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Automation, AI and ML for Network Management: It's Already Here, Are Organizations Ready?

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Agenda

- Kentik
- Why Automation is Important
- Key Findings from the Survey
- AIOps Defined
- Summary and Recommendations

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Revolutionary insights and automation to make every network excellent.
Power up operations teams with AIOps for network professionals.

FOUNDED
2014

HQ
San Francisco

CUSTOMERS
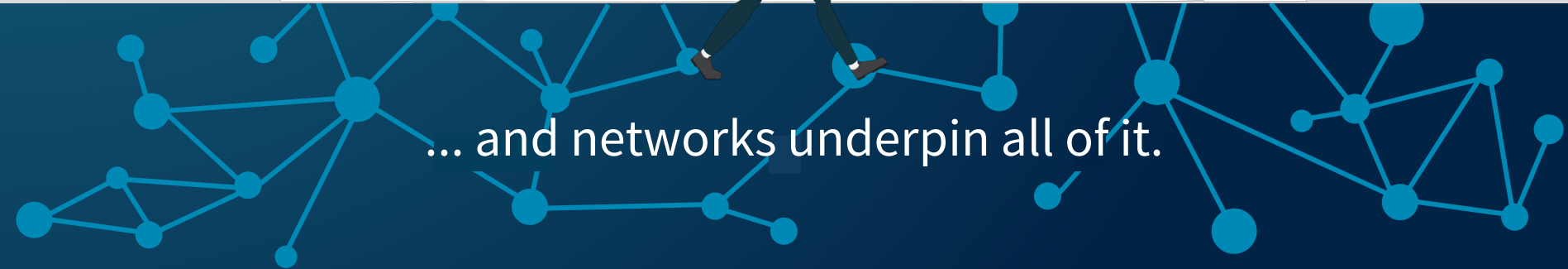250+

TEAM MEMBERS
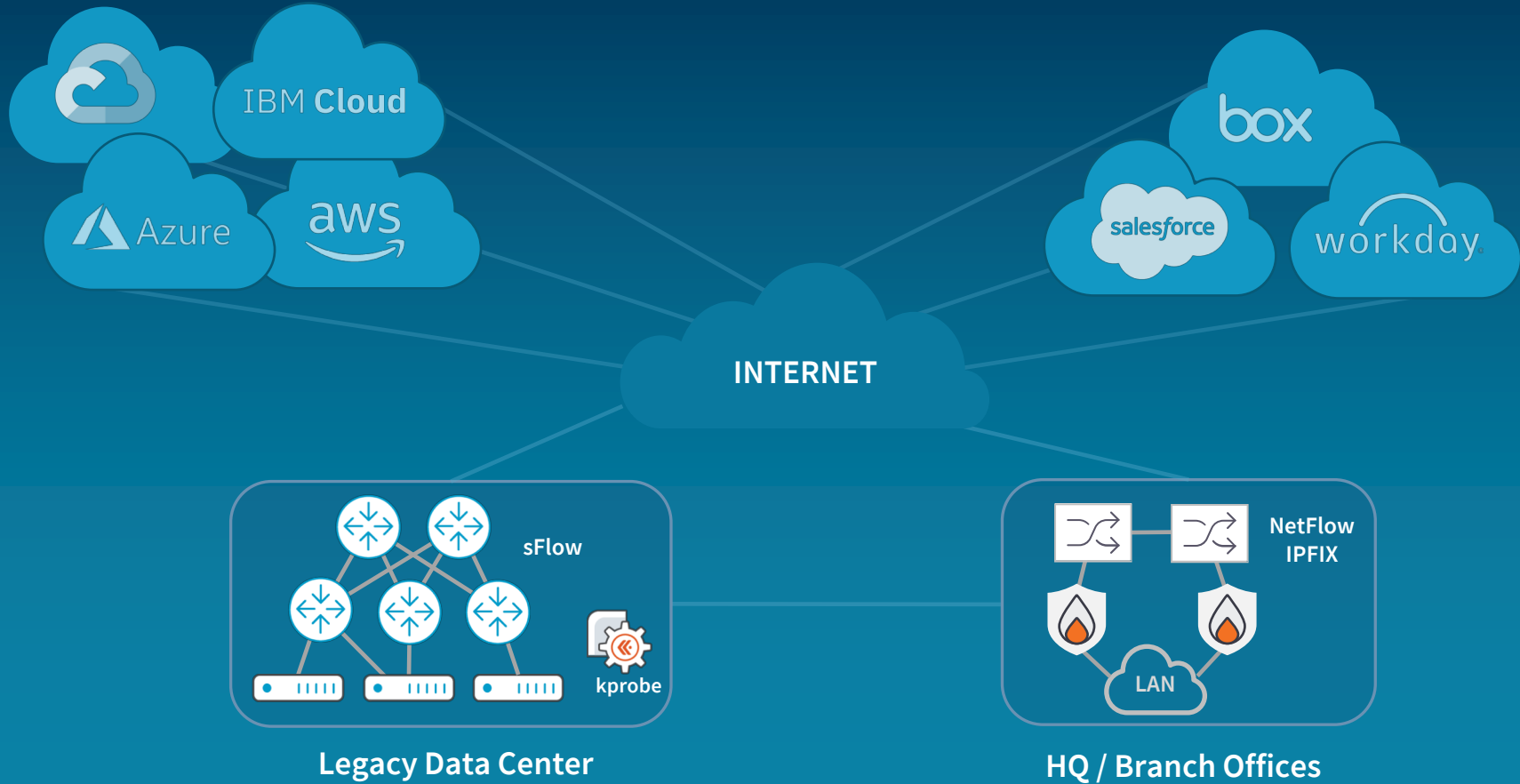80+

Why Automation is Important

Digital business drives the fastest revenue growth in history

