Enhanced handling of waiting and suspended tasks

For waiting or suspended Subzero tasks, enhanced Subzero messages now provide information that you can use in a BRD,KILL command to terminate the 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.)

- **In the Subzero subsystem server**, the server monitors thread connections between itself and the supported IBM IMS or DB2 subsystem. With the enhancement, Subzero issues message BMCBRD0350W or BMCBRD0351W (for IMS or DB2, respectively) when both of the following conditions exist:
  
  — A thread has issued a subsystem request (for example, an IMS database request).
  
  — The thread has waited for a response for longer than 10 seconds.

- **In the Subzero controlling agent**, the agent monitors client thread connections between the client address space (IBM CICS) and its remote Subzero subsystem server. With the enhancement, Subzero issues message BMCBRD0352W if a client thread has waited for more than 60 seconds for a response from the remote server.
After obtaining the enhancement, you can use the following procedures to terminate tasks. The procedures use the following variable text:

- **dbcssid** is the DBC subsystem ID or DBC group name that is managing Subzero.
- **subsystemID** specifies the product instance ID of the address space that is running the task to be terminated.
- **SubzeroTaskNumber** specifies the internal task number of the Subzero task in the subsystem server or controlling agent. You can find the task number in the relevant BMCBRD message.
- **hexAddressSpaceID** specifies the hexadecimal address space ID of the address space that is running the task to be terminated.

The information that precedes the BMCBRD message number in the BMCPRINT listing displays the:

- ID of the LPAR on which you should enter the BRD,KILL command
- Address space ID that is running the task to be terminated

For example, the following message shows that the LPAR ID is SYSM, and the address space ID is 0129:

13:36:40 SYSM ASID(0129): BMCBRD0350W IMS Thread waiting for DBCTL response ... 

**To terminate a waiting or suspended Subzero task in the subsystem server**

Enter either of the following commands on the LPAR in which the problematic task is running:

- `dbcssid BRD,KILL,PIID=subsystemID,TASK=SubzeroTaskNumber`
- `dbcssid BRD,KILL,ASIDX=hexAddressSpaceID,TASK=SubzeroTaskNumber`

**To terminate a waiting or suspended Subzero task in the controlling agent**

Enter the following command on the LPAR in which the problematic task is running:

`dbcssid BRD,KILL,CLIENT,TASK=SubzeroTaskNumber`
New and changed messages

Subzero now issues the following new and changed messages.

**Note**
Consider setting up automation to respond to the BMCBRD0350W, BMCBRD0351W, and BMCBRD0352W messages with the BRD,KILL command.

| BMCBRD0350W | IMS Thread waiting for DBCTL response since *date time*
| SubzeroTaskNumber : Subzero Task Number
| consoleID unitOfRecoveryToken : UOR Token
| PSB : Scheduled PSB |

**Explanation:** An IMS thread has been waiting for a response from IMS for more than 10 seconds. Variables are as follows:

- *date* and *time* are the date and time when the thread requested IMS services.
- *SubzeroTaskNumber* is the internal identifier of the task in the Subzero subsystem server.
- *unitOfRecoveryToken* is the IMS unit-of-recovery (UOR) token.
- *PSB* is the name of the scheduled program specification block (PSB).

Processing continues, but the thread might be hanging in the IMS control region.

**User response:** You can issue an IMS DIS CCTL ALL command to display information about the current threads. Look for the IMS region number for the indicated UOR token.

You can release the thread by issuing the BRD,KILL command to the Subzero subsystem server:

```
dbcssid BRD,KILL,ASIDX=hexAddressSpaceID,TASK=SubzeroTaskNumber
```

Issue the command on the remote LPAR. Specify the Subzero task number from this message and the hexadecimal address space ID of the Subzero subsystem server that issued the message. (You can find the address space ID in the information that precedes the BMCBRD message number in the listing.)

If needed, contact your IMS system administrator.
**BMCBRD0351W**

**DB2 Thread waiting for response since date time.**

*SubzeroTaskNumber : Subzero Task Number*

*consoleID unitOfRecoveryToken : UOR Token*

**Explanation:** A DB2 thread has been waiting for a response from DB2 for more than 10 seconds. Variables are as follows:

- *date and time* are the date and time when the thread requested DB2 services.
- *SubzeroTaskNumber* is the internal identifier of the task in the Subzero subsystem server.
- *consoleID and unitOfRecoveryToken* identify the DB2 unit-of-recovery (UOR) token.

Processing continues, but the thread might be hanging in the DB2 subsystem.

**User response:** You can issue the DB2 -DIS THD(...) command to display the current threads and find the DB2 UOR token for the thread identified in the message.

You can release the thread by issuing the BRD,KILL command to the Subzero subsystem server:

```
dbcssid BRD,KILL,ASIDX=hexAddressSpaceID,TASK=SubzeroTaskNumber
```

Issue the command on the remote LPAR. Specify the Subzero task number from this message and the hexadecimal address space number of the Subzero subsystem server that issued the message. (You can find the address space ID in the information that precedes the BMCBRD message number in the listing.)

If needed, contact your DB2 system administrator.

**BMCBRD0352W**

**Thread waiting for response since date time.**

*SubzeroTaskNumber : Subzero Task Number*

*jobName(jobID) : Job Name*

*taskID : taskDescription*

**Explanation:** A client thread has been waiting for a response from the remote subsystem for more than 60 seconds. Variables are as follows:

- *date and time* indicate the date and time when the thread requested remote subsystem services.
- *SubzeroTaskNumber* is the internal subsystem server task number.
- *jobName* is the client-address space job name and JES job ID.
- *taskID* is the CICS task number or IMS region ID.
Processing continues, but the thread might be hanging in the remote subsystem.

User response: You can release the thread by issuing the BRD,KILL command to the Subzero controlling agent:

\[ \text{dbcssid BRD,KILL,CLIENT,TASK=SubzeroTaskNumber} \]

Issue the command on the client LPAR. Specify the Subzero task number from this message.

If needed, contact your system administrator.

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**Note**

Unlike a non-control thread, this thread controls the connection to the subsystem. Killing this thread also terminates the connection to the subsystem, which terminates any further transaction access to the subsystem.

If needed, contact your system administrator.
**BMCBRD0358I**  
*type number* abended with U3549-AAC.

Explanation: A client thread was waiting for a response from the remote subsystem when the Subzero controlling agent address space terminated. Variables are as follows:

- **type** indicates the type of connection:
  - CICS application ID (applid)
  - IMS ID
  - Job ID

- **number** is the associated identifier:
  - CICS Task Number
  - IMS Region ID
  - Job ASID

Processing of remote subsystem requests terminates.

*User response:* Use the following command to restart the Subzero controlling agent:

```
dbcssid BRD,START
```

Reconnect your client to the remote subsystems.

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**Obtaining the enhancement**

PTF BPJ1024 implements the enhanced handling of waiting and suspended tasks.

BMC is delivering BPJ1024 with co-requisite PTFs in maintenance bundle 10 (product version 1.0.00.10). The bundle is now available.

BMC recommends using BMC Internet Service Retrieval (ISR) to obtain PTFs. For information about ISR, see the maintenance information in the Installation System documentation.

You can also obtain PTFs from eFix PTF Distribution Services (eFix). You can access eFix directly at [http://apps.bmc.com/support/efix.cgi](http://apps.bmc.com/support/efix.cgi) or from the support site. For information about eFix, see the online Help.

*Note*

If you have questions, contact Customer Support at 1 800 537 1813 (United States or Canada) or call your local support center.
Obtaining the enhancement