

# Numérotation sortante de AS5300 avec RNIS/Async (DDR sortant)

## Contenu

[Introduction](#)

[Avant de commencer](#)

[Conventions](#)

[Conditions préalables](#)

[Components Used](#)

[Théorie générale](#)

[Produits connexes](#)

[Configuration](#)

[Diagramme du réseau](#)

[Configurations](#)

[Vérification](#)

[Dépannage](#)

[Ressources de dépannage](#)

[Dépannage des commandes](#)

[Sortie de dépannage](#)

[Informations connexes](#)

## [Introduction](#)

Cette configuration comporte un AS5300 avec quatre interfaces PRI (Primary Rate Interfaces) et prend en charge 96 appels modem ou un grand nombre d'appels RNIS. Il est configuré avec quatre PRI pour autoriser les connexions sortantes asynchrones et RNIS. Les mappages de numérotation statique sont configurés côté numérotation pour chaque connexion RNIS/Async. Les routes IP statiques sont utilisées aux deux extrémités de la connexion pour éviter la surcharge inutile d'un protocole de routage dynamique. L'ajout d'un emplacement distant nécessiterait l'ajout d'une carte de numérotation, d'un nom d'utilisateur et d'une route statique pour la nouvelle destination du côté de la numérotation. Tous les noeuds distants ont des adresses IP fixes.

## [Avant de commencer](#)

### [Conventions](#)

Pour plus d'informations sur les conventions des documents, référez-vous aux [Conventions utilisées pour les conseils techniques de Cisco](#).

### [Conditions préalables](#)

**Étape 1** - Configurez et vérifiez que les clients de numérotation sont configurés correctement.

**Configurations de numérotation - Périphérique que cet AS5300 appelle vers :**

- PRI : Configuration d'un serveur d'accès avec des PRI pour les appels asynchrones et RNIS sortants : utilisez la configuration du routeur du site central de la gamme AS5300 (nom d'hôte AS5300) fournie dans le document.
- BRI pour recevoir un appel entrant de AS5300 : Configuration du routage à établissement de connexion à la demande (DDR) RNIS avec des profils de numérotation : utilisez la configuration du routeur Cisco 2503 du site client (hostname remoteRNIS01) fournie dans le document.
- Async pour recevoir un appel entrant de AS5300 : Configuration de l'interface Group-Async avec les profils de numérotation : utilisez la configuration du routeur Cisco 2511 du site client (hostname remoteAsync01) fournie dans le document

**Étape 2** - Vérifiez que les circuits Telco fonctionnent correctement. Vous pouvez utiliser la commande **show isdn status** pour vérifier que le circuit BRI ou PRI fonctionne correctement. Référez-vous au document [Utilisation de la commande show isdn status pour le dépannage BRI](#) pour plus d'informations. Vous devez également activer le circuit PRI T1/E1 pour les appels sortants. Contactez votre opérateur de téléphonie pour vérifier ces informations.

## Components Used

Les informations dans ce document sont basées sur les versions de logiciel et de matériel ci-dessous.

- Cisco AS5300, Cisco 2511 et Cisco 2503
- Cisco IOS® Version du logiciel 12.2(10b)
- Un modem asynchrone externe

Les informations présentées dans ce document ont été créées à partir de périphériques dans un environnement de laboratoire spécifique. All of the devices used in this document started with a cleared (default) configuration. Si vous travaillez dans un réseau opérationnel, assurez-vous de bien comprendre l'impact potentiel de toute commande avant de l'utiliser.

## Théorie générale

Dans certaines situations, il peut être nécessaire d'utiliser le circuit PRI T1/E1 pour les connexions de numérotation. Cela permet de s'assurer que le client ou la succursale vers lequel le circuit T1/E1 PRI passe est une identification sécurisée, au lieu d'un utilisateur inconnu qui se connecte avec le nom d'utilisateur et le mot de passe dupliqués au réseau.

## Produits connexes

Cette configuration peut être utilisée avec n'importe quel routeur doté de cartes T1 ou PRI. Par conséquent, tout routeur de la gamme AS5xxx doté d'une carte T1 ou PRI peut utiliser cette configuration. Les routeurs des gammes Cisco 2600 et 3600 peuvent également être configurés pour composer des appels RNIS avec une carte d'interface WAN (WIC) T1/PRI ou un module réseau.

Cette configuration peut également être modifiée pour être utilisée avec les ports E1 ou PRI. Configurez le contrôleur E1 avec les caractéristiques physiques de codage de ligne, de tramage et

autres fournies par l'opérateur téléphonique. La configuration du canal D (interface Serial x:15 pour E1) est similaire à celle présentée ici.

## Configuration

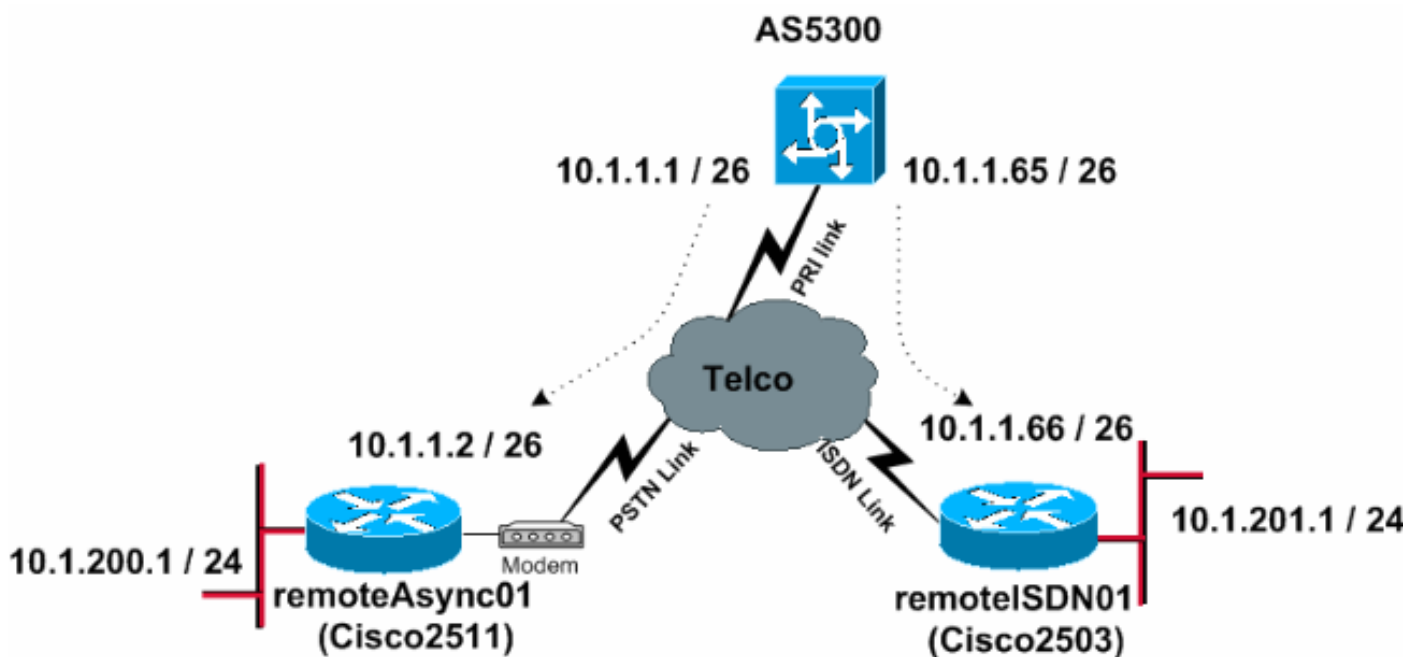
Cette section vous fournit des informations pour configurer les fonctionnalités décrites dans ce document. Pour ce réseau, vous avez besoin des éléments suivants :

- Type de commutateur PRI, tramage et codage de ligne.
- Les noms d'utilisateur et les mots de passe de tous les noeuds distants dans lesquels vous composerez des numéros. Même si vous allez ajouter TACACS+ ou RADIUS ultérieurement, ajoutez quelques noms au routeur pour tester les lignes.
- Le schéma d'adressage IP.

