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CiscoWorks Blue Native Service Point for SOLVE:Netmaster Release Notes, 2.0.1

May 1, 1997

These release notes provide information about changes to CiscoWorks Blue Native Service Point (NSP) 2.0 that are not documented in the *CiscoWorks Blue Native Service Point for SOLVE:Netmaster User Guide*.

These release notes contain these sections:

- Changes to Installation and Configuration, page 1
- Changes to NSP Utilities, page 11
- Changes to NSP Reference Information, page 12
- Common NSP Installation Problems, page 15

Use these release notes to supplement the *CiscoWorks Blue Native Service Point for SOLVE:Netmaster User Guide*.

Changes to Installation and Configuration

This section describes documentation changes for installing and configuring NSP. Apply these changes to the *CiscoWorks Blue Native Service Point for SOLVE:Netmaster User Guide*.

Uploading NSP Files

In the "Uploading the NSP Files" section of the "Installing and Configuring Native Service Point" chapter of the User Guide, Step 5 on page 3-2 and Step 7 on page 3-3 define the meaning of the *prefix* argument. The correct information for the prefix argument is as follows:

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- The *prefix* is the file prefix and is used when your system requires a prefix. The NSP default prefix is your TSO ID. If the TSO Profile Command Prefix option is on, do not specify a value for this *prefix* argument.

Modifying the SOLVE:Netmaster Data Sets

In the section “Modifying the SOLVE:Netmaster Data Sets” on page 3-6 of the User Guide, Step 2 should also refer to a sample procedure PNALLOC that is supplied in the NSPSAMP data set. You can use the PNALLOC procedure to allocate the VSAM data set needed for the NSP panels when a PNLUSER data set is not available. If you want to add a data set for additional user panels, modify NMNIT as shown in the following sample procedure:

Step 1 In NMNIT, find this block of lines:

```
IF &PANLUSR = .YES &THEN +
  &DO
    &DD = PANLUSR
    &DSN = &&000$NMDSNQ.PANLUSR
    &DISP = SHR
    &GOSUB .ALLOC
    &IF &RETCode = 0 &THEN +
      UDBCTL OPEN=PANLUSR ID=PANLUSR
```

Step 2 Insert the following lines after the block of lines that you found in Step 1:

```
&DD = PANLUSR2
&DSN = &&000$NMDSNQ.PANLUSR2
&DISP = SHR
&GOSUB .ALLOC
&IF &RETCode = 0 &THEN +
  UDBCTL OPEN=PANLUSR2 ID=PANLUSR2
```

Step 3 Find these lines several pages later in NMNIT:

```
LIBRARY DEFINE PANLDIS EDIT=NO DESC=V3.1 Distributed Panels
&IF .&PANLUSR = .YES &THEN +
  &DO
    LIBRARY DEFINE PANLUSR EDIT=YES DESC=User Panels
```

Step 4 Add this line immediately after the lines that you found in Step 4:

```
LIBRARY DEFINE PANLUSR2 EDIT=YES DESC=NSP Panels
```

Step 5 The series of LIBPATH statements should now look like the following sample. The added line is shown in bold.

```
LIBRARY DEFINE PANLDIS EDIT=NO DESC=V3.1 Distributed Panels
&IF .&PANLUSR = .YES &THEN +
  &DO
    LIBRARY DEFINE PANLUSR EDIT=YES DESC=User Panels
    LIBRARY DEFINE PANLUSR2 EDIT=YES DESC=NSP Panels
    LIBPATH DEFINE PANELS LIB=(PANLUSR2,PANLUSR,PANLDIS)
```

Verifying NetMaster \$NWRUNCM/\$NWRUNCX Member

In the section “Modifying the SOLVE:Netmaster Data Sets” on page 3-7 of the User Guide, look at steps 5 and 6:

- Step 5 copies member \$NWRUNCM as member \$NWRUNCX.
- Step 6 modifies the new member \$NWRUNCX.

After installing NSP, use the following procedure to confirm that NetMaster can communicate with the router:

- Step 1** Add a router and confirm that the router is active to VTAM.
- Step 2** Enter the **cmd** command to display the SOLVE:COMMAND ENTRY panel.
- Step 3** To test the unmodified **\$NWRUNCM** command first, enter this command:

```
$nwruncm appl=console node=spname data=show ?
```

Where *spname* is the service point name of the router.

