NetView for z/OS
Version 5 Release 1
Program Number 5697-ENV

Abstract

NetView for z/OS Version 5 Release 1 (V5R1) provides state of the art management for your critical networked computing infrastructure. As your network has evolved over the years, so has NetView. We've been there to manage what you need to manage.

Operating Environment

Hardware Requirements: IBM Tivoli NetView for z/OS V5R1 runs in a virtual storage environment on any IBM system configuration with sufficient storage that supports OS/390 or z/OS.

NetView Management Console, NetView 3270 Management Console Topology Server

- Any hardware that supports one of the following operating systems:
  - AIX 4.3.3.10 (5765-C34) or later
  - Windows NT 4.0
  - Windows 2000
  - SuSE Linux Enterprise Server for S/390 version 7.0 at kernel level 2.2.16 or later
- Processor: minimum 350 MHz
- Memory: 256 MB
- Install Footprint: 50 MB of additional fixed disk space
- Color display (1024 x 768, 256 colors)
- Maximum color palette is 16-bit high color; 256-color palette recommended (32-bit true color is not supported)

NetView Web Application HTTP Server and Web Application Server: Any hardware that supports one of the following operating systems running IBM WebSphere, Application Server V4.0, Advanced Edition or the Jetty Web Server.

- AIX 4.3.3.10 (5765-C34) or later
- Windows NT 4.0 Server
- Windows 2000 Server
- SuSE Linux Enterprise Server for S/390 version 7.0 at kernel level 2.2.16 or later

The install footprint is 68 MB of fixed disk space. For additional hardware requirements for IBM WebSphere Application Server V4.0, Advanced Edition, see the WebSphere documentation for the applicable platform.

Jetty is an Open Source HTTP Server and Servlet Container that is packaged with Tivoli NetView for z/OS V5R1. Jetty requires the following in addition to the base operating system requirements:

- Processor speed for workstation hardware: minimum 350 MHz
- Memory: 128 MB minimum, 256 MB recommended

Web Browsers

Any hardware that runs one of the following operating systems with a supported Web browser:

- AIX 4.3.3.10 (5765-C34) or later
- Windows 2000
• Windows NT 4.0
• HP-UX 11 or later
• Solaris 2.8 or later
• Red Hat 7.1 or SuSE 7.1 distribution of Linux or later

NetView for z/OS Multisystem Manager Component

Multisystem Manager LAN Network Manager Support: Any IBM Personal Computer, or compatible computer, as required for Operating System/2(R) and LAN Network Manager Version 2 will support the topology agent for LAN Network Manager. The topology agent for LAN Network Manager is part of the LAN Network Manager product.

Multisystem Manager TCP/IP Support: The MultiSystem Manager for TCP/IP agent for Tivoli NetView for z/OS runs in many different environments. The hardware required is any hardware that supports one of the environments listed below. The topology agent for TCP/IP is shipped with NetView for z/OS on the workstation CD-ROM.

AIX

When the MultiSystem Manager TCP/IP agent is installed on Tivoli NetView for AIX, hardware that supports the following is required:
• AIX 4.3.3.10 (5765-C34) or later
• Tivoli NetView for AIX 6.0.3 (5698-NVW) or later

The agent can communicate with Tivoli NetView for z/OS via SNA or TCP/IP. If you are using SNA to communicate between the MultiSystem Manager TCP/IP agent and Tivoli NetView for z/OS, hardware that supports the following is also required:
• AIX NetView Service Point 1.3.3 (5621-107)
• IBM Communication Server for AIX 6.1 (5765-E51)

Hewlett-Packard UNIX (HP-UX)

The MultiSystem Manager TCP/IP network feature for HP-UX uses TCP/IP to communicate between the MultiSystem Manager TCP/IP agent and Tivoli NetView for z/OS Version 5 Release 1. The MultiSystem Manager TCP/IP agent for HP OpenView running on HP-UX requires hardware that supports:
• HP-UX Version 10 Release 20, or later
• Hewlett Packard Network Node Manager (HP OpenView) Version 5 Release 1, or later

Windows NT and Windows 2000

The MultiSystem Manager TCP/IP network feature for Windows uses TCP/IP to communicate between the MultiSystem Manager TCP/IP agent and Tivoli NetView for z/OS V5R1. The MultiSystem Manager TCP/IP agent for Tivoli NetView for Windows requires hardware that supports the following:
• Windows NT Version 4 or Windows 2000
• Tivoli NetView for NT 6.0.3 (5698-NVW) or later

Solaris

The agent can be installed on Tivoli NetView for Solaris or Hewlett Packard Network Node Manager. The MultiSystem Manager TCP/IP network feature for Solaris uses TCP/IP to communicate between the MultiSystem Manager TCP/IP agent and Tivoli NetView for z/OS Version 5 Release 1.