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

## Diagramme du réseau

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



## Configurations

Ce document utilise les configurations présentées ci-dessous.

- [AS5300](#)
- [remoteAsync01](#)
- [RNIS01 distant](#)

AS5300
! version 12.2

```

service timestamps debug datetime msec
service timestamps log datetime msec
!
hostname AS5300
!
!
username remoteISDN01 password 0 xxxx
username remoteAsync01 password 0 xxxx
!--- Usernames for local authentication of the call. !--
- The client presents the username/password !--- and the
AS5300 authenticates the peer. !--- This local database
of usernames and passwords are !--- compared when chap
PPP authentication is negotiated !--- between the AS5300
and remoteISDN01, remoteAsync01 routers. ! isdn switch-
type primary-5ess !--- Switch-type for this AS5300.
Obtain this information from the Telco. chat-script
kelly "" "atdt\T" TIMEOUT 60 CONNECT \c !--- A chat
script is a string of text that defines the handshaking
!--- that occurs between the router and the modem to
sucessfully !--- handshake with the destination. !--- In
this chat-script, "kelly" is the chat-script name. !---
The expect string "" is the null from the destination.
!--- And the send string "ATDT\T" is to instruct the
modem !--- to dial the telephone number in the dialer
string command, !--- which is 9996200 in the Interface
dialer 1 !--- TIMEOUT 60 CONNECT \C - waits up to 60
seconds for the input string "CONNECT", !--- and \C is
an escape sequence to end the chat-script. !--- Refer to
the Modem-Router Connection Guide and Chat-script for
more information. ! controller T1 0 !--- T1 PRI physical
controller configuration. framing esf !--- Framing for
this T1 is Extended Super Frame (ESF). !--- Obtain this
information from the Telco. clock source line primary !-
-- T1 0 is the primary clock source for this AS5300. !--
- Clock source must be specified for the timing !--- and
synchronization of the T1 carrier. linecode b8zs !---
Linecoding for this T1. Obtain this information from the
Telco. pri-group timeslots 1-24 !--- For T1 PRI
scenarios, all 24 T1 timeslots are assigned !--- as ISDN
PRI channels. The router will now automatically create
the !--- corresponding D-channel: interface Serial 0:23.
! controller T1 1 framing esf clock source line
secondary 1 linecode b8zs pri-group timeslots 1-24 !
controller T1 2 framing esf clock source line secondary
linecode b8zs pri-group timeslots 1-24 ! controller T1 3
framing esf clock source line secondary linecode b8zs
pri-group timeslots 1-24 ! interface Ethernet0 ip
address 171.68.186.54 255.255.255.240 no ip directed-
broadcast ! interface Serial0:23 !--- D-channel
configuration for T1 0. no ip address no ip directed-
broadcast encapsulation ppp dialer rotary-group 2 !---
T1 0 is a member of rotary group 2. !--- The rotary
group configuration is in interface Dialer2. !--- This
rotary group command enables the Dialin and Dialout for
ISDN calls. isdn switch-type primary-5ess isdn incoming-
voice modem !--- All incoming ISDN analog modem calls
that come in !--- on an ISDN PRI receive signaling
information !--- from the ISDN D channel. The D channel
is used for !--- circuit-switched data calls and analog
modem calls. !--- This enables all incoming ISDN voice
calls to access the call !--- switch module and
integrated modems. !--- Calls are passed to the modem
and the call negotiates the !--- appropriate connection

```

```
with the far-end modem. no cdp enable ! interface
Serial1:23 no ip address no ip directed-broadcast
encapsulation ppp dialer rotary-group 2 isdn switch-type
primary-5ess isdn incoming-voice modem no cdp enable !
interface Serial2:23 no ip address no ip directed-
broadcast encapsulation ppp dialer rotary-group 2 isdn
switch-type primary-5ess isdn incoming-voice modem no
cdp enable ! interface Serial3:23 no ip address no ip
directed-broadcast encapsulation ppp dialer rotary-group
2 isdn switch-type primary-5ess isdn incoming-voice
modem no cdp enable ! interface FastEthernet0 no ip
address no ip directed-broadcast shutdown ! interface
Group-Async1 !--- This interface is configured for Async
Dialin and Dialout in the T1 PRI. !--- Without this
interface, Async calls cannot be made. no ip address no
ip directed-broadcast async mode interactive dialer in-
band dialer rotary-group 1 !--- Group-Async 1 is a
member of the rotary group. !--- The rotary group
configuration is in interface Dialer 1. no cdp enable
group-range 1 96 !--- Group-range indicates the
asynchronous interfaces !--- which come under the Group-
Async interface. ! interface Dialer1 ip address 10.1.1.1
255.255.255.192 no ip directed-broadcast encapsulation
ppp dialer in-band dialer idle-timeout 600 !--- Set an
idle-timeout to hold the ISDN line. !--- Idle timeout
for outgoing calls is 600 seconds (10 minutes). !--- If
the ISDN link is idle for more than 600 seconds, it will
be dropped. dialer map ip 10.1.1.2 name remoteAsync01
modem-script kelly broadcast 9996200
!--- Dialer map statements for the remote router
remoteAsync01. !--- The name must match the one used by
the remote router to identify itself. !--- Use the modem
chat script "kelly" for this connection.
```

```
dialer-group 1
!--- Apply interesting traffic definition from the
dialer-list 1. ppp authentication chap ! interface
Dialer2 !--- The dialer rotary-group 2 command in Int
s0:23 activates the interface !--- Dialer2 for inbound
and outbound ISDN calls.
```

```
ip address 10.1.1.65 255.255.255.192
no ip directed-broadcast
encapsulation ppp
dialer in-band
dialer idle-timeout 600
dialer map ip 10.1.1.66 name remoteISDN01 broadcast
9996100
```

```
dialer-group 1
ppp authentication chap
```

```
!
no ip http server
ip classless
```

```
ip route 10.1.200.0 255.255.255.0 10.1.1.2
!--- Static route for the 10.1.200.0/24 network. !---
Interesting Traffic for that network !--- will be sent
to interface Dialer1 and the router !--- will initiate
the outbound call for Asynchronous connectivity.
```

```
ip route 10.1.201.0 255.255.255.0 10.1.1.66
!--- Static route for the 10.1.201.0/24 network. !---
Interesting traffic for that network !--- will be sent
to interface Dialer2 and the router !--- will initiate
```

*the outbound call for ISDN BRI connectivity.*

```
!  
dialer-list 1 protocol ip permit  
!--- Interesting traffic is defined by the Protocol IP.  
!--- This is applied to interface Dialer1 and Dialer2  
using the dialer-group 1 command. !--- The specified  
dialer-list number must be the same !--- as the dialer-  
group number; in this example, defined to be "1."  
  
!  
line con 0  
  transport input none  
line 1 96  
  
script dialer kelly  
!--- Enables the chat script kelly configured globally.  
  
  modem InOut  
  transport preferred none  
  transport output none  
line aux 0  
line vty 0 4  
  login  
!  
end
```

