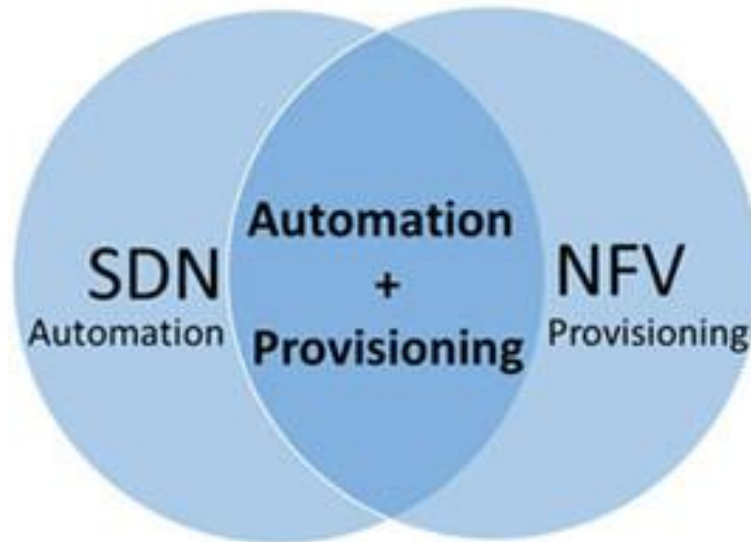






## NFV

Network functions virtualization (NFV) is the concept of replacing dedicated network appliances — such as routers and firewalls — with software running on commercial off-the-shelf servers. Optimizes service creation, activation, and assurance by bringing the benefits of the cloud to the metro edge.



## SDN

Software-defined networking (SDN) is an approach to computer networking that allows network administrators to manage network services through abstraction of lower-level functionality. SDN is meant to address the fact that the static architecture of traditional networks doesn't support the dynamic, scalable computing and storage needs of more modern computing environments such as data centers. This is done by decoupling or disassociating the system that makes decisions about where traffic is sent (the control plane) from the underlying systems that forward traffic to the selected destination (the data plane).



# Day 1



## Part 1 Virtualization 101: The Basics of Virtualization

- Primer on Virtualization
- Benefits of Virtual Machines
- Hypervisors (VMWare, KVM, and Others)
- Managing Virtual Resources

## Part 2 Virtualization 201: Virtualizing the Data Center (a.k.a. Clouds)

- Virtualized Data Centers (Some Call Them Clouds)
- Virtual Machine Connectivity
- Networking Gear in Virtualized Data Centers
- VMware, vSphere, vMotion, and VXLAN
- Multitenancy and the Problems of Communal Living

## Part 3 Network Functions Virtualized: Why Stop with Servers?

- How Do You Virtualize a Network?
- Virtualizing Appliances
- Virtualizing Core Networking Functions
- What About Scalability and Performance?

## Part 4 Modern Networking Approaches to Virtualization

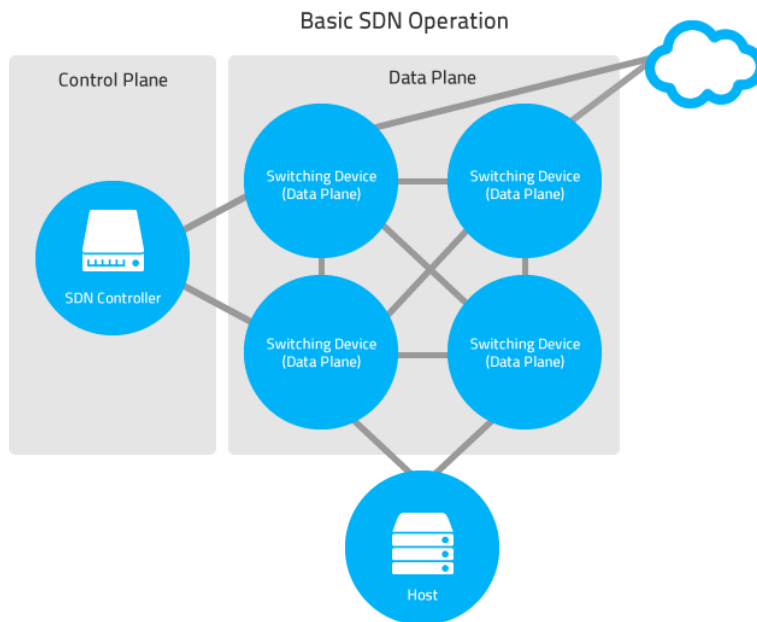
- From Consumers to Creators
- OpenFlow
- VMware Nicira
- Cisco Insieme
- OpenStack



## Day 2

### Part 5 Software Defined Networks

- The Evolution of the Data Center Network
- What's Wrong with the Network We Have?
- How SDN Works
- The Economic Impact of SDN, NFV, and the Cloud



### Part 6 SDN Controllers

- SDN Controllers
- The OpenDaylight Project
- The Fight to Control Your Network
- What's the Business Case for SDN?

### Part 7 Virtualized Networks

- Goodbye Truck Rolls
- What If the Shoe Doesn't Fit?
- Service Chaining
- NFV: What Happens to All the Network A

ppliances?



## Day 3

### Part 8 Security

- Where's My Data, Exactly?
- Preventing Data Leakage
- Logging and Auditing
- Encryption in Virtual Networks
- Everything Old Is Now New Again

### Part 9 Visibility

- Overlay Networks
- Network Management Tools
- Quality of Experience
- Monitoring Traffic Between Virtual Switches

### Part 10 The Big Picture

- Pulling It All Together
- How SDN and NFV Will Affect You
- What's Next in Networking?

