

Elevating an Existing Netcool installation to the next level with IBM Cloud Pak for Watson AIOps



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Agenda

Today we want to talk about:

- What is Watson AIOps?
- Where are our current customers today?
- Pain points and Migration

Why AIOps?

IBM surveyed senior Telecommunications & IT leaders and teams to understand the need for AI.

Operational Challenges

Innovation v. Stability

70% of their resources are tied up **just keeping what they already have alive**

\$1.2M spend per service in highly skilled FTEs to meet SLA and resiliency demands

Complexity & Scale

Days to detect and diagnose a complex issue

Less than 1% of your alerts are critical but cost \$420K per hour in downtime if not detected

Too Many Tools

Struggling with inconsistent alerts, **interrupted workflow** to swap between incomplete tools

Wasted hours, growing frustrations manually scouring logs, tickets and alerts

Burnout & Skills

Only 10% percent of FTEs **have 90% of critical expertise**

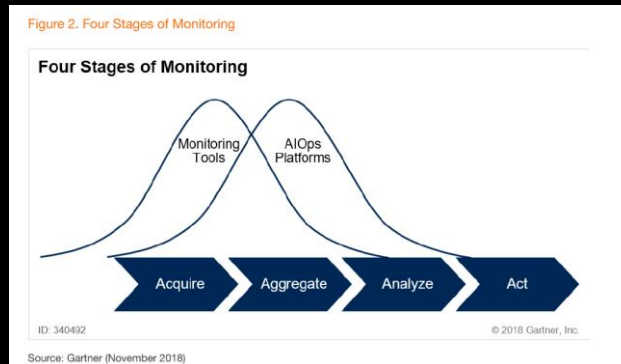
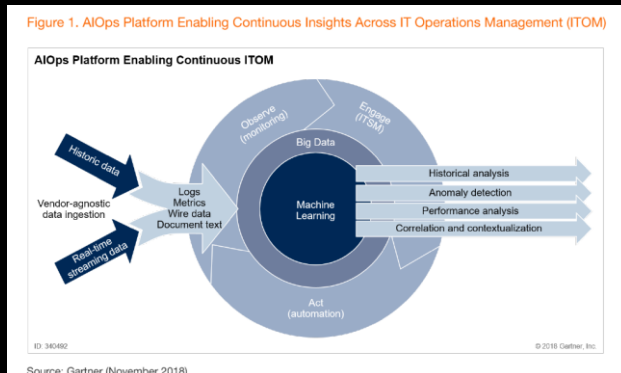
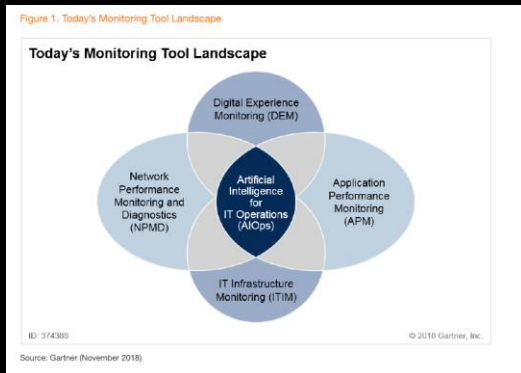
Teams & leadership struggle with talent risk

