

WHAT'S NEW IN GLOBAL STORAGE MANAGER 4.0?

VERSION 4.0

SERVICE PACK 5

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INTRODUCTION

Global Storage Manager Version 4.0 is a major software release with significant enhancements in functionality. This document provides high-level information on the new GSM Version 4.0 functionality, and it directs you to the appropriate GSM documentation to learn more about the various enhancements.

GSM 4.0 AGENTS

In GSM Version 4.0, the Routing Agent replaces the GSM Version 3.x Query Agent. In addition, GSM 4.0 introduces several new agents, such as the Storability License Agent, the Storability Scheduler Agent, and the Storability Data Polling Agent.

CLARIION AGENT

The Storability Clariion Agent in GSM 4.0 SP5 has been enhanced to support CX array MetaLUN functionality, which requires EMC Navisphere Management Suite or the Navisphere command-line interface (Navicli) version 6.5 (included in release 12 of CLARiiON firmware) or later.

ROUTING AGENT

The Routing Agent performs several key functions in the overall GSM implementation. First, the Routing Agents serve as the messaging infrastructure by which all data gets passed from GSM Smart Agents to the Data Aggregator, which in turn inserts the data into the database. The Central Manager Routing Agent serves as the top-level Routing Agent in the messaging infrastructure.

LICENSE AGENT

The License Agent supports the new **GSM License Report** in the Management Console.

DATA POLLING AGENT

The Data Polling Agent retrieves rules related to data polling upon initialization and validates polling schedules before they are saved to the GSM database. It interacts with the Scheduler Agent to set and retrieve data polling schedules.

SCHEDULER AGENT

The Scheduler Agent works with the Data Polling Agent to support the polling schedule (agent data collection) and policy-based management (policy alerting) functionality of GSM.

COM AGENT

The COM agent is installed on the Management Console. It provides the communications interface for creating polling schedules and policy management using the Management Console's **Data Polling Schedule** and **Policy Alerting** menus, respectively.

REMOTE HOST AGENT

The Remote Host Agent (RHA) provides an interface to collect data from different Windows or Solaris servers through the Windows Management Instrumentation (WMI) or Web Based Enterprise Management (WBEM) protocol.

FABRIC AGENT

The Fabric Agent provides one, unified agent supporting various vendor products and interfaces, including Brocade, FA-MIB (e.g., McData), SWAPI, and SNIA CIM interface.

IBM 3494 LIBRARY AGENT

The IBM 3494 (ATL) Agent supports collecting configuration and statistics from IBM 3494 libraries.

HOST STATISTICS AGENT

The Host Statistics Agent collects performance statistics (CPU, Memory, I/O) that are stored in the GSM database and, thereby, enable historical analysis of performance.

The following table refers you to the GSM documentation in which you obtain more information on these agents.

Feature	Documentation
Clariion Agent	<i>GSM 4.0 Array Agents Installation Guide</i>
Routing Agent	<i>Concepts/Planning and Installation</i> chapters
License Agent	<i>Concepts/Planning and Administration</i> chapters
Data Polling Agent	<i>Concept/Planning and Administration</i> chapters.
Scheduler Agent	<i>Concepts/Planning and Administration</i> chapters.
Policy Agent	<i>Concepts/Planning and Administration</i> chapters.
COM Agent	<i>Concepts/Planning and Installation</i> chapters
Remote Host Agent	<i>GSM 4.0 Remote Host Agent Installation Guide</i>
Fabric Agent	<i>GSM 4.0 Fabric Agent Installation Guide</i>
IBM 3494 Library Agent	<i>GSM 4.0 Library Agent Installation Guide</i>
Host Statistics Agent	<i>GSM 4.0 Host Statistics Agent Installation Guide</i> and <i>GSM Management Console User's Guide</i>

Table 1 – GSM 4.0 Agents

GSM REPORTS

GSM reports provide storage and backup administrators' visualization of their assets that simplifies daily operations and ensures data availability. New GSM 4.0 report features are summarized below.

