
AWS
re:Invent
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PRT262

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Unified observability, AIOps, and incident response for AWS

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Agenda

- What is observability?
- What is OpenTelemetry?
- Best practices in observability and AIOps
- Introducing Splunk incident intelligence

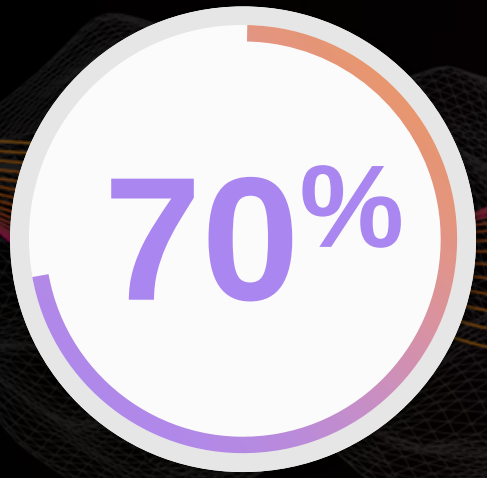
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What is observability?

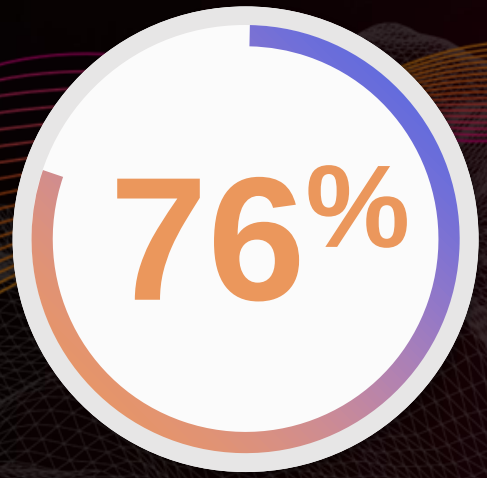
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Urgency for digital initiatives has never been higher

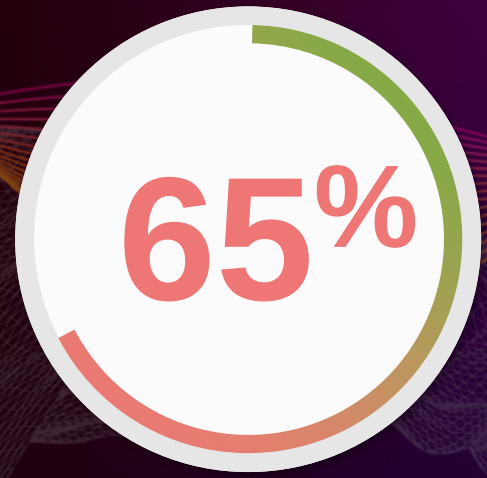
Since 2020, COVID has led to:



Increase in internet use



Increase in ecommerce



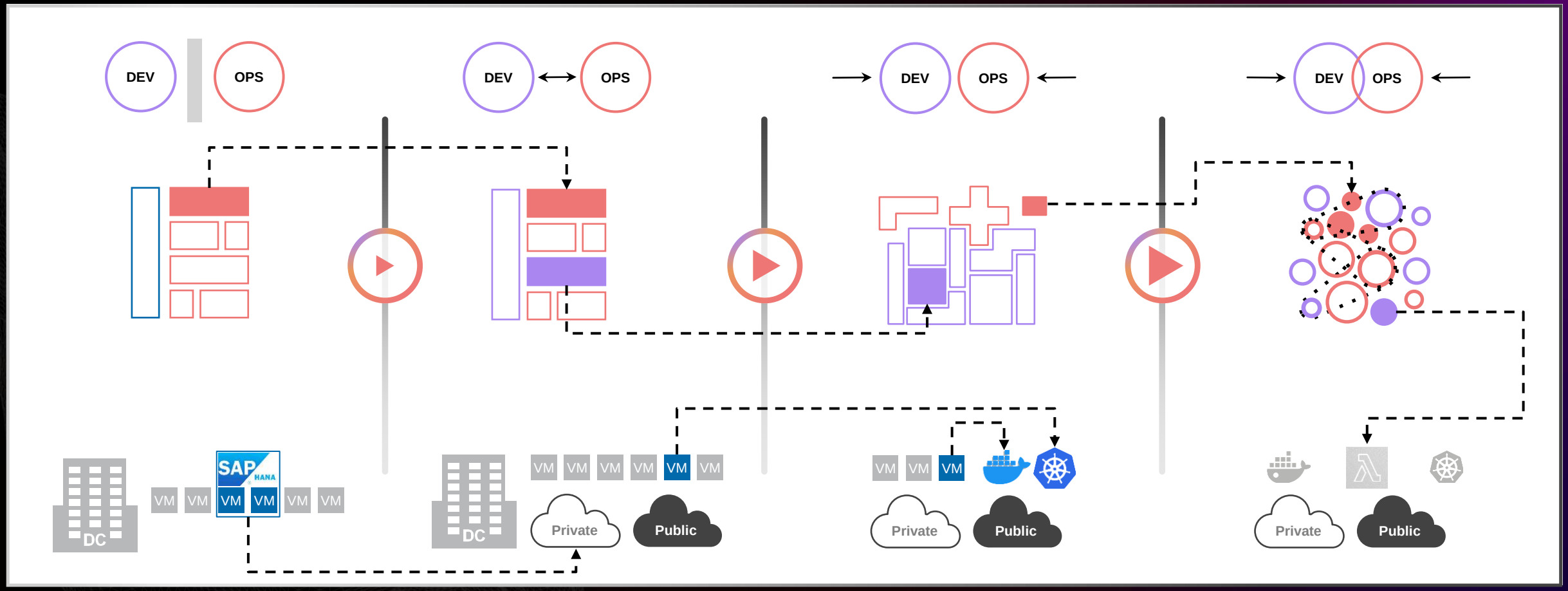
Of customer interactions are now digital

