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ORACLE MANAGEMENT CLOUD: OPERATIONAL MANAGEMENT IN A DEVOPS WORLD

Lucas Jellema (CTO AMIS & Oracle ACE Director)

26 January 2017, Nieuwegein

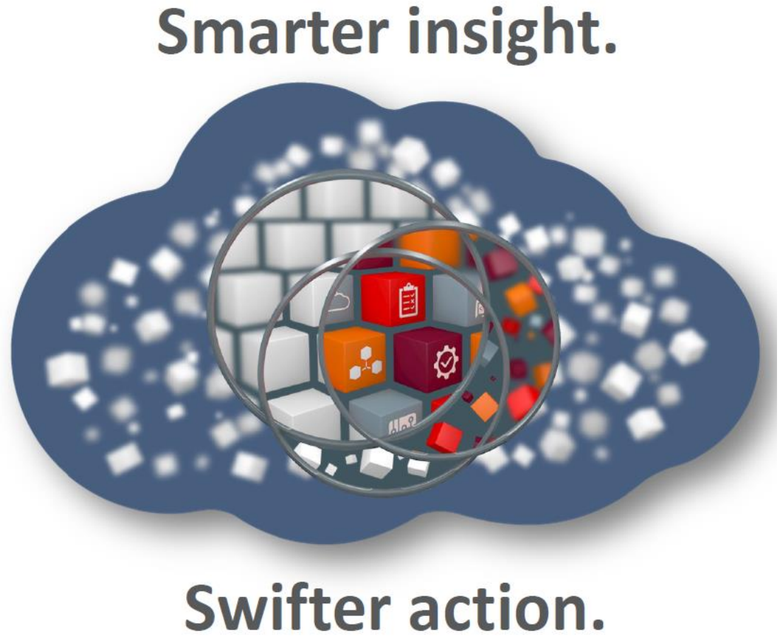
WHAT IS IT ALL ABOUT?

WHAT'S HAPPENING

- Intricate application and infrastructure architecture
  - Multi-tier, mobile, SOA, virtualization, microservices
- Hybrid landscape
  - Mix of technologies and vendors
  - Cloud, multiple clouds, on premises
- Agility and the constancy of change
  - DevOps (you build it, you run it, you fix it)
- Big Time – Big Data and Real Time
  - IoT, IoP, Social Media, 24/7

OPERATIONAL MANAGEMENT OBJECTIVES

- Keep business value of IT available as required | promised
- Need to know if and when (preferably predict before) something goes wrong
  - At end user | business | functional level
- Analyse (looming) problem – in order to fix it
  - What, where, when, why, who, why?
  - Across IT landscape
- Areas of operational interest
  - Functionality
  - Security
  - QA & Compliance
  - Infrastructure efficiency



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OPERATIONAL MANAGEMENT CLOUD

- Gather metrics and logs across IT landscape to central store
- Expose, visualize and explore
- Report
- Analyze
- Predict (machine learning) & Recommend

AGENDA

THE WORLD OF DEVOPS AND THE NECESSITY FOR MONITORING & ANALYTICS

OVERVIEW OF ORACLE MANAGEMENT CLOUD AND ITS CONSTITUENTS

LIVE DEMONSTRATION OF THE FUNCTIONALITY OF OMC

FIRST STEPS WITH OMC – HOW [TO GET | WE GOT] STARTED

DRINKS & DINNER

HANDSON OMC - APPLICATION PERFORMANCE MONITORING & LOG ANALYTICS

HANDSON OMC – INFRASTRUCTURE MONITORING & IT ANALYTICS

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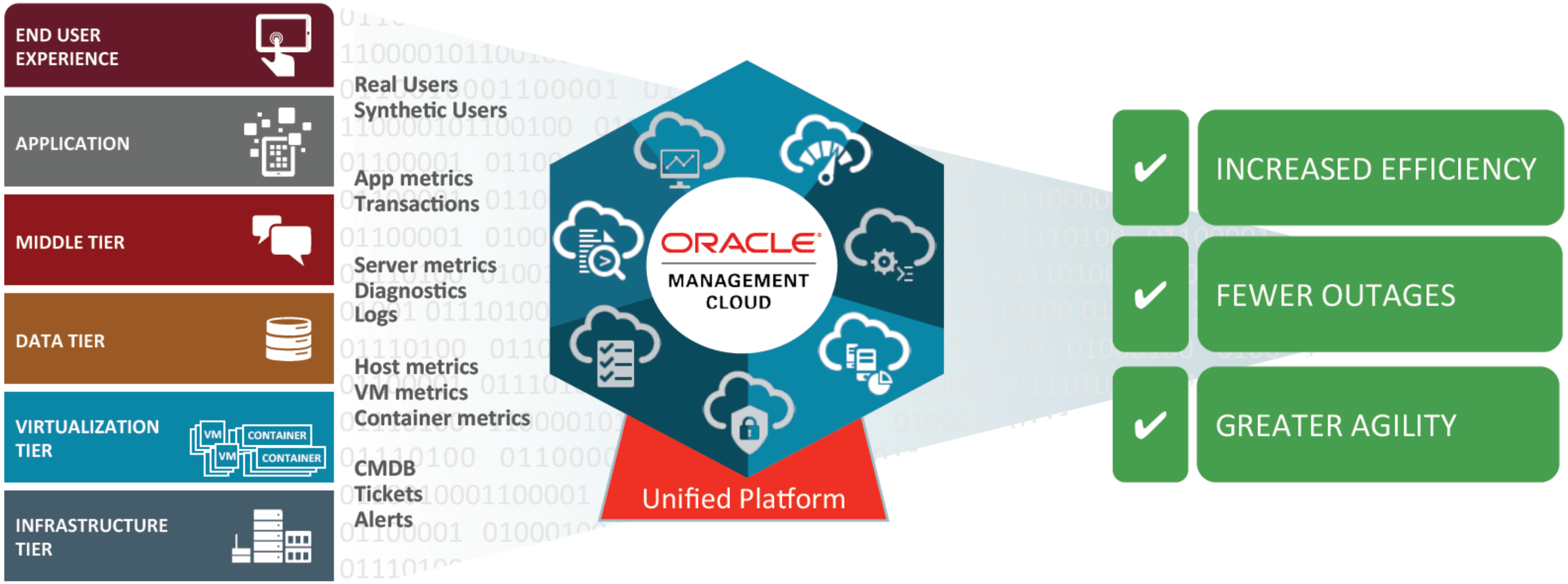
ORACLE MANAGEMENT CLOUD: FROM METRICS AND LOGS TO BUSINESS OBJECTIVES



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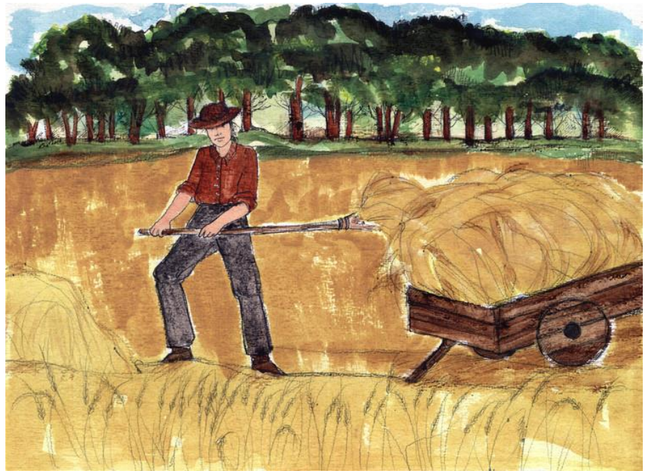
OMC:
GATHER THE HAY AND FIND THE NEEDLE(S)



ORACLE MANAGEMENT CLOUD
E PLURIBUS UNUM

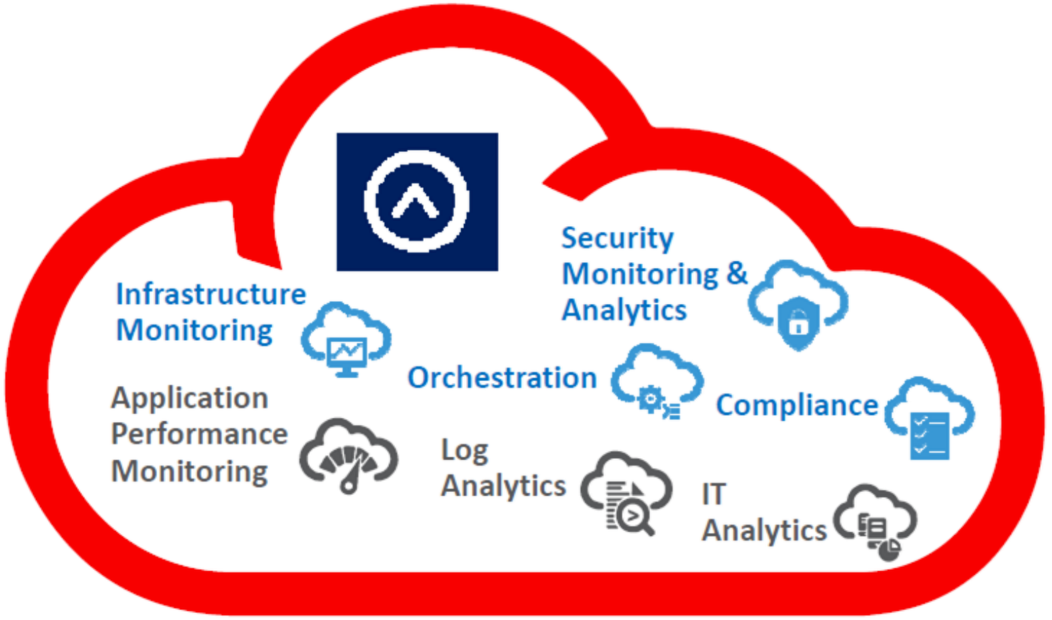
ORACLE MANAGEMENT CLOUD

ORACLE CLOUD

Microsoft Azure

amazon web services

On Premise



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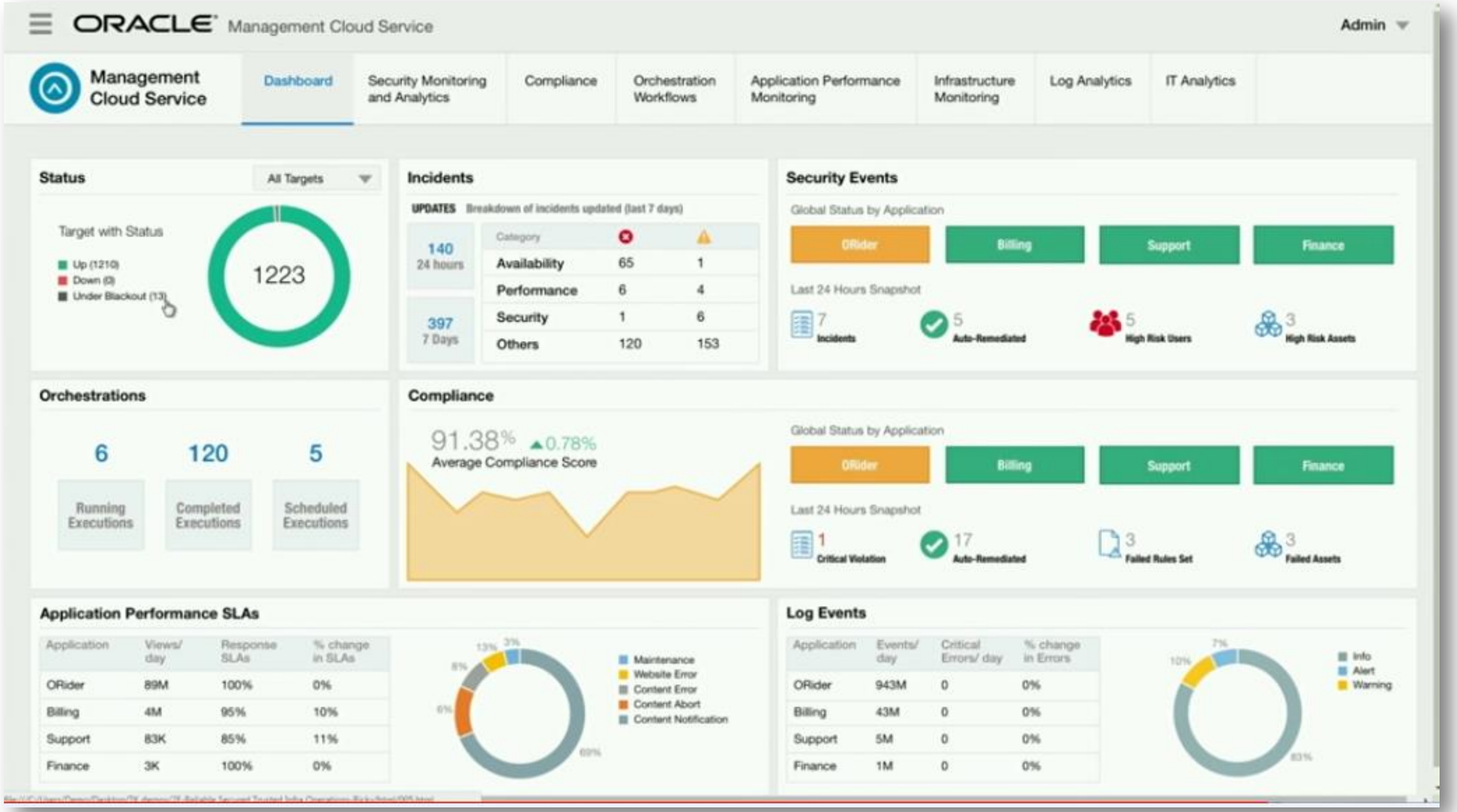
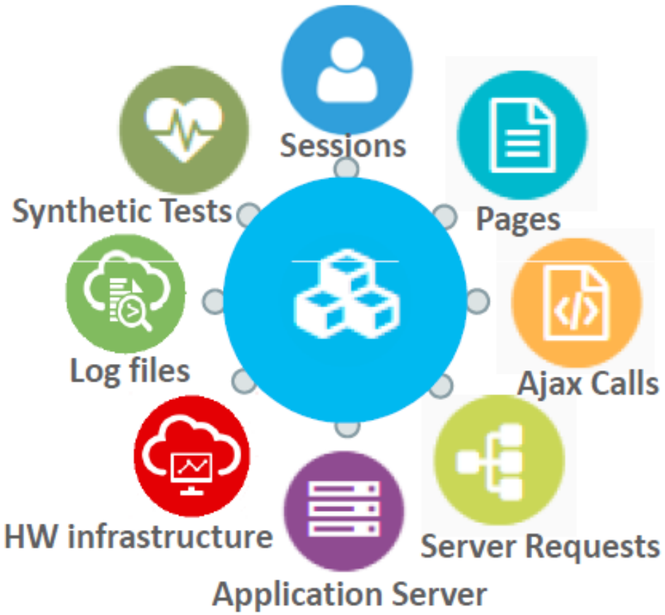
E PLURIBUS UNUM



APPLICATION PERFORMANCE MONITORING

- (near real time) Monitor end user activity and experience
- Compare actually experienced response times against thresholds
- Detect sessions with errors
- Send alerts
- Check health with synthetic tests
- Analyze problematic situations
  - Under which conditions do they occur?
  - What happens under the covers of the error?
  - Where in the multitier end to end chain is the bottleneck



