

DSPU Configuration Commands

This chapter describes the commands to configure the downstream physical unit (DSPU) feature, which provides a gateway facility for downstream System Network Architecture (SNA) physical units (PUs). For DSPU configuration tasks and examples, refer to the “Configuring DSPU” chapter of the *Router Products Configuration Guide*.

dspu activation-window

Use the **dspu activation-window** global configuration command to define the number of activation request units (RUs) and response messages (such as ACTLUs or DDDLUs NMVTs) that can be sent without waiting for responses from the remote PU. Use the **no** form of this command to return to the default window size.

dspu activation-window *window-size*
no dspu activation-window

Syntax Description

window-size Number of outstanding unacknowledged activation RUs.

Default

The default window size is five outstanding unacknowledged activation RUs

Command Mode

Global configuration

Usage Guidelines

You do not typically need to define the number of activation RUs, but you can do so to tune activation performance in some situations. Increasing the DSPU activation window allows more LUs to become active in a shorter amount of time (assuming the required buffers for activation RUs are available). Conversely, decreasing the DSPU activation window limits the amount of buffers the DSPU can use during PU/LU activation. This command provides pacing to avoid depleting the router buffer pool during PU activation.

Example

In the following example, the DSPU activation window is configured to 10. The DSPU can send up to 10 activation RUs without a response from the remote PU. However, the DSPU cannot send any additional activation RUs until a response is received. The DSPU can only have 10 activation RUs awaiting response at any given time.

```
dspu activation-window 10
```

dspu default-pu

Use the **dspu default-pu** global configuration command to enable the default PU feature to be used when a downstream PU attempts to connect, but does not match any of the explicit PU definitions. Use the **no** form of this command to disable the default PU feature.

```
dspu default-pu [window window-size] [maxiframe max-iframe]
no dspu default-pu [window window-size] [maxiframe max-iframe]
```

Syntax Description

window <i>window-size</i>	(Optional) Defines the send and receive window sizes used across the link. The range is 1 to 127. The default is 7.
maxiframe <i>max-iframe</i>	(Optional) Defines the maximum size (in bytes) of an I-frame that can be transmitted or received across the link. The range is 64 bytes to 18,432 bytes. The default is 1472.

Defaults

window-size: 7
max-iframe: 1472

Command Mode

Global configuration

Usage Guidelines

If the DSPU default PU is not defined, a connection attempt by a downstream PU that does not match any of the explicit PU definitions will be rejected.

The **dspu default-pu** command must be followed by at least one **dspu lu** command to define which pool the default LUs will be assigned from. Note that default LUs cannot be defined as dedicated LUs from a host.

The maximum I-frame size includes the SNA transmission header (TH), request header (RH), and RU, but does not include the DLC header. The DSPU feature segments frames being transmitted to fit within this frame size. If an XID is received from a remote PU which indicates that it supports a different maximum I-frame size, then the smaller of the two values is used.

Example

In the following example, the default PU feature is enabled with a window size of 5 and a maximum I-frame size of 128. Each default PU can have up to 3 LUs assigned from the *hostpool* pool of LUs.

```
dspu pool hostpool host ibm3745 lu 2 254
dspu default-pu window 5 maxiframe 128
dspu lu 2 4 pool hostpool
```

Related Commands

dspu lu
dspu pool

dspu enable-host

Use the **dspu enable-host** interface configuration command to enable a SAP for use by DSPU host connections. Use the **no** form of this command to disable the SAP.

dspu enable-host [**lsap** *local-sap*]
no dspu enable-host [**lsap** *local-sap*]

Syntax Description

lsap (Optional) Specifies that the local SAP will be activated as an upstream SAP for both receiving incoming connection attempts and for starting outgoing connection attempts.

local-sap (Optional) The local SAP address. The default is 12.

