# ネットワーク・アクセス・サーバのIPプールを管理するAAAサーバの使用

## 目次



## 概要

このドキュメントでは、AAA サーバを使用してネットワーク アクセス サーバ（NAS）の IP プールを管理するための設定例を紹介しています。

## はじめに

### 表記法

ドキュメント表記の詳細は、『シスコ テクニカル ティップスの表記法』を参照してください。

### 前提条件

このドキュメントに関する固有の要件はありません。

### 使用するコンポーネント

このドキュメントの情報は、次のソフトウェアとハードウェアのバージョンに基づくものです。

- Cisco IOS(R) ソフトウェア リリース 12.0.7.T

このドキュメントの情報は、特定のラボ環境にあるデバイスに基づいて作成されたものです。 このドキュメントで使用するすべてのデバイスは、クリアな（デフォルト）設定で作業を開始しています。 対象のネットワークが実稼働中である場合には、どのような作業についても、その潜在的な影響について確実に理解しておく必要があります。

## IP プール

IP 制御プロトコル（IPCP）アドレス ネゴシエーション中、ユーザに対して IP プール名が指定された場合、NAS は指定されたプールがローカルで定義されているかをチェックします。 定義されている場合、特別なアクションは必要とせず、ローカル プールで IP アドレスが参照されます。 必要なプールが存在しない場合、特別なユーザ名「pools-nas-name」（「nas-name」は NAS の設定済みホスト名）を使用して、そのプールを取得するための許可コールが行われます。 これに応答して、AAA サーバは必要なプールの設定をダウンロードします。 **aaa configuration config-username name of your choosing** コマンドを使用すると、別のプール ユーザ名を設定できます。

このコマンドは、プール定義をダウンロードするために使用されるユーザ名を、デフォルト名「pools-NAS-name」から「name-of-your-choosing」に変更します。

Cisco NAS にダウンロードされたプールは、不揮発性メモリに保持されず、アクセス サーバまたはルータが再起動すると自動的に消去されます。 ダウンロードされたプールは、適切な AV ペアを追加することで自動的にタイムアウトになります。 ダウンロードされたプールは、**show ip local pools** コマンドの出力でダイナミックとして指定されます。

# RADIUS NAS の設定

```
aaa new-model
aaa authentication login default group radius
aaa authentication ppp default if-needed group radius
aaa authorization network default group radius
aaa configuration config-username nas1-pools
radius-server host 172.18.124.114 auth-port 1645 acct-port 1646
radius-server key cisco
```

## AAA サーバ NAS プール プロファイル

```
./ViewProfile -p 9900 -u nas1-pools
User Profile Information
user = nas1-pools
profile_id=63
profile_cycle = 7
member = nas_profiles
password = pap "********"
radius=Cisco {
reply_attributes= {
6=5
9,1="ip:pool-def#1= pool1 172.22.83.2 172.22.83.253"
}
}

}
```

この例には、Cisco Secure UNIX（CSU）サーバで作成されたユーザ「nas1-pools」が示されています。 このエントリでは、アウトバウンドユーザのユーザ サービス タイプ {6=5} が指定されています。 この属性は、既知のユーザ名とパスワードの組み合わせである nas1-pools/cisco を使用した通常のログインを防止するために NAS によって提供されます。

## AAA サーバ ユーザ プロファイル

```
./ViewProfile -p 9900 -u pool_test
user = pool_test{
profile_id = 46
profile_cycle = 14
member = dial_rad
password = pap "********"
radius=Cisco {
reply_attributes= {
7=1
6=2
9,1="ip:addr-pool=pool1"
}
}

}
```

