erwin Mart Portal and erwin ER360

Installation Guide

Release 12.5

Legal Notices

This Documentation, which includes embedded help systems and electronically distributed materials (hereinafter referred to as the “Documentation”), is for your informational purposes only and is subject to change or withdrawal by Quest Software, Inc and/or its affiliates at any time. This Documentation is proprietary information of Quest Software, Inc and/or its affiliates and may not be copied, transferred, reproduced, disclosed, modified or duplicated, in whole or in part, without the prior written consent of Quest Software, Inc and/or its affiliates

If you are a licensed user of the software product(s) addressed in the Documentation, you may print or otherwise make available a reasonable number of copies of the Documentation for internal use by you and your employees in connection with that software, provided that all Quest Software, Inc and/or its affiliates copyright notices and legends are affixed to each reproduced copy.

The right to print or otherwise make available copies of the Documentation is limited to the period during which the applicable license for such software remains in full force and effect. Should the license terminate for any reason, it is your responsibility to certify in writing to Quest Software, Inc and/or its affiliates that all copies and partial copies of the Documentation have been returned to Quest Software, Inc and/or its affiliates or destroyed.

TO THE EXTENT PERMITTED BY APPLICABLE LAW, QUEST SOFTWARE, INC. PROVIDES THIS DOCUMENTATION “AS IS” WITHOUT WARRANTY OF ANY KIND, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NONINFRINGEMENT. IN NO EVENT WILL QUEST SOFTWARE, INC. BE LIABLE TO YOU OR ANY THIRD PARTY FOR ANY LOSS OR DAMAGE, DIRECT OR INDIRECT, FROM THE USE OF THIS DOCUMENTATION, INCLUDING WITHOUT LIMITATION, LOST PROFITS, LOST INVESTMENT, BUSINESS INTERRUPTION, GOODWILL, OR LOST DATA, EVEN IF QUEST SOFTWARE, INC. IS EXPRESSLY ADVISED IN ADVANCE OF THE POSSIBILITY OF SUCH LOSS OR DAMAGE.

The use of any software product referenced in the Documentation is governed by the applicable license agreement and such license agreement is not modified in any way by the terms of this notice.

The manufacturer of this Documentation is Quest Software, Inc and/or its affiliates.

Provided with “Restricted Rights.” Use, duplication or disclosure by the United States Government is subject to the restrictions set forth in FAR Sections 12.212, 52.227-14, and 52.227-19(c)(1) - (2) and DFARS Section 252.227-7014(b)(3), as applicable, or their successors.

Copyright © 2023 Quest Software, Inc and/or its affiliates All rights reserved. All trademarks, trade names, service marks, and logos referenced herein belong to their respective companies.

Contact erwin

Understanding your Support

Review support maintenance programs and offerings.

Registering for Support

Access the erwin support site and register for product support.

Accessing Technical Support

For your convenience, erwin provides easy access to "One Stop" support for all editions of erwin Data Modeler, and includes the following:

- Online and telephone contact information for technical assistance and customer services
- Information about user communities and forums
- Product and documentation downloads
- erwin Support policies and guidelines
- Other helpful resources appropriate for your product

For information about other erwin products, visit http://erwin.com/products.

Provide Feedback

If you have comments or questions, or feedback about erwin product documentation, you can send a message to techpubs@erwin.com.

News and Events

Visit News and Events to get up-to-date news, announcements, and events. View video demos and read up on customer success stories and articles by industry experts.

Contents

erwin Mart Portal Architecture 7

Setting up erwin Mart Portal 9

Reviewing Prerequisites 10

Install a Mart or Upgrade a Mart? 14

Character Limitations 15

Mart Portal Version Validation 17

Configuring Database 18

Creating Oracle Database 19

Creating PostgreSQL Database 23

Creating SQL Server Database 25

Specify Use of Foreign Characters With Microsoft SQL Server 26

Installing erwin Mart Portal and erwin ER360 27

Create a Pluggable Database 30

Install erwin Mart Portal with a Pluggable Database 32

Configuring erwin Mart Portal 33

Configuring Database Settings 34

Configuring Mart Portal Settings 36

Configuring Advanced Settings 39

Configuring Authentication Settings 42

Configuring Proxy Settings 47

AzureAD OAuth2 50

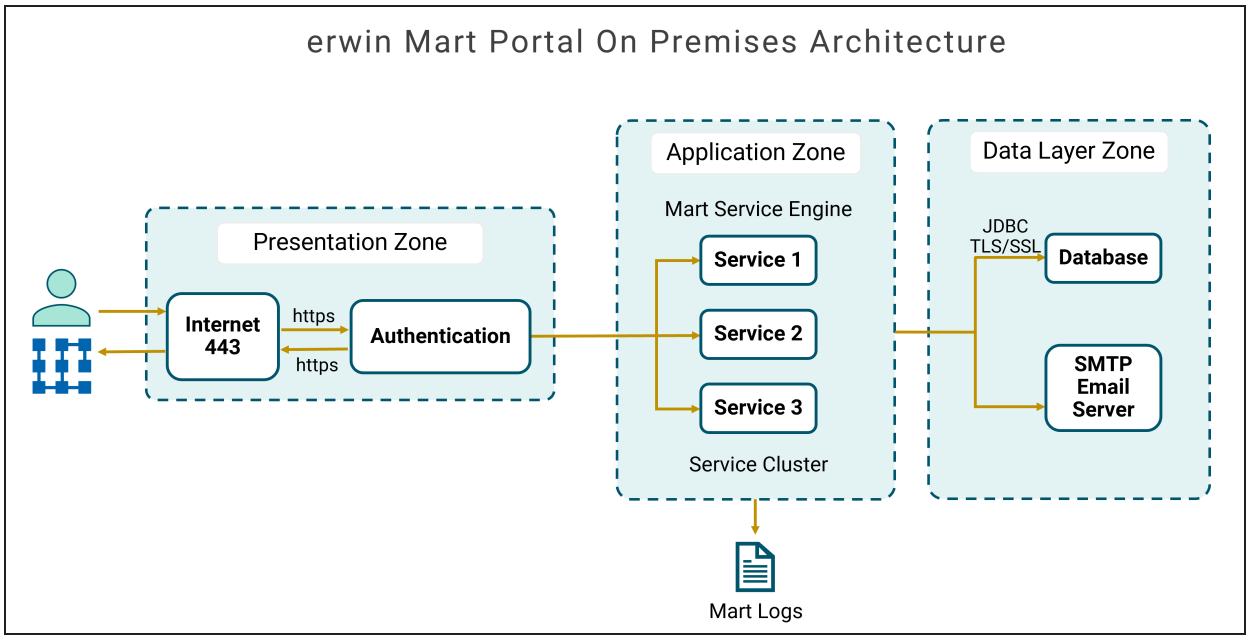
SAML with AzureAD 62

SAML with PingIdentity 69
SAML with Okta 80
Initializing erwin Mart Portal and erwin ER360 89
erwin Mart Portal 89
erwin ER360 91
Logging in to erwin Mart Portal and Configuring Settings 94
Use a Pluggable Database 96
Logging in to erwin ER360 and Configure Settings 98
Enabling IIS 101
Change the Mart Database Server 108
Upgrading Mart 109
Upgrade Performance Considerations 111
Upgrading erwin Mart Portal 113
Restarting the erwin Mart Portal Service 114
Creating Customized Security Messages 115
Viewing Log Files 116
Use erwin Mart Portal as a Windows Service 117
Enable Logging in Local AppData 118
Troubleshooting 119
Chinese characters are replaced with question marks in Postgre SQL Mart 124

erwin Mart Portal Architecture

erwin Mart Portal architecture follows a JAR-based, multi-product structure.

The following diagram explains erwin Mart Portal architecture:



The mart comprises the following components:

Database

Stores the user data for the Workgroup Edition.

Database	Versions	Additional Details
Oracle	12c r2, 18c, 19c, or 21c	If you are using Oracle 12c, you can use a pluggable database.
PostgreSQL	15.3, 14.8, 13.11, 12.15 and 11.20	You can also use PostgreSQL certified version 11.18 for Amazon Aurora.
SQL Server	Microsoft SQL Server 2014 SP3,	You can also use Microsoft SQL

Database	Versions	Additional Details
	2016 SP2, 2019, 2022 or certified versions 2017 and 2019	Azure 12 and Amazon RDS SQL Server 2019.

Applications

Includes the following web-based components, erwin Mart Portal and erwin ER360 that helps you manage the Mart and manage, review, and govern data models through a web console respectively.

Web server

Hosts erwin Mart Portal and erwin ER360. By default, erwin Mart Portal installation process installs Apache Webserver.

Setting up erwin Mart Portal

When you access the Mart database througherwin Mart Portal for the first time, you must choose the database. You can choose the database using a database authenticated user or a Windows-authenticated user.

> Before you proceed, verify that you have installed a DBMS, created the mart database, and configured Mart Portal. If the Mart is already initialized, the Login page appears.

Upon selecting the database, it is necessary to ensure that the database requirements are met. Next, proceed with the installation and initialization of the erwin Mart Portal and erwin ER360.

To install and configure erwin Mart Portal and erwin ER360, follow these steps:

1. Review prerequisites
2. Configure database
3. Install erwin Mart Portal and erwin ER360
4. Configure erwin Mart Portal
5. Initialize erwin Mart Portal and erwin ER360
6. Log in to erwin Mart Portal and configure settings
7. Log in to erwin Mart Portal and configure settings

Reviewing Prerequisites

Before you install the Mart and ER360 components, ensure that the minimum system requirements that are outlined in this topic are met.

You can use any of the following combinations to install erwin Data Modeler, the Mart database, and the Mart Portal application:

- Install erwin Data Modeler, the Mart database, and the Mart Portal application on the same computer.
- Install erwin Data Modeler, the Mart database, and the Mart Portal application on different computers.
- Install erwin Data Modeler and the Mart database on one computer, and install the Mart Portal application on a different computer.
- Install erwin Data Modeler on one computer, and install the Mart database and the Mart Portal application on a different computer.

Ensure that you always install the Mart Portal application on Windows operating system.

Hardware requirements (based on physical hardware performance, not a virtual environment):

- 4 GHz or higher quad-core processor
- 16 GB RAM
- 100 GB of disk space or more as required to support your specific mart

Operating system:

- Microsoft Windows Server 2012, R2
- Microsoft Windows Server 2016
- Microsoft Windows Server 2019
- Microsoft Windows Server 2022
- Microsoft .NET Framework 4.0 and above
- All current Microsoft Windows critical updates are applied

Database:

The following table lists each database with its Prerequisites:

Database	Versions	Prerequisites

Oracle	12c r2, 18c, 19c, or 21c	▪ The Mart Portal can use a standalone or can share an existing database server for an Oracle database. You can also use a pluggable database.
		▪ To create the Mart, you must be the database schema owner user and you must have the DBA role in the target database on the Oracle server. The DBA role is required for the user who is specified in the Configure Mart Portal dialog. If the DBA privilege of this user is revoked, then erwin DM users will not be able to save model changes to the Mart.
		▪ (Optional) You have modified the following parameters in the initialization file (InitSID.ora):
		`Remote_OS_Authent=T`
		`OS_Authent_Prefix=TRUE`
		▪ (Optional) To use the Korean language with the Mart database, use KO16MSWIN949 or AL32UTF8 character set depending on your operating system language pack. For more information, see the Oracle documentation.
		▪ If the Mart database is an Oracle database, the default tablespaces that were used for initializing any earlier release of r9 series Mart are available for the latest release.

PostgreSQL	Certified versions such as 15.3, 14.8, 13.11, 12.15 and 11.20 --OR--	▪ The Mart Portal can use a standalone or can share an existing database server for PostgreSQL. ▪ The database user account that is used to configure the Mart must have super user permissions.

Database	Versions	Prerequisites
	PostgreSQL certified version 11.18 for Amazon Aurora	
SQL Server	Microsoft SQL Server 2014 SP3, 2016 SP2, 2019, 2022 or certified versions 2017 and 2019 --OR-- Microsoft SQL Azure 12, and Amazon RDS SQL Server 2019.	▪ The Mart Portal can use a standalone or can share an existing database server for a Microsoft SQL Server. ▪ The SQL Server 2014 SP1, 2016, 2017, and 2019 TRUSTWORTHY database property is no longer required for the mart. After you install this product, you can optionally reset this property to OFF. ▪ The database user account that is used to configure the Mart must have the dba_owner role assigned. ▪ (Optional) To use the Korean language, use the Korean_wansung_CI_AS character set. Select the character set while creating the Mart database (in the Collation field). For more information, see the SQL Server documentation.

erwin Mart Portal web client:

Supported browsers:

- Microsoft Edge v107 or newer
- Mozilla Firefox v107 or newer
- Google Chrome v107 or newer
- Apple Safari 16.1 or newer

Ensure that your screen resolution is 1024 x 768 or higher. If your screen resolution is less than the minimum supported, some portions of the screen will not be visible.

Other requirements

Help ensure that the following additional requirements are met:

- The DBMS is installed and prepared for creating the Mart Database.
- The Mart database is created. At least one user with administrator privileges is present. You have run the initial queries on the Oracle database. For more information about the initial queries, see the Implementation Guide.
- If you want to add Windows Group users as Mart users, you have the Active Directory Server details.

> You can add Windows Group users as normal Mart users, but not as Mart administrators. A Mart administrator must be a server or Windows user.

Important disclaimer notice on all requirements

1. The requirements that are mentioned previously define the minimum requirements which permit the application to run with reasonable performance based on a small business use case scenario. The actual requirements for an enterprise-wide use case based on larger models and configurations require significantly greater resources to obtain acceptable performance.
2. These requirements are based on actual physical hardware (no virtual environment) and the following assumptions:
   - Minimal to no network overhead (both the database and application servers are locally installed)
   - Vendor's default install of the current version of their software (with all current service or fix packs)
   - No other applications sharing the defined hardware configuration (for example, a clean machine)

   Any other hardware/software configurations are acceptable as long as they provide the same (or better) performance characteristics identified.

Install a Mart or Upgrade a Mart?

Use the following guidelines to determine if you must install or upgrade Mart Portal:

- If you are new to erwin Data Modeler and have purchased the current version of Workgroup Edition, then install the current version of the Mart. Use the How to Install and Configure a Mart procedure that is appropriate for your Mart database.
- If you have any earlier release of r9 series Mart, then upgrade the Mart to the current version. Use the How to Upgrade any r9 Series Mart to the Current Version procedure to upgrade your Mart. The models that are created in any earlier release of r9 series are upgraded when a user connects to the current version Mart and opens the models.
- If you have an existing Mart and the version is r7.3 through r8.2.9, install the current version Mart. Use the How to Install and Configure a Mart procedure that is appropriate for your Mart database. After installing the Mart, use the Upgrade Mart utility to upgrade the Mart models from r7.3 through r8.2.9 to the current version.

Character Limitations

There is a limitation on the number of characters you can use for certain Mart Portal parameters. The following table gives information about such parameters:

Parameter/Field	Character Limitations
Username	450 (Server User, Windows User, and Group) Also, refer to the special character limitations below. > For international OS (I18N), if the character set being used is Double byte Character Set (DBCS) then the character limit is 225.
Password	130
Email Address	130 Also, refer to the special character limitations below.
Profile Name	130
Profile Description	2000
Catalog Name	255
Catalog Description	4000

Apart from the above character limits, for username and email address, following are the permitted special characters:

Parameter/Field	Permitted Special Characters	
Username	**Server User for Mart Portal**: . (dot), _ (underscore), - (hyphen), ~ (tilde), ^ (carat), # (hash), ! (exclamation mark), (back tick)	**Server User for ER360**: . (dot), _ (underscore), - (hyphen), ~ (tilde), ^ (carat), # (hash), ! (exclamation mark), (back tick), |(pipe), {}(flower brack-

Character Limitations

Parameter/Field	Permitted Special Characters	
	Windows User for Mart Portal: \ (backslash), . (dot), _ (underscore), - (hyphen), ~ (tilde), ^ (carat), # (hash), ! (exclamation mark), (back tick), |(pipe), {}(flower brackets) **Group User**: . (dot), _ (underscore), - (hyphen), ~ (tilde), ^ (carat), # (hash), ! (exclamation mark), + (plus), % (percent)	ets) **Windows User for ER360**: \ (backslash), . (dot), _ (underscore), - (hyphen), ~ (tilde), ^ (carat), # (hash), ! (exclamation mark), (back tick), | (pipe), {}(flower brackets)
Email Address	**Server User for Mart Portal**: @ (at sign), - (hyphen), % (percent), _ (underscore), + (plus), . (dot), ~ (tilde), ^ (carat), # (hash), ! (exclamation mark) **Windows User for Mart Portal**: @ (at sign), % (percent), + (plus), . (dot), _ (underscore), - (hyphen), ~ (tilde), ^ (carat), # (hash), ! (exclamation mark) **Group User for Mart Portal**: . (dot), - (hyphen), %(percentage), _(underscore), + (plus), @(at the rate)	**Server User for ER360**: @ (at sign), - (hyphen), % (percent), _ (underscore), + (plus), . (dot), ~ (tilde), ^ (carat), # (hash), ! (exclamation mark) **Windows User for ER360**: @ (at sign), % (percent), + (plus), . (dot), _ (underscore), - (hyphen), ~ (tilde), ^ (carat), # (hash), ! (exclamation mark) **Group User for ER360**: . (dot), - (hyphen), %(percentage), _ (underscore), +(plus), @(at the rate)

Mart Portal Version Validation

From erwin Data Modeler (DM) and erwin Mart Portal (MS) 2019R1 onward, while connecting to the erwin MS from erwin DM, version validation has been implemented as follows:

1. Connecting from erwin DM 2019R1 to erwin MS lower than 2019R1 is not allowed.
2. Connecting from erwin DM lower than 2019R1 to erwin MS 2019R1 is not allowed.

Configuring Database

Configure your DBMS environment before you can install and use erwin Mart Portal and erwin ER360.

- Oracle
- PostgreSQL
- SQL Server

Creating Oracle Database

Perform the following setup tasks in your DBMS environment before you can install and use the software:

1. Install the DBMS on the server where you plan to store the Mart.

   Ensure that you can create tables, indexes, stored procedures, and public synonyms. For more information about memory and disk space requirements, see the system requirements for each DBMS (Microsoft SQL Server, PostgreSQL, and Oracle).

2. Create a database that you want to use as the Mart. To use a pluggable database, see the Use a Pluggable Database topic.

   Use the DBMS features to create or identify the required storage objects and the mart. The specific requirements vary depending on your DBMS type.

> To create, update, or delete a Mart in erwin Data Modeler Workgroup Edition, you must be the database schema owner and you must have the DBA role.

Additional Tasks

The DBA and the system administrator responsible for installing the software on an Oracle database management system performs these tasks.

Use graphical tools or SQL *Plus (all versions), SQL*DBA, or the Oracle Enterprise Management Console to perform these tasks. Some SQL commands are included where appropriate. The Data file paths, data file sizes, role names, and user names are included as examples only.

1. Check the SYSTEM tablespace.

   The installation creates several stored procedures. All triggers, stored procedures, and packages are kept in the Oracle SYSTEM tablespace. The standard size of the SYSTEM tablespace assumes that you are not using procedural options, so the SYSTEM tablespace must be often expanded. If other Oracle applications are not using procedural code, then expand the SYSTEM tablespace to 32 MB. If other Oracle applications also use procedural code, expand the SYSTEM tablespace to at least 32 MB.

2. Check the Rollback Segment tablespace.

   If your instance uses UNDO tablespace, do not create rollback segments.

   Significant rollback space is required for installing and use. The rollback segments must be in their own separate tablespace and each have at least 16 MB of available space. There must be one rollback segment for every four concurrent users, with a maximum of 50 rollback segments. The available space must scale upward with increasing numbers of rollback segments. Finally, the rollback segment optimal parameter must be set to control rollback segment growth and space consumption.

   > For Steps 3, 4, and 5, use the Dictionary-managed tablespaces.

3. Create a data tablespace of at least 32 MB.

   For example:

   ```
   CREATE TABLESPACE MyMart
   DATAFILE '/db01/oracle/rdbms9i/data/mymart.ora' SIZE 100M;
   Or For Locally Managed extents:
   CREATE TABLESPACE Mymart
   DATAFILE '/db01/oracle/rdbms9i/data/mymart.ora' SIZE 100M
   EXTENT MANAGEMENT LOCAL SEGMENT SPACE MANAGEMENT AUTO;
   ```

4. Create an index tablespace of at least 32 MB.

   For example:

   ```
   CREATE TABLESPACE MMARTINDEX
   DATAFILE '/db02/oracle/rdbms9i/data/mmartindex.ora' SIZE 75M;
   Or For Locally Managed extents:
   CREATE TABLESPACE MMARTINDEX
   DATAFILE '/db02/oracle/rdbms9i/data/mmartindex.ora' SIZE 75M
   EXTENT MANAGEMENT LOCAL SEGMENT SPACE MANAGEMENT AUTO;
   ```

5. Create a temporary tablespace.

   For example:

   ```
   CREATE TEMPORARY TABLESPACE MMTEMP TEMPFILE '/db03/or-
   acle/rdbms9i/data/mmarttemp.ora' SIZE 50M;

   Or For Locally Managed extents:

   CREATE TEMPORARY TABLESPACE MMTEMP TEMPFILE '/db03/or-
   acle/rdbms9i/data/mmarttemp.ora' SIZE 50M

   EXTENT MANAGEMENT LOCAL UNIFORM SIZE 1M;
   ```

   > For more details about syntax and options regarding tablespace creation, see the appropriate Oracle documentation.

6. Create an Oracle user with DBA privileges for use by the erwin Data Modeler Workgroup Edition Installer or designated schema owner.

   Assign the data tablespace to this user as the default tablespace, and the temporary tablespace as the temporary tablespace to the user.

   For example:

   ```
   CREATE USER STEVE IDENTIFIED BY STEVE

   DEFAULT TABLESPACE MyMart

   TEMPORARY TABLESPACE MMTEMP

   QUOTA UNLIMITED ON MyMart

   QUOTA UNLIMITED ON MMARTINDEX;

   GRANT DBA TO STEVE;
   ```

7. Create the erwin Data Modeler Workgroup Edition Installer role.

   The following example is the role that the Oracle user requires to install erwin Data Modeler Workgroup Edition.

   ```
   CREATE ROLE MMINSTALL;
   ```

8. Grant the Oracle privileges to the Installer role.

   The following example shows the Oracle privileges that the erwin Data Modeler Workgroup Edition Installer must install on Oracle. For the last command, log in as sys with the sysdba role in the user-name or the command will fail.

```
grant create sequence to MMINSTALL;

grant create table to MMINSTALL;

grant create view to MMINSTALL;

grant create materialized view to MMINSTALL;

grant drop public synonym to MMINSTALL;

grant create public synonym to MMINSTALL;

grant create procedure to MMINSTALL;

grant select on dba_data_files to MMINSTALL;

grant create session to MMINSTALL;
```

   > To use the database, an Oracle user needs only the create session privilege.

9. Select the erwin Data Modeler Workgroup Edition tablespaces and Installer role.

When prompted for tablespace and role information, select the Workgroup Edition data tablespace, the Workgroup Edition index tablespace, and the Workgroup Edition Installer role.

Back to Top

Creating PostgreSQL Database

If you are a DBA or a system administrator responsible for installing the software on a PostgreSQL database management system, perform the following tasks:

Use a graphical user interface (GUI) tool, such as pgAdmin or a similar tool, to create the erwin Data Modeler Workgroup Edition database. If a GUI tool is not available, you can use SQL Shell to type in the appropriate commands manually.

Configure PostgreSQL:

You can configure PostgreSQL database to accept any IP address.

Follow these steps:

1. Set the IP address to 0.0.0.0/0
2. Select the server.
3. Click Tools, Server Configuration, pg_hba.conf. Alternately, you can find the file at C:\Program Files\PostgreSQL\<version>\data.
4. Double-click the last empty column.
5. Complete the following fields:

   Type

   host

   Database

   all

   User

   all

   Ip_Address

   0.0.0.0/0

   Method

   md5

6. Select Enable and click Ok.
7. Click Save.
8. Click Reload Server.

The PostgreSQL database configuration is complete.

Back to Top

Creating SQL Server Database

If you are a DBA or a system administrator responsible for installing the software on a Microsoft SQL Server database management system, perform the following tasks:

1. Use a graphical user interface (GUI) tool, ISQL (all versions), SQL Administrator, or Enterprise Manager to create the Mart database. If a GUI tool is not available, you can use ISQL to type in the appropriate commands manually.

   Your database should meet the following criteria:

   - The initial size of the database file should be set to 60 MB.
   - The initial size of the transaction log file should be set to 50 MB.
   - Set the maximum file size to unrestricted file growth for both files (recommended, but not required).
   - Increase the Set Auto grow file by 10 percent (recommended, but not required).

   The new database is *owned* by the user who created it.

   Set the Truncate Log on Checkpoint option and have the server generate checkpoints frequently. By selecting this option, the log is emptied periodically and should not fill up and cause rollbacks.

   > For best performance ensure that separate devices are used to store the data and the transaction log.

2. Verify tempdb size.

   Significant temporary space is required for installation and use. The temporary segments need at least 16 MB of available space. You should also increase available space as the number of concurrent users increase.

Back to Top

Specify Use of Foreign Characters With Microsoft SQL Server

For Microsoft SQL Server modify your registry settings to have certain foreign language characters in your models recognized.

Follow these steps:

1. Click Run on the Start menu.
2. Enter *regedit*.

   The Registry Editor opens.
3. Verify or add the following registry entry:

   [HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\DB-Lib]

   "AutoAnsiToOem"="ON"

   "UseIntlSettings"="ON"
4. Click File, Exit.

   Your configuration is set to recognize foreign language characters in your models.

Back to Top

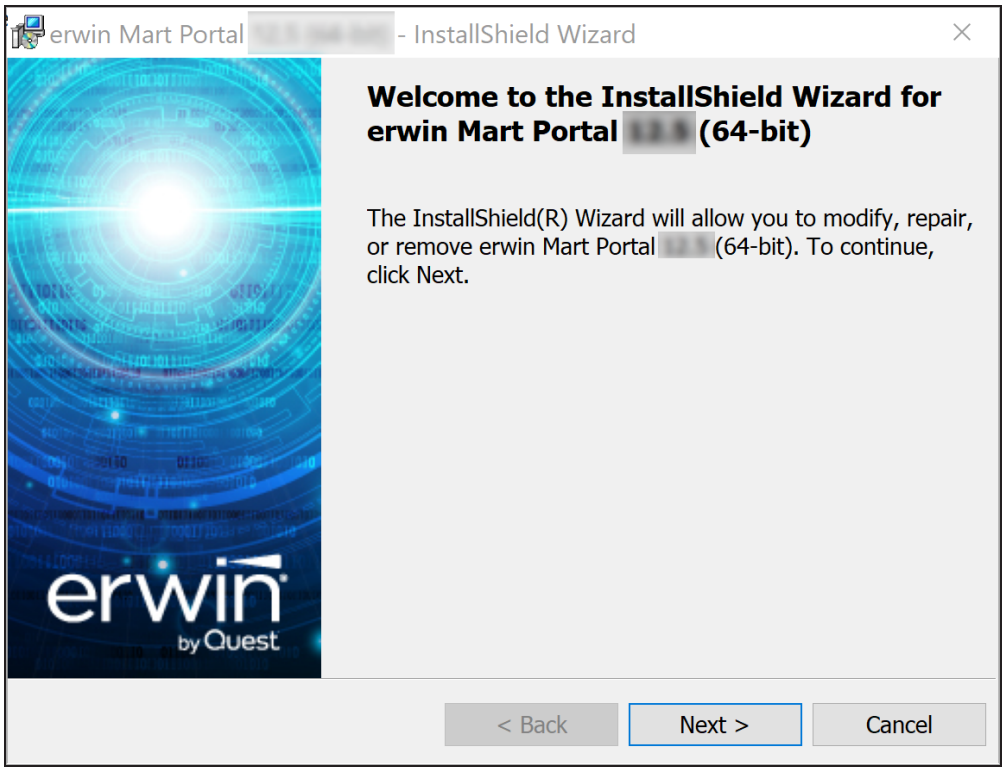
Installing erwin Mart Portal and erwin ER360

The erwin Mart Portal installer contains and installs three microservice JAR files, vault-service.jar, MartPortal.jar, and ER360.jar. Along with mart, it also installs erwin ER360 by default. You can either use an existing web server or use the default web server through the installation wizard.

