Cisco Nexus Dashboard
Comprehensive NetOps and Visibility

Intent Based Networking Product Marketing
October 2020
Business Requirements are Driving Changes

- Flexibility
- Agility
- Resiliency
- Simplicity
- Speed
- Security

IT Transformation

Business Outcomes
IT Operating Model Objectives

Simplicity
- Transition to modern operations’ processes
- Automate change
- Consistent On-Ramp to Multi-Clouds

Speed
- Easy to use, adopt, maintain
- Connect with other operations’ tools
- Consistent experience for hybrid multi-cloud environments

Security
- Continuous visibility
- Zero trust, multi-layer segmentation
- Programmable service edge
Business Problem

Accelerated Digital Transformation
Application Transformation Digital Marketplace

Business Resiliency
Accelerating Needs Workforce and Workloads Anywhere

Distributed Workloads
Agility, Consistency on a Global Scale Automation Tools for Elastic Needs

Business Resiliency, Transformation and Distributed Workloads

Sixty percent (60%) of respondents said their data center’s outage could have been prevented with better management/processes or configuration.
Uptime Institute, Annual Data Center Survey Results, 2019

By 2023, 60% of data center networking configuration activities will be automated, up from 30% in early 2020.
Gartner, Market Guide for Network Automation and Orchestration Tools, Sept 2020

Cloud, DevOps, and the need for intelligent automation radically transform network operations, forcing 70% of IT departments to rethink roles and staffing of network operations teams by 2022.
IDC, Futurscape 2020 Predictions, Oct 2019
The NOC—Walking in Your “Troubleshooting” Shoes

Network Architect

Any deployment errors?
Can somebody check the configuration or policy?
Is this a known issue?
What about security?
What about compliance?

IT

Can I get the changeset approved?
Any tickets?
How often? What did we do last?
Who’s taking over?
What are we troubleshooting?

Network Operators

Any outages or user impact?
Is this even a networking issue?
On-prem? Or cloud?
How many sites are affected?
We need to call...

System Admin

Can someone check connectivity? To the cloud?
We should look at the switch.
Can I get an end-to-end picture?
Credentials?
What are the other tools telling us?
Operational challenges in the Data center

- Broken user experience
- Lack of end-to-end visibility
- Multiple telemetry sources
- Siloed data stacks
- No single pane of glass
- No correlation
- Disjoint Ops infra
- High TCO
- High MTTR
- Fragmented insights
- Hard to automate
- High TCO

Plan
Discover
Predict
Analyze
Change
Remediate
Automate
Intent-based networking: Multidomain Strategy

Policy

Simplicity

Speed

Security

Analytics

Automation

Intent-based networking

Distributed Workforce  Campus  Branch  IoT  Data Center  Cloud
Nexus Dashboard
Simple to automate, simple to consume

Automation Platform
One platform, all services, open APIs

IT Ops Transformation
Bridging the gap from NetOps to DevOps

DC Network Services
Lifecycle automation from on-prem to cloud to edge
Simplification in the Multicloud Era
Announcing Cisco Nexus Dashboard

Nexus Dashboard Platform
Nexus Dashboard

Multi-Site Orchestrator

Nexus Insights

Network Assurance

3rd Party Tools

Nexus Insights

Nexus Dashboard Platform
Nexus Dashboard

Simple to deploy
Simple to consume

Nexus Dashboard Platform
Nexus Dashboard

Simple to deploy
Simple to consume

Nexus Insights
Network Assurance

Multi-Site Orchestrator
3rd Party Apps

3rd Party Ecosystem Apps
Available through Cisco DC App Center

Nexus Dashboard Platform
Nexus Dashboard Platform
Nexus Dashboard: A Unified Agile Platform

The operator view

- Consume service(s) from single place
- Frictionless navigation across multiple services and sites
- Customize views and workflows

The admin view

- Single dashboard for lifecycle management of services and Ops infra
- Consistent one-time onboarding of domains and services
- Consistent user management and access control
Cisco Nexus Dashboard Platform

