



Hitachi HiCommand® Backup Services Manager

Portal
Installation Instructions
- for -
Microsoft Windows Server

Nov 2006

Version 6.0

DOC ID: MK-95APT005-04

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1. Introduction

This document provides step-by-step instructions for the use of the Hitachi HiCommand® Backup Services Manager Portal Installer. Sections 2 and 3 below provide third party software and system setup information which must be completed before running the HBSM Installer. There are two major steps to the installation of the HBSM Portal; the first is to install all of the web-server and application server components using the HBSM Installer, the second step is to install the Oracle database environment and the underlying HBSM object model.

This install guide is valid for version 6.0 onward.

If at any time during the install you encounter a problem, or if you simply want to verify a step or have a question about the installation, please contact the Hitachi Data Systems Technical Support Center who will be happy to assist you:

HDS Technical Support Center Information

Phone:

Nth & Latin America 1-800-348-4357

Europe +(44)-175-361-8000

Asia Pacific (call USA GCC) +(1) 858-547-4765

Email: support@hds.com

2. Software Repositories

HBSM uses various open-source and third-party software products. The following is a list of the major third-party products that are bundled and included on the HBSM Portal Software CD. This list is simply provided should you need to download a version of the third-party software from the Internet.

Software Product	Version
Oracle Database	10.2.0.2
SUN Java 2 Standard Edition SDK	1.5.0_06
Apache HTTP Web Server	2.0.58
Apache Tomcat Java Servlet Engine	4.1.30
Apache Tomcat JK2 Connector	2.0.4
OpenLDAP	2.1.22

3. Pre-Installation Notes

IMPORTANT: THESE STEPS MUST BE EXECUTED PRIOR TO PERFORMING THE INSTALL OTHERWISE THE INSTALL WILL FAIL.

- 3.1. Operating System Verification: Prior to the installation of the HBSM Portal software, please verify that your portal has been loaded and configured with one of the following certified operating systems:
 - 3.1.1. Microsoft Windows 2000 Server or
 - 3.1.2. Microsoft Windows 2000 Advanced Server
 - 3.1.3. Microsoft Windows Server 2003
- 3.2. To begin this installation, you must have the **HBSM Portal Software CD**
- 3.3. **To license the HBSM Portal software, you must provide a license file upon the completion of the install process. Without this license file the software will not operate.** To obtain a license file, please see the instructions in Section 6 - *License Key file Installation* below.
- 3.4. Setup `hbsmportal.yourdomain.com` and `hbsmagent.yourdomain.com` in the enterprise DNS. NOTE: both entries should resolve to the IP address of the HBSM Portal.
- 3.5. Setup the following system-wide environment variables
 - 3.5.1. Right mouse-click on “My Computer” on the desktop, select Properties, click on the “Advanced” tab and select “Environment Variables”
 - 3.5.2. Under the “**System variables**” section, add the following two NEW environment variables

Variable Name	Variable Value
ORACLE_HOME	C:\opt\oracle
ORACLE_SID	scdb
 - 3.5.3. Under the “**System variables**” section, Update the PATH environment variable and add the following path to the end of the current PATH:
 - 3.5.3.1. C:\opt\oracle\bin
- 3.6. Setup a new User Group called "ORA_DBA", and add the "Administrator" user (or any LOCAL user) to the group. You will need to login as this user account during the installation
- 3.7. Create the directory “C:\oradata\scdb¹”
- 3.8. Verify there are no other Web Servers (e.g. IIS) running on the system.
- 3.9. Verify that the following file systems and disk space exists on your HBSM Portal Server:

Directory	Minimum Disk Space
C:\opt	4 GBytes
C:\oradata	11 GBytes
Total	15 GBytes

¹This directory contains the oracle database files. It is possible to create this on a drive other than C:. See section 4.13 for details.

