



Data Flow Manager

# Data Flow Manager Installation Guide

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# Data Flow Manager Installation Guide

Use this installation guide to install Data Flow Manager.

## 1. Prerequisites

To use Data Flow Manager, you need the following:

- Running NiFi instances linked with a registry
- EC2/virtual machine
- SMTP server
- LDAP

## 2. Installing Data Flow Manager

Follow step-by-step instructions to install and configure Data Flow Manager v2.1.4.

### Step 1: Install and set up PostgreSQL ([Install PostgreSQL](#))

- Create a database for Data Flow Manager.
- Create a User for the database (keep the username and password).
- Grant read/write access.

### Step 2: Install Node.js (if not already installed)

Download and install Node.js v20.12.0 from [Node.js Official Site](#).

- Create a database for Data Flow Manager.
- Create a User for the database (keep the username and password).
- Grant read/write access.

### Step 3: Install PM2

Install PM2 with the following command on your terminal.

```
npm install pm2 -g
```

### Step 4: Extract and Set Up Data Flow Manager

- Extract the zip file (dfm.zip).
- Go to the dfm folder.

```
cd dfm
```

- Create the ``.env`` file.

```
touch .env
```

- Add the required environment variables.

## Required Values for ENV in the server folder:

Update these values as per your environment

```
NODE_ENV= development/staging/production
PORT=8000

# DB creadentials
DB_USER = XXXXXXXX
DB_PASSWORD = XXXXXXXX
DB_NAME = XXXXXXXX
DB_PORT = XXXXXXXX
DB_HOST = XXXXXXXX
DB_CLIENT = XXXXXXXX

# SECRET KEY for token
JWT_SECRET = XXXXXXXX //mysecret
JWT_TOKEN_EXPIRATION = 'XXXXXXXXXX' // '1m' / '1h' / '24h'

# SMTP SERVICES for email
SMTP_SERVICE = XXXXXXXX
SMTP_HOST = XXXXXXXX
SMTP_PORT = XXXXXXXX
SMTP_SECURE = true
SMTP_USER = XXXXXXXX
SMTP_PASS = XXXXXXXX

# Client app URL for redirecting links to client
REACT_APP_URL = XXXXXXXX

DEFAULT_FROM_EMAIL = XXXXXXXX
PAGE_SIZE_FOR_LDAP = 1000
```

## Required Values for ENV in the client folder:

```
REACT_APP_API_URL=localhost:8000 // url used for backend
```

- Place the license.txt file inside the server folder: <dir>/dfm/server

### Step 5: Install Dependencies and Set Up the Database

Run the following commands:

- npm install
- npm run db:push
- npm run db:seed

### Step 6: Start the Application

Run the application using PM2

```
pm2 start ecosystem.config.js
```

The application should be accessible at port 8080.

## 3. Post Installation Steps

After successfully installing Data Flow Manager v2.1.4, follow these steps to access and configure the application.

### Step 1: Access the Web Interface

- Use Remote Desktop Protocol (RDP) to access your VM.
- Launch a web browser and navigate to:

[http://<VM\\_IP>:8080](http://<VM_IP>:8080)

Replace <VM\_IP> with your server's actual IP address.

### Step 2: Log in as Super Admin

- On the login page, switch to the Admin Login section.
- Use the default super admin credentials:
  - **Username:** superadmin@test.com
  - **Password:** Superadmin@123

### Step 3: Update Super Admin Profile

- Once logged in, navigate to Profile Settings.
- Update your email, password, and other details for enhanced security.
- Save the changes to personalize and secure your admin account.

Your Data Flow Manager is now fully set up and ready to use!

## 4. Set Up LDAP

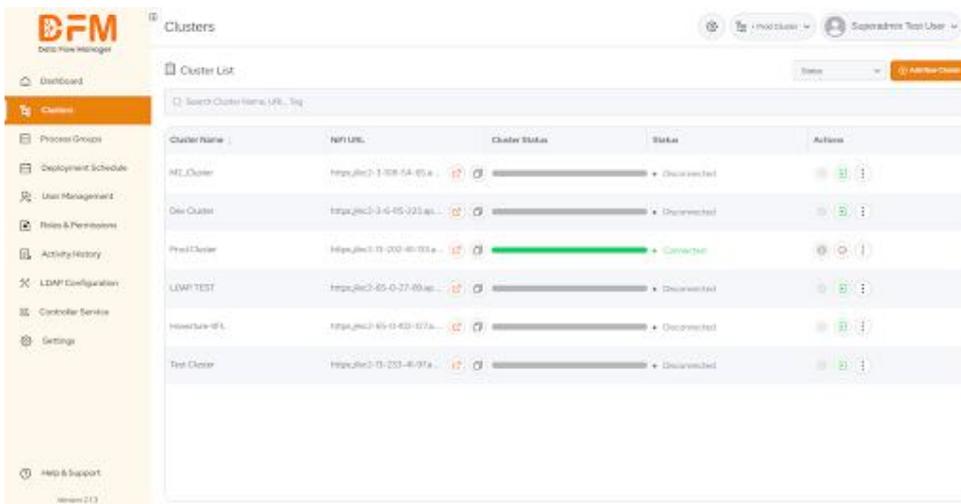
Go to the LDAP Configuration tab and fill in the below fields:

- URL
- Login DN (Distinguished name)
- Password
- Base DN
- UserDN (Directory path for the user)
- Group DN
- User Unique Identifier (This will be used to identify a user)
- Group Unique Identifier (This will be used to identify a group)

## 5. Onboard Clusters To Data Flow Manager

You can add as many clusters as you want from your NiFi instance to Data Flow Manager. To add a new cluster:

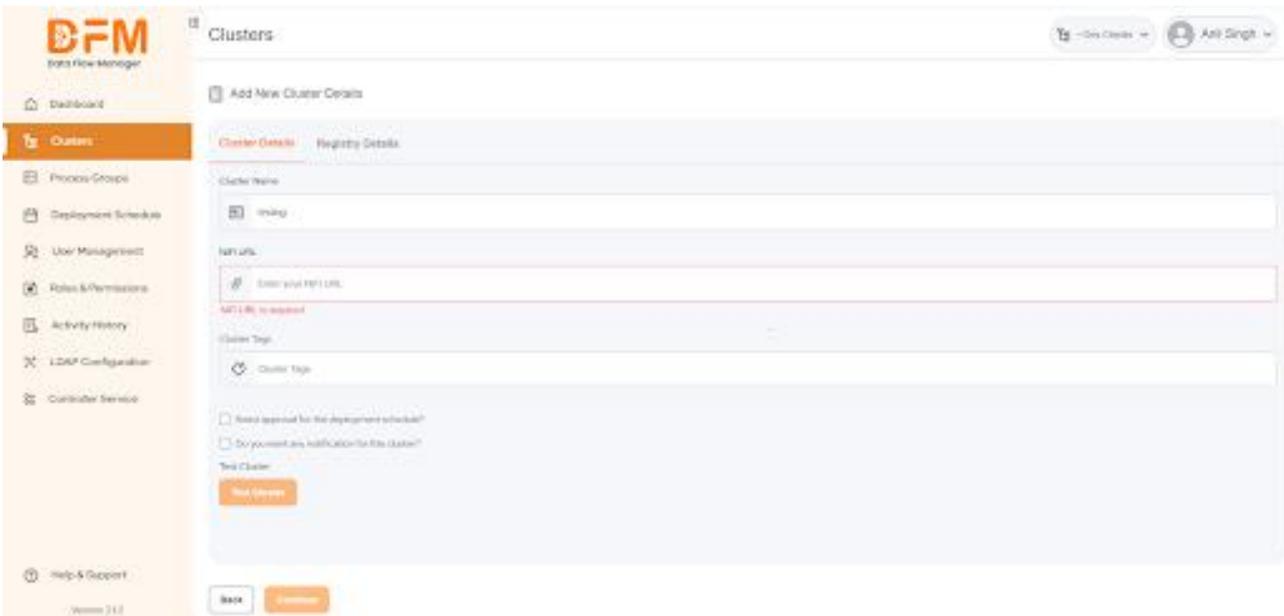
- Go to the Clusters tab.
- Click the button 'Add New Cluster' from the top-right corner.



The screenshot shows the 'Clusters' page in the Data Flow Manager interface. The page title is 'Clusters' and it includes a search bar for 'Cluster Name, URL, Tag'. Below the search bar is a table with columns: Cluster Name, NiFi URL, Cluster Status, Status, and Actions. The table lists several clusters:

Cluster Name	NiFi URL	Cluster Status	Status	Actions
NI_Cluster	https://ni-1-108-54-85.a...		Disconnected	
Dev Cluster	https://ni-3-4-45-223.ap...		Disconnected	
Prod Cluster	https://ni-11-212-40-223.a...		Connected	
UWATTEST	https://ni-65-0-27-85.ap...		Disconnected	
Investor-DFL	https://ni-45-14-42-072.a...		Disconnected	
Test Cluster	https://ni-0-233-4-912.a...		Disconnected	