... and networks underpin all of it.

It's a Cloud Centric World

Networks are Changing

Ephemeral API-Driven Uses

Increased Traffic Complexity

Increasing Automation

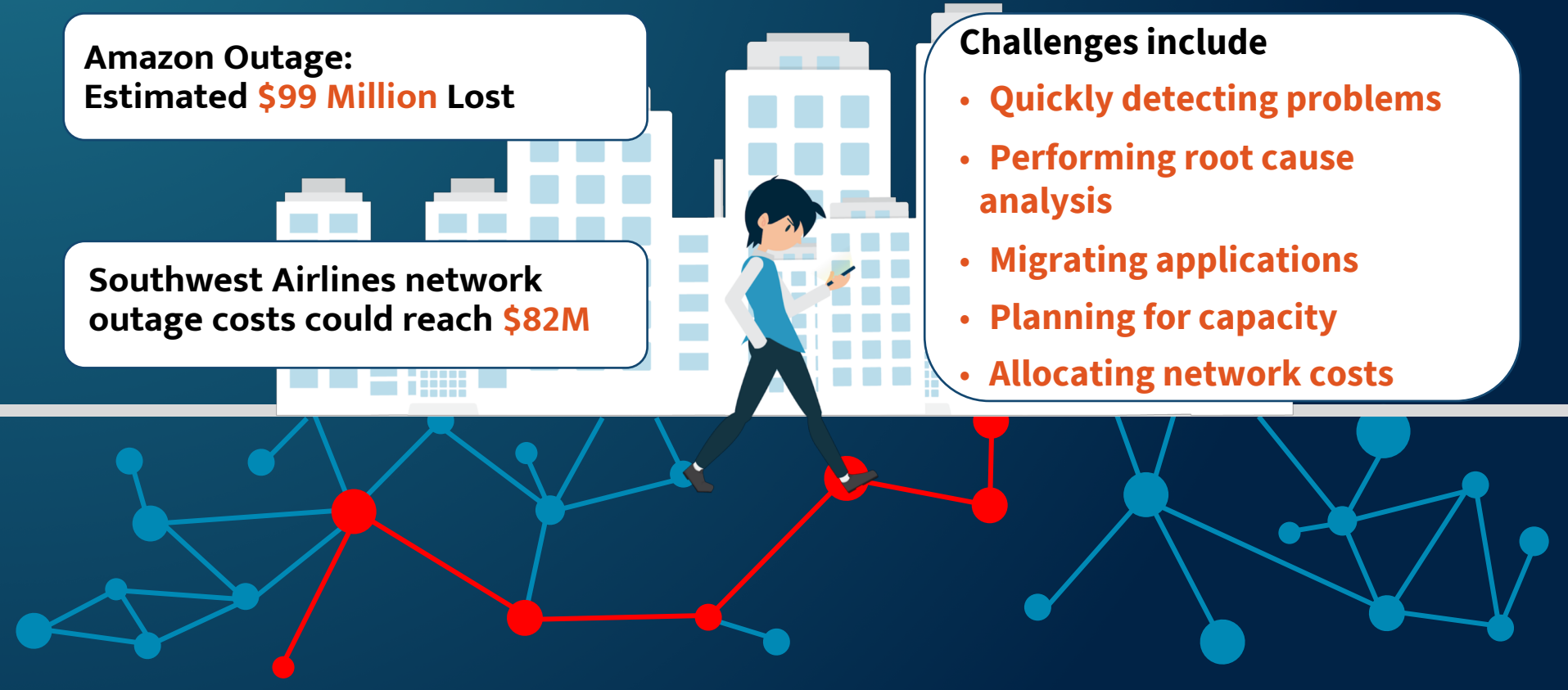Multiple Architectures

Varied Security Threats

And network teams are struggling

Amazon Outage:
Estimated $99 Million Lost

Southwest Airlines network outage costs could reach $82M

Challenges include

- **Quickly detecting problems**
- **Performing root cause analysis**
- **Migrating applications**
- **Planning for capacity**
- **Allocating network costs**

Survey: The State of Automation, Artificial Intelligence and Machine Learning in Network Management, 2019

Survey

- 388 conference attendees at Cisco Live U.S. 2019.

