Integrated NFV/SDN Solutions Architecture: A Systematic Study
Report 3 - Data Extraction

Michel Sales Bonfim

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Title: ForCES Applicability to SDN-Enhanced NFV

PoC: PoC#14 - ForCES Applicability for NFV and integrated SDN (ETSI NFV ISG)

Q1) Which environments the integrated NFV/SDN solution are applied?

Instantiation of prototypes of the Packet Gateway (PGW) and the Service Gateway (SGW) of the Third Generation Partnership Project's (3GPP) Evolved Packet Core (EPC).

Q2) What problems the integrated NFV/SDN solutions try to solve?

Reduces CAPEX an OPEX, Reduces Energy Consumption and Fast Delivery for new network functionality

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Orchestrator ForCES CE Application (CE Manager)

VNF Manager - ForCES CE Application (FE Manager)

VIM - ForCES Infrastructure Manager Application (Application on the top of CE)

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - switch or router as a VNF

SDN Applications - VNFs

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Not specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - Forwarding and Control Element Separation (ForCES) protocol.

Q3.7) Which are the SDN Controller?

Controller in VIM - Not specified

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Interconnecting VNFs

Title: Integrated SDN/NFV management and orchestration architecture for dynamic deployment of virtual SDN control instances for virtual tenant networks [invited]

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Cloud and WANs (Communication Inter-DC)

Q2) What problems the integrated NFV/SDN solutions try to solve?

Availability, Reliability and Multi-tenant transport networks

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed Orchestrator (Python scripts)

VNF Manager - Proposed VNF Manager (vSDN Manager - Python scripts)

VIM - OpenStack

Q3.3) Does the solution support multiple VIMs?

Yes

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - NFVI and VNF

SDN Resources - physical switch or router and virtual switch or router

SDN Applications - VIM (Neutron) and OSS-BSS (tenant network services)

Q3.5) Which are the SDN Northbound APIs?

Controller in Control Orchestration Protocol (COP) - YANG/RESTconf

Q3.6) Which are the SDN Southbound APIs?

Controller in NFVI - OpenFlow 1.0

Controller in VNF - OpenFlow 1.0

Q3.7) Which are the SDN Controllers?

Controller in NFVI - OpenDayLight

Controller in VNF - OpenDayLigth or FloodLight

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

Yes. Reliability, administrative domains interaction, NaaS management and multilayer transport fault management.

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in NFVI - Network Connectivity in the NFVI

Controller in VNF - Control of Virtual Networks.

Title: Elastic Network Functions: Opportunities and Challenges

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Any enviroments that NFV supports.

Q2) What problems the integrated NFV/SDN solutions try to solve?

Elasticity in Network Functions

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed UNIFY Service Layer

VNF Manager - Proposed UNIFY Service Layer

VIM - Proposed UNIFY Orchestration Layer

Q3.3) Does the solution support multiple VIMs?

Yes

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - NFVI and VIM

SDN Resources - physical switch or router and virtual switch or router

SDN Applications - VIM and OSS/BSS

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Not specified

Controller in NFVI - Not specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - Not specified

Controller in NFVI - Not specified

Q3.7) Which are the SDN Controllers?

Controller in VIM - Not specified

Controller in NFVI - Not specified

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

Yes. Administrative domains interaction and NaaS management

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Network Connectivity in the NFVI and Interconnecting VNFs

Title: VNGuard: An NFV/SDN combination framework for provisioning and managing virtual firewalls

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Cloud

Q2) What problems the integrated NFV/SDN solutions try to solve?

Security, Flexibility and Adaptivity.

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Not Specified

VNF Manager - Not Specified

VIM - OpenStack

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - NFVI

SDN Resources - virtual switch or router

SDN Applications - VNF and OSS/BSS

Q3.5) Which are the SDN Northbound APIs?

Controller in NFVI - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in NFVI - OpenFlow (Version not specified)

Q3.7) Which are the SDN Controllers?

Controller in NFVI - Not Specified

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in NFVI - Control of Virtual Networks

Title: Toward an SDN-enabled NFV architecture

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Any enviroments that NFV supports.

Q2) What problems the integrated NFV/SDN solutions try to solve?

Security, Flexibility, Scalability and Performance

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

Yes

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Not Specified

VNF Manager - Not Specified

VIM - Not Specified

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - NFVI

SDN Resources - physical switch or router

SDN Applications - VNF

Q3.5) Which are the SDN Northbound APIs?

Controller in NFVI - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in NFVI - OpenFlow (Version Not Specified)

Q3.7) Which are the SDN Controllers?

Controller in NFVI - Not Specified

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in NFVI - Network Connectivity in the NFVI

Title: The SELFNET Approach for Autonomic Management in an NFV/SDN Networking Paradigm

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

5G Networks, Cloud, WANs

Q2) What problems the integrated NFV/SDN solutions try to solve?

Scalability, Flexibility, Security, Reliability, Fast Delivery for new network functionality, Intelligent automation, Reduces CAPEX and OPEX.

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Not Specified

VNF Manager - Not Specified

VIM - Not Specified

Q3.3) Does the solution support multiple VIMs?

Yes

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM and VNF

SDN Resources - physical switch or router and virtual switch or router

SDN Applications - VNF and OSS/BSS

Q3.5) Which are the SDN Northbound APIs?

SELFNET Access Layer - REST API

Q3.6) Which are the SDN Southbound APIs?

Controller in VNF - Not Specified

Controller in VIM - Not Specified

Q3.7) Which are the SDN Controllers?

Controller in VNF - Not Specified

Controller in VIM - Not Specified

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VNF - Interconnecting VNFs

Controller in VIM - Network Connectivity in the NFVI

Title: GNFC: Towards network function cloudification

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied? Cloud

Q2) What problems the integrated NFV/SDN solutions try to solve?

Scalability, Reliability, Flexibility and Reduces CAPEX and OPEX

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

Yes

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - GNFC Manager (Proposed)

VNF Manager - GNFC Manager (Proposed) and GNFC Agent (Proposed)

VIM - OpenDayLight and GNFC Network Controller (Proposed)

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - virtual switch or router (OpenVSwitch)

SDN Applications - VIM and OSS/BSS

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - REST API

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow 1.3

Q3.7) Which are the SDN Controllers?

Controller in VIM - OpenDayLight

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Interconnecting VNFs

Title: UNIFYing Cloud and Carrier Network Resources: An Architectural View

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied? Cloud and WAN

Q2) What problems the integrated NFV/SDN solutions try to solve? Scalability, Flexibility, Intelligent Automation, Dynamic Service Chaining, Elasticity in Network Functions and Reduces CAPEX an OPEX.