## 確認

ログインしたユーザ「pool_test」に、AAA サーバの pool1 から IP アドレスが割り当てられます。

```
as5300#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 as5300#term mon
as5300# 00:26:01: %LINK-3-UPDOWN: Interface Async5, changed state to up 00:26:01: As5 PPP:
Treating connection as a dedicated line 00:26:01: As5 PPP: Phase is ESTABLISHING, Active Open
00:26:01: As5 AAA/AUTHOR/FSM: (0): LCP succeeds trivially 00:26:01: As5 LCP: O CONFREQ [Closed]
id 1 len 24 00:26:01: As5 LCP: ACCM 0x000A0000 (0x0206000A0000) 00:26:01: As5 LCP: AuthProto PAP
(0x0304C023) 00:26:01: As5 LCP: MagicNumber 0xD0D1EC92 (0x0506D0D1EC92) 00:26:01: As5 LCP: PFC
(0x0702) 00:26:01: As5 LCP: ACFC (0x0802) 00:26:01: As5 LCP: I CONFACK [REQsent] id 1 len 24
00:26:01: As5 LCP: ACCM 0x000A0000 (0x0206000A0000) 00:26:01: As5 LCP: AuthProto PAP
(0x0304C023) 00:26:01: As5 LCP: MagicNumber 0xD0D1EC92 (0x0506D0D1EC92) 00:26:01: As5 LCP: PFC
(0x0702) 00:26:01: As5 LCP: ACFC (0x0802) 00:26:02: As5 LCP: I CONFREQ [ACKrcvd] id 0 len 23
00:26:02: As5 LCP: ACCM 0x00000000 (0x020600000000) 00:26:02: As5 LCP: MagicNumber 0x00002BF7
(0x050600002BF7) 00:26:02: As5 LCP: PFC (0x0702) 00:26:02: As5 LCP: ACFC (0x0802) 00:26:02: As5
LCP: Callback 6 (0x0D0306) 00:26:02: As5 LCP: O CONFREJ [ACKrcvd] id 0 len 7 00:26:02: As5 LCP:
Callback 6 (0x0D0306) 00:26:03: As5 LCP: TIMEout: State ACKrcvd 00:26:03: As5 LCP: O CONFREQ
[ACKrcvd] id 2 len 24 00:26:03: As5 LCP: ACCM 0x000A0000 (0x0206000A0000) 00:26:03: As5 LCP:
AuthProto PAP (0x0304C023) 00:26:03: As5 LCP: MagicNumber 0xD0D1EC92 (0x0506D0D1EC92) 00:26:03:
As5 LCP: PFC (0x0702) 00:26:03: As5 LCP: ACFC (0x0802) 00:26:03: As5 LCP: I CONFACK [REQsent] id
2 len 24 00:26:03: As5 LCP: ACCM 0x000A0000 (0x0206000A0000) 00:26:03: As5 LCP: AuthProto PAP
(0x0304C023) 00:26:03: As5 LCP: MagicNumber 0xD0D1EC92 (0x0506D0D1EC92) 00:26:03: As5 LCP: PFC
(0x0702) 00:26:03: As5 LCP: ACFC (0x0802) 00:26:05: As5 LCP: TIMEout: State ACKrcvd 00:26:05:
As5 LCP: O CONFREQ [ACKrcvd] id 3 len 24 00:26:05: As5 LCP: ACCM 0x000A0000 (0x0206000A0000)
00:26:05: As5 LCP: AuthProto PAP (0x0304C023) 00:26:05: As5 LCP: MagicNumber 0xD0D1EC92
(0x0506D0D1EC92) 00:26:05: As5 LCP: PFC (0x0702) 00:26:05: As5 LCP: ACFC (0x0802) 00:26:05: As5
LCP: I CONFACK [REQsent] id 3 len 24 00:26:05: As5 LCP: ACCM 0x000A0000 (0x0206000A0000)
00:26:05: As5 LCP: AuthProto PAP (0x0304C023) 00:26:05: As5 LCP: MagicNumber 0xD0D1EC92
(0x0506D0D1EC92) 00:26:05: As5 LCP: PFC (0x0702) 00:26:05: As5 LCP: ACFC (0x0802) 00:26:06: As5
LCP: I CONFREQ [ACKrcvd] id 0 len 23 00:26:06: As5 LCP: ACCM 0x00000000 (0x020600000000)
00:26:06: As5 LCP: MagicNumber 0x00002BF7 (0x050600002BF7) 00:26:06: As5 LCP: PFC (0x0702)
00:26:06: As5 LCP: ACFC (0x0802) 00:26:06: As5 LCP: Callback 6 (0x0D0306) 00:26:06: As5 LCP: O
CONFREJ [ACKrcvd] id 0 len 7 00:26:06: As5 LCP: Callback 6 (0x0D0306) 00:26:06: As5 LCP: I
CONFREQ [ACKrcvd] id 1 len 20 00:26:06: As5 LCP: ACCM 0x00000000 (0x020600000000) 00:26:06: As5
LCP: MagicNumber 0x00002BF7 (0x050600002BF7) 00:26:06: As5 LCP: PFC (0x0702) 00:26:06: As5 LCP:
ACFC (0x0802) 00:26:06: As5 LCP: O CONFACK [ACKrcvd] id 1 len 20 00:26:06: As5 LCP: ACCM
0x00000000 (0x020600000000) 00:26:06: As5 LCP: MagicNumber 0x00002BF7 (0x050600002BF7) 00:26:06:
As5 LCP: PFC (0x0702) 00:26:06: As5 LCP: ACFC (0x0802) 00:26:06: As5 LCP: State is Open
00:26:06: As5 PPP: Phase is AUTHENTICATING, by this end 00:26:06: As5 LCP: I IDENTIFY [Open] id
2 len 18 magic 0x00002BF7 MSRASV4.00 00:26:06: As5 LCP: I IDENTIFY [Open] id 3 len 21 magic
0x00002BF7 MSRAS-1-ZEKIE 00:26:06: As5 PAP: I AUTH-REQ id 31 len 24 from "pool_test" 00:26:06:
```