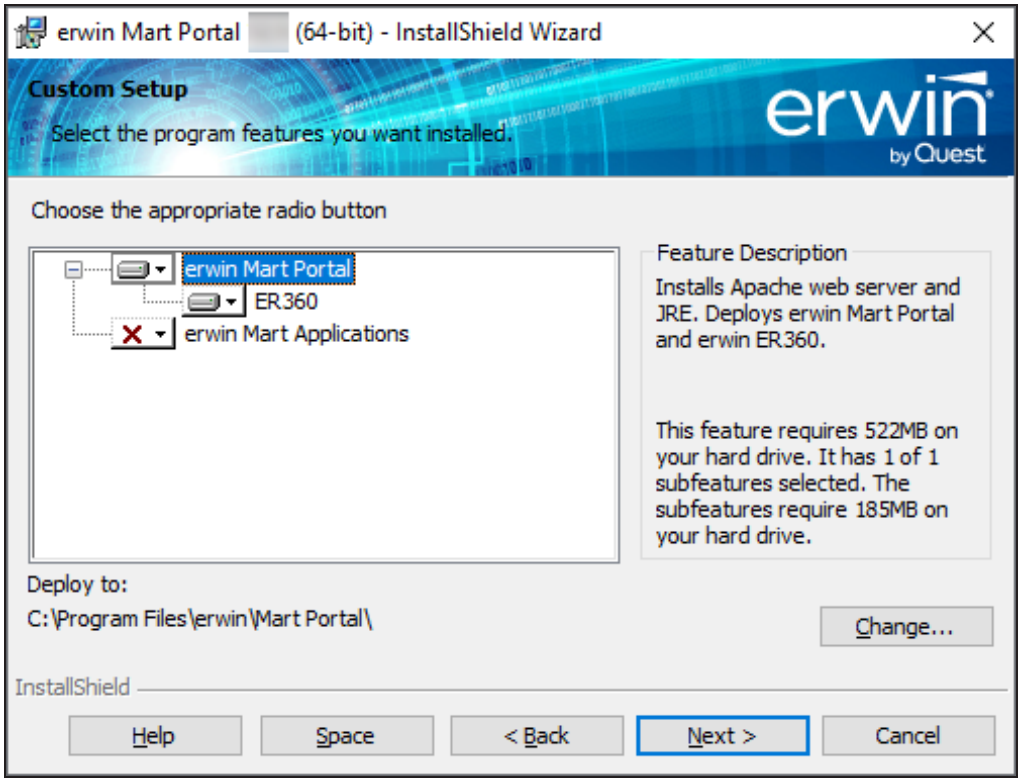
> You must install and configure erwin Mart Portal regardless of whether you use Mart Portal as a server or a Windows service.

To install erwin Mart Portaland erwin ER360, follow these steps:

1. Download the erwin Mart Portal installer file from the product page.
2. Start the installer.
   The erwin Mart Portal Installation Wizard appears.



3. Click **Next** and accept the Software Transaction Agreement.
4. Click **Next** and enter your name and organization.
5. Click **Next**.
   The applications and components list appears. Observe that under erwin Mart Portal, ER360 is available by default as a component.
   Although erwin ER360 is installed by default, you need a license to use it. Contact your license administrator for a license.



6. Click **Next** and then click **Install**.

   The installation process starts.
7. On process completion, click **Finish** to complete the installation process.

   Depending on the options you select, erwin Mart Portal and/or erwin ER360 are installed.

If you want to connect to an SSL enabled Mart through API, you must first install the security certificate on the corresponding computer. Install the certificate through erwin DM. Without the security certificate, the API cannot connect to the SSL enabled Mart.

Create a Pluggable Database

You can use the pluggable database concept in Oracle 12c and create multiple Marts of the same Mart release.

Follow these steps:

1. Create a pluggable database in Oracle 12c.

   For example, provide the Global Database Name as erwin and the Pluggable Database Name as erwin_test.

   > For more information on how to create a pluggable database, see the Oracle documentation.

2. Run the following script on the computer where Oracle 12c is installed:

```
DROP TABLESPACE MMDATA INCLUDING CONTENTS AND DATAFILES
CASCADE CONSTRAINTS;

DROP TABLESPACE MMINDEX INCLUDING CONTENTS AND DATAFILES
CASCADE CONSTRAINTS;

DROP TABLESPACE marttemp INCLUDING CONTENTS AND DATAFILES
CASCADE CONSTRAINTS;

ALTER SESSION SET CONTAINER=erwin_test;

CREATE TABLESPACE MMDATA datafile 'c:\r9mart2\MMDATA.dbf'
size 300m autoextend on;

CREATE TABLESPACE MMINDEX datafile 'c:\r9mart2\MMINDEX.dbf'
size 300m autoextend on;

CREATE TEMPORARY TABLESPACE marttemp tempfile 'c:\r9-
mart2\tempdata.dbf' size 300m autoextend on;

DROP USER MMADMIN CASCADE;

CREATE USER MMADMIN IDENTIFIED BY MMADMIN DEFAULT TABLESPACE
MMDATA TEMPORARY TABLESPACE MARTTEMP QUOTA UNLIMITED ON
MMDATA QUOTA UNLIMITED ON MMINDEX;
```

```
DROP ROLE MMINSTALL;

CREATE ROLE MMINSTALL;

GRANT CREATE SEQUENCE TO MMINSTALL;

GRANT CREATE TABLE TO MMINSTALL;

GRANT CREATE VIEW TO MMINSTALL;

GRANT CREATE MATERIALIZED VIEW TO MMINSTALL;

GRANT DROP PUBLIC SYNONYM TO MMINSTALL;

GRANT CREATE PUBLIC SYNONYM TO MMINSTALL;

GRANT CREATE PROCEDURE TO MMINSTALL;

GRANT CREATE SESSION TO MMINSTALL;


GRANT MMINSTALL TO MMADMIN;

GRANT DBA TO MMADMIN;
```

Install erwin Mart Portal with a Pluggable Database

The procedure to install erwin Mart Portal for a pluggable database is same as the procedure for a normal database. This topic describes only those fields that need different values for a pluggable database. For more information on how to configure the erwin Mart Portal, see the Install erwin Mart Portal topic.

The following fields on the Configure the erwin Mart Portal dialog need different values:

Server Name

Specifies the name of the database server where you have installed the Mart database. Enter the name of the computer where Oracle 12c is installed and the pluggable database erwin_test is created.

Database Name

Specifies the name of the pluggable Mart database. For example, erwin_test.

User Name

Specifies the user name to connect to the Mart database. Enter mmadmin or any other user account that you have created when you ran the script.

Password

Specifies the password to connect to the Mart database. Enter mmadmin or any other password that you have created when you ran the script.

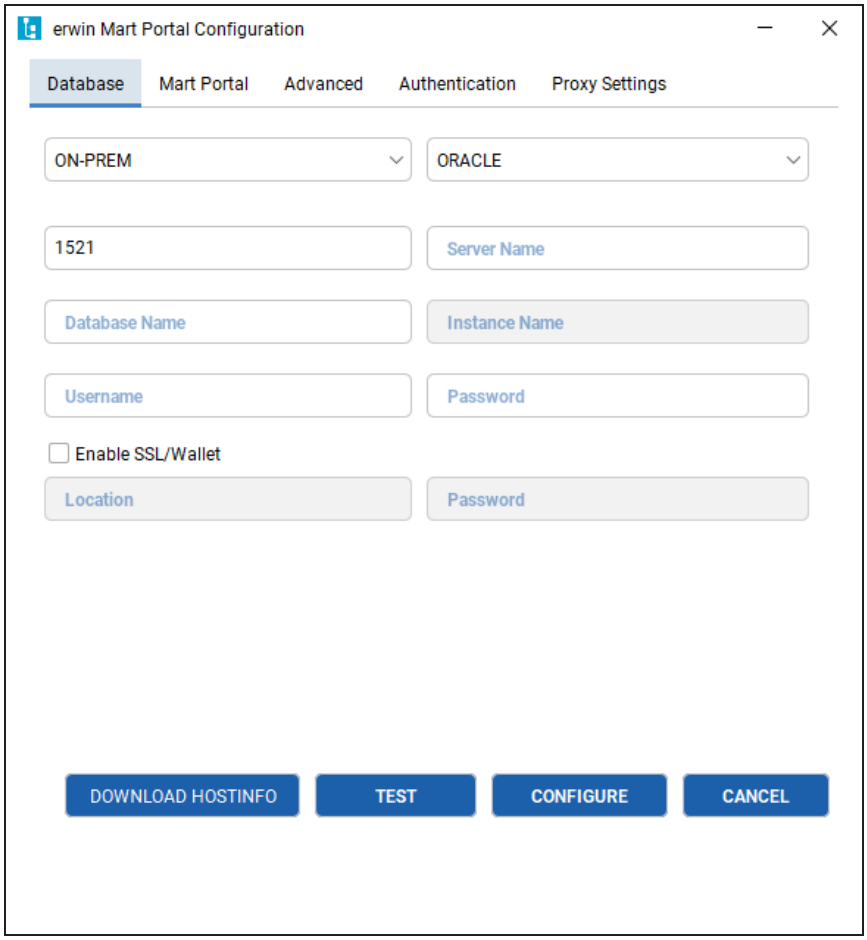
Configuring erwin Mart Portal

The next step after installing erwin Mart Portal is to configure it.

> To use the same database that you have used for the r9.0.0 Mart (or any earlier release of r9 series Mart), upgrade your mart. Refer to the Upgrading Mart topic before proceeding.

To configure erwin Mart Portal, follow these steps:

1. On the Windows Start menu, click **erwin** > **Configure Mart Portal**.



2. Configure database settings.

3. Configure mart portal settings.
4. Configure advanced settings.
5. Configure authentication settings.
6. Configure proxy settings (only applicable to erwin ER360).
7. Click Test to validate the configuration.
8. On successful validation, click **Configure**.

Configuring Database Settings

On the Database tab, configure the following settings:

Field	Description	Additional Information
Database Connection Method	Specifies whether the mart connects to an on-premise database or to a database via a JDBC connection string.	
JDBC Connection String	Specifies the JDBC connection string to connect to a database	This option is available only when the Database Connection Type is set to Custom JDBC URL.
Database	Specifies the mart database provider	Available options are: • Oracle • PostgreSQL • SQL Server
Port No	Specifies the port number of the database server	
Server Name	Specifies the name of the database server where you have installed the Mart database. For example, suppose that you are using SQL Server	

Configure the Mart Portal

Field	Description	Additional Information
	as the Mart database. Enter the name of the computer where SQL Server is installed.	
Database Name	Specifies the database to which the mart must connect	If you are installing the Mart for the first time, use a new database. Do not use an existing database. If you are upgrading the Mart from any earlier release of r9 series to the latest release, use the corresponding Mart database. For an Oracle mart, ensure that appropriate permissions for a materialized view are assigned to the installer role (GRANT CREATE MATERIALIZED VIEW TO MMINSTALL;). For more information, refer to the Creating Oracle Database topic.
Instance Name	Specifies the name of the database instance	This option is enabled only when the Database is set to SQLServer.
Username	Specifies the user name to connect to the Mart database	This username must be is authenticated by the Mart database. Windows authentication (User Name field) is not supported for connecting to the Mart database from the Configure Mart Portal window.
Password	Specifies the password to connect to the Mart database	
Enable SSL/Wallet	Specifies whether SSL or Wallet (in case of Oracle database) is enabled	

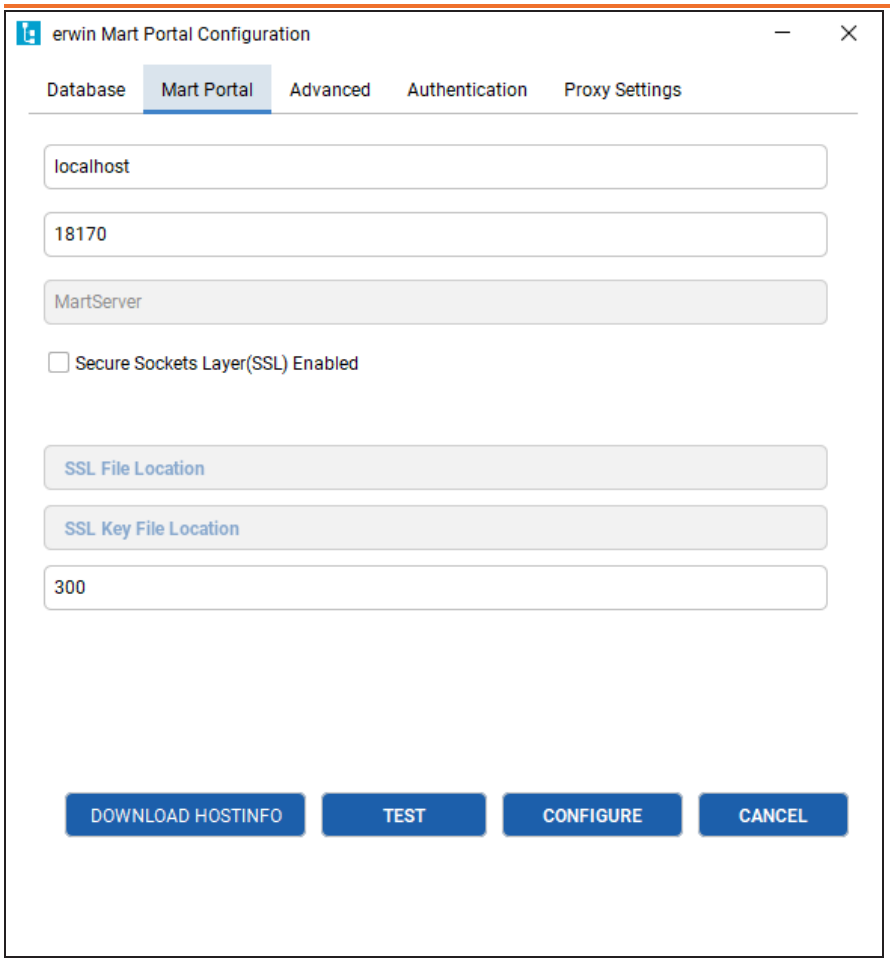
Configure the Mart Portal

Field	Description	Additional Information
Location	Specifies the location of the wallet file	This option is enabled only when you select the Enable SSL/Wallet check box.
Password (For SSL/Wallet)	Specifies the password that you set for the wallet	This option is enabled only when you select the Enable SSL/Wallet check box.
Download Hostinfo	Downloads the host machine's information for erwin ER360 offline license.	This feature downloads the following information in the JSON format. • OS Name • OS Version • Time Zone • System Locale • IP • System Type • NIC • Host Name • MAC • Input Locale The erwin licensing team uses this information to configure an offline license for erwin ER360. For more information on offline licenses, contact license support.

Configuring Mart Portal Settings

The Mart Portal tab specifies the erwin Mart Portal application settings.

Configure the Mart Portal



On the Mart Portal tab, configure the following settings:

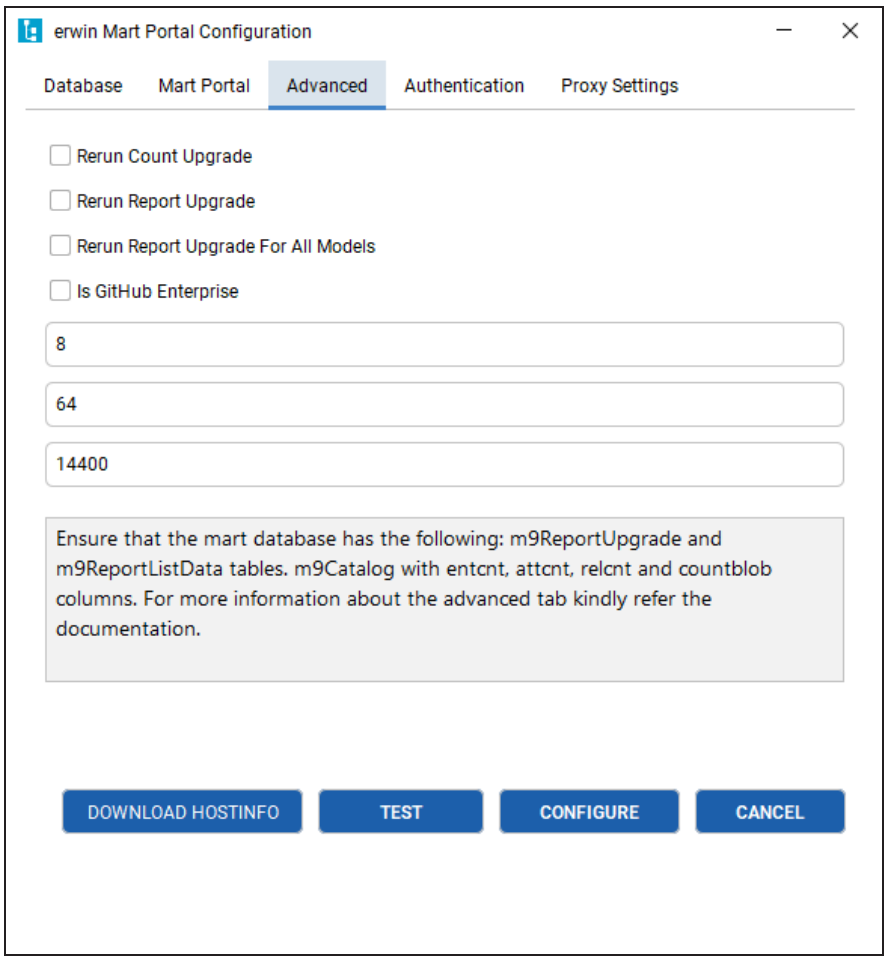
Field	Description	Additional Information
Server Name	Specifies the name of the computer where the Web Server is present. For example, if you are using Tomcat, enter the name of the computer where Tomcat is installed. **Default:** localhost	
Port Number	Specifies the port number on which the Web Server is running.	You can now configure erwin Mart Portal on any port except 18172,

Configure the Mart Portal

Field	Description	Additional Information
		18174, and 18176 (These ports are used as proxy ports.). If you use SSO, ensure that you configure the correct port number here according to your SSO configuration.
Secure Sockets Layer (SSL) Enabled	Specifies whether you want to connect to the Mart through a secured connection (SSL)	Using a self-signed SSL certificate may result in an error about certificate authority while connecting to erwin Mart. In that case, click OK to continue connecting to erwin Mart
SSL Certificate	Specifies the location of SSL certificate file	This option is enabled only when the Secure Sockets Layer (SSL) Enabled option is selected. The certificate is available at C:\Program Files\erwin\Mart Portal\Apache\myerwin.mart.crt.
SSL Key	Specifies the location of the SSL Key file	This option is enabled only when the Secure Sockets Layer (SSL) Enabled option is selected. The key is available at C:\Program Files\erwin\Mart Portal\Apache\myerwin.mart.key.
Account Lockout Duration (in seconds)	Specifies the duration (in seconds) for which an account should be locked whenever an incorrect password is entered five consecutive times	By default, it is set to five minutes (300 seconds). At the most, you can set it to 30 days (2592000 seconds).

Configuring Advanced Settings

The Advanced tab specifies mart upgrade settings.



In case of failures in upgrade, before you rerun the upgrade, on the Advanced tab, configure the following settings:

Field	Description	Additional Information
Rerun Count Upgrade	Specifies that the model count upgrade should run while running the Mart database upgrade	

Configure the Mart Portal

Field	Description	Additional Information
Rerun Report Upgrade	Specifies that the report upgrade should run while running the Mart database upgrade.	
Rerun Report Upgrade For All Models	Specifies that the report upgrade should run for all models while running the Mart database upgrade	
Is GitHub Enterprise	Specifies whether your GitHUb account is an enterprise account	
Database Initial Size	Specifies the initial mart database size in MB By default, this is set to 8 MB	
Database Max Size	Specifies the maximum size the mart database can take in MB By default, this is set to 64 MB	
Rest API Token Lifetime(in seconds)	Specifies the duration (in seconds) for which your REST API token will be valid By default, this is set to 14400 seconds (four hours)	

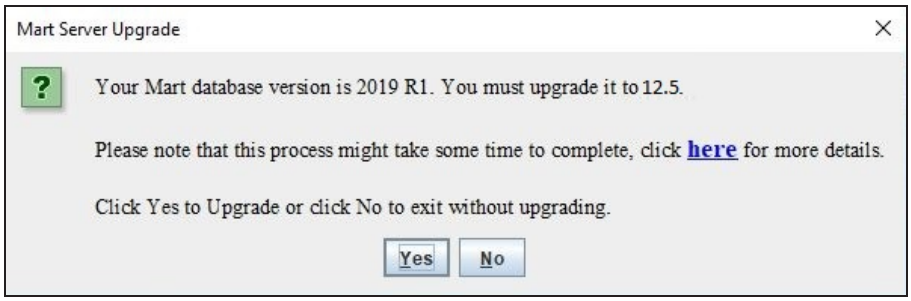
Ensure that the Mart database has the following:

- m9reportUpgrade and m9ReportListData tables
- m9Catalog table with entcnt, attcnt, relcnt, and countblob columns

To upgrade, follow these steps:

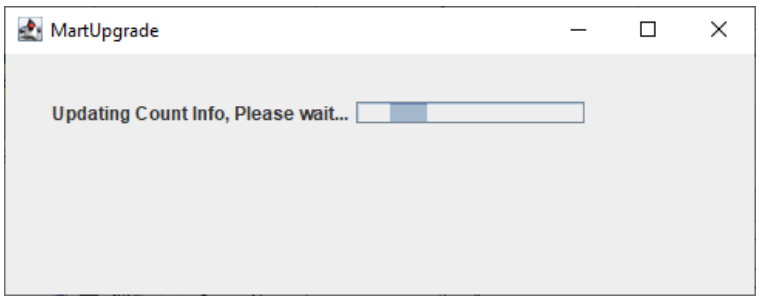
Click Configure.

The Mart Portal Upgrade dialog box appears.

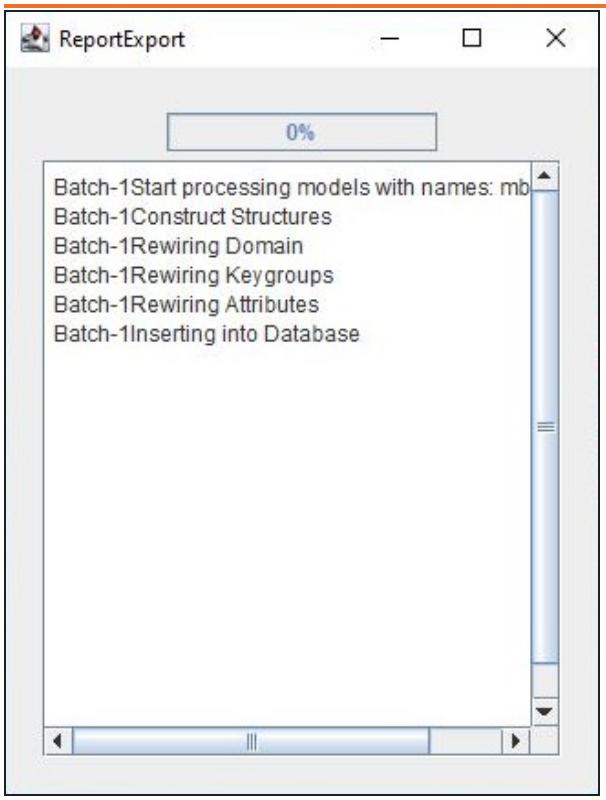


Click **Yes**.

The MartUpgrade screen for count upgrade appears.



Once the count upgrade process is complete, the ReportExport screen appears.

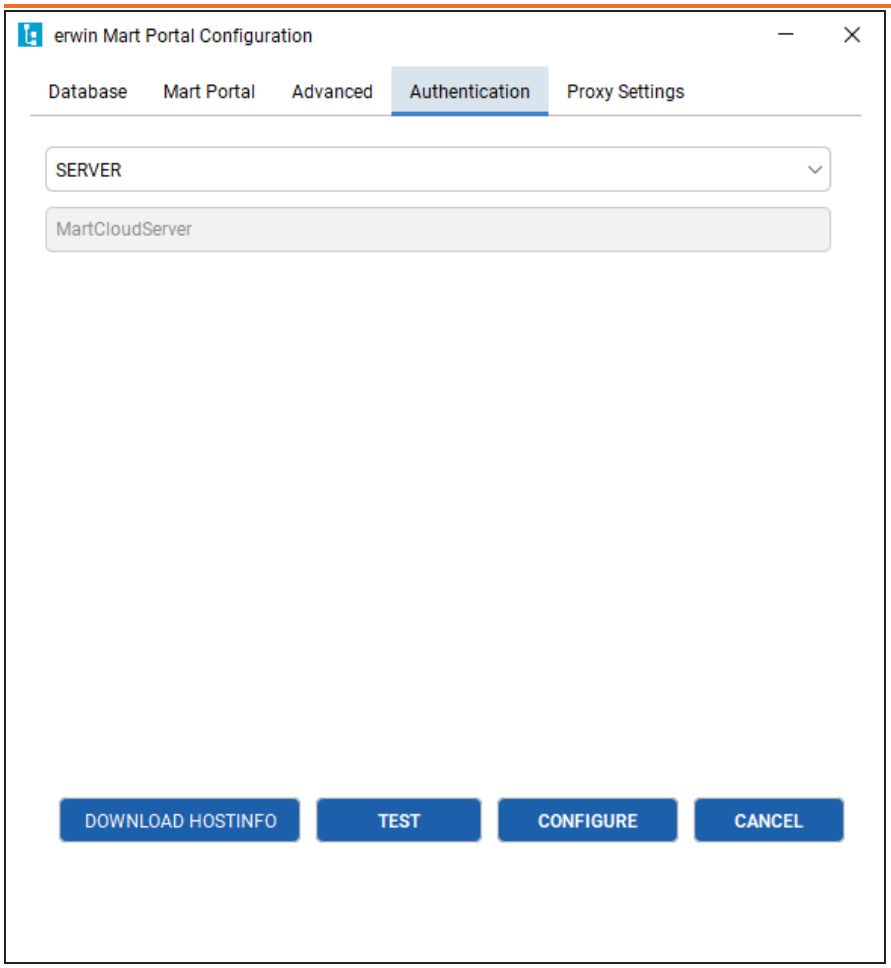


This screen does not appear when you upgrade from 2020 R1 Mart to higher versions.

On completion of report export process, the upgrade process is complete.

Configuring Authentication Settings

The Authentication tab specifies user account authentication settings. The available settings differ based on the selected authentication method.



