

User Management User Guide

Kinetic - Edge & Fog Processing Module (EFM) 1.6.0

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Introduction

The User management is a component that allows managing users, groups, permissions and roles for the EFM Web based components EFM System Administrator, EFM System Monitor, EFM Dataflow Editor, EFM Asset Manager and the User Management itself. Not only does the User Management system authenticate, but through the use of roles, it authorizes the specific use of the EFM applications and rights. In this manner it is possible to define administrators, developers and operators with access to different applications based upon their functions.

The User Management system comes configured as a standalone environment using a local database, but it can allow the integration of a variety of external federated systems such as LDAP and Active Directory to provide Single Sign On functionality for EFM.

This guide helps you get started with EFM User Management system. It covers server configuration, user and roles as well as backup and restoration processes. Advanced deployment options are not covered. For additional configuration details, refer to the Additional References section.

User Management overview

The user interface of the Kinetic–EFM User Management starts with the login page. This is the same for all applications and provide a single sign on once authenticated.

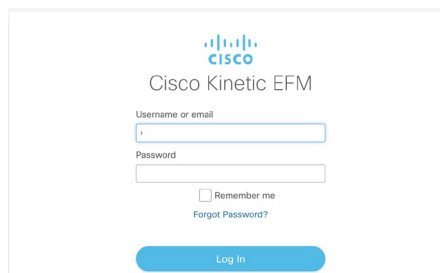
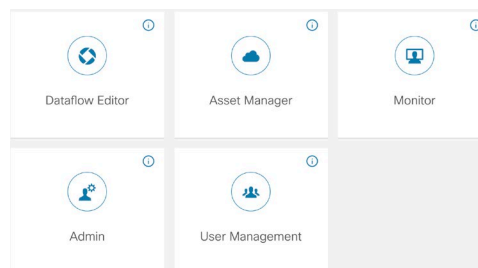


Figure 1. Cisco Kinetic EFM Single Sign-On Login

At first time use, the user credentials are those defined at installation. Once the user name and password are introduced, the EFM applications menu will appear. By selecting User Management, we will enter the specific application for identity and authentication management.



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User Management overview

Figure 2. EFM Applications menu

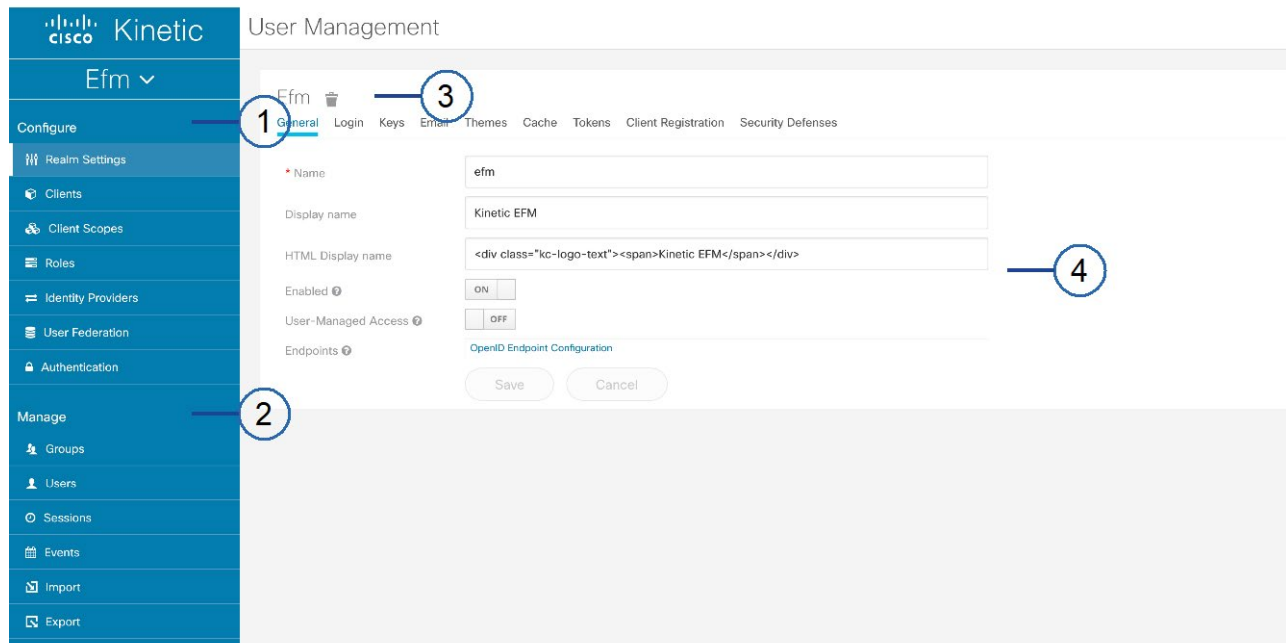


Figure 3. Initial page

1	Configure tasks	2	Manage tasks
3	Task header	4	Task input fields

The user management system is divided into two major headers. Each section also has options below that are specific to a function.

