

PPP 사용자별 시간 초과

목차

[소개](#)

[사전 요구 사항](#)

[요구 사항](#)

[사용되는 구성 요소](#)

[표기 규칙](#)

[기술 세부사항](#)

[구성](#)

[기본 컨피그레이션\(가상 프로파일이 활성화되지 않음\)](#)

[전역 시간 제한](#)

[사용자별 시간 초과 - AAA 서버 컨피그레이션](#)

[사용자별 시간 초과 - NAS 구성](#)

[다음을 확인합니다.](#)

[문제 해결](#)

[가상 프로필을 사용한 비동기 통화 - 연결이 유효 상태가 아님](#)

[가상 프로필을 사용한 비동기 통화 - 연결 ID 출력](#)

[가상 프로파일 없이 비동기 통화](#)

[가상 프로파일이 없는 멀티링크 단일 채널 ISDN 통화](#)

[가상 프로파일이 없는 비멀티링크 단일 채널 ISDN 통화](#)

[가상 프로파일을 이용한 비멀티링크 단일 채널 ISDN 통화](#)

[관련 정보](#)

소개

이 기술 팁은 Cisco 액세스 서버에서 사용자별 시간 제한을 구현하는 방법에 대해 설명합니다. 사용자별 시간 초과가 제대로 작동하려면 Cisco IOS 버전 11.3(8)T 이상을 실행해야 합니다. 이전 버전의 Cisco IOS를 실행하는 경우 타이머는 가상 프로파일이 없는 비동기 전용 등 특정 기본 컨피그레이션에서만 작동할 수 있습니다.

이 문서에서는 NAS(Network Access Server) 및 AAA(Authentication, Authorization, and Accounting) 서버의 구성에 대해 설명합니다. 또한 **show** 및 **debug** 명령 출력을 제공하므로 디바이스가 제대로 작동하는지 확인하고 문제를 디버깅할 수 있습니다.

사전 요구 사항

요구 사항

이 문서에 대한 특정 요건이 없습니다.

사용되는 구성 요소

이 문서의 정보는 다음 소프트웨어 및 하드웨어 버전을 기반으로 합니다.

- Cisco IOS 버전 11.3(8)T 이상

이 문서의 정보는 특정 랩 환경의 디바이스를 토대로 작성되었습니다. 이 문서에 사용된 모든 디바이스는 초기화된(기본) 컨피그레이션으로 시작되었습니다. 현재 네트워크가 작동 중인 경우, 모든 명령어의 잠재적인 영향을 미리 숙지하시기 바랍니다.

표기 규칙

문서 표기 규칙에 대한 자세한 내용은 [Cisco 기술 팁 표기 규칙을 참조하십시오](#).

기술 세부사항

AAA 컨피그레이션 및 RADIUS/TACACS+ 서버와 같은 다른 변수를 가져오는 사용자별 시간 초과에 대해 설명하기 전에, 전역 기준으로 적용되며 전화를 거는 모든 사용자에게 적용되는 시간 초과인 고정 시간 초과에 대해 액세스 서버를 구성하는 방법을 살펴봅니다.

주요 Cisco IOS 명령은 다이얼러 **유휴 시간 제한** 및 **시간 제한 절대**입니다. 두 명령 모두 인터페이스 컨피그레이션 명령입니다. 또한 vaccess 인터페이스에서 사용되는 세 번째 명령인 **ppp timeout idle**에 대해서도 설명합니다.

다이얼러 유휴 시간 초과 <x>

이 명령은 모든 다이얼러 지원 인터페이스에서 구성할 수 있으며 연결이 종료되기 전까지 연결이 유휴(초)될 수 있는 시간을 제어합니다. 다음은 이 명령에 대해 유의해야 할 4가지 사항입니다.

1. 이 명령은 다이얼러를 지원하는 인터페이스에만 적용할 수 있습니다. 기본적으로 모든 ISDN 인터페이스(BRI 및 PRI)는 다이얼러 지원 가능하므로 이 명령을 추가하는 것은 문제가 되지 않습니다. 비동기 인터페이스(group-async 인터페이스 포함)는 기본적으로 다이얼러를 지원하지 않으므로 명령 다이얼러 **인밴드**를 입력하여 **지정해야 합니다**. 비동기 인터페이스에서 **dialer in-band** 명령을 입력한 후에만 다이얼러 **idle-timeout**을 구성할 수 있습니다. **메모참고:** vtemplate(및 따라서 vaccess 인터페이스)은 다이얼러 지원(point-to-point 전용)이 아니므로 이 명령을 사용할 수 없습니다.
2. 다이얼러 지원 인터페이스(즉, 다이얼러 인밴드(dialer in-band) 사용 시 ISDN 또는 비동기)에서 기본값은 다이얼러 **idle-timeout 120**(초)입니다. 일반적으로 ISP 환경에서는 너무 짧기 때문에 거의 항상 이를 늘려야 합니다.
3. 다이얼러 **idle-timeout**은 기본적으로 다이얼러 목록과 일치하는 아웃바운드 트래픽(사용자에 대한 트래픽)에서만 재설정됩니다(즉, 관심 있는 것으로 간주됨). 명령 끝에 **둘 중 하나의 키워드**(즉, 다이얼러 **idle-timeout 600 중 하나**)를 추가하면 인바운드 **관심 트래픽에 대해** 다시 설정할 수 있습니다.
4. "interest"로 간주되는 트래픽은 dialer-list <n> 명령에 의해 정의됩니다. 여기서 <n>은 **dialer-group <n> 명령문의 번호와 일치합니다**.

절대 시간 초과 <x> <y>

이 명령은 비동기 인터페이스, ISDN 인터페이스, 다이얼러 인터페이스, vtemplate 인터페이스를 비롯한 모든 WAN 인터페이스에서 구성할 수 있습니다. 연결이 종료되기 전에 연결이 작동 가능한 시간을 제어합니다. 구문은 <x> <y>입니다. 여기서 <x>는 분 단위이고 <y>는 초 단위입니다.

ppp timeout idle <x>

이 명령은 템플릿 인터페이스에서만 구성할 수 있으며(또한 파서에서도 숨겨짐) 연결이 종료되기 전에 유휴 상태로 있을 수 있는 시간(초)을 제어합니다. 이 기능은 다이얼러 인터페이스의 **dialer idle-timeout** 명령과 매우 유사하며 **ppp timeout idle**만 vtemplate/vaccess 인터페이스에 사용됩니다. 이 명령은 vtemplate/vaccess 인터페이스에 특별히 사용되므로 이 명령은 가상 프로파일 구성(사용자에게 항상 vaccess 인터페이스가 생성됨) 및 VPDN(virtual private dial-up network) 홈 게이트웨이(예상 인터페이스가 항상 vaccess 인터페이스에서 종료됨)에 적합합니다. dialer idle-timeout 명령과 달리 흥미로운 트래픽의 개념이 없으므로 모든 사용자 트래픽이 유휴 타이머를 재설정합니다. LCP(Link Control Protocol) keepalive 및 NCP(Network Control Protocol) 협상 패킷과 같은 비 사용자 트래픽은 타이머를 재설정하지 않습니다.

구성

이 섹션에는 이 문서에서 설명하는 기능을 구성하기 위한 정보가 표시됩니다.

참고: 이 문서에 사용된 명령에 대한 추가 정보를 찾으려면 [명령 조회 도구](#)([등록된](#) 고객만 해당)를 사용합니다.

이 문서에서는 다음 구성을 사용합니다.

- [기본 컨피그레이션\(가상 프로파일이 활성화되지 않음\)](#)
- [전역 시간 제한](#)
- [사용자별 시간 초과 - AAA 서버 컨피그레이션](#)
- [사용자별 시간 초과 - NAS 구성](#)

[기본 컨피그레이션\(가상 프로파일이 활성화되지 않음\)](#)

학습용으로 아래 구성과 같은 기본 구성을 가정합니다. 가상 프로파일 기능이 켜져 있지 않습니다.

```
기본 구성
!
version 11.3
service timestamps debug datetime msec
service timestamps log datetime msec
service password-encryption
!
hostname access-3
!
aaa new-model
aaa authentication login default tacacs+ local
aaa authentication login console none
aaa authentication login use-radius local radius
aaa authentication enable default enable
aaa authentication ppp default if-needed local tacacs+
aaa authentication ppp use-radius if-needed local radius
aaa authentication arap default local
aaa authorization exec default tacacs+ local
aaa authorization exec console none
aaa authorization exec use-radius local radius if-
authenticated
aaa authorization network default local tacacs+ if-
authenticated
```

```

aaa authorization network use-radius local radius if-
authenticated
aaa accounting exec default stop-only tacacs+
aaa accounting network default stop-only tacacs+
aaa accounting system default start-stop tacacs+
enable secret 5 $1$0MKx$kPcop1zxkpxa8fkxXBWp21
!
modem call-record terse
modem buffer-size 250
no ip finger
!
isdn switch-type primary-5ess
clock timezone PST -8
clock summer-time PDT recurring
!

controller T1 0
 framing esf
 clock source line primary
 linecode b8zs
 pri-group timeslots 1-24
! interface Loopback0 ip address 10.1.1.1 255.255.255.0
no ip directed-broadcast ! interface Ethernet0 ip
address 172.16.1.1 255.255.255.0 no ip directed-
broadcast ! interface Virtual-Templat1 ip unnumbered
Loopback0 no ip directed-broadcast no keepalive peer
default ip address pool default ppp authentication chap
pap use-radius ppp multilink ! interface Serial0:23 ip
unnumbered Loopback0 no ip directed-broadcast
encapsulation ppp no logging event link-status no
keepalive dialer-group 1 autodetect encapsulation ppp
v120 isdn switch-type primary-5ess isdn incoming-voice
modem peer default ip address pool default no fair-queue
no cdp enable ppp max-bad-auth 3 ppp authentication chap
pap use-radius ppp multilink ! ! interface Group-Asyncl
ip unnumbered Loopback0 no ip directed-broadcast
encapsulation ppp no logging event link-status async
mode interactive peer default ip address pool default no
fair-queue no cdp enable ppp max-bad-auth 3 ppp
authentication chap pap use-radius ppp multilink group-
range 1 96 hold-queue 10 in ! ip local pool default
10.1.1.2 10.1.1.200 ip classless ip route 0.0.0.0
0.0.0.0 172.16.1.254 ! no logging console dialer-list 1
protocol ip permit tacacs-server host 172.16.1.201
tacacs-server key cisco radius-server host 172.16.1.202
auth-port 1645 acct-port 1646 key cisco ! line con 0
exec-timeout 0 0 authorization exec console login
authentication console transport input none line 1 96
autoselect during-login autoselect ppp modem Dialin
escape-character BREAK authorization exec use-radius
login authentication use-radius line aux 0 line vty 0 4
exec-timeout 60 0 ! end

```

전역 시간 제한

다음 예에서는 사용자에게 30분(1800초) 유틸 시간 제한 및 3시간(180분) 절대 시간 제한을 적용합니다. **글로벌 ppp** 시간 제한을 활성화하는 델타 구성 변경은 다음과 같습니다.

```

interface Serial0:23
 dialer idle-timeout 1800
 timeout absolute 180

```

```
!  
! interface Group=Async1 dialer in-band dialer idle-timeout 1800 dialer-group 1 timeout absolute  
180
```

다이얼러 목록 1이 없는 경우 이를 정의해야 합니다. 가장 간단한 것은 **dialer-list 1 프로토콜 ip permit**입니다.

가상 프로필을 사용하는 경우 아래와 같이 가상 템플릿 인터페이스에 시간 초과만 설정할 수 있으므로 컨피그레이션이 더 쉬워질 수 있습니다.

```
interface Virtual-Template1  
 ppp timeout idle 1800  
 timeout absolute 180
```

사용자별 시간 초과 - AAA 서버 컨피그레이션

이제 글로벌 시간 초과에 대한 작업을 마쳤으므로 이 지식을 사용자별 시간 초과로 확장할 것입니다. 사용자별 타이머 값은 네트워크 권한 부여 중에 중단되므로 사용 중인 방법(RADIUS 또는 TACACS+)에 따라 **aaa authorization network** 명령을 구성해야 합니다. 또한 사용자별 타이머는 항상 NAS에서 미리 구성된 전역 값을 재정의합니다. 사용자별 타이머가 작동하는 방법은 액세스 서버가 네트워크 권한 부여 단계 동안 시간 제한 특성을 수신하면 이러한 특성을 구성 명령 집합으로 변환하여 사용자가 연결될 인터페이스에 입력됩니다. 백그라운드 프로세스에서 인터페이스에 입력하는 이러한 컨피그레이션 명령은 일시적입니다. 사용자가 연결을 끊으면 제거됩니다.

다음은 서버의 몇 가지 샘플 사용자 프로필입니다.

RADIUS 프로파일

```
timeout-absolute-ppp Password = "cisco"  
  Service-Type = Framed,  
  Framed-Protocol = PPP,  
  Framed-IP-Address = 255.255.255.254,  
  Session-Timeout = 600
```

```
timeout-idle-ppp Password = "cisco"  
  Service-Type = Framed,  
  Framed-Protocol = PPP  
  Framed-IP-Address = 255.255.255.254,  
  Idle-Timeout = 300
```

```
timeout-both-ppp Password = "cisco"  
  Service-Type = Framed,  
  Framed-Protocol = PPP,  
  Framed-IP-Address = 255.255.255.254,  
  Session-Timeout = 600,  
  Idle-Timeout = 300
```

참고: 사전의 설정 방법에 따라 구문이 달라질 수 있습니다.

TACACS+ 프로필

```
user = timeout-absolute-ppp {  
  chap = cleartext cisco  
  service = ppp protocol = lcp {  
    timeout = 10  
  }  
  service = ppp protocol = ip {
```

```

        addr-pool = "default"
    }
}

user = timeout-idle-ppp {
    chap = cleartext cisco
    service = ppp protocol = lcp {
        idletime = 5
    }
    service = ppp protocol = ip {
        addr-pool = "default"
    }
}

user = timeout-both-ppp {
    chap = cleartext cisco
    service = ppp protocol = lcp {
        timeout = 10
        idletime = 5
    }
    service = ppp protocol = multilink { }
    service = ppp protocol = ip {
        addr-pool = "default"
    }
}

```

사용자별 시간 초과 - NAS 구성

비동기(ISDN 없음)만 수행하고 가상 프로파일을 사용하지 않는 경우 비동기(또는 group-async) 인터페이스에 **다이얼러 인밴드**를 구성한 경우 사용자별 타이머가 작동해야 합니다. 백그라운드 프로세스에서는 RADIUS/TACACS+에서 전달된 값과 함께 **dialer idle-timeout** 및 **timeout absolute** 명령을 사용하여 비동기 인터페이스에 타이머를 삽입하고, 사용자가 연결을 끊을 때 해당 타이머를 제거합니다.

비동기(ISDN 없음)만 수행하고 가상 프로파일 사용하는 경우 비동기(또는 group-async) 인터페이스에 **다이얼러 인밴드**를 구성할 필요가 없습니다. 그냥 먹혀야 돼 백그라운드 프로세스에서는 RADIUS/TACACS+에서 전달된 값과 함께 **ppp timeout idle** 및 **timeout absolute** 명령을 사용하여 vaccess 인터페이스에 타이머를 삽입하고, 사용자가 연결을 끊을 때 해당 타이머를 제거합니다.

ISDN 사용자가 있고 사용자당 타이머를 수행해야 하는 경우 가상 프로파일 사용해야 할 수 있습니다. 이유는 앞서 설명한 백그라운드 프로세스가 ISDN 인터페이스에 대해 작동하지 않기 때문입니다. 즉, 사용자가 연결된 B 채널을 구성할 수 없습니다. 구성할 수 있는 유일한 방법은 모든 사람에게 영향을 주는 D 채널입니다. 그러나 사용자가 세션에서 멀티링크를 협상할 경우 액세스 서버는 사용자의 번들 인터페이스 역할을 하는 가상 액세스 인터페이스를 자동으로 생성합니다. 백그라운드 프로세스는 가상 액세스 인터페이스에서 작동하지만 가상 액세스 인터페이스가 없는 비멀티링크 ISDN 호출에서는 작동하지 않습니다. 따라서 멀티링크를 협상하지 않는 단일 B-채널 사용자가 있고 사용자별 시간 제한을 설치하려는 경우 가상 프로파일을 활성화해야 합니다. 가상 프로파일을 활성화하면 모든 사용자(멀티링크 사용자뿐 아니라)에 대한 액세스 인터페이스가 생성되며 백그라운드 프로세스에서 **ppp timeout 유틸** 및 **timeout absolute** 명령을 성공적으로 삽입할 수 있습니다. 가상 프로파일을 활성화하지 않도록 선택하면 비동기 사용자 및 멀티링크 ISDN 사용자가 사용자별 시간 제한을 적용할 수 있습니다. 그러나 비멀티링크 ISDN 사용자는 사용자별 시간 제한을 적용할 수 없습니다. 인터페이스에 정적으로 구성된 전역 시간 제한만 적용됩니다(있는 경우). 비멀티링크 ISDN 사용자에게 사용자별 시간 제한을 적용하려고 할 때 가상 프로파일이 설정되어 있지 않으면 액세스 서버가 사용자별 필수 시간 초과 특성을 처리할 수 없으므로 사용자 연결 권한 부여가 실패합니다.

