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Configuring CSNA Casual Connect and APPN Border Node

Document ID: 17542

Introduction

Prerequisites

- Requirements

- Components Used

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- Network Diagram

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Related Information

Introduction

This document provides a sample configuration for using casual connect and Advanced Peer-to-Peer Networking (APPN) border node (BN) to connect two Virtual Telecommunications Access Methods (VTAMs) with different NETIDs.

This document contains two scenarios. In Scenario 1, you configure APPN border node between the two VTAMS (CONNTYPE=APPN). In Scenario 2, you configure casual connect (CONNTYPE=LEN).

Note: The configurations in this document use only Channel Interface Processors (CIPs), not front-end processors (FEPs).

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

This document is not restricted to specific software and hardware versions.

Conventions

Refer to Cisco Technical Tips Conventions for more information on document conventions.

Background Information

Low-Entry Networking (LEN) is Physical Unit type 2.1 (PU 2.1) to PU 2.1 with no control point (CP-CP) sessions and a single connection only allowed between the two boxes. LEN between two VTAMs with different NETIDs is called LEN casual connect.

APPN is PU 2.1 to PU 2.1 with CP-CP sessions and/or multiple connections between the two boxes. When the nodes are network nodes and the NETIDs are different, this is APPN BN functionality.

PU 5 to PU 5 is traditional SSCP-SSCP subarea connectivity. PU 5 to PU 5 with different NETIDs requires a gateway Network Control Program (NCP) FEP and is called SNA Network Interconnection (SNI).

A VTAM can act as a PU 5 or a PU 2.1, hence the VTAM has the ability to handle all these types of connections in a mix-and-match fashion. For example, a VTAM can be a PU 5 on one connection and a PU 2.1 on another.

Furthermore, casual connect is a method to connect VTAMs to each other that are in different networks without using SNI. Each VTAM is defined to the other as a PU 2.1 peripheral node. **XNETALS=YES** must be specified on the PU (or higher) level so that each VTAM allows an adjacent link station with a NETID different than their own. To specify **XNETALS=YES** on the PU and override the VTAM startup parameters, VTAM V4R4 is required.

A PU can be configured as **CONNTYPE=LEN** or **CONNTYPE=APPN**. With **CONNTYPE=LEN**, there is no CP-CP session between the VTAMs. In this case, there are no locates sent between VTAMs, and every logical unit (LU) that uses this connection must be defined to the other VTAM as a hard-coded Cross-Domain Resource (CDRSC). With such an LEN connection, only LU 6.2 sessions can establish. This is considered casual connect.

With **CONNTYPE=APPN**, one of the VTAMs must be an APPN border node to allow the cross-network connection. In this case, a CP-CP session is established between the VTAMs. This enables other LU types, such as LU 1, 2, 3, and so on, to establish across the connection. This is not considered casual connect, but APPN border node instead.

LEN casual connection is an effective solution when there are limited numbers of devices for sessions between different NETIDs. It is not as effective for a large number of LUs in one network that must establish sessions to LUs in the other network, because all LUs must be defined as CDRSCs on the other side.

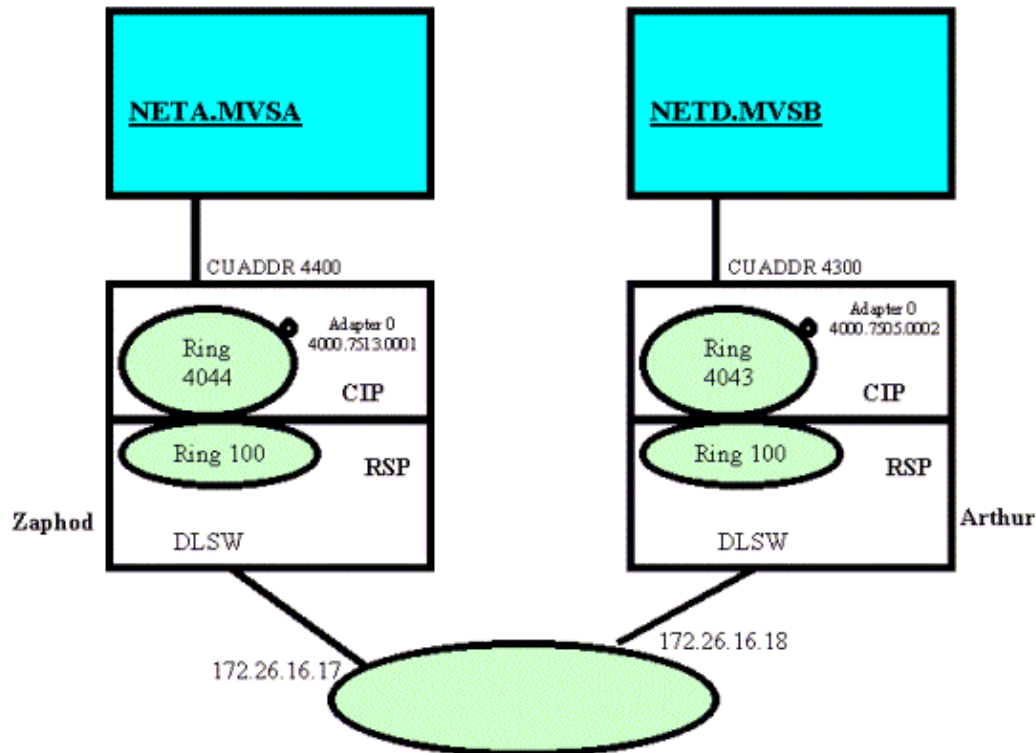
Configure

In this section, you are presented with the information to configure the features described in this document.

