

BMC Performance Manager Portal 2.11.00 AMIGO Checklist

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Preinstallation, Planning, and Requirements

This version of BMC Portal includes version 2.11.00 of the BMC Performance Manager Portal module and version 7.4.01 of the BMC Impact Portal module.

The BMC Performance Manager Portal module leverages agentless and PATROL Agent technologies to remotely monitor and report on the performance of your IT infrastructure. If you use BMC PATROL Agent 3.7.x or later in your environment, you can integrate its agent-based technology with BMC Portal. The BMC Impact Portal module provides views of business services and shows how the status of these services is impacted when infrastructure components have problems. With these views, you can understand how infrastructure problems affect the business services used by your company. At any time, you can access pages that provide different views of your account and the objects that compose the account. Here is a table of components to select for installation.

Type of environment	BMC Portal features	Module to select during installation	Other BMC products required
BMC Performance Manager (agentless)	Agentless monitoring provided by BMC Portal and the Remote Service Monitor (RSM) program	BMC Performance Manager Portal	Performance Managers
PATROL (agent-based)	Agent-based monitoring provided by BMC Portal, the RSM program, and PATROL Agents	BMC Performance Manager Portal	PATROL Knowledge Modules and PATROL Agents
BMC Service Impact Manager	web-based common user interface for service impact management and reporting; centralized user administration	BMC Impact Portal	BMC Impact Manager

How and What to Download

To download the BMC Performance Manager Portal components, go to the [EPD site](#).

On the Licensed Products tab, expand:

BMC Performance Manager Portal > BMC Performance Manager Portal 2.11.00> BMC Performance Manager Portal 2.11.00 >

Documentation: Please download for reference

- BMC Performance Manager Portal 2.11.00 – Documentation
- BMC Performance Manager Portal 2.11.00 - Documentation (Release Notes)

Get the following components corresponding to your operating system:

- BMC Portal Infrastructure Version 2.11.00 – Platform

The Solutions are needed for all platforms:

BMC Performance Manager Solution (Agentless) Version 2.9.20 contains some solutions. However, they may be out of date. Therefore, we recommend you upgrade BMC Performance Managers individually based on usage in the Portal. The core solutions will be upgraded by the Portal during the upgrade. However, you may need to download newer version of various solutions.

For example:

- <ftp://ftp.bmc.com/pub/BPMPortal/BMC-PM-Express-for-Servers-Unix-Linux-2.7.64.par>
- ftp://ftp.bmc.com/pub/patrol/patches/BPM_EXPRESS_FOR_LOG_MANAGEMENT/2.7.71/BMC-PM-Express-for-Servers-Log-Mgmt-2.7.71.par
- <ftp://ftp.bmc.com/pub/BPMPortal/BMC-PM-Express-for-Databases-MS-SQL-Server-2.8.52.par>
- BMC-PM-Express-for-Servers-Windows-2.7.73.par which can be downloaded from our BMC EPD website <http://www.bmc.com/support/downloads-patches/>

Please be advised that if you are upgrading from 2.8 or below, you may need to upgrade the solutions in multiple steps. This would involve downloading the solutions for each version between your version and 2.11.00. There are several solutions which do not have upgrade descriptors for all versions, which means the performance manager upgrade, will fail if the upgrade descriptor is not present.

For example: BMC PME for Microsoft Windows v 2.7.04

Customers will need to first import:

BMC PME for Microsoft Windows v 2.7.50

Then apply:

BMC PME for Microsoft Windows v 2.7.75

Or the latest version at the time

NOTE: You should upgrade solutions after the Portal application server and webserver have been upgraded.

If you are not sure of which solutions are the latest, please contact support with the name of the solution/performance manager and we can provide the latest version.

Datastore: You will need an Oracle datastore to install the BMC Performance Manager Portal

If you are upgrading from a previous version of the Portal and you must have the BMC Datastore product and were active on a support contract for any of the products listed in the "Product list," prior to July 1, 2009 send a message to ProductionControl@BMC.com to obtain a copy of this software.

In your email provide the following information:

Company Name

Valid Support ID

Product name and version needed

Request: BMC Datastore 2.7.10

Customers can use their own Oracle 10g or 11g instance with partitioning enabled. Partitioning is required for the BMC Performance Manager Portal database to function properly.

BMC Performance Manager Portal supports:

- Oracle Database 10g Enterprise Edition with patch version 10.2.0.4.0 using BMC Datastore 2.7.10 or your own custom database instance
- Oracle Database 11g Release 2 Enterprise Edition using BMC Datastore 2.7.10 or your own Oracle database instance

Best practice: BMC recommends that you have a dedicated host computer for BMC Performance Manager Portal and do not install any other applications on it.

When downloading the files, save them to a local directory on the server. The files should be saved on the server where the product will be installed. BMC Software recommends that you install BMC Performance Manager Portal from a local copy of the installation image and not from a network drive. Installing from a network drive can cause delays in completing the installation.

The BMC Performance Manager Portal components include:

BMC Performance Manager Portal Application Server(s)

BMC Performance Manager Portal Web Server

BMC Performance Manager Portal Datastore

BMC Remote Service Monitor Manager(s) – The number of RSMs will vary depending on sizing requirements. See the [BMC Portal Planning and Implementation Guide](#) for sizing details.

BMC Performance Manager Portal Application server hardware & OS requirements

Supported Platforms

Oracle Solaris 9 (64-bit), SPARC

Oracle Solaris 10 (64-bit), SPARC

Oracle Solaris 11 (64-bit), SPARC

Microsoft Windows 2003 Standard Server (32-bit and 64-bit), SP2 or later

Microsoft Windows 2003 Enterprise Server (32-bit and 64-bit), SP2 or later

Microsoft Windows 2003 Datacenter Server (32-bit and 64-bit), SP2 or later

Microsoft Windows 2003 Web Server (32-bit and 64-bit), SP2 or later

Microsoft Windows 2003 R2, Enterprise Server (32-bit and 64-bit)

Microsoft Windows 2008, Standard Server (32-bit and 64-bit), SP1 or later

Microsoft Windows 2008, Enterprise Server (32-bit and 64-bit), SP1 or later

Microsoft Windows 2008, Datacenter Server (32-bit and 64-bit), SP1 or later

Microsoft Windows 2008 R2, Enterprise Server (64-bit)

Platform details:

Either of the following processors:

Intel compatible (32-bit) Pentium 4 processor or equivalent

AMD Opteron/Intel Xeon 64 EM64T processor (64-bit)

For 32-bit Portal

2 CPU minimum

3.2 GHz processing speed (with hyper threading enabled)
4 GB RAM minimum

For 64-bit Portal

4 CPU minimum
3.5 GHz processing speed (with hyper threading enabled)
4 GB RAM minimum

UltraSPARC IIIi equivalent or later
2 CPU minimum
1.2 GHz processing speed
4 GB RAM minimum

Disk space

Windows: 10 GB
Solaris: 10 GB

A high-performance disk subsystem is recommended if you install your database on the same computer. Solaris requires 250 MB in /var/tmp for the installation program.

Operating System

Windows Server 2003 (32-bit, 64-bit)
Requires a user account with administrator rights and permissions
Service Pack 2 or later; BMC recommends the latest service pack.

Windows Server 2008 (32-bit, 64-bit)
Windows Server 2008 R2 (64-bit)
Requires a user account with administrator rights and permissions
Service Pack 1 or later; BMC recommends the latest service pack

Solaris 9 (64-bit), SPARC
Solaris 10 (64-bit), SPARC

The web server component requires the following items:

libiconv library
libuuid patch

Third-party products

Running SMTP server (optional) the installation program verifies the presence of a running e-mail server.
Oracle J2SE Java Runtime Environment (JRE) on client computers.
The BMC Portal Help requires version 1.4.2 or later. If necessary, you can download the latest JRE from the Java download site at <http://www.oracle.com/technetwork/java/index.html>
Network Time Protocol (NTP) (recommended) NTP continuously adjusts the time on a computer to match that of another computer, typically the atomic clock.

BMC Software products

BMC Impact Manager is one of the modules you can install when installing BMC Performance Manager Portal. If you have done so, you need to pay special attention when upgrading the Portal and Impact Manager Components. For example, if you are upgrading to BMC Performance Manager Portal 2.11.00

you need to first upgrade Impact Manager to 7.4.01 as the integration will not work with earlier versions.

The BMC Atrium Configuration Management Database (BMC Atrium CMDB) is not required. However, BMC Performance Manager Portal 2.11.00 can integrate with the following BMC Atrium CMDB versions. Apply the latest patch of the version.

7.5

7.6

7.6.03

7.6.04

NOTE: CMDB integration does not work when integrating with CMDB 7.6.03. The workaround is to install Atrium Core 7.6.03 P001 patch. You can contact Support for this patch.

Web browser

One of the following browser versions:

Mozilla Firefox 3.x

Microsoft Internet Explorer 6.x, 7.x, or 8.x, 9.x, 10.x

The Internet Explorer browser on Windows 2003 requires the medium security setting. Do not run BMC Portal with the high security setting.

