

G06.28 Release Version Update Compendium

Abstract

This compendium provides a summary for the products that have major changes in the G06.28 release version update (RVU), including the products' new features, migration issues, and fallback considerations. The compendium is written for system managers or anyone who needs to understand how migrating to G06.28 affects installation, configuration, operations, system management, maintenance, applications, networks, and databases.

Product Version

N.A.

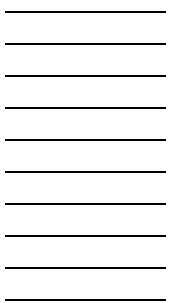
Supported Release Version Updates (RVUs)

This publication supports the G06.28 RVU only.

Part Number	Published
541736-001	February 2006

Document History

Part Number	Product Version	Published
541736-001	N.A.	February 2006



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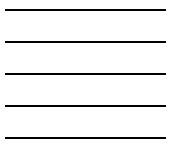
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What's New in This Manual

Manual Information

Abstract

This compendium provides a summary for the products that have major changes in the G06.28 release version update (RVU), including the products' new features, migration issues, and fallback considerations. The compendium is written for system managers or anyone who needs to understand how migrating to G06.28 affects installation, configuration, operations, system management, maintenance, applications, networks, and databases.

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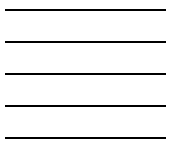
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New and Changed Information

This is a new manual.



About This Manual

This compendium provides categorized information for new features, migration issues, and fallback considerations for G06.28. It also includes references and sources for migration planning.

Who Should Use This Guide?

This compendium is written for system managers or anyone who needs to understand how migrating to G06.28 affects installation, configuration, operations, system management, maintenance, applications, networks, and databases.

Organization

Section	Description
Section 1, G06.28 Overview	An overview listing the products that have major changes
Section 2, Operating System Section 3, Application Development Products Section 4, Database and Transaction Processing Products Section 5, Installation and Configuration Products Section 6, Manageability Products Section 7, Hardware Products Section 8, Networking Products	Categorized product information that summarizes: <ul style="list-style-type: none">● New features● Migration issues (if available)● Fallback considerations (if available)
Appendix A, Sources for Migration Assistance and Information	References and sources for migration planning

Related RVU Manuals

For a list of RVU and migration manuals, see [NonStop Technical Library \(NTL\)](#) on page A-2.

1 G06.28 Overview

This section lists the supported HP NonStop™ S-series servers and the major new features for the G06.28 RVU.

NonStop Servers Supported

NonStop S7000, NonStop S70000, NonStop S72000, NonStop S7400, NonStop S74000, NonStop S7600, NonStop S76000, NonStop S7800, NonStop S78000, NonStop S86000, and NonStop S88000

Major New Features

For descriptions of new features, see the appropriate sections in [Table 1-1](#).

Table 1-1. Summary of the G06.28 RVU (page 1 of 2)

Sections and Categories	Major New Features	Migration Alerts	Fallback Alerts
Section 2, Operating System	<ul style="list-style-type: none">● Kernel Subsystem● OSS Security APIs● POSIX Threads		X X
Section 3, Application Development Products	No new features.		
Section 4, Database and Transaction Processing Products	<ul style="list-style-type: none">● SMF● TS/MP PATHMON	X	
Section 5, Installation and Configuration Products	<ul style="list-style-type: none">● DSM/SCM● SCF		

Table 1-1. Summary of the G06.28 RVU (page 2 of 2)

Sections and Categories	Major New Features	Migration Alerts	Fallback Alerts
Section 6, Manageability Products	<ul style="list-style-type: none"> ● OSM ● SeeView ● SPI 		
Section 7, Hardware Products	<ul style="list-style-type: none"> ● LTO Gen 3 FC Tape Drives ● ServerNet Cluster 	X	
Section 8, Networking Products	No new features.		

Products Removed From the Site Update Tape (SUT)

Starting with G06.28, the NonStop Storage Management Foundation (SMF) products T0063 (SMINTRFCE) and T8467 (SMPM) are merged into T8472 (SMLOGVOL). For the installation alert, see [SMF](#) on page 4-1.

For recent product removal information, see the Discontinuation Notices at <http://h20223.www2.hp.com/NonStopComputing/cache/77208-0-0-225-121.aspx>.

NTL Media Installation

The installation procedures for HP NonStop Technical Library (NTL) CDs and DVDs have changed. See the insert in the NTL package for instructions.

