



Database Administration

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External Database Cleanup Utility

The External Database Cleanup Utility makes it easy for administrators to manage external database growth, thereby ensuring that your system continues to perform at the optimum level. The utility lets you create jobs that monitor the external database on an ongoing basis, deleting old records automatically as they expire. This ensures that the external database has adequate space and that system performance is not impacted by unchecked database growth.

The External Database Cleanup Utility can be used to manage external database growth for the following IM and Presence Service features, each of which relies on the external database:

- Persistent Chat High Availability
- Managed File Transfer
- Message Archiver

Interactions

The following interactions apply:

- Records that are deleted from the database are deleted without archiving.
- You can run the Database Cleanup utility in offline mode.
- A persistent chat room configuration option is provided to override the cluster-wide setting for retention durations. This allows chat room owners to customize the settings within a controlled range. This is dependent on Jabber client changes to enable this menu option.

Stored Procedures

The External Database Cleanup Utility uses the following stored procedures to delete records

- `tc_msgarchive_auto_cleanup`
- `tc_timelog_auto_cleanup`

- `aft_log_auto_cleanup`
- `im_auto_cleanup`

Run the External Database Cleanup Utility

Use this procedure to run the External Database Cleanup Utility to delete expired records from the external database. You can run a manual cleanup to complete a one-time deletion of records from the database or you can configure the system to monitor and delete records from the external database automatically.

Procedure

- Step 1** Log into Cisco Unified CM IM and Presence Administration on the database publisher node.
- Step 2** Choose **Messaging > External Server Setup > External DataBase Jobs**.
- Step 3** Click **Clear External DB**.
- Step 4** Do one of the following:
- For manual cleanup of an external database that connects to the publisher node, select **SameCup Node**.
 - For manual cleanup of an external database that connects to a subscriber node, select **Other CupNode** and then select the external database details.
 - If you are configuring the system to monitor and clean the external database automatically, check the **Automatic Clean-up** radio button.
- Note** We recommend that you run a manual cleanup prior to setting up the automatic cleanup.
- Step 5** Set the **Number of Days** that you want to go back for file deletion. For example, if you enter 90, the system deletes records that are older than 90 days.
- Step 6** Click **Update Schema** to create the Indexes and stored procedures for the database.
- Note** You need to update the schema only the first time that you run the job.
- Step 7** Set the **Number of Days** that you want to go back for file deletion. For example, if you enter **90**, the system deletes records that are older than 90 days.
- Step 8** In the **Feature Tables** section, select each feature for which you want to clean records:
- **Text Conference (TC)**—Select this option to clean database tables for the Persistent Chat feature.
 - **Message Archiver (MA)**—Select this option to clean database tables for the Message Archiver feature.
 - **Managed File Transfer (MFT)**—Select this option to clean database tables for the Managed File Transfer feature
- Step 9** Click **Submit Clean-up Job**.
- Note** If you have the **Automatic** option enabled, and you want to disable it, click the **Disable Automatic Clean-up Job** button.
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What to do next

If you just ran a manual cleanup, repeat the procedure and select **Automatic Clean-up** to set the utility to monitor and delete records automatically.

Troubleshooting the External Database Cleanup Utility

If you run into issues with the external database utility:

- Make sure that the database publisher node can connect to the external database and that the database has been provisioned. You can verify this on the database publisher node by selecting **Messaging > External Server Setup > External Databases > External DB Configuration**.
- For PostgreSQL databases, make sure that the IM and Presence database publisher node has full access permission to all of the other configured external databases.

Logs for the External Database Cleanup Tool are available under admin logs:
/var/log/active/tomcat/logs/cupadmin/log4j/

Merge External Databases

Use this procedure to merge external databases.



Note Microsoft SQL database is not supported for merging external databases.

Optional. If you have upgraded from a release prior to 11.5(1), and multiple external databases were used to manage redundancy, use the External Database Merge Tool to merge your external databases into a single database.

Example

If you have upgraded from a release prior to 11.5(1), and you had persistent chat configured with each persistent chat node connecting to a separate external database instance, use this procedure to merge the two databases in a subcluster into a single database that connects to both nodes.

Before you begin

- Ensure that the two source destination databases are assigned correctly to each IM and Presence Service node in the presence redundancy group. This verifies that both of their schemas are valid.
- Back up the tablespace of the destination database.
- Ensure that there is enough space in the destination database for the new merged databases.
- Ensure that the database users, created for the source and destination databases, have the permissions to run these commands:
 - `CREATE TABLE`
 - `CREATE PUBLIC DATABASE LINK`
- If your database users do not have these permissions, you can use these commands to grant them:

- PostgreSQL:

`CREATE EXTENSION`—This creates the dblink and requires super user or dbowner privileges. After this, you EXECUTE privilege for dblink by running following:

```
GRANT EXECUTE ON FUNCTION DBLINK_CONNECT(text) to <user>
```

```
GRANT EXECUTE ON FUNCTION DBLINK_CONNECT(text,text) to <user>
```

- Oracle:

```
GRANT CREATE TABLE TO <user_name>;
```

```
GRANT CREATE PUBLIC DATABASE LINK TO <user_name>;
```

- If you are using a PostgreSQL external database, make sure that the following access is configured in the `pg_hba.conf` file:
 - The IM and Presence publisher node must have full access to each external database.
 - The external PostgreSQL database must have full access to each database instance. For example, if the external database is configured on 192.168.10.1 then each database instance must be configured in the `pg_hba.conf` file as `host dbName username 192.168.10.0/24 password.`

Procedure

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- Step 1** Sign in to **Cisco Unified CM IM and Presence Administration** on the IM and Presence Service publisher node.
- Step 2** Stop the Cisco XCP Text Conference Service on the **System > Services** window for each IM and Presence Service node in the presence redundancy group.
- Step 3** Click **Messaging > External Server Setup > External Database Jobs**.
- Step 4** Click **Find** if you want to see the list of merge jobs. Choose **Add Merge Job** to add a new job.
- Step 5** On the **Merging External Databases** window, enter the following details:
 - Choose **Oracle** or **Postgres** from the **Database Type** drop-down list.
 - Choose the IP address and hostname of the two source databases and the destination database that will contain the merged data.

If you chose Oracle as the **Database Type** enter the tablespace name and database name. If you chose Postgres as the **Database Type** you provide the database name.
- Step 6** In the **Feature Tables** pane, the Text Conference(TC) check-box is checked by default. For the current release, the other options are not available.
- Step 7** Click **Validate Selected Tables**.
- Note** If the Cisco XCP Text Conference service has not been stopped you receive an error message. Once the service has been stopped, validation will complete.
- Step 8** If there are no errors in the **Validation Details** pane, click **Merge Selected Tables**.
- Step 9** When merging has completed successfully, the **Find And List External Database Jobs** window is loaded. Click Find to refresh the window and view the new job.
- Click **Find** to refresh the window and view the new job.

Click the **ID** of the job if you want to view its details.

- Step 10** Restart the Cisco XCP Router service.
 - Step 11** Start the Cisco XCP Text Conference Service on both IM and Presence Service nodes.
 - Step 12** You must reassign the newly merged external database (destination database) to the presence redundancy group
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