- Respondents varied in titles, including C-level, SVPs / VPs, directors, managers, engineers, architects, and developers.

- The largest majority of respondents (50%) reported having the title of "network engineer."

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The State of Automation, Artificial Intelligence and Machine Learning in Network Management, 2019

*It's All Here. Are Organizations Ready to Take Advantage?*
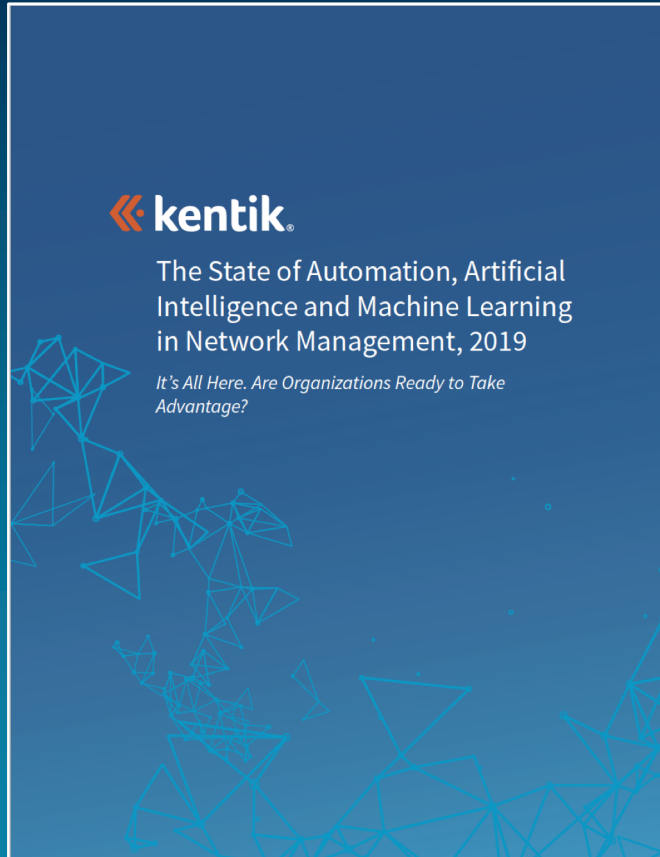
Summary of Findings

- The move to cloud is still underway for a few, as multi-cloud becomes a reality for many.

- Network automation is taking shape.

- Networking processes like compliance and incident response are least likely to be automated.

- Machine learning is growing in importance for network management… regardless of who you ask.
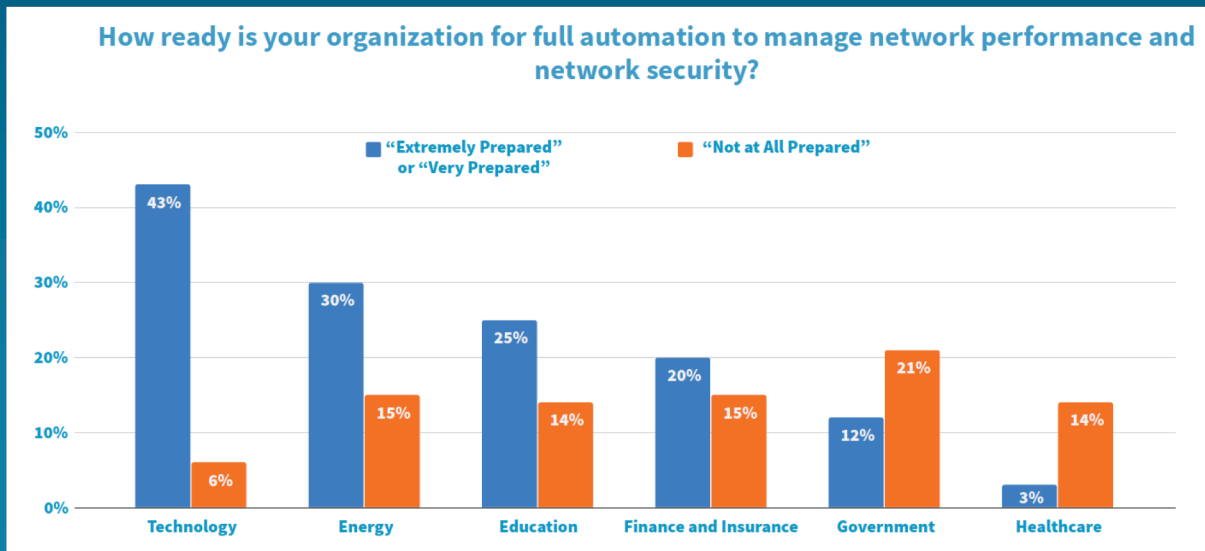
As the Move to Cloud Continues, Multi-Cloud Looms Large

