

ISDN BRI 터미널 엔드포인트 식별자 협상

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소개

이 문서에서는 ISDN BRI(Basic Rate Interface)에 대한 샘플 컨피그레이션을 제공하며 TEI(Terminal Endpoint Identifier) 협상 프로세스와 관련된 Cisco 라우터 동작을 설명합니다.

[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? 소프트웨어 릴리스 12.2(6).
- 모든 하드웨어 플랫폼.

참고: `isdn tei-negotiation preserve` 명령은 Cisco IOS Software 릴리스 12.2(6) 및 12.2(6)T에 도입되었습니다.

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](#).

배경 정보

일부 유럽 국가(예: 벨기에, 네덜란드)에서는 일반적으로 BRI 회선이 일정 기간 활성 상태가 아닐 때 절전 이유로 전화 회사(Telco)가 ISDN Layer1의 연결을 끊습니다. 다음과 같은 대안이 가능합니다.

- 이미 할당된 TEI는 레이어 1이 플랩을 중지한 후 보존할 수 있습니다.
- Cisco IOS Software는 레이어 1이 플랩될 때마다 TEI를 재협상하도록 구성할 수 있습니다.

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.

네트워크 다이어그램

이 문서에서는 다음 네트워크 설정을 사용합니다.



이 예에서는 BRI 회선과 함께 두 개의 Cisco 2500 라우터를 사용합니다.

구성

이 문서에서는 다음 구성을 사용합니다.

- 케빈
- 크리스슨

케빈

```
kevin#show running-config
!
version 12.2
service timestamps debug datetime msec
service timestamps log datetime msec
hostname kevin
!
username krimson password
```

```
!  
isdn switch-type basic-net3  
!  
interface BRI0  
no ip address  
encapsulation ppp  
dialer rotary-group 1  
dialer-group 1  
isdn switch-type basic-net3  
isdn tei-negotiation preserve  
no cdp enable  
ppp authentication chap  
!  
interface Dialer1  
ip address 10.9.8.2 255.255.255.0  
encapsulation ppp  
dialer in-band  
dialer map ip 10.9.8.1 name krimson 027208196  
dialer-group 1  
no cdp enable  
ppp authentication chap  
!  
dialer-list 1 protocol ip permit  
!  
line con 0  
  exec-timeout 0 0  
line aux 0  
line vty 0 4  
  exec-timeout 0 0  
  password  
  login  
!  
end
```

크리슨

```
krimson#show running-config  
!  
version 12.2  
!  
service timestamps debug datetime msec  
service timestamps log datetime msec  
!  
hostname krimson  
!  
username kevin password  
!  
isdn switch-type basic-net3  
!  
interface BRI0  
no ip address  
encapsulation ppp  
no ip route-cache  
no ip mroute-cache  
no keepalive  
dialer rotary-group 1  
isdn switch-type basic-net3  
no fair-queue  
no cdp enable  
ppp authentication chap  
!  
interface Dialer1  
ip address 10.9.8.1 255.255.255.0
```

```
encapsulation ppp
no ip route-cache
no ip mroute-cache
load-interval 30
no keepalive
dialer in-band
dialer map ip 10.9.8.2 name kevin 027202094
dialer-group 1
no fair-queue
no cdp enable
ppp authentication chap
!
dialer-list 1 protocol ip permit
!
line con 0
  exec-timeout 0 0
line aux 0
line vty 0 4
  exec-timeout 0 0
  password
  login
!
end
```

다음을 확인합니다.

이 섹션에서는 컨피그레이션이 제대로 작동하는지 확인하는 데 사용할 수 있는 정보를 제공합니다.

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

- **show isdn status??**는 모든 ISDN 인터페이스의 상태를 표시합니다.

```
kevin#show isdn status
Global ISDN Switchtype = basic-net3
ISDN BRI0 interface
dsl 0, interface ISDN Switchtype = basic-net3
Layer 1 Status:
DEACTIVATED
Layer 2 Status:
Layer 2 NOT Activated
!--- TEI is removed Layer 3 Status: 0 Active Layer 3 Call(s) Active dsl 0 CCBs = 0 The Free
Channel Mask: 0x3 Number of L2 Discards = 0, L2 Session ID = 10 Total Allocated ISDN CCBs = 0
```

문제 해결

이 섹션에서는 컨피그레이션 문제를 해결하는 데 사용할 수 있는 정보를 제공합니다.

