

# NFV Solutions for the Future-Ready Service Provider

Big Communications Event 2016  
Austin, TX



# Service Providers globally are at a **crossroads**

## 1. **New architectures and technologies**

changing the velocity, ease, and economics of service creation and delivery.

## 2. **New services and business models**

designed to harness the 'always-on, instant-access' device experience.

## 3. **New competitive landscape**

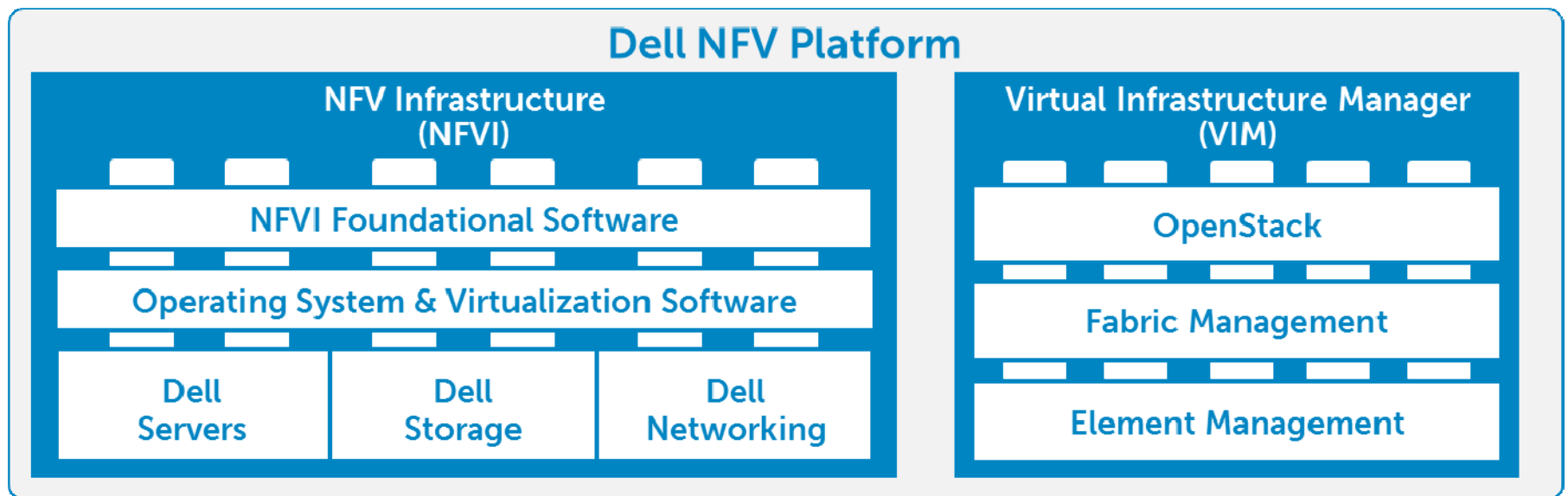
challenging the status quo of connectivity and service offerings.