- The majority (53%) are using a single cloud provider, but nearly half (47%) are using multiple cloud providers.
- Indicates that these networking pros are already dealing with significant operational complexity.
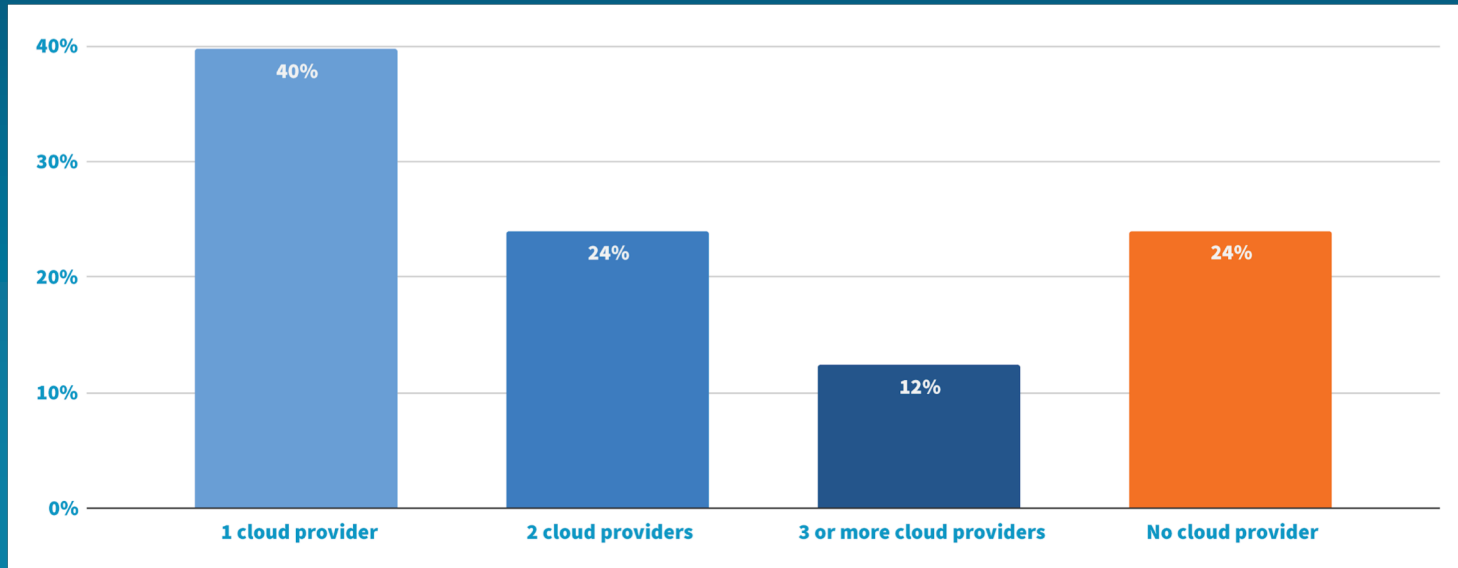
Network Automation is Taking Shape

- (85%) of respondents reported having at least one network automation deployment in place.
- Fifty-five percent (55%) have two or more deployments.
- Twenty-seven percent (27%) of respondents reported that their organization is either "extremely prepared" or "very prepared" for full automation.

