

# Advanced

## Advanced setup

### Contents

- [Values documentation](#)
- [Using a dedicated PostgreSQL database](#)
- [Configuring the storage path when using k3s](#)
- [Monitoring](#)
- [Components Configuration](#)
  - [Configuring Element Web](#)
  - [Configuring Synapse](#)
  - [Configuring Matrix Authentication Service](#)

## Values documentation

The Helm chart values documentation is available in:

- The GitHub repository [values files](#).
- The chart [README](#).
- [Artifacthub.io](#).

Configuration samples are available [in the GitHub repository](#).

## Using a dedicated PostgreSQL database

The stack can need up to 3 databases:

- For Synapse <https://element-hq.github.io/synapse/latest/postgres.html>
- For MAS <https://element-hq.github.io/matrix-authentication-service/setup/database.html>
- For GroupSync

To configure your own PostgreSQL Database in your installation, copy the file `charts/matrix-stack/ci/fragments/quick-setup-postgresql.yaml` to `postgresql.yaml` in your ESS configuration values directory and configure it accordingly.

For Group Sync, merge the file `charts/matrix-stack/ci/fragments/group-sync-test-postgres.yaml` together with `charts/matrix-stack/ci/fragments/group-sync-test-postgres-secrets-in-helm.yaml` in the `postgresql.yaml` of your ESS configuration values.

# Configuring the storage path when using K3s

K3s by default deploys the storage in `/var/lib/rancher/k3s/storage/`. If you want to change the path, you will have to run the K3s setup with the parameter `--default-local-storage-path <your path>`.

## Monitoring

The chart provides `ServiceMonitor` automatically to monitor the metrics exposed by ESS Pro.

If your cluster has [Prometheus Operator](#) or [Victoria Metrics Operator](#) installed, the metrics will automatically be scraped.

## Configuration

ESS Pro allows you to easily configure its individual components. You basically have to create a values file for each component in which you specify your custom configuration. Below you find sections for each component.

**If you have created new values files for custom configuration, make sure to apply them by passing them with the helm upgrade command (see [Setting up the stack](#)).**

## Configuring Element Web

Element Web configuration is written in JSON. The documentation can be found in the [Element Web repository](#).

To configure Element Web, create a values file with the JSON config to inject as a string under “additional”:

```
elementWeb:
  additional:
    user-config.json: |
      {
        "some": "settings"
      }
```

## Configuring Synapse

Synapse configuration is written in YAML. The documentation can be found [here](#).

```
synapse:
  additional:
    user-config.yaml:
      config: |
        # Add your settings below, taking care of the spacing indentation
        some: settings
```

## Configuring Matrix Authentication Service

Matrix Authentication Service configuration is written in YAML. The MAS documentation can be found [here](#).

See [this document](#) for additional ESS MAS documentation.

```
matrixAuthenticationService:
  additional:
    user-config.yaml:
      config: |
        # Add your settings below, taking care of the spacing indentation
        some: settings
```

# Configuring GroupSync

GroupSync configuration is written in YAML. The documentation can be found [here](#).

```
groupSync:  
  additional:  
    user-config.yaml:  
      config: |  
        # Add your settings below, taking care of the spacing indentation  
        some: settings
```

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