

Monitoring JAVA Application Servers

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Introduction

- Introduce a platform for effective JAVA application monitoring used by different CERN communities.

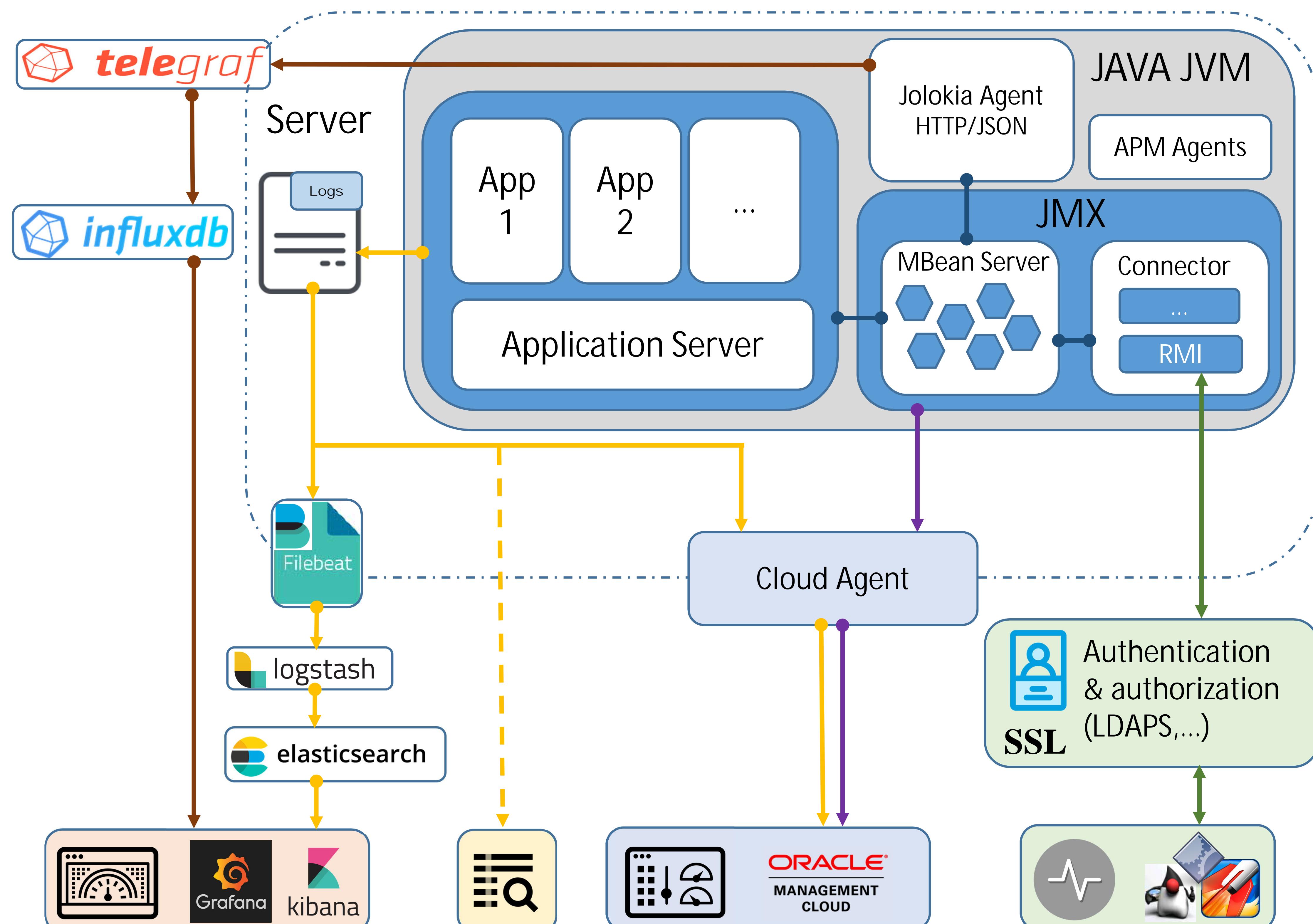
Deliverables

- Ability to locate errors quickly
- Flexible dashboards
- Immediate feedback

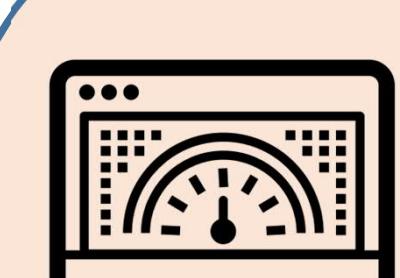
Challenges

- System scalability
- Historical data collecting
- Diversity of sources
- Community separation
- Application logging standardization

Monitoring Infrastructure

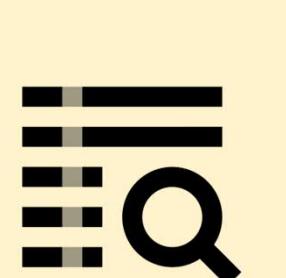


Pros & Cons



Dashboard Analysis

- Conveniences
 - Data drill down
 - Dedicated dashboards
 - Collective overview
- Inconveniences
 - Dashboard load time depends on the amount of data
 - Only stored data



Log Analysis

- Conveniences
 - Post analysis processing
- Inconveniences
 - Data filtering
 - Access control
 - Individual cases



Cloud Monitoring

- Conveniences
 - Forecastable costs
 - High availability
 - Data drill down
 - Dedicated dashboards
 - Collective overview
- Inconveniences
 - Internet connection
 - Data privacy



Live Monitoring

- Conveniences
 - Control & awareness
 - Easy access rules
 - Application profiling
 - Connect with client tools
- Inconveniences
 - Set up & configuration

Future Evaluation

- Instance behavior tracking (flight recording)
- Kubernetes cluster monitoring

References

- Borja Aparicio Cotarelo - poster, Oracle Weblogic on Kubernetes CHEP 2018 Conference, Sofia, Bulgaria
- Scott Hurley (2018), Configuring Technologies to Work with Java Mission Control <https://db-blog.web.cern.ch/blog/scott-james-hurley/2018-10-configuring-technologies-work-java-mission-control>
- Viktor Kozlovszky (2018), JMX connection with SSL <https://db-blog.web.cern.ch/blog/viktor-kozlovszky/2018-10-jmx-connection-ssl>
- Scott Hurley (2018), Java Mission Control Evaluation <https://zenodo.org/record/1470508#.XD9PgpxTxmF>

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