• The MultiSystem Manager TCP/IP feature for Tivoli NetView for Solaris requires hardware that supports the following:
  – Solaris Version 2 Release 6 or later
  – Tivoli NetView for Solaris 6.0.3 (5698-NVW) or later

• The MultiSystem Manager TCP/IP agent for OpenView for Solaris requires hardware that supports the following:
  – Solaris Version 2 Release 6 or later
  – Hewlett Packard Network Node Manager (HP OpenView) Version 5 Release 1, or later

Multisystem Manager Netfinity Support: Any IBM Personal Computer, or compatible computer, as required for NetFinity Manager Version 5.0 will support the topology agent for NetFinity. The topology agent for NetFinity is part of the NetFinity product.
**Multisystem Manager Tivoli Management Region (TMR) Support:** The topology agent for TMR is shipped with NetView on the workstation CD-ROM. Any hardware that supports one of the following is required:

- AIX 4.3.3.10 (5765-C34) or later
- Windows NT 4.0
- Windows 2000
- Solaris 2.6 or later
- HP-UX 10.20 or later

**NetView for z/OS Automated Operations Network Component:**

- Dynamic Display Facility (DDF) requires either a 3x79 terminal with extended attribute support capable of seven colors or a workstation that supports the NetView 3270 Management Console or a workstation-based 327x terminal emulator program that provides Extended Attribute Support with a display capable of seven colors.
- The SNA Automation feature has these additional requirements for Switched Network Backup (SNBU) Automation:
  - IBM 586x modems (except Model 1) with 2- or 4-wire SNBU couplers, if desired, or
  - The 786x, 7855, or LPDA-2 command set capable modems

Note: Only the 786x Models 45, 46, and 47 can automatically switch back from SNBU.

- TCP/IP for AIX Automation uses SNA communication between Tivoli NetView for AIX and Tivoli NetView for z/OS, and requires hardware that supports:
  - AIX 4.3.3.10 (5765-C34), or later
  - Tivoli NetView for AIX 6.0.3 (5698-NVW) or later
  - AIX NetView Service Point 1.3.3 (5621-107)
  - IBM Communication Server for AIX 6.1 (5765-E51)

**Software Requirements:**

This section defines the minimum programming requirements for IBM Tivoli NetView for z/OS V5R1 and its operating environments. Specific functions of NetView for z/OS may require additional products or higher levels of the products listed below. NetView for z/OS is executed as an application on the OS/390 or z/OS operating system. NetView for z/OS support is provided at the listed levels or subsequent levels that are upward-compatible, unless otherwise stated. Upward compatibility means that functions provided by the earlier releases are still supported.

**Programming Requirements for All Functions:**

- OS/390 Version 2 Release 10 (5647-A01) or z/OS (5694-A01)
- All functions related to the ACF/NCP program require:
  - ACF/NCP Version 4 Release 3.1 (5668-854) or later
- All functions using TCP/IP communications from OS/390 or z/OS require:
  - OS/390 Version 2 Release 10 IP Services or z/OS IP Services

**NetView-to-NetView Communication:** In a multiple-domain network or across multiple SNA networks, the NetView program can communicate with another NetView program, regardless of the operating system. NetView for z/OS V5R1 can communicate with the following, at the listed system's level of capabilities:

- NetView Version 2 Release 3 for VM/ESA, and VSE/ESA
- NetView Version 3 Release 1 for MVS/ESA
- TME 10 NetView for OS/390 Version 1 Release 1
- TME 10 NetView for OS/390 Version 1 Release 2
- Tivoli NetView for OS/390 Version 1 Release 3
- Tivoli NetView for OS/390 Version 1 Release 4
- IBM Tivoli NetView for z/OS V5R1

