

IBM Tivoli NetView for z/OS



APAR OA16305

Version 5.2

IBM Tivoli NetView for z/OS



APAR OA16305

Version 5.2

Second Edition (August 2006)

This edition applies to Version 5, Release 2 of Tivoli NetView for z/OS (product number 5697-ENV) and to all subsequent releases and modifications until otherwise indicated in new editions.

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Chapter 1. What this readme file describes

This readme file provides information about a diverse set of enhancements that are being made to IBM Tivoli NetView for z/OS Version 5.2. These are described in the following table.

Table 1. OA16305 Enhancements

| Description | Additional information |
|---|--|
| Additional enhancements for the IBM® Tivoli® NetView® for z/OS® Tivoli Enterprise™ Portal V6.1 Agent. | Chapter 2, “NetView for z/OS Tivoli Enterprise Portal V6.1 Agent Enhancements,” on page 3 |
| A MultiSystem Manager IP agent for Linux® (Intel®) is now available. | Chapter 3, “MultiSystem Manager IP agent for Linux (Intel),” on page 7 |
| REXX writers can access correlated command responses through the trap queue processed by the MSGREAD command. This allows a REXX procedure to run VIEW (with the extend option), to do other processing, or to exercise fine control of a wait using the WAIT command, all while responses to correlated commands are received. | Chapter 4, “Additional options for better control of REXX extended wait for data,” on page 9 or see the online help to review the new TRAP option for the PIPE PERSIST stage command in the <i>IBM Tivoli NetView for z/OS Programming: Pipes</i> and sample usage under option 13 in the CNMS1101 sample CLIST. |
| Enable or disable system logging of command response to MVS™ commands issued from NetView or from a particular NetView task | Chapter 5, “Controlling the display of selected MVS command responses on SYSLOG,” on page 11 or see the online help to review the SLOGCMDR parameter added to the DEFAULTS and OVERRIDE commands. |
| Filter traced IP packets by protocol, such as TCP, UDP, or OSPF. | Chapter 6, “Filtering IP packets by protocol,” on page 15 or see the online help to review the PROTOCOL= parameter added to the FMTPACKT and PKTS commands. |
| Ability to select sessions that pass through given resource names | Chapter 7, “Identifying active sessions in the session monitor that traverse a given resource,” on page 17 or see the online help to review the ACTREF and ACTREFCP parameters added to the NLDM SESS command. |
| Improvement to displays of traced SNA Path Information Units (PIUs). In prior releases, SNA PIUs were displayed in hexadecimal and EBCDIC. Function is added to interpret certain PIUs and display the information in a readable format. | Chapter 8, “PIU formatting,” on page 19. |

Installation and uninstallation information

Because of the diversity of the enhancements provided by APAR OA16305, installation and uninstallation information specific to each enhancement is contained within the section for that enhancement.

Any known limitations, problems, and workarounds can be found in Chapter 9, “Known Limitations, Problems, and Workarounds,” on page 23.

Chapter 2. NetView for z/OS Tivoli Enterprise Portal V6.1 Agent Enhancements

APAR OA16305 enhances the functionality provided in APAR OA15482 Using the NetView for z/OS Tivoli Enterprise Portal V6.1 Agent with IBM Tivoli Monitoring Services on z/OS V6.1.

Description

These enhancements include:

Support for Linux on zSeries®

The NetView for z/OS Tivoli Enterprise Portal V6.1 Agent now supports the following Linux on zSeries platforms:

- Red Hat Enterprise Linux 3.0 for zSeries (32-bit application, 64-bit kernel)
- Red Hat Enterprise Linux 4.0 for zSeries (32-bit application, 64-bit kernel)
- SUSE Linux Enterprise Server 8.0 for zSeries (32-bit application, 64-bit kernel)
- SUSE Linux Enterprise Server 9.0 for zSeries (32-bit application, 64-bit kernel)

Updates to the FMTPACKT and PKTS Take Action commands

Chapter 6, "Filtering IP packets by protocol," on page 15 describes the addition of a new keyword, PROTOCOL, to the FMTPACKT and PKTS commands. The FMTPACKT and PKTS Take Action commands have been modified to support the new PROTOCOL keyword.

Updates to enable cross-product workspace linking

A white paper titled "Customizing NetView for z/OS and OMEGAMON® XE workspaces" describes how to define relative cross-product links between the NetView for z/OS Tivoli Enterprise Portal V6.1 Agent and the following OMEGAMON XE 3.1.0 products:

- IBM Tivoli OMEGAMON XE for CICS® on z/OS
- IBM Tivoli OMEGAMON XE for DB2® Performance Expert on z/OS
- IBM Tivoli OMEGAMON XE on z/OS
- IBM Tivoli OMEGAMON XE for Mainframe Networks

To access the white paper, go to <http://www-03.ibm.com/support/techdocs/atmastr.nsf/Web/Techdocs> and search the Techdocs library, using the document title as the search string.