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed UNIFY Service Layer (Developed over POX)

VNF Manager - Proposed UNIFY Service Layer (Developed over POX)

VIM - Proposed UNIFY Orchestration Layer (Developed over POX)

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - NFVI and VIM

SDN Resources - physical switch or router or virtual switch or router

SDN Applications - VIM and OSS/BSS

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Not Specified

Controller in NFVI - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - Not Specified

Controller in NFVI - OpenFlow (Version 1.0 in POX and Version Not Specified in OpenDayLight)

Q3.7) Which are the SDN Controllers?

Controller in VIM - Proposed Controller Adapter (CA)

Controller in NFVI - POX and OpenDayLight

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

Yes. Administrative domains interaction and NaaS management.

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Interconnecting VNFs

Controller in NFVI - Network Connectivity in the NFVI

Title: Toward dynamic virtualized network services in telecom operator networks

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied? Cloud and CPE

Q2) What problems the integrated NFV/SDN solutions try to solve? Dynamic Service Chaining, Adaptability, Fast Delivery for New Network Functionality and Reduces CAPEX and OPEX.

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

Yes

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed Global Orchestrator

VNF Manager - Proposed Global Orchestrator

VIM Type 1 (VIM 1) - Proposed Global Orchestrator (COntroller Adapter) + OpenStack (Heat)

VIM Type 2 (VIM 2) - Proposed Global Orchestrator (COntroller Adapter) + Proposed Node Resource Manager

Q3.3) Does the solution support multiple VIMs?

Yes

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM 1 and VIM 2

SDN Resources - virtual switch or router

SDN Applications - VIM 1, VIM 2 and OSS/BSS

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM 1 - RESTCONF API

Controller in VIM 2 - REST API

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM 1 - OpenFlow 1.3

Controller in VIM 2 - OpenFlow Not Specified

Q3.7) Which are the SDN Controllers?

Controller in VIM 1 - OpenDayLight

Controller in VIM 2 - Not Specified

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

Yes. Administrative domains interaction, NaaS management.

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM 1 - Interconnecting VNFs

Controller in VIM 2 - Interconnecting VNFs

Title: Toward a telco cloud environment for service functions

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Cloud and WAN

Q2) What problems the integrated NFV/SDN solutions try to solve?

Rapid Inovation, Flexibility, Reduces CAPEX and OPEX, Reliability, Dynamic Service Functions, Intelligent Automation

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

Yes

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Clou4NFV Orchestrator (Proposed Python Implementation)

VNF Manager - Clou4NFV Orchestrator (Proposed Python Implementation)

VIM - OpenStack and WAN Controller

Q3.3) Does the solution support multiple VIMs?

Yes

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - virtual switch or router

SDN Applications - VIM and OSS/BSS

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Neutron API (REST-based)

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow

Q3.7) Which are the SDN Controllers?

Controller in VIM - OpenDayLight

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Interconnecting VNFs

Title: Container-based network function virtualization for software-defined networks

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied? Cloud

Q2) What problems the integrated NFV/SDN solutions try to solve? Fast Delivery for New Network Functionality, Reduces CAPEX an OPEX, Rapid Innovation and Dynamic Service Chaining

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed GLANF Manager (OpenDayLight Module)

VNF Manager - Proposed GLANF Agent

VIM Type 1 - Proposed GLANF Router (OpenDayLight Module)

VIM Type 2 - Proposed GLANF Agent

Q3.3) Does the solution support multiple VIMs?

Yes.

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM 1 and VIM 2

SDN Resources - physical switch or router and virtual switch or router

SDN Applications - VIM 1 and VIM 2.

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM 1 - REST API

Controller in VIM 2 - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM 1 - OpenFlow (Version Not Specified)

Controller in VIM 2 - OVSDB

Q3.7) Which are the SDN Controllers?

Controller in VIM 1 - OpenDayLight

Controller in VIM 2 - Proposed GLANF Agent

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

Yes. NaaS management

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM 1 - Connectivity in the NFVI

Controller in VIM 2 - Interconnecting VNFs

Title: A solution for SGi-LAN services virtualization using NFV and SDN
PoC: PoC#15 (ETSI NFV ISG)

Q1) Which environments the integrated NFV/SDN solution are applied? 3GPP SGi-LAN for 4G Networks

Q2) What problems the integrated NFV/SDN solutions try to solve? Reduces CAPEX an OPEX, Reduces Energy Consumption, Fast Delivery for New Network Functionality, Scalability.

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?
No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?
Orchestrator - Not Specified
VNF Manager - Not Specified
VIM - RHEL OpenStack

Q3.3) Does the solution support multiple VIMs?
No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?
SDN Controller - NFVI
SDN Resources - physical switch or router and virtual switch or router
SDN Applications - NFVI

Q3.5) Which are the SDN Northbound APIs?
Controller in NFVI - REST API

Q3.6) Which are the SDN Southbound APIs?
Controller in NFVI - OpenFlow and LISP

Q3.7) Which are the SDN Controllers?
Controller in NFVI - OpenDayLight Helium

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?
No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?
Controller in NFVI - Interconnecting VNFs

Title: Cloud4NFV: A platform for Virtual Network Functions

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Cloud and WAN

Q2) What problems the integrated NFV/SDN solutions try to solve?

Reduces CAPEX an OPEX, Rapid Innovation, Reduces Energy Consumption, Fast Delivery for New Network Functionality, Intelligent Automation and Dynamic Service Functions

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

Yes

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Clou4NFV Orchestrator (Proposed Python Implementation)

VNF Manager - Clou4NFV Orchestrator (Proposed Python Implementation)

VIM - OpenStack and WAN Controller

Q3.3) Does the solution support multiple VIMs?

Yes

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - virtual switch or router

SDN Applications - VIM and OSS/BSS

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Neutron API (REST-based)

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow

Q3.7) Which are the SDN Controllers?

Controller in VIM - OpenDayLight

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Interconnecting VNFs

Title: Enabling network function combination via service chain instantiation

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Enterprise Networks

Q2) What problems the integrated NFV/SDN solutions try to solve?