Note: Use the Command Lookup Tool (registered customers only) to find more information on the commands used in this document.

Network Diagram

This document uses this network setup:



Scenario 1

VTAM is a border node, and CONNTYPE is set to APPN, not LEN. This causes a CP-CP session to start between the two VTAMs.

This is the output from the log on MVSB when dialing:

```
V NET,DIAL,ID=DKPUMVSA
IST097I VARY ACCEPTED
NSP2000I DATA RECORDED TO PRIMARY FOR PU DKPUMVSA
IST590I CONNECTOUT ESTABLISHED FOR PU DKPUMVSA ON LINE L4300000
IST1086I APPN CONNECTION FOR NETA.MVSA IS ACTIVE - TGN = 22
IST1096I CP-CP SESSIONS WITH NETA.MVSA ACTIVATED

D NET,ID=DKPUMVSA,E
IST097I DISPLAY ACCEPTED
IST075I NAME = DKPUMVSA, TYPE = PU_T2.1 411
IST486I STATUS= ACTIV--L--, DESIRED STATE= ACTIV
IST1043I CP NAME = MVSA, CP NETID = NETA, DYNAMIC LU = YES
IST1589I XNETALS = YES
IST1105I RESOURCE STATUS TGN CP-CP TG CHARACTERISTICS
IST1106I DKPUMVSA AC/R      22 YES   98750000000000000000000014C00808080
IST1482I HPR = RTP - OVERRIDE = N/A - CONNECTION = NO
IST136I SWITCHED SNA MAJOR NODE = DKSW02
IST081I LINE NAME = L4300000, LINE GROUP = DKGR44, MAJNOD = DKXCA43
IST654I I/O TRACE = OFF, BUFFER TRACE = OFF
IST1500I STATE TRACE = OFF
IST1656I VTAMTOPO = REPORT, NODE REPORTED - YES
IST1657I MAJOR NODE VTAMTOPO = REPORT
IST355I LOGICAL UNITS:
IST080I MVSA      ACT/S----Y
IST314I END
```

This is the output from the MVSA when dialing:

```
NSP2000I DATA RECORDED TO PRIMARY FOR PU DKPUMVSB
IST1086I APPN CONNECTION FOR NETD.MVSB IS ACTIVE - TGN = 22
IST1096I CP-CP SESSIONS WITH NETD.MVSB ACTIVATED

D NET,ID=DKPUMVSB,E
IST097I DISPLAY ACCEPTED
IST075I NAME = DKPUMVSB, TYPE = PU_T2.1 466
IST486I STATUS= ACTIV--L--, DESIRED STATE= ACTIV
IST1043I CP NAME = MVSB, CP NETID = NETD, DYNAMIC LU = YES
IST1589I XNETALS = YES
IST1105I RESOURCE STATUS TGN CP-CP TG CHARACTERISTICS
IST1106I DKPUMVSB AC/R      22 YES   98750000000000000000000014C00808080
IST1482I HPR = RTP - OVERRIDE = N/A - CONNECTION = NO
IST136I SWITCHED SNA MAJOR NODE = DKSW01
IST081I LINE NAME = L4400000, LINE GROUP = DKGR44, MAJNOD = DKXCA44
IST654I I/O TRACE = OFF, BUFFER TRACE = OFF
IST1500I STATE TRACE = OFF
IST1656I VTAMTOPO = REPORT, NODE REPORTED - YES
IST1657I MAJOR NODE VTAMTOPO = REPORT
IST355I LOGICAL UNITS:
IST080I MVSB      ACT/S----Y
IST314I END

D NET,ID=ISTCDRDY,E
IST097I DISPLAY ACCEPTED
IST075I NAME = ISTCDRDY, TYPE = CDRSC SEGMENT 731
IST486I STATUS= ACTIV, DESIRED STATE= ACTIV
IST478I CDRSCS:
IST483I TCD10002 ACT/S----Y, CDRM = MVSA      , NETID = NETA
IST483I MVSB      ACT/S----Y, CDRM = MVSA      , NETID = NETD
IST483I CNM01     ACT/S----Y, CDRM = MVSA      , NETID = NETA
IST483I MVSF      ACT/S----Y, CDRM = MVSA      , NETID = NETA
IST483I MVSE      ACT/S----Y, CDRM = MVSA      , NETID = NETA
IST483I CPAC      ACT/S----Y, CDRM = MVSA      , NETID = NETA
IST483I MVSD      ACT/S----Y, CDRM = MVSA      , NETID = NETA
IST483I MVSG      ACT/S----Y, CDRM = MVSA      , NETID = NETA
IST483I MVS2      ACT/S----Y, CDRM = MVSA      , NETID = NETA
IST1500I STATE TRACE = OFF
IST314I END

D NET,ID=MVSB,E
IST097I DISPLAY ACCEPTED
IST075I NAME = NETD.MVSB, TYPE = ADJACENT CP 736
IST486I STATUS= ACT/S---Y, DESIRED STATE= ACTIV
IST1447I REGISTRATION TYPE = NO
IST977I MDLTAB=***NA*** ASLTAB=***NA***
IST1333I ADJLIST = ***NA***
IST861I MODETAB=***NA*** USSTAB=***NA*** LOGTAB=***NA***
IST934I DLOGMOD=***NA*** USS LANGTAB=***NA***
IST597I CAPABILITY-PLU ENABLED ,SLU ENABLED ,SESSION LIMIT NONE
IST231I CDRSC MAJOR NODE = ISTCDRDY
IST479I CDRM NAME = MVSA, VERIFY OWNER = NO
IST1184I CPNAME = NETD.MVSB - NETSRVR = ***NA***
IST1044I ALSLIST = ISTAPNPU
IST082I DEVTYPE = INDEPENDENT LU / CDRSC
IST654I I/O TRACE = OFF, BUFFER TRACE = OFF
IST1500I STATE TRACE = OFF
IST228I ENCRYPTION = NONE
IST1563I CKEYNAME = MVSB CKEY = PRIMARY CERTIFY = NO
IST1552I MAC = NONE MACTYPE = NONE
IST171I ACTIVE SESSIONS = 0000000002, SESSION REQUESTS = 0000000000
IST206I SESSIONS:
```

```

IST1081I ADJACENT LINK STATION = DKPUMVSB
IST634I NAME      STATUS      SID          SEND RECV VR TP NETID
IST635I MVSA     ACTIV/CP-S C3BF054E2C28AE51 0072 0001 0 0 NETA
IST635I MVSA     ACTIV/CP-P C3BBDE1E84FDAABE 0001 0072 0 0 NETA
IST924I -----
IST075I NAME = NETD.MVSB, TYPE = DIRECTORY ENTRY
IST1186I DIRECTORY ENTRY = DYNAMIC NN
IST1184I CPNAME = NETD.MVSB - NETSRVR = ***NA***
IST314I END