Supported hardware and software

In addition to the Linux on zSeries platforms documented previously, the NetView for z/OS Tivoli Enterprise Portal V6.1 Agent can be installed on one or more workstations with the following operating system:

- AIX V5.1 (32 bit or 64 bit) **1**
- AIX V5.2 (32 bit or 64 bit) **1**
- AIX V5.3 (32 bit or 64 bit) **1**
- HP-UX 11i (32 bit or 64 bit) on a PA-RISC 2 processor with patches PHSS-30970, PHSS-33033, and PHSS-26946 **2**

- Linux Intel R2.4 (32 bit or 64 bit)
- Linux Intel R2.4 GCC 2.9.5 (64 bit)
- Linux Intel R2.6 (32 bit or 64 bit)
- Linux Intel R2.6 GCC 2.9.5 (32 bit or 64 bit)
- RedHat Enterprise Linux 2.1 Intel
- RedHat Enterprise and Desktop Linux 3.0 Intel
- RedHat Enterprise and Desktop Linux 4.0 Intel
- Solaris R8 (32 bit or 64 bit)
- Solaris R9 (32 bit or 64 bit)
- Solaris R10 (32 bit or 64 bit)
- SUSE Linux Enterprise Server 8 Intel
- SUSE Linux Enterprise Server 9 Intel
- Tivoli Enterprise Portal Browser Client support
- Tivoli Enterprise Portal Desktop Client support
- Windows 2000 Advanced Server
- Windows 2000 Professional
- Windows 2000 Server
- Windows 2003 Server EE (32 bit) with Service Pack 1
- Windows 2003 Server SE (32 bit) with Service Pack 1
- Windows XP Professional

Notes:

1. In order to run on AIX, you must also satisfy these prerequisite requirements:
 - C Set++ for AIX Applications xlC.rte 3.6.6.0, or later
 - IBM class libraries ibmcxx.ioc.rte 3.6.6.0, or later, and ibmcxx.rte 3.6.6.0, or later
 - Information Presentation Facility ipfx.rte 2.2.0.0, or later
 - IX Certificate and SSL Base ACME Toolkit gskta.rte 7.0.3.12., or later

Note: xlC.rte, ibmcxx.ioc.rte, ibmcxx.rte, ipfx.rte, and gskta.rte are on the IBM Tivoli NetView for z/OS V5R2 product CD.

2. This platform is different from those supported with NetView for z/OS Tivoli Enterprise Portal Agent Version 5.2.0.

Obtaining the Required Software

The NetView for z/OS Tivoli Enterprise Portal V6.1 Agent is provided as part of any NetView order and is available in either physical or electronic form. The electronic form is also available from an IBM Web Membership (IWM) URL upon request. Note: Windows® is the only platform provided as part of a NetView order. All other supported platforms are available on the IWM URL. You can request access to the IWM URL by contacting IBM Support as you normally would, such as by calling the support line or by opening an electronic PMR. You can also send an e-mail to tivzos@us.ibm.com. If you choose to send an e-mail to tivzos@us.ibm.com, be sure to provide your customer number, customer name, phone number, and preferred e-mail address.

Before installing the NetView for z/OS Tivoli Enterprise Portal V6.1 Agent, ensure that you have the following products installed:

- IBM Tivoli Monitoring Services on z/OS V6.1 with Fixpack 2
- NetView for z/OS V5R2 with the following APARs applied:
 - OA14729: NetView V5R2 level-set PTF
 - OA14893: No response received for MVS and VTAM® commands, when issued from the NetView for z/OS Tivoli Enterprise Portal V6.1 Agent

To establish interoperability between the NetView for z/OS Tivoli Enterprise Portal V6.1 Agent workspaces and OMEGAMON XE for Mainframe Networks V3.1 workspaces, you will also need to install:

- OMEGAMON DE for z/OS (5698-A72) V3.1
- OMEGAMON XE for Mainframe Networks V3.1 with IBM Tivoli Monitoring Services 350/360 Workspace Enablement

You can download the 350/360 Workspace Enablement files from the IBM Tivoli Monitoring Downloads site at this Web address: <https://www14.software.ibm.com/webapp/iwm/web/preLogin.do?source=tmdl> IBM

Tivoli Monitoring Services is available as a "no-charge" product, 5698-A79 IBM Tivoli Monitoring Services on z/OS V6.1. Its components (for Windows only) are also included in the NetView package. These are also available from the NetView for z/OS Tivoli Enterprise Portal V6.1 Agent IWM URL.

Uninstallation

If the agent is already installed:

1. If user modifications have been made to the KVVENV file, KVV.mdl metafile, or the KVV.sql file, save a backup copy of those modifications. You will need to merge the user modifications into the new files after installing the agent.
2. Uninstall the agent prior to applying this maintenance.

Note: Do not install the OMEGAMON 3.6.0 version of this agent in the ITM 6.1 environment.

IBM Tivoli Monitoring components and Manage IBM Tivoli Monitoring will need to be stopped in order to install this maintenance. The install process will automatically stop the IBM Tivoli Monitoring components, and you will be prompted to stop Manage IBM Tivoli Monitoring. Ensure that this maintenance is applied at a time when those components can be recycled.

To uninstall the NetView for z/OS Tivoli Enterprise Portal V6.1 Agent, perform the instructions based on your installation platform.

From the Control Panel on a Windows platform:

1. Select Add or Remove Programs.
2. Select IBM Tivoli NetView for z/OS Tivoli Enterprise Portal V6.1 Agent.
3. On the "Modify, repair, or remove the program" window, select the Remove option.

From the <install-dir>/bin directory on a UNIX® or Linux platform:

1. Issue the following shell script: /uninstall.sh
2. You are prompted to choose a product to uninstall. Select NetView for z/OS V5R2 Agent.