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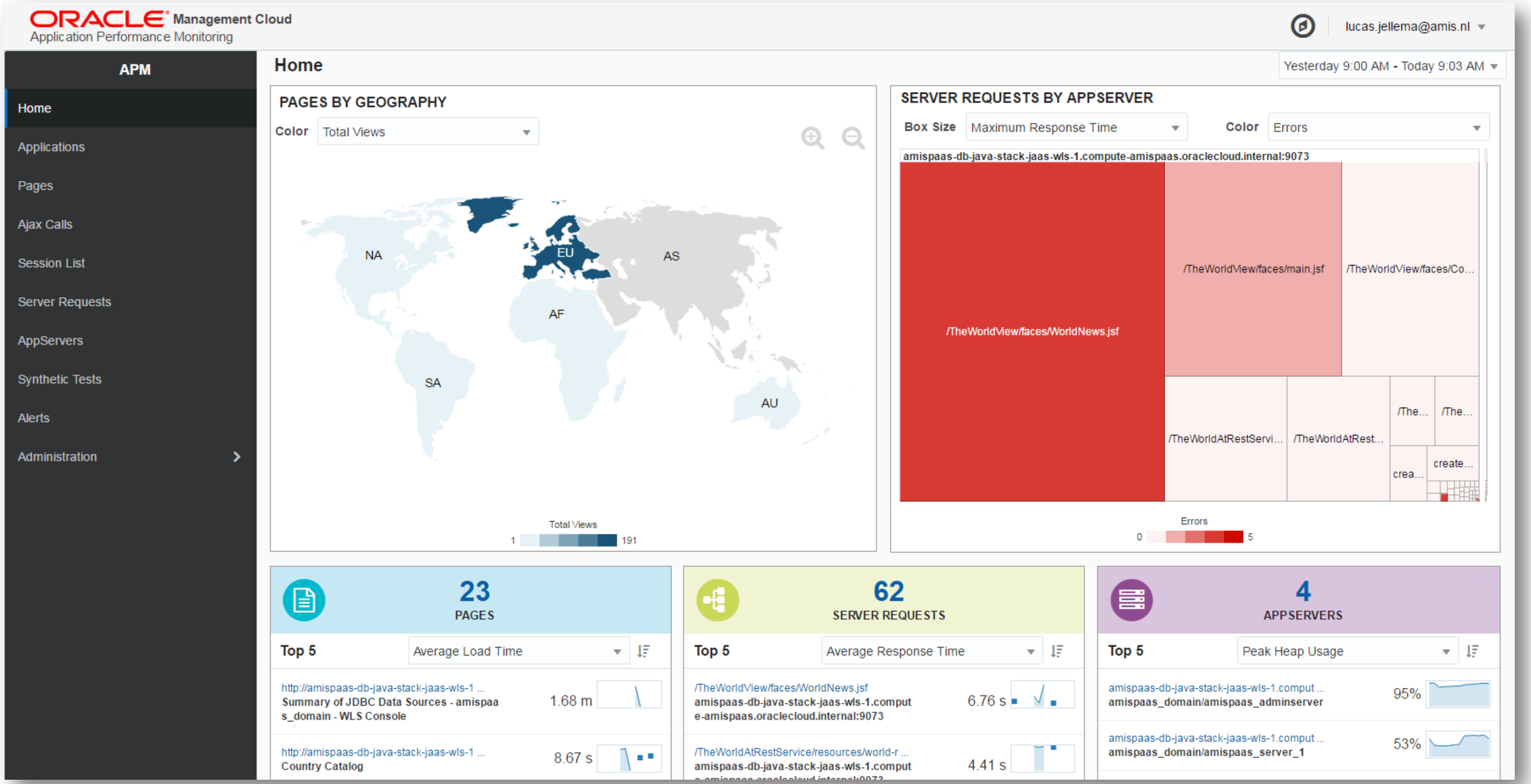
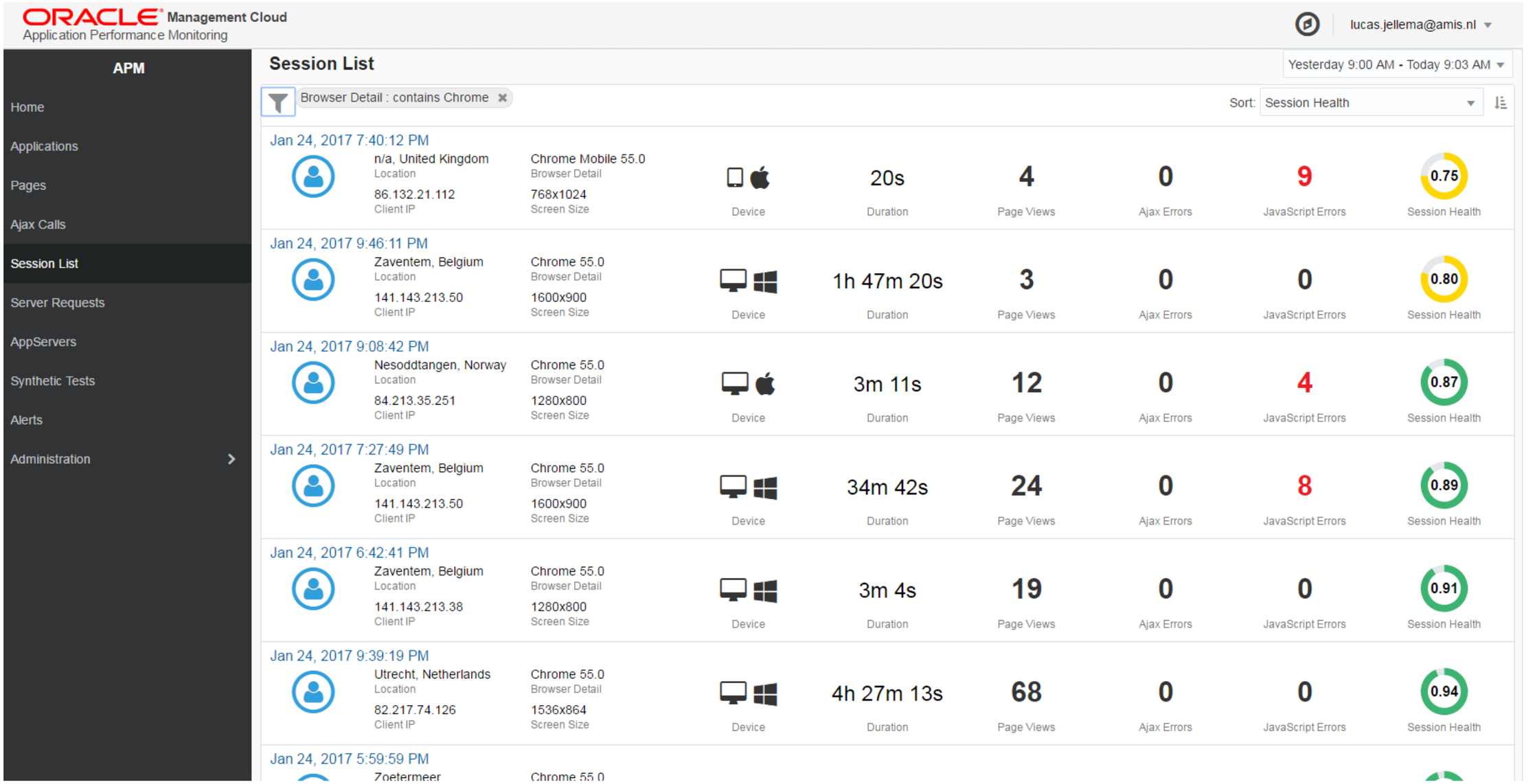
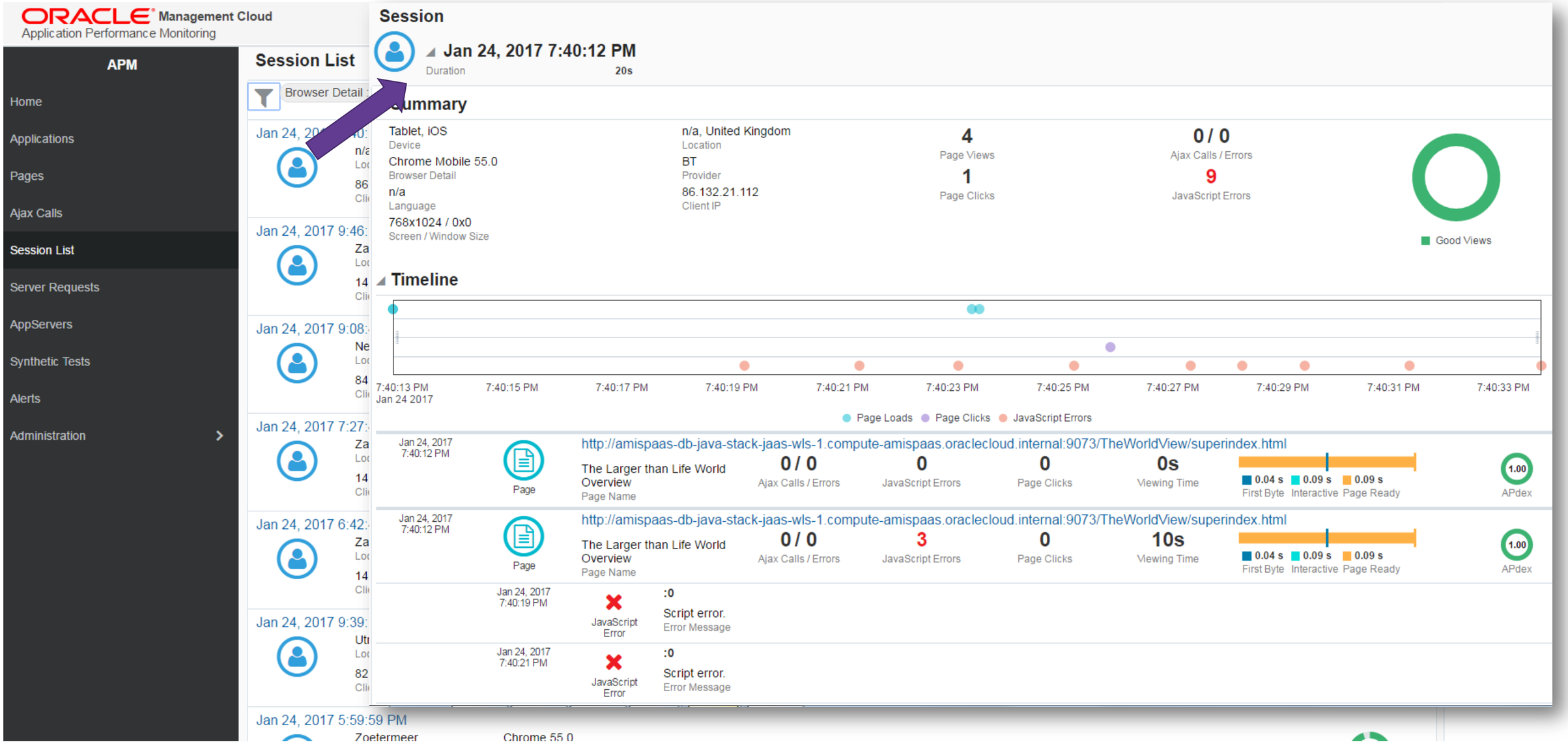
APPLICATION PERFORMANCE MONITORING



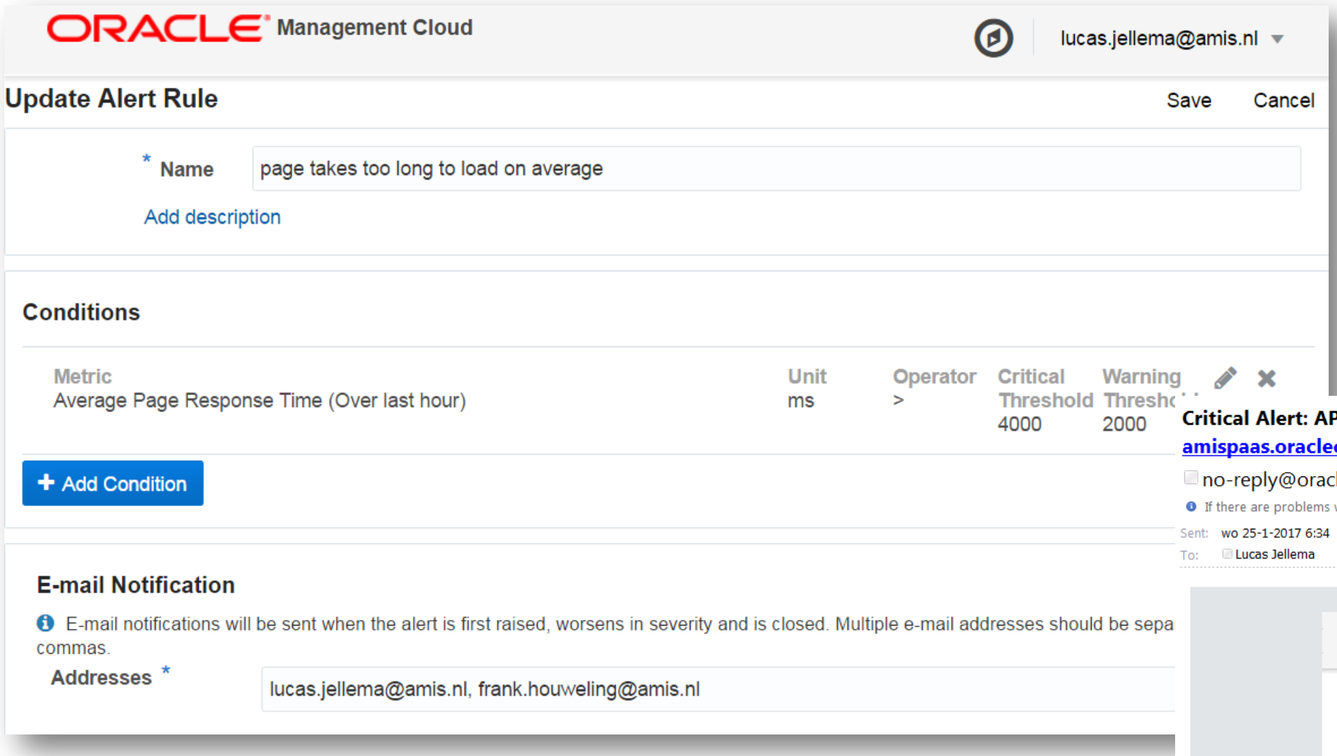
APM - SESSIONS

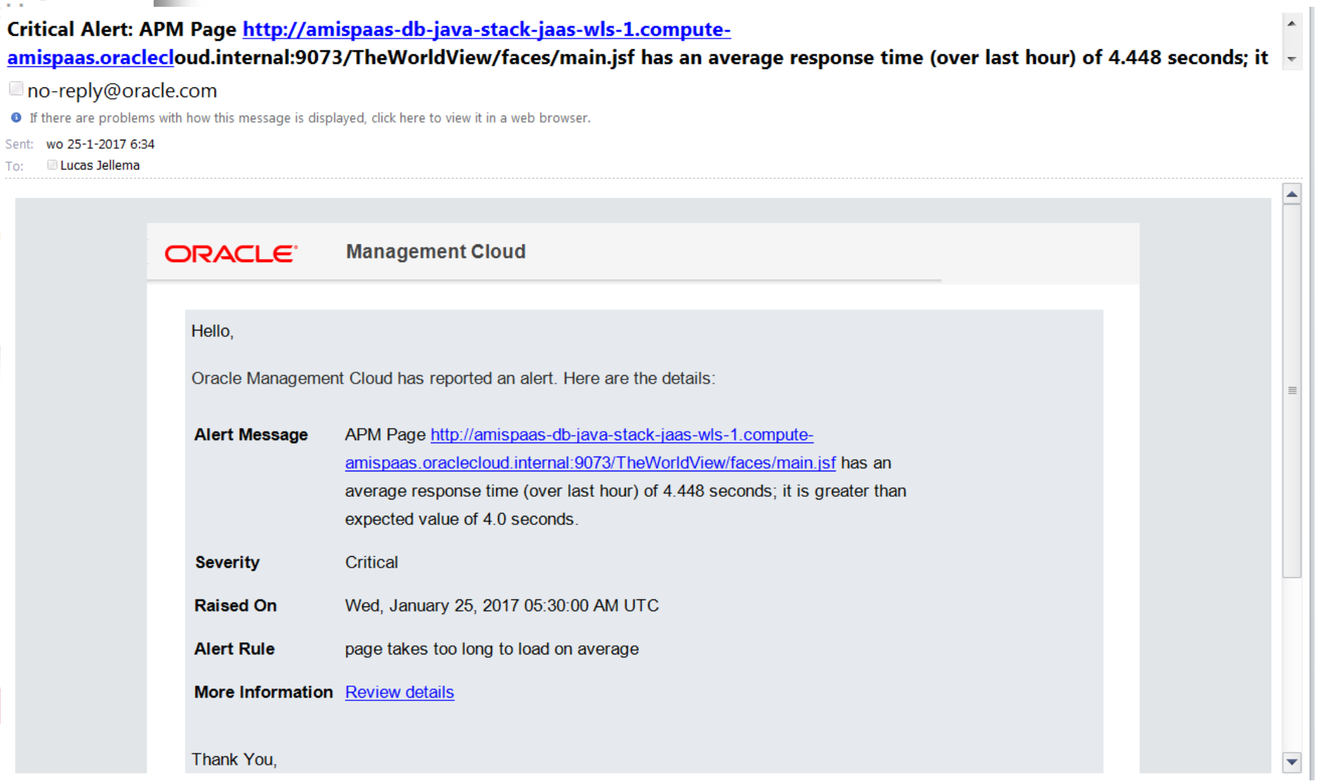


APM – SESSION DETAILS



ALERTING BASED ON APM MONITORING





LOG ANALYTICS

- So much could be known from the collected log sources
  - Business-wise
  - Application
  - IT platform and infrastructure

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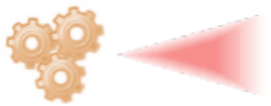
MULTI TIER, MULTI NODE LOG ENTRIES

Order Number

2015-05-10T12:59:52.212: INFO: OrderApp-3212: Order type: Failed, cust: 933373, order: 3997396, region: APAC



Error Message

<May 10, 2015 12:59:5 <Server> <BEA-002608> <The Listen Thread closed because of an error>
java.sql.SQLException: Closed Connection
at oracle.jdbc.driver.SQLStateMapping.newSQLException(SQLStateMapping.java:70)
at processOrders.acme.com(SubmitOrder.java:112)

Time Stamp

Mon Aug 17 09:37:31 PDT 2016 Errors in file /ora_db_home/app/oracle/admin/ORCL/bdump/orcl1_dw04_1297.trc:
ORA-00600: internal error code, arguments: [kghstack_underflow_internal_3], [0x2AFA326CAFC0], [rpi role space],
[], [], [], [], [] ORA-19502: write error on file "/ora_common/orcl/exports/daily/orcl_full_20160718_05.exp", blockno
560899 (blocksize=4096) ORA-27072: File I/O error Linux-x86_64 Error: 28: No space left on device

May 10, 2015 22:04:29 myhost.acme.com: router dnsprobe[276]: dns query failed
May 10, 2015 22:04:30 myhost.acme.com: router dnsprobe[276]: Primary DNS server Is Down... Switching To
Secondary DNS server

Host Name

May 10, 2015 22:04:30 myhost.acme.com: router dnsprobe[276]: Switching Back To Primary DNS server

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TROUBLE SHOOTING AND TACTICAL ANALYSIS ON LOG DATA ARE HARD…

- Which log files to use
- How to access the contents of the log files
- How to understand (parse) and compare log files
- Which entries in which log files are related
  - In time, in location, in user session, in transaction, …
- How to focus on the relevant entries
- How to handle huge volumes of logs
- How to find outliers and trends
- How to keep up with changes

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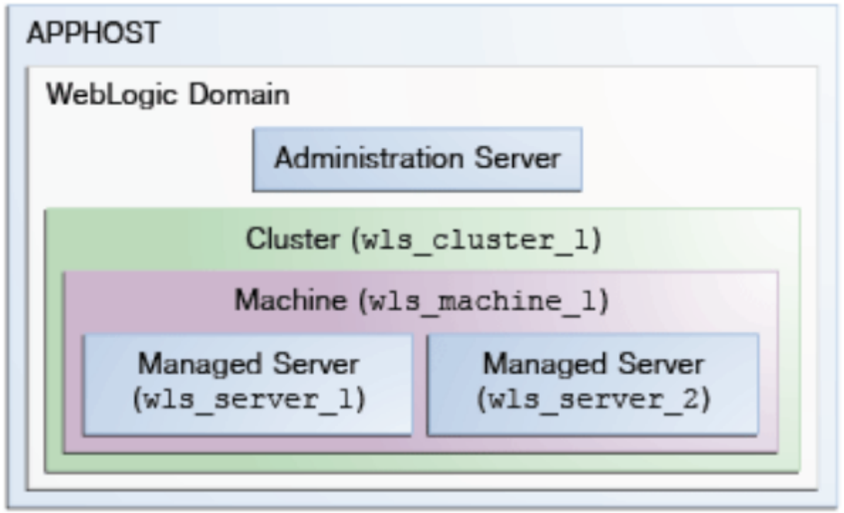
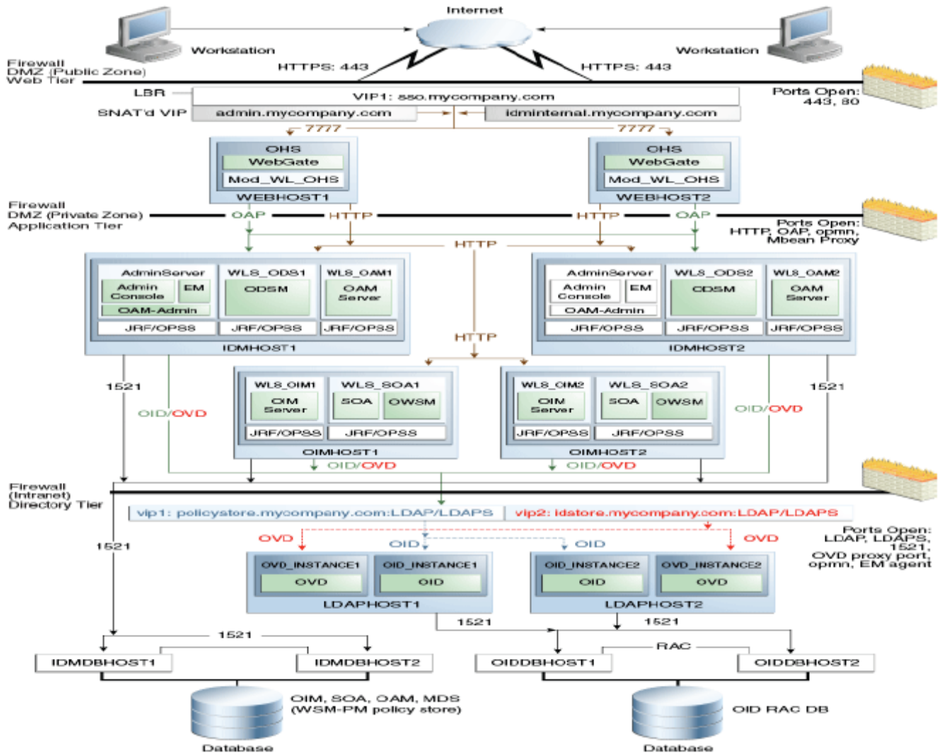
BUT*IT*WORKED*JUST*FINE *IN*DEVELOPMENT…*

