BMC Subsystem Optimizer for zEnterprise
Version 2.0.00
September 18, 2015

BMC is releasing version 2.0.00 of the following BMC Subsystem Optimizer for zEnterprise (Subzero) products for the IBM zEnterprise environment:
- BMC Subsystem Optimizer for DB2
- BMC Subsystem Optimizer for IMS

Note
Before you begin installation, BMC recommends that you check the Support Central website at http://www.bmc.com/support for:
- Updated product documentation (for example, flashes and technical bulletins)
- Product downloads, patches, and fixes (PTFs)
- Product availability and compatibility data

These release notes supplement and supersede the product documentation.

The following topics are discussed:

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What's new

These topics describe the changes or new features in this release.

Enhanced CICS to DB2 support when MQ shared queues are used

In this release, Subzero lets you separate an instance of IBM WebSphere MQ (now called IBM MQ) from the IBM DB2 subsystem that WebSphere MQ uses. Now, you can move the DB2 subsystem to another LPAR, which can reduce your monthly IBM payment.

You can now configure an IBM WebSphere MQ queue sharing group (QSG) to cache shared object definitions on the DB2 subsystem that is running on the remote LPAR.

For more information, view the Quick Course "Subsystem Optimizer for zEnterprise - Redirecting MQ shared queues to remote DB2 subsystems."

IMS to DB2 support

In this release, Subzero lets you separate an IBM IMS subsystem from a connected DB2 subsystem. You can redirect the DB2 subsystem to another LPAR, which can reduce your monthly IBM payment.

This release lets you use Subzero to perform the following tasks:

- Configure an IMS subsystem to perform SQL transactions on a DB2 subsystem running on a remote LPAR
- Configure a DB2 subsystem to use IMS services when the DB2 subsystem is running on a remote LPAR
  For example, you can configure the remote DB2 subsystem to use IMS checkpoint processing.
- Configure IMS batch message processing (BMP) regions to DB2 databases running on remote LPARs
Use the Instrumentation Facility Interface (IFI) to issue commands to a DB2 subsystem running on a remote LPAR

For more information, view the Quick Course "Subsystem Optimizer for zEnterprise - Redirecting IMS/TM to remote DB2 subsystems."

Installation verification program

Subzero now provides an installation verification program (IVP) that you can use to ensure that the product is installed and set up correctly in your IMS/TM or CICS environment. The IVP lets you verify that a transaction can access a local or remotely connected DB2 or IMS subsystem (via Subzero) without requiring changes to the program, DB2 bind process, or transaction definitions.

BMC provides two versions of the installation verification program:

- IVP for CICS
- IVP for IMS

For more information, see the section related to the IVP in the BMC Subsystem Optimizer for zEnterprise Administration Guide

Note

IBMC made this enhancement available for Subzero version 1.0.00 via PTF BPJ1057. BMC announced the enhancement in a technical bulletin dated February 12, 2015.

Support for the IBM IMS Open Thread Environment

Subzero now supports the IBM IMS Open Thread Environment (OTE). IBM issued APARs to enable OTE for IMS Version 12 (APAR PI29194) and 13 (APAR PI29195).

The setting that you specified for the IMS DFSPZPxx OPENTHRD parameter tells Subzero whether to use the IMS OTE feature. Subzero supports any setting.

Enhanced handling of waiting and suspended tasks

Enhanced Subzero messages now provide information that you can use in a BRD,KILL command to terminate a task. These messages identify the waiting or suspended thread and its associated Subzero task number.
You can use this information to terminate waiting or suspended subsystem tasks in the Subzero subsystem server or client tasks in the Subzero controlling agent. (Previously, the BRD,KILL command could terminate subsystem tasks in the Subzero subsystem server only.)

**Note**
BMC made this enhancement available for Subzero version 1.0.00 via PTF BPJ1024. BMC announced the enhancement in a technical bulletin dated April 17, 2015.

