Heavy Reading Telco Survey Results

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www.heavyreading.com
Quick note on project background

Conducted November 2018
150 responses
60+ questions answered

Thanks to our sponsors!

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Deployment Status

- Already deploying
- PoC stage
- In trials
- Early stages of learning (pre-PoC)
- Not thinking about SDN

Biggest Benefits

- Network automation
- Faster service delivery
- Network programmability
- Better traffic management
- Improved security
- Improved telemetry

Score

0 50 100 150 200
Use Case Priority

- SD-WAN
- OpenStack networking
- Bandwidth-on-demand services
- Portal-based control of enterprise services, apps and connectivity
- Software control of data center connectivity
- Hardware disaggregation (i.e., white box)

SDN & NFV

- SDN is critical to our NFV data center evolution and we will implement SDN and NFV simultaneously
- SDN is secondary to our NFV data center evolution and we will implement SDN after NFV
- SDN is a greater priority for our data center than NFV at the moment and we will implement SDN before NFV
- SDN is not required for NFV and we will implement NFV without it

High ■ Medium ■ Low
Biggest Concerns

- Lack of skills to integrate SDN and NFV services
- Interoperability
- Complexity
- Security
- Cost/ROI
- Technology immaturity
- Dynamic upgrades

Score

0 20 40 60 80 100 120

Importance of Open Source

- Very important
- Moderately important
- Not important at all
- All we need are open APIs
DevOps (2)

Importance to Service Delivery Success

- It's essential
- It's important, but not essential
- It could be useful, but it would be very difficult to implement
- It's not important at all
- Don't know/not sure

Outcomes

- Faster application and service deployment
- Lower cost of operations
- Respond to changing conditions more quickly
- Improve customer experience
- Attract the best talent
- Improve control over development

Score
-10 10 30 50 70 90 110 130 150

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Information Classification: General
Automation (1)

IaC Status

- No plans to adopt IaC
- Considering adopting IaC
  - Adopted IaC for some projects and we are having challenges expanding to other parts of our business
  - Adopted IaC for some projects and it is going well
  - Already adopted IaC across the organization and it is the most common way to deploy Infrastructure

Automating Configuration Management

- No plans to adopt network automation
- Considering adopting network automation
  - Adopted automation in some organizations and are looking to expand across other areas of our business
  - Adopted automation for some projects and it is going well
  - Already adopted automation of network elements across the organization and it is the most common way to automate these...
Critical to get to Fully Autonomous Network Operations

- Telemetry, probe and monitoring tools: 10%
- Big data/Analytics: 25%
- Artificial intelligence: 15%
- Machine learning: 10%
- Service orchestration: 30%
- Service design and policy editor: 5%
- Other: 1%

Automation (3)
Biggest Pain Points

- Multi-domain orchestration: 120
- VNF onboarding: 80
- Integration with BSS and existing OSS systems: 60
- Service assurance: 50
- Confusion about different approaches to orchestration: 40
- System and service monitoring: 30
- Inventory: 20
- Telemetry: 10
- Subscriber management: 0
Barriers to MANO of VNFs

- Complexity
- Need to integrate proprietary VNF managers
- Need for correlated monitoring of NFV-I and VNFs for closed loop orchestration
- Amount of planning required for VM sizing, VM placement, anti affinity

Concerns about VNF LCM

- Scaling up/down
- Troubleshooting
- Fulfillment
- Onboarding
- Updating
- Other
Use Cases driving MANO Solution Demand

Complex, chained virtualized network services
Simple virtualized network services
Full network virtualization transformation
5G mobile core
IoT

Score

Current MANO Usage

Testing an orchestrator to chain multiple VNFs into a service
Testing a domain-specific controller for a single service
Deployed domain-specific controllers for individual services
Deployed a service orchestrator into production
Other
Key Takeaways

- Open Networking is here
- SDN is happening
- Automation is the goal
- MANO is (still) a challenge
Questions?