Minimum system requirements for the RSM program

Platform

Either of the following processors:

Intel compatible (32-bit) Pentium 4 processor or equivalent

AMD Opteron/Intel Xeon 64 EM64T processor (64-bit)

For 32-bit RSM

2 CPU minimum

2 GHz processing speed

2 GB RAM dedicated to RSM

10 GB disk space

For 64-bit RSM

4 CPU minimum

2 GHz processing speed

4 GB RAM minimum

10 GB disk space

Operating system

Windows Server 2003 Standard Edition

Windows Server 2003 Enterprise Edition

Windows Server 2003 Datacenter Edition

Windows Server 2003 Web Edition

Service Pack 1 or later; BMC recommends the latest service pack.

When you install the RSM program on a Windows 2003 (SP1) computer, RSM is adversely affected by a memory leak caused by Microsoft WMI. For more information about this problem, see Microsoft Article ID 911262. Access the [Microsoft Hotfix Page](#).

Windows Server 2008 Standard Edition
Windows Server 2008 Enterprise Edition
Windows Server 2008 Datacenter Edition
Windows Server 2008 R2
Service Pack 1 or later; BMC recommends the latest service pack.

Third-party products

NTP - When installing the RSM program, install NTP on the BMC Portal server and on each of the RSM computers to ensure that the system clocks on the RSM computers are synchronized with the system clocks on the BMC Portal server.

BMC recommends PATROL Agent versions 3.7.x or later when using PATROL integration Performance Managers to obtain parameter values

For full details please see BMC Performance Manager Portal 2.11.00 Release Notes

NOTE: As part of the upgrade process, if you have moved your web server to a different computer, perform the task in “To point the RSM to the new web server” on page 185 of the [BMC Performance Manager Installation Guide](#).

BMC Datastore system requirements

You must upgrade the BMC Datastore or the Oracle database before you upgrade the Portal components. To upgrade the BMC Datastore product see, the BMC Datastore Installation Guide.

BMC Portal requires an Oracle installation with a Portal database instance and, optionally, a Continuous Data Export (CDE) database instance. To fulfill this requirement you can use the BMC Datastore or you can use your own licensed Oracle installation.

The BMC Datastore installation component installs Oracle and creates the database instances used by the Portal and the CDE utility. You must install the database and create the database instances before installing the BMC Portal components and modules. For complete instructions about installing the database, creating the database instances, and maintaining the database and database instances using the BMC Datastore, see the BMC Datastore Installation Guide.

If you are using your own Oracle installation, ensure that Oracle partitioning is enabled. For details about using an existing Oracle installation, see “Configure the database instances manually or by using BMC DatastoreCLI options” on page 46 of the [BMC Performance Manager Portal Installation Guide](#)

*****MUST READ*****

Database user privileges, roles - For more details about the requirements for the database, see “Database user privileges, roles, and their functions” on page 64 of the [BMC Performance Manager Portal Installation Guide](#). Regardless of whether you use the standard Oracle install or your own custom Oracle instance, the user privileges must be set according to the documentation.

Platform

Intel compatible (32-bit) Pentium 4 processor or higher

- 2-CPU, 3.06-GHz processor (with hyper threading enabled)
- a minimum of 4 GB RAM dedicated to the database (for combined BMC Portal database instance and CDE database instance)
- Ultra320 SCSI disk subsystem

UltraSPARC IIIi equivalent or higher

- 2-CPU, 1.28-GHz processor
- a minimum of 4 GB RAM dedicated to the database (for combined BMC Portal database instance and CDE database instance)
- external Ultra320 SCSI 10K RPM disk subsystem

Windows operating system

Microsoft Windows 2003 Server (32-bit and x64-bit)

Windows requires a user account with administrator rights and permissions, and that also belongs to the Oracle dba group, for example, ora_dba group

Service Pack 4 or later (BMC Software recommends the latest Service Pack)

Microsoft Windows 2008 Server (32-bit)

Microsoft Windows 2008 Server (64-bit)

Windows requires a user account with administrator rights and permissions, and that also belongs to the Oracle dba group, for example, ora_dba group

Solaris operating system

Solaris 9 (64-bit), Sparc

Solaris 10 (64-bit), Sparc

Solaris requires a user account with root privileges. BMC Datastore requires the following packages on Solaris:

SUNWarc
SUNWbtool
SUNWhea
SUNWlibm
SUNWlibms
SUNWsprot
SUNWtoo
SUNWuiu8

Oracle database version 10.2.0.4 with partitioning enabled and the most recent Critical Patch Update (CPU) installed

Oracle 11g is also supported with partitioning enabled

BMC Performance Manager Portal provides support for Oracle Real Application Clusters (RAC). If you are using your own Oracle license, you can set up RAC. For more information on setting up RAC please review our [BMC Performance Manager Portal Installation Guide](#) starting on page 27.

You can use the BMC Datastore installation program to install Oracle and create the Portal, the CDE, the Reporting Aggregate, and the Reporting Business Objects database instances, or you can use an existing Oracle database installation and manually configure it. For installation prerequisites and instructions, see the BMC Datastore Installation Guide. You can obtain a copy of the BMC Datastore Installation Guide from Production Control using the following details:

Email ProductionControl@BMC.com to obtain a copy of this documentation. In your email provide the following information:

Company Name

Valid Support ID

Product name and version needed

Request: BMC Datastore Installation Guide 2.7.10

Disk space for the BMCPDS or the CDE database instance

Solaris also requires the following temporary space:

/tmp: 400 MB (for database component)

/var/tmp: 250 MB (for installation program)

/opt: 50 MB (for database component)

The default names for the database instances are

BMC Portal: BMCPDS

Continuous Data Export (CDE): BMCCDE

NOTE: For a detailed calculation of the requirements for disk space for the BMCPDS database, please refer to the MS Excel spreadsheet on the FTP site:

BMCPDS

ftp://ftp.bmc.com/pub/BPMPortal/Portal_DB_Disk_space_projection.xls

BMCCDE

ftp://ftp.bmc.com/pub/BPMPortal/Portal_CDE_DB_Disk_space_projection.xls

Reporting Aggregate: BMCREPT

Reporting Business Objects: BMCREPO

Small

4 GB free RAM (initial requirement for combined BMC Portal database instance and CDE database instance)

75 GB (initial requirement)

200 GB (required after 428 days)

Medium

8 GB free RAM (initial requirement for combined BMC Portal database instance and CDE database instance)

105 GB (initial requirement)
350 GB (required after 428 days)

Large

8 GB free RAM (initial requirement for combined BMC Portal database instance and CDE database instance)
190 GB (initial requirement)
550 GB (required after 428 days)

Disk space for the BMCREPT or BMCREPO database instance

Small

4 GB memory
6 GB swap space
20 GB disk space

Medium

4 GB memory
6 GB swap space
80 GB disk space

Large

8 GB memory
12 GB swap space
300 GB disk space

Solaris also requires the following temporary space:

/tmp: 400 MB (for database component)
/var/tmp: 250 MB (for installation program)
/opt: 50 MB (for database component)

The default names for the database instances are

BMC Portal: BMCPDS
Continuous Data Export (CDE): BMCCDE
Reporting Aggregate: BMCREPT
Reporting Business Objects: BMCREPO

VMWare Information

If you are deploying the product on VMs be aware that additional overhead exists because resources are shared across VMs. The same performance that is possible running applications on a physical computer is not possible on VMs. However, VMs offer more flexibility and ease of administration for some aspects, such as high availability and backups. BMC Performance Manager Portal and its components are fully supported in a VMWare environment.

Consider the following VMware best practices:

- To prevent performance problems when deploying on VMware, ensure that you enable the unlimited memory setting for the VM.

- CPU and memory resources should be dedicated to the VM on which BMC Performance Manager Portal or any of its components are running.

Important Information for all users:

Internationalization and localization support for BMC Portal modules

BMC Performance Manager Portal has been tested on localized operating system platforms and will run on servers using these languages:

- French
- German
- Japanese
- Korean
- Simplified Chinese
- Traditional Chinese

This means the product executes in the operating system for the specified language and can also accept input, run process, and display data in that language

The product display can be viewed in the following languages:

- Japanese
- Simplified Chinese
- Traditional Chinese

To display the user interface in a different language, users and administrators must log on and change the default language settings.

The online Help for all modules is displayed in English. The default language setting for BMC Portal users and administrators is English.

Clustering

If you are interested in setting up a clustered Portal, using clustered application servers, web servers, or both, please see the detailed instructions in our [BMC Performance Manager Portal Installation Guide](#) starting on page 23 of the pdf.

