



User management in WSO2 platform covers defining and managing users, roles and user access levels.

The diagram explains structuring of the user management functionality in WSO2 products.

WSO2 products allow connecting to a variety of internal and external user stores which store user details and user roles. Examples for User store types are JDBC user stores, Active Directory, Read only and read/write LDAP users. These use stores are connected with RDBMS which store role based permission. These information is used for authentication and authorization of users.

User realm is initialized by using the Realm configurations.

For this it is required to set up the User store manager, authorization manager and system administrator.

Each user realm corresponds to a single user store manager, which is responsible for managing the underlying user store.

The Authorization Manager governs role based access control. The default Authorization Manager of WSO2 products is 'JDBCAuthorizationManager'. This users a WSO2 Carbon specific permission model and authorization data in the JDBC database. This can also be replaced with a custom

implementation. The System Administrator is ideally the super tenant admin user, who has permission to perform any administration task on the server by default.
The user realm is expose as an OSGi service, so that other classes in the OSGi environment can use its services.

## **User Management**

### **User Accounts and User Roles**

Full management of user accounts and roles at different levels

- Fully configurable User Store
  - Can configure multiple user stores (Primary/Secondary)
  - Users in any of the configured user stores can log in and perform operations according to their roles and permissions
- Read/Write Mode
  - o Add, modify, or delete accounts
  - Reset passwords
  - Manage roles
  - Bulk import from external user stores; export to Excel or CSV
- Read-only Mode
  - View user accounts only



User management within WSO2 products allow complete management of user account and roles at various levels.

User stores can be configured and plugged in as required thereby enabling users in any user store to log in and perform operations on the server based on their role permissions.

User store can be added as primary or secondary. You can have only one primary user store per tenant where as a tenant can have multiple secondary user stores.

These user stores can be configure in Read/Write or Read only mode as per the requirement.

The server allows to add/ modify/ delete users, reset passwords, manage roles and import users from external store to read/write user stores.

When read only user store are configured, no modifications are allowed on user accounts.

### **User Information Storage**

- IDAP
  - Faster Access
  - Greater numbers
  - Microsoft's Active Directory
  - ApacheDS
- RDBMS
  - Oracle DB



WS<sub>2</sub>

Instead of using the embedded database as the user store, WSO2 Carbon based products have the ability to plug and unplug external repositories of users as the user store.

These user repositories/ user stores can be configured and connected to WSO2 products as primary or secondary user stores.

These user stores may be based on different schemas, which require them to be adapted in order to be plugged in WSO2 Carbon based products.

For this, WSO2 Carbon based products provide various adaptors depending on the user store types.

By default LDAP (Light Weight Directory Access Protocol), Active Directory and JDBC user store adaptors are available.

LDAP based user stores such as Open LDAP, Active Directory (Windows based) are commonly used to maintain large user/role bases.

Tools such as Apache Directory Studio provide easy access to these.

RDBMS based, JDBC user stores can be connected with any JDBC user store such as Oracle , MySQL, MSSQL etc supported by WSO2 Carbon based products.

# Let's try it out! Adding Users and Roles

# THANK YOU

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