



*Hitachi Backup Services Manager  
Certified Configurations Guide*

**6.5**



# Preface

Thank you for purchasing Hitachi™ Backup Services Manager powered by APTARE®

## About This Book

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This book provides configuration information relevant to Hitachi Backup Services Manager—specifically, supported products and hardware requirements.

## Related Documentation

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The following documents contain additional information relevant to installing, maintaining, and administering Hitachi Backup Services Manager.

- ***Hitachi Backup Services Manager Release Notes*** - This book outlines what's new in the release and what known issues were fixed in the release. This book shipped with HBSM .
- ***Hitachi Backup Services Manager Certified Configurations Guide*** - This book provides a list of the supported products and hardware requirements. This book is available on the Hitachi Backup Service Manager Portal Software CD.
- ***Hitachi Backup Services Manager Getting Started Guide for Report Users*** - This book provides a basic introduction to the Portal and describes the basic workflow to begin using the reports that HBSM offers. This book is available on the Hitachi Backup Service Manager Portal Software CD. Also, all the topics in this guide are available in the online help.
- ***Hitachi Backup Services Manager Getting Started Guide for Administrators*** - This book provides a detailed introduction to the Hitachi Backup Services Manager and describes the basic workflow involved in setting up HBSM's environment. This book is available on the Hitachi Backup Service Manager Portal Software CD. Also, all the topics in this guide are available in the online help.
- ***Hitachi Backup Services Manager Data Collector Installation Guide for VERITAS Backup Exec*** - This book provides step-by-step instructions about how to install and configure the Data Collector. Available on the Hitachi Backup Service Manager Portal Software CD.
- ***Hitachi Backup Services Manager Data Collector Installation Guide for HP Data Protector*** - This book provides step-by-step instructions about how to install and configure the Data Collector. Available on the Hitachi Backup Service Manager Portal Software CD.
- ***Hitachi Backup Services Manager Data Collector Installation Guide for EMC Legato NetWorker*** - This book provides step-by-step instructions about how to install and configure the Data Collector. Available on the Hitachi Backup Service Manager Portal Software CD.

- ***Hitachi Backup Services Manager Data Collector Installation Guide for NetBackup*** - This book provides step-by-step instructions about how to install and configure the Data Collector. Available on the Hitachi Backup Service Manager Portal Software CD.
- ***Hitachi Backup Services Manager Data Collector Installation Guide for Tivoli Storage Manager*** - This book provides step-by-step instructions about how to install and configure the Data Collector. Available on the Hitachi Backup Service Manager Portal Software CD.
- ***Hitachi Backup Services Manager Data Collector Installation Guide for Storage Reporting*** - This book provides step-by-step instructions about how to install and configure the Data Collector. Available on the Hitachi Backup Service Manager Portal Software CD.
- ***Hitachi Backup Services Manager Upgrade Guide*** - This book provides step-by-step instructions about how to upgrade to a major release of Hitachi Backup Services Manager. Available on the Hitachi Backup Service Manager Portal Software CD.
- ***Hitachi Backup Services Manager Portal Installation Guide*** - This book provides step-by-step instructions about how to install the Portal Server and the Reporting Database. This book is available on the Hitachi Backup Service Manager Portal Software CD.
- ***Hitachi Backup Services Manager Report User's Guide*** - This book describes how to generate, distribute, organize, and share reports. This book is available on the Hitachi Backup Service Manager Portal Software CD. Also, all the topics in this guide are available in the online help.
- ***Hitachi Backup Services Manager Application Administrator's Guide*** - This book provides information about how to manage the Portal to support report generation and report access. These tasks are usually performed through the Portal user interface. This book is available on the Hitachi Backup Service Manager Portal Software CD. Also, all the topics in this guide are available in the online help.
- ***Hitachi Backup Services Manager System Administrator's Guide*** - This book provides information to help you maintain and monitor the entire platform to ensure its availability. This book covers mostly back-end administration—administration tasks usually performed on the Portal Server and Database Server. This book is available on the Hitachi Backup Service Manager Portal Software CD.
- ***Hitachi Backup Services Manager Database Programmer's Guide*** - This book provides information about how to query the Reporting Database using Hitachi Backup Services Manager's database views. This book is available on the Hitachi Backup Service Manager Portal Software CD.

## Typographical Conventions

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This document uses different typefaces to indicate different kinds of information. The following table explains these typographical conventions.

Font	Meaning
Typewriter	Indicates error messages, file name, or screen output.
<b>Bold</b>	In a command line, indicates information to be entered exactly as shown.
<i>Italics</i>	Indicates a variable for which you should substitute an appropriate value.

## Contacting HDS

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### Technical Support:

Technical Support Center

- [hdshbsmsupport@hds.com](mailto:hdshbsmsupport@hds.com) or
- Nth & Latin America: 1-800-348-4357
- Europe: +(44)-175-361-8000
- Asia Pacific (call USA GCC): +1-858-547-4765

## Special Messages

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This documentation uses the following special messages and icons:



Cautions call attention to instructions you must follow to prevent damage to system hardware or software, or data loss.



