



SReXperts Americas 2017

September 25-28, 2017
Hilton Atlanta
Atlanta, Georgia, USA

NOKIA



What?

- 11th annual SRExperts Americas Convention
- World-class education and training event designed to help customers leverage their investment in the Nokia IP Routing portfolio of products

Why?

- Brings together industry experts in IP Routing to create an environment for exchanging ideas and experiences
- Deepen attendees' understanding of Nokia's IP/MPLS product portfolio and how, when and where to introduce NFV and SDN to evolve their network and the services they offer
- Guaranteed to leave SRExperts with practical ideas and strategies for using IP to deploy innovative new services in ways that measurably improve margins and create new revenue opportunities.

Who?

- Industry experts in IP involved with strategic planning, network design, portfolio management, new services implementation or feature testing

When/ Where?

September 25-28, 2017
Hilton Atlanta
Atlanta, Georgia, USA

Sponsors

We welcome the following sponsors at this year's SRExperts Americas 2017:

GOLD SPONSORS



SILVER SPONSOR



Exhibition

Concrete experiences of our innovations will be enabled by a set of original live demonstrations prepared by our engineering and product management teams.

The exhibition area will have demonstrations of the new IP portfolio but also of our latest developments of virtualized network functions. We will show SDWAN, SD-data centers as well as our carrier SDN portfolio. Nokia's latest acquisition, Deepfield, will make his debut at SReXperts.



Monday,
September 25
6:00 - 8:00 pm
Welcome Reception

Tuesday,
September 26
10:30 am - 6:00 pm

Wednesday,
September 27
10:30 am - 6:00 pm

Thursday,
September 28
10:30 am - 1:00 pm

Demonstrations

AirScale

This demo discusses and showcases gigabit wireless performance and deployment simplicity of Nokia's cloud-based Wi-Fi portfolio that supports multiple ways of securely on-boarding clients. An integral part of the Nokia AirScale Radio Access radio technology, Nokia AirScale Wi-Fi turns Wi-Fi related industry trends (i.e. cloudification, 3GPP standardization and chipset advancements) into an optimized Wi-Fi solution suitable for Carriers and Enterprises.

Analytics with cloud-native VNFs (iPad demo)

As data becomes the key enabler for decision making, automation and customer care, the ability to collect and analyse data from network elements efficiently becomes increasingly important. Traditional methods of performance management typically involve extracting aggregated information from network elements at a periodic interval, making it a challenge to use this data in near real-time or to get a clear view of the subscriber state in the network. Cloud-native VNFs, with session state stored in a database,

offer new ways to extract real-time data and intelligence from the network for network planning, troubleshooting and customer care purposes.

Bandwidth control with Velocix Personalization Platform and CDN using Network Insights

In this demo we will show how delivery of ABR streams can be controlled through a CDN by making per-subscriber adjustments to manifests. Using the Network Insights Framework (NIF) from Bell Labs, we show how detection of network conditions can inform

Demonstrations

content delivery decisions. The Velocix Personalization Platform is used to manipulate manifests for live and VOD sessions based on the user profile and the prevailing network conditions as provided by the NIF. This method of bandwidth management allows networks to provide fair usage of available resource during busy time, delivering an improved viewing experience for subscribers.

Carrier SDN Automation

With the introduction of Network Services Platform (NSP), service and network management using carrier SDN solution has a new dimension to operational enablement and business support systems integration. This demonstration will provide an overview of the RESTFUL Interface of the NSP platform, and demonstration service creation scenarios using NSP policies, profile, templates and the North Bound Interface (NBI) to illustrate the concepts and practical benefits.

Cloud Packet Core

The Cloud Packet Core is design and built with cloud principles providing the scalability, service agility, deployment flexibility and performance to support mobile broadband, IoT/MTC and 5G services with specific use cases shown for each. Also shown is how the Cloud Packet Core provides a common anchor point for fixed and mobile converged services and support for government broadband and public safety initiatives.

Deepfield

Nokia Deepfield has redefined IP network security and analytics for the cloud and

IoT era by allowing providers to improve network performance and customer experience through the industry's only all-software solution (no DPI hardware or probes) that blends IP network telemetry with a real-time view of how all cloud applications and services flow to and through provider networks. It uses this same visibility to see the root cause of every flow of a DDoS attack to accurately detect even the most complicated incident.

Elastic CDN with Openstack

This demo shows an example of an orchestrated CDN deployment. The orchestrator is going to react to load on the CDN by scaling out capacity in the CDN when a threshold is reached based upon CDN and Openstack metrics. As a follow-up the demo will also scale in as load on the CDN reduces. Typical use cases are where elastic CDN would be beneficial for popular short term events, e.g. significant news or sports events.

