

FUJITSU Software

Interstage Big Data

Complex Event Processing Server V1.1.0

A decorative horizontal band with a red-to-dark-red gradient, featuring abstract, glowing white and red lines that swirl and intersect, creating a sense of motion and data flow.

Troubleshooting

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Preface

Purpose of this document

This document explains the causes of errors that may occur when using Interstage Big Data Complex Event Processing Server (hereafter referred to as "BDCEP") and the actions to take to resolve the errors.

Structure of this document

This document is structured as follows:

[Chapter 1 Collecting Diagnostics Data](#)

Describes the information that must be collected before contacting Fujitsu technical support after a problem has occurred.

[Chapter 2 Errors during Installation and Uninstallation](#)

Explains the errors that can occur during installation or uninstallation of BDCEP, and the actions to take.

[Chapter 3 Errors during Setup](#)

Explains the errors that can occur during setup or setup cancellation of BDCEP, and the actions to take.

[Chapter 4 Errors when Deploying Definition Information](#)

Explains the errors that can occur when deploying or undeploying definition information to CEP engines, and the actions to take.

[Chapter 5 Errors during Operation](#)

Describes the errors that can occur during operations with this product, and the actions to take.

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Chapter 1 Collecting Diagnostics Data

This chapter describes the information that must be collected before contacting Fujitsu technical support after a problem has occurred.

1.1 Information Required when Requesting Investigations

Collect the following information before contacting Fujitsu technical support after a problem has occurred:

- Results of `cepcollectinfo` (refer to "1.2 Diagnostics Data Collection Command" for details)
- The current engine configuration file (usually `/etc/opt/FJSVcep/Engine.xml`)
- Any files in the following directories that start with "core":
 - `/var/opt/FJSVisjee/nodeagents/ijna/cepEngineNameflt_Ins/current/latest`
 - `/var/opt/FJSVisjee/nodeagents/ijna/cepEngineNameflt_Ins/current/old.0`
 - `/var/opt/FJSVisjee/nodeagents/ijna/cepEngineNamecep_Ins/current/latest`
 - `/var/opt/FJSVisjee/nodeagents/ijna/cepEngineNamecep_Ins/current/old.0`

If the error occurred during installation or uninstallation, also collect the following information:

- If error occurred during installation:
 - `/var/tmp/bdcep_install.log`
 - `/var/log/messages`
- If error occurred during uninstallation:
 - `/var/tmp/bdcep_uninstall.log`
 - `/var/log/messages`

1.2 Diagnostics Data Collection Command

To collect the information required to investigate the cause of the problem, execute `cepcollectinfo` on the CEP Server where the error occurred (refer to Section 8.1, "cepcollectinfo" in the *User's Guide* for details).

Since the command will cause a load increase during execution, which may affect operational performance, try to execute it when there will be as little effect on performance as possible (by executing during a lull in operations, for example).



Example

Execution example

When the path for the information is specified.

```
# cepcollectinfo /var/tmp <ENTER>
Compressing collect data is started.
Compressing collect data is finished.
Collecting is finished. (/var/tmp/collect/BDCEP_20120413141134.tar.gz)
Command cepcollectinfo executed successfully.
```

When the path for the information is not specified (the information will be collected in the `/tmp` directory).

```
# cepcollectinfo <ENTER>
Compressing collect data is started.
Compressing collect data is finished.
Collecting is finished. (/tmp/collect/BDCEP_20120413141134.tar.gz)
Command cepcollectinfo executed successfully.
```

Chapter 2 Errors during Installation and Uninstallation

This chapter explains the errors that can occur during installation or uninstallation of Interstage Big Data Complex Event Processing Server (hereafter referred to as "BDCEP"), and the actions to take.

2.1 Errors during Installation

This section explains the errors that may be detected when installing BDCEP.

To check the processes when the installation is performed, either check the console used for installation or the following installation log file:

```
/var/tmp/bdcep_install.log
```



Take action for the errors as the superuser.



When installation is successful, the log file is stored in the following directory:

```
/var/opt/FJSVcep/bdcep_install.log
```

2.1.1 When Errors Occur before a Package is Installed

Errors before package installation are the ones that occur before the message "The installation processing has started..." is output in the console and installation log file.