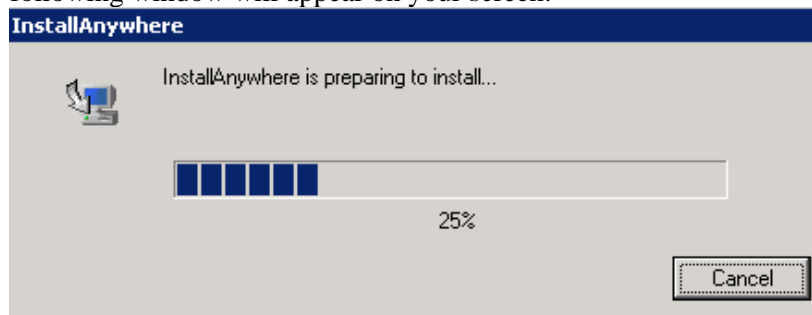
4. HBSM Portal Installer Steps

System: *Web Server AND Database Server*

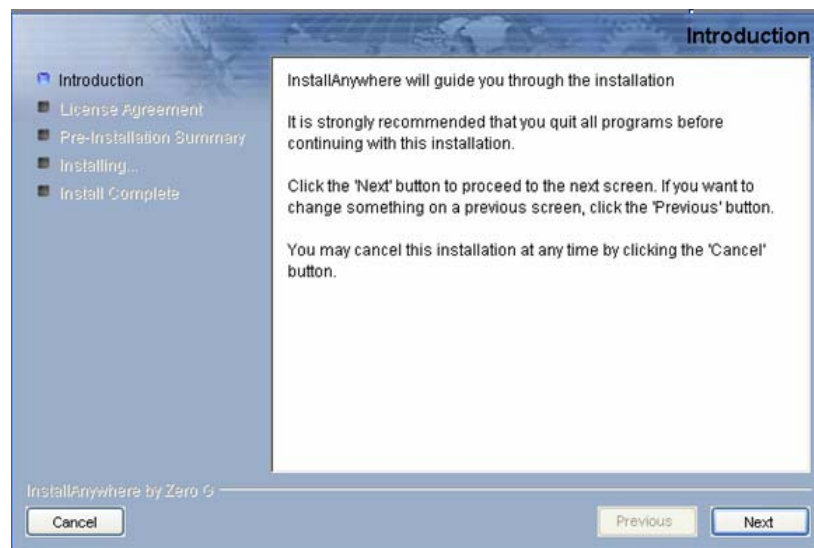
Required CD: *HBSM Portal Software*

Estimated Time: *10-15 minutes*

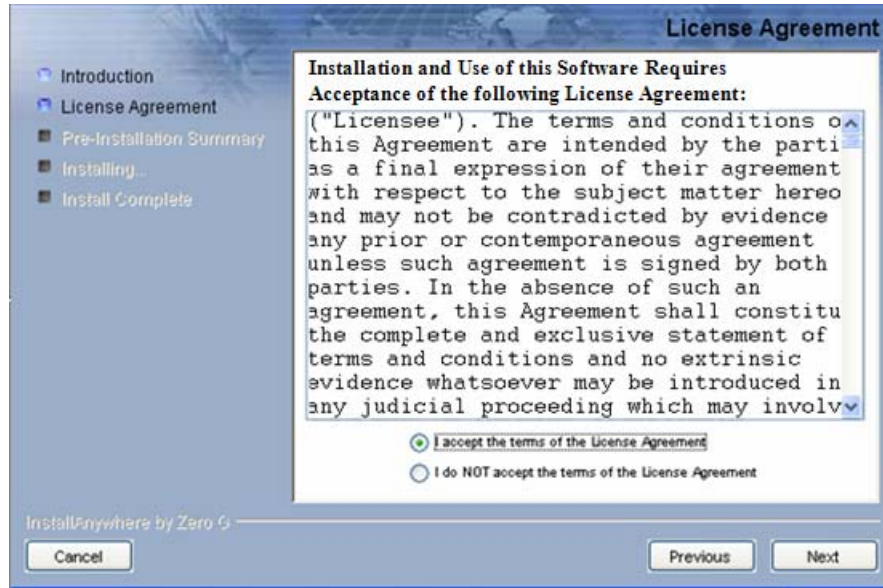
- 4.1. Login to the server as a local **Administrator**
- 4.2. Insert the HBSM Portal Software CD into the CD-ROM drive of your Windows server.
- 4.3. The installer should launch automatically. If it does not, using Windows Explorer, navigate to the CD drive, and double click on the file "aptarestorageconsole.exe". The path to aptarestorageconsole.exe can be found in the "autorun.inf" file.
- 4.4. The HBSM Installation Wizard will take about a minute to startup. During this time, the following window will appear on your screen:



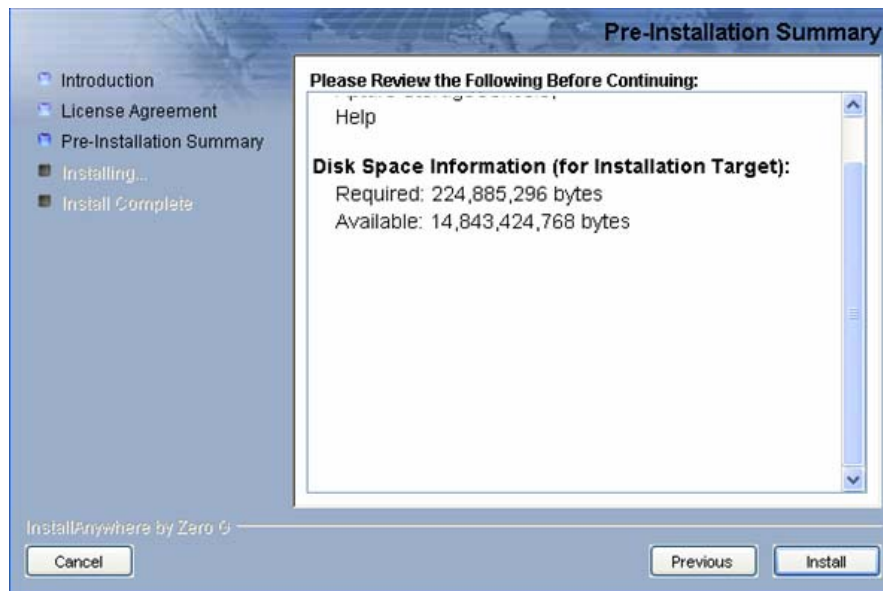
- 4.5. Once the installer has extracted the necessary startup files, the HBSM Installation Wizard will display the following screen:



- 4.6. Click on the "Next" button on the INTRODUCTION screen to start the installation process
- 4.7. The Installer will then display the following LICENSE AGREEMENT screen and prompt you to accept the Hitachi Data Systems End User License Agreement (EULA) to continue

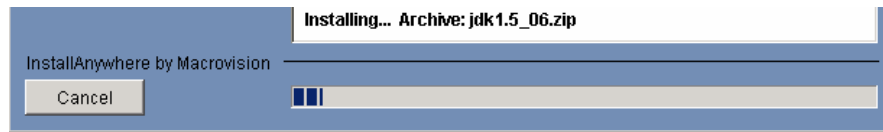


- 4.8. Click on the “I accept the terms of the License Agreement” radio button and then click on the “Next” button to continue
- 4.9. The next screen displays the PRE-INSTALLATION SUMMARY. This screen summarizes the product components that will be installed and describes the available and required disk space for these components

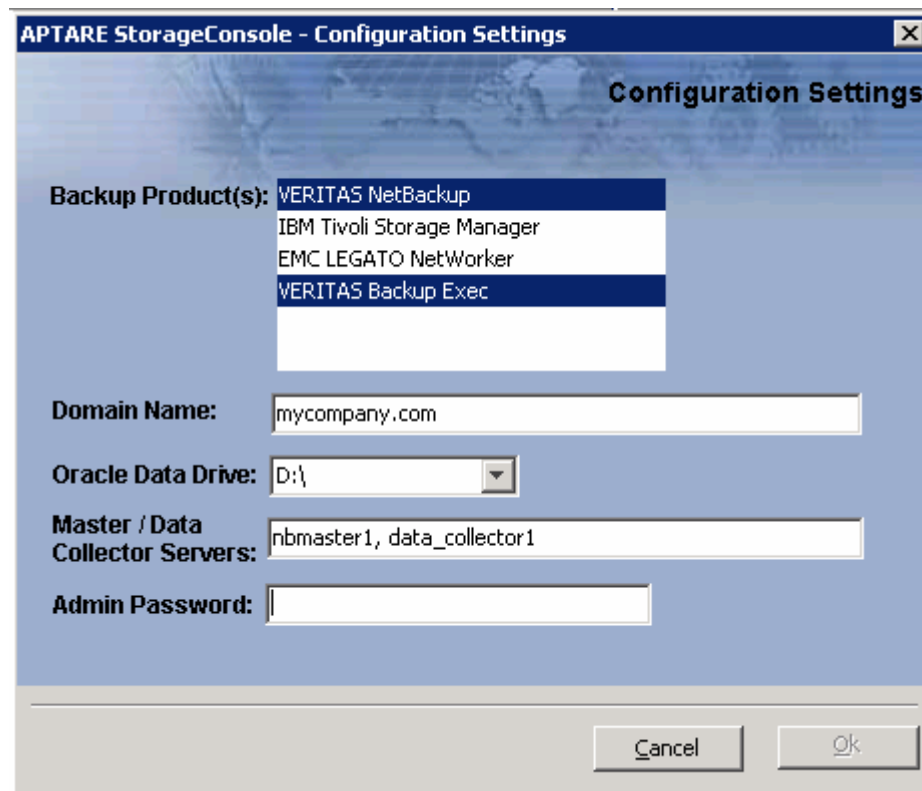


- 4.10. To start the installation of the HBSM program files in the default C:\opt directory on your Windows server, click on the “Install” button. Note: The application must be installed on the C:\ drive. The database however can be installed on an alternate drive (see step 4.13 below)