Installation

The NetView for z/OS Tivoli Enterprise Portal V6.1 Agent has three CDs/CD images. They are:

- Windows
- UNIX (AIX®, Solaris, HP-UX)
- Linux (Linux Intel and Linux on zSeries)

Once the existing agent is uninstalled, install the agent with the new maintenance as follows:

Windows platform installation:

1. Download the vww525c6.zip file to a temporary directory (these instructions use \tmp as an example; you may use another temporary directory).
2. Go to the \tmp directory and extract the contents of the .zip file (use any Windows program capable of extracting .zip files).
3. Run the setup.exe file that was copied to the \tmp\WINDOWS directory.
4. Follow the instructions in *IBM Tivoli NetView for z/OS Installation: Configuring Additional Components* in the chapter entitled "Installing and Configuring the NetView for z/OS Tivoli Enterprise Portal Agent", in the section labeled "Installing and Configuring the NetView for z/OS Tivoli Enterprise Portal V6.1 Agent". Start at the "Configuration" heading.

UNIX and Linux platform installation:

1. Download the vww525c6.unix.tar or vww525c6.linux.tar file to a temporary directory (these instructions use /tmp as an example; you may use another temporary directory).
2. Go to the /tmp directory and extract the contents of the .tar file by issuing:

```
tar -xvf vww525c6.unix.tar
```

or

```
tar -xvf vww525c6.linux.tar
```

3. Run the install.sh script file that was copied to the /tmp directory
4. Follow the instructions in *IBM Tivoli NetView for z/OS Installation: Configuring Additional Components* in the chapter entitled "Installing and Configuring the NetView for z/OS Tivoli Enterprise Portal Agent", in the section labeled "Installing and Configuring the NetView for z/OS Tivoli Enterprise Portal V6.1 Agent". Start at the "Configuration" heading.

Note: Follow the UNIX instructions for Linux.

After the agent has been reinstalled, merge any changes that were saved in KVVWENV, KVVW.mdl, or KVVW.sql into the new copies of those files.

Recycle the agent.

Chapter 3. MultiSystem Manager IP agent for Linux (Intel)

APAR OA16305 provides a MultiSystem Manager IP agent for Linux (Intel).

Description

The Multisystem Manager IP agent can now manage systems running:

- NetView for AIX
- NetView for Solaris
- NetView for Linux (Intel)
- Integrated TCP/IP Services Component (ITSC)
- NetView for Windows
- HP OpenView on HP-UX and Solaris

Note: This IP agent image file for NetView for Linux, like other MSM agents, is documented in the `msmip.me` readme file. This readme file is on the IBM Tivoli NetView for z/OS product support site at <http://www-3.ibm.com/software/sysmgmt/products/support/IBMTivoliNetViewforzOS.html>, and is installed on the workstation as part of the installation of APAR OA16305. Review the `msmip.me` file for additional information.

Installation

Before installing this IP agent, ensure that you have the prerequisite program product NetView for Linux on Intel, version 7.1.4, installed on your system. These are the versions of Linux that can run the MultiSystem Manager:

- Red Hat Enterprise Linux 3.0 for IA32 (32-bit application, 32-bit kernel)
- Red Hat Enterprise Linux 3.0 (AMD64 / EM64T) (32-bit application, 64-bit kernel)
- SUSE Linux Enterprise Server 8 for IA32 (32-bit application, 32-bit kernel)
- SUSE Linux Enterprise Server 8 (AMD64 / EM64T) (32-bit application, 64-bit kernel)
- SUSE Linux Enterprise Server 9 for IA32 (32-bit application, 32-bit kernel)
- SUSE Linux Enterprise Server 9 (AMD64 / EM64T) (32-bit application, 64-bit kernel)

The Intel Linux agent described in this OA16305 readme file is packaged and shipped with the other MSM IP agents. It is also available for download from the NetView Support Web site described earlier in this section. The `msmip.me` readme file describes the download and installation process for the MultiSystem Manager IP agent image file for NetView for Linux on the Intel/AMD platforms.

Chapter 4. Additional options for better control of REXX extended wait for data

APAR OA16305 provides new options for better control of REXX extended wait for data. In addition to the changes to the ATTACH and TRAP commands and the PIPE PERSIST pipe stage, responsiveness is improved for the PING and TRACERTE commands (because the PING and TRACERTE commands have not been changed, they are not shown in this section).

Description

The changes to the PIPE PERSIST stage provides methods to access correlated command responses through the TRAP queue processed by MSGREAD. A REXX procedure can use use VIEW (with the EXTEND option) to do other processing or to exercise control of a WAIT command while correlated command responses are returned.

Documentation changes

This section describes only the changes to the NetView documents for this specific function, additional options to allow REXX programmers to better control an extended wait for data. Other changes to NetView documents can be found elsewhere in this readme file under the specific function grouping.

Changes to the IBM Tivoli NetView for z/OS Command Reference Volume 1 (SC31-8857-01)

A CORR parameter is added to the ATTACH command. The CORR parameter specifies that the data is correlated with the environment of the ATTACH command.

ATTACH

CORR Specifies that the data is correlated with the environment of the ATTACH command. Use the CORR option only when the ATTACH command is issued in a pipeline and provide for an appropriate wait or persist.