Scalability, Reduces CAPEX an OPEX, Reduces Energy Consumption, Dynamic Service Chaining

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed Matchmaker Controller (developed over the Floodlight)

VNF Manager - Not Specified

VIM - Proposed Matchmaker Controller (developed over the Floodlight)

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - physical switch or router

SDN Applications - OSS/BSS

Q3.5) Which are the SDN Northbound APIs?

Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow

Q3.7) Which are the SDN Controllers?

Controller in VIM - Floodlight

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Interconnecting VNFs

Title: The SDN/NFV Cloud Computing platform and transport network of the ADRENALINE testbed

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Cloud and WAN

Q2) What problems the integrated NFV/SDN solutions try to solve?

Rapid Innovation, Flexibility and Multi-tenant transport networks

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

Yes

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed Orchestrator (Python scripts)

VNF Manager - Proposed vPCE and vSDN Manager (Python scripts)

VIM - Proposed SDN IT and Network Orchestrator (SINO) and OpenStack

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - NFVI and VNF

SDN Resources - physical switch or router and virtual switch or router

SDN Applications - NFVI and OSS/BSS

Q3.5) Which are the SDN Northbound APIs?

Controller in NFVI - REST API

Controller in VNF - REST API

Q3.6) Which are the SDN Southbound APIs?

Controller in NFVI - OpenFlow (Version Not Specified)

Controller in VNF - OpenFlow (Version Not Specified)

Q3.7) Which are the SDN Controllers?

Controller in NFVI - OpenDayLight

Controller in VNF - OpenDayLight and Floodlight

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

Yes. Administrative domains interaction, NaaS management

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in NFVI - Network Connectivity in the NFVI and Interconnecting VNFs

Controller in VNF - Control of Virtual Networks.

Title: Transport Network Function Virtualization

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Cloud and WAN

Q2) What problems the integrated NFV/SDN solutions try to solve?

Flexibility, Scalability, Reduces Energy Consumption, Multi-tenant transport networks

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

Yes

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed Orchestrator (Python scripts)

VNF Manager - Proposed vPCE Manager (Python scripts)

VIM - Proposed SDN IT and Network Orchestrator (SINO), OpenStack Havana and OpenDayLight

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - physical switch or router and virtual switch or router

SDN Applications - VIM

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - REST API

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow 1.0

Q3.7) Which are the SDN Controllers?

Controller in VIM - OpenDayLight

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Network Connectivity in the NFVI, Interconnecting VNFs

Title: Multitenant Transport Networks With SDN/NFV

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Cloud and WAN

Q2) What problems the integrated NFV/SDN solutions try to solve?

Rapid Innovation, Reduces CAPEX an OPEX, Multi-tenant transport networks

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

Yes

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed Orchestrator (Python scripts)

VNF Manager - Proposed VNF Managers (Python scripts)

VIM - Proposed SDN IT and Network Orchestrator (Python scripts) and OpenStack Havana

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - NFVI and VNF

SDN Resources - physical switch or router and virtual switch or router

SDN Applications - NFVI and OSS/BSS

Q3.5) Which are the SDN Northbound APIs?

Controller in NFVI - REST API

Controller in VNF - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in NFVI - OpenFlow (Version Not Specified)

Controller in VNF - OpenFlow (Version Not Specified)

Q3.7) Which are the SDN Controllers?

Controller in NFVI - OpenDayLight Hydrogen

Controller in VNF - OpenDayLight and ONUS

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

Yes. Administrative domains interaction, NaaS management

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in NFVI - Network Connectivity in the NFVI and Interconnecting VNFs

Controller in VNF - Control of Virtual Networks.

Title: New concepts for traffic, resource and mobility management in software-defined mobile networks

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

4G Networks - Evolved Packet Core (EPC)

Q2) What problems the integrated NFV/SDN solutions try to solve?

Adaptibility, Scalability, Reduces CAPEX an OPEX, Reduces Energy Consumption and Simplifies Network Management

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Not Specified

VNF Manager - Not Specified

VIM - Not Specified

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - NFVI

SDN Resources - physical switch or router and virtual switch or router

SDN Applications - VNFs

Q3.5) Which are the SDN Northbound APIs?

Controller in NFVI - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in NFVI - OpenFlow (Version Not Specified)

Q3.7) Which are the SDN Controllers?

Controller in NFVI - Not Specified

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in NFVI - Network Connectivity in the NFVI and Interconnecting VNFs

Title: Introducing network-aware scheduling capabilities in OpenStack

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Cloud

Q2) What problems the integrated NFV/SDN solutions try to solve?

Reduces CAPEX an OPEX, Reduces Energy Consumption, Fast Delivery for New Network Functionality, Reliability, Flexibility, Scalability and Simplifies Network Management, Dynamic Service Chaining

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - No specified

VNF Manager - Extended OpenStack Vanilla

VIM - Extended OpenStack Vanila

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - virtual switch or router

SDN Applications - VIM

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - REST API

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow (Version Not Specified) and OVSDB

Q3.7) Which are the SDN Controllers?

Controller in VIM - OpenDayLight

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Interconnecting VNFs

Title: Protocols to support autonomy and control for NFV in software defined networks

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Enterprise Networks

Q2) What problems the integrated NFV/SDN solutions try to solve?

Flexibility, Reduces CAPEX an OPEX, Reduces Energy Consumption and Dynamic Service Chaining

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

Yes

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed SDNFV Application (no implementation)

VNF Manager - Proposed NF Manager (no implementation)

VIM - Proposed NF Manager (no implementation) and Proposed SDN Controller (no implementation)

Q3.3) Does the solution support multiple VIMs?

Yes

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - virtual switch or router

SDN Applications - VIM

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow

Q3.7) Which are the SDN Controllers?

Controller in VIM - Not Specified

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No.

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Interconnecting VNFs

Title: vConductor: An enabler for achieving virtual network integration as a service

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Enterprise Network

Q2) What problems the integrated NFV/SDN solutions try to solve?

Reduces CAPEX an OPEX, Reduces Energy Consumption, Flexibility Intelligent Automation and Fast Delivery for New Network Functionality

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed vCoductor Core

VNF Manager - Ansible

VIM - OpenStack and OpenDayLight

Q3.3) Does the solution support multiple VIMs?

Yes

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - physical switch or router

SDN Applications - VIM

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - REST API

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow

Q3.7) Which are the SDN Controllers?

Controller in VIM - OpenDayLight

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No.

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Network Connectivity in the NFVI

Title: Wireless software-defined networks (W-SDNs) and network function virtualization (NFV) for 5G cellular systems: An overview and qualitative evaluation

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

5G Networks

Q2) What problems the integrated NFV/SDN solutions try to solve?