Welcome to

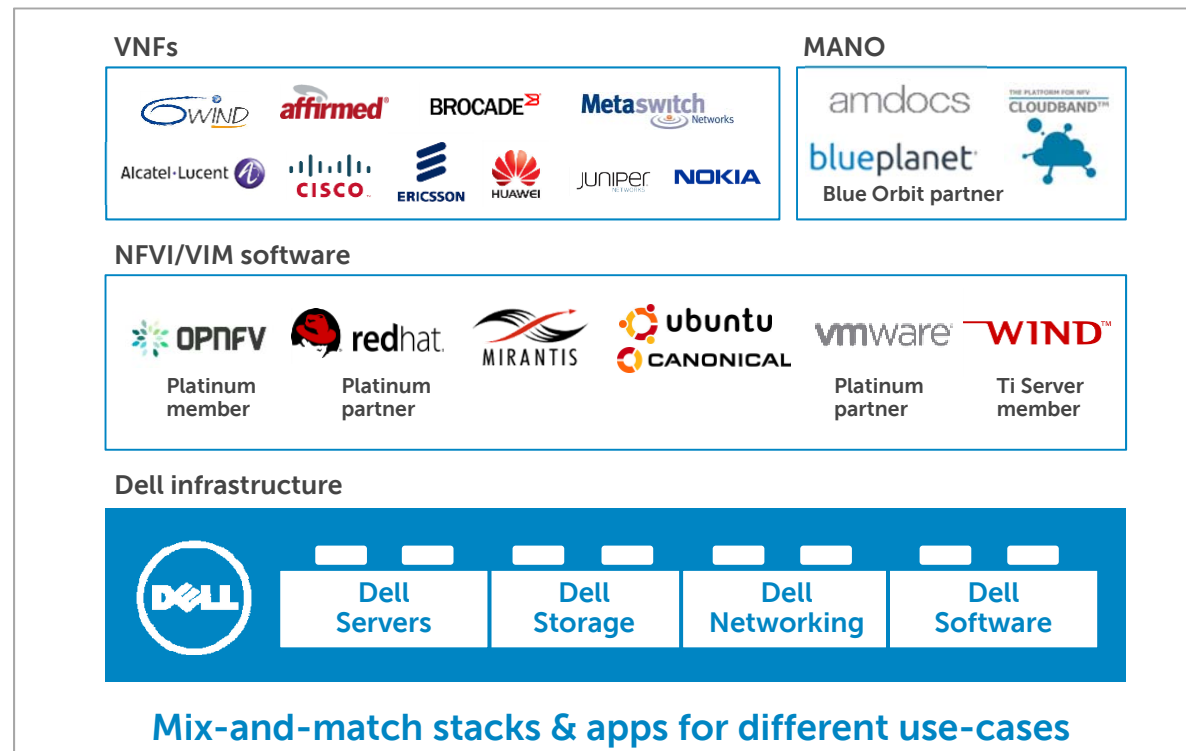
# Network Functions Virtualization



# The Dell NFV Platform

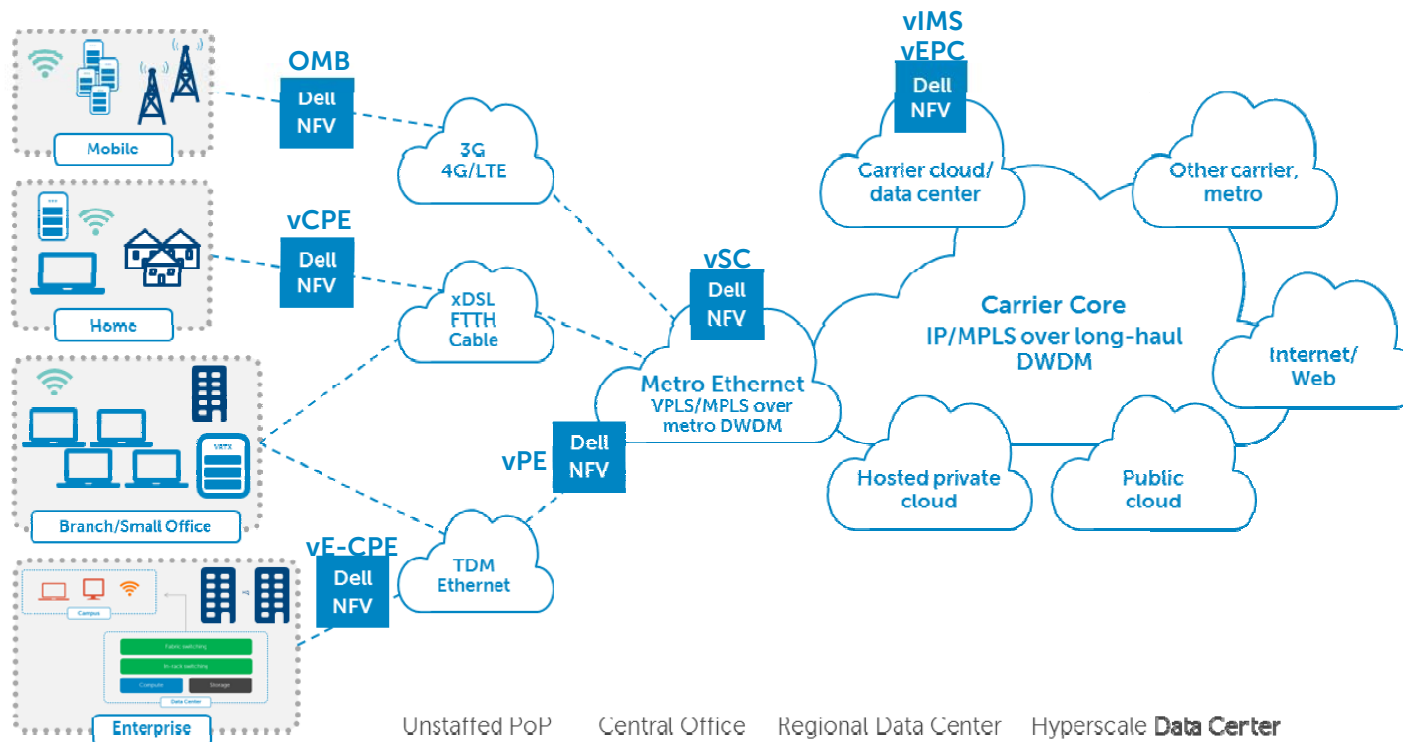


# Enabling open architectures



- 100% open and standards-based
- Scalable in any direction
- Maximum choice and flexibility