```

The two XCA majnodes are displayed.

On MVSA:

```

DKXCA44  VBUILD TYPE=XCA
DKXP44   PORT  ADAPNO=0, CUADDR=4400, SAPADDR=04, MEDIUM=RING, TIMER=20
DKGR44   GROUP ANSWER=ON,
          AUTOGEN=(10, L, P),
          CALL=INOUT, DIAL=YES, ISTATUS=ACTIVE

```

X
X

On MVSB:

```

DKXCA43  VBUILD TYPE=XCA
DKXP43   PORT  ADAPNO=0, CUADDR=4300, SAPADDR=04, MEDIUM=RING, TIMER=20
DKGR43   GROUP ANSWER=ON,
          AUTOGEN=(10, L, P), CALL=INOUT, DIAL=YES, ISTATUS=ACTIVE

```

X

Here are the two switched majnodes.

On MVSA:

```

DKSW01  VBUILD TYPE=SWNET
DKPUMVSB PU  ADDR=C1, PUTYPE=2, CPNAME=MVSA, XNETALS=YES, NETID=NETD
          PATH  DIALNO=0104400075130002, GRPNM=DKGR44

```

On MVSB:

```

DKSW02  VBUILD TYPE=SWNET
DKPUMVSA PU  ADDR=C1, PUTYPE=2, CPNAME=MVSA, XNETALS=YES, NETID=NETA
          PATH  DIALNO=0104400075130001, GRPNM=DKGR43

```

Scenario 2

Forcing the CONNTYPE to be LEN on the PU is performed. In this case, there is no CP-CP session between the VTAMs, and any LUs must be defined to the other VTAM as hard-coded CDRSCs.

This is the output from the log on MVSA when dialing:

```

V NET, DIAL, ID=DKPUMVSB
IST097I VARY ACCEPTED
NSP2000I DATA RECORDED TO PRIMARY FOR PU DKPUMVSB

```

Note: There is no CP-CP session started. This is unlike Scenario 1.

These are the displays from NETA.MVSA:

```

D NET,ID=ISTCDRDY,E
IST097I DISPLAY ACCEPTED
IST075I NAME = ISTCDRDY, TYPE = CDRSC SEGMENT 498
IST486I STATUS= ACTIV, DESIRED STATE= ACTIV
IST478I CDRSCS:
IST483I MVSB      ACT/S----Y, CDRM = ***NA***, NETID = NETD
IST483I CNM11     ACT/S----Y, CDRM = MVSA      , NETID = NETA
IST483I MVSE      ACT/S----Y, CDRM = MVSA      , NETID = NETA
IST483I TCD10002 ACT/S----Y, CDRM = MVSA      , NETID = NETA
IST483I CNM01     ACT/S----Y, CDRM = MVSA      , NETID = NETA
IST483I MVSF      ACT/S----Y, CDRM = MVSA      , NETID = NETA
IST483I CPAC      ACT/S----Y, CDRM = MVSA      , NETID = NETA
IST483I MVSD      ACT/S----Y, CDRM = MVSA      , NETID = NETA
IST483I MVSG      ACT/S----Y, CDRM = MVSA      , NETID = NETA
IST483I MVS2      ACT/S----Y, CDRM = MVSA      , NETID = NETA
IST1500I STATE TRACE = OFF
IST314I END