How ready is your organization for full automation to manage network performance and network security?

| Industry	"Extremely Prepared" or "Very Prepared"	"Not at All Prepared"
Technology	43%	6%
Energy	30%	15%
Education	25%	14%
Finance and Insurance	20%	15%
Government	12%	21%
Healthcare	3%	14%

Organizations are Embracing Automation

- Majority of respondents (53%) are deploying automation for configuration purposes.
- 40% reported using automation for policy management.
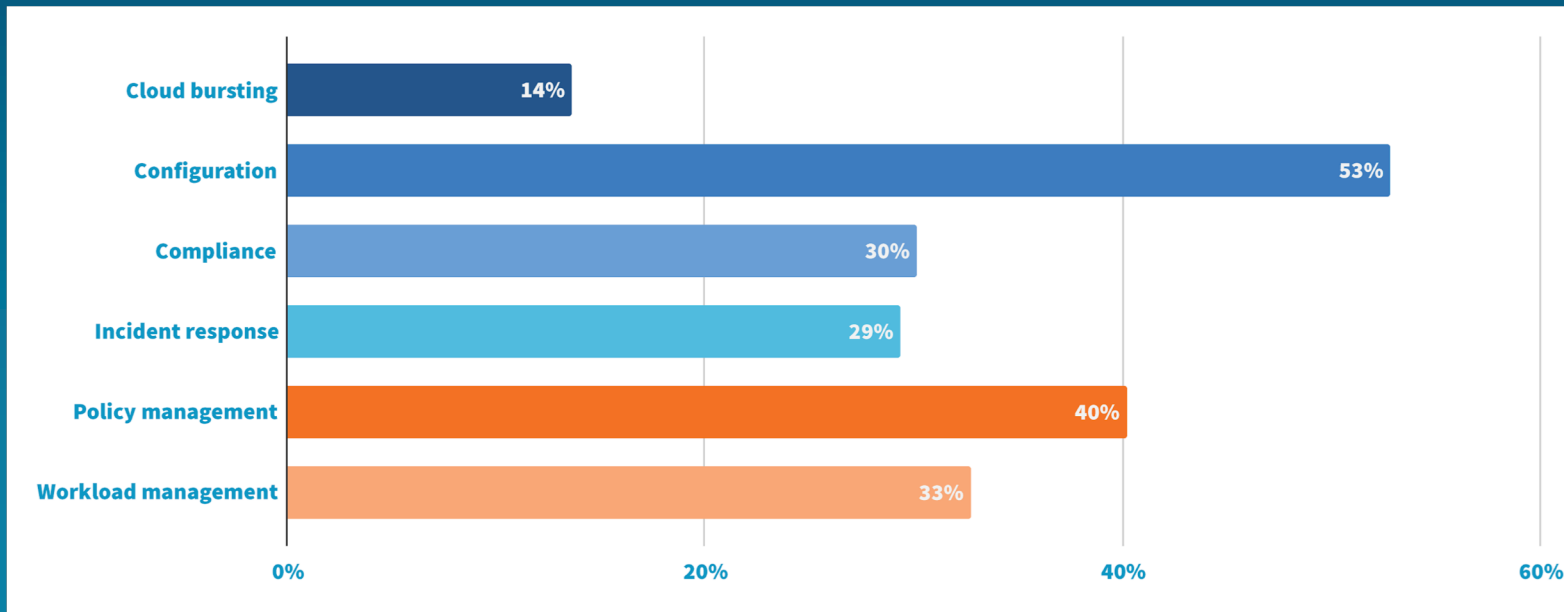
Machine learning is Growing in Importance for Network Management

- An overwhelming 65% of respondents said that ML is now "extremely important" or "very important" for network management - +20% YoY.
- Driven by the pain experienced in trying to apply and scale manual processes.