On the Authentication tab, configure the following settings:

Authentication Method	Field	Description	Additional Information
Server		Specifies that authentication is server-based	
Active Directory Details	Domain Controller Name	Specifies the fully qualified name of the Active Directory Server (Domain Controller). Enter the name in the following format:	Here, *mktgna* is the server name. You can provide

Authentic-ation Method	Field	Description	Additional Inform-ation
		`LDAP://server/distinguished-name` **`Example:`** `ldap://mk-tgna:3268/dc=abc, dc=com`	either the name of the server or the IP address. 3268 is the port number to which the server listens. *dc=abc, dc=com* is the dis-tinguished-name. The distinguished name is the full path of the object. If you do not know the Domain Con-troller Name, use the *Nltest* command or contact your System Admin-istrator.
	Domain\User-name	Specifies the domain name and user name in the <domain name>/<user name> format	

Authentic-ation Method	Field	Description	Additional Inform-ation
	Domain Pass-word	Specifies the password of the domain user	
Azure AD (OAuth2)	Tenant Id	Specifies your Azure AD environment properties for connection	Configure th-ese settings based on your provider and the pro-tocol. For more information on con-figuring AzureAD OAuth on Microsoft , refer to the AzureAD OAuth topic.
	Graph Scope		
	Client Id		
	Client Uri		
	Client Secret		
SAML (SAML 2.0)	Metadata XML method	Specifies your SAML environment prop-erties for connection	erwin Mart Portal is cer-tified for SAML with: • AzureAD • PingIde-ntity • Okta

Configure the Mart Portal

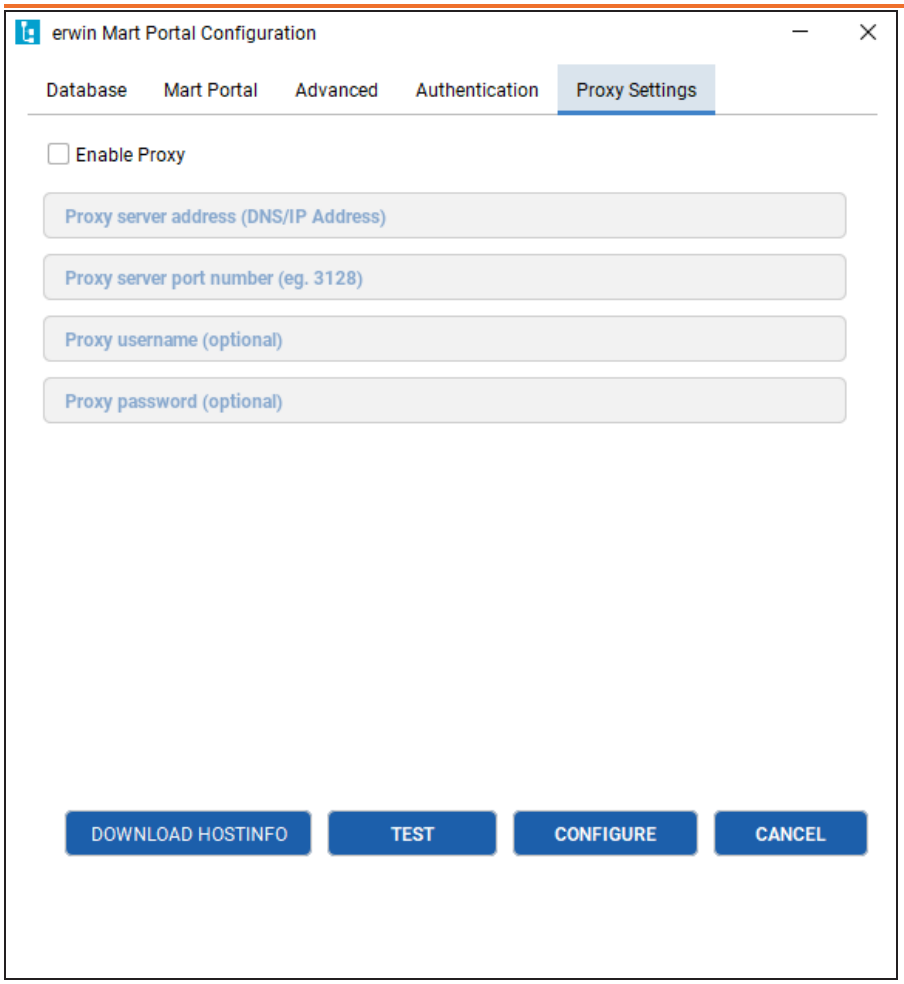
Authentic-ation Method	Field	Description	Additional Inform-ation
			You can also use any other SAML suppor-ted identity provider. To use any of these identity providers, ensure that you do the following: - On the Mart Portal tab, set up Secure Sockets Layer (SSL), SSL Cer-tificate, and SSL Key. - On the Authentic-ation tab, click **Down-load SP Metadata** and upload the metadata XML file to your pro-vider's portal. Then, configure the-se settings based on your provider and the pro-tocol.

Authentic-ation Method	Field	Description	Additional Inform-ation
	MetaData XML		
	Group Attrib-ute Name		
	User Email Attribute Name		
	Download SP Metadata	Downloads the service provider metadata file that is required for your SSO setup	

Based on your configuration here, the available options to add users in erwin Mart Portal change.

Configuring Proxy Settings

The Proxy Settings tab is applicable only to erwin ER360 and specifies proxy server settings.



On the Proxy Settings tab, configure the following settings:

Field	Description	Additional Information
Enable Proxy	Specifies that a proxy server should be used for erwin ER360configuration	
Proxy server address (DNS/IP Address)	Specifies the proxy server's address, either DNS or an IP address	
Proxy server port number	Specifies the port number on the proxy server that you want to use	

Configure the Mart Portal

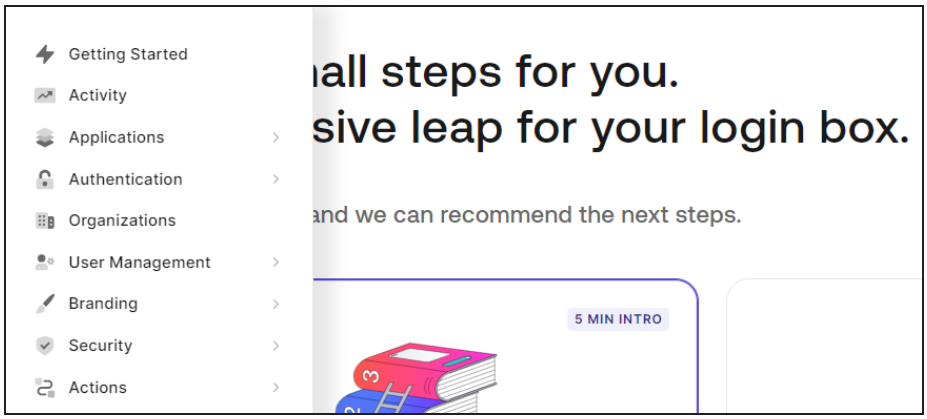
Field	Description	Additional Information
Proxy username	Specifies the proxy server credentials	
Port password		

Back to Top

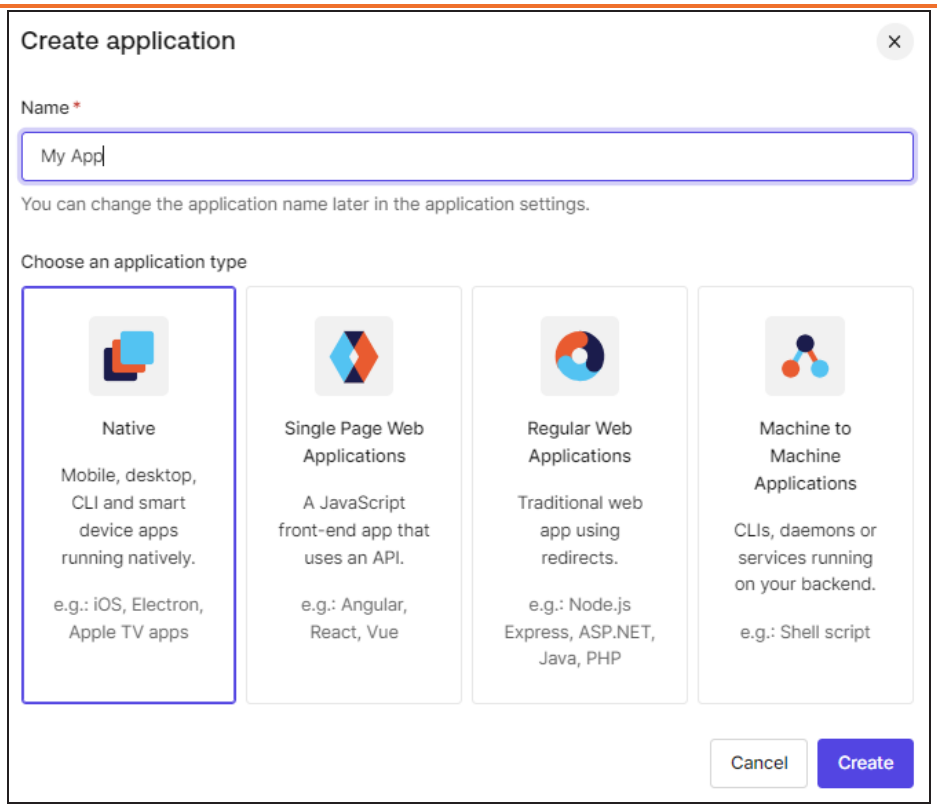
AzureAD OAuth2

To configure AzureAD OAuth for erwin Mart Portal authentication, follow these steps:

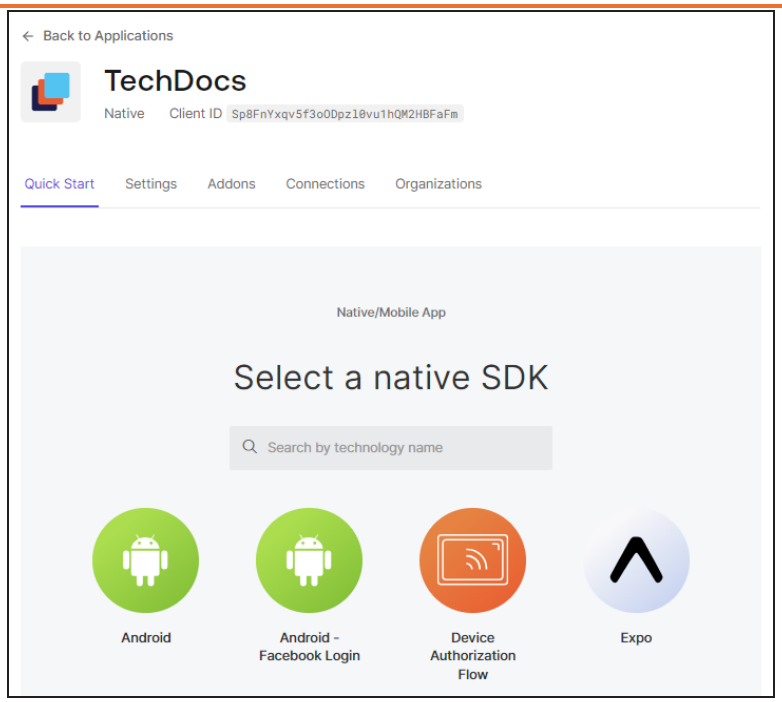
1. Log in to Okta Auth0 environment.



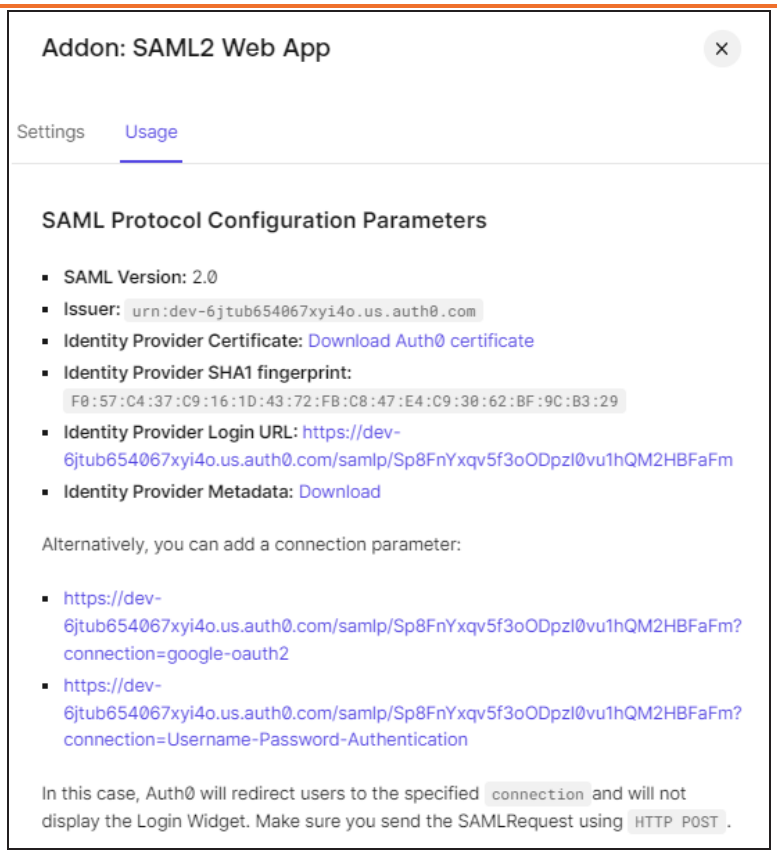
2. Click **Applications** > **Applications** > **Create Application**.



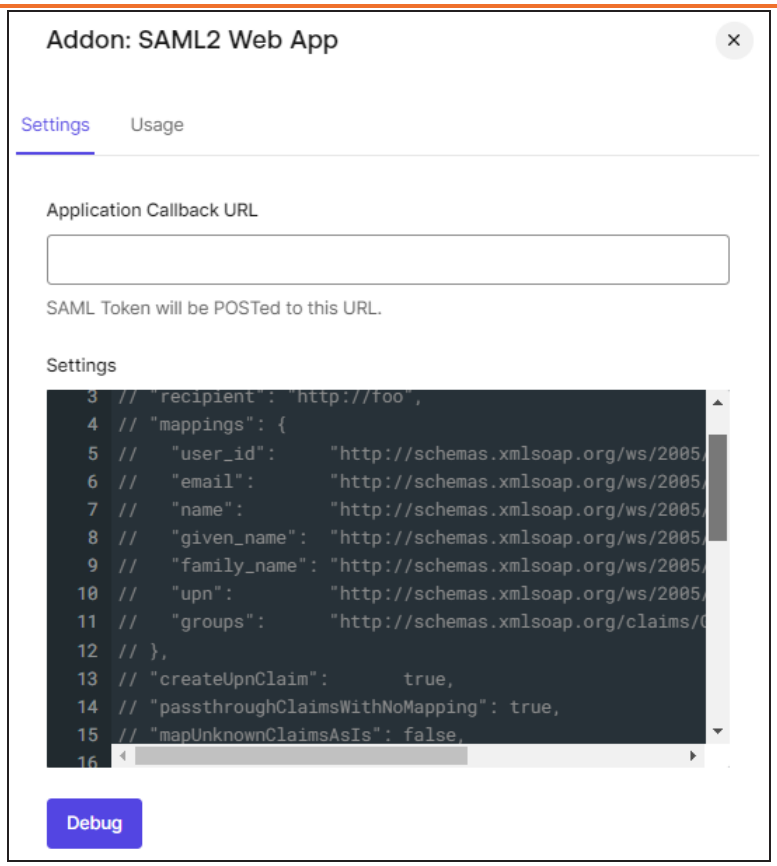
3. Enter **Name** for your application.
4. Under application type, select **Regular Web Applications**.
5. Click **Create**.



6. Click **Addons** > **SAML2 Web App**.



7. Click **Settings**.

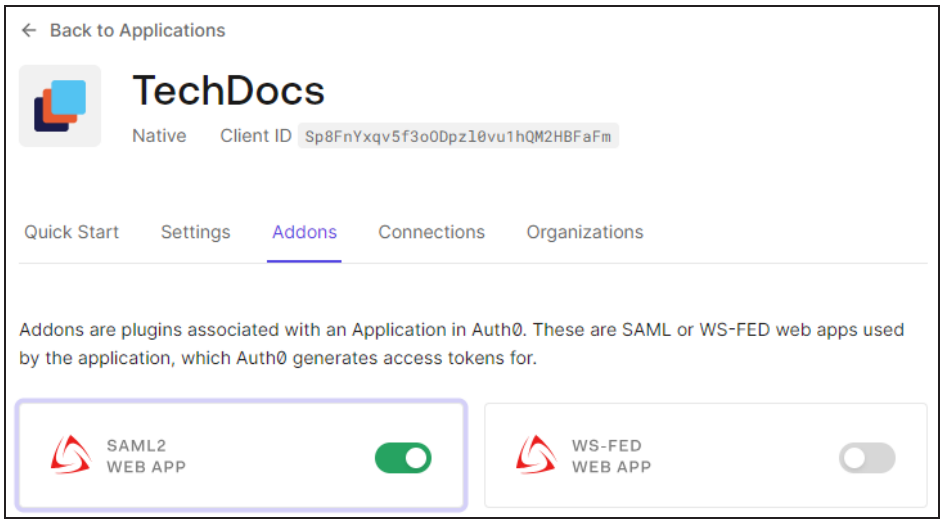


8. Uncomment line number 4, 6, 11, and 12.

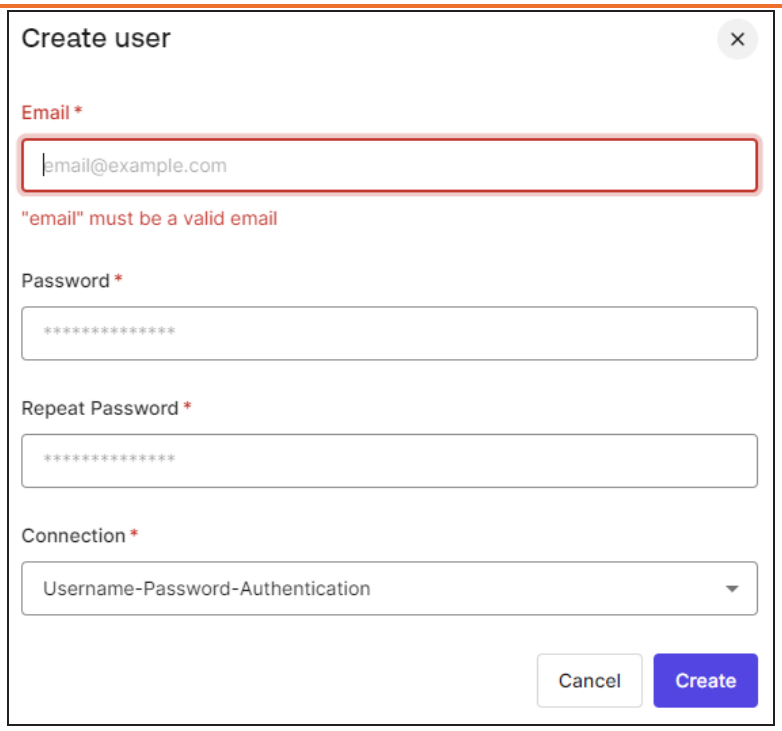
9. Download the SP Metadata file (**erwin Mart Portal) Configuration** > **Authentication** > **Download SP Metadata** and open it in any text editor and copy the URL in the last line as highlighted in the following image.

10. On the Addon: SAML2 Web App screen, paste the copied URL in the **Application Callback URL** field.

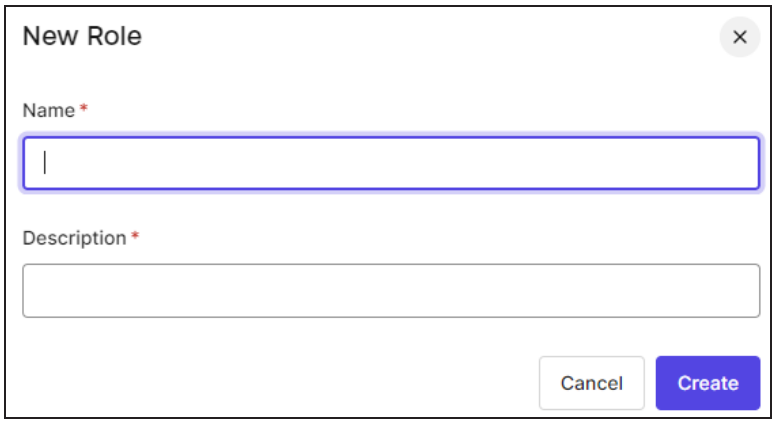
11. Scroll down and click **Enable**. Then, click **Save**.



12. On the menu, click **User Management** > **Users** > **Create Users**.

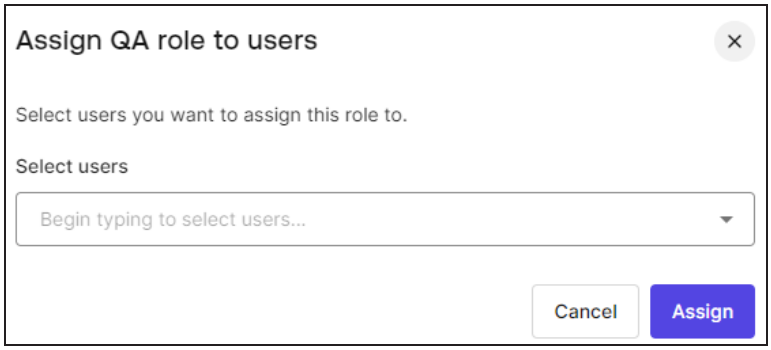


13. Enter appropriate values to the required fields and click **Create**.
14. On the menu, click **User Management** > **Users** > **Roles** > **Create Roles**.



15. Enter appropriate values to the required fields and click **Create**. Then, click **Save**.

16. On the Roles page, click ... . Then, click **Assign To Users**.



17. Under Select Users, select the required user and click **Assign**.
18. On the Users page, click a user.
19. On the Details tab, scroll to the Metadata section.

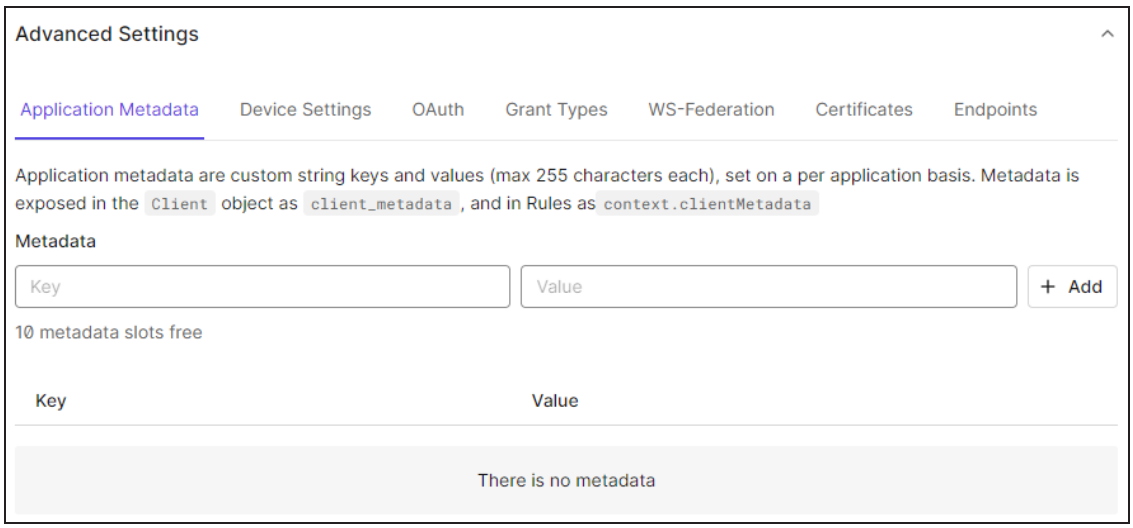
20. Under app_metadata, add the following and click **Save**.
    "groups": [

    "QA",

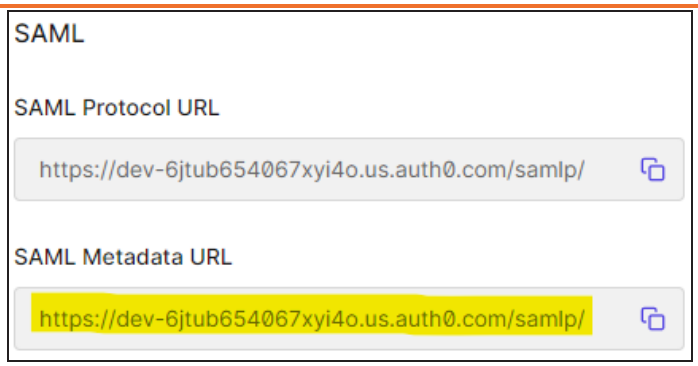
    "Modeler"

    ]

21. On the menu, click **Applications** > **Applications** and open your application.
22. Scroll down to the Advanced Settings section.

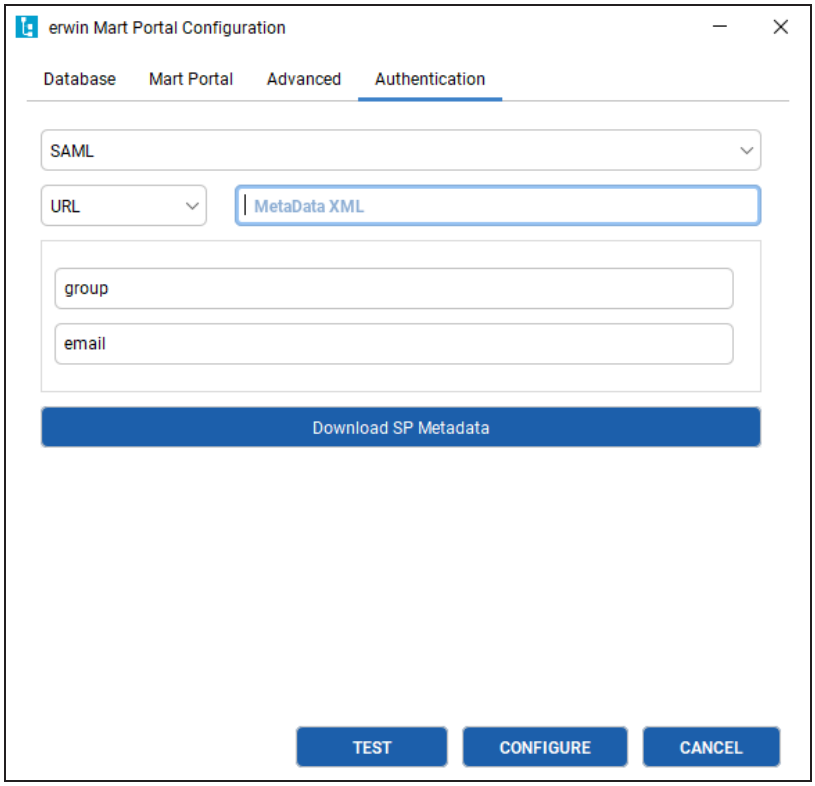


23. Click **Endpoints** and scroll to the **SAML** section.



24. Copy the **SAML Metadata URL**.

25. On the **erwin Mart Portal Configuration** screen, click the **Authentication** tab.



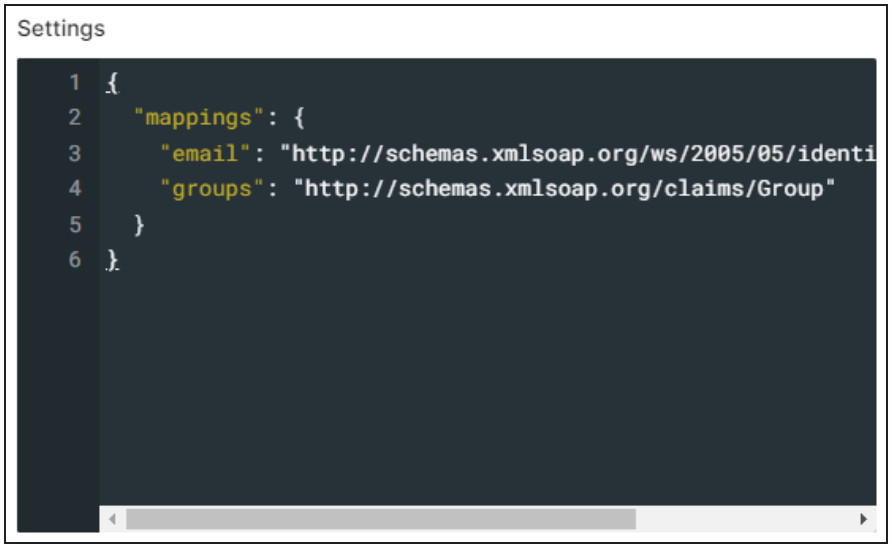
26. Enter values as follows:

a. In the MetaData XML field, paste the copied SAML Metadata URL.

b. In your Okta Auth0 environment, open your application and and click **Addons**.

c. Click **SAML2 Web App** > **Settings**.

d. Copy the email and groups values.