# Dell NFV deployment scenarios



**vIMS:** Virtual IP Multimedia Subsystem

**vEPC:** Virtual Evolved Packet Core

**VS-SC:** Virtual Services-Service Chaining

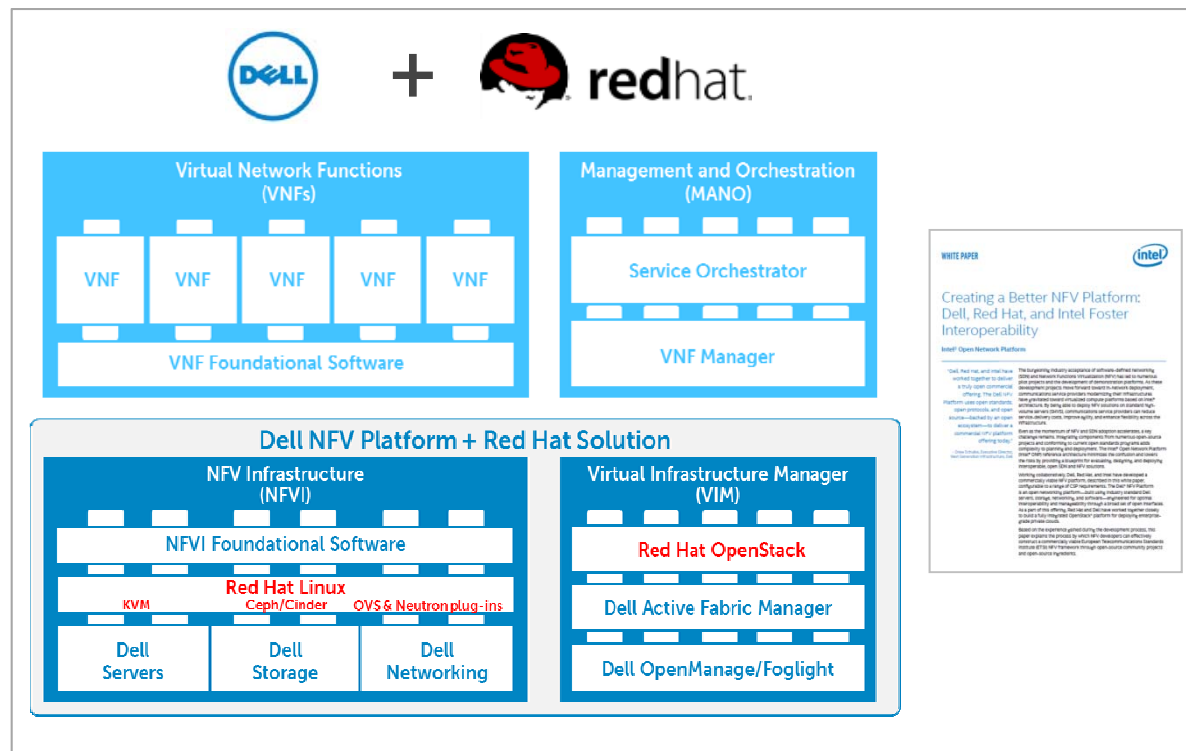
**vPE:** Virtual Provider Edge, Service Anchor Point