Default

local-sap: 12

Command Mode

Interface configuration

Example

In the following example, the local SAP address 10 on Token Ring interface 0 is enabled for use by the *ibm3745* DSPU host:

```
dspu host ibm3745 xid-snd 06500001 rmac 4000.3745.0001 lsap 10
interface tokenring 0
dspu enable-host lsap 10
```

Related Command

dspu host

dspu enable-pu

Use the **dspu enable-pu** interface configuration command to enable a SAP for use by DSPU downstream connections. Use the **no** form of this command to disable the SAP.

```
dspu enable-pu [lsap local-sap]  
no dspu enable-pu [lsap local-sap]
```

Syntax Description

lsap (Optional) Specifies that the local SAP will be activated as a downstream SAP for both receiving incoming connection attempts and for starting outgoing connection attempts.

local-sap (Optional) The local SAP address. The default is 8.

Default

local-sap: 8

Command Mode

Interface configuration

Example

In the following example, the local SAP address 20 on Token Ring interface 0 is enabled for use by the *ciscopu* DSPU downstream PU:

```
dspu pu ciscopu xid-rcv 05D00001 rmac 1000.5AED.1F53 lsap 20  
interface tokenring 0  
dspu enable-pu lsap 20
```

Related Command

dspu pu

dspu host

Use the **dspu host xid-snd rmac** global configuration command to define a DSPU host. Use the **no** form of this command to delete the DSPU host definition.

```
dspu host host-name xid-snd xid rmac remote-mac [rsap remote-sap] [lsap local-sap]
[window window-size] [maxiframe max-iframe] [retries retry-count] [retry-timeout
retry-timeout] [focalpoint]
no dspu host host-name xid-snd xid rmac remote-mac [rsap remote-sap] [lsap local-sap]
[window window-size] [maxiframe max-iframe] [retries retry-count] [retry-timeout
retry-timeout] [focalpoint]
```

Syntax Description

<i>host-name</i>	The specified DSPU host.
xid-snd <i>xid</i>	The XID that will be sent to the host during connection establishment. The XID value is 8 hexadecimal digits that include both Block and ID numbers. For example, if the XID value is 05D00001, the Block number is 05D and the ID number is 00001.
rmac <i>rmac</i>	The MAC address of the remote host PU.
rsap <i>remote-sap</i>	(Optional) Specifies the SAP address of the remote host PU. The default is 4.
lsap <i>local-sap</i>	(Optional) Specifies the local SAP address used by the DSPU to establish connection with the remote host.
window <i>window-size</i>	(Optional) Specifies the send and receive window sizes used for the host link. The range is 1 to 127.
maxiframe <i>max-iframe</i>	(Optional) Specifies the send and receive maximum I-frame sizes used for the host link. The range is 64 to 18432. The default is 1472.
retries <i>retry-count</i>	(Optional) Specifies the number of times the DSPU attempts to retry establishing connection with remote host PU. The range is 0 to 255 (0 = no retry attempts, 255 = infinite retry attempts). The default is 255.
retry-timeout <i>retry-timeout</i>	(Optional) Specifies the delay (in seconds) between DSPU attempts to retry establishing connection with remote host PU. The range is 1 to 600 seconds. The default is 30.
focalpoint	(Optional) Specifies that the host link will be used for the focal point support.

Defaults

```
remote-sap: 4
local-sap: 12
window-size: 7
max-iframe: 1472
retry-count: 255
retry-timeout: 30
```

Command Mode

Global configuration

Usage Guidelines

The local SAP address must be enabled by **dspu enable-host lsap** command or **dspu rsrb enable-host lsap** command.

If an XID is received from a remote PU that indicates that it supports a different maximum I-frame size, then the smaller of the two values is used.

Alerts from downstream PUs will be forwarded to the focalpoint host. The **focalpoint** parameter must be included on only one **dspu pu** command.