1. **Configure** – General server configuration and operation. This section is prepopulated for the EFM applications.
2. **Manage** – Detailed management of groups, users and logging.

Configuration

No user configuration is required for EFM authentication and identity to operate.

Roles

This feature provides possibility to restrict the access of the user to various applications by using the Roles in the authentication server. The following are the roles which are available out of the box from the installation of the Product.

Role Name	Role Description / Comment
admin	Admin Role for the realm (This encompasses all roles defined below)
sys-has-user- management- access	Provides access to Admin Console
sys-has-efm- manager- access	Provides access to EFM Manager
sys-has-efm- admin-access	Provides access to EFM Admin
sys-has-efm- monitor-access	Provides access to EFM Monitor
sys-has-dataflow- access	Provides access to Dataflow Editor (This role along with :config or any other permission giving role will make sure to give required access to dataflow, else only dataflow can be viewed and no action could be taken on it)
:config	Role similar to :config in EFM

Management

User Management

This features allows for looking up users and updating credentials.

Adding a user

Select the Add User button and the following fields are mandatory, all other fields should not be touched:

- Username - unique for the user
- User enabled - if toggled on, then it will be enabled

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Select Save. Check the message as Success on top.

Select the "Credentials" tab, Make sure the Temporary is ON (which indicates the user needs to change password on login).

- Introduce the new password and confirmation.

Click "Reset password" and select "Change Password" button. Check for the success message as well.

Select the "Role Mapping" tab,

- If the user needs access to one or more EFM applications, then select the specific role for that application. See the Roles section for more detail.

Upon first login, the new user will be required to change password before proceeding.

Adding a user example:

1. Login with an Administrator user
2. Select the User Management card
3. Go to Users Tab and click Add user button
4. Specify username as "efmtest", all the other fields need not be touched, Click save
5. Check the message as Success on top.
6. Open Credentials Tab, and set password for the user. Make sure the Temporary is ON (which indicates the user needs to change password on login).
7. Click "Reset password" and select "Change Password" button. Check for the success message as well.
8. Go to Role mapping tab, Select sys-has-dataflow-access from Available roles and click "Add selected" button. Check for Success message
9. Select Sign Out from top right after selecting the user.
10. Check the Login page is displayed.
11. Login with efmtest user and the temporary password created.
12. The Warning Message is shown "You need to change your password to activate your account." . Give a password and confirm the password
13. On the Landing Page, only Dataflow editor card must be shown and on clicking the card, the dataflow editor would be opened without any further logins

14. Try Accessing any of the following with their link directly (as card will not be anyway visible) and the Error Message as You are not allowed to access this resource. Please contact your system administrator
 - a. Monitor - Should show unauthorized access error
 - b. Asset Manager - Should show unauthorized access error
 - c. Admin - Should show unauthorized access error
 - d. User Management - Should show unauthorized access error
15. The user can just see the dataflow editor, but cannot do any other activity than viewing the links and system attributes.
16. To give full access to the dataflow options login as admin
17. Assign ":config" role to user - "efmtest" with step as explained in point 8.
18. Save and logout
19. Login as efmtest again and open the dataflow card again.
20. The user now will have authority to restart server, assign variables , start links, etc.,
21. Repeat step 8 for the selected user to give access to different roles.

Events

Allow to view and configure logging of login events.

Backup and restore of EFM User Management

The vital information from Authentication server can be backed up and restored. There are shell scripts developed which takes backup and restore if required. The following is the Process by which it could be achieved.

Prerequisites: Installation of authentication server rpm and asset manager config rpm.

For Backup:

Stop authentication server if already running

```
service authentication-server stop
```

Execute the `data-backup.sh` script with the parameter as file name to be backed up to. For example:

```
/opt/cisco/kinetic/efm_authentication_server/bin/data-backup.sh data--test-backup.tar.gz
```

The extension of `tar.gz` will be appended by code if not provided in the parameter. If the file to be created already exists, the code will exit and the existing file will not be modified.

For Restore:

Stop authentication server is already running - `service authentication-server stop`

Execute the script `data-restore.sh` with the parameter as file from which the restore should happen. For example:

```
/opt/cisco/kinetic/efm_authentication_server/bin/data-restore.sh data--test-backup.tar.gz
```

The Code will exit if the file does not exist.

The Code will create backup of data folder, if it already exists.

After restore is completed, run the following script to update the required configuration with latest ID. Do not change any configuration when asked during script execution.

```
/opt/cisco/kinetic/efm_authentication_server/bin/configure_asset_manager.sh
```

References

The Cisco EFM User Management system is uses the KeyCloak system as a core component for identity and access management. For more information on full functionality and capabilities, more information can be found at <https://www.keycloak.org/>.

For more a more advanced configuration of the EFM User Management, also refer to the KeyCloak documentation at <https://www.keycloak.org/documentation.html> .

Obtaining documentation and submitting a service request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

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