



Role-based Security



Topics

- Security in OutSystems
 - Access Control
- Users and Groups
- Roles
 - Checking Permissions

Security

OutSystems takes care of many low-level security matters

- Supports HTTPS and Integrated Authentication
- Prevents code injection on Screens and SQL queries
- Provides fully-integrated exception handling
- And more...

OutSystems cannot determine your **Access Control** requirements

Access Control

Access control determines and enforces **who can do what**

- **Who:** Business Users and Roles
- **What:** Access Screens, trigger Actions, etc.

It comprises **Authentication** ...

- Identify who is accessing the application
- Validate user credentials (e.g. username and password)

... and **Authorization**

- Check if a user can execute a task
- Validate if user was granted the required permissions

Users

End-users are created and managed in the built-in *Users* application

- Default OutSystems end-user provider

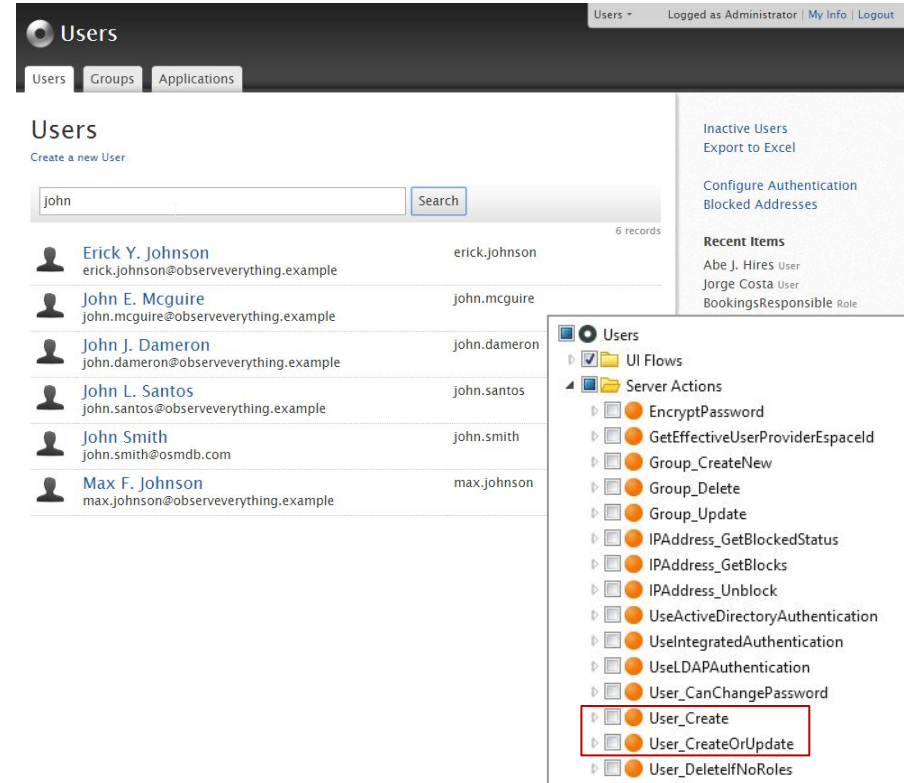
The core information of a user is

- Username
- Password
- Name

Can be created programmatically

- Actions from Users module

Authorization is granted via **Roles**



Roles

Anonymous and Registered built-in Roles

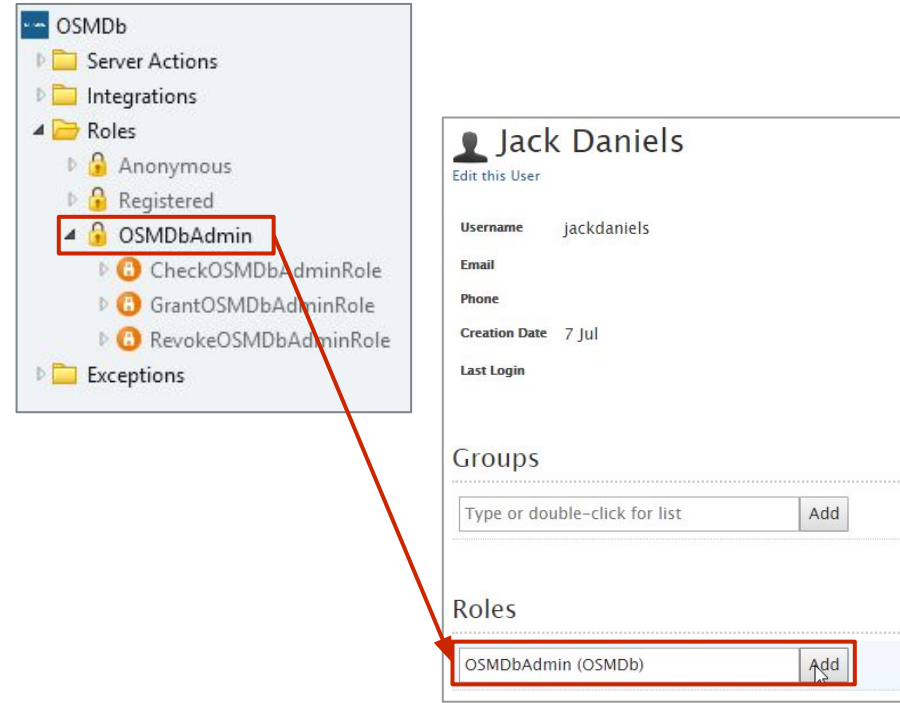
All end-users have the **Registered** Role