**Function Compatibility:** Except as noted below under Withdrawn Functions, the functions of the following versions and releases are upwardly compatible with Tivoli NetView for z/OS V5R1:

- NetView Version 2 Release 3 for VM/ESA, and VSE/ESA
- NetView Version 3 Release 1 for MVS/ESA
- TME 10 NetView for OS/390 Version 1 Release 1
 Withdrawn Functions: The following functions were withdrawn beginning with IBM Tivoli NetView for OS/390 Version 1 Release 3 and are no longer available:

- NetView Installation and Administration Facility/2 (NIAF/2)
- Automated Operations Network (AON) Reporting Facility
- AON LAN RTAP

The following functions were withdrawn beginning with Tivoli NetView for OS/390 Version 1 Release 4 and are no longer available:

- NetView Graphic Monitor Facility (NGMF)
- MultiSystem Manager LAN Management Utilities (LMU) agent

Beginning with IBM Tivoli NetView for z/OS V5R1, the following functions are no longer supported on OS/2 or Windows 95 and 98 but continue to be available and supported on other platforms where they were previously available:

- OS/2
  - NetView Management Console (NMC) topology server and console
  - NetView 3270 Management Console (NMC 3270)
  - Visual BLDVIEWS (VBV)
  - APPN Topology and Accounting Agent (APPNTAA)
- Windows 95 and Windows 98
  - NMC topology console
  - NMC 3270

The following functions are withdrawn beginning with IBM Tivoli NetView for z/OS V5R1 and are no longer available:

- MultiSystem Manager ATM Support
- MultiSystem Manager NetWare support

- Automated Operations Network LAN Automation
- NetView Management Console Command Profile Editor GUI (The NMC CPE Batch Utility remains.)
- APPN Accounting Manager
- The TCP/IP discovery sample which previously ran on z/OS and OS/390 in Unix System Services (USS) (Note: This sample is available for downloading from the Unsupported Tools page of the NetView website at http://www.tivoli.com/nv390/). It is replaced in the product by the new TCP/IP discovery function on Linux on zSeries.)
- Launch of Tivoli Inventory from the NMC topology console (This is available for downloading from the Unsupported Tools page of the NetView website at http://www.tivoli.com/nv390/.)
- Command authority checking using the NetView scope-of-command function (Command authority checking using either a NetView command authority table or an SAF product such as IBM SecureWay Security Server for z/OS and OS/390 RACF continues to be supported.)
- Span-of-control defined in members of the VTAMLST parameter dataset of Communication Server for OS/390 or z/OS Communication Server (Resources and NMC views subject to span-of-control authorization are now defined in a NetView span table in the NetView DSIPARM dataset.)
- Support for the Katakana character set
- The -jsnmp option of the NVSNMP command
- Java Application Server (JAS)

The Java Application Server provided for starting, stopping, and checking the status of the following services in a Unix System Services (USS) environment:

- SNMPSRVC
- POLLSRVC
- MIBSRVC and LOADMIB

These services are available through other mechanisms from the NetView Web console and the NMC topology console.
Notice of Planned Withdrawal: IBM Tivoli NetView for z/OS V5 R1 is the last release that will support the following functions:

- NMC Topology Console on HP-UX and NMC 3270 on HP-UX
- The use of the OSNMP manager code provided by z/OS Communication Server for issuing SNMP commands (This is replaced by the new native NetView SNMP command support.)
- The ability for customers to write NMC Server-based command exits (Existing NMC Server command exits that are provided by NetView will continue to be supported. The ability to write NMC Console-based command exits is not affected and will continue to be supported.)

System Definition Compatibility: For equivalent, non-system-dependent functions, IBM Tivoli NetView for z/OS V5R1 will operate with most definition statements and command lists of the following:

Note: Refer to the IBM Tivoli NetView for z/OS V5R1 Installation: Migration Guide for details.

- NetView Version 2 Release 3 for VM/ESA, and VSE/ESA
- NetView Version 3 Release 1 for MVS/ESA
- TME 10 NetView for OS/390 Version 1 Release 1
- TME 10 NetView for OS/390 Version 1 Release 2
- Tivoli NetView for OS/390 Version 1 Release 3
- Tivoli NetView for OS/390 Version 1 Release 4

For equivalent, non-system-dependent functions, NetView for z/OS will operate with the REXX procedures of NetView Version 2 and Version 3 and Tivoli NetView for OS/390.

