

Frequently Asked Questions

Dear Customer,

Thank you for buying a DIGITAL Product. This document lists most Frequently Asked Questions (FAQs) about this product. DIGITAL updates Frequently Asked Questions (FAQs) periodically. Check the DIGITAL World Wide Web site at <http://www.networks.digital.com>.

General Questions

Question	Answer
1. Who is calling me, or who did I call?	If the switch provides caller ID, you can find the name of the calling router by using the call command at the <code>ISDN></code> monitoring prompt, providing the caller's name and address is configured in the ISDN Phone Book. If the switch does not provide caller ID, enable PAP or CHAP at the <code>PPP Config></code> prompt for the specific interface and configure the name and secret/password of the remote router.
2. Why does my PPP interface keep going up and down?	You must assign an IP address to the ISDN dial circuit or you must enable unnumbered IP on the dial circuit. You can do this with the RouteAbout Access ISDN Configuration Tool, Quick Config, or by using the add address command at the <code>IP Config></code> prompt.
3. Why won't my router place a call?	You must assign an IP address to the ISDN dial circuit or you must enable unnumbered IP on the dial circuit. You can do this with the RouteAbout Access ISDN Configuration Tool, Quick Config, or by using the add address command at the <code>IP Config></code> prompt.
4. What does the ELS message 'NULL dial key' mean?	The destination is missing from the WAN configuration for the interface. Add a destination at the <code>WAN Config></code> prompt.
5. I have multiple ISDN circuits configured on my RouteAbout Access ISDN/IP, and a remote router connects to the wrong circuit when it dials in.	At the <code>WAN Config></code> prompt, use the list command to check the access list. It should be set for the name of the remote router that will be connecting to this specific circuit. If you do not have CHAP enabled, the access list should include the remote router's name as configured in the ISDN address list. If you do have CHAP enabled, the access list must also include the remote router's name as configured in the CHAP secret table.

6. How can I tell if caller ID is provided by the switch?	When you receive a call, use MONITR (talk 2) and the ISDN ELS messages. If the switch does not provide caller ID, you will see the following message: ISDN.045: Calling address NOT PROVIDED by the ISDN switch If the switch does provide caller ID, you will see the following message: ISDN.004: ConnID 0x0 Q.931 Display Info Element "Calling# 5088982800" (cause 0x6:0x4) on nt 1 int PPP/0 where 5088982800 is the caller ID.
7. When there are high traffic loads between my RouteAbout Access ISDN/IP and another router, the PPP link keeps resetting.	At the Config> prompt, check the PPP configuration for the interface to see if LCP echo is enabled. If echo is already enabled, disable it using the disable echo command and see if that helps.
8. Why am I seeing garbled data on my console screen when I power up the RouteAbout Access ISDN/IP?	Check the console port settings on your terminal or terminal emulator for the following required settings: 9600 baud, 8 bits, no parity, 1 stop bit.

Interoperability with a Motorola BitSURFR Pro™

Question	Answer
9. Can my Motorola BitSURFR Pro dial into a RouteAbout Access ISDN/IP?	Yes. The BitSURFR can connect to the RouteAbout Access ISDN/IP either at 64 Kbps via a single ISDN B channel, or at 128 Kbps using Multilink PPP. Note: Stac compression is not supported on the BitSURFR.
10. When I dial into a RouteAbout Access ISDN/IP with a Motorola BitSURFR Pro, PPP drops the link before the negotiation is completed.	On the RouteAbout Access ISDN/IP, under PPP LCP options, change the Config NAK Tries counter to 5 (default is 10), using the set lcp parameters command at the PPP Config> prompt. Otherwise, the BitSURFR times out the link before PPP negotiates its options. Be aware that Motorola supplies NetManage™ Chameleon™ software as the IP stack for the PC. Chameleon insists on doing PPP PAP authentication, so you have to enable PAP on the RouteAbout Access ISDN/IP and configure a name and password. On the PC, configure the name and password by clicking on Chameleon's Custom icon, then use the following menu items: Setup - Communications - Login.

