



# Intent-based Networking

## Powered by Cisco Digital Network Architecture

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2<sup>nd</sup> November 2017



Retail



Healthcare



Education

- **40% of incumbents risk of being displaced in 5 years**
- **26% more profitable business that have Digitize**
- **By 2020, 75% organizations will be Digitize or preparing to**

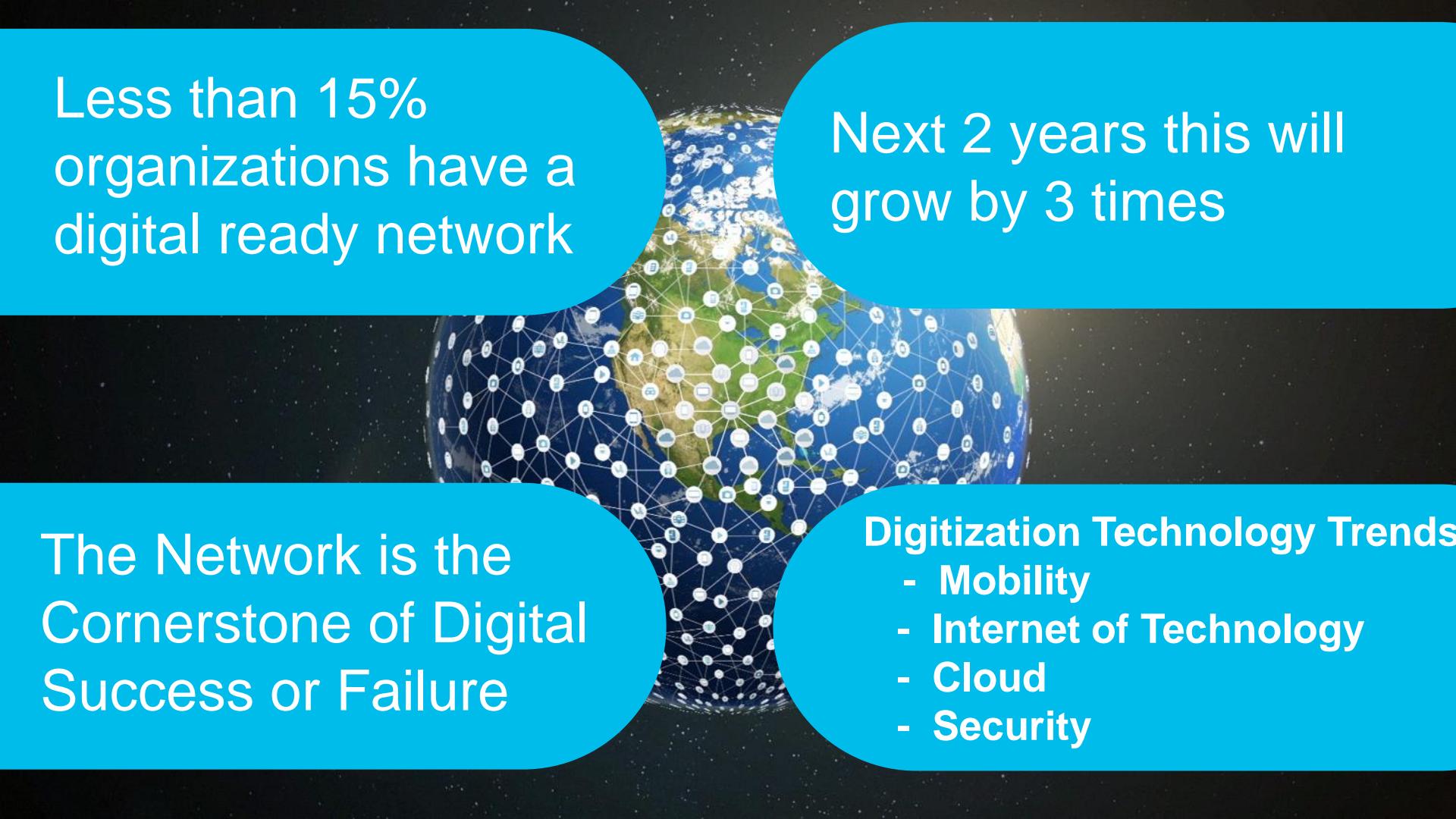
Digitize

Transportation



Finance

Government



Less than 15%  
organizations have a  
digital ready network

Next 2 years this will  
grow by 3 times

The Network is the  
Cornerstone of Digital  
Success or Failure