Reduces CAPEX an OPEX, Reduces Energy Consumption, Fast Delivery for New Network Functionality, Flexibility, Adaptibility, Scalability and Rapid Innovation

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed Applications over Network Controller (Not Implemented)

VNF Manager - Not Sperfied

VIM - Proposed Network Controller (Not Implemented)

Q3.3) Does the solution support multiple VIMs?

Yes

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - physical switch or router and virtual switch or router

SDN Applications - VNF

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow (Version Not Specified)

Q3.7) Which are the SDN Controllers?

Controller in VIM - Not Specified

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Network Connectivity in the NFVI and Control of Virtual Networks

Title: SDN/NFV orchestration for dynamic deployment of virtual SDN controllers as VNF for multi-tenant optical networks

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Cloud and WAN

Q2) What problems the integrated NFV/SDN solutions try to solve?

Simplifies Network Management and Multi-tenant transport networks

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

Yes

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed Orchestrator (Python scripts)

VNF Manager - Proposed vSDN Manager (Python scripts)

VIM - OpenStack Havana, OpenDayLight and Proposed Optical Network Hypervisor

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM and VNF

SDN Resources - virtual switch or router

SDN Applications - VIM and OSS/BSS

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - REST API

Controller in VNF - REST API

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow 1.0

Controller in VNF - OpenFlow (Version Not Specified)

Q3.7) Which are the SDN Controllers?

Controller in VIM - OpenDayLight

Controller in VNF - OpenDayLight and Floodlight

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

Yes. Administrative domains interaction and NaaS management.

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Interconnecting VNFCs or Interconnecting VNFs

Controller in VNF - Control of Virtual Networks

Title: Multi-tenant transport networks with SDN/NFV

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Cloud and WAN

Q2) What problems the integrated NFV/SDN solutions try to solve?

Reduces CAPEX an OPEX, Simplifies Network Management, Rapid Innovation and Multi-tenant transport networks

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

Yes

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed Orchestrator (Python scripts)

VNF Manager - Proposed vSDN Manager (Python scripts)

VIM - Proposed SDN IT and Network Orchestrator (SINO) and OpenStack Havana

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - NFVI and VNF

SDN Resources - physical switch or router and virtual switch or router

SDN Applications - NFVI and OSS/BSS

Q3.5) Which are the SDN Northbound APIs?

Controller in NFVI - REST API

Controller in VNF - REST API

Q3.6) Which are the SDN Southbound APIs?

Controller in NFVI - OpenFlow (Version Not Specified)

Controller in VNF - OpenFlow (Version Not Specified)

Q3.7) Which are the SDN Controllers?

Controller in NFVI - OpenDayLight

Controller in VNF - OpenDayLight and Floodlight

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

Yes. Administrative domains interaction and NaaS management.

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in NFVI - Network Connectivity in the NFVI and Interconnecting VNFs

Controller in VNF - Control of Virtual Networks

Title: Towards a Network Abstraction Model for SDN

PoC: PoC#14 - ForCES Applicability for NFV and integrated SDN

Q1) Which environments the integrated NFV/SDN solution are applied?

Any enviroments that NFV supports

Q2) What problems the integrated NFV/SDN solutions try to solve?

Reduces CAPEX an OPEX, Fast Delivery for new network functionality, Elasticity in Network Function and Rapid Innovation

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

Yes

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed Network Manager

VNF Manager - Proposed Network Manager

VIM - Proposed Network Manager

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - switch or router as a VNF

SDN Applications - OSS/BSS

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Not specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - Forwarding and Control Element Separation (ForCES) protocol.

Q3.7) Which are the SDN Controllers?

Controller in VIM - Proposed Network Manager

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Interconnecting VNFs

Title: Slicing the next mobile packet core network

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

4G Networks - Evolved Packet Core (EPC) 3G Networks - Mobile Packet Core

Q2) What problems the integrated NFV/SDN solutions try to solve?

Reduces CAPEX an OPEX, Fast Delivery for New Network Functionality, Reliability, Flexibility, Security, Scalability, Dynamic Service Chaining, Rapid Innovation, Simplifies Network Management

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Not Specified

VNF Manager - Not Specified

VIM - Cloud Manager (Not Specified) and OpenFlow Controller (Not Specified)

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM and VNF

SDN Resources - virtual switch or router

SDN Applications - VIM and VNF

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Not Specified

Controller in VNF - REST API

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow (Version Not Specified)

Controller in VNF - Open API (extented OpenFlow)

Q3.7) Which are the SDN Controllers?

Controller in VIM - Not Specified

Controller in VNF - Not Specified

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Interconnecting VNFs

Controller in VNF - Control of Virtual Networks

Title: Policy-based orchestration of NFV services in Software-Defined Networks

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Enterprise Networks

Q2) What problems the integrated NFV/SDN solutions try to solve?

Reduces CAPEX an OPEX, Fast Delivery for new network functionality, Flexibility, Multi-tenant transport networks and Intelligent Automation

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed NFV Orchestrator

VNF Manager - Proposed NFV Orchestrator

VIM - OpenFlow Controller (Not Specified)

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - physical switch or router and virtual switch or router

SDN Applications - VNF

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow (Version Not Specified)

Q3.7) Which are the SDN Controllers?

Controller in VIM - Not Specified

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Network Connectivity in the NFVI

Title: Multi-tenancy for Virtualized Network Functions

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

4G Networks - Evolved Packet Core (EPC)

Q2) What problems the integrated NFV/SDN solutions try to solve?

Reduces CAPEX an OPEX, Fast Delivery for New Network Functionality, Reliability, Elasticity in Network Function, Flexibility, Security, Scalability, Dynamic Service Chaining and Multi-tenant transport networks

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

Yes

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - OpenSDNCore Orchestrator

VNF Manager - OpenSDNCore Orchestrator

VIM - OpenStack and OpenDayLight Helium

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - virtual switch or router

SDN Applications - VIM

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - REST API

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow (Version Not Defined) and OVSDB

Q3.7) Which are the SDN Controllers?

Controller in VIM - OpenDayLight Helium

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Network Connectivity in the NFVI and Interconnecting VNFs

Title: OpenSCaaS: an open service chain as a service platform toward the integration of SDN and NFV

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Enterprise Networks

Q2) What problems the integrated NFV/SDN solutions try to solve?

Reduces CAPEX an OPEX, Flexibility, Adaptibility, Scalability and Dynamic Service Chaining.