The Analysts

Defined by Gartner

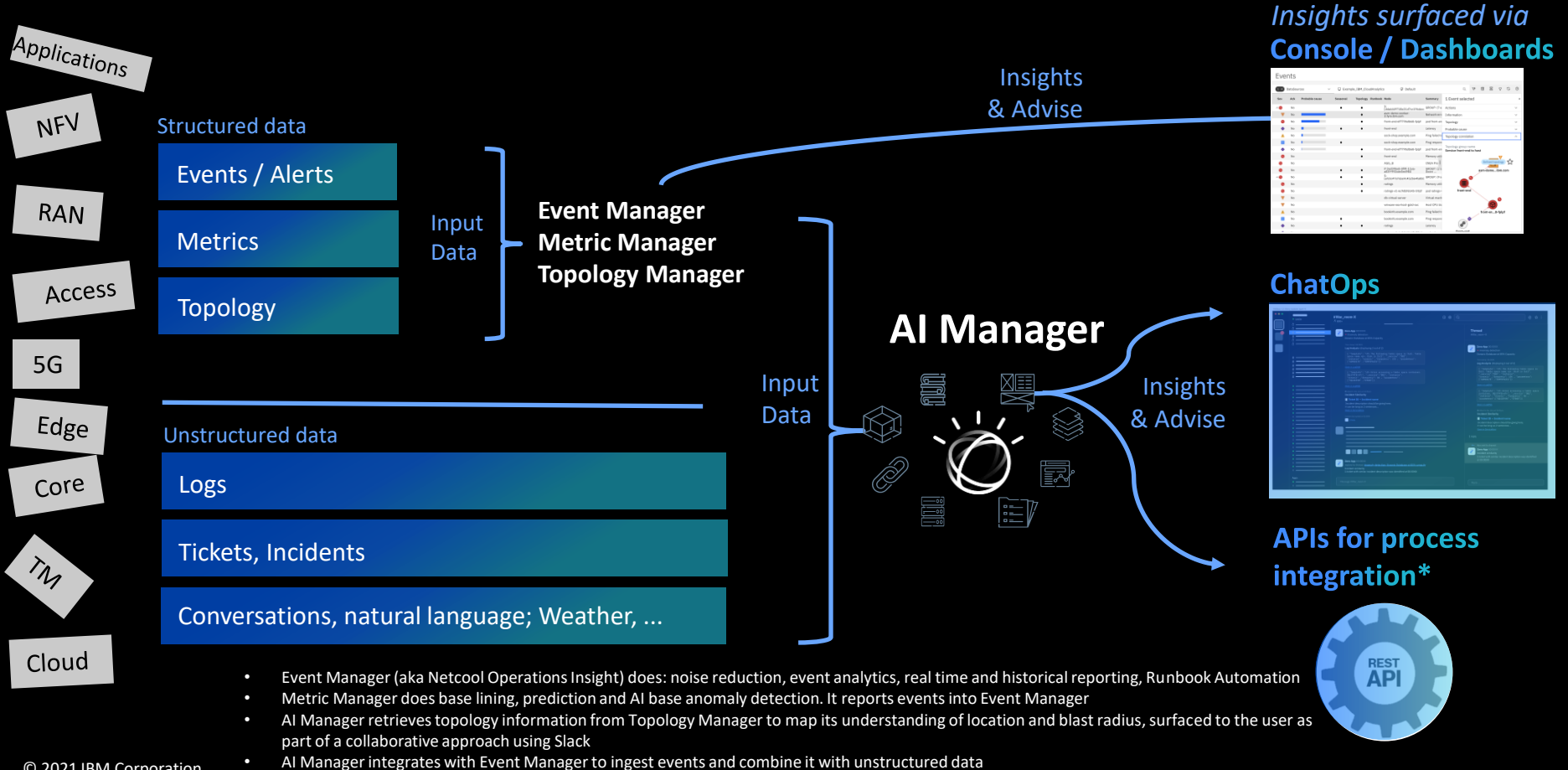
AIOps is the application of [machine learning](#) (ML) and data science to [IT operations](#) problems. AIOps platforms combine big data and ML functionality to enhance and partially replace all primary IT operations functions, including availability and performance monitoring, event correlation and analysis, and IT service management and automation.

AIOps adoption is projected to grow to 30%, by 2023, for large enterprise



What is Watson AIOps?