- 4.11. The installer then displays several status screens as the various software binaries are copied into place on your Windows server. The progress bar at the bottom displays the component being installed and the progress of the install overall:



- 4.12. The installer will now prompt for configuration settings. Each of the options is explained below.



- 4.13. Configuration Options

- Backup Products:** Select the appropriate vendor backup product(s) you plan to use with the HBSM Portal. Hold down the Cntrl key to make multiple selections.
- Domain Name:** Enter the domain name for your environment (e.g. *yourcompany.com*). The value entered here determines the URL you will use in your browser to access the portal – e.g. *hbsmportal.yourcompany.com*
- Oracle Data Drive:** Select the drive letter on which you wish the Oracle database to be created. Please ensure this drive has at least 12 GB of free disk space.
- Master Servers:** Enter a comma separated list of the VERITAS NetBackup master servers or Data Collector servers in your environment that will send data to the portal server. If you do not know the server names at this time, you can manually add them to the file *C:\opt\aptare\datarcvrconf\reload.conf* at a later date.

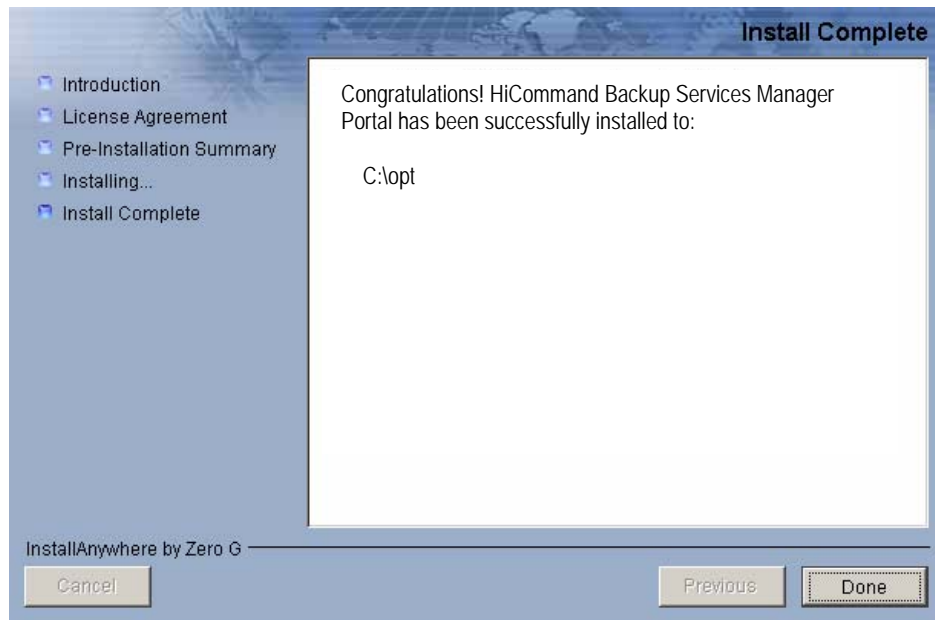
Admin Password: The admin userid is created during install in the format “admin@domainname” (e.g. admin@yourcompany.com). You will be prompted for this admin userid and the password you supply below when you first login to the HBSM Portal.

PLEASE MAKE A NOTE OF THE USERID AND PASSWORD FOR FUTURE REFERENCE

AdminMailId: admin@_____

Password : _____

- 4.14. At the completion of this step, the INSTALL COMPLETE screen will appear, click on “Done”



- 4.15. At this stage of the installation process, all the third-party and Hitachi Data Systems software components are in place on your Windows Server. Only a few steps remain to customize and configure the HBSM Software for your specific corporate environment.
- 4.16. Ensure **hbsmportal.mydomain** and **hbsmagent.mydomain** (where *mydomain* is the value entered in step 4.13) have been added to DNS or
%WINDOWS_HOME%\SYSTEM32\DRIVERS\ETC\HOSTS
- 4.17. Re-start the computer, and log back in as the local Administrator. **Please ensure this user is a local user and is a member of the ORA_DBA group (see section 3.6 above), or the next step will fail.**
- 4.18. Execute the file C:\opt\aptare\utils\setupservices.bat
You will see an error stating “Failed to open service (OraclescdbTNSListener), error 1060.” This is normal and can be ignored.
- 4.19. Using the Windows Services Console ensure the "**Startup type**" of the "**Oracleservicescdb**" "**OraclescdbTNSListener**" and "**APTARE OpenLDAP**" services are set to "**Automatic**"
- 4.20. Execute file C:\opt\aptare\utils\startallservices.bat

You may see an error indicating that the Report Notification Service could not be started. This is ok at this point.