Intel

Intel is a world leader in computing innovation. Intel designs and builds the essential technologies that serve as the foundation for the world's computing devices. To help Communication Service Providers become more agile, Intel is also leading ecosystem alignment around rapid delivery of interoperable solutions for building software-defined, virtualized networks. Learn more at intel.com/network

IXIA

Ixia, now part of Keysight Technologies, provides testing, visibility, and security solutions to strengthen networks and

cloud environments for enterprises, service providers, and network equipment manufacturers. Ixia offers companies trusted environments in which to develop, deploy, and operate. Customers worldwide rely on Ixia to verify their designs, optimize their performance, and ensure protection of their networks and cloud environments. Learn more at www.ixiacom.com

Learning Services - Service Routing Certification, Nuage Virtuoso Certification Program

Be sure to stop by our booth in the event demo room. You'll have an opportunity to talk to one of our learning services subject matter experts and experience demos of our remote lab access services — MySRLab and MyNuageNetworksLab. You can also sign up for complimentary access to some of our self-learning resources: 9 hours of which can be used on MySRLab or My Nuage Networks Lab and receive 3 complimentary MySRLab scenarios. Hope to see you there!

myVerify

myVerify is a new Nokia cloud-based solution offered in a Business-Process-as-a-Service (BPaaS) format. myVerify ensures near-instantaneous verification of your IP network in a easily consumable way (anytime, anywhere) without Nokia involvement. Via a simple subscription, myVerify offers fully automated analysis providing customer with detailed report indicating network inventory, system analysis, network errors, statistics and weakness identification. myVerify is accessible via a web portal using Nokia cloud-based computing engine for data analysis.

Register now!

Registration closes September 1. Don't miss out!
<https://www.etches.com/srexperthamericas2017>



Demonstrations

Network Group Encryption

Secure and reliable communications is vital for critical infrastructure operators. Nokia has an award-winning IP/MPLS encryption solution called Network Group Encryption (NGE). Using an innovative key group concept, and operating seamlessly at the IP/MPLS layer, NGE offers unparalleled flexibility and simplicity to protect packet and TDM user traffic, as well as network control traffic. NGE also supports maximum availability as encrypted traffic remains unaffected even as the NSP key manager becomes unreachable.

Next generation fiber access

The next generation fiber demo shows how Nokia simplifies the fiber evolution by converging various NG-PON technologies into a single universal solution available on one platform and one line card. Our universal NG-PON solution uses the same platform currently widely deployed for GPON, making the network upgrades to 10G and 40G simple, flexible and efficient.

NSP - Analytics and reporting

Showcases the analytics and reporting capabilities of NSP. This includes Application Assurance (AA) reporting for residential, business and mobile domains, as well as network and service (N&S) reporting (e.g. for OAM testing, port throughput, and SAP throughput). These NSP17 capabilities shown are enabled by the NFM-P.

NSP - Autonomous System optimizer with traffic steering

Showcases an NSP use case for intelligent congestion avoidance for DC-Gateway deployment where traffic is steered in a transaction manner per Autonomous-System based. During congestion or pre-

congestion on uplinks, selected AS traffic is steered to alternate peer using NSP Flow controller. These NSP17 capabilities shown are enabled by the NSP NRC-F flow controller.

NSP - Common assurance applications

Provides a tour of the latest feature set in NSP assurance and infrastructure management applications. Enhanced assurance capabilities delivered by common applications in NSP17 benefit from a new and modern user experience. These NSP17 capabilities shown are enabled for any NSP deployment for carrier SDN or network management in IP/MPLS, Ethernet or IP/optical networks as well as for both physical or virtual network domains where applicable.

NSP - Intelligent path computation and optimization

Showcases a use case for traffic flow optimization using Big Data analytics during peering links congestion situations. The NSP NRC-F flow controller will be used in combination with Deepfield products to realize this use case. Deepfield platform will correlate traffic to actual sites (e.g., Netflix, Google, Youtube, etc) and traffic is steered per site-based.

NSP - IP network service fulfilment in action

Covers the key principles of the NSP from both a user interface and north-bound API aspect. The first part of the demo will outline dynamic service fulfillment & assurance with automatic network layer configuration. The second part of the demo outlines the power of the shared set of REST/RESTCONF and SOAP/XML Application Programming Interfaces (APIs),

and will highlight how the API provides developers with abstracted and simplified interfaces that can be used to define, provision, activate and assure network services across NSP managed networks.

