



Oracle Management Cloud: A unified monitoring platform

Openlab Technical Workshop

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What is a Monitoring Platform?

- Centralized system for:
 - Detection
 - Containment
 - Remediation

What is a Monitoring Platform?

- Centralized system for:
 - Detection
 - Containment
 - Remediation
- Ensures that incidents:
 - Identified
 - Analyzed
 - Reported
 - Took Action

System Specifications

- Unified Platform for
 - Data Ingest
 - Storage
 - Analytics

System Specifications

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- Architecture
 - Extensible
 - Pluggable
 - Modular

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- Data Access
 - Dynamic Dashboards
 - Command Line Access
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- Unified Platform for
 - Data Ingest
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 - Dynamic Dashboards
 - Command Line Access
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 - Extensible
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 - Modular
- Security
 - Authentication
 - ACLs

System Architecture

More discussion about infrastructure and the architecture?

Visit us in the poster section:

- **Monitoring Java Application Servers**

System Architecture

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Through our collaboration with Oracle we decided to evaluate a similar platform. Why?

- We wanted to evaluate some features that our own platform does not have

Because the first evaluation period was short

- We were granted ~110.000\$ in Oracle Cloud credits and 6+1 months of evaluation

Oracle Management Cloud

Welcome to Oracle Management Cloud



Application Performance Monitoring

Rapidly identify, response, and resolve your software roadblocks



Infrastructure Monitoring

Monitor your entire IT infrastructure - on-premise or on the cloud - from one unified platform



Log Analytics

Topology aware log exploration and analytics for modern applications and infrastructure



IT Analytics

Operational big data intelligence for modern IT

Select



Configuration and Compliance

Automate application and infrastructure configuration assessments



Security Monitoring and Analytics

Detect, investigate and mitigate security threats



Orchestration

Schedule, execute and report on tasks at scale



Dashboards

Build custom dashboards using out-of-the-box widgets or your own visualization of data



Explorers

Search, analyze, and visualize data

Select



Mobile Application

Click the icon to get your account QR code



Components Evaluated

- Log Analytics
- Infrastructure Monitoring
- Application Performance Monitoring

Welcome to Oracle Management Cloud



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Infrastructure Monitoring

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Log Analytics

Topology aware log exploration and analytics for modern applications and infrastructure

Log Analytics

- A component to:
 - Display log records
 - Extract the log line into several fields
 - Create Graphs
 - Write Rules for Alerting on potential issues

Log Analytics

- A component to:
 - Display log records
 - Extract the log line into several fields
 - Create Graphs
 - Write Rules for Alerting on potential issues
- Visualizations
 - Records with/without Histogram
 - Table with/without Histogram

 - Pie
 - Bar / Horizontal Bar
 - Summary Table
 - Treemap
 - SunBurst
 - Tile
 - Line