Note You can enter the **\$NWRUNCM** command arguments in any case. The **\$NWRUNCM** command converts all input to uppercase.

Sample Command

```
$nwruncm appl=console node=cwbc02 data=show ?
```

Sample Output

```
START $nwruncm appl=console node=cwbc02 data=show ?
EW0019 NODE = CWBC02 , DATE = FRI 31-JAN-1997, TIME = 10:19:40
EW0020 NTWK = NETA , SSCP = CPAC , COMC = N80N , LINE = J00031FF,
EW0020 CTRL = CWBC02
EW0003 MESSAGE TEXT
EW0004 APPN APPN SHOW COMMANDS
EW0004 BOOT BOOT AND RELATED ENVIRONMENT VARIABLE
EW0004 CALENDAR DISPLAY THE HARDWARE CALENDAR
EW0004 CLOCK DISPLAY THE SYSTEM CLOCK
EW0004 HISTORY DISPLAY THE SESSION COMMAND HISTORY
EW0004 HOSTS IP DOMAIN-NAME, LOOKUP STYLE, NAMESERVERS, AND
EW0004 HOST TABLE
EW0004 IPC INTERPROCESS COMMUNICATIONS COMMANDS
EW0004 KERBEROS SHOW KERBEROS VALUES
EW0004 LOCATION DISPLAY THE SYSTEM LOCATION
EW0004 MODEMCAP SHOW MODEM CAPABILITIES DATABASE
EW0004 NCIA NATIVE CLIENT INTERFACE ARCHITECTURE
EW0004 PPP PPP PARAMETERS AND STATISTICS
EW0004 RMON RMON STATISTICS
EW0004 RTR RESPONSE TIME REPORTER (RTR)
EW0004 SESSIONS INFORMATION ABOUT TELNET CONNECTIONS
EW0004 SGBP SGBP GROUP INFORMATION
EW0004 SNMP SNMP STATISTICS
EW0004 TACACS SHOWS TACACS+ SERVER STATISTICS
EW0004 TERMINAL DISPLAY TERMINAL CONFIGURATION PARAMETERS
EW0004 TRAFFIC-SHAPE TRAFFIC RATE SHAPING CONFIGURATION
EW0004 USERS DISPLAY INFORMATION
EW0004 ABOUT TERMINAL LINES
EW0004 VERSION SYSTEM HARDWARE AND SOFTWARE STATUS
EW0004 VPDN VPDN INFORMATION
EW0004 CWB-C2>
EW0018 *END*
```

The amount of output depends upon the router's version and features.

Step 4 Now repeat the preceding operation using the \$NWRUNCX command. The \$NWRUNCX is case-sensitive and requires that the values for *appl=* and *node=* be uppercase characters. The *data* value is sent to the router just as you entered it; it is not converted to uppercase. In addition to allowing case-sensitive data to be sent to the router, \$NWRUNCX puts the output in SHRVARs for processing. NSP uses \$NWRUNCX for all its operations. Before you use NSP, ensure that \$NWRUNCX works correctly.

Example 1

Both *appl=* and *node=* values not entered in uppercase characters:

```
$nwruncx appl=console node=cwbc02 data=show ?
EW0024 console IS AN INVALID appl NAME
EW0018 *END*
```

Example 2

Only *node=* value not entered in uppercase characters:

```
$nwruncx appl=CONSOLE node=cwbc02 data=show ?
EW0024 cwbc02 IS AN INVALID node NAME
EW0018 *END*
```

Example 3

Both *appl=* and *node=* values entered in uppercase characters:

```
$nwruncx appl=CONSOLE node=CWBC02 data=show ?
EW0019 NODE = CWBC02 , DATE = FRI 31-JAN-1997, TIME = 10:58:14
EW0020 NTWK = NETA , SSCP = CPAC , COMC = N80N , LINE = J00031FF,
EW0020 CTRL = CWBC02
EWR003 MESSAGE TEXT
EWR004 appn APPN show commands
EWR004 boot Boot and related environment variable
```

\$NWRUNCX Error Message

If you receive the following error message from \$NWRUNCX:

```
: N03602 INVALID SYNTAX
N23610 PROCEDURE $NWRUNCX NCLID 00xxxx IN ERROR, STMT NO:
0380100 FOLLOWS:
&IF GT 0
```

follow this procedure.