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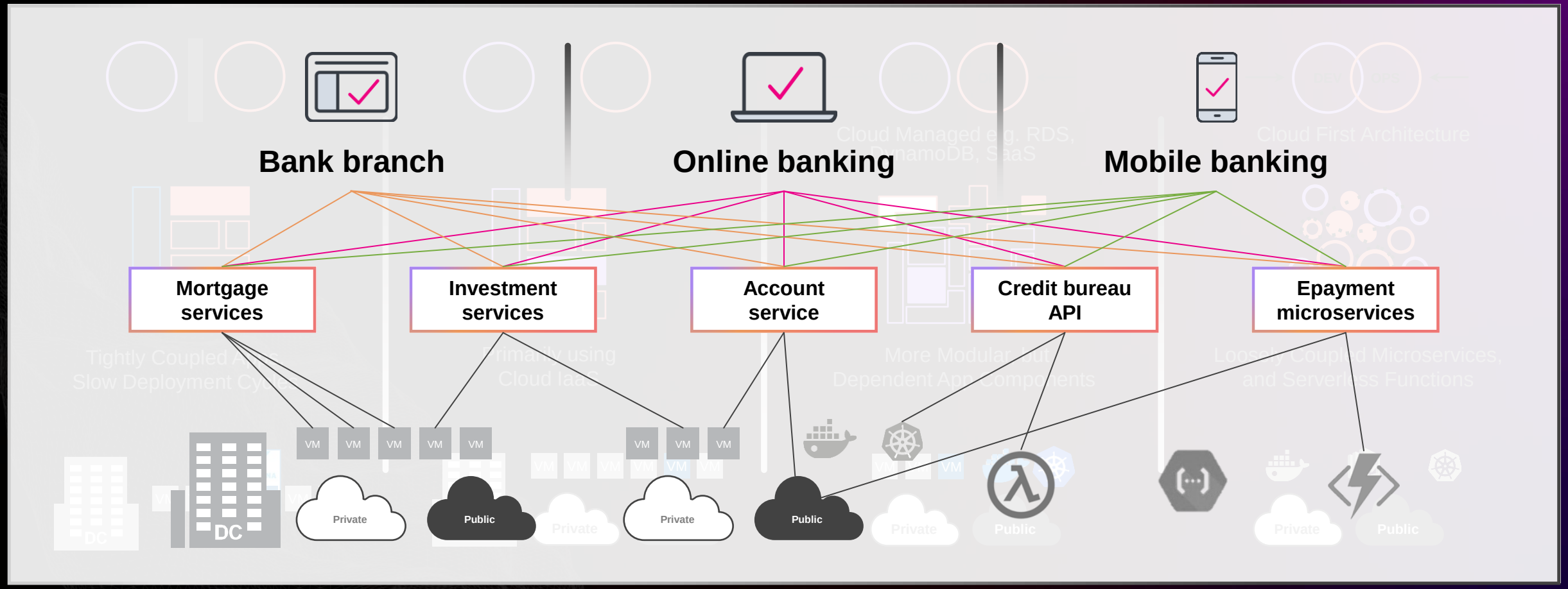
Sources: Forbes Article. “COVID-19 Pushes Up Internet Use 70% and Streaming More than 12%”, March 2020.
Digital Commerce 360 Article. “Charts: How the coronavirus is changing ecommerce”, August 2020.
McKinsey & Co Article. "How COVID-19 has pushed companies over the technology tipping point", October 2020.

Dozens of modernization initiatives are prioritized, requiring thousands of changes



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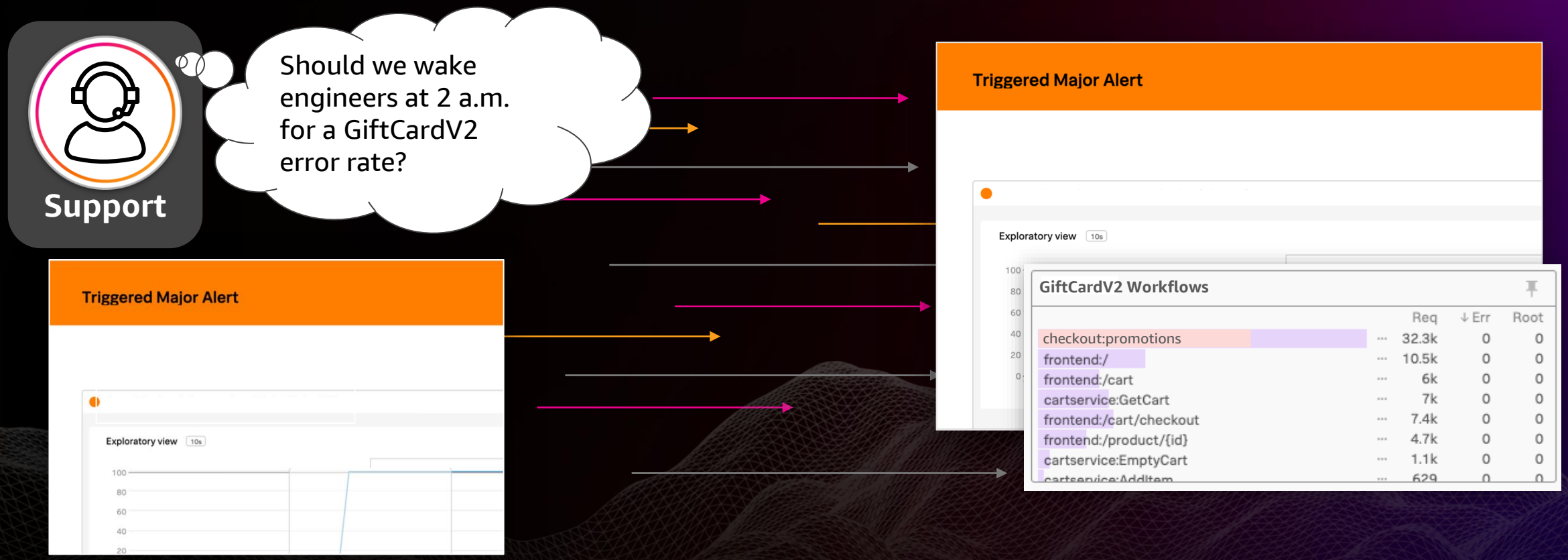
Need to validate thousands of changes against thousands of scenarios



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Lacking business context, L1 support deprioritized an important issue

MARKETING LAUNCH COLLAPSES 12 HOURS LATER



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It’s time for a new approach

Last 5 years	New approach
Vanilla infrastructure and app visibility	**Complete business visibility**
Manually setting up alerts for known failure scenarios	**Proactively spot unknowns and root causes**
Siloed tools, hundreds of static dashboards	**Know where to look and who to engage**
Vendor lock-in with proprietary instrumentation	**Full control of your data**



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What is observability?

