



TURN IT UP

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The bridge to possible

Deliver High-Performance ITOps Cisco Nexus Dashboard Insights



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PSODCN-1004

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Agenda

- NetOps challenges
- Benefits & overview
- Use cases
- Licensing
- Customer success

NetOps Challenges



Human error is a leading cause
of breaches and hacks¹

Average cost of downtime
per minute is \$5600

“IT Spends 43% of
time Troubleshooting.”

–McKinsey²

“By 2023, 60% of data
center networking
configuration activities
will be automated,
doubling since 2020.”

–Gartner Market Guide for Network Automation
and Orchestration Tools, Sept 2020

¹IDC, Cybersecurity is a Daunting Challenge that Requires a Holistic Solution: Implications from Cloud Pulse, 1Q19 Survey, DOC #US45678519, December 2019

²McKinsey Study of Network Operations for Cisco–2016

Challenges

Assurance

Am I doing correct configuration?
Are interdependencies known?
Does the change impact something
am not aware of?

Proactive advisories

Was the issue preventable?
Is the network exposed to known
vulnerabilities?
Can I get proactive advice?



Troubleshooting

Where is the problem and what's
the blast radius?
How do I reduce MTTR?
How do I prove network is healthy?

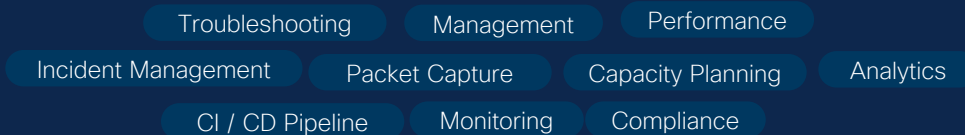
Single-pane-of-glass

Can I get visibility across
datacenters?
Single point for visibility and control?

Traditional operations



10+
Tools



Benefits & Overview



Nexus Dashboard Insights

360-degree visibility



Network, applications,
integrations

Analytics



Digitization, telemetry,
correlation

Automation



Lifecycle, workflow,
troubleshooting

Benefits



Keep the network state compliant with your intent.