BMC Performance Manager Portal uses the UDP protocol for clustering by default. If you are interested in using the TCP protocol please review the details in our [Knowledge Article KA313247](#)

Startup procedure for clustered application servers

When starting the Appservers of a cluster for the first time, when configuration changes are made and the Appservers need restarting or if there seems to be unexplained problems with the Portal then follow this procedure to give the cleanest start for the cluster:

- Shutdown both Appservers of the Portal cluster
- Start one Appserver only
- Check the portal.log file for entries as below:

[INFO,AgentServiceImpl,changeStatus]

There should be 1 line for each RSM similar to the following:

<R,05/25/09 10:30:27 UTC,STDERR> [INFO,AgentServiceImpl,changeStatus] RSM rsm6: UNKNOWN
=> ONLINE

When all RSMs are ONLINE, start the second Appserver

Check the Appservers are communicating, see 'USEFUL MESSAGES...' section

Useful messages to look for in the Portal.log file when using clustered servers:

<O,05/15/07 16:36:46 UTC,DefaultPartition> Number of cluster members: 2
<O,05/15/07 16:36:46 UTC,DefaultPartition> Other members: 1
<O,05/15/07 16:36:46 UTC,DefaultPartition> New cluster view for partition DefaultPartition: 1
([172.22.32.222:9379, 172.22.34.148:9379] delta: 0)
<O,05/15/07 16:36:46 UTC,DefaultPartition> Fetching state (will wait for 60000 milliseconds):
<O,05/15/07 16:36:47 UTC,DefaultPartition> I am (172.22.34.148:9379) received
membershipChanged event:
<O,05/15/07 16:36:47 UTC,DefaultPartition> Dead members: 0 ([])
<O,05/15/07 16:36:47 UTC,DefaultPartition> New Members : 0 ([])
<O,05/15/07 16:36:47 UTC,DefaultPartition> All Members : 2 ([172.22.32.222:9379,
172.22.34.148:9379])

These messages tell how many servers, with their IP addresses, are currently in the cluster. If 'Number of cluster members' or 'All Members' never exceeds 1 the Appservers are not clustering properly.

NOTE: The Appserver that starts first should contain 2 sections of these messages. One set when it starts on its own (Members will be 1) and another set when the second Appserver joins the cluster (Members will be 2).

For more information on Clustering, please see [BMC Performance Manager Portal Installation Guide](#), starting on page 72.

Before you upgrade

There are a few things you MUST do before you upgrade any version of BMC Performance Manager Portal. Follow all of the instructions below to ensure you have backed up your Portal configuration information and your Portal database.

Backup your setup configuration

Use the following steps to back up the setup configuration. You can perform this procedure to back up the setup configuration while the Portal is up and running. However, if the Portal is down, this procedure takes less time.

A. Download the following files from

BMCPortalKitCDLocation\Disk1\util\BPM_Datastore_Utility\scripts:

- check_data_file.sql
- get_row_count.sql

- missing.sql
- export_data.sql

To the following directory:

\BMCSoftware\BMCPortalKit\appserver\util\BPM_Data_Migration

B. Edit the file get_row_count.sql and change the occurrences of pe with your Portal database user, for example, if your portal database username is ADMIN, replace the occurrences of pe with ADMIN.

C. Logon to the database server and at a command prompt, enter the following commands appropriate for your operating system, and use paths that are correct for your installation:

Windows:

```
set ORACLE_SID=BMCPDS
set ORACLE_HOME= C:\BMCSoftware\Datastore\ora10g\db_1
```

Solaris:

```
ORACLE_HOME=/data1/Datastore/ora10g/db_1/
export ORACLE_HOME
PATH=$PATH:/data1/Datastore/ora10g/db_1/
export PATH
ORACLE_SID=BMCPDS
export ORACLE_SID
```

D. On the same command prompt, enter the following commands:

```
sqlplus / as sysdba
or
sqlplus "/@bmcpds as sysdba"
@check_data_file.sql
@get_row_count.sql
@missing.sql
```

This generates the check_data_file.log, the get_row_count.log, and the missing.log files.

E. Rename the check_data_file.log, the get_row_count.log, and the missing.log files with your portal version, and back up these log files to a safe location. These files will serve to assist in troubleshooting should there be any issues.

Backup Portal Element Configuration Information

Backup the configuration information, using the following steps. You can perform the following steps to back up the setup configuration when the Portal is up and running. However, if the Portal is down, the process takes less time. Access the export_data.sql script from %DATASTORE_HOME%\utility\BPM_Datastore_Utility\ on Windows or \$DATASTORE_HOME/utility/BPM_Datastore_Utility/ on Solaris and run the script using the following example:

NOTE: Oracle 11 users need to execute the following script before you take an export of the database using the export_data.sql script.

```
sqlplus pe/pe@bmcpds
@allocate_extent.sql
```

Then run sqlplus pe/pe@bmcpds

```
@export_data.sql <password for the pe user> <location here you want to save the export file>
```

A. Navigate to a command prompt on the data store server and execute the following SQL as described below (where pe/pe is the userID and password for the BMC Portal Database instance and bmcpds is the name of BMC Portal Database instance):

```
sqlplus pe/pe@bmcpds
@export_data.sql <password for the pe user> <location where you want to save the export file>
```

For example: SQL> @export_data.sql PE 'D:\e_drive\Share\export.dmp'

This SQL statement exports the configuration database information and saves the details in the D:\e_drive\Share\export.dmp file. It also generates the exppe.log in the same directory where you executed the export_data.sql command.

B. Save the exppe.log file in a safe location. This log file contains any errors encountered during the process, and therefore, you can use it for diagnostic purposes should a failure occur.

Back up the Portal database

We have three options for taking a “full” backup of the BMC Portal database.

1. Work with your DBA to make certain your Portal database has been backed up and the backup copy is viable.
2. You can perform a file system backup of the Portal database. Stop the Portal application server(s) and stop the Oracle process and then run a file system backup
3. Use the following steps to back up the database instance:
You can use the following steps to back up the BMCPDS or the BMCDE database instance. Make sure that you use the correct name of the Oracle instance and user name.

1) Enter the following commands on a command line:

```
sqlplus / as sysdba
```

or

```
sqlplus "/@bmcpds as sysdba"
```

```
alter system set undo_retention=259200 scope=memory;
alter system set pga_aggregate_target=600M;
exit;
```

```
exp pe/pe@bmcpds file=dumpfilelocation buffer=10000000 compress=y
statistics=none owner=PE consistent=y object_consistent=y recordlength = 6400
direct=y log=exppe.log feedback=50
```

This exp command should complete with a message that looks like the following:
Export terminated successfully without warnings.

For example:

```
exp pe/pe@bmcpds file=c:\fulldump.dmp buffer=10000000 compress=y
statistics=none owner=PE consistent=y object_consistent=y recordlength = 6400
direct=y log=exppe.log feedback=50
```

This sql generates the c:\fulldump.dmp file.

Note: You can get more information from the following document:

[BMC Performance Manager Portal Installation Guide](#): Database Backup - Backing up the database or the configuration information before an upgrade - page 100

2) Move both the dmp files of dump to a different machine, and import the file in on some test db to verify the integrity of the dump (the dump is proper, and files are not corrupt)

3) Take a backup of the configuration files from both Appserver and webserver to a different drive:
Configuration Files:

Windows

```
c:
cd \
md c:\temp
cd c:\temp
rd /s /q c:\temp\config_files
rd config_files
md config_files
cd config_files
md appserver\websdk\tools\jboss\server\all\deploy\
md appserver\websdk\tools\jboss\server\all\log
md appserver\websdk\tools\jboss\server\all\conf
md appserver\websdk\tools\jboss\server\all\modules\drmop.sar\META-INF\
md appserver\websdk\tools\jboss\server\all\deploy\tc5-cluster.sar\META-INF
md appserver\websdk\conf\
md appserver\websdk\tools\jboss\server\all\conf\properties\
md appserver\websdk\tools\jboss\server\all\conf\thirdpartyproperties\
md appserver\websdk\tools\jboss\server\all\conf\properties\drmop\
md appserver\websdk\tools\jboss\server\all\deploy-hasingleton\jms\
md appserver\websdk\tools\jdk\jre\lib\
```

```
copy %BMC_PORTAL_KIT_HOME%\appserver\websdk\tools\jboss\server\all\conf\login-config.xml
appserver\websdk\tools\jboss\server\all\conf\
copy %BMC_PORTAL_KIT_HOME%\appserver\websdk\tools\jboss\server\all\deploy\cluster-service.xml
appserver\websdk\tools\jboss\server\all\deploy\
```



```

copy %BMC_PORTAL_KIT_HOME%\appserver\websdk\tools\jboss\server\all\deploy\websdk-ds.xml
appserver\websdk\tools\jboss\server\all\deploy\
copy %BMC_PORTAL_KIT_HOME%\appserver\websdk\conf\sdkwrapper.conf appserver\websdk\conf\
copy
%BMC_PORTAL_KIT_HOME%\appserver\websdk\tools\jboss\server\all\conf\properties\internal.proper
ties appserver\websdk\tools\jboss\server\all\conf\properties\
copy
%BMC_PORTAL_KIT_HOME%\appserver\websdk\tools\jboss\server\all\conf\thirdpartyproperties\quart
z.properties appserver\websdk\tools\jboss\server\all\conf\thirdpartyproperties\
copy %BMC_PORTAL_KIT_HOME%\appserver\websdk\tools\jboss\server\all\conf\properties\drmop\
appserver\websdk\tools\jboss\server\all\conf\properties\drmop\
copy %BMC_PORTAL_KIT_HOME%\appserver\websdk\tools\jboss\server\all\deploy-
hasingleton\jms\websdk-jdbc2-service.xml appserver\websdk\tools\jboss\server\all\deploy-
hasingleton\jms\
copy
%BMC_PORTAL_KIT_HOME%\appserver\websdk\tools\jboss\server\all\modules\drmop.sar\META-
INF\jboss-service.xml appserver\websdk\tools\jboss\server\all\modules\drmop.sar\META-INF\
copy %BMC_PORTAL_KIT_HOME%\appserver\websdk\tools\jboss\server\all\deploy\tc5-
cluster.sar\META-INF\jboss-service.xml appserver\websdk\tools\jboss\server\all\deploy\tc5-
cluster.sar\META-INF\
copy %BMC_PORTAL_KIT_HOME%\appserver\websdk\tools\jdk\jre\lib\logging.properties
appserver\websdk\tools\jdk\jre\lib\
copy
%BMC_PORTAL_KIT_HOME%\appserver\websdk\tools\jboss\server\all\conf\properties\application.pro
perties appserver\websdk\tools\jboss\server\all\conf\properties\
copy %BMC_PORTAL_KIT_HOME%\appserver\websdk\tools\jboss\server\all\log\*.log*
appserver\websdk\tools\jboss\server\all\log