문제 해결 명령

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

- **debug isdn q921??**는 ISDN 인터페이스의 LAPD(D Channel)에 있는 라우터에서 발생하는 데이터 링크 레이어(레이어 2) 액세스 절차를 표시합니다.
- **debug isdn q931??**는 로컬 라우터(사용자측)와 네트워크 간의 ISDN 네트워크 연결(레이어

3)의 통화 설정 및 해제 정보를 표시합니다.

- **debug isdn events???**는 ISDN 인터페이스의 사용자 측(라우터에 있음)에서 발생하는 ISDN 이벤트를 표시합니다.
- **debug bri???**는 ISDN BRI 라우팅 활동에 대한 디버깅 정보를 표시합니다.

다음은 kevin의 디버그 출력입니다.

```
kevin#
*Mar 1 03:04:14.235: BRI: write_sid: scp = 0, wrote = 92
*Mar 1 03:04:14.235: BRI: write_sid: scp = 80, wrote = 93
*Mar 1 03:04:14.239: BRI0: DEACTIVATED, state F1, event LSD
*Mar 1 03:04:14.243: BRI: write_sid: scp = 0, wrote = 1B
*Mar 1 03:04:14.243: BRI: write_sid: scp = 0, wrote = 20
*Mar 1 03:04:14.243: BRI: write_sid: scp = 0, wrote = 92
*Mar 1 03:04:14.247: BRI: write_sid: scp = A0, wrote = 93
*Mar 1 03:04:14.247: BRI0: DEACTIVATED, state F3, event AP
*Mar 1 03:04:14.251: BRI: write_sid: scp = 0, wrote = 3
*Mar 1 03:04:14.255: ISDN BR0: Recvd MPH_IIC_IND from L1
*Mar 1 03:04:14.263: BRI: write_sid: scp = 0, wrote = 92
*Mar 1 03:04:14.263: BRI: write_sid: scp = E0, wrote = 93
*Mar 1 03:04:14.267: BRI0: PENDING, state F7, event AI
*Mar 1 03:04:14.267: BRI: Received activation indication.
*Mar 1 03:04:14.271: Flush all frames in the queue if any
*Mar 1 03:04:14.275: ISDN BR0: L1 is IF_ACTIVE
*Mar 1 03:04:14.275: ISDN BR0 EVENT: isdn_sw_cstate: State = 4, Old State = 4
*Mar 1 03:04:14.279: ISDN BR0: Incoming call id = 0x0030, dsl 0
*Mar 1 03:04:14.319: ISDN BR0: TX -> IDREQ ri=65279 ai=127
*Mar 1 03:04:14.323: BRI: write_sid: scp = 0, wrote = E
*Mar 1 03:04:14.355: ISDN BR0: RX <- IDASSN ri=65279 ai=66
*Mar 1 03:04:14.375: ISDN BR0: TX -> SABMEp c/r=0 sapi=0 tei=66
*Mar 1 03:04:14.379: BRI: write_sid: scp = 0, wrote = E
*Mar 1 03:04:14.399: ISDN BR0: RX <- UI c/r=1 sapi=0 tei=127
i=0x08011C05A1040288901801896C0A218332373230383139367009A13237323032303934
*Mar 1 03:04:14.435: SETUP pd = 8 callref = 0x1C
*Mar 1 03:04:14.443: Sending Complete
*Mar 1 03:04:14.443: Bearer Capability i = 0x8890
*Mar 1 03:04:14.451: Channel ID i = 0x89
*Mar 1 03:04:14.455: Calling Party Number i = 0x21, 0x83,
'27208196', Plan:ISDN, Type:National
*Mar 1 03:04:14.475: Called Party Number i = 0xA1, '27202094',
Plan:ISDN, Type:National
*Mar 1 03:04:14.495: ISDN BR0: RX <- Uaf c/r=0 sapi=0 tei=66
*Mar 1 03:04:14.503: %ISDN-6-LAYER2UP: Layer 2 for Interface BR0, TEI 66
changed to up
*Mar 1 03:04:14.515: CCBRI_Go Fr L3 pkt (Len=35) :
*Mar 1 03:04:14.515: 5 1 9C 90 A1 4 2 88 90 18 1 89 6C A 21 83 32 37 32 30
38 31 39 36 70 9 A1 32 37 32 30 32 30 39 34
*Mar 1 03:04:14.527:
*Mar 1 03:04:14.531: ISDN BR0: Incoming call id = 0x0031, dsl 0
