



A Practical Approach to a Cloud Strategy in the Digital World

September 20, 2016

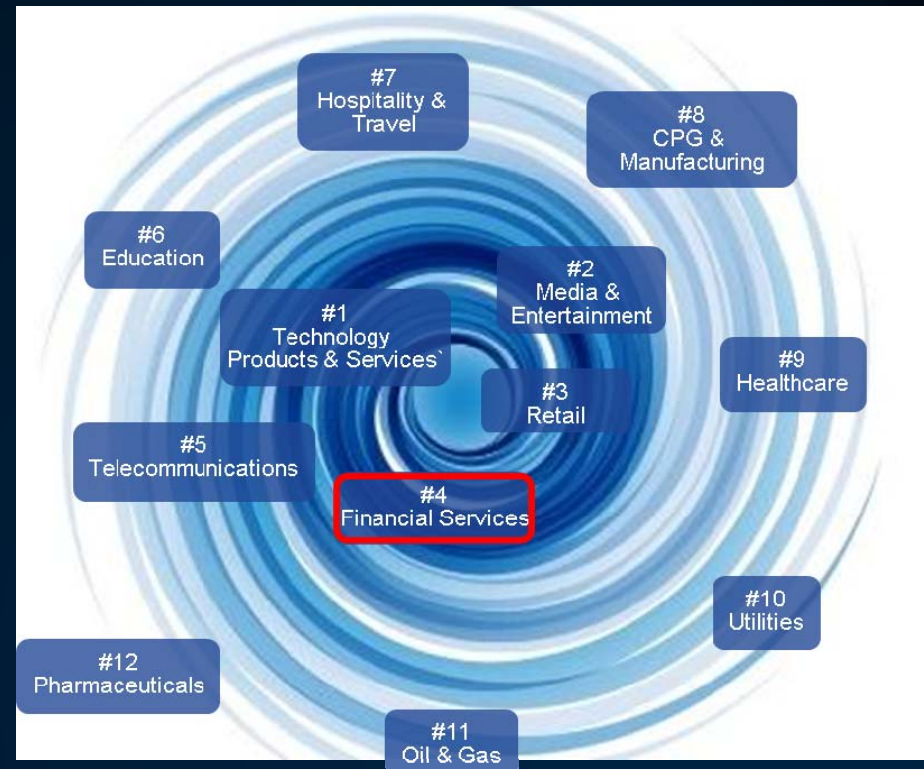
Massive Change & Complexity in Financial Services

More change in next 5 years than past 50!*

Market Disruptors!

- In August 2015, there were 16 FinTech Unicorns with total valuation of **\$45B****
- According to IMD and Cisco research financial services is the 4th most likely industry to be disrupted
- Fifty-Six percent** of capital markets organizations (56%) and asset managers (52%) see new market entrants as a threat*

Technology leading the way...



*Price Waterhouse Coopers, 2015 and 2016 CEO Surveys, Insurance CEO input
**FS unicorns and value source: CB Insights. Last updated August 10, 2015

277X

Data created
by IoE devices
vs end user

30M

New devices
connected
every week

180B

Mobile apps
downloaded
in 2015

78%

Workloads processed
in Cloud DCs
by 2018

5TB+

of data per person
by 2020

The Numbers are Huge and Growing Exponentially

Insert Data Data into Key Industry Business Processes Mobility, Cloud and IoT are Creating New Ways to Deliver Customer Digital Capabilities...