Avoid outages with precautionary and proactive advisory

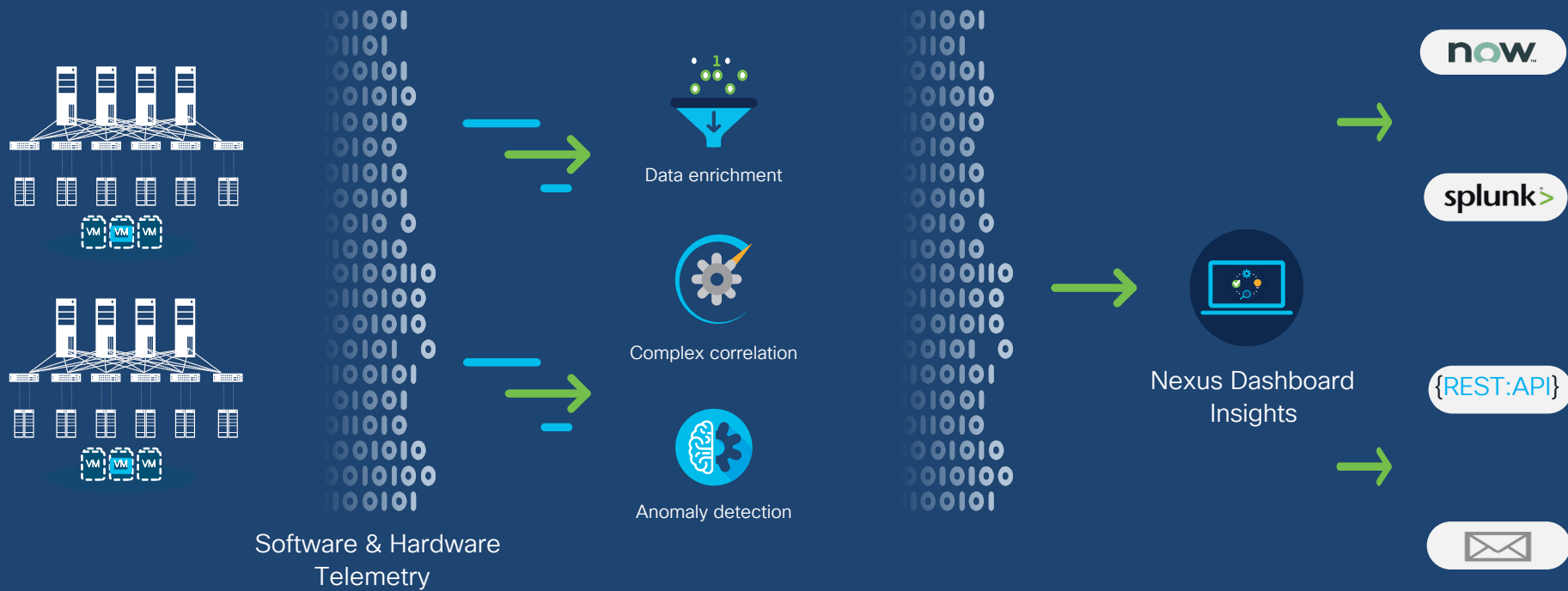


Rapidly remediate with automated, correlated insights



Control multiple datacenters with single pane of glass

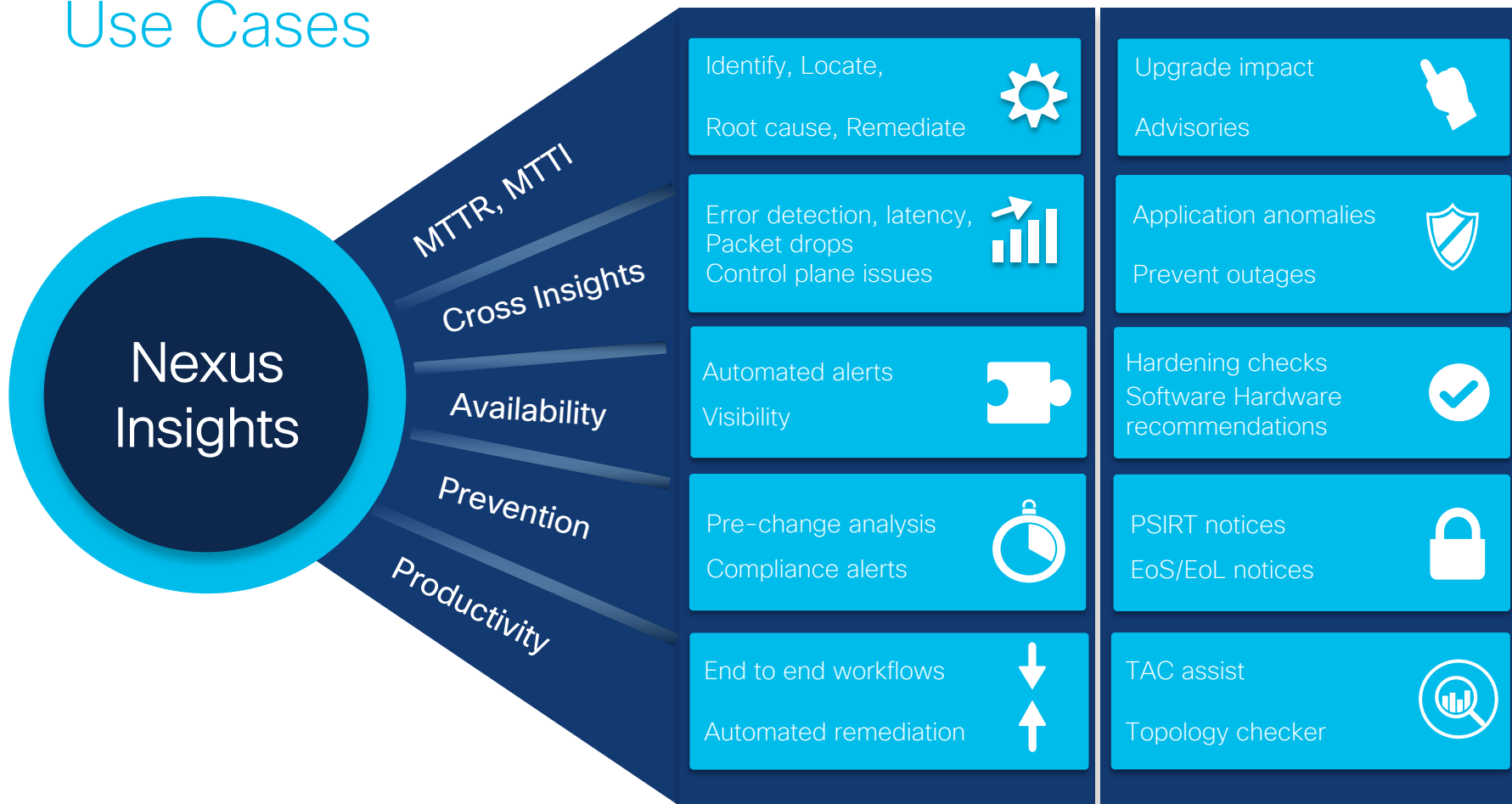
How it works



Use cases



Use Cases



Mean-time-to-resolution








A day in the life of an operator



User

Ops (Network and others)

Nexus Dashboard Insights

	Time	Before
User raised a trouble ticket for erratic access to ERP	9:00	
NetOps checked connectivity e.g. ping, trace, hop-by-hop diagnostics and found everything ok.	10:00	
Requested user to report recurrence to do real time troubleshooting	10:30	
User reported recurrence	12:00	
NetOps troubleshooted and involved other teams / tools but found nothing wrong with the network	12:30	
NetOps suspected application misbehaving. There are back and forth calls with app team(s)	13:30	
RCA: Misbehaving process on server is causing application performance issue.	14:00	

Mean-time-to-resolution

A day in the life of an operator



User

Ops (Network and others)

Nexus Dashboard Insights

	Time	Before	After	Time	
User raised a trouble ticket for erratic access to ERP	9:00			9:00	User raised a trouble ticket for erratic access to ERP
NetOps checked connectivity e.g. ping, trace, hop-by-hop diagnostics and found everything ok.	10:00			9:05	NI shows flow are healthy on the network but detects application performance anomaly
Requested user to report recurrence to do real time troubleshooting	10:30			9:10	NetOps can check historical details to immediately root cause
User reported recurrence	12:00				
NetOps troubleshooted and involved other teams / tools but found nothing wrong with the network	12:30				
NetOps suspected application misbehaving. There are back and forth calls with app team(s)	13:30				
RCA: Misbehaving process on server is causing application performance issue.	14:00			9:15	RCA: Misbehaving process on server is causing application performance issue.







Compliance

A day in the life of an operator

	Before
HR team needed access to shared services	✓
NetOps plans changes, create reports	✓
NetOps gets CAB approval	✓
NetOps planned schedule change window	🚫
NetOps made configuration change and gave access to shared services (unfortunately route leaking violated PCI compliance)	🚫
Tests between HR users and shared services passed. Change window closed	🚫
Security audit revealed PCI compliance violation	🚨
NetOps rectified the configuration	✓