IBM Watson AIOps

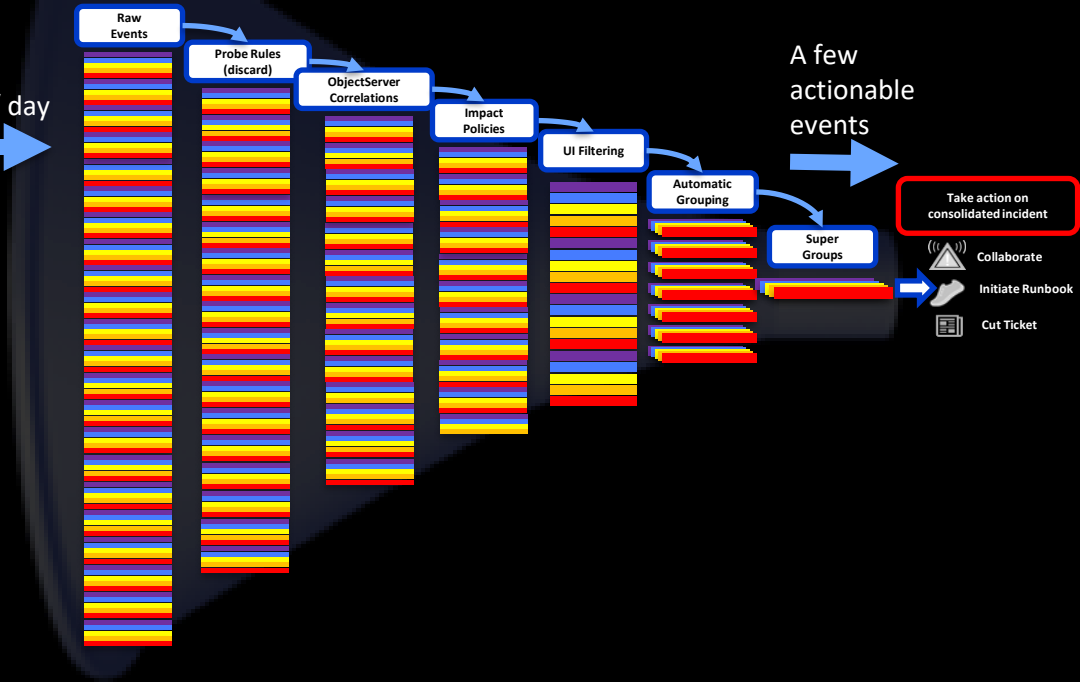
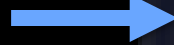


Event Manager – Core Concepts: Noise Reduction

Achieve more with less:

- Reduce noise
- Organise/group events by incident
- Reduce pages and trouble tickets
- Related event information in one place
- Aid quicker problem diagnosis
- Reduce MTTR
- Save on operational costs!

100th of
Millions
of events / day



Automatic Grouping of events that are related leads to improve Operational Efficiency

Reduces noise and tickets while providing increased context for faster resolution

**Where are out
current customers
today?**

Netcool Evolution

Client Value

OMNibus v8.1
Impact v7.1

GA: 2014
EOM 2020
EOS 2022

Solution modernization

- Managing dynamic environments
- Manage to Cloud and Hybrid
- AI and Machine learning
- Containerization and private cloud deployment

Netcool Operations
Insight V 1.5

Netcool Operations Insight V1.6
GA: 2019

Watson AIOps 1.0
GA: 2020

Netcool Operations Insight 1.6.1
GA: Feb, 2020

Watson AIOps 2.1
NOI v1.6.3
TNC v1.1
GA: 2021

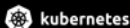
Shift to Automated Ops

- Simplified Analytics adoption
- Explainable & Transparent Analytics
- Topology Based Analytics
- Automate action via Runbook Automation
- 30+ new integrations
- Flexible deployment options



Extended Automated Ops

- Continued modernization and evolution towards a cloud native solution
 - Operator based deployment via RHOS
- Topology based event analytics
- Improved discovery insight into applications and networks
- Continuous improvement - efficiency and health dashboards
- Seamless initiation of Ansible from runbooks