Depends on who you ask, but…

“Metrics, traces, and logs”

“The ability to infer the state of a system by examining its output”

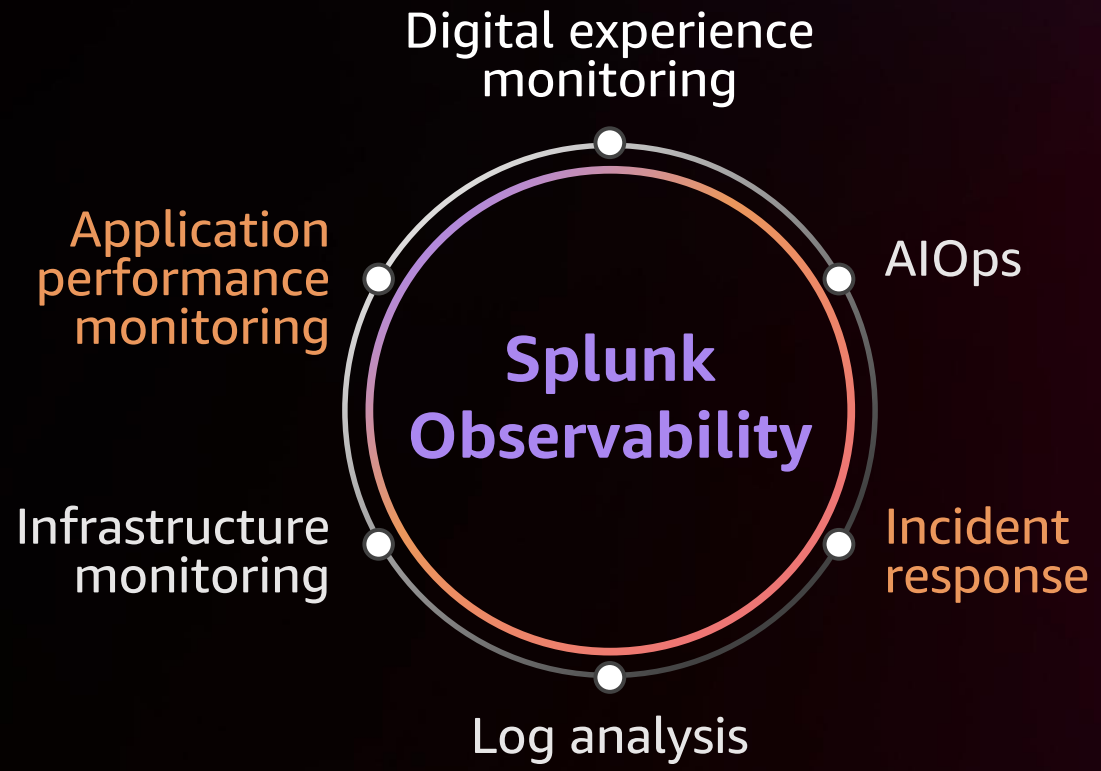
“A great new thing to spend money on”

The real definition:

Observability is a way to investigate unknown unknowns by instrumenting everything

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What components do you need?



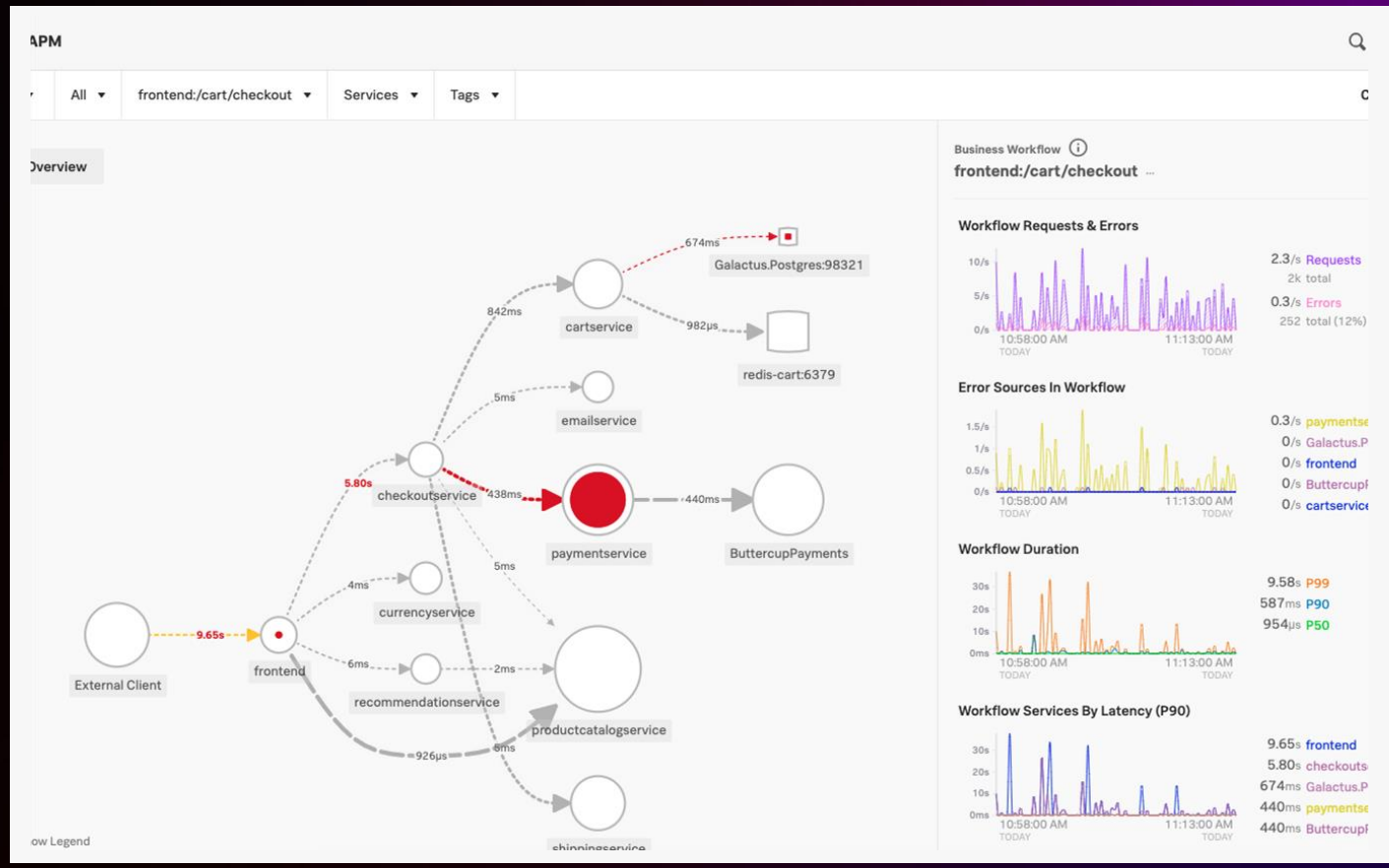
Full-stack | Analytics-powered | Enterprise-grade | OpenTelemetry-native