As5 PAP: Authenticating peer pool_test 00:26:06: AAA: parse name=Async5 idb type=10 tty=5 00:26:06: AAA: name=Async5 flags=0x11 type=4 shelf=0 slot=0 adapter=0 port=5 channel=0 00:26:06: AAA: parse name=Serial0:18 idb type=12 tty=-1 00:26:06: AAA: name=Serial0:18 flags=0x51 type=1 shelf=0 slot=0 adapter=0 port=0 channel=18 00:26:06: AAA/MEMORY: create_user (0x618FFBB0) user='pool_test' ruser='' port='Async5' rem_addr='9194722001/9194724101' authen_type=PAP service=PPP priv=1 00:26:06: AAA/AUTHEN/START (2962877775): port='Async5' list='' action=LOGIN service=PPP 00:26:06: AAA/AUTHEN/START (2962877775): using "default" list 00:26:06: AAA/AUTHEN (2962877775): status = UNKNOWN 00:26:06: AAA/AUTHEN/START (2962877775): Method=radius (radius) 00:26:06: RADIUS: ustruct sharecount=1 00:26:06: RADIUS: Initial Transmit Async5 id 10 172.18.124.114:1645, Access-Request, len 103 00:26:06: Attribute 4 6 01010101 00:26:06: Attribute 5 6 00000005 00:26:06: Attribute 61 6 00000000 00:26:06: Attribute 1 11 706F6F6C 00:26:06: Attribute 30 12 39313934 00:26:06: Attribute 31 12 39313934 00:26:06: Attribute 2 18 FC2DE489 00:26:06: Attribute 6 6 00000002 00:26:06: Attribute 7 6 00000001 00:26:06: RADIUS: Received from id 10 172.18.124.114:1645, Access-Accept, len 58 00:26:06: Attribute 7 6 00000001 00:26:06: Attribute 6 6 00000002 00:26:06: Attribute 26 26 0000000901146970 00:26:06: RADIUS: saved authorization data for user 618FFBB0 at 618FEAE4 00:26:06: AAA/AUTHEN (2962877775): status = PASS 00:26:06: As5 AAA/AUTHOR/LCP: Authorize LCP 00:26:06: As5 AAA/AUTHOR/LCP (3264835197): Port='Async5' list='' service=NET 00:26:06: AAA/AUTHOR/LCP: As5 (3264835197) user='pool_test' 00:26:06: As5 AAA/AUTHOR/LCP (3264835197): send AV service=ppp 00:26:06: As5 AAA/AUTHOR/LCP (3264835197): send AV protocol=lcp 00:26:06: As5 AAA/AUTHOR/LCP (3264835197): found list "default" 00:26:06: As5 AAA/AUTHOR/LCP (3264835197): Method=radius (radius) 00:26:06: RADIUS: cisco AVPair "ip:addr-pool=pool1" not applied for lcp 00:26:06: As5 AAA/AUTHOR (3264835197): Post authorization status = PASS_REPL 00:26:06: As5 AAA/AUTHOR/LCP: Processing AV service=ppp 00:26:06: As5 PAP: O AUTH-ACK id 31 len 5 00:26:06: As5 PPP: Phase is UP 00:26:06: As5 AAA/AUTHOR/FSM: (0): Can we start IPCP? 00:26:06: As5 AAA/AUTHOR/FSM (2404696831): Port='Async5' list='' service=NET 00:26:06: AAA/AUTHOR/FSM: As5 (2404696831) user='pool_test' 00:26:06: As5 AAA/AUTHOR/FSM (2404696831): send AV service=ppp 00:26:06: As5 AAA/AUTHOR/FSM (2404696831): send AV protocol=ip 00:26:06: As5 AAA/AUTHOR/FSM (2404696831): found list "default" 00:26:06: As5 AAA/AUTHOR/FSM (2404696831): Method=radius (radius) 00:26:06: RADIUS: cisco AVPair "ip:addr-pool=pool1" 00:26:06: As5 AAA/AUTHOR (2404696831): Post authorization status = PASS_REPL 00:26:06: As5 AAA/AUTHOR/FSM: We can start IPCP 00:26:06: As5 IPCP: O CONFREQ [Closed] id 1 len 10 00:26:06: As5 IPCP: Address 14.36.1.53 (0x03060E240135) 00:26:07: As5 CCP: I CONFREQ [Not negotiated] id 4 len 10 00:26:07: As5 CCP: MS-PPC supported bits 0x00000001 (0x120600000001) 00:26:07: As5 LCP: O PROTREJ [Open] id 4 len 16 protocol CCP (0x80FD0104000A120600000001) 00:26:07: As5 IPCP: I CONFREQ [REQsent] id 5 len 40 00:26:07: As5 IPCP: CompressType VJ 15 slots CompressSlotID (0x0206002D0F01) 00:26:07: As5 IPCP: Address 0.0.0.0 (0x030600000000) 00:26:07: As5 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000) 00:26:07: As5 IPCP: PrimaryWINS 0.0.0.0 (0x820600000000) 00:26:07: As5 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000) 00:26:07: As5 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000) 00:26:07: As5 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 0.0.0.0 00:26:07: As5 AAA/AUTHOR/IPCP: Says use pool pool1 00:26:07: AAA: parse name=Async5 idb type=10 tty=5 00:26:07: AAA: name=Async5 flags=0x11 type=4 shelf=0 slot=0 adapter=0 port=5 channel=0 00:26:07: AAA: parse name=Serial0:18 idb type=12 tty=-1 00:26:07: AAA: name=Serial0:18 flags=0x51 type=1 shelf=0 slot=0 adapter=0 port=0 channel=18 00:26:07: AAA/MEMORY: create_user (0x618FFCD8) user='nas1-pools' ruser='' port='Async5' rem_addr='9194722001/9194724101' authen_type=NONE service=NONE priv=1 00:26:07: As5 AAA/AUTHOR/POOL (3562270977): Port='Async5' list='' service=NET 00:26:07: AAA/AUTHOR/POOL: As5 (3562270977) user='nas1-pools' 00:26:07: As5 AAA/AUTHOR/POOL (3562270977): send AV service=ppp 00:26:07: As5 AAA/AUTHOR/POOL (3562270977): send AV protocol=ip 00:26:07: Async5 AAA/AUTHOR/POOL (3562270977): found list "default" 00:26:07: As5 AAA/AUTHOR/POOL (3562270977): Method=radius (radius) 00:26:07: RADIUS: authenticating to get author data 00:26:07: RADIUS: ustruct sharecount=2 00:26:07: RADIUS: Initial Transmit Async5 id 11 172.18.124.114:1645, Access-Request, len 98 00:26:07: Attribute 4 6 01010101 00:26:07: Attribute 5 6 00000005 00:26:07: Attribute 61 6 00000000 00:26:07: Attribute 1 12 6E617331 00:26:07: Attribute 30 12 39313934 00:26:07: Attribute 31 12 39313934 00:26:07: Attribute 2 18 E6DF8390 00:26:07: Attribute 6 6 00000005 00:26:07: RADIUS: Received from id 11 172.18.124.114:1645, Access-Accept, len 69 00:26:07: Attribute 6 6 00000005 00:26:07: Attribute 26 43 0000000901256970 00:26:07: RADIUS: saved authorization data for user 618FFCD8 at 61450E5C 00:26:07: RADIUS: cisco AVPair "ip:pool-def#1=pool1 1.2.3.4 1.2.3.5" 00:26:07: AAA/AUTHOR (3562270977): Post authorization status = PASS_REPL 00:26:07: As5 AAA/AUTHOR/CONFIG: Processing AV pool-def#1=pool1 1.2.3.4 1.2.3.5 00:26:07: AAA/MEMORY: free_user (0x618FFCD8) user='nas1-pools' ruser='' port='Async5' rem_addr='9194722001/9194724101' authen_type=NONE service=NONE priv=1 00:26:07: As5 AAA/AUTHOR/IPCP: Pool returned 1.2.3.4 00:26:07: As5 AAA/AUTHOR/IPCP: Processing AV service=ppp 00:26:07: As5 AAA/AUTHOR/IPCP: Processing AV addr-pool=pool1 00:26:07: As5 AAA/AUTHOR/IPCP: Processing AV addr*1.2.3.4 00:26:07: As5 AAA/AUTHOR/IPCP: Authorization succeeded 00:26:07: As5

```
AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 1.2.3.4 00:26:07: As5 IPCP: O CONFREJ
[REQsent] id 5 len 34 00:26:07: As5 IPCP: CompressType VJ 15 slots CompressSlotID
(0x0206002D0F01) 00:26:07: As5 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000) 00:26:07: As5 IPCP:
PrimaryWINS 0.0.0.0 (0x820600000000) 00:26:07: As5 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000)
00:26:07: As5 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000) 00:26:07: As5 IPCP: I CONFACK
[REQsent] id 1 len 10 00:26:07: As5 IPCP: Address 14.36.1.53 (0x03060E240135) 00:26:07: As5
IPCP: I CONFREQ [ACKrcvd] id 6 len 10 00:26:07: As5 IPCP: Address 0.0.0.0 (0x030600000000)
00:26:07: As5 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 1.2.3.4 00:26:07: As5
AAA/AUTHOR/IPCP: Processing AV service=ppp 00:26:07: As5 AAA/AUTHOR/IPCP: Processing AV addr-
pool=pool1 00:26:07: As5 AAA/AUTHOR/IPCP: Processing AV addr*1.2.3.4 00:26:07: As5
AAA/AUTHOR/IPCP: Authorization succeeded 00:26:07: As5 AAA/AUTHOR/IPCP: Done. Her address
0.0.0.0, we want 1.2.3.4 00:26:07: As5 IPCP: O CONFNAK [ACKrcvd] id 6 len 10 00:26:07: As5 IPCP:
Address 1.2.3.4 (0x030601020304) 00:26:07: As5 IPCP: I CONFREQ [ACKrcvd] id 7 len 10 00:26:07:
As5 IPCP: Address 1.2.3.4 (0x030601020304) 00:26:07: As5 AAA/AUTHOR/IPCP: Start. Her address
1.2.3.4, we want 1.2.3.4 00:26:07: As5 AAA/AUTHOR/IPCP: Request 1.2.3.4 from pool pool1
00:26:07: As5 AAA/AUTHOR/IPCP: Pool grants 1.2.3.4 00:26:07: As5 AAA/AUTHOR/IPCP: Processing AV
service=ppp 00:26:07: As5 AAA/AUTHOR/IPCP: Processing AV addr-pool=pool1 00:26:07: As5
AAA/AUTHOR/IPCP: Processing AV addr*1.2.3.4 00:26:07: As5 AAA/AUTHOR/IPCP: Authorization
succeeded 00:26:07: As5 AAA/AUTHOR/IPCP: Done. Her address 1.2.3.4, we want 1.2.3.4 00:26:07:
As5 IPCP: O CONFACK [ACKrcvd] id 7 len 10 00:26:07: As5 IPCP: Address 1.2.3.4 (0x030601020304)
00:26:07: As5 IPCP: State is Open 00:26:07: As5 IPCP: Install route to 1.2.3.4 00:26:07:
%LINEPROTO-5-UPDOWN: Line protocol on Interface Async5, changed state to up as5300#show caller
ip Line User IP Address Local Number Remote Number <-> As5 pool_test 1.2.3.4 9194724101
9194722001 as5300#show ip local pool Pool Begin End Free In use pool1 1.2.3.4 1.2.3.5 1 1
(dynamic)
```