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - OpenSCaaS NFV Controller (Not Implemented)

VNF Manager - OpenSCaaS NFV Controller (Not Implemented)

VIM - OpenSCaaS NFV, SDN and Policy Controllers (Not Implemented)

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - virtual switch or router

SDN Applications - VIM

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow 1.3

Q3.7) Which are the SDN Controllers?

Controller in VIM - OpenSCaaS SDN Controller (Not Implemented)

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Interconnecting VNFs

Title: Deploying elastic routing capability in an SDN/NFV-enabled environment

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Cloud

Q2) What problems the integrated NFV/SDN solutions try to solve?

Fast Delivery for New Network Functionality, Elasticity in Network Function, Flexibility and Scalability

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed UNIFY Orchestration Layer (Developed over POX)

VNF Manager - Proposed UNIFY Orchestration Layer (Developed over POX)

VIM - OpenStack and POX

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM and VNF

SDN Resources - virtual switch or router

SDN Applications - VIM and VNF

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Not Specified

Controller in VNF - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow 1.0

Controller in VNF - OpenFlow (Version Not Specified)

Q3.7) Which are the SDN Controllers?

Controller in VIM - POX

Controller in VNF - Ryu

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

Yes. NaaS management.

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Interconnecting VNFs

Controller in VNF - Control of Virtual Networks

Title: An extended SDN architecture for network function virtualization with a case study on intrusion prevention

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Any enviroments that NFV supports

Q2) What problems the integrated NFV/SDN solutions try to solve?

Flexibility, Scalability and Dynamic Service Chaining

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Not Specified

VNF Manager - Not Specified

VIM - Not Specified

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - NFVI

SDN Resources - virtual switch or router

SDN Applications - VIM

Q3.5) Which are the SDN Northbound APIs?

Controller in NFVI - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in NFVI - OpenFlow 1.3

Q3.7) Which are the SDN Controllers?

Controller in NFVI - Ryu

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in NFVI - Interconnecting VNFs

Title: Implementing dynamic chaining of Virtual Network Functions in OpenStack platform

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Cloud

Q2) What problems the integrated NFV/SDN solutions try to solve?

Flexibility and Dynamic Service Chaining

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

Yes

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed Service Chaining Orchestrator (Not Implemented)
VNF Manager - Proposed Service Chaining Orchestrator (Not Implemented)
VIM - OpenStack and POX

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM
SDN Resources - physical switch or router and virtual switch or router
SDN Applications - OSS/BSS

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow 1.0

Q3.7) Which are the SDN Controllers?

Controller in VIM - POX

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Interconnecting VNFs and Control of Virtual Networks

Title: On the Implementation of NFV over an OpenFlow Infrastructure: Routing Function Virtualization

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Enterprise Networks

Q2) What problems the integrated NFV/SDN solutions try to solve?

Reduces CAPEX an OPEX, Reduces Energy Consumption, Flexibility and Simplifies Network Management

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Not Specified

VNF Manager - Not Specified

VIM - Floodlight

Q3.3) Does the solution support multiple VIMs?

Yes

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - physical switch or router and virtual switch or router

SDN Applications - VNF

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - REST API

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow (Version Not Specified)

Q3.7) Which are the SDN Controllers?

Controller in VIM - Floodlight

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

Yes. Administrative domains interaction

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Network Connectivity in the NFVI

Title: SDN and NFV integration in generalized mobile network architecture

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

4G Networks - Evolved Packet Core (EPC)

Q2) What problems the integrated NFV/SDN solutions try to solve?

Reduces CAPEX an OPEX, Reduces Energy Consumption, Availability, Reliability and Scalability

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Not Specified

VNF Manager - Not Specified

VIM - OpenStack Icehouse

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VNF

SDN Resources - physical switch or router and virtual switch or router

SDN Applications - VNF

Q3.5) Which are the SDN Northbound APIs?

Controller in VNF - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VNF - OpenFlow (Version Not Specified)

Q3.7) Which are the SDN Controllers?

Controller in VNF - Ryu

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VNF - Network Connectivity in the NFVI

Title: Cross-layer service to network orchestration

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Cloud and WAN

Q2) What problems the integrated NFV/SDN solutions try to solve?

Availability, Reliability, Simplifies Network Management, Flexibility, Adaptibility, QoS Management

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No.

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - OpenSDNCore Orchestrator (Extended)

VNF Manager - OpenSDNCore Orchestrator (Extended)

VIM - OpenStack and Ryu

Q3.3) Does the solution support multiple VIMs?

Yes.

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - virtual switch or router (OpenSDNCore Switches)

SDN Applications - OSS/BSS

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - REST API

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow (Version Not Specified)

Q3.7) Which are the SDN Controllers?

Controller in VIM - Ryu

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

Yes. Administrative domains interaction and NaaS management

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Network Connectivity in the NFVI and Control of Virtual Networks

Title: An open framework to enable NetFATE (Network Functions at the edge)

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Enterprise Networks and CPEs.

Q2) What problems the integrated NFV/SDN solutions try to solve?

Reduces CAPEX an OPEX, Reduces Energy Consumption, Flexibility, Intelligent Automation, Dynamic Service Chaining and Performance.

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

Yes.

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed Orchestration Engine (Not Specified)

VNF Manager - Proposed NFV Coordinator (C++ XEN API)

VIM - Proposed NFV Coordinator (C++ XEN API) and POX

Q3.3) Does the solution support multiple VIMs?

No.

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - virtual switch or router (OpenVSwitch)

SDN Applications - VIM

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow 1.0

Q3.7) Which are the SDN Controllers?

Controller in VIM - POX

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No.

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Network Connectivity in the NFVI and Interconnecting VNFs

Title: Rapid IP Rerouting with SDN and NFV

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Cloud

Q2) What problems the integrated NFV/SDN solutions try to solve?

Scalability, Availability and Performance

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No.

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Not Specified

VNF Manager - Not Specified

VIM - Ryu

Q3.3) Does the solution support multiple VIMs?

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - physical switch or router and virtual switch or router

SDN Applications - VNF

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow (Version Not Specified)

Q3.7) Which are the SDN Controllers?

Controller in VIM - Ryu

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Interconnecting VNFs

Title: SoftNet: A software defined decentralized mobile network architecture toward 5G

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

5G Networks

Q2) What problems the integrated NFV/SDN solutions try to solve?