Compliance

A day in the life of an operator

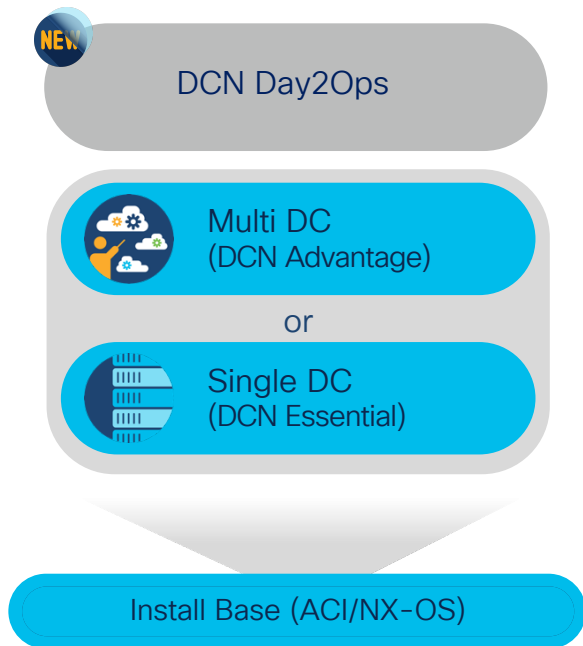
	Before	After	
HR team needed access to shared services	✓	✓	HR team needed access to shared services
NetOps plans changes, create reports	✓		NetOps used Nexus Dashboard Insights to model and validate config before applying on production environment with assured compliance
NetOps gets CAB approval	✓	✓	Take assurance report to CAB with confidence
NetOps planned schedule change window			
NetOps made configuration change and gave access to shared services (unfortunately route leaking violated PCI compliance)			
Tests between HR users and shared services passed. Change window closed			
Security audit revealed PCI compliance violation			
NetOps rectified the configuration	✓		NI highlighted the compliance violation and prevented security loophole.

Licensing



How to Buy Nexus Dashboard Insights

Software included with Switch Subscription Licenses



How to Buy Nexus Dashboard Insights

Software included with Switch Subscription Licenses



Customer success

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Mac IaaS Leader Automates, Simplifies Day2Ops

MacStadium Inc. provides private cloud solutions built on Apple infrastructure to organizations around the world. Powered by MacStadium, Orchestration with Kubernetes on Apple (Orka) is the only virtualization layer for Mac infrastructure that is based on Docker and Kubernetes technology. For more information, visit macstadium.com.

Challenges

Align infrastructure across multiple data centers

Boost operational efficiency and speed

Increase data center automation and insights

Results

Established multi-site connectivity and orchestration

Accelerated data center deployments and troubleshooting

Improved infrastructure management, visibility, and assurance

Solutions

CiscoCisco® Data Center Network Manager (DCNM)

Nexus® 9000 Series switches

Cisco Nexus Dashboard

Cisco Nexus Dashboard Insights

Cisco Network Assurance Engine (NAE)

Cisco UCS® servers

Cisco Internight™ Infrastructure Service



“Cisco Nexus Dashboard Insights gives us a deep view of hardware telemetry...Cisco Network Assurance Engine provides alerts when problems or misconfigurations are detected in the network..., and how to resolve the issue. And we’re looking forward to using Cisco Nexus Dashboard, which unifies key operational tools across all of our network fabrics and data centers.”

–Network Architect
MacStadium

Customer Case Study



Company: Leading global supplier of technology and services

Employees: 410,000

Footprint: 60 countries

ACI



NAE



Challenges

Accelerate time to market

Transform data center operations to support connected products and services

Identify and eliminate vulnerabilities before they impact the business



Solutions

Cisco® Application Centric Infrastructure (Cisco ACI™)

Cisco Nexus® 9000 Series switches

Cisco Network Assurance Engine (Cisco NAE)



Results

Adopted a single network platform for all data centers

Reduced time spent on network operations to enable innovation

Accelerated fabric deployment from days to minutes

Next steps

DEMO

Watch the Cisco Nexus Dashboard Insights demo – DEMDCN-301



Experience Nexus Dashboard Insights at Cisco dCloud. Click [here](#)



Learn more about Nexus Dashboard Insights at
www.cisco.com/go/NexusInsights





The bridge to possible

Thank you

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