**vE-CPE:** Virtual Enterprise-Customer Premise Equip.

**vCPE:** Virtual (Customer) Home Premise Equip.

**OMB:** Optimized Mobile Broadband

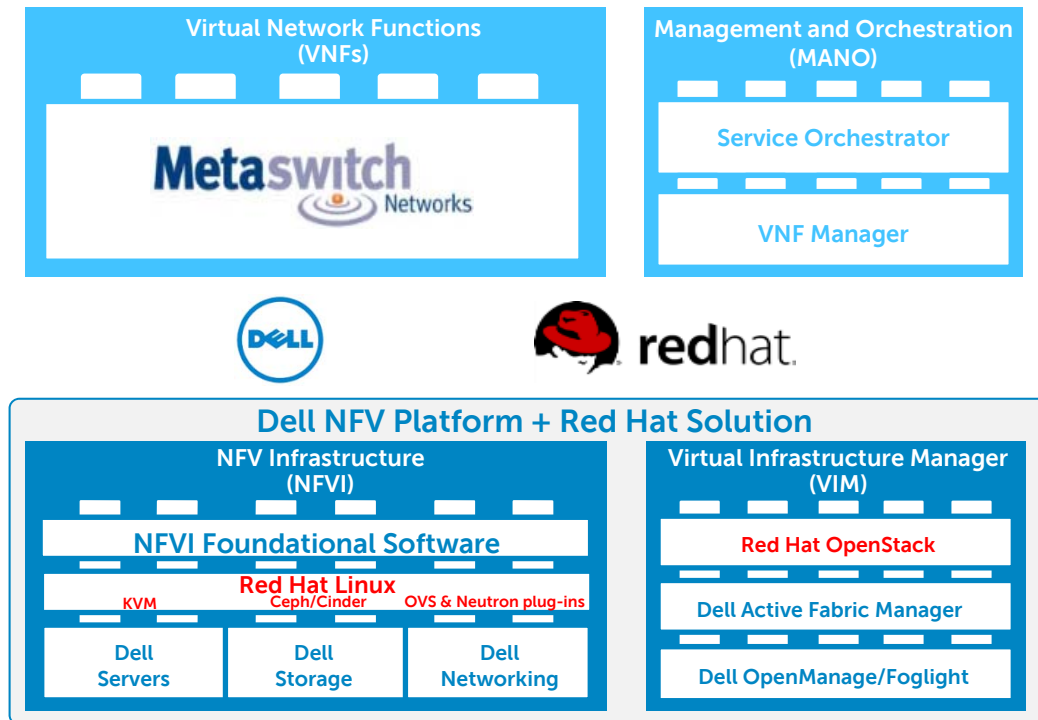
# NFVI/VIM solutions with Red Hat OpenStack



- Joint solution proven to reduce the configuration and deployment time from weeks to days/hours
- Ecosystem support for wide-range of VNF & orchestration capabilities