Scalability, Flexibility, Performance, Adaptability, Fast Delivery for New Network Functionality and Simplifies Network Management

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed VNF Orchestrator (Not Implemented)

VNF Manager - Proposed VNF Orchestrator (Not Implemented)

VIM - Proposed VNF Orchestrator (Not Implemented) and Proposed SDN Controller (Not Implemented)

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - physical switch or router and virtual switch or router

SDN Applications - OSS/BSS

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - Not Specified

Q3.7) Which are the SDN Controllers?

Controller in VIM - Not Specified

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No.

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Interconnecting VNFs

Title: Towards Mobile Federated Network Operators

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

5G Networks

Q2) What problems the integrated NFV/SDN solutions try to solve?

Reduces CAPEX an OPEX and Reliability

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - OpenSDNCore Orchestrator

VNF Manager - OpenSDNCore Orchestrator

VIM - OpenStack and SDN Controller (Not Specified)

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - physical switch or router and virtual switch or router

SDN Applications - OSS/BSS

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - Not Specified

Q3.7) Which are the SDN Controllers?

Controller in VIM - Not Specified

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Control of Virtual Networks and Interconnecting VNFs

Title: Optical service chaining for network function virtualization

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Cloud and WAN

Q2) What problems the integrated NFV/SDN solutions try to solve?

Reduces CAPEX an OPEX, Reduces Energy Consumption, Dynamic Service Chaining, Scalability and Flexibility.

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No.

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed Orchestrator (Not Implemented)

VNF Manager - Proposed Orchestrator (Not Implemented)

VIM - Proposed SDN COntroller (Not Implemented) and Proposed Cloud and NFV Management (Not Implemented)

Q3.3) Does the solution support multiple VIMs?

No.

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - physical switch or router and virtual switch or router

SDN Applications - OSS/BSS and VIM

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow (Version Not Specified)

Q3.7) Which are the SDN Controllers?

Controller in VIM - Not Specified

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Interconnecting VNFs

Title: QoS enabled WiFi MAC layer processing as an example of a NFV service

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

WiFi Networks - WLAN

Q2) What problems the integrated NFV/SDN solutions try to solve?

Reduces Energy Consumption, Fast Delivery for New Network Functionality, Flexibility, Scalability and QoS Management.

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No.

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Not Specified

VNF Manager - Not Specified

VIM - OpenStack and OpenDayLight (extended with CloudMAC application)

Q3.3) Does the solution support multiple VIMs?

No.

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - virtual switch or router (extended OpenVSwitch)

SDN Applications - VIM

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow 1.3

Q3.7) Which are the SDN Controllers?

Controller in VIM - OpenDayLight

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No.

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Interconnecting VNFs

Title: Lightness: A Function-Virtualizable Software Defined Data Center Network With All-Optical Circuit/Packet Switching

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Data centers

Q2) What problems the integrated NFV/SDN solutions try to solve?

Availability, Adaptability, Reduces CAPEX an OPEX and Reduces Energy Consumption

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed NFV Orchestrator

VNF Manager - Proposed NFV Orchestrator

VIM - OpenDayLight

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - physical switch or router

SDN Applications - OSS/BSS

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - REST API

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow 1.0

Q3.7) Which are the SDN Controllers?

Controller in VIM - OpenDayLight

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Network Connectivity in the NFVI and Control of Virtual Networks

Title: SDN and NFV Dynamic Operation of LTE EPC Gateways for Time-Varying Traffic Patterns

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

4G Networks - Evolved Packet Core (EPC)

Q2) What problems the integrated NFV/SDN solutions try to solve?

Flexibility, Adaptability and Reduces Energy Consumption

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

Yes.

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed Operators Central Orchestrator (Not Implemented)

VNF Manager - Not Specified

VIM - Proposed Datacenters Orchestrator (Not Implemented) and Proposed Transport SDN Controller (Not Implemented)

Q3.3) Does the solution support multiple VIMs?

No.

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - physical switch or router

SDN Applications - OSS/BSS

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - Not Specified

Q3.7) Which are the SDN Controllers?

Controller in VIM - Not Specified

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Network Connectivity in the NFVI and Interconnecting VNFs

Title: Virtualization of cellular network EPC gateways based on a scalable SDN architecture

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

4G Networks - Evolved Packet Core (EPC)

Q2) What problems the integrated NFV/SDN solutions try to solve?

Scalability, Adaptability and Reduces CAPEX an OPEX

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Not Specified

VNF Manager - Not Specified

VIM - Proposed PGW Orchestrator (Not Implemented)

Q3.3) Does the solution support multiple VIMs?

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - physical switch or router

SDN Applications - VNF

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow (Version Not Specified)

Q3.7) Which are the SDN Controllers?

Controller in VIM - Not Specified

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Interconnecting VNFs

Title: Software defined service migration through legacy service integration into 4G networks and future evolutions

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

4G Networks - Evolved Packet Core (EPC)

Q2) What problems the integrated NFV/SDN solutions try to solve?

Reduces CAPEX an OPEX, Reduces Energy Consumption, Fast Delivery for New Network Functionality, Flexibility and Rapid Innovation

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

Yes

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Not Specified

VNF Manager - Not Specified

VIM - Proposed Edge Controller (Not Implemented) and Proposed SDN Core Controller (Not Implemented)

Q3.3) Does the solution support multiple VIMs?

Yes

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - physical switch or router

SDN Applications - VNF

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow (Version Not Specified)

Q3.7) Which are the SDN Controllers?

Controller in VIM - Not Specified

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

Yes. Scalability and administrative domains interaction

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Network Connectivity in the NFVI, Control of Virtual Networks and Interconnecting VNFs

Title: OpenSDWN: Programmatic Control over Home and Enterprise WiFi
PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

WiFi Networks - WLAN

Q2) What problems the integrated NFV/SDN solutions try to solve?

Flexibility, Scalability, Reduces Energy Consumption and Dynamic Service Chaining

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

Yes

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Not Specified

VNF Manager - Not Specified

VIM - Proposed OpenSDWN Controller (Implemented over the Floodlight)

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - physical switch or router and virtual switch or router

SDN Applications - VIM

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow 1.3

Q3.7) Which are the SDN Controllers?

Controller in VIM - Floodlight

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Network Connectivity in the NFVI, Control of Virtual Networks and Interconnecting VNFs

Title: A service-aware virtualized software-defined infrastructure

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

Enterprise Networks

Q2) What problems the integrated NFV/SDN solutions try to solve?