NSP - Service Portal

NSP Service Portal is a service application providing lightweight OSS functionality, supporting customized service provisioning, reporting and analytics. A specific focus is on a new application – Zero Touch Provisioning (ZTP). This application automates the fulfillment process for Carrier Ethernet services based upon Nokia 77xx series platforms, reducing time-to-market, costs and risks from mis-configuration.

NSP - Simulation and maintenance of a TE network

Demonstrates the simulation of a TE network and LSPs discovered by the NRC-P in an offline mode. Shows how the user can disable and alter link metrics to indicate the change in LSP routing. Path computation algorithms such as Bell Labs Self Tuned Adaptive Routing (STAR) and Global Concurrent Optimization (GCO) are demonstrated on newly created or existing LSPs. This will allow the operators to view the impact prior to making changes on the NRC-P. These NSP17 capabilities shown are enabled by the newest NSP module, NRC-S (Simulation).

NSP and Deepfield - Deep SDN

optimizations using deep analytics Showcases a use case for traffic flow optimization using Big Data analytics during peering links congestion situations. The NSP NRC-F flow controller will be used in combination with Deepfield products to realize this use case. Deepfield platform

Demonstrations

will correlate traffic to actual sites (e.g., Netflix, Google, Youtube, etc) and traffic is steered per site-based.

Private LTE (P-LTE)

Private LTE (P-LTE) demo is to demonstrate Nokia's LTE solution that will enable industries and enterprises to own and manage their own LTE network without requiring licensed spectrum. The P-LTE demo setup consists of Nokia's end-to-end network equipment, including SAR-hm, eNodeB, CMU(cMG + cMME), MCN(HSS + PCRF), and NSP.

Supporting Legacy Applications

IP/MPLS is the technology of choice for network modernization in many industries including energy, transportation, public safety, and government. While many applications are becoming IP-based, the continual support of existing application systems such as teleprotection, SCADA, LMR using legacy communications interfaces remains a mandatory requirement in many networks. This demo showcases the various MPLS services, router features, and interfaces that securely and reliably transport legacy application traffic.

Unified Cable access

Unified cable access provides cable operators a way to cost-effectively increase the capacity and performance of their existing hybrid fiber-coaxial (HFC) networks to satisfy their customers' demands for greater bandwidth and advanced services, while simultaneously reducing headend space and power requirements, eliminating the distance limitations of analog optics, and enabling an elegant transition to an all-digital, all-IP, and eventually all-fiber network.

Virtual Service Router Appliance VSR-a

Virtual Service Router Appliance (VSR-a) is a factory pre-integrated virtualized network appliance which includes server hardware (based on AirFrame server), RHEL software and hypervisor, and a pre-loaded instance of a Virtualized Service Router software (virtualized network function, VNF). With SR OS release 15, VSR-a supports two additional server platforms and the following VSR applications:

- Route reflector
- Mapping of Address and Port using Translation (MAP-T) Border Relay
- Network Group Encryption (NGE)
- NGE with Application Assurance

VNO - Virtual Networks Orchestration

Show the orchestration of a single enterprise service chain across different types of branch CPEs, the private cloud of the service provider, and the public cloud. The branches are enabled by Nuage SD-WAN, and by a tunneled CPE terminated by the CPE virtualization application of the Nokia Virtual Service Router (VSR). The VSR acting to virtualize the CPE is linked (through the NSP) to another VSR acting as cloud gateway. Public internet and cloud break-out are enabled by a virtual firewall instantiated as part of the service chain, through Nuage VCS / datacenter SDN solution.

VNS Customer Portal

Nuage VNS customer portal is a secure, web-based application that leverages the Nuage Virtualized Network Service Platform for self-service management of customer domains (VPNs) and branches. Customers can carry out self-service VPN management using the VNS customer portal, for highly efficient and secure management.

Stay connected with our Nokia Events app!

Get last minute agenda changes, event information, connect with other attendees and so much more. So don't miss out and download the app today!