Financial
Services



How Everything Gets
Securely Connected



How Data
Gets Collected



How Data
Gets Consumed

Today's Panel



Alex Revzin
Practice Lead
Digital Transformation Group
Cisco



Neal Secher
Managing Director
Client Technology Solutions
BNY Mellon



Jason Tavares
Executive Director
US Infra Engineering
Nomura Securities



Bryson Hopkins
Director
Global Solutions Architect
Equinix



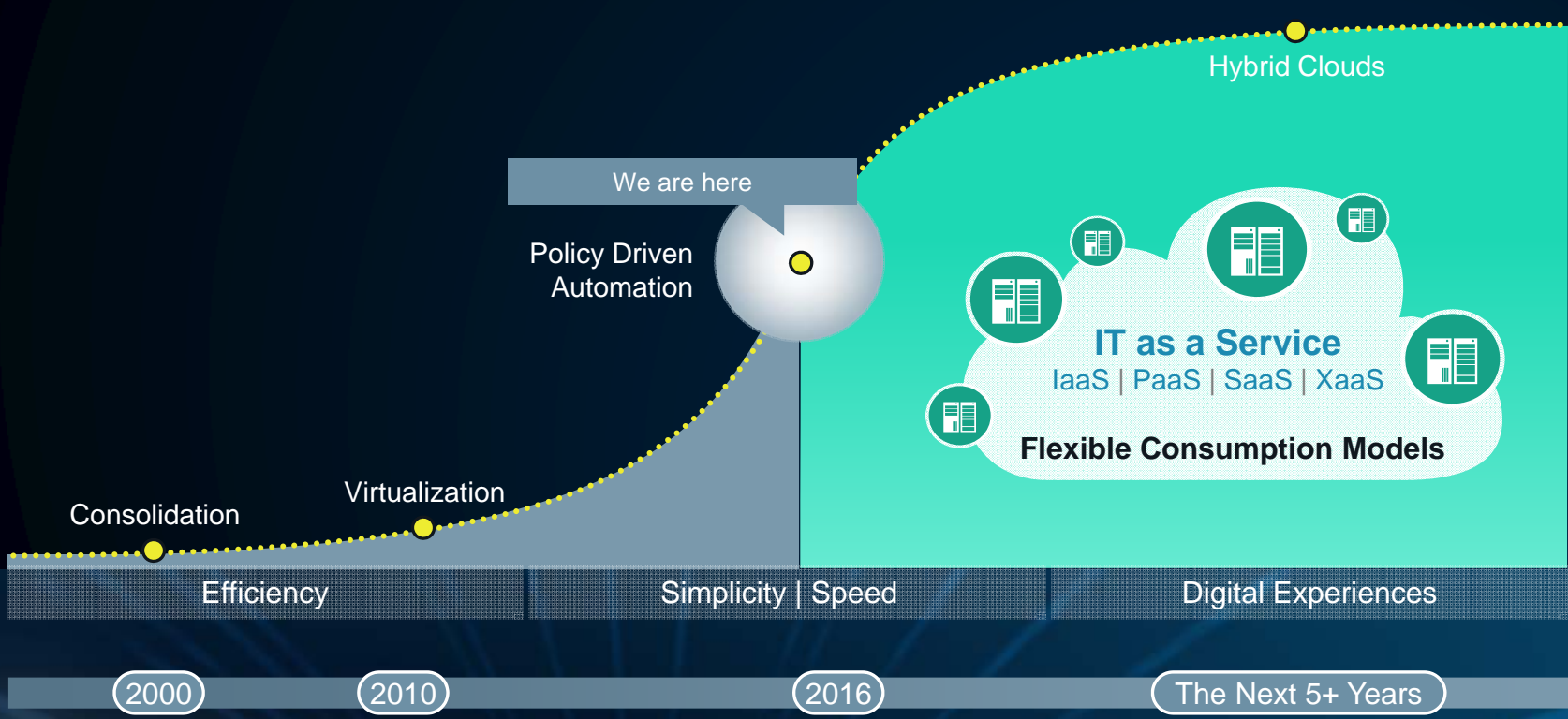
Dave Malik
Sr. Director
Advanced Services
Cisco

