



Possibilities

#CiscoLive

Congrats on your overnight cloud migration

Now can you support it?

Marco Coulter, Technical Evangelist
@marcocoulter



CISCO *Live!*

June 2-3, 2020 | ciscolive.com/us

#CiscoLive

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CISCO



Agenda

- **Migratory Experiences from the Cloud**
- **Monitoring as Must Have**
- **It's a User's World**
- **AIOps Saves the Day**

#about_marco

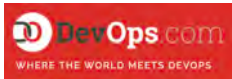


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THE NEW STACK

Forbes



CISCO *Live!*



NOW A PART OF
S&P Global Market Intelligence



APPDYNAMICS™
part of Cisco

Migratory Experiences

Expectations

Revenue growth

10%

Reduced time to
provision IT services

87%

IT cost reduction

77%

Source: IDC

Cloud Challenges: Compliance



Automation



Infrastructure as code



Control direct interaction with the platform

Cloud Challenges: Compliance



Automation



Infrastructure as code

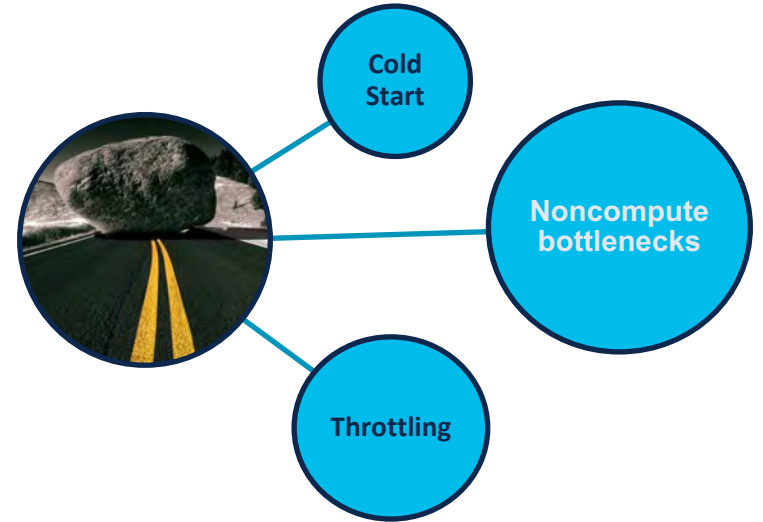


Control direct interaction with the platform

```
PS C:\> $subscriptions = Get-AzSubscription
PS C:\> foreach ($subscription in $subscriptions) {
>> Select-AzSubscription -Subscription $subscription.Name
>> Get-AzResourceGroup | Remove-AzResourceGroup -Force
>> }
```


Cloud Challenges: Serverless

- Cold Start Compounding
- Throttling vs Consumption
- State Persistence



Cloud Challenges: Cost Overrun

Companies tend to ...

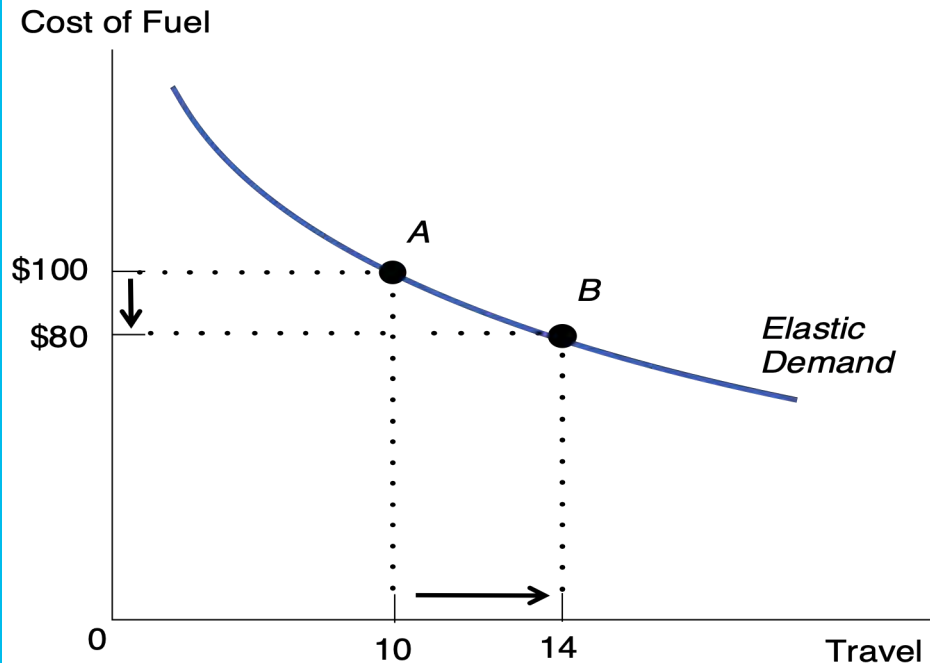
- underestimate costs
- overestimate savings
- while wasting ~35% of spend

“While an individual item gets cheaper, overall we end up spending more”

Jevons Paradox

- 20% *efficiency* increase can drive 40% *usage* increase
- Consumption grows

William Jevons (Economist), 1865



By Lawrencekhoo - Own work, CC BY-SA 4.0,

Cloud Challenges

- Real Cost Question

Will I get

\$2 for every **\$1.5**

spent on **cloud**

vs

\$1.25 for every **\$1**

spent on **datacenter**?

Monitoring as Must Have

Monitoring Core to DevOps and SRE



*“experience with performance tuning
and monitoring has moved ... to a
39% must-have skill ranking.”*

Source: DevOps Institute | 2020 Upskilling: Enterprise DevOps Skills Report

By 2021, fewer than 15% of organizations will implement holistic monitoring, putting \$255 billion of investments in cloud-based solutions at risk

Source: Gartner Report: How To React To The Impact Of The Cloud On IT Monitoring - 2018

Unified visibility into the entire enterprise technology stack

Digital experience



Browser Real-User Monitoring



Mobile Real-User Monitoring



Browser Synthetic Monitoring



Internet of Things (IoT)

Unified visibility into the entire enterprise technology stack

Digital experience



Browser Real-User Monitoring



Mobile Real-User Monitoring



Browser Synthetic Monitoring



Internet of Things (IoT)

App and business



Unified visibility into the entire enterprise technology stack

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Browser Real-User Monitoring



Mobile Real-User Monitoring



Browser Synthetic Monitoring



Internet of Things (IoT)

App and business



Infrastructure



Server Visibility



Database Visibility



kubernetes



Mainframe

Unified visibility into the entire enterprise technology stack

Digital experience



Browser Real-User Monitoring



Mobile Real-User Monitoring



Browser Synthetic Monitoring



Internet of Things (IoT)