또한 Cisco IOS 11.3(8.1)T 이상 버전에 기능이 추가되어 사용자별 시간 제한을 비멀티링크 ISDN 사용자에게 적용할 수 있습니다. 기본적으로 일반적으로 사용되는 백그라운드 프로세스 컨피그레

이선 모드를 우회하며, 명령줄 인터페이스를 사용하지 않고 B 채널에 타이머를 직접 설정합니다.

이 복잡한 설정을 요약하면 다음과 같은 두 가지 규칙을 사용할 수 있습니다.

- 가상 프로필을 사용하지 않는 경우 비동기 인터페이스에서 **다이얼러 인밴드**를 구성하고 Cisco IOS 11.3(8.1)T 이상을 실행합니다. Cisco IOS 11.3(8)T를 실행 중인 경우, 비멀티링크 ISDN 사용자는 사용자별 시간 제한을 적용할 수 없으며, 그렇지 않으면 연결하지 못합니다.
- 가상 프로필을 사용하는 경우 Cisco IOS 11.3(8)T 이상이 제대로 작동합니다.

다음을 확인합니다.

현재 이 구성에 대해 사용 가능한 확인 절차가 없습니다.

문제 해결

이 섹션에서는 컨피그레이션 문제를 해결하는 데 사용할 수 있는 정보를 제공합니다. 디버깅을 위해 6개의 통화 출력 예가 포함됩니다. 특정 섹션으로 바로 이동하려면 아래 링크 중 하나를 선택합니다.

일부 **show** 명령은 [출력 인터프리터 툴](#)에서 지원되는데(등록된 고객만), 이 툴을 사용하면 **show** 명령 출력의 분석 결과를 볼 수 있습니다.

참고: debug 명령을 실행하기 전에 [디버그 명령에 대한 중요 정보를 참조하십시오](#).

- [가상 프로필을 사용한 비동기 통화 - 연결이 유효 상태가 아님](#)
- [가상 프로필을 사용한 비동기 통화 - 연결 ID 출력](#)
- [가상 프로파일 없이 비동기 통화](#)
- [가상 프로파일이 없는 멀티링크 단일 채널 ISDN 통화](#)
- [가상 프로파일이 없는 비멀티링크 단일 채널 ISDN 통화](#)
- [가상 프로파일을 이용한 비멀티링크 단일 채널 ISDN 통화](#)

참고: 아래에 표시된 것과 동일한 명령 및 출력을 보려면 Cisco IOS 버전 11.3AA 또는 버전 12.0T를 실행해야 합니다.

가상 프로필을 사용한 비동기 통화 - 연결이 유효 상태가 아님

다음은 가상 프로필을 사용한 비동기 통화입니다. 프로필은 90초 절대 시간 제한 및 60초 유효 시간 제한을 설치합니다. 이 예에서는 연결이 유효 상태로 유지되지 않도록 합니다. 자세한 내용은 아래 출력의 주석을 참조하십시오. 주석은 강조 표시되고 기울임꼴로 표시됩니다.

```
!--- ISDN setup message comes in. *Mar 4 19:21:47.772: ISDN Se0:23: RX <- SETUP pd = 8 callref = 0x09 *Mar 4 19:21:47.772: Bearer Capability i = 0x9090A2 *Mar 4 19:21:47.772: Channel ID i = 0xA98393 *Mar 4 19:21:47.772: Called Party Number i = 0xC1, '4085703932' *Mar 4 19:21:47.776: ISDN Se0:23: TX -> CALL_PROC pd = 8 callref = 0x8009 *Mar 4 19:21:47.776: Channel ID i = 0xA98393 *Mar 4 19:21:47.776: ISDN Se0:23: TX -> ALERTING pd = 8 callref = 0x8009 !--- Modem is allocated. *Mar 4 19:21:47.776: EVENT_FROM_ISDN::dchan_idb=0x6122CFCC, call_id=0x3D, ces=0x1 bchan=0x12, event=0x1, cause=0x0 *Mar 4 19:21:47.776: VDEV_ALLOCATE: slot 1 and port 28 is allocated. *Mar 4 19:21:47.776: EVENT_FROM_ISDN:(003D): DEV_INCALL at slot 1 and port 28 *Mar 4 19:21:47.776: CSM_PROC_IDLE: CSM_EVENT_ISDN_CALL at slot 1, port 28 *Mar 4 19:21:47.776: Mica Modem(1/28): Configure(0x1 = 0x0) *Mar 4 19:21:47.776: Mica Modem(1/28): Configure(0x23 = 0x0)
```

*Mar 4 19:21:47.776: Mica Modem(1/28): Call Setup *Mar 4 19:21:47.932: Mica Modem(1/28): State Transition to Call Setup *!--- Modem goes offhook.* *Mar 4 19:21:47.932: Mica Modem(1/28): Went offhook *Mar 4 19:21:47.932: CSM_PROC_IC1_RING: CSM_EVENT_MODEM_OFFHOOK at slot 1, port 28 *Mar 4 19:21:47.932: ISDN Se0:23: TX -> CONNECT pd = 8 callref = 0x8009 *Mar 4 19:21:47.996: ISDN Se0:23: RX <- CONNECT_ACK pd = 8 callref = 0x09 *!--- DS0 is cut-through.* *Mar 4 19:21:47.996: EVENT_FROM_ISDN::dchan_idb=0x6122CFCC, call_id=0x3D, ces=0x1 bchan=0x12, event=0x4, cause=0x0 *Mar 4 19:21:47.996: EVENT_FROM_ISDN:(003D): DEV_CONNECTED at slot 1 and port 28 *Mar 4 19:21:47.996: CSM_PROC_IC4_WAIT_FOR_CARRIER: CSM_EVENT_ISDN_CONNECTED at slot 1, port 28 *!--- Modem training starts.* *Mar 4 19:21:47.996: Mica Modem(1/28): Link Initiate *Mar 4 19:21:49.140: Mica Modem(1/28): State Transition to Connect *Mar 4 19:21:54.276: Mica Modem(1/28): State Transition to Link *Mar 4 19:22:05.828: Mica Modem(1/28): State Transition to Trainup *Mar 4 19:22:09.028: Mica Modem(1/28): State Transition to EC Negotiating *Mar 4 19:22:09.568: Mica Modem(1/28): State Transition to Steady State *!--- Modem training completes.* *Mar 4 19:22:10.128: AAA: parse NAME=tty53 idb TYPE=10 tty=53 *Mar 4 19:22:10.128: AAA: NAME=tty53 flags=0x11 TYPE=4 shelf=0 slot=0 adapter=0 port=53 channel=0 *Mar 4 19:22:10.128: AAA: parse NAME=Serial0:18 idb TYPE=12 tty=-1 *Mar 4 19:22:10.128: AAA: NAME=Serial0:18 flags=0x51 TYPE=1 shelf=0 slot=0 adapter=0 port=0 channel=18 *!--- PPP begins negotiation.* *Mar 4 19:22:11.332: As53 LCP: Lower layer not up, Fast Starting *Mar 4 19:22:11.332: As53 PPP: Treating connection as a dedicated line *Mar 4 19:22:11.332: As53 AAA/AUTHOR/FSM: (0): LCP succeeds trivially *!--- LCP negotiation completes, authentication begins.* *Mar 4 19:22:13.556: As53 PPP: Phase is AUTHENTICATING, by this end *Mar 4 19:22:13.556: As53 CHAP: O CHALLENGE id 1 len 26 from "STACK" *Mar 4 19:22:16.016: As53 AUTH: Started process 0 pid 45 *Mar 4 19:22:16.016: As53 AAA/AUTHOR/PER-USER: Event LCP_DOWN *Mar 4 19:22:16.208: As53 PPP: Phase is AUTHENTICATING, by this end *Mar 4 19:22:16.208: As53 CHAP: O CHALLENGE id 2 len 26 from "STACK" *!--- CHAP response received from client.* *Mar 4 19:22:16.304: As53 CHAP: I RESPONSE id 2 len 30 from "timeout" *Mar 4 19:22:16.304: AAA: parse NAME=Async53 idb TYPE=10 tty=53 *Mar 4 19:22:16.304: AAA: NAME=Async53 flags=0x11 TYPE=4 shelf=0 slot=0 adapter=0 port=53 channel=0 *Mar 4 19:22:16.304: AAA: parse NAME=Serial0:18 idb TYPE=12 tty=-1 *Mar 4 19:22:16.304: AAA: NAME=Serial0:18 flags=0x51 TYPE=1 shelf=0 slot=0 adapter=0 port=0 channel=18 *!--- Send RADIUS query.* *Mar 4 19:22:16.304: RADIUS: ustruct sharecount=1 *Mar 4 19:22:16.304: RADIUS: Initial Transmit Async53 id 0 172.16.24.117:1645, Access-Request, len 92 *Mar 4 19:22:16.304: Attribute 4 6 AC101874 *Mar 4 19:22:16.304: Attribute 5 6 00000035 *Mar 4 19:22:16.304: Attribute 61 6 00000000 *Mar 4 19:22:16.304: Attribute 1 11 74696D65 *Mar 4 19:22:16.304: Attribute 30 12 34303835 *Mar 4 19:22:16.304: Attribute 3 19 0283D0F9 *Mar 4 19:22:16.308: Attribute 6 6 00000002 *Mar 4 19:22:16.308: Attribute 7 6 00000001 *!--- Received RADIUS response, note attribute 27 (Session-Timeout -> absolute timeout) !--- is 0x5A (90) and attribute 28 (Idle-Timeout) is 0x3C (60).* *Mar 4 19:22:16.316: RADIUS: Received from id 0 172.16.24.117:1645, Access-Accept, len 50 *Mar 4 19:22:16.316: Attribute 6 6 00000002 *Mar 4 19:22:16.320: Attribute 7 6 00000001 *Mar 4 19:22:16.320: Attribute 8 6 FFFFFFFF ***Mar 4 19:22:16.320: Attribute 27 6 0000005A**
***Mar 4 19:22:16.320: Attribute 28 6 0000003C**
!--- Start LCP authorization. *Mar 4 19:22:16.320: As53 AAA/AUTHOR/LCP: Authorize LCP *Mar 4 19:22:16.320: AAA/AUTHOR/LCP As53 (3506139973): Port='Async53' list='' service=NET *Mar 4 19:22:16.320: AAA/AUTHOR/LCP: As53 (3506139973) send AV service=ppp *Mar 4 19:22:16.320: AAA/AUTHOR/LCP: As53 (3506139973) send AV protocol=lcp *Mar 4 19:22:16.320: AAA/AUTHOR/LCP (3506139973) found list "default" *Mar 4 19:22:16.320: AAA/AUTHOR/LCP: As53 (3506139973) METHOD=RADIUS *Mar 4 19:22:16.320: AAA/AUTHOR (3506139973): Post authorization status = PASS_REPL *!--- Gleaned per-user timeouts from user profile.* *Mar 4 19:22:16.320: As53 AAA/AUTHOR/LCP: Processing AV service=ppp ***Mar 4 19:22:16.320: As53 AAA/AUTHOR/LCP: Processing AV timeout=90**
***Mar 4 19:22:16.320: As53 AAA/AUTHOR/LCP: Processing AV idletime=60**
!--- Translate AAA attributes to interface configuration commands. !--- Since we are using virtual-profiles, we will use the "ppp timeout idle" !--- command instead of the "dialer in-band" command. Note that 90 second absolute timeout !--- translates to the command "timeout absolute 1 30" (1 minute and 30 seconds). ***Mar 4 19:22:16.320: AAA/AUTHOR/LCP As53: Per-user interface config created:**
timeout absolute 1 30
ppp timeout idle 60

!--- PPP authentication succeeds. *Mar 4 19:22:16.320: As53 CHAP: O SUCCESS id 2 len 4 *Mar 4 19:22:16.320: AAA/ACCT/NET/START User timeout, Port Async53, List "" *Mar 4 19:22:16.320: AAA/ACCT/NET: Found list "default" *!--- Create new vaccess interface.* *Mar 4 19:22:16.416: VTEMPLATE: No unused vaccess, create new vaccess *Mar 4 19:22:16.416: V1l VTEMPLATE: Set default settings with no ip address, encap ppp *Mar 4 19:22:16.440: V1l VTEMPLATE: Hardware address 00e0.1e81.636c *Mar 4 19:22:16.440: V1l VTEMPLATE: Has a new cloneblk vtemplate, now it has

```
vtemplate *Mar 4 19:22:16.440: Vt1 VTEMPLATE: ***** CLONE VACCESS1 *****
*Mar 4 19:22:16.440: Vt1 VTEMPLATE: Clone from Virtual-Templat1 interface Virtual-Access1
default ip address no ip address encap ppp ip unnumbered Loopback0 ip access-group 199 in ip
helper-address 172.16.24.118 no ip directed-broadcast ip accounting output-packets ip nat inside
no keepalive peer default ip address pool default compress mppc ppp callback accept ppp
authentication chap pap ms-chap ppp multilink multilink max-links 2 end *Mar 4 19:22:16.504: Vt1
CCP: Re-Syncing history using legacy method !--- Now add the per-user timeouts we constructed
for this user. *Mar 4 19:22:16.520: Vt1 VTEMPLATE: Has a new cloneblk AAA, now it has
vtemplate/AAA *Mar 4 19:22:16.520: Vt1 VTEMPLATE: ***** CLONE VACCESS1 *****
*Mar 4 19:22:16.520: Vt1 VTEMPLATE: Clone from AAA
interface Virtual-Access1
timeout absolute 1 30
ppp timeout idle 60
end
```

```
!--- LCP layer is finished, negotiate the appropriate NCPs. *Mar 4 19:22:16.532: %LINK-3-UPDOWN:
Interface Virtual-Access1, changed state to up *Mar 4 19:22:16.536: Vt1 PPP: Treating connection
as a dedicated line *Mar 4 19:22:16.536: Vt1 AAA/AUTHOR/FSM: (0): LCP succeeds trivially *Mar 4
19:22:16.536: Vt1 AAA/AUTHOR/FSM: (0): Can we start IPCP? *Mar 4 19:22:16.536: AAA/AUTHOR/FSM
Vt1 (1906691625): Port='Async53' list='' service=NET *Mar 4 19:22:16.536: AAA/AUTHOR/FSM: Vt1
(1906691625) send AV service=ppp *Mar 4 19:22:16.536: AAA/AUTHOR/FSM: Vt1 (1906691625) send AV
protocol=ip *Mar 4 19:22:16.536: AAA/AUTHOR/FSM (1906691625) found list "default" *Mar 4
19:22:16.536: AAA/AUTHOR/FSM: Vt1 (1906691625) METHOD=RADIUS *Mar 4 19:22:16.536: RADIUS: Using
NAS default peer *Mar 4 19:22:16.536: RADIUS: Authorize IP address 0.0.0.0 *Mar 4 19:22:16.536:
AAA/AUTHOR (1906691625): Post authorization status = PASS_REPL *Mar 4 19:22:16.536: Vt1
AAA/AUTHOR/FSM: We can start IPCP *Mar 4 19:22:16.536: Vt1 AAA/AUTHOR/FSM: (0): Can we start
CCP? *Mar 4 19:22:16.536: AAA/AUTHOR/FSM Vt1 (282953275): Port='Async53' list='' service=NET
*Mar 4 19:22:16.536: AAA/AUTHOR/FSM: Vt1 (282953275) send AV service=ppp *Mar 4 19:22:16.536:
AAA/AUTHOR/FSM: Vt1 (282953275) send AV protocol=ccp *Mar 4 19:22:16.536: AAA/AUTHOR/FSM
(282953275) found list "default" *Mar 4 19:22:16.536: AAA/AUTHOR/FSM: Vt1 (282953275)
METHOD=RADIUS *Mar 4 19:22:16.540: AAA/AUTHOR (282953275): Post authorization status = PASS_REPL
*Mar 4 19:22:16.540: Vt1 AAA/AUTHOR/FSM: We can start CCP *Mar 4 19:22:16.540: Vt1
AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 0.0.0.0 *Mar 4 19:22:16.540: Vt1
AAA/AUTHOR/IPCP: Processing AV service=ppp *Mar 4 19:22:16.540: Vt1 AAA/AUTHOR/IPCP: Processing
AV addr=0.0.0.0 *Mar 4 19:22:16.540: Vt1 AAA/AUTHOR/IPCP: Authorization succeeded *Mar 4
19:22:16.540: Vt1 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 0.0.0.0 *Mar 4
19:22:16.540: Vt1 AAA/AUTHOR/FSM: Check for unauthorized mandatory AV's *Mar 4 19:22:16.540: Vt1
AAA/AUTHOR/FSM: Processing AV service=ppp *Mar 4 19:22:16.540: Vt1 AAA/AUTHOR/FSM: Succeeded
*Mar 4 19:22:16.656: Vt1 AAA/AUTHOR/FSM: Check for unauthorized mandatory AV's *Mar 4
19:22:16.656: Vt1 AAA/AUTHOR/FSM: Processing AV service=ppp *Mar 4 19:22:16.656: Vt1
AAA/AUTHOR/FSM: Succeeded *Mar 4 19:22:17.536: %LINEPROTO-5-UPDOWN: Line protocol on Interface
Virtual-Access1, changed state to up *Mar 4 19:22:19.516: Vt1 AAA/AUTHOR/IPCP: Start. Her
address 0.0.0.0, we want 10.1.1.3 *Mar 4 19:22:19.516: Vt1 AAA/AUTHOR/IPCP: Processing AV
service=ppp *Mar 4 19:22:19.516: Vt1 AAA/AUTHOR/IPCP: Processing AV addr=0.0.0.0 *Mar 4
19:22:19.516: Vt1 AAA/AUTHOR/IPCP: Authorization succeeded *Mar 4 19:22:19.516: Vt1
AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 10.1.1.3 *Mar 4 19:22:19.608: Vt1
AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 10.1.1.3 *Mar 4 19:22:19.608: Vt1
AAA/AUTHOR/IPCP: Processing AV service=ppp *Mar 4 19:22:19.608: Vt1 AAA/AUTHOR/IPCP: Processing
AV addr=0.0.0.0 *Mar 4 19:22:19.608: Vt1 AAA/AUTHOR/IPCP: Authorization succeeded *Mar 4
19:22:19.612: Vt1 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 10.1.1.3 *Mar 4
19:22:19.704: Vt1 AAA/AUTHOR/IPCP: Start. Her address 10.1.1.3, we want 10.1.1.3 *Mar 4
19:22:19.704: AAA/AUTHOR/IPCP Vt1 (785695075): Port='Async53' list='' service=NET *Mar 4
19:22:19.708: AAA/AUTHOR/IPCP: Vt1 (785695075) send AV service=ppp *Mar 4 19:22:19.708:
AAA/AUTHOR/IPCP: Vt1 (785695075) send AV protocol=ip *Mar 4 19:22:19.708: AAA/AUTHOR/IPCP: Vt1
(785695075) send AV addr*10.1.1.3 *Mar 4 19:22:19.708: AAA/AUTHOR/IPCP (785695075) found list
"default" *Mar 4 19:22:19.708: AAA/AUTHOR/IPCP: Vt1 (785695075) METHOD=RADIUS *Mar 4
19:22:19.708: RADIUS: Using NAS default peer *Mar 4 19:22:19.708: RADIUS: Authorize IP address
10.1.1.3 *Mar 4 19:22:19.708: AAA/AUTHOR (785695075): Post authorization status = PASS_REPL *Mar
4 19:22:19.708: Vt1 AAA/AUTHOR/IPCP: Processing AV service=ppp *Mar 4 19:22:19.708: Vt1
AAA/AUTHOR/IPCP: Processing AV addr=10.1.1.3 *Mar 4 19:22:19.708: Vt1 AAA/AUTHOR/IPCP:
Authorization succeeded *Mar 4 19:22:19.708: Vt1 AAA/AUTHOR/IPCP: Done. Her address 10.1.1.3, we
want 10.1.1.3 *Mar 4 19:22:19.708: Vt1 AAA/AUTHOR/PER-USER: Event IP_UP *Mar 4 19:22:19.708: Vt1
AAA/PER-USER: processing author params. !--- PPP negotiation finished, user is connected. !---
User is connected on line 53, async interface 53 and vaccess 1. The "show caller" !--- command
```

