Monitoring and Log Management

Icinga, Influxdb, Grafana
NETS1037 - Winter 2016

Extending Monitoring

- Nagios is a monitoring package which has been around for a long time

- It is regularly criticized for being difficult to set up, administer, scale

- Icinga was designed to replace it while reusing many components of nagios

- The typical icinga install also installs many nagios plugins and tools

Icinga2

- Icinga is actively being developed and Icinga2 is the current major version

- It is available as a package for several distros

- The basic setup provides a similar toolset to librenms

- It is much more expandable and leverages much of the nagios public domain components, so it may be a better choice than librenms for larger, more actively monitored networks

Using External Data Storage and Visualization

- Icinga and the other programs like it have their own internal storage of data and tools to view that data

- No one tool solves all problems, so they also provide multiple means of forwarding their gathered data to other data storage tools, such as graphite or influxdb

- Various visualization tools can use that stored data to provide novel or custom views such as grafana

Metrics Capture w/ Influxdb

- Influxdb can be used as a storage platform for data gathered by icinga

- It is simple to set up and is compatible with the standard graphite data feed from icinga and similar packages

- It requires very little database knowledge to use in this manner

- It allows storage of data without having to know what data that will be ahead of time, so it is trivial to store new data items

Metrics Viewing w/Grafana

- Grafana is a visualization tool

- It allows creation of arbitrary dashboards showing various types of graphics for viewing data from any of several sources

- You set up a source for data then create dashboards of views

- The views are created by selecting for the available data items in the data source, so as the source acquires new data items, it is trivial to add visualizations of that data

Extended Monitoring w/ Icinga2

- Install icinga2 package (add-apt-repository ppa:formorer/icinga)

- Install icinga2-ido-mysql and enable (icinga2 feature enable ido-mysql) then restart icinga2

- Install extras to make icinga2 run better: php5-gd, php5-intl, php5-imagick, set timezone in /etc/php5/apache2/php.ini, restart apache2

- Install icinga2web and configure at web interface (icingacli setup token create)

- Add network objects and services to monitor