- 4.21. Execute the file C:\opt\aptare\utils\setupAdminUser.bat
- 4.22. This completes the setup of the HBSM Web and Application Server components. The next (and final) step is to configure the Oracle database environment as described in Section 5.

5. Oracle Database and HBSM Database

System: *Database Server*
Required CD: **HBSM Portal Software**
Estimated Time: **30-45 minutes**

- 5.1. Login as the Windows Administrator on your HBSM Portal server
- 5.2. Edit the file C:\opt\oracle\database\ora_scripts\dbcreate.sql
 - 5.2.1. Change the line that reads SET TIME_ZONE='GMT' to your local time zone, for example, in California, use 'US/Pacific'
 - 5.2.2. NOTE: A list of valid time zones is contained in Appendix B – Oracle Time Zone List
 - 5.2.3. Save and exit this file
- 5.3. Using the Windows Services ensure that the following services are started:
 - 5.3.1. "OraclescdbTNSListener" service
 - 5.3.2. "OracleServicescdb" service
- 5.4. Ensure the directory \oradata\scdb exists on the drive letter specified in section 4.13.
- 5.5. Open a DOS command prompt window by entering:

```
Start > Run > cmd
```
- 5.6. Run the HBSM database installation script to install the HBSM database objects and schema:
 - 5.6.1. cd C:\opt\oracle\database\ora_scripts
 - 5.6.2. create_aptare_database.bat
 - 5.6.3. NOTE: The following dialog will only appear if you are **re-installing** the HBSM database. If you are not re-installing, skip to 5.6.4:

```
*****  
HBSM DATABASE INSTALLER  
*****  
*****  
Install aborted.  
An instance of HBSM database exists in the directory c:\oradata\scdb.  
Please delete the existing instance of the database and run this script  
again  
*****
```

5.6.3.1. Deleting the existing instance (if re-installing)

NOTE: EXECUTING THE STEPS BELOW WILL COMPLETELY DESTROY THE EXISTING ORACLE DATABASE AND ASSOCIATED DATA. ONLY PERFORM THESE STEPS IF YOU ARE CERTAIN THIS IS WHAT YOU INTEND TO DO.

- 5.6.3.2. Using the Windows Services Console “stop” the "OraclescdbTNSListener" service
 - 5.6.3.3. Using the Windows Services Console “stop” the "OracleServicescdb" service
 - 5.6.3.4. Delete all the files under <ora_data_drive>:\oradata\scdb
 - 5.6.3.5. Using the Windows Services Console start the "OraclescdbTNSListener" and OracleServicescdb" services
- 5.6.4. HBSM database files will be extracted and the database will be created (this step will take between 5-10 minutes to complete):

```
*****
HBSM DATABASE INSTALLER
*****
You are about to install the HBSM database.
This script will create the Oracle data files and schema and will take
approximately 25-35 minutes to complete depending on system performance.
Please be patient while the various installation steps complete.
Do you wish to continue with this install (enter yes to continue, no to
quit):
yes

SQL*Plus: Release 10.2.0.1.0 - Production on Mon Aug 1 14:02:32 2005
Copyright (c) 1982, 2005, Oracle Corporation. All rights reserved.

Connected to an idle instance.

Starting the HBSM Oracle Database instance ...
ORACLE instance started.

Total System Global Area  696254464 bytes
Fixed Size                 1250932 bytes
Variable Size             293603724 bytes
Database Buffers          398458880 bytes
Redo Buffers              2940928 bytes
Creating HBSM Database for Windows Environment ...

Database created.
Creating the HBSM tablespaces and related datafiles, please wait ...

Creating tablespace aptare_tbs_data_1m tablespace, size 256 MBytes ...

Tablespace created.

Creating tablespace aptare_tbs_idx_1m, size 256 MBytes ...

Tablespace created.

Creating tablespace aptare_tbs_data_20m, size 1.0 GBytes ...

Tablespace created.

Creating tablespace aptare_tbs_idx_10m, size 1.0 GBytes ...

Tablespace created.

Creating tablespace aptare_tbs_data_200m, size 1.5 GBytes ...

Tablespace created.

Creating tablespace aptare_tbs_idx_100m, size 1.5 GBytes ...
```

```
Tablespace created.  
  
Disconnected from Oracle Release 10.2.0.1.0 - Production  
JServer Release 10.2.0.1.0 - Production  
Created HBSM tablespaces and related datafiles
```