*Mar 1 03:04:14.535: ISDN BR0: LIF_EVENT: ces/callid 1/0x31
HOST_INCOMING_CALL
*Mar 1 03:04:14.543: ISDN BR0: HOST_INCOMING_CALL: (non-POTS) DATA
*Mar 1 03:04:14.543: ISDN BR0: HOST_INCOMING_CALL: (1) call_type = DATA
*Mar 1 03:04:14.547: ISDN BR0: HOST_INCOMING_CALL: voice_answer_data =
FALSE call type is DATA
*Mar 1 03:04:14.551: ISDN BR0: Event: Received a DATA call from 27208196
on B1 at 64 Kb/s
*Mar 1 03:04:14.551: ISDN BR0: Event: Accepting the call id 0x31
*Mar 1 03:04:14.555: ISDN BR0: RM returned call_type 0 resource type 0
response 1
*Mar 1 03:04:14.559: CCBRI_Go Fr Host InPkgInfo (Len=9) :
*Mar 1 03:04:14.563: 7 0 1 0 31 3 18 1 89
```

```

*Mar 1 03:04:14.567:
*Mar 1 03:04:14.575: ISDN BR0: isdn_send_connect(): msg 4, call id 0x31,
ces 1 bchan 0, call type DATA
*Mar 1 03:04:14.579: BRI: enable channel B1
*Mar 1 03:04:14.579: %LINK-3-UPDOWN: Interface BRI0:1, changed state to up
*Mar 1 03:04:14.591: ISDN: get_isdn_service_state(): idb 0x230B74 bchan 2
is_isdn 1 Not a Pri
*Mar 1 03:04:14.595: CCBRI_Go Fr Host InPkgInfo (Len=6) :
*Mar 1 03:04:14.599: 4 0 1 0 31 0
*Mar 1 03:04:14.603:
*Mar 1 03:04:14.615: ISDN BR0: TX -> INFOc sapi=0 tei=66 ns=0 nr=0
i=0x08019C02180189
*Mar 1 03:04:14.627: CALL_PROC pd = 8 callref = 0x9C
*Mar 1 03:04:14.631: Channel ID i = 0x89
*Mar 1 03:04:14.639: BRI: write_sid: scp = 0, wrote = E
*Mar 1 03:04:14.663: ISDN BR0: RX <- RRr sapi=0 tei=66 nr=1
*Mar 1 03:04:14.675: ISDN BR0: TX -> INFOc sapi=0 tei=66 ns=1 nr=0
i=0x08019C07
*Mar 1 03:04:14.679: CONNECT pd = 8 callref = 0x9C
*Mar 1 03:04:14.687: BRI: write_sid: scp = 0, wrote = E
*Mar 1 03:04:14.711: ISDN BR0: RX <- RRr sapi=0 tei=66 nr=2
*Mar 1 03:04:15.567: ISDN BR0: RX <- INFOc sapi=0 tei=66 ns=0 nr=2
i=0x08011C0F
*Mar 1 03:04:15.575: CONNECT_ACK pd = 8 callref = 0x1C
*Mar 1 03:04:15.595: ISDN BR0: TX -> RRr sapi=0 tei=66 nr=1
*Mar 1 03:04:15.595: BRI: write_sid: scp = 0, wrote = E
*Mar 1 03:04:15.619: CCBRI_Go Fr L3 pkt (Len=4) :
*Mar 1 03:04:15.619: F 1 9C 92
*Mar 1 03:04:15.623:
*Mar 1 03:04:15.627: ISDN BR0: LIF_EVENT: ces/callid 1/0x31 HOST_CONNECT
*Mar 1 03:04:15.631: BRI: enable channel B1
*Mar 1 03:04:15.631: ISDN BR0: Event: Connected to 27208196 on B1 at 64 Kb/s
*Mar 1 03:04:16.223: BR0:1 DDR: dialer protocol up
*Mar 1 03:04:17.187: %LINEPROTO-5-UPDOWN: Line protocol on Interface
BRI0:1, changed state to up
*Mar 1 03:04:20.591: %ISDN-6-CONNECT: Interface BRI0:1 is now connected to
027208196 krimson
*Mar 1 03:04:25.591: ISDN BR0: TX -> RRp sapi=0 tei=66 nr=1
*Mar 1 03:04:25.595: BRI: write_sid: scp = 0, wrote = E
*Mar 1 03:04:25.615: ISDN BR0: RX <- RRf sapi=0 tei=66 nr=2