App and business



Infrastructure



Server Visibility



Database Visibility



docker



kubernetes



Mainframe

Network



ACI



Network Visibility



CWOM

Unified visibility into the entire enterprise technology stack

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kubernetes



Mainframe

Network



Network Visibility



Multicloud

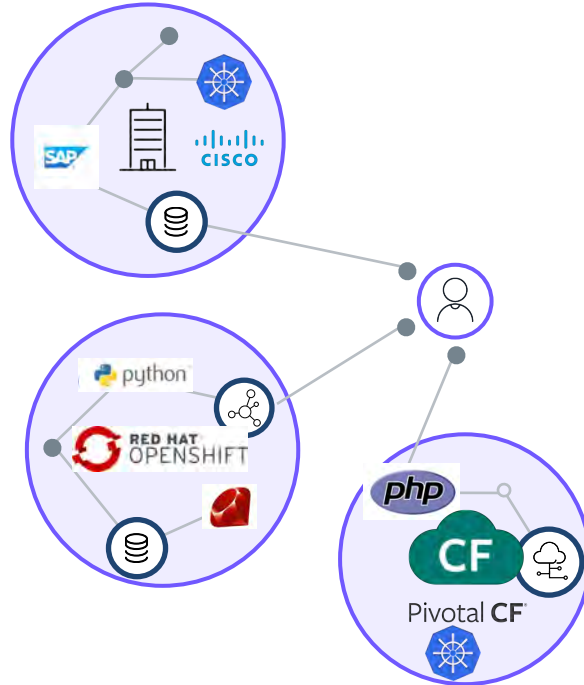


Monitoring Complexity Is Exploding



1 On Premise

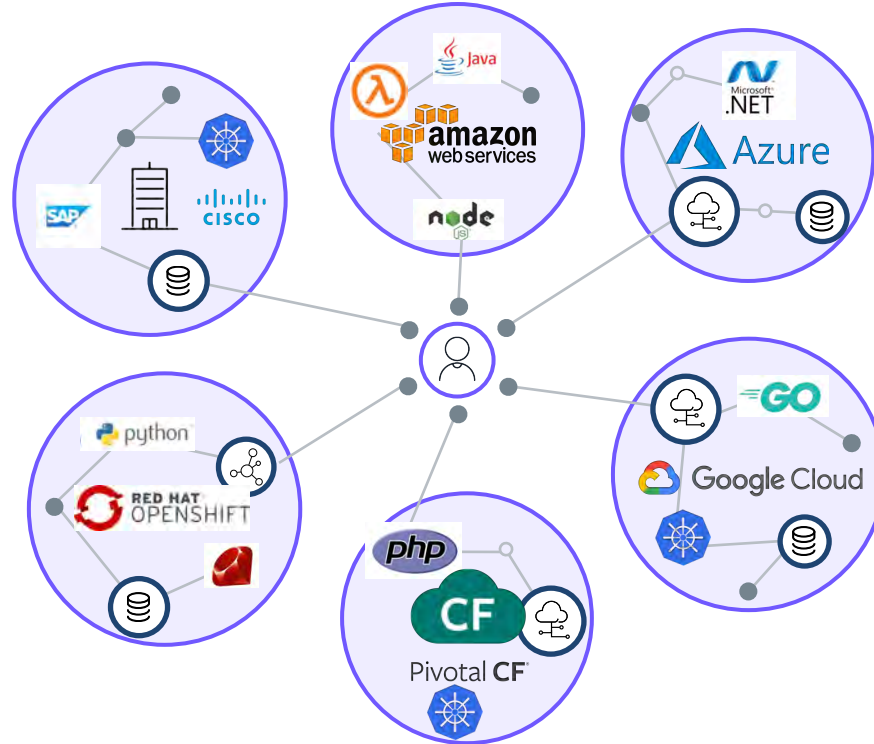
Monitoring Complexity Is Exploding



1 On Premise

2 Private Cloud

Monitoring Complexity Is Exploding

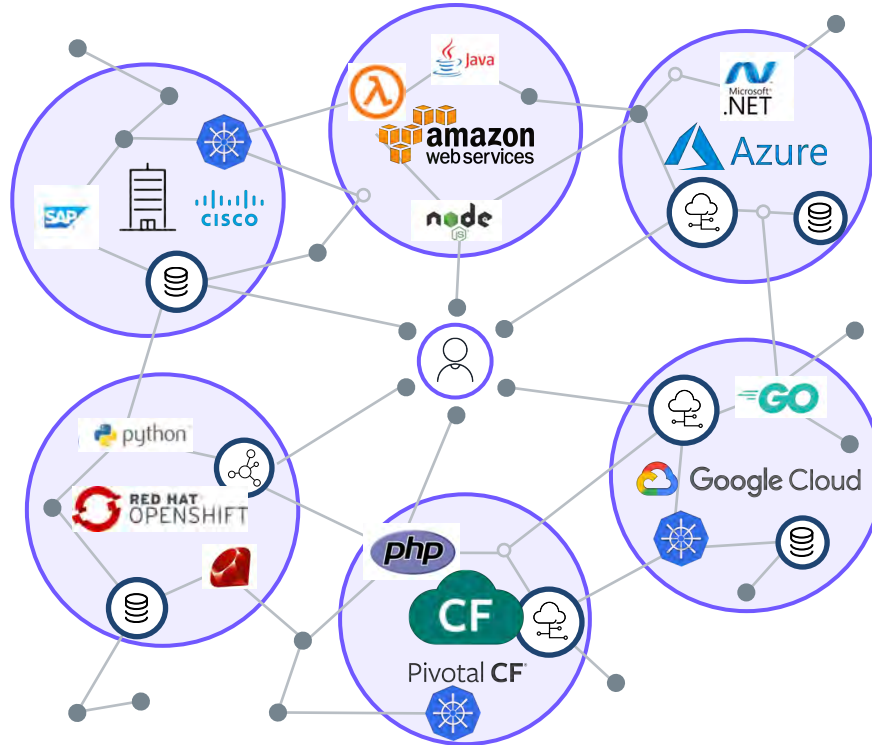


1 On Premise

2 Private Cloud

