Communications Server for Linux on System z

SNA connectivity

There exist multiple types of connectivity with Communications Server for Linux® on System z®.

SNA connectivity

- Communications Server for Linux on System z connectivity includes:
  - Enterprise Extender, High Performance Routing (HPR)
    - Dynamic route discovery
    - Non-disruptive session recovery
    - UDP/IP using ports 12000 - 12004
  - LLC-2 SNA LAN
    - Ethernet or Token-Ring
      - Peer or Host connections
      - Downstream Gateway
      - Downstream DLUR

SNA connectivity
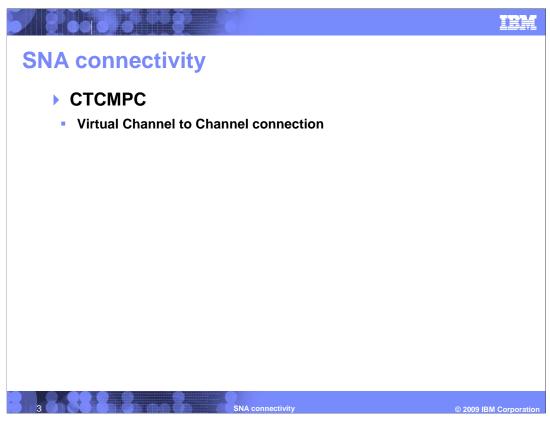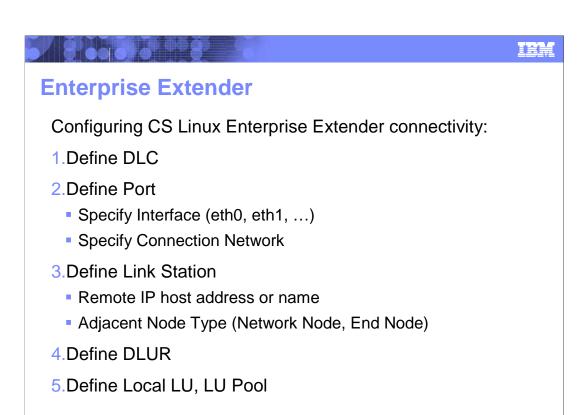© 2009 IBM Corporation

Communications Server Linux on System z Connectivity

CS Linux provides Enterprise Extender (HPR/IP) connectivity

LLC-2 LAN (SNA over LAN)

 - Three types of LAN connections, Host, Downstream Gateway, Downstream DLUR

SNA connectivity

▸ **CTCMPC**

- **Virtual Channel to Channel connection**

SNA connectivity

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CTCMPC – Channel to Channel Multi-Path Channel (APPN over Channel)

Enterprise Extender

Configuring CS Linux Enterprise Extender connectivity:

1. Define DLC
2. Define Port
   - Specify Interface (eth0, eth1, …)
   - Specify Connection Network
3. Define Link Station
   - Remote IP host address or name
   - Adjacent Node Type (Network Node, End Node)
4. Define DLUR
5. Define Local LU, LU Pool

Enterprise Extender definitions require defining a DLC, Port and Link station.

Using Port definition, the IP interfaces can be selected that will support Enterprise Extender

The link stations should specify at one Network Node server, more if possible for higher availability.

LAN LLC2

Configuring CS Linux on System z LAN LLC2 connectivity:

1. Define DLC

2. Define Port
   - OSA - Ethernet
   - OSA - Token-Ring

3. Define Link Station in one of three types
   - Link station to peer or Host
   - LAN Downstream Gateway
   - LAN Downstream DLUR (Passthrough DLUR)
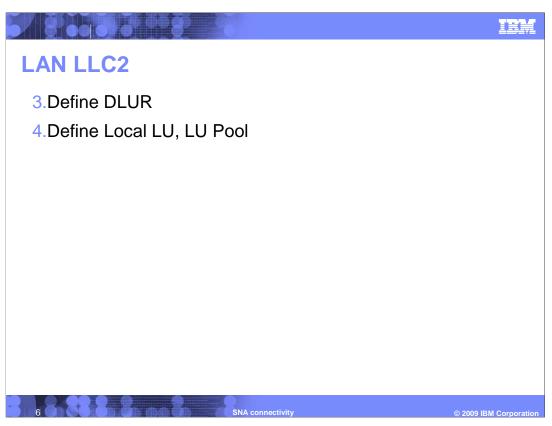
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LAN LLC2 definitions provide the ability to "pass through" the PU visibility to the Host

LAN connections can be to Host or peers, defined as a Downstream Gateway or defined as Downstream DLUR

Downstream Gateway provides consolidation of LUs on the server

Downstream DLUR provides direct pass through capabilities.

The Host can see the defined PUs downstream of the CS Linux on System z server.

LAN LLC2

3. Define DLUR
4. Define Local LU, LU Pool

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The Host can see the defined PUs downstream of the CS Linux on System z server.

CTCMPC

Configuring CS Linux on System z CTCMPC:

1. Follow the README-CTCMPC instructions for setting up VTAM®, VM and Linux

2. Define DLC

3. Define Port

4. Define Link Station to APPN adjacent node
   - At least one node (Peer or local node) should be Network Node server

5. Define DLUR

6. Define Local LU, LU Pool

CTCMPC must be defined in the TRL definition of VTAM and Linux system configuration:

The VTAM TRL will look like this:

```
LNXTRL   VBUILD TYPE=TRL
LNXTRE   TRLE  LNCTL=MPC,
         MAXBFRU=7,
         READ=(BC1),
         WRITE=(BC0),
         REPLYTO=3.0
```

The Linux side will defined a READ port and WRITE port(BC0, BC1),

VTAM will define the matching WRITE port and READ port(BC1, BC0).

To activate ports:

 On CS Linux:

```
# snaadmin init_node
# snaadmin start_port, port_name=MPCP0
```

And on VTAM:

```
V BC0-BC1,ONLINE
V NET,ID=LNXTRL,ACT
V NET,ID=LNXLCL,ACT
```

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