Development Environment



Production Environment



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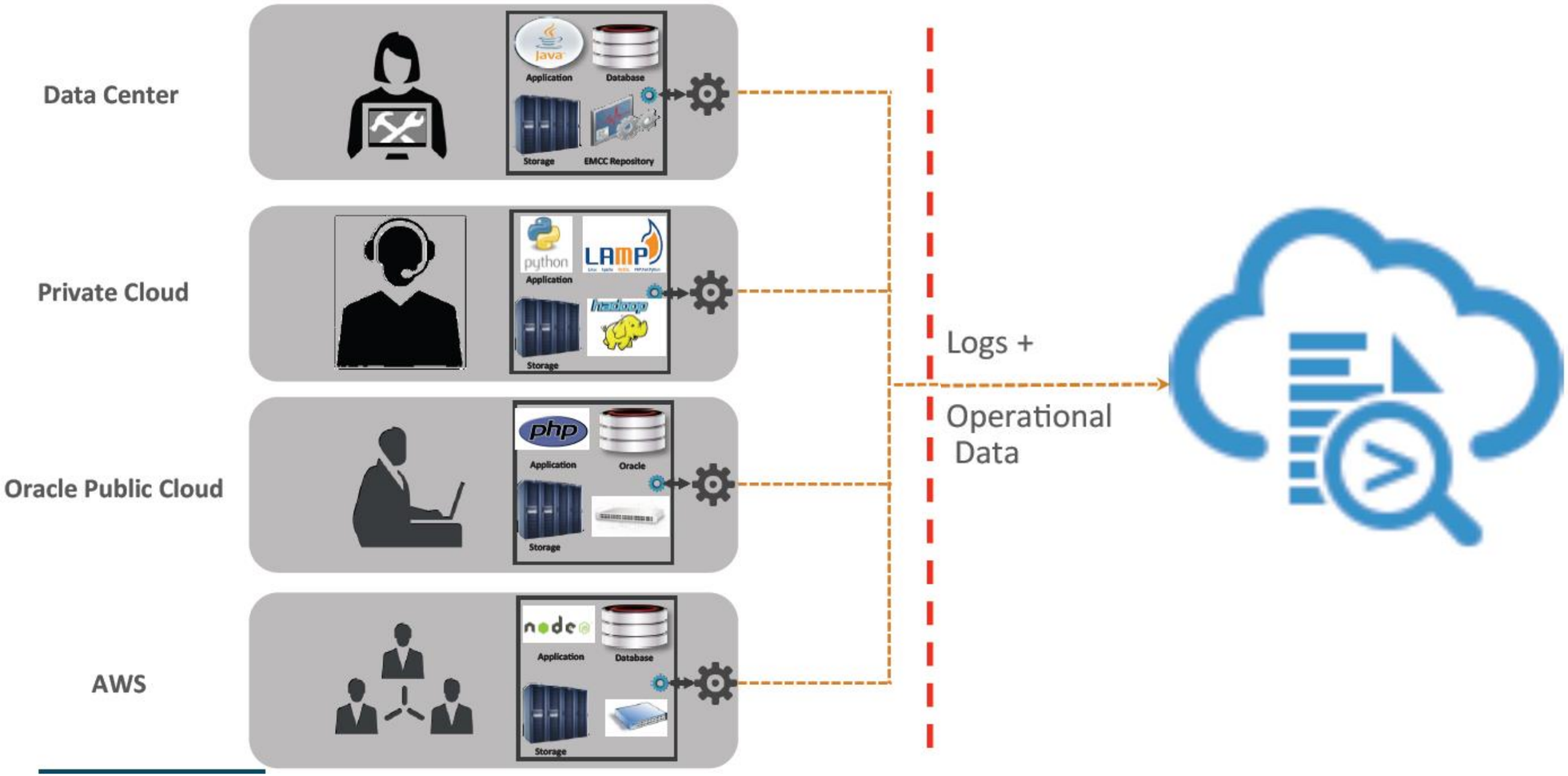
GATHERING LOG ENTRIES



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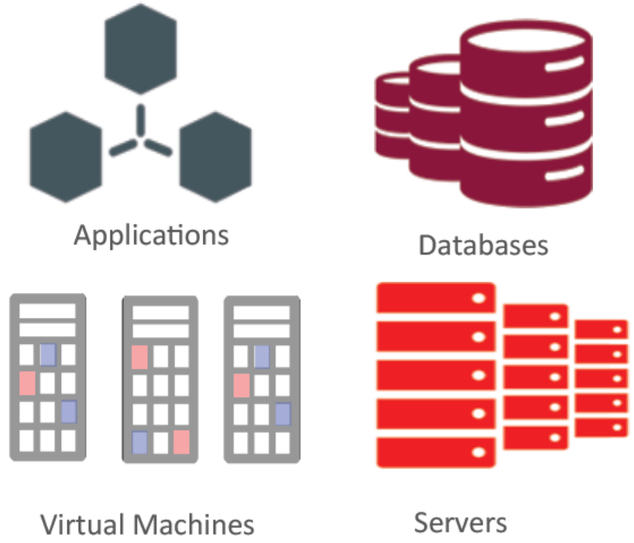
LOG ANALYTICS

- Collect and process log entries from 120+ logging sources
  - Across platforms, technologies, locations and vendors
  - Customize and add log sources & parsers
- Parse, Analyze, Store, Manage a big stash of entries
- Expose, search, correlate, aggregate, visualize log entries
  - Across all logging sources
  - Find the threads, the correlated events, apply machine learning
  - Drill down from functional logging and business events to technical logging, stack traces and infrastructure issues
- Publish Alerts from real time findings in log files
- Drill down from APM to Log Analytics
  - To find log entries that belong to slow or faulted sessions



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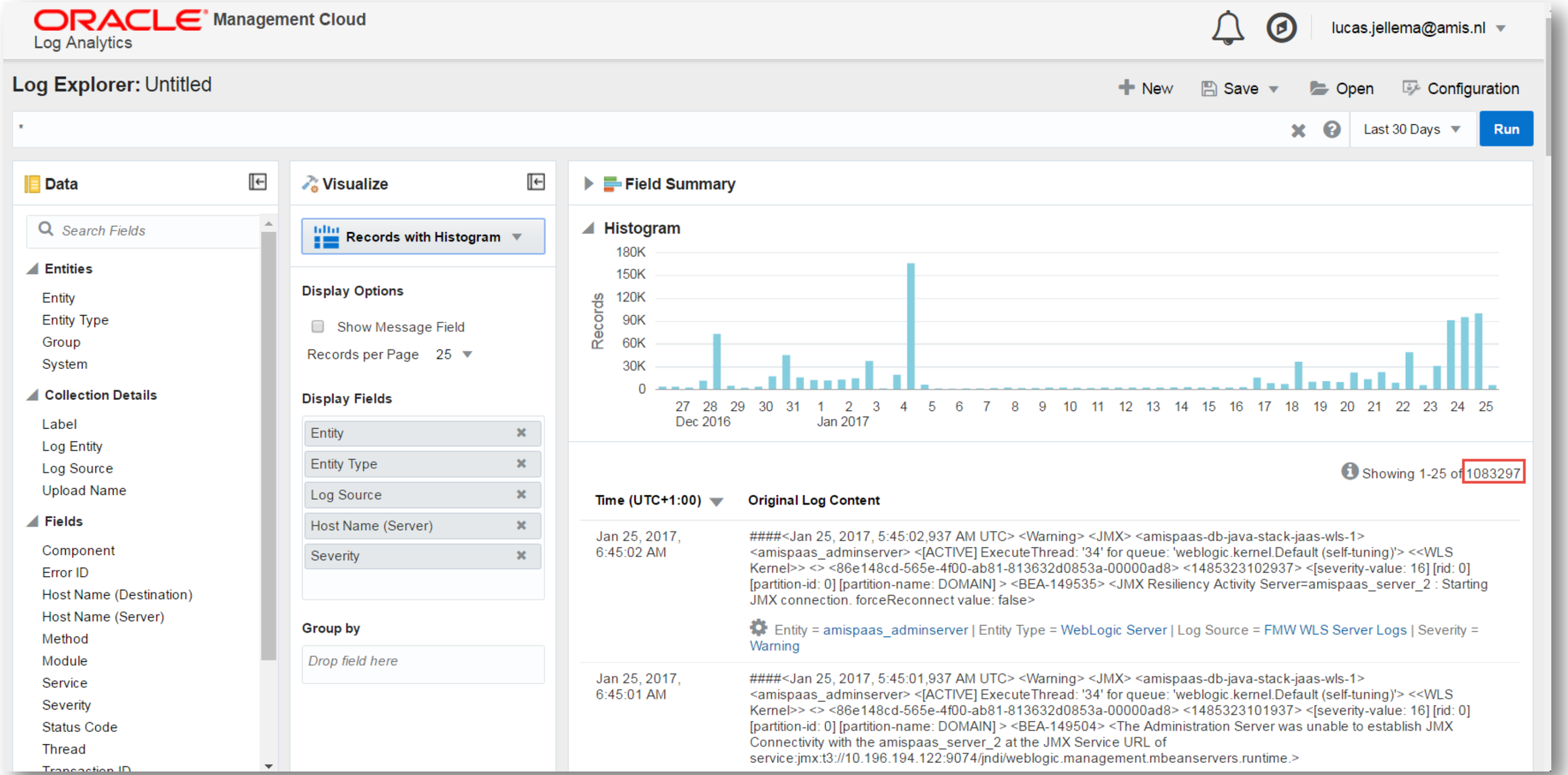
EXPLORE LOGS



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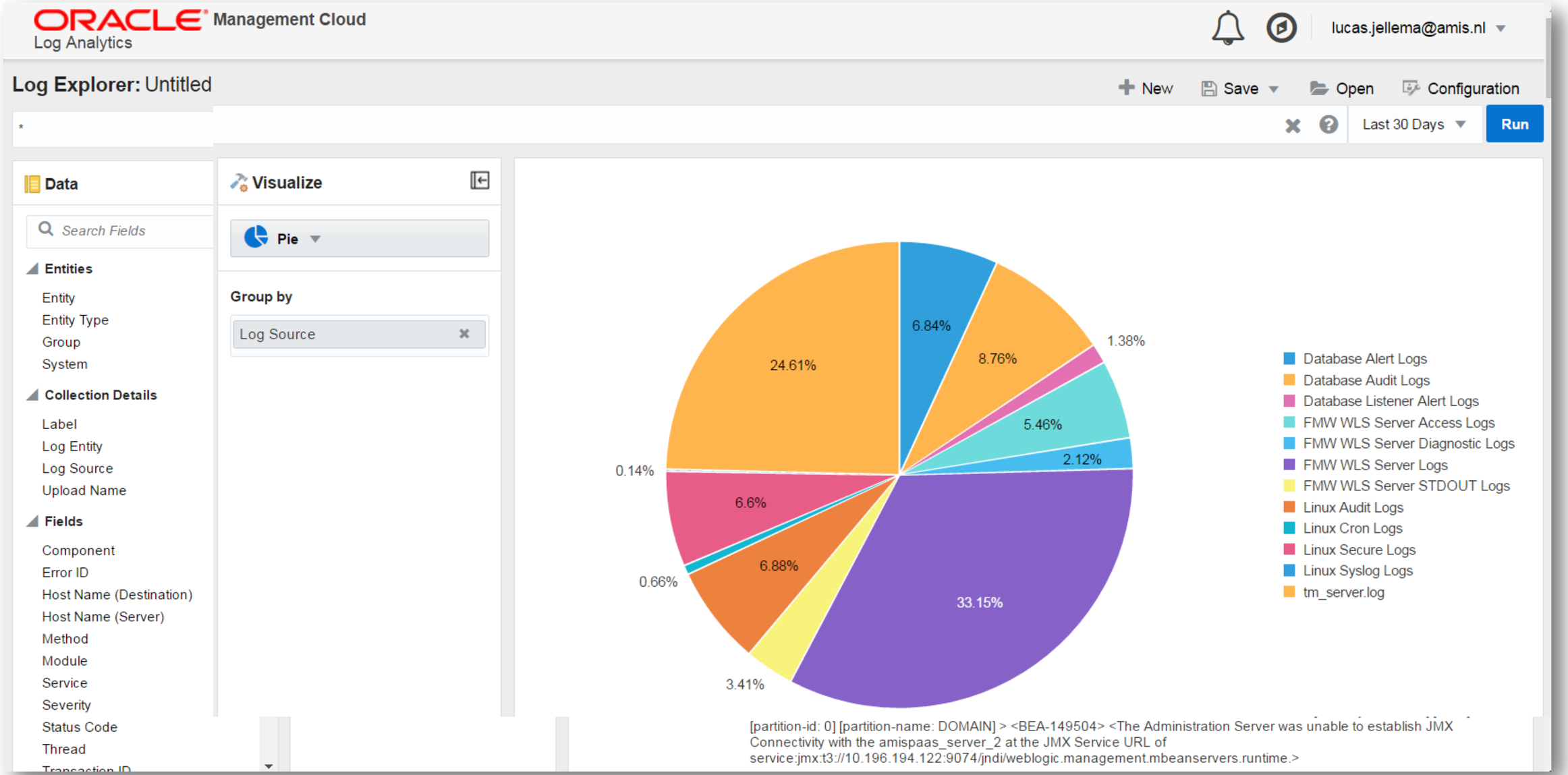
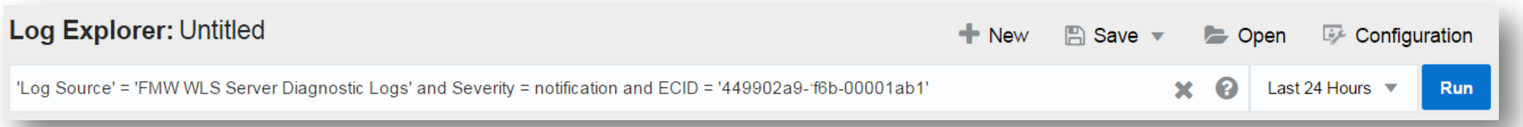
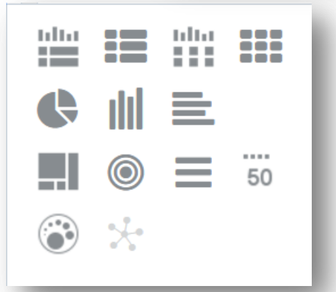
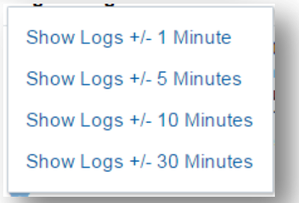


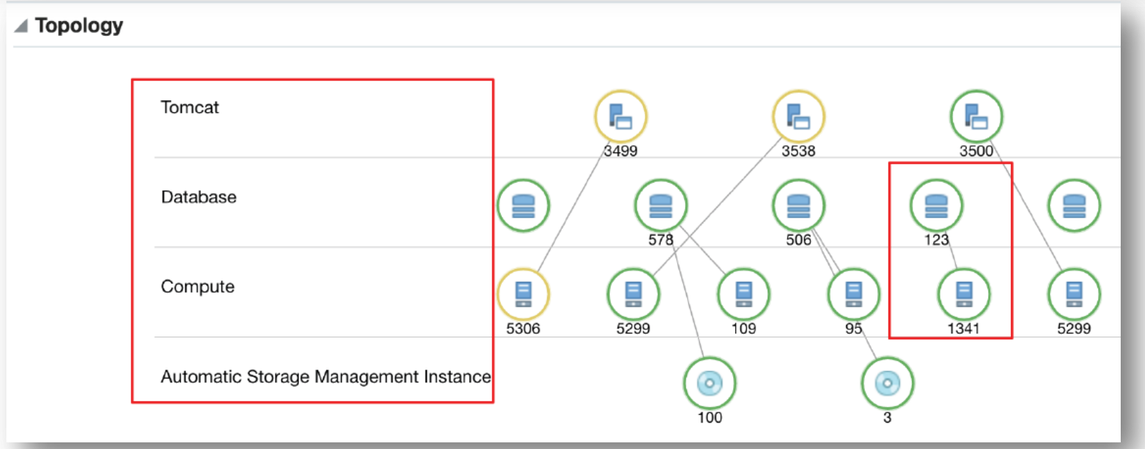
EXPLORING LOG FILES

- Filter
- Aggregate
- Visualize
- Drilldown / Correlate
- Show Topology
- Save and reuse filters









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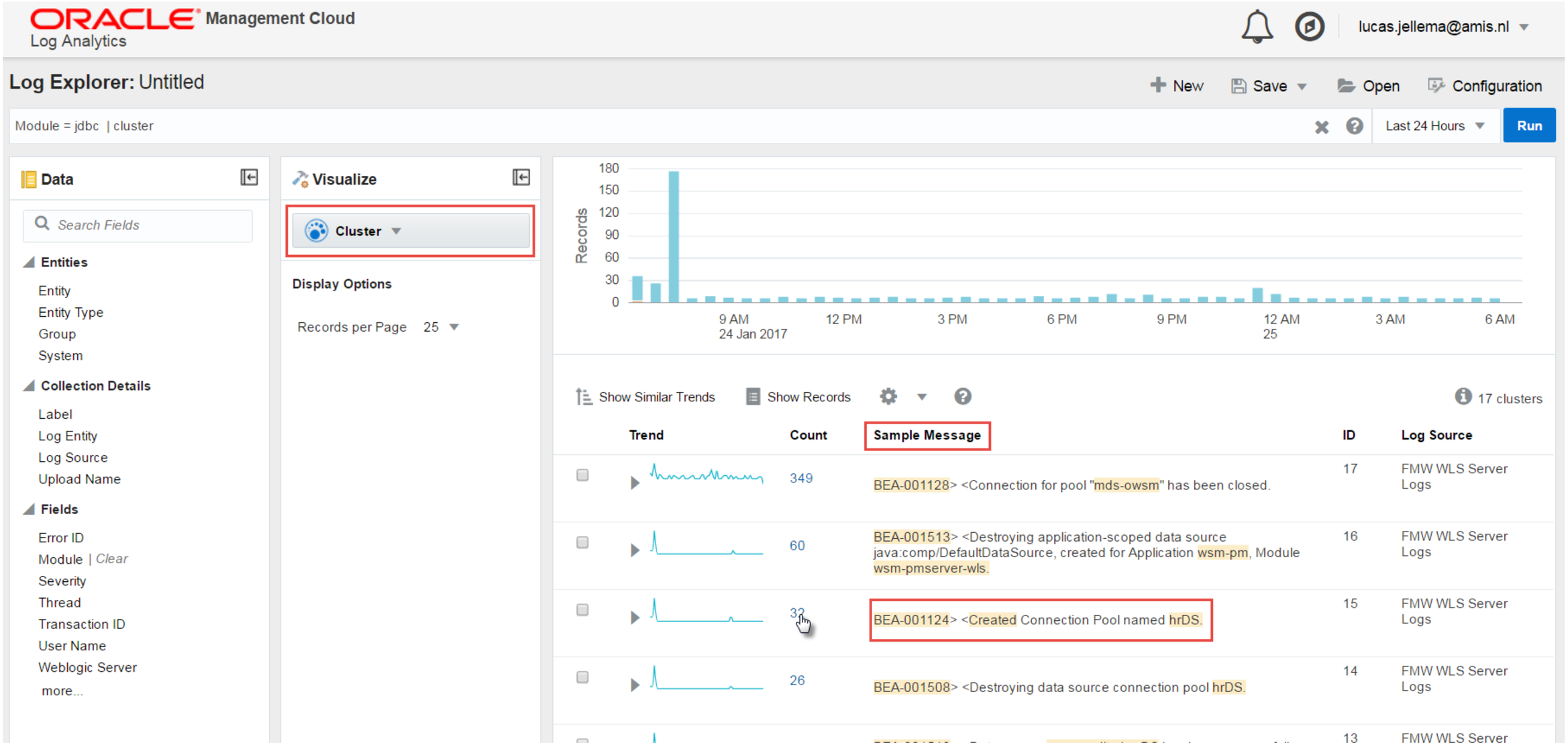
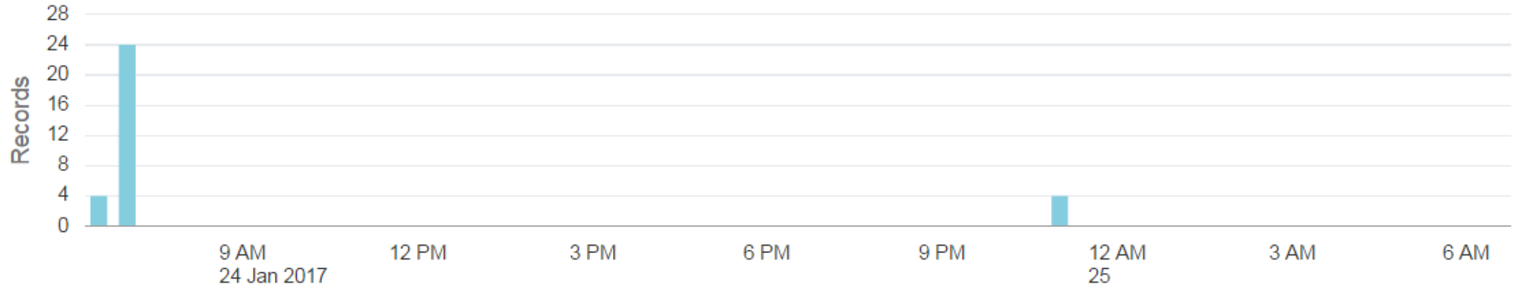
SMART CLUSTERING