Interoperability with a Cisco® Router

Question	Answer
11. I cannot get Multilink PPP working with a Cisco router.	Make sure on the Cisco router that the following configuration line is in the interface BRI0 section: <code>dialer load-threshold 1</code> Otherwise, the Cisco will not try to join a second circuit to the bundle until the first one reaches full capacity.
12. When I enable PAP on the RouteAbout Access ISDN/IP, I cannot connect to a Cisco router.	For security reasons, the Cisco and Ascend routers, as well as some other vendors' routers, do not respond to PAP authentication requests from another router that dials in. The RouteAbout Access ISDN/IP connects to the Cisco router if the Cisco has PAP security enabled and the appropriate name/password is configured in the RouteAbout Access ISDN/IP password table, even though PAP is disabled on the RouteAbout Access ISDN/IP.

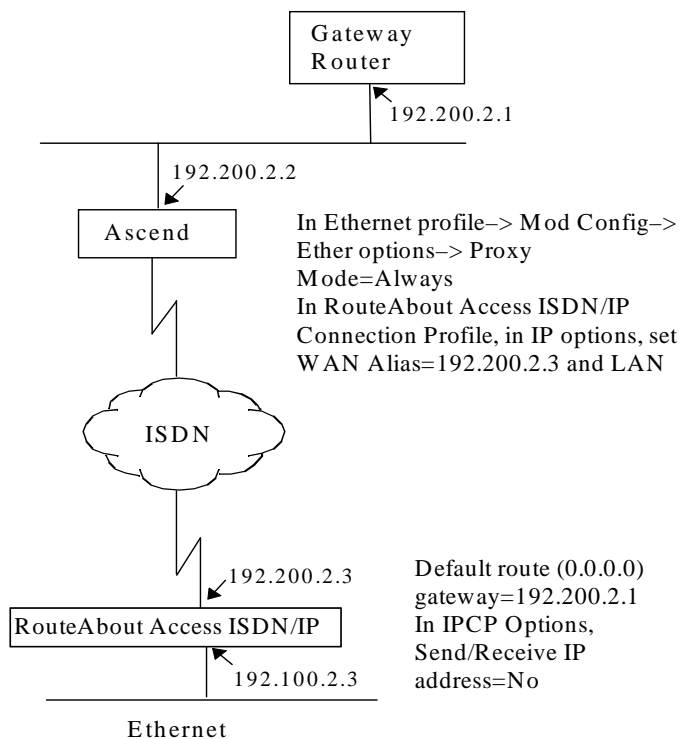
13. A Cisco can call into my RouteAbout Access ISDN/IP, but the RouteAbout Access ISDN/IP cannot call the Cisco.	The Cisco configuration line may not be set up right for caller ID to work. The dialer map config line in the Cisco configuration should look like this: <pre>dialer map ip 128.185.33.2 name 5088982200 98982200</pre>
14. When I enable Stac® compression between the RouteAbout Access ISDN/IP and a Cisco, the link comes up, but I cannot send IP traffic through it.	where the IP address matches the RouteAbout Access ISDN/IP ISDN interface address, 98982200 matches the number the Cisco uses to call the RouteAbout Access ISDN/IP, and 5088982200 matches the incoming number (caller ID) presented to the Cisco when the remote RouteAbout Access ISDN/IP calls into it. Stac compression negotiates with the Cisco, but the header format used by Cisco for the compressed packets is incompatible with the format used by the RouteAbout Access ISDN/IP, due to Cisco following an older version of the Stac standard. Cisco is correcting the problem in an upcoming release.
15. Over ISDN, I only get an initial RIP update from a remote Cisco; then all the learned routes end up timing out.	Cisco sends a directed RIP update on the initial connection, from then on all the RIP updates are sent as subnet broadcasts. Cisco will not send these out on the ISDN interface unless either the broadcast option is added to the dialer map config line, or a neighbor statement is added to the Cisco RIP section pointing to the RouteAbout Access ISDN/IP ISDN interface address.

