Centinel: Beryllium: Release Review

Contents

Features

- Stream collection: Syslog,AVRO and JSON streams were supported in Be-release
- Persistence: Flume based persistence layer. Hbase is used for persistence
- Search and analyze:
  - Support for SQL query.
  - Time range for search can be specified. Histogram for search results.
- Custom Dashboard :
  - Build pre-defined views on data by adding widgets. Domain expert can define search query and save results on dashboard.
  - Search result type : Counts, Search result histogram charts.
- Real-time event generation (Intercepted logs and Alarms) based on Rules :
  - Intercepted logs: Mechanism to route messages into categories in real time while they are processed like stream for audit logs(install bundle etc.) .
  - Alarms: Alerts get generated based on specific event matching in real-time. Alarm condition types includes Message count condition, Field value condition,Field string value condition
- Subscribe event: Northbound of Centinel can subscribe for events in real time by registering HTTP link to specified types of events. Subscribed

events will be sent to northbound via HTTP post operation.

- Web interface : Enable set rule, search, visualize, alert, dashboard, subscribe etc.

Non-Code Aspects(user docs, examples, tutorials, articles)

- User Guide(s)
  - Centinel User Guide
- Installation Guide(s)
  - Centinel Installation Guide
- Release Notes
  - Release notes

Doc commits:

- 29441

Architectural Issues

- N/A

Security Considerations

- Currently syslog messages from device to collector are not encrypted. Also, connection from flume client to flume server is not secured. We will support data encryption in Centinel by Beryllium SR1.
  - Patch supporting TLS between external log host and collecter is merged(https://git.opendaylight.org/gerrit/#/c/35967/)
    - Operator can dynamicaly configure via UI/REST syslog collector type as Secure or Unsecure(for better performance)
    - Provides two way authentication between device and collector
    - Certificate and keys are saved in java keystore(jks)

Quality Assurance (test coverage, etc)

- Unit testing is done for all features. Unit test coverage is 65%.
- Unit testing: Used JaCoCo for code coverage visibility
- Manual system tests performed with success.
- No blocking issues identified as yet.

End-of-life (API/Features EOLed in Release)

As this is the first release of Centinel in ODL, there are no EOL APIs nor features in this release.

Bugzilla (summary of bug situation)

Bugzilla tracks the following:

- 29 bugs/enhancement were reported in Beryllium.
- 17 fixed and 12 deferred to future releases considering the low severity and time limit in Beryllium.

Currently Open Centinel bugs in bugzilla

Standards (summary of standard compliance)

Not applicable

Schedule (initial schedule and changes over the release cycle)

The project's mostly complied with its schedule.