Histogram



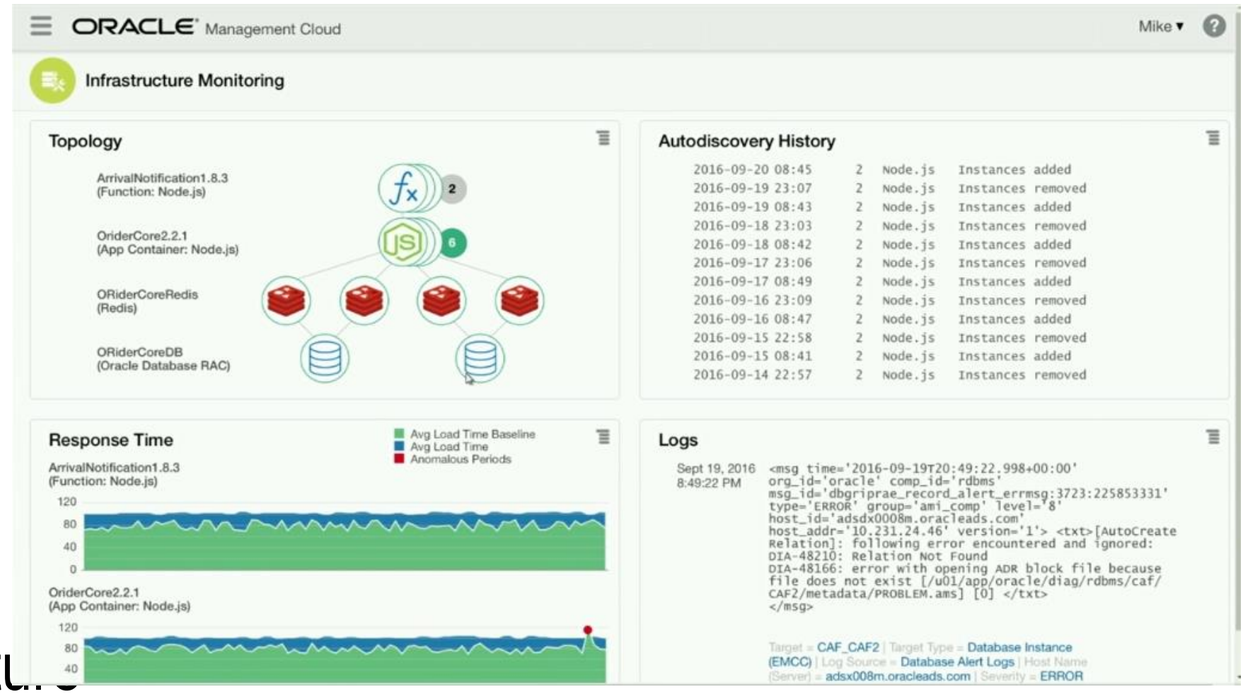
< Back to Cluster

Showing 1-25 of 32

Time (UTC+1:00)	Original Log Content
Jan 24, 2017, 11:22:19 PM	####<Jan 24, 2017, 10:22:19,625 PM UTC> <Info> <JDBC> <amispaas-db-java-stack-jaas-wls-1.compute-amispaas.oraclecloud.internal> <amispaas_server_1> <[STANDBY] ExecuteThread: '42' for queue: 'weblogic.kernel.Default (self-tuning)'> <<WLS Kernel>> <> <449902a9-1b68-4970-8ddc-8c1c00062f6b-00001290> <1485296539625> <[severity-value: 64] [rid: 0] [partition-id: 0] [partition-name: DOMAIN] > <BEA-001126> <Destroyed Connection Pool named: hrDS.> Entity = amispaas-db-java-stack-jaas-wls-1.compute-amispaas.oraclecloud.internal;9071;amispaas_server_1 | Entity Type = WebLogic Server | Log Source = FMW WLS Server Logs | Severity = Info
Jan 24, 2017, 7:28:47 AM	####<Jan 24, 2017, 6:28:47,15 AM UTC> <Info> <JDBC> <amispaas-db-java-stack-jaas-wls-1.compute-amispaas.oraclecloud.internal> <amispaas_server_1> <[ACTIVE] ExecuteThread: '6' for queue: 'weblogic.kernel.Default (self-tuning)'> <<WLS Kernel>> <> <449902a9-1b68-4970-8ddc-8c1c00062f6b-0000000a> <1485239327015> <[severity-value: 64] [rid: 0] [partition-id: 0] [partition-name: DOMAIN] > <BEA-001124> <Created Connection Pool named: opss-audit-viewDS.> Entity = amispaas_server_1 | Entity Type = WebLogic Server | Log Source = FMW WLS Server Logs | Severity = Info
Jan 24, 2017, 7:28:46 AM	####<Jan 24, 2017, 6:28:46,257 AM UTC> <Info> <JDBC> <amispaas-db-java-stack-jaas-wls-1.compute-amispaas.oraclecloud.internal> <amispaas_server_1> <[ACTIVE] ExecuteThread: '6' for queue: 'weblogic.kernel.Default (self-tuning)'> <<WLS Kernel>> <> <449902a9-1b68-4970-8ddc-8c1c00062f6b-0000000a> <1485239326257> <[severity-value: 64] [rid: 0] [partition-id: 0] [partition-name: DOMAIN] > <BEA-001124> <Created Connection Pool named: opss-audit-DBDS.> Entity = amispaas-db-java-stack-jaas-wls-1.compute-amispaas.oraclecloud.internal;9071;amispaas_server_1 | Entity Type = WebLogic Server | Log Source = FMW WLS Server Logs | Severity = Info
Jan 24, 2017, 7:28:46 AM	####<Jan 24, 2017, 6:28:46,257 AM UTC> <Info> <JDBC> <amispaas-db-java-stack-jaas-wls-1.compute-amispaas.oraclecloud.internal> <amispaas_server_1> <[ACTIVE] ExecuteThread: '6' for queue: 'weblogic.kernel.Default (self-tuning)'> <<WLS Kernel>> <> <449902a9-1b68-4970-8ddc-8c1c00062f6b-0000000a> <1485239326257> <[severity-value: 64] [rid: 0] [partition-id: 0] [partition-name: DOMAIN] > <BEA-001124> <Created Connection Pool named opss-audit-DBDS.> Entity = amispaas_server_1 | Entity Type = WebLogic Server | Log Source = FMW WLS Server Logs | Severity = Info
Jan 24, 2017, 7:28:45 AM	####<Jan 24, 2017, 6:28:45,501 AM UTC> <Info> <JDBC> <amispaas-db-java-stack-jaas-wls-1.compute-amispaas.oraclecloud.internal> <amispaas_server_1> <[ACTIVE] ExecuteThread: '6' for queue: 'weblogic.kernel.Default (self-tuning)'> <<WLS Kernel>> <> <449902a9-1b68-4970-8ddc-8c1c00062f6b-0000000a> <1485239325501> <[severity-value: 64] [rid: 0] [partition-id: 0] [partition-name: DOMAIN] > <BEA-001124> <Created Connection Pool named mds-owsm.> Entity = amispaas-db-java-stack-jaas-wls-1.compute-amispaas.oraclecloud.internal;9071;amispaas_server_1 | Entity Type = WebLogic Server | Log Source = FMW WLS Server Logs | Severity = Info

INFRASTRUCTURE MONITORING

- Monitors the status and health of IT infrastructure in real time
  - on-premises or on the cloud and across stack tiers
- Proactive monitoring enables administrators to be alerted on issues, troubleshoot and resolve these before they impact end users.
- Similar to Application Performance Monitoring - focusing on the infrastructure components and their performance and behavior



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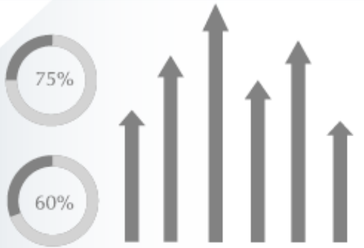
INFRASTRUCTURE MONITORING

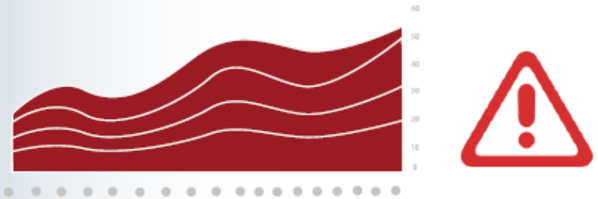
Infra Status & Health, Associations

- **Rapid deployment**, quick time to value, scales on demand
- **Broad, heterogeneous** coverage
- Purpose-built **dashboards**
- Flexible **Alerting**
- Correlate and Troubleshoot
- **Unified, Rich Data Model**
- **Rest APIs for custom metrics/data**

Panoramic, Unified Visibility



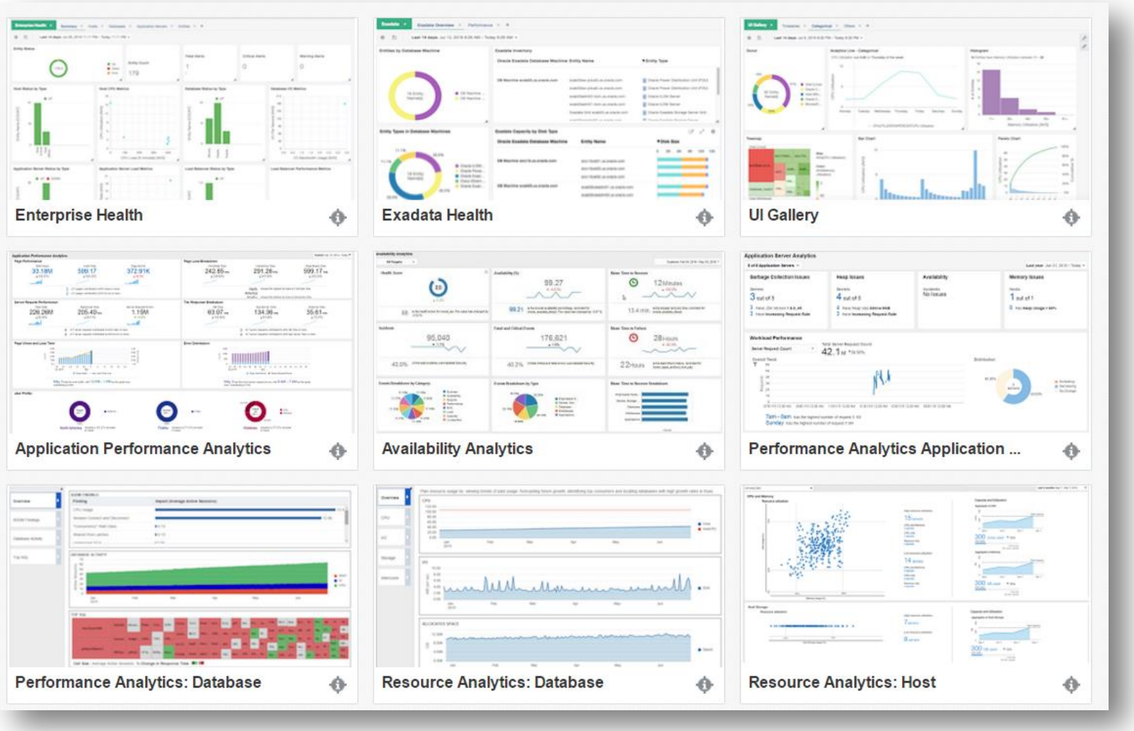
Problem Detection & Alerting



Correlation & Troubleshooting

IT ANALYTICS – OPERATIONAL INTELLIGENCE FOR MODERN IT

- IT Analytics provides
  - 360-degree insight
  - into the *performance*, *availability*, and *capacity*
  - of applications and IT investments,
- enabling line-of-business executives, analysts, and administrators
- to make critical decisions about their IT operations based on comprehensive system and data analysis
- Out of the box and custom widgets & dashboards



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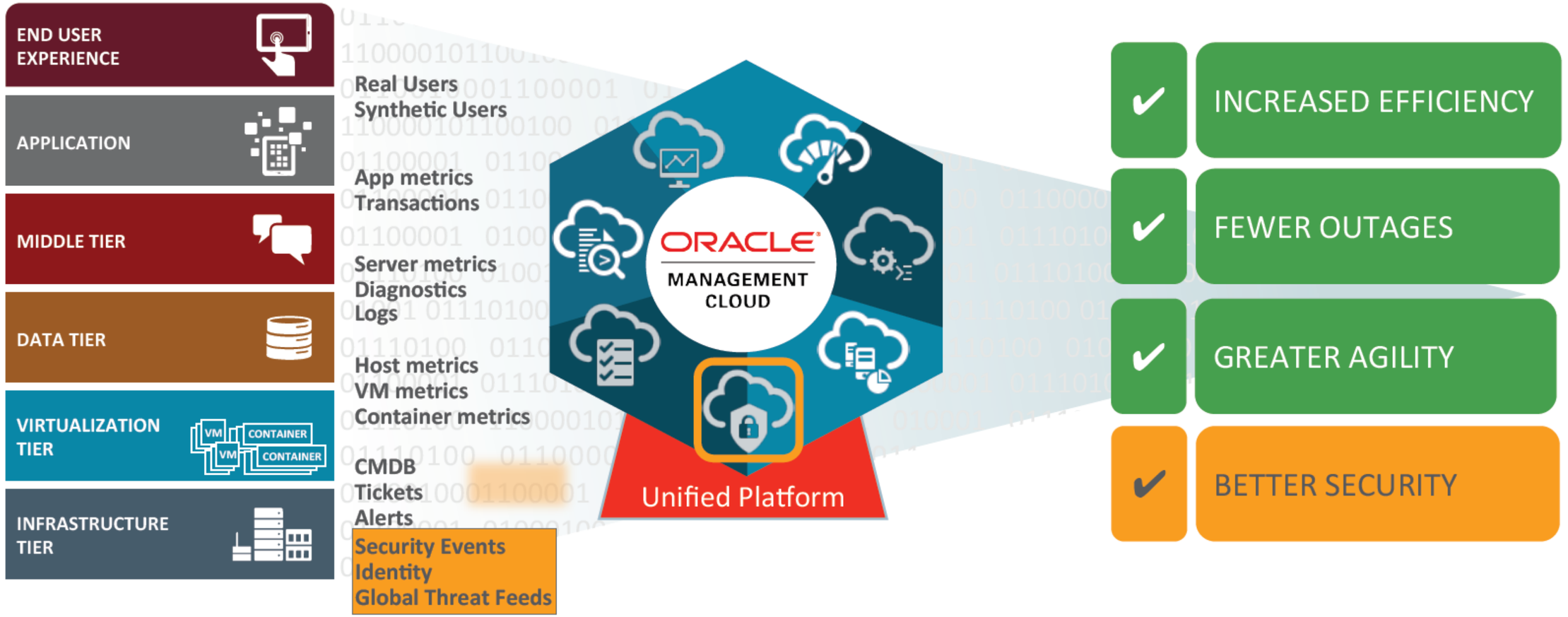
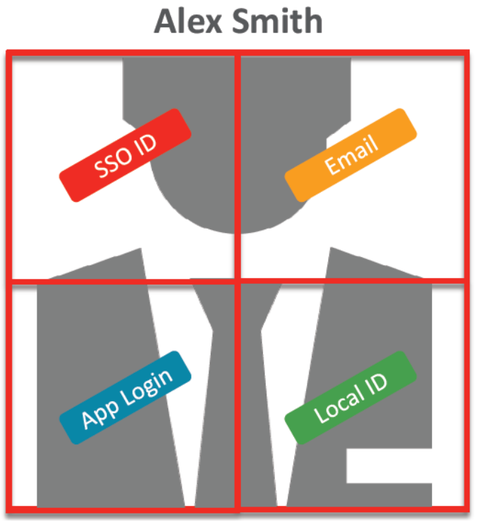
SECURITY MONITORING & ANALYTICS



SECURITY MONITORING & ANALYTICS

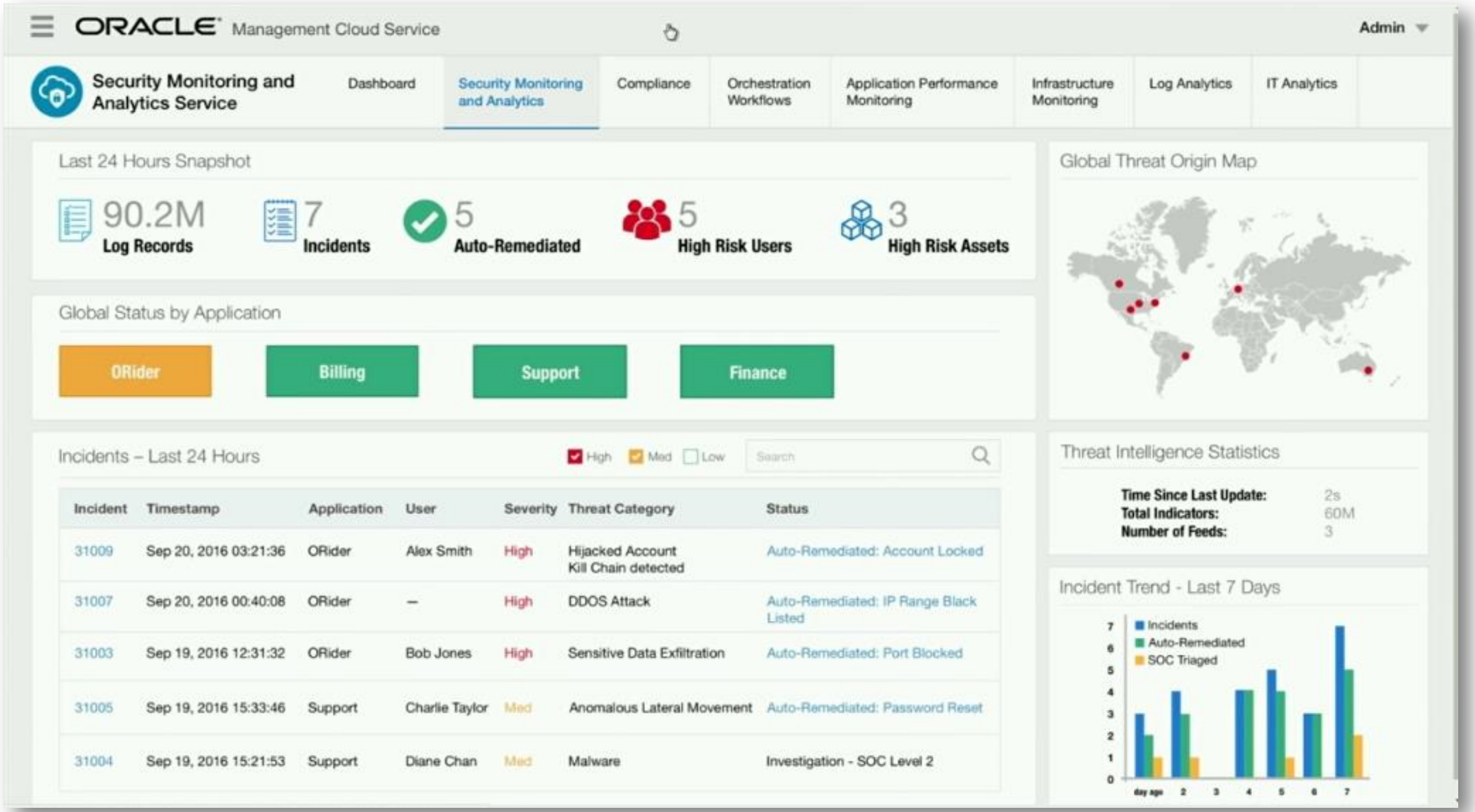
- **Improved Security and Risk Posture**
  - Lower risk and cost of data breaches and security incidents
  - Early detection of known and unknown threats
  - Visibility across heterogeneous infrastructure, cloud assets
- **Greater SOC Efficiency**
  - Fewer false positives and negatives
  - Faster time to detection and remediation
  - Reduced learning curve for SOC analysts
- **Rapid Time to Value**
  - Delivered as a next-gen, auto-scaling cloud service
  - Pre-packaged content for security and compliance
  - Runbook templates for automation of SOC operations

Security	Firewall, IDS, IPS, Web Proxy, VPN, AV, DLP, DAM, WAF, VA scanners
Networking	Router, Switch, DHCP, DNS, Load balancer
Host	Windows, Linux, Unix
Infrastructure	Directory services, Middleware, Database, Web Server, Hypervisor
Applications	Fusion apps, 3rd party applications, Custom application logs
Cloud	IaaS, PaaS, SaaS data sources