2018

2019

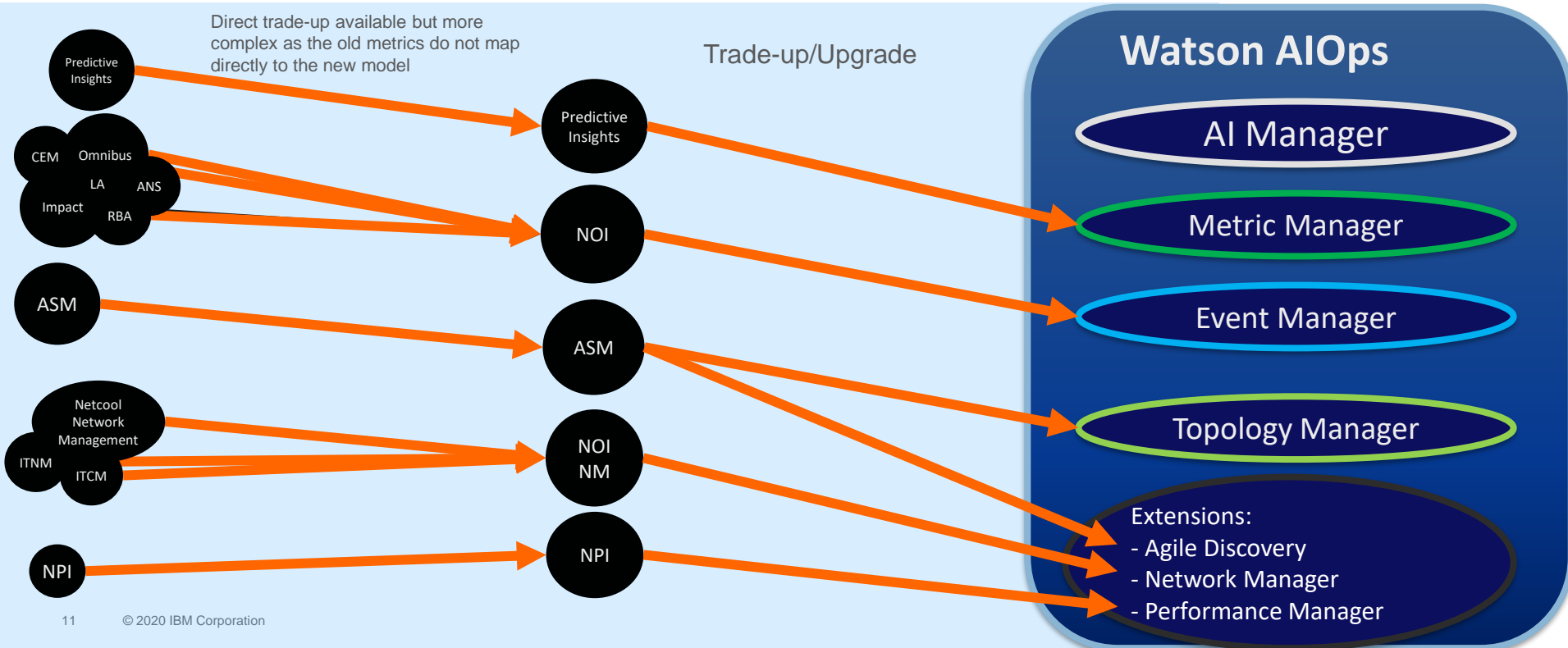
2020

2021

Time

Routes from earlier offerings








































All trade-ups will initially be handled by the Cloud Project Office
Both Perpetual and CTL trade-ups are available
Extensions only available in conjunction with base AI Ops



Event Manager – industry-leading advanced event correlation

Reduce Noise and Incidents

- Multiple event grouping capabilities
- **Working collaboratively to:**
- Organise/group events by incident
- Reduce pages and trouble tickets
- Related alert information in one place
- Aid quicker problem diagnosis
- Reduce MTTR
- Save on operational costs!