Not at all important
2.3%

Slightly important
8.5%

Moderately important
24.2%

Extremely important
20.6%
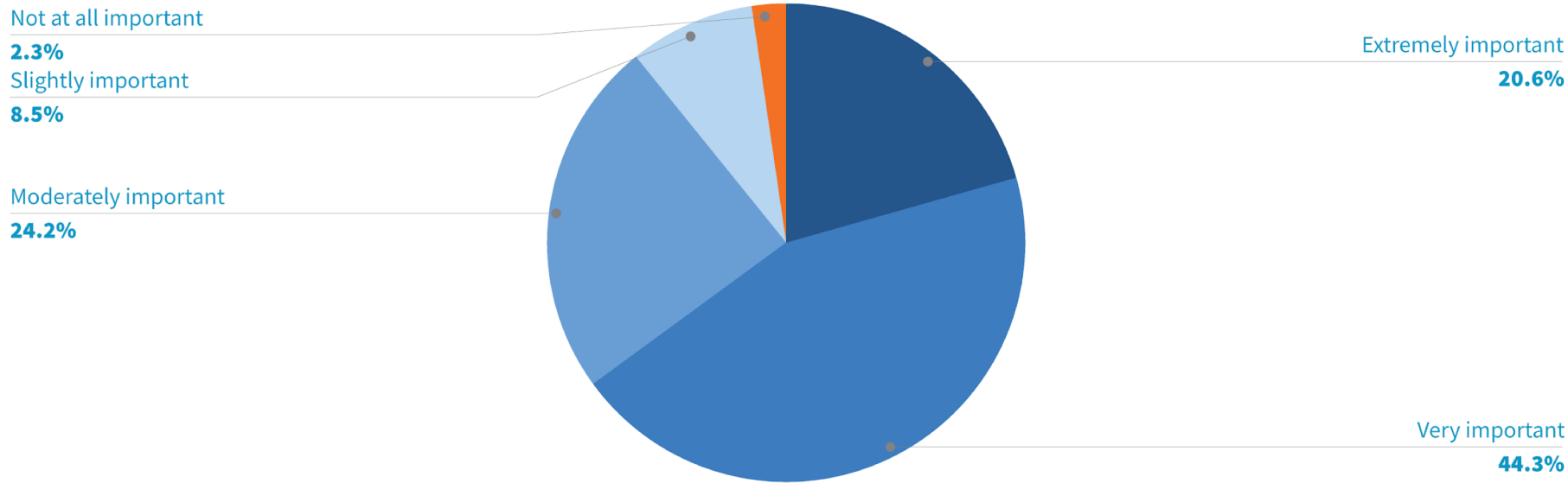
Very important
44.3%
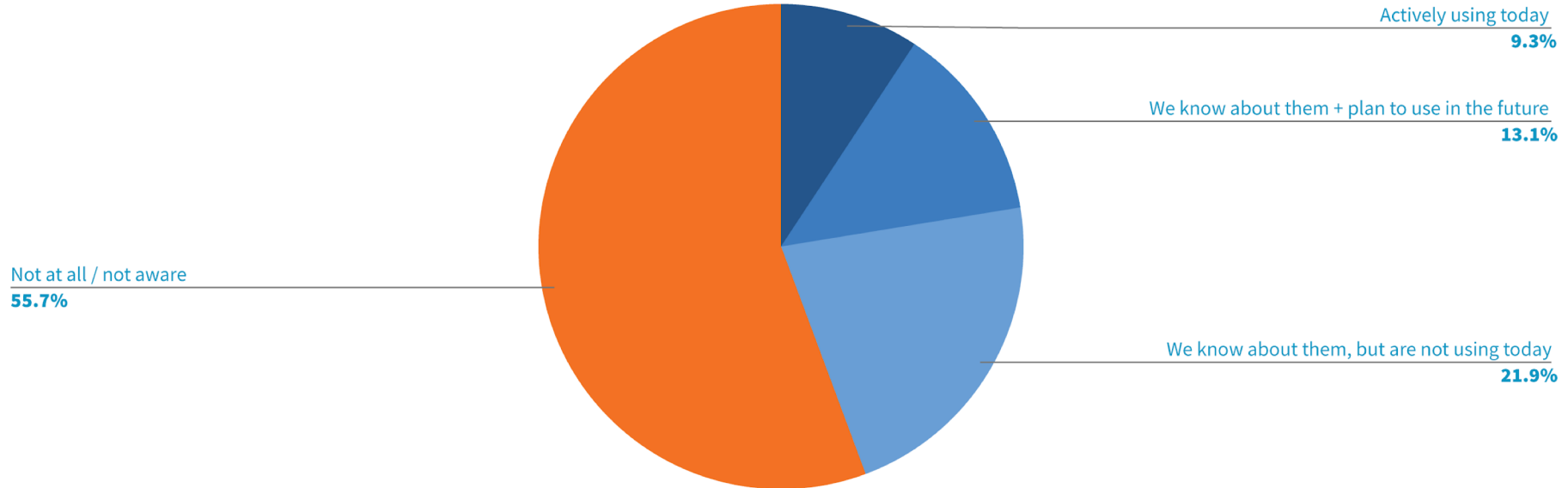
AIOps Defined and Why It's Important

