1st OSM VNF Day - Kickoff:
The Importance of VNF Onboarding for NFV Realization

Gianpietro Lavado
OSM VNF Onboarding TF Chair / Senior Solutions Architect @ Whitestack
Welcome!

<table>
<thead>
<tr>
<th>Timing</th>
<th>Session</th>
<th>Partner Company</th>
<th>Name</th>
<th>Abstract summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>13:00-13:30</td>
<td>Keynote / Kick-off</td>
<td>Whitestack</td>
<td>Gianpietro Lavado</td>
<td>Keynote: The Importance of VNF Onboarding to NFV Realization</td>
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<tr>
<td>13:30 – 14:00</td>
<td>VNF Day Session #1</td>
<td>Canonical</td>
<td>Marcin Bednarz</td>
<td>Virtualised and Containerised Network Functions in OSM</td>
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<tr>
<td>14:00 – 14:30</td>
<td>VNF Day Session #2</td>
<td>Fortinet</td>
<td>Ali Bidabadi,</td>
<td>With numerous challenges in the area of security VNFs (and VNFs in general), Fortinet has worked to enhance the performance of its security VNFs by taking advantage of cutting-edge technologies.</td>
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<td>14:30 – 15:00</td>
<td>VNF Day Session #3</td>
<td>Intel</td>
<td>Intel Network Builders</td>
<td>This session will provide an overview of the Intel® Network Builders University and the value of cutting edge technical training in the network transformation landscape.</td>
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<td>14:50 – 15:10</td>
<td>Coffee Break</td>
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<td>15:10 – 15:40</td>
<td>VNF Day Session #4</td>
<td>A10</td>
<td>Saurabh Sureka</td>
<td>Interoperability, performance &amp; business flexibility are the key requirements from VNF’s deployed across Multi-Clouds.</td>
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<td>15:40 - 16:10</td>
<td>VNF Day Session #5</td>
<td>VMware</td>
<td>Vanessa Little</td>
<td>Are we realizing the promise of NFV?</td>
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<td>16:10 - 16:20</td>
<td>Panel Set Up</td>
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<tr>
<td>16:20 – 17:00</td>
<td>VNF Day Panel</td>
<td>All Presenters</td>
<td></td>
<td>With 5G winds at our backs, it seems like we all need to go faster than ever to virtualize, containerize or even go grounds up cloud-native. In this panel we will explore workloads and deployment types that require different approaches, and looking at each partners own experience at meeting market needs.</td>
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</table>
Why are we here?

CSP needs?

How to achieve them?

New services

..with simplified consuming & operations

NFV to the rescue?

Is this true for all CSPs?

vEPC  vDNS

vDPI  vFW  vFW

vCPE  vLB
There are still a couple of challenges perceived by some CSPs, which believe in virtualization, but prefer to rely on vertical “single vendor” deployments.

Do I need a NFV orchestrator at all?
- What’s the value of orchestrating NS / VNFs beyond VMs and container lifecycle management?

Will my NFV MANO be compatible with any VNFs?
- Will automation of configuration, monitoring, scaling, healing, updating, and other operations work with any VNF?

The value of Day1/2 automation of multiple VNFs, from a generic NFV MANO platform, is yet to be widely demonstrated!
Why are we here?

CSP needs?

How to achieve them?

NFV to the rescue?

New services

..with simplified consuming & operations

How are we addressing this?

vEPC  vDNS
vFW  vFW
vDPI  vFW  vLB
vCPE  vLB
Both VNF and MANO vendors have an important role here!

VNF Vendors need to address:

- Creation of a consumable VNF function, agnostic to NFVI/VIM.
- A simplified license model.
- As cloud-friendly as possible (towards cloud-native).
- Simplified API for configuration and monitoring.

MANO Vendors need to address:

- A complete model for providing NFVI/VIM agnosticism.
- Adaptability for automating operations for different kinds of APIs for configuration and monitoring.
We need to achieve **completely onboarded VNFs**, to **fulfill the NFV vision and provide value to CSPs**.

1. Instantiate Network Services/Slices, making VNFs manageable (**Day 0**) (instantiation with optional parameters)

2. Initialize VNFs so they provide the expected service (**Day 1**) (VNF1, VNF2)

3. Operate the service: monitoring, reconfigurations and (closed-loop) actions (**Day 2**)
Beginning 2019, the OSM Leadership Group proposed to the community the creation of the VNF Onboarding Task Force, a group in charge of the coordination and support of activities related to VNF onboarding in OSM.