Event Viewer						
<div></div> <div>AllEvents</div> <div>Example_IBM</div>						
Sev	Ack	Grouping	Seasonal	Node	Summary	
 	No	Investigate 	 (2)	S:{402737d52bc4960598f40c	INCIDENT: (5 active events):	
	No			28b9193697c659781f8cb7d8	Container front-end container_	
	No			79e16436-de96-11e8-b739-0	Service front-end response_t	
	Yes			79e8932f-de96-11e8-b739-0	Pod front-end-6f779bdb68-fpl	
	No			28b9193697c659781f8cb7d8	Container front-end container_	
	No			front-end.sockshop.com	Synthetic response time high	
 	No	Investigate 		P:sock-shop	INCIDENT: (7 active events):	
 	No	Investigate 		P:front-end	INCIDENT: (3 active events):	
 	No	Investigate 	 (2)	P:d460fef0-8164-11e9-8ee7-	INCIDENT: (2 active events):	
 	No	Investigate 		P:d3f14d30-8164-11e9-8ee7	INCIDENT: (3 active events):	
 	No	Investigate 		P:d3ced110-8164-11e9-8ee7	INCIDENT: (3 active events):	
	No			para-demo-master.fyre.ibm.c	Synthetic response time high	

Connect, Observe, and Ingest :: **Reduce Noise and Incidents** :: Get Relevant Context :: Collaborate :: Automate Response

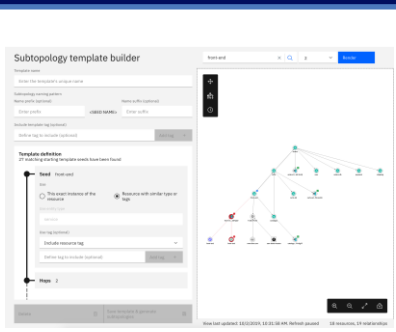
Topology based event analytics

Get Relevant Context

"These are 'important'.
Other dynamic related things are important"



Define policy "one time"



Dynamic
Topology
Dashboard



(details)

Event Management

A screenshot of the 'Event Management' interface. It shows a table of events with columns for 'Ser', 'Ack', 'Grouping', 'Severity', 'Topology', 'Resource Status', 'Name', 'Summary', 'First Occurrence', and 'Last Occurrence'. The table contains several rows of event data, including 'System Configuration Error', 'User Plane Path Failure', and 'User Plane Path Failure'.

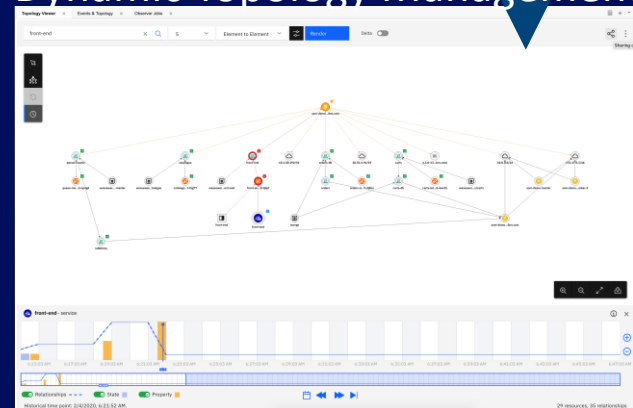
(grouping events by {important thing + related things})

Event about (thing).
Is (thing) important?

Yes!