AIOps Defined

"AIOps platforms enhance IT operations through greater insights by combining big data, machine learning and visualization." - Gartner, "Market Guide for AIOps", November 2018
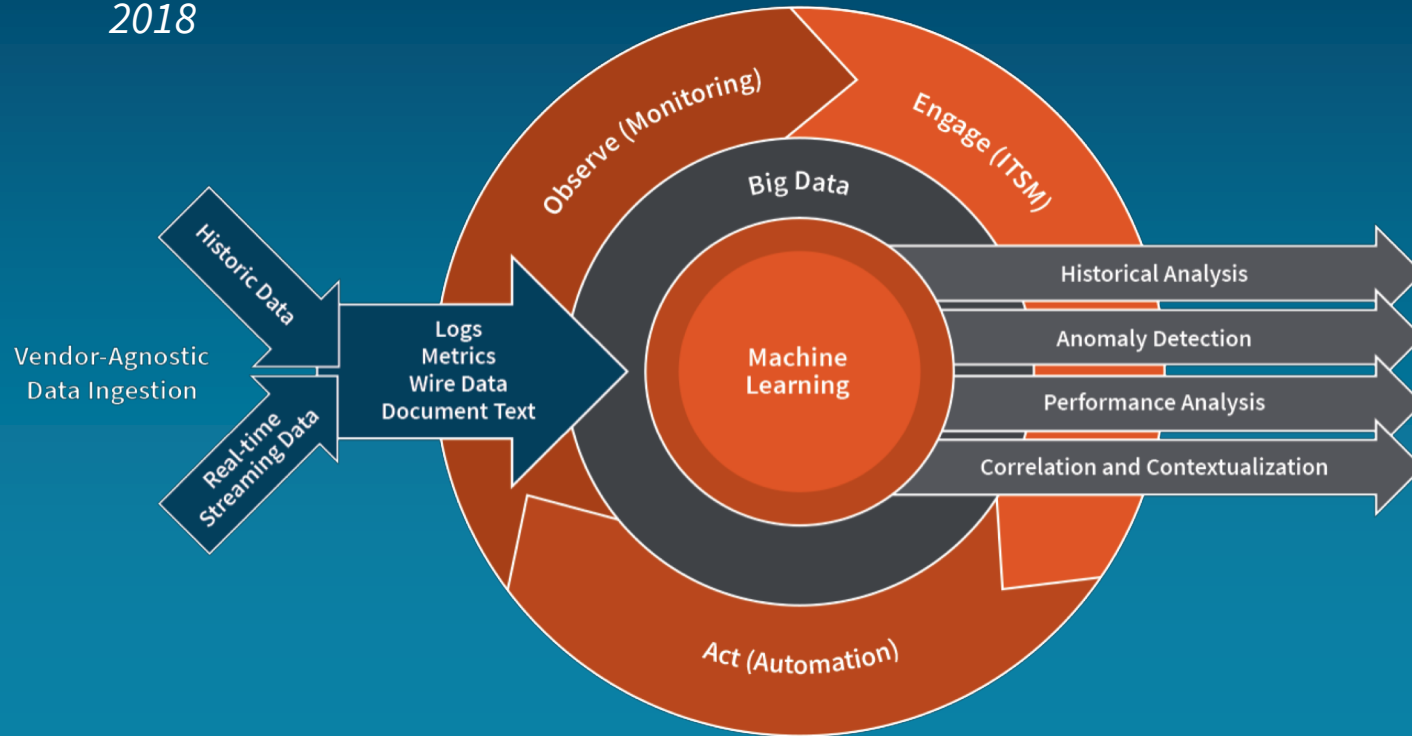
"By 2024, 60% of NPMD buyers will require improved AIOps capabilities, up from 30% in 2018." Gartner