- The first step is to enter the cluster details as follows:
  - **Cluster Name:** Enter the name of the cluster in this Input field.
  - **NiFi URL:** Enter the NiFi URL in this input field.
  - **Cluster Type:** Add cluster tags.
  - **Checkbox for approval of scheduled deployment:** This checkbox specifies if approval is required before the scheduled deployment is finalized. If selected, the scheduled deployment will not proceed until an authorized user approves it.
  - **Checkbox to receive notifications for the cluster:** This checkbox allows you to opt in to receive notifications related to the cluster you are onboarding. This could include alerts, status updates, and other relevant information about the cluster's operation. Enable this checkbox to receive cluster notifications; leave it unchecked to opt-out.
- **Add Certificate:** You can test the cluster by adding certificates or credentials.

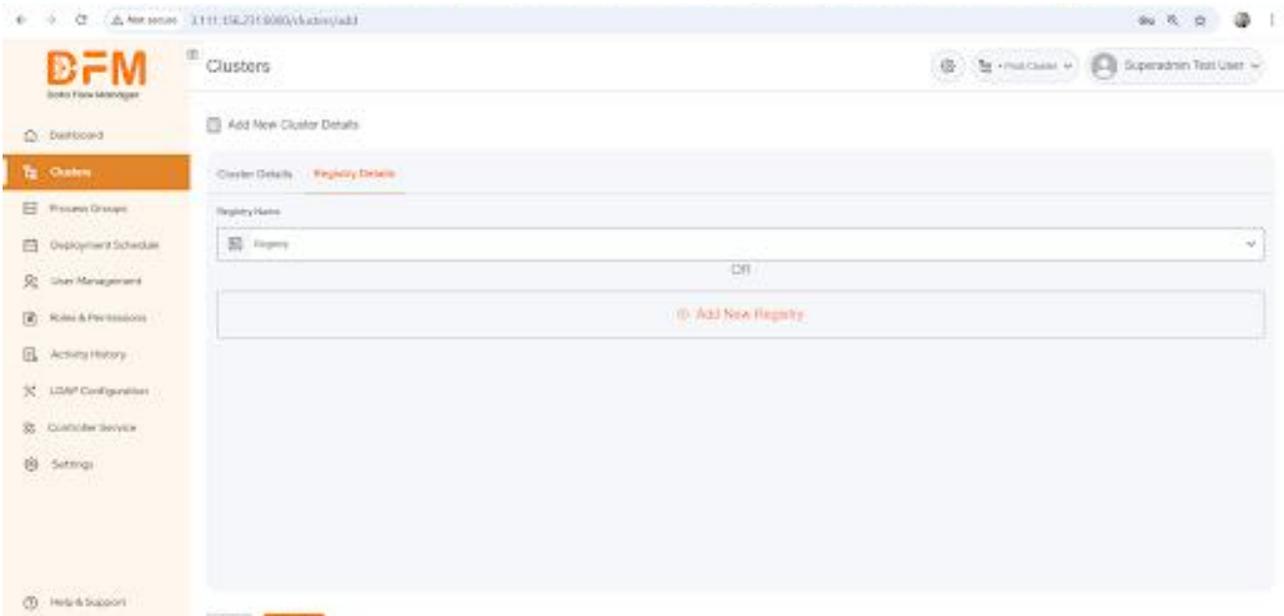


The screenshot shows the 'Clusters' page in the Data Flow Manager (DFM) interface. The page title is 'Clusters' and it includes a 'Back' button and an 'Add Single' button. The main content area is titled 'Add New Cluster Details' and is divided into two tabs: 'Cluster Details' (active) and 'Registry Details'. The 'Cluster Details' form includes the following fields and options:

- Cluster Name:** A text input field containing the value 'infig'.
- NiFi URL:** A text input field with a placeholder 'Enter your NiFi URL' and a red error message 'NiFi URL is required' below it.
- Cluster Type:** A dropdown menu with 'Cluster Type' selected.
- Approval and Notifications:** Two checkboxes: 'Need approval for the deployment schedule?' (unchecked) and 'Do you want any notification for this cluster?' (unchecked).
- Test Cluster:** A section with a 'Test Cluster' button.

At the bottom of the form, there are 'Back' and 'Continue' buttons.

- After validation, your cluster is added to the system. The successful onboarding of the cluster displays a confirmation dialog or success message.
- Click on "**Continue**" to proceed with registry details.



- You can either select an existing registry or add a new registry. Once you've entered the required information, click on Save to save the cluster details.

You can easily edit the cluster and registry details even after onboarding it to Data Flow Manager.