 - Cluster
 - Link

Data Sources and Graph

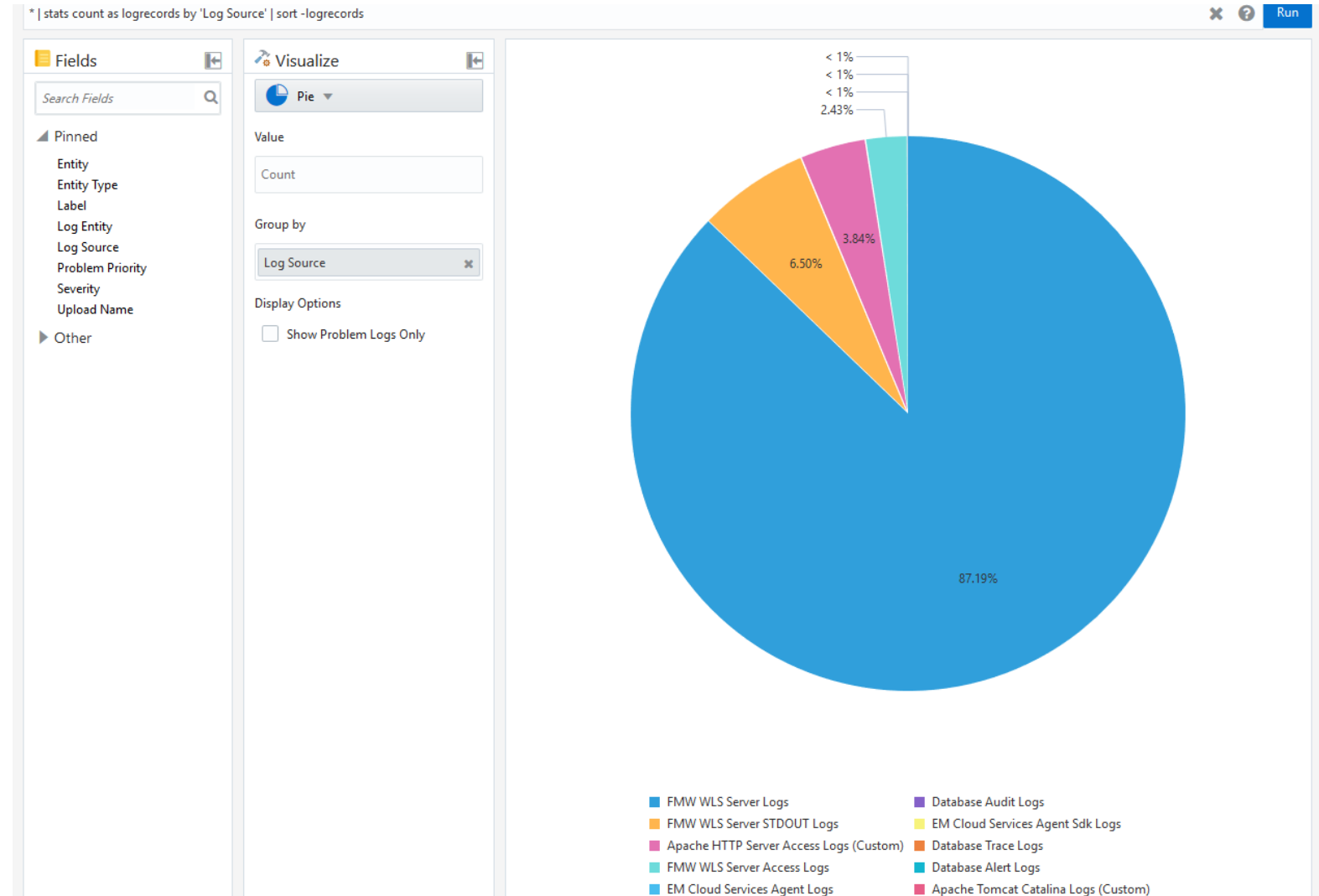
Sources of Data

- WebLogic Logs
- Tomcat Logs
- Apache Logs
- Application Logs
- Database Logs
 - Alert
 - Trace
 - Audit