CUSTOMIZABLE HOME PAGE

The Management Console supports personalized dashboards that the GSM administrator creates using the Dashboard Administration menus. Each dashboard contains one or more panes that together represent a customized home page. GSM 4.0 SP4 provides the new NAS Filesystem Utilization pane.

USER-DEFINED FIELDS

The **Assets** tab within tabular device reports display user-defined field information. The Management Console's administrative menus related to user-defined fields allow the administrator to define their own asset information, such as asset tags and lease expiration information.

TABULAR ASSET REPORTS

Under the Management Console's **Asset Management** report you can access the tabular asset reports. Each tabular asset report provides a default tab **General** that displays general information about the asset. In addition, these reports provide a series of tabs to allow the administration to access information about specific properties of the asset (asset, configuration, allocation, etc.) as appropriate for the asset family.

CONFIGURATION CHANGE REPORT

The Configuration Change report displays any configuration changes that have occurred for an asset over a specified time interval. Host servers, NAS devices, and Tape Libraries, and Fabric Switches comprise the assets.

CHARTING WIZARDS

Charting Wizards allows you to create and save new charts based on predefined templates, edit existing charts, or view a saved chart. You can select one “metric” or Y-axis for each chart. A bar chart, pie chart, or line chart can be selected.

ARRAY FORECASTING AND TRENDING

The Array Forecasting and Forecasting report allows you to determine how much storage is being consumed on each array in your organization.

FABRIC TRENDING AND FORECASTING

The Fabric Trending and Forecasting report allows you to determine how many switch ports have been consumed in your organization.

STORAGE NETWORK TOPOLOGY

The Storage Network Topology report provides a graphical view of the storage environment. The report been enhanced for better clarity and usability.

FABRIC PERFORMANCE

The Fabric Performance report displays port performance data.

TSM DAILY ADMINISTRATION

TSM Administration provides an expedient way to view the overall health of all TSM servers at a site.

TSM EVENT SUMMARY

The TSM Event Summary report provides access to site-level and server-level reports on scheduled TSM events.

TAPE DRIVE ALLOCATION

Tape Drive Allocation provides two reports:

- **Daily Tape Drive Allocation Summary** – Shows for a particular library a summarized (count by status) during a twenty-four hour interval.
- **Daily Tape Drive Allocation Detail** – Shows the status for each drive installed in the library during a 24-hour day.

BACKUP EXPOSURE

The Backup Exposure report shows the hosts that are not associated with any Backup clients, and any Backup clients that are not associated with any Host Agent.

GSM LICENSE REPORT

Effective with Service Pack 4, the GSM License Audit report has been replaced by the GSM License Report, which provides enhanced usability.

SERVER TRENDING AND FORECASTING

The Server Trending and Forecasting report allows you to determine file system utilization patterns for your site.

The following table refers you to the GSM documentation in which you obtain more information on these new GSM reports.

REPORT SCHEDULING

Effective with Service Pack 4, report scheduling is added to the Array Performance, Configuration Change, Detailed Node Connection, and tape library reports.

FILE-LEVEL WIZARD

The File-Level Wizard allows users to generate a customized, SRM file-level report that can be printed and/or saved for future use.

DETAILED NAS CONFIGURATION

Effective with SP4, a Detailed NAS Configuration tabular report has been added.

Feature	Documentation
Change Configuration report	Refer to the <i>Management Console User's Guide</i>
Customizable Home Page	Refer to the <i>Management Console User's Guide</i> and <i>Administration</i> chapter
User-Defined Fields	Refer to the <i>Management Console User's Guide</i> and <i>Administration</i> chapter
Configuration Change	Refer to the <i>Management Console User's Guide</i>
Tabular Assets Reports	Refer to the <i>Management Console User's Guide</i>
Charting Wizards	Refer to the <i>Management Console User's Guide</i>
Forecast and Trending Reports	Refer to the <i>Management Console User's Guide</i>
Fabric Performance	Refer to the <i>Management Console User's Guide</i>
SAN Network Topology	Refer to the <i>Management Console User's Guide</i>
New TSM Module	Refer to the <i>Management Console User's Guide</i> and the <i>Backup Agents Guide</i>
Tape Allocation Reports	Refer to the <i>Management Console User's Guide</i>
Backup Exposure	Refer to the <i>Management Console User's Guide</i>
File-Level Wizard	Refer to the <i>Management Console User's Guide</i>
Detailed NAS Configuration	Refer to the <i>Management Console User's Guide</i>

Table 2 – GSM Reports

GSM CONFIGURATION AND ADMINISTRATION

GSM 4.0 is designed to simplify how the administrator performs day-to-day configuration and administrative tasks. In addition, there are enhanced grouping and viewing methodologies that offer enhanced flexibility in how you set up your reporting structure.