3 Public Cloud

Monitoring Complexity Is Exploding



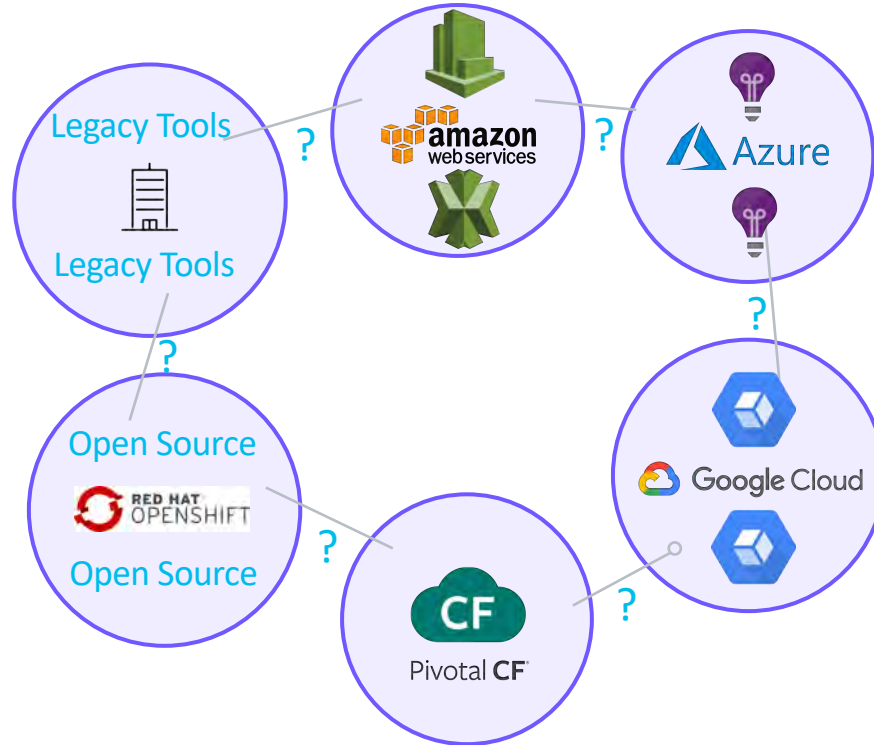
1 On Premise

2 Private Cloud

3 Public Cloud

4 Multi Cloud

Monitoring Complexity Is Exploding



1 On Premise

2 Private Cloud

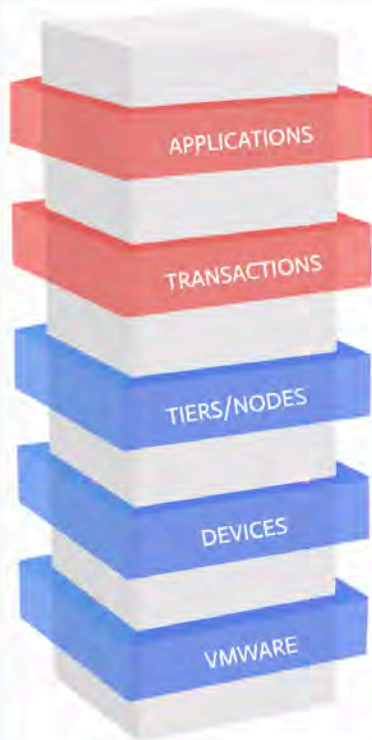
3 Public Cloud

4 Multi Cloud

*“... dashboards are **more** informative
during incidents”*

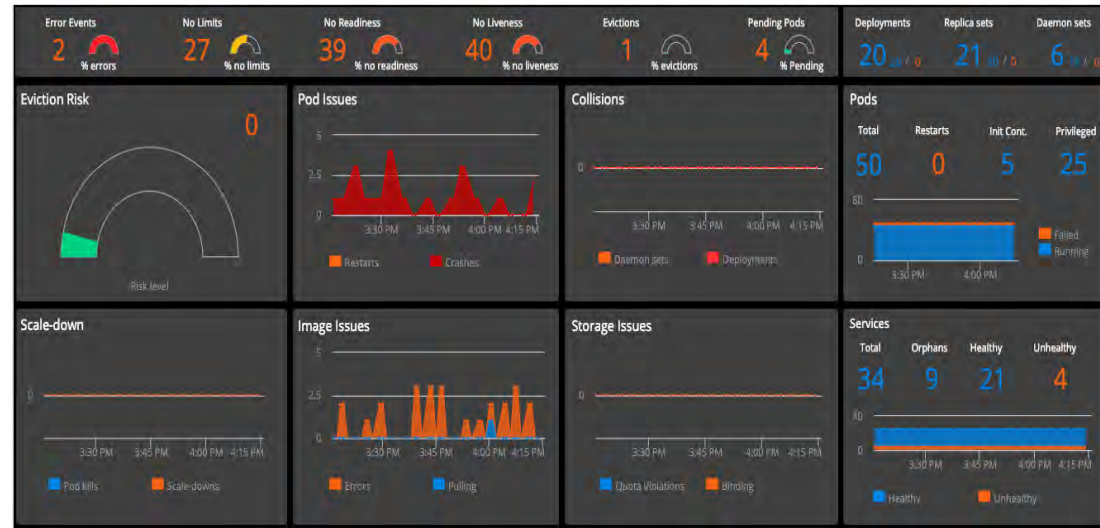
Julius Zerwick - Engineer, Digital Ocean

Edit
Export



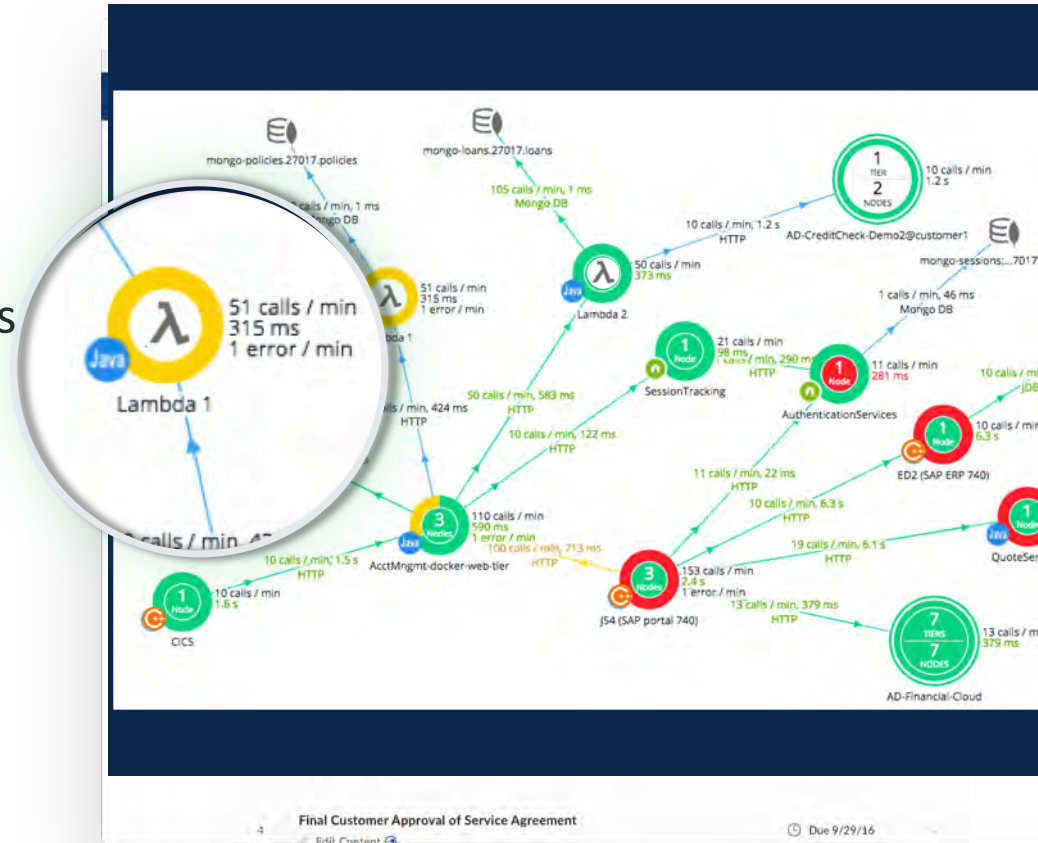
Container Visibility

- View container metadata
- Resource usage metrics
- Troubleshoot crash loops
- Diagnose scaling issues
- Tagged metrics to show relationships