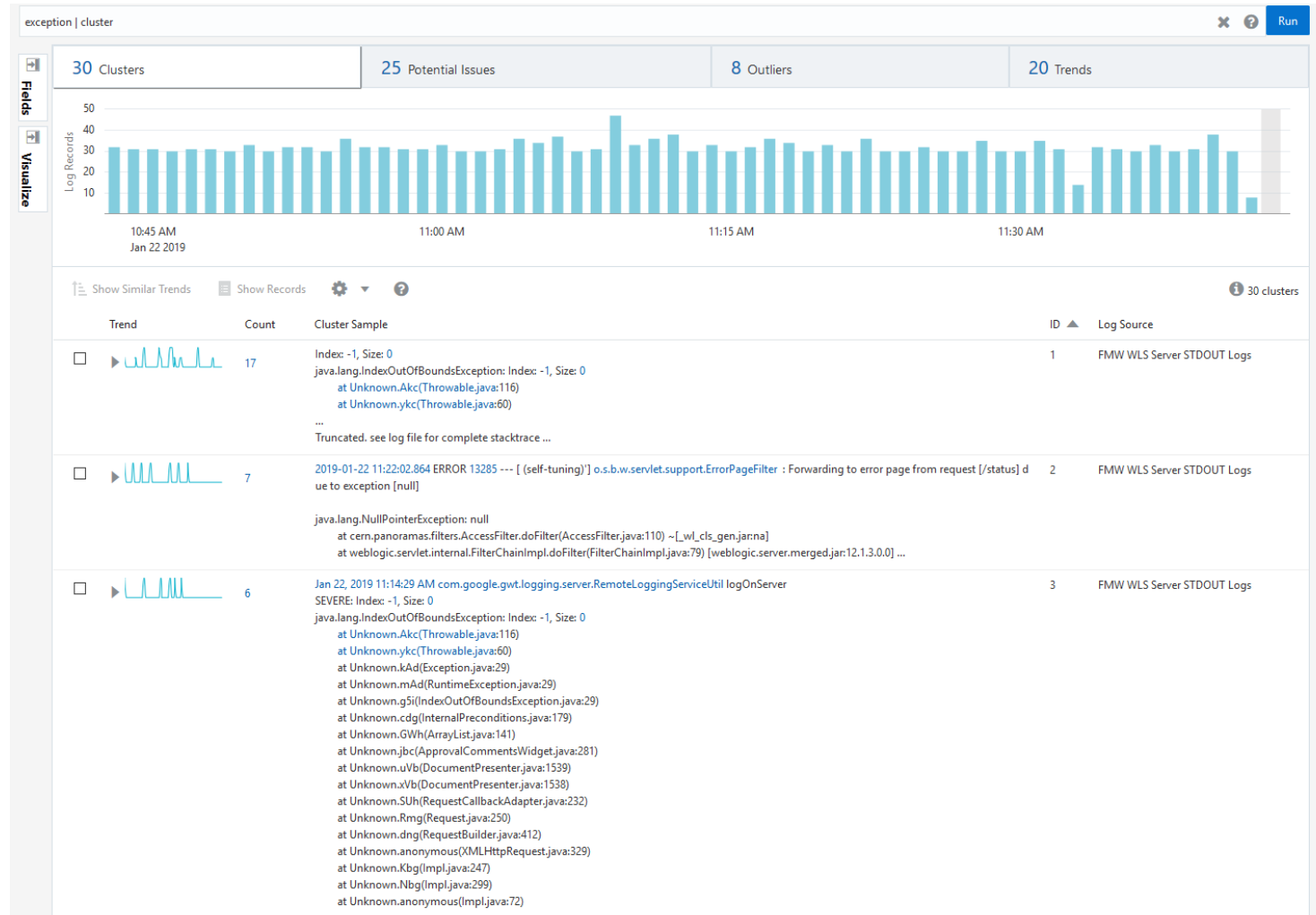
Data Sources and Graph

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- Database Logs
 - Alert
 - Trace
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Cluster



Infrastructure Monitoring

Collect metrics:

- **Java Virtual Machine**
 - HeapMemory
 - Garbage Collection
 - Threads
- **Host System**
 - CPU Usage
 - Ram Usage
- **Databases**
 - Memory Usage
 - Transaction Rate
 - IOPS

