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Interaction Concentrator Deployment Guide

Configuring for Multi-Language Support

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Configuring for Multi-Language Support

For multi-language support, the following items might apply depending on your environment and requirements:

- If you require UTF-8 support, you must use Configuration Layer components of release 8.1.3 or higher.
- If you are running an Oracle database, make sure the NLS_LANG environment variable on the host where DB Server is installed is set to match the character encoding of data in the Oracle database; for example, `NLS_LANG=.UTF8`. This is especially important when using UTF-8 language encoding, and in all Chinese, Japanese, and Korean language environments. For additional information on specific configuration information for Oracle databases, see the Framework Database Connectivity Reference Guide.
- In environments with PostgreSQL RBDMS, the IDB processing configuration details (having the role option set to `cfg`) should be created to use encoding identical to that used by Configuration Server. For example, you may set PostgreSQL database encoding to `WIN1252` to use extended ASCII from European languages, or use SQL_ASCII.
- In environments with PostgreSQL RBDMS, if you require ICON to process user data using any symbols other than ASCII, you must create your PostgreSQL IDB with encoding that supports these symbols. If this encoding is different from the Configuration Server encoding, you must have a separate IDB for configuration details.
- When storing long Unicode string values in a multi-language environment, keep in mind the following points:
  - **WARNING! Genesys does not support any user edits to the IDB schema.** Changing the schema or trying to increase the length of a field can cause unpredictable data loss.
  - To avoid database errors when inserting string values longer than the matching table field, ICON truncates string data that exceeds the specified field length. See the description of fields in the Interaction Concentrator Physical Data Model document for your RDBMS type for the length set for each.
  - For user attached data, ICON truncates strings longer than the value set in the max-userdata-length option.
  - To avoid incomplete UTF-8 symbols at the end of truncated string, configure the trim-broken-utf8 option.

Unicode Support

How you configure Interaction Concentrator for Unicode support depends on which RDBMS you are using for IDB.

- Microsoft SQL—See the detailed configuration instructions in Configuring for Unicode Support in an Environment with a Microsoft SQL IDB below.
- Oracle and PostgreSQL—No special configuration of Interaction Concentrator is required. Note, however, that your database itself must be configured to support Unicode.
- DB2—Unicode is not currently supported.

Configuring for Unicode Support in an Environment with a Microsoft SQL IDB

Starting from release 8.1.510.07, Interaction Concentrator supports storage of Unicode user data on Microsoft SQL IDBs. The affected fields use the nvarchar datatype instead of the varchar datatype. Note that as a result, these fields use twice as much space as they would if they used the varchar datatype.

Important

- If you require Unicode support, you must use DB Server 8.1.301.11 or higher.
- International symbols will be written correctly only if ICON receives them in Unicode (UTF-8). To use Unicode, it is mandatory to have UTF-8 encoding configured in Configuration Server, in your XML attached data specification, and in all clients that attach international data to interactions.

The Unicode Microsoft SQL database schema uses nvarchar fields for all columns that store data entered by the user. To configure Interaction Concentrator on a Microsoft SQL IDB for Unicode, perform the following steps:

1. Install DB Server 8.1.301.11 or higher. Configure DB Server with the following settings in the **[dbserver]** configuration options section:
   - **msql_name** = `./dbclient_851/dbclient_msql.exe`

   For additional information about DB Server, see the *DB Server User's Guide*.
2. Set up your Configuration Server for Unicode support (that is UTF-8 encoding). For instructions, see Deploying Configuration Server in the *Framework Deployment Guide*.
3. Verify that your other data source applications are configured for Unicode support. For instructions, see the relevant deployment information for T-Server, Interaction Server, Outbound Contact Server.
4. If you are using Unicode in your attached data, ensure that your XML attached data specification is saved with UTF-8 encoding. (If all of your defined data keys are in ASCII format, you can save the XML attached data specification file in ASCII format.)
   - For more on setting up your attached data specification, see Configuring for Attached Data.
5. Create a new IDB. There is no migration from an existing IDB to Unicode. To do so:
   - Run the **CoreSchema_multilang_mssql.sql** database initialization script (rather than the **CoreSchema_mssql.sql** initialization script) on the new database.
6. Set the appropriate value for the support-unicode ICON `Application` option.
7. Check the ICON log file for the following messages indicating whether there are configuration issues in your environment:
   - 09-25032
   - 09-25033
   - 09-25034

- 09-25035
- 09-25036

If you have questions about this process, please contact Genesys Customer Care.

Additional Notes

There is no migration path for an existing Microsoft SQL IDB to a Unicode one. If you need special help with data transfer, contact Genesys Customer Care for assistance.

The Interaction Concentrator upgrade procedure remains unchanged. In case of future database schema changes, a single upgrade script will upgrade both Unicode and non-Unicode IDBs.