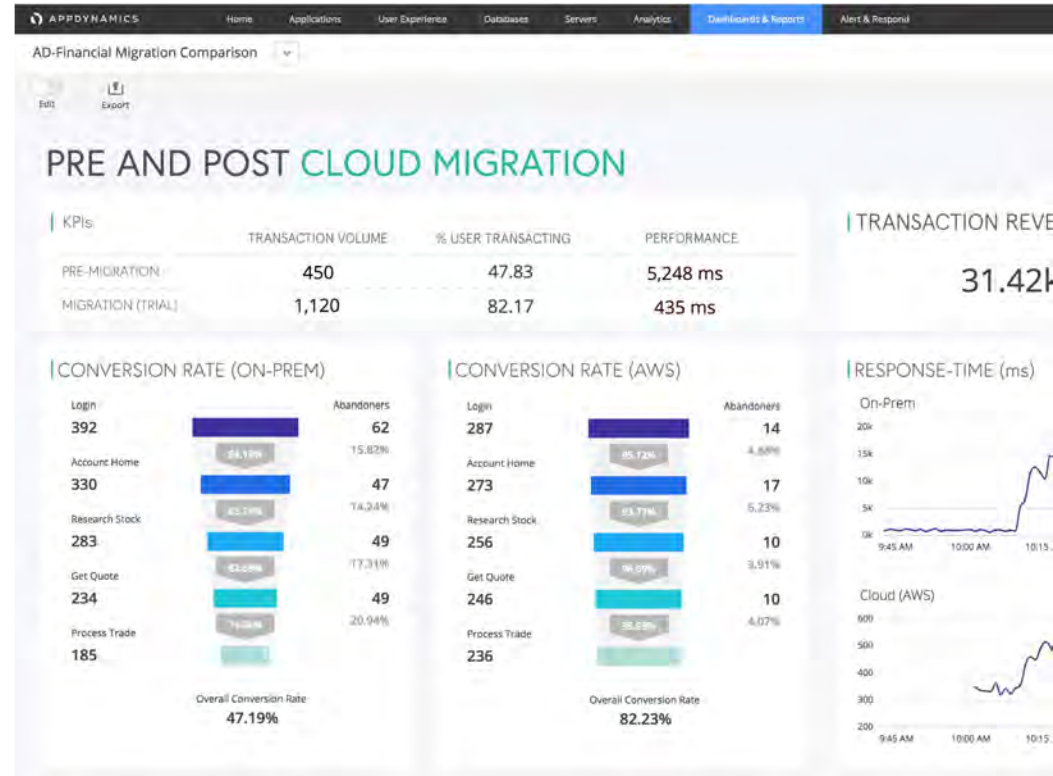
Serverless Visibility

- Provide end to end visibility into dynamic apps
- Detect hotspots in serverless apps



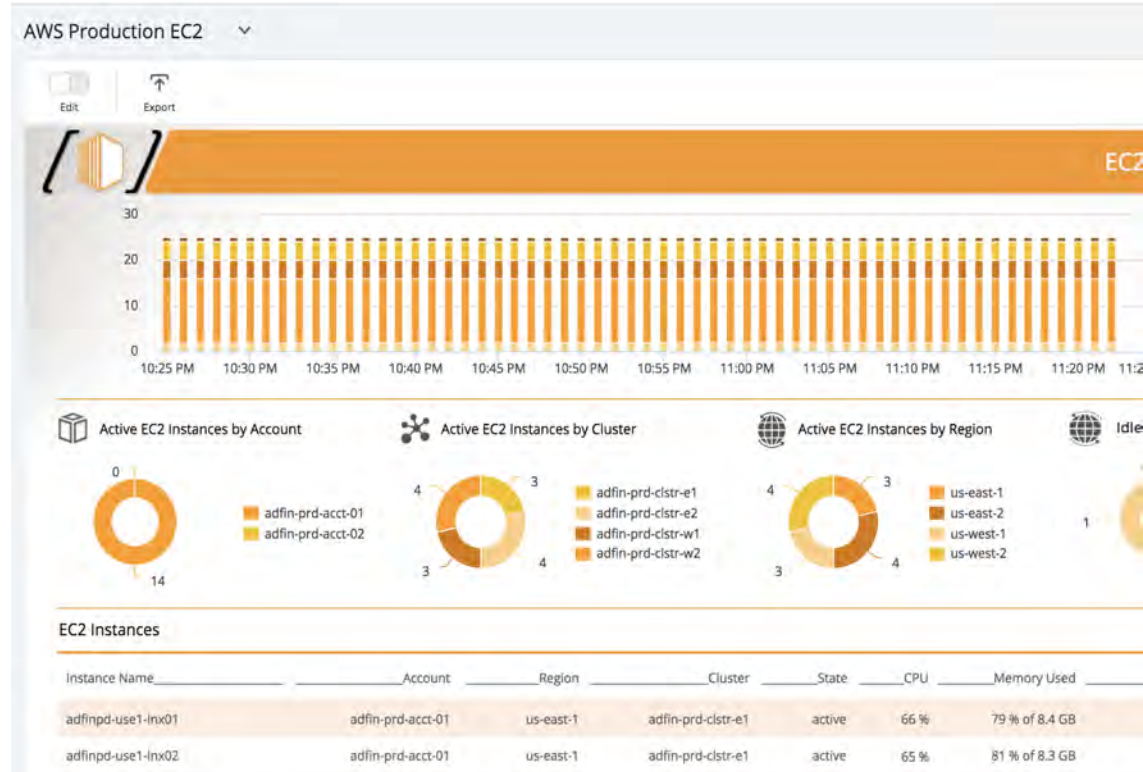
Cloud Migration

- Validate application impact
- Validate business impact
- Validate end-user impact



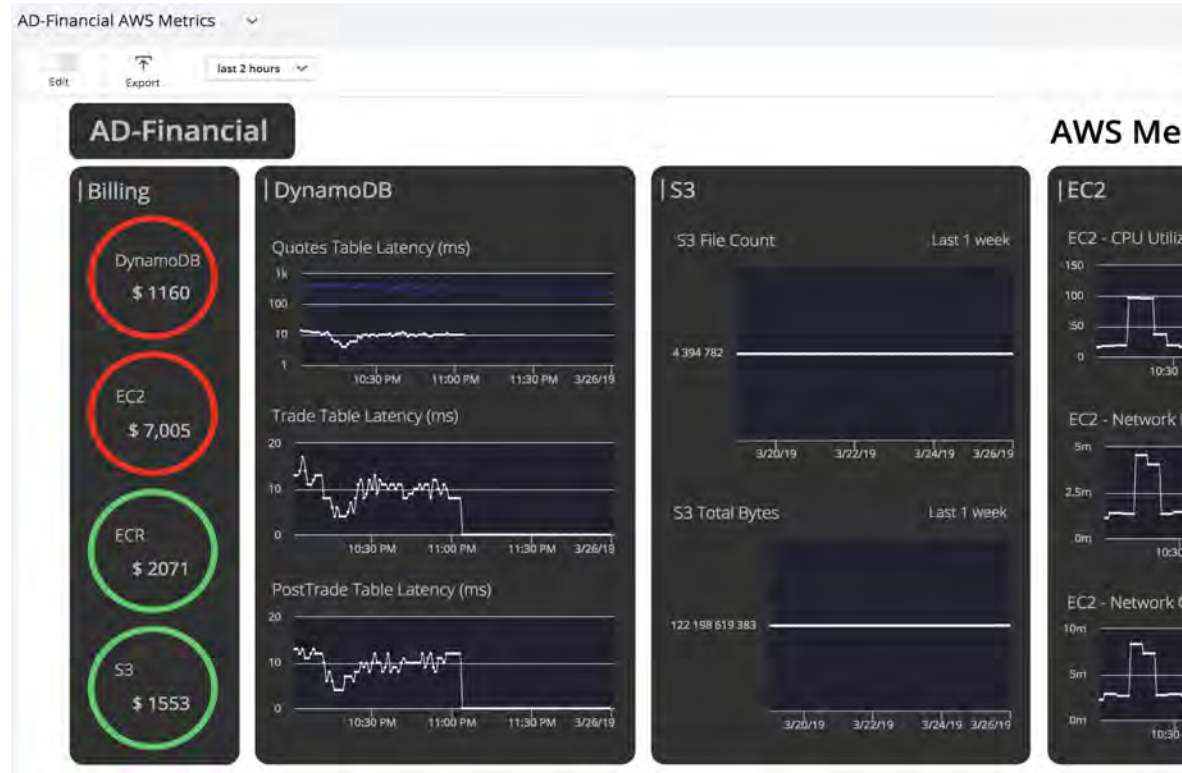
Avoiding External Cloud Sprawl

- Track sprawl creation
- Identify Idle Instances



How much does my app cost?