Changes to the IBM Tivoli NetView for z/OS Command Reference Volume 2 (SC31-8858-01)

Several parameters are added to the TRAP command to allow REXX procedures to access correlated command responses processed by MSGREAD.

TRAP

MORE

Indicates that the specified tokens are added to the list of tokens that were specified on a previous TRAP command. Any PERSIST TRAP that is enabled remains active.

Note: Each message in the resulting list retains its individual setting of the SUPPRESS | DISPLAY option. This enables some messages in the list to be suppressed while others are displayed.

NO MESSAGES

Indicates that the list of tokens that was specified on all previous TRAP commands is removed. TRAP NO MESSAGES clears the list of messages to trap. No other operands are valid with NO MESSAGES. Any PERSIST TRAP that was enabled by the calling procedure is cancelled.

ONLY Indicates that the specified tokens replace the list of tokens specified on all previous TRAP instructions in the called REXX command list. Any PERSIST TRAP that was enabled by the calling procedure is cancelled. ONLY is the default value.

Changes to the IBM Tivoli NetView for z/OS Programming: Pipes (SC31-8863-01)

A TRAP parameter is added to the PIPE PERSIST stage to specify how messages are to be handled in the message queue of a REXX procedure. A *tText* parameter is added to the PIPE PERSIST stage to specify optional text that can be written to the message queue of a REXX procedure.

PIPE PERSIST

TRAP Specifies that messages are to be added to the message queue of the REXX procedure which called the pipeline containing the PERSIST TRAP stage. Such messages satisfy a REXX WAIT FOR MESSAGES command and are accessible to a MSGREAD command.

tText Specifies optional text to be written to the message queue as a last message at the time the persist completes. Note that MVS commands and the VTAM VARY command do not generally give an indication of completion. For these commands, the *tText* parameter is only written to the queue when the specified timeout occurs. After receiving the message containing this text, the procedure does not issue another WAIT FOR MESSAGES request or use the VIEW option EXTEND with respect to the completed persist.

Changes to the IBM Tivoli NetView for z/OS Messages and Codes (SC31-8866-01)

The content of this message is changed by OA16305 and should replace the content in the Version 5.2 IBM Tivoli NetView for z/OS Messages and Codes (SC31-8866-01).

CNM989E NO COMMAND PROCEDURE ACTIVE WHICH ACCEPTS QUEUED INPUT

Explanation: A command or pipe stage has been invoked which requires a procedure able to receive queued messages and no such procedure can be found. If this message results from the QUEUE command, then there is not a high-level language (HLL) command procedure running that accepts queued input.

System action: The command or pipe stage fails.

Operator response: Notify the system programmer.

System programmer response: Refer to the *IBM Tivoli NetView for z/OS Programming: PL/I and C* or *IBM Tivoli NetView for z/OS Programming: Pipes* for information on the command that failed. For QUEUE command problems, review setting the HLLOPTS control block so that a command procedure can accept queued input.

Chapter 5. Controlling the display of selected MVS command responses on SYSLOG

APAR OA16305 provides for enabling or disabling for the system logging of command responses to MVS commands issued from NetView or from a particular NetView task.

Description

Because responses to some system commands, especially those that are TCP/IP related, are lengthy or repetitious, you can use a DEFAULTS command option or an OVERRIDE command option to either enable or disable system logging of correlated responses to MVS commands in NetView or in a NetView pipeline. System logging of all other messages is not affected.

Documentation changes

This section describes only the changes to the NetView documents for this specific function, controlling the display of selected MVS command responses on SYSLOG. Other changes to NetView documents can be found elsewhere in this readme file under the specific function grouping.

Changes to the IBM Tivoli NetView for z/OS Command Reference Volume 1 (SC31-8857-01)

- DEFAULTS – A SLOGCMDR parameter is added to specify whether responses to commands are sent to the system log.
- OVERRIDE – A SLOGCMDR parameter is added to specify whether responses to commands are sent to the system log.

DEFAULTS

SLOGCMDR

Specifies whether responses to MVS commands issued from within NetView or from other message traffic naming a console owned by a NetView operator are sent to the system log. System logging of all other messages is not affected. SLOGCMDR is supported when the following conditions are true:

- The subsystem router task (CNMCSSIR) and the NetView subsystem interface (SSI) are active.
- The MVSPARM.MSGIFAC value in the CNMSTYLE file is SYSTEM, SSIEXT, or CMDONLY.

The valid values for the SLOGCMDR parameter are as follows:

YES

Indicates that command responses are sent to the system log. This is the default value.

NO

Indicates that command responses are not sent to the system log. Use this value if you want to suppress lengthy responses or for commands that repeat at frequent intervals.

FORCE

Indicates that tracking of NetView-owned console names is disabled. If FORCE is specified, the value for OVERRIDE SLOGCMDR is not in effect and the D4NV edit order returns as false.

OVERRIDE

SLOGCMDR

Specifies whether responses to MVS commands issued from within NetView or from other message traffic naming a console owned by a NetView operator are sent to the system log. System logging of all other messages is not affected. The SLOGCMDR option is supported when the following conditions are true:

- The subsystem router task (CNMCSSIR) and the NetView subsystem interface (SSI) are active.
- The MVSPARM.MSGIFAC value in the CNMSTYLE file is SYSTEM, SSIEXT, or CMDONLY.