## TACACS+ NAS の設定

```
aaa new-model
aaa authentication login default group tacacs+
aaa authentication ppp default if-needed group tacacs+
aaa authorization network default group tacacs+
aaa configuration config-username nas1-pools
tacacs-server host 172.18.124.114
tacacs-server key cisco
```

## AAA サーバ NAS プール プロファイル

```
./ViewProfile -p 9900 -u nas1-pools
User Profile Information
user = nas1-pools
profile_id = 63
profile_cycle = 8
service=ppp {
protocol=ip {
set pool-def#1="pool1 1.2.3.4 1.2.3.5"
}
}

}
```

## AAA サーバ ユーザ プロファイル

```
./ViewProfile -p 9900 -u pool_test
User Profile Information
user = pool_test{
profile_id = 46
profile_cycle = 15
password = pap "********"
service=ppp {
protocol=lcp {
}
protocol=ip {
```

```
set addr-pool=pool1
}
}

}
```

## デバッグ出力

```
Script started on Mon Dec 10 13:22:05 2001
ddunlap@rtp-cse-353% telnet 172.18.124.114
Trying 172.18.124.114...
Connected to 172.18.124.114.
Escape character is '^]'.


UNIX(r) System V Release 4.0 (rtp-evergreen)

login: root
Password:
Last login: Mon Dec 10 10:09:01 from rtp-cse-353.cisc
Sun Microsystems Inc.   SunOS 5.5.1     Generic May 1996
Sun Microsystems Inc.   SunOS 5.5.1     Generic May 1996
# telnet 14.36.1.53
Trying 14.36.1.53...
Connected to 14.36.1.53.
Escape character is '^]'.


User Access Verification

Username: testuser
Password:

as5300>en
Password:
as5300#show debug General OS: TACACS access control debugging is on AAA Authentication debugging
is on AAA Authorization debugging is on PPP: PPP protocol negotiation debugging is on
as5300#terminal monitor as5300# 00:06:29: As1 LCP: I CONFREQ [Closed] id 0 len 23 00:06:29: As1
LCP: ACCM 0x00000000 (0x020600000000) 00:06:29: As1 LCP: MagicNumber 0x00006D9C (0x050600006D9C)
00:06:29: As1 LCP: PFC (0x0702) 00:06:29: As1 LCP: ACFC (0x0802) 00:06:29: As1 LCP: Callback 6
(0x0D0306) 00:06:29: As1 LCP: Lower layer not up, Fast Starting 00:06:29: As1 PPP: Treating
connection as a dedicated line 00:06:29: As1 PPP: Phase is ESTABLISHING, Active Open 00:06:29:
As1 AAA/AUTHOR/FSM: (0): LCP succeeds trivially 00:06:29: As1 LCP: O CONFREQ [Closed] id 1 len
24 00:06:29: As1 LCP: ACCM 0x000A0000 (0x0206000A0000) 00:06:29: As1 LCP: AuthProto PAP
(0x0304C023) 00:06:29: As1 LCP: MagicNumber 0xD0C0094C (0x0506D0C0094C) 00:06:29: As1 LCP: PFC
(0x0702) 00:06:29: As1 LCP: ACFC (0x0802) 00:06:29: As1 LCP: O CONFREJ [REQsent] id 0 len 7
00:06:29: As1 LCP: Callback 6 (0x0D0306) 00:06:29: %LINK-3-UPDOWN: Interface Async1, changed
state to up 00:06:31: As1 LCP: TIMEout: State REQsent 00:06:31: As1 LCP: O CONFREQ [REQsent] id
2 len 24 00:06:31: As1 LCP: ACCM 0x000A0000 (0x0206000A0000) 00:06:31: As1 LCP: AuthProto PAP
(0x0304C023) 00:06:31: As1 LCP: MagicNumber 0xD0C0094C (0x0506D0C0094C) 00:06:31: As1 LCP: PFC
(0x0702) 00:06:31: As1 LCP: ACFC (0x0802) 00:06:31: As1 LCP: I CONFACK [REQsent] id 2 len 24
00:06:31: As1 LCP: ACCM 0x000A0000 (0x0206000A0000) 00:06:31: As1 LCP: AuthProto PAP
(0x0304C023) 00:06:31: As1 LCP: MagicNumber 0xD0C0094C (0x0506D0C0094C) 00:06:31: As1 LCP: PFC
(0x0702) 00:06:31: As1 LCP: ACFC (0x0802) 00:06:32: As1 LCP: I CONFREQ [ACKrcvd] id 0 len 23
00:06:32: As1 LCP: ACCM 0x00000000 (0x020600000000) 00:06:32: As1 LCP: MagicNumber 0x00006D9C
(0x050600006D9C) 00:06:32: As1 LCP: PFC (0x0702) 00:06:32: As1 LCP: ACFC (0x0802) 00:06:32: As1
LCP: Callback 6 (0x0D0306) 00:06:32: As1 LCP: O CONFREJ [ACKrcvd] id 0 len 7 00:06:32: As1 LCP:
Callback 6 (0x0D0306) 00:06:32: As1 LCP: I CONFREQ [ACKrcvd] id 1 len 20 00:06:32: As1 LCP: ACCM
0x00000000 (0x020600000000) 00:06:32: As1 LCP: MagicNumber 0x00006D9C (0x050600006D9C) 00:06:32:
As1 LCP: PFC (0x0702) 00:06:32: As1 LCP: ACFC (0x0802) 00:06:32: As1 LCP: O CONFACK [ACKrcvd] id
1 len 20 00:06:32: As1 LCP: ACCM 0x00000000 (0x020600000000) 00:06:32: As1 LCP: MagicNumber
0x00006D9C (0x050600006D9C) 00:06:32: As1 LCP: PFC (0x0702) 00:06:32: As1 LCP: ACFC (0x0802)
00:06:32: As1 LCP: State is Open 00:06:32: As1 PPP: Phase is AUTHENTICATING, by this end
00:06:32: As1 LCP: I IDENTIFY [Open] id 2 len 18 magic 0x00006D9C MSRASV4.00 00:06:32: As1 LCP:
```

