Society of Cable Telecommunications Engineers

SCTE CABLE-TEC EXPO '15

OCTOBER 13-16 NEW ORLEANS

Realizing New Business Services Revenue with SDN and NFV

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SDN and NFV

Hope or hype?

- SDN – Software Defined Networking
  - Programmable network
- NFV – Network Function Virtualization
  - Moves network functionality off “the box”

- Why?
  - Lower Capital – Whitebox
  - Lower Opex – Automation
  - More Revenue - !!!!!

Sounds Fishy

- Step 1 – Implement SDN/NFV
- Step 2 - ?
- Step 3 – Profit!

Why SDN & NFV???

Data Growth Explosion

By 2019, data CAGR

57%

*… growth compared to 2014 levels.**

Share of Video Traffic

75%

*… on mobile network by 2019**

Data Transferred

24EB

*… connected to the network by 2019**

Number of Devices

50B

*… connected to the network by 2020***

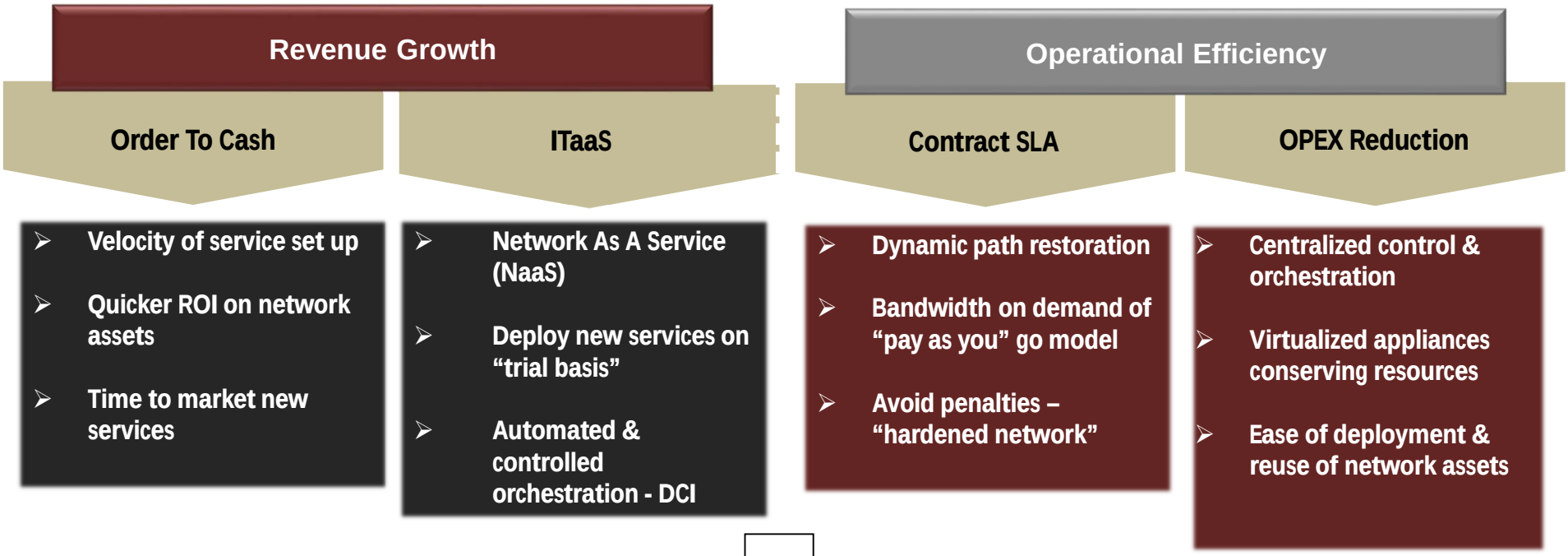
Survival of the Fastest!