Step 1 Find this line in the \$NWRUNCX procedure:

```
-EXEC $NWDS109 -* FORMAT AND SEND REQUEST 03780000
```

Step 2 Add these three lines immediately after the line you found in Step 1:

```
&SV31TXTRC = &RETCODE -* SAVE RETCODE 03781006
&IF .&RETCODE EQ . &THEN + -* ERROR - TEST FOR NO RETCODE 03790006
&GOTO .ERROR -* WRITE ERROR MESSAGE AND END 03800000
```

Enabling Automatic Status Updates

The information in “Modifying the SOLVE:Netmaster Data Sets” on page 3-8 of the User Guide describes changes to the MSGPROC procedure. While the sample contained in the actual NSPSAMP data set is correct, the example in the User Guide has minor errors. Replace Step 1 with the following version. (The changes are shown in bold.)

- Step 1** Open the NMMMSG member (located in the NETMV1R2.NSPSAMP data set) and copy and add the following statements to the SOLVE:Netmaster MSGPROC member (located in the COMMANDS data set in the SOLVE:Netmaster PROC) for the operator who will receive the VTAM messages.

```
.M#IST093I
.M#5A93I
&NODE = &STR &2 -* SAVE THE NODE Name
NSPRVDIS &NODE
&GOTO .LOOP -* NEXT MESSAGE

.M#IST105I
-* .M#5B05I
&NODE = &STR &2 -* SAVE THE NODE Name
NSPRVDIS &NODE
&GOTO .LOOP -* NEXT MESSAGE

.M#IST590I
.M#5D90I
&NODE = &STR &6 -* SAVE THE NODE Name
&NODECONN = &STR &2 -* GET THE NODE Status
NSP590E &NODE &NODECONN
&GOTO .LOOP -* NEXT MESSAGE
OR
```

If the any of these statements already exists in the procedure, do *not* copy and add the above statement, but instead add the following statement after each of the existing labels.

```
&NODE = &STR &6 -* SAVE THE NODE Name
&NODECONN = &STR &2 -* GET THE NODE Status
NSP590E &NODE &NODECONN -* Call Update Status
```

Alternate Message Automation Option

The section “Enabling Automatic Status Update,” on page 3-8 of the User Guide, describes how to modify the MSGPROC procedure that lets NSP obtain updated status information automatically. There is an alternate procedure, called NSPEDMON (NSP Event Distribution Services Monitor), provided in NSP. A Netmaster DEFMSG command is used to define a message ID with the event name DELIVERED.590 in NSPEDMON, which then initiates an EDS profile that requests that all SNA messages be sent to this routine. The advantage of this NSPEDMON procedure is that you do not have to modify your version of the MSGPROC or PPOPROC procedure.

The NSPEDMON procedure is set up to support SNA View and NSP router monitoring. If SNA View is not installed on your system, insert a hyphen and asterisk (-*) in front of the following statement to comment it out. Change this:

```
-nspsrif &node &netstat                -* Update the SNA View func 00630000
```

to this:

```
-*-nspsrif &node &netstat                -* Update the SNA View func 00630000
```

To test the NSPEDMON procedure, enter this command:

```
SUBMIT BMON START NSPEDMON
```

To stop the NSPEDMON procedure from running, enter these commands:

```
SH NCL=NMBMON  
FLUSH ID=nclid number of NSPEDMON  
SYSPARMS UNLOAD=NSPEDMON
```

To automate the NSPEDMON operation, change the NMREADY member (in the COMMANDS data set in the SOLVE:Netmaster PROC). Find the following line:

```
SUB BMON NSPEDMON
```

Then, add this line:

```
SUB BMON NSPINIT
```

(This line was added as part of the NSP installation procedure described in “Initializing NSP” on Page 3-17 of the User Guide.

Enabling NMVT Forwarding and Processing

NSP uses the NMVT SNA alerts, which are generated and forwarded to SOLVE:Netmaster, to update the status of routers in an ALERT state. NSP also uses the NMVTs to discover routers automatically and to obtain management data for the routers. For SOLVE:Netmaster to receive and process the NMVT alerts, thus enabling NSP to discover routers on the network automatically and to update router ALERT statuses, complete the following tasks:

- Define the initial processing path for NMVT records generated by Cisco routers for each Cisco router series being monitored by NSP.
- Define the initial process identifier for the records added for Cisco routers.
- Define the name of the NCL procedure that is to be used to process the added records.