The following message is displayed in the console and installation log file for this type of error:

```
(...)  
detailErrorMessage  
The installation has stopped.
```

Take the following actions when an error occurs before the package is installed:

1. Check the error message details output to the console and installation log file and take the action indicated.
2. Install BDCEP again.

2.1.2 When Errors Occur during Installation of a Package

Errors during package installation are the ones that occur after the message "The installation processing has started..." is output in the console and installation log file.

The following message is displayed in the console and installation log file for this type of error:

```
(...)  
detailErrorMessage  
The installation processing terminated abnormally.
```

Take the following actions when an error occurs while the package is being installed:

1. Execute the uninstaller (uninstall.sh) for BDCEP to uninstall BDCEP.
2. Check the error message details output to the console and installation log file when install.sh was executed and take the action indicated.

3. Install BDCEP again.

2.2 Errors during Uninstallation

This section explains the errors that may be detected when uninstalling BDCEP.

To check the processes when the uninstallation is performed, either check the console used for uninstallation or the following uninstallation log file (note that it is deleted when uninstallation is successful):

```
/var/tmp/bdcep_uninstall.log
```



Take action for the errors as the superuser.

2.2.1 When Errors Occur before a Package is Uninstalled

Errors before package uninstallation are the ones that occur before the message "The uninstallation processing has started..." is output in the console and uninstallation log file.

The following message is displayed in the console and uninstallation log file for this type of error:

```
(...)  
detailedErrorMessage  
The uninstallation has stopped.
```

Take the following actions when an error occurs before the package is uninstalled:

1. Check the error message details output to the console and uninstallation log file and take the action indicated.
2. Uninstall BDCEP again.

2.2.2 When Errors Occur during Uninstallation of a Package

Errors during package uninstallation are the ones that occur after the message "The uninstallation processing has started..." is output in the console and uninstallation log file.

The following error message is displayed in the console and uninstallation log file for this type of error:

```
(...)  
detailedErrorMessage  
The uninstallation processing terminated abnormally.
```

Take the following actions when an error occurs while the package is being uninstalled:

1. Check the error message details output to the console and uninstallation log file and take the action indicated.
2. Execute the uninstaller (uninstall.sh) for BDCEP again.
3. If the included Interstage Application Server package remains, execute the following command:

```
# dvdRomMountDir/installer/scripts/uninstall_aps.sh<ENTER>
```

4. Use the kill command to stop the following processes if they are running:
 - /opt/FJSVcep/postgres/packages/FJSVpgs83/bin/postgres
 - jsvc.exec (those with "-pid /var/run/FJSVcep-rest.pid" specified in the argument)
5. Delete the following directories if remaining:
 - /opt/FJSVcep
 - /var/opt/FJSVcep

- /etc/opt/FJSVcep

6. Delete the following users if remaining:

- bdcep_postgres

- bdcep_tomcat

Chapter 3 Errors during Setup

This chapter explains the errors that can occur during setup or setup cancellation of Interstage Big Data Complex Event Processing Server (hereafter referred to as "BDCEP"), and the actions to take.

3.1 Errors during CEP Engine Setup or Setup Cancellation

Status

The `cepconfigeng` command used to set up or cancel setup of the CEP engine ends with an error.

Action

1. Check the message displayed when the command ended with an error.
2. If "The definition file contents are incorrect." is output, then it means that there is an error in the engine configuration file displayed after "Filename=".



Example

"The definition file contents are incorrect." is output (cepconfigeng abnormal termination)

```
# cepconfigeng -f /etc/opt/FJSVcep/Engine.xml <ENTER>
Are you sure you want to change the CEP Engine configuration? [y,n,q]:y <ENTER>
The definition file contents are incorrect. Filename=(/etc/opt/FJSVcep/Engine.xml)
Command cepconfigeng execution failed.
```

In this case, check the following in the engine configuration file (refer to Section 9.1.1, "Engine Configuration File" in the *User's Guide* for information on the file):

- Is the format of the XML file valid?
 - Are the required item name tags described?
3. If a message other than "The definition file contents are incorrect." is output, then follow the steps below:



Example

A message other than "The definition file contents are incorrect." is output (cepconfigeng abnormal termination)

```
# cepconfigeng -f /etc/opt/FJSVcep/Engine.xml <ENTER>
Are you sure you want to change the CEP Engine configuration? [y,n,q]:y <ENTER>
ERROR: cep30302e: The setup processing failed.
Command cepconfigeng execution failed.
```

1. Check if the syslog contains a message with the label `CSPF_CEP` and that was output around the time the command ended with an error.
 2. If it does, then take the action indicated by the message to remove the cause of the error. Refer to *Messages*, find the message number, and take the specific actions suggested.
 3. If it does not, then take the action indicated by the message displayed by the command.
4. Eliminate the cause of the error, then re-execute the command that ended with an error.