DASHBOARD ADMINISTRATION

A dashboard is a set of panes on the GSM Home Page. Use the Management Console's Dashboard Administration to view existing dashboards, set the current dashboard, as well as to add, modify, or remove dashboards.

VIEW ADMINISTRATION

A view is a collection of assets or views. GSM report security is controlled by what view is assigned to the user. There are two view types: Asset View and Composite View. An asset is a physical device or application. An Asset View is assigned any number of assets. A Composite view is comprised of one or more views.

Use the Management Console's Views Wizard to create, modify, or delete asset views and composite views.

USER-DEFINED FIELDS

The Management Console's User-Defined Fields menus allow the administrator to create user-defined fields that are displayed using the Asset tab in the tabular asset reports.

POLLING SCHEDULES

The Management Console's Data Polling Schedule menu allows the administrator to configure scheduled agent data collection and perform on-demand agent data collections. Effective with SP4, the Polling Schedules user interface allows the collection timeout (default is 1200 seconds) to be modified.

POLICY ALERTING

The Management Console's Policy Alerting menu provides easy to understand templates used to define policies, which are executed using the Storability Scheduler Agent and the Storability Policy Agent. GSM 4.0 SP4 provides a policy alert to monitor the utilization of TSM disk pools.

SRM AGENT CONFIGURATION

The Management Console's SRM Agent Configuration menu centralizes the configuration of the agent's configuration file (srm_config.xml). GSM 4.0 introduces new filters and reports for unauthorized files, email archives, user-defined files, and largest directory consumers. Effective with SP4, the SRM Agent Configuration user interface is extended for UNIX servers.

SIMPLIFIED AGENT CONFIGURATION

GSM 4.0 consolidates the configuration settings for all Storability agents, including the Routing Agent and Data Aggregator Agent, in the storability.ini file. The auto agent registration feature simplifies how Storability agents are configured to have a specified Routing Agent collect their data within the messaging infrastructure.

CONSOLIDATED AGENT LOGGING

The Storability Data Aggregator Agent and Routing Agent log (write) event messages to a Message log like all other Storability agents.

AGGREGATOR CONVERSION UTILITY

The Aggregator Conversion Utility reads and parse a GSM Version 3..x Aggregator configuration file (aggregator.conf) and uses its start rules, collection types (e.g., backup), and frequencies to populate the GSM Version 4.0 data polling tables.

TSM REPORT PARAMETERS

TSM Report Parameters is accessed under the Management Console Tools pull down menu. It allows the administrator to change the default TSM threshold values used within the TSM Daily Administration report.

The following table refers you to the GSM documentation in which you obtain more information on these configuration and administrative features.

Feature	Documentation
Dashboard Administration	<i>Administration</i> chapter
View Administration	<i>Concepts/ Planning and Administration</i> chapters
User-defined Asset Fields	<i>Administration</i> chapter and <i>Management Console User's Guide</i>
Data Polling Schedule	<i>Concepts/ Planning and Administration</i> chapters
Policy Alerting	<i>Administration</i> chapter
SRM Agent Configuration	<i>Administration</i> chapter and <i>SRM Agent Installation Guide</i>
Simplified Agent Configuration	<i>Installation</i> chapter
Consolidated Agent Logging	<i>Installation</i> chapter
Auto Registration	<i>Concepts/ Planning and Installation</i> chapters
Aggregator Configuration Conversion Utility (aggrConvert)	<i>Installation</i> chapter.
TSM Report Parameters	<i>Administration</i> chapter

Table 3 - GSM Administration and Configuration