Updating SOLVE:Netmaster to use NSP Alerts

To modify SOLVE:Netmaster to receive and process NMVTs generated by Cisco routers, do the following:

- Step 1** From the SOLVE:Netmaster Primary Menu panel, select the **Network Management (N)** option and press **Enter**. The Netmaster:Primary Menu panel is displayed.
- Step 2** Select the **NEWS Control Functions (CF)** option by typing an **s** to the left of the option and pressing **Enter**. The Control Functions panel is displayed.
- Step 3** Select the **Control File Category Maintenance (6)** option and press **Enter**. The Control File Category Maintenance panel is displayed.

Note When adding a new record, you can select Option 3, **Add Control Record**, or you can choose Option 2, **Modify Control Records**, and use an existing record of the same category as a model for your new record. The rest of this procedure tells you how to add a new record using an existing record of the same category as a model.

- Step 4** Select **Modify Control Records (2)** and press **Enter**. The Category Selection panel is displayed.
- Step 5** Select **Product-Set Identification (001)** and press **Enter** to define the initial processing path for NMVT records generated by Cisco routers. The Product-Set Identification panel is displayed.
- Step 6** Select the record on which you want to model the new record and press **Enter**.
- Step 7** Type over the existing entries to enter information in the following fields and press **Enter**:
- **PSID**—Product name of the record sender. Enter the series number of the router for which you are defining a Product-Set Identification number.
 - **Description**—User-defined description of the router that will be sending the record. Type a description of the router.
 - **Resource-ID**—Enter the assigned resource identifier of the sending router.
 - **Event-ID**—Enter the event identifier (type) of the sending router.

Figure 1 and Figure 2 illustrate an existing record before and after it has been modified for a Cisco 2500 Series router.

Note Examples of Cisco router series include the Cisco 7000 and 7500 series, Cisco 2500 Series, and the Cisco 1000 Series. To determine the type of Cisco routers being used in your network, contact your network administrator.

Figure 1 Existing Record

```

CISCONTMSTMA----- NEWS : Product-Set Identification -----NETP
COMMAND ==>                                         MODIFY

Product-Set Identification
PSID      ==> 3090

Product-Set Description
DESCRIPTION ==> 3090 - IBM Mainframe Computer

Resource/Event Type Identification
RESOURCE-ID ==> 3090 (Resource Type for this Resource)
EVENT-ID   ==> 3090 (Event type for this Resource)

```

Figure 2 Record Defined for a Cisco 2500 Series Router

```

CISCONTMSTMA-----NEWS : Product-Set Identification -----NETF
COMMAND ==>                                         MODIFV

Product-Set Identification
  PSID      ==> 2500

Product-Set Description
  DESCRIPTION ==> gisco router 2500

Resource/Event Type Identification
  RESOURCE-ID ==> 2500      (Resource Type for this Resource)
  EVENT-ID    ==> 2500      (Event type for this Resource)
    
```

- Step 8** Repeat Steps 6 and 7 for each series of Cisco routers you are monitoring using NSP.
- Step 9** Return to the Category Selection panel and select the **Record to Process-Id Conversion (003)** option to define the initial process identifier for the records you added.
- Step 10** Scroll to and select **41038D** (in the RU-HDR column) and press **Enter**. The Record to Process-Id Conversion panel is displayed.
- Step 11** Type over the existing entries to enter information in the following fields, and press **Enter**:
 - **Resource-ID**—The assigned resource identifier of the sending router. Enter the resource identifier number you assigned to a series of Cisco routers in Step 7.
 - **Description**—Description of the type of record being sent. Enter **NMVT x'000' series Alerts**, where *series* is the series number defined in Step 7.
 - **Process ID**—Process identifier for the record sent that determines the processing path for the record at arrival and display time. Enter **NSP010**.

Figure 3 and Figure 4 illustrate an existing record before and after it has been modified.