```

Solaris

```

cd /tmp
rm config_files/*
rmdir config_files
mkdir config_files
cd config_files
mkdir -p appserver/websdk/tools/jboss/server/all/deploy/
mkdir -p appserver/websdk/tools/jboss/server/all/modules/drmop.sar/META-INF/
mkdir -p appserver/websdk/tools/jboss/server/all/deploy/tc5-cluster.sar/META-INF
mkdir -p appserver/websdk/conf/
mkdir -p appserver/websdk/tools/jboss/server/all/conf/properties/
mkdir -p appserver/websdk/tools/jboss/server/all/conf/thirdpartyproperties/
mkdir -p appserver/websdk/tools/jboss/server/all/conf/properties/drmop/
mkdir -p appserver/websdk/tools/jboss/server/all/deploy-hasingleton/jms/
mkdir -p appserver/websdk/tools/jdk/jre/lib/
mkdir -p appserver/websdk/tools/jboss/server/all/log
mkdir -p appserver/websdk/tools/jdk/jre/lib/

```

```

cp $BMC_PORTAL_KIT_HOME/appserver/websdk/tools/jboss/server/all/deploy/cluster-service.xml

```

```

appserver/websdk/tools/jboss/server/all/deploy/
cp $BMC_PORTAL_KIT_HOME/appserver/websdk/tools/jboss/server/all/deploy/websdk-ds.xml
appserver/websdk/tools/jboss/server/all/deploy/
cp $BMC_PORTAL_KIT_HOME/appserver/websdk/conf/sdkwrapper.conf appserver/websdk/conf/
cp
$BMC_PORTAL_KIT_HOME/appserver/websdk/tools/jboss/server/all/conf/properties/internal.properties
appserver/websdk/tools/jboss/server/all/conf/properties/
cp
$BMC_PORTAL_KIT_HOME/appserver/websdk/tools/jboss/server/all/conf/thirdpartyproperties/quartz.
properties appserver/websdk/tools/jboss/server/all/conf/thirdpartyproperties/
cp $BMC_PORTAL_KIT_HOME/appserver/websdk/tools/jboss/server/all/conf/properties/drmop/
appserver/websdk/tools/jboss/server/all/conf/properties/drmop/
cp $BMC_PORTAL_KIT_HOME/appserver/websdk/tools/jboss/server/all/deploy-
hasingleton/jms/websdk-jdbc2-service.xml appserver/websdk/tools/jboss/server/all/deploy-
hasingleton/jms/
cp $BMC_PORTAL_KIT_HOME/appserver/websdk/tools/jboss/server/all/modules/drmop.sar/META-
INF/jboss-service.xml appserver/websdk/tools/jboss/server/all/modules/drmop.sar/META-INF/
cp $BMC_PORTAL_KIT_HOME/appserver/websdk/tools/jboss/server/all/deploy/tc5-cluster.sar/META-
INF/jboss-service.xml appserver/websdk/tools/jboss/server/all/deploy/tc5-cluster.sar/META-INF/
cp $BMC_PORTAL_KIT_HOME/appserver/websdk/tools/jdk/jre/lib/logging.properties
appserver/websdk/tools/jdk/jre/lib/
cp
$BMC_PORTAL_KIT_HOME/appserver/websdk/tools/jboss/server/all/conf/properties/application.properties
appserver/websdk/tools/jboss/server/all/conf/properties/
cp $BMC_PORTAL_KIT_HOME/appserver/websdk/tools/jboss/server/all/log/*
appserver/websdk/tools/jboss/server/all/log
cp $BMC_PORTAL_KIT_HOME/appserver/websdk/tools/jdk/jre/lib/logging.properties
appserver/websdk/tools/jdk/jre/lib/
cp /etc/init.d/BMCPortal* .

cd ..
$BMC_PORTAL_KIT_HOME/appserver/websdk/tools/jdk/bin/jar -cvf config_files.zip config_files
\websdk\tools\jboss\server\all\deploy\tc5-cluster.sar\META-INF\jboss-service.xml

```

Save all the files to a location outside of the Portal directory structure as these will serve as backups if needed.

NOTE:

BMC strongly recommends that you backup your Portal element configuration information regularly by following the “Export Portal configurations periodically” section of the BMC Performance Manager Portal Best Practices Guide found here:

[ftp.bmc.com/pub/BMPoratl/BMC Performance Manager Portal Best Practices Guide.docx](ftp.bmc.com/pub/BMPoratl/BMC%20Performance%20Manager%20Portal%20Best%20Practices%20Guide.docx)

System specifics to check before upgrading

Before you upgrade to BMC Performance Manager Portal 2.11.00, upgrade to version 2.7.10 of BMC Datastore. If you are running BMC Portal 2.8 and above, you most likely have the 2.7.10 version of the

datastore already but it is important to verify the details. In order to check the version of the current Datastore, you can run the Datastore maintenance tool and check the version name in the title.

Before upgrading to version 2.11.00, you must change or have your DBA change the Oracle System Global Area (SGA) size from 600 MB to 1,400 MB. If you are using a Windows 32-bit operating system, you cannot allocate more than 1,400 MB to Oracle SGA. These settings are applicable to both standard database instances and custom database instances. However, making operating system changes, user can change the setting to allocate more SGA on 32-bit platform. Please refer the portal quick tune guide for more details ftp.bmc.com/pub/BPMPortal/Portal_quick_Tune.txt

However, you can increase the SGA past 1,400 MB on Solaris and Windows (64-bit) operating systems.

Before you run the Portal on a 64-bit computer, consider the following requirements:
If you currently use, or plan to use, any of the following solutions or later versions, ensure that you use the indicated versions of solutions. It is important to upgrade the solutions to the indicated versions before upgrading to 64-bit Portal.

- BMC Performance Manager for Web Application Server version 2.9.20
- BMC Performance Manager Express for SAP Solutions version 2.7.53
- BMC Performance Manager Express for Hardware by Sentry Software version 2.7.25

Don't forget to upgrade any other solutions you are using after the Portal upgrade is complete.

NOTE: For information about latest patches related to BMC Impact Portal 7.4.01, see [KA389441](#).

To determine whether you can upgrade an earlier version of BMC Performance Manager Portal to the desired version directly (or if you have to plan for an incremental upgrade from the earlier versions), review your Portal version. The BMC Portal 2.11.00 installation program supports upgrades of Portal components, including the RSM, directly from the following product versions:

BMC Portal 2.7.x
BMC Portal 2.8.x
BMC Portal 2.9.10

To upgrade from BMC Portal 2.6.x and earlier, you must first upgrade to Portal 2.7.x or 2.8.x or 2.9.10 and then upgrade to 2.11.00.

Upgrading to BMC Portal 2.11.00

For instructions for upgrading to BMC Portal 2.11.00, see the [BMC Portal Installation Guide](#).

Upgrading from BMC Performance Manager Portal 2.10.00 to 2.11.00

You cannot upgrade from BMC Performance Manager Portal 2.10.00 to 2.11.00. There are no additional features or fixes beyond 2.10.00 in 2.11.00.

Upgrading from BMC Performance Manager Portal 2.7.x, 2.8.x, and 2.9.10 to 2.11.00

You can upgrade directly from BMC Performance Manager Portal 2.7.x, 2.8.x, and 2.9.10 to 2.11.00.

Important Upgrade Notes:

- You must apply the latest applicable generally available (GA) or cumulative patch before upgrading to the next version of the product. For example, when upgrading from 2.7, you must apply the latest GA patch to 2.7 before upgrading to 2.11.00. If the latest GA or cumulative patches have not been applied, the upgrade to 2.11.00 may fail.
- When upgrading from version BMC Portal 2.6.x and earlier, see the BMC Portal Release Notes for the respective version. For example, if you are upgrading from version 2.3.x to 2.7.x, see the BMC Portal Release Notes for version 2.7.x for upgrade considerations.
- BMC Performance Manager Portal 2.11.00 does not support BMC Impact Integration Web Services Server versions earlier than 7.4.01. If you are upgrading any of the Portal components, you must also upgrade BMC IIWS and its components to 7.4.01. NOTE: BMC Impact Integration Web Services and BMC Event Manager/BMC Impact Portal use 7.4.00 documentation for all 7.4.01 installations/upgrades. If you have questions about BMC Event Manager, BMC Impact Portal, or BMC Impact Integration Web Services, please open a Support ticket with that product name and the Event team will assist.
- If you have version 2.9.10 of BMC Portal and the RSM is running on 64-bit mode, after you upgrade to version 2.11.00 of BMC Portal, the RSM will continue to operate in the 64-bit mode.

