Layer123 SDN & NFV World Congress

ETSI ZSM Forum

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Topics

• ACG Research Networking Framework
• Adaptive Network Automation Primary Research
• The Impact of Open Source Technologies on the CSP Ecosystem
Service orchestration identifies end-to-end physical & virtual resource needs; NFV instantiates the virtual elements; SDN controls them.

Application of analytics, machine learning & artificial intelligence to make better, faster & more informed decisions.
Adaptive Network Automation Research
Ciena Press Release

FOR IMMEDIATE RELEASE

75 Percent of Network Providers Expect Significant or Full Network Automation Within Five Years

Research reveals top trends, opportunities, and challenges in achieving more adaptive networks

HANOVER, Md. — April 24, 2018 – Organizations across the globe are transforming their networks with intelligent automation, programmable optics and advanced analytics capabilities to be able to adapt and respond dynamically to changing market demands. Understanding the critical role automation plays in responding to future business and market changes, Ciena (NYSE: Ciena) sponsored an independent research report by ACG Research to highlight the current state of adaptive networking and further explore service provider motivations and implementations as they transform their networks to meet customer demands.
Automation Investment & Execution
Network Providers Expect Increases

Automation investments are expected to grow by ~30 percent between now and 2021

Automation Capex

75 percent of respondents expect to achieve full or significant network automation in the next five years

Amount of network automation in five years

Source: 2018 ACG Research
Sponsor: Ciena
Network Providers’ Motivations for Adaptive Network Automation
Faster Service Delivery, Happier Customers, New Services, Agility

Source: 2018 ACG Research
Sponsor: Ciena
Top Items Limiting Progress in Adaptive Network Automation
Security, Real-time Reporting, Analytics/Intelligence, Trained Personnel

- Lack of Necessary Security
- Limitations of Existing Physical Infrastructure – Real-time Reporting and Management
- Lack of Intelligence or Analytics to Turn Data Into Real Insights
- Lack of Trained Personnel
- Immaturity of Orchestration Software
- Lack of Funding
- Limitations of Existing Physical Infrastructure – Dynamic Provisioning and Programmability
- Lack of Vendor Openness
- Existing Organizational Structures

Source: 2018 ACG Research
Sponsor: Ciena
Key Components to Increase Adaptive Network Automation
Analytics/Intelligence, Security, Network Management and Control

Source: 2018 ACG Research
Sponsor: Ciena
Open Source Research Project
Extensive Interviews with SP and Vendor Leaders

“Succeeding on an Open Field: The Impact of Open Source Technologies on the Communication Service Provider Ecosystem”

- Communication Service Providers
- Diversified Portfolio Companies
- Open Source Portfolio Companies

ACG Blog: click here

Linux Foundation Blog and paper download: click here
Open Source Research Project
CSP Motivations for Open Source Adoption

CSP Drivers for Open Source Developments

- Unify multiple service providers around a common approach
- Avoid vendor lock-in and no dependence on single vendor
- Access a broader talent pool than on your own or any one vendor could do
- Access more markets/services faster
- Better total ROI
- Reduce costs by avoiding vendor purchase or in-house development

Source: 2018 ACG Research
Open Source Research Project: How Do CSPs See Open Source Impacting Their Operations?

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<th>Vendors</th>
<th>Still Rely on Vendors</th>
<th>OS Spreads Investment</th>
<th>Separate HW &amp; SW Buys</th>
<th>Shared Risk w. Vendors</th>
<th>Use Vendor Pro-Svcs.</th>
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<th>Development</th>
<th>Enables Experimentation</th>
<th>Increases # CSP Engineers</th>
<th>Moves toward Dev/OPS</th>
<th>Initial SW Maturity</th>
<th>Requires More Test</th>
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<th>Lowers CAPEX Eventually</th>
<th>Lower Budgets Eventually</th>
<th>Changes CSP Revenue</th>
<th>Higher Margins</th>
<th>Higher ROI for IP</th>
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Source: 2018 ACG Research
11:30–11:40: CSPs’ top ZSM focus areas: Oliver Cantor (Verizon) and Klaus Martiny (DT) 2 slides / 5 minutes each

11:40–12:25: CSP & Vendor Panel: the journey toward zero-touch network and service management

12:25–12:30: Wrap-up and Closing Comments
Nurit Sprecher (ETSI ISG ZSM Vice-Chair / Nokia)
## Company Information

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