Figure 3 Existing Record

```

CISCONTMSTMA----- NEWS : Record to Process-Id Conversion -----NETR
COMMAND ==>                                         MODIFY

Record Identification
RU HEADER    ==> 41038D    (First 3 bytes of NS RU)
SUB-TYPE    ==> 0000      (NMVT major vector, RECFMS type, RECMS type)
RESOURCE-ID ==> S/36      (Resc-Id from PSID or BLKNO, blank for any)

Record Description
DESCRIPTION ==> NMVT X'0000' S/36 Alerts

Record Processing Specifications
EVENT-ID    ==>          (If omitted previously assigned Event-Id used)
PROCESS-ID ==> AL0001    (Process-Id assigned to this record type)
MODIFY PROC ==>          (Optional procedure if modifications required)
COMMENT     ==>

```

NM-4962

Figure 4 Modified Record

```

CISCONTMSTMA----- NEWS : Record to Process-Id Conversion -----NETR
COMMAND ==>                                         MODIFY

Record Identification
RU HEADER    ==> 41038D    (First 3 bytes of NS RU)
SUB-TYPE    ==> 0000      (NMVT major vector, RECFMS type, RECMS type)
RESOURCE-ID ==> 2500      (Resc-Id from PSID or BLKNO, blank for any)

Record Description
DESCRIPTION ==> NMVT X'0000' 2500 Alerts

Record Processing Specifications
EVENT-ID    ==>          (If omitted previously assigned Event-Id used)
PROCESS-ID ==> NSP010    (Process-Id assigned to this record type)
MODIFY PROC ==>          (Optional procedure if modifications required)
COMMENT     ==>

```

NM-4963

- Step 12** Repeat Steps 11 and 12 for each of the records you defined in Steps 6 and 7.
- Step 13** Return to the Category Selection panel and select the **Process-Id Definitions (004)** option to define the name of the NCL procedure used to process the records you have added. The Process-Id Definitions panel is displayed.
- Step 14** Select **AL0010** (in the Proc-ID column) and press **Enter**.
- Step 15** Typing over the existing entries, enter information in the following fields and press **Enter**:
- Process-ID Description —Process identifier for the records sent; determines the process path for the record at arrival and display time. Enter **NSP010**.
 - Description—Description of the type of record processed by the Process-ID. Enter **NMVT Generic Alerts for Cisco**.
 - Post-Logging Intercept—User-defined name of the post-logging intercept; used when displaying the records. Enter **NSPALRT**.

Figure 5 and Figure 6 illustrate an existing record before and after it has been modified.

Figure 5 Existing Record

```

CISCONTMSTMA----- NEWS : Process-Id Definitions -----NETM
COMMAND ==>                                         MODIFY

Process-Id Description for ==> ALO010   (Enter Proc-Id to be defined)
DESCRIPTION ==> NMUT Generic Alerts Default

Record Arrival - NEWS Processing          ACTIVE ==> Y (Y/N)
COMMON PROCESSING      ==> $NWCC001
SPECIFIC PROCESSING    ==>
FINAL PROCESSING       ==>

Record Arrival - User Processing          ACTIVE ==> (Y/N)
RECORD INTERCEPT     ==>
PRE LOGGING INTERCEPT ==>
POST LOGGING INTERCEPT ==>

Record Display Processing
COMMON FORMATTING      ==> $NWFCC001
SPECIFIC FORMATTING    ==>
DISPLAY PROCESSOR      ==>
    
```

Figure 6 Modified Record

```

CISCONTMSTMA----- NEWS : Process-Id Definitions -----NETM
COMMAND ==>                                         MODIFY

Process-Id Description for ==> NSP010   (Enter Proc-Id to be defined)
DESCRIPTION ==> NMUT Generic Alerts for Cisco

Record Arrival - NEWS Processing          ACTIVE ==> Y (Y/N)
COMMON PROCESSING      ==> $NWCC001
SPECIFIC PROCESSING    ==>
FINAL PROCESSING       ==>

Record Arrival - User Processing          ACTIVE ==> Y (Y/N)
RECORD INTERCEPT     ==>
PRE LOGGING INTERCEPT ==>
POST LOGGING INTERCEPT ==> NSPALRT

Record Display Processing
COMMON FORMATTING      ==> $NWFCC001
SPECIFIC FORMATTING    ==>
DISPLAY PROCESSOR      ==>
    
```

Step 16 Enter **CNM STOP** to stop the SOLVE:Netmaster interface.