shows active time and idle time for this user in Cisco IOS 11.3(8.1)AA or later. access-3#show caller

Line	User	Service	Active Time	Idle Time
tty 53	timeout	Async	00:00:20	00:00:02
As53	timeout	PPP	00:00:13	00:00:02
Vi1	timeout	PPP VDP	00:00:13	00:00:11

!--- The "show caller timeout" command shows the installed absolute and idle timeout as well !--
- as how much time before the user is disconnected by any timeouts. Note the timeouts !-- only
show up on the vaccess interface. access-3#show caller timeouts Session Idle Disconnect Line

User Timeout Timeout User in tty 53 timeout - - - As53 timeout - - - **Vi1** **timeout**
00:01:30 00:01:00 00:00:43

!--- The "show caller user" command gives more detailed information about the user as well as !--
-- providing a breakdown of the active and idle time, absolute and idle timeout, !-- and time
to disconnect for both idle and absolute timeout. access-3#show caller user timeout

User: timeout, line tty 53, service Async
Active time 00:00:31, Idle time 00:00:12

Timeouts: Absolute Idle Idle
Session Exec
Limits: - - 00:10:00
Disconnect in: - - -

TTY: Line 53, running PPP on As53

Location: MICA V.90 modems

Line: Baud rate (TX/RX) is 115200/115200, no parity, 1 stopbits, 8 databits

Status: Ready, Active, No Exit Banner, Async Interface Active

HW PPP Support Active

Capabilities: No Flush-at-Activation, Hardware Flowcontrol In

Hardware Flowcontrol Out, Modem Callout, Modem RI is CD

Line usable as async interface, ARAP Permitted

Integrated Modem

Modem State: Ready

User: timeout, line As53, service PPP
Active time 00:00:23, Idle time 00:00:12

Timeouts: Absolute Idle
Limits: - -
Disconnect in: - -

PPP: LCP Open, multilink Closed, CHAP (<- AAA)

IP: Local 10.1.1.1

Counts: 35 packets input, 820 bytes, 0 no buffer
0 input errors, 0 CRC, 0 frame, 0 overrun
22 packets output, 517 bytes, 0 underruns
0 output errors, 0 collisions, 0 interface resets

User: timeout, line Vi1, service PPP VDP
Active time 00:00:24, Idle time 00:00:22

Timeouts: Absolute Idle
Limits: 00:01:30 00:01:00
Disconnect in: 00:01:05 00:00:37

PPP: LCP Open, multilink Closed, CHAP (<- none), IPCP, CCP

Idle timer 60 secs, idle 22 secs

IP: Local 10.1.1.1, remote 10.1.1.3

Access list (I/O) is 199/not set

Counts: 24 packets input, 542 bytes, 0 no buffer
0 input errors, 0 CRC, 0 frame, 0 overrun
19 packets output, 167 bytes, 0 underruns
0 output errors, 0 collisions, 0 interface resets

access-3#show caller timeout

Line	User	Session Timeout	Idle Timeout	Disconnect User in
tty 53	timeout	-	-	-
As53	timeout	-	-	-

```
Vi1          timeout          00:01:30  00:01:00  00:00:35
access-3#show caller
```

Line	User	Service	Active Time	Idle Time
tty 53	timeout	Async	00:00:45	00:00:27
As53	timeout	PPP	00:00:38	00:00:27
Vi1	timeout	PPP VDP	00:00:38	00:00:36

!--- User has been idle for 36 seconds and will be disconnected in 24 seconds. Let's !--- ping the user to see what happens. access-3#ping 10.1.1.3

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.1.1.3, timeout is 2 seconds:

!!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 92/108/132 ms

!--- Now the idle timer has been reset, so we won't disconnect the user for another !--- 58 seconds. access-3#show caller timeout

Line	User	Session Timeout	Idle Timeout	Disconnect User in
tty 53	timeout	-	-	-
As53	timeout	-	-	-
Vi1	timeout	00:01:30	00:01:00	00:00:58

!--- Ping again to reset the idle timer. access-3#ping 10.1.1.3

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.1.1.3, timeout is 2 seconds:

!!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 96/98/108 ms

!--- But note, the disconnect timer did not go back to 1 minute. The reason is because the !--- absolute timer is going to start soon. access-3#show caller timeout

Line	User	Session Timeout	Idle Timeout	Disconnect User in
tty 53	timeout	-	-	-
As53	timeout	-	-	-
Vi1	timeout	00:01:30	00:01:00	00:00:24

access-3#show caller user timeout

User: timeout, line tty 53, service Async

Active time 00:01:23, Idle time 00:00:11

Timeouts: Absolute Idle Idle
Session Exec

Limits: - - 00:10:00

Disconnect in: - - -

TTY: Line 53, running PPP on As53

Location: MICA V.90 modems

Line: Baud rate (TX/RX) is 115200/115200, no parity, 1 stopbits, 8 databits

Status: Ready, Active, No Exit Banner, Async Interface Active

HW PPP Support Active

Capabilities: No Flush-at-Activation, Hardware Flowcontrol In

Hardware Flowcontrol Out, Modem Callout, Modem RI is CD

Line usable as async interface, ARAP Permitted

Integrated Modem

Modem State: Ready

User: timeout, line As53, service PPP

Active time 00:01:15, Idle time 00:00:11

Timeouts: Absolute Idle

Limits: - -

Disconnect in: - -

PPP: LCP Open, multilink Closed, CHAP (<- AAA)

IP: Local 10.1.1.1

Counts: 45 packets input, 1161 bytes, 0 no buffer

0 input errors, 0 CRC, 0 frame, 0 overrun

32 packets output, 897 bytes, 0 underruns

0 output errors, 0 collisions, 0 interface resets

User: timeout, line Vil, service PPP VDP

Active time 00:01:16, Idle time 00:00:12

Timeouts: Absolute Idle
Limits: 00:01:30 00:01:00
Disconnect in: 00:00:13 00:00:47

PPP: LCP Open, multilink Closed, CHAP (<- none), IPCP, CCP

Idle timer 60 secs, idle 12 secs

IP: Local 10.1.1.1, remote 10.1.1.3

Access list (I/O) is 199/not set

Counts: 34 packets input, 883 bytes, 0 no buffer
0 input errors, 0 CRC, 0 frame, 0 overrun
39 packets output, 547 bytes, 0 underruns
0 output errors, 0 collisions, 0 interface resets

!--- User is disconnected.

*Mar 4 19:23:47.536: %LINK-3-UPDOWN: Interface Virtual-Access1, changed state to down

*Mar 4 19:23:47.536: Vil VTEMPLATE: Free vaccess

*Mar 4 19:23:47.540: As53 AAA/ACCT: non-ISDN xmit 50000 rcv 28800 hwidb 613307E0 ttynum 53

!--- Send accounting stop record, includes disc-cause 5 (session-timeout) and

!--- disc-cause-ext 1100 (session-timeout).

*Mar 4 19:23:47.540: AAA/ACCT/NET/STOP User timeout, Port Async53:

task_id=9 timezone=PST service=ppp protocol=ip addr=10.1.1.3 disc-cause=5

disc-cause-ext=1100

pre-bytes-in=184 pre-bytes-out=330 pre-paks-in=7 pre-paks-out=11 bytes_in=950

bytes_out=567 paks_in=37

paks_out=21 pre-session-time=5 elapsed_time=91 nas-rx-speed=28800 nas-tx-speed=50000

*Mar 4 19:23:47.540: Vil AAA/AUTHOR/PER-USER: Event IP_DOWN

*Mar 4 19:23:47.540: Vil AAA/AUTHOR/PER-USER: Event LCP_DOWN

!--- Modem hangs up.

*Mar 4 19:23:47.580: Mica Modem(1/28): State Transition to Terminating

*Mar 4 19:23:47.640: Mica Modem(1/28): State Transition to Idle

*Mar 4 19:23:47.640: Mica Modem(1/28): Went onhook

*Mar 4 19:23:47.640: CSM_PROC_IC5_OC6_CONNECTED: CSM_EVENT_MODEM_ONHOOK at slot 1, port 28

*Mar 4 19:23:47.640: VDEV_DEALLOCATE: slot 1 and port 28 is deallocated

*Mar 4 19:23:47.640: ISDN Se0:23: Event: Hangup call to call id 0x3D

!--- ISDN call is terminated. *Mar 4 19:23:47.640: ISDN Se0:23: TX -> DISCONNECT pd = 8 callref = 0x8009 *Mar 4 19:23:47.640: Cause i = 0x8090 - Normal call clearing *Mar 4 19:23:47.688: ISDN Se0:23: RX <- RELEASE pd = 8 callref = 0x09 *Mar 4 19:23:47.696: ISDN Se0:23: TX -> RELEASE_COMP pd = 8 callref = 0x8009 *Mar 4 19:23:47.744: TAC+: (866083896): received acct response status = SUCCESS !--- Per-user timeouts are taken off the vaccess interface. *Mar 4 19:23:48.140: VTEMPLATE: Clean up dirty vaccess queue, size 1 *Mar 4 19:23:48.140: Vil VTEMPLATE: Found a dirty vaccess clone with vtemplate/AAA *Mar 4 19:23:48.140: Vil VTEMPLATE: ***** UNCLONE VACCESS1 ***** *Mar 4 19:23:48.140: Vil VTEMPLATE: Unclone to-be-freed command#2

interface Virtual-Access1

default ppp timeout idle 60

default timeout absolute 1 30

end

!--- vaccess interface is cleaned up. *Mar 4 19:23:48.160: Vil VTEMPLATE: Set default settings

with no ip address *Mar 4 19:23:48.176: Vil VTEMPLATE: Remove cloneblk AAA with vtemplate/AAA

*Mar 4 19:23:48.180: Vil VTEMPLATE: ***** UNCLONE VACCESS1 ***** *Mar 4

19:23:48.180: Vil VTEMPLATE: Unclone to-be-freed command#15 interface Virtual-Access1 default multilink max-links 2 default ppp multilink default ppp authentication chap pap ms-chap default ppp callback accept default compress mppc default peer default ip address pool default default keepalive default ip nat inside default ip accounting output-packets default ip directed-broadcast default ip helper-address 172.16.24.118 default ip access-group 199 in default ip unnumbered Loopback0 default encaps ppp default ip address end *Mar 4 19:23:48.264: Vil

VTEMPLATE: Set default settings with no ip address *Mar 4 19:23:48.284: Vil VTEMPLATE: Remove

cloneblk vtemplate with vtemplate/AAA *Mar 4 19:23:48.284: Vil VTEMPLATE: Add vaccess to recycle queue, queue SIZE=1 !--- Here is the call record for the user. Note the disconnect reason is Session-Timeout !--- (absolute timeout). *Mar 4 19:23:48.300: %CALLRECORD-3-MICA_TERSE_CALL_REC: DS0 slot/contr/chan=2/0/18, slot/port=1/28, call_id=3D, userid=timeout, ip=10.1.1.3,

calling=(n/a), called=4085703932, std=K56Flx, prot=LAP-M, comp=V.42bis both, init-rx/tx b-rate=28800/50000, finl-rx/tx b-rate=28800/50000, rbs=0, d-pad=6 dB, retr=0, sq=3, snr=32, rx/tx chars=1274/1477, bad=4, rx/tx ec=45/61, bad=3, time=118, finl-state=Steady, disc(radius)=Session Timeout/Session Timeout, disc(modem)=DF03 Tx (host to line) data flushing - OK/Requested by host/DTR dropped *Mar 4 19:23:48.536: %LINEPROTO-5-UPDOWN: Line protocol on Interface Virtual-Access1, changed state to down *Mar 4 19:23:49.536: As53 AAA/AUTHOR/PER-USER: Event LCP_DOWN

