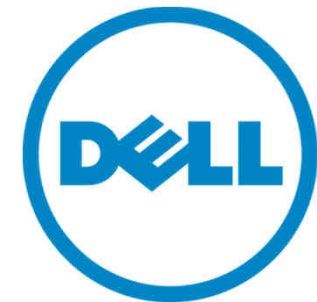

Dell Networking SDN Overview

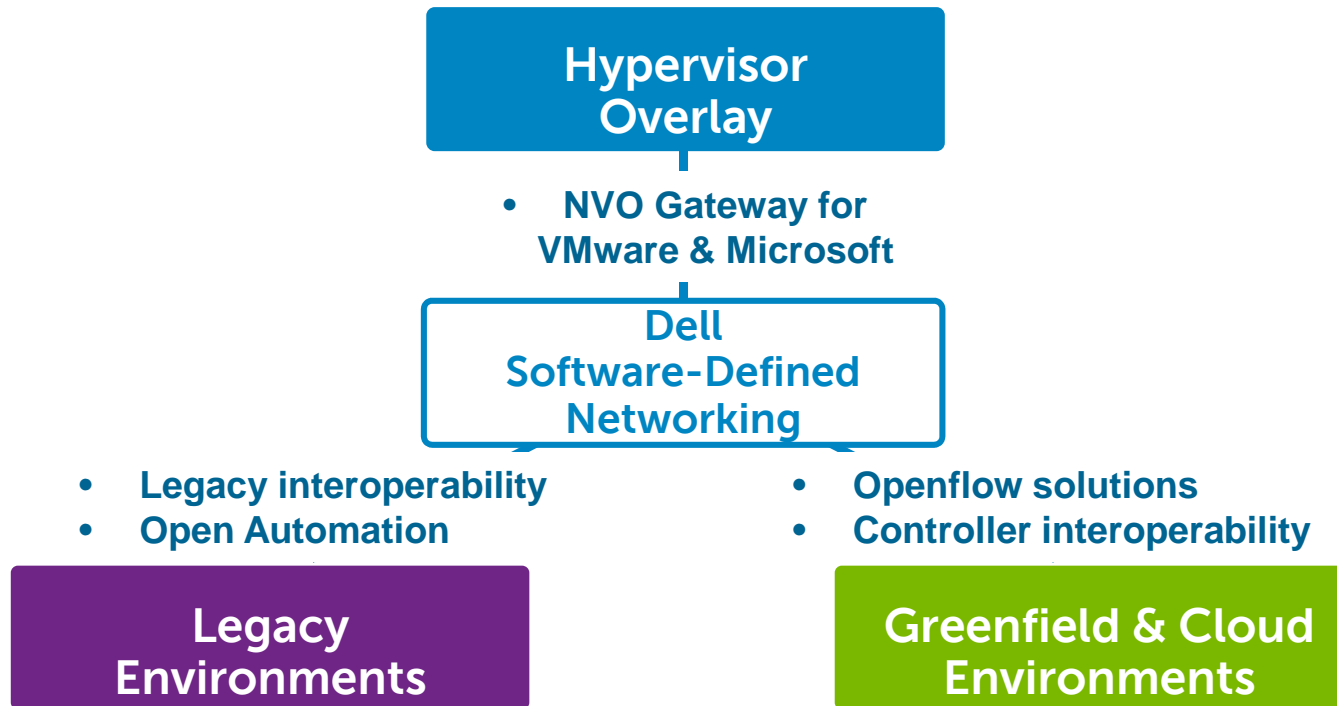


Stéphane Aich
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stephane_aich@dell.com



Our unique point-of-view on SDN

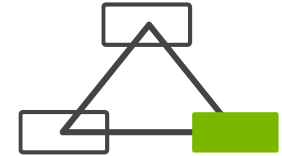
The only networking vendor with a complete, unbiased approach



Confidential



OpenFlow (OF)