```

```

D NET,ID=MVSB,E
IST097I DISPLAY ACCEPTED
IST075I NAME = NETD.MVSB, TYPE = ADJACENT CP 504
IST486I STATUS= ACT/S---Y, DESIRED STATE= ACTIV
IST1447I REGISTRATION TYPE = NO
IST977I MDLTAB=***NA*** ASLTAB=***NA***
IST1333I ADJLIST = ***NA***
IST861I MODETAB=***NA*** USSTAB=***NA*** LOGTAB=***NA***
IST934I DLOGMOD=SNASVCMG USS LANGTAB=***NA***
IST597I CAPABILITY-PLU ENABLED ,SLU ENABLED ,SESSION LIMIT NONE
IST231I CDRSC MAJOR NODE = ISTCDRDY
IST1044I ALSLIST = DKPUMVSB
IST082I DEVTYPE = INDEPENDENT LU / CDRSC
IST654I I/O TRACE = OFF, BUFFER TRACE = OFF
IST1500I STATE TRACE = OFF
IST228I ENCRYPTION = NONE
IST1563I CKEYNAME = MVSB CKEY = PRIMARY CERTIFY = NO
IST1552I MAC = NONE MACTYPE = NONE
IST171I ACTIVE SESSIONS = 0000000001, SESSION REQUESTS = 0000000000
IST206I SESSIONS:
IST1081I ADJACENT LINK STATION = DKPUMVSB
IST634I NAME      STATUS      SID      SEND RECV VR TP NETID
IST635I MVSA      ACTIV/SV-P C3BBDE1E84FDABAE 0001 0001      NETA
IST924I -----
IST075I NAME = NETD.MVSB, TYPE = DIRECTORY ENTRY
IST1186I DIRECTORY ENTRY = DYNAMIC NN
IST1184I CPNAME = NETD.MVSB - NETSRVR = ***NA***
IST314I END

```

```

D NET,ID=DKPUMVSB,E
IST097I DISPLAY ACCEPTED
IST075I NAME = DKPUMVSB, TYPE = PU_T2.1 507
IST486I STATUS= ACTIV--L--, DESIRED STATE= ACTIV
IST1043I CP NAME = MVSB, CP NETID = NETD, DYNAMIC LU = YES
IST1589I XNETALS = YES
IST136I SWITCHED SNA MAJOR NODE = DKSW01
IST081I LINE NAME = L4400000, LINE GROUP = DKGR44, MAJNOD = DKXCA44
IST654I I/O TRACE = OFF, BUFFER TRACE = OFF
IST1500I STATE TRACE = OFF
IST1656I VTAMTOPO = REPORT, NODE REPORTED - YES
IST1657I MAJOR NODE VTAMTOPO = REPORT
IST355I LOGICAL UNITS:
IST080I APPCMVB1 ACT/S      MVSB      ACT/S----Y
IST314I END

```

```

D NET,ID=APPCMBV1,E

```

```

IST097I DISPLAY ACCEPTED
IST075I NAME = NETD.APPCMVB1, TYPE = CDRSC 521
IST486I STATUS= ACT/S, DESIRED STATE= ACTIV
IST1447I REGISTRATION TYPE = NO
IST977I MDLTAB=***NA*** ASLTAB=***NA***
IST1333I ADJLIST = ***NA***
IST861I MODETAB=***NA*** USSTAB=***NA*** LOGTAB=***NA***
IST934I DLOGMOD=***NA*** USS LANGTAB=***NA***
IST597I CAPABILITY-PLU ENABLED ,SLU ENABLED ,SESSION LIMIT NONE
IST231I CDRSC MAJOR NODE = DKCDRSC1
IST1044I ALSLIST = DKPUMVSB
IST082I DEVTYPE = INDEPENDENT LU / CDRSC
IST654I I/O TRACE = OFF, BUFFER TRACE = OFF
IST1500I STATE TRACE = OFF
IST228I ENCRYPTION = NONE
IST1563I CKEYNAME = APPCMVB1 CKEY = PRIMARY CERTIFY = NO
IST1552I MAC = NONE MACTYPE = NONE
IST171I ACTIVE SESSIONS = 0000000001, SESSION REQUESTS = 0000000000
IST206I SESSIONS:
IST1081I ADJACENT LINK STATION = DKPUMVSB
IST634I NAME STATUS SID SEND RECV VR TP NETID
IST635I MVSA ACTIV/SV-P C3BBDE1E84FDABB3 0002 0002 NETA
IST314I END

```

Here are similar displays from the other VTAM (NETD.MVSB):

```

D NET,ID=ISTCDRDY,E
IST097I DISPLAY ACCEPTED
IST075I NAME = ISTCDRDY, TYPE = CDRSC SEGMENT 728
IST486I STATUS= ACTIV, DESIRED STATE= ACTIV
IST478I CDRSCS:
IST483I MVSA ACT/S----Y, CDRM = ***NA***, NETID = NETA
IST1500I STATE TRACE = OFF
IST314I END
IEF126I CRBROWN - LOGGED OFF - TIME=16.57.04
$HASP395 CRBROWN ENDED
$HASP250 CRBROWN PURGED -- (JOB KEY WAS B0D1D3A1)
IEA989I SLIP TRAP ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=001B.

```

```

D NET,ID=DKPUMVSA,E
IST097I DISPLAY ACCEPTED
IST075I NAME = DKPUMVSA, TYPE = PU_T2.1 735
IST486I STATUS= ACTIV--L--, DESIRED STATE= ACTIV
IST1043I CP NAME = MVSA, CP NETID = NETA, DYNAMIC LU = YES
IST1589I XNETALS = YES
IST136I SWITCHED SNA MAJOR NODE = DKSW02
IST081I LINE NAME = L4300000, LINE GROUP = DKGR44, MAJNOD = DKXCA43
IST654I I/O TRACE = OFF, BUFFER TRACE = OFF
IST1500I STATE TRACE = OFF
IST1656I VTAMTOPO = REPORT, NODE REPORTED - YES
IST1657I MAJOR NODE VTAMTOPO = REPORT
IST355I LOGICAL UNITS:
IST080I MVSA ACT/S----Y
IST314I END