Step 17 Enter **CNM START** to start the SOLVE:Netmaster interface.

Updating SOLVE:Operations to use Native Service Point Alerts

To modify SOLVE:Operations to receive and process NMVTs generated by Cisco routers, do the following:

- Step 1** Access the SOLVE:Operations Primary menu, select the **Network Management (NM)** option, and press **Enter**. The Netmaster: Primary Menu panel is displayed.
- Step 2** Select the **NEWS Control Functions (CF)** option by typing an **s** to the left of the option and pressing **Enter**. The Control Functions panel is displayed.
- Step 3** Select the **Control File Maintenance (CF)** option, and press **Enter**. The NEWS: Control File Category Maintenance panel is displayed.

Changes to NSP Utilities

This section describes changes for using NSP utilities.

Printing NSP VSAM Data Sets

To print an NSP VSAM data set, follow these steps:

- Step 1** Open the NETMV1R2.NSPSAMP data set.
- Step 2** Locate and open the following data set members, and change the *prefix* argument to point to the alias as shown below:

Select and modify this:	To print this:
NSPPCFGGA	NSPCFGA member
NSPPHSTC	NSPHISTC member
NSPPHSTH	NSPHISTH member
NSPPHSTI	NSPHISTI member
NSPPHSTR	NSPHISTR member

- Step 3** Save and submit the member.

NSPSAMP does not contain the sample JCL (NSPPCFGGA) to print VSAM files. Instead, you can use the provided JCL that copies (REPROs) the VSAM files to a sequential data set, and then prints the sequential file using standard print services. Printing the VSAM records directly using the IDCAMS method is not recommended.

Backing Up and Restoring NSP Data Sets

Use the NSPREPVS and NSPREPSV utilities to back up existing NSP VSAM data sets to sequential data sets and to restore the sequential data sets to NSP VSAM data sets.

To back up an NSP VSAM data set to a sequential data set, follow these steps:

- Step 1** Open the NSPREPVS member (located in the NETMV1R2.NSPSAMP data set) and replace the *prefix* argument and the current member name with the appropriate alias and member name.
- Step 2** Save and submit the member.

To restore the sequential data set to an NSP VSAM data set, follow these steps:

- Step 1** Open the NSPREPSV member (located in the NETMV1R2.NSPSAMP data set) and replace the *prefix* argument and the current member name with the appropriate alias and member name.
- Step 2** Save and submit the member.

Changes to NSP Reference Information

This section contains miscellaneous changes to the reference information in the User Guide.

FIXLOG Data Set

CiscoWorks Blue Native Service Point 2.0.1 adds the FIXLOG member to the NCO Procedure Library data set. FIXLOG contains a record of the service updates applied to this NSP.

NSPSINT Variable

On page D-6 of the User Guide, change global variable NSPINITS to NSPSINT.

Alerts

The following sections list the Network Management Vector Transports (NMVTs) alerts that are generated by Cisco devices and forwarded to SOLVE:Netmaster.

This section contains a table for each of the following:

- SDLC Alerts
- Token Ring MAC (802.5) Alerts
- 802.2 Alerts
- CSMA/CD Alerts;
- X.25 Packet Layer Alerts
- LAP-B Alerts
- (Q)LLC Alerts
- TCP/IP Alerts
- TN3270 Alerts

In the tables of alerts, the following terms are used:

Alert ID	The number that identifies the alert
Failure Cause	Vertical list of 2-byte codes in hexadecimal number
Alert Description	A brief description of the alert

Note Alert descriptions displayed in braces { } indicates the Communications Manager (CM) description. Alert IDs displayed in braces { } indicate the CM version of the alert ID.