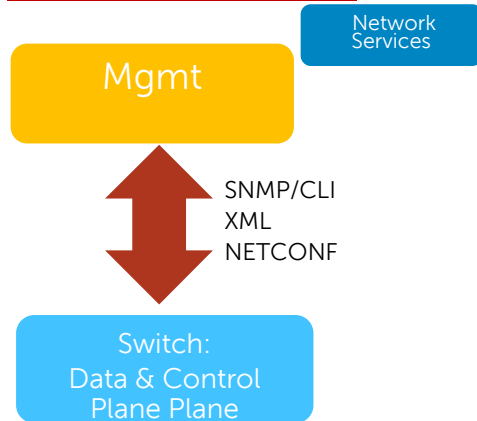


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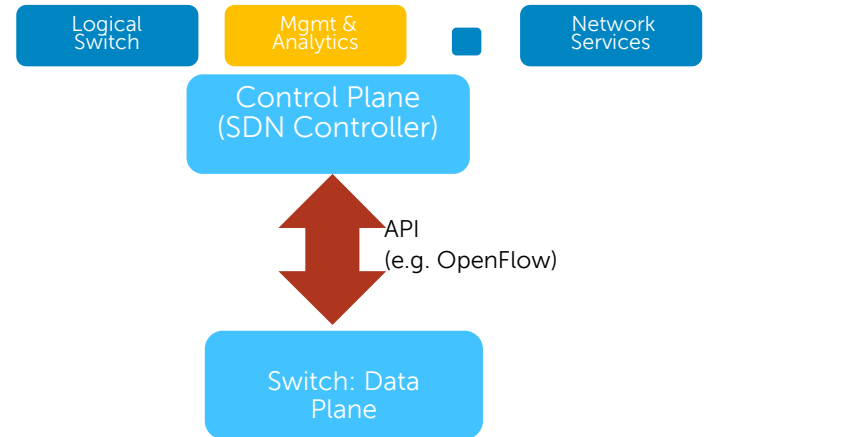


What is SDN/ OpenFlow Model?

Traditional Model



SDN Model

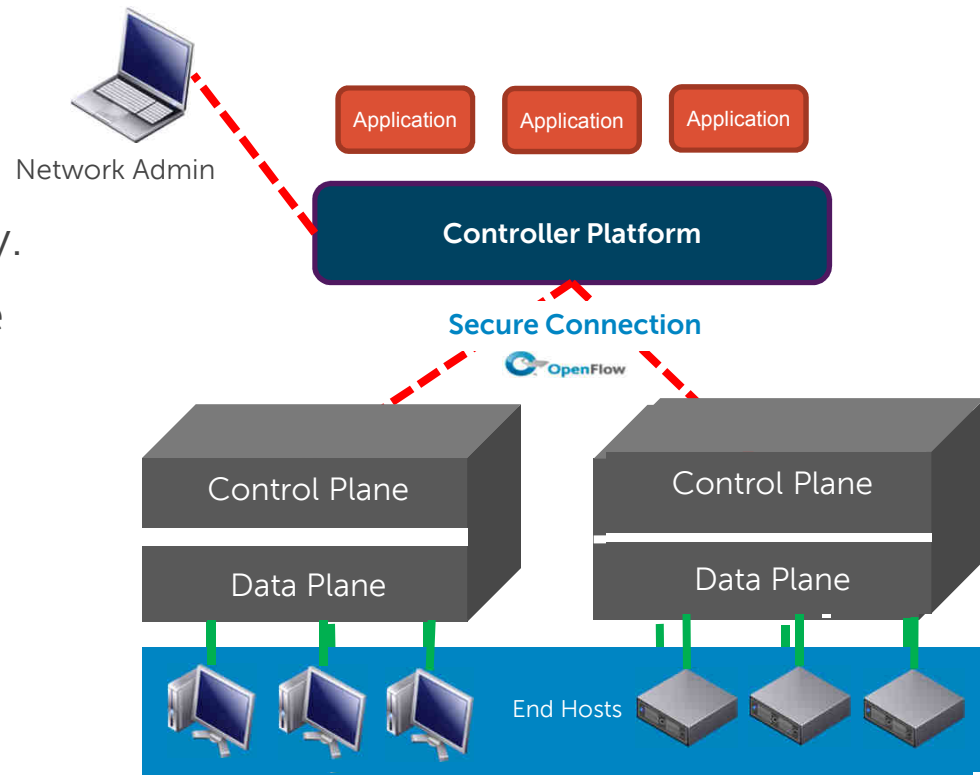


- **Problem:** Current networking model limits innovation, flexibility, scale & agility
- **SDN** separates control plane from data plane
- **Benefits** expected from SDN
 - Scale and evolve control plane independent of network devices
 - › Faster innovation
 - Programmability of the network: better control/visibility on network traffic
 - › Flexibility & Simplified management
 - Network virtualization and service orchestration at a large scale
 - › Scale & Agility for shared infrastructure

