Support Process

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1. Contacting Support

The support portal may be accessed at https://continuent.zendesk.com.

Continuent offers paid support contracts for Continuent Tungsten and Tungsten Replicator. If you are interested in purchasing support, contact our sales team at sales@continuent.com.

1.1. Support Request Procedure

Please use the following procedure when requesting support so we can provide prompt service. If we are unable to understand the issue due to lack of required information, it will prevent us from providing a timely response.

1. Please provide a clear description of the problem

2. Which environment is having the issue? (Prod, QA, Dev, etc.)

3. What is the impact upon the affected environment?

4. Identify the problem host or hosts and the role (Primary, Replica, etc)

5. Provide the steps you took to see the problem in your environment

6. Upload the resulting zip file from tpm diag, potentially run more than once on different hosts as needed. Alternatively, use the tungsten_send_diag command.

7. Provide steps already taken and commands already run to resolve the issue

8. Have you searched your previous support cases? https://continuent.zendesk.com.

9. Have you checked the Continuent documentation? https://docs.continuent.com

10. Have you checked our general knowledge base? For our Error/Cause/Solution guidance on specific issues and error messages, and how the reason can be identified and resolved, see ???.

1.2. Creating a Support Account

You can create a support account by logging into the support portal at https://continuent.zendesk.com. Please use your work email address so that we can recognize it and provide prompt service. If we are unable to recognize your company name it may delay our ability to provide a response.

Be sure to allow email from `helpdesk@continuent.com` and `notifications-helpdesk@continuent.com`. These addresses will be used for sending messages from Zendesk.

1.3. Open a Support Ticket

Login to the support portal and click on 'Submit a Request' at the top of the screen. You can access this page directly at https://continuent.zendesk.com/requests/new.

1.4. Open a Support Ticket via Email

Send an email to helpdesk@continuent.com from the email address that you used to create your support account. You can include a description and attachments to help us diagnose the problem.

1.5. Getting Updates for all Company Support Tickets

If multiple people in your organization have created support tickets, it is possible to get updates on any support tickets they open. You should see your organization name along the top of the support portal. It will be listed after the Check Your Existing Requests tab.

To see all updates for your organization, click on the organization name and then click the Subscribe link.

If you do not see your organization name listed in the headers, open a support ticket asking us to create the organization and list the people that should be included.

1.6. Support Severity Level Definitions

Summary of the support severity levels with initial response targets:

- Urgent: initial response within an hour

  Represents a reproducible emergency condition (i.e. a condition that involves either data loss, data corruption, or lack of data availability) that makes the use or continued use of any one or more functions impossible. The condition requires an immediate solution. Continuent guarantees a maximum one (1) hour initial response time. Continuent will continue to work with Customer until Customer's database is back in production. The full resolution and the full root cause analysis will be provided when available.

- High: initial response within four (4) hours

  Represents a reproducible, non-emergency condition (i.e. a condition that does not involve either data loss, data corruption or lack of database availability) that makes the use or continued use of any one or more functions difficult, and cannot be circumvented or avoided on a temporary basis by Customer. Continuent guarantees a maximum four (4) hours initial response time.

- Normal: initial response within one (1) business day

  Represents a reproducible, limited problem condition that may be circumvented or avoided on a temporary basis by Customer. Continuent guarantees a maximum one (1) business day initial response time.

- Low: no guaranteed initial response interval

  Represents minor problem conditions or documentation errors that are easily avoided or circumvented by Customer. Additional request for new feature suggestions, which are defined as new functionality in existing product, are also classified as low severity level. Continuent does not guarantee any particular initial response time, or a commitment to fix in any particular time frame unless Customer engages Continuent for professional services work to create a fix or a new feature.

2. Support Tools

2.1. Generating Diagnostic Information

To aid in the diagnosis of issues, a copy of the logs and diagnostic information will help the support team to identify and trace the problem. There are two methods of providing this information:

- Using tpm diag

  The tpm diag command will collect the logs and configuration information from the active installation and generate a Zip file with the diagnostic information for all hosts within it. The command should be executed from the staging directory. Use tpm query staging to determine this directory:

```
shell> tpm query staging
tungsten@host1:/home/tungsten/support-process-1-99
shell> cd /home/tungsten/support-process-1-99
shell> ./tools/tpm diag
```

  The process will create a file called tungsten-diag-2014-03-20-10-21-29.zip, with the corresponding date and time information replaced. This file should be included in the reported support issue as an attachment.