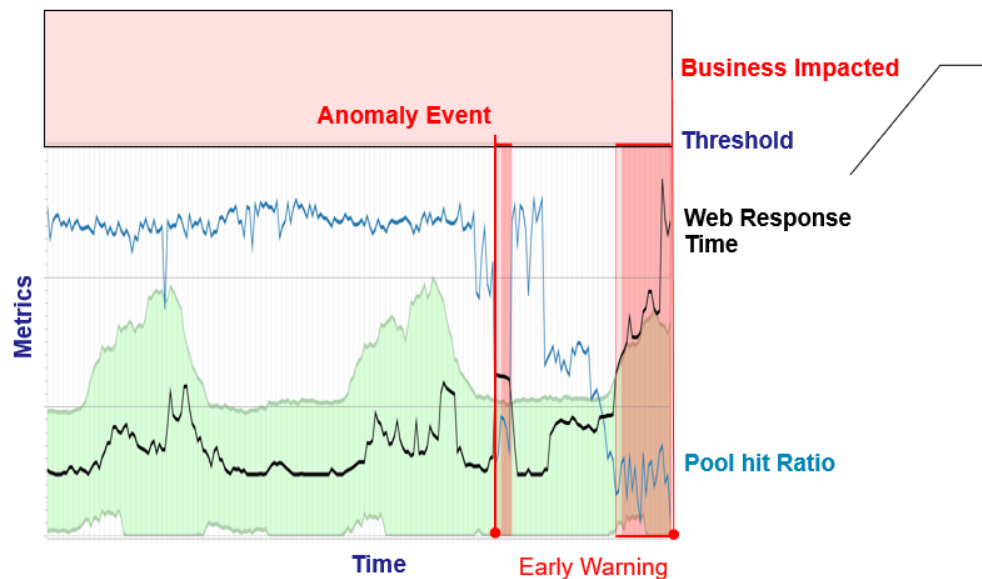
(thing) + {related things}

Dynamic Topology Management



Metric Manager – Detect Actionable Anomalies

Predictive Insights automatically learns and predicts



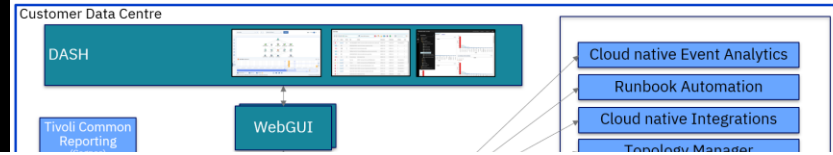
- Learns 'Web Response Time' has a normal causal relationship with 'Pool hit Ratio' - WRT gets slower as user Pool hit ratio declines.
- If this healthy historical relationship breaks down, say due to a memory leak, an anomaly is raised immediately
- The problem is detected even while WRT service is "good"

Architecture types

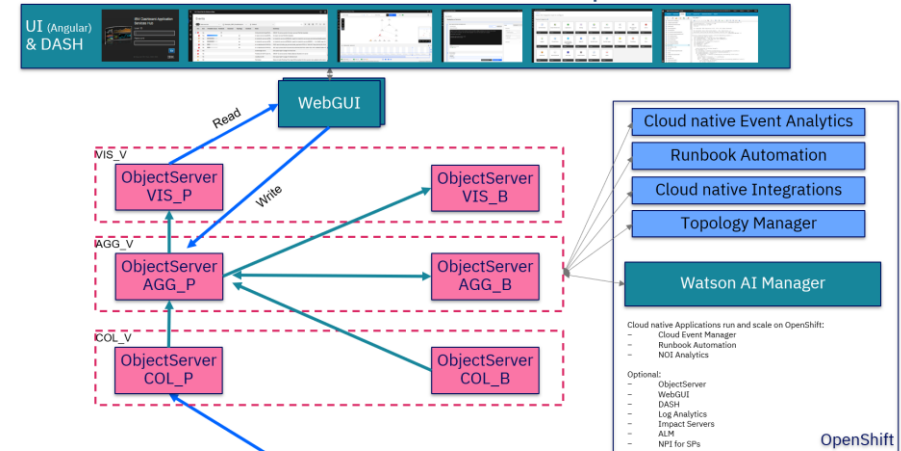
Watson AIOps Event Manager components can be installed:

- **On premises**
(all components installed in a local data centre)
- **All on Cloud**
(IBM Cloud,...)
- **Hybrid**
(mixed setup with on premises and cloud based components)

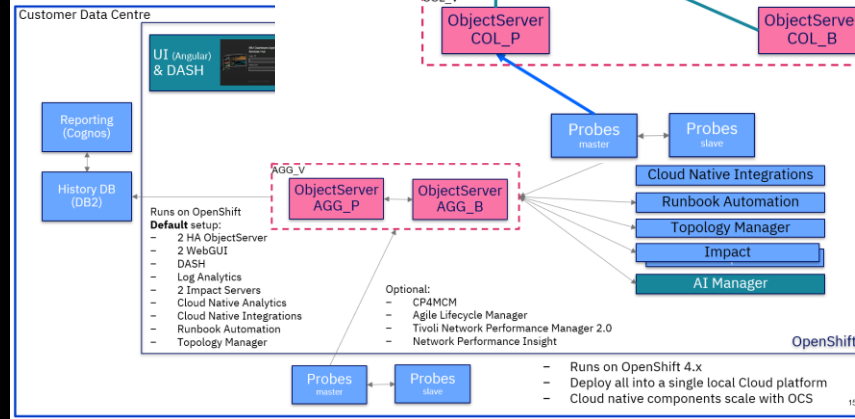
Hybrid, 1-tier architecture with Watson AIOps



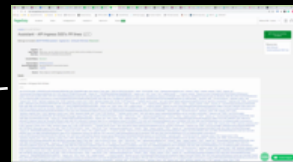
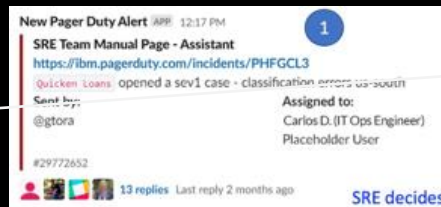
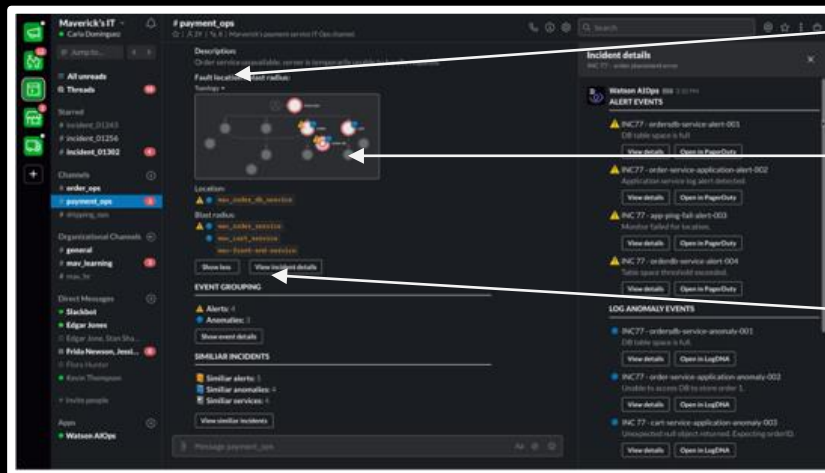
3-tier Architecture with Cloud Native Components



All core components



The Potential with AIOps



- Bridge existing silos
- Accelerate / skip diagnosis steps
- Assist engineers to become more effective
- Automate response to events & incidents
- Replace subjective decision making with evidence-based machine learning guidance
- Organize and simplify the tools and data presented to an operator

Yesterday

4hr 53min

17

10

\$135K

Today



Time

14min



of Steps

4



of
Responders

1



Cost per
incident

\$6K



Who is DICOS?

DICOS is an independent software and consulting company specialized in the development and integration of management systems for IT and telecommunication infrastructures.



...stands for...

Development and Integration of **CO**mmunications **S**ystems



We are here for you.

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