## remoteAsync01

```
!  
version 12.2  
service timestamps debug datetime msec  
service timestamps log datetime msec  
!  
hostname remoteAsync01  
!  
!  
username AS5300 password 0 xxxx  
!  
modemcap entry default  
!--- A modemcap named "default" will be applied !--- to  
lines one through eight of Async interfaces. ! interface  
Ethernet0 ip address 10.1.200.1 255.255.255.0 no ip  
directed-broadcast ! interface Serial0 no ip address no  
ip directed-broadcast shutdown ! interface Serial1 no ip  
address no ip directed-broadcast shutdown ! interface  
Async1 ip address 10.1.1.2 255.255.255.192 no ip  
directed-broadcast encapsulation ppp dialer idle-timeout  
600 async mode interactive !--- Enables the slip and ppp  
EXEC commands.  
  
  ppp authentication chap  
!  
no ip http server  
ip classless  
  
ip route 0.0.0.0 0.0.0.0 10.1.1.1  
!--- Default static route for the outgoing packets. !  
line con 0 transport input none line 1 8 login local  
modem InOut modem autoconfigure type default !--- Apply  
the modemcap "default" (configured globally) to
```

```
initialize the modem. !--- Refer to the Modem-Router Connection Guide for more information. transport input
all autoselect during-login autoselect ppp speed 38400
flowcontrol hardware line aux 0 line vty 0 4 ! end
```

## RNIS01 distant

```
!
version 12.2
service timestamps debug datetime msec
service timestamps log datetime msec
!
hostname remoteISDN01
!
!
username AS5300 password 0 xxxx
!--- Usernames for local authentication of the call. !--
- The client presents the username/password !--- and the
AS5300 authenticates the peer. !--- This local database
of usernames and passwords are !--- compared when chap
PPP authentication is negotiated !--- between the AS5300
and remoteISDN01 routers. ! isdn switch-type basic-5ess
!--- Switch-type for this 2503. Obtain this information
from the Telco. . ! interface Ethernet0 ip address
10.1.201.1 255.255.255.0 no ip directed-broadcast !
interface Serial0 no ip address no ip directed-broadcast
shutdown ! interface Serial1 no ip address no ip
directed-broadcast shutdown ! interface BRI0 ip address
10.1.1.66 255.255.255.192 no ip directed-broadcast
encapsulation ppp dialer idle-timeout 600 dialer-group 1
isdn switch-type basic-5ess ppp authentication chap ! no
ip http server ip classless ip route 0.0.0.0 0.0.0.0
10.1.1.65 !--- Default static route for the outgoing
packets. ! dialer-list 1 protocol ip permit ! line con 0
transport input none line aux 0 line vty 0 4 ! end
```

## Vérification

Cette section présente des informations que vous pouvez utiliser pour vous assurer que votre configuration fonctionne correctement.

Certaines commandes **show** sont prises en charge par l'[Output Interpreter Tool](#) (clients enregistrés uniquement), qui vous permet de voir une analyse de la sortie de la commande show.

- **show isdn status** : garantit que le routeur communique correctement avec le commutateur RNIS. Dans le résultat, vérifiez que l'état de la couche 1 soit ACTIVE, et que l'état de la couche 2 = MULTIPLE\_FRAME\_ESTABLISHED s'affiche. Cette commande affiche également le nombre d'appels actifs.
- **show ppp multilink** - Affiche des informations sur les ensembles multiliason actifs. Cette commande doit être utilisée pour vérifier la connexion multiliason.
- **show dialer [numéro de type d'interface]**- Affiche des informations générales de diagnostic pour les interfaces configurées pour DDR. Si le numéroteur s'est correctement activé, le message Dialer state is data link layer up doit s'afficher. Si la couche physique apparaît, le protocole de ligne est apparu, mais le protocole NCP (Network Control Protocol) ne l'a pas fait. Les adresses source et de destination du paquet qui a initié la numérotation sont

indiquées dans la ligne de motif de numérotation. Cette commande show affiche également la configuration du minuteur et le délai avant l'expiration de la connexion.

- **show caller user username detail** - Affiche les paramètres de l'utilisateur particulier, tels que l'adresse IP attribuée, les paramètres PPP et PPP, etc. Si votre version du logiciel Cisco IOS ne prend pas en charge cette commande, utilisez la commande show user.
- **show dialer map** - Affiche les mappages de numérotation dynamique et statique configurés. Cette commande peut être utilisée pour voir si une carte de numérotation dynamique a été créée. Sans mappage de numérotation, vous ne pouvez pas router les paquets.
- **show isdn service** - Pour vérifier l'état des canaux B. (Cette commande est uniquement destinée aux serveurs d'accès qui prennent en charge les contrôleurs PRI/T1.)
- **show user** - Pour afficher les utilisateurs asynchrones/synchrones actuellement connectés.

Vous trouverez ci-dessous quelques résultats de la commande show pour les appels réussis. Examinez les sections en caractères gras et les commentaires fournis dans les résultats. Comparez le résultat obtenu avec le résultat ci-dessous.

Le résultat suivant est obtenu avant d'établir la connexion avec les routeurs RemoteISDN01 et RemoteAsync01.

```
AS5300#show ip route
```

```
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route
```

```
Gateway of last resort is not set
```

```
171.68.0.0/28 is subnetted, 1 subnets
C      171.68.186.48 is directly connected, Ethernet0
10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks
C      10.1.1.0/26 is directly connected, Dialer1
C      10.1.1.64/26 is directly connected, Dialer2
S      10.1.201.0/24 [1/0] via 10.1.1.66
S      10.1.200.0/24 [1/0] via 10.1.1.2
```

Le résultat suivant est obtenu après l'établissement de la connexion avec les routeurs RemoteISDN01 et RemoteAsync01.

```
AS5300#show ip route
```

```
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route
```

```
Gateway of last resort is not set
```

```
171.68.0.0/28 is subnetted, 1 subnets
C      171.68.186.48 is directly connected, Ethernet0
10.0.0.0/8 is variably subnetted, 6 subnets, 3 masks
C      10.1.1.2/32 is directly connected, Dialer1
C      10.1.1.0/26 is directly connected, Dialer1
```



```
C    10.1.1.66/32 is directly connected, Dialer2
C    10.1.1.64/26 is directly connected, Dialer2
S    10.1.201.0/24 [1/0] via 10.1.1.66
S    10.1.200.0/24 [1/0] via 10.1.1.2
```

AS5300#show ip route connected

```
171.68.0.0/28 is subnetted, 1 subnets
C    171.68.186.48 is directly connected, Ethernet0
10.0.0.0/8 is variably subnetted, 6 subnets, 3 masks
C    10.1.1.2/32 is directly connected, Dialer1
C    10.1.1.0/26 is directly connected, Dialer1
C    10.1.1.66/32 is directly connected, Dialer2
C    10.1.1.64/26 is directly connected, Dialer2
```

AS5300#show controllers t1 0

**T1 0 is up.**

```
Applique type is Channelized T1
Cablelength is long gain36 0db
No alarms detected.
alarm-trigger is not set
Version info of slot 0: HW: 4, PLD Rev: 0
```

Manufacture Cookie Info:

```
EEPROM Type 0x0001, EEPROM Version 0x01, Board ID 0x42,
Board Hardware Version 1.32, Item Number 800-2540-02,
Board Revision A0, Serial Number 11493161,
PLD/ISP Version 0.0, Manufacture Date 12-Dec-1998.
```

**Framing is ESF, Line Code is B8ZS, Clock Source is Line Primary.**

```
Data in current interval (197 seconds elapsed):
0 Line Code Violations, 0 Path Code Violations
0 Slip Secs, 0 Fr Loss Secs, 0 Line Err Secs, 0 Degraded Mins
0 Errored Secs, 0 Bursty Err Secs, 0 Severely Err Secs, 0 Unavail Secs
```