가상 프로필을 사용한 비동기 통화 - 연결 ID 출력

다음은 가상 프로필을 사용한 비동기 통화입니다. 위의 예와 동일한 사용자 이름을 가집니다. 프로필은 90초 절대 시간 제한 및 60초 유희 시간 제한을 설치합니다. 이 예제에서는 연결을 유희 상태로 유지합니다. 아래에 주석이 없지만 중요한 출력이 강조 표시되어 있습니다.

```
*Mar 4 19:24:38.768: ISDN Se0:23: RX <- SETUP pd = 8 callref = 0x0A
*Mar 4 19:24:38.768: Bearer Capability i = 0x9090A2
*Mar 4 19:24:38.768: Channel ID i = 0xA98393
*Mar 4 19:24:38.768: Called Party Number i = 0xC1, '4085703932'
*Mar 4 19:24:38.772: ISDN Se0:23: TX -> CALL_PROC pd = 8 callref = 0x800A
*Mar 4 19:24:38.772: Channel ID i = 0xA98393
*Mar 4 19:24:38.772: ISDN Se0:23: TX -> ALERTING pd = 8 callref = 0x800A
*Mar 4 19:24:38.772: EVENT_FROM_ISDN::dchan_idb=0x6122CFCC, call_id=0x3E, ces=0x1
    bchan=0x12, event=0x1, cause=0x0

*Mar 4 19:24:38.772: VDEV_ALLOCATE: slot 1 and port 29 is allocated.

*Mar 4 19:24:38.772: EVENT_FROM_ISDN:(003E): DEV_INCALL at slot 1 and port 29

*Mar 4 19:24:38.772: CSM_PROC_IDLE: CSM_EVENT_ISDN_CALL at slot 1, port 29
*Mar 4 19:24:38.772: Mica Modem(1/29): Configure(0x1 = 0x0)
*Mar 4 19:24:38.772: Mica Modem(1/29): Configure(0x23 = 0x0)
*Mar 4 19:24:38.772: Mica Modem(1/29): Call Setup
*Mar 4 19:24:38.908: Mica Modem(1/29): State Transition to Call Setup
*Mar 4 19:24:38.908: Mica Modem(1/29): Went offhook
*Mar 4 19:24:38.908: CSM_PROC_IC1_RING: CSM_EVENT_MODEM_OFFHOOK at slot 1, port 29
*Mar 4 19:24:38.912: ISDN Se0:23: TX -> CONNECT pd = 8 callref = 0x800A
*Mar 4 19:24:38.972: ISDN Se0:23: RX <- CONNECT_ACK pd = 8 callref = 0x0A
*Mar 4 19:24:38.976: EVENT_FROM_ISDN::dchan_idb=0x6122CFCC, call_id=0x3E, ces=0x1
    bchan=0x12, event=0x4, cause=0x0

*Mar 4 19:24:38.976: EVENT_FROM_ISDN:(003E): DEV_CONNECTED at slot 1 and port 29

*Mar 4 19:24:38.976: CSM_PROC_IC4_WAIT_FOR_CARRIER: CSM_EVENT_ISDN_CONNECTED at
slot 1, port 29
*Mar 4 19:24:38.976: Mica Modem(1/29): Link Initiate
*Mar 4 19:24:40.060: Mica Modem(1/29): State Transition to Connect
*Mar 4 19:24:45.256: Mica Modem(1/29): State Transition to Link
*Mar 4 19:24:56.796: Mica Modem(1/29): State Transition to Trainup
*Mar 4 19:24:59.996: Mica Modem(1/29): State Transition to EC Negotiating
*Mar 4 19:25:00.532: Mica Modem(1/29): State Transition to Steady State
*Mar 4 19:25:01.340: AAA: parse NAME=tty54 idb TYPE=10 tty=54
*Mar 4 19:25:01.340: AAA: NAME=tty54 flags=0x11 TYPE=4 shelf=0 slot=0
adapter=0 port=54 channel=0
*Mar 4 19:25:01.340: AAA: parse NAME=Serial0:18 idb TYPE=12 tty=-1
*Mar 4 19:25:01.340: AAA: NAME=Serial0:18 flags=0x51 TYPE=1 shelf=0 slot=0
adapter=0 port=0 channel=18
*Mar 4 19:25:02.544: As54 LCP: Lower layer not up, Fast Starting
*Mar 4 19:25:02.544: As54 PPP: Treating connection as a dedicated line
*Mar 4 19:25:02.544: As54 AAA/AUTHOR/FSM: (0): LCP succeeds trivially
*Mar 4 19:25:04.744: As54 PPP: Phase is AUTHENTICATING, by this end
*Mar 4 19:25:04.744: As54 CHAP: O CHALLENGE id 1 len 26 from "STACK"
*Mar 4 19:25:06.628: As54 AAA/AUTHOR/PER-USER: Event LCP_DOWN
*Mar 4 19:25:06.820: As54 PPP: Phase is AUTHENTICATING, by this end
```

```

*Mar 4 19:25:06.820: As54 CHAP: O CHALLENGE id 2 len 26 from "STACK"
*Mar 4 19:25:06.916: As54 CHAP: I RESPONSE id 2 len 30 from "timeout"
*Mar 4 19:25:06.916: AAA: parse NAME=Async54 idb TYPE=10 tty=54
*Mar 4 19:25:06.916: AAA: NAME=Async54 flags=0x11 TYPE=4 shelf=0 slot=0
adapter=0 port=54 channel=0
*Mar 4 19:25:06.916: AAA: parse NAME=Serial0:18 idb TYPE=12 tty=-1
*Mar 4 19:25:06.916: AAA: NAME=Serial0:18 flags=0x51 TYPE=1 shelf=0 slot=0
adapter=0 port=0 channel=18
*Mar 4 19:25:06.916: RADIUS: ustruct sharecount=1
*Mar 4 19:25:06.916: RADIUS: Initial Transmit Async54 id 1 172.16.24.117:1645,
Access-Request, len 92
*Mar 4 19:25:06.916: Attribute 4 6 AC101874
*Mar 4 19:25:06.916: Attribute 5 6 00000036
*Mar 4 19:25:06.916: Attribute 61 6 00000000
*Mar 4 19:25:06.916: Attribute 1 11 74696D65
*Mar 4 19:25:06.916: Attribute 30 12 34303835
*Mar 4 19:25:06.916: Attribute 3 19 024525C7
*Mar 4 19:25:06.916: Attribute 6 6 00000002
*Mar 4 19:25:06.916: Attribute 7 6 00000001
*Mar 4 19:25:06.924: RADIUS: Received from id 1 172.16.24.117:1645,
Access-Accept, len 50
*Mar 4 19:25:06.924: Attribute 6 6 00000002
*Mar 4 19:25:06.924: Attribute 7 6 00000001
*Mar 4 19:25:06.924: Attribute 8 6 FFFFFFFF
*Mar 4 19:25:06.924: Attribute 27 6 0000005A
*Mar 4 19:25:06.928: Attribute 28 6 0000003C
*Mar 4 19:25:06.928: As54 AAA/AUTHOR/LCP: Authorize LCP
*Mar 4 19:25:06.928: AAA/AUTHOR/LCP As54 (2013841092): Port='Async54' list='' service=NET
*Mar 4 19:25:06.928: AAA/AUTHOR/LCP: As54 (2013841092) send AV service=ppp
*Mar 4 19:25:06.928: AAA/AUTHOR/LCP: As54 (2013841092) send AV protocol=lcp
*Mar 4 19:25:06.928: AAA/AUTHOR/LCP (2013841092) found list "default"
*Mar 4 19:25:06.928: AAA/AUTHOR/LCP: As54 (2013841092) METHOD=RADIUS
*Mar 4 19:25:06.928: AAA/AUTHOR (2013841092): Post authorization status = PASS_REPL
*Mar 4 19:25:06.928: As54 AAA/AUTHOR/LCP: Processing AV service=ppp
*Mar 4 19:25:06.928: As54 AAA/AUTHOR/LCP: Processing AV timeout=90
*Mar 4 19:25:06.928: As54 AAA/AUTHOR/LCP: Processing AV idletime=60
*Mar 4 19:25:06.928: AAA/AUTHOR/LCP As54: Per-user interface config created:
timeout absolute 1 30
ppp timeout idle 60

*Mar 4 19:25:06.928: As54 CHAP: O SUCCESS id 2 len 4
*Mar 4 19:25:06.928: AAA/ACCT/NET/START User timeout, Port Async54, List ""
*Mar 4 19:25:06.928: AAA/ACCT/NET: Found list "default"
*Mar 4 19:25:07.028: Vll VTEMPLATE: Reuse Vll, recycle queue size 0
*Mar 4 19:25:07.028: Vll VTEMPLATE: Hardware address 00e0.1e81.636c
*Mar 4 19:25:07.028: Vll VTEMPLATE: Has a new cloneblk vtemplate, now it has vtemplate
*Mar 4 19:25:07.028: Vll VTEMPLATE: ***** CLONE VACCESS1 *****
*Mar 4 19:25:07.028: Vll VTEMPLATE: Clone from Virtual-Templatel
interface Virtual-Access1
default ip address
no ip address
encap ppp
ip unnumbered Loopback0
ip access-group 199 in
ip helper-address 172.16.24.118
no ip directed-broadcast
ip accounting output-packets
ip nat inside
no keepalive
peer default ip address pool default
compress mppc
ppp callback accept
ppp authentication chap pap ms-chap
ppp multilink

```

```
multilink max-links 2
end
```

```
*Mar 4 19:25:07.092: Vi1 CCP: Re-Syncing history using legacy method
*Mar 4 19:25:07.108: Vi1 VTEMPLATE: Has a new cloneblk AAA, now it has vtemplate/AAA
*Mar 4 19:25:07.108: Vi1 VTEMPLATE: ***** CLONE VACCESS1 *****
*Mar 4 19:25:07.108: Vi1 VTEMPLATE: Clone from AAA
```

```
interface Virtual-Access1
timeout absolute 1 30
ppp timeout idle 60
end
```

```
*Mar 4 19:25:07.120: %LINK-3-UPDOWN: Interface Virtual-Access1, changed state to up
*Mar 4 19:25:07.124: Vi1 PPP: Treating connection as a dedicated line
*Mar 4 19:25:07.124: Vi1 AAA/AUTHOR/FSM: (0): LCP succeeds trivially
*Mar 4 19:25:07.124: Vi1 AAA/AUTHOR/FSM: (0): Can we start IPCP?
*Mar 4 19:25:07.124: AAA/AUTHOR/FSM Vi1 (3979277251): Port='Async54' list='' service=NET
*Mar 4 19:25:07.124: AAA/AUTHOR/FSM: Vi1 (3979277251) send AV service=ppp
*Mar 4 19:25:07.124: AAA/AUTHOR/FSM: Vi1 (3979277251) send AV protocol=ip
*Mar 4 19:25:07.124: AAA/AUTHOR/FSM (3979277251) found list "default"
*Mar 4 19:25:07.124: AAA/AUTHOR/FSM: Vi1 (3979277251) METHOD=RADIUS
*Mar 4 19:25:07.124: RADIUS: Using NAS default peer
*Mar 4 19:25:07.124: RADIUS: Authorize IP address 0.0.0.0
*Mar 4 19:25:07.124: AAA/AUTHOR (3979277251): Post authorization status = PASS_REPL
*Mar 4 19:25:07.124: Vi1 AAA/AUTHOR/FSM: We can start IPCP
*Mar 4 19:25:07.124: Vi1 AAA/AUTHOR/FSM: (0): Can we start CCP?
*Mar 4 19:25:07.124: AAA/AUTHOR/FSM Vi1 (1524934880): Port='Async54' list='' service=NET
*Mar 4 19:25:07.124: AAA/AUTHOR/FSM: Vi1 (1524934880) send AV service=ppp
*Mar 4 19:25:07.124: AAA/AUTHOR/FSM: Vi1 (1524934880) send AV protocol=ccp
*Mar 4 19:25:07.128: AAA/AUTHOR/FSM (1524934880) found list "default"
*Mar 4 19:25:07.128: AAA/AUTHOR/FSM: Vi1 (1524934880) METHOD=RADIUS
*Mar 4 19:25:07.128: AAA/AUTHOR (1524934880): Post authorization status = PASS_REPL
*Mar 4 19:25:07.128: Vi1 AAA/AUTHOR/FSM: We can start CCP
*Mar 4 19:25:07.128: Vi1 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 0.0.0.0
*Mar 4 19:25:07.128: Vi1 AAA/AUTHOR/IPCP: Processing AV service=ppp
*Mar 4 19:25:07.128: Vi1 AAA/AUTHOR/IPCP: Processing AV addr=0.0.0.0
*Mar 4 19:25:07.128: Vi1 AAA/AUTHOR/IPCP: Authorization succeeded
*Mar 4 19:25:07.128: Vi1 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 0.0.0.0
*Mar 4 19:25:07.128: Vi1 AAA/AUTHOR/FSM: Check for unauthorized mandatory AV's
*Mar 4 19:25:07.128: Vi1 AAA/AUTHOR/FSM: Processing AV service=ppp
*Mar 4 19:25:07.128: Vi1 AAA/AUTHOR/FSM: Succeeded
*Mar 4 19:25:07.236: Vi1 AAA/AUTHOR/FSM: Check for unauthorized mandatory AV's
*Mar 4 19:25:07.236: Vi1 AAA/AUTHOR/FSM: Processing AV service=ppp
*Mar 4 19:25:07.236: Vi1 AAA/AUTHOR/FSM: Succeeded
*Mar 4 19:25:08.120: %LINEPROTO-5-UPDOWN: Line protocol on Interface Virtual-Access1,
changed state to up
*Mar 4 19:25:10.124: Vi1 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 10.1.1.3
*Mar 4 19:25:10.124: Vi1 AAA/AUTHOR/IPCP: Processing AV service=ppp
*Mar 4 19:25:10.124: Vi1 AAA/AUTHOR/IPCP: Processing AV addr=0.0.0.0
*Mar 4 19:25:10.124: Vi1 AAA/AUTHOR/IPCP: Authorization succeeded
*Mar 4 19:25:10.124: Vi1 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 10.1.1.3
*Mar 4 19:25:10.220: Vi1 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 10.1.1.3
*Mar 4 19:25:10.220: Vi1 AAA/AUTHOR/IPCP: Processing AV service=ppp
*Mar 4 19:25:10.220: Vi1 AAA/AUTHOR/IPCP: Processing AV addr=0.0.0.0
*Mar 4 19:25:10.220: Vi1 AAA/AUTHOR/IPCP: Authorization succeeded
*Mar 4 19:25:10.220: Vi1 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 10.1.1.3
*Mar 4 19:25:10.316: Vi1 AAA/AUTHOR/IPCP: Start. Her address 10.1.1.3, we want 10.1.1.3
*Mar 4 19:25:10.316: AAA/AUTHOR/IPCP Vi1 (2714455877): Port='Async54' list='' service=NET
*Mar 4 19:25:10.316: AAA/AUTHOR/IPCP: Vi1 (2714455877) send AV service=ppp
*Mar 4 19:25:10.316: AAA/AUTHOR/IPCP: Vi1 (2714455877) send AV protocol=ip
*Mar 4 19:25:10.316: AAA/AUTHOR/IPCP: Vi1 (2714455877) send AV addr*10.1.1.3
*Mar 4 19:25:10.316: AAA/AUTHOR/IPCP (2714455877) found list "default"
```

```

*Mar 4 19:25:10.316: AAA/AUTHOR/IPCP: Vi1 (2714455877) METHOD=RADIUS
*Mar 4 19:25:10.316: RADIUS: Using NAS default peer
*Mar 4 19:25:10.320: RADIUS: Authorize IP address 10.1.1.3
*Mar 4 19:25:10.320: AAA/AUTHOR (2714455877): Post authorization status = PASS_REPL
*Mar 4 19:25:10.320: Vi1 AAA/AUTHOR/IPCP: Processing AV service=ppp
*Mar 4 19:25:10.320: Vi1 AAA/AUTHOR/IPCP: Processing AV addr=10.1.1.3
*Mar 4 19:25:10.320: Vi1 AAA/AUTHOR/IPCP: Authorization succeeded
*Mar 4 19:25:10.320: Vi1 AAA/AUTHOR/IPCP: Done. Her address 10.1.1.3, we want 10.1.1.3
*Mar 4 19:25:10.320: Vi1 AAA/AUTHOR/PER-USER: Event IP_UP
*Mar 4 19:25:10.320: Vi1 AAA/PER-USER: processing author params.

```

access-3#show caller

Line	User	Service	Active Time	Idle Time
tty 54	timeout	Async	00:00:17	00:00:01
As54	timeout	PPP	00:00:10	00:00:01
Vi1	timeout	PPP VDP	00:00:10	00:00:08

access-3#show caller

Line	User	Service	Active Time	Idle Time
tty 54	timeout	Async	00:00:27	00:00:11
As54	timeout	PPP	00:00:20	00:00:11
Vi1	timeout	PPP VDP	00:00:20	00:00:18

access-3#show caller user timeout

```

User: timeout, line tty 54, service Async
    Active time 00:00:49, Idle time 00:00:34
Timeouts:
    Absolute Idle Idle
             Session Exec
Limits:      -      -      00:10:00
Disconnect in: -      -      -
TTY: Line 54, running PPP on As54
Location: MICA V.90 modems
Line: Baud rate (TX/RX) is 115200/115200, no parity, 1 stopbits, 8 databits
Status: Ready, Active, No Exit Banner, Async Interface Active
    HW PPP Support Active
Capabilities: No Flush-at-Activation, Hardware Flowcontrol In
              Hardware Flowcontrol Out, Modem Callout, Modem RI is CD
              Line usable as async interface, ARAP Permitted
              Integrated Modem
Modem State: Ready

```

```

User: timeout, line As54, service PPP
    Active time 00:00:43, Idle time 00:00:34
Timeouts:
    Absolute Idle
Limits:      -      -
Disconnect in: -      -
PPP: LCP Open, multilink Closed, CHAP (<- AAA)
IP: Local 10.1.1.1
Counts: 35 packets input, 824 bytes, 0 no buffer
        0 input errors, 0 CRC, 0 frame, 0 overrun
        22 packets output, 517 bytes, 0 underruns
        0 output errors, 0 collisions, 0 interface resets

```

```

User: timeout, line Vi1, service PPP VDP
    Active time 00:00:43, Idle time 00:00:41
Timeouts:
    Absolute Idle
Limits:      00:01:30 00:01:00
Disconnect in: 00:00:45 00:00:18
PPP: LCP Open, multilink Closed, CHAP (<- none), IPCP, CCP
    Idle timer 60 secs, idle 41 secs
IP: Local 10.1.1.1, remote 10.1.1.3
    Access list (I/O) is 199/not set
Counts: 24 packets input, 546 bytes, 0 no buffer

```

0 input errors, 0 CRC, 0 frame, 0 overrun
19 packets output, 167 bytes, 0 underruns
0 output errors, 0 collisions, 0 interface resets

access-3#**show caller timeouts**

Line	User	Session Timeout	Idle Timeout	Disconnect User in
tty 54	timeout	-	-	-
As54	timeout	-	-	-
Vi1	timeout	00:01:30	00:01:00	00:00:05

***Mar 4 19:26:10.320: Vi1 PPP: Idle timeout, dropping connection**

*Mar 4 19:26:10.320: As54 AAA/ACCT: non-ISDN xmit 50000 rcv 28800 hwidb 613360C8 ttynum 54

*Mar 4 19:26:10.320: AAA/ACCT/NET/STOP User timeout, Port Async54:

task_id=10 timezone=PST service=ppp protocol=ip addr=10.1.1.3 disc-cause=4

disc-cause-ext=1021 pre-bytes-in=184 pre-bytes-out=330 pre-paks-in=7 pre-paks-out=11

bytes_in=613 bytes_out=187 paks_in=27 paks_out=11 pre-session-time=4 elapsed_time=63

nas-rx-speed=28800 nas-tx-speed=50000

*Mar 4 19:26:10.320: Vi1 AAA/AUTHOR/PER-USER: Event IP_DOWN

*Mar 4 19:26:10.324: %LINK-3-UPDOWN: Interface Virtual-Access1, changed state to down

*Mar 4 19:26:10.324: Vi1 VTEMPLATE: Free vaccess

*Mar 4 19:26:10.328: Vi1 AAA/AUTHOR/PER-USER: Event LCP_DOWN

*Mar 4 19:26:10.376: Mica Modem(1/29): State Transition to Terminating

*Mar 4 19:26:10.436: Mica Modem(1/29): State Transition to Idle

*Mar 4 19:26:10.436: Mica Modem(1/29): Went onhook

*Mar 4 19:26:10.436: CSM_PROC_IC5_OC6_CONNECTED: CSM_EVENT_MODEM_ONHOOK at slot 1, port 29