Example

The following example shows the definition for a DSPU host with 254 LUs and a connection to be established across an RSRB link:

```
dspu rsrb 88 1 99 4000.ffff.0001
dspu rsrb enable-host lsap 10
dspu host ibm3745 xid 06500001 rmac 4000.3745.0001 lsap 10
dspu pool hostpool lu 2 253 host ibm3745
```

Related Commands

dspu enable-host

dspu pool

dspu pu

dspu rsrb enable-host

dspu rsrb start

dspu start

dspu lu

Use the **dspu lu** global configuration command to define a range of LUs on a downstream PU. Use the **no** form of this command to remove the definition.

```
dspu lu lu-start [lu-end] [pool pool-name | host host-name host-lu-start] [pu pu-name]
no dspu lu lu-start [lu-end] [pool pool-name] [host host-name host-lu-start] [pu pu-name]
```

Syntax Description

<i>lu-start</i>	Specifies the starting LU address in the range of LUs to be assigned from a pool or dedicated to a host.
<i>lu-end</i>	(Optional) Specifies the ending LU address in the range of LUs to be assigned from a pool or dedicated to a host.
pool <i>pool-name</i>	(Optional) Specifies that each LU in the range of LUs will be assigned from the specified pool.
host <i>host-name</i> <i>host-lu-start</i>	(Optional) Specifies that each LU in the range of LUs will be dedicated to a host LU <i>host-name</i> . The range of host LUs starts with the address <i>host_lu_start</i> .
pu <i>pu-name</i>	(Optional) Specifies the downstream PU for which this range of LUs is being defined.

Default

There are no default specifications.

Command Mode

Global configuration

Usage Guidelines

If the **dspu lu** command immediately follows a **dspu pu** command (either explicit or default) it will be applied to that PU and the **pu** keyword is not required. If the **pu** keyword is included, the LU defined by the **dspu lu** command will be applied to the named PU.

The pool and host parameters are mutually exclusive. You can define a range of LUs to be either assigned from a pool or dedicated to a host.

Examples

The following example defines downstream LUs as pooled LUs. The downstream PU, *ciscopu*, has 3 downstream LUs with addresses 2, 3, and 4. When *ciscopu* establishes a connection with the DSPU, the three downstream LUs (2, 3, and 4) will be assigned to any three of the 20 LUs from the *hostpool* pool of LUs.

```
dspu host ibm3745 xid-snd 06500001 rmac 4000.3745.0001
dspu pool hostpool host ibm3745 lu 2 21
dspu pu ciscopu xid-rcv 05D00001 rmac 1000.5AED.1F53
dspu lu 2 4 pool hostpool
```


The following example defines downstream LUs as dedicated LUs. The downstream PU, *ciscopu*, has 3 downstream LUs with addresses 2, 3, and 4. When *ciscopu* establishes a connection with the DSPU, the three downstream LUs (2, 3, and 4) will be dedicated to LUs 22, 23, and 24, respectively, from the *ibm3745* host.

```
dspu host ibm3745 xid-snd 065000001 rmac 4000.3745.0001
dspu pu ciscopu xid-rcv 05D00001 rmac 1000.5AED.1F53
dspu lu 2 4 host ibm3745 22
```

The following example defines downstream LUs as a mixture of pooled and dedicated LUs. The downstream PU, *ciscopu*, has 6 downstream LUs with addresses 2 to 7. When *ciscopu* establishes a connection with the DSPU, three of the 20 LUs from the *hostpool* pool of LUs will be assigned to downstream LUs 2, 3, and 6. Downstream LUs 4, 5, and 7 will be dedicated to LUs 24, 25, and 27, respectively, from the *ibm3745* host.

```
dspu host ibm3745 xid-snd 065000001 rmac 4000.3745.0001
dspu pool hostpool host ibm3745 lu 2 20
dspu pu ciscopu xid-rcv 05D00001 rmac 1000.5AED.1F53
dspu lu 2 3 pool hostpool
dspu lu 4 5 host ibm3745 24
dspu lu 6 6 pool hostpool
dspu lu 7 7 host ibm3745 27
```

Related Commands

dspu default-pu

dspu host

dspu pool

dspu pu

dspu pool

Use the **dspu pool lu** global configuration command to define a range of host LUs in an LU pool. Use the **no** form of this command to remove the definition.

```
dspu pool pool-name host host-name lu lu-start [lu-end] [inactivity-timeout
inactivity-minutes]
no dspu pool pool-name host host-name lu lu-start [lu-end] [inactivity-timeout
inactivity-minutes]
```

Syntax Description

<i>pool-name</i>	Specifies the name identifier of the pool.
host <i>host-name</i>	Specifies the name of the host that owns the range of host LUs in the pool.
lu <i>lu-start</i>	Specifies the starting LU address in the range of host LUs in the pool.
<i>lu-end</i>	(Optional) Specifies the ending address (inclusive) of the range of host LUs in the pool. If no ending address is specified, only one LU (identified by <i>lu-start</i>) will be defined in the pool.
inactivity-timeout <i>inactivity-minutes</i>	(Optional) Specifies the interval of inactivity (in minutes) on either the SSCP-LU or LU-LU sessions, which will cause the downstream LU to be disconnected from the upstream LU.

