IBM Network Media Translation Commands

This chapter describes the function and displays the syntax of each SDLLC and QLLC command. For more information about defaults and usage guidelines, see the corresponding chapter of the *Router Products Command Reference* publication.

[**no**] **qllc largest-packet** *virtual-mac-addr max-size*

Use the **qllc largest-packet** interface configuration command to indicate the maximum size of the SNA packet that can be sent or received on an X.25 interface configured for QLLC conversion. Use the **no** form of this command to restore the default largest packet size.

virtual-mac-addr	Virtual MAC address associated with the remote X.25 device, as defined using the **x25 map** or **x25 pvc** commands. This address is written as a dotted triple of four-digit hexadecimal numbers.
max-size	Maximum size, in bytes, of the SNA packet that can be sent or received on the X.25 interface configured for QLLC conversion. This value agrees with the value configured in the remote SNA device. The valid range is 0 through 1024.

[**no**] **qllc partner** *virtual-mac-addr mac-addr*

Use the **qllc partner** interface configuration command to enable a router configured for QLLC conversion to open a connection to the local Token Ring device on behalf of the remote X.25 device when an incoming call is received. Use the **no** form of this command to disable this capability.

virtual-mac-addr	Virtual MAC address associated with the remote X.25 device, as defined using the **x25 map** or **x25 pvc** command. This address is written as a dotted triple of four-digit hexadecimal numbers.
mac-addr	48-bit MAC address of the Token Ring host that will communicate with the remote X.25 device.

[**no**] **qllc sap** *virtual-mac-addr ssap dsap*

Use the **qllc sap** interface configuration command to associate a SAP value other than the default SAP value with a serial interface configured for X.25 communication and QLLC conversion. The **no** form of this command returns this SAP value to its default state.

virtual-mac-addr	Virtual MAC address associated with the remote X.25 device, as defined using the **x25 map** or **x25 pvc** command.
ssap	Source SAP value. It can be a decimal number in the range 2 through 254.
dsap	Destination SAP value. It can be a decimal number in the range 2 through 254.

[**no**] **qllc srb** *virtual-mac-addr srn trn*

Use the **qllc srb** interface configuration command to enable the use of QLLC conversion on a serial interface configured for X.25 communication. The **no** form of this command disables QLLC conversion on the interface.

virtual-mac-addr	Virtual MAC address associated with the remote X.25 device, as defined using the **x25 map** or **x25 pvc** command. It can be 1 to 15 digits long.
srn	Source ring number. This value defines a virtual ring for all of the remote X.25 devices attached to the QLLC interface. Any number of QLLC conversion connections using the same X.25 serial interface can share a common source ring. However, this source ring must be a unique hexadecimal ring number within the source-bridged network.
trn	Target ring number. It must be a virtual ring group that has been defined with the **source-bridge ring-group** command. If the router has only one Token Ring interface and is bridging from the remote X.25 devices to this interface, then *trn* is the number of the ring on that Token Ring interface. If the router has several Token Ring interfaces and interconnects them by means of the **source-bridge ring-group** command, then *trn* is the number of that virtual ring group, as assigned using the **source-bridge ring-group** global configuration command.

[**no**] **qllc xid** *virtual-mac-addr xid*

Use the **qllc xid** interface configuration command to associate an XID
value with the remote X.25 device that communicates through the router
using QLLC conversion. The **no** form of this command disables XID
processing for this address.

> *virtual-mac-addr*   Virtual MAC address associated with the
> remote X.25 device, as defined using the **x25**
> **map** or **x25 pvc** command.
>
> *xid*   Combined XID IDBLK and XID IDNUM
> you are associating with the X.25 device at
> this X.121 address. This hexadecimal value
> must be four bytes (eight digits) in length.

[**no**] **sdllc partner** *mac-address sdlc-address*

Use the **sdllc partner** interface configuration command to enable
device-initiated connections for SDLLC. This command must be
specified for the serial interface that links to the serial line device. Use
the **no** form of this command to cancel the original instruction.

> *mac-address*   48-bit MAC address of the Token Ring host.
>
> *sdlc-address*   SDLC address of the serial device that will
> communicate with the Token Ring host.