```

kevin#**show isdn status**

```

Global ISDN Switchtype = basic-net3
ISDN BRI0 interface
dsl 0, interface ISDN Switchtype = basic-net3
Layer 1 Status:
ACTIVE
Layer 2 Status:
TEI = 66, Ces = 1, SAPI = 0, State = MULTIPLE_FRAME_ESTABLISHED
I_Queue_Len 0, UI_Queue_Len 0
Layer 3 Status:
1 Active Layer 3 Call(s)
CCB:callid=31, sapi=0, ces=1, B-chan=1, calltype=DATA
Active dsl 0 CCBs = 1
The Free Channel Mask: 0x80000002
Number of L2 Discards = 0, L2 Session ID = 10
Total Allocated ISDN CCBs = 1

```

kevin#

```

*Mar 1 03:04:35.623: ISDN BR0: TX -> RRp sapi=0 tei=66 nr=1
*Mar 1 03:04:35.627: BRI: write_sid: scp = 0, wrote = E

```

*Mar 1 03:04:35.647: ISDN BR0: RX <- RRf sapi=0 tei=66 nr=2
*Mar 1 03:04:45.655: ISDN BR0: TX -> RRp sapi=0 tei=66 nr=1
*Mar 1 03:04:45.659: BRI: write_sid: scp = 0, wrote = E
*Mar 1 03:04:45.679: ISDN BR0: RX <- RRf sapi=0 tei=66 nr=2
*Mar 1 03:04:55.683: ISDN BR0: RX <- RRp sapi=0 tei=66 nr=2
*Mar 1 03:04:55.691: ISDN BR0: TX -> RRf sapi=0 tei=66 nr=1
*Mar 1 03:04:55.695: BRI: write_sid: scp = 0, wrote = E
*Mar 1 03:05:05.691: ISDN BR0: TX -> RRp sapi=0 tei=66 nr=1
*Mar 1 03:05:05.695: BRI: write_sid: scp = 0, wrote = E
*Mar 1 03:05:05.715: ISDN BR0: RX <- RRf sapi=0 tei=66 nr=2
*Mar 1 03:05:15.724: ISDN BR0: TX -> RRp sapi=0 tei=66 nr=1
*Mar 1 03:05:15.728: BRI: write_sid: scp = 0, wrote = E
*Mar 1 03:05:15.748: ISDN BR0: RX <- RRf sapi=0 tei=66 nr=2
*Mar 1 03:05:25.756: ISDN BR0: TX -> RRp sapi=0 tei=66 nr=1
*Mar 1 03:05:25.760: BRI: write_sid: scp = 0, wrote = E
*Mar 1 03:05:25.780: ISDN BR0: RX <- RRf sapi=0 tei=66 nr=2
*Mar 1 03:05:35.788: ISDN BR0: TX -> RRp sapi=0 tei=66 nr=1
*Mar 1 03:05:35.792: BRI: write_sid: scp = 0, wrote = E
*Mar 1 03:05:35.812: ISDN BR0: RX <- RRf sapi=0 tei=66 nr=2
*Mar 1 03:05:45.820: ISDN BR0: TX -> RRp sapi=0 tei=66 nr=1
*Mar 1 03:05:45.824: BRI: write_sid: scp = 0, wrote = E
*Mar 1 03:05:45.844: ISDN BR0: RX <- RRf sapi=0 tei=66 nr=2
*Mar 1 03:05:55.852: ISDN BR0: TX -> RRp sapi=0 tei=66 nr=1
*Mar 1 03:05:55.856: BRI: write_sid: scp = 0, wrote = E
*Mar 1 03:05:55.880: ISDN BR0: RX <- RRf sapi=0 tei=66 nr=2
*Mar 1 03:06:05.888: ISDN BR0: TX -> RRp sapi=0 tei=66 nr=1
*Mar 1 03:06:05.892: BRI: write_sid: scp = 0, wrote = E
*Mar 1 03:06:05.912: ISDN BR0: RX <- RRf sapi=0 tei=66 nr=2
*Mar 1 03:06:15.920: ISDN BR0: TX -> RRp sapi=0 tei=66 nr=1
*Mar 1 03:06:15.924: BRI: write_sid: scp = 0, wrote = E
*Mar 1 03:06:15.944: ISDN BR0: RX <- RRf sapi=0 tei=66 nr=2
*Mar 1 03:06:17.024: BR0:1 DDR: idle timeout
*Mar 1 03:06:17.028: BR0:1 DDR: disconnecting call
*Mar 1 03:06:17.028: ISDN BR0: Event: Hangup call to call id 0x31
*Mar 1 03:06:17.032: BRI: disable channel B1