Infrastructure Monitoring

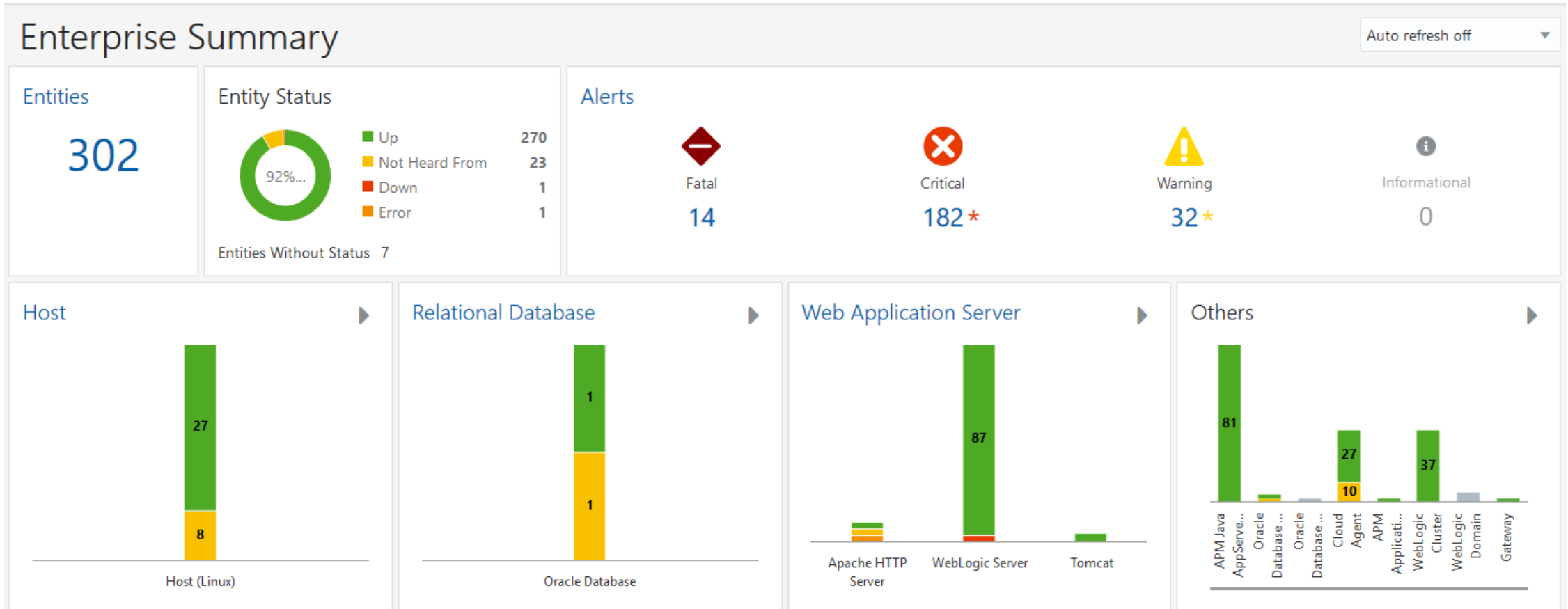
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