On premises | Hybrid cloud | Multi-cloud | Cloud-native

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Splunk APM

- Lightweight, open instrumentation
- Rich, dynamic service map
- Full-stack correlation
- NoSample full-fidelity ingestion
- Unlimited cardinality exploration
  - Search across any tag or dimension (UserName, TransactionID, Geography, etc.)
- Speedy UI, analytics & drilldowns
- AI-driven alerting and directed troubleshooting

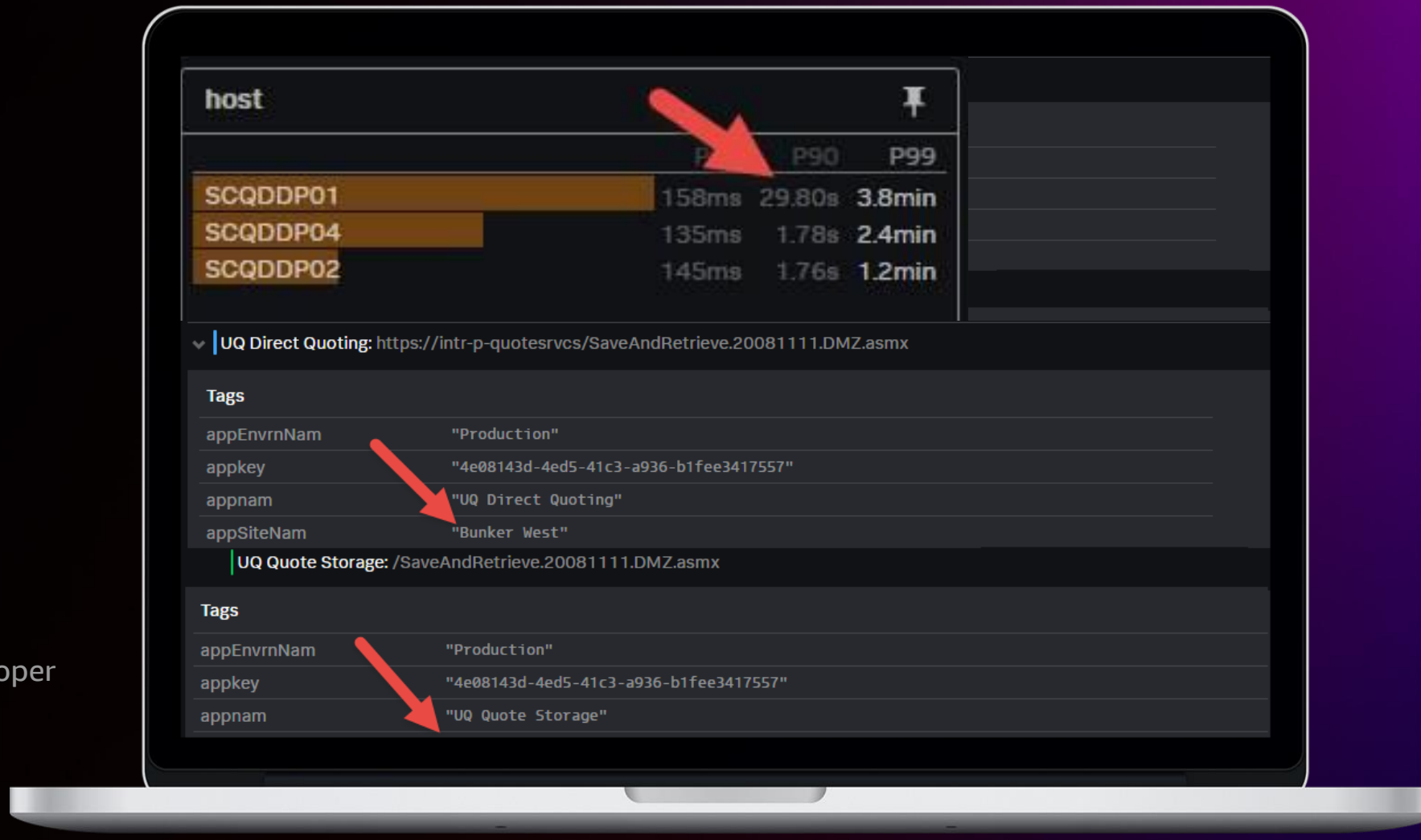


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Large insurance company

“Never had visibility like this before. Previously it would have taken days and dozens of people to figure out what the problem is.”

Software Developer



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What is OpenTelemetry?

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What is OpenTelemetry?

- Telemetry data is essential for observability
  - Metrics, traces, logs . . .

    . . . and events, and profiling reports, and and and and . . .
- OpenTelemetry is the second-busiest CNCF project, behind K8s
- Industry-standard framework and structure for getting data in
- **NOT** a ”Splunk” product – nearly every vendor plus many open-source projects contribute
- Contains automatic instrumentation for many languages, speeding time to value while ensuring you retain ownership of your data

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OpenTelemetry in Splunk Observability

Single, open standards–based agent for metrics, traces, logs, and more for more control and greater ROI



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How to get started

- Splunk Observability Cloud's documentation and in-product wizards get you started with OpenTelemetry
- Build an OpenTelemetry pipeline in one app
- Learn the components of an OpenTelemetry processing pipeline
  - Receivers
  - Processors
  - Exporters
- Check out pipestorm.splunk.com to learn interactively!
- opentelemetry.io