We Are at the Cusp of a Major Shift

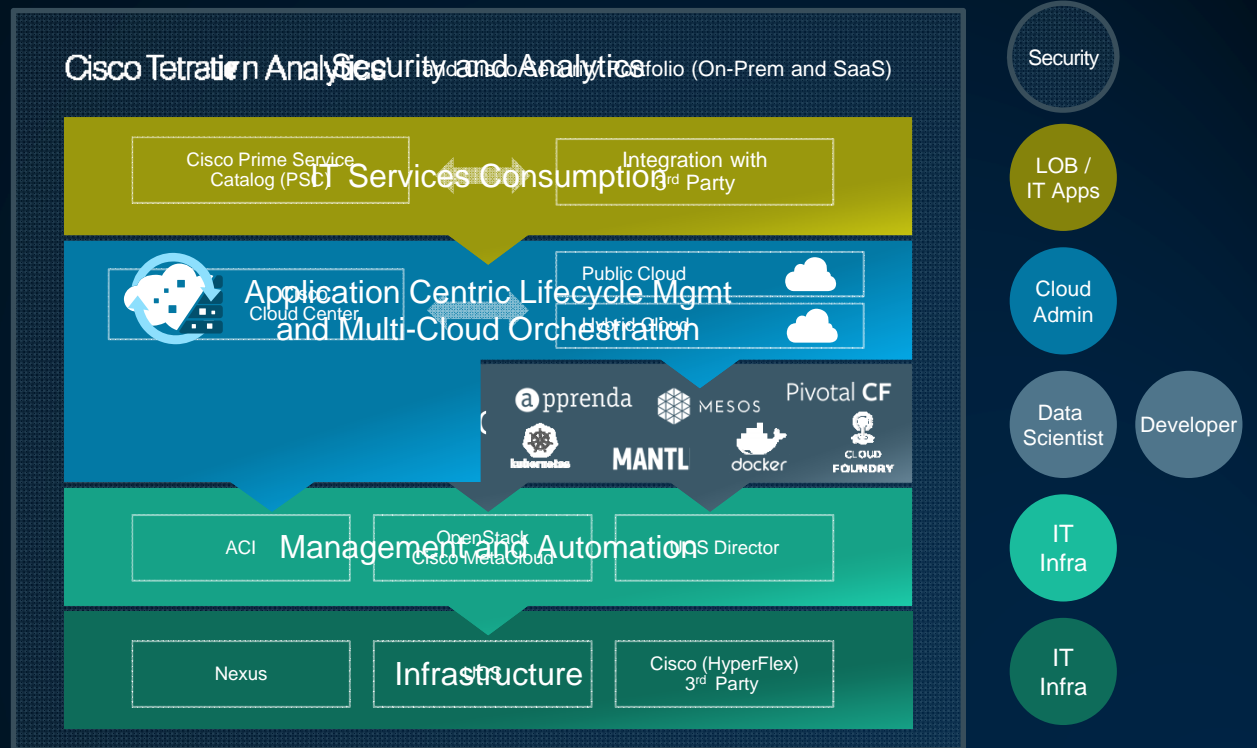
Traditional Data Center

Cloud Data Center

Adoption Curve



Cisco On-Prem Stack for Secure Hybrid Cloud



Pervasive Visibility and Analytics at Scale