- Service correlation
- Application correlation
- Business correlation



The background is a dark blue field filled with numerous small squares and dots in various shades of blue and green. These elements are scattered across the frame, with a higher concentration of larger squares in the upper left and lower right corners, and a denser field of smaller dots and squares in the center and right side.

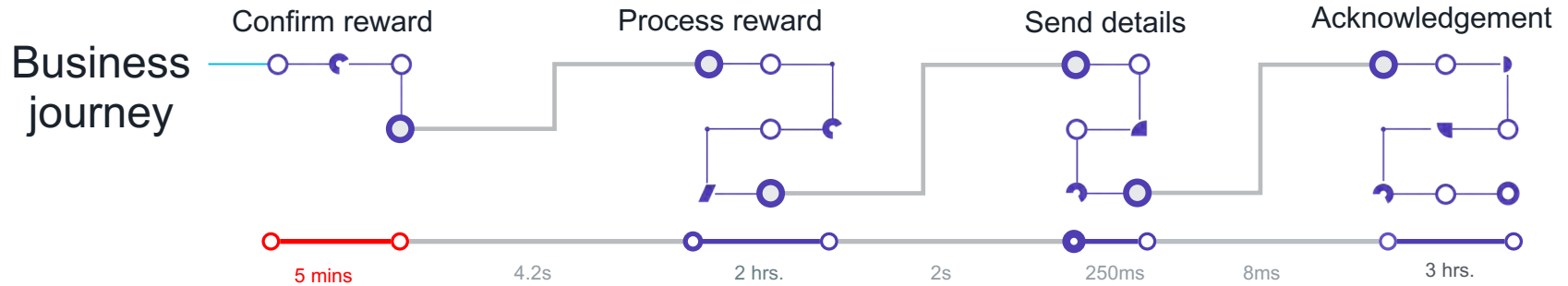
It's a Users' World

AppDynamics' 2019 App Attention Index Report

84% of consumers have
experienced problems with
digital services

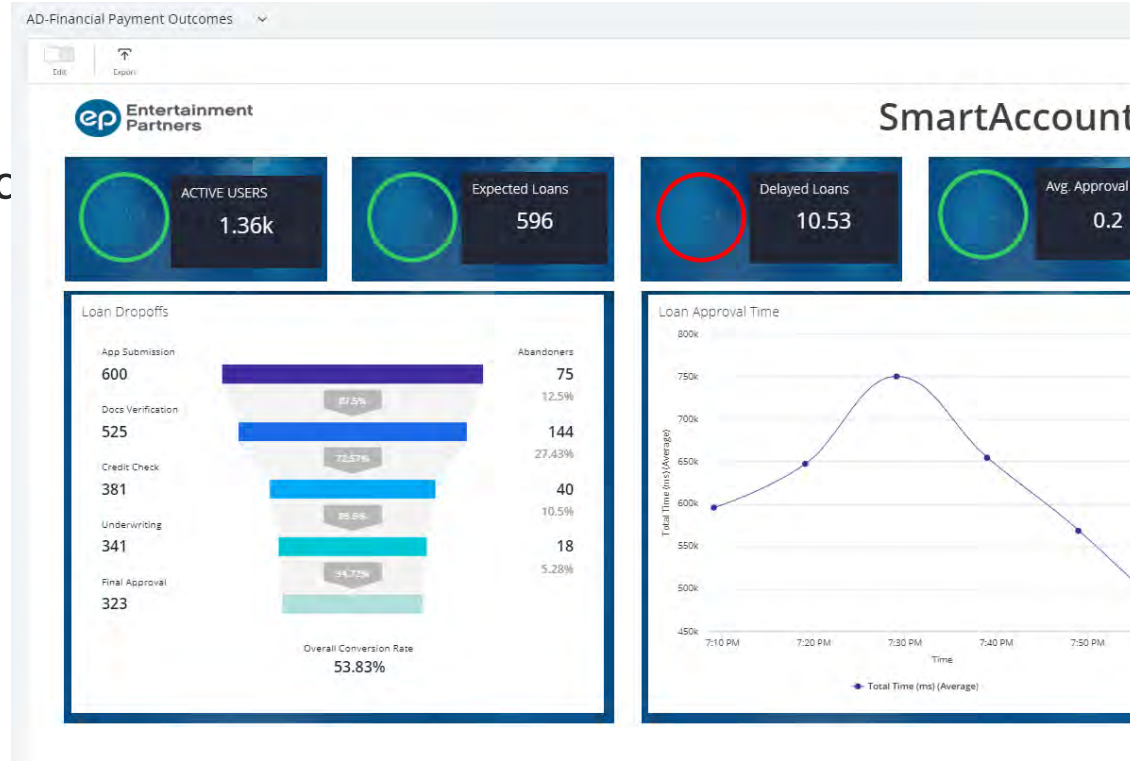
50% would be willing to pay
more for a product or service if
its digital experience is better
than a competitor's

Visibility into business processes



Real Time Business Intelligence

- Real Time
- Business and end-user metrics
- Automated insights



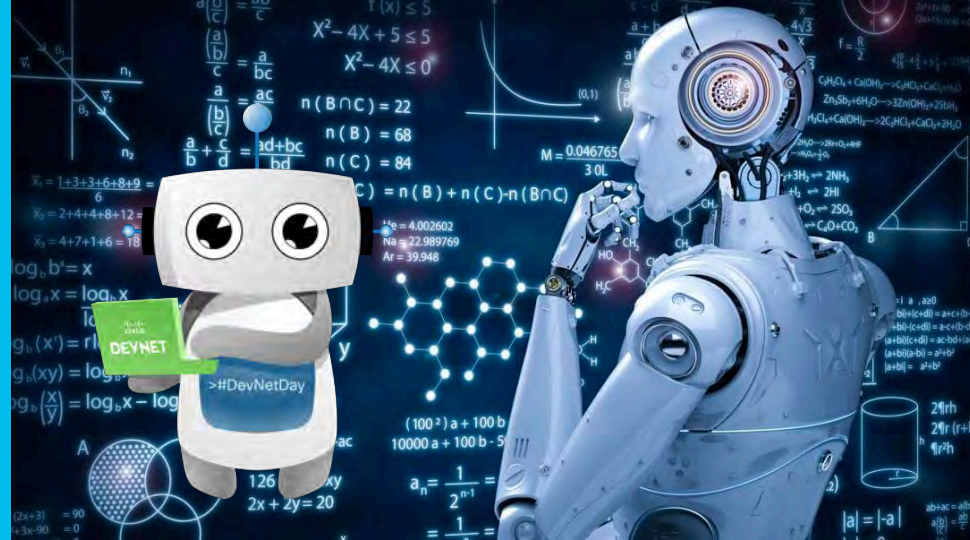
AIOps Saves the Day

Humans need help

The Industrial Revolution liberated humans from the limits of our physical capabilities



The Digital Revolution must
liberate humans from the limits of
our mental capabilities

