Open Network Exchange

Understanding SDN, OpenFlow, and Network Virtualization

May 14, 2013 • Gleacher Center • Chicago

PRESENTED BY NETWORKWORLD

Tuesday, May 14, 2013

8:00 am - 9:00 am	**Registration and Networking Breakfast**
9:00 am - 9:15 am	**Welcome and Opening Remarks** Jim Metzler, Network World Contributing Editor; Vice President, Ashton, Metzler & Associates
9:15 am - 10:00 am	**What is SDN? And Why Should I Care?** Jim Metzler, Network World Contributing Editor; Vice President, Ashton, Metzler & Associates

Widely reported on and discussed, Software-defined networking (SDN) seems to be "all the buzz" these days. And for good reason. Depending on how it unfolds, SDN promises to fundamentally change how networking is done. What are the varying definitions of SDN? What factors are driving and inhibiting its adoption? And what do you need to know about how it could change networking for your organization? Join us for this session as we outline what IT organizations need to do to adopt this new approach for designing and managing their enterprise networks.

10:00 am - 10:30 am	**Paving the Way for Openness and Innovation with SDN** Bryan Stiekes, Chief Technologist, SDN & Cloud, HP Networking

Software-defined networking (SDN) represents an inflection point in networking. Specifically, it holds the promise of eliminating legacy human middleware required by the command-line interface -- and paves the way for openness and innovation. With SDN, IT can orchestrate network services and automate control of the network according to high-level policies, rather than low-level network device configurations. By eliminating complex manual device-by-device configuration, IT resources can then be optimized to lower costs and increase competitiveness. While the

need for automated and dynamic control over network resources is not new, the emergence of technologies like OpenFlow, the ability to implement complete SDN solutions at all three critical layers has never been simpler. Join us to see how.

10:30 am - 11:00 am **Networking Break**

11:00 am - 11:30 am **The State of OpenFlow: Advice for Those Considering SDN**
Steve Wallace, Associate Director, InCNTRE SDN Lab, Indiana University

What are the network behaviors that can be programmed via OpenFlow? Which services can be constructed using those behaviors? And what information and advice is available on the current state of OpenFlow implementations, standards, and conformance testing? Join us for this session and hear answers to these questions and more from the leading expert for soon-to-be SDN/OpenFlow stakeholders.

11:30 am - 12:00 pm **Software-Defined Networking for the Open Datacenter Interoperable Network**
Casimer Decusatis, Ph. D., Distinguished Engineer, eSystems Development Lab, IBM

Software-defined networking (SDN) represents the first step on a path to network virtualization, and offers many tangible benefits for enterprise data centers, cloud service providers, and other applications. This presentation will describe IBM's approach to realizing the potential benefits of SDN, as part of a larger framework for creating an Open Datacenter Interoperable Network (ODIN). The ODIN architecture components will be reviewed, and the role of SDN enabling technologies will be discussed, including virtual switches, factory integrated data center pods, and network overlays such as Distributed Overlay Virtual Ethernet (DOVE). Use cases and drivers for cloud adoption within data centers will also be presented.

12:00 pm - 1:15 pm **Lunch with Hosted Table Discussions**

Join one of these moderated discussion tables to share strategies and connect with your peers to hear how they're resolving the same issues with which you grapple every day.

Applying Open Networking and SDN to Real World Solutions

Join us for an open discussion about applications that benefit from Open Networking and SDN and how they deliver business value.

Sponsored by Cisco

Your Journey to Open and Complete SDN
Organizations demand agility in today's cloud era, and they need a single point of control and automation for their network — all of which will enable them to deploy any application or service within minutes for their users. Join us for lunch as we explain an open and complete SDN solution that will deliver agility across the infrastructure, control software and application layers. .
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What's New with SDN?
Come join our table discussion to learn more about IBM's SDN products and strategy. You'll learn more about the value SDN can bring to your organization and our team will take you through SDN solutions available now.

Sponsored by IBM

Improving Services Agility with SDN
Join this table discussion and learn about the promise of SDN to deliver significant new services and business agility, and hear about real-world examples of where this is coming to fruition.