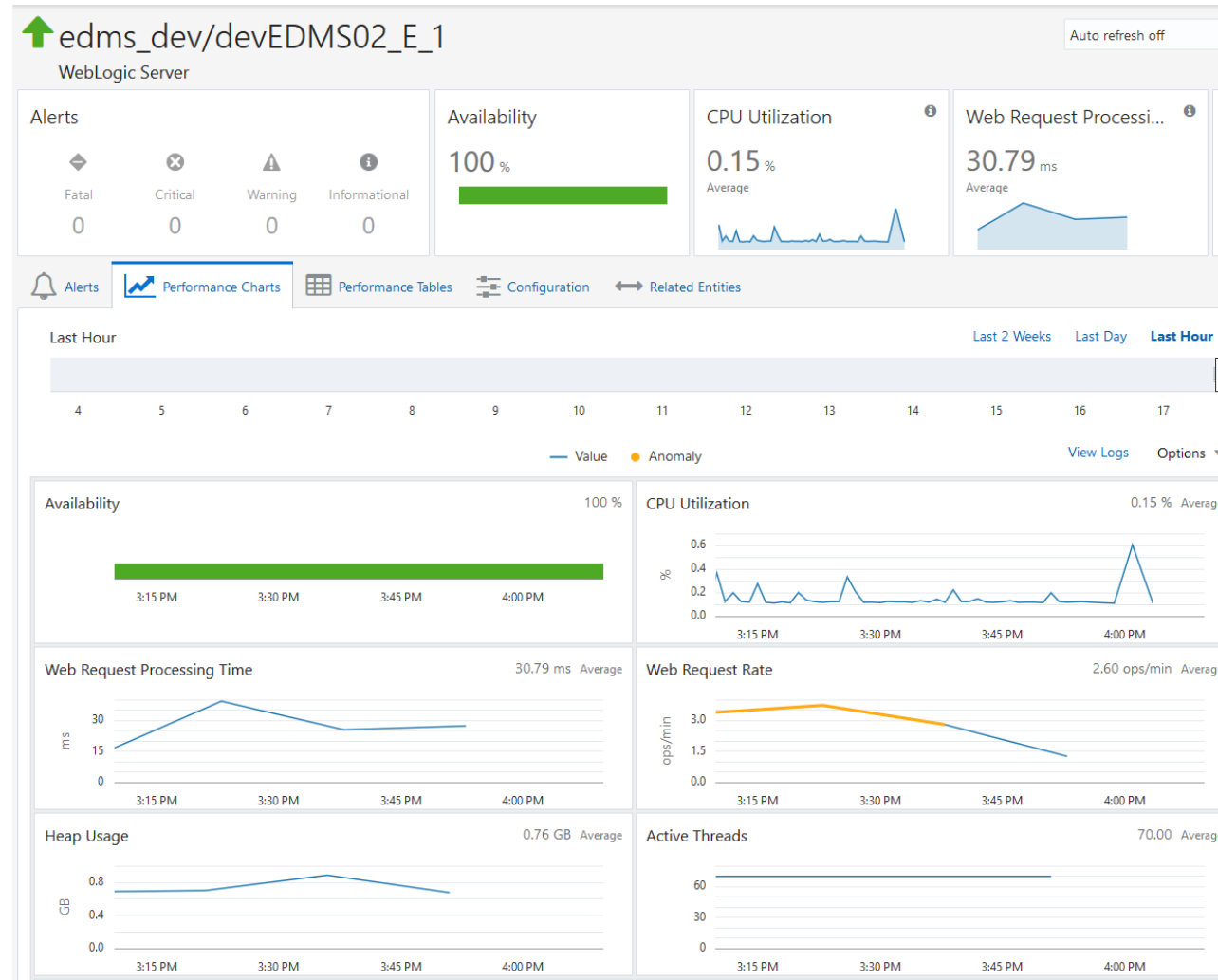
Alert on incidents based on specific conditions:

- **Fixed threshold**
- **Availability**
- **Anomaly**
- **Metric Error**

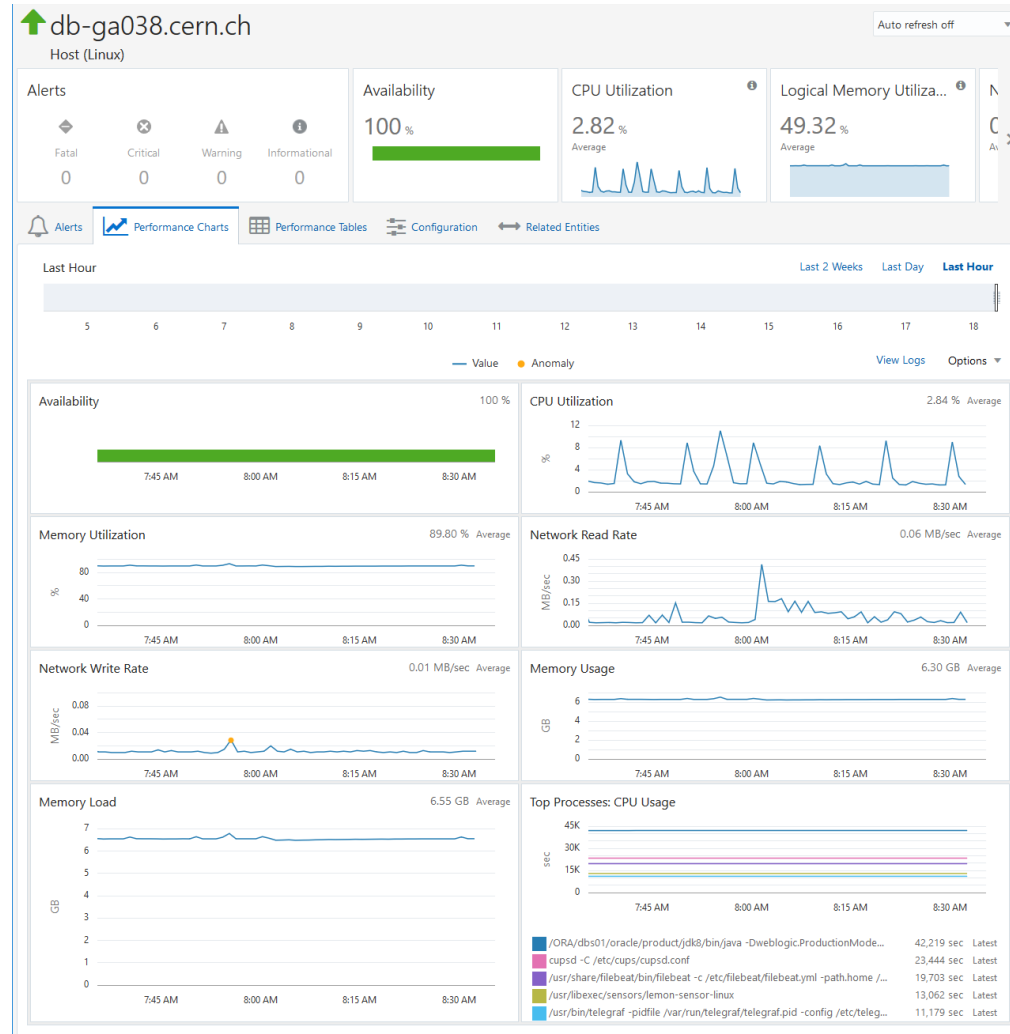
Enterprise Summary



Metrics from Weblogic Server



Metrics from host machine



Application Performance Monitoring

Monitor Web Pages

- Page load time
- Number of Views
- Number of Errors

Application Performance Monitoring

Monitor Web Pages

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- Number of Errors

Monitor Server Requests

- Request Response Time
- Tier Average Response
- Number of Errors
- Number of Calls