The valid values are as follows:

DEFAULT

Indicates to use the DEFAULTS.SLOGCMDR value set in the CNMSTYLE file. This is the default value.

NO

Indicates that command responses are not sent to the system log. Use this value if you want to suppress lengthy responses or for commands that repeat at frequent intervals.

YES

Indicates that command responses are sent to the system log.

Changes to the IBM Tivoli NetView for z/OS Programming: Pipes (SC31-8863-01)

A D4NV (destined for NetView) input order is added for use in a revision table only.

PIPE EDIT

D4NV D4NV (destined for NetView) is used within a WHEN or REVISE statement. This input-only edit order indicates whether the console name to which a message is to be delivered is owned by a NetView task. You can re-enable system logging for a particular message, if desired, by using the SYSLOG order.

Changes to the IBM Tivoli NetView for z/OS Security Reference (SC31-8870-01)

Note: This table appears in this Readme as Table 2; in the IBM Tivoli NetView for z/OS Security Reference (SC31-8870-01), it appears as Table 13.

Protecting NetView Command Names, Keywords, and Values

Table 2. NetView Command Identifiers

| Commands and Keywords | Command List Name | SAF Resource or Command Authorization Table Identifier |
|---|-------------------|--|
| DEFAULTS (continued) SLOGCMDR | | netid.luname.DEFAULTS.SLOGCMDR. <i>value</i> |
| OVERRIDE (continued) SLOGCMDR | | netid.luname.OVERRIDE.SLOGCMDR. <i>value</i> |

Chapter 6. Filtering IP packets by protocol

APAR OA16305 provides a method for filtering IP packets by protocol, such as TCP, UDP, ICMP, and OSPF.

Description

A NetView operator uses the FMTPACKT command to select what traced packets to select for formatting. In a similar fashion, a REXX programmer uses the PKTS QUERY command to select packets. APAR OA16305 adds another, PROTOCOL=*x*, where *x* can be either one of these protocols—ICMP, TCP, UDP, OSPF; *x* can also be a number that corresponds to the protocol byte value defined in the IP architecture.

Documentation changes

This section describes only the changes to the NetView documents for this specific function, filtering IP packets by protocol. Other changes to NetView documents can be found elsewhere in this readme file under the specific function grouping.

Changes to the IBM Tivoli NetView for z/OS Command Reference Volume 1 (SC31-8857-01)

- FMTPACKT – A PROTOCOL=*proto* parameter is added, where *proto* can be one of several well-known IP protocols by name (TCP, UDP, and OSPF) or a number corresponding to the protocol byte value defined in the IP architecture.
- PKTS – A PROTOCOL=*proto* parameter is added, where *proto* can be one of several well-known IP protocols by name (TCP, UDP, and OSPF) or a number corresponding to the protocol byte value defined in the IP architecture.

FMTPACKT

PROTOCOL=*proto*

Specifies an IP protocol by name or number from 0 to 255 as defined in the IP architecture. Supported names are TCP, UDP, and OSPF. The default value is a single asterisk (*), meaning "all".

PKTS

PROTOCOL=*proto*

Specifies an IP protocol by name or number from 0 to 255 as defined in the IP architecture. Supported names are TCP, UDP, and OSPF. The default value is a single asterisk (*), meaning "all".

Changes to the IBM Tivoli NetView for z/OS Security Reference (SC31-8870-01)

Protecting NetView Command Names, Keywords, and Values

This section describes only the changes to the NetView documents for this specific function, filtering IP packets by protocol. Other changes to NetView documents can be found elsewhere in this readme file under the specific function grouping.

Note: This table appears in this Readme as Table 3; in the IBM Tivoli NetView for z/OS Security Reference (SC31-8870-01), it appears as Table 13.

Table 3. NetView Command Identifiers

| Commands and Keywords | Command List Name | SAF Resource or Command Authorization Table Identifier |
|-----------------------|-------------------|--|
| FMTPACKT | | netid.luname.CNMEFPTC Note: Permission must also be granted for the PKTS QUERY command and associated parameters. The PKTS QUERY command parameters are only checked by the PKTS command, not by the FMTPACKT command. |
| PKTS | | netid.luname.PKTS netid.luname.PKTS.PROTOCOL. <i>value</i> netid.luname.PKTS.TCPNAME. <i>value</i> |

Chapter 7. Identifying active sessions in the session monitor that traverse a given resource

APAR OA16305 provides a method for identifying active sessions in the session monitor that traverse a given resource.

Description

A NetView operator uses the NLDM SESS command to list sessions with various criteria. APAR OA16305 adds two additional criteria, ACTREF and ACTREFCP, that can be used to specify a resource name that the session traverses. ACTREF refers to those resources that are listed on the local config-series panel (NDM.CON or NLDM.CON.x), while ACTREFCP refers to either of those, plus CP names as seen on the local APPN route panels (NLDM.AR or NLDM.OAR)

Documentation changes

This section describes only the changes to the NetView documents for this specific function, identifying active sessions in NLDM that traverse a given resource. Other changes to NetView documents can be found elsewhere in this readme file under the specific function grouping.