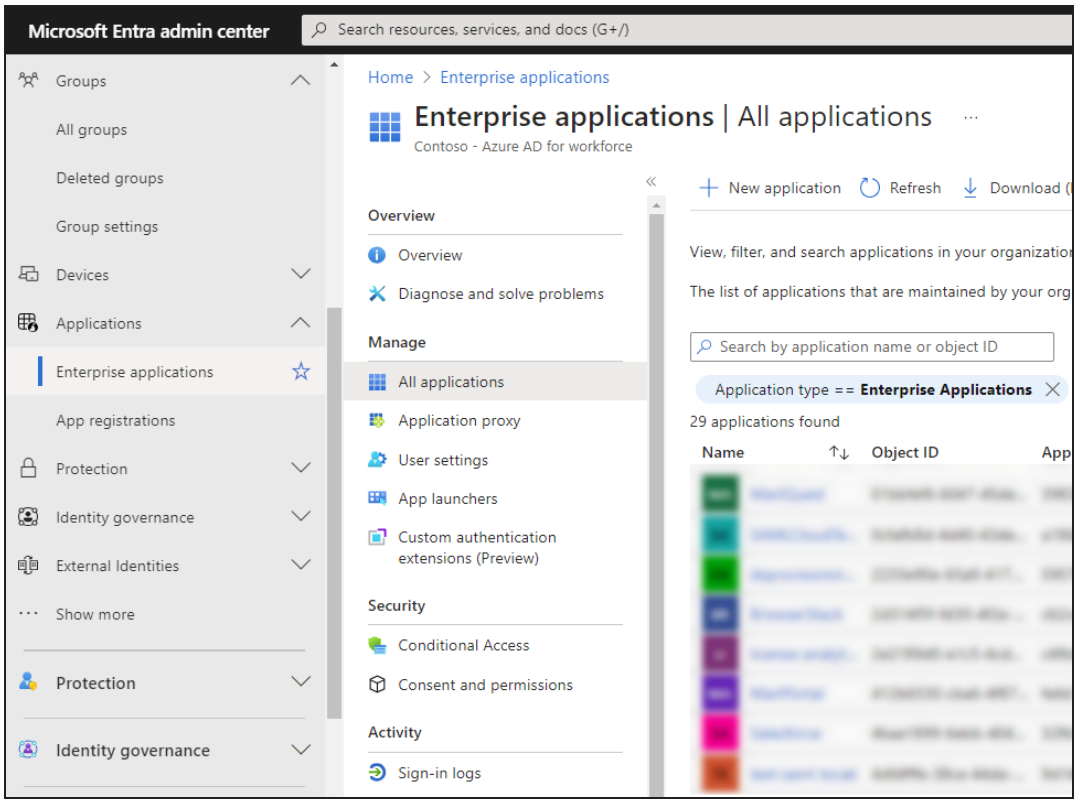


e. Paste the copied values in the email and group fields of erwin Mart Portal Configuration screen respectively.

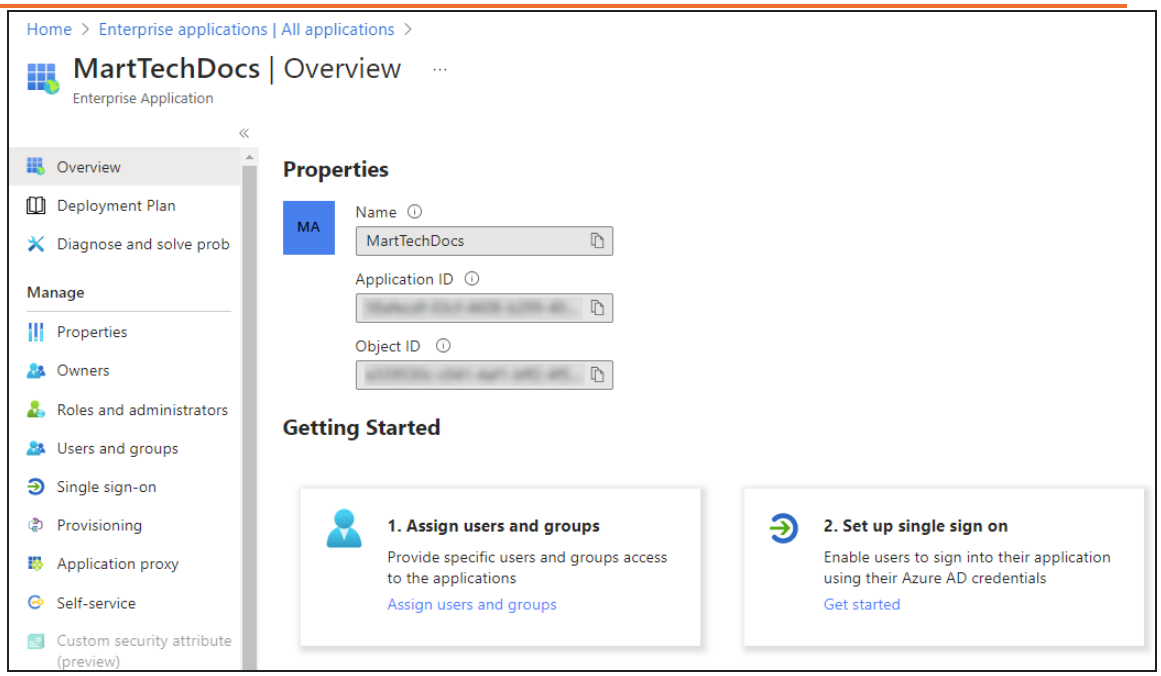
SAML with AzureAD

To configure AzureAD SAML for erwin Mart Portal authentication, follow these steps:

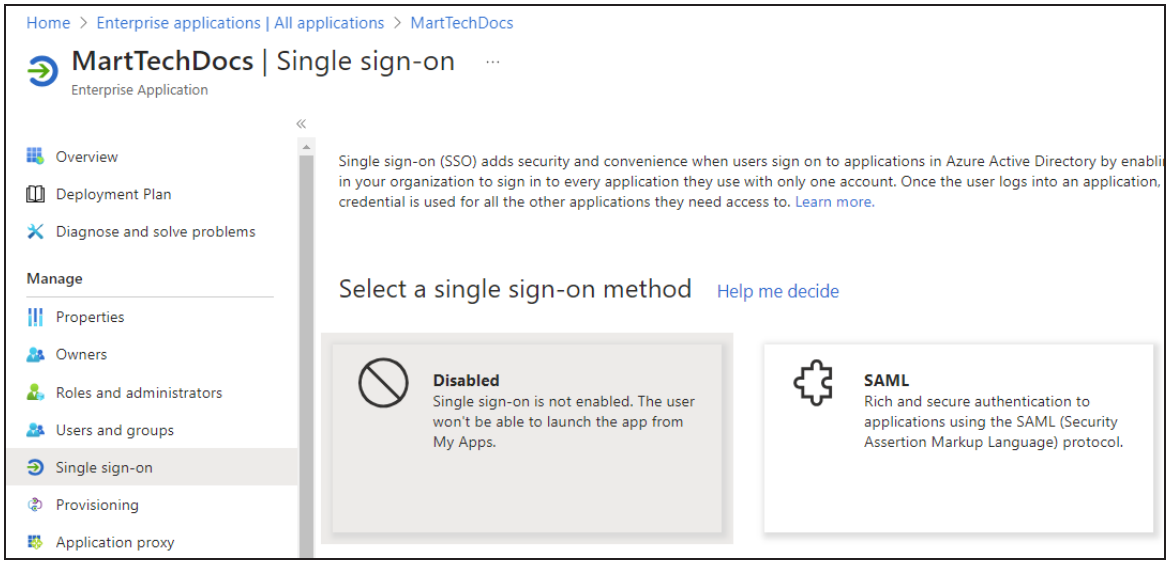
1. Log in to Microsoft Entra admin center.
2. Click **Applications** > **Enterprise Applications**.



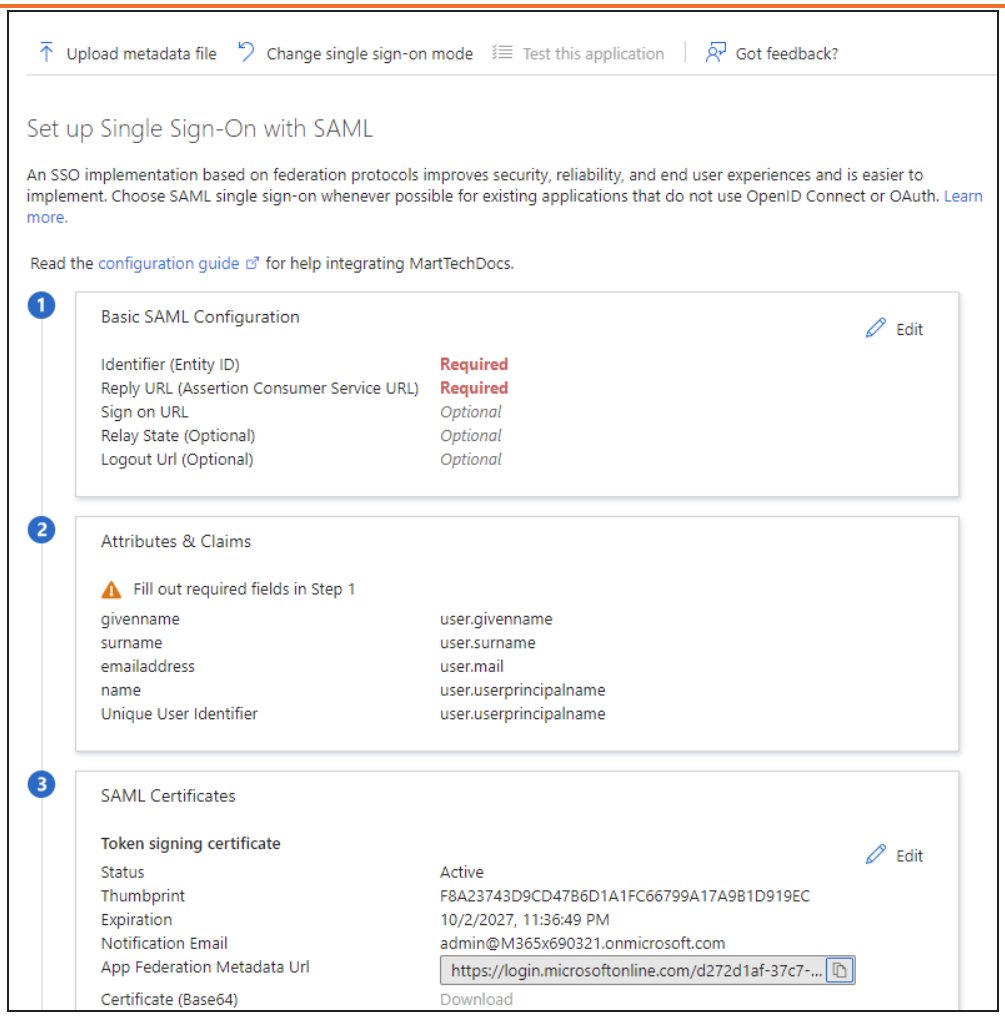
3. Click **New application** and create your non-gallery application with an appropriate name.
4. Open your newly created application.



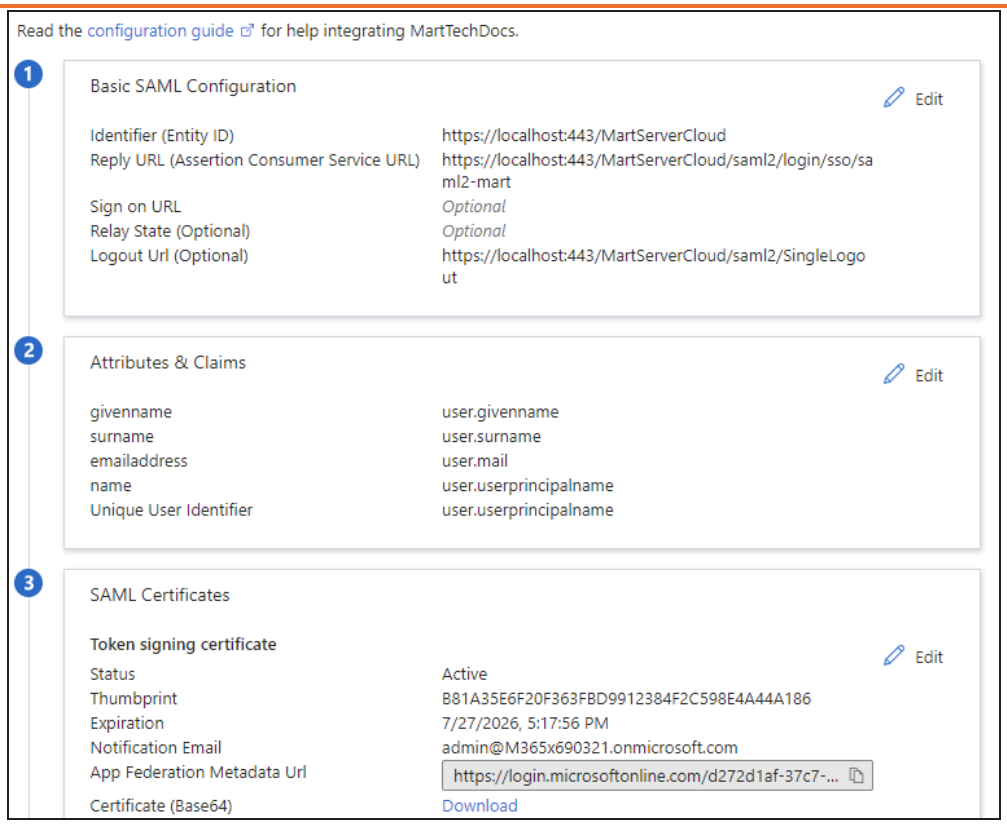
5. Click **Set up single sign on**.



6. Under single sign-on method, click **SAML**.

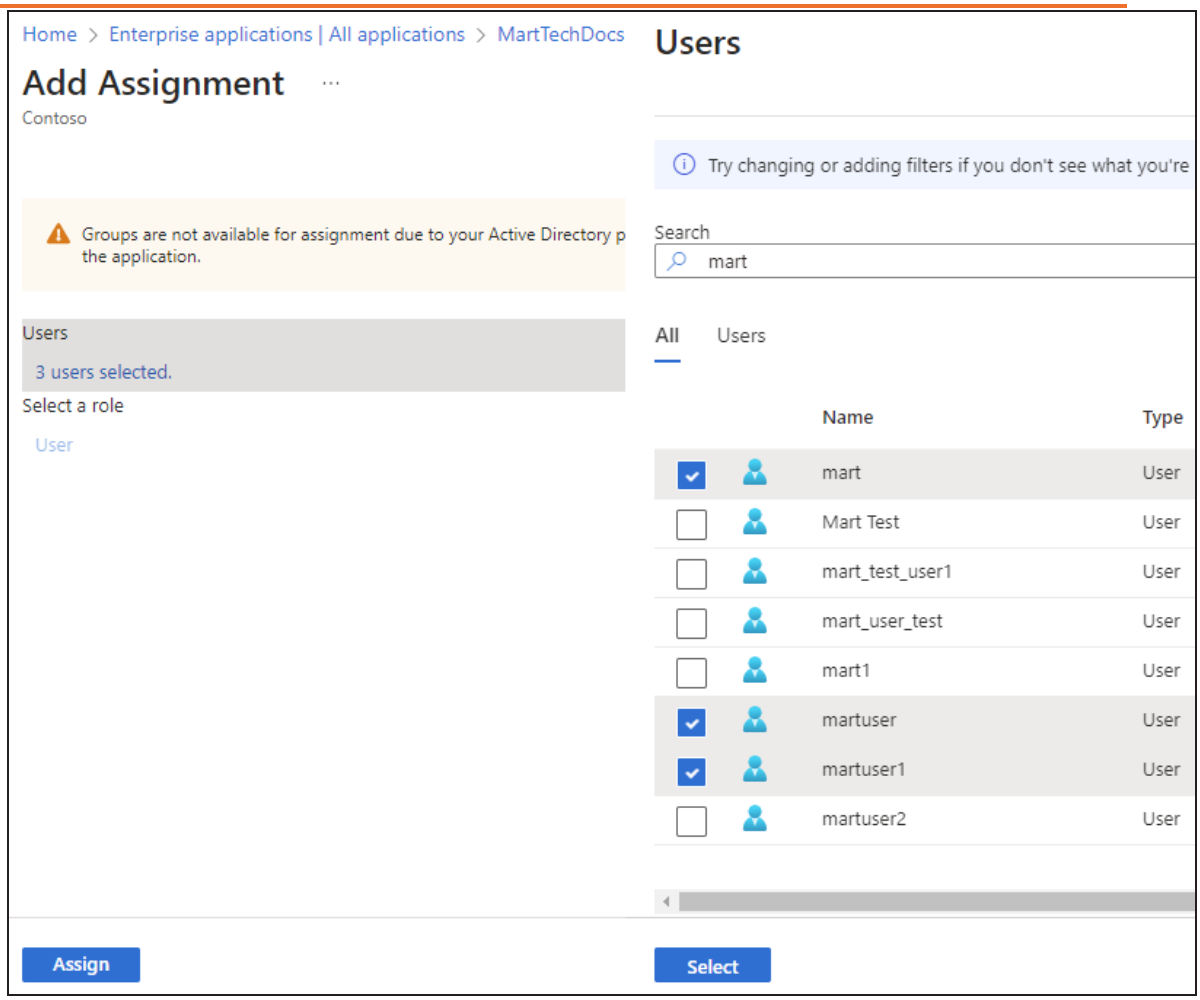


7. Click **Upload metadata file** and select the file that you downloaded (**erwin Mart Portal Configuration** > **Authentication** tab > **Download SP Metadata**) during erwin Mart Portal configuration.
   Doing this retrieves and adds the necessary information for you.



8. Copy the App Federation Metadata Url.

9. Click **Users and groups** > **Add user/group** and select required users or groups.



10. Click **Select**. Then, click **Assign**.

    Your SAML SSO set up for the required users is complete. Next, during erwin Mart Portal configuration, you can configure SAML

During erwin Mart Portal configuration, on the Authentication tab, for SAML, follow these steps:

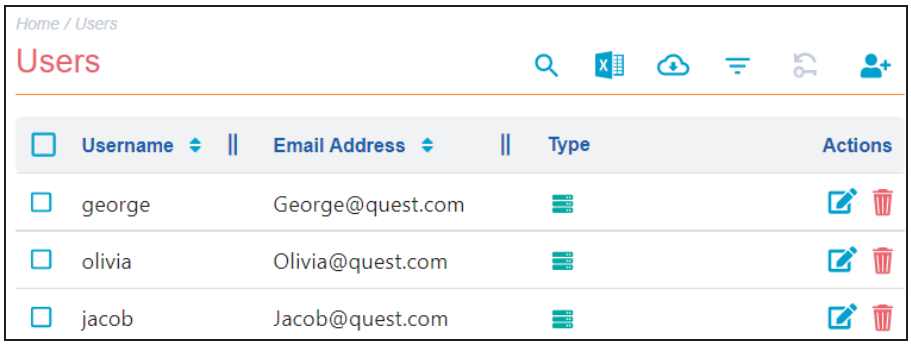
1. Select URL and paste the URL copied in step 8 above in the **MetaData XML** field.
2. In the Group Attribute Name and User Email Attribute Name, enter appropriate attribute names that are configured for Azure AD SAML SSO.

Adding Groups in erwin Mart Portal

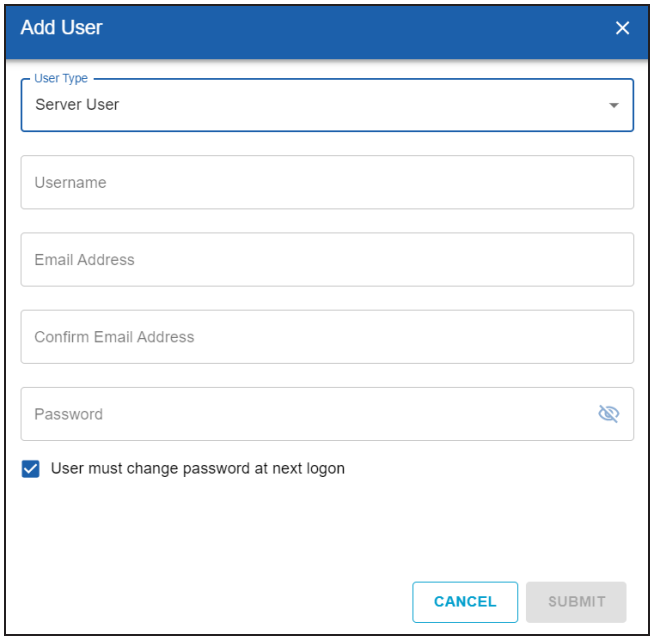
SAML with AzureAD

To add your AzureAD SAML groups to erwin Mart Portal, follow these steps:

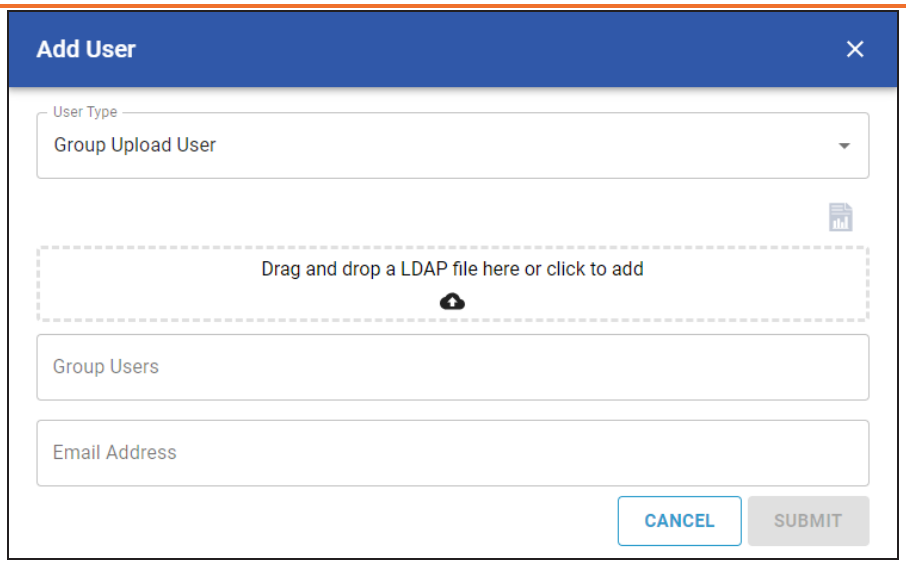
1. In the Microsoft Entra admin center, click **Groups** > **All groups** > **Download groups**.
   A CSV file with all your groups is downloaded.
2. Log in to erwin Mart Portalas administrator.
3. Go to **Application Menu** > **Users**.
   The Users page appears.



4. Click .
   The Add User page appears.



5. Under User Type, select **Group Upload User**.

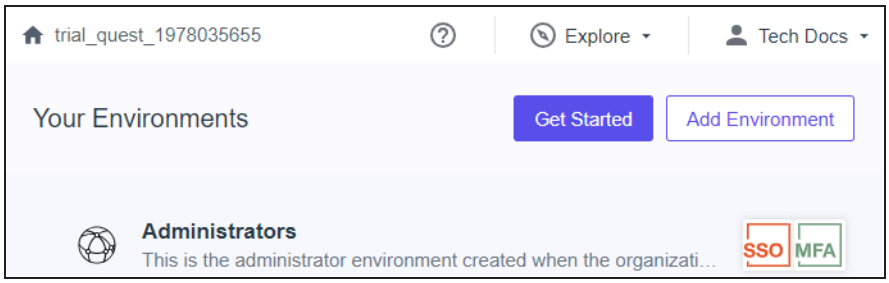


6. Drag and drop the CSV file that you downloaded in step 1.
7. Under Group Users, select the required groups.
8. Click **Submit**.