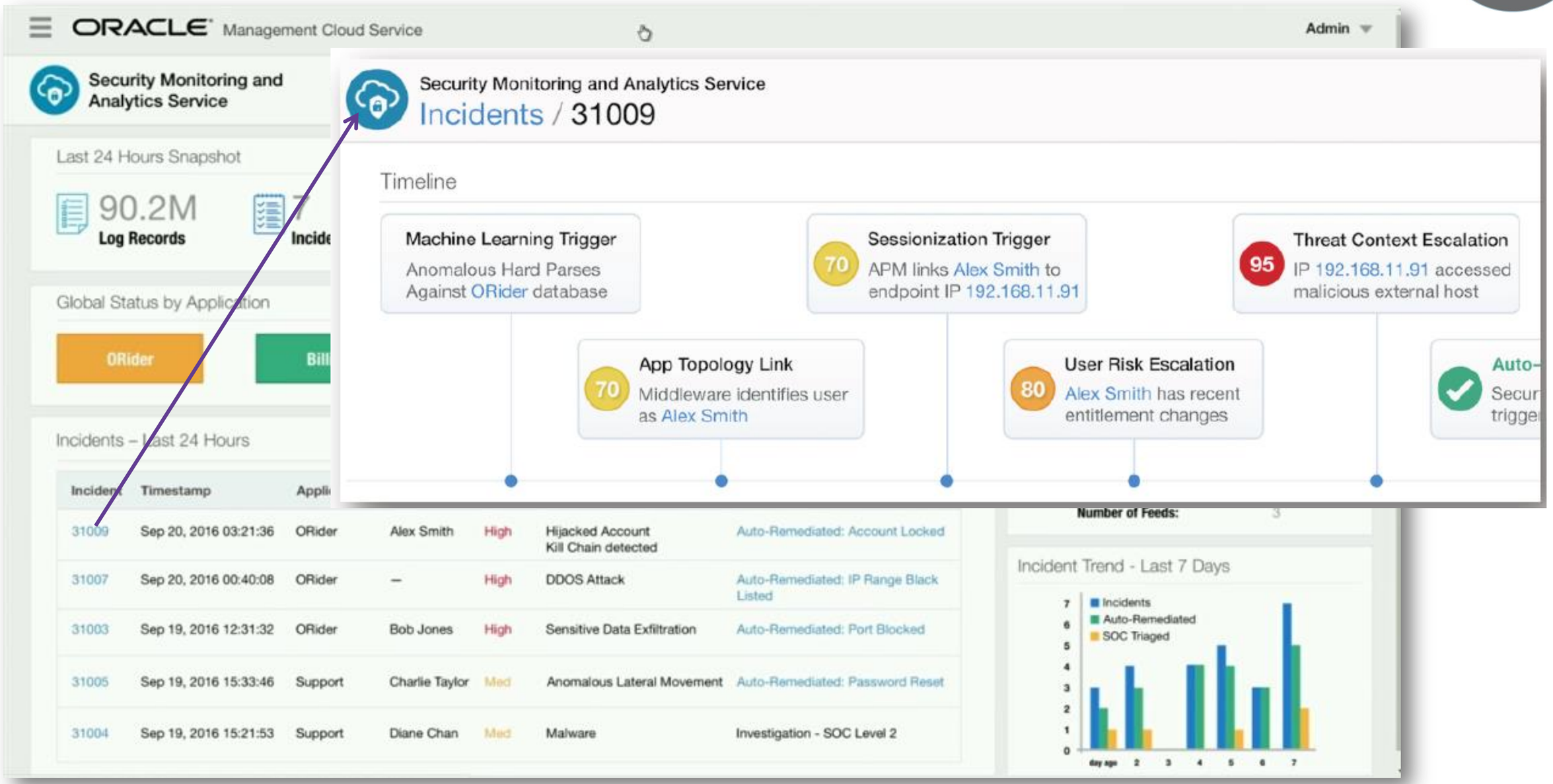


AMIS

SECURITY MONITORING & ANALYTICS



SECURITY MONITORING & ANALYTICS



COMPLIANCE & CONTROL

Who

CIO, CFO
VP for Audit and Compliance

What

How do I know that I am STIG Compliant?

Value

Is the compliance posture sufficiently improving? What to I need to do to fix SLAs Violations?

Information Security Officer

Am I meeting my LOB compliance SLAs for Finance and HR ?

Current security posture of cloud and on-premise resources?

Are my resources deployed effectively?

Administrators & IT Compliance Analyst

What violations do I need to remediate at this moment?

What vulnerability do I fix next based on prioritization & risk level?

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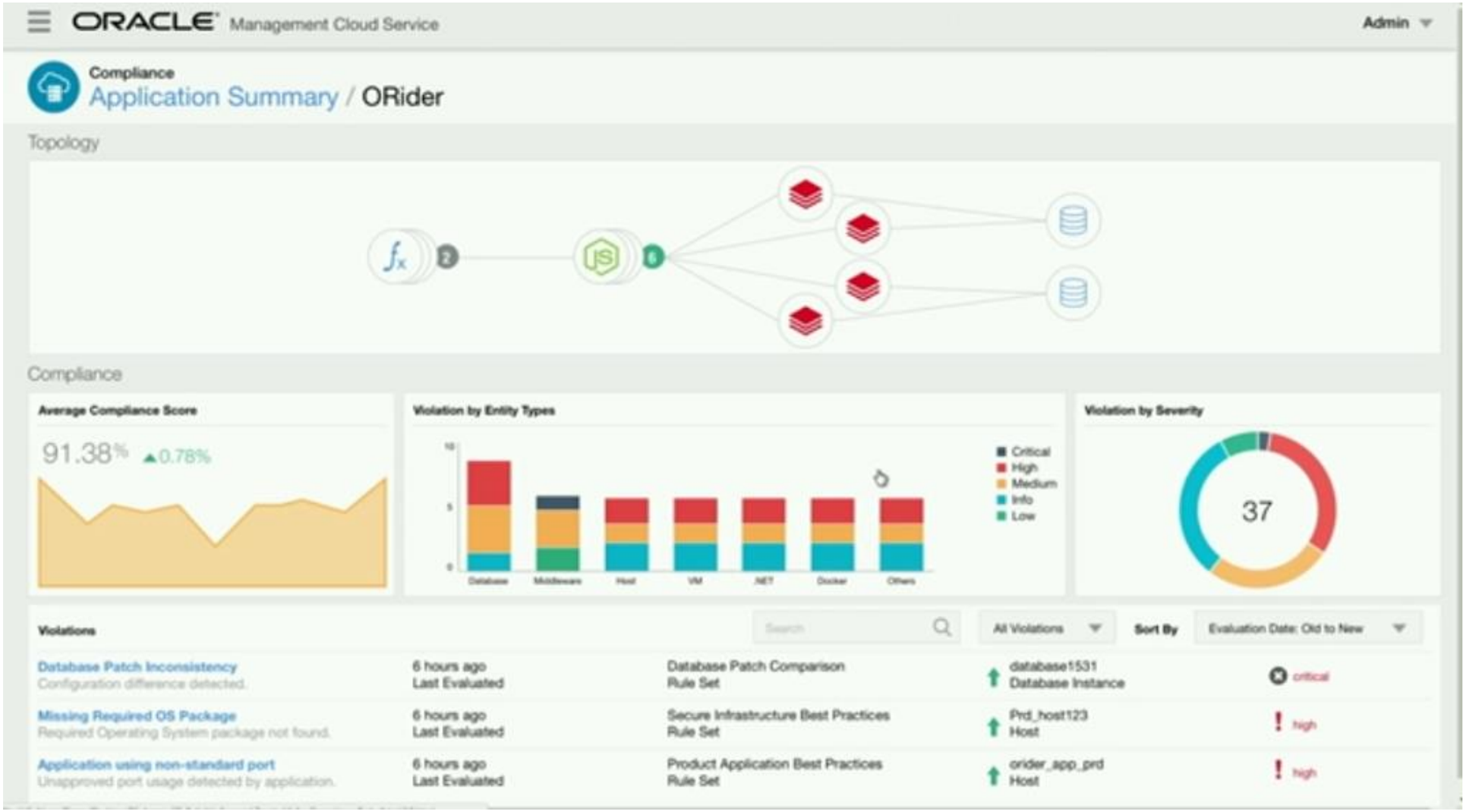
COMPLIANCE
DEFINE RULES – EVALUATE – REMEDIATE - REPORT

Enterprise Perspective	Operations Across IT Groups
Timely score for the entire IT enterprise, compliance communications & trainings	A score scoped to my assets vertically by application or horizontally by entity: database, middleware, hosts, ect.
Prioritization of assets based on operational & data value	Prioritized asset & violation work list
Continuous and measurable compliance score improvement & reporting	Score & report trends for my entities
Very small known vulnerability time-windows	Automated remediation at scale
Manage enterprise compliance by exception	3rd party ticketing and violation assignment
Align resources to achieve service levels	Agree to an achievable service level with the business

COMPLIANCE



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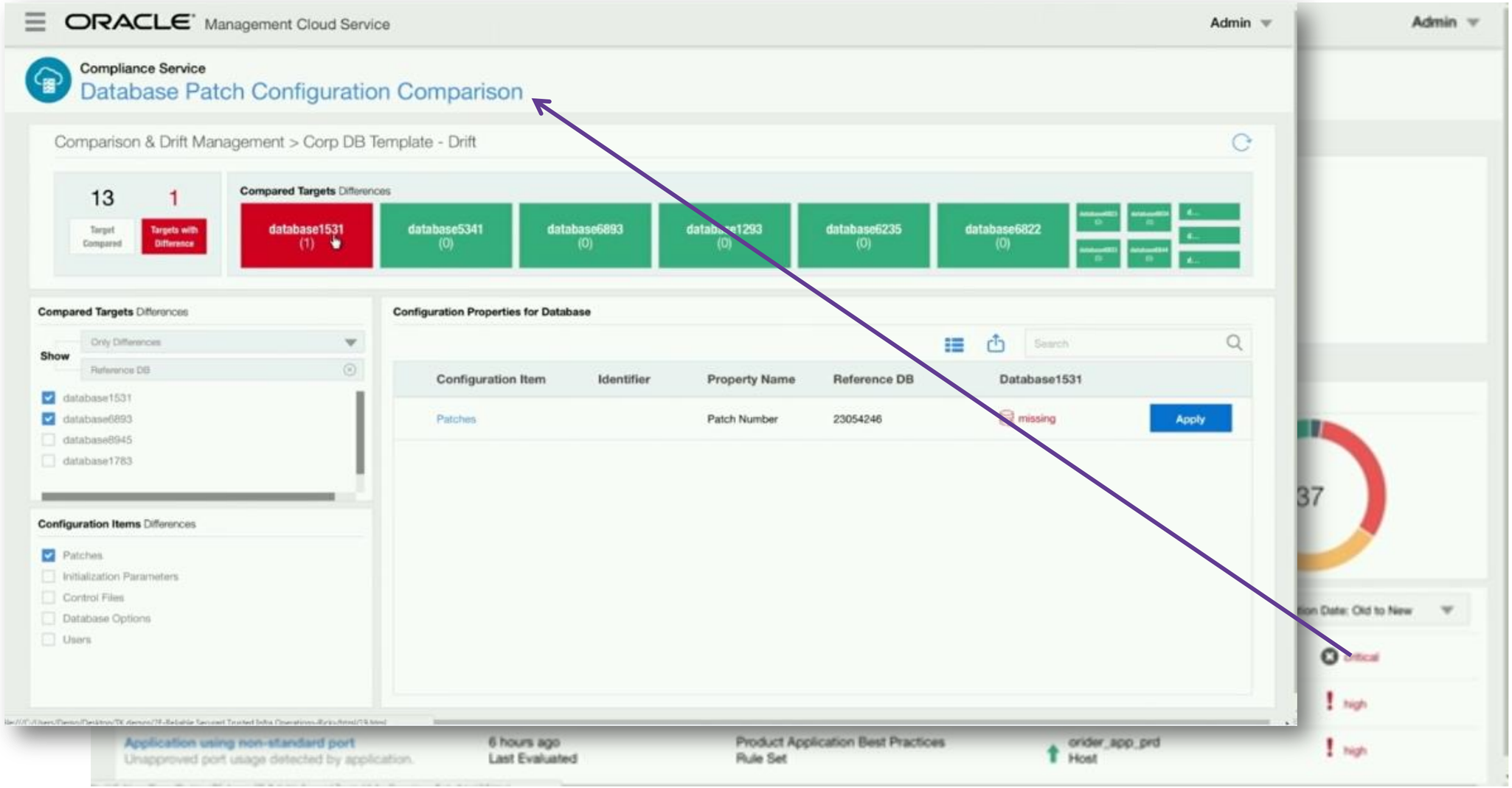
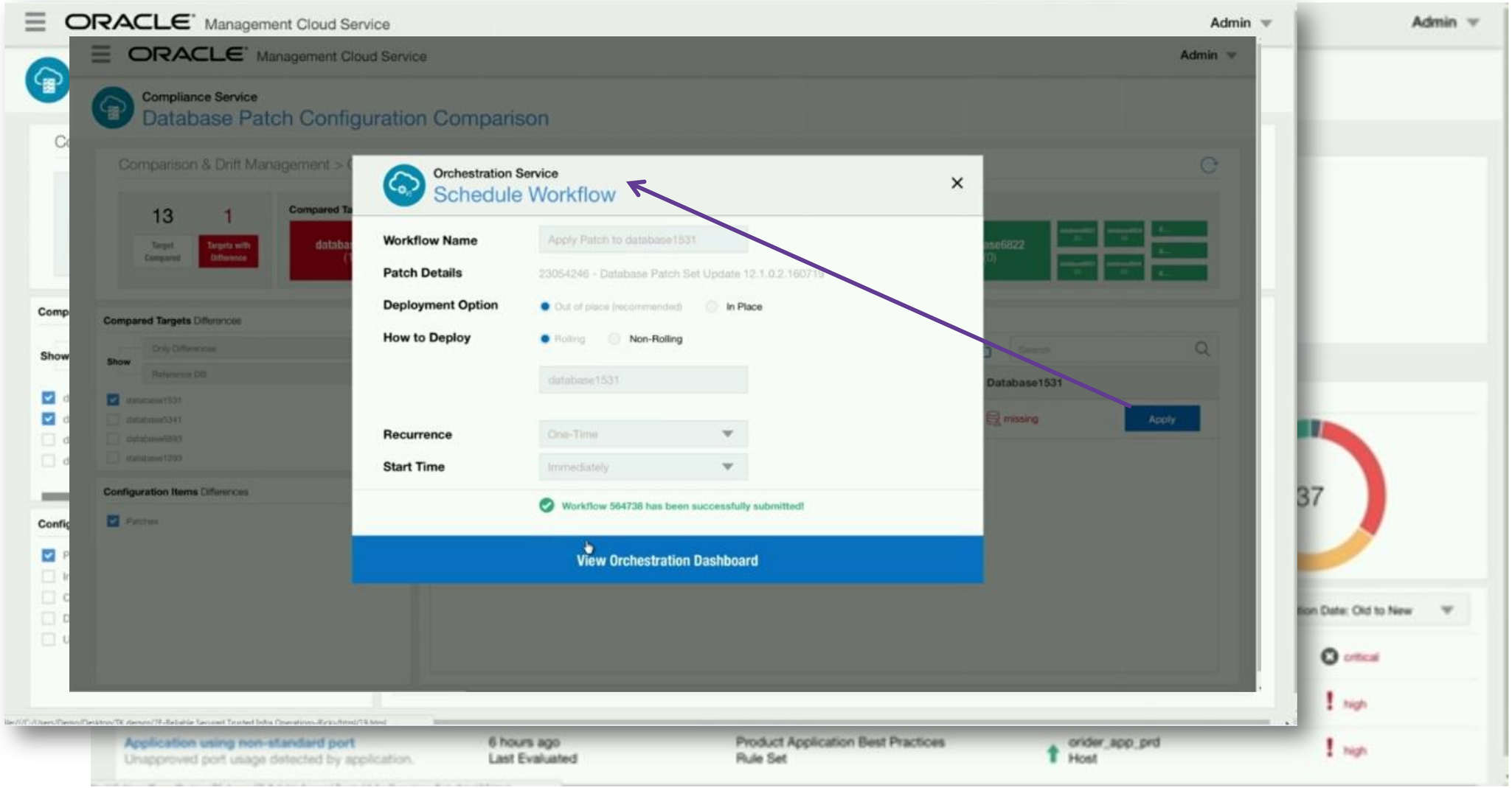
COMPLIANCE



AMIS

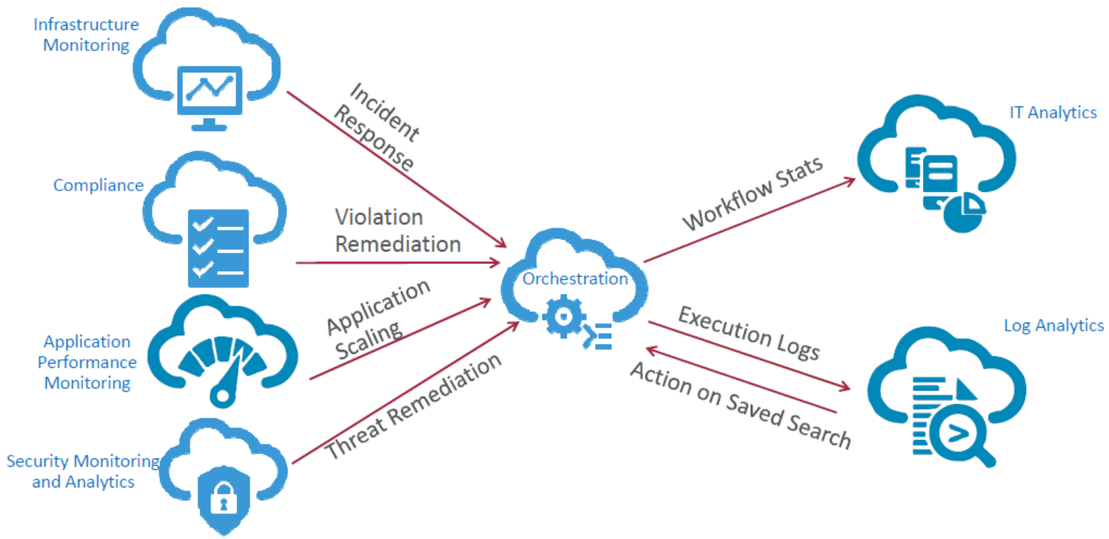
REMEDIATE COMPLIANCE FINDINGS



AMIS

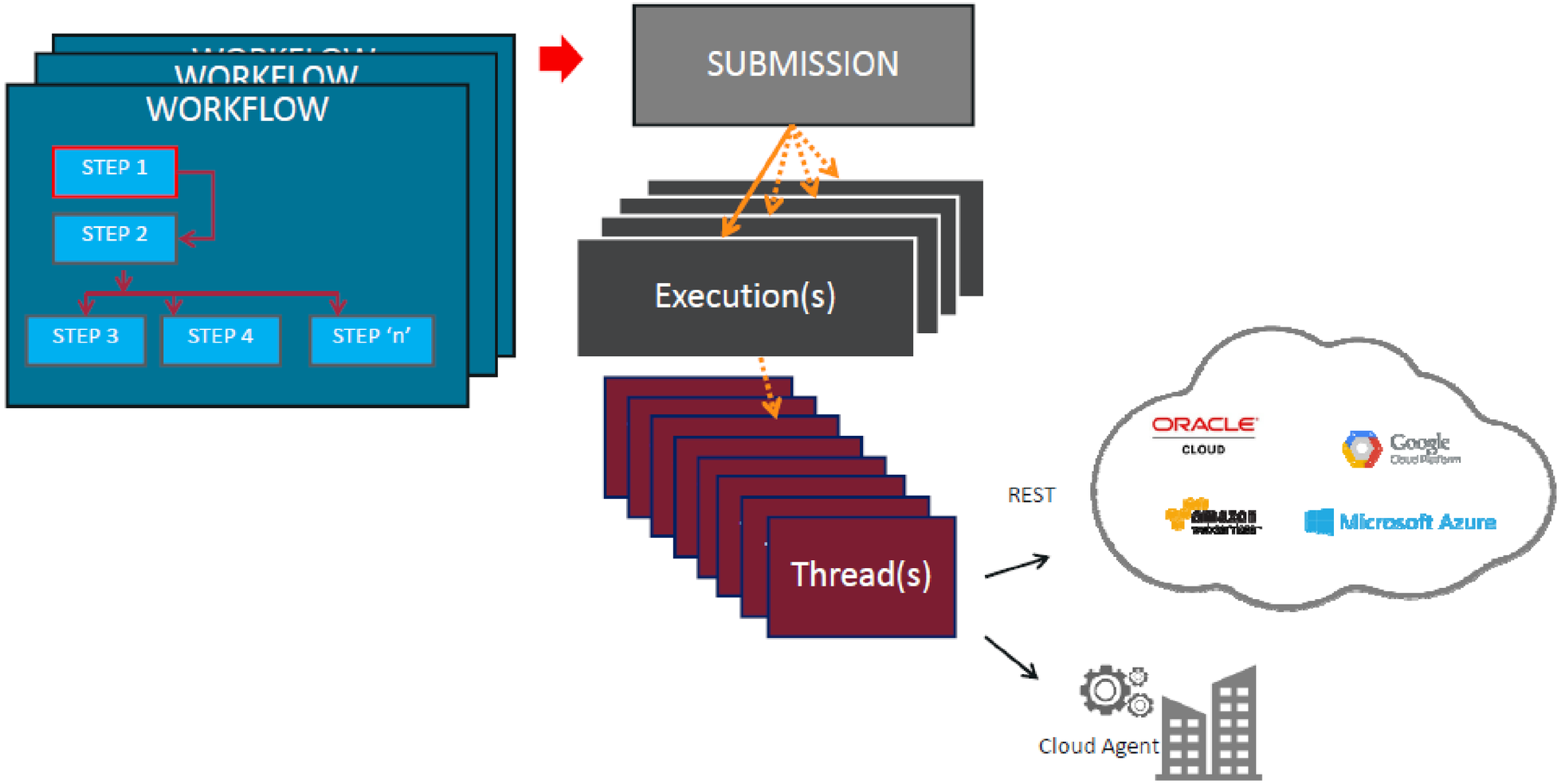
ORCHESTRATIONS == CRON ON THE CLOUD

- Cross stack | clouds Job Scheduler
- Orchestrate Provisioning and Deployment
  - Work with Chef, Puppet, OS script
- Execute workflows on behalf of other OMC services
  - E.g. compliance remediation
- Topology Aware workflow execution in bulk