Sponsored by NEC

How the Networking Organization is Crucial to Virtualization and SDN
Join Pluribus Networks, a company named one of the “top ten network virtualization, SDN, and data center companies to watch” by Network World, as we discuss how the networking organization is crucial to virtualization and SDN, and to see how hardware-accelerated open SDN saves you from trading off flexibility vs. scale vs. performance.
Sponsored by Pluribus Networks

1:15 pm - 1:45 pm

Introduction to the Cisco Open Network Environment: Network Programmability, SDN and More
Omar Sultan, Marketing Manager, Cisco Systems
Craig Huitema, Director, DC&Cloud Networking Marketing, Cisco Systems

Join us for this session as we explore the new trends and customer motivations for open networking and software-defined networking. We'll introduce Cisco’s strategy to create network efficiency with these technologies, review various implementation approaches, and describe use-

case progress across the enterprise and service provider portfolio.

1:50 pm - 2:20 pm

Transforming the Network to Seize Business Advantage
Don Clark, Director of Business Development and Strategy, NEC

Much has been written and said in the last year about Software-Defined Networking (SDN) and OpenFlow. Yet for NEC Corporation -- a $37B global technology leader with a 100-year history of innovation -- this marks Year 5 of NEC's innovation with the OpenFlow protocol and the development of an open, programmable network fabric. Join us for this session to get a picture of the network before and after SDN, where we'll illustrate specific use cases and results from early adopters, including NEC's own implementation of SDN spanning multiple data centers. Learn about some of the dramatic benefits that have been reported by production installations, with new tools for greater control, significant reductions in operating expense, and better utilization of all IT assets.

Software Defined Networking - Programmability Versus Configurability to Solve Your Business Problems
Darrin Thomason, Sr. Solutions Architect, Arista Networks

Networks have always been software driven, but somewhere along the way the ability to adapt and define this software became restricted and closed. To address this, SDN provides a software-to-infrastructure interface that allows applications to drive infrastructure actions and deliver capabilities like network virtualization and orchestration. Moreover, SDN is about applying a pragmatic view of a network architecture that is designed to be programmed by high-level languages and APIs, and it promises to solve many network challenges from network virtualization, to tap aggregation, to replacing and changing MPLS core network architectures. Join us for this session as we explore customer business cases, when to use SDN technologies, the problems they solve, and how to prepare your infrastructure for flexibility using SDN.

2:25 pm - 2:55 pm

How to Lower OPEX and CAPEX with OpenStack and SDN Deployments
Robert Drost, Founder and CEO, Pluribus Networks

Join us for this session to learn how Pluribus Networks has created next generation intelligent Top of the Rack switches (iTOR) and Switch Fabric based on their Distributed Network Hypervisor (Netvisor). You'll see how the iTOR Fabric is fully virtualizable and works with existing core and aggregation switches, providing very high non-blocking east-west bandwidth at sub micro-second latencies. Since the Pluribus Netvisor and iTOR fabric looks like one large logical switch, and is managed as a single switch, it reduces overall OPEX by making management simple. In addition, the Netvisor Fabric provides instant scale, unmatched visibility, always available analytics and high availability to the virtualized and non-virtualized infrastructure. When you join us, you'll also see how Pluribus solutions use leading edge chips from Intel and Broadcom providing very cost effective systems — all of which reduces overall CAPEX and provides the ideal substrate for OpenStack and SDN deployments.

2:55 pm - 3:45 pm

Software Defined Networking Workshop: Building the Business Case
Jim Metzler, Network World Contributing Editor; Vice President, Ashton, Metzler & Associates

What are the most practical ways to apply the promising benefits of SDN? What are other organizations doing that could leverage efficiencies from this new approach to enterprise networking? Join us for this moderated, interactive workshop exercise where we'll explore and discover the ways to apply SDN for enterprise value — and explore ways to build the business case for implementation.

3:45 pm **Closing Remarks and Conference Concludes**
Jim Metzler, Network World Contributing Editor; Vice President, Ashton, Metzler & Associates