  For a staging directory installation, tpm diag will collect together all of the information from each of the configured hosts in the cluster. For an INI file based installation, tpm diag will connect to all configured hosts if ssh is available. If a warning that ssh is not available is generated, tpm diag must be run individually on each host in the cluster.

- Manually Collecting Logs

If tpm diag cannot be used, or fails to return all the information, the information can be collected manually:

1. Run tpm reverse on all the hosts in the cluster:

```
shell> tpm reverse
```

2. Collect the logs from each host. Logs are available within the `service_logs` directory. This contains symbolic links to the actual log files. The original files can be included within a tar archive by using the `-h` option. For example:

```
shell> cd /opt/continuent
shell> tar zcfh host1-logs.tar.gz ./service_logs
```

The tpm reverse and log archives can then be submitted as attachments with the support query.

2.2. Generating Advanced Diagnostic Information

To aid in the diagnosis of difficult issues, below are tools and procedures to assist in the data collection.

Warning

ONLY excute the below commands and procedures when requested by Continuent support staff.

Manager•Memory Usage Script

We have provided a script to easily tell us how much memory a given manager is consuming.

Place the script on all of your manager hosts (i.e. into the tungsten OS user home directory).

Note

The script assumes that 'cctrl' is in the path. If not, then change the script to provide a full path for cctrl.

```
shell> su - tungsten
shell> vi tungsten_manager_memory
#!/bin/bash
memval=`echo gc | cctrl | grep used | tail -1 | awk -F: '{print $2}' | tr -d ' '|'`
megabytes=`expr $memval / 1000000`
timestamp=`date +"%F %T" | tr '-' '/'`
echo "$timestamp | `hostname` | $megabytes MB"

shell> chmod 750 tungsten_manager_memory
shell> ./tungsten_manager_memory
```

This script is ideally run from cron and the output redirected to time-stamped log files for later correlation with manager issues.

Manager•Thread Dump Procedure

This procedure creates a Manager memory thread dump for detailed analysis.

Run this command on manager hosts when requested by Continuent support.

This will append the detailed thread dump information to the log file named `tmsvc.log` in the `/opt/continuent/tungsten/tungsten-manager/log` directory.

```
shell> su - tungsten
shell> manager dump
shell> tungsten_send_diag -f /opt/continuent/tungsten/tungsten-manager/log/tmsvc.log -c {case_number}
```

Manager•Heap Dump Procedure

This procedure creates a Manager memory heap dump for detailed analysis.

Run this command on manager hosts when requested by Continuent support.

This will create a file named `{hostname}.hprof` in the directory where you run it.

```
shell> su - tungsten
shell> jmap -dump:format=b,file=`hostname`.hprof `ps aux | grep JANINO | grep -v grep | awk '{print $2}'`
shell> tungsten_send_diag -f `hostname`.hprof -c {case_number}
```

Configuring Connector Debug Logging

This procedure allows the Connector to be configured for debug logging.

Perform this procedure on Connector hosts when requested by Continuent support.

Warning

Enabling Connector debug logging will decrease performance dramatically. Disk writes will increase as will disk space consumption. Do not use in production environments unless instructed to do so by Continuent support. In any case, run in this mode for as short a period of time as possible - just long enough to gather the needed debug information. After that is done, disable debug logging.

To enable debug logging, edit the Connector configuration file `tungsten-connector/conf/log4j.properties` and turn Connector logging from INFO to DEBUG (or to TRACE for verbose logging):

```
shell> su - tungsten
shell> vi /opt/continuent/tungsten/tungsten-connector/conf/log4j.properties
# Enable debug for the connector only
logger.Connector.name=com.continuent.tungsten.connector
# WAS: logger.Connector.level=INFO
logger.Connector.level=DEBUG
logger.Connector.additivity=false
shell> connector reconfigure
```

To disable debug logging, edit the Connector configuration file `tungsten-connector/conf/log4j.properties` and revert the change from `DEBUG` to `INFO`.

2.3. Using tungsten_upgrade_manager

tungsten_upgrade_manager is used to correct a cctrl display bug in the Manager that causes the `useSSL` value shown via `cctrl> ls -l` to be false when it should be true after an upgrade from v6 to v7.

Warning

Only use the tungsten_upgrade_manager command when instructed to do so by Continuent Support!