'If you can't see it, you can't secure it'

Collect All Data Everywhere in the Network

Fabric Wide Application Visibility

Single Source of Policy Truth

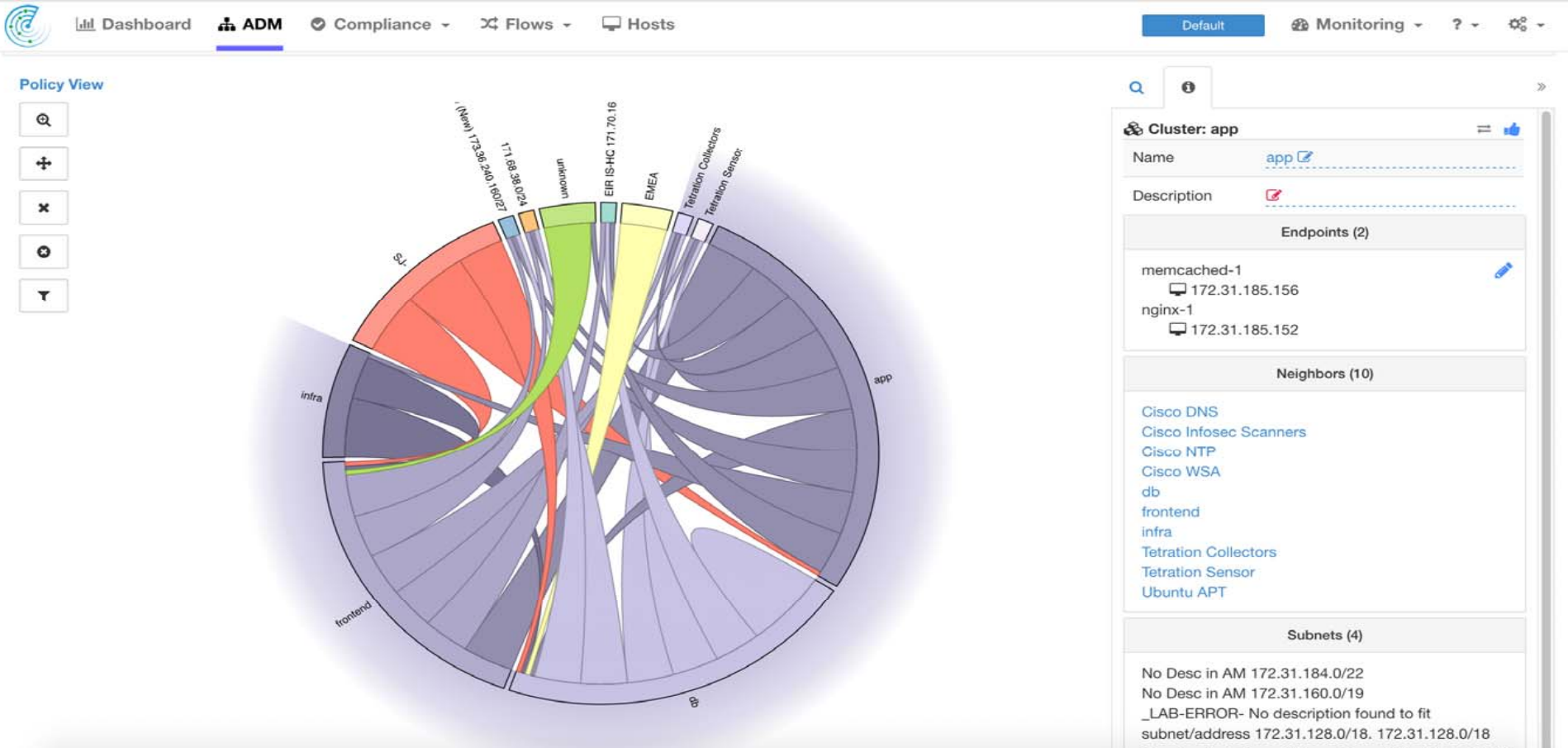
Network and Application Audit and Compliance

