l'ancienne version d'ACS, cette option est appelée « Use Microsoft NT Callback Settings »). Vérifiez ensuite les options pour PPP IP et PPP LCP. Sélectionnez Ligne de rappel et tapez 84007 dans le champ vide.

    Pour un utilisateur qui est membre du groupe, accédez à l'écran User Setup et sélectionnez Use group setting sous Callback. Cliquez sur Submit + Restart.

  ◦ Configurer un utilisateur individuel pour le rappel : dans l'écran User Setup, sous Callback, sélectionnez Callback using this number et tapez 84007 dans le champ vide. Vérifiez ensuite les options pour PPP IP et PPP LCP. Cliquez sur Submit + Restart.

Configuration du serveur - Cisco Secure UNIX

```
<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
}
}

}
```

Installation du serveur - Logiciel gratuit TACACS+

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

```
}
}
```

Rappel PPP avec numéro spécifié par l'utilisateur

Les exemples précédents dans ce document sont des rappels à un numéro prédéfini (spécifié dans le serveur AAA). Le rappel peut également être effectué à un numéro spécifié par l'utilisateur à l'aide du numéro de rappel et est spécifié comme null dans le serveur AAA. Le routeur demande alors à l'utilisateur un numéro de rappel. Le test initial doit être effectué avec le rappel local spécifié. Reportez-vous à l'exemple de [rappel PPP asynchrone entre un serveur d'accès et un PC](#) et notez que la chaîne de numérotation de rappel est spécifiée sous forme de guillemets ("").

Dans ces tests, le client était un client Windows 2000 Professionnel, configuré comme d'habitude pour une connexion PPP, avec le rappel Microsoft configuré comme « Rappelez-moi aux numéros ci-dessous ».

Remarque : le [schéma de réseau](#) et la [configuration de routeur](#) affichés s'appliquent aux configurations de rappel décrites ici.

Configurations du serveur

Les configurations de serveur AAA pour le rappel PPP sont indiquées ici, avec un numéro de téléphone spécifié par l'utilisateur.

Installation du serveur - Cisco Secure pour Windows

- Pour activer l'option LCP pour l'utilisateur et le groupe, accédez à l'écran Interface Configuration, sélectionnez TACACS+ (Cisco IOS), et assurez-vous que les options PPP IP et PPP LCP sont sélectionnées pour l'utilisateur et le groupe.

- Le rappel peut être configuré dans les paramètres Groupe ou Utilisateur.

  - Configurer un groupe pour le rappel : dans l'écran Group Setup, sous Callback, sélectionnez l'option for Dialup client specified callback number. Vérifiez ensuite les options pour PPP IP et PPP LCP.

    Pour un utilisateur qui est membre du groupe, accédez à l'écran User Setup et sélectionnez Use group setting sous Callback. Cliquez sur Submit + Restart.

  - Configurer un utilisateur individuel pour le rappel : dans l'écran User Setup, sous Callback, sélectionnez l'option for Dialup client specified callback number. Vérifiez ensuite les options pour PPP IP et PPP LCP. Cliquez sur Submit + Restart.

Configuration du serveur - Cisco Secure UNIX

```
<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=""
}
}

}
```

Installation du serveur - Logiciel gratuit TACACS+

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

Configurations des routeurs

```
<#root>

AS5200

maui-nas-01#

show run

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

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 Authentica

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
```

Vérifier

Aucune procédure de vérification n'est disponible pour cette configuration.

Dépannage

Cette section fournit des informations que vous pouvez utiliser pour dépanner votre configuration.

Dépannage des commandes

Remarque : avant d'émettre des commandes debug, reportez-vous à [Informations importantes sur les commandes de débogage](#).

- debug aaa authentication : affiche des informations sur l'authentification AAA.

- debug aaa authorization : affiche des informations sur l'autorisation AAA.

- debug callback : affiche les événements de rappel lorsque le routeur utilise un modem et un script de conversation pour rappeler sur une ligne de terminal.

- debug chat : affiche les caractères envoyés entre le serveur d'accès réseau (NAS) et le PC. Un script de conversation est un ensemble de paires de chaînes d'envoi anticipé qui définissent la liaison entre les périphériques ETTD (équipement terminal de traitement de données), ETTD (équipement terminal de traitement de données) ou ETTD (équipement de communication de données).

- debug modem : affiche l'activité de ligne du modem sur un serveur d'accès.

- debug ppp negotiation : affiche les paquets PPP transmis lors du démarrage de PPP, où les options PPP sont négociées.

- debug ppp authentication : affiche les messages du protocole d'authentification, notamment les échanges de paquets CHAP (Challenge Authentication Protocol) et PAP (Password Authentication Protocol).

- debug tacacs+ : affiche des informations de débogage détaillées associées à TACACS+.

Exemple de sortie de débogage

Les différentes étapes de ce diagramme correspondent à la sortie de débogage réelle qui s'affiche après ce diagramme. Notez que certains résultats ont été renvoyés à la ligne pour des raisons d'espacement.

Étape 1

```
<#root>
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" Attri

```
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
```

Étape 2

<#root>

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" Attri

```
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
```

Étape 3

<#root>

```
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
```

Étape 4

<#root>

```
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 CONFREJ [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 PROTREJ [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 CONFREJ [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
```

Informations connexes

- [Cisco Secure ACS pour la page d'assistance de Windows](#)
- [Page d'assistance TACACS+](#)
- [TACACS+ dans la documentation d'IOS](#)
- [Assistance et documentation techniques - Cisco Systems](#)