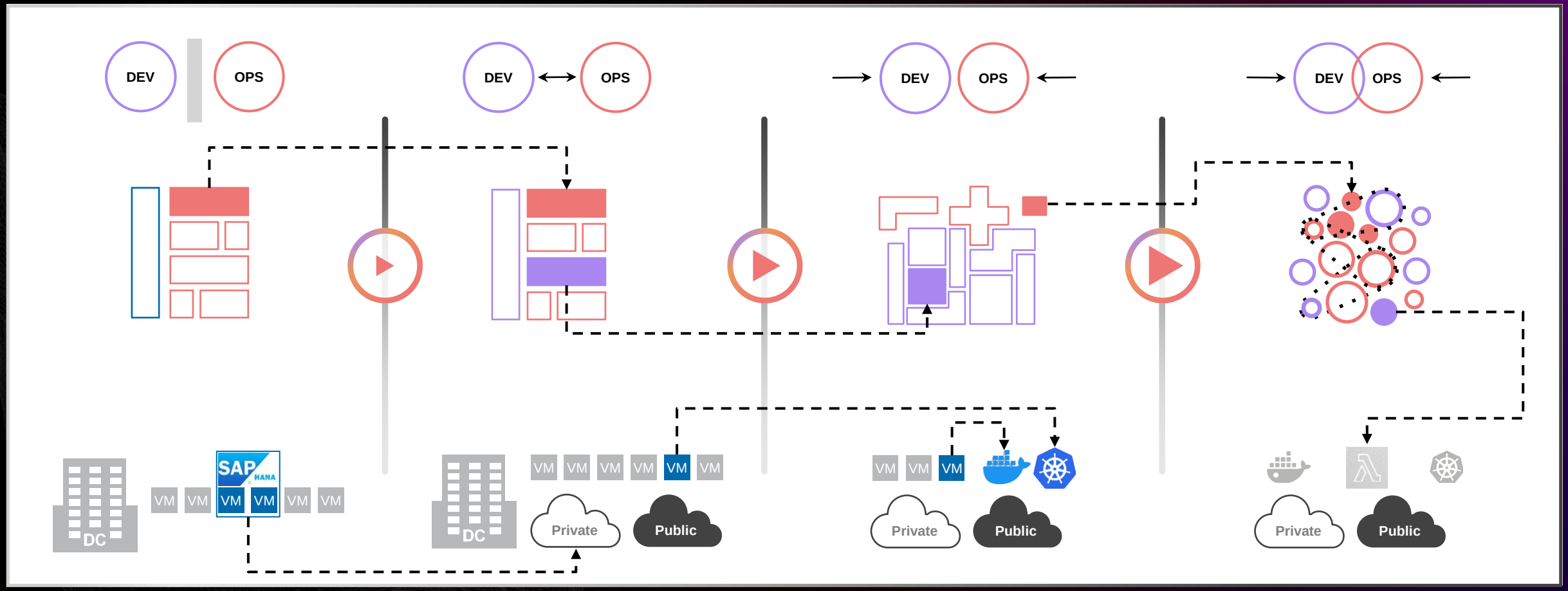
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Best practices in observability and AIOps

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Your tech stack is diverse, inherited, and always evolving



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Introducing incident intelligence

Next-generation incident management

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Top incident management challenges

WHAT'S DRIVING CHAOS AND STAFF BURNOUT

Preventing unplanned downtime



- Leading observability orgs have 10x less outage costs per year
- Teams are flooded with alerts lacking context

Unifying incident response



- Teams that are increasingly remote
- Using wide variety of tools
- Alerting the right person, with proper context, at the right time

Accelerating MTTR

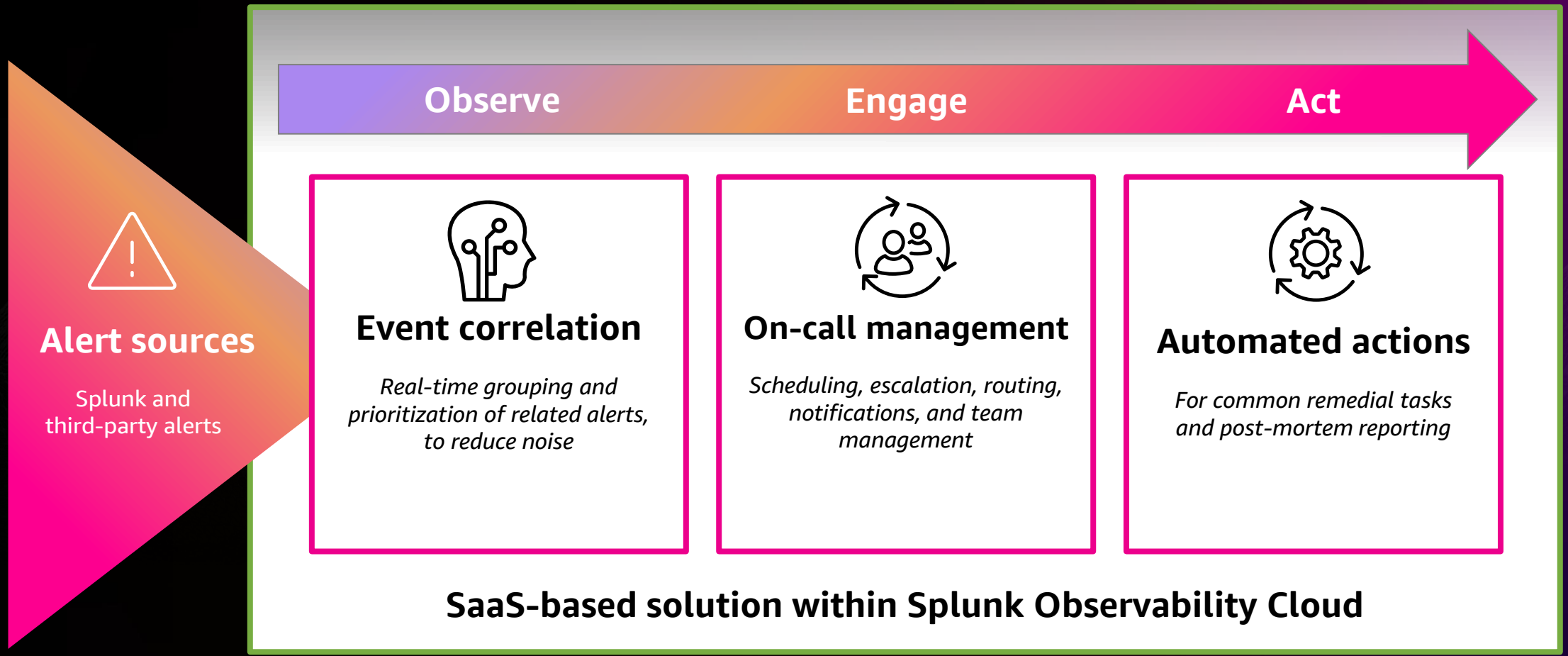


- Preserve knowledge base
- Improve post-incident reviews
- Automate as much as possible