2 Operating System

The G06.28 RVU contains these changes for the HP NonStop operating system:

- [Kernel Subsystem](#)
- [OSS Security APIs](#)
- [POSIX Threads](#)

Kernel Subsystem

A new feature is added to the existing functionality of configuring and managing generic processes through Subsystem Control Facility (SCF). SCF now supports ASSIGN, PARAM, and DEFINE values.

You can use the SCF ADD PROCESS command to add ASSIGN, PARAM, and DEFINE values to a generic process. Also, you can use SCF commands such as ALTER PROCESS, INFO PROCESS, and DELETE PROCESS, respectively, to alter, view, and delete the ASSIGN, PARAM, and DEFINE values for a generic process. This feature is similar to the existing ASSIGN, PARAM, and DEFINE functionality in TACL.

For details, see the *SCF Reference Manual for the Kernel Subsystem*.

OSS Security APIs

Functions are added to the HP NonStop Open System Services (OSS) file system (T8620) to change the owner or access permissions for a file when the named file is a symbolic link:

- `lchmod(2)`
- `lchown(2)`

Some functions are changed and new functions are added to the OSS file system (T8620) to change the owner or access permissions for a file specified by a file descriptor:

- `fchmod(2)`
- `fchown(2)`

Changes to the effective user ID or the effective group ID cause appropriate behavior across processors within a server and among servers. Safeguard auditing also tracks the changes. For detailed information, see the *OSS System Calls Reference Manual*.

Fallback

If you fall back, you cannot use the new functions and must recode applications to remove them.

POSIX Threads

Some functions are changed and new functions are added to POSIX Threads (T1248) to support several new features:

- Reentrant POSIX thread APIs
- Nonblocking file-descriptor POSIX thread APIs
- Enscribe POSIX thread APIs

For detailed information, see the *OSS System Calls Reference Manual*.

Fallback

If you fall back, you cannot use the new functions and must recode applications to remove them.

3

Application Development Products

The G06.28 RVU contains no new features for application development products.

4

Database and Transaction Processing Products

The G06.28 RVU contains new features for these database and transaction processing products:

- [SMF](#)
- [TS/MP PATHMON](#)

SMF

Installation Alert

SMINTRFCE (T0063) is removed from the NonStop Storage Management Foundation (SMF) product set. If you are installing the SMF bundle (T8472G07^ACV) without installing the entire SUT, you must remove T0063 from the configuration.

After receiving the T8472G07^ACV SPR from disk or tape, copy the SPR to a new revision of the software configuration you want to update, and delete product T0063 from the configuration, if present. Then build and apply the configuration revision.

For additional installation instructions, see the T8472G07^ACV softdoc.

TS/MP PATHMON

The G06.28 enhancement for TS/MP PATHMON (T8344) increases the concurrent openers of the PATHMON process from 300 to 800. The openers can be PATHCOMs, SPI requesters, terminal control processes (TCPs), external TCPs, or LINKMONs.

5

Installation and Configuration Products

The G06.28 RVU contains new features for these installation and configuration products:

- [DSM/SCM](#)
- [SCF](#)

DSM/SCM

- DSM/SCM now provides a simplified process for installation and management on multiple NonStop systems with identical software configurations.
- DSM/SCM now provides the ability to build a TNS/R target configuration on a TNS/E host. This feature is supported on G06.24 and later RVUs.

SCF

A new set of functionality is added to the Subsystem Control Facility (SCF) to assist in configuring and monitoring Fibre Channel devices connected to the HP Integrity NonStop NS-series system:

- The STATS SAC and PROBE SAC commands are new.
- The STATUS SAC command has new attributes.

For information, see the *SCF Reference Manual for the Storage Subsystem*.

6

Manageability Products

The G06.28 RVU contains new features for these manageability products:

- [OSM](#)
- [SeeView](#)
- [SPI](#)

OSM

The HP NonStop Open System Management (OSM) Service Connection Suite is updated to T0682G07^AAL for G06.28. Changes include:

- Support for the HP Ultrium Linear Tape open (LTO) Gen 3 Fibre Channel (FC) tape drives, including M8501, M8502, M8503, M8504, and M8505.
- New actions, including Hard Reset (processor), Verify Physical Connectivity (fibre channel disk), and Set Physical Location action (IOAM enclosure and fibre channel disk module). For details, see the *OSM User's Guide*.