I IDENTIFY [Open] id 3 len 21 magic 0x00006D9C MSRAS-1-ZEKIE 00:06:32: As1 PAP: I AUTH-REQ id 24 len 24 from "pool_test" 00:06:32: As1 PAP: Authenticating peer pool_test 00:06:32: AAA: parse name=Async1 idb type=10 tty=1 00:06:32: AAA: name=Async1 flags=0x11 type=4 shelf=0 slot=0 adapter=0 port=1 channel=0 00:06:32: AAA: parse name=Serial0:18 idb type=12 tty=-1 00:06:32: AAA: name=Serial0:18 flags=0x51 type=1 shelf=0 slot=0 adapter=0 port=0 channel=18 00:06:32: AAA/MEMORY: create_user (0x61B26890) user='pool_test' ruser='' port='Async1' rem_addr='9194722001/9194724101' authen_type=PAP service=PPP priv=1 00:06:32: AAA/AUTHEN/START (4053426223): port='Async1' list='' action=LOGIN service=PPP 00:06:32: AAA/AUTHEN/START (4053426223): using "default" list 00:06:32: AAA/AUTHEN (4053426223): status = UNKNOWN 00:06:32: AAA/AUTHEN/START (4053426223): Method=tacacs+ (tacacs+) 00:06:32: TAC+: send AUTHEN/START packet ver=193 id=4053426223 00:06:32: TAC+: Using default tacacs server-group "tacacs+" list. 00:06:32: TAC+: Opening TCP/IP to 172.18.124.114/49 timeout=10 00:06:32: TAC+: Opened TCP/IP handle 0x618FDF3C to 172.18.124.114/49 using source 14.36.1.53 00:06:32: TAC+: 172.18.124.114 (4053426223) AUTHEN/START/LOGIN/PAP queued 00:06:32: TAC+: (4053426223) AUTHEN/START/LOGIN/PAP processed 00:06:32: TAC+: ver=193 id=4053426223 received AUTHEN status = PASS 00:06:32: AAA/AUTHEN (4053426223): status = PASS 00:06:32: TAC+: Closing TCP/IP 0x618FDF3C connection to 172.18.124.114/49 00:06:32: As1 AAA/AUTHOR/LCP: Authorize LCP 00:06:32: As1 AAA/AUTHOR/LCP (2507907283): Port='Async1' list='' service=NET 00:06:32: AAA/AUTHOR/LCP: As1 (2507907283) user='pool_test' 00:06:32: As1 AAA/AUTHOR/LCP (2507907283): send AV service=ppp 00:06:32: As1 AAA/AUTHOR/LCP (2507907283): send AV protocol=lcp 00:06:32: As1 AAA/AUTHOR/LCP (2507907283): found list "default" 00:06:32: As1 AAA/AUTHOR/LCP (2507907283): Method=tacacs+ (tacacs+) 00:06:32: AAA/AUTHOR/TAC+: (2507907283): user=pool_test 00:06:32: AAA/AUTHOR/TAC+: (2507907283): send AV service=ppp 00:06:32: AAA/AUTHOR/TAC+: (2507907283): send AV protocol=lcp 00:06:32: TAC+: using previously set server 172.18.124.114 from group tacacs+ 00:06:32: TAC+: Opening TCP/IP to 172.18.124.114/49 timeout=10 00:06:32: TAC+: Opened TCP/IP handle 0x61B3B1A4 to 172.18.124.114/49 using source 14.36.1.53 00:06:32: TAC+: Opened 172.18.124.114 index=1 00:06:32: TAC+: 172.18.124.114 (2507907283) AUTHOR/START queued 00:06:33: TAC+: (2507907283) AUTHOR/START processed 00:06:33: TAC+: (2507907283): received author response status = PASS_ADD 00:06:33: TAC+: Closing TCP/IP 0x61B3B1A4 connection to 172.18.124.114/49 00:06:33: As1 AAA/AUTHOR (2507907283): Post authorization status = PASS_ADD 00:06:33: As1 PAP: O AUTH-ACK id 24 len 5 00:06:33: As1 PPP: Phase is UP 00:06:33: As1 AAA/AUTHOR/FSM: (0): Can we start IPCP? 00:06:33: As1 AAA/AUTHOR/FSM (924563050): Port='Async1' list='' service=NET 00:06:33: AAA/AUTHOR/FSM: As1 (924563050) user='pool_test' 