Default

The **inactivity-timeout** is disabled.

Command Mode

Global configuration

Usage Guidelines

You can include multiple **dspu pool** commands that specify the same pool name. In this way, an LU pool can include several LU ranges from the one host PU, or it can include LUs from different host PUs. The LUs from host *host-name* starting at *lu-start* and ending with *lu-end*, inclusive, will be defined in the pool *pool-name* will be included in the pool *pool-name*. For the LUs in this pool, if there is no traffic on either the SSCP-LU or LU-LU sessions for the inactivity-timeout number of minutes, the downstream LU will be disconnected from the upstream LU, and the upstream LU will be allocated to any downstream LU waiting for a session. A value of zero for inactivity minutes means that there will be no timeout of sessions. (Note that the inactivity-timeout applies to all LUs in this pool, not just the LUs defined by this **dspu pool** command. The last value configured will be used.)

Examples

The following example defines a pool of host a pool LUs. A pool of 253 host LUs is defined with all LUs supplied from the *ibm3745* host PU:

```
dspu host ibm3745 xid-snd 065000001 rmac 4000.3745.0001
dspu pool hostpool host ibm3745 lu 2 254
```

The following example defines multiple pools and defines a disjoint pool of host LUs. One pool with a total of 205 host LUs and second pool with a total of 48 host LUs are defined with all LUs supplied from the same *ibm3745* host PU. Host LUs with addresses 2 to 201 and 250 to 254 are defined in *hostpool1*. Host LUs with addresses 202 to 249 are defined in *hostpool2*.

```
dspu host ibm3745 xid-snd 065000001 rmac 4000.3745.0001
dspu pool hostpool1 host ibm3745 lu 2 201
dspu pool hostpool2 host ibm3745 lu 202 249
dspu pool hostpool1 host ibm3745 lu 250 254
```

The following example defines a pool of LUs from multiple hosts. A pool of 506 host LUs is defined with 253 LUs supplied by the *ibm3475* host PU and 253 supplied by the *ibm3172* hostPU.

```
dspu host ibm3745 xid-snd 065000001 rmac 4000.3745.0001
dspu host ibm3172 xid 06500002 rmac 4000.3172.0001
dspu pool hostpool host ibm3745 lu 2 254
dspu pool hostpool host ibm3172 lu 2 254
```

Related Commands

dspu default-pu

dspu host

dspu lu

dspu pu

dspu pu

Use the **dspu pu** global configuration command to define an explicit downstream PU. Use the **no** form of this command to remove the definition.

```
dspu pu pu-name [rmac remote-mac] [rsap remote-sap] [lsap local-sap] [xid-rcv xid]
[window window-size] [maxiframe max-iframe] [retries retry-count] [retry-timeout
retry-timeout]
no dspu pu pu-name [rmac remote-mac] [rsap remote-sap] [lsap local-sap] [xid-rcv xid]
[window window-size] [maxiframe max-iframe] [retries retry-count] [retry-timeout
retry-timeout]
```

