White Paper

Fabasoft on Microsoft Windows and Linux - Oracle Database Preparation Guide

Fabasoft Folio 2024 Update Rollup 1

Contents

1 Introduction

Fabasoft Folio requires a database for operation. Necessary database preparation steps are described in this white paper.

2 Software Requirements

Supported platforms: For detailed information on supported operating systems and software see the software product information on the Fabasoft distribution media.

Descriptions in this document are based on the following software:

- Red Hat Enterprise Linux 9.3 (x64)
- Oracle Database 19c Enterprise Edition (19.3.0.0.0) for Linux x86-64 with RAC

3 Installation

The installation of Oracle Database is not part of this white paper. Please refer to the documentation of Oracle for the installation procedure (http://docs.oracle.com/en/database/database.html).

Be sure that the database character set is AL32UTF8.

4 Database Creation

The creation of an Oracle database is described in chapter 2 "Creating and Configuring an Oracle Database" of the "Database Administrator's Guide":

https://docs.oracle.com/en/database/oracle/oracle-database/19/admin/creating-and-configuring-an-oracle-database.html

If container databases are used, users must be created before the installation as described in chapter 6 "User Creation". Define "Use Unicode (AL32UTF8)" as database character set, "American" as default language and "United States" as default date format.

For Fabasoft Folio an existing database or a new one can be used.

Note:

- Keep in mind to set the `NLS_LANG` parameter (used by the Oracle Instant Client) to "AMERICAN_AMERICA.AL32UTF8" on the Fabasoft Folio Backend Server. More information about the `NLS_LANG` parameter can be found here: http://www.oracle.com/technetwork/products/globalization/nls-lang-099431.html
- Verify that the database parameter `DISTRIBUTED_LOCK_TIMEOUT` is set to at least "120". If the default value ("60") is used, errors may occur ("ORA-02049: timeout: distributed transaction waiting for lock" or "ORA-01591: lock held by in-doubt distributed transaction"). It is recommended to set the value to "300".

5 Tablespace Creation

The creation of tablespaces is described in chapter 13 "Managing Tablespaces" of the "Oracle Database Administrator's Guide":

https://docs.oracle.com/en/database/oracle/oracle-database/19/admin/managing-tablespaces.html

Depending on your requirements you can create a tablespace for each Fabasoft Folio COO Service or you can create one tablespace for all Fabasoft Folio COO Services. The type of the tablespace has to be permanent and the status has to be read/write. Additionally, separate tablespaces for indexes and temporary tablespaces may be created.

Note: It isn't necessary to create a tablespace for Fabasoft Folio. If no tablespace is created a default tablespace (e.g. "USERS") can be used.

6 User Creation

For each Fabasoft Folio COO Service, an Oracle user has to be created. As default tablespace, use the corresponding previously created tablespace. See chapter 5 "Tablespace Creation" for more details.

Note: If container databases are used, each COO Service user must be created in the desired pluggable database before the installation starts. Additionally, the `tnsnames.ora` file on the backend servers must point to the this PDB. During the Fabasoft setup, the option "Use an existing database user" must be selected and as COO Service users the created database users must be used.

These users should have the following roles:

- `CONNECT`
- `RESOURCE`
- `SELECT_CATALOG_ROLE`

Additionally, the following right should be granted to the Oracle users for the Fabasoft Folio COO Services:

`GRANT SELECT ON DBA_PENDING_TRANSACTIONS TO <service user>`

It is also possible to grant the right `DBA_PENDING_TRANSACTIONS` to all Oracle users as these tables do not contain any security relevant data.

`GRANT SELECT ON DBA_PENDING_TRANSACTIONS TO PUBLIC`

Note: Fabasoft Folio COO services connect to Oracle using the Oracle XA interface. Therefore, limitations of characters usable in usernames and passwords apply. Besides the unsupported characters "+" and "=" documented by Oracle, the database may impose further restrictions.