**Digitization Technology Trends**

- Mobility
- Internet of Technology
- Cloud
- Security



Scale

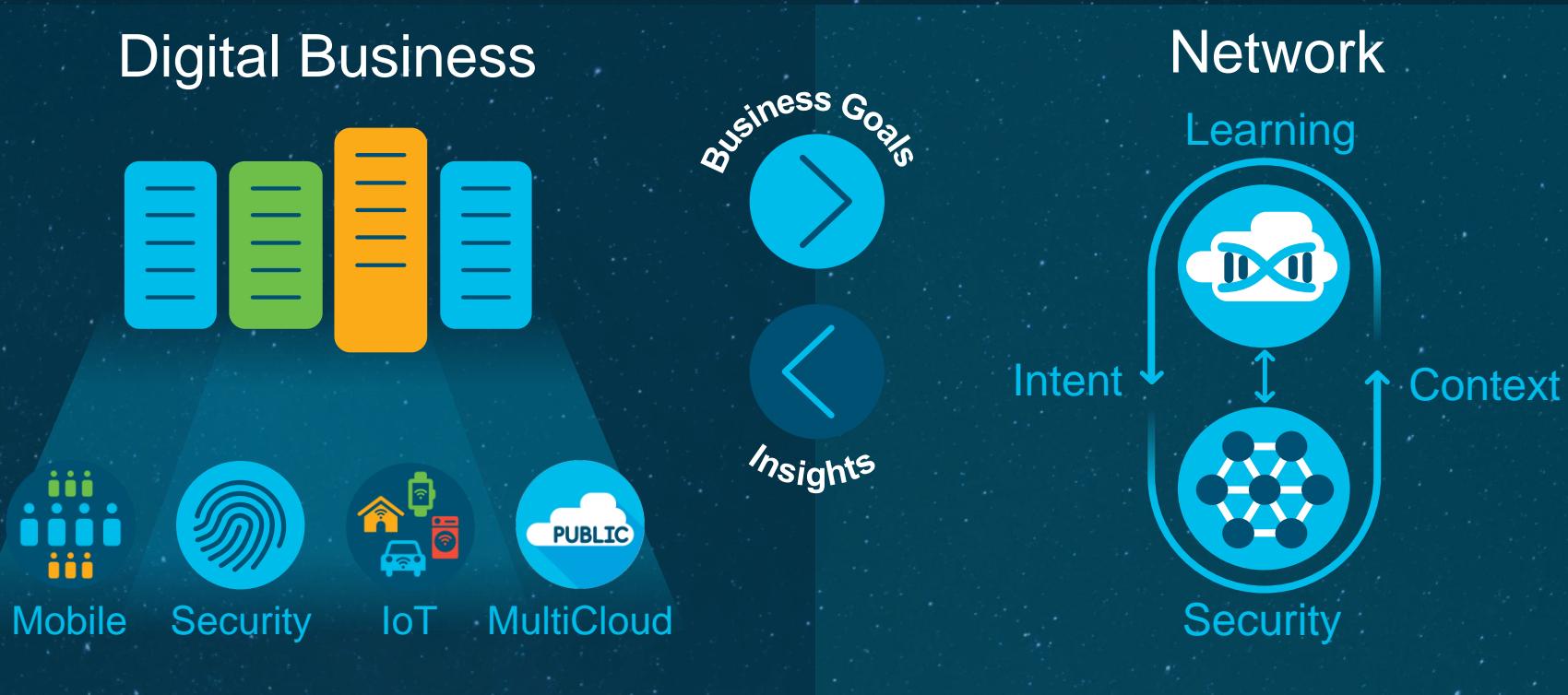


Complexity



Security

# Intent-based Networking with Cisco



Powered By Intent. Informed by Context.

# Cisco's Intent Based Networking

Shift IT Time to Business Focus

67%

Network  
Provisioning Time  
Savings

80%

Improve Issue  
Resolution

48%

Reduced Security  
Breach Impact

61%

Reduced Operating  
Expense

\*Source: Internal TCO Analysis with Large Enterprise Customer (actual results may vary)

\*\* Capex Reduction based on converging IOT Networks



# Business Imperatives

## Security

How do you defend against threats?