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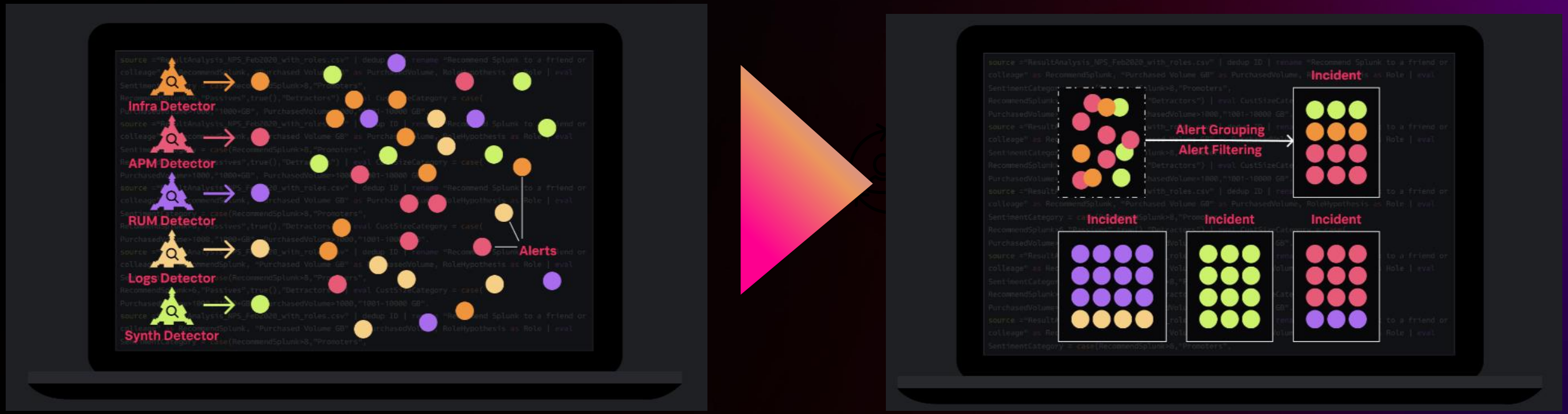
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Introducing Splunk Incident Intelligence



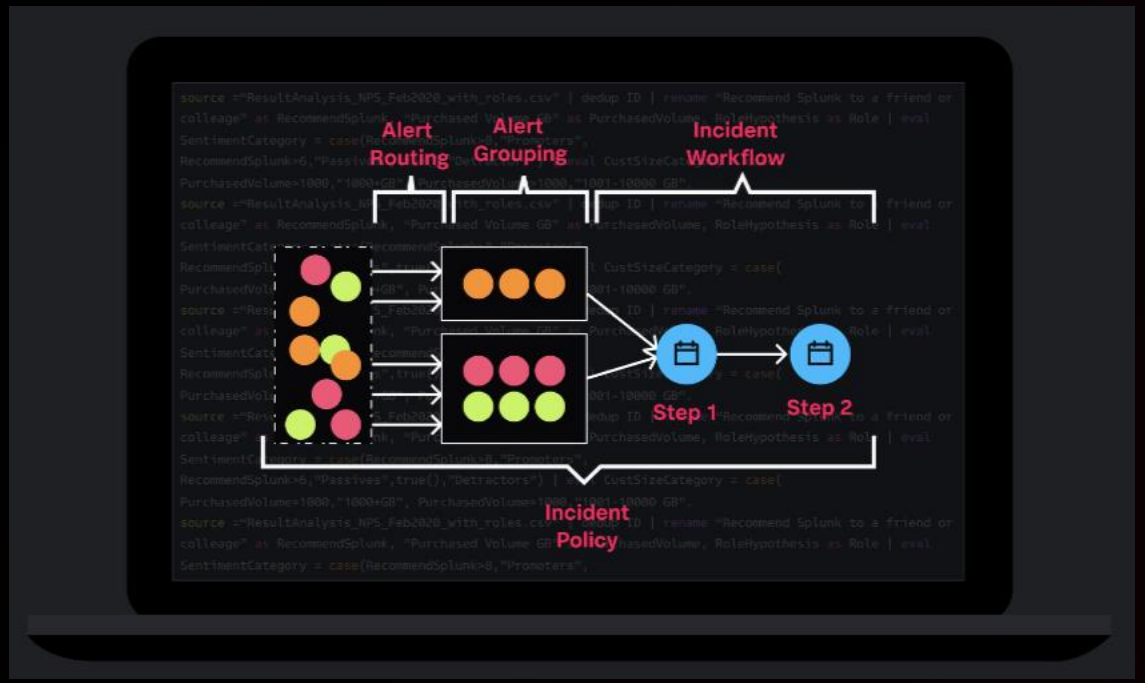
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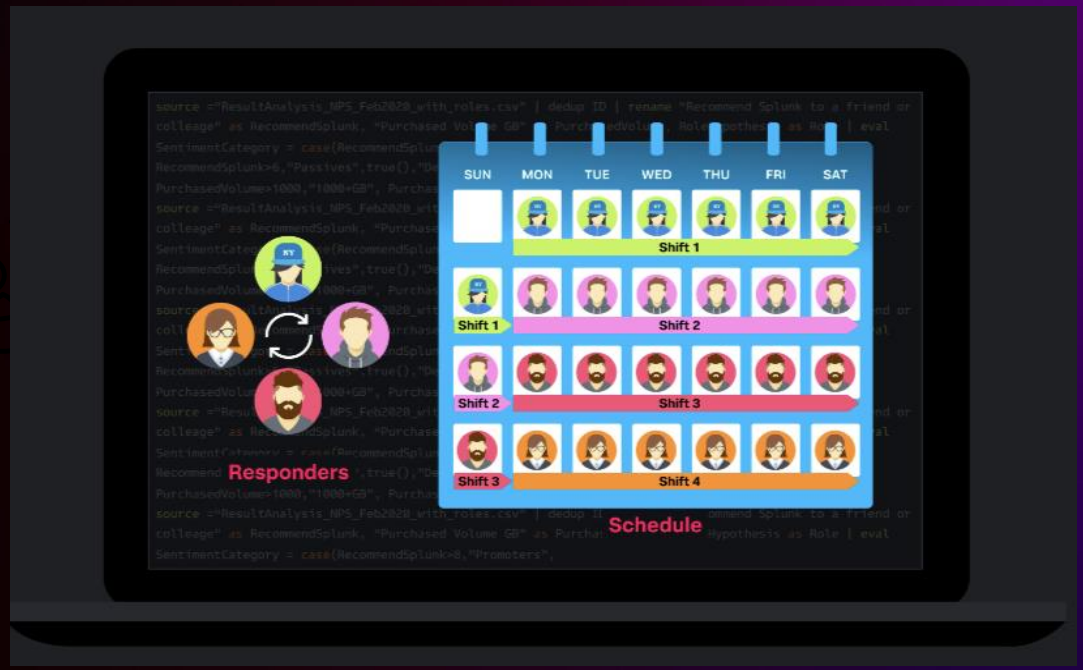
How incident intelligence works