Notes call attention to important information that you should be aware of as you follow the procedures that are outlined in this document.



Recommendations call attention to an item or procedure that is not required but might help improve performance, ease of use, and ease of installation or configuration.



Tools identify the tools that you need to complete a task.



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## Publication Change Record

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The following table records all revisions to this publication. This first entry is always the publication's initial release. Each entry indicates the date of the release and the number of the system release to which the revision corresponds.

<b>Doc ID</b>	<b>Date</b>	<b>System Release</b>
MK-96APT014-02	December 2007	Hitachi Backup Services Manager v6.5





# Supported Products and Hardware Requirements

This document details the various supported configurations for Hitachi Backup Services Manager v6.5. This document covers the following topics:

- [Memory and Disk Space](#)
- [Supported Operating Systems \(Portal Server\)](#)
- [Supported Operating Systems \(Data Collector\)](#)
- [Supported Browsers](#)
- [Supported Third Party Components](#)
- [Supported Backup Solutions](#)
- [Supported Interfaces and Storage Arrays](#)
- [TCP Port Requirement](#)

## Portal Server Components

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### Memory and Disk Space

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The Portal Server has the following requirements:

- Minimum 2GB of memory
- Minimum 20GB of free disk space

### Supported Operating Systems (Portal Server)

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The Portal Server components are supported on the following operating systems. In general, HDS supports these operating systems up to and including the latest OS patch level.

**Note:** 64-bit Linux is not supported on the Portal Server.

**Recommendation:** For Red Hat Linux Portal installation, HDS recommends that you install the Development Tools. Development Tools enables Hitachi Backup Services Manager to natively compile the Oracle stored procedures.

- Red Hat Linux Enterprise Server 4.0 or 5.0
- Solaris 8, 9, 10 (SPARC ONLY)
- Windows 2000 Server
- Windows 2000 Advanced Server
- Windows 2003

## Supported Browsers

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The Portal works with the following browsers:

Browser	Windows	Unix	Linux
Internet Explorer 7.0	x		
Mozilla Firefox 2.0	x	x	x

**Table 1.1 Supported Browsers**

During testing, HDS sometimes uncovers certain known problems with specific browsers, and these problems might impact, for example, how the Portal displays or prints a report. These occurrences are not common and are typically isolated bugs that are peculiar to the particular browser.

## Supported Third Party Components

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When you install Portal Server software and the Reporting Database, you install a compilation of software, including open-source and third-party software, which resides on the Hitachi Backup Service Manager Portal Software CD:

Software Product	Version
Oracle 10g Database - Linux	10.2.0.3.0
Oracle 10g Database - Windows	10.2.0.3.0
Oracle 10g Database - Solaris	10.2.0.3.0
SUN Java 2 Standard Edition SDK (Windows)	1.6.0_02
SUN Java 2 Standard Edition SDK (Linux, Solaris)	1.6.0_02
Apache HTTP Web Server	2.2.6
Apache Tomcat Java Servlet Engine	5.5.23
Apache Tomcat JK Connector	1.2.25
OpenLDAP	2.26

**Table 1.2 Third-Party Software**

If other versions of the above components are already running on the designated HBSM system, or other components are utilizing resources (such as specific ports) typically used by HBSM, in our experience the product usually can be reconfigured to work around these conflicts, however this cannot be guaranteed.

HBSM is certified with the Oracle binaries that come bundled with the product, and when installed in its own Oracle instance as described in the Installation instructions. The Oracle database component may optionally be installed on a separate server from the Portal components by following the standard StorageConsole Oracle install procedures.

Using non-bundled versions of Oracle or installing in other pre-existing Oracle instances is not a certified configuration. For this type of configuration, the customer will need to work with HDS to evaluate the feasibility.

## Data Collectors

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### Supported Operating Systems (Data Collector)

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The Data Collector is fully supported on the following operating systems so long as the operating system version is certified to run JRE 1.4 or JRE 1.5.

- Red Hat Linux Enterprise Server 3.0, 4.0, and 5.0
- Solaris 8, 9 and 10
- Windows 2000 Server
- Windows 2000 Advanced Server
- Windows 2003
- IBM AIX 5100-08 (APAR IY70781) or greater (NOTE: Earlier versions are NOT supported)
- IBM AIX 5200-06 (APAR IY67913) or greater
- HP-UX 11i

## Backup Manager

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### Supported Backup Solutions

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HDS supports the following backup solutions. HDS has plans to add additional backup solutions to this list. If your backup solution does not appear in this list, contact Technical Support Center to ask if HDS is in the process of developing a Data Collector to support your backup solution.