Web-based

Agenda

Monday, September 25

8:45 am - 4:15 pm	Deepfield User Group (by invitation only)			
	Workshop 1	Workshop 2	Workshop 3	Workshop 4
10:00 am - 1:00 pm	Building a vLTE packet core (vEPC) with Nokia's CMG Arthur Hautea / Wael Zayed	Transitioning from 5620 SAM to NSP17 - Jim Doucette/Jeff Mcclaird	Exploring QoS implemented in software on the VSR - Zahid Khan/Danny Hernandez Rojas	Provisioning SD-WAN services using Nuage VNS - Gatot Susilo/Mariano Reimundi Scafidi
2:00 pm - 5:00 pm	Building a vLTE packet core (vEPC) with Nokia's CMG Arthur Hautea / Wael Zayed	Transitioning from 5620 SAM to NSP17 - Jim Doucette/Jeff Mcclaird	Exploring QoS implemented in software on the VSR - Zahid Khan/Danny Hernandez Rojas	Provisioning SD-WAN services using Nuage VNS - Gatot Susilo/Mariano Reimundi Scafidi
	Tutorial 1	Tutorial 2	Tutorial 3	
1:30 pm - 3:00 pm	Segment Routing Technology Overview - Mustapha Aissaoui	Service fulfillment for SDN service delivery using NSP - Reza Rokui	Transitioning to a consolidated IP network - Bell Labs Case Study - Ben Tang	
	Tutorial 4	Tutorial 5	Tutorial 6	
3:30 pm - 5:00 pm	NSP OAM tools for network analytics and service assurance - Denis Bouffard	SDN Path placement and flow control using NSP17 - Anand Raj	Network resiliency validation through modeling and simulation - Bell Labs Case Study - Ben Tang	
6:00 pm - 8:00 pm	Welcome Reception in the Exhibition			

Tuesday, September 26

9:00 am - 5:00 pm	Nuage Networks Tech Forum (by invitation only)				
	Plenary Sessions				
9:00 am - 9:10 am	Welcome and Introduction - Andrew Missing				
9:10 am - 9:40 am	Opening Keynote - TBC				
9:40 am - 10:25 am	No Compromises! - Ken Kutzler				
10:25 am - 11:00 am	IP Networks for the Cloud, 5G and IoT era - Rudy Hoebeke				
11:00 am - 11:30 am	Coffee break				
11:30 am - 12:15 pm	Carrier SDN and the Evolution of Network Services Management - Sasa Nijemcevic				
12:15 pm - 1:00 pm	Nuage Networks: Programmable Network Services for the Cloud Age - TBC				
1:00 pm - 2:00 pm	Lunch				
	Streams				
	Web-Scale Mobile Core	SDN and Data Center	Technologies and Services	Product and Feature Updates	Industry Segments
2:00 pm - 2:45 pm	Cloud Mobile Gateway (CMG) Vision and Roadmap - Vach Kompella/Jan Vandenhoudt	Dynamic Enterprise Services - Business Services Evolution - Jon Lundstrom	Deepfield Technology Deep Dive - Craig Labovitz	SR OS Release Outlook - Alfred Nothaft	Networking Trends in Industry Segments - Flavio Caracas
2:55 pm - 3:40 pm	Cloud Mobility Manager (CMM) Update and Roadmap - Gordon Milliken / Eckhard Papproth	SD-WAN (Nuage VNS) Roadmap - Sunit Chauhan	Deepfield - Network Analytics Use Cases - Andrew Henkart	Virtualized Service Router (VSR) update - Adam Simpson / Keith Galway	Managing WAN Services in Critical Infrastructure Networks - Greg White
3:40 pm - 4:10 pm	Coffee break				
4:10 pm - 4:55 pm	Mobile Packet Core and Backhaul Management with NSP17 - Rohitt Tumkur-Pranasha	SD-WAN (Nuage VNS) Use Case - Alastair Johnson	Next-Gen management in SR OS - Walid Elbokl	SR OS unicast routing update - Adam Simpson	IP/MPLS vs. MPLS-TP in Critical Infrastructure - Rob Wright
5:05 pm - 5:50 pm	Traffic optimization for Wi-Fi and Mobile Networks (Application Assurance) - Steve Morin	SD WAN + Chained VNF Orchestration with Nokia - Hans Vanderstraeten	Practical model-driven network programmability - Sven Wisotzky	Segment Routing Applications and Developments - Mustapha Aissaoui	Scaling Critical Network Infrastructure - Andrew Weingart
	Workshop 1	Workshop 2	Workshop 3	Workshop 4	
2:00 pm - 5:00 pm	Building a vLTE packet core (vEPC) with Nokia's CMG - Arthur Hautea / Wael Zayed	Transitioning from 5620 SAM to NSP17 - Jim Doucette / Jeff Mcclaird	Exploring QoS implemented in software on the VSR - Zahid Khan / Danny Hernandez Rojas	Provisioning SD-WAN services using Nuage VNS - Gatot Susilo/Mariano Reimundi Scafidi	
7:00 pm - 10:00 pm	Networking Event at Ponce City Market				