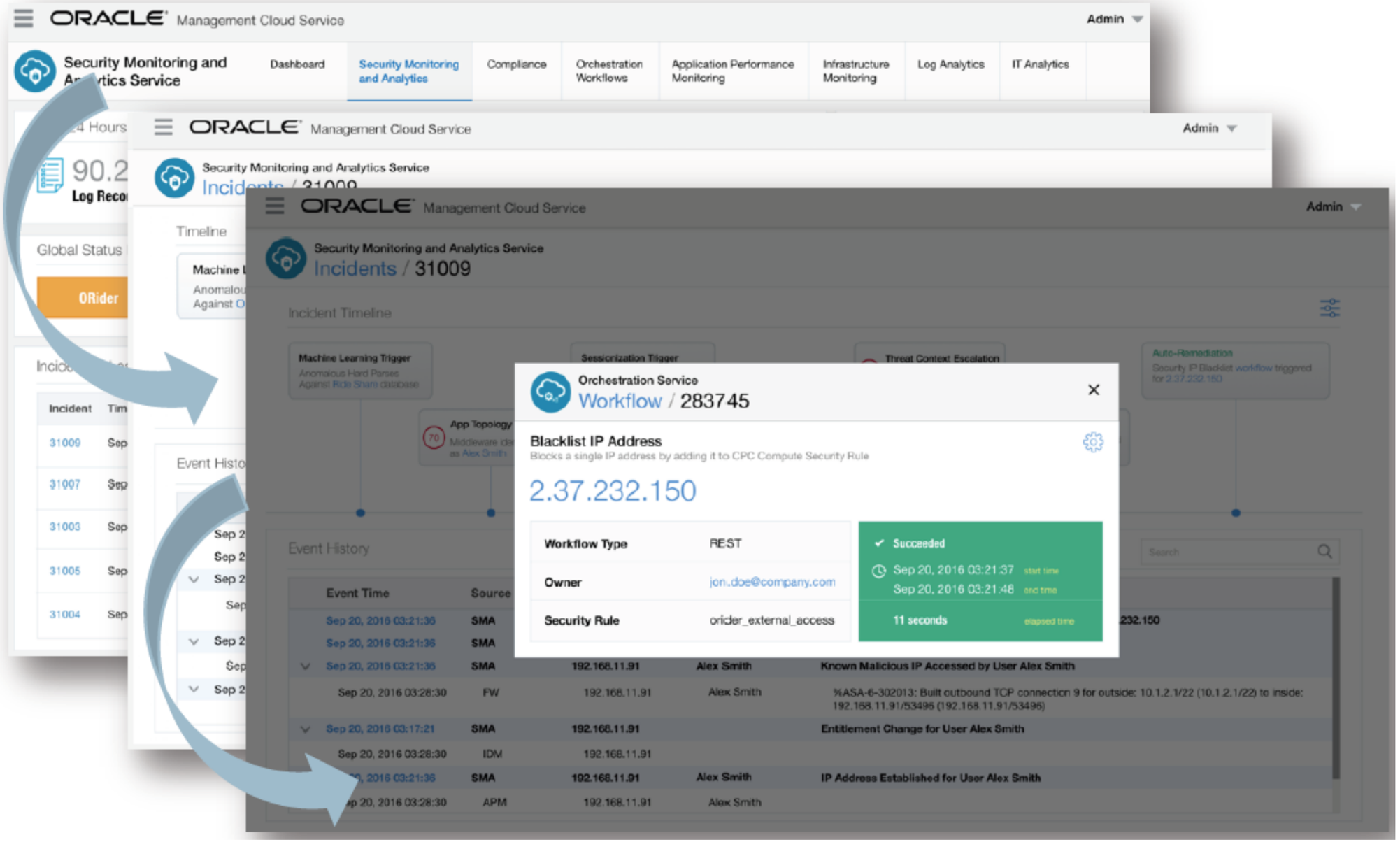


AMIS

ORCHESTRATION ARCHITECTURE

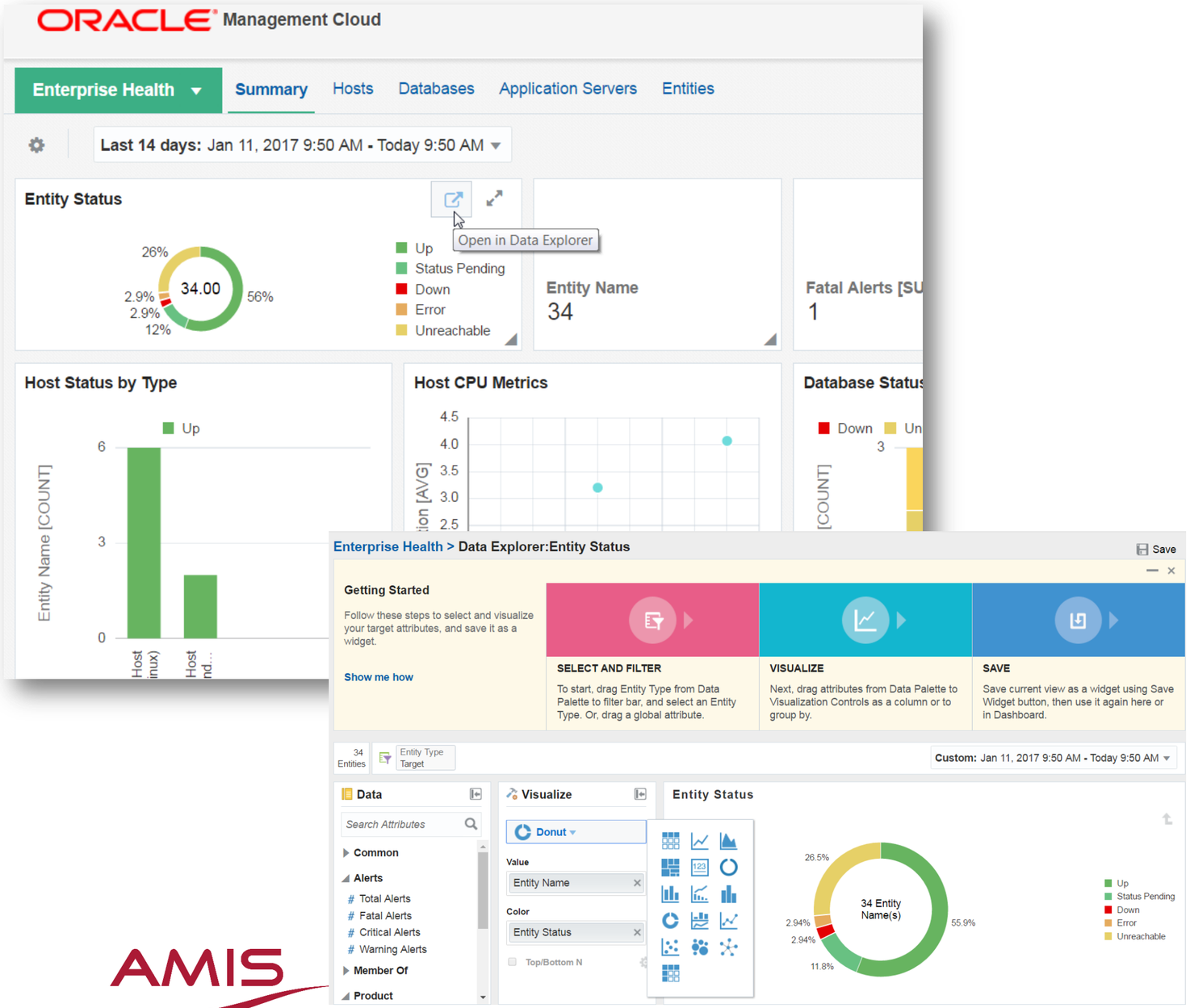


RUN WORKFLOW ON BEHALF OF SMA



DATA EXPLORING & VISUALIZATION

- Dashboards
- Data Explorer
- Create & Share Custom widgets



AMIS

AGENDA

THE WORLD OF DEVOPS AND THE NECESSITY FOR MONITORING & ANALYTICS

OVERVIEW OF ORACLE MANAGEMENT CLOUD AND ITS CONSTITUENTS

LIVE DEMONSTRATION OF THE FUNCTIONALITY OF OMC

FIRST STEPS WITH OMC – HOW [TO GET | WE GOT] STARTED

DRINKS & DINNER

HANDSON OMC - APPLICATION PERFORMANCE MONITORING & LOG ANALYTICS

HANDSON OMC – INFRASTRUCTURE MONITORING & IT ANALYTICS

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HANDSON OMC – INFRASTRUCTURE MONITORING & IT ANALYTICS

(Y)OUR FIRST STEPS WITH OMC

- When and why?
- What do you need?
- Practical steps to get going
- How did we get started and what were the obstacles?

AMIS

WHEN AND WHY (IS EXPLORING OMC RELEVANT)

- The real user experience (performance, availability) is important
- Insight in actual usage of the application(s) is relevant
- Optimal or at least efficient infrastructure resource usage is an objective
- It is desirable to be able to react (proact!) faster and more focused in case of incidents by analyzing and understanding root causes
  - The summum: predictive management
- The more complex the application and IT landscape, the more relevant Oracle Management Cloud is

AMIS

WHAT DO YOU NEED?

- Trial instance of Oracle Management Cloud
- Some OS skills (and ideally experience in DBA and WLS Admin) to install and configure the agents
- Applications and platform/infra components to test with
  - Optionally an Oracle PaaS Cloud instance and/or some 3rd party cloud) or even just a few laptops. Note: agents call out to OMC, OMC does not reach in
- Duh – a browser
- Note: no hardware is required to work with OMC –it is a cloud service!
- A plan based on underlying objectives:
  - what do you want to explore and try out? What is it you want to proof or learn? What is it you want to achieve that you believe OMC can help you with?
  - For example focus on User experience, outages, capacity planning, tracking of system events and human actions (for compliance), automating of IT management

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PRACTICAL STEPS TO GET GOING

- Access the trial OMC environment
  - Create accounts for all collaborators
- Deploy agents for APM, Log Analytics, Infrastructure Monitoring
  - Perhaps Data Collector and Gateway
- Put meaningful load on application and platform
  - Perhaps intentionally cause some typical problems to find out how these can be identified through OMC
- Start with some simple analysis of very obvious issues
- Get support from someone who has been there (land of the blind…)

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OUR FIRST STEPS

- Arranged trial through Dennis
- Created cloud accounts for all colleagues involved
- Deployed Cloud Agents on our own laptops
  - APM, Log Analytics, Infrastructure Monitoring, IT Analytics
  - For WebLogic, SOA Suite, Oracle Database, Linux Host, Node.js, …
- It took very little time and effort to have the first metrics and log entries in the OMC instance
  - And to start analyzing
- Published some blog articles about our work

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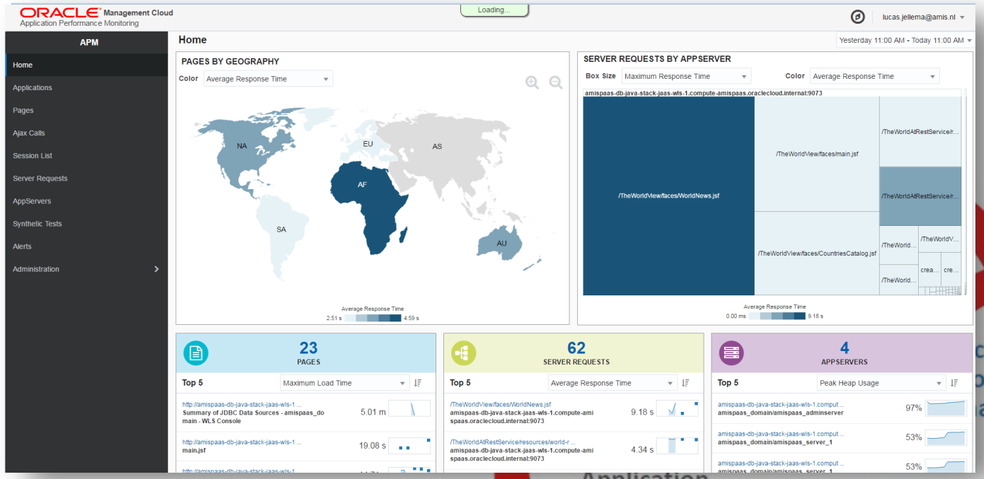

ORACLE
MANAGEMENT CLOUD

curity
onitoring &
alytics

Compliance

Application Performance Monitoring

Log Analytics

IT Analytics

ADF UI running in browser

APM Java agent

ADF12c application

ORACLE
FUSION MIDDLEWARE
WEBLOGIC SERVER

Node.js

APM Node Agent

Colleague's Laptop

SoapUI

Service Bus project

BPEL process

APM Java agent

SOA Suite 12c

ORACLE
FUSION MIDDLEWARE
WEBLOGIC SERVER

My Laptop

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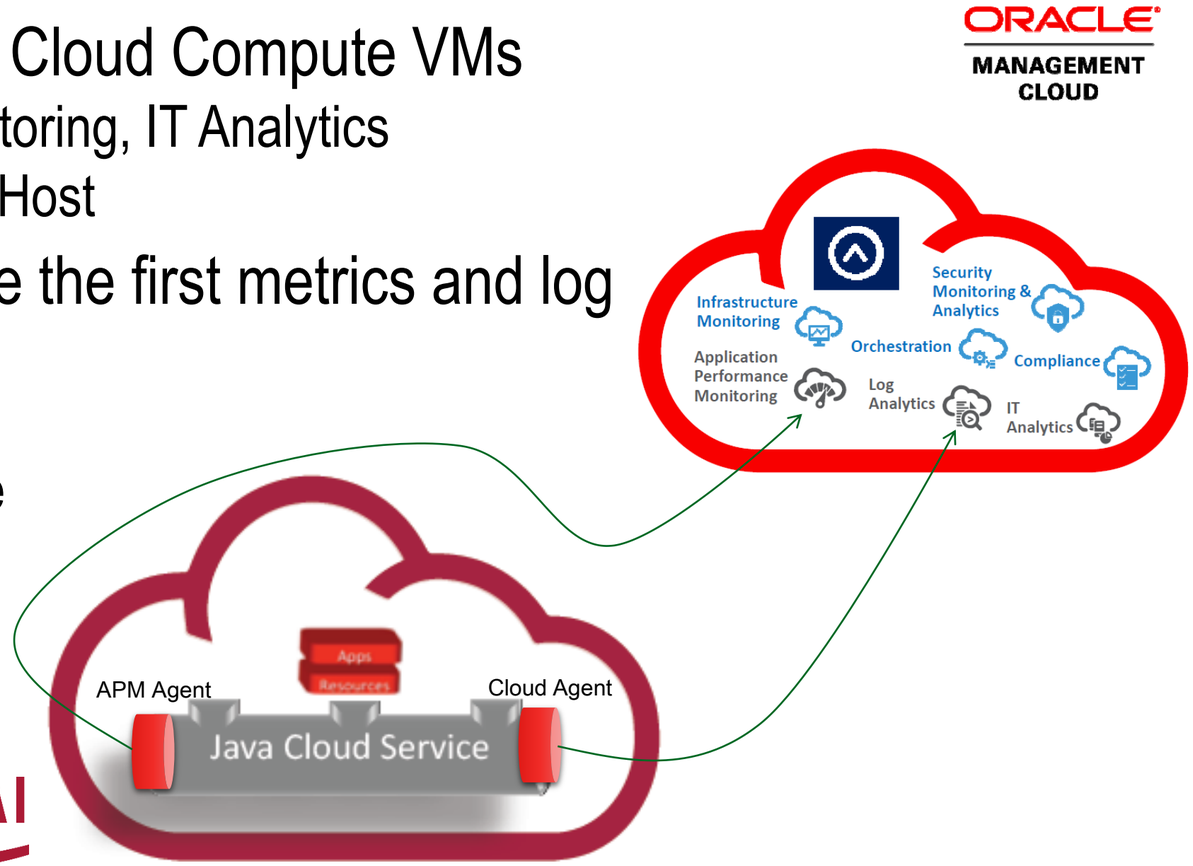
OUR NEXT STEPS

- Request Oracle PaaS Trial Account
  - DBaaS, JCS, Compute, Storage, ….
- Deployed Cloud Agents Oracle Public Cloud Compute VMs
  - APM, Log Analytics, Infrastructure Monitoring, IT Analytics
  - For WebLogic, Oracle Database, Linux Host
- It took very little time and effort to have the first metrics and log entries in the OMC instance
  - And to start analyzing
  - Some Linux admin challenge and a little Cloud Agent script bug to fix
- We will use this PaaS Cloud instance in the handson workshop tonight



AMI

APM & LOG ANALYTICS EXPLORATIONS

- What can we learn about what our users are doing?
  - Which functionality is being used – when/from where/by whom
- What insight do we get about poor performance (sub standard) and errors our users run into?
  - Dashboard & alerts
- How can we enrich application level logging to be able to better understand and analyze run time behavior?
- What work instructions can we develop for application administrators (and DevOps team) to investigate issues?
- Bonus/Low hanging fruit: find errors and warnings in our application code, resolve deployment issues, learn about framework errors, learn about WLS and ADF behavior (package dbms_pickle)