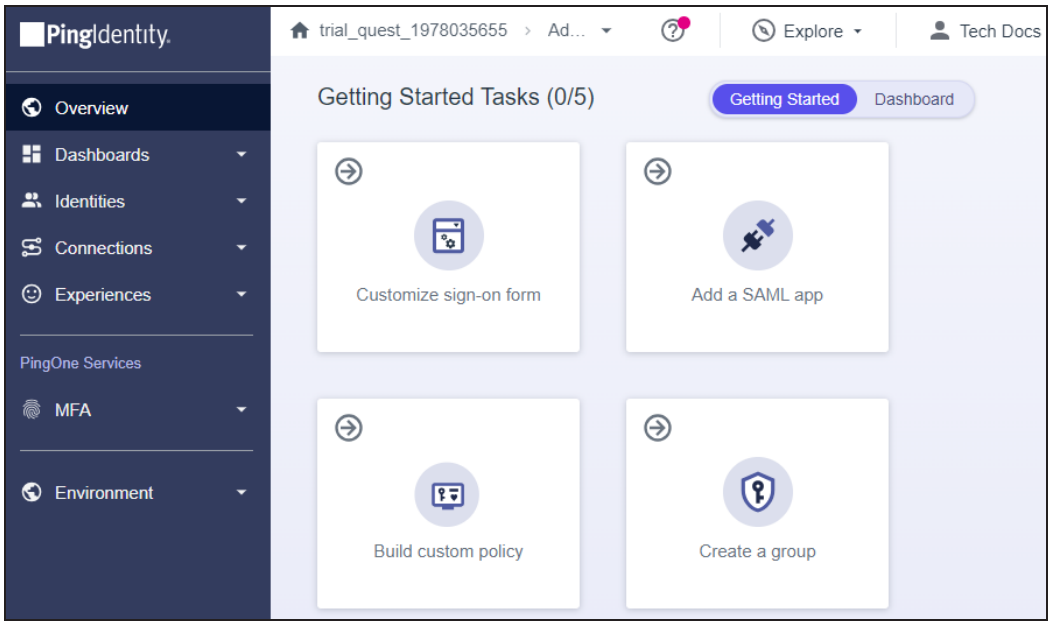
SAML with PingIdentity

To configure AzureAD SAML for erwin Mart Portal authentication, follow these steps:

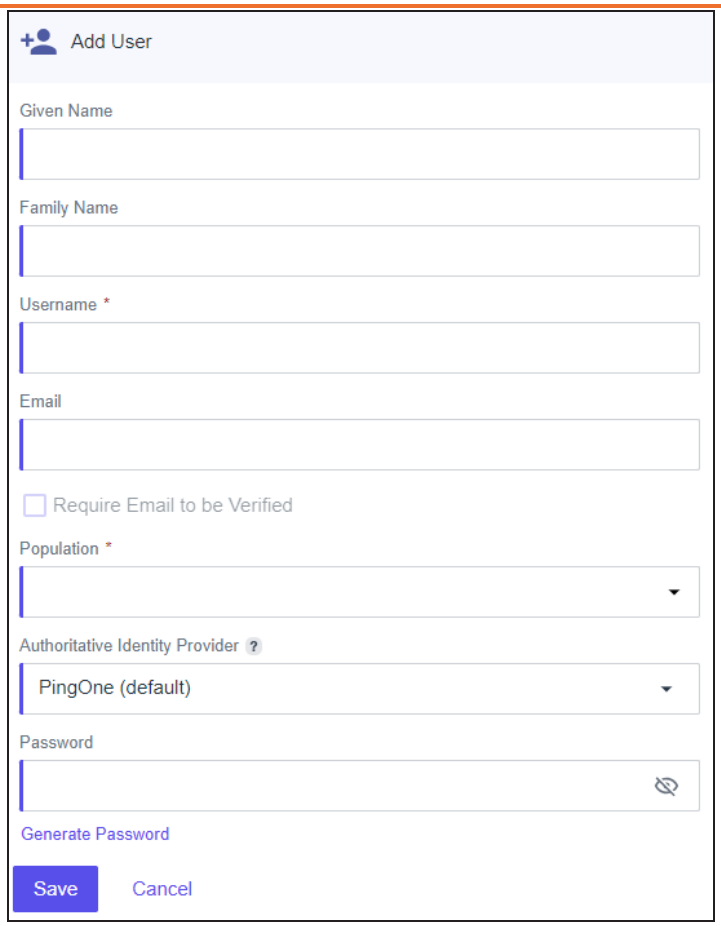
1. Log in to PingIdentity Console.



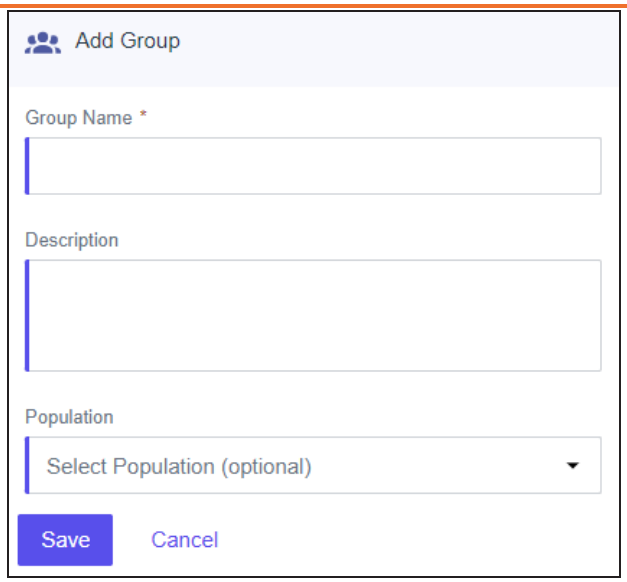
2. Click Administrators to set up your environment.



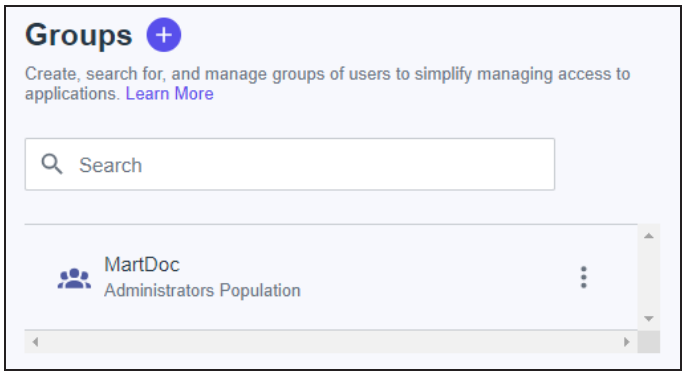
3. Click **Identities** > **Users** > .



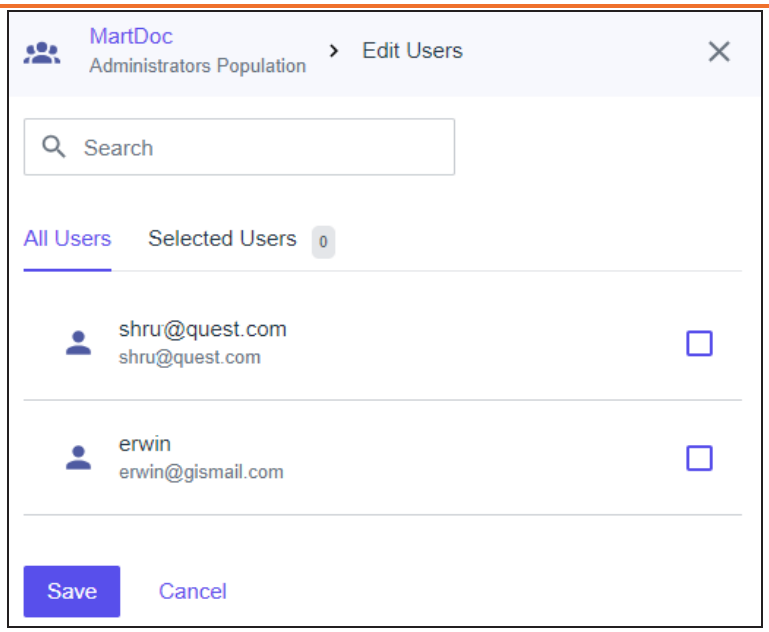
4. Enter user's information and click **Save**.
5. Click **Identities** > **Groups** > .



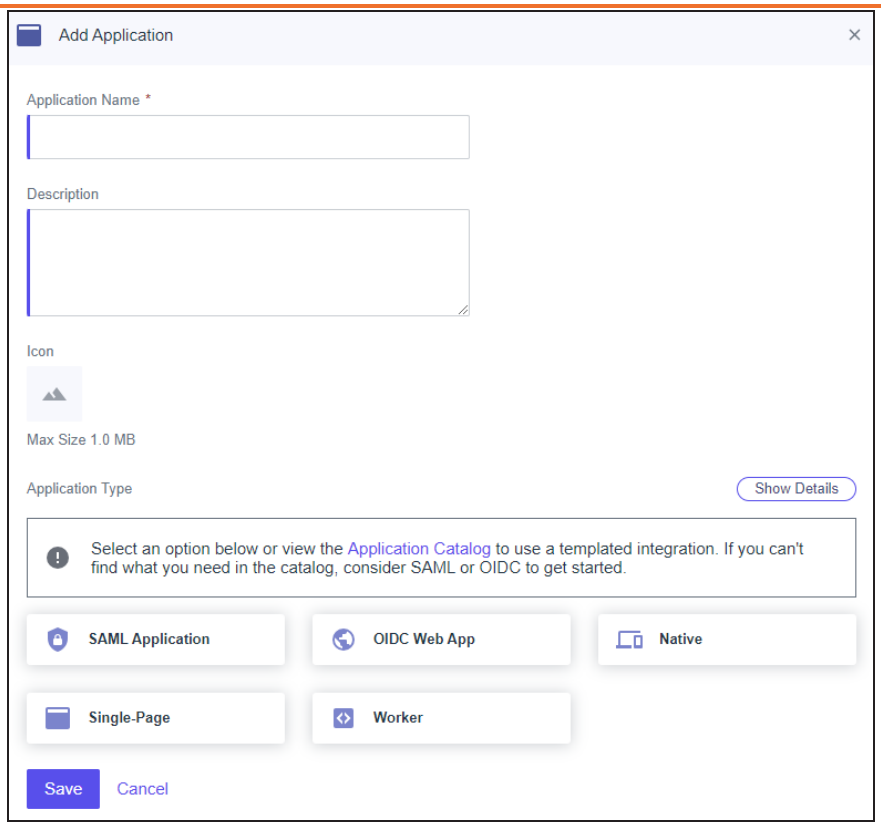
6. Enter **Group Name** and select **Population**.
7. Click **Save**.



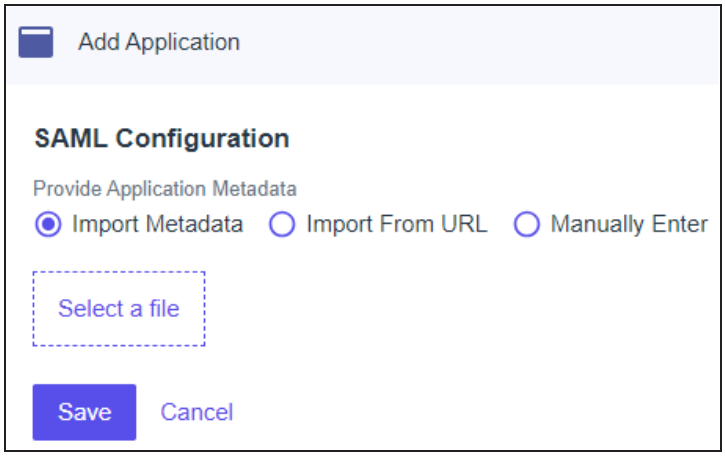
8. Click ⋮. Then, click **Add/Remove Users**.



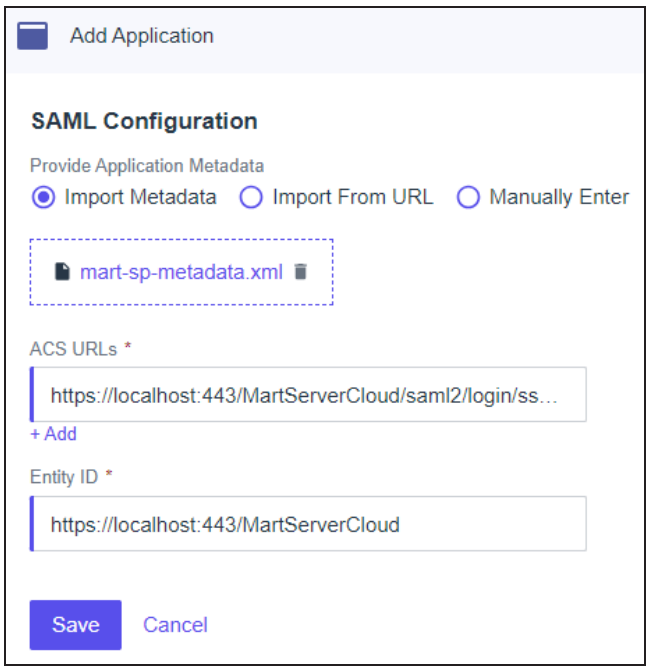
9. Select the users that you want to add to your group and click **Save**.
10. Click **Connections** > **Applications** > .



11. Enter an **Application Name**.
12. Click **SAML Application** and click **Save**.



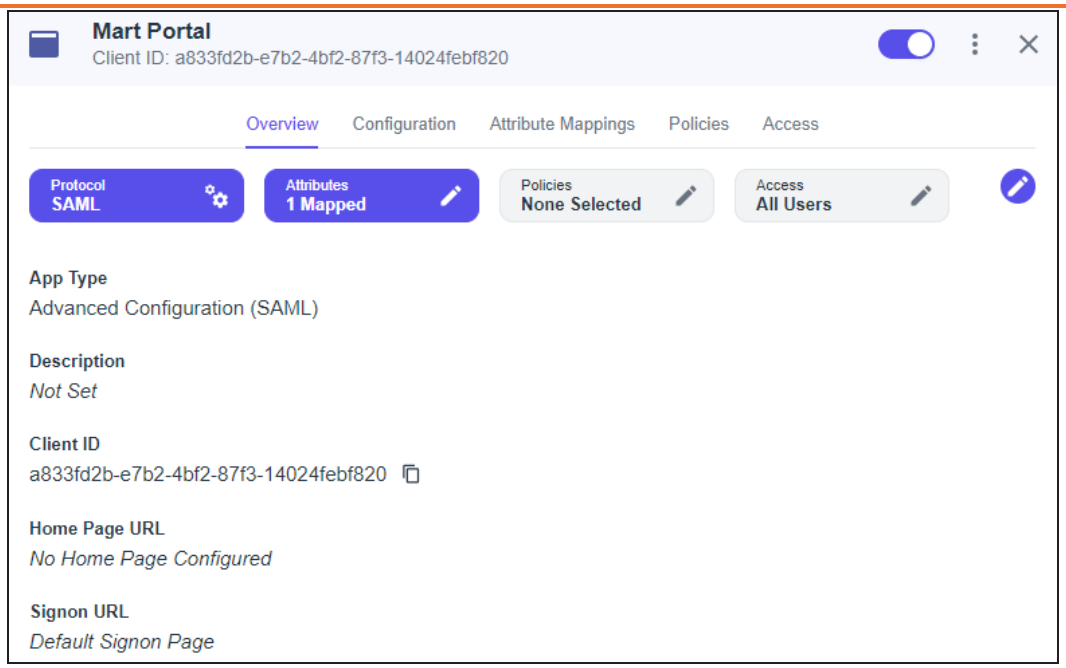
13. Click **Import Metadata** and select the file that you downloaded (**erwin Mart Portal Configuration** > **Authentication** tab > **Download SP Metadata**) during erwin Mart Portal configuration.



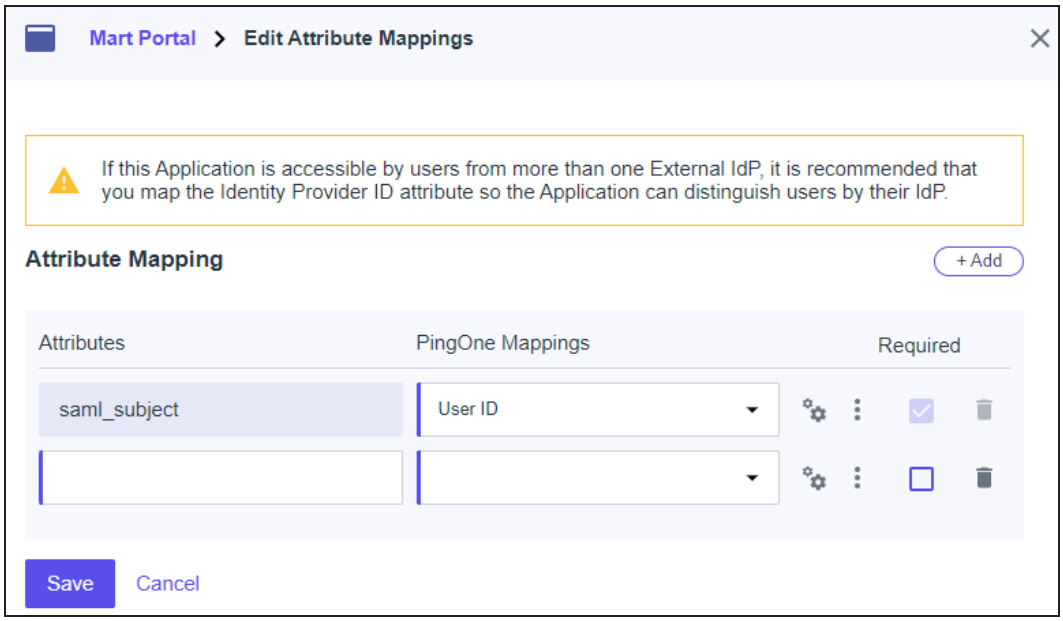
14. Click **Save**.

15. Click against your application name to enable user access to your application.

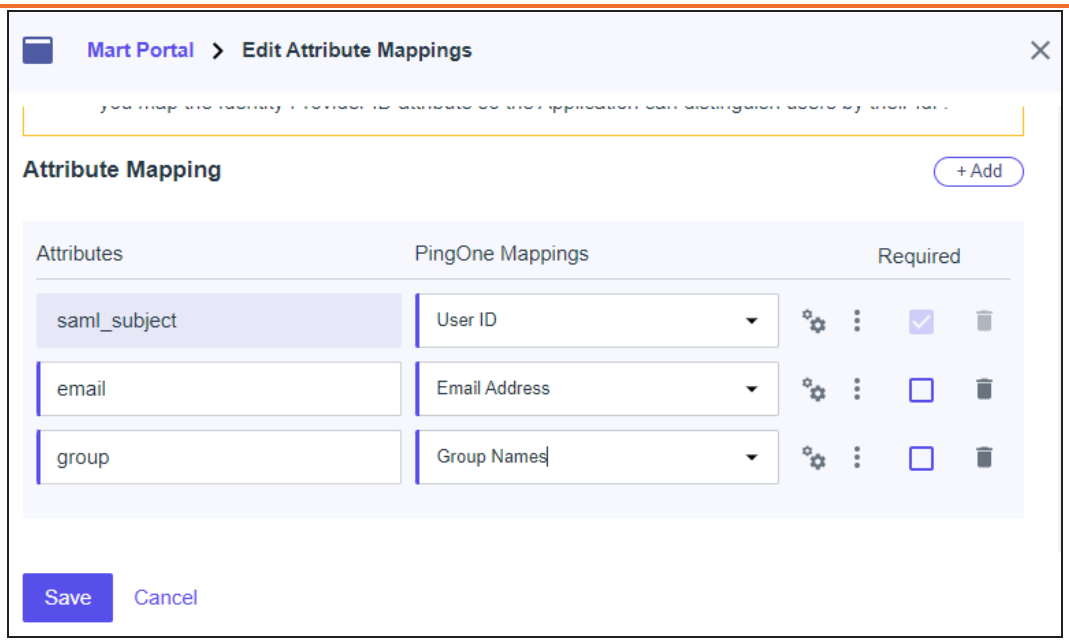
16. In the list of applications, click your application name.



17. Click **Attribute Mappings** > > **Add**.

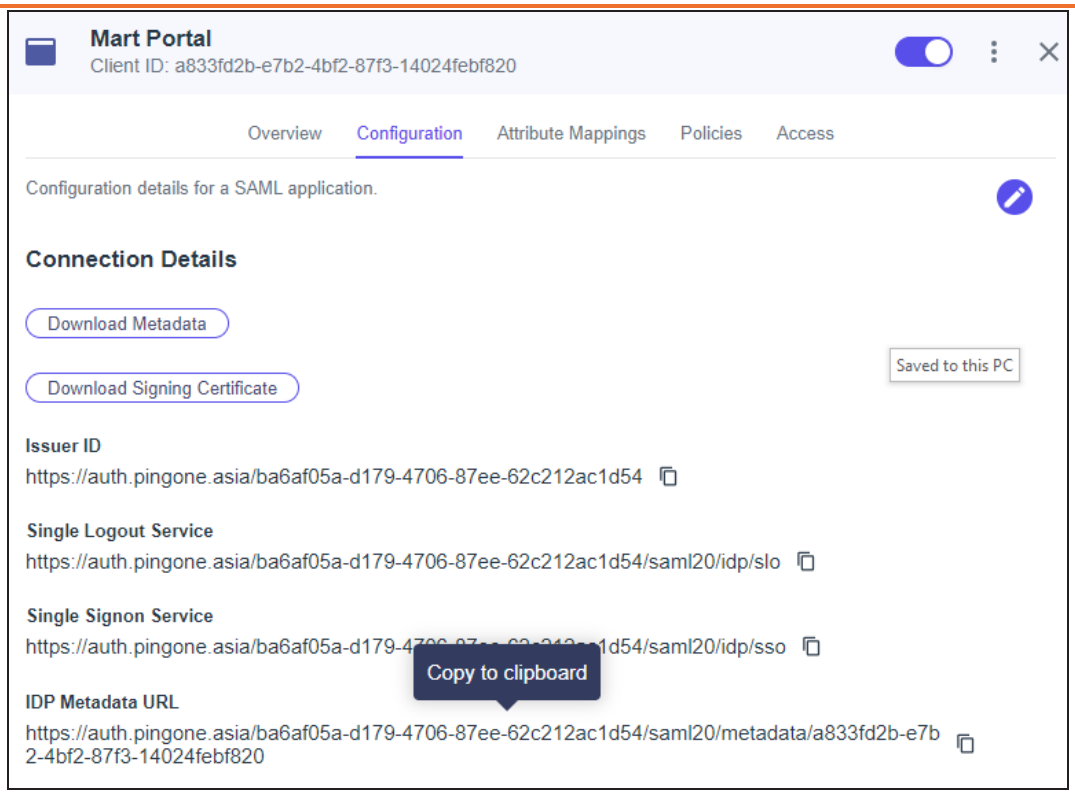


18. Add another attribute and map as shown in the following image.



19. Click **Save**.
    These attributes will be used on the erwin Mart Portal Configuration screen.

20. Click **Configuration**.

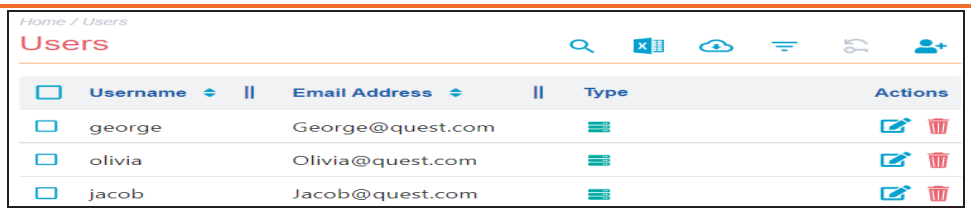


21. Copy and note the **IDP Metadata URL**.
22. During erwin Mart Portal configuration, on the Authentication tab, for SAML, follow these steps:
    1. Select URL and paste the URL copied in step 22 in the **MetaData XML** field.
    2. In the Group Attribute Name and User Email Attribute Name, enter appropriate attribute created in step 18.

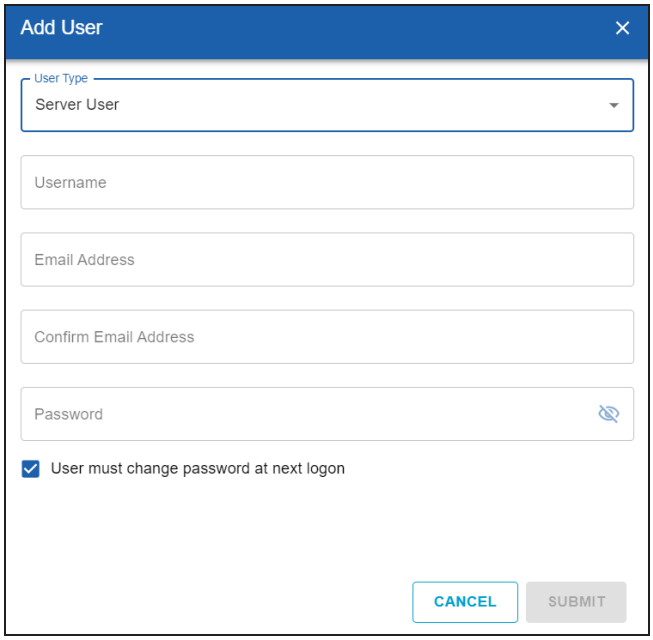
Adding Groups in erwin Mart Portal

To add your PingIdentity SAML groups to erwin Mart Portal, follow these steps:

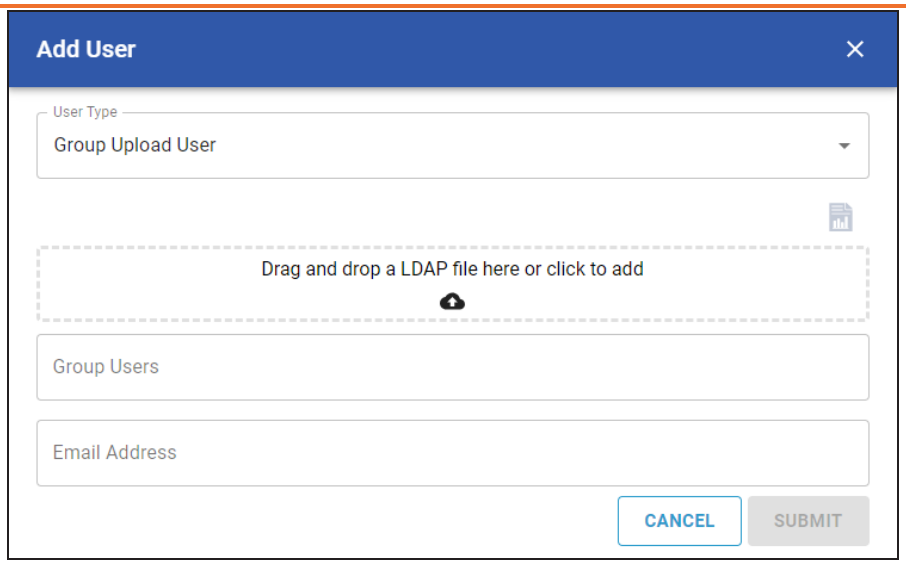
1. Create a CSV file with all your groups.
2. Log in to erwin Mart Portalas administrator.
3. Go to **Application Menu** > **Users**.
   The Users page appears.