32 and 64 bit system information

You can have the following scenarios while upgrading:

Upgrading from a 32-bit computer: Depending on your requirements, you can do one of the following:

—Upgrade to Portal 2.11.00 on a 32-bit computer: If you are running Portal components on a single computer, perform the tasks in the “Upgrading the BMC Portal components on a single computer” on page 186 of the [BMC Performance Manager Installation Guide](#).

If you are running Portal components on multiple computers, perform the tasks in the “Upgrading the BMC Portal components on two or more computers” on page 190 section of the [BMC Performance Manager Installation Guide](#).

—Upgrade to Portal 2.11.00 on a 64-bit computer:

For information about upgrading on a 64-bit computer, see “To upgrade to Portal version 2.11.00 on a 64-bit computer from a 32-bit computer” on page 185 of the [BMC Performance Manager Installation Guide](#).

NOTE: As part of the upgrade process, if you have moved your web server to a different computer, perform the task in “To point the RSM to the new web server” on page 185 of the [BMC Performance Manager Installation Guide](#).

Upgrading from a 64-bit computer: If you are running Portal components on a single computer, perform the task in the “Upgrading the BMC Portal components on a single computer” on page 186 section of the [BMC Performance Manager Installation Guide](#). If you are running Portal components on multiple computers, perform the task in the “Upgrading the BMC Portal components on two or more computers” on page 190 section of the [BMC Performance Manager Installation Guide](#).

Upgrade Paths

The BMC Portal 2.11.00 installation program supports upgrades of Portal components, including the RSM, directly from the following product versions:

- BMC Portal 2.7.x
- BMC Portal 2.8.x
- BMC Portal 2.9.10

NOTE: After you have installed BMC Portal version 2.11.00, check the Customer Support website at <http://www.bmc.com/support> to see the flashes, technical bulletins, and resolutions for the latest patches and hot fixes. Install the patches and hot fixes. Execute the BMC Portal Performance Managers (solution) upgrades only after installing the latest patches on BMC Portal 2.11.00. We do recommend upgrading Performance Managers one at a time if you have a large Portal so as to avoid any upgrade issues.

The BMC Portal 2.11.00 files that you downloaded from the BMC EPD web page might contain some or all of the patches listed on the product's BMC Customer Support web page. If the EPD page shows that a patch is included in the product file, you do not need to obtain that patch.

To upgrade from BMC Portal 2.6.x and earlier, you must first upgrade to Portal 2.7.x or 2.8.x or 2.9.10 and then upgrade to 2.11.00

NOTE: You must apply the latest applicable generally available (GA) or cumulative patch before upgrading to the next version of the product. For example, when upgrading from 2.7, you must apply the latest GA patch to 2.7 before upgrading to 2.11.00. If the latest GA or cumulative patches have not been applied, the upgrade to 2.11.00 may fail.

When upgrading from version BMC Portal 2.6.x and earlier, see the BMC Portal Release Notes for the respective version. For example, if you are upgrading from version 2.3.x to 2.7.x, see the BMC Portal Release Notes for version 2.7.x for upgrade considerations.

Integration Consideration

If you are using BMC Impact Integration Web Services to send event notifications to BMC Impact Manager, and you plan to use the 7.4.01 version, then you must simultaneously upgrade to Portal 2.11.00. BMC Performance Manager Portal 2.11.00 does not support BMC Impact Integration Web Services Server versions earlier than 7.4.01.

BMC Atrium Discovery component classes - BMC Impact Portal and BMC Impact Explorer GUIs automatically load and display BMC Atrium Discovery (formerly known as BMC Topology Discovery and Dependency Mapping) discovered component classes. If you use custom icons, you must back up the custom icon folder before upgrading, because the upgrade overwrites the custom icon folder. The custom icons for these newly added component classes into the BMC Atrium CMDB are located in the component_icon.properties file at <BMCPortal_Home>\appserver\websdk\tools\jboss\server\all\conf\properties\smsConsoleServer\. Please backup the entire smsConsoleServer directory to maintain customizations through the upgrade process.

When you upgrade to version 2.11.00 of BMC Portal, you must install patch version 7.4.01.01 on BMC

Impact Publishing Server to make it compatible to version 2.11.00 of BMC Portal. Version 2.11.00 of BMC Portal runs with version 5.0 of JBoss application server and 64-bit supported CMDB libraries which is not compatible with BMC Publishing Server installed in your CMDB integrated set up.

Upgrade and installation considerations for BMC Impact Portal

In addition to the requirements for BMC Portal, the BMC Impact Portal module has the following additional requirements.

Network requirements

Install the BMC Impact Portal and BMC Publishing Server components, in close network proximity to the computer or computers on which the datastore and BMC Atrium CMDB are installed. The components should be on the same LAN segment, if possible, or at least on the same LAN. They should not be separated over a WAN.

Specify size of the BMC Datastore for event reporting

If you plan to use event reporting, BMC recommends that during installation you select medium, at a minimum, or large for the BMC Datastore size.

Portal upgrade process for BMC Impact Solutions users

If you are upgrading BMC Impact Solutions, you must upgrade the BMC Portal using one of the following upgrade paths:

- Upgrade from BMC Impact Portal version 7.3.01 to BMC Impact Portal version 7.4.01

- Upgrade from BMC Impact Portal version 7.3.02 to BMC Impact Portal version 7.4.01

- Upgrade from BMC Impact Portal version 7.4.00 to BMC Impact Portal version 7.4.01

Preserving customizations that get overwritten during upgrade of BMC Impact Portal

The following customizations are overwritten when you upgrade the BMC Impact Portal:

- custom icons

- custom status changes

- custom severity changes

To preserve these customizations, back up the following files before upgrading to the current version of the BMC Impact Portal:

For custom icons:

`%BMC_PORTAL_KIT_HOME%/appserver/websdk/tools/jboss/server/all/modules/smslwc.sar/smslwc.war/images/multiattribute/`

`%BMC_PORTAL_KIT_HOME%/appserver/websdk/tools/jboss/server/all/deploy/websdk.sar/portal.war/images/icons/alerts/`

For custom status and severities:

`%BMC_PORTAL_KIT_HOME%/appserver/websdk/tools/jboss/server/all/conf/properties/custom_severities.properties`

`%BMC_PORTAL_KIT_HOME%/appserver/websdk/tools/jboss/server/all/conf/properties/custom_statuses.properties`

%BMC_PORTAL_KIT_HOME%/appserver/websdk/tools/jboss/server/all/conf/resources/<lang>/custom_status_messages.properties

%BMC_PORTAL_KIT_HOME%/appserver/websdk/tools/jboss/server/all/conf/resources/<lang>/custom_severity_messages.properties

After upgrading to the current version of BMC Impact Portal, replace the files from the upgrade with the backed-up files that contain your customizations.

BMC Remedy AR Server user account requirements

The BMC Remedy AR Server user account that is required for connections between the BMC Impact Portal and BMC Impact Solutions must:

- have a fixed license

- be a part of the Administrators group

Portal 64 Bit Mode Considerations

Before you upgrade BMC Portal 64-bit from 32-bit platform, perform the procedure to move the BMC Portal to 64-bit computer while retaining the configuration changes. For more information, see [BMC Portal Installation Guide](#). Also, copy the following file from your 32-bit Portal to 64-bit Portal as soon as the installation on 64-bit portal is finished. After copying the file, a restart of the 64-bit Portal appserver is required.

(Windows)%BMC_PORTAL_KIT_HOME%\appserver\websdk\tools\jboss\server\all\conf\properties\drmop\drmop.properties

(Solaris)\$BMC_PORTAL_KIT_HOME/appserver/websdk/tools/jboss/server/all/conf/properties/drmop/drmop.properties

When you upgrade from version 2.9.10 or any version before 2.9.10 to version 2.11.00, the mode in which RSM and BMC Portal will run depends on the current operating system mode and JVM (Java virtual machine) mode. If you have version 2.9.10 of BMC Portal and the RSM is running on 64-bit mode, after you upgrade to version 2.11.00 of BMC Portal, the RSM will continue to operate in the 64-bit mode.

We encourage you to take advantage of running an RSM in 64 bit mode, be sure to meet the minimum hardware requirements for an RSM. Anything over the minimum is great, but please come up to minimum requirements:

For 64-bit RSM

- 4 CPU minimum

- 2 GHz processing speed

- 4 GB RAM minimum

- 10 GB disk space

Continuous Data Export Upgrade Considerations

If you configured the Continuous Data Export (CDE) utility to send data to an external datastore, copy the configuration files to locations outside of the installation path.

Use the backup of the sampleOra.properties or sampleDatafeedTarget.properties file as a reference for viewing the old data in the target database and the properties that are configured manually. You can then change the new properties files accordingly.