- 5.7. The installer will then load the database with Oracle packages (this step will take between 15-25 minutes to complete):

```
Loading Oracle catalog package and related internal Oracle packages ...  
The step will take between 3 and 6 minutes to complete depending on system  
performance  
Completed loading Oracle catalog package into HBSM database schema  
  
Loading Oracle catproc package and related internal Oracle packages ...  
The step will take between 10 and 12 minutes to complete depending on  
system performance  
Completed loading Oracle catproc package into HBSM database schema  
Disconnected from Oracle Release 10.2.0.1.0 - Production  
JServer Release 10.2.0.1.0 - Production  
  
SQL*Plus: Release 10.2.0.1.0 - Production on Mon Aug 1 14:22:17 2005  
  
Copyright (c) 1982, 2006, Oracle Corporation. All rights reserved.  
  
Connected to:  
Oracle9i Release 10.2.0.1.0 - Production  
JServer Release 10.2.0.1.0 - Production  
  
Loading pupbld package ...
```

- 5.8. The portal users, the database schema are now created:

```
Creating HBSM Portal user ...  
Disconnected from Oracle Release 10.2.0.1.0 - Production  
JServer Release 10.2.0.1.0 - Production  
  
Creating HBSM base schema tables ...  
...  
... (EACH STEP LOGS TO THE screen...)  
...  
Completed creating HBSM base schema tables  
Creating HBSM <backup_product> schema tables ...
```

- 5.9. The HBSM Packages are now validated:

```
Validating HBSM Packages...  
  
SQL*Plus: Release 10.2.0.1.0 - Production on Sat Aug 6 13:04:11 2005  
  
Copyright (c) 1982, 2006, Oracle Corporation. All rights reserved.  
  
Connected to:  
Oracle Release 10.2.0.1.0 - Production  
JServer Release 10.2.0.1.0 - Production
```

```
Validating Packages...
Validating PACKAGE ADAPTOR_PACKAGE
Validating PACKAGE ADMINREP_PACKAGE
Validating PACKAGE ALL_ERROR_PKG
...
...      (EACH PACKAGE IS LOGGED TO THE CONSOLE...)
...
Validating PACKAGE XML_REPORT_PKG
Package specifications have successfully been validated
Successfully validated ALL Packages.

PL/SQL procedure successfully completed.

Disconnected from Oracle Release 10.2.0.1.0 - Production
JServer Release 10.2.0.1.0 - Production
*****
          Creation of HBSM Database completed
*****
C:\opt\oracle\database\ora_scripts>
```

5.10. NOTE: If you do not see the message “Successfully validated ALL Packages” at the end of this step, or if the installer script reported errors during the install, there is a possible problem with the install and you should save a copy of the following log files and contact the Hitachi Data Systems Technical Support Center:

C:\opt\oracle\logs\aptare_installer*.log

5.11. The database install process is now complete. Continue to the next section for the final step – License Key file installation.

6. License Key file Installation

This section covers the installation of the HBSM License file. A valid license file is required in order to run the HBSM application.

To obtain a license file please send the following information to hbsm.key.request@hds.com and a license file will be mailed back to you within 48 hours:

- Your name, title and phone number
- Company name and address
- Hostname of the Portal server

Then, for each backup product that HBSM will be supporting please also provide the following hostnames:

- VERITAS NetBackup Name(s) of any master server(s) that will be sending data to the Portal server
- IBM Tivoli Storage Manager Name(s) of any TSM Server Instances that the Data Collector will be polling for backup information.
- EMC Legato Names of any Legato server(s) that the Data Collector will be polling for backup information.
- Backup Exec Hostname of the server that will be running the Data Collector.