```

```

D NET,ID=MVSA,E
IST097I DISPLAY ACCEPTED
IST075I NAME = NETA.MVSA, TYPE = CDRSC 738
IST486I STATUS= ACT/S----Y, DESIRED STATE= ACTIV
IST1447I REGISTRATION TYPE = NO
IST977I MDLTAB=***NA*** ASLTAB=***NA***
IST1333I ADJLIST = ***NA***
IST861I MODETAB=***NA*** USSTAB=***NA*** LOGTAB=***NA***

```

```

IST934I DLOGMOD=SNASVCMG USS LANGTAB=***NA***
IST597I CAPABILITY-PLU ENABLED ,SLU ENABLED ,SESSION LIMIT NONE
IST231I CDRSC MAJOR NODE = ISTCDRDY
IST1044I ALSLIST = DKPUMVSA
IST082I DEVTYPE = INDEPENDENT LU / CDRSC
IST654I I/O TRACE = OFF, BUFFER TRACE = OFF
IST1500I STATE TRACE = OFF
IST228I ENCRYPTION = NONE
IST1563I CKEYNAME = MVSA CKEY = PRIMARY CERTIFY = NO
IST1552I MAC = NONE MACTYPE = NONE
IST171I ACTIVE SESSIONS = 0000000002, SESSION REQUESTS = 0000000000
IST206I SESSIONS:
IST1081I ADJACENT LINK STATION = DKPUMVSA
IST634I NAME      STATUS      SID      SEND RECV VR TP NETID
IST635I APPCMVB1  ACTIV/SV-S C3BBDE1E84FDABB3 0002 0002      NETD
IST635I MVSB     ACTIV/SV-S C3BBDE1E84FDABAE 0001 0001      NETD
IST924I -----
IST075I NAME = NETA.MVSA, TYPE = DIRECTORY ENTRY
IST1186I DIRECTORY ENTRY = DYNAMIC NN
IST1184I CPNAME = NETA.MVSA - NETSRVR = ***NA***
IST314I END

```

Note: In Scenario 2, the XCA majnodes are exactly the same as in Scenario 1.

This is the switched PU majnode on NETA.MVSA:

```

DKSW01  VBUILD TYPE=SWNET
DKPUMVSB PU  ADDR=C1,PUTYPE=2,CPNAME=MVSB,XNETALS=YES,NETID=NETD,      X
          CONNTYPE=LEN
          PATH  DIALNO=0104400075130002,GRPNM=DKGR44

```

This is the switched PU majnode on NETD.MVSB:

```

DKSW02  VBUILD TYPE=SWNET
DKPUMVSA PU  ADDR=C1,PUTYPE=2,CPNAME=MVSA,XNETALS=YES,      X
          NETID=NETA,CONNTYPE=LEN
          PATH  DIALNO=0104400075130001,GRPNM=DKGR43

```

Note: CONNTYPE=LEN is coded on both PUs. This is because the VTAMs are APPN border nodes, and CONNTYPE=APPN is specified in the VTAM startups. You need to override the CONNTYPE in the PU definition, and VTAM V4R4 or later is required for this to occur. In most VTAMs, this is not necessary.

This is the hard-coded CDRSC majnode from NETA.MVSA:

```

DKCDRSC1 VBUILD TYPE=CDRSC
          NETWORK NETID=NETD
APPCMVB1 CDRSC ALSLIST=(DKPUMVSB),ALSREQ=NO

```

Note: Every APPLID must be defined to the other VTAM as a CDRSC, as in the preceding example. LU 6.2 sessions only work over a LEN node.

This is the VTAMOPTS output from the VTAMs for both scenarios:

```

NETA.MVSA:

D NET,VTAMOPTS
IST097I DISPLAY ACCEPTED