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How incident intelligence works





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Splunk Incident Intelligence

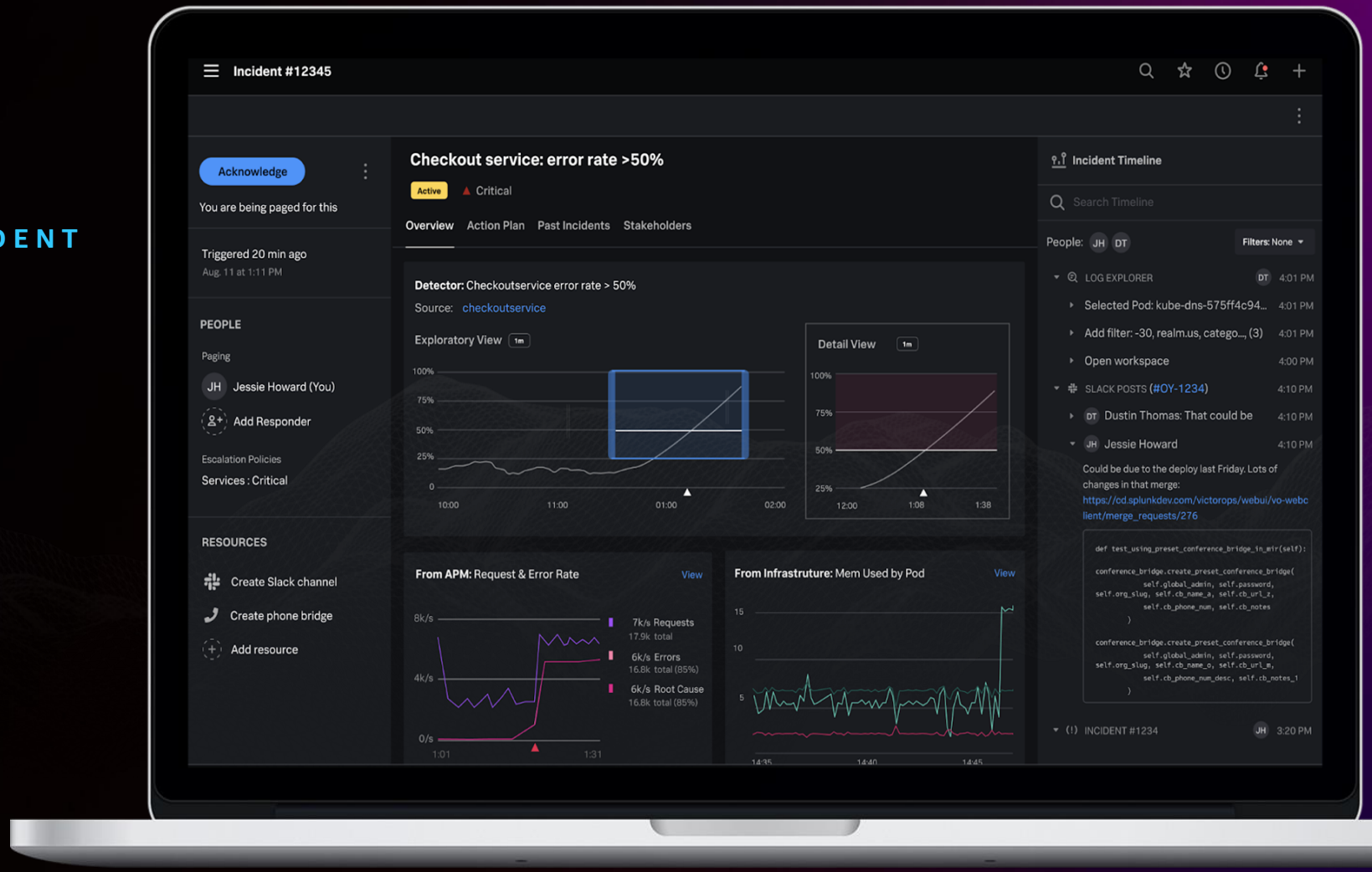
THE NEXT GENERATION OF INCIDENT MANAGEMENT AT SPLUNK

Reduce alert noise: Out-of-the-box event correlation to aid root-cause identification

Improve mean time to acknowledge: Automate on-call scheduling, routing, escalations, and notifications

Unify response: Integrated ChatOps and ticketing with ITSM tools

Accelerate mean time to resolve: Automate common remedial tasks and store post-incident reviews