# Production-ready **Virtual IMS & SBC** solutions

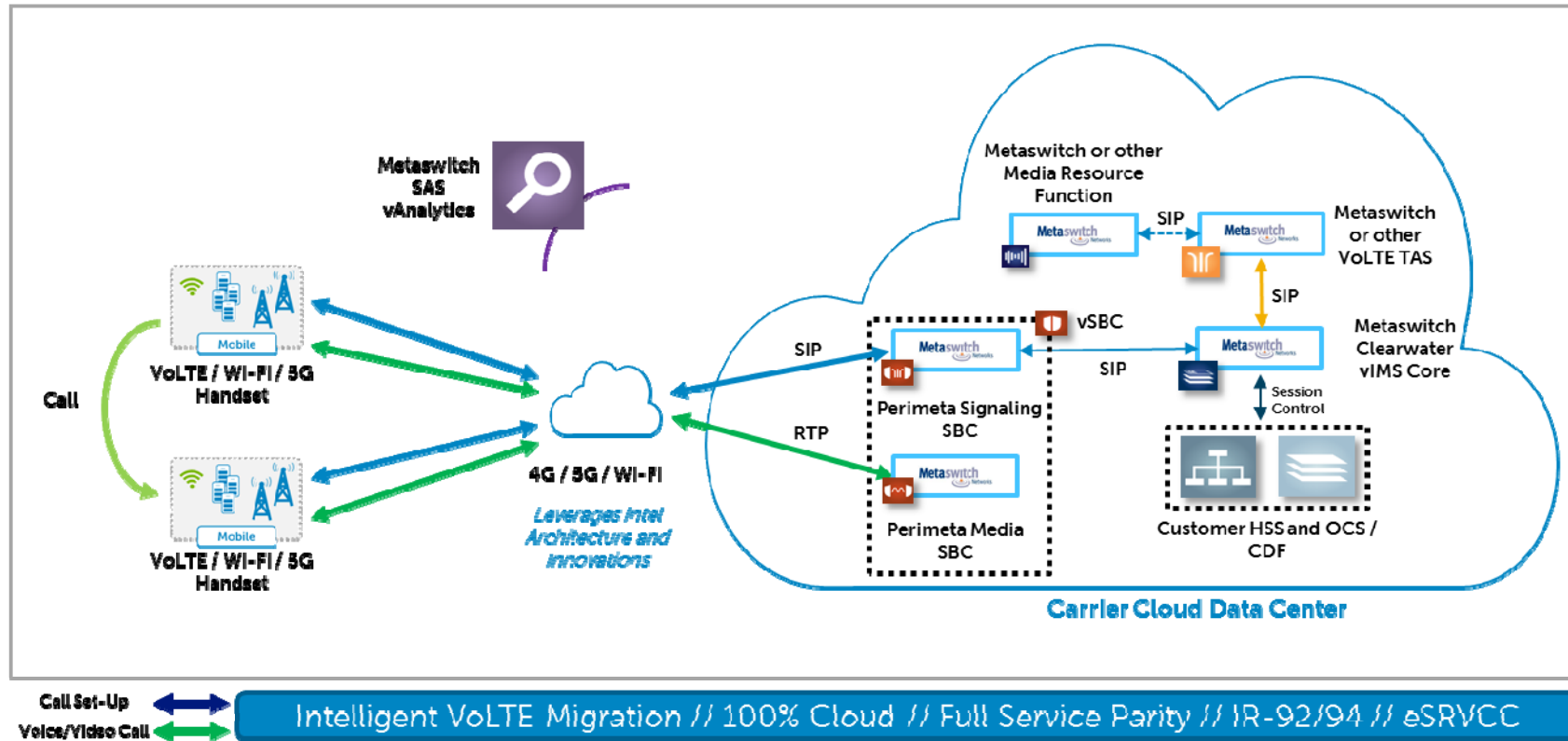


- Commercially available solution for on-demand SIP/VOIP/IMS/Video services
- Deployed as a turnkey solution into existing fixed or mobile operator networks.
- Scale out additional capacity as network utilization and subscriber usage grows