SeeView

HP NonStop SeeView adds the LOGONSTRONG option to the ALTER statement to specify whether security authentication is attempted using the system procedure call USER_AUTHENTICATE_ (LOGONSTRONG ON) or VERIFYUSER (LOGONSTRONG OFF). VERIFYUSER supports only logons of the form *group.user* with limited password checking, whereas USER_AUTHENTICATE_ supports logon forms *group.user* and *alias*, in addition to strong password authentication. The default is LOGONSTRONG ON.

For details, see the *NonStop SeeView Manual*.

SPI

The Subsystem Programmatic Interface (SPI) is enhanced to support:

- XA Broker subsystem (ZXA)
- Constellation IP (CIP)
- Fibre Channel Storage Monitor (FSM)
- HP NonStop Operating System - Complex Manager Auxiliary Process (CMP)
- Java Logging subsystem (L4J)
- Matrix SMLC CBB 4.2 subsystem (CPS)
- Deadlock Detector subsystem (DLD)

For details, see the *SPI Programming Manual* and the *SPI Reference Summary*.

7 Hardware Products

The G06.28 RVU contains new features for these hardware products:

- [LTO Gen 3 FC Tape Drives](#)
- [ServerNet Cluster](#)

LTO Gen 3 FC Tape Drives

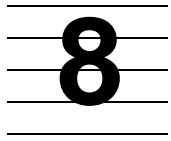
Starting with G06.28, you can connect the HP Ultrium Linear Tape open (LTO) Gen 3 Fibre Channel (FC) tape drives to NonStop S-series systems via an I/O adapter module (IOAM) enclosure with Fibre Channel ServerNet adapters (FCSAs). The M8501, M8502, M8503 (in an L700 tape library), M8504 (in an SL500 tape library), and M8505 tape drives are supported.

ServerNet Cluster

As of G06.28, the HP NonStop ServerNet Switch (model 6780) supports the long-distance option in a three-zone configuration of the layered topology. Before this RVU, the long-distance option was restricted to a two-zone configuration. In addition, this new feature allows you to select whether a zone-to-zone connection is configured for long-distance or not. As a result, a layered topology can have both short- and long-distances between zones. For Installation and configuration procedures, see the *ServerNet Cluster 6780 Planning and Installation Guide*.

Migration

- To use the new ServerNet cluster long-distance option in a three-zone configuration, you must install the G06.28 RVU or the T0502G08^AAQ SPR.
- HP recommends upgrading the NonStop S-series servers to the G06.28 RVU if the servers will coexist with HP Integrity NonStop NS-series servers in the same long-distance ServerNet cluster. G06.28 contains T9050G09^AQB to correct a performance defect that affects interprocessor communication (IPC) long-distance cluster transfers to and from Integrity NonStop NS-Series servers. For details, see the T9050G09^AQB softdoc.
- Other than the T0502G08^AAQ SPR, a three-zone long-distance configuration requires the same SPRs as a two-zone long-distance configuration.



Networking Products

The G06.28 RVU contains no new features for networking products.

A

Sources for Migration Assistance and Information

This appendix describes the assistance HP provides when problems arise during the migration and testing process. HP also provides services that can help you develop a migration plan and implement migration tasks. Most migration and release documentation is available through the HP NonStop Technical Library (NTL).

This appendix includes information about these sources for migration assistance and information:

- [ExpressNotice](#)
- [Information on the Site Update Tape \(SUT\)](#)
- [Scout for NonStop Servers](#)
- [Global Customer Support Center \(GCSC\)](#)
- [NonStop Technical Library \(NTL\)](#)

ExpressNotice

ExpressNotice is an automated information delivery system that proactively sends information pertinent to your installed products and software release whenever there are any issues or changes. (ExpressNotice generates notices only for supported RVUs.) Use ExpressNotice to customize your information notification needs interactively online. You can access ExpressNotice through the HP NonStop eServices Portal at <https://onepoint.nonstop.compaq.com/buildpage.asp>.

ExpressNotice message types include:

- Software Revision Notifications summarize the content and impact of newly released, generally available time-critical fix software product revisions (SPRs).
- Hotstuff messages alert you to product problems that might have particularly serious consequences. The three types of Hotstuff messages are general, Outage Prevention Notifications (OPNs), and Software Recall/Withdrawal.
- Support Notes (SUPNOTES) provide information of a more routine nature than that provided in Hotstuff messages.

ExpressNotice messages are also available through Scout for NonStop Servers (see page [A-2](#)).

