

What's new in Grafana?

“What, no LaTeX Beamer?!”



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Visualizations

New data source features

Streaming & live updates

Dashboards as code

Library panels

Unified Alerting

Improved reporting*

Data source query caching*

Fine-grained access control*

ML and anomaly detection*

 **Grafana 8.0**

Datasources

Over 9000! (or, well, over 100)

- Zabbix, Prometheus, Splunk, Datadog, and New Relic
- Google Sheets
- JSON
- Azure Monitor
- AWS X-Ray
- Redis
- MongoDB, InfluxDB, Oracle, and MySQL
- GitHub
- Snowflake
- Jira





Open Source

Panel editor and visualizations

Improved panel editor

Better navigation and discoverability of the available panel options with the visualization picker, search, tabular view etc

New Timeseries panel

Faster panel for drawing graphs that replace the legacy Graph. Options like interpolation, soft min/max, nulls etc

Non-Timeseries panels

Easier to use Grafana with non TS data with new panel like histograms, bar charts, pie charts, state timeline, etc

-
- ✓ Easier and faster dashboard building
 - ✓ Better dashboards with customization options
 - ✓ Better performance with timeseries panel
 - ✓ Support of new use cases with non timeseries data



Metrics browsers

Metrics/Labels search

The metrics browser allows you to quickly find metrics and relevant labels to build queries faster

Automatic filtering of labels

The browser narrows down the available labels to show only the ones applicable to the metric. Stay focused!

Query validation & generation

Check how many time series are available for your selection, generate and run the query. The browser supports rate to help write queries for counter metrics

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- ✓ Accelerate writing PromQL queries, ease the learning curve
 - ✓ Democratize Prometheus for the less-technical users
 - ✓ Test queries before executing them
 - ✓ Find and discover data through metrics and labels search



Library panels

Share panels between dashboards

Reuse the same panel in multiple dashboards and have them automatically update everywhere when changes are made

Update all dashboards at once

Any updates made on the original panel will automatically be applied to all the dashboards where that panel has been used.

Central panel management

See where the panel is used, track modification, add it to new dashboards, and manage the lifecycle across dashboards

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- ✔ Reduce the time to build and update your dashboards
 - ✔ Eliminate the error risk of copy pasting
 - ✔ Enforce best practices and governance
 - ✔ Build shareable assets for the whole organization



Grafana Alerting ecosystem - so far

Grafana Alerts

- ✔ User friendly, integrated, Multi data sources
- ✘ Tied to dashboards, Graphs only

Prometheus Alerts Manager

- ✔ Powerful: deduplication, silencing, grouping, etc
- ✘ Not user friendly, Prometheus only

Grafana Cloud Alerts

- ✔ Powerful, easy to use
- ✘ Prometheus only, Cloud only



Alerting NG

Unified Alerting

Create Grafana, Prometheus and Loki alerts from the UI. Leverage the user friendly UI to enable all users to create alerts

Separate from dashboards

Pick a datasource, write a query, define a threshold and set a notification channel. No need to duplicate dashboards.

Access control

Grafana permissions on folders and data sources apply to alerts. Users can see only alerts that are authorized to.

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- ✓ Build multi-modal alerts with various data sources combinations
 - ✓ Build more generic and robust rules for fast alerting strategy implementation
 - ✓ Democratize alerts to less-technical users
 - ✓ Build a clear single story for alerting, regardless of the product



Real-time streaming

High speed rendering

The new graph panel can render 30 fps for live streaming!
Integrate with data sources such MQTT or streaming APIs

MQTT Datasource

Live updates can be sent to dashboards over a websocket connection with the MQTT data source

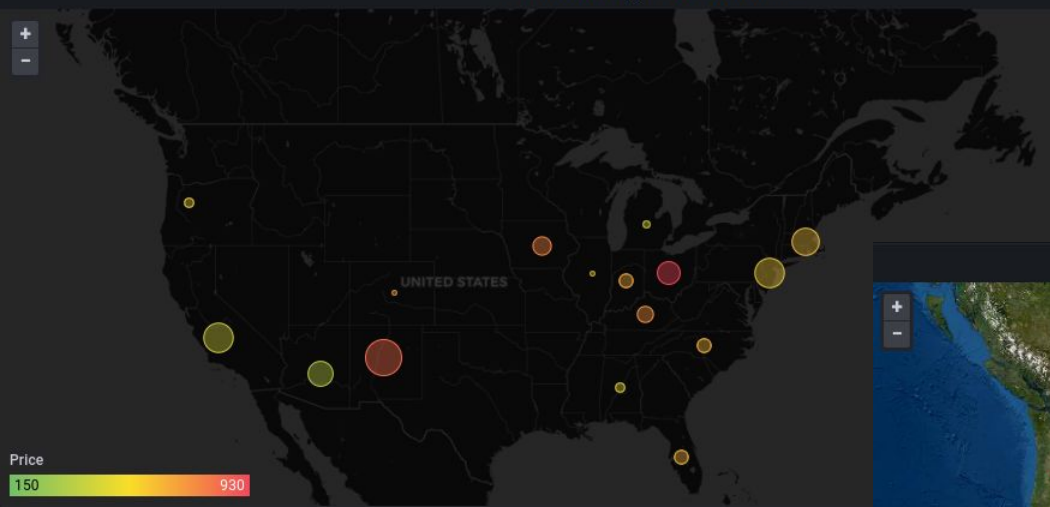
Grafana Live

Events can also be sent to dashboards by posting metrics to the new live endpoint `/api/live/push` endpoint or via `pub/sub` mechanism