Agenda

Wednesday, September 27

Plenary Sessions					
9:00 am - 10:30 am	IP Routing Portfolio Update (7750/7950) - Jeff Jakob				
10:30 am - 10:45 am	Learning Services Update - Karyn Lennon				
10:45 am - 11:15 am	Coffee break				
11:15 am - 12:00 pm	7250 IXR Portfolio Overview - Jeff Sugimoto				
12:00 pm - 1:00 pm	Platform Choices for building Next-Gen IP Networks - Jeffery Valley				
1:00 pm - 2:00 pm	Lunch				
Streams					
	Web-Scale Mobile Core	SDN and Data Center	Technologies and Services	Product and Feature Updates	Industry Segments
2:00 pm - 2:45 pm	Cellular Internet of Things Cloud Packet Core - Oz Bulbul	Nuage Networks Virtualized Cloud Services (VCS) Update - Scott Drennan	Compute Virtualization and Collaboration - Intel/Nokia - Mike Reeves	7250 IXR software in-depth - Alp Dibirdi	Next-Gen SDN network for the enterprise & public sector cloud - Steve Dyck
2:55 pm - 3:40 pm	Road to 5G Next-Gen Core - Jan Straznicky	Combining SD-WAN and VCS - Blueprint - Alastair Johnson	TBC	7210 SAS Portfolio Update - Avinash Pai / Nabeel Cocker	Building Data Center Network Infrastructure and Virtualization - Steve Dyck
3:40 pm - 4:10 pm	Coffee break				
4:10 pm - 4:55 pm	5G Backhaul Evolution (requirements, design and applications) - Hooman Bidgoli	Troubleshooting an overlay SDN (Nuage VSAP) - Reda Laichi	EVPN Seamless next-gen control plane - Jorge Rabadan	Service fulfilment and assurance for SDN using NSP - Filipe Corriea	Private LTE Infrastructure for Enterprise - Dmitri Litvine
5:05 pm - 5:50 pm	TBC	Data Center Evolution (CDI/EVPN, IPv6, DCI, SmartNICs) - Brant Gifford	FP4 for web-scale peering - Leonardo Serodio	Deep analytics driving network optimization using NSP - Hamid Ould-Brahim	Extending mission critical IP/MPLS services over wireless using the new 7705 SAR-Hm - Carl Rajski
	Workshop 1	Workshop 2	Workshop 3	Workshop 4	
2:00 pm - 5:00 pm	Building a vLTE packet core (vEPC) with Nokia's CMG - Arthur Hautea / Wael Zayed	Transitioning from 5620 SAM to NSP17 - Jim Doucette/Jeff Mclaird	Exploring QoS implemented in software on the VSR - Zahid Khan/Danny Hernandez Rojas	Provisioning SD-WAN services using Nuage VNS - Gatot Susilo/ Mariano Reimundi Scafidi	

Thursday, September 28

Streams					
	Web-Scale Mobile Core	SDN and Data Center	Technologies and Services	Product and Feature Updates	Industry Segments
9:00 am - 9:45 am	Cloud-enabled WiFi: vePDG & vTWAG - Juan Rodriguez	Security in an Overlay SDN (VSS) - Hari Krishnan	Evolution of Subscriber Management - virtual RGW - Oz Bulbul	7705 SAR portfolio update - Rob Nath	Critical network Infrastructure multi-layer protection and restoration - Chip Pratt
9:55 am - 10:40 am	Security Gateway Solution and Update - Robert Castellano	SD WAN HW Deployment Options - Brant Gifford	MC-TCP Hybrid Access Gateway for Residential and Enterprise Deployments - Steve Morin	SR OS OAM features update - Footer	Implementing NERC-CIP cybersecurity standards for critical infrastructure - Hansen Chan / Rob Wright
10:40 am - 11:10 am	Coffee break				
Plenary Session					
11:10 am - 11:50 am	Professional Services - TBC				
11:50 am - 12:30 pm	SRExperts 2017 Closing Thoughts - Hooman Modarres				
12:30 pm - 12:50 pm	Hotel Wi-Fi Utilization Summary - Andrew Missing				
12:50 pm - 1:00 pm	Wrap-Up & Survey Draw - Andrew Missing				



Location information

The SReXpert Americas 2017 will be held at the Hilton Atlanta, where a central location meets high-quality amenities. Set in the heart of the city, the hotel is easily accessible to the interstate and Peachtree Center MARTA rapid transit system. With extensive meeting space, comfortable guestrooms, and three unique dining options. Personal attention adapted to the needs of our clients make them feel at home.