*Mar 4 19:26:10.440: VDEV_DEALLOCATE: slot 1 and port 29 is deallocated

*Mar 4 19:26:10.440: ISDN Se0:23: Event: Hangup call to call id 0x3E

*Mar 4 19:26:10.440: ISDN Se0:23: TX -> DISCONNECT pd = 8 callref = 0x800A

*Mar 4 19:26:10.440: Cause i = 0x8090 - Normal call clearing

*Mar 4 19:26:10.488: ISDN Se0:23: RX <- RELEASE pd = 8 callref = 0x0A

*Mar 4 19:26:10.496: ISDN Se0:23: TX -> RELEASE_COMP pd = 8 callref = 0x800A

*Mar 4 19:26:10.528: TAC+: (2047544826): received acct response status = SUCCESS

*Mar 4 19:26:11.180: VTEMPLATE: Clean up dirty vaccess queue, size 1

*Mar 4 19:26:11.180: Vi1 VTEMPLATE: Found a dirty vaccess clone with vtemplate/AAA

*Mar 4 19:26:11.180: Vi1 VTEMPLATE: ***** UNCLONE VACCESS1 *****

*Mar 4 19:26:11.180: Vi1 VTEMPLATE: Unclone to-be-freed command#2

interface Virtual-Access1

default ppp timeout idle 60

default timeout absolute 1 30

end

*Mar 4 19:26:11.200: Vi1 VTEMPLATE: Set default settings with no ip address

*Mar 4 19:26:11.216: Vi1 VTEMPLATE: Remove cloneblk AAA with vtemplate/AAA

*Mar 4 19:26:11.216: Vi1 VTEMPLATE: ***** UNCLONE VACCESS1 *****

*Mar 4 19:26:11.216: Vi1 VTEMPLATE: Unclone to-be-freed command#15

interface Virtual-Access1

default multilink max-links 2

default ppp multilink

default ppp authentication chap pap ms-chap

default ppp callback accept

default compress mppc

default peer default ip address pool default

default keepalive

default ip nat inside

default ip accounting output-packets

default ip directed-broadcast

default ip helper-address 172.16.24.118

default ip access-group 199 in

default ip unnumbered Loopback0

default encaps ppp

default ip address

end

```
*Mar 4 19:26:11.304: Vi1 VTEMPLATE: Set default settings with no ip address
*Mar 4 19:26:11.324: Vi1 VTEMPLATE: Remove cloneblk vtemplate with vtemplate/AAA
*Mar 4 19:26:11.324: Vi1 VTEMPLATE: Add vaccess to recycle queue, queue SIZE=1
*Mar 4 19:26:11.324: %LINEPROTO-5-UPDOWN: Line protocol on Interface Virtual-Access1,
changed state to down
*Mar 4 19:26:11.460: Mica Modem(1/29): State Transition to Terminating
*Mar 4 19:26:11.520: Mica Modem(1/29): State Transition to Idle
*Mar 4 19:26:12.200: %CALLRECORD-3-MICA_TERSE_CALL_REC: DS0 slot/contr/chan=2/0/18,
slot/port=1/29, call_id=3E, userid=timeout, ip=10.1.1.3, calling=(n/a), called=4085703932,
std=K56Flx, prot=LAP-M, comp=V.42bis both, init-rx/tx b-rate=28800/50000, finl-rx/tx
b-rate=28800/50000, rbs=0, d-pad=6 dB, retr=0, sq=3, snr=34, rx/tx chars=918/1138, bad=5,
rx/tx ec=35/47, bad=0, time=90, finl-state=Steady, disc(radius)=Idle Timeout/Idle Timeout,
disc(modem)=DF03 Tx (host to line) data flushing - OK/Requested by host/DTR dropped
*Mar 4 19:26:12.320: As54 AAA/AUTHOR/PER-USER: Event LCP_DOWN
```

가상 프로파일 없이 비동기 통화

다음은 가상 프로파일을 활성화하지 않은 비동기 통화입니다. 가상 프로파일을 사용하지 않고 vaccess 인터페이스가 없으므로 **ppp timeout idle idle** 명령 대신 **dialer idle-timeout** 명령이 사용됩니다. 또한 사용자별 timeout 명령을 생성하고 동시에 **no** 버전의 명령을 생성하는 것도 볼 수 있습니다. 사용자별 **timer** 명령은 즉시 설치되며 **no** 버전의 명령은 사용자가 연결을 끊을 때 처리하도록 인터페이스에 추가됩니다.

```
*Mar 4 19:30:28.420: ISDN Se0:23: RX <- SETUP pd = 8 callref = 0x06
*Mar 4 19:30:28.420: Bearer Capability i = 0x9090A2
*Mar 4 19:30:28.420: Channel ID i = 0xA98393
*Mar 4 19:30:28.420: Called Party Number i = 0xC1, '4085703932'
*Mar 4 19:30:28.420: ISDN Se0:23: TX -> CALL_PROC pd = 8 callref = 0x8006
*Mar 4 19:30:28.420: Channel ID i = 0xA98393
*Mar 4 19:30:28.424: ISDN Se0:23: TX -> ALERTING pd = 8 callref = 0x8006
*Mar 4 19:30:28.424: EVENT_FROM_ISDN::dchan_idb=0x6122CFCC, call_id=0x40, ces=0x1
bchan=0x12, event=0x1, cause=0x0

*Mar 4 19:30:28.424: VDEV_ALLOCATE: slot 1 and port 2 is allocated.

*Mar 4 19:30:28.424: EVENT_FROM_ISDN:(0040): DEV_INCALL at slot 1 and port 2

*Mar 4 19:30:28.424: CSM_PROC_IDLE: CSM_EVENT_ISDN_CALL at slot 1, port 2
*Mar 4 19:30:28.424: Mica Modem(1/2): Configure(0x1 = 0x0)
*Mar 4 19:30:28.424: Mica Modem(1/2): Configure(0x23 = 0x0)
*Mar 4 19:30:28.424: Mica Modem(1/2): Call Setup
*Mar 4 19:30:28.552: Mica Modem(1/2): State Transition to Call Setup
*Mar 4 19:30:28.552: Mica Modem(1/2): Went offhook
*Mar 4 19:30:28.552: CSM_PROC_IC1_RING: CSM_EVENT_MODEM_OFFHOOK at slot 1, port 2
*Mar 4 19:30:28.552: ISDN Se0:23: TX -> CONNECT pd = 8 callref = 0x8006
*Mar 4 19:30:28.604: ISDN Se0:23: RX <- CONNECT_ACK pd = 8 callref = 0x06
*Mar 4 19:30:28.604: EVENT_FROM_ISDN::dchan_idb=0x6122CFCC, call_id=0x40, ces=0x1
bchan=0x12, event=0x4, cause=0x0

*Mar 4 19:30:28.604: EVENT_FROM_ISDN:(0040): DEV_CONNECTED at slot 1 and port 2

*Mar 4 19:30:28.604: CSM_PROC_IC4_WAIT_FOR_CARRIER: CSM_EVENT_ISDN_CONNECTED
at slot 1, port 2
*Mar 4 19:30:28.604: Mica Modem(1/2): Link Initiate
*Mar 4 19:30:29.692: Mica Modem(1/2): State Transition to Connect
*Mar 4 19:30:34.888: Mica Modem(1/2): State Transition to Link
*Mar 4 19:30:46.408: Mica Modem(1/2): State Transition to Trainup
*Mar 4 19:30:49.612: Mica Modem(1/2): State Transition to EC Negotiating
```

```
*Mar 4 19:30:50.156: Mica Modem(1/2): State Transition to Steady State
*Mar 4 19:30:50.592: AAA: parse NAME=tty27 idb TYPE=10 tty=27
*Mar 4 19:30:50.592: AAA: NAME=tty27 flags=0x11 TYPE=4 shelf=0 slot=0
adapter=0 port=27 channel=0
*Mar 4 19:30:50.592: AAA: parse NAME=Serial0:18 idb TYPE=12 tty=-1
*Mar 4 19:30:50.592: AAA: NAME=Serial0:18 flags=0x51 TYPE=1 shelf=0 slot=0
adapter=0 port=0 channel=18
*Mar 4 19:30:51.792: As27 LCP: Lower layer not up, Fast Starting
*Mar 4 19:30:51.792: As27 PPP: Treating connection as a callin
*Mar 4 19:30:51.792: As27 AAA/AUTHOR/FSM: (0): LCP succeeds trivially
*Mar 4 19:30:57.468: As27 PPP: Phase is AUTHENTICATING, by this end
*Mar 4 19:30:57.468: As27 CHAP: O CHALLENGE id 1 len 26 from "STACK"
*Mar 4 19:30:57.564: As27 CHAP: I RESPONSE id 1 len 30 from "timeout"
*Mar 4 19:30:57.564: AAA: parse NAME=Async27 idb TYPE=10 tty=27
*Mar 4 19:30:57.564: AAA: NAME=Async27 flags=0x11 TYPE=4 shelf=0 slot=0
adapter=0 port=27 channel=0
*Mar 4 19:30:57.564: AAA: parse NAME=Serial0:18 idb TYPE=12 tty=-1
*Mar 4 19:30:57.564: AAA: NAME=Serial0:18 flags=0x51 TYPE=1 shelf=0 slot=0
adapter=0 port=0 channel=18
*Mar 4 19:30:57.564: RADIUS: ustruct sharecount=1
*Mar 4 19:30:57.564: RADIUS: Initial Transmit Async27 id 3 172.16.24.117:1645,
Access-Request, len 92
*Mar 4 19:30:57.564: Attribute 4 6 AC101874
*Mar 4 19:30:57.564: Attribute 5 6 0000001B
*Mar 4 19:30:57.564: Attribute 61 6 00000000
*Mar 4 19:30:57.564: Attribute 1 11 74696D65
*Mar 4 19:30:57.564: Attribute 30 12 34303835
*Mar 4 19:30:57.564: Attribute 3 19 01E5C3F6
*Mar 4 19:30:57.564: Attribute 6 6 00000002
*Mar 4 19:30:57.564: Attribute 7 6 00000001
*Mar 4 19:30:57.572: RADIUS: Received from id 3 172.16.24.117:1645,
Access-Accept, len 50
*Mar 4 19:30:57.572: Attribute 6 6 00000002
*Mar 4 19:30:57.572: Attribute 7 6 00000001
*Mar 4 19:30:57.572: Attribute 8 6 FFFFFFFE
*Mar 4 19:30:57.572: Attribute 27 6 0000005A
*Mar 4 19:30:57.572: Attribute 28 6 0000003C
*Mar 4 19:30:57.572: As27 AAA/AUTHOR/LCP: Authorize LCP
*Mar 4 19:30:57.572: AAA/AUTHOR/LCP As27 (1969884263): Port='Async27' list=''
service=NET
*Mar 4 19:30:57.572: AAA/AUTHOR/LCP: As27 (1969884263) send AV service=ppp
*Mar 4 19:30:57.572: AAA/AUTHOR/LCP: As27 (1969884263) send AV protocol=lcp
*Mar 4 19:30:57.572: AAA/AUTHOR/LCP (1969884263) found list "default"
*Mar 4 19:30:57.572: AAA/AUTHOR/LCP: As27 (1969884263) METHOD=RADIUS
*Mar 4 19:30:57.572: AAA/AUTHOR (1969884263): Post authorization status = PASS_REPL
*Mar 4 19:30:57.572: As27 AAA/AUTHOR/LCP: Processing AV service=ppp
*Mar 4 19:30:57.572: As27 AAA/AUTHOR/LCP: Processing AV timeout=90
*Mar 4 19:30:57.572: As27 AAA/AUTHOR: Parse 'interface Async27'
*Mar 4 19:30:57.576: As27 AAA/AUTHOR: Parse returned ok (0)
*Mar 4 19:30:57.576: As27 AAA/AUTHOR: Parse 'timeout absolute 1 30'
*Mar 4 19:30:57.580: As27 AAA/AUTHOR: Parse returned ok (0)
*Mar 4 19:30:57.580: As27 AAA/AUTHOR: enqueue peruser LCP txt=interface Async27
no timeout absolute
*Mar 4 19:30:57.580: As27 AAA/AUTHOR/LCP: Processing AV idletime=60
*Mar 4 19:30:57.580: As27 AAA/AUTHOR: Parse 'interface Async27'
*Mar 4 19:30:57.584: As27 AAA/AUTHOR: Parse returned ok (0)
*Mar 4 19:30:57.584: As27 AAA/AUTHOR: Parse 'dialer idle-timeout 60'
*Mar 4 19:30:57.588: As27 AAA/AUTHOR: Parse returned ok (0)
*Mar 4 19:30:57.588: As27 AAA/AUTHOR: enqueue peruser LCP txt=interface Async27
no dialer idle-timeout
*Mar 4 19:30:57.588: As27 CHAP: O SUCCESS id 1 len 4
*Mar 4 19:30:57.588: AAA/ACCT/NET/START User timeout, Port Async27, List ""
```

```

*Mar 4 19:30:57.588: AAA/ACCT/NET: Found list "default"
*Mar 4 19:30:57.692: As27 AAA/AUTHOR/FSM: (0): Can we start IPCP?
*Mar 4 19:30:57.692: AAA/AUTHOR/FSM As27 (2088523207): Port='Async27' list=''
service=NET
*Mar 4 19:30:57.692: AAA/AUTHOR/FSM: As27 (2088523207) send AV service=ppp
*Mar 4 19:30:57.692: AAA/AUTHOR/FSM: As27 (2088523207) send AV protocol=ip
*Mar 4 19:30:57.692: AAA/AUTHOR/FSM (2088523207) found list "default"
*Mar 4 19:30:57.692: AAA/AUTHOR/FSM: As27 (2088523207) METHOD=RADIUS
*Mar 4 19:30:57.692: RADIUS: Using NAS default peer
*Mar 4 19:30:57.692: RADIUS: Authorize IP address 10.1.1.6
*Mar 4 19:30:57.692: AAA/AUTHOR (2088523207): Post authorization status = PASS_REPL
*Mar 4 19:30:57.692: As27 AAA/AUTHOR/FSM: We can start IPCP
*Mar 4 19:30:57.784: As27 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 10.1.1.6
*Mar 4 19:30:57.788: As27 AAA/AUTHOR/IPCP: Processing AV service=ppp
*Mar 4 19:30:57.788: As27 AAA/AUTHOR/IPCP: Processing AV addr=10.1.1.6
*Mar 4 19:30:57.788: As27 AAA/AUTHOR/IPCP: Authorization succeeded
*Mar 4 19:30:57.788: As27 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 10.1.1.6
*Mar 4 19:31:00.792: As27 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 10.1.1.6
*Mar 4 19:31:00.792: As27 AAA/AUTHOR/IPCP: Processing AV service=ppp
*Mar 4 19:31:00.792: As27 AAA/AUTHOR/IPCP: Processing AV addr=10.1.1.6
*Mar 4 19:31:00.792: As27 AAA/AUTHOR/IPCP: Authorization succeeded
*Mar 4 19:31:00.792: As27 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 10.1.1.6
*Mar 4 19:31:00.884: As27 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 10.1.1.6
*Mar 4 19:31:00.884: As27 AAA/AUTHOR/IPCP: Processing AV service=ppp
*Mar 4 19:31:00.884: As27 AAA/AUTHOR/IPCP: Processing AV addr=10.1.1.6
*Mar 4 19:31:00.884: As27 AAA/AUTHOR/IPCP: Authorization succeeded
*Mar 4 19:31:00.888: As27 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 10.1.1.6
*Mar 4 19:31:00.984: As27 AAA/AUTHOR/IPCP: Start. Her address 10.1.1.6, we want 10.1.1.6
*Mar 4 19:31:00.984: As27 AAA/AUTHOR/IPCP: Processing AV service=ppp
*Mar 4 19:31:00.984: As27 AAA/AUTHOR/IPCP: Processing AV addr=10.1.1.6
*Mar 4 19:31:00.984: As27 AAA/AUTHOR/IPCP: Authorization succeeded
*Mar 4 19:31:00.984: As27 AAA/AUTHOR/IPCP: Done. Her address 10.1.1.6, we want 10.1.1.6
*Mar 4 19:31:00.984: As27 AAA/AUTHOR/PER-USER: Event IP_UP
*Mar 4 19:31:00.984: As27 AAA/PER-USER: processing author params.