Ransomware

## Scale

How do you scale for the mobility & IoT explosion?

IoT

## Assurance

How deliver a great user experience?

Mobility

## Cloud

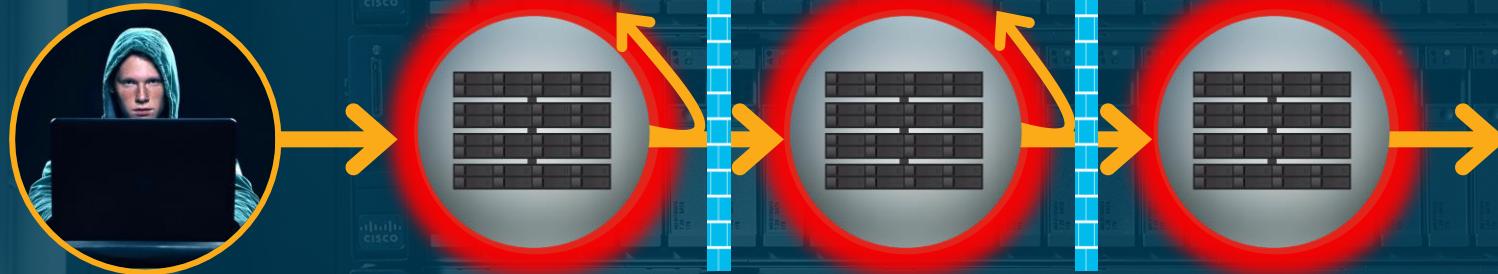
How do you manage across a multi-cloud world?

SaaS

# Security

# Evolution of Security Threats

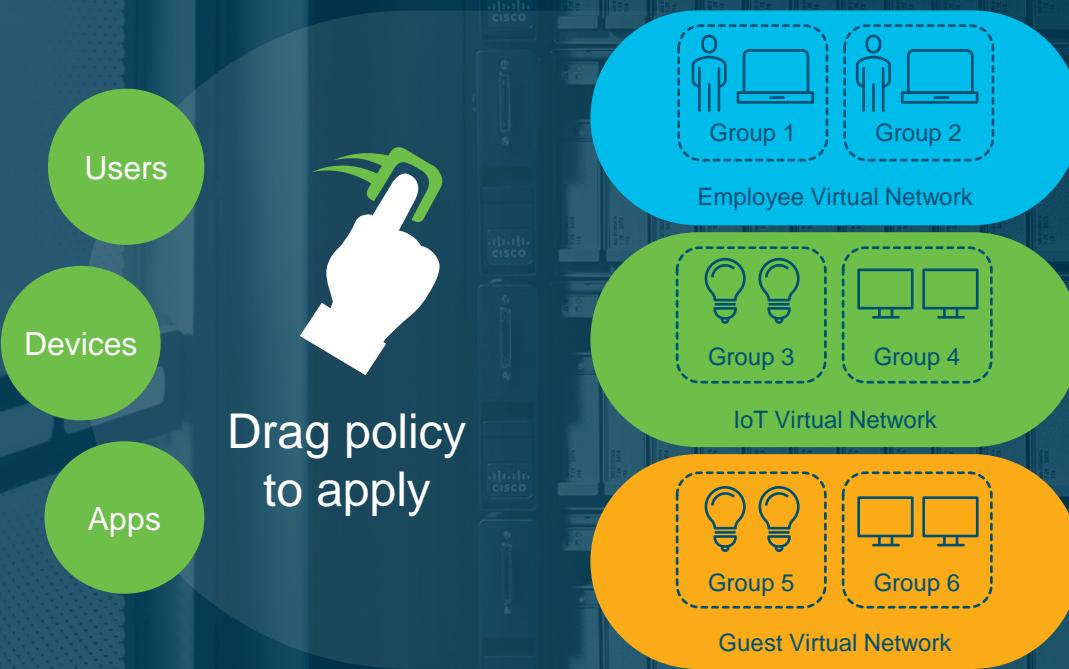
Data



Availability



# Secure Segmentation and Onboarding: Software Defined Access



## IT Simplicity

- No VLAN, ACLs or IP Address management required
- Single network fabric
- Define one consistent policy

## Security

- Simplified Micro-Segmentation
- Policy enforcement

Completely Automated | Policy follows Identity | Minimize Lateral Threat Movement

# Seeing and Acting on ALL Threats

80%

of organizations are victims  
of malicious activity\*

41%

of attacks used encrypted  
traffic to evade detection\*



How Do You Provide Security While Maintaining Privacy?