**!--- Output suppressed.** AS5300#show int s0:23

**Serial0:23 is up, line protocol is up** (spoofing)

```
Hardware is DSX1
MTU 1500 bytes, BW 64 Kbit, DLY 20000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
Encapsulation PPP, loopback not set
DTR is pulsed for 1 seconds on reset
Last input 00:00:06, output 00:00:06, output hang never
Last clearing of "show interface" counters 11:43:21
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: weighted fair
Output queue: 0/1000/64/0 (size/max total/threshold/drops)
    Conversations 0/1/16 (active/max active/max total)
    Reserved Conversations 0/0 (allocated/max allocated)
    Available Bandwidth 48 kilobits/sec
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
    5075 packets input, 25767 bytes, 0 no buffer
    Received 0 broadcasts, 0 runts, 0 giants, 0 throttles
    2 input errors, 0 CRC, 1 frame, 0 overrun, 0 ignored, 1 abort
    5073 packets output, 25904 bytes, 0 underruns
    0 output errors, 0 collisions, 13 interface resets
    0 output buffer failures, 0 output buffers swapped out
    2 carrier transitions
Timeslot(s) Used:24, Transmitter delay is 0 flags
```

AS5300#show users

Line	User	Host(s)	Idle	Location
------	------	---------	------	----------

```
* 0 con 0 idle 00:00:00
11 tty 11 remoteAsync Async interface 00:05:40 PPP: 10.1.1.2
```

```
Interface User Mode Idle Peer Address
Se0:21 remoteISDN Sync PPP 00:06:12 PPP: 10.1.1.66
```

remoteAsync01#show users

```
Line User Host(s) Idle Location
* 0 con 0 idle 00:00:00
1 tty 1 AS5300 Async interface 00:07:27 PPP: 10.1.1.1
2 tty 2 Modem Autoconfigure 00:00:00
3 tty 3 Modem Autoconfigure 00:00:00
4 tty 4 Modem Autoconfigure 00:00:01
5 tty 5 Modem Autoconfigure 00:00:00
6 tty 6 Modem Autoconfigure 00:00:00
7 tty 7 Modem Autoconfigure 00:00:00
Interface User Mode Idle Peer Address
```

remoteISDN01#show users

```
Line User Host(s) Idle Location
* 0 con 0 idle 00:00:00
Interface User Mode Idle Peer Address
BR0:1 AS5300 Sync PPP 00:09:09 PPP: 10.1.1.65
```

AS5300#show isdn history

-----  
ISDN CALL HISTORY  
-----

Call History contains all active calls, and a maximum of 100 inactive calls.  
Inactive call data will be retained for a maximum of 15 minutes.

```
-----
Call Calling Called Remote Seconds Seconds Seconds Charges
Type Number Number Name Used Left Idle Units/Currency
-----
Out ---N/A--- 9996200 +oteAsync01 187 0 0
Out ---N/A--- 9996200 +oteAsync01 56 0 0
Out ---N/A--- 9996200 +oteAsync01 469 305 294 0
Out ---N/A--- 9996100 +moteISDN01 105 509 90 0
-----
```

AS5300#show isdn active

-----  
ISDN ACTIVE CALLS  
-----

```
-----
Call Calling Called Remote Seconds Seconds Seconds Charges
Type Number Number Name Used Left Idle Units/Currency
-----
Out ---N/A--- 9996100 +moteISDN01 152 449 150 0
Out ---N/A--- 9996200 +oteAsync01 133 491 108 0
-----
```

AS5300#show isdn status

Global ISDN Switchtype = primary-5ess

ISDN Serial0:23 interface

**dsl 0, interface ISDN Switchtype = primary-5ess**

Layer 1 Status:

**ACTIVE**

Layer 2 Status:

TEI = 0, Ces = 1, SAPI = 0, **State = MULTIPLE\_FRAME\_ESTABLISHED**

Layer 3 Status:

```

2 Active Layer 3 Call(s)
CCB:callid=809E, sapi=0, ces=0, B-chan=23, calltype=VOICE
CCB:callid=809F, sapi=0, ces=0, B-chan=22, calltype=DATA
Active dsl 0 CCBs = 2
The Free Channel Mask: 0x801FFFFF
Number of L2 Discards = 1, L2 Session ID = 10
!--- Output suppressed. AS5300#Ping 10.1.201.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.1.201.1, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 32/33/36 ms

```

```

AS5300#Ping 10.1.200.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.1.200.1, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 128/141/148 ms

```

```

AS5300#show isdn service
PRI Channel Statistics:
ISDN Se0:23, Channel [1-24]
Configured Isdn Interface (dsl) 0
Channel State (0=Idle 1=Proposed 2=Busy 3=Reserved 4=Restart 5=Maint_Pend)
Channel : 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4
State   : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 2 2 3
Service State (0=Inservice 1=Maint 2=Outofservice)
Channel : 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4
State   : 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 2

```

!--- Output suppressed. AS5300#show modem

Codes:

- \* - Modem has an active call
- C - Call in setup
- T - Back-to-Back test in progress
- R - Modem is being Reset
- p - Download request is pending and modem cannot be used for taking calls
- D - Download in progress
- B - Modem is marked bad and cannot be used for taking calls
- b - Modem is either busied out or shut-down
- d - DSP software download is required for achieving K56flex connections
- ! - Upgrade request is pending

Mdm	Avg Hold Time	Inc calls Succ	Inc calls Fail	Out calls Succ	Out calls Fail	Busied Out	Failed Dial	No Answer	Succ Pct.
1/0	00:00:00	0	0	0	0	0	0	0	0%
1/1	00:00:00	0	0	0	0	0	0	0	0%
1/2	00:00:00	0	0	0	0	0	0	0	0%
1/3	00:00:00	0	0	0	0	0	0	0	0%
1/4	00:00:00	0	0	0	0	0	0	0	0%
1/5	00:00:00	0	0	0	0	0	0	0	0%
1/6	00:00:00	0	0	0	0	0	0	0	0%
1/7	00:00:00	0	0	0	0	0	0	0	0%
1/8	00:00:00	0	0	0	0	0	0	0	0%
1/9	00:00:00	0	0	0	0	0	0	0	0%
* 1/10	00:02:21	0	0	5	5	0	0	0	50%
1/11	00:03:11	0	0	23	6	0	0	0	79%
1/12	00:00:00	0	0	0	0	0	0	0	0%
1/13	00:00:00	0	0	0	0	0	0	0	0%
1/14	00:00:00	0	0	0	0	0	0	0	0%

!--- Output suppressed.

## Dépannage

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

## Ressources de dépannage

- [Dépannage des appels RNIS entrants](#) - Utilisation pour le dépannage des échecs d'appels RNIS.
- [PRI RNIS Callin](#) - Contient des informations supplémentaires sur le dépannage des pannes d'appels RNIS.
- [Organigramme de dépannage T1](#) - Utilisez cet organigramme si vous soupçonnez que le circuit T1 ne fonctionne pas correctement.
- [Dépannage T1 PRI](#) - Procédure de dépannage des circuits RNIS PRI
- [Tests de bouclage pour les lignes T1/56K](#) - Permet de vérifier que le port T1 du routeur fonctionne correctement.
- [Utilisation de la commande show isdn status pour le dépannage BRI](#) - Utilisez ce document pour le dépannage BRI.
- [Dépannage de la couche 3 RNIS BRI à l'aide de la commande debug isdn q931](#) - Utilisez ce document pour le dépannage de la couche 3 RNIS.

## Dépannage des commandes

Certaines commandes **show** sont prises en charge par l'[Output Interpreter Tool](#) (clients enregistrés uniquement), qui vous permet de voir une analyse de la sortie de la commande show.

**Note** : Avant d'émettre des commandes **debug**, consultez [Informations importantes sur les commandes de débogage](#).