Reduces CAPEX an OPEX, Reduces Energy Consumption, Simplifies Network Management, Adptability, Reliability, Scalability, Elasticity in Network Function and Intelligent Automation

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

Yes.

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed Virtual Infrastructure Information Service and Proposed Virtual Infrastructure Management

VNF Manager - Proposed Virtual Infrastructure Management

VIM - Proposed Virtual Infrastructure Management

Q3.3) Does the solution support multiple VIMs?

No.

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - virtual switch or router

SDN Applications - VIM and OSS/BSS

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - Not Specified

Q3.7) Which are the SDN Controllers?

Controller in VIM - Not Specified

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No.

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Interconnecting VNFs

Title: Toward network function virtualization for cognitive wireless mesh networks: a TCP case study

PoC: N/A

Q1) Which environments the integrated NFV/SDN solution are applied?

WiFi Networks - Wireless Mesh Networks

Q2) What problems the integrated NFV/SDN solutions try to solve?

Performance and Reduces Energy Consumption

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Not Specified

VNF Manager - Not Specified

VIM - Proposed VIM/OF (Not Implemented)

Q3.3) Does the solution support multiple VIMs?

No.

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - physical switch or router

SDN Applications - VIM

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - Not Specified

Q3.7) Which are the SDN Controllers?

Controller in VIM - Not Specified

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No.

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Network Connectivity in the NFVI and Interconnecting VNFs

Title: CloudNFV - Open NFV Framework Project

PoC: POC#1

Q1) Which environments the integrated NFV/SDN solution are applied?

Cloud and WAN

Q2) What problems the integrated NFV/SDN solutions try to solve?

Flexibility, Scalability, Dynamic Service Chaining

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Vendor NFV Orchestrator

VNF Manager - Vendor NFV Orchestrator

VIM - OpenStack, Vendor Cloud Network Controller and Vendor WAN Network Controller..

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - physical switch or router and virtual switch or router

SDN Applications - VIM and OSS/BSS

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - REST API

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow (Version Not Specified)

Q3.7) Which are the SDN Controllers?

Controller in VIM - Not Specified

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

Yes. Administrative domains interaction and NaaS management

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Network Connectivity in the NFVI, Control of Virtual Networks and Interconnecting VNFs

Title: Service Chaining for NW function selection in Carrier Networks

PoC: POC#2

Q1) Which environments the integrated NFV/SDN solution are applied?

Enterprise Networks

Q2) What problems the integrated NFV/SDN solutions try to solve?

Dynamic Service Chaining

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No.

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed NFV Orchestrator

VNF Manager - Proposed NFV Orchestrator

VIM - Proposed Network Controller (Proposed Service Chaining Function and Ryu)

Q3.3) Does the solution support multiple VIMs?

No.

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - physical switch or router and virtual switch or router

SDN Applications - VIM

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - REST API

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow (Version Not Specified)

Q3.7) Which are the SDN Controllers?

Controller in VIM - Ryu

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No.

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Interconnecting VNFs

Title: Automated Network Orchestration

PoC: POC#8

Q1) Which environments the integrated NFV/SDN solution are applied?

Clou

Q2) What problems the integrated NFV/SDN solutions try to solve?

Intelligent Automation and Scalability

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No.

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed NFV Orchestrator

VNF Manager - Proposed NFV Orchestrator

VIM - OpenStack and OpenDayLight

Q3.3) Does the solution support multiple VIMs?

No.

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - physical switch or router and virtual switch or router

SDN Applications - VIM and OSS/BSS

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - REST API

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow 1.3

Q3.7) Which are the SDN Controllers?

Controller in VIM - OpenDayLight

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No.

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Network Connectivity in the NFVI and Interconnecting VNFCs

Title: POC#13Multi-Layered Traffic Steering for Gi-Lan

PoC: POC#13

Q1) Which environments the integrated NFV/SDN solution are applied?

4G Networks - SGi/Gi-LAN

Q2) What problems the integrated NFV/SDN solutions try to solve?

Adaptability and Elasticity in Network Function

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Not Specified

VNF Manager - Not Specified

VIM - OpenStack Vanilla

Q3.3) Does the solution support multiple VIMs?

No.

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VNF

SDN Resources - virtual switch or router

SDN Applications - VIM

Q3.5) Which are the SDN Northbound APIs?

Controller in VNF - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VNF - OpenFlow 1.3

Q3.7) Which are the SDN Controllers?

Controller in VNF - Vendor SDN Controller

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No.

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VNF - Interconnecting VNFCs

Title: NFVIaaS with Secure SDN-controlled WAN Gateway

PoC: POC#16

Q1) Which environments the integrated NFV/SDN solution are applied?

Cloud and WAN

Q2) What problems the integrated NFV/SDN solutions try to solve?

Multi-tenant transport networks and QoS Management.

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

Yes.

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed NFV/VIM Orchestrator

VNF Manager - Proposed NFV/VIM Orchestrator

VIM - Proposed NFV/VIM Orchestrator

Q3.3) Does the solution support multiple VIMs?

No.

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - NFVI

SDN Resources - virtual switch or router

SDN Applications - VIM

Q3.5) Which are the SDN Northbound APIs?

Controller in NFVI - REST API

Q3.6) Which are the SDN Southbound APIs?

Controller in NFVI - OpenFlow 1.3

Q3.7) Which are the SDN Controllers?

Controller in NFVI - Ryu

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

Yes. Administrative domains interaction, NaaS management

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in NFVI - Network Connectivity in the NFVI and Interconnecting VNFs

Title: Network intensive and compute intensive hardware acceleration

PoC: POC#21

Q1) Which environments the integrated NFV/SDN solution are applied?

Enterprise Networks

Q2) What problems the integrated NFV/SDN solutions try to solve?

Performance, Reduces CAPEX an OPEX, Reduces Energy Consumption and Adaptability.

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No.

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Not Specified

VNF Manager - Not Specified

VIM - Not Specified

Q3.3) Does the solution support multiple VIMs?

No.

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - NFVI

SDN Resources - physical switch or router

SDN Applications - VNF

Q3.5) Which are the SDN Northbound APIs?

Controller in NFVI - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in NFVI - OpenFlow (Version Not Specified)

Q3.7) Which are the SDN Controllers?

Controller in NFVI - Protocol Oblivious Forwarding (POF) controller (Implemented over Floodlight)

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in NFVI - Network Connectivity in the NFVI and Interconnecting VNFs

Title: E2E orchestration of Virtualised LTE CoreNetwork functions

PoC: POC#23

Q1) Which environments the integrated NFV/SDN solution are applied?