```

```

IST1188I ACF/VTAM V4R4.1 STARTED AT 07:37:24 ON 07/23/98 530
IST1349I COMPONENT ID IS 5695-11701-411
IST1348I VTAM STARTED AS INTERCHANGE NODE
IST1189I ALSREQ = NO APPNCOS = NONE
IST1189I ASIRFMSG = OLUSSCP ASYDE = TERM
IST1189I AUTHLEN = YES AUTORTRY = AUTOCAP
IST1189I AUTOTI = 0 BN = YES
IST1189I BNDYN = FULL BNORD = PRIORITY
IST1189I BSCMDRS = (STATS,INOPS) BSCTMOUT = 286
IST1189I CACHETI = 8 CDRDYN = YES
IST1189I CDRSCTI = 480S CDSERVER = YES
IST1189I CDSREFER = ***NA*** CINDXSIZ = 8176
IST1189I CMPMIPS = 100 CMPVTAM = 0
IST1189I CNMTAB = ISTMGC00 COLD = YES
IST1189I CONFIG = MA CONNTYPE = APPN
IST1189I CPCDRSC = YES CPCP = YES
IST1189I CSALIMIT = 90112K CSA24 = 1024K
IST1189I DATEFORM = MDY DIALRTRY = YES
IST1189I DIRSIZE = 0 DIRTIME = 691200S
IST1189I DISCNTIM = (15,0) DLRORDER = STATNID
IST1189I DLRTCB = 32 DSPLYDEF = 300
IST1189I DSPLYMAX = 16384 DSPLYWLD = FULLWILD
IST1189I DUPDEFS = ALL DYNADJCP = YES
IST1189I DYNASSCP = YES DYNDLGMD = NONE
IST1189I DYNHPPFX = *BLANKS* DYNLU = YES
IST1189I DYNMODTB = NONE DYNPUPFX = *BLANKS*
IST1189I DYNVNPFX = *BLANKS* ENCRPREF = NONE
IST1189I ENCRYPTN = 31 ENHADDR = NO
IST1189I ESIRFMSG = ALLSSCP FLDTAB = MSGFLOOD
IST1189I FSIRFMSG = OLUSSCP GWSSCP = YES
IST1189I HNTSIZE = 4080 HOSTPU = ISTEPUS
IST1189I HOSTSA = 57 HOTIOTRM = 20
IST1189I HPR = (RTP,RTP) HPRNCPBF = NO
IST1189I HPRPST = LOW 480S HPRPST = MEDIUM 240S
IST1189I HPRPST = HIGH 120S HPRPST = NETWRK 60S
IST1189I HSRTSIZE = 9973 INITDB = NONE
IST1189I INOPDUMP = OFF IOINT = 900
IST1189I IOMSGLIM = 2 IOPURGE = 300S
IST1189I IRNSTRGE = 0 ITCOSDF = INDLU
IST1189I LIMINTCP = 43200 LIST = 00
IST1189I MAINTLVL = *BLANKS* MAXLOCAT = 5000
IST1189I MAXLURU = 6144 MAXSSCPS = 10
IST1189I MAXSUBA = 63 MIHTMOUT = 1800
IST1189I MSGLEVEL = BASE MSGMOD = NO
IST1189I MXSAWBUF = 10000 MXSSCPRU = 4096
IST1189I MXSUBNUM = 511 NCPBUFSZ = 512
IST1189I NETID = NETA NMVTLOG = NPDA
IST1189I NODELST = *BLANKS* NODETYPE = NN
IST1189I NQNMODE = NAME NSRTSIZE = *BLANKS*
IST1189I NUMTREES = 200 OSIEVENT = PATTERNS
IST1189I OSIMGMT = NO OSITOPO = ILUCDRSC
IST1189I OSRTSIZE = 43 PDTRCBUF = 2
IST1189I PIUMAXDS = 200 PLUALMSG = NOSUPP
IST1189I PPOLOG = YES PSRETRY = LOW 0S
IST1189I PSRETRY = MEDIUM 0S PSRETRY = HIGH 0S
IST1189I PSRETRY = NETWRK 0S PSSTRACE = NORB
IST1189I RESUSAGE = 100 ROUTERES = 128
IST1189I SAWMAXDS = 100 SAWMXQPK = 0
IST1189I SDLCMDRS = (STATS,INOPS) SECLVLCP = ***NA***
IST1189I SIRFMSG = ALLSSCP SLUALMSG = NOSUPP
IST1189I SMEAUTH = DISCARD SNAPREQ = 1000
IST1189I SNVC = 15 SONLIM = (60,30)
IST1189I SORDER = APPNFRST SRCHRED = OFF
IST1189I SRCOUNT = 10 SRTIMER = 30S

```

```

IST1189I SSCPDYN = YES
IST1189I SSCPNAME = MVSA
IST1189I SSDTMOUT = 30
IST1189I STRGR = ISTGENERIC
IST1189I SUPP = NOSUP
IST1189I TNSTAT = NOCNSL,TIME=60
IST1189I UPDDELAY = 60S
IST1189I VERIFYCP = NONE
IST1189I VFYREDTI = OFF
IST1189I VRTGCPCP = YES
IST1189I WARM = NO
IST1189I XNETALS = NO
IST314I END

SSCPID = 57
SSCPORD = PRIORITY
SSEARCH = CACHE
STRMNPS = ISTMNPS
SWNORDER = CPNAME
TRANSLAT = (0,1,2,3,4,5,6,7)
USSTAB = *BLANKS*
VFYRED = YES
VRTG = YES
VTAMEAS = 32001
XCFINIT = YES

```

NETD.MVSB:

D NET,VTAMOPTS

```

IST097I DISPLAY ACCEPTED
IST1188I ACF/VTAM V4R4.1 STARTED AT 14:23:17 ON 07/27/98 537
IST1349I COMPONENT ID IS 5695-11701-411
IST1348I VTAM STARTED AS INTERCHANGE NODE
IST1189I ALSREQ = NO
IST1189I ASIRFMSG = OLUSSCP
IST1189I AUTHLEN = YES
IST1189I AUTOTI = 0
IST1189I BNDYN = FULL
IST1189I BSCMDRS = (STATS,INOPS)
IST1189I CACHETI = 8
IST1189I CDRSCTI = 480S
IST1189I CDSREFER = ***NA***
IST1189I CMPMIPS = 100
IST1189I CNMTAB = ISTMGC00
IST1189I CONFIG = MB
IST1189I CPCDRSC = YES
IST1189I CSALIMIT = 90112K
IST1189I DATEFORM = MDY
IST1189I DIRSIZE = 0
IST1189I DISCNTIM = (15,0)
IST1189I DLRTCB = 32
IST1189I DSPLYMAX = 4096
IST1189I DUPDEFS = ALL
IST1189I DYNASSCP = YES
IST1189I DYNHPPFX = *BLANKS*
IST1189I DYNMODTB = NONE
IST1189I DYNVNPFX = *BLANKS*
IST1189I ENCRYPTN = 31
IST1189I ESIRFMSG = ALLSSCP
IST1189I FSIRFMSG = OLUSSCP
IST1189I HNTSIZE = 4080
IST1189I HOSTSA = 59
IST1189I HPR = (RTP,RTP)
IST1189I HPRPST = LOW 480S
IST1189I HPRPST = HIGH 120S
IST1189I HSRTSIZE = 9973
IST1189I INOPDUMP = OFF
IST1189I IOMSGLIM = 2
IST1189I IRNSTRGE = 0
IST1189I LIMINTCP = 43200
IST1189I MAINTLVL = *BLANKS*
IST1189I MAXLURU = 6144
IST1189I MAXSUBA = 63
IST1189I MSGLEVEL = BASE
IST1189I MXSAWBUF = 10000
IST1189I MXSUBNUM = 511

APPNCOS = NONE
ASYDE = TERM
AUTORTRY = AUTOCAP
BN = YES
BNORD = PRIORITY
BSCTMOUT = 286
CDRDYN = YES
CDSERVR = YES
CINDXSIZ = 8176
CMPVTAM = 0
COLD = YES
CONNTYPE = APPN
CPCP = YES
CSA24 = 1024K
DIALRTRY = YES
DIRTIME = 691200S
DLRORDER = STATNID
DSPLYDEF = 100
DSPLYWLD = FULLWILD
DYNADJCP = YES
DYNDLGMD = NONE
DYNLU = YES
DYNPUPFX = *BLANKS*
ENCRPREF = NONE
ENHADDR = NO
FLDTAB = MSGFLOOD
GWSSCP = YES
HOSTPU = ISTOPUS
HOTIOTRM = 20
HPRNCPBF = NO
HPRPST = MEDIUM 240S
HPRPST = NETWRK 60S
INITDB = NONE
IOINT = 900
IOPURGE = 300S
ISTCOSDF = INDLU
LIST = RM
MAXLOCAT = 5000
MAXSSCPS = 10
MIHTMOUT = 1800
MSGMOD = NO
MXSSCPRU = 4096
NCPBUFSZ = 512