Syntax Description

<i>pu-name</i>	Name of the downstream PU.
rmac <i>remote-mac</i>	(Optional) Specifies the MAC address of the downstream PU.
rsap <i>remote-sap</i>	(Optional) Specifies the SAP address of the downstream PU. The default is 4.
lsap <i>local-sap</i>	(Optional) Specifies the local SAP address used by the DSPU to establish connection with the downstream PU. The default is 8.
xid-rcv <i>xid</i>	(Optional) Specifies a match on XID.
window <i>window-size</i>	(Optional) Specifies the send and receive sizes used for the downstream PU link. The range is 1 to 127. The default is 7.
maxiframe <i>max-iframe</i>	(Optional) Specifies the maximum I-frame that can be transmitted or received across the link. The range is 64 to 18,432. The default is 1472.
retries <i>retry-count</i>	Specifies the number of times the DSPU attempts to retry establishing connection with downstream PU. The range is 0 to 255 (0 = no retry attempts, 255 = infinite retry attempts). The default is 4.
retry-timeout <i>retry-timeout</i>	(Optional) Specifies the delay (in seconds) between DSPU attempts to retry establishing connection with downstream PU. The range is 1 to 600 seconds. The default is 30.

Default

```
remote-sap: 4
local-sap: 8
window-size: 7
max-iframe: 1472
retry-count: 4
retry-timeout: 30
```

Command Mode

Global configuration

Usage Guidelines

The local SAP address must be enabled by the **dspu enable-pu lsap** command or the **dspu rsrb enable-pu lsap** command.

The send and receive maximum I-frame size includes the SNA TH and RH, but does not include the data link control header. The DSPU feature will segment frames being transmitted to fit within this frame size. If an XID is received from a remote PU which indicates that it supports a different maximum I-frame size, then the smaller of the two values is used.

If you want the DSPU to attempt a ConnectOut to the remote node using the **dspu start** command, you must configure the **rmac** keyword and argument. If you want this PU to match against a ConnectIn attempt, then several combinations of **rmac**, **rsap**, **xid-rcv** are possible. The matching algorithms are as follows:

- **rmac**—Match on remote MAC/SAP address of downstream PU
- **xid-rcv**—Match on XID value received from downstream PU.
- **rmac/rsap, xid-rcv**—Match on remote MAC/SAP address of downstream PU and XID value received from downstream PU.

If an XID is received from a remote PU which indicates that it supports a different maximum I-frame size, then the smaller of the two values is used.

Examples

In the following example, a downstream PU is defined with only the MAC address and SAP address specified. A downstream PU that attempts an incoming connection to the DSPU will only be accepted if the remote MAC/SAP address matches the configured values for this downstream PU (and the proper local SAP address is enabled).

```
dspu pu ciscopu rmac 1000.5AED.1F53 rsap 20
dspu lu 2 5 pool hostpool
interface tokenring 0
dspu enable-pu lsap 8
```

In the following example, a downstream PU is defined with only an xid-rcv value. Any downstream PU that attempts an incoming connection specifying the **xid-rcv** value, 05D00001, will be accepted without regard to remote MAC or SAP address (although the proper local SAP address must be enabled).

```
dspu pu ciscopu xid-rcv 05d00001
dspu lu 2 5 pool hostpool
interface tokenring 0
dspu enable-pu lsap 8
```

In the following example, a downstream PU is defined with xid-rcv, rmac, and rsap parameters. Any downstream PU that attempts to connectIn to the DSPU must match all three configured values for the connection to be accepted (the proper local SAP address must also be enabled).

```
dspu pu ciscopu xid-rcv 05d00001 rmac 1000.5AED.1F53 rsap 20
dspu lu 2 5 pool hostpool
interface tokenring 0
dspu enable-pu lsap 8
```

Related Commands

dspu enable-host

dspu host

dspu lu

dspu pool

dspu rsrb enable-pu

dspu rsrb start

dspu start

dspu rsrb

Use the **dspu rsrb** global configuration command to define the local virtual ring, the virtual bridge, the target virtual ring, and the virtual MAC address that the DSPU feature will simulate at the RSRB. Use the **no** form of this command to cancel the definition.

```
dspu rsrb local-virtual-ring bridge-number target-virtual-ring virtual-macaddr
no dspu rsrb local-virtual-ring bridge-number target-virtual-ring virtual-macaddr
```

Syntax Description

<i>local-virtual-ring</i>	The DSPU local virtual ring number.
<i>bridge-number</i>	The bridge number connecting the DSPU local virtual ring and the RSRB target virtual ring. Currently, the bridge number must always be configured with a value of 1.
<i>target-virtual-ring</i>	The RSRB target virtual ring number. The RSRB target virtual ring corresponds to the ring-number parameter defined by a source-bridge ring-group command.
<i>virtual-macaddr</i>	The DSPU virtual MAC address.