[**no**] **sdllc ring-largest-frame** *value*

Use the **sdllc ring-largest-frame** interface configuration command to
indicate the largest I-frame size that can be sent to or received from the
LLC2 primary station. Use the **no** form of this command to return to the
default.

> *value*   Frame size in bytes. The default is 516 bytes.

[**no**] **sdllc sap** *sdlc-address ssap dsap*

Use the **sdllc sap** interface configuration command to associate a service access point (SAP) value other than the default SAP value with a serial interface configured for SDLLC. Use the **no** form of this command to return this SAP value to 4, the default value.

sdlc-address	Virtual MAC address associated with the remote SDLC device.
ssap	Source SAP value. It must be in the range 1 through 254.
dsap	Destination SAP value. It must be in the range 1 through 254.

[**no**] **sdllc sdlc-largest-frame** *address value*

Use the **sdllc sdlc-largest-frame** interface configuration command to indicate the largest information frame (I-frame) size that can be sent or received by the designated SDLC station. Use the **no** form of this command to return to 265, the default value.

address	Address of the SDLC station that will communicate with the Token Ring host.
value	Largest frame size that can be sent or received by this SDLC station.

[**no**] **sdllc traddr** *xxxx.xxxx.xx00 lr bn tr*

Use the **sdllc traddr** interface configuration command to enable the use of SDLLC Media Translation on a serial interface. The address specified is a MAC address to be assigned to the serial station. Use the **no** form of this command to disable SDLLC media translation on the interface.

xxxx.xxxx.xx00	MAC address to be assigned to the serial interface.
lr	SDLLC virtual ring number.
bn	SDLLC bridge number.
tr	SDLLC target ring number.

[**no**] **sdllc xid** *address xxxxxxxx*

Use the **sdllc xid** interface configuration command to specify an exchanged ID (XID) value appropriate for the designated SDLC station associated with this serial interface. Use the **no** form of this command to disable XID processing for this address.

address	Address of the SDLC station associated with this interface.
xxxxxxxx	XID the router will use to respond to XID requests the router receives on the Token Ring (LLC2) side of the connection. This value must be 4 bytes (8 digits) long and is specified with hexadecimal digits.

show interfaces

Use the **show interfaces** privileged EXEC command to display the SDLC information for a given SDLC interface.

show qllc

Use the **show qllc** EXEC command to display the current state of any QLLC connections.

show sdllc local-ack

Use the **show sdllc local-ack** privileged EXEC command to display the current state of any current local acknowledgment connections and any configured passthrough rings.

[**no**] **source-bridge fst-peername** *local-interface-address*

Use the **source-bridge fst-peername** global configuration command to set up a Fast-Sequenced Transport (FST) peer name. Use the **no** form of this command to disable the IP address assignment.

local-interface-address	IP address to assign to the local router.

[no] source-bridge qllc-local-ack

Use the **source-bridge qllc-local-ack** global configuration command to enable or disable QLLC local acknowledgment for all of the router's QLLC conversion connection. The **no** form of this command disables this capability.

source-bridge remote-peer *ring-group* **fst** *ip-address* [**lf** *size*]
   [**version** *number*]
no source-bridge remote-peer *ring-group* **fst** *ip-address*

Use the **source-bridge remote-peer fst** global configuration command to specify a Fast-Sequenced Transport (FST) encapsulation connection. Use the **no** form of this command to disable the previous assignments.

ring-group	Ring group number. This ring group number must match the number you have specified with the **source-bridge ring-group** command. The valid range is 1 through 4095.
ip-address	IP address of the remote peer with which the router will communicate.
lf *size*	(Optional) Maximum size frame to be sent to this remote peer. The router negotiates all transit routes down to this size or lower. Use this argument to prevent timeouts in end hosts by reducing the amount of data they have to transmit in a fixed interval. The legal values for this argument are 516, 1500, 2052, 4472, 8144, 11407, and 17800 bytes.
version *number*	(Optional) Forces RSRB protocol version number for the remote peer. Because all FST peers support version 2 RSRB, the **version** keyword is always specified.

source-bridge remote-peer *ring-group* **interface** *interface-name*
[*mac-address*] [**lf** *size*]
no source-bridge remote-peer *ring-group* **interface** *interface-name*