- **debug dialer** - Lorsque DDR est activé sur l'interface, cette commande affiche des informations sur la cause de tout appel (appelé cause de numérotation).
- **debug isdn q931** - Pour vérifier les connexions RNIS lors du lancement des appels sortants.
- **debug ppp negotiation** - Pour voir si un client passe la négociation PPP. Un nombre élevé de négociations PPP simultanées peut submerger le processeur du routeur.
- **debug ppp authentication** - Pour voir si un client passe l'authentification. Si vous utilisez une version antérieure à la version 11.2 de Cisco IOS, utilisez plutôt la commande debug ppp chap.
- **debug ppp error** - Pour afficher les erreurs de protocole et les statistiques d'erreur associées à la négociation et au fonctionnement de la connexion PPP.

## Commandes de dépannage du modem

- **debug chat** - Pour voir l'exécution du script de conversation lorsqu'un appel est lancé.
- **debug modem** - Pour vérifier si le routeur reçoit les bons signaux du modem.
- **debug modem csm** - Pour activer le mode de débogage CSM (Call Switching Module) de gestion de modem.

## Sortie de dépannage

Vous trouverez ci-dessous les résultats du débogage d'un appel sortant réussi. Examinez les sections en caractères gras et les commentaires fournis dans les résultats. Comparez le résultat obtenu avec le résultat ci-dessous.

## Débogage de la connexion commutée de AS5300 T1 PRI vers le routeur Async01 distant

```
AS5300#debug isdn q931
```

```
ISDN Q931 packets debugging is on
```

```
AS5300#debug chat
```

```
Chat scripts activity debugging is on
```

```
AS5300#debug dialer events
```

```
Dial on demand events debugging is on
```

```
AS5300#show debug
```

```
Dial on demand:
```

```
    Dial on demand events debugging is on
```

```
PPP:
```