To reconfigure the CDE instance, or if you did not create backup copies of these files before upgrade, see “Configuring the datafeed utility” in the [BMC Performance Manager Portal Monitoring and Management Guide](#) starting on page 215.

Database Upgrade Considerations

If you upgrade to Oracle 11g to use with BMC Performance Manager Portal 2.11.00, please ensure that the deferred_segment_creation setting in the database is set to false. If you do not disable this feature the Portal will have performance issues and will stop functioning properly. This is documented in our Knowledge Base under knowledge article [KA410585](#).

Installing BMC Performance Manager Portal on Windows

Prior to installing in a production environment, BMC recommends testing the same in a test/dev/QA environment.

In Windows environments, install locally or remotely

You can install the BMC Portal by performing a local installation, or you can use a commercially-available remote access control program (for example, Symantec pcAnywhere or Microsoft Terminal Services) to install the Portal components and modules on remote computers.

To avoid problems while installing the Portal components with remote access control programs, observe the following guidelines: When using Symantec pcAnywhere to install the BMC Portal on a remote computer, you must change the Video Mode Selection on the host computer:

On the pcAnywhere menu bar, choose Tools => Options => Host Operation => Video Mode Selection, and select Compatibility.

Before using the Terminal Services client to install the Portal, familiarize yourself with the requirements for installing applications from a client

Install application server and web server on one computer or separate computers

You can install the Portal application server and web server on a single computer or you can specify individual target computers for these components. If you choose to install the application server and web server on separate computers, the installation program places the module applications with the application server component.

Set up the user for installations on Windows

The user running the installation program must have the following attributes:

- administrator rights on the target computer

- permissions on the target computer
- membership in the Administrators group for the target computer

Use a compatible installation directory

If you do not select the default directory for the installation, the installation directory that you use must meet the following requirements:

- no spaces in the name of the directory
- no more than two levels deep

Uninstall Internet Information Server

If you have Microsoft Internet Information Server (IIS) installed on the target computer, you must disable it and leave it disabled. IIS and the Portal use the same port, so the Portal cannot operate when IIS is enabled.

Uninstall Apache

If an Apache instance is installed on the target computer for the web server, you must uninstall it. If the installation program detects Apache on the target computer, the installation process stops with an error message.

The BMC Portal installation program checks the description of each service in the registry (HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services*) and fails if it finds an Apache service. To check for the presence of an existing instance of the Apache web server, choose Start => Settings => Control Panel => Admin Tools => Services from the Windows task bar.

Disable virus scanning programs

Virus scanners can block the SMTP port and lock files that the installation program needs to configure the mail server and perform the installation. After you finish installing the product, you must open the HTTP and HTTPS ports on the Portal computer. For more information, see the Opening Ports section in the [BMC Portal Getting Started Guide](#). You can enable the virus scanning programs after the installation is completed.

Disable firewall protection programs

Before installing, you must disable firewall protection programs on the target computer, such as McAfee Host Intrusion Prevention Service (HIPS). Firewall protection programs can block access to ports that are used by the installation program during installation.

You must reboot the computer after you disable the service. You can enable the firewall protection programs after the installation is completed.

Configure DEP to recognize the program

Before installing or uninstalling on a Windows Server 2003 SP1 computer, you must configure the data execution prevention (DEP) feature to recognize the installation or uninstallation program. Otherwise, when you start the program, DEP might block it. If this block occurs, the program cannot continue, and an error message is displayed.

This problem is caused by an enhanced DEP feature in SP1.

Configuring DEP to recognize the program

Change the configuration of DEP in Windows on the computer where you will install the program.

To configure DEP to recognize the program

- 1 Insert the DVD in the CD-ROM tray.
- 2 From the Windows Desktop, right-click the My Computer icon.
- 3 Select Properties
- 4 Select the Advanced tab
- 5 Under the Performance heading; select Settings
- 6 Select the Data Execution Prevention tab
- 7 Select Turn on DEP for programs and services except those I select and click Add
- 8 On the DVD drive, browse to setup.cmd and click Open
- 9 Click Apply, click OK, and then click OK again to close the System Properties window.
- 10 Perform one of the following actions:

If you are not using Windows Terminal Services, reboot the computer.

If you are using Windows Terminal Services, proceed to “Configure Terminal Services to save the log files” before rebooting the computer on page 68 of the [BMC Performance Manger Portal Installation Guide](#).

Portal installations on Solaris

In addition to the target computer meeting the requirements specified in the release notes, an installation on Solaris has the following requirements:

- Ability to log on as root to run the installation program
To switch to root, run su - root.
- The umask set to 022
Other umask settings cause the installation to fail.
- The DISPLAY environment variable must be set correctly
- For example: DISPLAY=hostname/IPaddress:0.0
- X Windows access control must be disabled.
To disable X Windows access control, use the xhost + command.
- Ensure that the nsswitch.conf file contains a hosts: statement that contains dns, as in the following example: hosts: dns files nis

- Uninstall Apache.
- Installing required library and patches.

Note: POSIX df command (/usr/bin/xpg4/df) works for the installation under a huge file system.

Uninstall Apache

If an Apache instance is installed on the target computer for the web server, you must uninstall it. If the installation program detects Apache on the target computer, the installation process stops with an error message.

Install library and patches on Solaris computers

Before installing on a Solaris computer, you must install the following library and, depending on your environment, the following patches:

NOTE: If the links provided in these instructions have changed contact Oracle for the current location of these links.

Installing the libiconv library on a Solaris computer

The target computer for the Portal web server requires the libiconv conversion library. If the installation program cannot detect the presence of this library, it displays the following message: Your system is missing the SMCiconv package. This package is needed for correct functioning of the webserver.

Use the following procedure to install the appropriate library, and then restart the installation program.

To install the libiconv library:

1. Using one of the following URLs, download the appropriate version to the /tmp directory on your Solaris computer:

Solaris 9: <http://www.sunfreeware.com/programlistsparc9.html#libiconv>

Solaris 10: <http://www.sunfreeware.com/programlistsparc10.html#libiconv>

2. Enter the appropriate command to uncompress the files:
Solaris 9: `gunzip libiconv-1.11-sol9-sparc-local.gz`
Solaris 10: `gunzip libiconv-1.11-sol10-sparc-local.gz`
3. Use the following procedure to download and install the appropriate library, and then restart the installation program.
4. Use the appropriate command to install the files:
Solaris 9: `pkgadd -d libiconv-1.11-sol9-sparc-local.gz`
Solaris 10: `pkgadd -d libiconv-1.11-sol10-sparc-local.gz`

Installing the libuuid patch on Solaris 9 computers

If the target computer for the web server is a Solaris 9 computer, you must install the libuuid patch. If the installation program cannot detect the presence of this patch, it displays the following message:

The Web server requires Solaris patch #114129. It is not detected on your system. You can download the patch from <http://sunsolve.sun.com/patches>.

Use the following procedure to download and install the patch.

To install the libuuid patch:

1. From the following web page, download the patch file to the /tmp directory on your Solaris 9 computer:
<http://sunsolve.sun.com/search/document.do?assetkey=114129>
2. Enter the following command to uncompress the file: `unzip 114129-02.zip`
3. Use the following command to install the patch: `patchadd 114129-02`

Installing the SMCliconv patch on Solaris 11 computers

If the target computer for the web server is a Solaris 11 computer, you must install the SMCliconv patch. If the installation program cannot detect the presence of this patch, it displays the following message:

The webserver requires Solaris package SMCliconv
Download this package from Oracle website.

These are the preinstall steps for Solaris, to complete the full installation, please see [BMC Performance Manager Portal Installation Guide](#) for details on the installation steps.

Creating a clustered environment

Review “Cluster the Portal application servers, web servers, or both” on page 23 of the [BMC Performance Manager Portal Installation](#) Guide to decide whether and how you want to cluster your environment.

Once you have decided whether to cluster and which components to cluster, use the following tasks to create the clustered environment you select:

- “Clustering the Portal application server component” on page 73 of the [BMC Performance Manager Portal Installation](#) Guide
- “Clustering the web server component” on page 78 of the [BMC Performance Manager Portal Installation](#) Guide
- “Clustering the application server and the web server” on page 80 of the [BMC Performance Manager Portal Installation](#) Guide

If the Portal environment includes the BMC Impact Portal module, perform the steps mentioned in “Configuring the web server and application servers for the BMC Impact Portal module” on page 81 of the [BMC Performance Manager Portal Installation Guide](#).

Upgrading a Clustered Portal Environment

You can upgrade the Portal application servers that are part of a cluster. You do not need to reconfigure the cluster after the upgrade; the clusters are preserved.

Upgrading a clustered Portal environment involves performing the following tasks:

1. Shut down all application servers that are part of the cluster.
2. Upgrade the BMC Datastore. See the BMC Datastore Installation Guide.
3. Upgrade the Portal web server. See “To upgrade the web server” on page 193 of the [BMC Performance Manager Portal Installation Guide](#).
4. Upgrade each Portal application server, one at a time. See “To upgrade the application server” on page 190 of the [BMC Performance Manager Portal Installation Guide](#).