# Machine Learning Identifies Malware

Encrypted Traffic Analytics



Malware in  
Encrypted Traffic

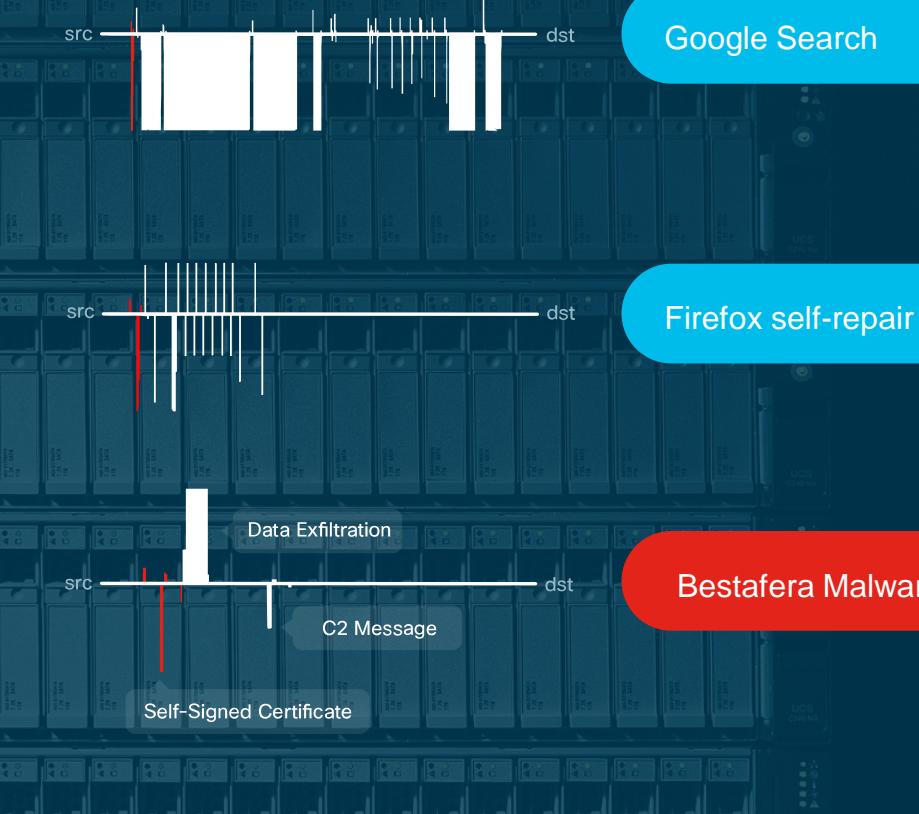


Security  
AND Privacy



Detection:  
99.99% Accuracy

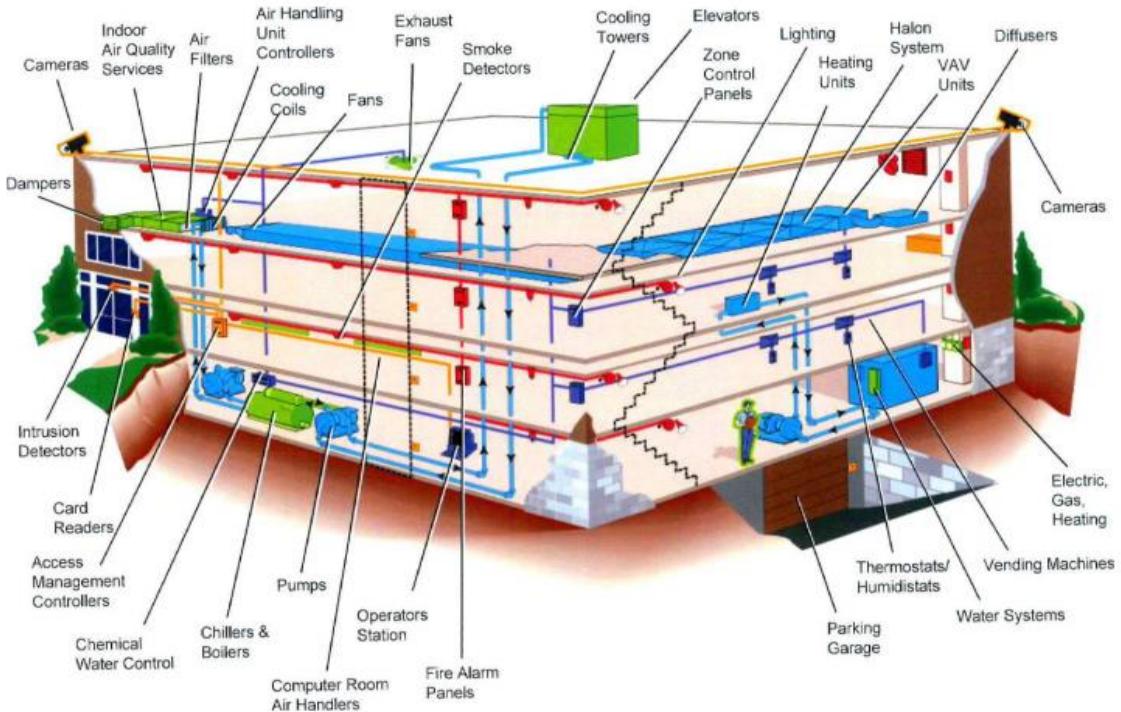
Infrastructure view of the data



IoT

63M network  
connections per  
second by 2020

# 'Shadow' Internet of Things Coming to Every Business



# Automate IoT Deployments at Scale

Software Defined Access

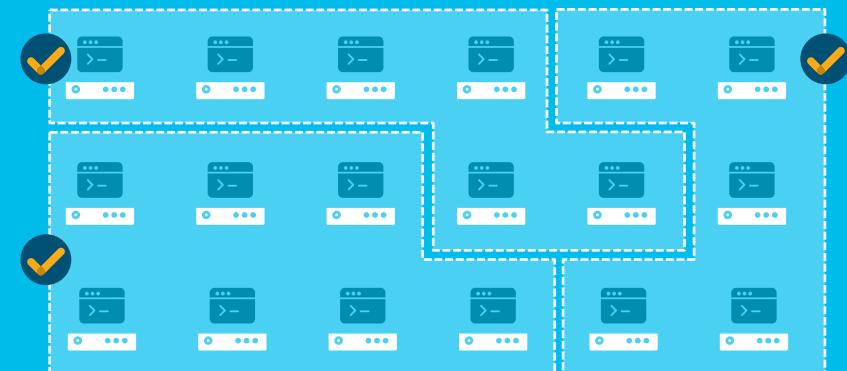