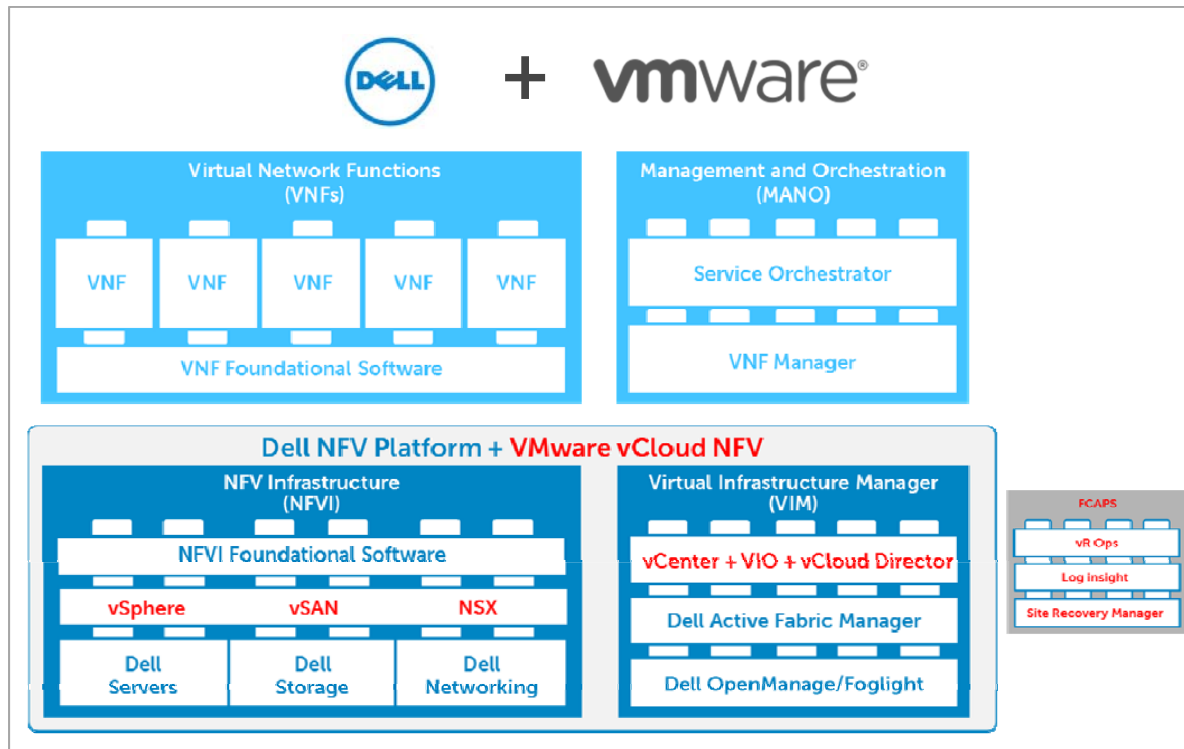




# Virtual IMS & SBC solution specifics

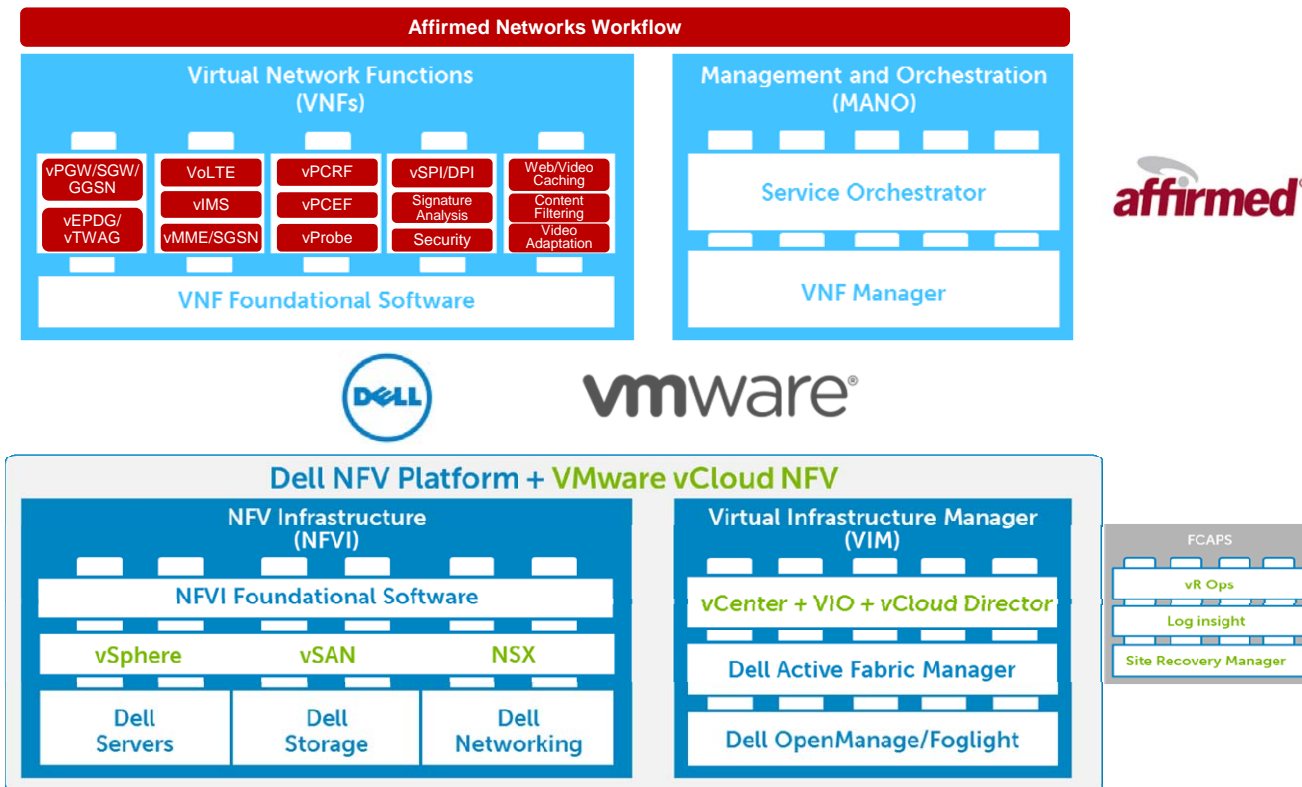


# NFVI/VIM solutions with VMware



- Close engineering across server, storage, networking
- Optimized for rapid deployments and VNF onboarding
- Seamless integration with existing tools