Interoperability with an Ascend™ Router

Question	Answer
16. What's the maximum PPP MRU size RouteAbout Access ISDN/IP and Ascend can negotiate?	You can configure the Ascend for a maximum MRU of 1524 (the default). To speed up PPP negotiation slightly between the RouteAbout Access ISDN/IP and the Ascend, you can configure the RouteAbout Access ISDN/IP MRU to 1524 also using the set lcp options command at the <code>PPP Config></code> prompt.
17. My RouteAbout Access ISDN/IP is not making a Multilink PPP connection to an Ascend router.	In the Ascend configuration, in the Connection Profile, make sure the Base Ch Count is set to a value of 2. Also, make sure to set the Min Ch Count to a value of 2. In the RouteAbout Access ISDN/IP configuration, at the <code>PPP Config></code> prompt, enable MP, set MP discriminator generate, set MP max-bundle-size = 2, and set MP initial-bundle-size = 2.

18. How is IP configured between the RouteAbout Access ISDN/IP and an Ascend router?

Ascend uses a single box-level IP address, rather than one address per interface. Configure the RouteAbout Access ISDN/IP interface with an IP address that is part of the same subnet that the Ascend Ethernet port is on. Example:



19. Will RIP work between the Ascend and the RouteAbout Access ISDN/IP with the above configuration?

Yes. RIP works as if the RouteAbout Access ISDN/IP was directly on the same Ethernet as the Ascend. If you are setting up the RouteAbout Access ISDN/IP for dial-on-demand connections, you will not want to use RIP, since it will keep the line up. Configure static routes on the RouteAbout Access ISDN/IP instead.

20. What does ELS message 'lcp unk 0' mean when connecting to an Ascend router?

The Ascend router is trying to make an unknown option 0 with the RouteAbout Access ISDN/IP, which simply acknowledges by also making an unknown option 0. Option 0 is an unknown option to the RouteAbout Access ISDN/IP. The ELS messages are as follows:
From Ascend, PPP.052: ck lcp unk 0
From RouteAbout Access ISDN/IP, PPP.043: mk lcp unk 0

21. When I enable Stac compression between the RouteAbout Access ISDN/IP and an Ascend, the PPP link won't come up at all.

Ascend uses a different interpretation of the Compression Control Protocol standard, so Stac compression will not negotiate with the RouteAbout Access ISDN/IP.

22. Can the Ascend MAX Multilink PPP do Short Sequence Number Length? The Ascend MAX only negotiates a Long Sequence Number Length. If the RouteAbout Access ISDN/IP is configured for a Short Sequence Number Length, then the Ascend MAX sends an LCP reject to the RouteAbout Access ISDN/IP and both routers negotiate a Long Sequence Number Length.

23. I am getting Protocol Reject messages from an Ascend 400 (running Release 4.5B+) when my RouteAbout Access ISDN/IP attempts to negotiate the PPP IP or Compression Control protocols. What should I check for?

There are two known work-arounds. The first requires you to

1. Make sure the Ascend has PPP Recv Auth=CHAP in the PPP Options menu under the Answers menu. (Of course, make sure the Ascend and the RouteAbout Access ISDN/IP are configured with CHAP secrets).
2. Make sure the Ascend has CLID Auth=Ignore in the Answers menu. This prevents the Ascend from using Caller ID if it is offered with an incoming call.

Both of these properties must be true if the RouteAbout Access ISDN/IP is to successfully call into the Ascend 400.

The second work-around is to

1. Make sure the Ascend has PPP Recv Auth=CHAP in the PPP Options menu under the Answers menu.
2. Make sure the Ascend has CLID Auth=Preferred, also in the Answers menu.
3. Set the Calling # in the Connections menu for the RouteAbout Access ISDN/IP incoming circuit to a null (empty) number. This guarantees that the Ascend, even if caller ID is present, will not match the caller ID with this circuit.

Once again, *all* of these items must be true to assure RouteAbout Access ISDN/IP to Ascend interoperability.

© Digital Equipment Corporation, 1997. All rights reserved. Printed in U.S.A.
DEChub, DIGITAL, RouteAbout, and the DIGITAL logo are trademarks of Digital Equipment Corporation.
All other trademarks and registered trademarks are the property of their respective owners.