How OpenFlow Network is designed



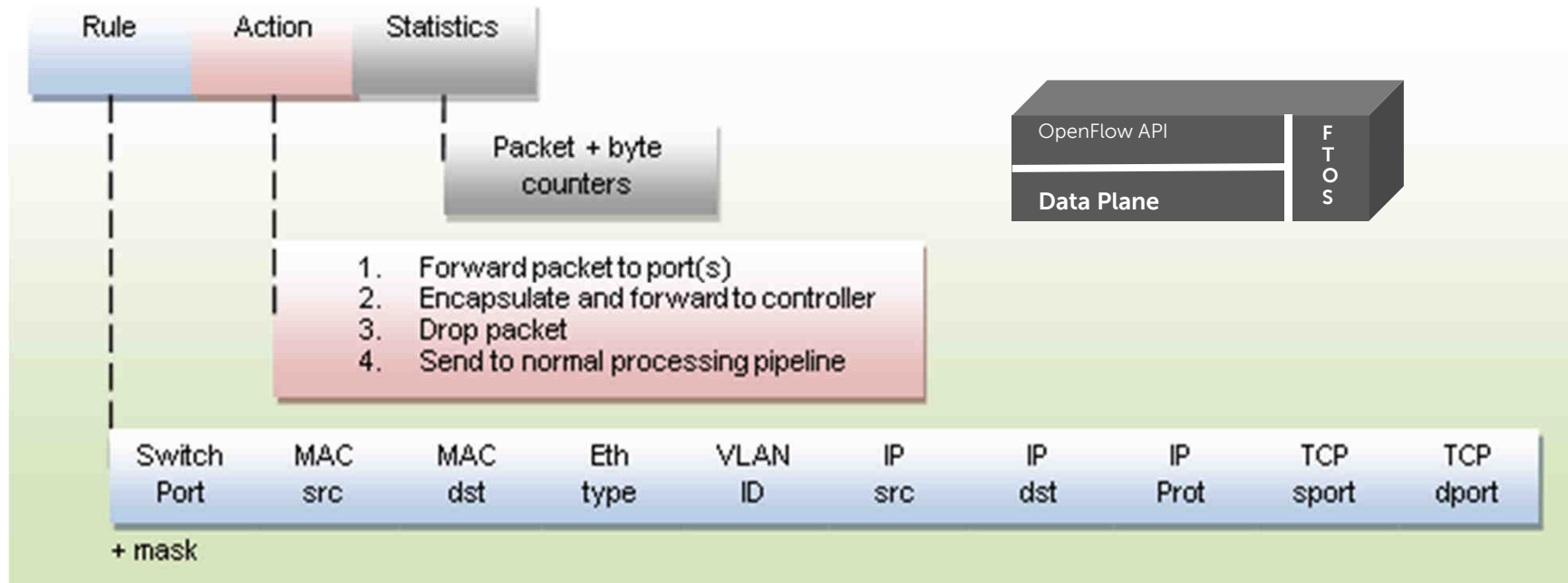
- OpenFlow is an open standard
- Enables researchers to run experimental protocols in the campus networks we use every day.
- Vendors do not have to expose the internal workings of their network devices.
- Drive **network innovation**