Table 1 SDLC Alerts

Alert ID	Failure Cause	Alert Description
32A37F1B	F017	Poll retry exhausted
BD84C4C9	F01A	DM received

Alert ID	Failure Cause	Alert Description
D635CA1E	F015	SNRM received while in NRM
B776CA94	F010	FRMR received—invalid command/response
B3B7D723	F011	FRMR received—I-field not allowed
BEF4F1FA	F012	FRMR received—invalid Nr
BA35EC4D	F013	FRMR received—max I-field exceeded
15C2CCE5	F020	Protocol error by remote—invalid command/response
1103D152	F021	Protocol error by remote—I-field not allowed
1C40F78B	F022	Protocol error by remote—invalid Nr
EABB6A14	F01B	Protocol error by remote—MAXIN exceeded
0E2DDF11	F019	Inactivity timer expired (not being polled)
0AECC2A6	F018	XID retry exhausted
A472BC48	F014	FRMR received—no reason given

Table 2 Token Ring MAC (802.5)Alerts

Alert ID	Alert Description
55BF3E1C	Open failure; 3434—Lobe fault
CAF3C58A	Open failure; 3703—TR Fault Domain {Beaconing}
D615A61E	Open failure; Install Cause 3704—Duplicate Token Ring address
44D1AD86	Open failure; User Cause 7101—Removed from Token Ring
016E5F4E	Adapter Open failed
A676B230	Wire fault; 3434—Lobe fault
EB61E14F	Auto-removal (adapter removed itself from ring)
59F32622	Remove cmd rcvd; User Cause 7101—removed from Token Ring

Table 3 802.2 LLC Alerts

Alert ID	Failure Cause	Alert Description
5B8F5BA7	F017	Poll retry exhausted
B1D9A4C5	F01A	DM received
E65B0B7F	F016	SABME received while in ABME
8A5B2D2C	F010	FRMR received—invalid cmd/rsp
8E9A309B	F011	FRMR received—I-field not allowed
83D91642	F012	FRMR received—invalid Nr
87180BF5	F013	FRMR received—max I-field exceeded
23EF2B5D	F020	Protocol error by remote (FRMR sent)—invalid cmd/rsp
2C2E36EA	F021	Protocol error by remote (FRMR sent)—I-field not allowed
216D1033	F022	Protocol error by remote (FRMR sent)—invalid Nr
25AC0D84	F023	Protocol error by remote (FRMR sent)—max I-field exceeded

Table 4 CSMA/CD Alerts

Alert ID	Alert Description
8B1836C5	Open failure
EB1D6ABB	Remove cmd rcvd; User Cause 7107—removed from CSMA/CD ring
668E036D	Lost carrier
A48865FD	Congestion
91FDE97B	Bus inoperative failure

Table 5 X.25 Packet Layer (PLC) Alerts

Alert ID	Failure Cause	Alert Description
B5B412E5 {D484ED27}	20C1	(DTE) Cleanup Indication Received {Clear/Reset}
CDA515B8	20C1	(DTE) Cleanup Indication Received {Restart}
D3A1B295 {6A837F72}	20C2	(DTE) Cleanup Request Sent {Reset}
056A9521	20C2	(DTE) Cleanup Request Sent {Clear/Restart}
F50A02F0	20D1	(DTE) Response timer expired
BA5D4659	20B2	(DTE) Protocol violation by remote
4C323FE5	20C3	Diagnostic Packet Received from Network
EFF5FAAD	20C4	(DCE) Cleanup Indication Sent {Restart/Reset/Clear}
FEC0F827	20C5	(DCE) Cleanup Request Received {Restart/Reset/Clear}

Table 6 LAP-B Alerts

Alert ID	Failure Cause	Alert Description
07B1E788	F023	Protocol error by remote (FRMR sent)—max I-field exceeded
C0E4E919	F022	Protocol error by remote (FRMR sent)—invalid Nr
A596712C {CEA222A9}		LAP-B Comms error {Poll retry exhausted}
985806E2		LAP-B Comms error {Unexpected DISC received}
00891F75	F010	FRMR received—invalid cmd/rsp
CF6F806D	F011	FRMR received—I-field not allowed
F5E40347	F013	FRMR received—max I-field exceeded
C22CA6B4	F012	FRMR received—invalid Nr
1F9CF04A	F020	Protocol error by remote (FRMR sent)—invalid cmd/rsp
3FAE0180	F021	Protocol error by remote (FRMR sent)—I-field not allowed

Table 7 (Q)LLC Alerts

Alert ID	Failure Cause	Alert Description
6460D9A9	F023	- -
3DA4F8CD	F010	QFRMR received—invalid cmd/rsp
C15B15E8 {9C064C98}	F011	QFRMR received—I-field not allowed
C8C9E4FF {D82E7FD3}	F013	QFRMR received—max I-field exceeded
11A865CF {21F2236D}	F020	Protocol error by remote (QFRMR sent)—invalid cmd/rsp
0283E638 {5DBB5F97}	F021	Protocol error by remote (QFRMR sent)—I-field not allowed