4G Networks - SGi/Gi-LAN

Q2) What problems the integrated NFV/SDN solutions try to solve?

Dynamic Service Chaining

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Vendor Orchestrator (HP)

VNF Manager - Vendor Multiple VNF Manager (Sansung, Telcoware, etc)

VIM - Vendor Multiple VIM (Sansung, Telcoware, etc)

Q3.3) Does the solution support multiple VIMs?

Yes.

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - NFVI

SDN Resources - physical switch or router and virtual switch or router

SDN Applications - OSS/BSS

Q3.5) Which are the SDN Northbound APIs?

Controller in NFVI - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in NFVI - OpenFlow (Version Not Specified)

Q3.7) Which are the SDN Controllers?

Controller in NFVI - Vendor Controller

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No.

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in NFVI - Interconnecting VNFs

Title: Virtual EPC with SDN functions in Mobile Backhaul Networks

PoC: POC#26

Q1) Which environments the integrated NFV/SDN solution are applied?

4G Networks - Evolved Packet Core (EPC)

Q2) What problems the integrated NFV/SDN solutions try to solve?

Flexibility, Adaptability and QoS Management

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No.

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Proposed Orchestrator (Developed over Ryu)

VNF Manager - Not Specified

VIM - Ryu

Q3.3) Does the solution support multiple VIMs?

No.

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - physical switch or router

SDN Applications - VNF

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - REST API

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow 1.3

Q3.7) Which are the SDN Controllers?

Controller in VIM - Ryu

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Network Connectivity in the NFVI and Interconnecting VNFs

Title: VoLTE Service based on vEPC and vIMS architecture

PoC: POC#27

Q1) Which environments the integrated NFV/SDN solution are applied?

4G Networks - Evolved Packet Core (EPC)

Q2) What problems the integrated NFV/SDN solutions try to solve?

Performance, Scalability and Availability.

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No.

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Three types of multi-vendor NFV environment were built up in this scenario:

(1) ZTE VNFM/VIM(Opencos) + HP NFVO (2) HP VIM (Helion)/NFVO + ZTE VNFM (3) ZTE VIM/VNFM/NFVO

VIM is OpenStack-based

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM and VNF

SDN Resources - physical switch or router and virtual switch or router

SDN Applications - VIM and VNF

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - Not Specified

Controller in VNF - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow (Version Not Defined)

Controller in VNF - OF-epc (extended by ZTE based on the OF-mpc interface that is in progress in ONF)

Q3.7) Which are the SDN Controllers?

Controller in VIM - Not Specified

Controller in VNF - Not Specified

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No.

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Network Connectivity in the NFVI

Controller in VNF - Interconnecting VNFs

Title: SDN Controlled VNF Forwarding graph

PoC: POC#28

Q1) Which environments the integrated NFV/SDN solution are applied?

Enterprise Netwokrs

Q2) What problems the integrated NFV/SDN solutions try to solve?

Dynamic Service Chaining

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

Yes

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Vendor Orchestrator (Huawei)

VNF Manager - Vendor VNF Manager (Riverbed)

VIM - OpenStack

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - NFVI

SDN Resources - physical switch or router and virtual switch or router

SDN Applications - OSS/BSS

Q3.5) Which are the SDN Northbound APIs?

Controller in NFVI - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in NFVI - OpenFlow 1.3

Q3.7) Which are the SDN Controllers?

Controller in NFVI - Vendor SDN Controller

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

No

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in NFVI - Interconnecting VNFs

Title: SDN-enabled Virtual EPC Gateway

PoC: POC#34

Q1) Which environments the integrated NFV/SDN solution are applied?

4G Networks - Evolved Packet Core (EPC) 4G Networks - SGi/Gi-LAN

Q2) What problems the integrated NFV/SDN solutions try to solve?

Performance and Scalability

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Vendor NFV Orchestrator (HP)

VNF Manager - Vendor NFV Manager (HP)

VIM - OpenStack and Vendor SDN Controller (ConteXtream - OpenDayLight-based)

Q3.3) Does the solution support multiple VIMs?

Yes

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - VIM

SDN Resources - physical switch or router and virtual switch or router

SDN Applications - VIM

Q3.5) Which are the SDN Northbound APIs?

Controller in VIM - REST API

Q3.6) Which are the SDN Southbound APIs?

Controller in VIM - OpenFlow 1.3

Q3.7) Which are the SDN Controllers?

Controller in VIM - Vendor SDN Controller (ConteXtream - OpenDayLight-based)

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

Yes. Distributed performance and scalability.

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in VIM - Network Connectivity in the NFVI, Interconnecting VNFs.

Title: Full ISO-7 layer stack fulfilment, activation and orchestration of VNFs in carrier networks

PoC: POC#38

Q1) Which environments the integrated NFV/SDN solution are applied?

Enterprise Netwokrs

Q2) What problems the integrated NFV/SDN solutions try to solve?

Dynamic Service Chaining, Flexibility

Q3) What are the differences among the design architectures of integrated NFV/SDN solutions?

Q3.1) Does solution support Distributed NFV?

No

Q3.2) Which are the MANO tools (Orchestrator, VNF Manager and VIM)?

Orchestrator - Vendor NFV Orchestrator (HP)

VNF Manager - Vendor NFV Manager (F5)

VIM - Vendor VIM (HP)

Q3.3) Does the solution support multiple VIMs?

No

Q3.4) Where are the positions of SDN Controller, Resources and Applications in a NFV Framework?

SDN Controller - NFVI

SDN Resources - virtual switch or router

SDN Applications - VIM

Q3.5) Which are the SDN Northbound APIs?

Controller in NFVI - Not Specified

Q3.6) Which are the SDN Southbound APIs?

Controller in NFVI - OpenFlow (Version Not Specified)

Q3.7) Which are the SDN Controllers?

Controller in NFVI - Not Specified

Q3.8) Does the solution implement a federation of SDN Controllers? If so, what's the objective (distributed performance, scalability and reliability, administrative domains interaction, NaaS management or multilayer transport fault management)?

Yes. Scalability

Q3.9) What is the function of SDN Controller in the NFV Framework (Network Connectivity in the NFVI, Control of Virtual Networks, Interconnecting VNFCs or Interconnecting VNFs)?

Controller in NFVI - Network Connectivity in the NFVI, Interconnecting VNFs and Control of Virtual Networks