AIOps Adoption Among Network Professionals

While a majority (87%) of organizations are prepared for full network automation, and 65% said machine learning is important for network management, AIOps adoption is in the early stages.
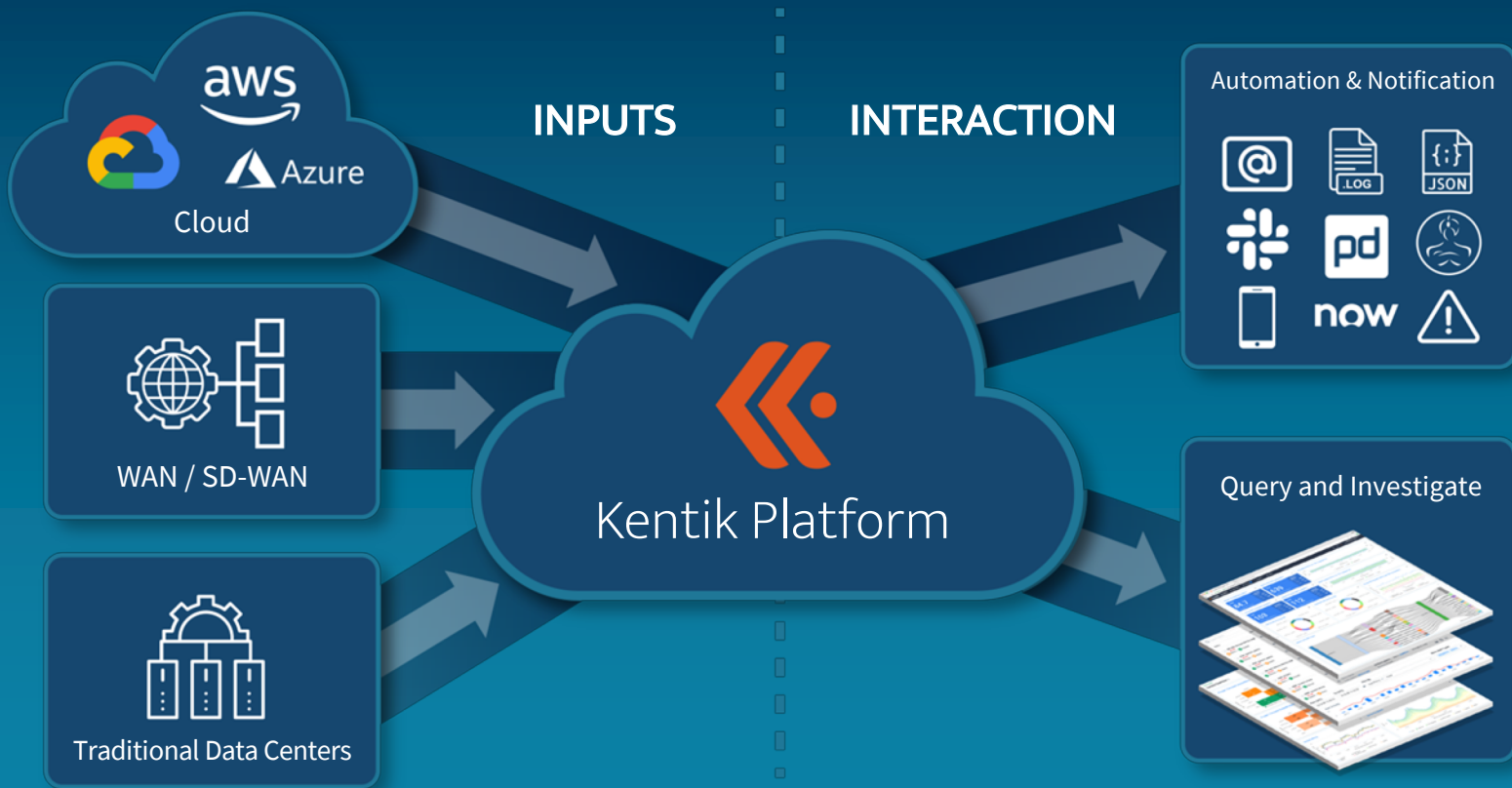

Actively using today
9.3%

We know about them + plan to use in the future
13.1%

We know about them, but are not using today
21.9%

Not at all / not aware
55.7%

Kentik is AIOps for Network Professionals

Revolutionary analytics to make every network excellent

Context & Labels

Geolocation Threat

Routing Business

Traffic & Metrics

Flows SNMP

VPC Flow Logs

Streaming

Telemetry

Tags / Labels

Packets

Kentik Platform

SaaS | Any Scale | Every Network | Real-Time

Queries & Insights

Insights
Global Insights

d311_iad1_kentik_com in site Ashburn DC3 is currently receiving **43% less** traffic than usual at this time of day.
4 minutes ago

⚠ There is a new entry into your top-5 source countries: Hong Kong
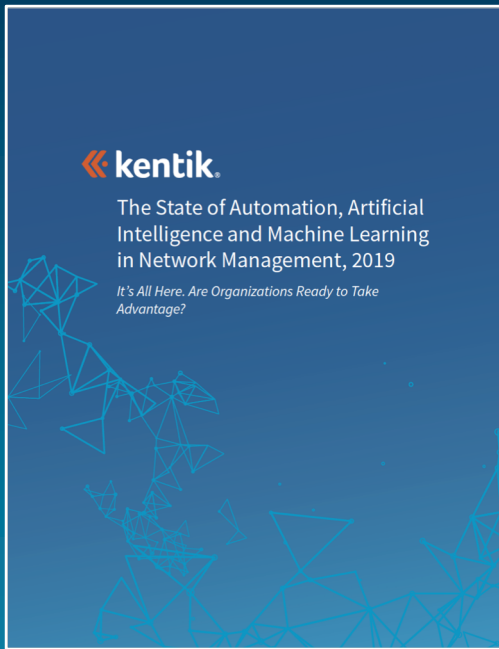an hour ago

Actions & Integrations

Unified Management for Diverse Infrastructure

Summary and Recommendations

- It's a cloud-centric world

- Running today's networks is dramatically harder and network teams are struggling

- Adoption of machine learning and automation are on the rise

- Insights and automation restore manageability

- Kentik powers up network teams with AI Ops

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The State of Automation, Artificial Intelligence and Machine Learning in Network Management, 2019

It's All Here. Are Organizations Ready to Take Advantage?

Download the Report

Q&A

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Thank You