Fabric Wide Application DVR



10/25/40/100G
Line rate

Application Dependency Mappings



Streaming Telemetry is a Game Changer

Monitoring is becoming a big data problem!

Where Data Is Created



Real time

Removing limitations and complexity

- Streaming paradigm
- Sensor Sensor framework
- Increased data granularity
- Correlate Telemetry to **DATA** plane info
- Update on every event
- Multiple data source

Where Data Is Useful



Volume – Scale of Data

Velocity – Analysis of Streaming Data

Variety – Different Forms of Data

Big Data and Machine Learning Problem

Search BILLIONS of Flows Instantaneously

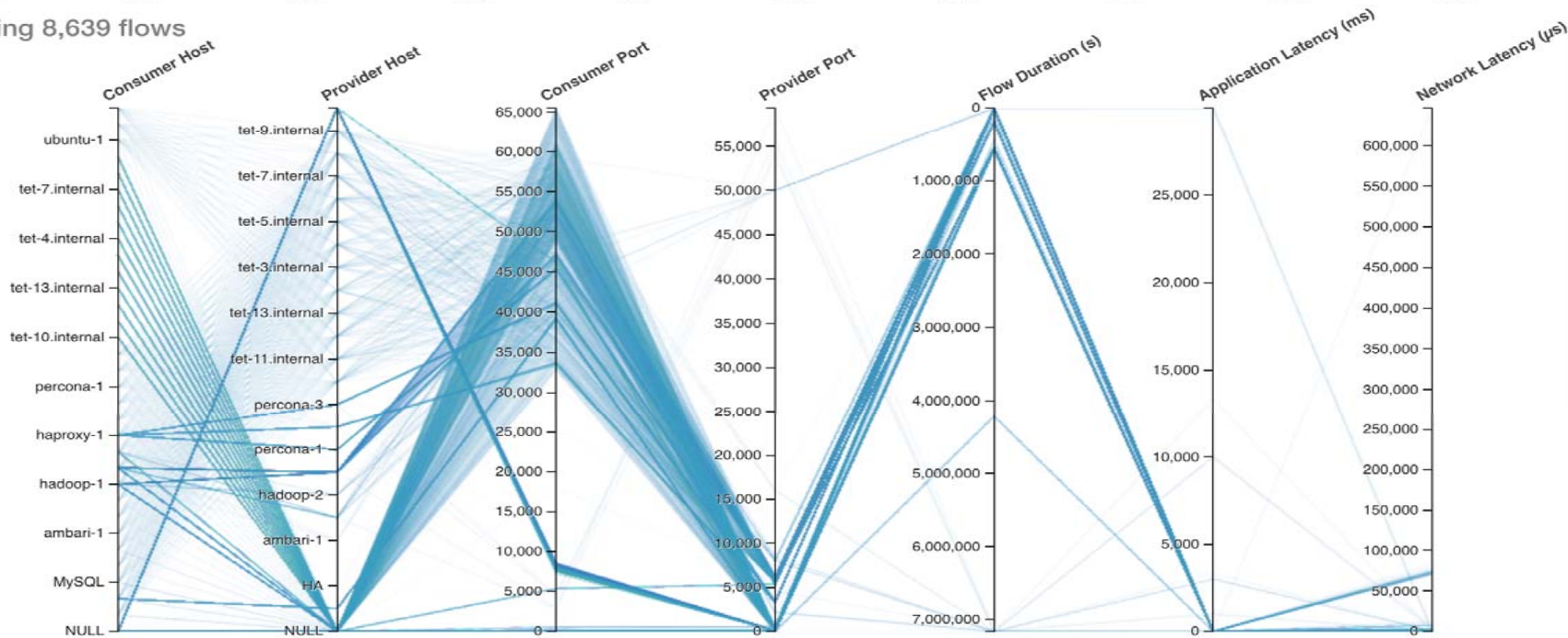


Dashboard ADM Compliance Flows Hosts

Default

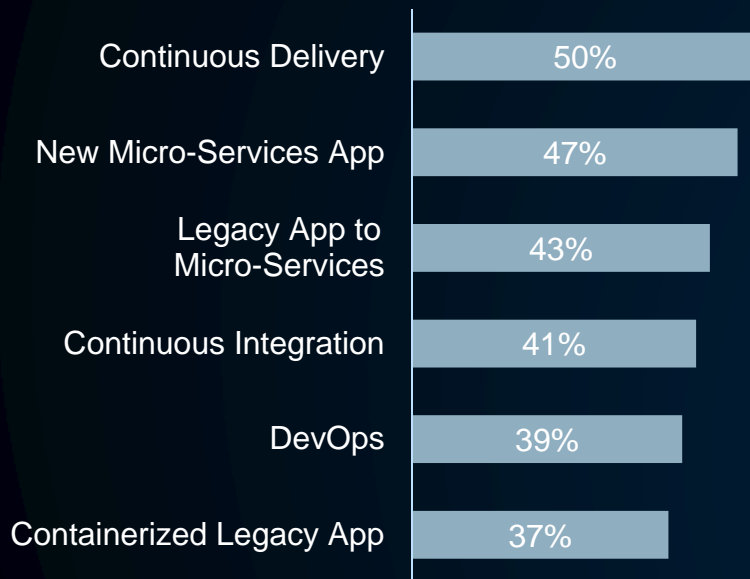


Displaying 8,639 flows

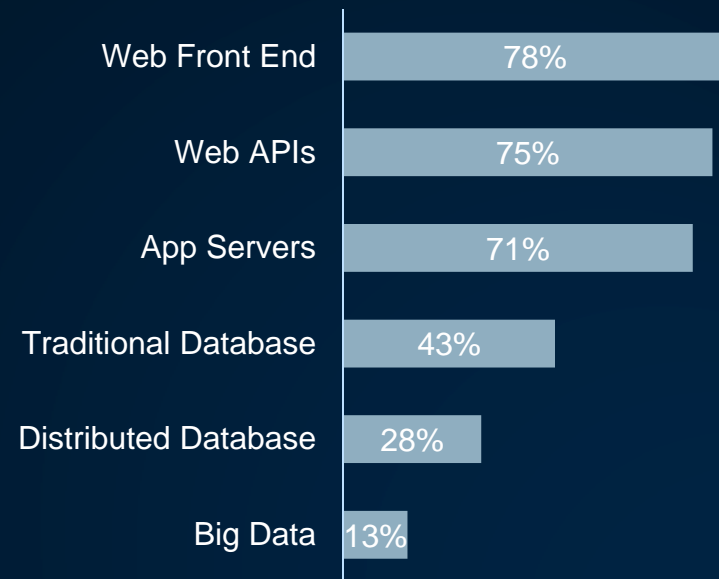


Containers - Top Use Cases and Workloads

Container Use Cases



Container Workloads



Five Crucial Questions to Ask Yourself



1 Visibility

Does your security infrastructure deliver **visibility** into your entire network?