Default

There are no default settings.

Command Mode

Global configuration

Usage Guidelines

The bridge number has a value of 1 only. This parameter can be specified only once in a configuration.

Use the **dspu rsrb** command to enable DSPU host and downstream connections to be established across an RSRB link.

If the **local-ack** parameter is specified on the **source-bridge remote-peer** statement, DSPU will establish host connections across RSRB using local acknowledgment. DSPU cannot support local acknowledgment for downstream PU connections across RSRB.

Examples

The following example defines DSPU to start connection to host across RSRB link (without local acknowledgment). The DSPU is identified by its local ring number 88 and its virtual MAC address 4000.FFFF.0001. When the DSPU attempts an outgoing connection to the *ibm3745* host, the connection will be established across the RSRB virtual ring 99.

```
source-bridge ring-group 99
source-bridge remote-peer 99 tcp 150.10.13.1
source-bridge remote-peer 99 tcp 150.10.13.2

dspu rsrb 88 1 99 4000.FFFF.0001
```

```
dspu rsrb enable-host lsap 10

dspu host ibm3745 xid-snd 06500001 rmac 4000.3745.0001 lsap 10
dspu rsrb start ibm3745

interface serial 0
ip address 150.10.13.1 255.255.255.0
```

The following example defines DSPU to start connection to host across RSRB link (with local acknowledgment). The DSPU is identified by its local ring number 88 and its virtual MAC address 4000.FFFF.0001. When the DSPU attempts an outward connection to the *ibm3745* host, the connection will be established across the RSRB virtual ring 99 using RSRB local acknowledgment.

```
source-bridge ring-group 99
source-bridge remote-peer 99 tcp 150.10.13.1
source-bridge remote-peer 99 tcp 150.10.13.2 local-ack

dspu rsrb 88 1 99 4000.FFFF.0001
dspu rsrb enable-host lsap 10

dspu host ibm3745 xid-snd 06500001 rmac 4000.3745.0001 lsap 10
dspu rsrb start ibm3745

interface serial 0
ip address 150.10.13.1 255.255.255.0
```

The following example defines DSPU to allow connection from downstream PU across RSRB link. The DSPU is identified by its local ring number 88 and its virtual MAC address 4000.FFFF.0001. The downstream PU will specify the DSPU virtual MAC address 4000.FFFF.0001 and SAP address 20 in its host definitions. The DSPU will accept incoming connections from the downstream PU across the RSRB virtual ring 99.

```
source-bridge ring-group 99
source-bridge remote-peer 99 tcp 150.10.13.1
source-bridge remote-peer 99 tcp 150.10.13.2

dspu rsrb 88 1 99 4000.FFFF.0001
dspu rsrb enable-pu lsap 20

dspu pu ciscopu xid-rcv 05D00001 lsap 20

interface serial 0
ip address 150.10.13.1 255.255.255.0
```

Related Commands

A dagger (†) indicates that the command is documented in another chapter.

dspu rsrb enable-host

dspu rsrb enable-pu

dspu rsrb start

source-bridge ring-group †

source-bridge remote-peer †

dspu rsrb enable-host

Use the **dspu rsrb enable-host** global configuration command to enable an RSRB SAP for use by DSPU host connections. Use the **no** form of this command to disable the RSRB SAP.

```
dspu rsrb enable-host [lsap local-sap]  
no dspu rsrb enable-host [lsap local-sap]
```

Syntax Description

lsap *local-sap* (Optional) Specifies that the local SAP address will be activated as an upstream SAP for both receiving incoming connections attempts and for starting outgoing connection attempts. The default is 12.