```

access-3#show caller

Line	User	Service	Active Time	Idle Time
tty 27	timeout	Async	00:00:23	00:00:04
As27	timeout	PPP	00:00:22	00:00:20

access-3#show caller user timeout

```

User: timeout, line tty 27, service Async
    Active time 00:00:28, Idle time 00:00:08
Timeouts:
    Absolute Idle Idle
           Session Exec
Limits:    -      -      00:10:00
Disconnect in: -      -      -
TTY: Line 27, running PPP on As27
Location: MICA V.90 modems
Line: Baud rate (TX/RX) is 115200/115200, no parity, 1 stopbits, 8 databits
Status: Ready, Active, No Exit Banner, Async Interface Active
      HW PPP Support Active
Capabilities: No Flush-at-Activation, Hardware Flowcontrol In
              Hardware Flowcontrol Out, Modem Callout, Modem RI is CD
              Line usable as async interface, ARAP Permitted
              Integrated Modem
Modem State: Ready

```

```

User: timeout, line As27, service PPP
    Active time 00:00:27, Idle time 00:00:25
Timeouts:
    Absolute Idle
Limits:    00:01:30 00:01:00
Disconnect in: 00:01:09 00:00:34

```

PPP: LCP Open, multilink Closed, CHAP (<- AAA), IPCP
Dialer: Connected, inbound
Idle timer 60 secs, idle 25 secs
Type is IN-BAND ASYNC, group Async27
IP: Local 10.1.1.1, remote 10.1.1.6
Counts: 31 packets input, 1642 bytes, 0 no buffer
0 input errors, 0 CRC, 0 frame, 0 overrun
15 packets output, 347 bytes, 0 underruns
0 output errors, 0 collisions, 0 interface resets

access-3#show caller timeouts

Line	User	Session Timeout	Idle Timeout	Disconnect User in
tty 27	timeout	-	-	-
As27	timeout	00:01:30	00:01:00	00:00:22

access-3#show caller timeouts

Line	User	Session Timeout	Idle Timeout	Disconnect User in
tty 27	timeout	-	-	-
As27	timeout	00:01:30	00:01:00	00:00:07

access-3#

*Mar 4 19:31:53.824: Mica Modem(1/2): State Transition to Terminating
*Mar 4 19:31:53.884: Mica Modem(1/2): State Transition to Idle
*Mar 4 19:31:53.884: Mica Modem(1/2): Went onhook
*Mar 4 19:31:53.884: CSM_PROC_IC5_OC6_CONNECTED: CSM_EVENT_MODEM_ONHOOK at slot 1, port 2
*Mar 4 19:31:53.884: VDEV_DEALLOCATE: slot 1 and port 2 is deallocated

*Mar 4 19:31:53.888: ISDN Se0:23: Event: Hangup call to call id 0x40
*Mar 4 19:31:53.888: ISDN Se0:23: TX -> DISCONNECT pd = 8 callref = 0x8006
*Mar 4 19:31:53.888: Cause i = 0x8090 - Normal call clearing
*Mar 4 19:31:53.940: ISDN Se0:23: RX <- RELEASE pd = 8 callref = 0x06
*Mar 4 19:31:53.952: ISDN Se0:23: TX -> RELEASE_COMP pd = 8 callref = 0x8006
*Mar 4 19:31:55.792: As27 AAA/ACCT: non-ISDN xmit 50000 rcv 28800 hwidb 611CEBC0 ttynum 27
*Mar 4 19:31:55.792: AAA/ACCT/NET/STOP User timeout, Port Async27:
task_id=12 timezone=PST service=ppp protocol=ip addr=10.1.1.6 **disc-cause=4**
disc-cause-ext=1021 pre-bytes-in=135 pre-bytes-out=176 pre-paks-in=5 pre-paks-out=6
bytes_in=1480 bytes_out=171 paks_in=25 paks_out=9 pre-session-time=6 elapsed_time=58
nas-rx-speed=28800 nas-tx-speed=50000
*Mar 4 19:31:55.792: As27 AAA/AUTHOR/PER-USER: Event IP_DOWN
*Mar 4 19:31:55.792: As27 AAA/AUTHOR/PER-USER: Event LCP_DOWN
*Mar 4 19:31:55.792: As27 AAA/AUTHOR: **down_event: peruser LCP txt=interface Async27**
no timeout absolute

*Mar 4 19:31:55.796: As27 AAA/AUTHOR: Parse 'interface Async27'
*Mar 4 19:31:55.800: As27 AAA/AUTHOR: Parse returned ok (0)
*Mar 4 19:31:55.800: As27 AAA/AUTHOR: Parse 'no timeout absolute'
*Mar 4 19:31:55.804: As27 AAA/AUTHOR: Parse returned ok (0)
*Mar 4 19:31:55.804: As27 AAA/AUTHOR: free peruser LCP txt=interface Async27
no timeout absolute

*Mar 4 19:31:55.804: As27 AAA/AUTHOR: **down_event: peruser LCP txt=interface Async27**
no dialer idle-timeout

*Mar 4 19:31:55.804: As27 AAA/AUTHOR: Parse 'interface Async27'
*Mar 4 19:31:55.808: As27 AAA/AUTHOR: Parse returned ok (0)
*Mar 4 19:31:55.808: As27 AAA/AUTHOR: Parse 'no dialer idle-timeout'
*Mar 4 19:31:55.812: As27 AAA/AUTHOR: Parse returned ok (0)
*Mar 4 19:31:55.812: As27 AAA/AUTHOR: free peruser LCP txt=interface Async27
no dialer idle-timeout

*Mar 4 19:31:56.016: TAC+: (3633056702): received acct response status = SUCCESS
*Mar 4 19:32:00.308: %CALLRECORD-3-MICA_TERSE_CALL_REC: DS0 slot/contr/chan=2/0/18,
slot/port=1/2, call_id=40, userid=timeout, ip=10.1.1.6, calling=(n/a), called=4085703932,
std=K56Flx, prot=LAP-M, comp=V.42bis both, init-rx/tx b-rate=28800/50000, finl-rx/tx

b-rate=28800/50000, rbs=0, d-pad=6 dB, retr=0, sq=3, snr=28, rx/tx chars=1727/995, bad=2, rx/tx ec=31/36, bad=0, time=84, finl-state=Steady, **disc(radius)=Idle Timeout/Idle Timeout**, disc(modem)=DF03 Tx (host to line) data flushing - OK/Requested by host/DTR dropped

가상 프로파일이 없는 멀티링크 단일 채널 ISDN 통화

다음은 가상 프로파일을 사용하지 않는 멀티링크 ISDN 통화입니다. 멀티링크 호출은 액세스 인터페이스를 생성하므로 타이머를 쉽게 설치할 수 있습니다.

```
*Mar 4 19:41:12.208: ISDN Se0:23: RX <- SETUP pd = 8 callref = 0x08
*Mar 4 19:41:12.212: Bearer Capability i = 0x8890
*Mar 4 19:41:12.212: Channel ID i = 0xA98393
*Mar 4 19:41:12.212: Calling Party Number i = '!', 0x80, '4085551200'
*Mar 4 19:41:12.212: Called Party Number i = 0xA1, '4085703930'
*Mar 4 19:41:12.212: ISDN Se0:23: TX -> CALL_PROC pd = 8 callref = 0x8008
*Mar 4 19:41:12.212: Channel ID i = 0xA98393
*Mar 4 19:41:12.224: ISDN Se0:23: TX -> CONNECT pd = 8 callref = 0x8008
*Mar 4 19:41:12.224: Channel ID i = 0xA98393
*Mar 4 19:41:12.296: ISDN Se0:23: RX <- CONNECT_ACK pd = 8 callref = 0x08
*Mar 4 19:41:12.536: Se0:18 PPP: Treating connection as a callin
*Mar 4 19:41:12.536: Se0:18 AAA/AUTHOR/FSM: (0): LCP succeeds trivially
*Mar 4 19:41:14.536: Se0:18 AAA/AUTHOR/FSM: (0): LCP succeeds trivially
*Mar 4 19:41:14.552: Se0:18 PPP: Phase is AUTHENTICATING, by this end
*Mar 4 19:41:14.552: Se0:18 CHAP: O CHALLENGE id 1 len 26 from "STACK"
*Mar 4 19:41:14.584: Se0:18 CHAP: I RESPONSE id 1 len 30 from "timeout"
*Mar 4 19:41:14.964: Se0:18 CHAP: I RESPONSE id 1 len 30 from "timeout"
*Mar 4 19:41:14.964: AAA: parse NAME=Serial0:18 idb TYPE=12 tty=-1
*Mar 4 19:41:14.964: AAA: NAME=Serial0:18 flags=0x51 TYPE=1 shelf=0 slot=0
adapter=0 port=0 channel=18
*Mar 4 19:41:14.964: AAA: parse NAME= idb TYPE=-1 tty=-1
*Mar 4 19:41:14.964: RADIUS: ustruct sharecount=1
*Mar 4 19:41:14.964: RADIUS: Initial Transmit Serial0:18 id 4 172.16.24.117:1645,
Access-Request, len 104
*Mar 4 19:41:14.964: Attribute 4 6 AC101874
*Mar 4 19:41:14.964: Attribute 5 6 00004E32
*Mar 4 19:41:14.964: Attribute 61 6 00000002
*Mar 4 19:41:14.964: Attribute 1 11 74696D65
*Mar 4 19:41:14.964: Attribute 30 12 34303835
*Mar 4 19:41:14.964: Attribute 31 12 34303835
*Mar 4 19:41:14.964: Attribute 3 19 012C4E14
*Mar 4 19:41:14.964: Attribute 6 6 00000002
*Mar 4 19:41:14.964: Attribute 7 6 00000001
*Mar 4 19:41:14.972: RADIUS: Received from id 4 172.16.24.117:1645, Access-Accept, len 80
*Mar 4 19:41:14.972: Attribute 6 6 00000002
*Mar 4 19:41:14.972: Attribute 7 6 00000001
*Mar 4 19:41:14.972: Attribute 8 6 FFFFFFFE
*Mar 4 19:41:14.972: Attribute 27 6 0000005A
*Mar 4 19:41:14.972: Attribute 28 6 0000003C
*Mar 4 19:41:14.976: Se0:18 AAA/AUTHOR/LCP: Authorize LCP
*Mar 4 19:41:14.976: AAA/AUTHOR/LCP Se0:18 (4039479425): Port='Serial0:18' list=''
service=NET
*Mar 4 19:41:14.976: AAA/AUTHOR/LCP: Se0:18 (4039479425) send AV service=ppp
*Mar 4 19:41:14.976: AAA/AUTHOR/LCP: Se0:18 (4039479425) send AV protocol=lcp
*Mar 4 19:41:14.976: AAA/AUTHOR/LCP (4039479425) found list "default"
*Mar 4 19:41:14.976: AAA/AUTHOR/LCP: Se0:18 (4039479425) METHOD=RADIUS
*Mar 4 19:41:14.976: AAA/AUTHOR (4039479425): Post authorization status = PASS_REPL
*Mar 4 19:41:14.976: Se0:18 AAA/AUTHOR/LCP: Processing AV service=ppp
*Mar 4 19:41:14.976: Se0:18 AAA/AUTHOR/LCP: Processing AV timeout=90
*Mar 4 19:41:14.976: Se0:18 AAA/AUTHOR/LCP: Processing AV idletime=60
*Mar 4 19:41:14.976: AAA/AUTHOR/LCP Se0:18: Per-user interface config created:
timeout absolute 1 30
ppp timeout idle 60
```

```

*Mar 4 19:41:14.976: Se0:18 CHAP: O SUCCESS id 1 len 4
*Mar 4 19:41:14.976: AAA/ACCT/NET/START User timeout, Port Serial0:18, List ""
*Mar 4 19:41:14.976: AAA/ACCT/NET: Found list "default"
*Mar 4 19:41:14.976: AAA/AUTHOR/MLP Se0:18 (1966034416): Port='Serial0:18' list=''
service=NET
*Mar 4 19:41:14.976: AAA/AUTHOR/MLP: Se0:18 (1966034416) send AV service=ppp
*Mar 4 19:41:14.976: AAA/AUTHOR/MLP: Se0:18 (1966034416) send AV protocol=multilink
*Mar 4 19:41:14.976: AAA/AUTHOR/MLP (1966034416) found list "default"
*Mar 4 19:41:14.976: AAA/AUTHOR/MLP: Se0:18 (1966034416) METHOD=RADIUS
*Mar 4 19:41:14.976: AAA/AUTHOR (1966034416): Post authorization status = PASS_REPL
*Mar 4 19:41:14.976: Vi1 VTEMPLATE: Reuse Vi1, recycle queue size 0
*Mar 4 19:41:14.980: Vi1 VTEMPLATE: Hardware address 00e0.1e81.636c
*Mar 4 19:41:14.980: Vi1 VTEMPLATE: Has a new cloneblk dialer, now it has dialer
*Mar 4 19:41:14.980: Vi1 VTEMPLATE: Has a new cloneblk AAA, now it has dialer/AAA
*Mar 4 19:41:14.980: Vi1 VTEMPLATE: ***** CLONE VACCESS1 *****
*Mar 4 19:41:14.980: Vi1 VTEMPLATE: Clone from AAA
interface Virtual-Access1
timeout absolute 1 30
ppp timeout idle 60
end

*Mar 4 19:41:14.996: Vi1 PPP: Treating connection as a callin
*Mar 4 19:41:14.996: AAA/AUTHOR/MLP Vi1: Processing AV service=ppp
*Mar 4 19:41:15.000: Vi1 AAA/AUTHOR/FSM: (0): Can we start IPCP?
*Mar 4 19:41:15.000: AAA/AUTHOR/FSM Vi1 (921779905): Port='Serial0:18' list='' service=NET
*Mar 4 19:41:15.000: AAA/AUTHOR/FSM: Vi1 (921779905) send AV service=ppp
*Mar 4 19:41:15.000: AAA/AUTHOR/FSM: Vi1 (921779905) send AV protocol=ip
*Mar 4 19:41:15.000: AAA/AUTHOR/FSM (921779905) found list "default"
*Mar 4 19:41:15.000: AAA/AUTHOR/FSM: Vi1 (921779905) METHOD=RADIUS
*Mar 4 19:41:15.000: RADIUS: Using NAS default peer
*Mar 4 19:41:15.000: RADIUS: Authorize IP address 0.0.0.0
*Mar 4 19:41:15.000: AAA/AUTHOR (921779905): Post authorization status = PASS_REPL
*Mar 4 19:41:15.000: Vi1 AAA/AUTHOR/FSM: We can start IPCP
*Mar 4 19:41:15.000: Vi1 AAA/AUTHOR/FSM: (0): Can we start CDPCP?
*Mar 4 19:41:15.000: AAA/AUTHOR/FSM Vi1 (3065122210): Port='Serial0:18' list=''
service=NET
*Mar 4 19:41:15.000: AAA/AUTHOR/FSM: Vi1 (3065122210) send AV service=ppp
*Mar 4 19:41:15.000: AAA/AUTHOR/FSM: Vi1 (3065122210) send AV protocol=cdp
*Mar 4 19:41:15.000: AAA/AUTHOR/FSM (3065122210) found list "default"
*Mar 4 19:41:15.000: AAA/AUTHOR/FSM: Vi1 (3065122210) METHOD=RADIUS
*Mar 4 19:41:15.000: AAA/AUTHOR (3065122210): Post authorization status = PASS_REPL
*Mar 4 19:41:15.000: Vi1 AAA/AUTHOR/FSM: We can start CDPCP

```

```
access-3#show caller
```

Line	User	Service	Active Time	Idle Time
Se0:18	timeout	PPP	00:00:19	00:00:00
Vi1	timeout	PPP Bundle	00:00:19	00:00:20

```
access-3#show caller user timeout
```

```

User: timeout, line Se0:18, service PPP
Active time 00:00:25, Idle time 00:00:00
Timeouts: Absolute Idle
Limits: - -
Disconnect in: - -
PPP: LCP Open, multilink Open, CHAP (<- AAA)
Dialer: Connected to 4085551200, inbound
Type is ISDN, group Serial0:23
IP: Local 10.1.1.1
Access list (I/O) is 199/not set
Bundle: Member of timeout/timeout, last input 00:00:00
Counts: 13 packets input, 279 bytes, 0 no buffer
11 input errors, 2 CRC, 3 frame, 0 overrun

```

23 packets output, 431 bytes, 0 underruns
0 output errors, 0 collisions, 40 interface resets

User: timeout, line Vi1, service PPP Bundle

Active time 00:00:25, Idle time 00:00:26

Timeouts: Absolute Idle
Limits: 00:01:30 00:01:00
Disconnect in: 00:01:04 00:00:33

PPP: LCP Open, multilink Open

Idle timer 60 secs, idle 26 secs

Dialer: Connected to 4085551200, inbound

Type is IN-BAND SYNC, group Serial0:23

IP: Local 10.1.1.1

Access list (I/O) is 199/not set

Bundle: First link of timeout/timeout, 1 link, last input 00:00:27

Counts: 0 packets input, 0 bytes, 0 no buffer

0 input errors, 0 CRC, 0 frame, 0 overrun

13 packets output, 236 bytes, 0 underruns

0 output errors, 0 collisions, 0 interface resets

access-3#show caller timeout

Line	User	Session Timeout	Idle Timeout	Disconnect User in
Se0:18	timeout	-	-	-
Vi1	timeout	00:01:30	00:01:00	00:00:30

access-3#

*Mar 4 19:42:14.996: Vi1 PPP: Idle timeout, dropping connection

*Mar 4 19:42:14.996: Vi1 VTEMPLATE: Free vaccess

*Mar 4 19:42:14.996: Se0:18 AAA/AUTHOR/PER-USER: Event LCP_DOWN

*Mar 4 19:42:15.000: Vi1 AAA/AUTHOR/PER-USER: Event LCP_DOWN

*Mar 4 19:42:15.004: Se0:18 AAA/ACCT: ISDN xmit 64000 recv 64000 hwidb 612048BC

*Mar 4 19:42:15.004: AAA/ACCT/NET/STOP User timeout, Port Serial0:18:

task_id=13 timezone=PST service=ppp mlp-links-max=1 mlp-links-current=1

mlp-sess-id=0 disc-cause=18 disc-cause-ext=1046 pre-bytes-in=125 pre-bytes-out=99

pre-paks-in=4 pre-paks-out=4 bytes_in=228 bytes_out=436 paks_in=15 paks_out=26

pre-session-time=3 elapsed_time=60 nas-rx-speed=64000 nas-tx-speed=64000

*Mar 4 19:42:15.008: ISDN Se0:23: TX -> DISCONNECT pd = 8 callref = 0x8008

*Mar 4 19:42:15.008: Cause i = 0x8090 - Normal call clearing

*Mar 4 19:42:15.060: ISDN Se0:23: RX <- RELEASE pd = 8 callref = 0x08

*Mar 4 19:42:15.072: ISDN Se0:23: TX -> RELEASE_COMP pd = 8 callref = 0x8008

*Mar 4 19:42:15.212: TAC+: (2571416724): received acct response status = SUCCESS

*Mar 4 19:42:15.500: VTEMPLATE: Clean up dirty vaccess queue, size 1

*Mar 4 19:42:15.500: Vi1 VTEMPLATE: Found a dirty vaccess clone with dialer/AAA

*Mar 4 19:42:15.500: Vi1 VTEMPLATE: ***** UNCLONE VACCESS1 *****

*Mar 4 19:42:15.500: Vi1 VTEMPLATE: Unclone to-be-freed command#2

interface Virtual-Access1

default ppp timeout idle 60

default timeout absolute 1 30

end

*Mar 4 19:42:15.516: Vi1 VTEMPLATE: Set default settings with no ip address

*Mar 4 19:42:15.536: Vi1 VTEMPLATE: Remove cloneblk AAA with dialer/AAA

*Mar 4 19:42:15.536: Vi1 VTEMPLATE: Remove cloneblk dialer with dialer/AAA

*Mar 4 19:42:15.536: Vi1 VTEMPLATE: Add vaccess to recycle queue, queue SIZE=1

[가상 프로파일이 없는 비멀티링크 단일 채널 ISDN 통화](#)

다음은 가상 프로파일을 활성화하지 않은 비멀티링크 단일 채널 ISDN 통화입니다. 이 예에서는 이러한 타이머를 올바르게 설치할 수 있도록 Cisco IOS 11.3(8.2)AA를 실행하고 있습니다. 그러나 이로 인해 컨피그레이션 명령이 생성되지 않았습니다. 타이머가 코드에서 내부적으로 설정되었습니다.