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End-to-end visibility

Get a unified view of all your incidents, alerts, and reports

Filter by status, service, severity, time triggered

Take action against incidents instantly from mobile or desktop



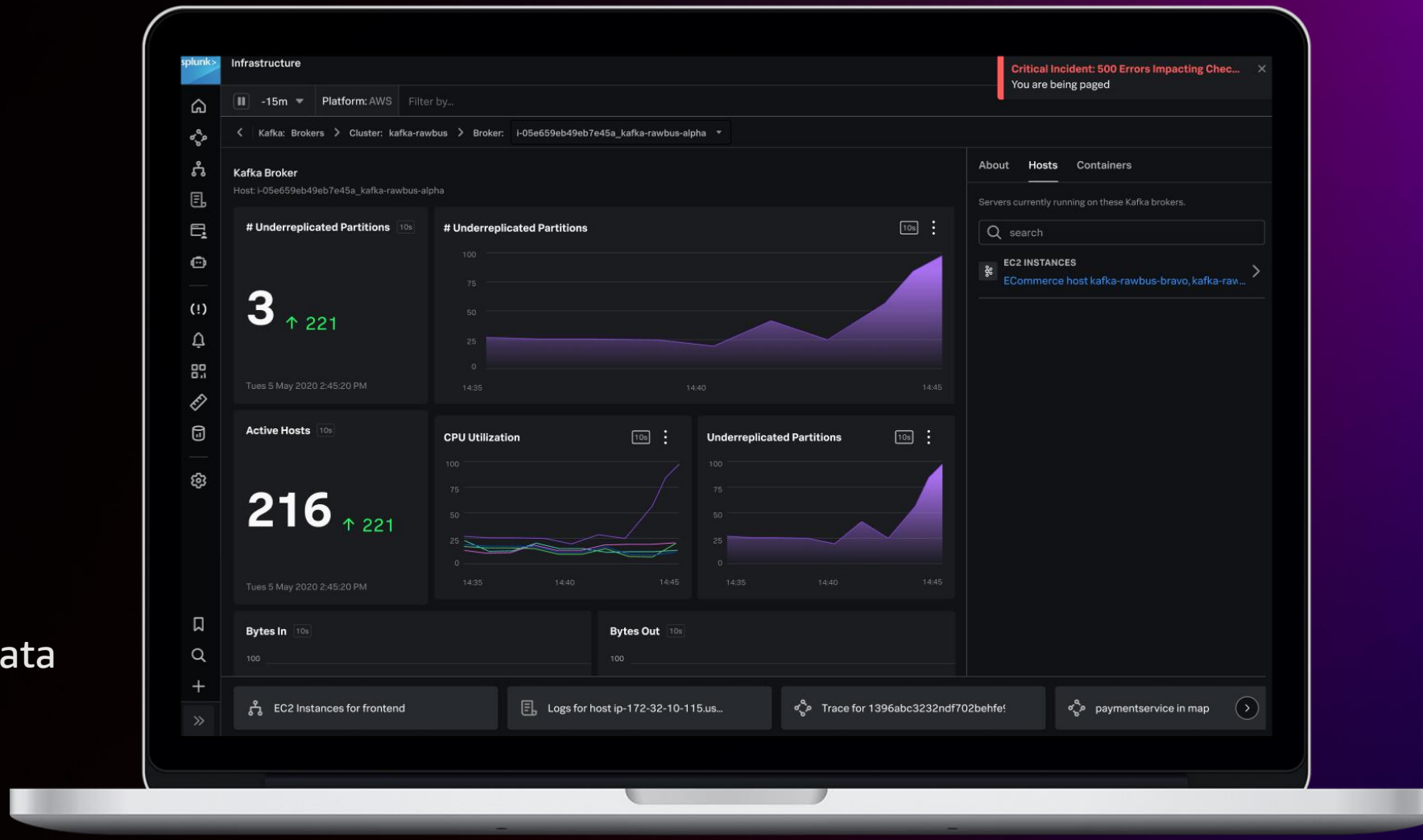
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Full-context incident management

AI-directed troubleshooting quickly identifies problem hotspots

Quickly drill into infrastructure metrics, logs, and application traces within one console

100% OpenTelemetry–driven data collection, no sampling



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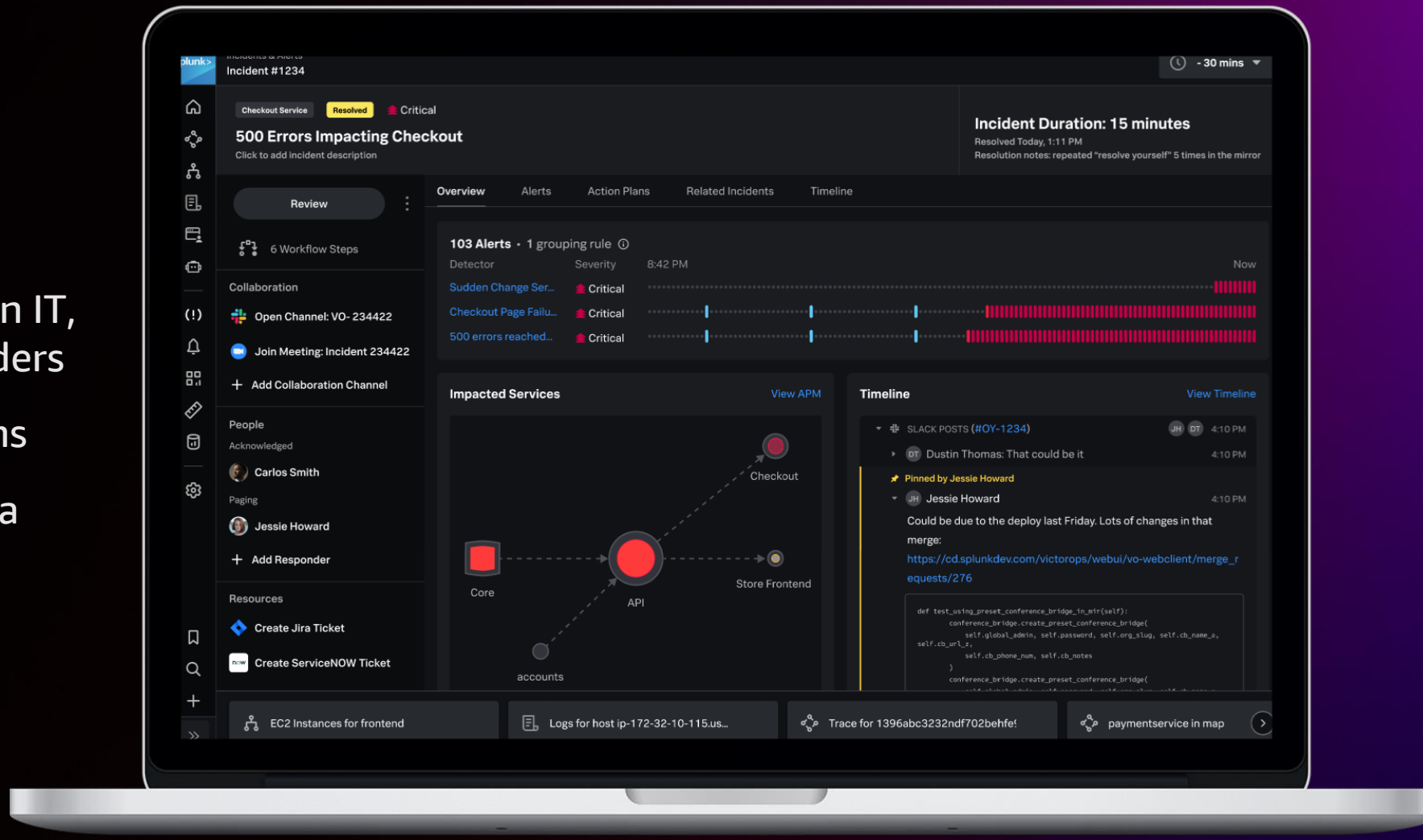
A unified response center

Unify incident response between IT, DevOps, and business stakeholders

ChatOps via Slack and MS Teams

ITSM integrations: NOW and Jira

Easily integrate third-party alert data



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Thank you!

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