Changes to the IBM Tivoli NetView for z/OS Command Reference Volume 1 (SC31-8857-01)

- NASESMG – Function is added to the SELECT keyword such that sessions that traverse a resource or resource pair can be identified.
- SESMGET – Function is added to the SELECT keyword such that sessions that traverse a resource or resource pair can be identified.
- SESS – Two parameters, ACTREF and ACTREFCP are added to the NLDM SESS command that allow a NetView operator additional function in listing sessions with various criteria. By using these parameters, the operator can specify a wild-card capable resource name that the session traverses. ACTREF refers to those resources listed on the local config-series panel (NLDM.CON or NLDM.CON.x), and ACTREFCP refers to not only those resources, but also CP names as seen on the local APPN route panels (NLDM.AR or NLDM.OAR).

NASESMG

SELECT=*sess_select*

Selects the sessions for the resource or resource pair.

The default value is ACT

Note: Some values for the SESS command require multiple words, such as ACTREF ABC*. To use such values from NASESMG, code a forward slash (/) between the words. For example:

SELECT=ACTREF/ABC*

SESMGET

SELECT=*sess_select*

Selects the sessions for the resource or resource pair.

The default value is ACT

Note: Some values for the SESS command require multiple words, such as ACTREF ABC*. To use such values from SESMGET, code a forward slash (/) between the words. For example:
SELECT=ACTREF/ABC*

SESS

session_type

ACTREF *resname3*

Active sessions that traverse a given resource, as known by the local VTAM. The specified name must directly follow the ACTREF keyword. It is matched against those resource names on the local session configuration panel (NLDM.CON series) that were provided by the local VTAM, for example an RTP PU name. It is not matched against CP names as seen on APPN route panels. You can use an asterisk (*) as a wildcard character at the end of the resource name.

This option requires that *resname2* be specified.

ACTREFCP *resname3*

Active sessions that traverse a given resource, as known by the local VTAM. The specified name must directly follow the ACTREFCP keyword. It is matched against those resource names on the local session configuration panel (NLDM.CON series) or APPN route panels (NLDM.AR or NLDM.OAR) that were provided by the local VTAM. You can use an asterisk (*) as a wildcard character at the end of the resource name.

This option requires that *resname2* be specified.

Chapter 8. PIU formatting

APAR OA16305 provides an improvement to displays of traced SNA Path Information Units (PIUs).

Description

In prior releases, SNA PIUs were displayed in hexadecimal and EBCDIC. With OA16305, function is added to interpret certain PIUs and display the information in a readable format.

Note: In order to understand the enhanced trace options, you should have basic knowledge of how to operate the NetView NLDM (session monitor) component, specifically, how to navigate through the main menu to a session list to a configuration for a particular session to a PIU trace screen. If you are not familiar with this process, see the *IBM Tivoli NetView for z/OS User's Guide*.

Documentation changes

This section describes only the changes to the NetView documents for this specific function, PIU formatting. Other changes to NetView documents can be found elsewhere in this readme file under the specific function grouping.

Changes to the IBM Tivoli NetView for z/OS User's Guide (SC31-8849-01)

The following steps describe additional trace functions and should be added to the Version 5.2 *IBM Tivoli NetView for z/OS User's Guide* in the section entitled "Typical LU-LU Session for an SNA Subarea Network".

1. Enter the option to display trace data. You can enter **pt** to display primary session trace data or **st** to display secondary session trace data. If you enter **st**, a panel similar to Figure 1 on page 20 is displayed:

```

NLDM.PIUT          SESSION TRACE DATA          PAGE 1
----- PRIMARY -----+----- SECONDARY -----+ DOM -
NAME ECHOA99 SA 00000063 EL 009D | NAME ECHOA09 SA 00000009 EL 00E1 | CNM99
-----+-----+-----+-----+-----+-----+-----+-----+-----+
SEL#  TIME  SEQ# DIR  TYPE  ***** REQ/RESP HEADER ***** RULEN SENS N
( 1) 09:30:47 00B6 P-S DATA  ....OC.DR.....BBEB.....          66   T
( 2) 09:30:47 00B6 S-P (+)RSP  ....OC.DR.....          0
( 3) 09:30:47 00B6 S-P DATA  ....OC.DR.....BBEB.....          66   T
( 4) 09:30:47 00B6 P-S (+)RSP  ....OC.DR.....          0
( 5) 09:30:47 00B7 P-S DATA  ....OC.DR.....BBEB.....          66   T
( 6) 09:30:47 00B7 S-P (+)RSP  ....OC.DR.....          0
( 7) 09:30:47 00B7 S-P DATA  ....OC.DR.....BBEB.....          66   T

END OF DATA
ENTER SEL# OR COMMAND
CMD==>

```

Figure 1. Session Trace Data Panel

This panel shows the flow of the most recent PIUs on a session. Also shown is the time, type, and length of the data that was sent, and the direction in which it was sent. Complete PIUs are available for LU-LU session debugging. If the data is truncated, a T marker is displayed at the right margin.

2. If you enter a selection number for a PIU, the PIU is displayed in hexadecimal and EBCDIC representation on the NLDM.PIUD panel.

If SEL# AND F (FORMATTED RU) is an option, you can enter a selection number followed by a space followed by F to display the formatted PIU, if formatted data is available, on the NLDM.PIUF panel. Formatting is generally available for PIUs with the following characteristics:

- They contain an SNA request/response header (RH) and a format header (FMH) type 5.
- They are complete enough to format.
- They are not compressed.

The first formatted page shows the FMH. Subsequent pages show the different general data stream (GDS) variable types that are included in the PIU.