The NetView constants module DSICTMOD should be updated and reassembled as part of the installation of NetView for z/OS.

User applications, written for these NetView releases in accordance with NetView customization publications and using NetView customization services, will be source compatible. A re-assembly or re-compile using NetView for z/OS macro libraries is required.

If user customization code is being migrated from one operating system release to another, user code that contains system-dependent functions may not run and may require conversion.

Enhanced Function Support: The following NetView for OS/390 functions and features require the specified program levels or subsequent upward-compatible levels unless stated otherwise.

NetView Management Console, NetView 3270 Management Console Topology Server One of the following:

- AIX 4.3.3.10 (5765-C34) or later Additional prerequisites to run on AIX:
  - 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

  NOTE: xlC.rte, ibmcxx.ioc.rte, ibmcxx.rte, and ipfx.rte are included on the IBM Tivoli NetView for z/OS V5R1 product CD.

- Windows 2000
- Windows NT 4.0 with Service Pack 5 or later
- SuSE Linux Enterprise Server for S/390 version 7.0 at kernel level 2.2.16 or later with TCP/IP and Korn shell RPM package installed

Topology Console

One of the following:

- AIX 4.3.3.10 (5765-C34) or later with TCP/IP installed. The following PTFs are required: U470006, U470966, U471143, U470973, U470980, and U471092. In addition, AIX Developer Kit, Java2 Technology Edition, Version 1.3.0 requires that the following APARs be applied to your AIX system, if you are using these optional filesets and already have the base level files installed: U471872, U471060, U466991, U471076, U471118, U471015, U471838.

  Windows NT 4.0 with Service Pack 5 or later

  Windows 2000

- Red Hat 7.1 or SuSE 7.1 Linux distributions or later supported distributions on 32-bit IA-32 Intel Architecture (e.g., Pentium III and Pentium 4 processors).
– For Red Hat, only the Gnome desktop with Sawfish windows manager that is shipped with Red Hat is supported.
– For SuSE, only the K Desktop Environment (KDE) that is shipped with SuSE is supported.

• Solaris 2.8 or later with TCP/IP installed. Patch 108940-05 or later is also required.
• HP-UX 11, or later with TCP/IP installed Since the NMC Topology Console uses Java, patches are needed to support the Java Runtime Environment. The latest list of patches can be found at HP's Web site (www.hp.com).

Server Communications with NetView for z/OS Using LU 6.2

For LU 6.2 connections, one of the following is required: AIX

• IBM Communications Server for AIX, Version 6.1 (5765-E51)

Windows NT and Windows 2000

• IBM Communications Server for Windows NT 6.1.1

NMC Server Audit Log: To use a Web browser to view the audit log requires a browser which supports XSL (eXtensible Stylesheet Language). Common browsers which support XSL include:

• Netscape 6.0 or later
• Microsoft Internet Explorer 5.5 or later

NetView Web Application HTTP Server and Web Application Server

• One of the following operating systems with TCP/IP installed:
  – Windows NT 4.0 Server with Service Pack 5 or later
  – Windows 2000 Server with Service Pack 1 or later
  – AIX 4.3.3.10 (5765-C34) or later

The following PTFs are required: U470006, U470966, U471143, U470973, U470980, and U471092.

In addition, AIX Developer Kit, Java2 Technology Edition, Version 1.3.0 requires that the following APARs be applied to your AIX system, if you are using these optional file-sets and already have the base level file-sets installed: U471872, U471060, U466991, U471076, U471118, U471015, U471838.

– IBM AIX Version 5.1 (5765-E61)
– SuSE Linux Enterprise Server for S/390 Version 7.0 at kernel level 2.2.16 or later with pdksh Korn shell RPM package installed (available on SuSE's distributed media, CD1)

• One of the following:
  – IBM WebSphere Application Server V4.0, Advanced Edition for the appropriate operating system

For additional software requirements for IBM Websphere Application Server V4.0, Advanced Edition, see the WebSphere documentation for the applicable platform.