### BRD,STOP,FORCE command

This release adds support for forcibly stopping Subzero. All STOP commands now support the FORCE command parameter. FORCE instructs Subzero is to detach its tasks and terminate without prejudice. These tasks might be threads connected to the subsystem (for example, IMS or DB2) and might result in the abnormal termination of that subsystem.

For example, `/dbcssid BRD,STOP,FORCE` forcibly stops all address spaces on the local LPAR.

**WARNING**
BMC recommends using the FORCE parameter only if all previous attempts to stop the address space have failed. Terminating a process that is still in use can have unpredictable results.

### Display of redirection conflicts

You can now use the BRD,DISPLAY,MAP command to see any redirectional conflicts. For example, you can see redirections to unavailable targets, or to unsupported DB2 or IMS subsystems.

### Support for CICS Version 5.3

Subzero now supports Version 5.3 of IBM CICS.
Support for IMS Version 14.1

Subzero now supports Version 14.1 of the IBM IMS system.

BMC Documentation Center changes

The primary BMC Documentation Center is now available without a support login. This center offers:

- Documentation and Quick Courses for all products except Cost Optimization products
- Messages for all products, including Cost Optimization products

A new, secured Cost Optimization Documentation Center offers documentation and Quick Courses for the following products:

- BMC Application Accelerator for IMS
- BMC Cost Analyzer for zEnterpise (CAzE)
- BMC Intelligent Capping for zEnterpise (iCap)
- BMC Subsystem Optimizer for zEnterpise (Subzero)

Note
You must log in using your BMC Support ID to access the Cost Optimization Documentation Center.

To access the Documentation Centers, go to:

- BMC Documentation Center
- BMC Cost Optimization Documentation Center

Installation

Subzero is installed by using the Installation System. To download the latest version of the Installation System, complete these steps:

1. Go to http://www.bmc.com/support/reg/installation-system.html, or navigate to the “BMC data management for DB2 and IMS, MainView, and cost optimization products installation and maintenance” section of the BMC Support Central website.
   A BMC support user ID and password are required.
2 Click **Installation**.

3 Click the method you want to use to obtain the Installation System.

4 Follow the procedures.

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**Note**

BMC recommends updating the Installation System each time you use it to ensure that you have the most recent information. To do so, on the Installation System Main Menu, select **Check for Installation System Update**. For additional information, see the Installation System documentation.

To request physical shipments, contact your BMC sales representative. Contact information is available on the BMC website.

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This section contains installation information that supplements or supersedes the information in the Installation System documentation.

**Requirements**

For Subzero software, hardware, and other requirements, see the *BMC Subsystem Optimizer for zEnterprise Administration Guide*.

For software, hardware, and other requirements for other components, see:

- The Installation System documentation
- *BMC Infrastructure Components Administration Guide*
- *BMC Runtime Component System Configuration and Administration Guide*

**Installation changes**

For information about installation changes, see the Installation System release notes.

**FMID and version information**

This release of Subzero uses the following versions of the Installation System and installation media:

- Version 2.4.20 or later of the Installation System
- Version 2.4.20 or later of the installation media

**Note**

If you have a later version of the Installation System, use that version to install the solution, product, or component.

During installation, the following versions and SMP/E FMIDs are installed:

<table>
<thead>
<tr>
<th>FMID</th>
<th>Description</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASAR71C</td>
<td>SAS C and SAS C++ modules</td>
<td>7.1</td>
</tr>
<tr>
<td>BBASC70</td>
<td>SAS C modules</td>
<td>7.0</td>
</tr>
<tr>
<td>LOSZ120</td>
<td>Runtime Component System (RTCS) C library</td>
<td>2.0</td>
</tr>
<tr>
<td>ZBMR15E</td>
<td>ISR external routines</td>
<td>1.5</td>
</tr>
<tr>
<td>ZBRD200</td>
<td>BMC Subsystem Optimizer for zEnterprise (Subzero) modules</td>
<td>2.0</td>
</tr>
<tr>
<td>ZBST100</td>
<td>BMC Support Tool</td>
<td>1.0</td>
</tr>
<tr>
<td>ZDBCA10</td>
<td>DB2 Component Services (DBC) modules</td>
<td>10.1</td>
</tr>
<tr>
<td>ZDHS053b</td>
<td>DNA Host Services modules</td>
<td>5.3</td>
</tr>
<tr>
<td>ZDIG190</td>
<td>DIGNUS C runtime modules and C++ objects</td>
<td>1.9</td>
</tr>
<tr>
<td>ZDIG1A0</td>
<td>DIGNUS C runtime modules and C++ objects</td>
<td>1.98</td>
</tr>
<tr>
<td>ZLGCA10</td>
<td>DB2 Product Configuration (LGC) modules</td>
<td>10.1</td>
</tr>
<tr>
<td>ZOSZ120</td>
<td>RTCS kernel library</td>
<td>2.0</td>
</tr>
<tr>
<td>ZPWD330</td>
<td>BMC Password Security System</td>
<td>3.3</td>
</tr>
<tr>
<td>ZSCCB10</td>
<td>DB2 common-code modules</td>
<td>11.1</td>
</tr>
<tr>
<td>ZSMF540b</td>
<td>SmartDBA Mainframe modules</td>
<td>5.4</td>
</tr>
<tr>
<td>ZUIM540b</td>
<td>User Interface Middleware (UIM) modules</td>
<td>5.4</td>
</tr>
<tr>
<td>ZUSC540</td>
<td>UIM common services modules</td>
<td>5.4</td>
</tr>
<tr>
<td>ZUWS540b</td>
<td>UIM web services modules</td>
<td>5.4</td>
</tr>
</tbody>
</table>

- This FMID is packaged with every BMC product for support purposes but is not used during execution of the product.

- This FMID is not used with Subzero but is required for installation of a related FMID.

The preceding table contains the FMIDs for Subzero only. You can also obtain product, solution, and component information (FMIDs, codes, and versions) in the following ways:
View the generated installation JCL member $176APLF. To search the file, search on the word \textit{FORFMID}.

View one of the following reports:

- \texttt{bxx\_ozi\_tape\_product\_list.txt} lists FMIDs for cost optimization products, products shared across product lines, and infrastructure products.

- \texttt{cxx\_ozi\_tape\_product\_list.txt} lists FMIDs for BMC products for IBM DB2.

- \texttt{ixx\_ozi\_tape\_product\_list.txt} lists FMIDs for BMC products for IBM IMS.

- \texttt{mxx\_ozi\_tape\_product\_list.txt} lists FMIDs for MainView products.

To access the reports on the BMC electronic software distribution (ESD) site, take the following steps:

1. Go to \url{http://www.bmc.com/support/reg/installation-system.html}, or navigate to the “BMC data management for DB2 and IMS, MainView, and cost optimization products installation and maintenance” section of the BMC Support Central website.

2. Click \textit{Product codes and FMIDs}.

3. Click one of the listed reports.

\section*{Subzero installation and implementation notes}

As you install and implement Subzero, consider the following information:

- You can select \textbf{BMC Subsystem Optimizer for zEnterprise} for installation from the \textbf{BMC Mainframe Cost Optimization} list or from the \textbf{All Products} list.

- When the Install System RTCS Deselection pop-up is displayed, choose to install the Runtime Component System (RTCS) \textit{unless} it is already installed on this LPAR at the minimum required version and maintenance level displayed in the pop-up. Unless otherwise indicated in the pop-up, the minimum required version of RTCS is 1.2.00 with PTF BP00181.

- If DB2 Component Services (DBC) and DB2 Product Configuration (LGC) are already installed on this LPAR, BMC recommends that you upgrade and use the existing address spaces, instead of installing new ones. The minimum required version of DBC and LGC is 10.1.00 with PTF BPU6624.

- If one or more IMS subsystems will participate in Subzero redirection, ensure that Subzero can access the DFSPZPxx module. For more information, see the topic...
about IMS requirements in the *BMC Subsystem Optimizer for zEnterprise Administration Guide*.