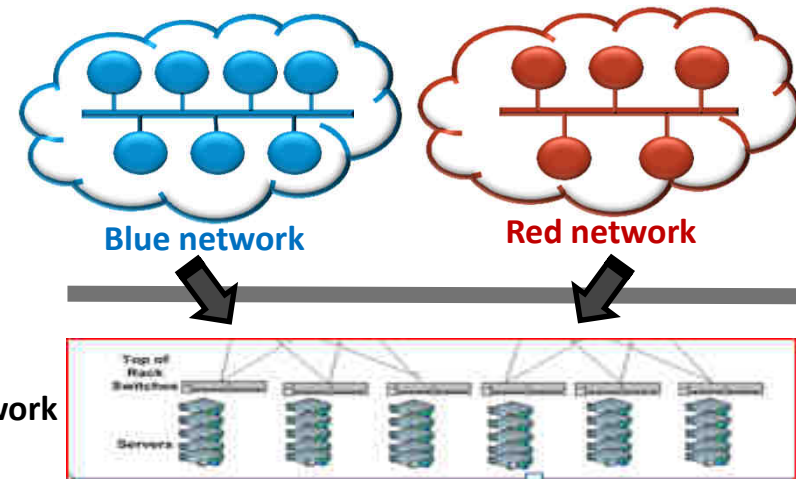
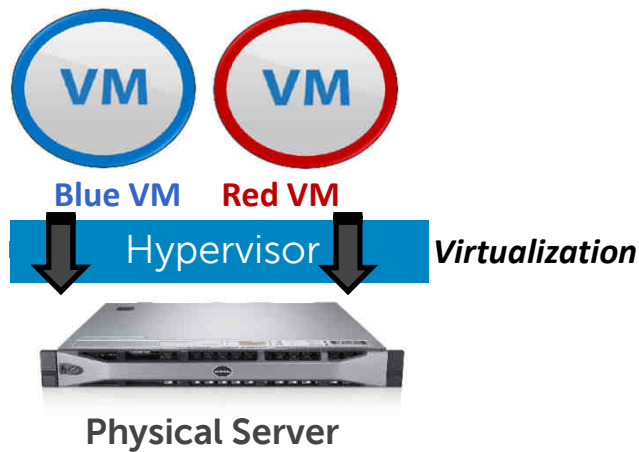
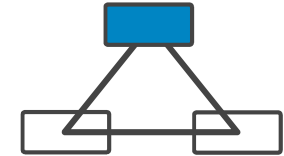
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Data Plane - Flow Table



Network Virtualization Overlays (NVO)



Server virtualization

- Run multiple virtual servers on a physical server
- Each VM has illusion it is running as a physical server