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

```
ISDN:
```

```
    ISDN Q931 packets debugging is on
```

```
    ISDN Q931 packets debug DSLs. (On/Off/No DSL:1/0/-)
```

```
    DSL  0 --> 7
```

```
    1 1 1 1 - - - -
```

```
Chat Scripts:
```

```
Chat scripts activity debugging is on
```

```
AS5300#ping 10.1.200.1
```

```
Type escape sequence to abort.
```

```
Sending 5, 100-byte ICMP Echos to 10.1.200.1, timeout is 2 seconds:
```

```
Dec 30 17:59:16.675: As12 DDR: rotor dialout [priority]
```

```
Dec 30 17:59:16.675: As12 DDR: Dialing cause ip (s=10.1.1.1, d=10.1.200.1)
```

```
!--- The dialing cause is a ping for 10.1.200.1. !--- ICMP is tagged as interesting. Dec 30
```

```
17:59:16.675: As12 DDR: Attempting to dial 9996200 Dec 30 17:59:16.675: CHAT12: Attempting async
```

```
line dialer script Dec 30 17:59:16.675: CHAT12: Dialing using Modem script: kelly
```

```
& System script: none
```

```
!--- Uses the Chat script kelly to Dialout.
```

```
Dec 30 17:59:16.675: CHAT12: process started
```

```
Dec 30 17:59:16.675: CHAT12: Asserting DTR
```

```
Dec 30 17:59:16.675: CHAT12: Chat script kelly started
```

```
Dec 30 17:59:16.675: CHAT12: Sending string: atdt\T<9996200>
```

```
!--- The Chat script kelly uses the Telephone no in Interface Dialer 1 to Dialout. Dec 30
```

```
17:59:16.675: CHAT12: Expecting string: CONNECT Dec 30 17:59:16.755: ISDN Se0:23: TX -> SETUP pd
```

```
= 8 callref = 0x00B1
```

```
!--- Outgoing ISDN Q.931 SETUP message. Dec 30 17:59:16.755: Bearer Capability i = 0x8090A2 Dec
```

```
30 17:59:16.755: Channel ID i = 0xA98397 Dec 30 17:59:16.759: Called Party Number i = 0xA1,
```

```
'9996200', Plan:ISDN, Type:National Dec 30 17:59:16.823: ISDN Se0:23: RX <- CALL_PROC pd = 8
```

```
callref = 0x80B1 Dec 30 17:59:16.823: Channel ID i = 0xA98397 Dec 30 17:59:17.023: ISDN Se0:23:
```

```
RX <- ALERTING pd = 8 callref = 0x80B1..... Success rate is 0 percent (0/5) AS5300# Dec 30
```

```
17:59:26.115: ISDN Se0:23: RX <- CONNECT pd = 8 callref = 0x80B1
```

```
!--- Received Q.931 CONNECT message. Dec 30 17:59:26.119: ISDN Se0:23: TX -> CONNECT_ACK pd = 8
```

```
callref = 0x00B1 Dec 30 17:59:32.119: %ISDN-6-CONNECT: Interface Serial0:22 is now connected to
```

```
9996200 Dec 30 17:59:49.347: CHAT12: Completed match for expect: CONNECT Dec 30 17:59:49.347:
```

```
CHAT12: Sending string: \c Dec 30 17:59:49.347: CHAT12: Chat script kelly finished, status =
```

```
Success Dec 30 17:59:49.351: Di1 IPCP: Install route to 10.1.1.2
```

```
!--- A route to the peer is installed. Dec 30 17:59:51.351: %LINK-3-UPDOWN: Interface Async12, changed state to up
```

```
Dec 30 17:59:51.351: As12 DDR: Dialer statechange to up
```

```
Dec 30 17:59:51.351: As12 DDR: Dialer call has been placed
```

```
Dec 30 17:59:51.351: As12 PPP: Treating connection as a callout
```

```
Dec 30 17:59:51.351: As12 PPP: Phase is ESTABLISHING, Active Open [0 sess, 1 load]
```

```
Dec 30 17:59:51.351: As12 LCP: O CONFREQ [Closed] id 149 len 25
```

```
Dec 30 17:59:51.351: As12 LCP: ACCM 0x000A0000 (0x0206000A0000)
Dec 30 17:59:51.351: As12 LCP: AuthProto CHAP (0x0305C22305)
Dec 30 17:59:51.351: As12 LCP: MagicNumber 0x4A997A3A (0x05064A997A3A)
Dec 30 17:59:51.351: As12 LCP: PFC (0x0702)
Dec 30 17:59:51.351: As12 LCP: ACFC (0x0802)
Dec 30 17:59:53.351: As12 LCP: TIMEOUT: State REQsent
Dec 30 17:59:53.351: As12 LCP: O CONFREQ [REQsent] id 150 len 25
Dec 30 17:59:53.351: As12 LCP: ACCM 0x000A0000 (0x0206000A0000)
Dec 30 17:59:53.351: As12 LCP: AuthProto CHAP (0x0305C22305)
Dec 30 17:59:53.351: As12 LCP: MagicNumber 0x4A997A3A (0x05064A997A3A)
Dec 30 17:59:53.351: As12 LCP: PFC (0x0702)
Dec 30 17:59:53.351: As12 LCP: ACFC (0x0802)
Dec 30 17:59:53.511: As12 LCP: I CONFREQ [REQsent] id 53 len 25
Dec 30 17:59:53.511: As12 LCP: ACCM 0x000A0000 (0x0206000A0000)
Dec 30 17:59:53.511: As12 LCP: AuthProto CHAP (0x0305C22305)
Dec 30 17:59:53.511: As12 LCP: MagicNumber 0x67B12AE8 (0x050667B12AE8)
Dec 30 17:59:53.511: As12 LCP: PFC (0x0702)
Dec 30 17:59:53.511: As12 LCP: ACFC (0x0802)
Dec 30 17:59:53.511: As12 LCP: O CONFACK [REQsent] id 53 len 25
Dec 30 17:59:53.511: As12 LCP: ACCM 0x000A0000 (0x0206000A0000)
Dec 30 17:59:53.511: As12 LCP: AuthProto CHAP (0x0305C22305)
Dec 30 17:59:53.511: As12 LCP: MagicNumber 0x67B12AE8 (0x050667B12AE8)
Dec 30 17:59:53.511: As12 LCP: PFC (0x0702)
Dec 30 17:59:53.511: As12 LCP: ACFC (0x0802)
Dec 30 17:59:53.543: As12 LCP: I CONFACK [ACKsent] id 150 len 25
Dec 30 17:59:53.543: As12 LCP: ACCM 0x000A0000 (0x0206000A0000)
Dec 30 17:59:53.543: As12 LCP: AuthProto CHAP (0x0305C22305)
Dec 30 17:59:53.543: As12 LCP: MagicNumber 0x4A997A3A (0x05064A997A3A)
Dec 30 17:59:53.543: As12 LCP: PFC (0x0702)
Dec 30 17:59:53.543: As12 LCP: ACFC (0x0802)
Dec 30 17:59:53.543: As12 LCP: State is Open
!--- LCP negotiation is complete. Dec 30 17:59:53.543: As12 PPP: Phase is AUTHENTICATING, by both
[0 sess, 1 load] Dec 30 17:59:53.543: As12 CHAP: O CHALLENGE id 25 len 27 from "AS5300" Dec 30