Finally, if you have already installed the HBSM Portal software, please also include the output from the following command:

```
C:\opt\aptare\utils\reportconfig.bat
```

6.1. Once you have obtained the license file complete the following steps to install the license

6.2. Open a DOS command prompt window by entering:

```
Start > Run > cmd
```

6.3. Run the license installer utility: C:\opt\aptare\utils\installLicense.bat

6.3.1. When prompted for the name of the license file, enter the complete path to the license key file on your server. For the initial install select “n” when asked if you are installing a supplementary license. A sample dialog is shown below:

```
Enter the name of the license file you wish to install [portal.license] :  
C:\opt\aptare\mycompany.license  
Are you installing a supplementary license (y/n) [n]: n  
Verifying license...  
Copying license...  
Copying license...  
License installed  
SystemConfig. File Name is c:\opt\aptare\portalconf\portalproperties.xml  
DbPool.initialised().Entering. 25 2  
GenericPool.setMaxObjectCount(). Entering 0 0 25  
GenericPool.initializePool(). Entering 0 0 25  
New JDBC connection pool established  
DbHandle.init(). Initialized the DbPool.
```

- 6.4. To complete the install process restart the following services via the Windows Services control panel
- APTARE Portal Tomcat
 - APTARE Agent Tomcat
 - APTARE Policy Notification
 - APTARE Report Notification
 - APTARE XML Reporter Service
- 6.5. You can now login to the portal (<http://hbsmportal.yourdomain.com>) using the userid and password you assigned in step 4.13.

7. HBSM Portal Un-install

WARNING: Running the following uninstall process will completely erase the HBSM application and database. If you are sure you wish to uninstall the application and remove the data, execute the following steps:

- 7.1. Open a DOS command prompt window by entering:
`Start > Run > cmd`
- 7.2. Stop and remove the services:
 - 7.2.1. `cd C:\opt\aptare\utils`
 - 7.2.2. `stopallservices.bat`
 - 7.2.3. `removeservices.bat`
- 7.3. Shutdown the Distributed Transaction Coordinator service if it's running. This Microsoft service can sometimes lock one of the Oracle files and prevent the un-install from completing successfully. See Microsoft bug report <http://support.microsoft.com/kb/q233297> for more details.
 - 7.3.1. `net stop msdtc`
- 7.4. Uninstall the application by navigating to and running the uninstaller application as shown below. Note that files created after the product was installed will not be deleted during this step:
 - 7.4.1. Start -> Programs -> HiCommand Backup Services Manager -> Uninstall HiCommand Backup Services Manager
- 7.5. Remove the database and any other files created after the initial install:
 - 7.5.1. Close the command prompt window you opened earlier
 - 7.5.2. Open a windows file explorer window
 - 7.5.3. Delete the folder "C:\oradata"
 - 7.5.4. Delete the folder "C:\opt"
- 7.6. Reboot the server.

8. Appendix A - Database Space Consumption

The following table describes the disk storage requirements for the HBSM database.

Tablespace	Data Files	Size in MBytes
Oracle Control Files	C:\oradata\scdb\ora_control1.ctl	2
	C:\oradata\scdb\ora_control2.ctl	2
	C:\oradata\scdb\ora_control3.ctl	2
Redo Logs	C:\oradata\scdb\aptare_redo0[1-8].log	1024
system	C:\oradata\scdb\aptare_system_01.dbf	512
aptare_temp_tbs	C:\oradata\scdb\aptare_temp_tbs_01.dbf	2048
aptare_undo_tbs	C:\oradata\scdb\aptare_undo_tbs_01.dbf	1536
aptare_tbs_data_1m	C:\oradata\scdb\aptare_tbs_data_1m_01.dbf	256
aptare_tbs_idx_1m	C:\oradata\scdb\aptare_tbs_idx_1m_01.dbf	256
	C:\oradata\scdb\aptare_tbs_data_20m_01.dbf	512
	C:\oradata\scdb\aptare_tbs_data_20m_02.dbf	256
aptare_tbs_data_20m	C:\oradata\scdb\aptare_tbs_data_20m_03.dbf	256
	C:\oradata\scdb\aptare_tbs_idx_10m	512
	C:\oradata\scdb\aptare_tbs_idx_1m_02.dbf	256
aptare_tbs_idx_10m	C:\oradata\scdb\aptare_tbs_idx_1m_03.dbf	256
	C:\oradata\scdb\aptare_tbs_data_200m_01.dbf	512
	C:\oradata\scdb\aptare_tbs_data_200m_02.dbf	256
aptare_tbs_data_200m	C:\oradata\scdb\aptare_tbs_data_200m_03.dbf	256
	C:\oradata\scdb\aptare_tbs_data_200m_04.dbf	256
	C:\oradata\scdb\aptare_tbs_data_200m_05.dbf	256
aptare_tbs_idx_100m	C:\oradata\scdb\aptare_tbs_idx_100m_01.dbf	512
	C:\oradata\scdb\aptare_tbs_idx_100m_02.dbf	256
	C:\oradata\scdb\aptare_tbs_idx_100m_03.dbf	256
Total Space Required	C:\oradata\scdb\aptare_tbs_idx_100m_04.dbf	256
	C:\oradata\scdb\aptare_tbs_idx_100m_05.dbf	256
Total Space Required		10.7 GBytes

