rcl_logging_syslog

- ROS 2 rcl logging implementation built on syslog(3).
- Connects with rsyslog and FluentBit.

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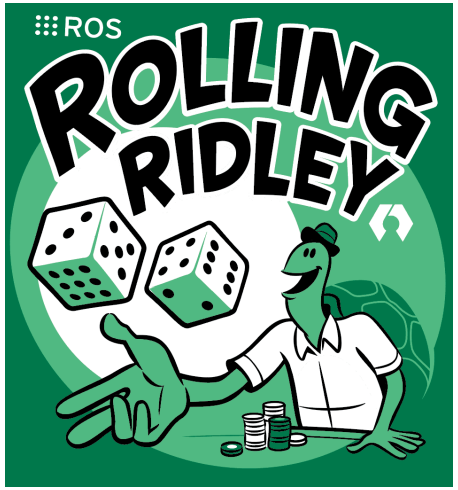

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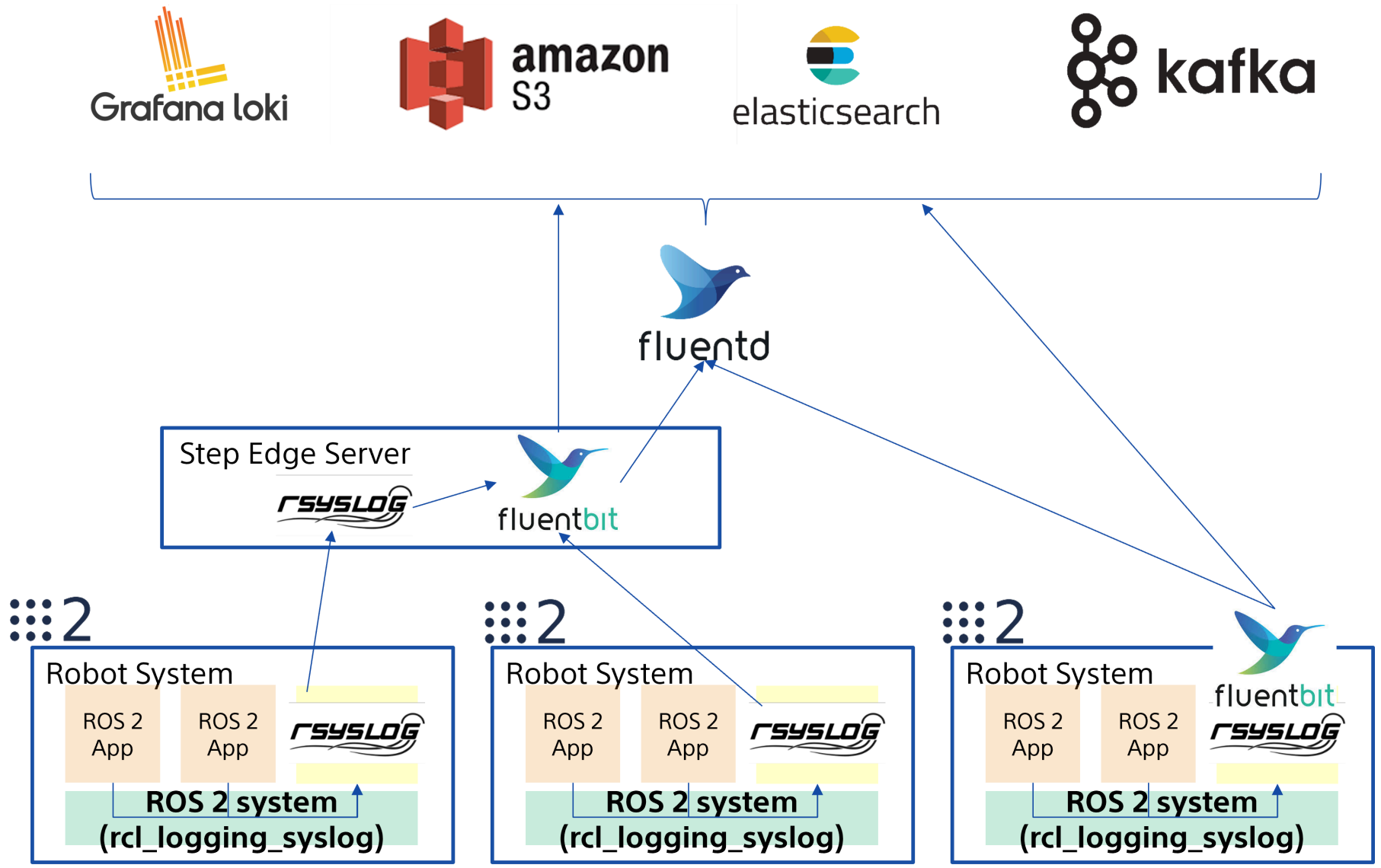
Objectives

- Configure log behavior without code change.
- Reasonable Performance.
- Log data pipeline and forward capability support.
- Enabling ROS 2 logging system with Cloud-Native Log Management and Observability.