```

```

IST1189I NETID      = NETD
IST1189I NODELST   = *BLANKS*
IST1189I NQNMODE   = NAME
IST1189I NUMTREES  = 200
IST1189I OSIMGMT   = NO
IST1189I OSRTSIZE  = 43
IST1189I PIUMAXDS  = 200
IST1189I PPOLOG    = YES
IST1189I PSRETRY   = MEDIUM           0S
IST1189I PSRETRY   = NETWRK          0S
IST1189I RESUSAGE  = 100
IST1189I SAWMAXDS  = 100
IST1189I SDLCMDRS  = (STATS,INOPS)
IST1189I SIRFMSG   = ALLSSCP
IST1189I SMEAUTH   = DISCARD
IST1189I SNVC      = 15
IST1189I SORDER    = APPN
IST1189I SRCOUNT   = 10
IST1189I SSCPDYN   = YES
IST1189I SSCPNAME  = MVSB
IST1189I SSDTMOUT  = 30
IST1189I STRGR     = ISTGENERIC
IST1189I SUPP      = NOSUP
IST1189I TNSTAT    = NOCNLSL,TIME=60
IST1189I UPDDELAY  = 60S
IST1189I VERIFYCP  = NONE
IST1189I VFYREDTI  = OFF
IST1189I VRTGCPCP  = YES
IST1189I WARM      = NO
IST1189I XNETALS   = NO
IST314I END

NMVTLOG = NPDA
NODETYPE = NN
NSRTSIZE = *BLANKS*
OSIEVENT = PATTERNS
OSITOPO = ILUCDRSC
PDTRCBUF = 2
PLUALMSG = NOSUPP
PSRETRY = LOW           0S
PSRETRY = HIGH         0S
PSSTRACE = NORB
ROUTERES = 128
SAWMXQPK = 0
SECLVLCP = ***NA***
SLUALMSG = NOSUPP
SNAPREQ = 1000
SONLIM = (60,30)
SRCHRED = OFF
SRTIMER = 30S
SSCPID = 59
SSCPORD = PRIORITY
SSEARCH = CACHE
STRMNPS = ISTMNPS
SWNORDER = CPNAME
TRANSLAT = (0,1,2,3,4,5,6,7)
USSTAB = *BLANKS*
VFYRED = YES
VRTG = NO
VTAMEAS = 32001
XCFINIT = YES

```

The router configurations and some relevant **show** command output is displayed. This information applies to both scenarios.

```

arthur#term len 0
arthur#wr t
Building configuration...

```

```

Current configuration:
!
version 11.2
no service password-encryption
no service udp-small-servers
no service tcp-small-servers
!
hostname arthur
!
enable secret 5 $1$u5YS$HJj4jDDAwYmxGeELdAE.D1
enable password cisco
!
microcode CIP flash slot0:cip22-31
microcode reload
no ip domain-lookup
source-bridge ring-group 100
dlsw local-peer peer-id 172.26.16.17
dlsw remote-peer 0 tcp 172.26.16.18
!
interface Loopback0
no ip address
!

```

```

interface Ethernet0/0
 ip address 172.26.14.113 255.255.254.0
 no ip mroute-cache
 no cdp enable
!
interface Ethernet0/1
 no ip address
 no ip mroute-cache
 shutdown
 no cdp enable
!
interface Ethernet0/2
 no ip address
 no ip mroute-cache
 shutdown
 no cdp enable
!
interface Ethernet0/3
 no ip address
 no ip mroute-cache
 shutdown
 no cdp enable
!
interface Ethernet0/4
 no ip address
 no ip mroute-cache
 shutdown
 no cdp enable
!
interface Ethernet0/5
 no ip address
 no ip mroute-cache
 shutdown
 no cdp enable
!
interface Serial1/0
 no ip address
 no ip mroute-cache
!
interface Serial1/1
 no ip address
 no ip mroute-cache
 shutdown
 no cdp enable
!
interface Serial1/2
 no ip address
 no ip mroute-cache
 shutdown
 no cdp enable
!
interface Serial1/3
 no ip address
 no ip mroute-cache
 shutdown
 no cdp enable
!
interface Serial1/4
 no ip address
 no ip mroute-cache
 shutdown
 no cdp enable
!
interface Serial1/5