– The Jetty Web Server Jetty is an Open Source HTTP Server and Servlet Container that is packaged with IBM Tivoli NetView for z/OS V5R1.

Web Browsers

One of the following operating system and browser combinations: Note: Netscape 6.x is NOT supported on any operating system.

• Windows 2000 with one of the following browsers:
  – Microsoft Internet Explorer 5.0 or later
  – Netscape 4.73 or later 4.7x release

• Windows NT 4.0 or later with one of the following browsers:
  – Microsoft Internet Explorer 5.0 or later
  – Netscape 4.73 or later 4.7x release

• AIX 4.3.3.10 (5765-C34) or later with Netscape 4.76i or later 4.7xi release

– For AIX V4, APAR IY24043 is required.
– For AIX V5, recommended maintenance package 5100-01 is required.

• HP-UX 11 or later with Netscape 4.78 and HP-UX Java Plug-in and Runtime Environment Version 1.3.1

• Sun Solaris 2.8 or later with Netscape 4.76 or later 4.7x release with JRE 1.3.0_04 Plug-ins
• Red Hat 7.1 or SuSE 7.1 distribution of Linux or later distributions with Netscape 4.76 or later 4.7x release

**Dynamic VIPA and Sysplex Distributor Support**
- NetView Web Browser Interface prerequisites
- One of the following:
  - OS/390 Version 2 Release 10 IP Services with APAR PQ56105
  - z/OS Release 1 IP Services with APAR PQ56105
  - z/OS Release 2 IP Services with PTFs UQ59826 and UQ59827

**TCP/IP Discovery on Linux on zSeries**
- SuSE Linux Enterprise Server for S/390 version 7.0 at kernel level 2.2.16 with TCP/IP and Korn shell RPM package installed

NOTE: TCP/IP Discovery on Linux on zSeries includes the SNMP Server for the SNMP MIB Browser and Real-Time Poller/Grapher as well as the Jetty HTTP Server. If either of these servers has been installed on a Linux on zSeries logical partition (LPAR), it must be uninstalled before installing the TCP/IP Discovery function in that LPAR.

**Launching TBSM from NMC or NMC from TBSM**
- Tivoli Business System Manager V1R5 (5698-BSM) or later

**SNMP MIB Browser, Real-Time Poller/Grapher**
- The prerequisites are the same as for the Web Browser Interface

**Event/Automation Service to and from the Tivoli Enterprise Console**
- Tivoli Enterprise Console 3.6.1 (5697-EAS, 5698-EAS)

Using secure framework communication also requires:
- Tivoli Management Framework for OS/390 3.6.1 (5697-D10, 5698-FRA)

**SNA Topology Manager**
- Generalized Trace Facility

**OS/390 TCP/IP Stack Management and Telnet 3270 Management**
- Optional: In order to be able to dynamically add to the set of resources monitored and displayed at NMC, DB2 for OS/390 Version 5 Release 1 (5655-DB2) or later is required.

**Beeper/Pager Support**
- IBM NetFinity for OS/2 V5.0 or later (if using the IBM supplied sample for beeper/pager requests)

**Issuing OS/390 or z/OS UNIX Services Commands from NetView**
- REXX alternate run-time (same as for MSM Component)

**Support for IBM LAN Network Manager Enhanced Command Interface**
- IBM LAN Network Manager Version 2.0 (03H3519, 03H3523, or 03H3527)

**Management of Frame Relay (DTE) and Ethernet**
- ACF/NCP Version 6 (5688-231)

**NetView Parallel Transmission Group Support**
- ACF/NCP Version 5 Release 4 MVS (5668-738)

**NetView Network Asset Management:** This provides NCP vital product data (VPD) and hardware device vital product information for those devices that support the Request Product Set ID (PSID) architecture or signal converters that support LPDA-2 commands:
- ACF/NCP Version 4 Release 3.1 (5668-854) for the 3725
- ACF/NCP Version 5 Release 4 MVS (5668-738) or later for the 3720 or 3745

**NetView Performance Monitor (NPM) Alerts**
- NPM Version 1 Release 6 (5665-333 MVS) or later for session alerts
SAF Security Checking: OS/390 Version 2 Release 10 (5647-A01) Security Server or z/OS (5694-A01) Security Server or an equivalent SAF product is required for SAF security checking of each of the following functions:

- RODM connections
- NetView operator passwords
- RMTCMD through the RMTOPS Class
- NetView command authorization
- NetView Span of Control access
- NetView operator logon information
- Graphical View security
- List RACF Profile for NetView Operators

MultiSystem Manager Component

System Considerations for using the REXX Alternate Library: Before using the REXX Alternate Library with NetView for z/OS, you must first apply the following PTFs:

- UN78518
- UN78525
- UN84251
- UN86020
- UN88434
- UN90776
- UN93567
- UN93568
- UN96368
- UQ02796
- UQ04867
- UQ06343
- UQ06344
- UQ06830
- UQ10660
- UQ12616
- UQ17096
- UQ18015

Topology Feature for Tivoli Management Region (TMR)

- Tivoli Distributed Monitoring 3.6.2 or 3.7 (5697-EMN, 5698-EMN)
  Note: The agent is not supported on Tivoli Distributed Monitoring Version 4.0 or later
- A compatible level between 3.6.2 and 3.7.1 of each of the following:
  - Tivoli Enterprise Console (5697-EAS, 5698-EAS)
  - Tivoli Management Framework (5697-FRA, 5698-FRA)
- One of the following:
  - AIX 4.3.3.10 (5765-C34) or later
  - Windows NT 4.0
  - Windows 2000
  - Solaris 2.6 or later
  - HP-UX 10.20 or later

Commands from IBM Tivoli NetView for z/OS to TEC

- MSM Topology feature for TMR

Topology Feature for LAN Network Manager

- IBM LAN Network Manager 2.0 (03H3519, 03H3523, or 03H3527) with NetView connectivity
- Communications Manager/2 Version 1 Release 1 (79G0258 or 79G0257) or later configured with:
  - Service Point Application Router (SPAR)

Topology TCP/IP Network Feature: The MultiSystem Manager for TCP/IP agent for IBM Tivoli NetView for z/OS runs in many different environments. The requirements for each environment are included below:

- AIX
  When the MultiSystem Manager TCP/IP agent is installed on Tivoli NetView for AIX, the following are required:
  - AIX Version 4.3.3.10 (5765-C34) or later
  - Tivoli NetView for AIX 6.0.3 (5698-NVW) or later

The agent can communicate with IBM Tivoli NetView for z/OS via SNA or TCP/IP. If you
are using SNA to communicate between the MultiSystem Manager TCP/IP agent and IBM Tivoli NetView for z/OS, the following are also required:

- AIX NetView Service Point 1.3.3 (5621-107)
  Note: If 1.2.2 is already installed PTF U473211 provides an upgrade to 1.3.3.
- IBM Communication Server for AIX 6.1 (5765-E51)

**HP-UX**

The MultiSystem Manager TCP/IP network feature for HP-UX uses TCP/IP to communicate between the MultiSystem Manager TCP/IP agent and IBM Tivoli NetView for z/OS. The MultiSystem Manager IP agent for HP OpenView running on HP-UX requires:

- HP-UX Version 10 Release 20 or later
- Hewlett Packard Network Node Manager(HP OpenView) Version 5 Release 1 or later

**Windows NT and Windows 2000**

The MultiSystem Manager TCP/IP network feature for Windows uses TCP/IP to communicate between the MultiSystem Manager TCP/IP agent and IBM Tivoli NetView for z/OS. The MultiSystem Manager TCP/IP agent for Tivoli Netview for Windows requires:

- Windows NT Version 4 or Windows 2000
- IBM Tivoli NetView for NT 6.0.3 (5698-NVW) or later

**Solaris**

The MultiSystem Manager TCP/IP network feature for Solaris uses TCP/IP to communicate between the MultiSystem Manager TCP/IP agent and Tivoli NetView for z/OS. The agent can be installed on Tivoli NetView for Solaris or Hewlett Packard Network Node Manager.

