

The background of the top section is a dark brown rectangle with a complex network diagram. It consists of numerous small orange dots connected by thin, light brown lines, creating a web-like structure that fills the entire area.

NEXIUS

# NFV/SDN over OCP & Data Analytics

## TAKE CONTROL OF YOUR NETWORK

September | October 25, 2016

Rolf Lumpe | VP Business Development

Our NFV/SDN over OCP  
integration services

— provides a —  
*customized solution for*  
**HARDWARE & SOFTWARE INTEGRATION**

**WE HELP YOU**  
*take control of*

**SECURITY**

**FUNCTIONALITY**

**DELIVERY CYCLE**

 *increase*  
**CAPACITY &  
PERFORMANCE**

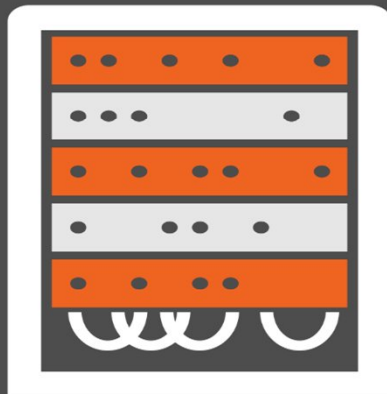
**WHILE**  
*reducing*  
**COST** 

	CPUCORE + RAM SIZE	STORAGECAPACITY + PERFORMANCE	NETWORKCAPACITY + PERFORMANCE
WEB FRONT-END	HIGH   LOW	LOW   LOW	HIGH   HIGH
DATABASE	HIGH   HIGH	HIGH   HIGH	HIGH   HIGH
DATA LAKE	HIGH   MEDIUM	HIGH   HIGH	HIGH   HIGH
OBJECT STORAGE	LOW   LOW	HIGH   HIGH	MEDIUM   MEDIUM
BACK-UP STORAGE	HIGH   MEDIUM	VERY HIGH   MEDIUM	MEDIUM   MEDIUM

*the*  
**WHAT**



**BUILDING**  
**OPENSTACK**  
**ON TOP OF OCP**



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Physical (power, rack height, others)

---

PXE boot model

---

IPMI in-band/single Ethernet

---

OpenCompute switch/software recommendations

---

Storage options

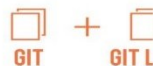
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*the*  
**HOW**



AUTOMATING  
**NFV**  
**DEPLOYMENT**

PULL HOT, VM I  
AND ANSIBLE I



PULL

CLEAR PREV  
DEPLOYED  
ENVIRONMEI



CLEAR

OPEN SOURCE  
AUTOMATION  
SERVER

3

UPLOAD

READY

SOLUTION IS  
READY



DEPLOYED SOLUTION

DEPLOY

DEPLOY THE  
ENVIRONMENT



Whether you are looking to...

TRIAL DISAGGREGATION  
AS A METHOD FOR NETWORK  
COST-REDUCTION

OR

LAUNCH A  
VIRTUALIZATION OVER  
OCP HARDWARE PROGRAM



**WE HAVE**  
*you covered*





# NEXIUS

HAS THE  
*specialized skills & experience*  
TO TAKE **YOUR PROJECT**

FROM

**REQUIREMENTS**

TO

**PRODUCTION**

*(and manage every step in-between)*

# NEXIUS

CLOUD SERVICES



## ARCHITECT

ADVISORY SERVICES

---

DISCOVERY SERVICES FOR AN EXECUTABLE SOW

---

ARCHITECTURAL DESIGN



## BUILD

HARDWARE DEPLOYMENT E.G. OCP, IF APPLICABLE

---

OPENSTACK DEPLOYMENT (SOFTWARE)



**TO IMPROVE...**

**OPERATIONAL  
EFFICIENCY**

**BUSINESS  
PROCESSES**

**STRATEGIC  
DECISION  
MAKING**

Nexius offers an extensive portfolio of  
**BIG DATA STANDARD & SENTIMENT ANALYTICS SERVICES**

as a stand alone service

**OR**

to support your OCP project

# NEXIUS

## SCALABLE ANALYTICS INFRASTRUCTURE SOLUTIONS:

Proven Experience

Technology Agnostic

Quality Resources

End-toEnd Telecom Expertise

A graphic featuring a dark gray rectangular background. The text "WHO IS NEXIUS ?" is centered on this background. "WHO IS" is in orange, "NEXIUS" is in white, and the question mark is also in white. The text is in a bold, sans-serif font. Above and below the dark gray rectangle are two horizontal orange bars. The entire composition is set against a white background with a thin, light gray rectangular border.