Note: Formatting is limited to approximately the first 1000 bytes.

From any page in the formatted display, you can enter SET HEX ON to reference the hexadecimal and EBCDIC PIU. The resulting NLDM.PIUF.HEX panel displays the hexadecimal and EBCDIC representation associated with that particular page, as indicated by the matching hex offsets listed on either panel. Enter SET HEX OFF to return to the formatted display.

Changes to the IBM Tivoli NetView for z/OS Messages and Codes (SC31-8866-01)

This is a new message added by OA16305 and should be added to the Version 5.2 IBM Tivoli NetView for z/OS Messages and Codes (SC31-8866-01).

AAU148I FORMATTED RU NOT AVAILABLE

Explanation: Formatting is not available for the response unit (RU) you selected.

Message Variables:

msgid The message number.

System action: The NetView program ignores the message call and continues processing.

Operator response: Select the correct RU, or select the RU without "F" to view it in dump format.

Chapter 9. Known Limitations, Problems, and Workarounds

NetView for z/OS Tivoli Enterprise Portal V6.1 Agent

- A potentially confusing situation can exist in the navigator if multiple NACMDs are issued to the same NetView for z/OS Tivoli Enterprise Portal V6.1 Agent. You should see:

```
NetView for z/OS
  NMPIPL47_NTVAF_AUTONA:KVV00
  NMP217_NTVE1_AUTONA:KVV00
```

Instead, you might see:

```
NetView for z/OS
  KVV00
  KVV00
```

You can fix this by coding this statement in `\install_dir\CNPS\kfwenv`
`KFW_TOPOLOGY_MUST_USE_FULL_NAME_AFFINITIES=`
`000000000100`

- When editing the `KBB_RAS1` statement in the `\install_dir\tmaitm6\KVVENV` file, make sure that there is not a mismatched pair of parentheses. A mismatched pair of parentheses will cause the NACMD to fail with the error: `BNH618I RECV REQUEST ON SOCKET 0 FAILED. CONNECTION CLOSED.`

You will know that this has occurred if you see the following in the Tivoli Enterprise Portal under the NetView for z/OS leaf:

```
hostnameSOCK:KVV00
hostnameACT:KVV00
```

where *hostname* is the name of the machine on which the NetView for z/OS Tivoli Enterprise Portal V6.1 Agent resides. If this occurs, edit the `KBB_RAS1` statement and correct the problem. Then stop and restart the agent.

Note: The `SOCK` and `ACT` members will not be removed by this correction.

Support information

If you have a problem with your IBM software, you want to resolve it quickly. This section describes the following options for obtaining support for IBM software products:

- “Using IBM Support Assistant”
- “Obtaining fixes” on page 26
- “Receiving weekly support updates” on page 26
- “Contacting IBM Software Support” on page 27

Additional support for the NetView for z/OS product is available at the following locations:

- At the NetView for z/OS Web site at <http://www.ibm.com/software/tivoli/products/netview-zos/>. Under **Related links**, click **Other online sources**. The page displayed contains a list of newsgroups, forums, and bulletin boards.
- Through the NetView user group on Yahoo at <http://groups.yahoo.com/group/NetView/>. This support is for NetView for z/OS customers only, and registration is required. This forum is monitored by NetView developers who answer questions and provide guidance. When a problem with the code is found, you are asked to open an official problem management record (PMR) to obtain resolution.

Using IBM Support Assistant

The IBM Support Assistant is a free, stand-alone application that you can install on any workstation. You can then enhance the application by installing product-specific plug-in modules for the IBM products you use.

The IBM Support Assistant saves you time searching product, support, and educational resources. The IBM Support Assistant helps you gather support information when you need to open a problem management record (PMR), which you can then use to track the problem.

The product-specific plug-in modules provide you with the following information:

- Support links
- Education links
- Ability to submit problem management reports

If your product does not use IBM Support Assistant, use the links to support topics in your information center. In the navigation frame, check the links for resources listed in the **ibm.com and related resources** section where you can search the following resources:

- Support and assistance (includes search capability of IBM technotes and IBM downloads for interim fixes and workarounds)
- Training and certification
- IBM developerWorks
- IBM Redbooks
- General product information

If you cannot find the solution to your problem in the information center, search the following Internet resources for the latest information that might help you resolve your problem:

- Forums and newsgroups
- Google.com

Obtaining fixes

A product fix might be available to resolve your problem. To determine what fixes are available for your IBM software product, follow these steps:

1. Go to the IBM Software Support Web site at <http://www.ibm.com/software/support>
2. Under **Find product support**, click **All IBM software (A–Z)**. This opens a software product list.
3. In the software product list, click **IBM Tivoli NetView for z/OS**. This opens the IBM Tivoli NetView for z/OS support site.
4. Under **Solve a problem**, click **APARs** to go to a list of fixes, fix packs, and other service updates for Tivoli NetView for z/OS.
5. Click the name of a fix to read the description and optionally download the fix. You can also search for a specific fix; for tips on refining your search, click **Search tips**.

For more information about the types of fixes that are available, see the *IBM Software Support Handbook* at <http://techsupport.services.ibm.com/guides/handbook.html>.