Application-specific Roles can be created

- Each Role has **Check**, **Grant** and **Revoke** Actions
- A Role can be set as Public

Authorization can be managed

- Programmatically
- Manually in the Users application



Checking Permissions

Roles can be checked in Screens and Actions

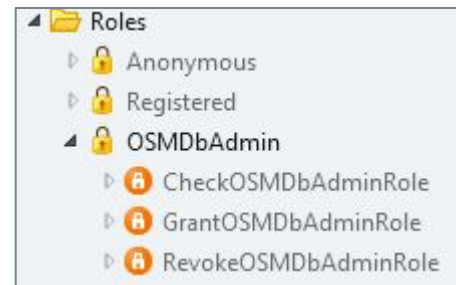
Screen Roles property

- Enforces a user to have one of the Roles to access the Screen

<input type="checkbox"/>	MovieDetail Web Screen
Name	MovieDetail
Description	...
Public	No
Title	▼
Roles	
Anonymous	<input type="checkbox"/>
Registered	<input checked="" type="checkbox"/>
OSMDBAdmin	<input checked="" type="checkbox"/>

Check<RoleName>Role(UserId) Action

- Checks if a user has the *RoleName* Role
- Can be used in any Boolean condition
 - Widgets Enable / Display / Visible property
 - If widget on Screens
 - If statement on logic flows



Groups

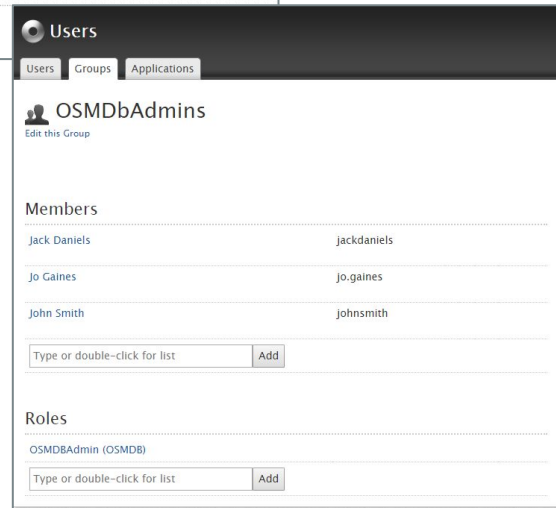
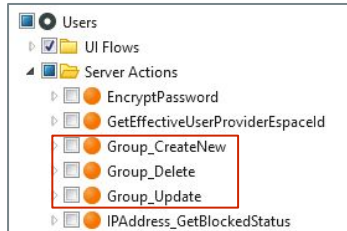
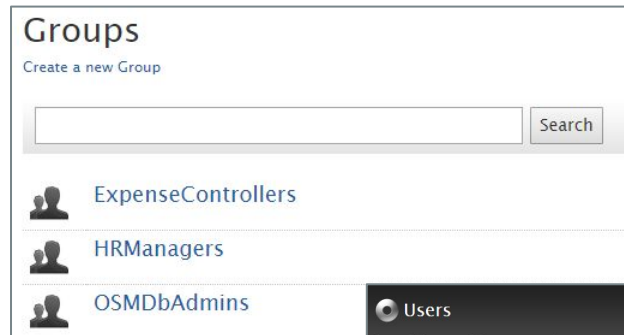
Groups are simply groups of users

Groups can be granted a Role

The Group's Role is granted to all Users in the Group

Groups can be created and managed

- Manually in the *Users* application
- Programmatically with Actions from the Users module



Summary

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Role-based Security
Thank You!