Grafana loki
amazon S3
elasticsearch
kafka
fluentd
Step Edge Server
rsyslog
fluentbit
ROS 2
Robot System
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ROS 2
Robot System
fluentbit
ROS 2 App
ROS 2 App
rsyslog
ROS 2 system
(rcl_logging_syslog)

Demo FluentBit

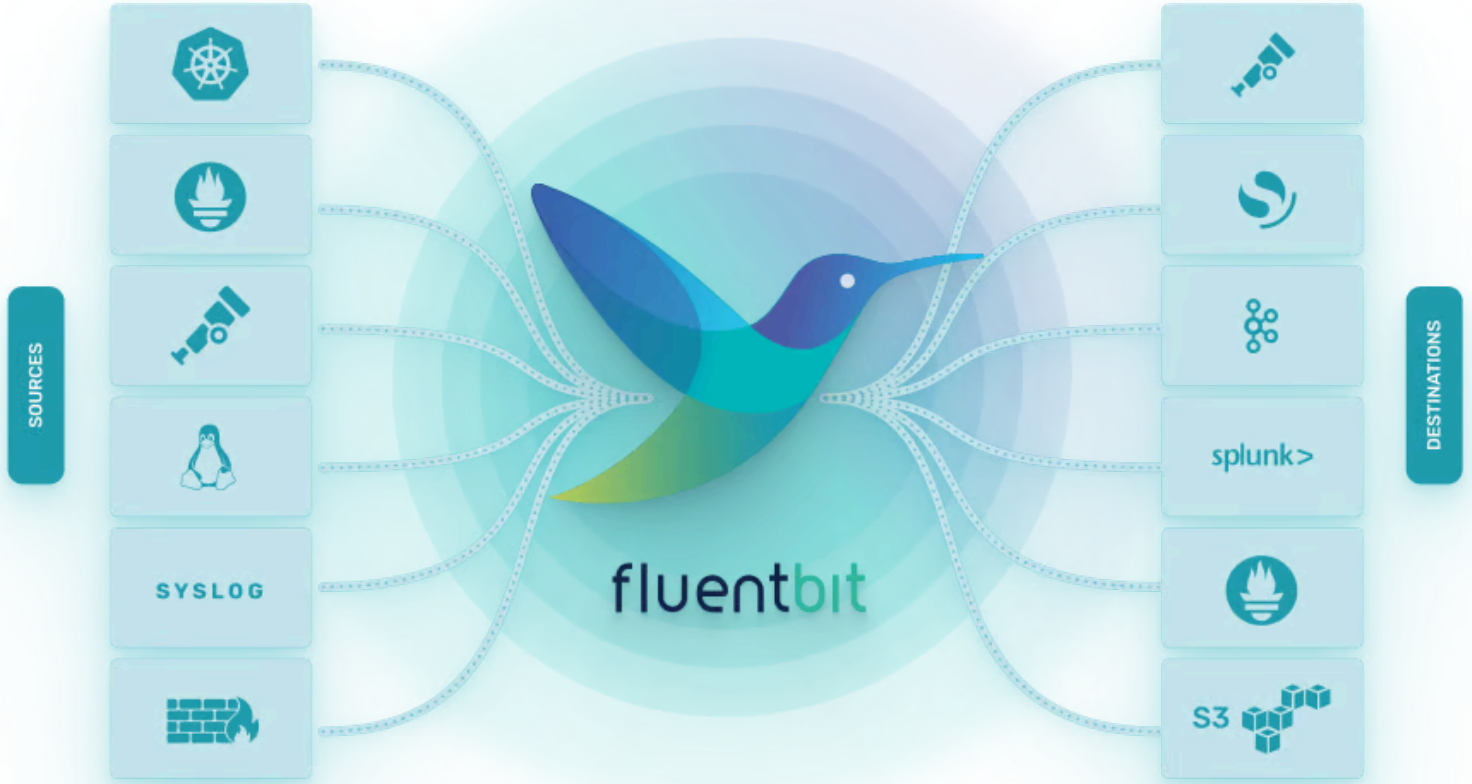
Demo Fluentd/Loki/Grafana

rsyslog

a.k.a rocket-fast system for log processing 🚀🚀🚀

rsyslog is available in default Ubuntu distribution managed by system service, performative, and many configuration supported including log data pipeline.
So that user can choose the logging configuration depending on the application requirement and use case, sometimes file system sink, sometimes forwarding to remote rsyslogd, or even FluentBit.

FluentBit



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- Lightweight and Efficient: suitable for environments with limited computational power.
- High Performance: capable of handling high-volume data streams with minimal latency. It leverages asynchronous I/O and efficient data processing techniques to ensure optimal performance.
- Flexibility: supports a wide range of data sources and destinations.
- Configurability: offers a flexible configuration language that allows you to customize its behavior to fit your specific needs.
- Extensibility: highly extensible through plugins including custom ones.
- Scalability: easily scaled horizontally to handle increasing data volumes by deploying multiple instances.
- Reliability: features like fault tolerance and retry mechanisms to ensure data reliability.

Issues and PRs always welcome 🚀

https://github.com/fujitatomoya/rcl_logging_syslog

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