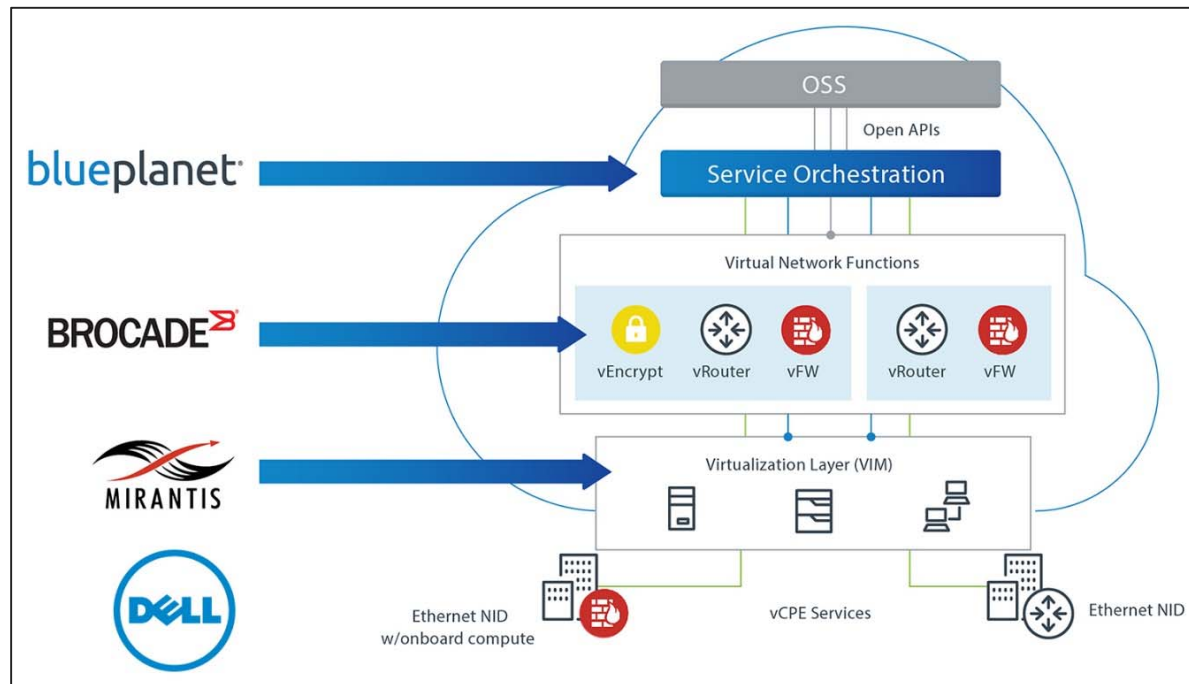
# Production-ready **Virtual Mobile Core** solutions



The diagram illustrates a multi-tier network architecture. At the top, four customer segments are shown in dashed boxes: **Mobile** (with mobile phones and towers), **Home** (with a laptop and house), **Branch/Small Office** (with multiple laptops and a VRTX device), and **Enterprise** (with a computer, HQ building, and a detailed data center diagram). These segments connect via dashed lines to four Unstaffed PoP (Point of Presence) clouds: **3G 4G/LTE**, **xDSL FTTH Cable**, **TDM Ethernet**, and **Metro Ethernet**. Each PoP cloud is associated with a Central Office stack (Affirmed, VMware, Dell) shown in a dashed box. The Metro Ethernet stack is also labeled **VPLS/MPLS over metro DWDM**. The Metro Ethernet PoP connects to the **Carrier Core**, which is labeled **IP/MPLS over long-haul DWDM**. The Carrier Core then connects to four types of data centers: **Carriercloud/data center** (with its own Affirmed, VMware, Dell stack), **Other carrier, metro**, **Internet/Web**, **Hosted private cloud**, and **Public cloud**. At the bottom, a legend identifies the four tiers: **Unstaffed PoP**, **Central Office**, **Regional Data Center**, and **Hyperscale Data Center**.

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# Orchestration solutions with Ciena Blue Planet



- Dell now Ciena Blue Orbit ecosystem partner
- Introduce new managed service offerings from the best SDN, NFV and open source technologies

# Verizon — The World's Largest NFV Deployment

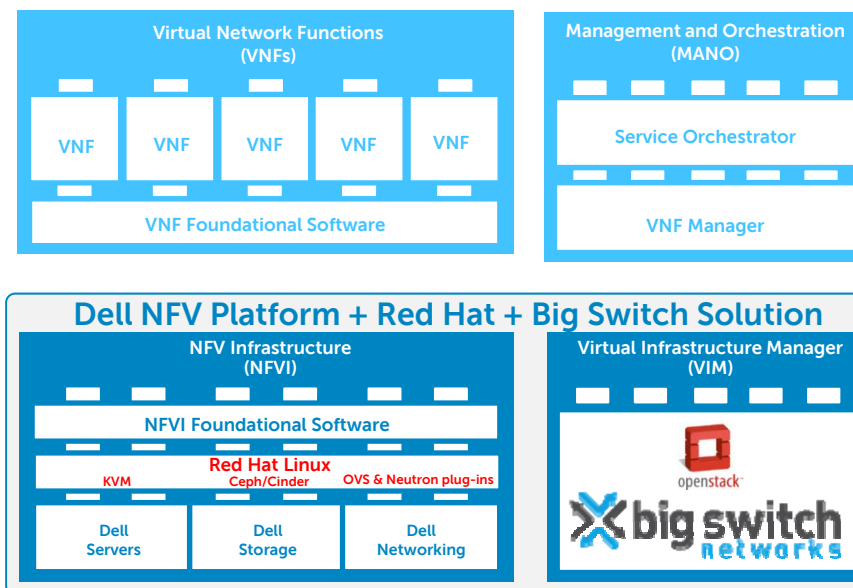
04.25.2016 [News Release](#)