Services

- room service
- 24-hour reception, concierge & porter service
- 24-hour wake-up call service
- 24 hr Pavilion Pantry Market
- Laundry, dry cleaning & ironing service
- TRADER VIC'S Polynesian restaurant
- NIKOLAI'S ROOF AAA Four Diamond restaurant
- Gym

Hilton Atlanta

255 Courtland Stree NE
Atlanta, GA 30303
USA

Guestroom rates:

\$195* for single occupancy per night (taxes not included).

*incl. breakfast

Please note that your credit card will be charged one-night's deposit by the end of August.

Accommodation in the venue hotel (payment by credit card) will be proposed as an option during the registration process.

Register now!

Registration closes September 1. Don't miss out!
<https://www.etches.com/srexpertsamericas2017>



SReXperts Streams

Industry Segments	This track will focus on how the SR portfolio of products can be used in the Industry Segments (Transportation, Energy & Public Sector). This track will feature use cases and details on product line functionality designed for this particular segment.
Product and Feature Updates	This track will contain updates on all the IP routing product families (SR/SRX/SAS/SAR/IXR) as well as the Network Services Platform (NSP17) and its various components.
SDN and Data Center	This track will focus on Nokia's SDN related products and solutions that address the data center, WAN services as well as business services. Carrier SDN is addressed with product updates on the Network Services Platform (NSP). Business services are covered by our SD-WAN solution from Nuage, the Virtualized Network Services (VNS) solution. Our Data Center Interconnect solution will be address with feature updates of the 7x50 and Nuage VSP.
Technologies and Services	This track will cover a variety of topics. A particular focus will be on network function virtualization, management of the VNF life cycle, automation, operations and assurance. This track will also provide a deep-dive on Ethernet Virtual Private Network (EVPN) and feature sessions on topics such as Deepfield's use cases and what our partnership with Dell involves .
Web-scale Mobile Core	This track will focus on the evolution of the mobile packet core to the cloud with and will include an introduction and update on Nokia's Cloud Mobile Gateway; its architecture, life cycle management and orchestration. Sessions will include feature updates and roadmaps for the packet core components, the impact of 5G and IoT on the mobile core, backhaul and fronthaul architectures and how they are managed.

Fees Overview

Customers
FREE

A pass includes: Access to all conference tracks, exhibition, coffee breaks, luncheons, cocktail reception, networking dinner and speakers' presentation slide sets.

The fees do NOT include hotel accommodation charges.

All fees will be charged by Conference Contacts. You will receive a detailed receipt once your card has been charged. Payment can also be made by wire transfer. Please select "Invoice" for the

Partners /
Consultant
\$250

payment type and contact Antony Waite for more details.

Cancellation Policy

Event cancellation / No-show

In the event of cancellation prior to September 21, registrants will not be charged a cancellation fee. In case of cancellation after Sep. 21, or no-show, we reserve the right to charge registrants a cancellation fee equivalent to 50% of their registration fee or \$250 in case of free admission.

Nokia staff
\$1,000
(Early bird rate of \$750 if registered before Aug. 1)

Workshop registration cancellation/No-show

In the event of cancellation prior to September 25, registrants will not be charged a cancellation fee. In case of cancellation on or after September 25, or no-show, we reserve the right to charge all workshop registrants a cancellation fee equivalent of \$25. This fee will not be assessed on top of the event cancellation fee as described above.

Workshops

The following workshops will be hosted during the event:

Building a virtualized LTE packet core (vEPC) using Nokia's Cloud Mobile Gateway

This workshop offers participants the opportunity to learn how to use Nokia's Cloud Mobile Gateway (CMG) to build an LTE vEPC and establish mobile services. Through hands-on exercises in lab environment each of the virtualized network functions (SGW/PGW/GGSN and ePDG) will be instantiated and configured to demonstrate the flexibility of the CMG running on Airframe servers. There will also be an opportunity to create mobile services through the GMG's virtualized evolved Packet Data Gateway which provides authentication and IPSec over untrusted network access (e.g. residential, public and enterprise Wi-Fi).