Use the **source-bridge remote-peer interface** global configuration command when specifying a point-to-point direct encapsulation connection. Use the **no** form of this command to disable previous interface assignments.

ring-group	Ring group number. This ring group number must match the number you have specified with the **source-bridge ring-group** command. The valid range is 1 through 4095.
interface-name	Name of the router's serial interface over which to send source-route bridged traffic.
mac-address	(Optional) MAC address for the interface you specify using the *interface-name* argument. This argument is required for nonserial interfaces. You can obtain the value of this MAC address by using the **show interface** command, and then scanning the display for the interface specified by *interface-name*.
lf *size*	(Optional) Maximum size frame to be sent to this remote peer. The router negotiates all transit routes down to this size or lower. This argument is useful in preventing timeouts in end hosts by reducing the amount of data they have to transmit in a fixed interval. The legal values for this argument are 516, 1500, 2052, 4472, 8144, 11407, and 17800 bytes.

source-bridge remote-peer *ring-group* **tcp** *ip-address* [**lf** *size*]
   [**local-ack**] [**priority**]
no source-bridge remote-peer *ring-group* **tcp** *ip-address*

Use the **source-bridge remote-peer tcp** global configuration command
to identify the IP address of a peer in the ring group with which to
exchange source-bridge traffic using TCP. Use the **no** form of this
command to remove a remote peer for the specified ring group.

ring-group	Ring group number. This ring group number must match the number you have specified with the **source-bridge ring-group** command. The valid range is 1 through 4095.
ip-address	IP address of the remote peer with which the router will communicate.
lf *size*	(Optional) Maximum size frame to be sent to this remote peer. The router negotiates all transit routes down to this size or lower. Use this argument to prevent timeouts in end hosts by reducing the amount of data they have to transmit in a fixed interval. The valid values for this argument are 516, 1500, 2052, 4472, 8144, 11407, and 17800 bytes.
local-ack	(Optional) LLC2 sessions destined for a specific remote peer are to be locally terminated and acknowledged. Local acknowledgment should be used for LLC2 sessions going to this remote peer.
priority	(Optional) Enables prioritization over a TCP network. You must specify the keyword **local-ack** earlier in the same **source-bridge remote-peer** command. The keyword **priority** is a prerequisite for features such as SNA class of service and SNA LU address prioritization over a TCP network.

[**no**] **source-bridge ring-group** *ring-group*

Use the **source-bridge ring-group** global configuration command to define or remove a ring group from the router configuration. Use the **no** form of this command to cancel previous assignments.

> *ring-group*   Ring group number. The valid range is 1 through 4095.

[**no**] **source-bridge sdllc-local-ack**

Use th**e source-bridge sdllc-local-ack** global configuration command to activate local acknowledgment for SDLLC sessions on a particular interface. Use the **no** form of this command to deactivate local acknowledgment for SDLLC sessions.

[**no**] **x25 map qllc** *virtual-mac-addr x121-addr*

Use the **x25 map qllc** interface configuration command to associate a virtual MAC address with the X.121 address of the remote X.25 device with which you plan to communicate using QLLC conversion. The **no** form of this command disables QLLC conversion to this X.121 address.

> *virtual-mac-addr*   Virtual MAC address you are associating with the X.25 device at this X.121 address. The router will accept explorer and data packets destined for this MAC address. It can be from 1 to 15 digits long.
>
> *x121-addr*   X.121 address of the remote X.25 device you are associating with this virtual MAC address. It can be from 1 to 15 digits long.

[**no**] **x25 pvc** *circuit* **qllc** *virtual-mac-addr*

Use the **x25 pvc** interface configuration command to associate a virtual MAC address with a permanent virtual circuit (PVC) for communication using QLLC conversion. The **no** form of this command removes the association.

circuit	PVC you are associating with the virtual MAC address. This must be lower than any number assigned to switched virtual circuits.
virtual-mac-addr	Virtual MAC address you are associating with the X.25 device at this pvc. The router will accept explorer and data packets destined for this MAC address. This virtual MAC address must match the virtual MAC address you specified using the **x25 map qllc** command.