3.2 Errors during Setup or Setup Cancellation of Collaboration Products

Status

Error occurs when setting up or canceling setup of a collaboration product.

Action

Refer to the manuals for the product to remove the cause of the error.

Refer to Section 4.4.1, "Setup Overview" in the *User's Guide* for information on the products used in various collaboration features.

Chapter 4 Errors when Deploying Definition Information

This chapter explains the errors that can occur when deploying or undeploying definition information, and the actions to take.

4.1 Errors when Deploying or Undeploying Definition Information

Status

Error occurs when deploying or undeploying definition information.

Action

1. Check the message displayed when `cepdeployrsc (deploy)` or `cepundeployrsc (undeploy)` ends with an error.
2. If "The definition file contents are incorrect." is output, then it means that there is an error in the definition information file displayed after "Filename=".

Example

"The definition file contents are incorrect." is output (cepdeployrsc abnormal termination)

```
$ cepdeployrsc listener -o -e CepEngine1 -f /tmp/listenerdeploy.xml <ENTER>
Are you sure you want to deploy the SOAP listener definition?(default: y) [y,n,q]:y <ENTER>
The definition file contents are incorrect. Filename=(/tmp/listenerdeploy.xml)
Command cepdeployrsc execution failed.
```

In this case, check the following in the definition information file (refer to Section 9.2, "Defining Development Assets" in the *User's Guide* for information on the file).

- Is the format of the XML file valid?
 - Are the required item name tags described?
 - Are the development asset IDs between 1 and 39 characters long?
3. If a message other than "The definition file contents are incorrect." (the following example), then follow the steps below:

Example

A message other than "The definition file contents are incorrect." is output (cepdeployrsc abnormal termination)

```
$ cepdeployrsc listener -o -e CepEngine1 -f /tmp/listenerdeploy.xml <ENTER>
Are you sure you want to deploy the SOAP listener definition?(default: y) [y,n,q]:y <ENTER>
Processing cannot be performed because another command is executing.
Command cepdeployrsc listener execution failed.
```

1. Check if the syslog contains a message with the label `CSPF_CEP` and that was output around the time the command ended with an error.
 2. If it does, then take the action indicated by the message to remove the cause of the error. Refer to *Messages*, find the message number, and take the specific actions suggested.
 3. If it does not, then take the action indicated by the message displayed by the command.
4. Eliminate the cause of the error, then re-execute the command that ended with an error.

Chapter 5 Errors during Operation

This chapter describes the errors that can occur during operations with Interstage Big Data Complex Event Processing Server (hereafter referred to as "BDCEP"), and the actions to take.

5.1 Errors during Operation

This section describes the errors detected by the operation commands, and the actions to take.

5.1.1 When the Operation Commands End with an Error

Status

Commands used to operate the CEP engine (stop, start) end with an error.

Action

1. Check the message displayed when the operation command ended with an error.

Example

When cepstarteng ends with an error

```
$ cepstarteng -e CepEngine2 <ENTER>
An incorrect value was entered. Reason=(The engine does not exist.)
Command cepstarteng execution failed.
```

2. Check if the syslog contains a message with the label CSPF_CEP and that was output around the time the operation command ended with an error.
3. If it does, then take the action indicated by the message to remove the cause of the error. Refer to Chapter 2, "Output Messages" in *Messages* and take the specific actions suggested.
4. If it does not, then verify the cause of the error displayed in the message output by the operation command and take the action indicated.
5. Eliminate the cause of the error, then re-execute the command that ended with an error.

