

Monitoring Xpand with Grafana

Xpand GUI provides information about current cluster operations and has historical information for the past 7 days (based on statd retention). If additional monitoring or a longer time range for historical data is required, external monitoring tools such as Grafana can be used. By exporting and storing clusters' statistical data outside of Xpand, longer term observations can be made without affecting production database performance.

To use [Grafana](#) with Xpand, you'll need to export data into time series format that Grafana understands. We looked at a few options and found InfluxDB (a time-series database) to work best. The downloadable package includes dull instructions to get [Grafana](#) with [InfluxDB](#) working with Xpand and are summarized here:

1. Download Grafana (Xpand has use versions 5.0.2 and 5.2.3)
 - a. <https://grafana.com/grafana/download>
2. Download InfluxDB (Xpand has used versions 1.4.2, 1.5.0, and 1.6.2)
 - a. <https://portal.influxdata.com/downloads>
 - b. Install python libraries for InfluxDB
3. Configure a Grafana database user for Xpand
 - a. <https://portal.influxdata.com/downloads>
4. Download and configure clustrix_statd_to_influx scripts
 - a. [clustrix_grafana.tar.gz](#)

The package includes the following dashboards:

- ClustrixDB_Cluster_Load.json
 - X Monitoring for multiple clusters (based on cluster_id tag).
 - Looks at common metrics associated with cluster load.
- ClustrixDB_Stats.json
 - X StatD Stats. View for a single cluster (choose from dropdown based off of cluster_id tag)
- Live_Cluster_Dashboard.json
 - Displays information about a cluster including: Hotness, QPC (Query Planner Cache), Replication and Rebalancer.

More information on StatD Metrics that can be added as graphs in Grafana can be found here: [StatD Metrics Documentation](#)

While Xpand has performed cursory tested for these scripts and dashboards and provides them as a guideline, but they are not officially supported by Xpand. Grafana and InfluxDB should be installed on a remote instance that is not running X.