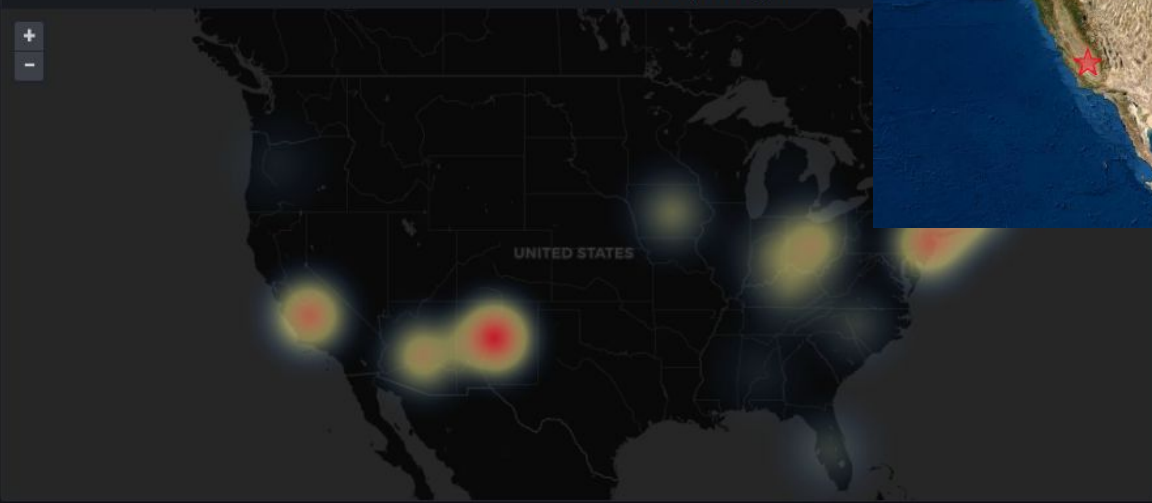
-
- ✓ Faster and real-time insights with the new graph panel
 - ✓ Better support for IoT and industrial use cases
 - ✓ Foundation to support more steaming data source
 - ✓ Enable new use cases (ex. dashboard synchronization)



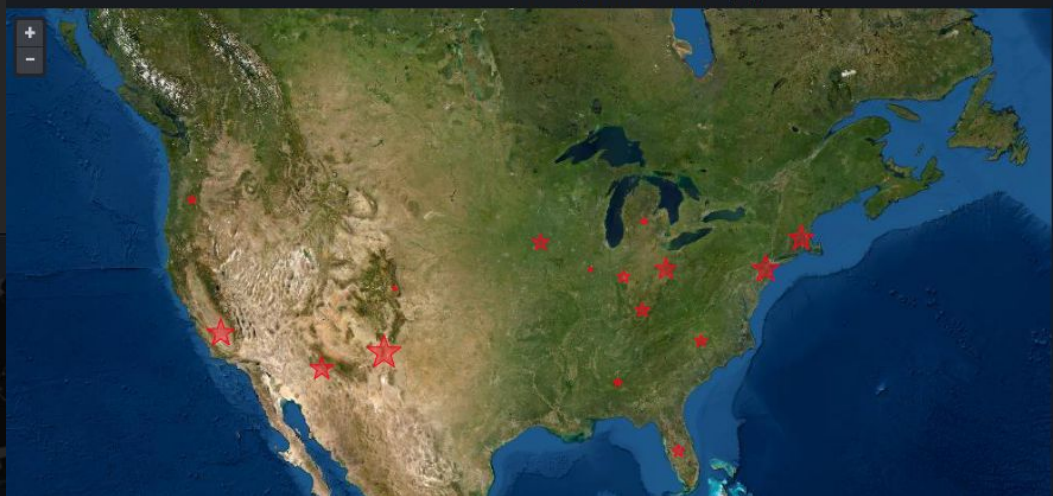
Size and color mapped to different fields



Heatmap data layer



Base layer ArcGIS world imagery





Enterprise / Cloud

Query caching

Improved performance

Reduce the response time of the same query run subsequent times. Load important dashboards faster

Easy configuration

Enable per datasource. TTL can be defined globally or per datasource. Dashboards show when data is from the cache

Supported data sources

Requires a backend datasource plugin to work. All Enterprise plugins are backend datasources.

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- ✔ Save money with data sources that charge by query/read path
 - ✔ Reduce the load, hence the cost, of your backend
 - ✔ Load dashboards faster for faster resolution
 - ✔ Avoid rate limits



FGAC

Standardize access control

Dissociation between permissions, roles and assets gives more flexibility and better coverage (ex. Reports ACL)

Enable new use cases

Allow viewers to create reports, Allow editors to read stats or licensing details, Deny creating local users, etc

API or Provisioning

Roles and permissions can be defined by API or Provisioning currently. Full GUI integrations is on the roadmap

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- ✔ Democratize more features to more users
 - ✔ Ease the multi-tenancy management of Grafana
 - ✔ Backward compatible out of the box
 - ✔ Integrate with your automation tools



Reporting updates

Template
variables
support

Export files and
send dashboard
links

Support
repeated panels
and rows





Starting today 16:00 UTC

<https://grafana.com/about/events/observabilitycon/2021/>



Thank you

[@TwitchiH](#)