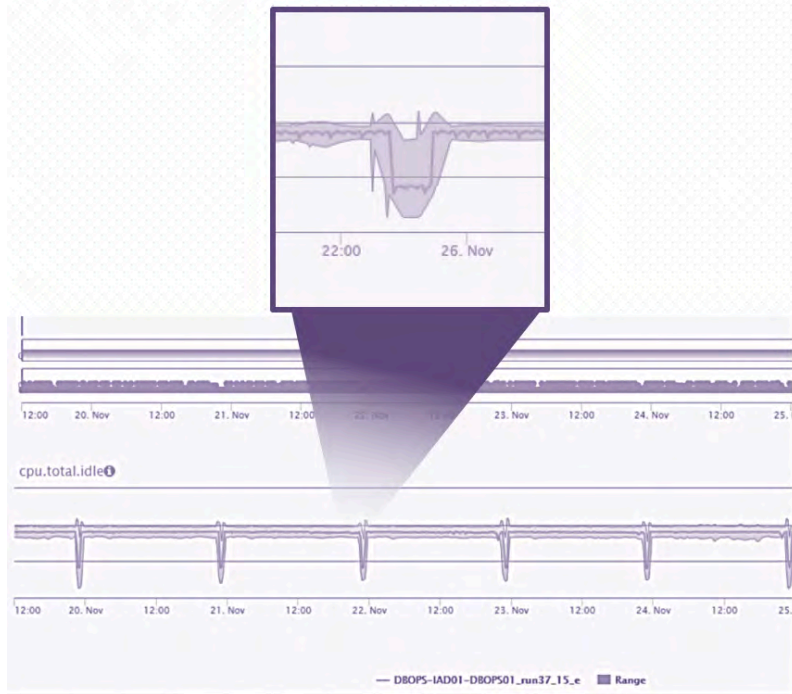


AI Ops **augments** technology teams
by leveraging AI/ML for baselines,
real-time anomaly detection and
insights, identifying root cause(s)
and automating resolutions.

Have you **manually** set health rules
or thresholds for a performance
monitor?

What is Normal? Goodbye Manual Thresholds!

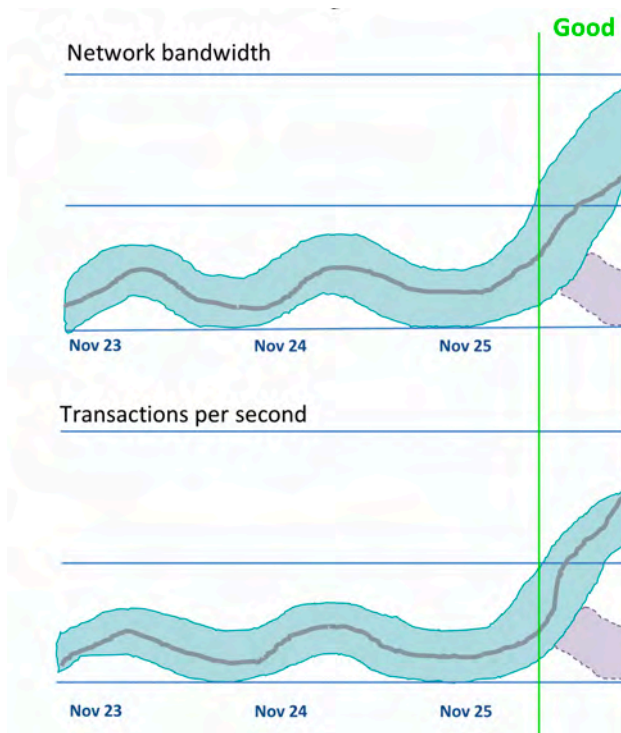
Historical



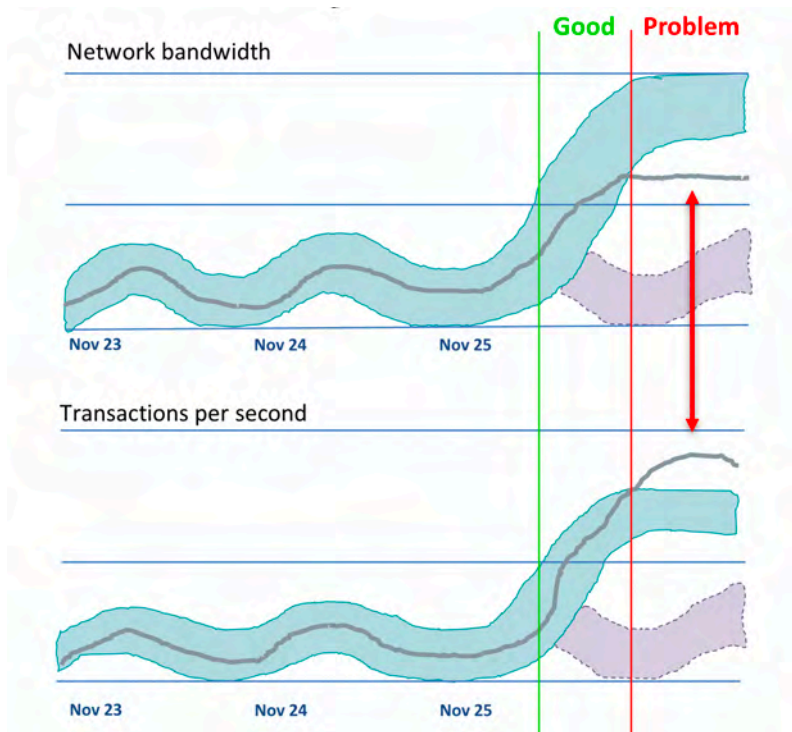
Contextual



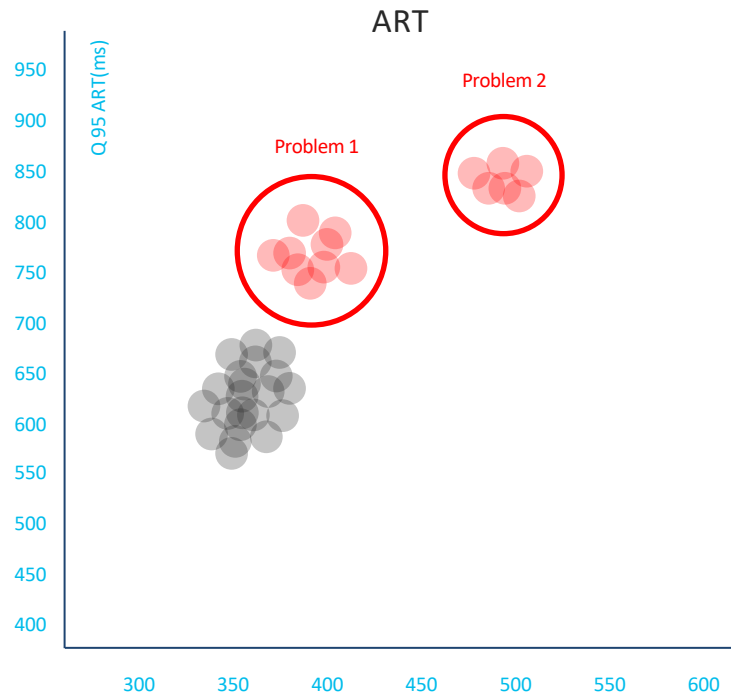
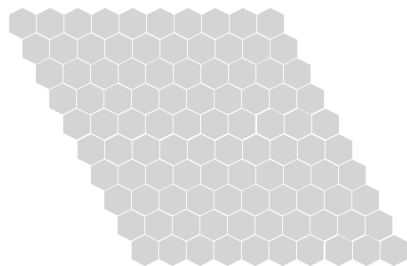
AIOps: Contextually Correlate Metrics