*Mar 1 03:06:17.032: ISDN BR0: process_disconnect(): call id 0x31, call
type is DATA, b_idb 0x230B74, ces 1, cause Normal call clearing(0x10)
*Mar 1 03:06:17.040: %ISDN-6-DISCONNECT: Interface BRI0:1 disconnected
from 27208196 krimson, call lasted 122 seconds
*Mar 1 03:06:17.048: ISDN: get_isdn_service_state(): idb 0x230B74 bchan 2
is_isdn 1 Not a Pri
*Mar 1 03:06:17.052: CCBRI_Go Fr Host InPkgInfo (Len=13) :
*Mar 1 03:06:17.052: 5 0 1 0 31 3 8 1 90 8 2 80 90
*Mar 1 03:06:17.056:
*Mar 1 03:06:17.072: ISDN BR0: TX -> INFOc sapi=0 tei=66 ns=2 nr=1
i=0x08019C4508028090
*Mar 1 03:06:17.084: DISCONNECT pd = 8 callref = 0x9C
*Mar 1 03:06:17.088: Cause i = 0x8090 - Normal call clearing
*Mar 1 03:06:17.096: BRI: write_sid: scp = 0, wrote = E
*Mar 1 03:06:17.124: ISDN BR0: RX <- RRr sapi=0 tei=66 nr=3
*Mar 1 03:06:17.556: ISDN BR0: RX <- INFOc sapi=0 tei=66 ns=1 nr=3
i=0x08011C4D
*Mar 1 03:06:17.564: RELEASE pd = 8 callref = 0x1C
*Mar 1 03:06:17.580: CCBRI_Go Fr L3 pkt (Len=4) :
*Mar 1 03:06:17.584: 4D 1 9C 97
*Mar 1 03:06:17.584:
*Mar 1 03:06:17.592: ISDN BR0: LIF_EVENT: ces/callid 1/0x31
HOST_DISCONNECT_ACK
*Mar 1 03:06:17.596: ISDN: get_isdn_service_state(): idb 0x230B74 bchan 2
is_isdn 1 Not a Pri
*Mar 1 03:06:17.600: ISDN BR0: HOST_DISCONNECT_ACK: call type is DATA
*Mar 1 03:06:17.604: BRI: disable channel B1
*Mar 1 03:06:17.604: %LINK-3-UPDOWN: Interface BRI0:1, changed state to
down

```
*Mar 1 03:06:17.612: BR0:1 DDR: disconnecting call
*Mar 1 03:06:17.616: ISDN BR0: LIF_EVENT: ces/callid 1/0x31
HOST_DISCONNECT_ACK
*Mar 1 03:06:17.620: ISDN: get_isdn_service_state(): idb 0x230B74 bchan 2
is_isdn 1 Not a Pri
*Mar 1 03:06:17.624: ISDN BR0: HOST_DISCONNECT_ACK: call type is DATA
*Mar 1 03:06:17.628: BRI: disable channel B1
*Mar 1 03:06:17.636: ISDN BR0: TX -> RRr sapi=0 tei=66 nr=2
*Mar 1 03:06:17.640: BRI: write_sid: scp = 0, wrote = E
*Mar 1 03:06:17.644: ISDN BR0: TX -> INFOc sapi=0 tei=66 ns=3 nr=2
i=0x08019C5A
*Mar 1 03:06:17.652: RELEASE_COMP pd = 8 callref = 0x9C
*Mar 1 03:06:17.660: BRI: write_sid: scp = 0, wrote = E
*Mar 1 03:06:17.684: ISDN BR0: RX <- RRr sapi=0 tei=66 nr=4
*Mar 1 03:06:18.940: %LINEPROTO-5-UPDOWN: Line protocol on Interface
BRI0:1, changed state to down
*Mar 1 03:06:27.693: ISDN BR0: TX -> RRp sapi=0 tei=66 nr=2
*Mar 1 03:06:27.697: BRI: write_sid: scp = 0, wrote = E
*Mar 1 03:06:27.717: ISDN BR0: RX <- RRf sapi=0 tei=66 nr=4
*Mar 1 03:06:32.781: ISDN BR0: RX <- DISCp c/r=1 sapi=0 tei=66
*Mar 1 03:06:32.785: %ISDN-6-LAYER2DOWN: Layer 2 for Interface BR0, TEI 66
changed to down
*Mar 1 03:06:32.793: ISDN BR0: TX -> UAf c/r=1 sapi=0 tei=66
*Mar 1 03:06:32.797: BRI: write_sid: scp = 0, wrote = E
```

