Fast Lane

Loki: Praxiskurs Log-Management und Log-Analyse (XAM-LOKI-1)

ID XAM-LOKI-1   **Prix** sur demande   **Durée** 2 jours

A qui s'adresse cette formation

The training is aimed at developers and administrators as well as architects and decision-makers with a high level of technical interest. The participants have to master the basics of Linux system administration. They need to be able to proficiently use the command line, edit files on the command line, and manage system services. Basic knowledge of Prometheus and Kubernetes as well as regular expressions is required in parts of the course.

Objectifs

Participants learn to use Loki to centrally store log messages and analyze them across multiple sources. Special emphasis is placed on log data collection and preprocessing to ensure efficient searching of the collected data. Participants use LogQL to analyze log messages and learn how to graphically display log data in Grafana. In addition, the course addresses linking log content in Loki with monitoring metrics in Prometheus and collecting log messages from applications in Kubernetes.

Contenu

Introduction to log management with Loki

- Principles of log management
- Architecture of Loki
- Streams, labels, indexes and log messages

Collecting log messages with Promtail

- Log messages from log files
- Log messages from the systemd journal
- Overview of other log sources (syslog, Windows Event Logs, batch processing, …)
- Relabeling, especially in Kubernetes

Promtail pipelines

- Parsing log messages (logfmt, JSON, regular expressions)
- Changing timestamps, labels and log messages
- Processing multiline messages

- Filtering log messages
- Different handling of specific messages

Accessing log data

- logcli
- Grafana

LogQL

- Stream selection, log message filtering and full text search
- Extracting and comparing information from log messages
- Changing labels and log messages
- Metrics based on log messages
- Functions and operators for metric queries

Integration of Loki and Prometheus

- Labels in Loki and Prometheus
- Common display of logs and metrics in Grafana
- Provision of Prometheus metrics in Promtail
- Recording and alerting rules and alerting with AlertManager
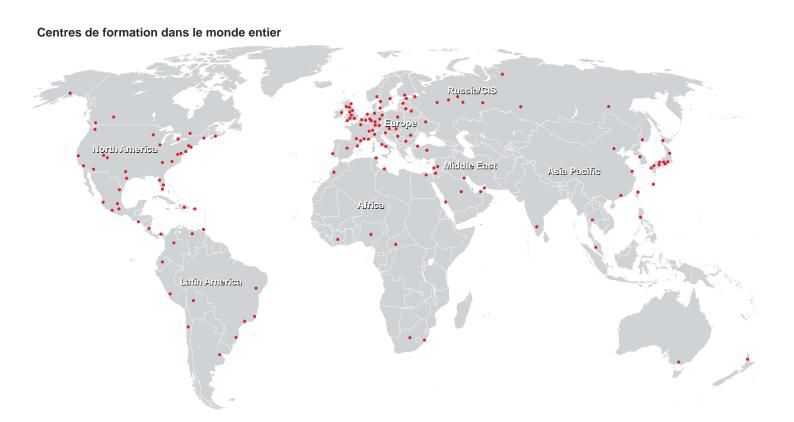
Logging in Kubernetes

- Promtail for container logs
- Promtail as sidecar container

Overview of advanced topics

- Configuration of storage and retention
- Clustering and high availability
- Multi Tenancy, authentication and limits

Best practices

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Centres de formation dans le monde entier

Fast Lane Institute for Knowledge Transfer (Switzerland) AG

Husacherstrasse 3
CH-8304 Wallisellen
Tel. +41 44 832 50 80

info@flane.ch, https://www.flane.ch