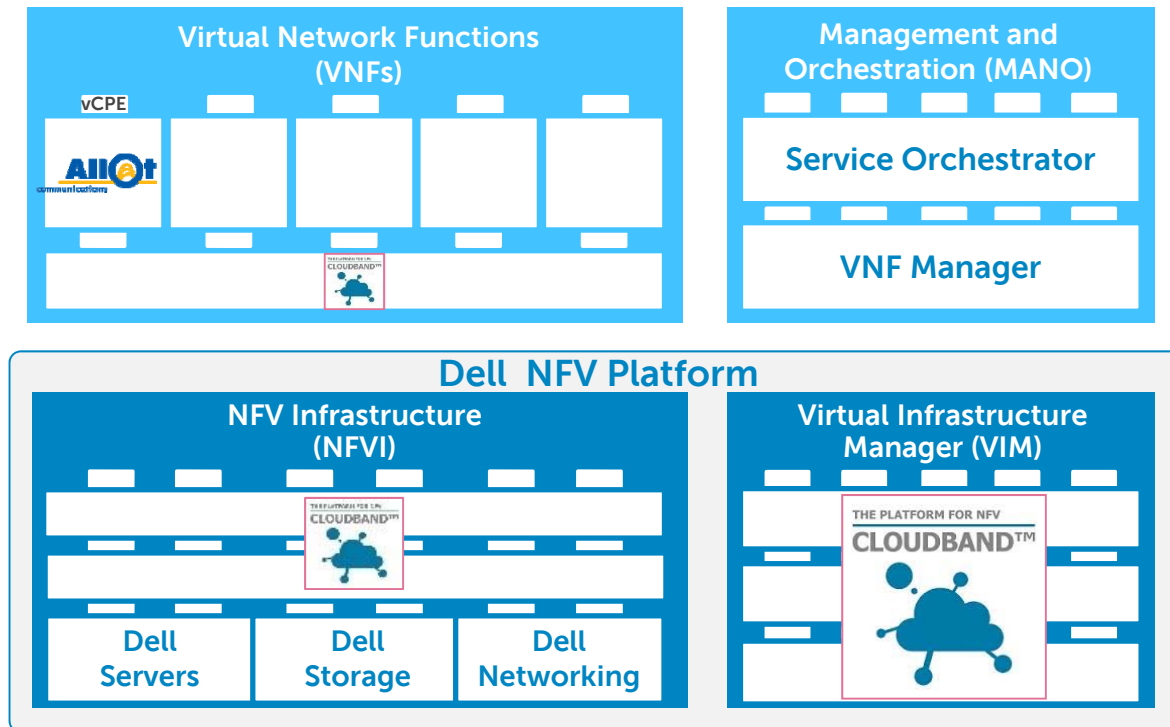
## Verizon launches industry-leading large OpenStack NFV deployment

Verizon collaboration with Big Switch Networks, Dell and Red Hat advances open source knowledge; Companies to discuss project at the OpenStack Summit in Austin

**AUSTIN, Texas** — Verizon has completed the industry's largest known Network Function Virtualization OpenStack cloud deployment across five of its U.S. data centers.



# NIA Phase 3 Interoperability Testing



- First-of-its-kind live interoperability demo
- vCPE use-case with Nokia and Allot
- See in action @ Demo Hall A



## Your next steps

**1**

**Meet our executives and engineers at the show**

**2**

**Request a workshop and technical deep-dive**

**3**

**Customize your own proof-of-concept**





## Partner call-to-action

**1**

**#selfcertify your solution  
on Dell NFV Platform**

**2**

**Host joint solution in  
Dell NFV Solution Center**

**3**

**Jointly enable customized,  
proof-of-concept & trials**



Learn more: [\*\*dell.com/nfv\*\*](https://dell.com/nfv)





The power to do more