- The MultiSystem Manager TCP/IP feature for Tivoli Netview for Solaris requires:
  - Solaris Version 2 Release 6 or later
  - Tivoli NetView for Solaris 6.0.3 (5698-NVW) or later
- The MultiSystem Manager TCP/IP agent for OpenView for Solaris requires:
  - Solaris Version 2 Release 6 or later
  - HP OpenView Version 5 Release 1 or later

**Topology Feature for NetFinity**

- NetFinity Manager Version 5.0 running on OS/2 or Windows NT. The topology agent for NetFinity is part of the NetFinity Manager product.
  Note: The agent is not part of the NetFinity Director product and is not supported.
- Windows NT:
  - TCP/IP Connectivity
- OS/2:
  - Communications Server for OS/2, Personal Communications for OS/2 or Communications Manager as per the requirements for NetFinity Manager V5.0 SNA communication

**Automated Operations Network Component**

**SNA Automation**

- To use the SNBU automation:
  - ACF/NCP Version 4 Release 3.1 (5668-854) or later; Version 5 Release 4 (5668-738) or later is required for complete DMPX support of IBM 7861/8 model 4x modems.

**TCP/IP for AIX Automation:** TCP/IP for AIX Automation uses SNA communication between Tivoli NetView for AIX and IBM Tivoli NetView for z/OS and requires:

- AIX 4.3.3.10 (5765-C34) or later
- Tivoli NetView for AIX 6.0.3 (5698-NVW) or later
- AIX NetView Service Point 1.3.3 (5621-107)
  If 1.2.2 is already installed, PTF U473211 provides an upgrade to 1.3.
- IBM Communication Server for AIX 6.1 (5765-E51)

**Compatibility:** Not applicable.

**Limitations:** Not applicable.
Performance Considerations: Not applicable.

Note: The following are trademarks of the IBM Corporation in the United States, or other countries, or both:

- ACF/VTAM
- AD/Cycle
- APPN
- C/2
- C/370
- DB2/2
- Extended Services
- IBM
- Micro Channel
- MVS/ESA
- MVS/SP
- MVS/XA
- NetFinity
- NetView
- Operating System/2
- OS/2
- OS/390
- RACF
- S/370
- S/390
- Tivoli
- Tivoli Global Enterprise Manager
- Tivoli Management Region
- VM/ESA
- VSE/ESA
- VTAM

The following are trademarks of other companies:

- HP-UX Hewlett Packard
- 486 Intel Corporation.
- NetWare NetWare Corporation
- Java Sun Microsystems Inc.
- UNIX X/Open Company Limited


Licensed Program Materials Availability

Restricted Materials – Yes. This licensed program is available with some licensed program materials designated as RESTRICTED MATERIALS OF IBM. The remaining licensed program materials are available and will not be designated as RESTRICTED MATERIALS OF IBM.

Licensed publications are provided in displayable form for authorized use on the basic license designated machine. This material may be copied and used on:

- Other processors on which the licensed program is licensed for use by the customer.
- One other designated processor in support of the licensed program (for example, for printing or for viewing at a workstation).

The right is granted to make sufficient hard copies from displayable versions distributed by IBM to support authorized use of the licensed program by the customer. Each copy must include the IBM copyright notice, and the following label must be included on every copy:

Licensed Material - Property of IBM.

Supplemental Terms

Licensing

This program is licensed under the terms of the IBM Customer Agreement.

Testing period

- Basic License: Two months
- DLSO License: Not applicable.
- Workstation Feature: Two months apply to the first order of a workstation feature.

Installation/Location License

- Not applicable. A separate license is required for each designated machine on which the licensed program materials will be used.

Usage License

- Not applicable

Distribution Amendment Applies:

- Yes
Type/Duration of Program Services

- IBM will provide Central Service, including the IBM Support Center, until discontinued by IBM upon six months' written notice.

Warranty

This program is warranted as specified in the IBM license.

Licensed Program Specifications may be updated from time to time and such updates may constitute a change in specifications.

For Distributed Systems License Option (DSLO) Licenses, warranty service, if any, will be provided only through the Basic License location.

Following the discontinuance of all program services, this program will be provided “As Is” as specified in the IBM license.
References in this publication to IBM products, programs, or services do not imply that IBM intends to make these available in all countries in which IBM operates. Any reference to an IBM product, program, or service is not intended to state or imply that only IBM’s product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any of IBM’s intellectual property rights may be used instead of the IBM product, program, or service.

Any other documentation with respect to this licensed program, including any documentation referenced herein, is provided for reference purposes only and does not extend or modify these specifications.