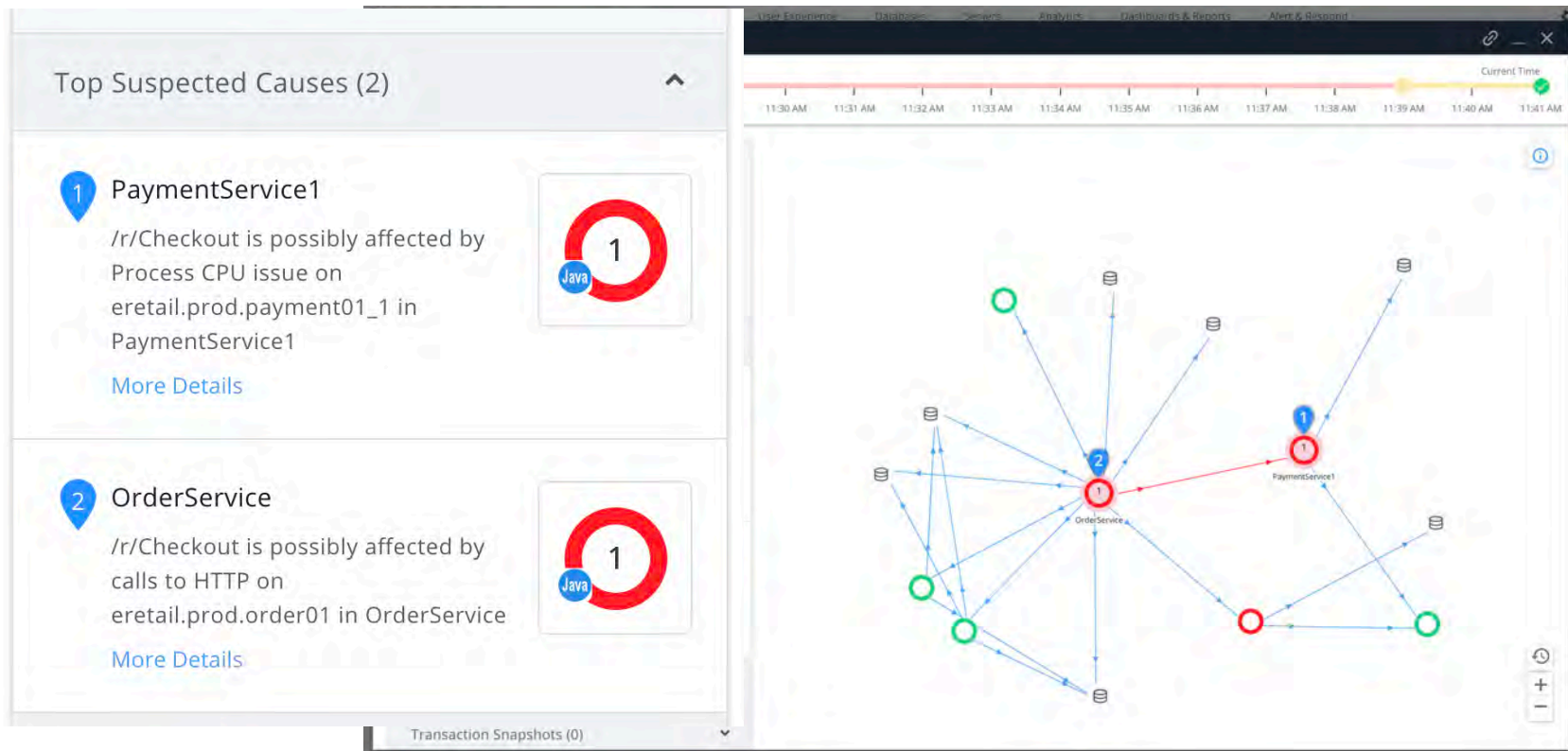
AIOps: Contextually Correlate Metrics



Automated Triage



AIOps: Automated Root Cause(s) Analysis



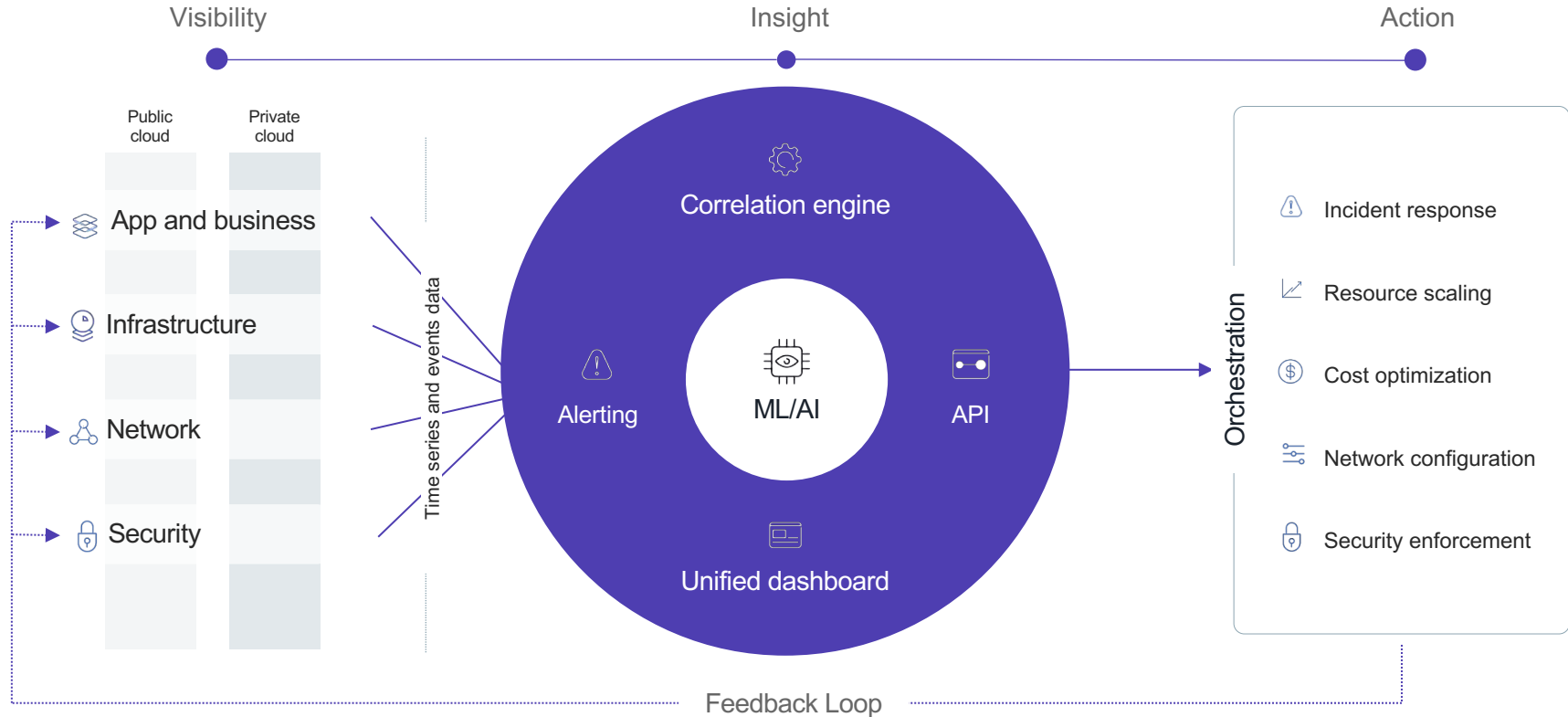
*67% see Automation Skills as Very Important
(Only 1% see Unimportant)*