Receiving weekly support updates

To receive weekly e-mail notifications about fixes and other software support news, follow these steps:

1. Go to the IBM Software Support Web site at <http://www.ibm.com/software/support>.
2. Click **My support** in the far upper-right corner of the page under **Personalized support**.
3. If you have already registered for **My support**, sign in and skip to the next step. If you have not registered, click **register now**. Complete the registration form using your e-mail address as your IBM ID and click **Submit**.
4. Click **Edit profile**.
5. In the **Products** list, select **Software**. A second list is displayed.
6. In the second list, select a product segment, for example, **Systems Management**. A third list is displayed.
7. In the third list, select a product sub-segment, for example, **Network Management & Performance**. A list of applicable products is displayed.
8. Select one or more products for which you want to receive updates, for example, **IBM Tivoli NetView for z/OS**.
9. Click **Add products**.
10. After selecting all products that are of interest to you, click **Subscribe to email** on the **Edit profile** tab.
11. Select **Please send these documents by weekly email**.
12. Update your e-mail address as needed.
13. In the **Documents** list, select **Software**.

14. Select the types of documents that you want to receive information about.
15. Click **Update**.

If you experience problems with the **My support** feature, you can obtain help in one of the following ways:

Online

Send an e-mail message to erchelp@ca.ibm.com, describing your problem.

By phone

Call 1-800-IBM-4You (1-800-426-4968).

Contacting IBM Software Support

IBM Software Support provides assistance with product defects.

Before contacting IBM Software Support, your company must have an active IBM software maintenance contract, and you must be authorized to submit problems to IBM. The type of software maintenance contract that you need depends on the type of product you have:

- For IBM distributed software products (including, but not limited to, Tivoli, Lotus®, and Rational® products, as well as DB2 and WebSphere® products that run on Windows or UNIX operating systems), enroll in Passport Advantage® in one of the following ways:

Online

Go to the Passport Advantage Web site at http://www.ibm.com/software/howtobuy/passportadvantage/pao_customers.htm and click **How to Enroll**.

By phone

For the phone number to call in your country, go to the IBM Software Support Web site at <http://techsupport.services.ibm.com/guides/contacts.html> and click the name of your geographic region.

- For customers with Subscription and Support (S & S) contracts, go to the Software Service Request Web site at <https://techsupport.services.ibm.com/ssr/login>.
- For customers with IBMLink™, CATIA, Linux, OS/390®, iSeries™, pSeries®, zSeries, and other support agreements, go to the IBM Support Line Web site at <http://www.ibm.com/services/us/index.wss/so/its/a1000030/dt006>.
- For IBM eServer™ software products (including, but not limited to, DB2 and WebSphere products that run in zSeries, pSeries, and iSeries environments), you can purchase a software maintenance agreement by working directly with an IBM sales representative or an IBM Business Partner. For more information about support for eServer software products, go to the IBM Technical Support Advantage Web site at <http://www.ibm.com/servers/eserver/techsupport.html>.

If you are not sure what type of software maintenance contract you need, call 1-800-IBMSERV (1-800-426-7378) in the United States. From other countries, go to the contacts page of the *IBM Software Support Handbook* on the Web at <http://techsupport.services.ibm.com/guides/contacts.html> and click the name of your geographic region for phone numbers of people who provide support for your location.

To contact IBM Software Support, follow these steps:

1. "Determining the business impact" on page 28

2. "Describing problems and gathering information"
3. "Submitting problems"

Determining the business impact

When you report a problem to IBM, you are asked to supply a severity level. Therefore, you need to understand and assess the business impact of the problem you are reporting. Use the following criteria:

Severity 1

The problem has a *critical* business impact. You are unable to use the program, resulting in a critical impact on operations. This condition requires an immediate solution.

Severity 2

The problem has a *significant* business impact. The program is usable, but it is severely limited.

Severity 3

The problem has *some* business impact. The program is usable, but less significant features (not critical to operations) are unavailable.

Severity 4

The problem has *minimal* business impact. The problem causes little impact on operations, or a reasonable circumvention to the problem was implemented.

Describing problems and gathering information

When describing a problem to IBM, be as specific as possible. Include all relevant background information so that IBM Software Support specialists can help you solve the problem efficiently. To save time, know the answers to these questions:

- What software versions were you running when the problem occurred?
- Do you have logs, traces, and messages that are related to the problem symptoms? IBM Software Support is likely to ask for this information.
- Can you re-create the problem? If so, what steps were performed to re-create the problem?
- Did you make any changes to the system? For example, did you make changes to the hardware, operating system, networking software, and so on?
- Are you currently using a workaround for the problem? If so, be prepared to explain the workaround when you report the problem.

Submitting problems

You can submit your problem to IBM Software Support in one of two ways:

Online

Click **Submit and track problems** on the IBM Software Support site at <http://www.ibm.com/software/support/probsub.html>. Type your information into the appropriate problem submission form.

By phone

For the phone number to call in your country, go to the contacts page of the *IBM Software Support Handbook* at <http://techsupport.services.ibm.com/guides/contacts.html> and click the name of your geographic region.

If the problem you submit is for a software defect or for missing or inaccurate documentation, IBM Software Support creates an Authorized Program Analysis Report (APAR). The APAR describes the problem in detail. Whenever possible,

IBM Software Support provides a workaround that you can implement until the APAR is resolved and a fix is delivered. IBM publishes resolved APARs on the Software Support Web site daily, so that other users who experience the same problem can benefit from the same resolution.

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