Default

local-sap: 12

Command Mode

Global configuration

Example

In the following example, the local SAP address 10 of the RSRB is enabled for use by the *ibm3745* host PU:

```
source-bridge ring-group 99  
source-bridge remote-peer 99 tcp 150.10.13.1  
source-bridge remote-peer 99 tcp 150.10.13.2  
  
dspu rsrb 88 1 99 4000.FFFF.0001  
dspu rsrb enable-host lsap 10  
  
dspu host ibm3745 xid-snd 06500001 rmac 4000.3745.0001 lsap 10  
  
interface serial 0  
ip address 150.10.13.1 255.255.255.0
```

Related Commands

dspu host
dspu rsrb

dspu rsrb enable-pu

Use the **dspu rsrb enable-pu** global configuration command to enable an RSRB SAP for use by DSPU downstream connections. Use the **no** form of this command to disable the SAP.

dspu rsrb enable-pu [*lsap local-sap*]
no dspu rsrb enable-pu [*lsap local-sap*]

Syntax Description

lsap *local-sap* (Optional) Specifies that the local SAP address will be activated as an upstream SAP for both receiving incoming connection attempts and for starting outgoing connection attempts.

Default

local-sap: 8

Command Mode

Global configuration

Example

In the following example, the local SAP address 20 of the RSRB is enabled for use by the *ciscopu* DSPU downstream PU:

```
source-bridge ring-group 99
source-bridge remote-peer 99 tcp 150.10.13.1
source-bridge remote-peer 99 tcp 150.10.13.2

dspu rsrb 88 1 99 4000.FFFF.0001
dspu rsrb enable-pu lsap 20

dspu pu ciscopu xid-rcv 05D00001 lsap 20
```

Related Commands

dspu pu
dspu rsrb

dspu rsrb start

Use the **dspu rsrb start** global configuration command to specify that an attempt will be made to connect to the remote resource defined by host name or pu name through the RSRB. Use the **no** form of this command to cancel the definition.

```
dspu rsrb start {host-name | pu-name}  
no dspu rsrb start {host-name | pu-name}
```

Syntax Description

host-name The name of a host defined in a **dspu host** command.

pu-name The name of a PU defined in a **dspu pu** command.

Default

There are no default settings.

Command Mode

Global configuration

Usage Guidelines

Before issuing this command, you must enable the correct local SAP with the appropriate enable command (**dspu rsrb enable-host** for a host resource, and **dspu rsrb enable-pu** for a PU resource.)

This command is only valid if the target MAC address has been defined in the resource. For a host resource, this not a problem because the MAC address is mandatory, but for a PU resource the MAC address is optional. The command will fail if the MAC address is missing.

Example

In the following example, the DSPU will initiate a connection with the *ibm3745* host PU across the RSRB link:

```
source-bridge ring-group 99  
source-bridge remote-peer 99 tcp 150.10.13.1  
source-bridge remote-peer 99 tcp 150.10.13.2  
  
dspu rsrb 88 1 99 4000.FFFF.0001  
dspu rsrb enable-host lsap 10  
  
dspu host ibm3745 xid-snd 06500001 rmac 4000.3745.0001 lsap 10  
dspu rsrb start ibm3745  
  
interface serial 0  
ip address 150.10.13.1 255.255.255.0
```

Related Commands

dspu host

dspu pu

dspu rsrb enable-host

dspu rsrb enable-pu

dspu rsrb

dspu start

Use the **dspu start** interface configuration command to specify that an attempt will be made to connect to the remote resource defined by host name or pu name. Use the **no** form of this command to cancel the definition.

```
dspu start {host-name | pu-name}  
no dspu start {host-name | pu-name}
```

Syntax Description

host-name The name of a host defined in a **dspu host** command.

pu-name The name of a PU defined in a **dspu pu** command.

Default

There are no default settings.

Command Mode

Interface configuration

Usage Guidelines

Before issuing this command, you must enable the correct local SAP with the appropriate enable command (**dspu enable-host** for a host resource, and **dspu enable-pu** for a PU resource).

This command is only valid if the target MAC address has been defined in the resource. For a host resource, this not a problem because specifying the MAC address is mandatory, but for a PU resource specifying the MAC address is optional. The command will fail if the MAC address is missing.