Source: DevOps Institute | 2020 Upskilling: Enterprise DevOps Skills Report

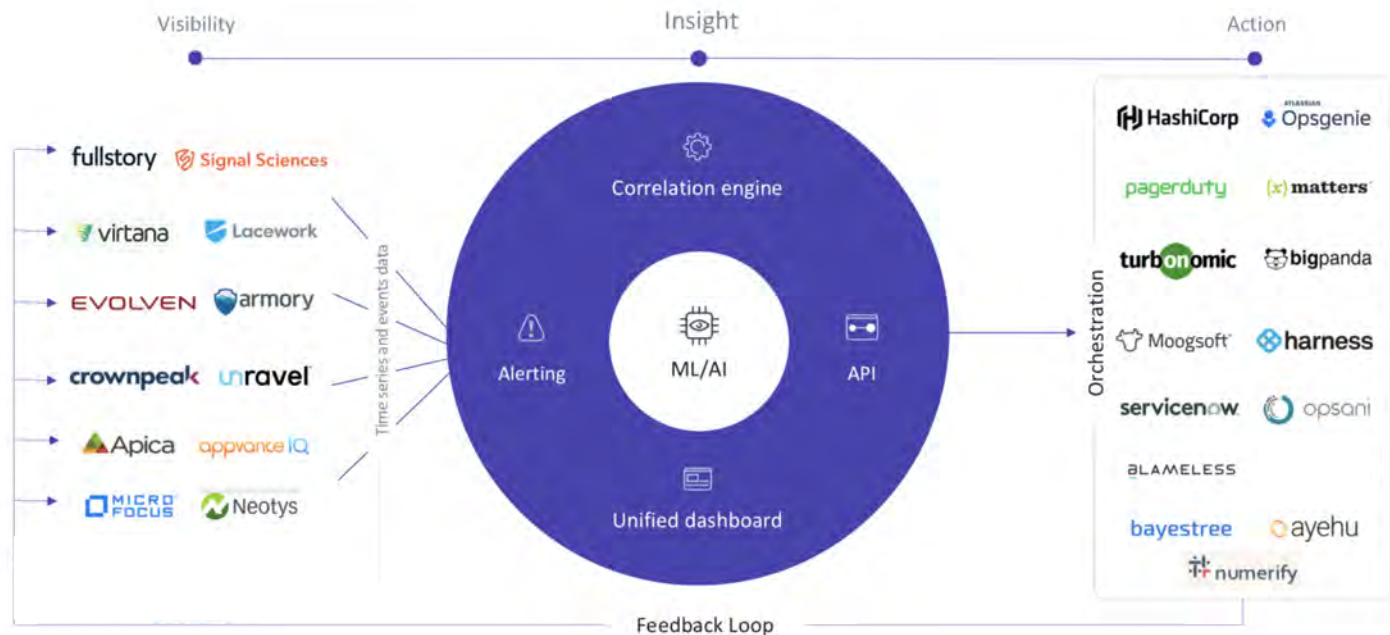
Support Cloud Where
Cloud Lives



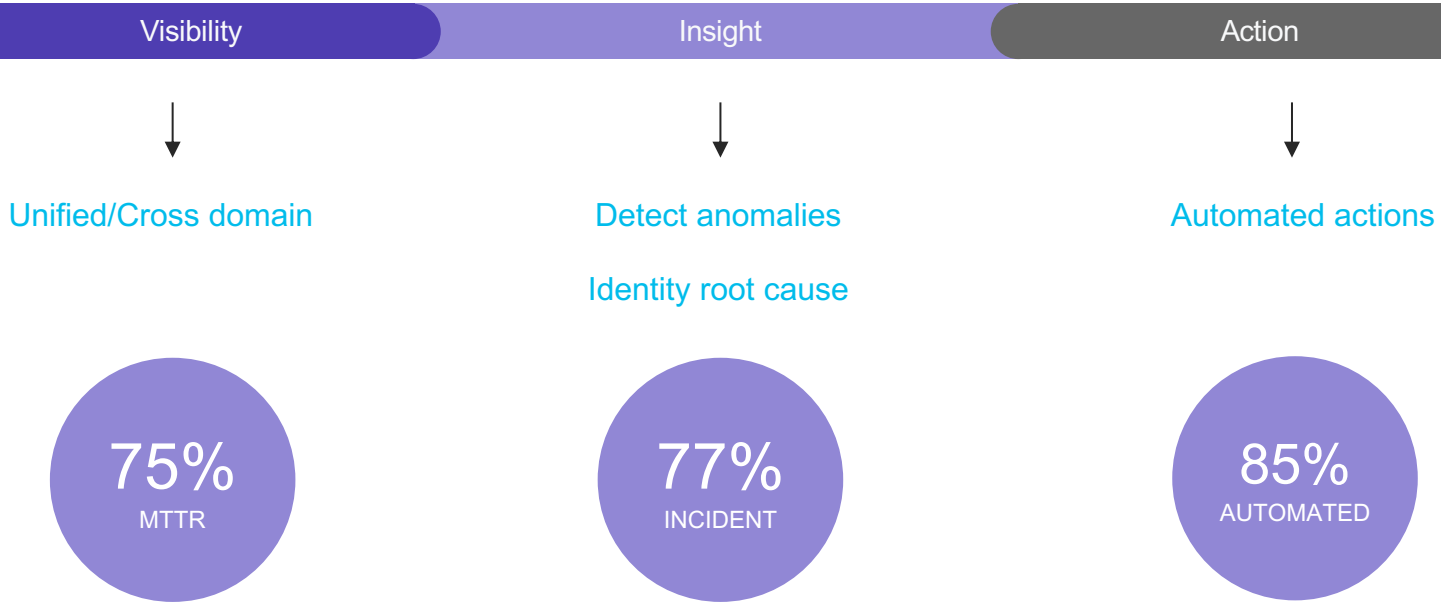
The Central Nervous System



Integration partners



AppDynamics AIOps benefits



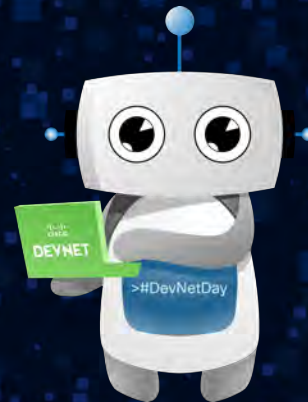
Supporting Cloud

- Focus on return on investment
- Monitoring is a must have
 - Holistic
 - Availability, then rightsizing
 - Measure from the User's point of view
- AIOps for agility

Further Reading

- Is Your IT Workforce Ready For AIOps?
<https://www.forbes.com/sites/appdynamics/2019/03/11/is-your-it-workforce-ready-for-aiops/#5ff583f2b005>
- Deciding What to Automate in AIOps?
<https://techwhisperernyc.com/2019/07/08/5-critical-metrics-when-deciding-what-to-automate-in-aiops/>
- Writing on AIOps - <https://www.appdynamics.com/blog/aiops/>
- Slowdown is the New Outage
<https://www.appdynamics.com/blog/aiops/slowdown-new-outage-sinto/>

Thank you





Possibilities

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