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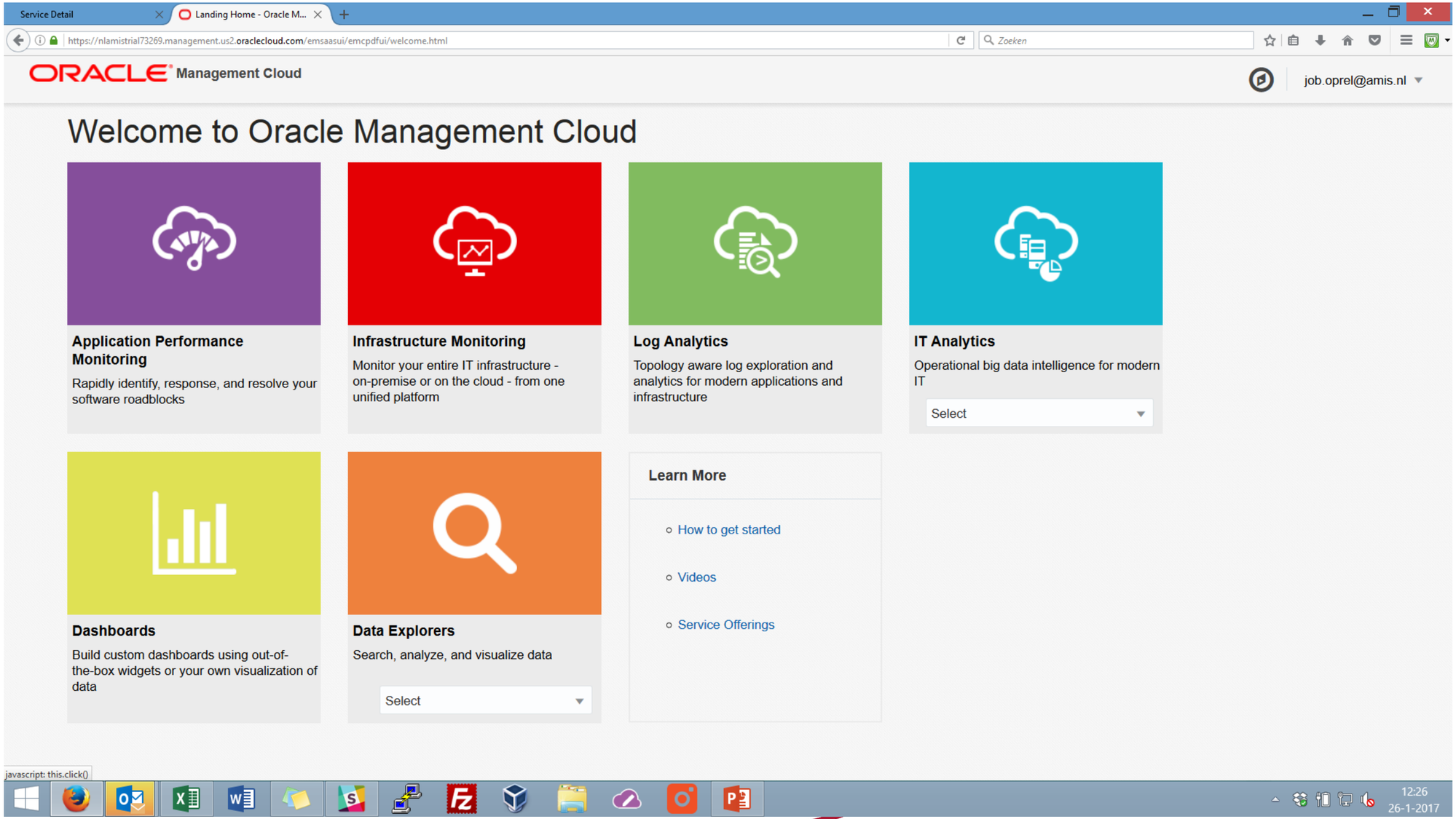
LEARNING POINTS, ROUGH EDGES AND OBSTACLES

- It is deceptively simple to get going
  - And not so simple to find out how to extract the most value from what OMC has to offer
- Configuring the agents can be very smooth and straightforward
  - And sometimes requires careful investigation and configuration
- APM:
  - Does not carry business indicators
    - Not so easy to find a specific user's session
  - APM and ADF are not a perfect combination
    - APM works best on individual pages rather than single/few page applications
  - APM does not explicitly support API & Service calls – it focuses on UI requests
  - APM location map could be more detailed: The Netherlands is a granular as it gets

OMC EXPERIENCES



OMC = OEM IN THE CLOUD?

≠

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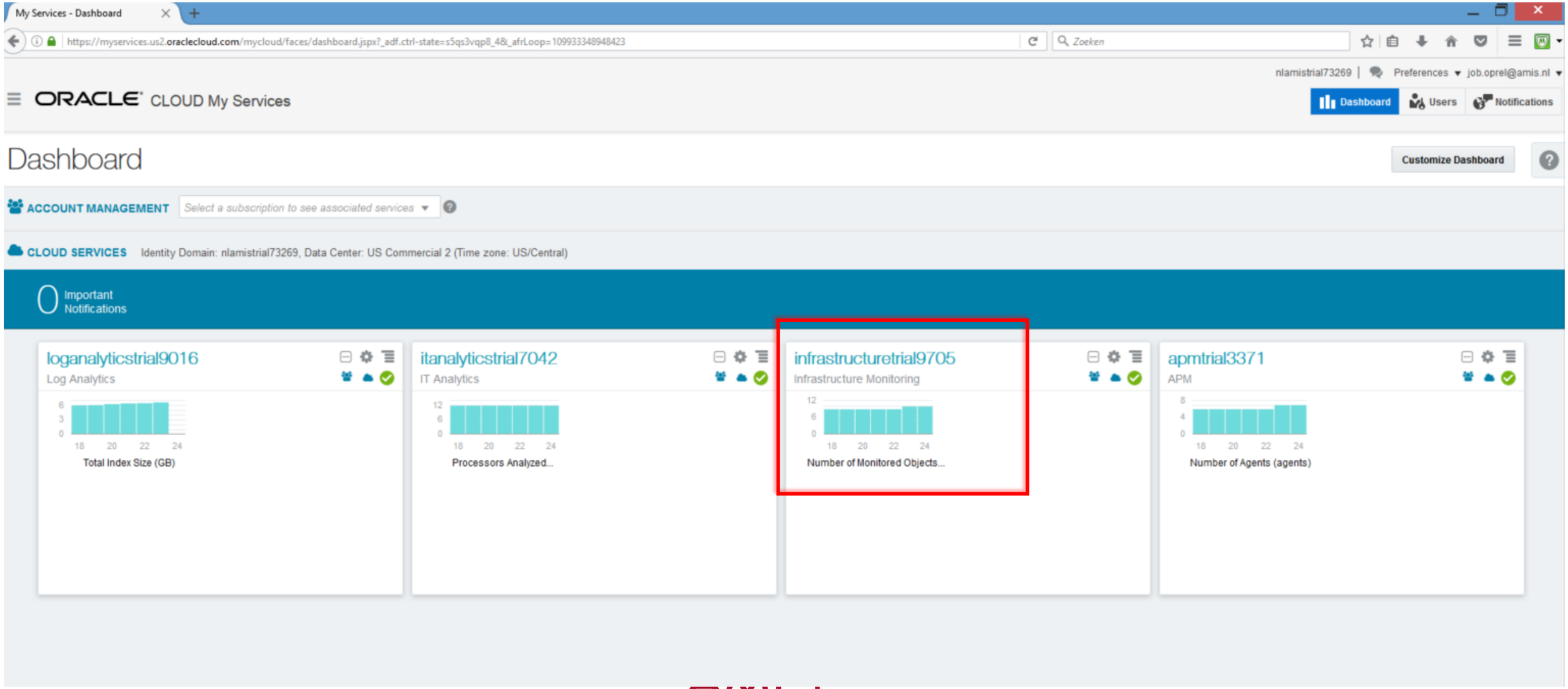
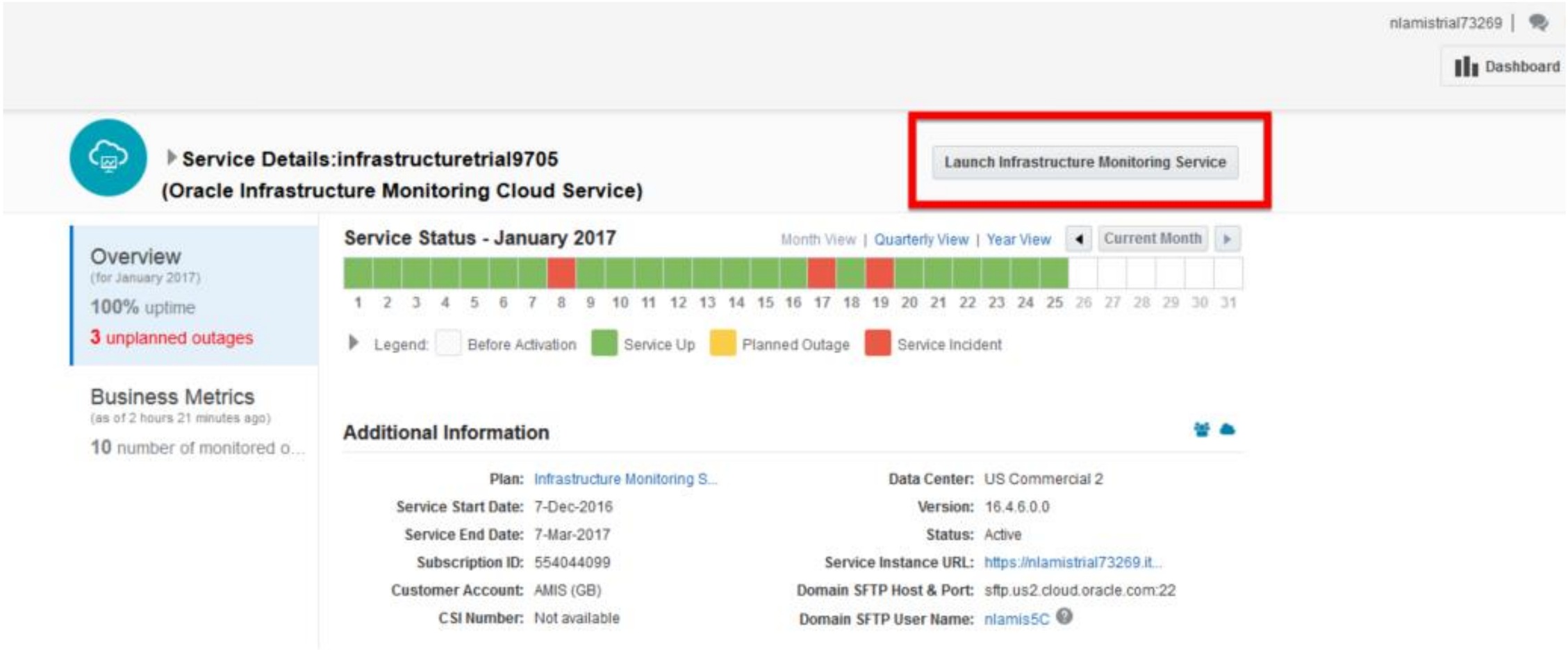
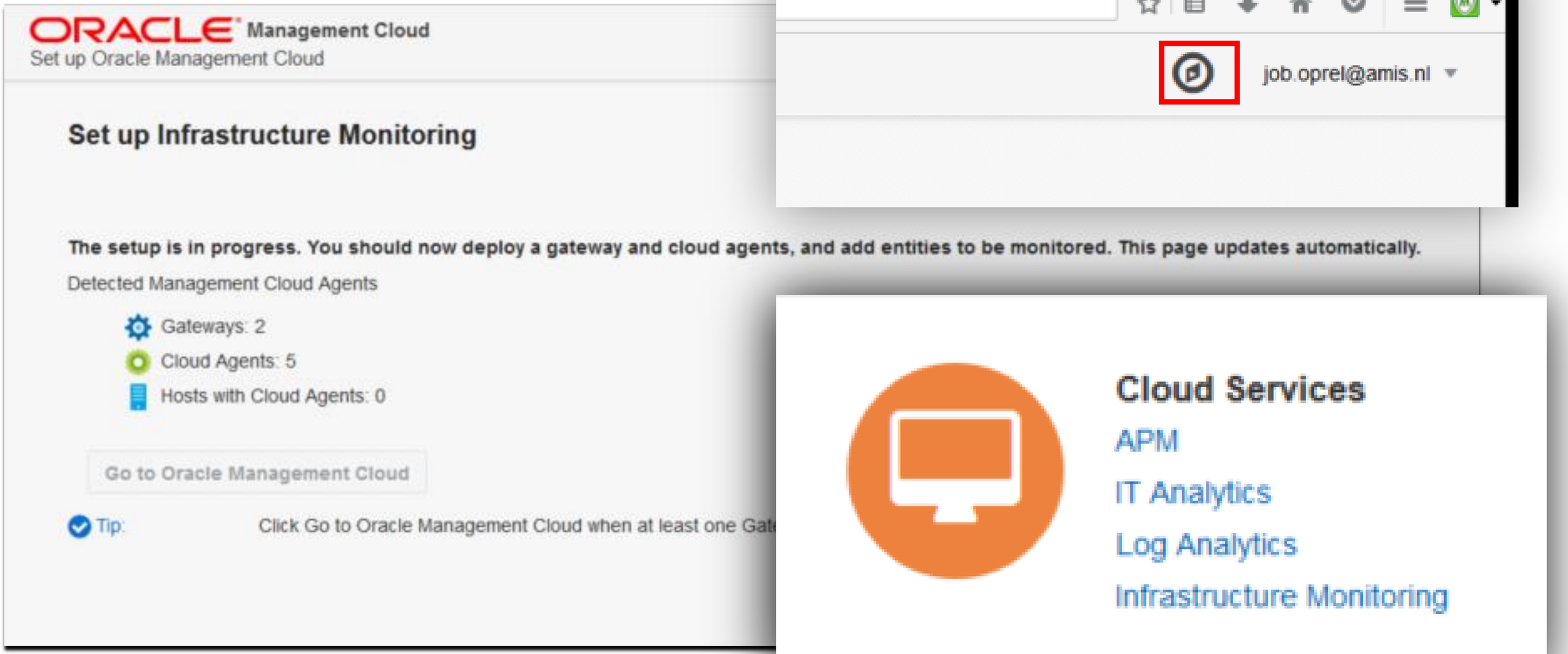
THE JOURNEY - START



OMC GUI

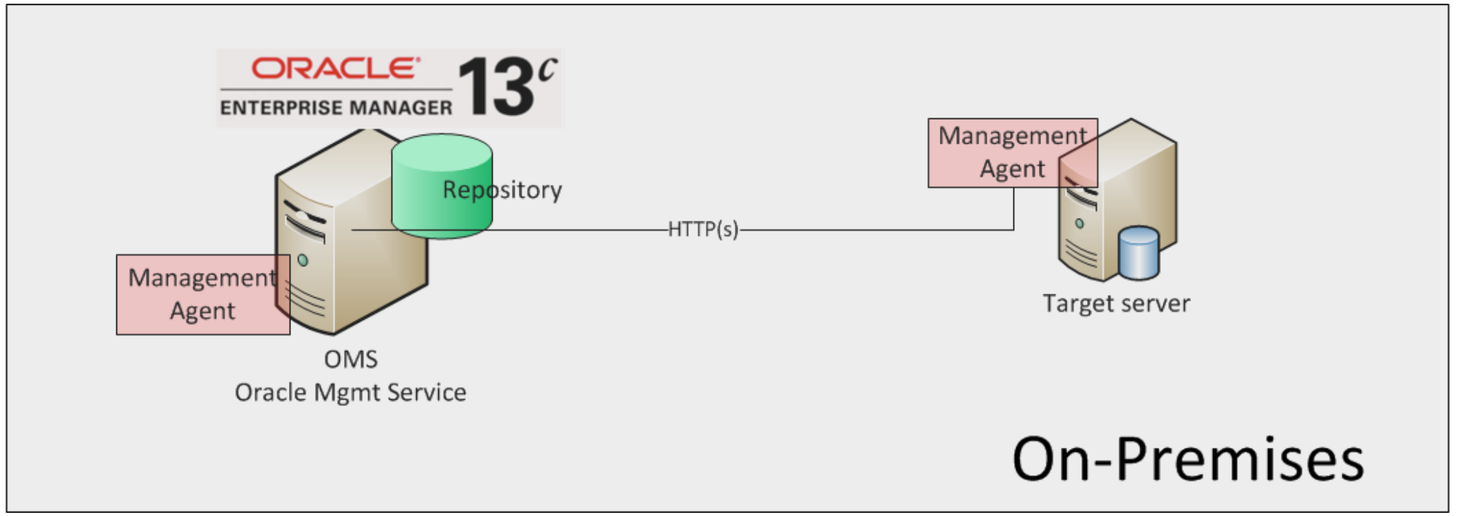

nlamistrial73269 |
Dashboard
Service Details:infrastructuretrial9705
(Oracle Infrastructure Monitoring Cloud Service)
Launch Infrastructure Monitoring Service
Overview
(for January 2017)
100% uptime
3 unplanned outages
Business Metrics
(as of 2 hours 21 minutes ago)
10 number of monitored o...
Service Status - January 2017
Month View | Quarterly View | Year View
Current Month
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
Legend: Before Activation Service Up Planned Outage Service Incident
Additional Information
Plan: Infrastructure Monitoring S...
Service Start Date: 7-Dec-2016
Service End Date: 7-Mar-2017
Subscription ID: 554044099
Customer Account: AMIS (GB)
CSI Number: Not available
Data Center: US Commercial 2
Version: 16.4.6.0.0
Status: Active
Service Instance URL: https://nlamistrial73269.it...
Domain SFTP Host & Port: sftp.us2.cloud.oracle.com:22
Domain SFTP User Name: nlamis5C

OMC GUI


ORACLE Management Cloud
Set up Oracle Management Cloud
Set up Infrastructure Monitoring
The setup is in progress. You should now deploy a gateway and cloud agents, and add entities to be monitored. This page updates automatically.
Detected Management Cloud Agents
Gateways: 2
Cloud Agents: 5
Hosts with Cloud Agents: 0
Go to Oracle Management Cloud
Tip:
Click Go to Oracle Management Cloud when at least one Gat
job.oprel@amis.nl
Cloud Services
APM
IT Analytics
Log Analytics
Infrastructure Monitoring

AMIS

INSTALL AND SETUP – OUR WORLD



Oracle Enterprise Manager

1. Push agent on target node from central node
2. Automatic Discovery process by agent on target node
3. Promote the interesting targets from central node

AMIS

INSTALL AND SETUP OMC
HOW HARD CAN IT BE

1. Plan where the agents will be installed
2. Download the Oracle Management Cloud Master Installer from this wizard
3. Install and set up the agents

