

SDLLC Frequently Asked Questions

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Introduction

This document answers frequently asked questions about Cisco Synchronous Data Link Control (SDLC)-to-Logical Link Control (LLC) Conversion (Cisco SDLLC).

Q. Why is the `sdllc partner` command used in Cisco SDLLC?

A. The use of the `sdllc partner` command is not required. It is recommended, however, that you use this command to eliminate the intervention of an operator at the host site.

Q. What will the `sdllc partner` command do for me?

A. If you use the `sdllc partner` command then whenever the device is powered on the router will exchange Test (exchange identification [XID]) packets to initiate a connection with the host.

Q. What is the difference between the MAC address for the `sdllc traddr` command and the MAC address for the `sdllc partner` command?

A. The MAC address for the `sdllc partner` command is the MAC address of the host. For example, if the front-end processor (FEP) 3745 is the host then the MAC address of this FEP

is defined by the LOCADD parameter of the LINE macro. The MAC address for the **sdllc traddr** command is the virtual MAC address of the SDLC device. This address is used to simulate the Token Ring connection between the Token Ring host and the serial-connected device. This virtual MAC address can be any number, as long as it is unique across the network.

Q. Does Cisco SDLLC support multipoint on the SDLC link? For example, can more than one SDLC device be connected together through the use of the DSD (data-sharing device)?

A. Yes, which is why the last two digits of the TRADDR parameter must be 00. The router replaces this 00 with the controller address when it tries to set up the connection.

Q. How many SDLC devices are supported per router?

A. There is no limit as long as:

- ◆ The SDLC device is not the Primary device.
- ◆ The virtual MAC address is unique throughout the network, which means that its first ten hexadecimal digits are not used to identify any other device on the network.

Q. What is the default LLC T1-time in a Cisco router? What is the recommended value for this T1-time?

A. The T1-time controls how long the router waits for an acknowledgment after an I-frame is transmitted. The default value is 1000 ms. There is no best recommendation, because this value is network-dependent; ensure that the time allowed will be at least as long as the round trip time of the frames.

Q. What is the default for the llc2 ack-max parameter? Is the default value recommended?

A. The default value for the llc2 ack-max parameter is 3. Like the T1-time value, this ack-max value is also network-dependent. Remember that, the larger the number that you assign, the less acknowledgment is sent. If, however, there is a need for retransmission then there will be more frames that need to be resent. Therefore, you must experiment to determine the the best value.

Note: NetBIOS expects to receive an acknowledgement for every frame; in this case, a value of 1 is the best recommendation.

Q. Does Cisco SDLLC support SDLC controller 5394?

A. Currently, Cisco SDLLC only supports SDLC-attached, physical unit (PU) type 2 devices. 5394 can be either PU type 1 or PU type 2.1. Data-link switching (DLSw) supports PU type 2.1; remote source-route bridging (RSRB) does not. PU type 1 is not supported at all.

Q. Does Cisco SDLLC support Token Ring (TR) controller 3174L? If yes, what command do I use?

A. 3174L is the 3174 TR Gateway; and yes, this device is supported. To make your Cisco SDLLC work with 3174L, follow these extra steps:

1. Define the 3174R in the 3174L and in the Host as if it were TR-attached.
2. Configure the **sdllc xid** *address xid* command even though 3174L does not require exchange identification (XID) so that Cisco SDLLC can establish the LLC session between the routers.

Q. Cisco SDLLC is working fine with two routers, but I can not get it to work with just one router. Why?

A. Cisco SDLLC should work with just one router. In order for it to do so, you must define a virtual ring group in the configuration, and you must use this virtual ring number as the target ring both on the SDLLC and on the Token Ring interface.

Q. Why is my Cisco SDLLC not working? I get an excessive number of output drops in the serial interface (SDLLC interface). Why does my reset counter on the SDLLC serial interface continue to increase?

A. The serial interface is not stable. Because Request To Send (RTS) must be up all of the time, when the RTS signal drops, the interface must be reset and re-initialized. This problem is common with both serial tunnel (STUN) and SDLLC sites. To fix this problem, either use nonreturn to zero inverted (NRZI) half-duplex or use a break-out box to keep RTS up all of the time. For example, tie RTS and Clear To Send (CTS) together.

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