00:06:33: As1 AAA/AUTHOR/FSM (924563050): send AV service=ppp 00:06:33: As1 AAA/AUTHOR/FSM (924563050): send AV protocol=ip 00:06:33: As1 AAA/AUTHOR/FSM (924563050): found list "default" 00:06:33: As1 AAA/AUTHOR/FSM (924563050): Method=tacacs+ (tacacs+) 00:06:33: AAA/AUTHOR/TAC+: (924563050): user=pool_test 00:06:33: AAA/AUTHOR/TAC+: (924563050): send AV service=ppp 00:06:33: AAA/AUTHOR/TAC+: (924563050): send AV protocol=ip 00:06:33: TAC+: using previously set server 172.18.124.114 from group tacacs+ 00:06:33: TAC+: Opening TCP/IP to 172.18.124.114/49 timeout=10 00:06:33: TAC+: Opened TCP/IP handle 0x61B3B620 to 172.18.124.114/49 using source 14.36.1.53 00:06:33: TAC+: Opened 172.18.124.114 index=1 00:06:33: TAC+: 172.18.124.114 (924563050) AUTHOR/START queued 00:06:33: As1 CCP: I CONFREQ [Not negotiated] id 4 len 10 00:06:33: As1 CCP: MS-PPC supported bits 0x00000001 (0x120600000001) 00:06:33: As1 LCP: O PROTREJ [Open] id 3 len 16 protocol CCP (0x80FD0104000A120600000001) 00:06:33: As1 IPCP: I CONFREQ [Closed] id 5 len 40 00:06:33: As1 IPCP: CompressType VJ 15 slots CompressSlotID (0x0206002D0F01) 00:06:33: As1 IPCP: Address 0.0.0.0 (0x030600000000) 00:06:33: As1 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000) 00:06:33: As1 IPCP: PrimaryWINS 0.0.0.0 (0x820600000000) 00:06:33: As1 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000) 00:06:33: As1 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000) 00:06:33: TAC+: (924563050) AUTHOR/START processed 00:06:33: TAC+: (924563050): received author response status = PASS_ADD 00:06:33: TAC+: Closing TCP/IP 0x61B3B620 connection to 172.18.124.114/49 00:06:33: As1 AAA/AUTHOR (924563050): Post authorization status = PASS_ADD 00:06:33: As1 AAA/AUTHOR/FSM: We can start IPCP 00:06:33: As1 IPCP: O CONFREQ [Closed] id 1 len 10 00:06:33: As1 IPCP: Address 14.36.1.53 (0x03060E240135) 00:06:33: As1 IPCP: I CONFACK [REQsent] id 1 len 10 00:06:33: As1 IPCP: Address 14.36.1.53 (0x03060E240135) 00:06:34: %LINEPROTO-5-UPDOWN: Line protocol on Interface Async1, changed state to up 00:06:34: As1 IPCP: I CONFREQ [ACKrcvd] id 5 len 40 00:06:34: As1 IPCP: CompressType VJ 15 slots CompressSlotID (0x0206002D0F01) 00:06:34: As1 IPCP: Address 0.0.0.0 (0x030600000000) 00:06:34: As1 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000) 00:06:34: As1 IPCP: PrimaryWINS 0.0.0.0 (0x820600000000) 00:06:34: As1 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000) 00:06:34: As1 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000) 00:06:34: As1 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 0.0.0.0 00:06:34: As1 AAA/AUTHOR/IPCP: Says use pool pool1 00:06:34: AAA: parse name=Async1 idb type=10 tty=1 00:06:34: AAA: name=Async1 flags=0x11 type=4 shelf=0 slot=0 adapter=0 port=1 channel=0 00:06:34: AAA: parse name=Serial0:18 idb type=12 tty=-1 00:06:34: AAA: name=Serial0:18 flags=0x51 type=1 shelf=0 slot=0 adapter=0 port=0 channel=18 00:06:34: AAA/MEMORY: create_user (0x61451E1C) user='nas1-