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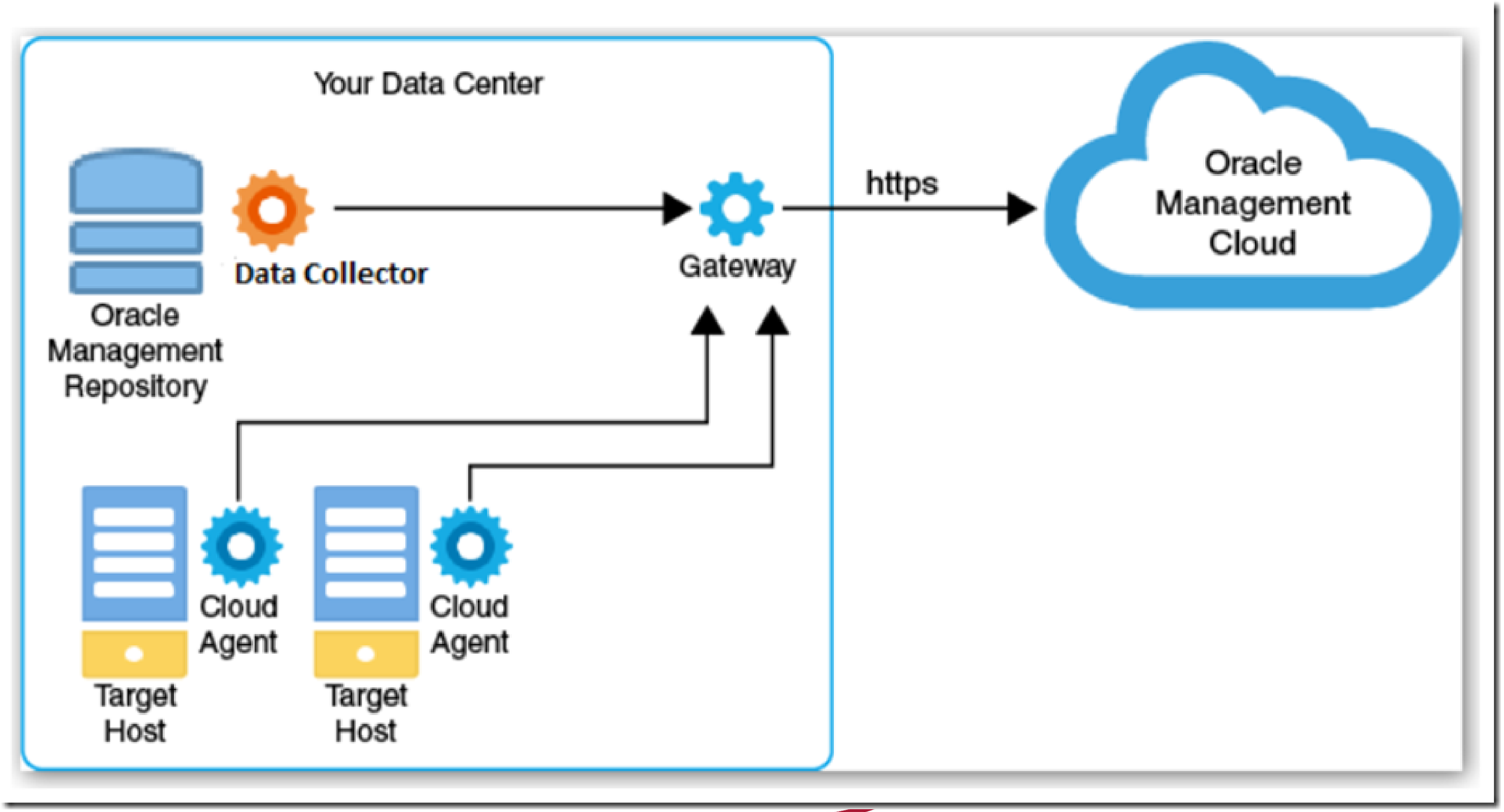
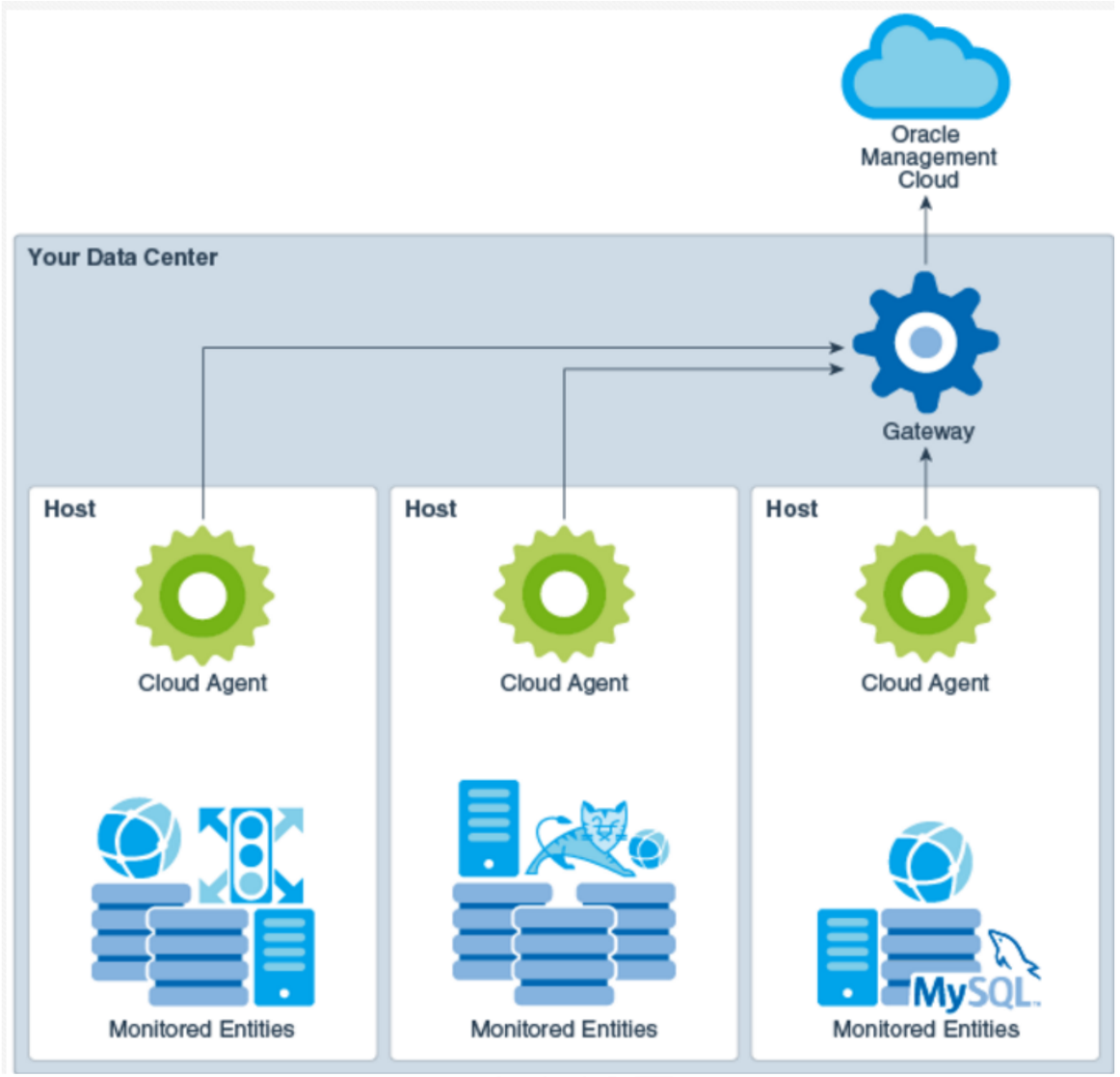
BUT: DIFFERENT AGENTS



AND: DIFFERENT TARGETS



AMIS

1. AGENT – PLAN : KIND, WHAT TO DO

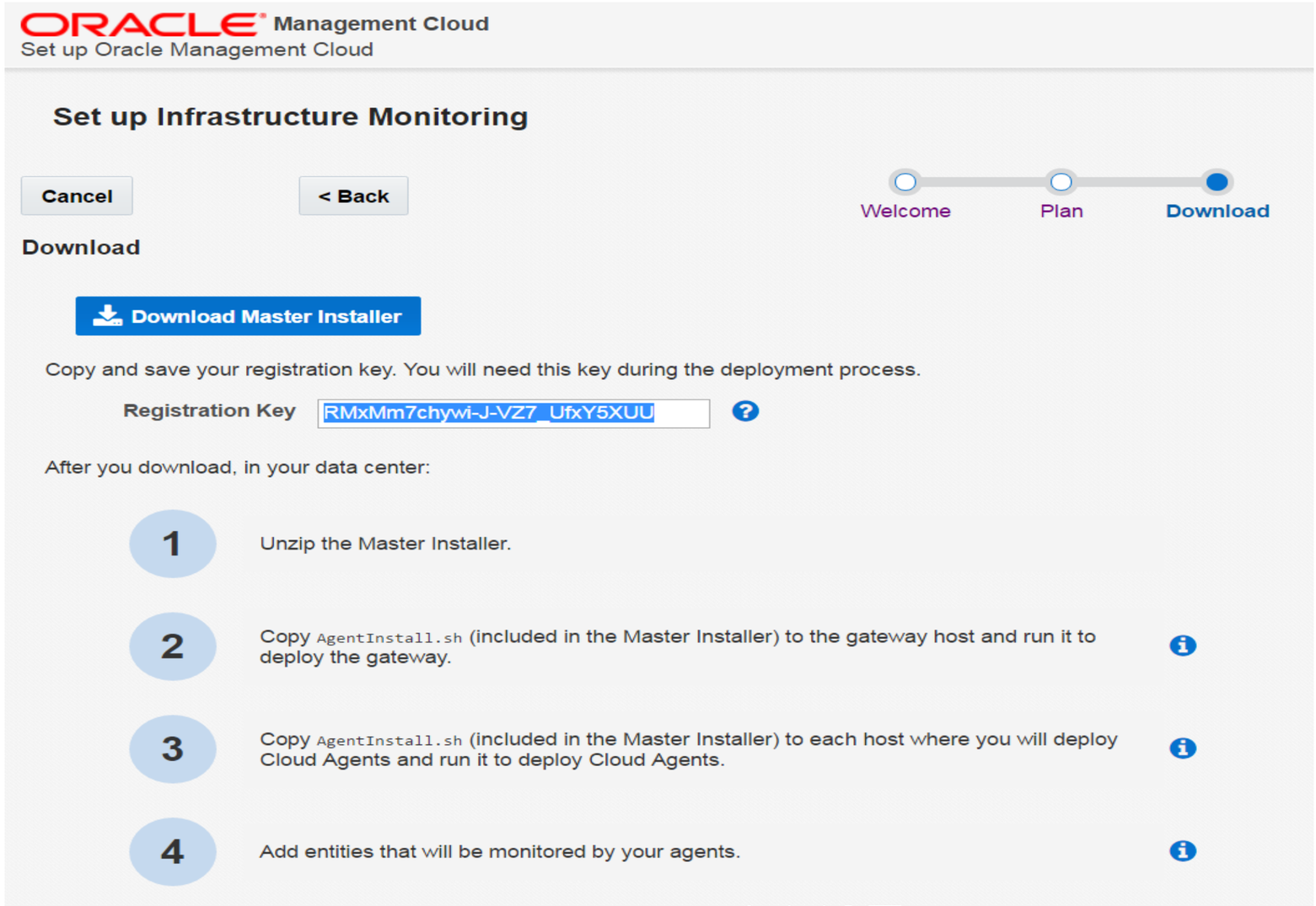
What we did:

Cloud Agents, Data Collector, Gateway on

- Laptops
- Oracle Cloud
- Server (VM) at AMIS network

Goal : Explore !!

2. DOWNLOAD OMC MASTER



AMIS

3A. INSTALL AND SETUP THE AGENTS

Two ways:

- directly downloading and install
- download-only and then install


```
./AgentInstall.sh AGENT_TYPE=cloud_agent
AGENT_REGISTRATION_KEY='RMxMm7chywi-J-VZ7_UfxY5XUU'
AGENT_BASE_DIR=/omc_agent –staged
```

AMIS

3B. INSTALL AND SETUP THE AGENTS

Promote the entities. Example : add a Linux Host.

1. Create two JSON-files per entity.

2. ./omc_agent/agent_inst/bin/omcli add_entity agent /omc_agent/omc_host_ovamisux159_linux.json -credential_file /omc_agent/omc_host_ovamisux159_linux_creds.json

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POSSIBLE ENTITIES TO PROMOTE

- Hosts:
  - Linux
  - Solaris
  - Windows
  - AIX
- DB:
  - MySQL
  - Oracle
  - Microsoft SQL
  - MongoDB
- Tomcat
- Weblogic Server, cluster, domain
- Docker Engine, container
- Traffic Director Instance, cluster

AND NOW THE DATA IS FLOWING – OR IS IT?

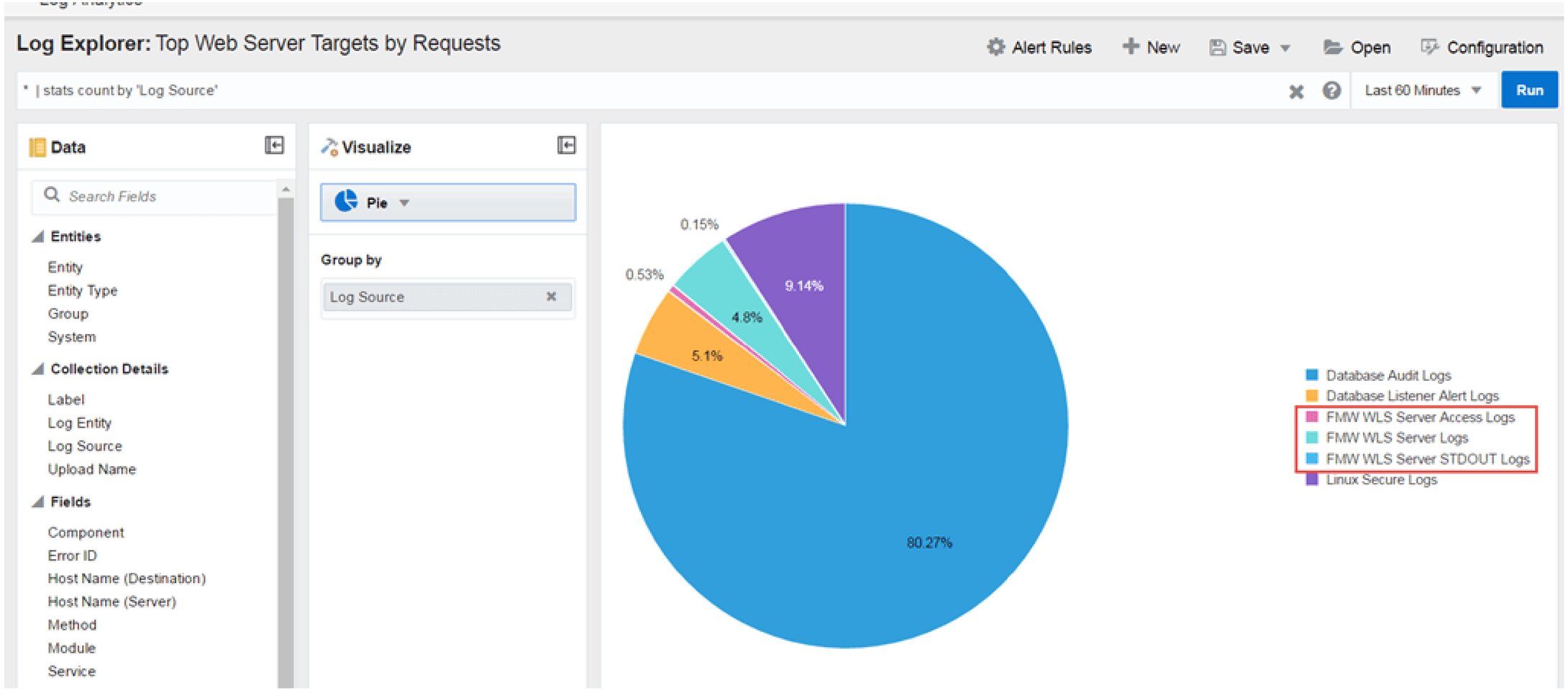
Example : ‘Obvious’ bug in logrules_os_file.xml:

<Name>tm_server.log</Name>

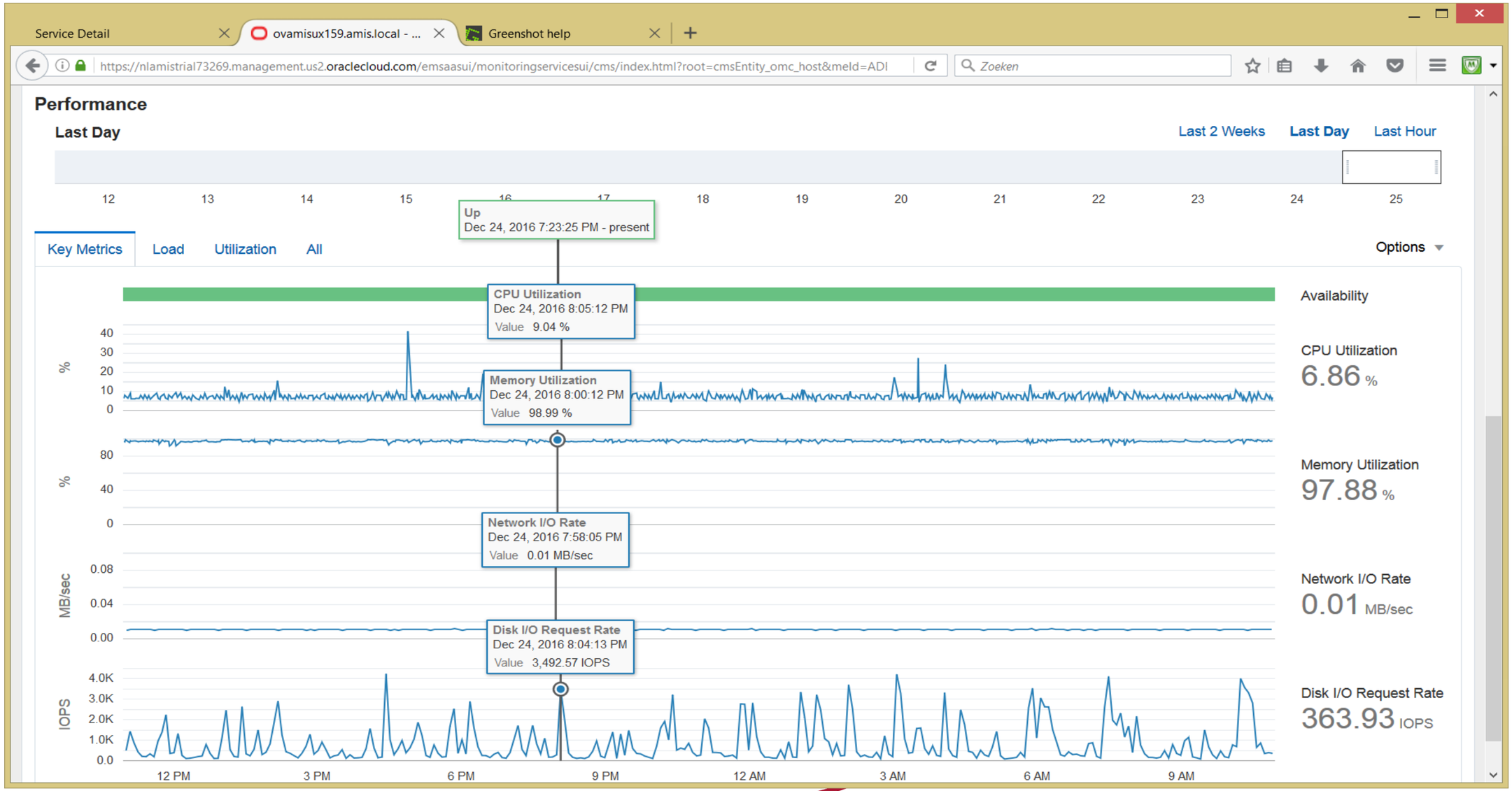
<Regex>([\d]{2}:[\d]{2}:[\d]{2},[\d]{3})\s+(.*?)\s+\[(.*)\]\s+\(.*)\s+\[(.*)\]\s+
([\d]{4})-([\d]{2})-
([\d]{2})\s+([\d]{2}):([\d]{2}):([\d]{2}),([\d]{3})(.*)</Regex>

AMIS

THERE IT IS !


Log Explorer: Top Web Server Targets by Requests
Alert Rules
New
Save
Open
Configuration
* | stats count by 'Log Source'
Last 60 Minutes
Run
Data
Search Fields
Entities
Entity
Entity Type
Group
System
Collection Details
Label
Log Entity
Log Source
Upload Name
Fields
Component
Error ID
Host Name (Destination)
Host Name (Server)
Method
Module
Service
Visualize
Pie
Group by
Log Source
0.15%
0.53%
9.14%
4.8%
5.1%
80.27%
Database Audit Logs
Database Listener Alert Logs
FMW WLS Server Access Logs
FMW WLS Server Logs
FMW WLS Server STDOUT Logs
Linux Secure Logs

ISOLATION


Service Detail
ovamisux159.amis.local - ...
Greenshot help
https://nlamistrial73269.management.us2.oraclecloud.com/emsaasui/monitoringservicesui/cms/index.html?root=cmsEntity_omc_host&meId=ADI
Zoeken
Performance
Last Day
Last 2 Weeks
Last Day
Last Hour
12
13
14
15
16
17
18
19
20
21
22
23
24
25
Up
Dec 24, 2016 7:23:25 PM - present
Key Metrics
Load
Utilization
All
Options
CPU Utilization
Dec 24, 2016 8:05:12 PM
Value 9.04 %
Memory Utilization
Dec 24, 2016 8:00:12 PM
Value 98.99 %
Network I/O Rate
Dec 24, 2016 7:58:05 PM
Value 0.01 MB/sec
Disk I/O Request Rate
Dec 24, 2016 8:04:13 PM
Value 3,492.57 IOPS
%
40
30
20
10
0
80
40
0
MB/sec
0.08
0.04
0.00
IOPS
4.0K
3.0K
2.0K
1.0K
0.0
12 PM
3 PM
6 PM
9 PM
12 AM
3 AM
6 AM
9 AM
Availability
CPU Utilization
6.86 %
Memory Utilization
97.88 %
Network I/O Rate
0.01 MB/sec
Disk I/O Request Rate
363.93 IOPS

CONCLUSION

- Plan / goals before you start !
- Simple deployment - sometimes
- Number of agents
- GUI suboptimal
- Ton of potential
- More integrated
- Overview documentation

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- Blog: technology.amis.nl
  On Oracle, Cloud, SQL, PL/SQL, Java, JavaScript, Continuous Delivery, SOA, BPM & more
- Email: lucas.jellema@amis.nl
- : lucasjellema
- : lucas-jellema
- AMIS : www.amis.nl, info@amis.nl
  +31 306016000
  Edisonbaan 15,
  Nieuwegein