17:59:53.655: As12 CHAP: I CHALLENGE id 27 len 34 from "remoteAsync01" Dec 30 17:59:53.655: As12
CHAP: O RESPONSE id 27 len 27 from "AS5300" Dec 30 17:59:53.671: As12 CHAP: I RESPONSE id 25 len
34 from "remoteAsync01" Dec 30 17:59:53.671: As12 CHAP: O SUCCESS id 25 len 4 Dec 30
17:59:53.783: As12 CHAP: I SUCCESS id 27 len 4 !--- Two-way CHAP authentication is successful.
Dec 30 17:59:53.783: As12 PPP: Phase is UP [0 sess, 1 load] Dec 30 17:59:53.783: As12 IPCP: O
CONFREQ [Closed] id 25 len 10 Dec 30 17:59:53.783: As12 IPCP: Address 10.1.1.1 (0x03060A010101)
Dec 30 17:59:53.783: As12 CDPCP: O CONFREQ [Closed] id 25 len 4 Dec 30 17:59:53.783: As12 IPCP:
I CONFREQ [REQsent] id 27 len 10 Dec 30 17:59:53.783: As12 IPCP: Address 10.1.1.2
(0x03060A010102) Dec 30 17:59:53.783: As12 IPCP: O CONFACK [REQsent] id 27 len 10 Dec 30
17:59:53.783: As12 IPCP: Address 10.1.1.2 (0x03060A010102) Dec 30 17:59:53.911: As12 IPCP: I
CONFACK [ACKsent] id 25 len 10 Dec 30 17:59:53.911: As12 IPCP: Address 10.1.1.1 (0x03060A010101)
Dec 30 17:59:53.911: As12 IPCP: State is Open Dec 30 17:59:53.911: As12 DDR: dialer protocol up
Dec 30 17:59:53.927: As12 LCP: I PROTREJ [Open] id 54 len 10 protocol CDPCP (0x820701190004) Dec
30 17:59:53.927: As12 CDPCP: State is Closed Dec 30 17:59:54.783: %LINEPROTO-5-UPDOWN: Line
protocol on Interface Async12, changed state to up Dec 30 17:59:54.783: As12 PPP: Outbound cdp
packet dropped, CDPCP is Closed [starting negotiations] Dec 30 17:59:54.783: As12 CDPCP: State
is Closed Dec 30 17:59:54.783: As12 PPP: Outbound cdp packet dropped, CDPCP is Closed [starting
negotiations] Dec 30 17:59:54.783: As12 CDPCP: State is Closed Dec 30 17:59:54.783: As12 PPP:
Outbound cdp packet dropped, CDPCP is Closed [starting negotiations] Dec 30 17:59:54.783: As12
CDPCP: State is Closed Dec 30 17:59:54.787: As12 CDPCP: TIMEOUT: State Closed Dec 30
17:59:54.787: As12 CDPCP: State is Listen remoteAsync01#debug ppp negotiation
PPP protocol negotiation debugging is on
remoteAsync01#
Dec 30 17:58:54: As1 LCP: I CONFREQ [Closed] id 150 len 25
Dec 30 17:58:54: As1 LCP: ACCM 0x000A0000 (0x0206000A0000)
Dec 30 17:58:54: As1 LCP: AuthProto CHAP (0x0305C22305)
Dec 30 17:58:54: As1 LCP: MagicNumber 0x4A997A3A (0x05064A997A3A)
Dec 30 17:58:54: As1 LCP: PFC (0x0702)
Dec 30 17:58:54: As1 LCP: ACFC (0x0802)
Dec 30 17:58:54: As1 LCP: Lower layer not up, Fast Starting
Dec 30 17:58:54: As1 PPP: Treating connection as a dedicated line
```

```

Dec 30 17:58:54: As1 PPP: Phase is ESTABLISHING, Active Open [0 sess, 0 load]
Dec 30 17:58:54: As1 LCP: O CONFREQ [Closed] id 53 len 25
Dec 30 17:58:54: As1 LCP: ACCM 0x000A0000 (0x0206000A0000)
Dec 30 17:58:54: As1 LCP: AuthProto CHAP (0x0305C22305)
Dec 30 17:58:54: As1 LCP: MagicNumber 0x67B12AE8 (0x050667B12AE8)
Dec 30 17:58:54: As1 LCP: PFC (0x0702)
Dec 30 17:58:54: As1 LCP: ACFC (0x0802)
Dec 30 17:58:54: As1 LCP: O CONFACK [REQsent] id 150 len 25
Dec 30 17:58:54: As1 LCP: ACCM 0x000A0000 (0x0206000A0000)
Dec 30 17:58:54: As1 LCP: AuthProto CHAP (0x0305C22305)
Dec 30 17:58:54: As1 LCP: MagicNumber 0x4A997A3A (0x05064A997A3A)
Dec 30 17:58:54: As1 LCP: PFC (0x0702)
Dec 30 17:58:54: As1 LCP: ACFC (0x0802)
Dec 30 17:58:54: %LINK-3-UPDOWN: Interface Async1, changed state to up
Dec 30 17:58:55: As1 LCP: I CONFACK [ACKsent] id 53 len 25
Dec 30 17:58:55: As1 LCP: ACCM 0x000A0000 (0x0206000A0000)
Dec 30 17:58:55: As1 LCP: AuthProto CHAP (0x0305C22305)
Dec 30 17:58:55: As1 LCP: MagicNumber 0x67B12AE8 (0x050667B12AE8)
Dec 30 17:58:55: As1 LCP: PFC (0x0702)
Dec 30 17:58:55: As1 LCP: ACFC (0x0802)
Dec 30 17:58:55: As1 LCP: State is Open

!--- LCP negotiation is complete. Dec 30 17:58:55: As1 PPP: Phase is AUTHENTICATING, by both [0
sess, 0 load] Dec 30 17:58:55: As1 CHAP: O CHALLENGE id 27 len 34 from "remoteAsync01" Dec 30
17:58:55: As1 CHAP: I CHALLENGE id 25 len 27 from "AS5300" Dec 30 17:58:55: As1 CHAP: O RESPONSE
id 25 len 34 from "remoteAsync01" Dec 30 17:58:55: As1 CHAP: I RESPONSE id 27 len 27 from
"AS5300" Dec 30 17:58:55: As1 CHAP: I SUCCESS id 25 len 4 Dec 30 17:58:55: As1 CHAP: O SUCCESS
id 27 len 4 !--- Two-way CHAP authentication is successful. Dec 30 17:58:55: As1 PPP: Phase is
UP [0 sess, 1 load] Dec 30 17:58:55: As1 IPCP: O CONFREQ [Closed] id 27 len 10 Dec 30 17:58:55:
As1 IPCP: Address 10.1.1.2 (0x03060A010102) Dec 30 17:58:55: As1 IPCP: I CONFREQ [REQsent] id 25
len 10 Dec 30 17:58:55: As1 IPCP: Address 10.1.1.1 (0x03060A010101) Dec 30 17:58:55: As1 IPCP: O
CONFACK [REQsent] id 25 len 10 Dec 30 17:58:55: As1 IPCP: Address 10.1.1.1 (0x03060A010101) Dec
30 17:58:55: As1 CDP: I CONFREQ [Not negotiated] id 25 len 4 Dec 30 17:58:55: As1 LCP: O
PROTREQ [Open] id 54 len 10 protocol CDP (0x820701190004) Dec 30 17:58:55: As1 IPCP: I CONFACK
[ACKsent] id 27 len 10 Dec 30 17:58:55: As1 IPCP: Address 10.1.1.2 (0x03060A010102) Dec 30
17:58:55: As1 IPCP: State is Open Dec 30 17:58:55: As1 IPCP: Install route to 10.1.1.1

!--- A route to the peer is installed. Dec 30 17:58:56: %LINEPROTO-5-UPDOWN: Line protocol on
Interface Async1,
changedstate to up