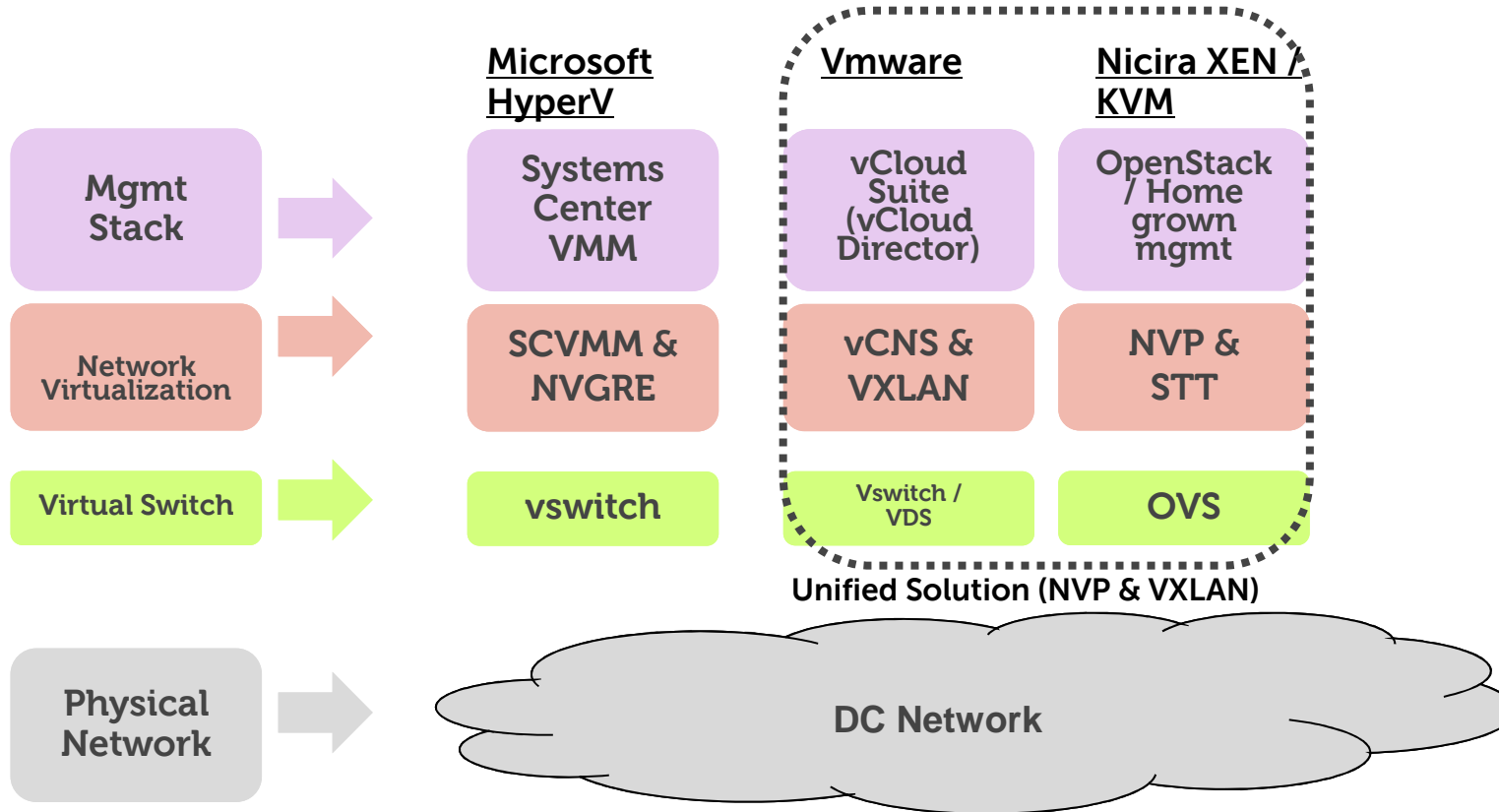
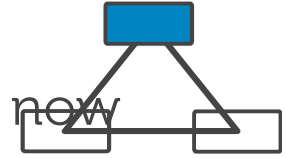
Network virtualization

- Run multiple virtual networks on a physical network
- Each virtual network has illusion it is running as a physical network

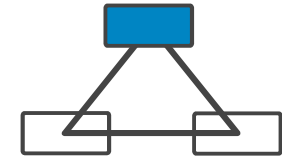


Virtual Networking Offerings in the Market

Started with simple vswitches ... extends to network virtualization now



NVO Gateway Roadmap



vmware®
vCloud Director

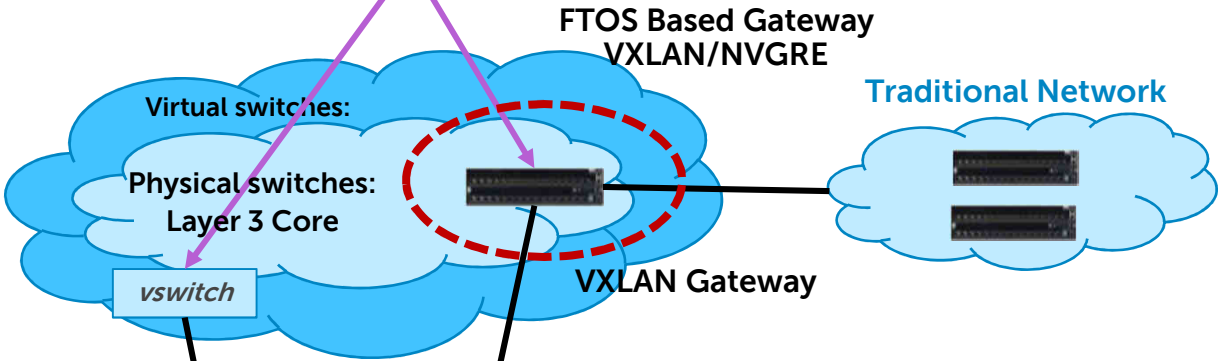


Other
Cloud
Stacks

Cloud Management Stack

NVP: VMware Controller

Networking – Physical & Virtual



Server Infrastructure



Servers and/or
Dell Active Infrastructure