## Box by Box

Manual | Error Prone



## Automation

Scalable | Simple



Design

from 2 hours  
to 15 minutes

Policy

from 4 hours  
to 5 minutes

Provision

from 5 hours  
to 5 minutes

Mass Scalability | Users, Device & IoT Segmentation | Policy-based Automation

# Comparison of Total Workflow Time

The Old Method

50  days

The New Method

25  minutes

Total Workflow for

Fifty Devices

# Assurance

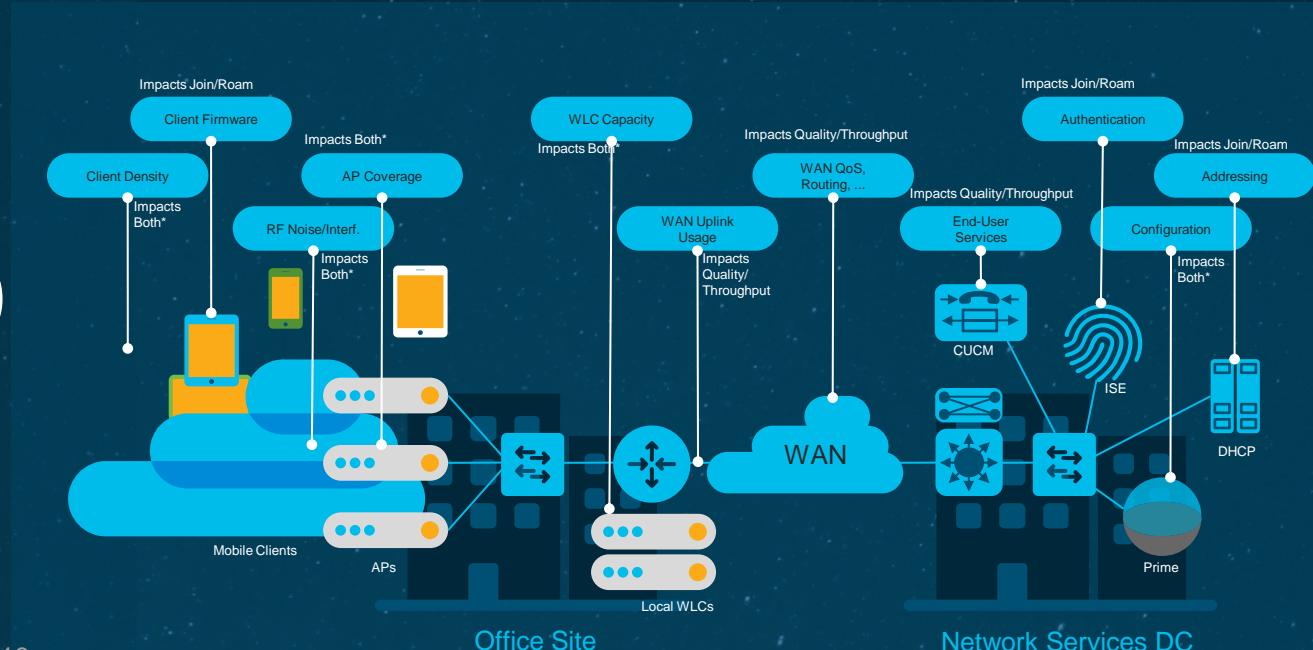
# Where is IT Spending Their Time?