```

```

no ip address
no ip mroute-cache
shutdown
no cdp enable
!
interface Serial1/6
no ip address
no ip mroute-cache
shutdown
no cdp enable
!
interface Serial1/7
no ip address
no ip mroute-cache
shutdown
no cdp enable
!
interface FastEthernet2/0/0
no ip address
shutdown
!
interface TokenRing2/1/0
ip address 172.26.16.17 255.255.255.240
ring-speed 16
!
interface TokenRing2/1/1
no ip address
shutdown
!
interface TokenRing2/1/2
no ip address
shutdown
!
interface TokenRing2/1/3
no ip address
shutdown
!
interface Channel3/0
no ip address
no keepalive
csna 0120 00
!
interface Channel3/1
no ip address
no keepalive
shutdown
!
interface Channel3/2
no ip address
no keepalive
lan TokenRing 0
source-bridge 4043 1 100
adapter 0 4000.7513.0002
!
router eigrp 777
network 172.26.0.0
!
no ip classless
!
!
line con 0
exec-timeout 0 0
line aux 0
line vty 0 4

```

```
password cisco
login
!
end
```

```
arthur#sh ext ch 3/0 csna oper
```

Path	Dv	Status	SlowDown	maxpiu	time-delay	length-delay
CSNA	0120	00	setupComple	off	20470	10

```
arthur#sh ext ch 3/2 llc oper
```

```
LAN Token 0 Adapter 0 4000.7513.0002
```

```
Open SAPs=1
```

```
Max SAPs Opened=1
```

```
arthur#sh dls peer
```

Peers:	state	pkts_rx	pkts_tx	type	drops	ckts	TCP	uptime
TCP 172.26.16.18	CONNECT	662	668	conf	0	0	0	05:09:01

```
arthur#
```

```
term len 0
```

```
zaphod#wr t
```

```
Building configuration...
```

```
Current configuration:
```

```
!
version 11.3
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname zaphod
!
enable secret 5 $1$VD73$crrrNw3hLoLlkJr61MhjN/
enable password cisco
!
microcode CIP flash slot1:cip25-7
microcode reload
!
source-bridge ring-group 100
dlsw local-peer peer-id 172.26.16.18
dlsw remote-peer 0 tcp 172.26.16.17
!
interface Loopback0
 ip address 172.26.16.254 255.255.255.255
!
interface Ethernet0/0
 ip address 172.26.14.114 255.255.254.0
 no ip mroute-cache
 no cdp enable
!
interface Ethernet0/1
 no ip address
 no ip mroute-cache
 shutdown
 no cdp enable
!
interface Ethernet0/2
 no ip address
 no ip mroute-cache
 shutdown
 no cdp enable
```

```

!
interface Ethernet0/3
  no ip address
  no ip mroute-cache
  shutdown
  no cdp enable
!
interface Ethernet0/4
  no ip address
  no ip mroute-cache
  shutdown
  no cdp enable
!
interface Ethernet0/5
  no ip address
  no ip mroute-cache
  shutdown
  no cdp enable
!
interface TokenRing1/1/0
  ip address 172.26.16.18 255.255.255.240
  ring-speed 16
!
interface TokenRing1/1/1
  no ip address
  shutdown
!
interface TokenRing1/1/2
  no ip address
  shutdown
!
interface TokenRing1/1/3
  no ip address
  shutdown
!
interface Serial2/0
  no ip address
  shutdown
!
interface Serial2/1
  no ip address
  shutdown
!
interface Serial2/2
  no ip address
  shutdown
!
interface Serial2/3
  no ip address
  shutdown
!
interface Serial2/4
  no ip address
  shutdown
!
interface Serial2/5
  no ip address
  shutdown
!
interface Serial2/6
  no ip address
  shutdown
!
interface Serial2/7

```

```

no ip address
shutdown
!
interface Channel3/0
no ip address
no keepalive
csna 0110 00
!
interface Channel3/1
no ip address
no keepalive
shutdown
!
interface Channel3/2
ip address 172.26.16.1 255.255.255.240
no keepalive
lan TokenRing 0
source-bridge 4044 1 100
adapter 0 4000.7513.0001
!
router eigrp 777
network 172.26.0.0
!
no ip classless
!
!
!
line con 0
exec-timeout 0 0
line aux 0
line vty 0 4
password cisco
login
!
end

```

```
zaphod#sh dls peer
```

```

Peers:                state      pkts_rx  pkts_tx  type  drops  ckts  TCP  uptime
TCP 172.26.16.17     CONNECT    669      663    conf    0      0    0  05:09:33
Total number of connected peers: 1
Total number of connections: 1

```

```
zaphod#sh ext ch 3/2 llc oper
```

```

LAN Token 0 Adapter 0 4000.7513.0001
Open SAPs=1
Max SAPs Opened=1

```

```
zaphod#sh ext ch 3/0 csna oper
```

```

Path Dv Status      SlowDown  maxpiu      time-delay  length-delay
CSNA 0110 00 setupComple off        20470      10          20470
zaphod#

```

Verify

There is currently no verification procedure available for this configuration.

Troubleshoot

There is currently no specific troubleshooting information available for this configuration.

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