Modern Scale-out application services stack to host data center operations applications

- **Nexus Insights**
- **Network Assurance Engine**
- **3rd Party apps**
- **MultiSite Orchestrator**

- **CPU**
  - 2.2 GHz 10 core CPU x 2

- **Memory**
  - 256 GB

- **HDD**
  - 2.4 TB x 4

- **Connectivity**
  - 10G/25G/40G

**Network automation**

**Scale-out cluster**

**High Availability**
Nexus Dashboard 2.1- Empowering Full Lifecycle Automation

Any apps

All site types

Mix form factors
Cisco Data Center Networking Portfolio
Announcing the Cisco Nexus Dashboard

- Single Dashboard to view health
- Single UI to consume app services
- Proactive Notifications
- Configuration compliance
- Realtime Telemetry Collection
- Faster resolution through correlation
- Centralized model for multiple fabrics
- Line Rate performance and scale
- Hardware Based Telemetry

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Testimonials
“The Cisco Nexus Dashboard provides a single automation platform for data center network provisioning, operational management, continuous assurance and compliance checks, and real-time telemetry data... all while simplifying the workflow... and providing a faster path to ROI.”

-Michael Witte
Technical Solutions Architect III
Global Solutions Development
World Wide Technology
“NTT is excited to introduce the new Cisco Nexus Dashboard and features to our clients, who are looking to simplify the normally complex operations and management tasks in the datacenter. The Nexus dashboard specifically addresses this pain point... a huge step forward in Cisco's product evolution... outstanding new solution.”

-Lloyd Lemish
Technical Solutions Architect
US | North East
NTT
Nexus Dashboard

ND 2.0 Features
Frictionless—Single Pane of Glass
Nexus Dashboard

The admin view

- Onboard Hybrid multi cloud sites
- Provide common services for all apps
- Seamless integration and lifecycle management of operational services
- Single dashboard for cross domain and third party integrations
- Customizable role-based UI view for network operators use cases

The operator view

- Single Sign On (SSO) for seamless user experience across operation services
- Easily monitor hybrid multi cloud environments
- Unified Day 2 operations view
- Easily leverage common northbound integrations
Nexus Dashboard Features

Physical

Centralized user management

virtual

RBAC for Nexus Dashboard users

Cloud

Launch Services Directly From Here
Nexus Dashboard
Looking forward
Nexus Dashboard
Deployment evolution

Today  Next  Future

Physical/On-prem  Virtual, Cloud  aaS

Physical ND Platform Cluster  Virtual/Cloud ND Platform  NDaaS
Nexus Dashboard
Capability roll-out

Today
- NIR, NIA, NAE, MSO, Nexus Insights 5.0

Next
- Nexus Insights 5.0 + NAE + MSO

Future
- Nexus Insights 6.0 + MSO

Multiple ACI Fabrics

ACI or DCNM

ACI + DCNM + Cloud
Nexus Dashboard

Automation Platform

IT Ops Transformation

DC Network Services
ITOps Transformation

Bridging the gap from NetOps to DevOps

**DevOps**

**What:** Deploy network and L4-7 services for multi-tier app

**How:** Terraform, Ansible, MSO, APIC

**NetOps**

**What:** Extend VXLAN network to new server racks

**How:** Ansible, DCNM, Nexus Insights

**Correlate application and network performance**

**AppD, Nexus Insights**

**Support server migration to new network with Ticketing and change control workflow**

**ServiceNow, MSO, APIC, DCNM**
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Sixty percent (60%) of respondents said their data center’s outage could have been prevented with better management/processes or configuration. Uptime Institute, Annual Data Center Survey Results, 2019

Developer agility and self-service
Consistent environments on-prem and public cloud
Automated performance-cost balancing
Nexus Dashboard
Service integrations

- Analytics/Monitoring: splunk
- ITSM/Workflows: servicenow
- Infrastructure as code: ANSIBLE, Terraform
- Cisco Nexus Data Broker
DC Network Services

Multi-site Orchestrator

- Scale out/federate policy across sites/availability zones/regions
- Integration with SDWAN vManage and DNA Center