Finding the Source of an issue, is a complex, end-to-end problem

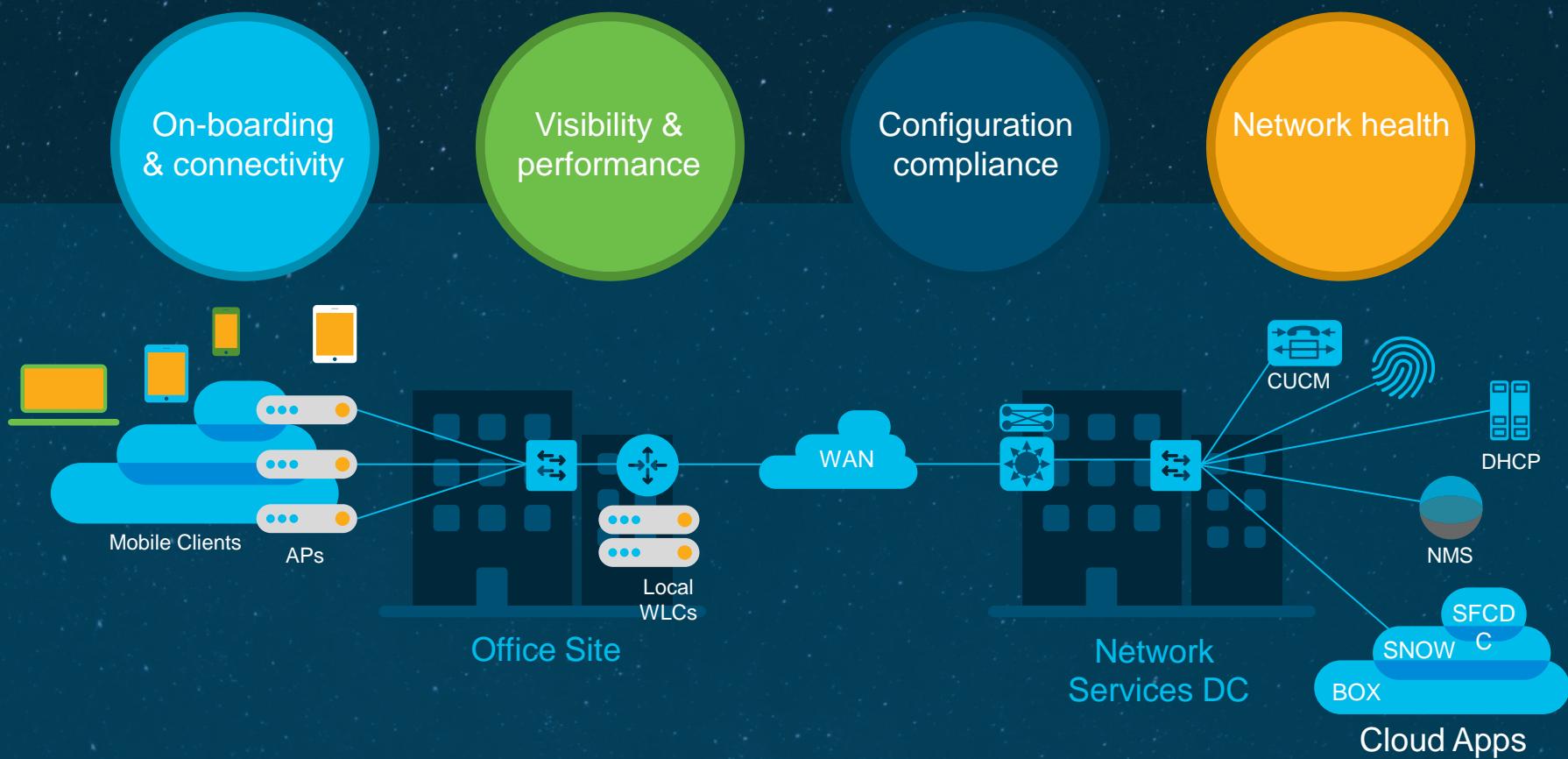
43%

Of IT time spent  
troubleshooting;  
#1 consumer of time

Source: Cisco DNA Customer Survey, June 2016



# The Best Data: End-to-End Assurance



# IT Services Leader Case Study

## Challenge

- Invest in digital to improve experience
- Deliver to services faster to open revenue streams
- Simplify through hyper automation

## Business Outcomes

- Time-to-Market: move resources faster, from 1 week to minutes
- Workforce Mobility: policy follows users
- Client security & data privacy maintained through segmentation
- SaaS Simplicity: higher Office 365 uptime



Solution: Cisco DNA Center, ISE and Catalyst 9K

New Resource Deployment  
One week to minutes

# Global Pharmaceutical Case Study

## Challenge

- Enable researchers across 5 companies to collaborate
- Maintain security policy

## Business Outcomes

- Cost Savings: consolidate 5 companies in new site to 1 network
- Simplified Segmentation: Easy to maintain groups and policy
- Employee Productivity: Increased collaboration across researchers over high performing WiFi



Solution: Cisco DNA Center, ISE and Catalyst 9K