Experiencing Quality of Service implemented in software on the VSR

This workshop will explore the advanced QoS feature set of the SROS as implemented in software on the Virtualized Service Router (VSR). The VSR brings network function virtualization to the edge of the network and delivers a complete set of network functions for residential, business and mobile applications. The Nokia SROS lends itself well to virtualization, it runs on a Linux 64-bit OS with multi-core symmetric multiprocessing (SMP), supporting both integrated and distributed virtualized chassis deployment models with a clean separation of the control plane and forwarding path. Participants in this workshop will gain a deep understanding the advanced QoS features implemented in the forwarding path (I/O VMs) of the VSR as they compare to the hardware implementation of the 7x50:

- Ingress: classification, hierarchical policing and scheduling
- Egress: marking, queuing, 3-tier hierarchical scheduling and shaping

NSP Scripting and Automation

With the introduction of Network Services Platform (NSP), service and network management using carrier SDN solution, has a new dimension to operational enablement and business support systems integration. This hands-on workshop will introduce attendees to the fundamentals of NSP and the RESTFUL Interface of the NSP platform. The workshop will then walk

through service creation scenarios using NSP policies, profile and templates and the North Bound Interface (NBI) to illustrate the concepts and practical benefits.

Nuage Operations Tools and Automation

Nuage VSP/VNS solutions involve a wide range of technologies, network elements and software functions. Nuage operators are required to familiarize themselves with many CLI commands (Linux, VSC), and learn multiple interfaces (GUI, REST API, SNMP, etc.) and use variety of software tools for their daily work.

This can be a very challenging task, so Professional Services has investigated a variety of open source tools to automate Nuage operations. In this session, we will share our experiences in utilizing these open source tools to enhance Nuage operations, and you will experience how easy it is to do it yourself!

Nuage VNS Monitoring and Troubleshooting

The Nuage VNS platform provides a powerful and flexible SD-WAN virtualization and automation solution; however, this power and flexibility introduces new operational challenges which VNS providers must address. This tutorial presents practical techniques, strategies and examples for monitoring and troubleshooting Nuage VNS (management, control and data plane) in a production environment. This tutorial will cover using SNMP, Syslog, Splunk®, REST API, Monit, CLI and Linux tools to efficiently monitor the health of VNS platform components and services and to root cause any incident. The discussion will focus on the available interfaces of each component, how they interact, how they are configured, what type of information and metrics can be extracted and what are the relevant sources and events types for troubleshooting analysis.

Provisioning SD-WAN Services using Nuage Virtualized Network Services

Nuage Networks Virtualized Network Services (VNS) is an SD-WAN solution that brings the procurement, operation and functionality of VPNs into alignment with the cloud services consumption model. This workshop will familiarize participants with the

Workshops

operational aspects of extending corporate VPN connectivity to branch offices, public and private cloud services by defining policies for authentication, connectivity, path selection and quality of service. The goal of VNS is to automate the service activation process and participants should come away with an understanding of how to implement zero touch services. The VNS solution is built on top of the Nuage Networks Virtualized Services Platform so attendees should be familiar with the concepts that Nokia's network virtualization platform (VSP) is based.

Transitioning from 5620 SAM to the Network Services Platform (NSP17)

The Network Services Platform (NSP) is a purpose-built Carrier SDN platform designed to deliver network services on-demand in the most efficient way possible. NSP17 has evolved from the 5620 SAM and this workshop is being offered to help network managers transition to using the NSP17. Workshop participants

will be introduced to the functional components of the NSP, the Network Services Director (Service Provisioning/Connection Managers) and the Network Resource Controller (NRC-P/F/X/T). Hands-on lab exercises will familiarize you with service automation and assurance features of the NSP17 so you can:

- Create on-demand IP network services and provision them in seconds/minutes
- Add network awareness to on-demand service provisioning so you can make best use of available network assets
- Extend assurance capabilities – such as integrated OAM tests and network and service supervision - to SDN services so you can quickly move from trials to large scale deployments

Please refer to our website for a complete schedule and registration information.