*Mar 4 19:43:00.404: ISDN Se0:23: RX <- SETUP pd = 8 callref = 0x0E

```
*Mar 4 19:43:00.404: Bearer Capability i = 0x8890
*Mar 4 19:43:00.404: Channel ID i = 0xA98393
*Mar 4 19:43:00.404: Calling Party Number i = '!', 0x80, '4085551200'
*Mar 4 19:43:00.404: Called Party Number i = 0xA1, '4085703930'
*Mar 4 19:43:00.404: ISDN Se0:23: TX -> CALL_PROC pd = 8 callref = 0x800E
*Mar 4 19:43:00.408: Channel ID i = 0xA98393
*Mar 4 19:43:00.416: ISDN Se0:23: TX -> CONNECT pd = 8 callref = 0x800E
*Mar 4 19:43:00.416: Channel ID i = 0xA98393
*Mar 4 19:43:00.488: ISDN Se0:23: RX <- CONNECT_ACK pd = 8 callref = 0x0E
*Mar 4 19:43:00.720: Se0:18 PPP: Treating connection as a callin
*Mar 4 19:43:00.720: Se0:18 AAA/AUTHOR/FSM: (0): LCP succeeds trivially
*Mar 4 19:43:02.744: Se0:18 PPP: Phase is AUTHENTICATING, by this end
*Mar 4 19:43:02.744: Se0:18 CHAP: O CHALLENGE id 2 len 26 from "STACK"
*Mar 4 19:43:02.776: Se0:18 CHAP: I RESPONSE id 2 len 30 from "timeout"
*Mar 4 19:43:02.776: AAA: parse NAME=Serial0:18 idb TYPE=12 tty=-1
*Mar 4 19:43:02.776: AAA: NAME=Serial0:18 flags=0x51 TYPE=1 shelf=0 slot=0
adapter=0 port=0 channel=18
*Mar 4 19:43:02.776: AAA: parse NAME= idb TYPE=-1 tty=-1
*Mar 4 19:43:02.780: RADIUS: ustruct sharecount=1
*Mar 4 19:43:02.780: RADIUS: Initial Transmit Serial0:18 id 5 172.16.24.117:1645,
Access-Request, len 104
*Mar 4 19:43:02.780: Attribute 4 6 AC101874
*Mar 4 19:43:02.780: Attribute 5 6 00004E32
*Mar 4 19:43:02.780: Attribute 61 6 00000002
*Mar 4 19:43:02.780: Attribute 1 11 74696D65
*Mar 4 19:43:02.780: Attribute 30 12 34303835
*Mar 4 19:43:02.780: Attribute 31 12 34303835
*Mar 4 19:43:02.780: Attribute 3 19 02AE5572
*Mar 4 19:43:02.780: Attribute 6 6 00000002
*Mar 4 19:43:02.780: Attribute 7 6 00000001
*Mar 4 19:43:02.784: RADIUS: Received from id 5 172.16.24.117:1645, Access-Accept, len 50
*Mar 4 19:43:02.784: Attribute 6 6 00000002
*Mar 4 19:43:02.784: Attribute 7 6 00000001
*Mar 4 19:43:02.784: Attribute 8 6 FFFFFFFE
*Mar 4 19:43:02.784: Attribute 27 6 0000005A
*Mar 4 19:43:02.784: Attribute 28 6 0000003C
*Mar 4 19:43:02.788: Se0:18 AAA/AUTHOR/LCP: Authorize LCP
*Mar 4 19:43:02.788: AAA/AUTHOR/LCP Se0:18 (900316608): Port='Serial0:18' list=''
service=NET
*Mar 4 19:43:02.788: AAA/AUTHOR/LCP: Se0:18 (900316608) send AV service=ppp
*Mar 4 19:43:02.788: AAA/AUTHOR/LCP: Se0:18 (900316608) send AV protocol=lcp
*Mar 4 19:43:02.788: AAA/AUTHOR/LCP (900316608) found list "default"
*Mar 4 19:43:02.788: AAA/AUTHOR/LCP: Se0:18 (900316608) METHOD=RADIUS
*Mar 4 19:43:02.788: AAA/AUTHOR (900316608): Post authorization status = PASS_REPL
*Mar 4 19:43:02.788: Se0:18 AAA/AUTHOR/LCP: Processing AV service=ppp
*Mar 4 19:43:02.788: Se0:18 AAA/AUTHOR/LCP: Processing AV timeout=90
*Mar 4 19:43:02.788: Se0:18 AAA/AUTHOR/LCP: Processing AV idletime=60
*Mar 4 19:43:02.788: Se0:18 CHAP: O SUCCESS id 2 len 4
*Mar 4 19:43:02.788: AAA/ACCT/NET/START User timeout, Port Serial0:18, List ""
*Mar 4 19:43:02.788: AAA/ACCT/NET: Found list "default"
*Mar 4 19:43:02.788: Se0:18 AAA/AUTHOR/FSM: (0): Can we start IPCP?
*Mar 4 19:43:02.788: AAA/AUTHOR/FSM Se0:18 (3608739008): Port='Serial0:18' list=''
service=NET
*Mar 4 19:43:02.788: AAA/AUTHOR/FSM: Se0:18 (3608739008) send AV service=ppp
*Mar 4 19:43:02.788: AAA/AUTHOR/FSM: Se0:18 (3608739008) send AV protocol=ip
*Mar 4 19:43:02.788: AAA/AUTHOR/FSM (3608739008) found list "default"
*Mar 4 19:43:02.788: AAA/AUTHOR/FSM: Se0:18 (3608739008) METHOD=RADIUS
*Mar 4 19:43:02.788: RADIUS: Using NAS default peer
*Mar 4 19:43:02.788: RADIUS: Authorize IP address 0.0.0.0
*Mar 4 19:43:02.788: AAA/AUTHOR (3608739008): Post authorization status = PASS_REPL
*Mar 4 19:43:02.788: Se0:18 AAA/AUTHOR/FSM: We can start IPCP
*Mar 4 19:43:02.788: Se0:18 AAA/AUTHOR/FSM: (0): Can we start CDPCP?
*Mar 4 19:43:02.792: AAA/AUTHOR/FSM Se0:18 (3955392150): Port='Serial0:18' list=''
service=NET
```

```

*Mar 4 19:43:02.792: AAA/AUTHOR/FSM: Se0:18 (3955392150) send AV service=ppp
*Mar 4 19:43:02.792: AAA/AUTHOR/FSM: Se0:18 (3955392150) send AV protocol=cdp
*Mar 4 19:43:02.792: AAA/AUTHOR/FSM (3955392150) found list "default"
*Mar 4 19:43:02.792: AAA/AUTHOR/FSM: Se0:18 (3955392150) METHOD=RADIUS
*Mar 4 19:43:02.792: AAA/AUTHOR (3955392150): Post authorization status = PASS_REPL
*Mar 4 19:43:02.792: Se0:18 AAA/AUTHOR/FSM: We can start CDPCP
*Mar 4 19:43:02.804: Se0:18 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 0.0.0.0
*Mar 4 19:43:02.804: Se0:18 AAA/AUTHOR/IPCP: Processing AV service=ppp
*Mar 4 19:43:02.804: Se0:18 AAA/AUTHOR/IPCP: Processing AV addr=0.0.0.0
*Mar 4 19:43:02.804: Se0:18 AAA/AUTHOR/IPCP: Authorization succeeded
*Mar 4 19:43:02.804: Se0:18 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 0.0.0.0
*Mar 4 19:43:02.808: Se0:18 AAA/AUTHOR/FSM: Check for unauthorized mandatory AV's
*Mar 4 19:43:02.808: Se0:18 AAA/AUTHOR/FSM: Processing AV service=ppp
*Mar 4 19:43:02.808: Se0:18 AAA/AUTHOR/FSM: Succeeded
*Mar 4 19:43:02.816: Se0:18 AAA/AUTHOR/IPCP: Start. Her address 10.1.1.3, we want 10.1.1.3
*Mar 4 19:43:02.816: AAA/AUTHOR/IPCP Se0:18 (2267743837): Port='Serial0:18' list=''
service=NET
*Mar 4 19:43:02.816: AAA/AUTHOR/IPCP: Se0:18 (2267743837) send AV service=ppp
*Mar 4 19:43:02.816: AAA/AUTHOR/IPCP: Se0:18 (2267743837) send AV protocol=ip
*Mar 4 19:43:02.816: AAA/AUTHOR/IPCP: Se0:18 (2267743837) send AV addr*10.1.1.3
*Mar 4 19:43:02.816: AAA/AUTHOR/IPCP (2267743837) found list "default"
*Mar 4 19:43:02.816: AAA/AUTHOR/IPCP: Se0:18 (2267743837) METHOD=RADIUS
*Mar 4 19:43:02.816: RADIUS: Using NAS default peer
*Mar 4 19:43:02.816: RADIUS: Authorize IP address 10.1.1.3
*Mar 4 19:43:02.816: AAA/AUTHOR (2267743837): Post authorization status = PASS_REPL
*Mar 4 19:43:02.816: Se0:18 AAA/AUTHOR/IPCP: Processing AV service=ppp
*Mar 4 19:43:02.820: Se0:18 AAA/AUTHOR/IPCP: Processing AV addr=10.1.1.3
*Mar 4 19:43:02.820: Se0:18 AAA/AUTHOR/IPCP: Authorization succeeded
*Mar 4 19:43:02.820: Se0:18 AAA/AUTHOR/IPCP: Done. Her address 10.1.1.3,
we want 10.1.1.3
*Mar 4 19:43:02.824: Se0:18 AAA/AUTHOR/PER-USER: Event IP_UP
*Mar 4 19:43:02.824: Se0:18 AAA/PER-USER: processing author params.

```

access-3#show caller

Line	User	Service	Active Time	Idle Time
Se0:18	timeout	PPP	00:00:19	00:00:19

access-3#show caller timeout

Line	User	Session Timeout	Idle Timeout	Disconnect User in
Se0:18	timeout	00:01:30	00:01:00	00:00:37

access-3#ping 10.1.1.3

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.1.1.3, timeout is 2 seconds:

!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 32/33/36 ms

access-3#show caller timeout

Line	User	Session Timeout	Idle Timeout	Disconnect User in
Se0:18	timeout	00:01:30	00:01:00	00:00:57

access-3#show caller user timeout

User: timeout, line Se0:18, service PPP

Active time 00:00:38, Idle time 00:00:10

Timeouts: Absolute Idle
Limits: 00:01:30 00:01:00
Disconnect in: 00:00:51 00:00:49

PPP: LCP Open, multilink Closed, CHAP (<- AAA), IPCP, CDPCP

Dialer: Connected to 4085551200, inbound

Idle timer 60 secs, idle 10 secs

Type is ISDN, group Serial0:23

IP: Local 10.1.1.1, remote 10.1.1.3

Access list (I/O) is 199/not set

Counts: 51 packets input, 2104 bytes, 0 no buffer

11 input errors, 2 CRC, 3 frame, 0 overrun
58 packets output, 2233 bytes, 0 underruns
0 output errors, 0 collisions, 45 interface resets

access-3#**show caller user timeout**

User: timeout, line Se0:18, service PPP
Active time 00:00:45, Idle time 00:00:17
Timeouts: Absolute Idle
Limits: 00:01:30 00:01:00
Disconnect in: 00:00:44 00:00:42
PPP: LCP Open, multilink Closed, CHAP (<- AAA), IPCP, CDPCP
Dialer: Connected to 4085551200, inbound
Idle timer 60 secs, idle 17 secs
Type is ISDN, group Serial0:23
IP: Local 10.1.1.1, remote 10.1.1.3
Access list (I/O) is 199/not set
Counts: 52 packets input, 2120 bytes, 0 no buffer
11 input errors, 2 CRC, 3 frame, 0 overrun
59 packets output, 2249 bytes, 0 underruns
0 output errors, 0 collisions, 45 interface resets

access-3#**ping 10.1.1.3**

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.1.1.3, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 32/34/40 ms
access-3#**show caller user timeout**

User: timeout, line Se0:18, service PPP
Active time 00:01:02, Idle time 00:00:04
Timeouts: Absolute Idle
Limits: 00:01:30 00:01:00
Disconnect in: 00:00:27 00:00:55
PPP: LCP Open, multilink Closed, CHAP (<- AAA), IPCP, CDPCP
Dialer: Connected to 4085551200, inbound
Idle timer 60 secs, idle 4 secs
Type is ISDN, group Serial0:23
IP: Local 10.1.1.1, remote 10.1.1.3
Access list (I/O) is 199/not set
Counts: 60 packets input, 2688 bytes, 0 no buffer
11 input errors, 2 CRC, 3 frame, 0 overrun
67 packets output, 2817 bytes, 0 underruns
0 output errors, 0 collisions, 45 interface resets

access-3#**show caller timeout**

Line	User	Session Timeout	Idle Timeout	Disconnect User in
Se0:18	timeout	00:01:30	00:01:00	00:00:21

access-3#**show caller timeout**

Line	User	Session Timeout	Idle Timeout	Disconnect User in
Se0:18	timeout	00:01:30	00:01:00	00:00:07

access-3#

*Mar 4 19:44:33.788: ISDN Se0:23: TX -> DISCONNECT pd = 8 callref = 0x800E
*Mar 4 19:44:33.788: Cause i = 0x8090 - Normal call clearing
*Mar 4 19:44:33.840: ISDN Se0:23: RX <- RELEASE pd = 8 callref = 0x0E
*Mar 4 19:44:33.852: Se0:18 AAA/ACCT: ISDN xmit 64000 rcv 64000 hwidb 612048BC
*Mar 4 19:44:33.852: AAA/ACCT/NET/STOP User timeout, Port Serial0:18:
task_id=14 timezone=PST service=ppp protocol=ip addr=10.1.1.3 disc-cause=5
disc-cause-ext=1100 pre-bytes-in=101 pre-bytes-out=102 pre-paks-in=5 pre-paks-out=5
bytes_in=2258 bytes_out=2276 paks_in=38 paks_out=38 pre-session-time=2 elapsed_time=91
nas-rx-speed=64000 nas-tx-speed=64000

```
*Mar 4 19:44:33.852: ISDN Se0:23: TX -> RELEASE_COMP pd = 8 callref = 0x800E
*Mar 4 19:44:33.856: Se0:18 AAA/AUTHOR/PER-USER: Event IP_DOWN
*Mar 4 19:44:33.856: Se0:18 AAA/AUTHOR/PER-USER: Event LCP_DOWN
*Mar 4 19:44:34.060: TAC+: (3492368360): received acct response status = SUCCESS
```