Secure Collaboration  
Five companies & one network

# Cloud

# Innovations Overwhelming the WAN

Expensive Bandwidth



Device Proliferation



Apps Moving to Cloud



Up to 30%  
WAN OpEx  
Savings

40%

Viptela Advantage

Millions of connections  
**20X** More  
Bandwidth  
every second

Data Center loss  
**4X** Improved Application  
Experience  
SaaS | vDC

# Why Viptela

Trusted by Fortune 500 Enterprises

The Most-Deployed Enterprise Grade SD-WAN  
Thousands of sites, every major industry, including:



RETAIL



HEALTHCARE

1.84	+0.55	10,002,900	18,724
3.66	0.00	9,946,000	36,450
3.26	+3.16	9,856,900	32,779
110	+4.27	9,703,300	1,076,564
1.19	-2.46	9,314,600	11,136
69.5	+1.71	9,121,500	540,447

FINANCIAL SERVICES



ENERGY

Standards Compliant:



...and more

Most deployed and trusted by  
Fortune 500 enterprises

Winning 95% of  
competitive POCs

# Need Simplicity, Lower Cost, Application Experience

## Cisco SD-WAN



# Global Retailer

## Customer Story

### Challenge

- Reduce OpEx and CapEx costs across 1600 stores
- Re-energize customer in-store experience
- Improve mobile application performance
- Securely manage 7 segments