pools' ruser='' port='Async1' rem_addr='9194722001/9194724101' authen_type=NONE service=NONE priv=1 00:06:34: As1 AAA/AUTHOR/POOL (2293413778): Port='Async1' list='' service=NET 00:06:34: AAA/AUTHOR/POOL: As1 (2293413778) user='nas1-pools' 00:06:34: As1 AAA/AUTHOR/POOL (2293413778): send AV service=ppp 00:06:34: As1 AAA/AUTHOR/POOL (2293413778): send AV protocol=ip 00:06:34: Async1 AAA/AUTHOR/POOL (2293413778): found list "default" 00:06:34: As1 AAA/AUTHOR/POOL (2293413778): Method=tacacs+ (tacacs+) 00:06:34: AAA/AUTHOR/TAC+: (2293413778): user=nas1-pools 00:06:34: AAA/AUTHOR/TAC+: (2293413778): send AV service=ppp 00:06:34: AAA/AUTHOR/TAC+: (2293413778): send AV protocol=ip 00:06:34: TAC+: Using default tacacs server-group "tacacs+" list. 00:06:34: TAC+: Opening TCP/IP to 172.18.124.114/49 timeout=10 00:06:34: TAC+: Opened TCP/IP handle 0x61B3BA9C to 172.18.124.114/49 using source 14.36.1.53 00:06:34: TAC+: 172.18.124.114 (2293413778) AUTHOR/START queued 00:06:34: TAC+: (2293413778) AUTHOR/START processed 00:06:34: TAC+: (2293413778): received author response status = PASS_ADD 00:06:34: TAC+: Closing TCP/IP 0x61B3BA9C connection to 172.18.124.114/49 00:06:34: AAA/AUTHOR (2293413778): Post authorization status = PASS_ADD 00:06:34: As1 AAA/AUTHOR/CONFIG: Processing AV service=ppp 00:06:34: As1 AAA/AUTHOR/CONFIG: Processing AV protocol=ip 00:06:34: As1 AAA/AUTHOR/CONFIG: Processing AV pool-def#1=pool1 1.2.3.4 1.2.3.5 00:06:34: AAA/MEMORY: free_user (0x61451E1C) user='nas1-pools' ruser='' port='Async1' rem_addr='9194722001/9194724101' authen_type=NONE service=NONE priv=1 00:06:34: As1 AAA/AUTHOR/IPCP: Pool returned 1.2.3.4 00:06:34: As1 AAA/AUTHOR/IPCP: Processing AV service=ppp 00:06:34: As1 AAA/AUTHOR/IPCP: Processing AV protocol=ip 00:06:34: As1 AAA/AUTHOR/IPCP: Processing AV addr-pool=pool1 00:06:34: As1 AAA/AUTHOR/IPCP: Processing AV addr*1.2.3.4 00:06:34: As1 AAA/AUTHOR/IPCP: Authorization succeeded 00:06:34: As1 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 1.2.3.4 00:06:34: As1 IPCP: O CONFREJ [ACKrcvd] id 5 len 34 00:06:34: As1 IPCP: CompressType VJ 15 slots CompressSlotID (0x0206002D0F01) 00:06:34: As1 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000) 00:06:34: As1 IPCP: PrimaryWINS 0.0.0.0 (0x820600000000) 00:06:34: As1 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000) 00:06:34: As1 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000) 00:06:34: As1 IPCP: I CONFREQ [ACKrcvd] id 6 len 10 00:06:34: As1 IPCP: Address 0.0.0.0 (0x030600000000) 00:06:34: As1 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 1.2.3.4 00:06:34: As1 AAA/AUTHOR/IPCP: Processing AV service=ppp 00:06:34: As1 AAA/AUTHOR/IPCP: Processing AV protocol=ip 00:06:34: As1 AAA/AUTHOR/IPCP: Processing AV addr-pool=pool1 00:06:34: As1 AAA/AUTHOR/IPCP: Processing AV addr*1.2.3.4 00:06:34: As1 AAA/AUTHOR/IPCP: Authorization succeeded 00:06:34: As1 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 1.2.3.4 00:06:34: As1 IPCP: O CONFNAK [ACKrcvd] id 6 len 10 00:06:34: As1 IPCP: Address 1.2.3.4 (0x030601020304) 00:06:34: As1 IPCP: I CONFREQ [ACKrcvd] id 7 len 10 00:06:34: As1 IPCP: Address 1.2.3.4 (0x030601020304) 00:06:34: As1 AAA/AUTHOR/IPCP: Start. Her address 1.2.3.4, we want 1.2.3.4 00:06:34: As1 AAA/AUTHOR/IPCP: Request 1.2.3.4 from pool pool1 00:06:34: As1 AAA/AUTHOR/IPCP: Pool grants 1.2.3.4 00:06:34: As1 AAA/AUTHOR/IPCP: Processing AV service=ppp 00:06:34: As1 AAA/AUTHOR/IPCP: Processing AV protocol=ip 00:06:34: As1 AAA/AUTHOR/IPCP: Processing AV addr-pool=pool1 00:06:34: As1 AAA/AUTHOR/IPCP: Processing AV addr*1.2.3.4 00:06:34: As1 AAA/AUTHOR/IPCP: Authorization succeeded 00:06:34: As1 AAA/AUTHOR/IPCP: Done. Her address 1.2.3.4, we want 1.2.3.4 00:06:34: As1 IPCP: O CONFACK [ACKrcvd] id 7 len 10 00:06:34: As1 IPCP: Address 1.2.3.4 (0x030601020304) 00:06:34: As1 IPCP: State is Open 00:06:34: As1 IPCP: Install route to 1.2.3.4 as5300#**show caller ip** Line User IP Address Local Number Remote Number <-> As1 pool_test 1.2.3.4 9194724101 9194722001 as5300#show ip local pool Pool Begin End Free In use pool1 1.2.3.4 1.2.3.5 1 1 (dynamic)

# 関連情報

- Cisco Secure UNIX に関するサポート ページ
- RADIUS に関するサポート ページ
- Requests for Comments ( RFC )
- TACACS+ Support Page
- テクニカルサポートとドキュメント - Cisco Systems