Application Performance Monitoring

Monitor Web Pages

- Page load time
- Number of Views
- Number of Errors

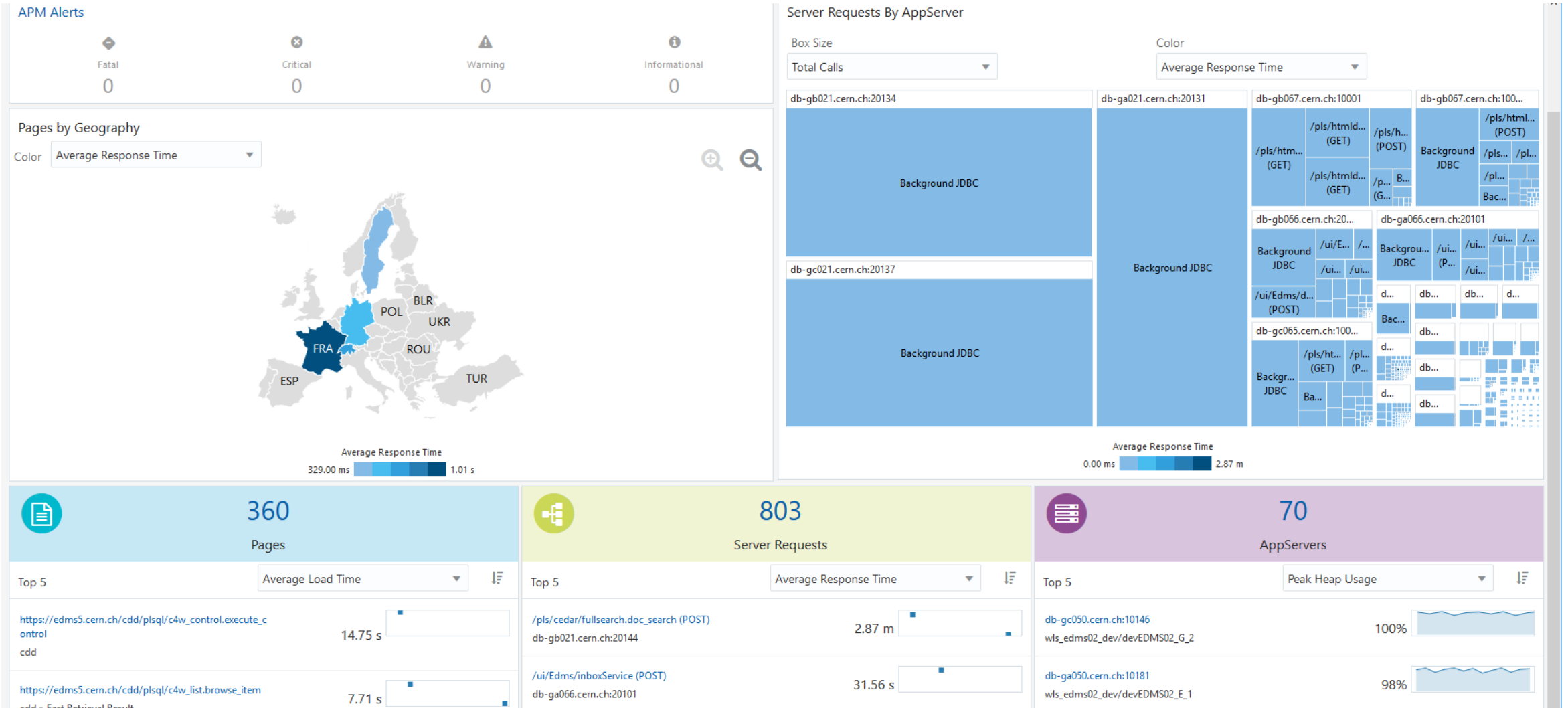
Monitor Application Servers

- Metrics
- Server Requests
- Database

Monitor Server Requests

- Request Response Time
- Tier Average Response
- Number of Errors
- Number of Calls

APM Overview



Application Summary

Home

APM Alerts

Fatal	Critical	Warning	Informational
0	0	0	0

Infrastructure Health

Hosts	AppServers	Databases
2	2	0
Up		

[Application Metrics](#) |
 [Performance Analysis](#) |
 [End Users](#)