Example

In the following example, the DSPU will initiate a connection with the *ciscopu* downstream PU on the Token Ring interface 0:

```
dspu pu ciscopu xid-rcv 05D00001 rmac 1000.5AED.1F53 lsap 20  
interface tokenring 0  
dspu enable-pu lsap 20  
dspu start ciscopu
```

Related Commands

dspu enable-host
dspu enable-pu
dspu host
dspu pu

show dspu

Use the **show dspu** privileged EXEC command to display the status of the DSPU feature.

```
show dspu [pool pool-name | [pu {pu-name |host-name}] [all]]
```

Syntax Description

pool <i>pool-name</i>	(Optional) Specifies the name of a pool of LUs (as defined by the dspu pool command).
pu	(Optional) Specifies the name of defined PU (as defined by either the dspu pu or the dspu host command).
<i>host-name</i>	The name of a host defined in a dspu host command.
<i>pu-name</i>	The name of a PU defined in a dspu pu command.
all	(Optional) Show a detailed status.

Command Mode

Privileged EXEC

Sample Display

The following is sample output of the **show dspu** command. It shows a summary of the DSPU status.

```
Router# show dspu

dspu host HOST_NAMEA interface PU STATUS ssssssss
FRAMES RECEIVED nnnnnn FRAMES SENT nnnnnn
LUs CONFIGURED nnn LUs ACTIVE nnn
dspu host HOST_NAMEB interface PU STATUS ssssssss
FRAMES RECEIVED nnnnnn FRAMES SENT nnnnnn
LUs CONFIGURED nnn LUs ACTIVE nnn
dspu pu PU_NAMEE interface PU STATUS ssssssss
FRAMES RECEIVED nnnnnn FRAMES SENT nnnnnn
LUs CONFIGURED nnn LUs ACTIVE nnn
dspu pu PU_NAMEF interface PU STATUS ssssssss
FRAMES RECEIVED nnnnnn FRAMES SENT nnnnnn
LUs CONFIGURED nnn LUs ACTIVE nnn
```

The following is sample output of the **show dspu** command with the **pu** keyword:

```
Router# show dspu pu putest

dspu pu PUTEST interface PU STATUS ssssssss
RMAC remote_mac RSAP remote_sap LSAP local_sap
XID xid RETRIES retry_count RETRY_TIMEOUT retry_timeout
WINDOW window_size MAXIFRAME max_iframe
FRAMES RECEIVED nnnnnn FRAMES SENT nnnnnn
LUs CONFIGURED nnn LUs ACTIVE nnn
```

The following is sample output of the **show dspu** command with the **all** keyword:

```
Router# show dspu pu putest all

dspu pu PUTEST interface PU STATUS ssssssss
RMAC remote_mac RSAP remote_sap LSAP local_sap
```

```
XID xid RETRIES retry_count RETRY_TIMEOUT retry_timeout
WINDOW window_size MAXIFRAME max_iframe
FRAMES RECEIVED nnnnnn FRAMES SENT nnnnnn
LU nn PEER PU HOST_NAMEA PEER LU nnn STATUS tttttttt
FRAMES RECEIVED nnnnnn FRAMES SENT nnnnnn
LU nnn PEER PU HOST_NAMEA PEER LU nnn STATUS tttttttt
FRAMES RECEIVED nnnnnn, FRAMES SENT nnnnnn
LU nnn PEER PU HOST_NAMEB PEER LU nnn STATUS tttttttt
FRAMES RECEIVED nnnnnn, FRAMES SENT nnnnnn
```

The following shows a summary of the LUs in a pool:

```
Router# show dspu pool poolname

dspu pool poolname host HOST_NAMEA lu start-lu end-lu
```

The following shows the details of all the LUs in a pool:

```
Router# show dspu pool poolname all

dspu pool poolname host HOST_NAMEA lu start-lu end-lu
DSPU POOL poolname INACTIVITY_TIMEOUT timeout-value
lu nnn host HOST_NAMEA peer lu nnn pu PU_NAMEF status tttttttt
lu nnn host HOST_NAMEA peer lu nnn pu PU_NAMEF status tttttttt
lu nnn host HOST_NAMEA peer lu nnn pu PU_NAMEF status tttttttt
```

show dspu