가상 프로파일을 이용한 비멀티링크 단일 채널 ISDN 통화

다음은 비멀티링크 단일 채널 ISDN 사용자와 동일하지만 이번에는 가상 프로파일이 활성화된 사용자입니다. 멀티링크가 협상되지 않은 경우에도 vaccess 인터페이스가 생성되고 타이머를 설치하기 위한 컨피그레이션 명령을 생성합니다.

```
*Mar 4 19:45:00.480: ISDN Se0:23: RX <- SETUP pd = 8 callref = 0x0C
*Mar 4 19:45:00.480: Bearer Capability i = 0x8890
*Mar 4 19:45:00.480: Channel ID i = 0xA98393
*Mar 4 19:45:00.480: Calling Party Number i = '!', 0x80, '4085551200'
*Mar 4 19:45:00.480: Called Party Number i = 0xA1, '4085703930'
*Mar 4 19:45:00.480: ISDN Se0:23: TX -> CALL_PROC pd = 8 callref = 0x800C
*Mar 4 19:45:00.480: Channel ID i = 0xA98393
*Mar 4 19:45:00.492: ISDN Se0:23: TX -> CONNECT pd = 8 callref = 0x800C
*Mar 4 19:45:00.492: Channel ID i = 0xA98393
*Mar 4 19:45:00.564: ISDN Se0:23: RX <- CONNECT_ACK pd = 8 callref = 0x0C
*Mar 4 19:45:00.804: Se0:18 PPP: Treating connection as a callin
*Mar 4 19:45:00.804: Se0:18 AAA/AUTHOR/FSM: (0): LCP succeeds trivially
*Mar 4 19:45:02.804: Se0:18 AAA/AUTHOR/FSM: (0): LCP succeeds trivially
*Mar 4 19:45:02.828: Se0:18 PPP: Phase is AUTHENTICATING, by this end
*Mar 4 19:45:02.828: Se0:18 CHAP: O CHALLENGE id 3 len 26 from "STACK"
*Mar 4 19:45:02.860: Se0:18 CHAP: I RESPONSE id 3 len 30 from "timeout"
*Mar 4 19:45:02.860: AAA: parse NAME=Serial0:18 idb TYPE=12 tty=-1
*Mar 4 19:45:02.860: AAA: NAME=Serial0:18 flags=0x51 TYPE=1 shelf=0 slot=0
adapter=0 port=0 channel=18
*Mar 4 19:45:02.860: AAA: parse NAME= idb TYPE=-1 tty=-1
*Mar 4 19:45:02.860: RADIUS: ustruct sharecount=1
*Mar 4 19:45:02.860: RADIUS: Initial Transmit Serial0:18 id 6 172.16.24.117:1645,
Access-Request, len 104
*Mar 4 19:45:02.860: Attribute 4 6 AC101874
*Mar 4 19:45:02.860: Attribute 5 6 00004E32
*Mar 4 19:45:02.860: Attribute 61 6 00000002
*Mar 4 19:45:02.864: Attribute 1 11 74696D65
*Mar 4 19:45:02.864: Attribute 30 12 34303835
*Mar 4 19:45:02.864: Attribute 31 12 34303835
*Mar 4 19:45:02.864: Attribute 3 19 03D4E134
*Mar 4 19:45:02.864: Attribute 6 6 00000002
*Mar 4 19:45:02.864: Attribute 7 6 00000001
*Mar 4 19:45:02.868: RADIUS: Received from id 6 172.16.24.117:1645, Access-Accept, len 50
*Mar 4 19:45:02.868: Attribute 6 6 00000002
*Mar 4 19:45:02.868: Attribute 7 6 00000001
*Mar 4 19:45:02.868: Attribute 8 6 FFFFFFFE
*Mar 4 19:45:02.868: Attribute 27 6 0000005A
*Mar 4 19:45:02.868: Attribute 28 6 0000003C
*Mar 4 19:45:02.868: Se0:18 AAA/AUTHOR/LCP: Authorize LCP
*Mar 4 19:45:02.868: AAA/AUTHOR/LCP Se0:18 (2825271150): Port='Serial0:18' list=''
service=NET
*Mar 4 19:45:02.868: AAA/AUTHOR/LCP: Se0:18 (2825271150) send AV service=ppp
*Mar 4 19:45:02.868: AAA/AUTHOR/LCP: Se0:18 (2825271150) send AV protocol=lcp
*Mar 4 19:45:02.868: AAA/AUTHOR/LCP (2825271150) found list "default"
*Mar 4 19:45:02.868: AAA/AUTHOR/LCP: Se0:18 (2825271150) METHOD=RADIUS
*Mar 4 19:45:02.872: AAA/AUTHOR (2825271150): Post authorization status = PASS_REPL
*Mar 4 19:45:02.872: Se0:18 AAA/AUTHOR/LCP: Processing AV service=ppp
*Mar 4 19:45:02.872: Se0:18 AAA/AUTHOR/LCP: Processing AV timeout=90
*Mar 4 19:45:02.872: Se0:18 AAA/AUTHOR/LCP: Processing AV idletime=60
*Mar 4 19:45:02.872: AAA/AUTHOR/LCP Se0:18: Per-user interface config created:
timeout absolute 1 30
```

ppp timeout idle 60

```
*Mar 4 19:45:02.872: Se0:18 CHAP: O SUCCESS id 3 len 4
*Mar 4 19:45:02.872: AAA/ACCT/NET/START User timeout, Port Serial0:18, List ""
*Mar 4 19:45:02.872: AAA/ACCT/NET: Found list "default"
*Mar 4 19:45:02.872: V11 VTEMPLATE: Reuse V11, recycle queue size 0
*Mar 4 19:45:02.872: V11 VTEMPLATE: Hardware address 00e0.1e81.636c
*Mar 4 19:45:02.872: V11 VTEMPLATE: Has a new cloneblk vtemplate, now it has vtemplate
*Mar 4 19:45:02.872: V11 VTEMPLATE: ***** CLONE VACCESS1 *****
*Mar 4 19:45:02.872: V11 VTEMPLATE: Clone from Virtual-Template1
```

```
interface Virtual-Access1
default ip address
no ip address
encap ppp
ip unnumbered Loopback0
ip access-group 199 in
ip helper-address 172.16.24.118
no ip directed-broadcast
ip accounting output-packets
ip nat inside
no keepalive
peer default ip address pool default
compress mppc
ppp callback accept
ppp authentication chap pap ms-chap
ppp multilink
multilink max-links 2
end
```

enabling payload compression on this interface.

```
*Mar 4 19:45:02.952: V11 VTEMPLATE: Has a new cloneblk AAA, now it has vtemplate/AAA
*Mar 4 19:45:02.952: V11 VTEMPLATE: ***** CLONE VACCESS1 *****
*Mar 4 19:45:02.952: V11 VTEMPLATE: Clone from AAA
```

```
interface Virtual-Access1
timeout absolute 1 30
ppp timeout idle 60
end
```

```
*Mar 4 19:45:02.976: %LINK-3-UPDOWN: Interface Virtual-Access1, changed state to up
*Mar 4 19:45:02.976: V11 PPP: Treating connection as a dedicated line
*Mar 4 19:45:02.976: V11 AAA/AUTHOR/FSM: (0): LCP succeeds trivially
*Mar 4 19:45:02.980: V11 AAA/AUTHOR/FSM: (0): Can we start IPCP?
*Mar 4 19:45:02.980: AAA/AUTHOR/FSM V11 (2657898442): Port='Serial0:18' list='' service=NET
*Mar 4 19:45:02.980: AAA/AUTHOR/FSM: V11 (2657898442) send AV service=ppp
*Mar 4 19:45:02.980: AAA/AUTHOR/FSM: V11 (2657898442) send AV protocol=ip
*Mar 4 19:45:02.980: AAA/AUTHOR/FSM (2657898442) found list "default"
*Mar 4 19:45:02.980: AAA/AUTHOR/FSM: V11 (2657898442) METHOD=RADIUS
*Mar 4 19:45:02.980: RADIUS: Using NAS default peer
*Mar 4 19:45:02.980: RADIUS: Authorize IP address 0.0.0.0
*Mar 4 19:45:02.980: AAA/AUTHOR (2657898442): Post authorization status = PASS_REPL
*Mar 4 19:45:02.980: V11 AAA/AUTHOR/FSM: We can start IPCP
*Mar 4 19:45:02.980: V11 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 0.0.0.0
*Mar 4 19:45:02.980: V11 AAA/AUTHOR/IPCP: Processing AV service=ppp
*Mar 4 19:45:02.980: V11 AAA/AUTHOR/IPCP: Processing AV addr=0.0.0.0
*Mar 4 19:45:02.980: V11 AAA/AUTHOR/IPCP: Authorization succeeded
*Mar 4 19:45:02.980: V11 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 0.0.0.0
*Mar 4 19:45:02.996: V11 AAA/AUTHOR/IPCP: Start. Her address 10.1.1.3, we want 10.1.1.3
*Mar 4 19:45:02.996: AAA/AUTHOR/IPCP V11 (1804338759): Port='Serial0:18' list=''
service=NET
*Mar 4 19:45:02.996: AAA/AUTHOR/IPCP: V11 (1804338759) send AV service=ppp
*Mar 4 19:45:02.996: AAA/AUTHOR/IPCP: V11 (1804338759) send AV protocol=ip
*Mar 4 19:45:02.996: AAA/AUTHOR/IPCP: V11 (1804338759) send AV addr*10.1.1.3
*Mar 4 19:45:02.996: AAA/AUTHOR/IPCP (1804338759) found list "default"
*Mar 4 19:45:02.996: AAA/AUTHOR/IPCP: V11 (1804338759) METHOD=RADIUS
```

```

*Mar 4 19:45:02.996: RADIUS: Using NAS default peer
*Mar 4 19:45:02.996: RADIUS: Authorize IP address 10.1.1.3
*Mar 4 19:45:02.996: AAA/AUTHOR (1804338759): Post authorization status = PASS_REPL
*Mar 4 19:45:02.996: Vi1 AAA/AUTHOR/PCP: Processing AV service=ppp
*Mar 4 19:45:02.996: Vi1 AAA/AUTHOR/PCP: Processing AV addr=10.1.1.3
*Mar 4 19:45:02.996: Vi1 AAA/AUTHOR/PCP: Authorization succeeded
*Mar 4 19:45:02.996: Vi1 AAA/AUTHOR/PCP: Done. Her address 10.1.1.3, we want 10.1.1.3
*Mar 4 19:45:03.004: Vi1 AAA/AUTHOR/PER-USER: Event IP_UP
*Mar 4 19:45:03.004: Vi1 AAA/PER-USER: processing author params.
*Mar 4 19:45:03.996: %LINEPROTO-5-UPDOWN: Line protocol on Interface Virtual-Access1,
changed state to up
access-3#show caller

```

Line	User	Service	Active Time	Idle Time
Se0:18	timeout	PPP	00:00:11	00:00:10
Vi1	timeout	PPP VDP	00:00:11	00:00:10

access-3#show caller timeout

```

User: timeout, line Se0:18, service PPP
Active time 00:00:15, Idle time 00:00:15
Timeouts:          Absolute Idle
Limits:           -        -
Disconnect in:    -        -
PPP: LCP Open, multilink Closed, CHAP (<- AAA)
Dialer: Connected to 4085551200, inbound
Idle timer 60 secs, idle 15 secs
Type is ISDN, group Serial0:23
IP: Local 10.1.1.1
Access list (I/O) is 199/not set
Counts: 81 packets input, 3291 bytes, 0 no buffer
11 input errors, 2 CRC, 3 frame, 0 overrun
87 packets output, 3419 bytes, 0 underruns
0 output errors, 0 collisions, 47 interface resets

```

```

User: timeout, line Vi1, service PPP VDP
Active time 00:00:15, Idle time 00:00:15
Timeouts:          Absolute Idle
Limits:           00:01:30 00:01:00
Disconnect in:    00:01:13 00:00:44
PPP: LCP Open, multilink Closed, CHAP (<- none), IPCP
Idle timer 60 secs, idle 15 secs
IP: Local 10.1.1.1, remote 10.1.1.3
Access list (I/O) is 199/not set
Counts: 7 packets input, 370 bytes, 0 no buffer
0 input errors, 0 CRC, 0 frame, 0 overrun
19 packets output, 404 bytes, 0 underruns
0 output errors, 0 collisions, 0 interface resets

```

access-3#show caller timeouts

Line	User	Session Timeout	Idle Timeout	Disconnect User in
Se0:18	timeout	-	-	-
Vi1	timeout	00:01:30	00:01:00	00:00:40

access-3#ping 10.1.1.3

```

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.1.1.3, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 32/33/36 ms

```

access-3#show caller timeouts

Line	User	Session Timeout	Idle Timeout	Disconnect User in
Se0:18	timeout	-	-	-

Vi1 timeout 00:01:30 00:01:00 00:00:58
access-3#show caller user timeout

User: timeout, line Se0:18, service PPP
Active time 00:00:34, Idle time 00:00:09
Timeouts: Absolute Idle
Limits: - -
Disconnect in: - -
PPP: LCP Open, multilink Closed, CHAP (<- AAA)
Dialer: Connected to 4085551200, inbound
Idle timer 60 secs, idle 9 secs
Type is ISDN, group Serial0:23
IP: Local 10.1.1.1
Access list (I/O) is 199/not set
Counts: 88 packets input, 3843 bytes, 0 no buffer
11 input errors, 2 CRC, 3 frame, 0 overrun
94 packets output, 3971 bytes, 0 underruns
0 output errors, 0 collisions, 47 interface resets

User: timeout, line Vi1, service PPP VDP
Active time 00:00:34, Idle time 00:00:09
Timeouts: Absolute Idle
Limits: 00:01:30 00:01:00
Disconnect in: 00:00:54 00:00:50

PPP: LCP Open, multilink Closed, CHAP (<- none), IPCP
Idle timer 60 secs, idle 9 secs
IP: Local 10.1.1.1, remote 10.1.1.3
Access list (I/O) is 199/not set
Counts: 14 packets input, 922 bytes, 0 no buffer
0 input errors, 0 CRC, 0 frame, 0 overrun
33 packets output, 956 bytes, 0 underruns
0 output errors, 0 collisions, 0 interface resets

access-3#show caller timeout

Line	User	Session Timeout	Idle Timeout	Disconnect User in
Se0:18	timeout	-	-	-
Vi1	timeout	00:01:30	00:01:00	00:00:42

access-3#show caller timeouts

Line	User	Session Timeout	Idle Timeout	Disconnect User in
Se0:18	timeout	-	-	-
Vi1	timeout	00:01:30	00:01:00	00:00:22

access-3#show caller

Line	User	Service	Active Time	Idle Time
Se0:18	timeout	PPP	00:01:22	00:00:57
Vi1	timeout	PPP VDP	00:01:22	00:00:57

access-3#

*Mar 4 19:46:28.996: Vi1 PPP: Idle timeout, dropping connection
*Mar 4 19:46:28.996: Se0:18 AAA/ACCT: ISDN xmit 64000 rcv 64000 hwidb 612048BC
*Mar 4 19:46:28.996: AAA/ACCT/NET/STOP User timeout, Port Serial0:18:
task_id=15 timezone=PST service=ppp protocol=ip addr=10.1.1.3 **disc-cause=4**
disc-cause-ext=1021 pre-bytes-in=101 pre-bytes-out=102 pre-paks-in=5 pre-paks-out=5
bytes_in=1024 bytes_out=1036 paks_in=21 paks_out=21 pre-session-time=2 elapsed_time=86
nas-rx-speed=64000 nas-tx-speed=64000
*Mar 4 19:46:29.000: ISDN Se0:23: TX -> DISCONNECT pd = 8 callref = 0x800C
*Mar 4 19:46:29.000: Cause i = 0x8090 - Normal call clearing
*Mar 4 19:46:29.000: Vi1 AAA/AUTHOR/PER-USER: Event IP_DOWN
*Mar 4 19:46:29.000: %LINK-3-UPDOWN: Interface Virtual-Access1, changed state to down
*Mar 4 19:46:29.004: Vi1 VTEMPLATE: Free vaccess
*Mar 4 19:46:29.004: Vi1 AAA/AUTHOR/PER-USER: Event LCP_DOWN
*Mar 4 19:46:29.052: ISDN Se0:23: RX <- RELEASE pd = 8 callref = 0x0C

```
*Mar 4 19:46:29.064: ISDN Se0:23: TX -> RELEASE_COMP pd = 8 callref = 0x800C
*Mar 4 19:46:29.064: Se0:18 AAA/AUTHOR/PER-USER: Event LCP_DOWN
*Mar 4 19:46:29.208: TAC+: (3109010012): received acct response status = SUCCESS
*Mar 4 19:46:29.580: VTEMPLATE: Clean up dirty vaccess queue, size 1
*Mar 4 19:46:29.580: Vi1 VTEMPLATE: Found a dirty vaccess clone with vtemplate/AAA
*Mar 4 19:46:29.580: Vi1 VTEMPLATE: ***** UNCLONE VACCESS1 *****
*Mar 4 19:46:29.580: Vi1 VTEMPLATE: Unclone to-be-freed command#2
interface Virtual-Access1
default ppp timeout idle 60
default timeout absolute 1 30
end

*Mar 4 19:46:29.596: Vi1 VTEMPLATE: Set default settings with no ip address
*Mar 4 19:46:29.616: Vi1 VTEMPLATE: Remove cloneblk AAA with vtemplate/AAA
*Mar 4 19:46:29.616: Vi1 VTEMPLATE: ***** UNCLONE VACCESS1 *****
*Mar 4 19:46:29.616: Vi1 VTEMPLATE: Unclone to-be-freed command#15
interface Virtual-Access1
default multilink max-links 2
default ppp multilink
default ppp authentication chap pap ms-chap
default ppp callback accept
default compress mppc
default peer default ip address pool default
default keepalive
default ip nat inside
default ip accounting output-packets
default ip directed-broadcast
default ip helper-address 172.16.24.118
default ip access-group 199 in
default ip unnumbered Loopback0
default encaps ppp
default ip address
end

*Mar 4 19:46:29.704: Vi1 VTEMPLATE: Set default settings with no ip address
*Mar 4 19:46:29.720: Vi1 VTEMPLATE: Remove cloneblk vtemplate with vtemplate/AAA
*Mar 4 19:46:29.720: Vi1 VTEMPLATE: Add vaccess to recycle queue, queue SIZE=1
*Mar 4 19:46:30.000: %LINEPROTO-5-UPDOWN: Line protocol on Interface Virtual-Access1,
changed state to down
```

[관련 정보](#)

- [다이얼 기술 지원 페이지](#)
- [Technical Support - Cisco Systems](#)