Browser and Mobile Workload and Performance Metrics

SESSION HEALTH

1.00

- Frustrated
- Tolerating
- Satisfied

APDEX

1.00

- Frustrated
- Tolerating
- Satisfied

BROWSER TYPE

- Firefox
- Chromium
- IE
- Chrome

OPERATING SYSTEM

- Linux
- OS X
- Windows

DEVICE TYPE

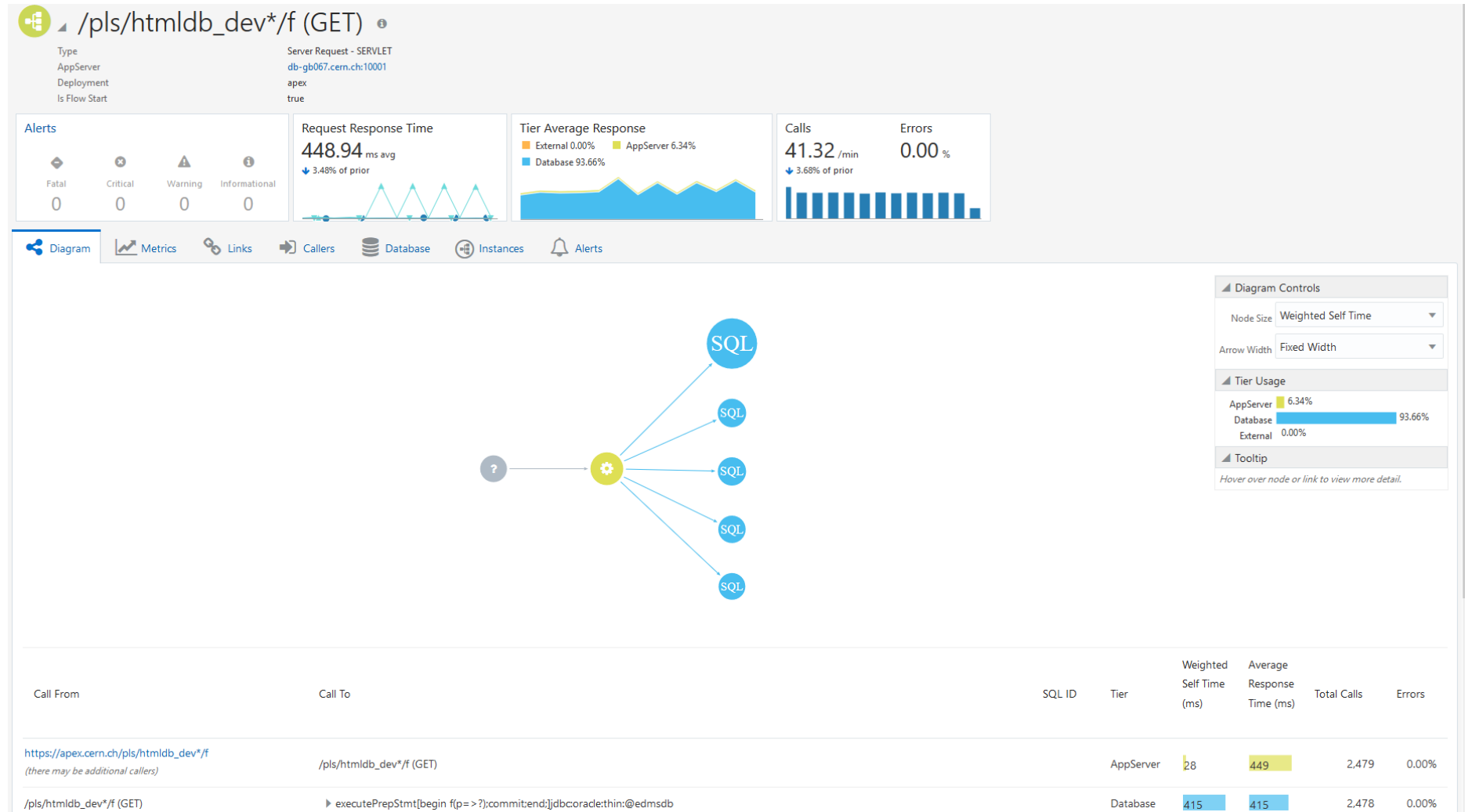
- Personal computer

	Average Response Time			Volume Rate			Errors		
	Value	Change	Trend	Value	Change	Trend	Value	Change	Trend
Sessions	-	-		8.90 /min	↓ 7.48%		-	-	-
Pages	768.74 ms	↓ 0.27%		47.00 /min	↓ 5.91%		-	-	-
Ajax Calls	74.78 ms	↑ 3.29%		34.48 /min	↓ 4.49%		0.00 %	no prior data	-
Clicks	-	-		0.52 /min	↓ 1.00%		-	-	-
JavaScript Errors	-	-		-	-		-	-	-

Appserver Workload and Performance Metrics

	Average Response Time			Volume Rate			Errors		
	Value	Change	Trend	Value	Change	Trend	Value	Change	Trend
Transactions	142.10 ms	↓ 1.06%		223.03 /min	↓ 5.22%		0.04 %	↓ 12.00%	
Server Requests	142.10 ms	↓ 1.06%		223.03 /min	↓ 5.22%		0.04 %	↓ 12.00%	
Database Tier Time	113.04 ms	↑ 0.59%		-	-		-	-	-
AppServer Tier Time	28.35 ms	↑ 4.15%		-	-		-	-	-

Server Request



Outcome

- Fruitful collaboration
- User Experience Workshops during OpenWorld 2018
- Weekly reports to Oracle
- ~110 pages report at the end of the evaluation period (December 2018)

Conclusions

- Strong platform with many capabilities
- Alerting and Analytics are very useful features
- Using the platform at its full extent requires devoting time and experimenting
- There are still some features we would expect to see and they are on the roadmap



QUESTIONS?

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