2 Intelligence

How effective is your **threat intelligence**?



3 Automation

Do your security **technologies talk to each other**? When one product sees a threat, can it tell another to change the user's access?



4 Retrospection

Can you go back and **change your position on a file** that was initially deemed safe if it is later determined to be malicious?



5 Cloud

Are all of your employees **protected on and off premise**?

Security Solutions



Cloud Service Router

- Built in Security and Application Aware
- Highly secure VPN gateway
- Comprehensive WAN Functionality



Next-Gen IPS (FirePower)

- Real-time contextual awareness
- Full-stack visibility
- Intelligent security automation



Next-Gen Firewall (ASA>FTD)

- Prioritizes threats
- Automates response
- Improved malware protection
- Fully integrated management



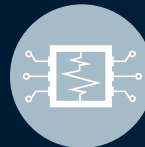
AMP

- See a threat once, block it everywhere
- Most effective solution for known and emerging advanced threats



OpenDNS

- Security from the cloud
- Blocks 95% of threats before they cause damage

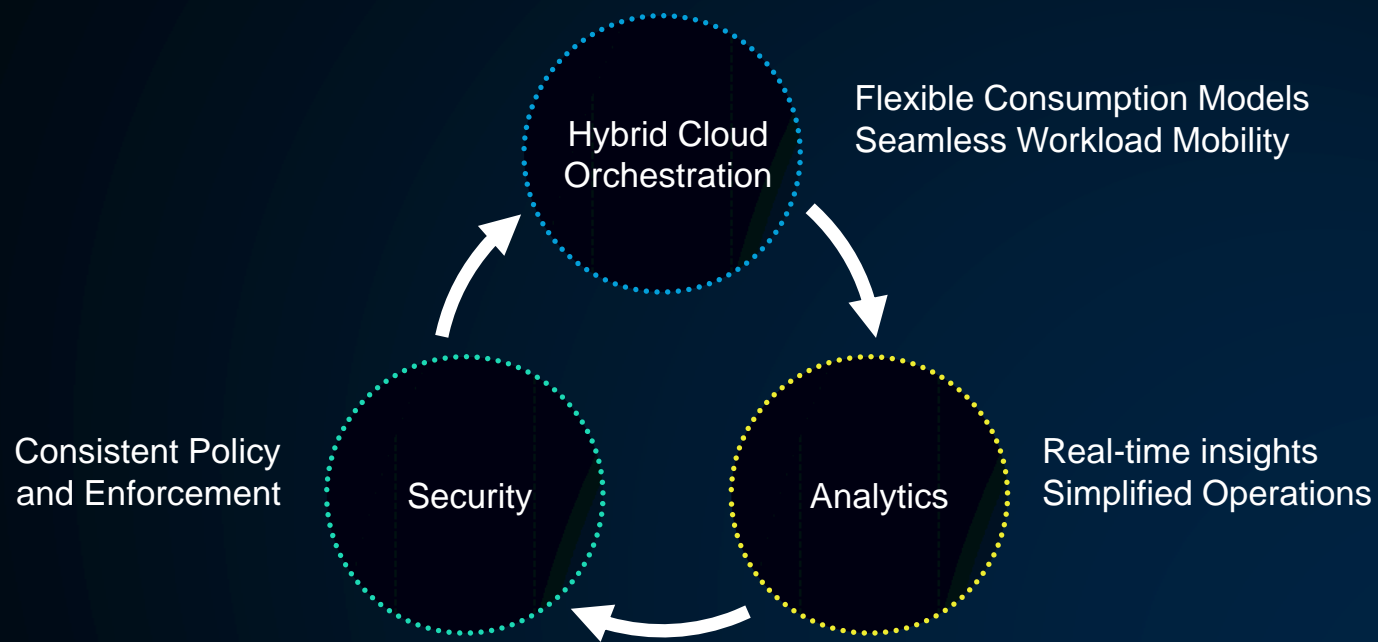


Stealthwatch

- Alerts attempted communication with an infected host
- Prevents infected host from communication within the network
- Uses Network as a Sensor to contain and minimize threats

Lightning Round

Feedback Loop Methodology





Cisco @ HPC for Wall Street

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