```

## [Débogage de la numérotation de AS5300 vers le routeur RNIS01 distant](#)

```

AS5300#show debug
Dial on demand:
  Dial on demand events debugging is on
PPP:
  PPP protocol negotiation debugging is on
ISDN:
  ISDN Q931 packets debugging is on
  ISDN Q931 packets debug DSLs. (On/Off/No DSL:1/0/-)
  DSL 0 --> 7
  1 1 1 1 - - - -
Chat Scripts:
  Chat scripts activity debugging is on
AS5300#ping 10.1.201.1

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.1.201.1, timeout is 2 seconds:

Dec 30 18:12:42.811: Se0:23 DDR: rotor dialout [priority]

```

```
Dec 30 18:12:42.815: Se0:23 DDR: Dialing cause ip (s=10.1.1.65, d=10.1.201.1)
!--- The dialing cause is a ping for 10.1.201.1. !--- ICMP is tagged as interesting. Dec 30
18:12:42.815: Se0:23 DDR: Attempting to dial 9996100 Dec 30 18:12:42.815: ISDN Se0:23: TX -
>SETUP pd = 8 callref = 0x00B2
!--- Outgoing ISDN Q.931 SETUP message. Dec 30 18:12:42.815: Bearer Capability i = 0x8890 Dec 30
18:12:42.815: Channel ID i = 0xA98396 Dec 30 18:12:42.819: Called Party Number i = 0xA1,
'9996100', Plan:ISDN, Type:National Dec 30 18:12:42.867: ISDN Se0:23: RX <- CALL_PROC pd = 8
callref = 0x80B2 Dec 30 18:12:42.867: Channel ID i = 0xA98396 Dec 30 18:12:43.127: ISDN Se0:23:
RX <- CONNECT pd = 8 callref = 0x80B2 !--- Received Q.931 CONNECT message. Dec 30 18:12:43.135:
%LINK-3-UPDOWN: Interface Serial0:21, changed state to up Dec 30 18:12:43.135: Se0:21 PPP:
Treating connection as a callout Dec 30 18:12:43.135: Se0:21 PPP: Phase is ESTABLISHING, Active
Open [0 sess, 1 load] Dec 30 18:12:43.135: Se0:21 LCP: O CONFREQ [Closed] id 25 len 15 Dec 30
18:12:43.139: Se0:21 LCP: AuthProto CHAP (0x0305C22305) Dec 30 18:12:43.139: Se0:21 LCP:
MagicNumber 0x4AA54104 (0x05064AA54104) Dec 30 18:12:43.139: ISDN Se0:23: TX -> CONNECT_ACK pd =
8 callref = 0x00B2 Dec 30 18:12:43.167: Se0:21 LCP: I CONFREQ [REQsent] id 55 len 15 Dec 30
18:12:43.167: Se0:21 LCP: AuthProto CHAP (0x0305C22305) Dec 30 18:12:43.167: Se0:21 LCP:
MagicNumber 0x575DC27D (0x0506575DC27D) Dec 30 18:12:43.167: Se0:21 LCP: O CONFACK [REQsent] id
55 len 15 Dec 30 18:12:43.167: Se0:21 LCP: AuthProto CHAP (0x0305C22305) Dec 30 18:12:43.167:
Se0:21 LCP: MagicNumber 0x575DC27D (0x0506575DC27D) Dec 30 18:12:43.175: Se0:21 LCP: I CONFACK
[ACKsent] id 25 len 15 Dec 30 18:12:43.175: Se0:21 LCP: AuthProto CHAP (0x0305C22305) Dec 30
18:12:43.175: Se0:21 LCP: MagicNumber 0x4AA54104 (0x05064AA54104) Dec 30 18:12:43.179: Se0:21
LCP: State is Open
!--- LCP negotiation is complete. Dec 30 18:12:43.179: Se0:21 PPP: Phase is AUTHENTICATING, by
both [0 sess, 1.!!!! Success rate is 80 percent (4/5), round-trip min/avg/max = 32/33/36
msAS5300# load] Dec 30 18:12:43.179: Se0:21 CHAP: O CHALLENGE id 13 len 27 from "AS5300" Dec 30
18:12:43.227: Se0:21 CHAP: I CHALLENGE id 36 len 33 from "remoteISDN01" Dec 30 18:12:43.227:
Se0:21 CHAP: O RESPONSE id 36 len 27 from "AS5300" Dec 30 18:12:43.251: Se0:21 CHAP: I SUCCESS
id 36 len 4 Dec 30 18:12:43.263: Se0:21 CHAP: I RESPONSE id 13 len 33 from "remoteISDN01" Dec 30
18:12:43.263: Se0:21 CHAP: O SUCCESS id 13 len 4
!--- Two-way CHAP authentication is successful. Dec 30 18:12:43.263: Se0:21 PPP: Phase is UP [0
sess, 1 load] Dec 30 18:12:43.263: Se0:21 IPCP: O CONFREQ [Closed] id 13 len 10 Dec 30
18:12:43.267: Se0:21 IPCP: Address 10.1.1.65 (0x03060A010141) Dec 30 18:12:43.287: Se0:21 IPCP:
I CONFREQ [REQsent] id 36 len 10 Dec 30 18:12:43.287: Se0:21 IPCP: Address 10.1.1.66
(0x03060A010142) Dec 30 18:12:43.287: Se0:21 IPCP: O CONFACK [REQsent] id 36 len 10 Dec 30
18:12:43.287: Se0:21 IPCP: Address 10.1.1.66 (0x03060A010142) Dec 30 18:12:43.287: Se0:21 CDPCP:
I CONFREQ [Not negotiated] id 36 len 4 Dec 30 18:12:43.291: Se0:21 LCP: O PROTREJ [Open] id 26
len 10 protocol CDPCP (0x820701240004) Dec 30 18:12:43.307: Se0:21 IPCP: I CONFACK [ACKsent] id
13 len 10 Dec 30 18:12:43.307: Se0:21 IPCP: Address 10.1.1.65 (0x03060A010141) Dec 30
18:12:43.307: Se0:21 IPCP: State is Open Dec 30 18:12:43.307: Se0:21 DDR: dialer protocol up Dec
30 18:12:43.307: Di2 IPCP: Install route to 10.1.1.66
!--- A route to the peer is installed. Dec 30 18:12:44.263: %LINEPROTO-5-UPDOWN: Line protocol
on Interface Serial0:21,
changed state to up
Dec 30 18:12:49.135: %ISDN-6-CONNECT: Interface Serial0:21 is now connected to
9996100 remoteISDN01

remoteISDN01#debug ppp negotiation
PPP protocol negotiation debugging is on
remoteISDN01#debug isdn q931
ISDN Q931 packets debugging is on
remoteISDN01#show debug
PPP:
  PPP protocol negotiation debugging is on
ISDN:
  ISDN Q931 packets debugging is on
remoteISDN01#
Dec 30 18:13:04: ISDN BR0: RX <- SETUP pd = 8 callref = 0x1B
Dec 30 18:13:04: Bearer Capability i = 0x8890
Dec 30 18:13:04: Channel ID i = 0x89
Dec 30 18:13:04: Signal i = 0x40 - Alerting on - pattern 0
Dec 30 18:13:04: Called Party Number i = 0xA1, '2019996100', Plan:ISDN,
  Type:National
Dec 30 18:13:04: ISDN BR0: Event: Received a DATA call from <unknown> on B1 at
  64 Kb/s
```



```

Dec 30 18:13:04: ISDN BR0: Event: Accepting the call id 0x2D
Dec 30 18:13:04: %LINK-3-UPDOWN: Interface BRI0:1, changed state to up
Dec 30 18:13:04: BR0:1 PPP: Treating connection as a callin
Dec 30 18:13:04: BR0:1 PPP: Phase is ESTABLISHING, Passive Open [0 sess, 1 load]
Dec 30 18:13:04: BR0:1 LCP: State is Listen
Dec 30 18:13:04: ISDN BR0: TX -> CALL_PROC pd = 8 callref = 0x9B
!--- Outgoing ISDN Q.931 SETUP message. Dec 30 18:13:04: Channel ID i = 0x89 Dec 30 18:13:04:
ISDN BR0: TX -> CONNECT pd = 8 callref = 0x9B Dec 30 18:13:05: BR0:1 LCP: I CONFREQ [Listen] id
25 len 15 Dec 30 18:13:05: BR0:1 LCP: AuthProto CHAP (0x0305C22305) Dec 30 18:13:05: BR0:1 LCP:
MagicNumber 0x4AA54104 (0x05064AA54104) Dec 30 18:13:05: BR0:1 LCP: O CONFREQ [Listen] id 55 len
15 Dec 30 18:13:05: BR0:1 LCP: AuthProto CHAP (0x0305C22305) Dec 30 18:13:05: BR0:1 LCP:
MagicNumber 0x575DC27D (0x0506575DC27D) Dec 30 18:13:05: BR0:1 LCP: O CONFACK [Listen] id 25 len
15 Dec 30 18:13:05: BR0:1 LCP: AuthProto CHAP (0x0305C22305) Dec 30 18:13:05: BR0:1 LCP:
MagicNumber 0x4AA54104 (0x05064AA54104) Dec 30 18:13:05: ISDN BR0: RX <- CONNECT_ACK pd = 8
callref = 0x1B !--- Received Q.931 CONNECT message. Dec 30 18:13:05: Signal i = 0x4F - Alerting
off Dec 30 18:13:05: BR0:1 LCP: I CONFACK [ACKsent] id 55 len 15 Dec 30 18:13:05: BR0:1 LCP:
AuthProto CHAP (0x0305C22305) Dec 30 18:13:05: BR0:1 LCP: MagicNumber 0x575DC27D
(0x0506575DC27D) Dec 30 18:13:05: BR0:1 LCP: State is Open Dec 30 18:13:05: BR0:1 PPP: Phase is
AUTHENTICATING, by both [0 sess, 1 load] Dec 30 18:13:05: BR0:1 CHAP: O CHALLENGE id 36 len 33
from "remoteISDN01" Dec 30 18:13:05: BR0:1 CHAP: I CHALLENGE id 13 len 27 from "AS5300" Dec 30
18:13:05: BR0:1 CHAP: Waiting for peer to authenticate first Dec 30 18:13:05: BR0:1 CHAP: I
RESPONSE id 36 len 27 from "AS5300" Dec 30 18:13:05: BR0:1 CHAP: O SUCCESS id 36 len 4 Dec 30
18:13:05: BR0:1 CHAP: Processing saved Challenge, id 13 Dec 30 18:13:05: BR0:1 CHAP: O RESPONSE
id 13 len 33 from "remoteISDN01" Dec 30 18:13:05: BR0:1 CHAP: I SUCCESS id 13 len 4 !--- Two-way
CHAP authentication is successful. Dec 30 18:13:05: BR0:1 PPP: Phase is UP [0 sess, 0 load] Dec
30 18:13:05: BR0:1 IPCP: O CONFREQ [Closed] id 36 len 10 Dec 30 18:13:05: BR0:1 IPCP: Address
10.1.1.66 (0x03060A010142) Dec 30 18:13:05: BR0:1 CDPCP: O CONFREQ [Closed] id 36 len 4 Dec 30
18:13:05: BR0:1 IPCP: I CONFREQ [REQsent] id 13 len 10 Dec 30 18:13:05: BR0:1 IPCP: Address
10.1.1.65 (0x03060A010141) Dec 30 18:13:05: BR0:1 IPCP: O CONFACK [REQsent] id 13 len 10 Dec 30
18:13:05: BR0:1 IPCP: Address 10.1.1.65 (0x03060A010141) Dec 30 18:13:05: BR0:1 IPCP: I CONFACK
[ACKsent] id 36 len 10 Dec 30 18:13:05: BR0:1 IPCP: Address 10.1.1.66 (0x03060A010142) Dec 30
18:13:05: BR0:1 IPCP: State is Open Dec 30 18:13:05: BR0:1 LCP: I PROTREJ [Open] id 26 len 10
protocol CDPCP (0x8207 01240004) Dec 30 18:13:05: BR0:1 CDPCP: State is Closed Dec 30 18:13:05:
BR0 IPCP: Install route to 10.1.1.65
!--- A route to the peer is installed. Dec 30 18:13:06: %LINEPROTO-5-UPDOWN: Line protocol on
Interface BRI0:1,
changed state to up
Dec 30 18:13:06: BR0:1 PPP: Outbound cdp packet dropped, CDPCP is Closed
[starting negotiations]
Dec 30 18:13:06: BR0:1 CDPCP: State is Closed
Dec 30 18:13:06: BR0:1 PPP: Outbound cdp packet dropped, CDPCP is Closed
[starting negotiations]
Dec 30 18:13:06: BR0:1 CDPCP: State is Closed
Dec 30 18:13:06: BR0:1 PPP: Outbound cdp packet dropped, CDPCP is Closed
[starting negotiations]
Dec 30 18:13:06: BR0:1 CDPCP: State is Closed
Dec 30 18:13:06: BR0:1 CDPCP: TIMEout: State Closed
Dec 30 18:13:06: BR0:1 CDPCP: State is Listen
Dec 30 18:13:10: %ISDN-6-CONNECT: Interface BRI0:1 is now connected to AS5300

```

## [Informations connexes](#)

- [Configuration d'un serveur d'accès avec des PRI pour les appels asynchrones et RNIS entrants](#)
- [Configuration de l'accès entrant et sortant sur les mêmes circuits T1/E1 PRI](#)
- [Configuration du NAS pour l'accès commuté de base](#)
- [Guide de configuration des solutions de numérotation](#)
- [Présentation des codes de motif de déconnexion debug isdn q931](#)
- [Technologie d'accès commuté : Techniques de dépannage](#)

- [Dépannage de l'accès primaire \(PRI\) T1](#)
- [Dépannage de modems](#)
- [Commandes de débogage du modem](#)
- [Support technique de numérotation et d'accès](#)
- [Support et documentation techniques - Cisco Systems](#)