- The *Installation System Reference Manual* provides a procedure for starting DBC product agents. Before beginning that procedure, modify your system PROCLIB to include the BRDPROC procedure (located in member BRDPROC of the INSTALL data set).

  **Note**

  The procedure for starting DBC product agents instructs you to submit the $495SBRD job. Then, when DBC restarts, it will start the Subzero address spaces automatically.

- As part of the procedure in the topic about starting DBC product agents, you will submit the $495SBRD job. The next time DBC restarts, it will start Subzero address spaces automatically.

- The following table lists three-character product codes for CPU authorization of Subzero products. You use these codes when installing passwords.

<table>
<thead>
<tr>
<th>Licensed product</th>
<th>Product code</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMC Subsystem Optimizer for DB2</td>
<td>T1A</td>
</tr>
<tr>
<td>BMC Subsystem Optimizer for IMS</td>
<td>T1B</td>
</tr>
</tbody>
</table>

- BMC recommends that you establish a Workload Manager (WLM) service policy for Subzero servers. Subzero WLM classification uses the following parameters to define the WLM service policy:

  — Subsystem (BMCI)

  — Subsystem Name (SUBZERO)

  — Transaction Class (ONLINE)

  — Transaction Name (CLIENT)

  These parameters are generic, and not all of them are required; you can establish the service policy by specifying only the Subsystem and Subsystem Name parameters. However, the Transaction Class and Transaction Name parameters can be useful for WLM performance monitoring and reporting.

  Subzero servers provide services to multiple client address spaces (CICS regions) on an LPAR. As such, the WLM service policy should place Subzero servers in a WLM service class that is the same or higher than the client address spaces that servers are servicing.

  If you do not establish a WLM service policy for Subzero, in-house WLM configurations might force the use of a default policy for Subzero servers. The default service class is usually assigned a low performance priority. Using the
default policy might result in poor Subzero performance and extended transaction response times.

Message BMCBRD0012I, in the Subzero BRDSVLOG JES output data set, indicates the WLM service class that is assigned to the Subzero address space.

Maintenance

After you install your software, you can download any additional SMP/E maintenance by using either BMC Internet Service Retrieval (BMC ISR) or eFix PTF Distribution Services (http://apps.bmc.com/support/efix.cgi).

BMC ISR is available for all products that you install by using the Installation System. For more information, see the Installation System documentation.

Note

Before applying maintenance, ensure that you have successfully run the $176APLF job to ensure that all required FMIDs are applied.

Support status

You can find the support status for specific product versions on the Support Central website. Selecting a product from the “A – Z Supported Product List” shows:

- All versions of the product and their current support levels (full or limited)
- Dates on which support ends

For more information about the latest support policies, see the Support Central website at http://www.bmc.com/support.

Product documentation

From the Support Central website (http://www.bmc.com/support), you can:

- Link to the BMC Documentation Center to browse documentation sets (http://www.bmc.com/available/documentation-center.html or, for secured documentation sets, http://www.bmc.com/available/documentation-center-secure.html)
View Quick Course videos (short overviews of selected product concepts, tasks, or features), which are available from the following locations:

— Documentation Center (primary center and secured center)
— Support Central (at http://www.bmc.com/support/mainframe-demonstrations)
— BMC Mainframe YouTube channel (https://www.youtube.com/user/BMCSoftwareMainframe)

View individual product documents (books and notices) within the “A – Z Supported Product List” (https://webapps.bmc.com/support/faces/az/supportlisting.jsp)

You can order hardcopy documentation from your BMC sales representative or from the support site. You can also subscribe to proactive alerts to receive e-mail messages when notices are issued.

Customer support

If you have problems with or questions about a BMC product, see the support website at http://www.bmc.com/support. You can view or download product documents, find answers to frequently asked questions, and download products and maintenance. If you do not have access to the web and you are in the United States or Canada, contact Customer Support at 1 800 537 1813. Outside the United States or Canada, contact your local BMC office or agent.

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