5.1.2 When the Operation Commands cannot be Executed because other Commands are being Executed

Status

The following message is displayed even after repeated attempts to execute commands that operate the CEP engine (stop, start), and they cannot be executed.

```
Processing cannot be performed because another command is executing.
```

Action

1. Use ps and grep to check if processes related to the operation commands are still running.

Example

Execution of ps and grep

```
ps -ef | grep i dVal ue
```

Replace *idValue* with all of the following:

- ConfigEngineClient
- DeployResource
- UndeployResource
- StartEngine
- StopEngin

2. Use kill to stop the processes if they are running.



Example

Execution of kill

```
kill -9 processId
```

5.2 Event Sender Application

This section describes the errors detected in the event sender application, and the actions to take.

5.2.1 When a Message is Received from the CEP Server Indicating an Error

Status

A message is received from the CEP Server indicating an error after event data is sent.

Refer to Section 3.3, "Communication Method" in the *Developer's Reference* for information messages received.

Action

Take the action indicated by the message received.

5.2.2 When There is No Response from the CEP Server

Status

The CEP Server may not be responding if its CPU usage rate is not 100% and if the number of input events and output events running on the CEP engine do not change after a while.

The number of input events and output events can be checked by executing `cepdispeng` (refer to Section 8.4, "`cepdispeng`" in the *User's Guide* for details).

Points to be checked	Items output by <code>cepdispeng</code>
Number of input events (high-speed filter)	<code>inEvent_filter</code>
Number of input events (complex event processing)	<code>inEvent_cep</code>
Number of output events (high-speed filter)	<code>outEvent_filter</code>
Number of output events (complex event processing)	<code>outEvent_cep</code>

If this is the case, then there has probably been an error on the CEP Server.

Action

If the syslog of the CEP Server contains a message with the label `CSPF_CEP`, then take the action indicated by the message to remove the cause of the error.

Refer to *Messages* and take the specific actions suggested.

5.3 CEP Server Errors

This section describes the errors that can occur in the CEP Server, and the actions to take.

5.3.1 When Error Messages are Output to the Syslog

Status

If the syslog contains a message with the label CSPF_CEP, then an error may have occurred on the CEP Server.

Action

Take the action indicated by the message to remove the cause of the error.

Refer to *Messages* and take the specific actions suggested.

5.3.2 The CEP Server Processing Takes Longer Than Normal

Status

The performance of the CEP Server may be insufficient due to a sudden increase in the number of events.

Action

Consider taking one of the following actions:

- Increase the number of CPUs and memory, to enhance the performance of the CEP Server.
- Increase the number of CEP Servers and send different event types to different CEP Servers, to reduce the load on each individual CEP Server.

5.3.3 When Rules do not Behave Correctly

Status

If events matching the conditions specified in high-speed filter rules and complex event processing rules are sent but they cannot be called on the user-developed Web services, then it is possible that the rules have not been written as designed.

Action

Write `@DebugLogListener` in the complex event processing rule and check whether the rule definitions are behaving as designed, condition by condition, from the beginning.

Refer to Section 5.9, "Integration Test" in the *User's Guide* for information on how to test using `@DebugLogListener`.

Also, check the following if Terracotta collaboration is being used:

- If the Terracotta server is operating normally, and the CEP Server can access the Terracotta server unaffected by network disconnection.
- If the values specified in key in Virtual Data Window are set in the HashMap key.
- If the value in the above HashMap key is also specified in the Terracotta cache key.
- If the property type (*1) specified in the CREATE WINDOW statement of the complex event processing rule is the same as the data type obtained from the Terracotta cache.

*1: Property type of the corresponding event type definition when an event ID is specified.

Refer to Section 5.5.3.1, "Terracotta Cache Compatible Formats" in the *User's Guide* for information on the format of Terracotta caches.

Also, check the following if RDB collaboration is being used:

- If the relational database is operating normally, and the CEP Server can access the relational database unaffected by network disconnection.
- If the schema name and database name of the relational database are set correctly.
- If users (who will connect to the relational database) have permission to access the relational database and tables.

5.3.4 When "IOException" or "Too many open files" is Output to the Engine Log or Syslog

Status

If any of these messages is frequently output to the engine log or syslog, it is possible that there are not enough file descriptors.

If that is the case, operation commands may be operating incorrectly.

Action

Tune the number of required file descriptors (refer to Section 6.3.4.2, "Tuning File Descriptors" in the *User's Guide* for details).

If this does not resolve the problem, then correct the event sender application that is using the socket adapter as an input adapter and check if the connection has closed correctly (refer to Section 3.3.3, "Socket Adapter" in the *Developer's Reference* for information on the socket adapter).