* Cisco VNI Mobile Data Forecast, Feb 2015

** Morgan Stanley Research, Computing Growth Drivers Over Time

SDN/NFV Business Opportunity

SDN &NFV helping bottom-line

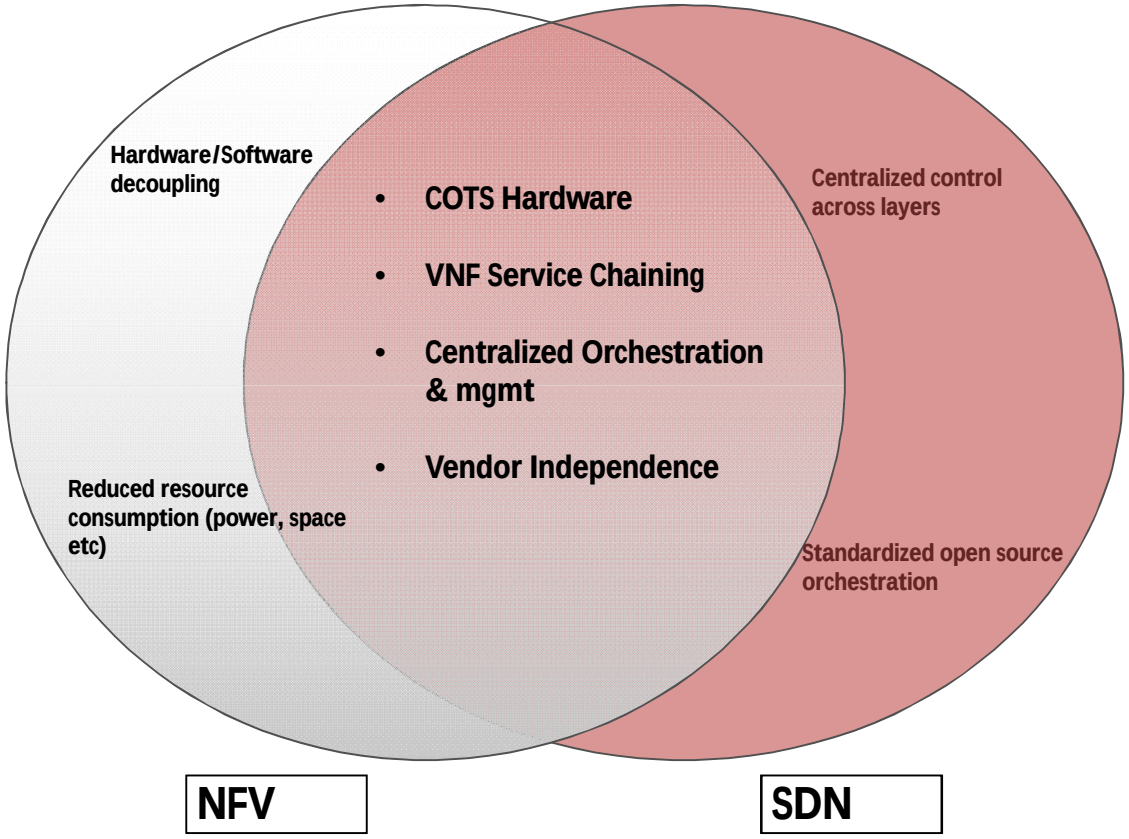


SDN Apps

NFV VNFs

SDN and NFV Synergies

Complementary technologies and benefits



NFV is about

- creating virtual network functions (VNFs)
- managing/orchestrating them on virtual infrastructure

True NFV or "cloud" NFV involves running VNFs on cloud infrastructure

Service chaining – or VNF forwarding (ETSI) – is a point of overlap between SDN and NFV

SDN is about

- creating, orchestrating logical network topologies – virtualized connections between NEs and VNFs

SDN is very broadly defined and can be achieved in different ways for different use cases

SDN/NFV use case examples

- Access
  - CPE virtualization
  - Virtual security
- Mobile
  - Mobile base station virtualization
  - Virtual EPC

More at http://nfvwiki.etsi.org/

NFV Networking Requirements

- Real-time, dynamic provisioning
- Seamless control and provisioning
- Carrier-grade scalability and resiliency
- Openness and interoperability
- Global reach and cross administration
- Acceleration of innovation

Technology is evolving faster

Comparison of how fast technologies reached 50 million users

- Telephone took 75 years – Angry Birds 35 days!
- Facebook deploys version updates 8 times a day
- Amazon activates services in 11 seconds!

- Maintaining pace is only possible with software, not hardware

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Thank You

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