Backup Solution	Version
EMC Legato NetWorker	7.2 and 7.3
HP Data Protector	5.5, 6.0
IBM Tivoli Storage Manager	5.2, 5.3, and 5.4
Symantec Backup Exec	9.1 -11d
NetBackup	3.4, 4.5, 5.0, 5.1, 6.0, and 6.5

**Table 1.3 Supported Backup Solutions**

**Note:** For NetBackup, the Data Collector makes calls to various NetBackup CLIs (Command Line Interfaces). An example of a CLI is the command, **bpdbjobs**. These CLIs are a standard component of the NetBackup product, and HBSM requires that the CLIs are available and operational, as per the NetBackup specifications.

# Capacity Manager

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## Requirements

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HBSM requires a user to have the following privileges:

- On UNIX, *root* privileges for SSH and Telnet
- On Windows, *administrator* privileges for WMI.

For Windows hosts:

- Querying the HBA on a Microsoft Windows host requires the installation of the **fcinfo** tool from Microsoft.

## Supported Operating Systems (Capacity Manager)

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The Host Resources components are supported on the following operating systems. In general, HDS supports these operating systems up to and including the latest OS patch level.

- Red Hat Linux Enterprise Server 4.0 or 5.0
- Solaris 8, 9, 10 (SPARC ONLY)
- Windows 2000 Server
- Windows 2000 Advanced Server
- Windows 2003
- IBM AIX
- HP-UX

**Note:** The WMI Proxy Server must be deployed on a Windows Server. You can use the same server as the Data Collector, if it is a Windows Server.

## Supported Interfaces and Storage Arrays

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Capacity Manager currently supports the storage management products and storage arrays listed in [Table 1.4](#). If the storage management solution on which your storage depends is not on this list, contact Technical Support Center. In general, any storage array that the device manager or command-line interface supports, should work with Capacity Manager.

Vendor	Storage	Device Manager/CLI
Hitachi	<a href="#">Hitachi Universal Storage Platform V</a>	<a href="#">HiCommand Device Manager</a>
	<a href="#">TagmaStore AMS</a>	
	<a href="#">TagmaStore Network Storage Controller</a>	
	<a href="#">TagmaStore USP</a>	
	<a href="#">TagmaStore WMS</a>	
	<a href="#">Lightning 9900 V Series</a>	
	<a href="#">Thunder 9500 V Series</a>	
	XP512/48	
XP1024/128		
XP12K/10K/SVS200		
EMC	<a href="#">Clarion</a>	NaviCLI, version 6.19.5
	<a href="#">Symmetrix</a>	SymCLI, version 6.0.2.0

**Table 1.4 Supported Storage Management Interfaces and Storage Arrays**

## TCP Port Requirement

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The Portal Server makes extensive use of TCP ports for inter-process communications. The standard ports used by StorageConsole are certified to work and operate in an environment where the customer or partner does not install any other software other than the underlying operating system and latest operating system patches.

In some special circumstances, the customer may elect to install the Portal Server software on a system that is running (or may have run in the past) another third party software product. Such third party software product might include NetBackup Advanced Reporter, HDS HiCommand Storage Services Manager (HSSM), or any other product that also uses TCP ports for inter-process communications. In these circumstances, special care will need to be taken to ensure that port and directory/ filename conflicts between the respective software products do not occur. These are un-certified and un-supported environments unless setup and certified by an HDS support services technician. To set up and certify these “special case” environments, HDS would need to perform a port and directory/application conflict audit on the target portal system(s). Once the conflicts have been identified, where possible, HDS would assign non-standard installation ports for the HBSM software and any associated third-party components.

The following table describes the standard TCP ports that are used by the Portal Server and any embedded third-party software products as part of a standard “out-of-the-box” installation:

Product	Port	Description
Apache Web Server	80	HTTP listener port
Apache Web Server	443	HTTPS/SSL listener port
OpenLDAP	389	LDAP listener port
Oracle	1521	Oracle TNS listener port
Tomcat - Data Receiver	8011, 8017	Apache connector port and shutdown port for Data Receiver instance of tomcat
Tomcat - Data Receiver	8009, 8015	Apache connector port and shutdown port for Portal instance of tomcat

**Table 1.5 Standard Ports for Portal Server**

The following table describes the standard TCP ports that are used by the Data Collector and any embedded third-party software products as part of a standard “out-of-the-box” installation:

Product	Port	Description
Hitachi Backup Services Manager Agent (ALL)	9123	Keep-alive port used for inter-process communications between the Hitachi Backup Services Manager cron agent and event agent.
Hitachi Backup Services Manager Data Collector	9124	Backup Exec event collector port
	9125	Meta collector port  <b>Note:</b> Each instance of the Event and Meta collector uses a unique port. For example: <ul style="list-style-type: none"> <li>• TSM Data Collector: 9124++, 9325++</li> <li>• Legato Data Collector: 9224++, 9425++</li> </ul>
Hitachi Backup Services Manager Capacity Manager	1248	Used to communicate with Data Collector

**Table 1.6 Standard Ports for Data Collector**