BMC Impact Portal upgrade

You must upgrade BMC Impact Manager and BMC Atrium CMDB before you upgrade BMC Impact Portal. For the latest information about BMC Impact Solutions version compatibility and support, see the [BMC Impact Solutions Release Notes](#) (NOTE: BMC Impact Solutions 7.4.01 will use 7.4.00 documentation) and [BMC Portal Release Notes](#).

Upgrade process

This section describes the general stages of the upgrade process. Where applicable, an estimate of the time required to complete a stage is provided. Monitoring cannot resume until the Remote Service Monitors (RSMs) have completed the auto-upgrade process.

NOTE

If you are upgrading to Portal version 2.11.00, and if you have clustered an application server running on a 32-bit operating system with an application server running on a 64-bit operating system in your earlier Portal version environment, perform the following tasks:

1. Uncluster the application servers.
2. Cluster the application servers that are running on the same operating systems (either 32-bit or 64-bit).
3. Upgrade to Portal 2.11.00. For more information, see “Upgrading the Portal” on page 184.

Upgrading a clustered Portal environment involves performing the following tasks:

1. Shut down all application servers that are part of the cluster.
2. Upgrade the BMC Datastore. See the BMC Datastore Installation Guide.
3. Upgrade the Portal web server. See “To upgrade the web server” on page 193.
4. Upgrade each Portal application server, one at a time. See “To upgrade the application server” on page 190 of the

BMC Datastore Upgrade

Upgrade the database server first. Just like an initial installation, the database upgrade must occur before the web server or application server upgrade. During this phase of the upgrade, the BMC Datastore installation component upgrades Oracle. The database contents will not be modified until you upgrade the application server. For instructions on upgrading BMC Datastore, see the BMC Datastore Installation Guide.

If you are using your own, licensed Oracle database installation, then you must upgrade your Oracle database with partitioning enabled. For instructions on upgrading your Oracle installation, see your Oracle documentation. See the [BMC Portal Release Notes](#) for more information about the Oracle upgrade.

Allow at least one hour for completion of the database upgrade, but the speed of your hardware can affect the duration of this task. If you have version 2.7.10 of the Datastore, you do not need to upgrade the database. If you are using your own Oracle instance and are running with a version equal or higher than 10.2.0.4.0 you do not need to upgrade the Oracle instance.

You must stop the following services (if they are present) before upgrading the BMC Datastore. Alternatively, you can set them to manual for the duration of the upgrade in the event of a server reboot.

- BMC Portal
- BMC Portal Web Server
- BMC Remote Service Monitor
- PATROL Agent (Windows computers only)
- BMC Datastore Agent
- OracleBMCDatastoreTNSListener
- OracleServiceBMCPDS
- BMC Impact Integration Web Services Server
- Microsoft Distributed Transaction Coordinator (MSDTC)
- Windows Management Instrumentation (WMI)
- BMC Atrium Configuration Management Database
- AR System
- BMC Topology Discovery
- BMC Performance Manager Reporting
- BMC Impact Event Adaptor
- BMC Impact Publishing Server
- mcell_cellName
- BMC Remedy Action Request System Server.

During the Portal upgrade, you cannot:

- Log on to the Portal

- Install the application server and web server on different computers if they are currently installed on one computer

When the installation program detects an earlier version of the Portal or its components, it prompts you to begin the upgrade. During the upgrade, the installation program

- verifies that the services from the earlier version have been uninstalled
- upgrades the Portal database instance schema
- upgrades the Portal application server and web server
- installs any additional modules that you select
- restarts services for the current installation

NOTE: The installation program does not upgrade the CDE database instance schema. For information about the CDE database schema, see the [BMC Performance Manager Portal Monitoring and Management Guide](#).

RAC Consideration for Database Upgrade

If you use a RAC URL setting in your secondary application server, this will impact the upgrade. This is only affected if you use the RAC URL in your secondary application server. The upgrade will be affected in two ways:

- In the 2.11.00 installer when upgrading the app server hosts and web server hosts user should specify the **active** member of the Oracle RAC cluster like the following screen shot (example):

The screenshot shows the 'BMC Portal 2.10.01 Installer' window. On the left is a blue sidebar with a play button icon and the 'bmcsoftware' logo. The main area is titled 'Enter the following information for the database:'. It contains several input fields: 'Fully-Qualified Database Host Name' (lkrbsapr1.ngco.com), 'Port' (1521), 'Database Instance Name' (PR3411), 'Database Logon' (pe), 'Database Password' (masked with dots), and 'Confirm Database Password' (masked with dots). At the bottom left is a 'Cancel' button, and at the bottom right are 'Previous' and 'Next' buttons. A progress bar labeled 'InstallAnywhere' is at the bottom left.

- **AFTER** the Portal has been upgraded, has run for about 30 minutes and is collecting data correctly then the user should follow the directions in the “**Support for Oracle Real Application Clusters**” section of the [2.10 BMC Performance Manger Installation Guide](#) (pages 27 and 28). Following the directions on pages 27 and 28 the user should edit the Portal Maintenance Tool (%BMC_PORTAL_KIT_HOME%\appserver\BMCPortalMaintenanceTool.cmd) and set the Initial appserver memory to 2048 (MB) and the Maximum appserver memory to 4096 (MB) – both “Custom Size” as seen here:

The screenshot shows the 'Portal Maintenance Tool' configuration window. It has two columns: 'Initial appserver memory' and 'Maximum appserver memory'. Each column has radio buttons for 512 MB, 1024 MB, 1200 MB, 1500 MB, and 3000 MB. The 'Custom Size' option is selected in both columns, with input fields showing '2048' for initial memory and '4096' for maximum memory. A note next to the maximum memory custom size says '(for trial configurations only)'. The 'Custom Size' option is also noted with '(e.g. 2100)'.

Confirm the configuration file and the successful restart of the instance (only for Solaris)

Perform the following procedures before upgrading the BMC Datastore, and before upgrading the Portal application server.

Verify the contents of the oratab file

Check the file contents of the oratab file on the database server. If it does not contain an entry for the Portal database instance, append it to the file.

For example, if the cat /var/opt/oracle/oratab file does not contain an entry for BMCPDS but it has an entry for BMCCDE, you need to modify this entry.

For example: BMCCDE:/data2/Datastore/ora10g/db_1:Y

To add the BMCPDS instance to the oratab file

1. Log on to the system using an Oracle dba user name and password.
2. Add the following lines to the oratab file, as shown in the following example:
BMCCDE:/data2/Datastore/ora10g/db_1:Y
BMCPDS:/data2/Datastore/ora10g/db_1:Y

If you did not install the BMC Datastore in the default directory, substitute the directory for the directory that you used during installation. If you did not use the default BMCPDS instance name for the Portal, substitute the name that you used for the Portal instance.

3. To save the changes, Ctrl+D.
4. Restart the Oracle instance.

If you get the message Database opened and no errors after restarting Oracle, the Oracle instance has been successfully restarted.

5. Repeat the same procedure for other instances by changing the value of ORACLE_SID (for example, BMCCDE).

If you have your own Oracle license, restart the database or request your Oracle DBA user to make the changes. If you are using the BMC Datastore product, see the BMC Datastore Installation Guide to restart the database.

Upgrade the web server and application server

The application server upgrade modifies the Portal database schema and the BMC Datastore or Oracle database contents. This step is generally the most time consuming step of the upgrade because the duration is related to the size of the database. This step can require several hours for production databases (1–2 hours for a Portal that has 1000 or more elements). The performance characteristics of the database hardware can have a significant impact on the time needed to finish this step.

The BMCCDE schema needs to be manually upgrade after the Portal upgrade is finished by executing the createDatafeedSchema Datastore CLI as explained in [Portal Monitoring and Management Guide](#)

When the application server installation is complete, the installation program starts the application server. During application server startup, a second phase of the upgrade runs. This phase upgrades the database contents based on the specific needs of the core/built in solution Performance Managers (e.g. Ping, Port-mon, etc.) that are installed on your Portal. Depending on the size of your Portal database, this phase can require an hour for a large database. During this phase, the application server does not allow users to log on.

NOTE: Do not upgrade the performance manager at this point and refer to the section [Performance Manager upgrades from BMC Performance Manager Portal](#)

Upgrade the RSMs

After the Portal starts the web server and application server and connects to the database, active Remote Server Monitors (RSMs) are automatically connected to the Portal and the RSM auto-upgrade process starts. In some cases, RSMs cannot upgrade automatically. If this problem occurs, you must manually run the RSM installation to upgrade those RSMs.

A typical duration for downloading and installing an RSM (either using auto upgrade or the manual process) is approximately 20–30 minutes.

NOTE: The RSM installation log may display an exception message as follows:
THROWABLE EVENT {Description=[Failed to get product registry],Detail=[C:\Windows\ProductRegistry.xml]}

If you encounter such an exception, verify the disk space on the C:\ drive. Ensure that the C:\ drive has 2 GB of free space, even if the directory where you are to install RSM is on another drive.

WARNING: Do not proceed with the upgrade of the Performance Manager solutions until all of the RSMs are upgraded and back online.

To verify that the RSMs have been upgraded:

1. Log on to the BMC Portal as a superadmin, and navigate to Portal => Remote Service Monitors.
2. Scroll to the Version column on the far right, and verify that each RSM entry displays the latest version. If upgrading to Portal 2.11.00 the RSM version will show 2.11.00.
3. If the version is not the latest version, either the RSM has not completed the auto-upgrade or it has failed the auto-upgrade.
4. You must manually upgrade all RSMs that have not automatically upgraded before you upgrade the Performance Manager solutions.