FP₄ silicon

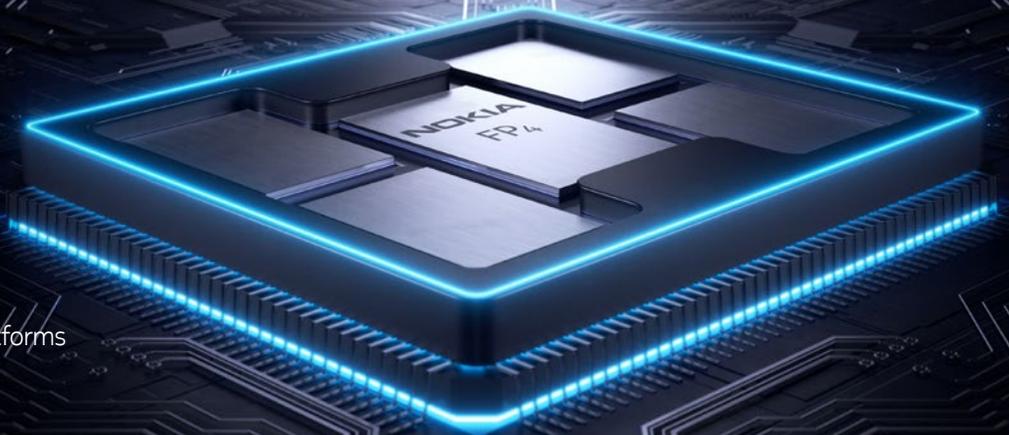
Powers unprecedented scale

- First 2.4Tb/s network processor
- Up to 6x better performance relative to alternatives
- Supports 100GE at massive scale as well as 400G and terabit speeds
- Enables a unique, network-integrated approach to DDoS mitigation
- Massive capacity upgrade for existing platforms
- Silicon advances and integration cut power consumption in half (per Tb)
- Supports deterministic performance under stringent traffic loads

7750 SR-s

Taking router performance to new heights

- Designed for massive scalability up to 288 Tb/s
- Highest density platform on the market, supporting up to 1,440 100GE interfaces in a compact 24RU form factor
- Supports up to 12 Tb/s of intelligent fan-in/fan-out per slot
- Evolves datacenter networking for service provider and webscale using FP-based system design concepts



Certification Program Practical Lab Exams



Nokia offers customers the opportunity to write the Practical lab exam during the SRexperts event.. The exam offered during the event are the SRC Certification practical lab exams, NRS II, MRP, SRA and the Nuage Virtuoso Certification program practical lab exam, NNIS.

In order to register for the exam, candidates must be eligible to write the exam. To be eligible for the practical labs please refer to our website for a complete list of pre-requisites for each of the practical lab exams.

Please refer to our website for registration information.

Service Routing Certification Program Overview



The Nokia Service Routing Certification (SRC) Program is designed to teach the skills and knowledge you need for building and supporting today's advanced IP/MPLS network and service environments. The program gives you the training required to design, operate and troubleshoot these new networks, allowing your company to get the most from its investment in IP service routing and your customers to enjoy the highest possible quality of experience. Learn more at www.networks.nokia.com/src

The following activities will be available at this year's SRexperts in Atlanta:

SRC Written Exams

NRSII Lab Workshops

Network Security Workshops

NFM-P - Network & Service Troubleshooting Workshops

Please refer to our website for a complete schedule and registration information.

Nuage Networks Virtuoso Certification Program Overview



Master your expertise in SDN networking with training and certification from Nuage Networks

Whether your goal is to develop a better understanding of Nuage Networks cloud-based SDN connectivity solutions or to establish yourself as a distinguished virtuoso, NN-VCP can get you there. NN-VCP is designed for engineers, operations, and installation professionals responsible for implementing cloud-based solutions using innovative products and technology from Nuage Networks. Seven courses and five certification tracks are available.

The following Nokia Nuage Virtuoso Certification Program activities will be available at this year's SRexperts in Atlanta:

Nuage Networks Virtuoso Certification Written Exams

Understanding Nuage Networks VNS and VCS Sessions

Nuage Networks VCS Hands-On Workshops

Nuage Networks VNS Hands-On Workshops

Please refer to our website for a complete schedule and registration information.

Join us

You are encouraged to connect with your peers prior to and after the event by joining our Facebook and LinkedIn groups, or tweet your experiences prior and during the event.



www.facebook.com/groups/SReXperts



www.linkedin.com/groups?gid=4483132&goback=.gna_4483132



twitter.com/nokianetworks
or **#SReXperts**



Contact us

Event Management

Karen Whitaker
Office: +49 711 821 43872
Mobile: +49 171 305 1967
karen.whitaker@nokia.com

Delegate Fee Payments

Antony Waite
Office: +44 162 877 3300
antony@conferencecontacts.co.uk

Certification Programs

Lori Porteous
Office: +1 613 784 8700
lori.porteous@nokia.com

Hotel Reservations

Rosalyn Giles
Office: +441628773300
rosalyn@conferencecontacts.co.uk

Nokia is a registered trademark of Nokia Corporation. Other product and company names mentioned herein may be trademarks or trade names of their respective owners.

Nokia Oyj
Karaportti 3
FI-02610 Espoo
Finland
Tel. +358 (0) 10 44 88 000

Product code: SR1704009925EN

© Nokia 2017

NOKIA