kevin#**show isdn status**

```
Global ISDN Switchtype = basic-net3
ISDN BRI0 interface
dsl 0, interface ISDN Switchtype = basic-net3
Layer 1 Status:
ACTIVE
Layer 2 Status:
TEI = 66, Ces = 1, SAPI = 0, State = TEI_ASSIGNED
!--- ISDN Layer 2 is disconnected I_Queue_Len 0, UI_Queue_Len 0 Layer 3 Status: 0 Active Layer 3
Call(s) Active dsl 0 CCBs = 0 The Free Channel Mask: 0x3 Number of L2 Discards = 0, L2 Session
ID = 10 Total Allocated ISDN CCBs = 0
```

kevin#

```
*Mar 1 03:06:42.881: BRI: write_sid: scp = 0, wrote = 92
*Mar 1 03:06:42.885: BRI: write_sid: scp = 90, wrote = 93
*Mar 1 03:06:42.885: BRI0: ACTIVATED, state F2, event DI
*Mar 1 03:06:42.889: BRI: T4 timer started DEACT timer expired
*Mar 1 03:06:43.493: BRI: write_sid: scp = 0, wrote = 92
*Mar 1 03:06:43.493: BRI: write_sid: scp = 90, wrote = 93
*Mar 1 03:06:43.497: BRI: write_sid: scp = 0, wrote = 1
*Mar 1 03:06:43.497: BRI: write_sid: scp = 0, wrote = 0
*Mar 1 03:06:43.501: ISDN BR0 EVENT: isdn_sw_cstate: State = 0, Old State = 4
*Mar 1 03:06:43.505: BRI: disable channel B1
*Mar 1 03:06:43.505: BRI: disable channel B2
*Mar 1 03:06:43.509: ISDN BR0: Physical layer is IF_DOWN
!--- ISDN Layer 1 deactivated due to no calls on BRI
*Mar 1 03:06:43.509: ISDN BR0: Shutting down ME
*Mar 1 03:06:43.513: ISDN BR0: Shutting down ISDN Layer 3
```

kevin#**show isdn status**

```
Global ISDN Switchtype = basic-net3
ISDN BRI0 interface
dsl 0, interface ISDN Switchtype = basic-net3
Layer 1 Status:
DEACTIVATED
Layer 2 Status:
```


TEI = 66, Ces = 1, SAPI = 0, State = TEI_ASSIGNED

!--- TEI is preserved due to used configuration I_Queue_Len 0, UI_Queue_Len 0 Layer 3 Status: 0
Active Layer 3 Call(s) Active ds1 0 CCBS = 0 The Free Channel Mask: 0x3 Number of L2 Discards =
0, L2 Session ID = 11 Total Allocated ISDN CCBS = 0

관련 정보

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