4. Click .
   The Add User page appears.



5. Under User Type, select **Group Upload User**.

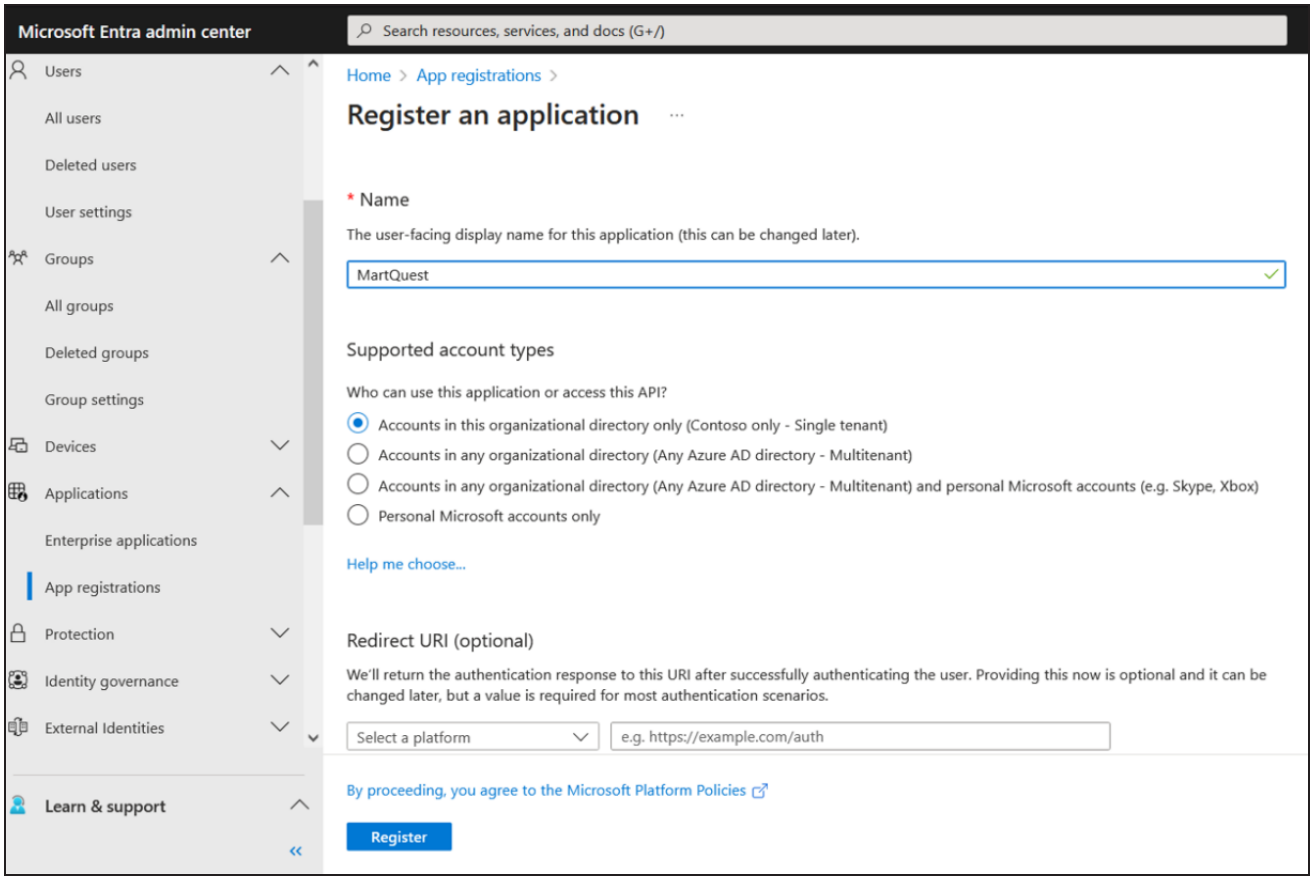


6. Drag and drop the CSV file that you created in step 1.
7. Under Group Users, select the required groups.
8. Click **Submit**.

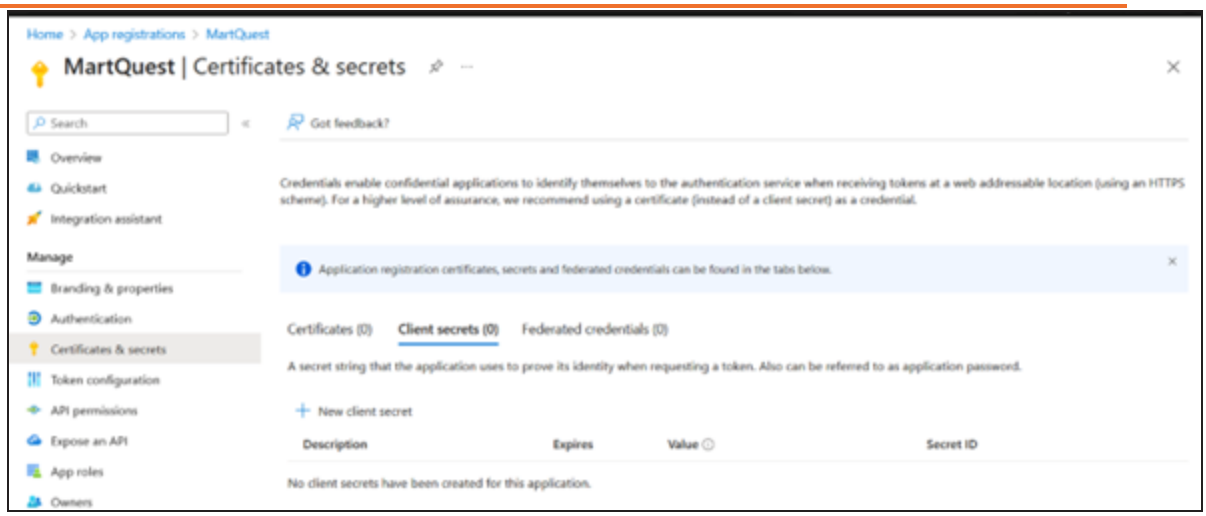
SAML with Okta

To configure Okta SAML for erwin Mart Portal authentication, follow these steps:

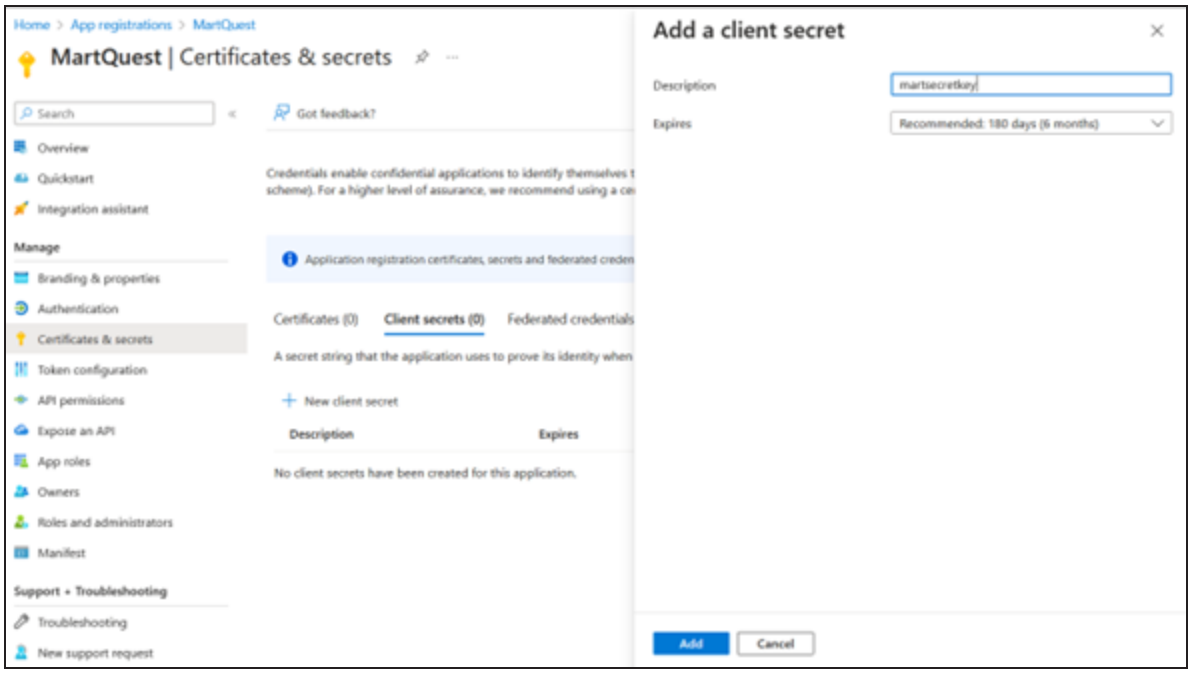
1. Log in to Microsoft Entra admin center.
2. Click App registrations and enter the necessary information as shown in the following image.



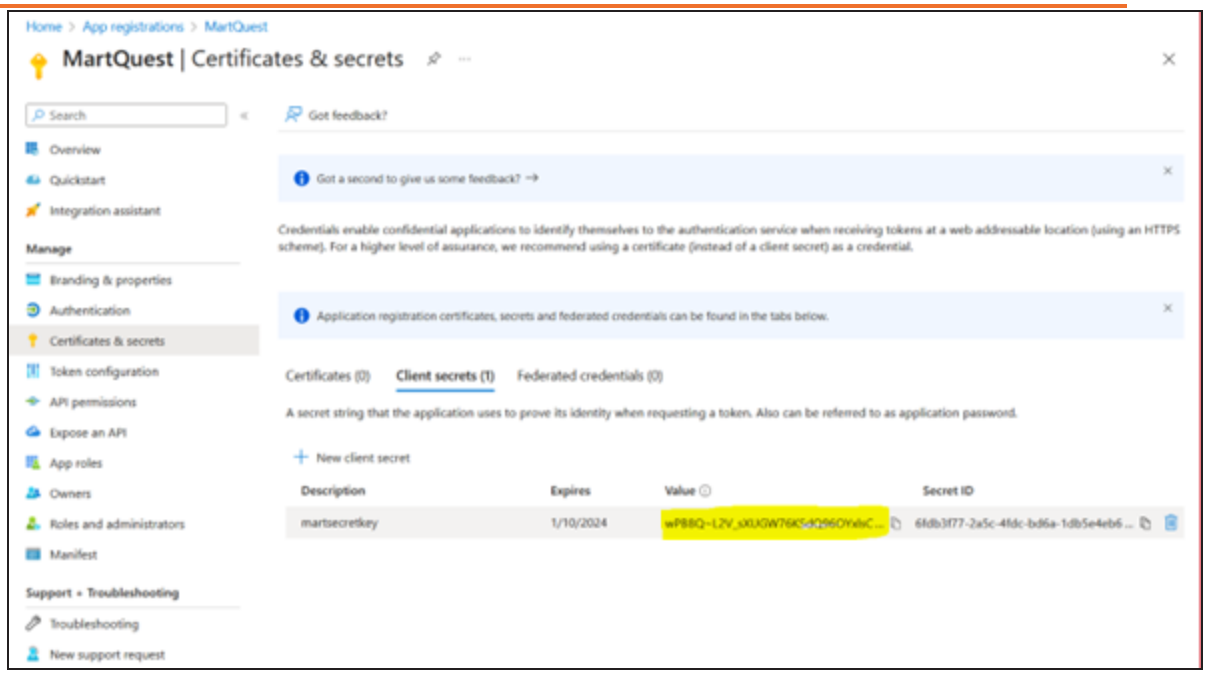
3. Click **Register**.
4. Go to **Certificates & secrets**.



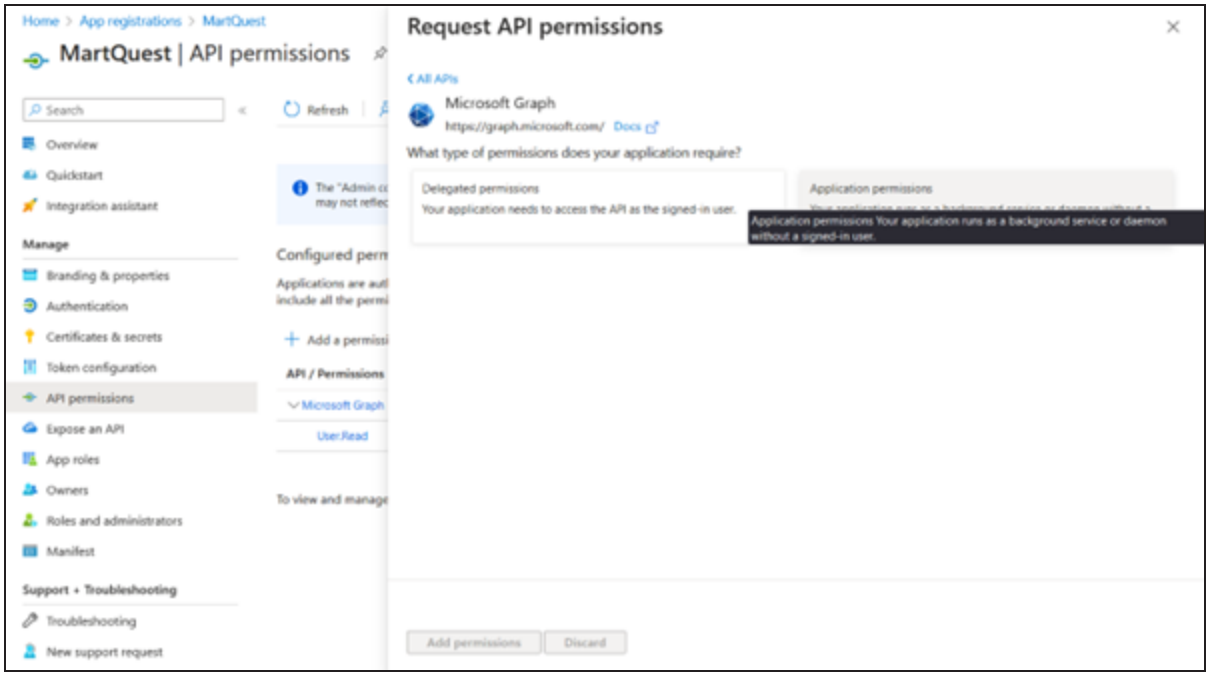
5. Click **New client secret** and add Description. Then, click **Add**.



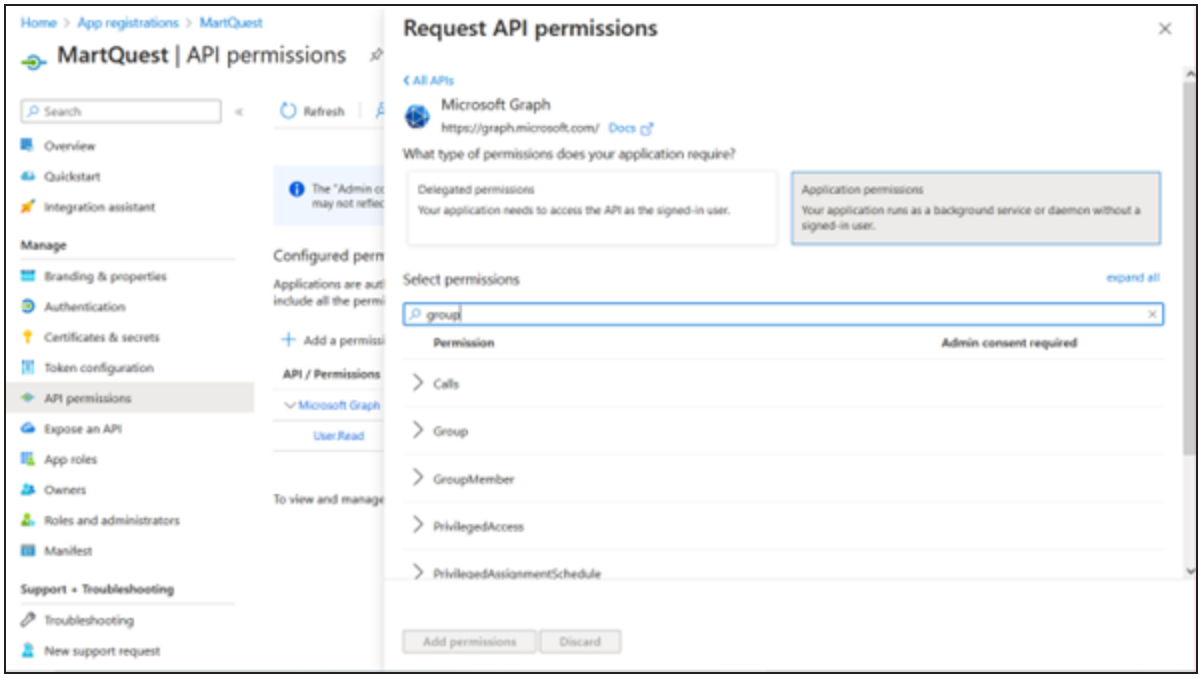
6. Copy the auto-generated value highlighted in the following image.



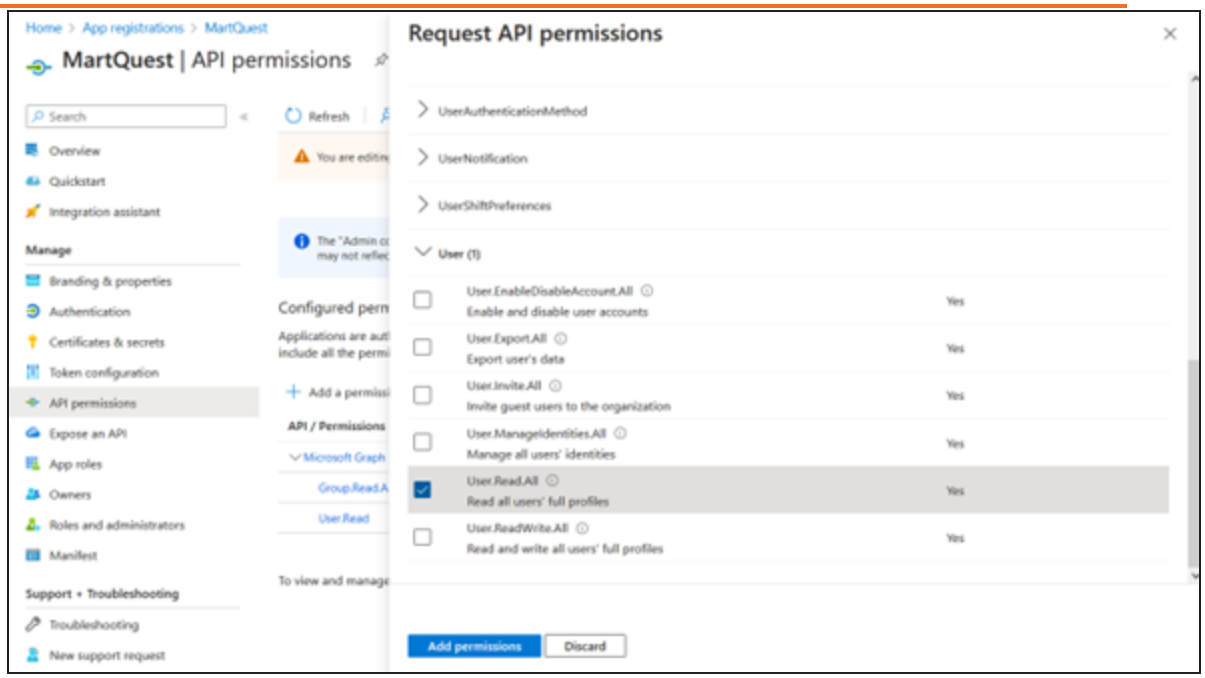
7. Click **API Permissions** > **Application Permissions**.



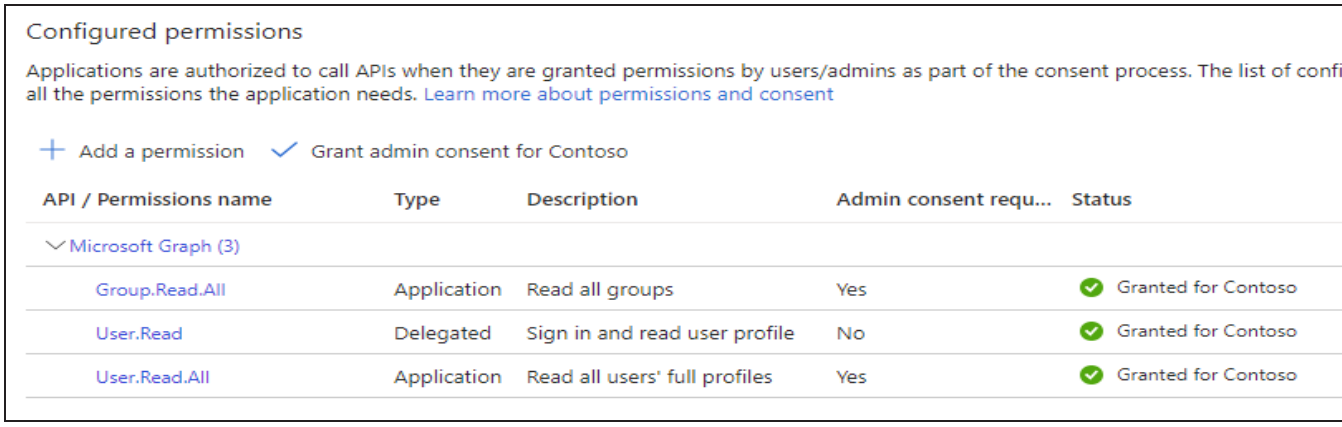
8. Search and expand Group and select **Group.Read.All** permission. Then, click **Add permissions**.



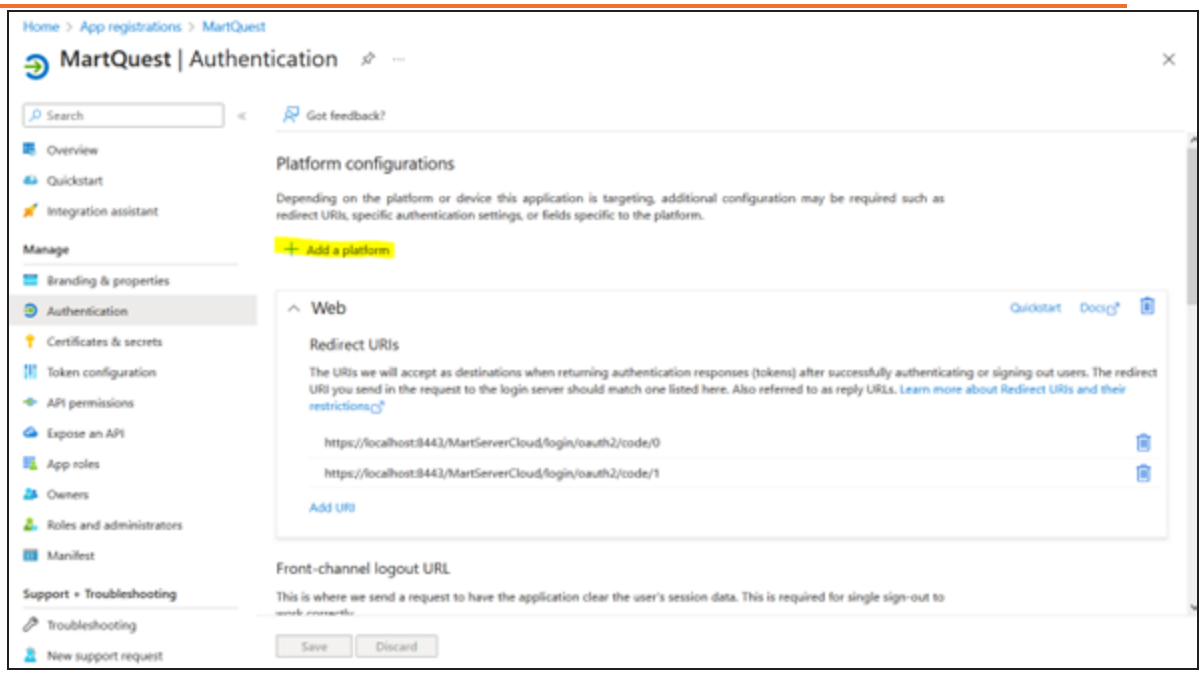
9. Search and expand User and select **User.Read.All** permission. Then click **Add permissions**.



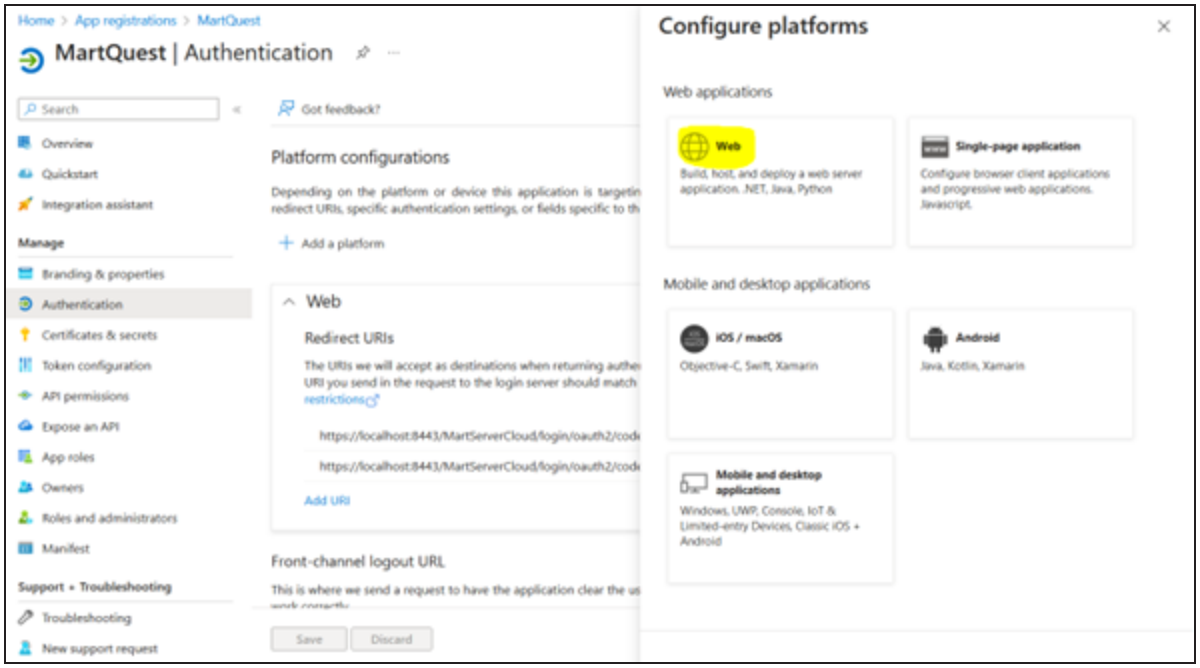
10. Click **Grant admin consent for Contoso**.



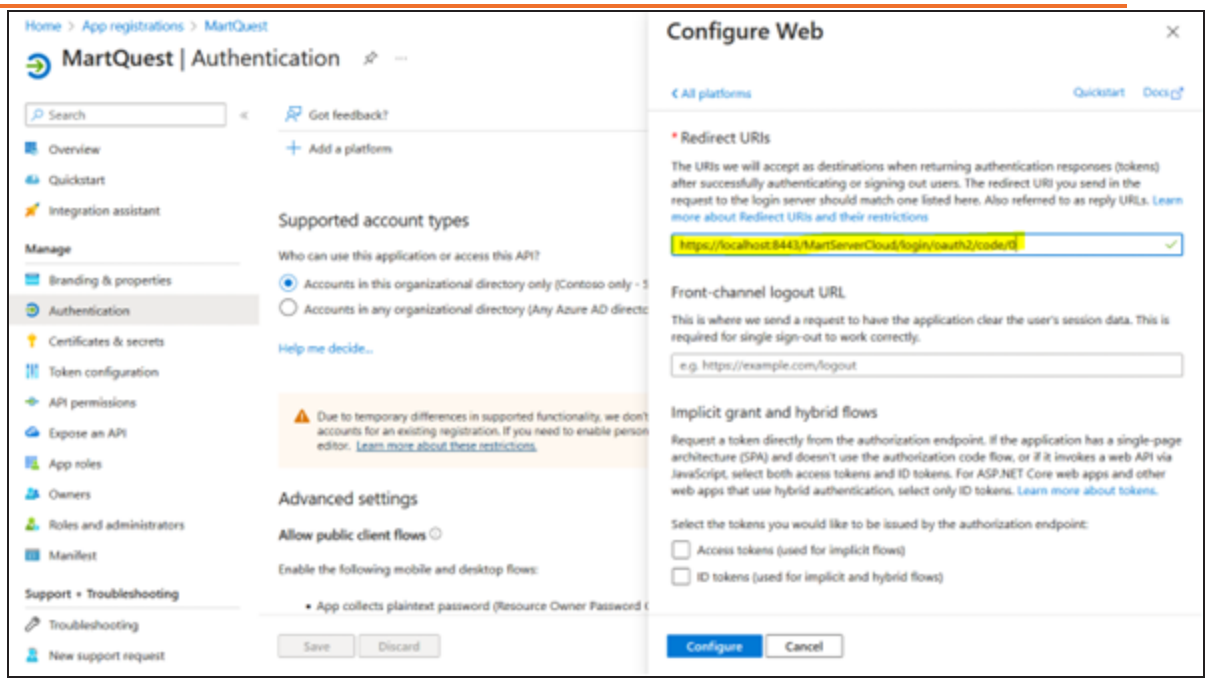
11. Go to Authentication and click **Add a platform**.