9. Appendix B – Oracle Time Zone List

The following is a complete listing of the Oracle Time Zones. This appendix is provided for you to complete step 5.4 above.

Africa/Cairo	Asia/Tehran	Europe/Istanbul
Africa/Tripoli	Asia/Tel_Aviv	Europe/Lisbon
America/Adak	Asia/Tokyo	Europe/London
America/Anchorage	Atlantic/Reykjavik	Europe/Moscow
America/Atka	Australia/ACT	Europe/Warsaw
America/Chicago	Australia/Adelaide	GMT
America/Denver	Australia/Brisbane	Greenwich
America/Detroit	Australia/Broken_Hill	Hongkong
America/Edmonton	Australia/Canberra	Iceland
America/Ensenada	Australia/Darwin	Iran
America/Fort_Wayne	Australia/Hobart	Israel
America/Halifax	Australia/LHI	Jamaica
America/Havana	Australia/Lindeman	Japan
America/Indiana/Indianapolis	Australia/Lord_Howe	Kwajalein
America/Indianapolis	Australia/Melbourne	Libya
America/Jamaica	Australia/NSW	Mexico/BajaNorte
America/Los_Angeles	Australia/North	Mexico/BajaSur
America/Manaus	Australia/Perth	Mexico/General
America/Mazatlan	Australia/Queensland	NZ
America/Mexico_City	Australia/South	Navajo
America/Montreal	Australia/Sydney	Pacific/Auckland
America/New_York	Australia/Tasmania	Pacific/Chatham
America/Noronha	Australia/Victoria	Pacific/Easter
America/Phoenix	Australia/West	Pacific/Honolulu
America/Porto_Acre	Australia/Yancowinna	Pacific/Kwajalein
America/Regina	Brazil/Acre	Pacific/Pago_Pago
America/Santiago	Brazil/DeNoronha	Pacific/Samoa
America/Sao_Paulo	Brazil/East	Poland
America/Shiprock	Brazil/West	Portugal
America/St_Johns	Canada/Atlantic	Singapore
America/Tijuana	Canada/Central	Turkey
America/Vancouver	Canada/East-	US/Alaska
America/Whitehorse	Saskatchewan	US/Aleutian
America/Winnipeg	Canada/Eastern	US/Arizona
Asia/Calcutta	Canada/Mountain	US/Central
Asia/Hong_Kong	Canada/Newfoundland	US/East-Indiana
Asia/Istanbul	Canada/Pacific	US/Eastern
Asia/Jerusalem	Canada/Saskatchewan	US/Hawaii
Asia/Riyadh	Canada/Yukon	US/Michigan
Asia/Seoul	Chile/Continental	US/Mountain
Asia/Shanghai	Chile/EasterIsland	US/Pacific
Asia/Singapore	Cuba	US/Pacific-New
Asia/Taipei	Europe/Dublin	US/Samoa

10. Appendix C – Apache Software License

HBSM includes software developed by the Apache Software Foundation (<http://www.apache.org/>)

```
/* =====
* The Apache Software License, Version 1.1
*
* Copyright (c) 2000 The Apache Software Foundation. All rights
* reserved.
*
* Redistribution and use in source and binary forms, with or without
* modification, are permitted provided that the following conditions
* are met:
*
* 1. Redistributions of source code must retain the above copyright
* notice, this list of conditions and the following disclaimer.
*
* 2. Redistributions in binary form must reproduce the above copyright
* notice, this list of conditions and the following disclaimer in
* the documentation and/or other materials provided with the
* distribution.
*
* 3. The end-user documentation included with the redistribution,
* if any, must include the following acknowledgment:
*     "This product includes software developed by the
*      Apache Software Foundation (http://www.apache.org/)."
* Alternately, this acknowledgment may appear in the software itself,
* if and wherever such third-party acknowledgments normally appear.
*
* 4. The names "Apache" and "Apache Software Foundation" must
* not be used to endorse or promote products derived from this
* software without prior written permission. For written
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