The status of an RSM upgrade can be inferred from the Remote Service Monitors task on the Configuration tab in the Portal UI. While an RSM is upgrading, its status displays as (red icon). When the upgrade completes successfully, the status changes to (green icon). If the upgrade fails, the status remains in the disconnected state. For any given RSM, no monitoring can occur from that RSM until it is upgraded. For supported versions of the BMC Portal, the RSM cluster definitions are automatically preserved during upgrade.

Auto-upgrade for RSMs

During the Portal upgrade, communication stops between the Portal and its RSMs, and data collection stops. Following the upgrade, the RSMs determine that they have an earlier version of the RSM program and request the current version of the RSM program from the Portal. Upon receipt of the current version of the program, the RSMs begin upgrading to the new version and drop their stored data. Immediately after upgrading the RSM program, RSMs resume their communication with the Portal.

However, if you are running the RSM program on Windows 2003 SP1 computers, you must prepare the computers for the upgrade as described in the following procedure. Otherwise, the auto-upgrade will fail. This problem is caused by an enhanced data execution prevention feature (DEP) that Microsoft included in SP1.

If you do not prepare the RSM computers before upgrading the Portal, you can configure DEP and rerun the RSM installation program after the Portal upgrade. For more information about DEP settings, refer to the [BMC Performance Manager Portal Monitoring and Management Guide](#).

Shortly following a successful Portal upgrade, the RSMs should begin their auto upgrade process. To determine when the RSMs finish upgrading, log on to the Portal as a user and access the Remote Service Monitors page. The green icon appears next to the RSM name when the upgrade is finished.

Once the RSMs are upgraded and the solutions published, your Portal data collection should resume. It's best that you login to the Portal and verify that data is being collected and the Portal is sending events or alerts as configured.

NOTE: There is a known defect that can occur when the RSM auto-upgrades. The issue is that the RSM connects to the "old" Portal webserver after doing a migration and upgrade where a new webserver is being used. When the web server is being changed using the RSM Maintenance tool, also change it via RSM Manager. This will ensure the XML files for the web server references are correctly updated which does not happens in RSM maintenance tool, hence the defect. This only happens if there is a new webserver being referenced during the upgrade.

BMC Performance Manager Portal upgrade considerations

The installation program detects the installed version of the module and can upgrade only from a supported version of the BMC Portal. For a list of the supported versions and information about upgrading from earlier versions of the product, see the [BMC Portal Release Notes](#).

Event notifications after upgrading

After you upgrade and restart the Portal, all parameters transition from an unknown state to a new state (OK, Warning, or Alarm). During the transition, a spike in event notifications might occur, which is normal when either an RSM or the Portal restarts. You can ignore these notifications, or you can disable enterprise integration before the upgrade and enable it when normal data collection resumes.

This situation applies to all upgrade paths.

Performance Manager upgrades from BMC Performance Manager Portal

BMC recommends that you upgrade your Performance Managers after the Portal upgrade has been completed. An upgraded Portal cannot begin using the newly-installed Performance Managers until you publish them. For more information about publishing Performance Managers, see the [BMC Performance Manager Portal Monitoring and Management Guide](#).

Please take a configuration backup using the export_data.sql. This database dump will help to restore to a step prior to the performance manager solutions upgrade in case of any accidents or failures. However do not do the import of this dump unless asked by BMC Support. This is for recovery purposes only and should only be used with the guidance of BMC Support

BMC recommends you upgrade BMC Performance Managers individually based on usage in the Portal. The core solutions will be upgraded by the Portal during the upgrade. However, you may need to download newer version of various solutions.

For example:

<ftp://ftp.bmc.com/pub/BPMPortal/BMC-PM-Express-for-Servers-Unix-Linux-2.7.64.par>

ftp://ftp.bmc.com/pub/patrol/patches/BPM_EXPRESS_FOR_LOG_MANAGEMENT/2.7.71/BMC-PM-Express-for-Servers-Log-Mgmt-2.7.71.par

<ftp://ftp.bmc.com/pub/BPMPortal/BMC-PM-Express-for-Databases-MS-SQL-Server-2.8.52.par>

BMC-PM-Express-for-Servers-Windows-2.7.73.par can be downloaded from our BMC EPD website.

Apply the latest Performance Managers (PMs) obtained from BMC's EPD site:

<http://www.bmc.com/support/support-central.html>

- Select Product Downloads, enter the Performance Manager name, then select the 'Patches' tab to obtain the latest solution.

For convenience the top five most commonly used Performance Managers are stored here:

<ftp://ftp.bmc.com/pub/BPMPortal/Five-PMs.zip>

NOTE:

The Oracle 2.8.52 and Unix/Linux 2.7.70 PMs are not in the CD Bundle for Portal 2.11.00 so you will need to download these Performance Managers from the EPD site.

NOTE:

First upgrade the Operating System Performance Managers for Unix and Windows above then upgrade the Log Management Performance Manager if you are using these solutions or plan to use these solutions.

If you are not sure of which solutions are the latest, please contact Support with the name of the solution/performance manager and we can provide the latest version.

WARNING

You must verify that all of the RSMs are updated to the latest version and that they are all running before you can publish the Performance Manager solutions. Then you must publish the Performance Manager solutions one by one, individually. If a solution is in the process of publishing, do not start publishing another solution until the first shows the upgraded version

If the BMC Performance Managers get stuck during the upgrade or publishing process, you will have to manually roll the solution back in the database and start the upgrade again. Here are the details to do that:

1. Stop the Portal.

2. Run the following query

```
select count(*) from solution_info where status = 'PUBLISHING' and version='2.1.00'
update solution_info
set status = 'UNDEPLOYED' where status = 'PUBLISHING' and version = '2.1.00';
COMMIT;
```

```
select count(*) from solution_info where status = 'UPGRADING' and version='2.0.00'
update solution_info
set status = 'DEPLOYED' where status = 'UPGRADING' and version = '2.0.00';
COMMIT;
```

(Substituting proper solution version numbers in the query above)

3. Configuration change.

Change the following element in "drmp.properties" file. This file will be in
<POTAL_HOME>/../jboss/server/all/conf/properties/drmpop
FROM
portal.upgrade.transaction.elements=100
TO
portal.upgrade.transaction.elements=25

On 32-bit systems

portal.upgrade.transaction.elements=200
TO
portal.upgrade.transaction.elements=50

On 64-bit systems

(Or comment out the original one with a # and add new line with new value).

4. Back up all the Portal log files and delete from that folder.

5. Re-start the Portal.

6. Select only one performance manager solution and publish.

7. If the publication is successful, then continue publishing each solution one by one.

Available Patches

Please go to <ftp.bmc.com/pub/BPMPortal/Patches/2.11> and you will see these patches. While there are several patches listed, only one patch is available for Portal 2.11.00

ftp://ftp.bmc.com/pub/BPMPortal/Patches/2.11/BPM_patch_2.11.00.000.005.zip

This patch is a cumulative patch containing several fixes for defects entered against BMC Portal 2.11.00.

Defects Addressed in the patch include:

QM001822669 : RSM thread gets blocked due to the Perfmon collector native calls.

QM001869437 : After a failure to connect to the remote registry the application should retry the connection, instead of reporting a failure.

QM001774677 : Problem collecting metrics for 32-bit ASP.NET Applications running on Windows 64-bit 2008 R2 Servers. Added support to monitor Perfmon objects which have both 32-bit/64-bit Perfmon counters on a 64-bit system.

QM001864154 : If a timeout occurs when monitoring Windows servers, the connection is kept in the pending queue. Once it is kept in the pending queue the connection remains in the pending queue indefinitely.

QM001804786 : If a Windows Server is rebooted while being monitored, the Application Collection Status will go into alarm and will never restart monitoring until the element is turned off/on or the TTL connection expires.

QM001877356 : Custom SSH collector solutions are not showing the SSH command in the edit screens when the performance manager is being edited via the Performance Manager Editor.

QM001878016 : Portal 2.11 fails to recognize 2.10.01 SDK as valid.

QM001881608 : Data is not collected in the RSM and throws an error in the rsm.log
e=java.lang.IllegalStateException: BadPaddingException exception during decryption

RFE Addressed:

QM001863008 : Ability to monitor ON/OFF elements or groups through the BPMCLI

Portal Quick Tune Guide

BMC recommends that all Portal users to review and apply all sections of the Portal Quick Tune Guide. The Quick Tune Guide is a living document used to fine tune large scale Portals to ensure continued performance. The Portal Quick Tune Guide can be found on our FTP site under ftp://ftp.bmc.com/pub/BPMPortal/Portal_quick_Tune.txt

BMC Performance Manager Portal Best Practices

For recommendations about maintaining the Portal and ensuring your Portal is working effectively, we have put together a Best Practices living document. Please review it once your Portal is upgraded. The document can be found here:

ftp://ftp.bmc.com/pub/BPMPortal/BMC_Performance_Manager_Portal_Best_Practices_Guide.docx