**WHO IS**  
**NEXIUS ?**



**NETWORK DEPLOYMENT**



**NETWORK ENGINEERING**



**TECHNOLOGY**



**SOFTWARE & BUSINESS INTELLIGENCE**

But we believe the

**WAY**

**YOU DO  
SOMETHING**

**IS IMPORTANT.**

That's why  
**WE ARE**



**VENDOR/TECHNOLOGY AGNOSTIC**



DEVOTED TO AUTOMATED  
PROCESSES



FOCUSED ON EMPLOYEE  
DEVELOPMENT AND TRAINING



COMMITTED TO OPEN SOURCE  
COMMUNITIES



EDUCATED ON THE ENTIRE  
NETWORK ECOSYSTEM



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# THANK YOU

## CONTACT

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-  mrscrollf

## BACKUP SLIDES



# NEXIUS CLOUD SERVICES

## ARCHITECT

### ADVISORY SERVICES <sup>#1</sup>

- Cloud migration considerations
- Evolution to advanced cloud infrastructure
- Understanding the design of the IaaS / PaaS component and leverage into migration trade-offs analysis
- Understanding the Big Data Science Angle

### DISCOVERY SERVICES WHICH LEADS TOWARDS AN EXECUTABLE SOW

- Preliminary analysis and technology stack recommendation to turn clients cloud objectives into an strategy
- Identifying application, service, infrastructure, and expansion plans
- Identifying existing cloud service components (if applicable) and analyzing them under cloud migration considerations
- Security & Service Governance
- Software and Hardware constraints

### ARCHITECTURAL DESIGN

- Collect detailed requirements and design the solution/architecture in detail

### NOTES

<sup>#1</sup> Expert advisory provided by Nexus

<sup>#2</sup> For order available in the US and in certain international markets

<sup>#3</sup> Optional based on customer requirements

## BUILD

### HARDWARE DEPLOYMENT E.G. OCP, IF APPLICABLE

- Collect application characteristics information (bare-metal, container, VM)
- Dimension the private cloud hardware based on the application characteristics
- Prepare a Bill-of-Material <sup>#2</sup>
- Prepare an underlay network design (addressing, naming, VLAN numbering, etc.)
- Prepare a virtual infrastructure manager design
- Receive the equipment, rack and stack it
- Cable and power the equipment
- Configure the equipment using bare-metal provisioning tools per underlay network design

### OPENSTACK DEPLOYMENT (SOFTWARE)

- Deploy OpenStack management cluster per design
- Either turn the keys to the customer at this step or continue to next step
- Obtain application artifacts (VM images, code binaries, keys, etc.)
- Build automation scripts using HEAT templates and Ansible scripts for application deployment <sup>#3</sup>
- Deploy applications, validate networking, reachability
- Test applications for functionality and performance <sup>#3</sup>

# USECASE > VIRTUALIZATION: VEPC FOR MOBILITY CARRIER

## CUSTOMER PROBLEM

Increase efficiencies & enable transition to new virtualized environments for mobility application.

## NEXIUS SOLUTION

- ▶ Integrator partner leading beach-head virtualization projects
- ▶ Focus on architecture, scaling and network integration via project-specific approach to address entire product life cycle
- ▶ Blended Resource Model with team of senior leads, specialists (e.g., VMWare expertise), on-site engineers, and near-time staff
- ▶ Team coordination, collaboration, & communication with staff, vendors, carrier's project teams, & Ops
- ▶ Automation tools for increased efficiency
- ▶ Embedded engineering resources to support transition from labs to DevOps
- ▶ Team training & skill development for long-term vision

## RESULTS

- ▶ Enabled early implementation of Mobility Application
- ▶ Met aggressive timelines & markers toward vision
- ▶ Seamlessly transitioned solutions developed in the labs to Ops Team
- ▶ Stabilized & reduced costs
- ▶ Enabled customer to handle a greater volume of projects
- ▶ Ensured expertise & tools followed project downstream
- ▶ 25% cost reduction
- ▶ 60% more projects delivered; same team size

# USECASE > NFV PROOF OF CONCEPT LAB

## CUSTOMER CHALLENGE

Operator considering early deployment of virtualized environment for some targeted applications requested recommendations.

## NEXIUS SOLUTION

- ▶ Nexus developed technical objectives and created a Proof of Concept lab for a specialized virtualized packet core with a vendor
- ▶ Reviewed performance requirements
- ▶ Researched implementation options
- ▶ Surveyed operational challenges
- ▶ Translated findings in a list of technical requirements and recommendations

## RESULTS

- ▶ Leveraged PoC findings to develop a list of requirements for software vendors, hardware vendors, as well as a virtualization environment
- ▶ Ensured investment in a virtualization platform that was aligned with the network functions it supports

# USECASE > BIG DATA

## CUSTOMER PROBLEM

Marketing automation group within a financial services company was looking to explore best technology fit for their analytics needs.

## NEXIUS SOLUTION

- ▶ Technology consulting: Evaluated top viable technology stack candidates
- ▶ Defined optimal platform, tools, and technologies for the business use cases
- ▶ Provided design, architecture, and delivery plan
- ▶ Built, integrated, tested, and delivered platform

## RESULTS

- ▶ Deployed flexible marketing automation platform that allows new data ingestion in days rather than weeks
- ▶ Unified analytics via collocated Marketing and Business data