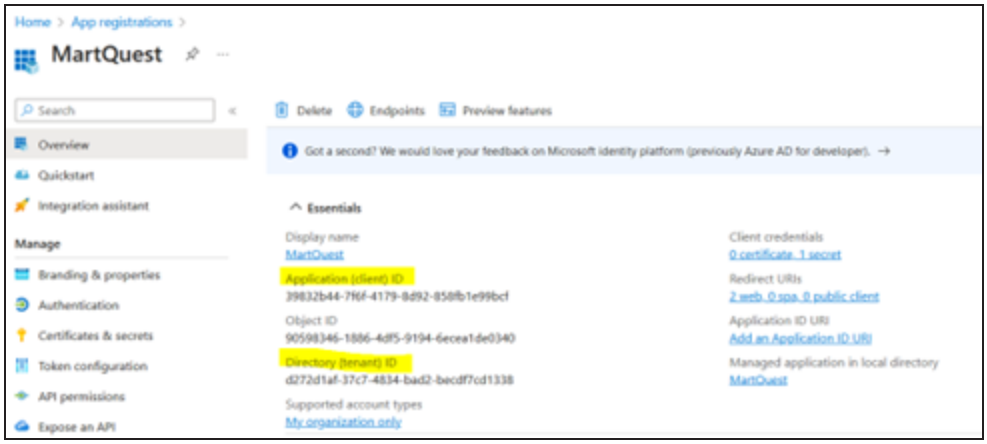
12. Click **Web**.



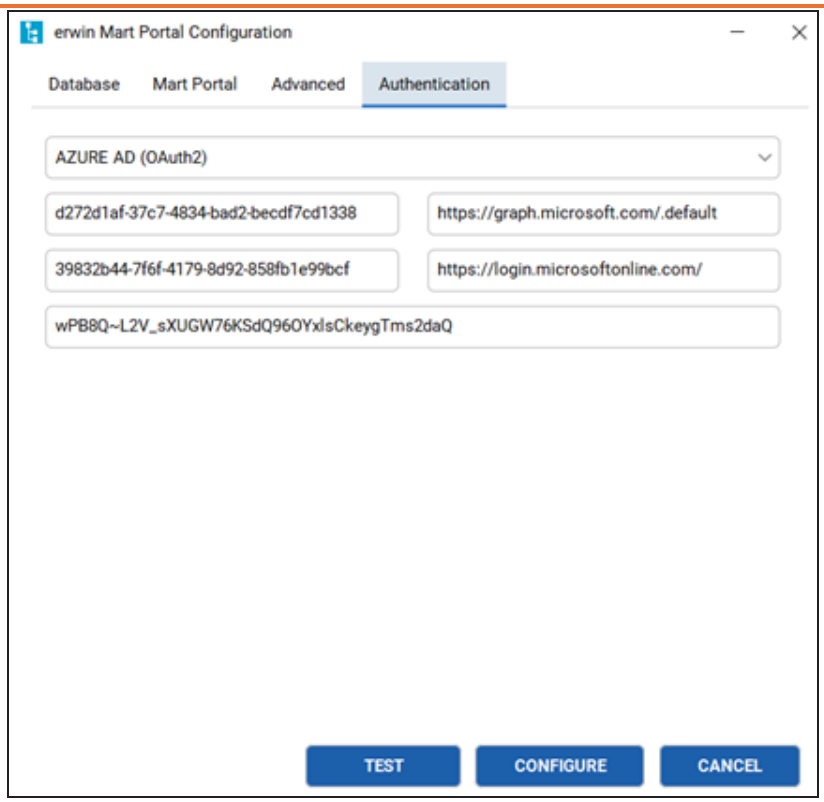
13. Add **Redirect URIs** and click **Configure**.



14. Go to Overview and note the Application (client) ID and Directory (tenant) ID. Graph scope and Client Uri are default.



You can now use these parameters on the Authentication tab while configuring erwin Mart Portal for SSO as shown in the following example image.

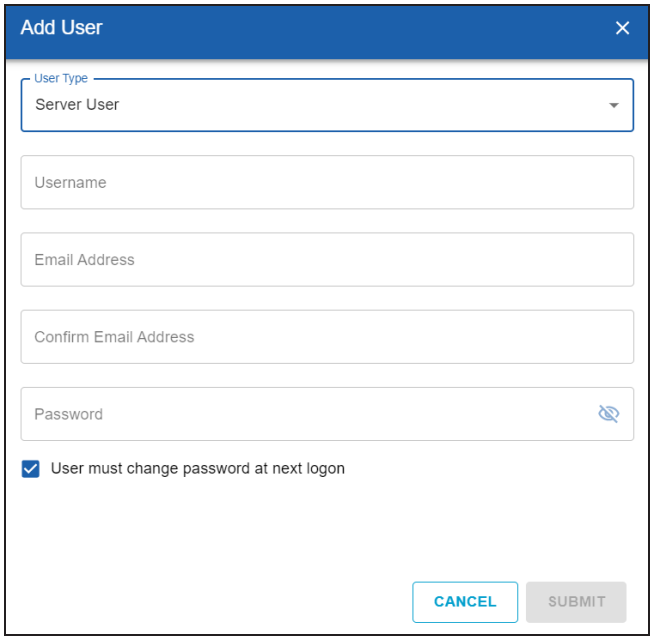


Adding Groups in erwin Mart Portal

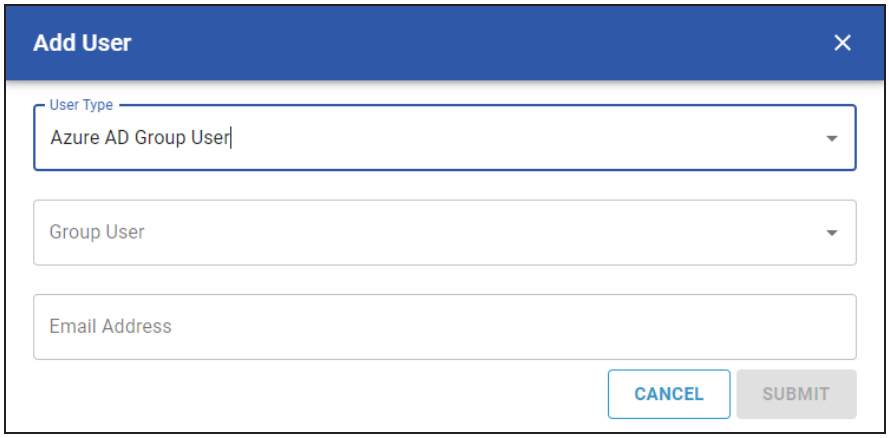
To add your AzureAD groups to erwin Mart Portal, follow these steps:

1. In the Microsoft Entra admin center, click **Groups** > **All groups** > **Download groups**.
   A CSV file with all your groups is downloaded.
2. Log in to erwin Mart Portalas administrator.
3. Go to **Application Menu** > **Users**.
   The Users page appears.

4. Click .
   The Add User page appears.



5. Under User Type, select **Azure AD Group User**.



6. Under Group User, select the group that you want to add.
7. Click **Submit**.

Initializing erwin Mart Portal and erwin ER360

To start using erwin Mart Portal and erwin ER360, you first need to initialize the database. You can initialize the database using a database authenticated user.

> Before you proceed, verify that you have installed a DBMS, created the database, and configured Mart Portal. If the application is already initialized, the Login page appears.

erwin Mart Portal

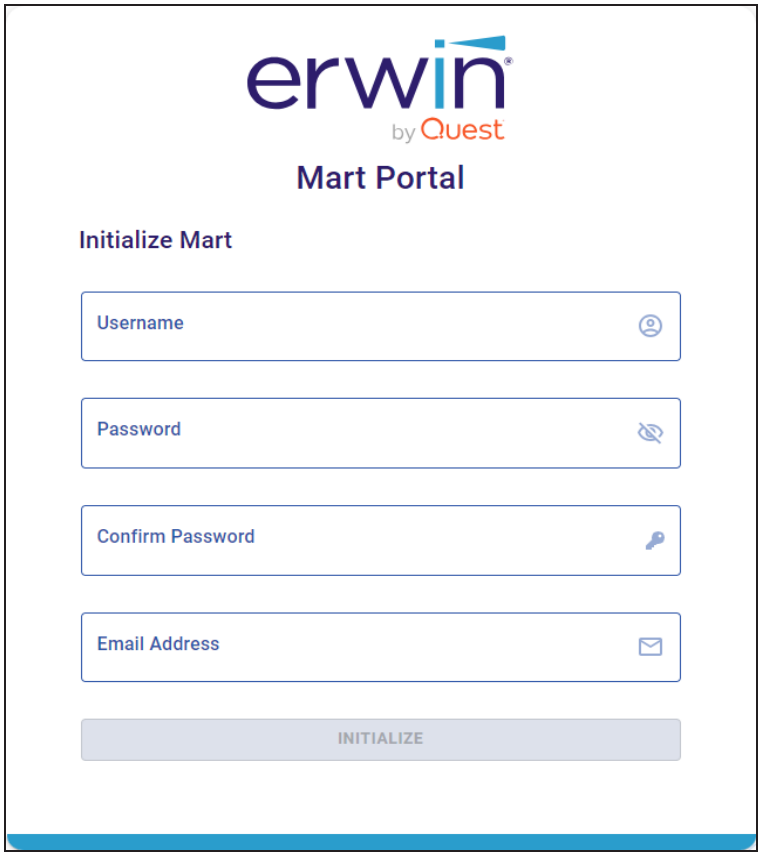
When you open erwin Mart Portal for the first time, the Initialize Mart page appears.

> If you are using Mart Portal as a Windows service, ensure that the service is started. If not, from the Windows Start menu, click **erwin** > **Start as Service** to start the Mart Portal. A Windows command prompt window appears and indicates when the server starts.

To initialize mart, follow these steps:

1. On the Windows Start Menu, click **erwin** > **erwin Mart Portal**.

   erwin Mart Portal opens in your default browser.



2. Complete the following fields:

   Username

   Specifies the user name with which you want to access the Mart. If you are using a Windows-authenticated user, enter the name in the <domain name>/<user name> format.

   Password

   Specifies the password for the user name.

A password should fulfill the following criteria:

- Contains at least 1 lowercase character
- Contains at least 1 uppercase character
- Contains at least 1 number
- Is minimum 6 characters in length
- Is maximum 130 characters in length

Apart from the above criteria, special characters are optional.

Confirm Password

Confirms the password that you entered in the previous field.

Email Address

Specifies the email address for the user account that you are creating.

3. Click **Initialize**.

   The user name is added as an administrator of Mart, Mart is initialized, and the Login web page appears. Initializing is a one-time task. After initialization, the user who initialized must log in first. Later, any other user who wants to use erwin Mart Portal can log in.

The user name that is entered here is an application level user and not a database user. Remember the password that you have entered here, because without the password you cannot log in to erwin Mart Portal for the first time.

In the previous releases, only a server user was allowed to initialize a Mart. From release r9.6, a Windows-authenticated user can also initialize a Mart. Further, a Windows-authenticated user can log in to a Mart as a Windows user.

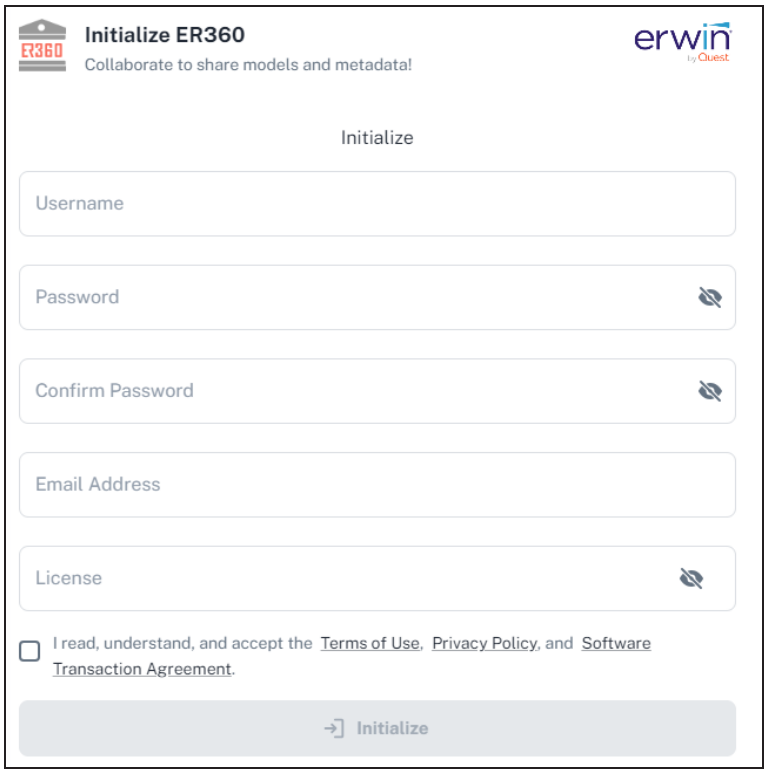
erwin ER360

When you open erwin ER360 for the first time, the Initialize ER360 page appears.

To initialize erwin ER360, follow these steps:

1. On the Windows Start Menu, click **erwin** > **erwin ER360**.

   erwin ER360 opens in your default browser.



2. Complete the following fields:

   Username

   Specifies the user name with which you want to access the application. If you are using a Windows-authenticated user, enter the name in the <domain name>/<user name> format.

   Password

   Specifies the password for the user name.

A password should fulfill the following criteria:

- Contains at least 1 lowercase character
- Contains at least 1 uppercase character
- Contains at least 1 number
- Is minimum 6 characters in length
- Is maximum 130 characters in length

Apart from the above criteria, special characters are optional.

Confirm Password

Confirms the password that you entered in the previous field.

Email Address

Specifies the email address for the user account that you are creating.

License

Specifies your erwin ER360 license code.
If you need help with the license code, contact your license administrator.

You can initialize erwin ER360 with an offline license. For more information on offline licenses, contact license support.

3. Select the terms of use, privacy policy, and software transaction agreement check box.

4. Click **Initialize**.

   The user name is added as an administrator of ER360, ER360 is initialized, and the Login page appears. Initializing is a one-time task. After initialization, the user who initialized must log in first. Later, any other user who wants to use erwin ER360 can log in.

Logging in to erwin Mart Portal and Configuring Settings

After the Mart is initialized, the user who initialized must log in first. When you log in for the first time, configure it according to your requirements. You can configure the following settings:

- Default profile for the model creator
- Default selector for user
- Email notification
- Device tracking

To log in to mart, follow these steps:

1. On the Windows Start Menu, click **erwin** > **erwin Mart Portal**.

   The log in page appears.

2. Enter the credentials with which you initialized the mart and log in.

   > If you enter an incorrect password five consecutive times, your account will be locked for five minutes (300 seconds) by default. To change the default lock out time, refer to the Change Default Account Lockout Duration section.

3. On the application menu, click .

4. Complete the following fields:

   Default profile for model creator

   Specifies the profile that is assigned to a user on a model. This profile is assigned whenever a user creates a model and saves it to Mart for the first time. The user inherits the permissions of the default profile selected here on the model that is saved. For example, suppose that User1 is assigned with Modeler profile and the System Administrator selects Architect as the default profile for model creator. If User1 creates Model1 and saves it to Mart, for Model1, User1 inherits the permissions of Architect. Now, suppose that the System Administrator selects Viewer as the default profile for model creator, and

suppose that User1 creates Model2 and saves it to Mart. For Model2, User1 inherits the permissions of Viewer.

Default Selector for User

Specifies whether the default display selector for users is username, email address, or both. Based on the settings here, users' username and/or email is displayed in the Permissions module.

Use SMTP Settings

Specifies whether SMTP settings are configured for email notification through the application.

SMTP host name

Specifies the name of the SMTP host. Enter the name in the mail.domain.com format. Notification emails are sent from this server.

Port number

Specifies the port number of the SMTP server. The default port number is 25. If your company is using an alternate port number for the mail server, specify that port number.

Authenticate

Specifies whether transactions with the SMTP server are authenticated. Select the check box to authenticate.

Use TLS Connection

Specifies whether transactions with the SMTP server use a Transport layer Security (TLS). If you intend to use a TLS connection, ensure that the User name and Administrator email correspond to each other.

> Select this option only if you want to use a TLS connection.

Username

Specifies the user name to authenticate the SMTP server. Select the Authenticate check box to enable authentication.

Password

Specifies the password to authenticate the SMTP server. Select the Authenticate check box to enable authentication.

Administrator email

Specifies the email ID of the Mart administrator. Notifications to Mart users are sent from this ID.

No-reply email from

Specifies the email ID from which administrative emails such as the password reset email are sent.

Enable Device Tracking

Specifies whether the devices on which you log in to your mart account are tracked and logged.

5. Click **Submit**.

   Mart options are configured.

If SMTP server is not configured, an Administrator can reset a user's password manually via the Users Page. On the Users page, select a user and click . Enter a new password and click **Submit**.

Use a Pluggable Database

This information applies to Oracle 12c.

You can use the pluggable database concept of Oracle 12c and create multiple Marts of the same Mart release in a single Oracle instance. For example, you can create two pluggable databases erwin_test and erwin_production in an Oracle global database erwin. You can configure these databases with the Mart Portal one after the other and connect to one of them at a time.

Follow these steps to use multiple pluggable databases:

1. Create multiple pluggable databases, for example, erwin_test and erwin_production.
2. Install erwin Mart Portal for the first pluggable database, for example, erwin_test.
3. Initialize the Mart for the first pluggable database, erwin_test. For more information on how to initialize the Mart, see the Initialize an Oracle Mart topic.
4. Log in to the Mart and create the models that you want to store in the test Mart.
5. To use the second pluggable database, follow these steps:
    a. Stop the Mart Portal or the Mart Portal service.
    b. Repeat Steps 1, 2, and 3 for the second pluggable database, erwin_production.
    c. Start the Mart Portal or the Mart Portal service.
    d. Log in to the Mart and create the models as required.

Logging in to erwin ER360 and Configure Settings

After the erwin ER360 is initialized, the user who initialized must log in first. When you log in for the first time, configure it according to your requirements. You can configure the following settings:

- Default user selector
- Email notification
- Device tracking
- Search permissions
- License

To log in to ER360, follow these steps:

1. On the Windows Start Menu, click **erwin** > erwin ER360.

   The log in page appears.

2. Enter the credentials with which you initialized ER360 and log in.

   > If you enter an incorrect password five consecutive times, your account will be locked for five minutes (300 seconds) by default. To change the default lock out time, refer to the Change Default Account Lockout Duration section.

3. On the application menu, click Settings.
4. Complete the following fields:

   Default User Selector

   Specifies whether the default display selector for users is username, email address, or both. Based on the settings here, users' username and/or email is displayed in the Permissions module.

   Use SMTP Settings

   Specifies whether SMTP settings are configured for email notification through the application.

SMTP host name

Specifies the name of the SMTP host. Enter the name in the mail.domain.com format. Notification emails are sent from this server.

Port number

Specifies the port number of the SMTP server. The default port number is 25. If your company is using an alternate port number for the mail server, specify that port number.

Authenticate

Specifies whether transactions with the SMTP server are authenticated. Select the check box to authenticate.

Use TLS Connection

Specifies whether transactions with the SMTP server use a Transport layer Security (TLS). If you intend to use a TLS connection, ensure that the User name and Administrator email correspond to each other.

> Select this option only if you want to use a TLS connection.

Username

Specifies the user name to authenticate the SMTP server. Select the Authenticate check box to enable authentication.

Password

Specifies the password to authenticate the SMTP server. Select the Authenticate check box to enable authentication.

Administrator email

Specifies the email ID of the Mart administrator. Notifications to Mart users are sent from this ID.

No-reply email from

Specifies the email ID from which administrative emails such as the password reset email are sent.

Enable Device Tracking

Specifies whether the devices on which you log in to your mart account are tracked and logged.

License

Specifies your erwin ER360 license code that you used to initialize the application.
You can change and validate the license code here.

5. Click **Save**.

   erwin ER360 options are configured.

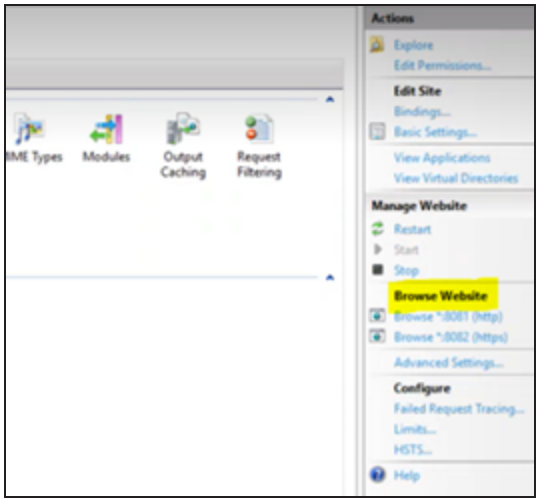
If SMTP server is not configured, an Administrator can reset a user's password manually via the Users Page. On the Users page, select a user and click . Enter a new password and click **Submit**.

Enabling IIS

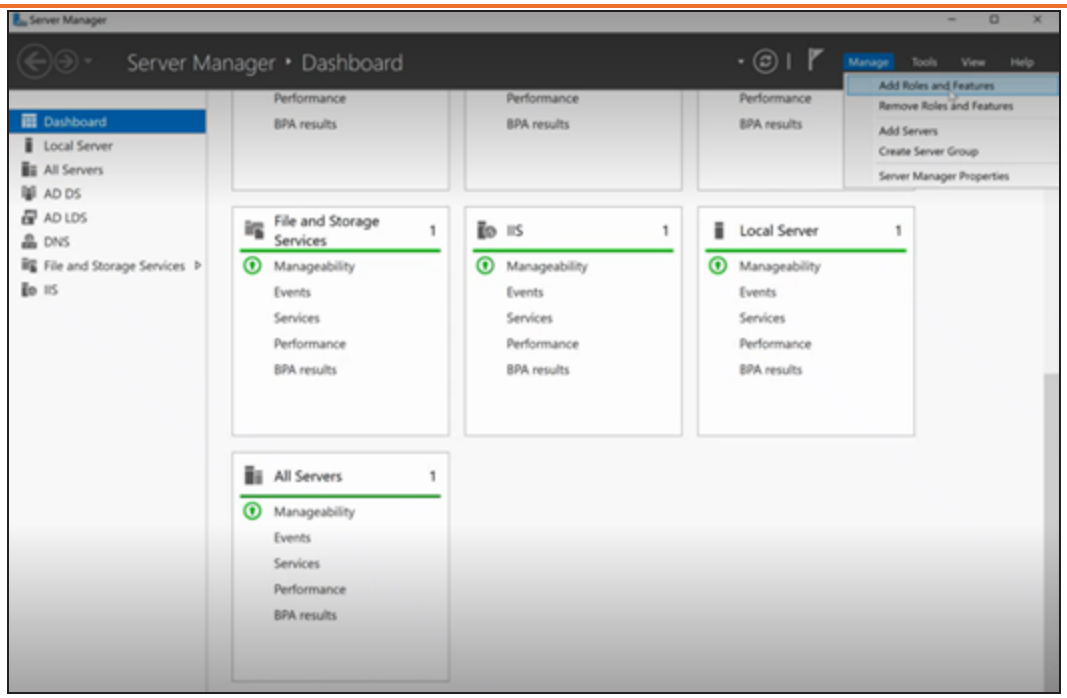
In IIS-enabled environments, erwin Mart Portal and the configuration will work automatically.

For environments where IIS is not enabled, to enable IIS, follow these steps:

1. On the machine where you have installed and configured erwin Mart Portal, open Internet Information Services (IIS) Manager.
2. Under Browse Website, click the appropriate option.

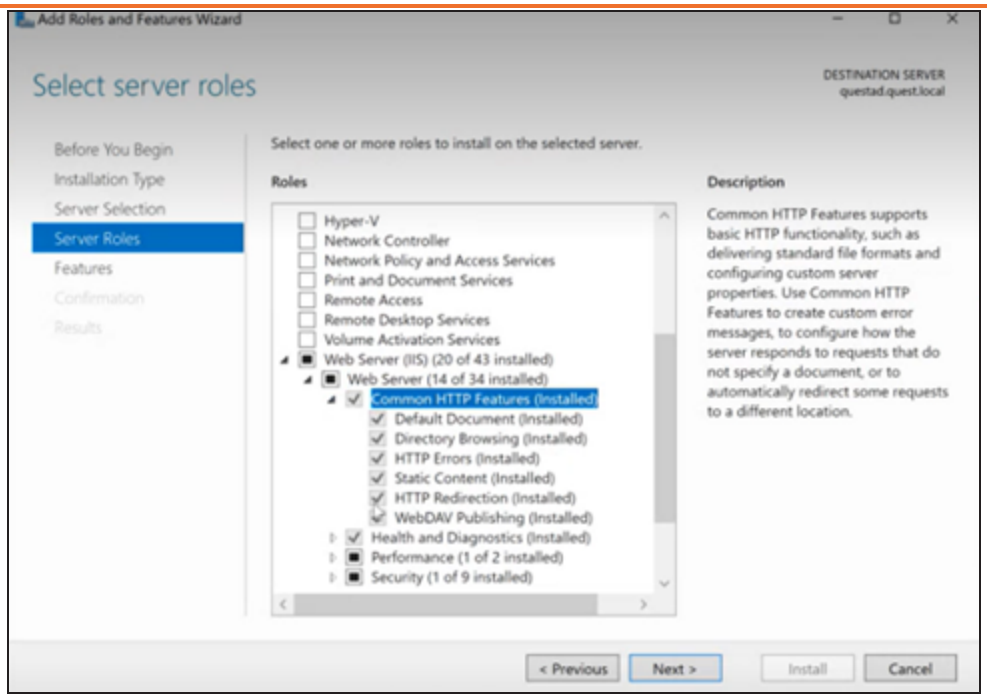


3. Open Server Manager and click **Manage**.



4. Click **Add Roles and Features**.

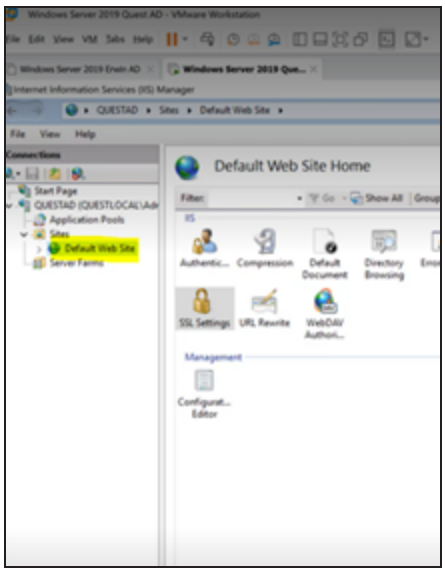
   The Add Roles and Features Wizard appears.