### Business Outcomes

- 26x Bandwidth improvement
- 5x Improvement store conversions
- \$20M Saved over 3-years



Solution: Cisco SD-WAN (Viptela)

**40%** Reduction in  
WAN Costs

# Global Industrial Firm Case Study

## Challenge

- Rapid M&A integration
- 14 different environment, 8 carriers
- Massive migration to O365 & AWS
- Business unit segmentation

## Business Outcomes

- 14 to 1 Carrier MPLS VRFs
- Months to weeks rapid M&A onboarding
- 46 Portfolios consolidated



46

Portfolios  
consolidated

# The Journey to the New Network

## Secure Foundation

Rapid threat detection and mitigation



## Analytics for Assurance

Predictive performance with machine learning



## Infrastructure Readiness

Open and Programmable

## Policy Based Automation

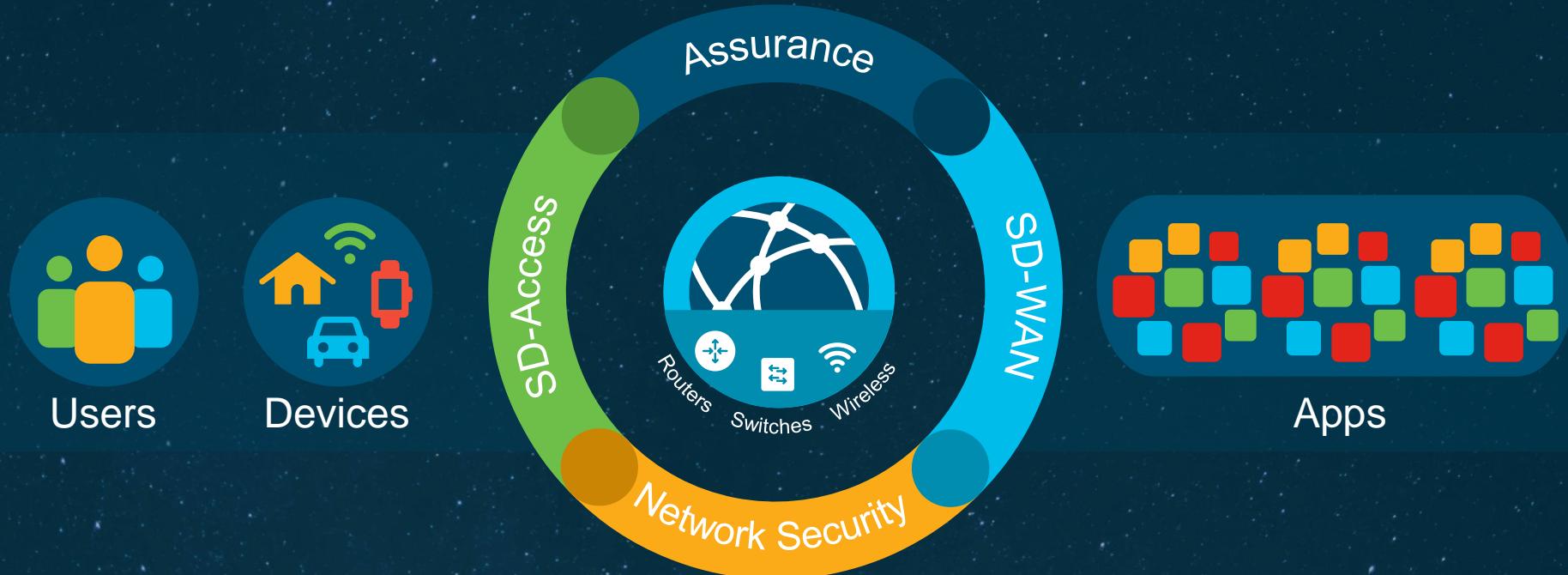
Simplify, scale network deployment for Cloud,  
Mobile, IoT

## Intent-based Network

Constantly learning, adapting, protecting

Cisco and Partner Services Help You Make Your Transformation

# Cisco Intent Based-Networking Solutions



Connecting Trusted Users to Trusted Devices with an Uncompromised Experience