- As first action, a Chair was elected for 2 years.
- The task force is expected to be permanent.

<table>
<thead>
<tr>
<th>Title:</th>
<th>Terms of Reference for VNF Onboarding Task Force</th>
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<tbody>
<tr>
<td>From source:</td>
<td>OSM Leadership Group (Telefónica, Telefónica, British Telecom)</td>
</tr>
<tr>
<td>Contact(s):</td>
<td>Francisco-Javier Ramón Saguero (<a href="mailto:francisco-javier.ramon@telefonica.com">francisco-javier.ramon@telefonica.com</a>)</td>
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<tr>
<td>Contact(s):</td>
<td>Pat Grossand (<a href="mailto:Pat.Grossand@telefonica.com">Pat.Grossand@telefonica.com</a>)</td>
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<tr>
<td>Contact(s):</td>
<td>Andy Reid (<a href="mailto:andy.bd.reid@bt.com">andy.bd.reid@bt.com</a>)</td>
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<td>Input for OSG:</td>
<td>OSM</td>
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<td>Contribution for:</td>
<td>Decision X</td>
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<td>Contribution for:</td>
<td>Discussion</td>
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<td>Contribution for:</td>
<td>Information</td>
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<tr>
<td>Submission date:</td>
<td>28/01/2019</td>
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<td>Meeting Allocation:</td>
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**Decision/Action requested:** Review and approve

**Abstract:**

The VNF Onboarding Task Force will be in charge of the coordination and support of activities related to VNF onboarding in OSM. In particular, the following activities are envisaged:

- Define success criteria and requirements (with support from EUAG)
- Consolidate best practices and produce related documentation
- Creation of common/reusable components to simplify new onboarding. In particular, the TF will aim to identify common types of interactions: SCl/02, REST, Northbound/YANG, CLI/Ansible, etc.
- Guidelines about how to create and/or extend VNF artifacts (e.g., charts)
- Early identification of new features and user experience improvements. Produce feedback to TSC
- Collect and publicize actively a catalogue of VNFs successfully onboarded

**Duration:** Permanent
We are shaping the Open Source MANO VNF Onboarding Task Force team!

VNF Onboarding TF: Short term goals

- VNF Vendors
- Operators
- Research Institutions
- Integrators
- Developers
- Others

MAIN DELIVERABLES

- VNF Onboarding Guidelines Document
- Contributions to OSM to simplify onboarding

Onboarded VNF Catalogue

- VNF 1: INFO, VNF PKG, Image
- VNF 2: INFO, VNF PKG
- VNF 3: INFO, VNF PKG, Image
- VNF 4: INFO

_VNFs in OSM Ecosystem_ are expected to be first!
The first version of the VNF Onboarding Guidelines Document is ready and will be published right after the OSM#7 event.
Other relevant initiatives

**There are other initiatives letting us to further exercise VNF onboarding in OSM!**

<table>
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<tr>
<th>Initiative</th>
<th>Details</th>
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<tr>
<td><strong>OSM POC Framework</strong> - visibility to any use case</td>
<td>Continuous activity to give visibility to OSM use cases (approved by the OSM TSC)</td>
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</tbody>
</table>
| **Multi-vendor NFV Showcase** – Multi-vendor automated NS demonstration | Lead by Whitestack, supported by Intel, OpenStack and ETSI NFV Plugtests Programme  
2nd edition will happen around October 2019 (Preparation to start during June) 2019 |
| **4th NFV Plugtests** – NFV Components interoperability tests under ETSI Standards | 3-7 June 2019 - ETSI, Sophia Antipolis (France)  
  NFV Interoperability  
  NFV API Conformance  
  MEC & MEC-in-NFV Interoperability (experimental) |
Call for VNF Vendors: Challenge OSM!

Pick your favorite way of participating and challenge OSM to fully automate all the stages of VNF onboarding and demonstrate the NFV value to CSPs!

- **Participate in the VNF Onboarding TF:** Receive support from experts and get your VNF published in the new OSM VNF Catalogue

- **Participate in the other initiatives:**
  - **ETSI 4th NFV Plugtests:** contact the participating OSM distros (Whitestack / RIFT)
  - **2nd NFV Showcase:** contact [info@whitestack.com](mailto:info@whitestack.com)
Thank you!