

Building better monitoring

Site Reliability at ING

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2017

Monitoring?

What is it?
Why is it important?
Why do we need it?

Monitoring services in production

Past
Present
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Demos

Nolio Change
Forwarder
NginxLogAggregator
Prometheus

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Monitoring?

What is it?

“Regular measurement of a service’ capability to deliver an expected outcome.”

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Monitoring?

What is it?

“Regular measurement of a service’ capability to deliver an expected outcome.”

- ▶ measurement
- ▶ service
- ▶ expectation

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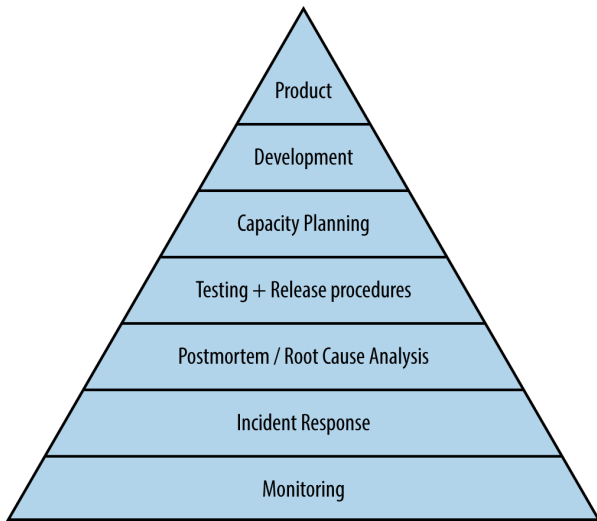
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Why is it important?



Service Reliability Hierarchy[1]

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Monitoring?

Why do we need it?

- ▶ **Usability** Does my service perform sufficient from a (service) consumer perspective?
- ▶ **Capacity management** Does my service have sufficient resources?
- ▶ **Chain management** Is my business process functioning?
- ▶ **Impact management** What is the effect of \$CHANGE or \$INCIDENT on my business critical processes?
- ▶ **Service level management** Does my business process comply with agreed performance standards?[2]

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One team

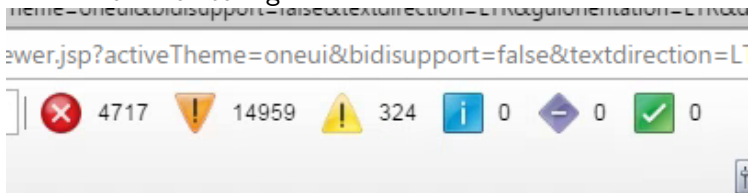
MCR

"Manual" monitoring

One Tool

Centralized managed service

IBM Tivoli Monitoring



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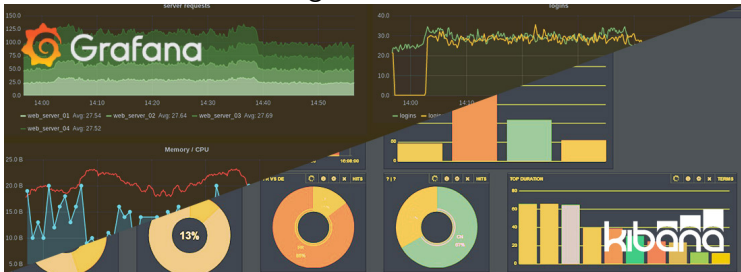
Present

Everyone

”Manual” monitoring

Metrics!

Decentralized semi-managed service



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Everyone

Automated monitoring

Alerts!

Fully decentralized, unmanaged



Prometheus

An open-source service monitoring system and time series database.

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- ▶ kibana
- ▶ docs

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**Nolio Change
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NginxLogAggregator

- ▶ dashboard
- ▶ combining sources of information

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Prometheus

- ▶ prometheus
- ▶ alertmanager
- ▶ mattermost
- ▶ slack
- ▶ docs

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Summary

- ▶ Monitoring is the **foundation** of service reliability[?]
- ▶ Build **automated** monitoring.
- ▶ Existing tools can offer **new opportunities** to gain more insight in the performance of systems in (production) environments.

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For Further Reading I

 Betsy Beyer, Chris Jones, Jennifer Petoff, Niall Richard
Murphy
Site Reliability Engineering.
O'Reilly Media, 2016.

 Chris Jones, John Wilkes, Niall Murphy, Cody Smith
Service Level Objectives
Site Reliability Engineering, ch04 2016.
[https://www.safaribooksonline.com/library/
view/site-reliability-engineering/
9781491929117/ch04.html](https://www.safaribooksonline.com/library/view/site-reliability-engineering/9781491929117/ch04.html)