Table 8 TCP/IP Alerts

AlertID	Fail cause	Description
e14a3440	3200,2081	TCP/IP alert link lost alert
0c16cc4c	3200,2058	HDLC keep alive failed
3f1de404	3601,3401,f038	HDLC alert signal lost
edfe42aa	2055,2060	CIP LLC connection limit exceeded
13797053	3003,2007,1023	CIP LLC duplicate SAP detected

Table 9 TN3270 Alerts

AlertID	Fail cause	Description
9e452d9c	22a1	TN3270 server APPN-DLUR protocol error
1da682c3	22a1	TN3270 server APPN-DLUR configuration error
05cb2789	22a1	TN3270 server APPN-DLUR configuration error
017153f1	22a1	SNA session setup failure
85fda5f1	22a1	SNA protocol error
d9039db7	22a1	TN3270 server capacity exceeded
a10ee2d6	22a1	TN3270 server no memory for operation

Common NSP Installation Problems

This section describes several common problems that you might encounter while installing NSP.

Symptom: Interface data not collected.

Possible Cause 1: NSP not initialized

Reference: (User Guide, page 3-17)

Problem Isolation:

Enter **NSPVARS** and compare the value fields to those below. Only NSPONUM should not have a value.

Variable	Value
NSPSINT	07.16.53 02/21/97 NMBMON
NSPRINT	07.14.17 02/21/97 NMBMON
NSPAPPL	YES YES YES NO
NSPINTI	YES YES YES YES YES YES YES
NSPMGR	NMBMON
NSPONUM	
NSPMINV	00.15
NSPMINI	00.30
NSPMTHP	95
NSPMTHM	10
NSPMOP	.YES
NSPRTRH	H NSPRTRM 48
NSPINTH	I NSPINTM 48
NSPRIFH	R NSPRIFM 5
NSPCONH	C NSPCONM 99

Possible Cause 2: NSPSETUP does not specify interface

Reference: (User Guide page 3-13)

Problem Isolation:

Step 1 Enter NSPSETUP.

Step 2 Check first panel for the monitoring status of each application.

Application	Setting
Router Management	(Y :Yes N :No): YES
Interface Monitoring	(Y :Yes N :No): YES
Operator Management	(Y :Yes N :No): YES

Step 3 Check the second panel for the interfaces to be monitored.

Interface to be Monitored	Setting
TokenRing	(Y :Yes N :No): YES
Ethernet	(Y :Yes N :No): YES Serial (Y :Yes N :No): YES
FDDI	(Y :Yes N :No): YES Loopback (N :No Y :Yes): YES
ASYNC	(N :No Y :Yes): YES Channel (Y :Yes N :No): YES
HSSI	(Y :Yes N :No): YES

Possible Cause 3: VSAM Data base for interface history not available. (Page 3-7 Steps 7 to 12)

Reference: (User Guide page 3-13)

Problem Isolation:

Step 1 Try writing a record to the VSAM data base. Enter the following:

nspdb i put xxx this is a test

The results should be displayed as follows:

```
NSPV010I REQUEST HAS BEEN QUEUED
NSPV000I XXX UPDATED
N03906 START NSPDB PROCESSING COMPLETE. NCLID 000185
```

If the response is as above, the VSAM database is open. If the response is incorrect, the procedure will write the FILERC (file return code).

Step 2 Read the record to confirm that it was written correctly. Enter the following:

nspdb i read xxx

The results should be displayed as follows:

```
NSPV010I REQUEST HAS BEEN QUEUED
NSPV000I XXX this is a test
N03906 START NSPDB PROCESSING COMPLETE. NCLID 000186
```

Step 3 Delete the record to remove the test record. Enter the following:

nspdb i del xxx

The results should be displayed as follows:

```
NSPV010I REQUEST HAS BEEN QUEUED
NSPV000I XXX ERASED
N03906 START NSPDB PROCESSING COMPLETE. NCLID 000188
```

The NSPDB command is described in the NSP online help. From SOLVE:Netmaster, enter **NSPDB ?** to obtain more information about the NSPDB NCL procedure.

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