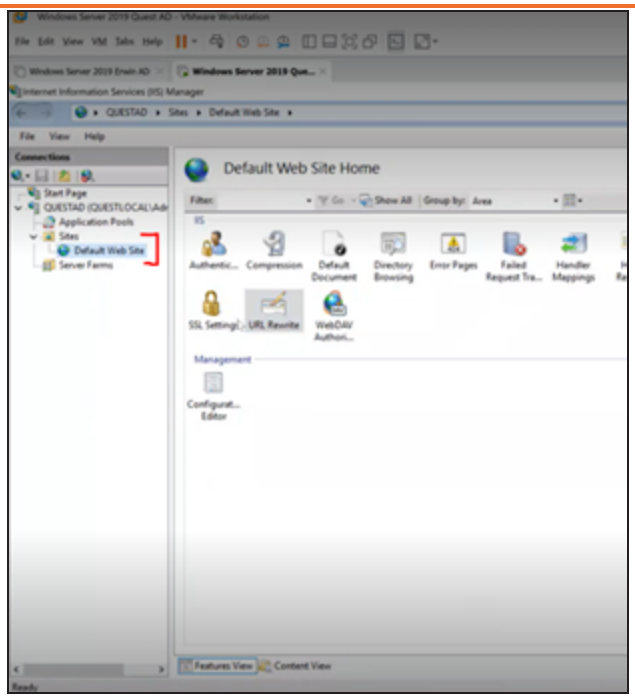
Follow these steps:

1. On the Before you Begin tab, click **Next**.
2. On the Installation Type tab, click **Role-based or Feature-based Installation**.
3. On the Server Selection tab, click **Default**.
4. On the Server Roles tab, select **Web Server (IIS)** > **Common HTTP Features (Installed)**. Also, ensure that **HTTP Redirection** is selected.
5. Click **Install**.

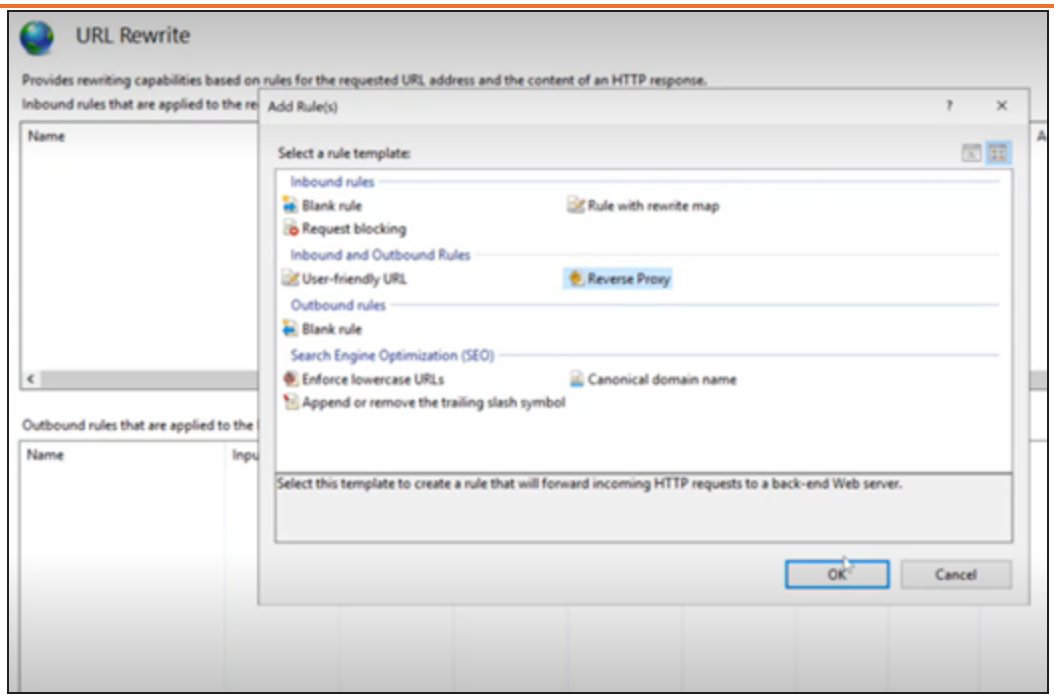
Once done, the Default Web Site option is available.



5. Download and install ARR 3.0.
   Ensure that you use the 64-bit installer.
6. Download and install URL Rewrite Module 2.1.
   Ensure that you use the 64-bit installer.
7. In the Internet Information Services (IIS) Manager, click **Default Web Site**.

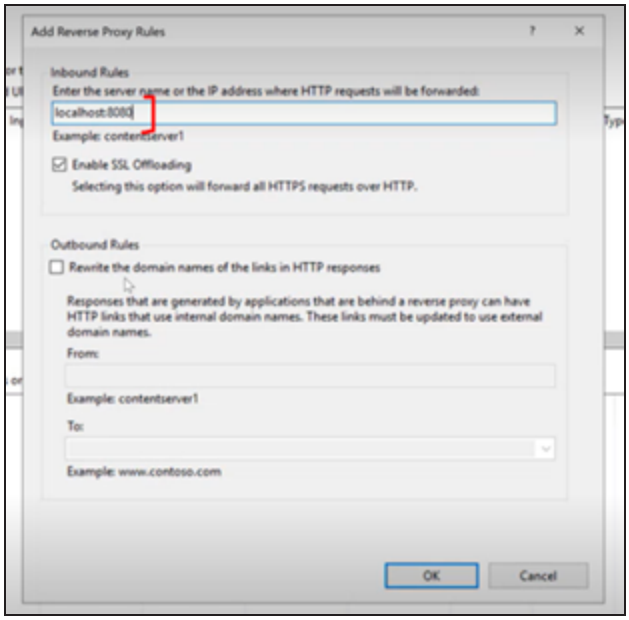


8. Click **URL Rewrite**.
9. Under Actions, click **Add Rules**.



10. Click **Reverse Proxy**.

    The Add Reverse Proxy Rules screen appears.



11. Under Inbound Rules, add the server name or the IP address and port number of the server where you have installed and configured erwin Mart Portal.

    For example, localhost:8080.

    > It will work with any IP address/port number and not just localhost and 8080. Do not use port that is already in use for another purpose.

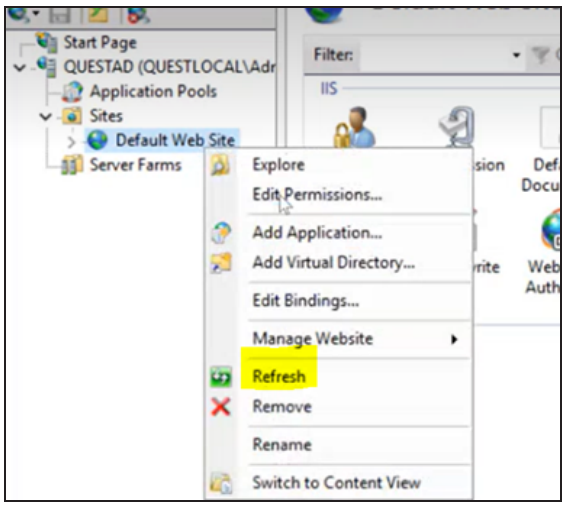
12. Under Outbound Rules,

    a. In the **From** field, add the server name or the IP address and port number of the server where you have installed and configured erwin Mart Portal. For example, localhost:8080.

    b. In the **To** field, add the server name or the IP address of the server where you have installed and configured erwin Mart Portal. For example, localhost.

13. Click **OK**.
    This will redirect you to Apache Server console.

14. In the Internet Information Services (IIS) Manager, right-click **Default Web Site** and click **Refresh**.



15. Right-click **Default Web Site** and click **Manage Website** > **Restart**.
    This completes IIS configuration.

Change the Mart Database Server

Sometimes, you may change the server on which the mart database is installed, or you may restore the mart database with a new name. When there is a change the server name or database name, reconfigure the erwin Mart Portal.

To change your mart database server, follow these steps:

1. Back up your mart database.
2. Restore the database on the designated server.
3. If you use the same computer for erwin Mart Portal and restore the database in a different name, include the new database name in the erwin Mart Portal Configuration screen.

   From the Windows Start menu, open the erwin Mart Configuration dialog. On the **Database** tab > **Database Name** field, enter the new name with which the database is restored. Enter the current user name and password to access the database.
4. If you use a different computer for erwin Mart Portal and restore the database in the same name, install the erwin Mart Portal on the new computer.

   Install the erwin Mart Portal. On the **Database** tab > **Server Name** field, enter the name of the new server where the database is restored. Enter the current user name and password to access the database.
5. Stop the erwin Mart Portal service and start it again.
6. On the Windows Start Menu, click **erwin** > **erwin Mart Portal**.

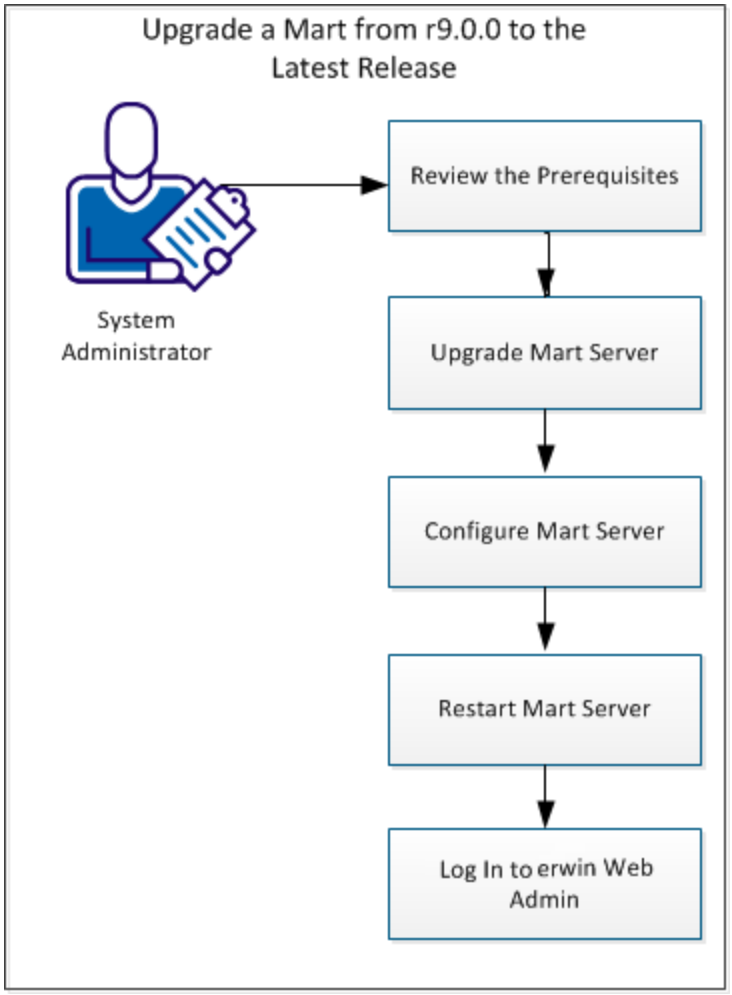
   Enter the credentials and log in.

Upgrading Mart

If you are using any earlier release of r9 series and you want to upgrade it to the latest release, upgrade the Mart Portal application and the Mart database. Once the Mart Portal program is upgraded, you must implement the upgraded software.

Important! The current Mart is designed to work with only the current version of erwin Data Modeler. If you try to connect the current Mart with an older version erwin Data Modeler such as r9.0.0, it may corrupt the Mart and cause unexpected behavior.

The following diagram illustrates how System Administrators can upgrade a Mart from any earlier release of r9 series to the latest release:



How to Upgrade any r9 Series Mart to the Current Version

Complete the following tasks to upgrade a Mart of any earlier release of r9 series to the latest release:

1. Review the prerequisites
2. Upgrade erwin Mart Portal
3. Configure erwin Mart Portal
4. Restart the service
5. Log in to erwin Mart Portal

Back to Top

Upgrade Performance Considerations

Ensure that you consider mart size, model count, and associated versions while upgrading a mart from an earlier version to the latest version. The following table provides sample data of the upgrade process. You can use this information as a guideline.

Mart Database	Machine Configuration	Time Taken (Upgrade from lower version to erwin Mart 2021 R1 and above)
Oracle 12c R2 (1221 Models , 42108498 million rows present M9Object Table)	8 GB RAM 1 CPU	50 minutes
SQL Server 2017 (1277 Models, 44294824 million rows present in M9Object Table)	8 GB RAM 1 CPU	142 minutes
Postgresql 9.6.15 (1020 Models, 33594468 million rows present in M9Object Table)	16 GB RAM 4 CPUs	15 minutes
Oracle 12c R1 (10784 Models, 505178719 million rows present in M9Object Table)	32 GB RAM AWS Machine	15 hours
Oracle 12c R1 (11980 Models, 520732699 million rows present in M9Object Table)	32 GB RAM 4 CPU	20 hours 40 minutes

Following are a few tips to ensure a smooth upgrade:

- Before upgrading, ensure that you double the number of data files in tablespaces for MMDATA and MMINDEX in an Oracle mart.
- Check the Report Upgrade status in the MartServerUpgrade.log file.
- If the M9Object Table has high volume of data and models over 100 MB, run the upgrade on a machine that has 64 GB or more RAM.

- In case of failures in upgrade, before you rerun the upgrade, ensure that you select the following check boxes on the Advanced tab on the erwin Mart Configuration dialog:
  - Rerun Count Upgrade
  - Rerun Report Upgrade
  - Rerun Report Upgrade For All Models

For more information, refer to the Configuring erwin Mart Portal topic.

Upgrading erwin Mart Portal

If you are upgrading a Mart from any earlier release of r9 series to the latest release, upgrade the Mart Portal application.

> Refer to the Install a Mart or Upgrade a Mart topic before proceeding.

Follow these steps:

1. If you are running Mart Portal as a Windows service, stop the service and delete it.

   > If you upgrade erwin Mart Portal without stopping the service, it may not start after you complete the upgrade process.

2. Download and run the installer file from the erwin Support site.

   The erwin Mart PortalInstallation Wizard appears.

3. Follow the wizard.
4. Restart your computer.

Back to Top

Restarting the erwin Mart Portal Service

When you modify the details of the mart database and Mart Portal application, restart the erwin Mart Portal service.

Follow these steps:

1. On the Windows Start menu, click **erwin** > **Stop as Service**.
2. On the Windows Start menu, click **erwin** > **Start as Service**.

Creating Customized Security Messages

As the administrator, you can add a custom message on the Connect to Mart screen. The message appears whenever one of the client applications (erwin Mart Portal or erwin Mart Portal Navigator Edition) connects to the mart. The message appears after your connection to the desired mart is authenticated and before the connection dialog closes.

Follow these steps:

1. After you install and configure the Mart, locate and open the *privacy.message* file.

   If you are using the default web server Tomcat, the file is available in the following folder:

   ```
   C:\Program Files\erwin\Mart Portal r9\Tomcat64\
   webapps\Mart Portal\WEB-INF\classes
   ```

2. Type the message that you want to display and save the file.

   The message can be up to 2000 characters long, anything beyond 2000 characters is not displayed. Insert line-breaks manually after every 80 characters, for the message to display properly. If there are no manual line-breaks, Windows automatically inserts line-breaks in the security message. These line-breaks are based on the specific version of Windows you use.

3. From the Windows Start menu, click All Programs, erwin, erwin Mart Portal 12.5 , Stop Mart Portal Service to stop the web server.

4. From the Windows Start menu, click All Programs, erwin, erwin Mart Portal 12.5 , Start Mart Portal Service to start the web server again.

   When a user connects to the Mart the next time, the security message is displayed.

To suppress the security message, open the privacy.message file and delete the contents. Do not delete the file.

Viewing Log Files

You can finderwin Mart Portal log files at the following locations:

- **erwin Mart Portal as server**:
  - {user.home}/AppData/Local/erwin/Mart Portal/logs/martportal.log
  - {user.home}/AppData/Local/erwin/Mart Portal/logs/martportalupgrade.log
  - {user.home}/AppData/Local/erwin/Mart Portal/logs/vaultservice.log
- **erwin Mart Portal as Windows service**:
  - C:\Windows\System32\config\systemprofile\AppData\Local\erwin\Mart Portal\logs\martportal.log
  - C:\Windows\System32\config\systemprofile\AppData\Local\erwin\Mart Portal\logs\martportalupgrade.log
  - C:\Windows\System32\config\systemprofile\AppData\Local\erwin\Mart Portal\logs\vaultservice.log

You can configure how the log is generated. For more information about how to configure logging, refer to the erwin Mart Portal user guide.

Use erwin Mart Portal as a Windows Service

There are two ways to start the web server that hosts erwin Mart Portal and erwin ER360:

- Start the web server manually.
- Use a Windows service to start the web server.

For example, if you have used Apache webserver as the server to host Mart Portal, you can start it in two ways:

- Start Apache through the startMartServer.cmd file or through a shortcut to this file.
- Use a Windows service to start Apache.

The benefits of using a Windows service to start a web server are as follows:

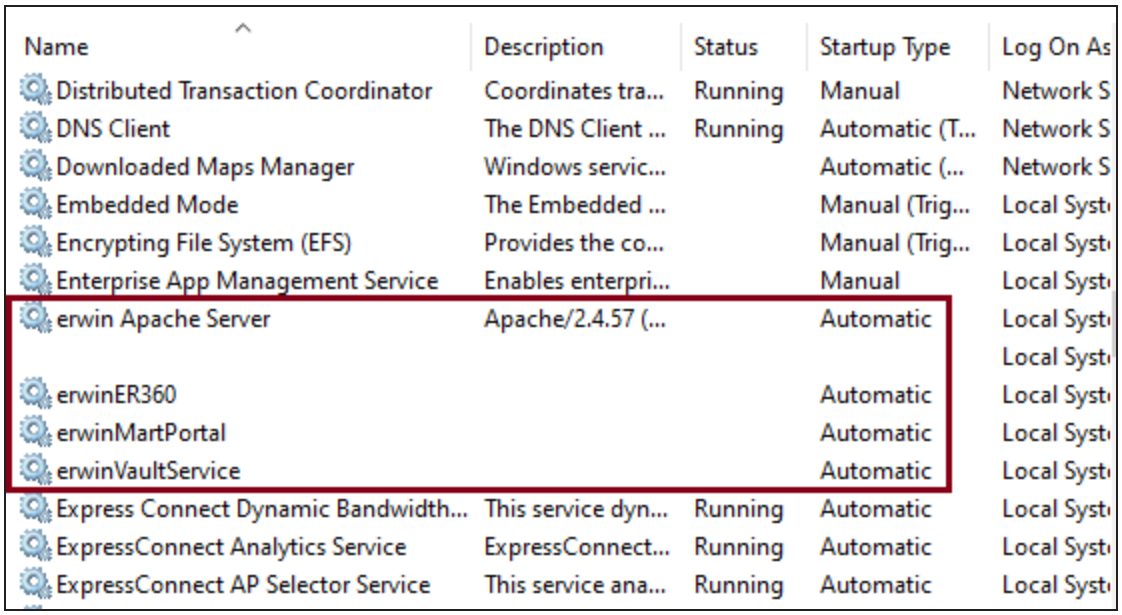
- Any user with administrative privileges on a computer can start the Windows service, whereas, only designated users can start a web server manually.
- A Windows service runs regardless of whether a user has logged in. A manually-started web server shuts down when the user who started it logs out.

Follow these steps:

1. On the Windows Start Menu, click **erwin** > **Create Mart Services** to create erwin Mart Portal Windows services.

   Creating the service is a one-time task. After the service is created, you only have to start and stop the service.

2. On the Windows Start Menu, click **erwin** > **Start as Service** to start the web server. The necessary services are created



You can find the log files, martportal.log, er360.log, and vaultservice.log, at {user account}\AppData\Local\erwin\Mart Portal\logs\.

Enable Logging in Local AppData

To enable logging in a user's AppData while using erwin Mart Portal as a Windows Service, follow these steps:

1. Once the service is created, go to service properties.
2. On the Log On tab, click **This Account**.
3. Enter the credentials.
4. Start the service.

   Logging is now enabled for your instance of erwin Mart Portal as a Windows service. The log files, martportal.log, er360.log, and vaultservice.log will be created at {user account}/AppData/Local/erwin/Mart Portal/logs.

Troubleshooting

This section explains the errors that you can encounter while installing and configuring erwin Mart Portal, and how you can troubleshoot them.

> The Mart Portal log files are available at C:\Program Files\erwin\Mart Portal\MartApp\config.

Unable to Create Mart Portal Service

Symptom:

If Mart Portal is upgraded to the latest version without stopping and deleting the Mart Portal service of the earlier version, creating a new Mart Portal service does not work.

Solution:

Run the *sc Delete Mart Portal* command to delete the Mart Portal Service from command prompt and then try to create a Mart Portal Service in the new version.

Port out of range

Symptom:

Whenever I connect to the web server, I get the following error message:

```
java.lang.IllegalArgumentException: port out of range 80821.
```

Solution:

Type the correct port number in the Configure erwin Mart Portal s Server dialog and then restart your web server.

Call failed on the server

Symptom:

When I try to connect to the Mart Portal, I get the following error:

```
500 The call failed on the server; see server log for details
```

Solution:

The probable reasons for this error could be one of the following reasons:

- The server name is not correct.
- The application name is not correct. By default, the application name is Mart Portal and it is case-sensitive.

Type the correct server name and application name in the erwin Mart Portal's Server dialog and the Configure Mart Portal Details dialog. Restart the web server.

Application Internal Error

Symptom:

When I try to connect to the database, I get the following error:

```
Application Internal Error
```

Solution

You get this error when the Mart Portal application is unable to connect to the required database. The following reasons are probable for this error:

- The database details that are provided in the Configure Mart Portal Details dialog are incorrect.
- The username and the password for the database are incorrect.
- The database is not present.
- The port number for the database is incorrect.
- The network is down.

Ensure that you enter the correct details of your database in the Mart Portal tab of the erwin Mart Configuration dialog.

ORA-12514 TNS listener does not currently know of service requested in connect descriptor

Symptom:

When I try to open the erwin Mart Portal page, I get the Application Internal Error. The Tomcat windows shows the following error message:

```
ORA-12514, TNS:listener does not currently know of service requested in connect descriptor
```

Solution:

Use a fully qualified instance name when starting the Mart Portal.

Note: This section is applicable only for Oracle and SQL Server.

Use a fully qualified instance name when starting the Mart Portal.

Mart already exists. Specify another database name

Symptom:

When I try to connect to the Mart, I get the following error message:

```
An earlier mart is already present in the database you are trying to initialize. This process can not be continued. Please specify another database name to continue.
```

Solution:

You get this error when you connect to an old Mart that you have used for erwin DM Release r7 series, r8 series, or Beta release of any r9 series release.

Create a database and provide its details in the Configure Mart Portal Details dialog.

Initialize page is not loading in Internet Explorer

Symptom:

When I type the URL to initialize my Mart in Internet Explorer, the Initialize Mart page is taking a long time to load.

Solution:

The Initialize Mart page does not load because the Active Scripting option in Internet Explorer is disabled.

To enable Active Scripting, follow these steps:

1. In Internet Explorer, click Tools, Internet Options.
2. In the Security tab, click the Custom Level button.

   The Security Settings Local Intranet Zone window opens.
3. From the list of options, locate Scripting, Active Scripting, and select Enable. Click OK.
4. Restart Internet Explorer and enter the URL to initialize Mart.

   The Mart Initialize page opens.

The Tomcat server is not starting properly. The Configure button is disabled.

Symptom:

My administrator has given me the Administrator rights and when I start the Tomcat server, I get a series of errors. Also, I cannot click the Configure button in the configuration dialog because it is disabled.

Solution:

Right-click Start Server, and click Run as Administrator.

The Tomcat server starts without any error, and the configuration button is enabled.

A connection with the server could not be established

Symptom:

When I try to connect to the web server from erwin Data Modeler, I get the following error message:

```
A connection with the server could not be established
```

Solution:

Verify that you have provided the correct port number and then reconnect to the web server.

The server name or address could not be resolved

Symptom:

When I try to connect to the web server from erwin Data Modeler, I get the following error message:

```
The server name or address could not be resolved
```

Solution:

Verify that the server name where the web server is installed is correct and then reconnect to the server.

> If erwin Data Modeler and the web server are installed on the same computer, you can give the server name as localhost. Suppose that erwin Data Modeler and the web server are installed on different computers. The server name is the name of the computer where the web server is installed.

Invalid user ID or password

Symptom:

When I try to connect to the server, I get the following error message:

```
Invalid user ID or password. Please try again to login.
```

Solution:

Type the correct user name and password.

> The user must be an application level user and not a database user.

Error 12029

Symptom:

When I connect to the web server, I get the following error message:

```
Error 12029
```

Solution:

Restart the web server.

Unable to load the web page from my web browser

Symptom:

When I type the URL in Internet Explorer or Google Chrome to connect to the web server, I get the following error messages:

For Internet Explorer

```
Internet Explorer cannot display the webpage
```

For Google Chrome

```
Oops! Google Chrome could not connect to localhost:18170
```

Solution:

Restart the web server.

Internet Explorer Redirects to a Different Link

Symptom:

Suppose that I install erwin Mart Portal on a fresh machine. If I enable the SSL option and I invoke erwin Mart Portal, Internet Explorer redirects the page to res://ieframe.dll//.

Solution:

Internet Explorer versions 8 through 10 have a security enhancement that blocks the following types of sites:

- Sites that have self-signed certificates
- Sites that have self-signed certificates where the certificate does not match the URL

Follow any of these steps:

- Install the certificate in the Trusted Root Certification Authorities store.
- Add the site to trusted sites.
- Set the Internet Explorer Security level to Medium Low.

Chinese characters are replaced with question marks in Postgre SQL Mart

Symptom:

I type Chinese characters in the Version Description dialog in erwin Mart Portal. If I open erwin Data Modeler and go to the Catalog Manager window, I see that the Chinese characters are replaced with ????.

Solution:

Follow these steps:

1. Select Chinese for the Format, Location, and Locale fields in the computer where you have installed erwin Data Modeler, Mart Portal, and Mart database. (You can access these settings through the Control Panel.)
2. Open the Database Properties dialog for the Mart database and verify the value for the Collation field.
3. If the value is other than SQL_Latin1_General_CP1_CI_AS, create a database and assign this value for Collation. Initialize the Mart again.

I have a very long Windows user name and I cannot log in to the Mart through erwin Data Modeler

Symptom:

I have added a very long Windows user name similar to "Magdalena.Chalamalasetti" using the Mart Portal. When the user tries to log in to the Mart through erwin Data Modeler, the name is truncated to "US\Magdalena.Chalamas" and the user cannot log in.

Solution:

The name is truncated due to a limitation with Windows. The Windows API returns the legacy user name that is limited to 20 characters. If the length of a user name exceeds 20 characters, for example, "US\Magdalena.Chalamalasetti", the name is displayed as "US\Magdalena.Chalamas" in the Connect to Mart dialog.

You can resolve this in one of the following ways:

- Type the first 20 characters of the user name when you add the user as a Windows User, in the Mart Portal. For example, instead of typing "US\Magdalena.Chalamalasetti", type "US\Magdalena.Chalamalas".
- Use a Windows Group instead of the user's domain name. Using your Windows domain controller software, add the user to a Windows Group, and then add the

group as a User Group in the Mart Portal. For more information about how to add a User Group, see erwin Data Modeler r9 Workgroup Edition: Support for Directory Services video.

SSL Certificate Error

Symptom:

When you open Mart Portal from Mart Portal that is configured with an SSL certification, an SSL certificate error appears.

Solution:

1. Replace localhost in the Mart Portal URL with your computer name.

   https://localhost:12345/MartAdmin/

   https://<computer_name>:12345/MartAdmin/

2. Use the updated URL to access the Mart Portal

Unable to save a model to Mart with an existing model name

Symptom:

When you save a model to Mart with an existing model name, a dialog with the following text appears.

Model '<model name>' already exists in library '<mart name>'. Rename the new model name

Solution:

Save the model with a different name.