Nexus Insights

- All telemetry, assurance, compliance in one place
- Integration with AppD and Intersight
DC Network Automation Simplified

1. Simplify deployment of all Day 1 and Day 2 automation services with Nexus Dashboard

2. Provision Infrastructure-as-code with Ansible Playbooks and Terraform Providers

3. Real-time telemetry, assurance, and compliance checks with Nexus Insights

- Consistent DC network operations from DC to edge to cloud
- One integration point for different Ops functions
- Proactive operations workflows

Cloud Ops
Developer
Sec Ops
Nexus Dashboard

Service integrations

Network Automation

SD-WAN vManage
DC-Branch and DC-Cloud WAN optimization

DNA Center
Consistent Enterprise user identity
End-end segmentation

Cloud Automation

Intersight
Nexus Infrastructure visibility for Compute and Storage Ops

AppDynamics
Network visibility into app performance

Nexus Dashboard

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Customer Case Study
Customer Case Study

Company: Leading European financial services group
Employees: 138,000
Footprint: 62 countries

Challenges
- Increase data center agility and automation
- Implement DevOps-style “network as code” philosophy
- Streamline global IT operations

Solutions
- Cisco® Application Centric Infrastructure (Cisco ACITM)
- Cisco Nexus® 9000 Series switches
- Cisco Customer Experience (Cisco CX)
- Red Hat Ansible
- GitHub

Results
- Accelerated infrastructure deployments and maintenance
- Standardized network infrastructure and policies across multiple data centers
- Increased operational efficiency and business agility on a global scale
Customer Case Study

Company: French postal service
Employees: 249,304
Footprint: 1 country

Challenges
- La Poste saw a dramatic drop in mail volume, which impacted its business model
- Needed to transform a hierarchical organization into a horizontal, agile matrix
- Needed to align with new work models geared to modern, digital companies

Solutions
- Cisco Application Centric Infrastructure (ACI) Multi-Site Orchestrator (MSO)
- Cisco Nexus 9000 Series Switches

Results
- Centralized and automated management across two data centers
- 45 applications and 1500 virtual servers connected and protected by Cisco ACI
- Each data center has its own network fabric and Red Hat OpenShift PaaS
- Boosted performance and flexibility
- Improved application resilience and availability
Customer Case Study

**Company:** Leading global supplier of technology and services

**Employees:** 410,000

**Footprint:** 60 countries

### 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
How to Buy Nexus Dashboard
Software included with Switch Subscription Licenses

- DCN Day2Ops
  Nexus Dashboard with Nexus Insights*, plus

- Multi DC (DCN Advantage)

- Single DC (DCN Essential)

- DCN Advantage
  Nexus Dashboard with Multi-Site Orchestrator

- DCN Premier
  Nexus Dashboard with Nexus Insights and Multi-Site Orchestrator

*NX-OS customers can use Nexus Insights w/o using DCNM for fabric management
Cisco Nexus Dashboard
Partner opportunities

**Differentiate with Nexus Dashboard**
Go Multi-domain, Multi-cloud, and Multi-fabric!

**Upsell with Advantage and Premier**
Land Nexus Dashboard to maximize your deals!

**Drive Professional Services**
Integrate with best of breed 3rd party ecosystem

Leading Simplification in the Multicloud Era

*Roadmap*
Nexus Dashboard

Simple to automate, simple to consume
Nexus Dashboard
Transform networking operations

Connecting all services in one place
Nexus Dashboard
Simple to automate, simple to consume

- **Automation Platform**: One platform, all services, open APIs
- **IT Ops Transformation**: Bridging the gap from NetOps to DevOps
- **DC Network Services**: Lifecycle automation from on-prem to cloud to edge
The NOC—Operational Challenges

- Fragmented Tool Chain
- Fragmented User Experience
- Reactive Operations
- High MTTR
Simplified IT Without Compromise

Single Platform Full-Lifecycle Automation

True Hybrid Cloud

Bridge the Gap NetOps and DevOps