You can ask the Global Customer Support Center (GCSC) for the *ExpressNotice User's Guide*. You can also contact the ExpressNotice Help Desk by e-mail at express.notice@hp.com.

Information on the Site Update Tape (SUT)

These documents are available on the Y9230G_{nn} release subvolume located on the SUT for each G-series RVU:

- Content file
Contains a list of the product versions and software product revisions (SPRs) that are included on the site update tape (SUT).
- README
This file contains information that was not yet available when the manuals or softdocs were published.

You can access all other RVU information through NTL.

Scout for NonStop Servers

Scout for NonStop Servers is a Web-based SPR analysis and delivery tool available through Electronic Support Services. You can access Scout through the HP NonStop eServices Portal at <https://onepoint.nonstop.compaq.com/buildpage.asp>. Online help for using Scout is available at the Scout Web site.

By providing access to a data warehouse with SPR information for many different RVUs, Scout makes SPR analysis fast, easy, and accurate. Through the Scout main menu, you can display detailed information about:

- Release version updates (RVUs)
- Product versions (PVs) and software product revisions (SPRs)
- Outage Prevention Notifications, Hotstuff messages, and Support Notes
- Prerequisites for an SPR
- Available SUTs and Independent Products

After researching available SPRs, you can download those you consider appropriate for your systems directly to your workstation, or you can request tape delivery.

Global Customer Support Center (GCSC)

If you have questions or problems while implementing your migration plan or testing a new system, contact the Global Customer Support Center (GCSC) at 1-800-255-5010.

You can also access information on products and services at <http://support.nonstop.compaq.com/>.

NonStop Technical Library (NTL)

In addition to this compendium, RVU and migration information is available in several other documents and manuals that you can access through NTL. Information is provided about planning your site for a new NonStop server, product installation and

configuration, product availability in a particular RVU, and performance information for a specific RVU.

- *G06.28 Software Installation and Upgrade Guide*

Provides procedures for upgrading to the G06.28 RVU. Instructions include installing the G06.28 SUT and other related installation tasks.

- *NonStop S-Series Hardware Installation and FastPath Guide*

Written for anyone qualified to install a NonStop S-series server. Describes how to install and start a NonStop S-series server for the first time. It includes information about installing server hardware, cabling system enclosures, installing and starting system consoles, installing external system devices, starting the server, and configuring the server after startup. This guide also includes a case study of installing a sample system and a quick reference to installing and configuring a two-processor or four-processor NonStop S-series server in the Tetra 8 topology.

- *NonStop S-Series Planning and Configuration Guide*

Describes the ServerNet system area network (ServerNet SAN), the available hardware and software configurations for NonStop S-series servers, site planning and preparation, creating the operational environment, and making hardware and software configuration changes to an existing server. This guide describes how to plan and configure a NonStop S-series server and provides a case study documenting a sample system. This guide is written for those who are responsible for planning the installation, configuration, and maintenance of the server and the software environment at a particular site.

- *Hotstuff Messages and SPR Notes*

If you do not enroll to receive ExpressNotice messages, you can view Hotstuff messages, SPR Notes, or other ExpressNotice messages in the NTL Support and Service library. For more information, see [ExpressNotice](#) on page A-1.

- *The Interactive Upgrade Guide and the Interactive Upgrade Guide 2*

Browser-based tools that are accessed through NTL, these guides provide customized migration planning information and highlight new features. The Interactive Upgrade Guide supports D-series through G06.24 RVUs. The Interactive Upgrade Guide 2 supports G06.16 and later RVUs and H-series RVUs.

- *Managing Software Changes*

Serves as an introduction and reference to the TRM2000, the system migration and installation process, SPR analysis, and HP resources for evaluating new RVUs and SPRs.

- *NonStop S-Series Operations Guide*

Written for system operators, this guide describes how to perform routine system hardware operations for NonStop S-series servers. These tasks include starting and stopping the system, monitoring the system, operating disk and tape

subsystems, performing routine hardware maintenance, and performing recovery operations.

- *NonStop S-Series Service Provider Supplement*

Written for system support planners responsible for the correct operation of system hardware, this guide describes how to replace system hardware components defined as field-replaceable units (FRUs) on a NonStop S-series server. You can find this document in the Hardware Service and Maintenance Publications category of the NTL Support and Service library.

- *The NonStop System Console Installer Guide*

Provides information about upgrading a system console to the latest versions of the applications delivered on the NonStop System Console Installer CD.