

Actions completed in Jan 2017.

1. Priority for Release D
2. VNF Deploy and Testing for vIMS VNF in FUNCTEST for MANO projects Opera and Orchestra.
3. Rebaca's Behavior Driven DevOps was transferred to Weekly Tech meeting after one review.
4. Scenario for Danube by all active MANO participating projects.

### **Jan 25, Wednesday : 15.00 UTC /7.00 PST Meeting 17 and Summary**

1. Agenda bashing
2. Review of last meeting (#15) and actions
  1. [Priority for D](#) - completed and accepted
  2. [Review of VNF on-boarding](#) - Is anyone Interested in monitoring Intern for [VNF On-boarding](#) - No inputs yet
  3. [Code review for VNF testing](#) - Completed common testing for vIMS (Orchestra to use Orchestration and Opera to use Compass Installer for testing vIMS as VNF use case) - To review feedback next meeting along with plugtest.
  4. Scenario conclusion - Orchestra , Opera, Domino , Model , Parser, - Do we have a path to no scenario? Need to fix a simple framework and refer [Models -see vHello\\_Tacker.sh](#) and Danube Scenarios.
  5. Priority Release E (Move left out D to E + for consistency)- Goals for E should be to release test tools for integration and testing MANO stack
  6. ABOT framework for BDD has impact beyond MANO and hence moved the discussions to Tech Meeting - Completed Transfer to Weekly Tech for Thursday.
3. [Architecture comparison](#) and LCM.
4. OSM & ETSI NFV updates - Refer [ RP ] in Meeting 15 -2016 -Deferred to next meeting after Plug-test
5. Report from upstream (OpenBaton, Open-O, openECOMP, JuJu, Tacker, OSM/Plug-test) and its impact on MANO WG -Deferred to next meeting
6. MANO related tests for Dovetail beyond C for D based on what we have and who will volunteer to get this moving? - Dovetail uses Functest but we should invite them to present their tool for benefit of MANO projects or to Tech meeting so we understand what they did in C to see how it will move up the stack in D and help MANO testing in future.
7. Continuing on Reviewing Best Practices for VNF On-boarding & LCM based on current community project status? - Strategy towards tool deriving from Models like Cloudify , Tacker and will need more discussions with participating MANO projects to help in this efforts.
8. Actionable Items and Agreement summary recording - A1. Bryan for wiki Architecture page move, A2. Prakash for Release E update & Getting Dovetail Test tool presentation in MANO or Weekly Te

### **Jan 11, Wednesday : 15.00 UTC /7.00 PST Meeting 16 & Summary**

1. Agenda bashing
2. Review of last Quarter (2016) work - Bryan Sullivan on what we did and what we missed (Set Priority) - Proposed VNF On-boarding and Pilots for testing and satisfied with progress
3. Plan [priority for D](#) & E releases of OPNFV ( [Review request for VNF OnBoarding for vIMS](#)) ([Code-Review or testing Vnf](#)) - Agreed on D-Release Priority write up reviewed link and plan for E future meetings, Code Review left to participating projects to comment on abstractions and ability to adapt by OPEN-O, OpenBaton and other teams. Some comments from Serge Manning (Sprint) on Inter-operability and Bryan indicated that goal is to move towards consistency and portability for providers & end users for VNF LCM etc. The AAA and

- Keystone V3 was discussed and David McBride Release manager [pointed to link for same](#).
4. Common Test for vIMS ([clearwater](#))
  5. Opera & OpenBaton Review (see links below) - Refer [ YC ] and [ GC ] in Meeting 15 -2016 - Both Giuseppe and Yingjun Li represented Orchestra and Opera respectively and indicated continued participation in testing vnf for D release. YC to allocate a code reviewer for testing vnf link form OPEN-O team, Giuseppe has reviewed and looks OK but needs more details to be included from the points listed in Meeting 15 content below.
  6. JuJu VNF and mano Scenario support for JOID - Refer [AT ] in Meeting 15 -2016 - Artur and Narinder indicated OAI as EuroCom initiative and also pointed to Deb from Rebaca.
  7. ABOT Framework feedback - Refer [ DC ] in Meeting 15 -2016 - Due to lack of time and also nature of DBB and testing it is considered this be presented at Tech meeting and we will check with Bin Hu if he can help get this session instead of MANO as it covers wider involvement of community to assess this for OPNFV.
  8. [Architecture comparison](#) and LCM - Deferred to future meetings.
  9. OSM & ETSI NFV updates - Refer [ RP ] in Meeting 15 -2016 - Deferred to future meetings.
  10. Any action plan for Q1 2017.- Just send the link of Release - D priority to community and see if this will suffice for Q1/2017.

### **Summary from Last meeting #15 in 2016.**

#### **Nov 30:Dec 7,14 2016 (Q4) Meeting 15 (Hackfest + Ad Hoc):**

#### **[ YL] Yingjun Li (Opera) provided details of Hackfestprep and delivery**

<https://wiki.opnfv.org/display/meetings/Opera>

<https://wiki.opnfv.org/display/PROJ/OPNFV+OPEN-O+Integration>

<https://wiki.opnfv.org/display/PROJ/OPERA+Function+Test>

#### **[ BS**

] Bryan Sullivan's Input from Hackfest for use of Scenario and Installations: refer inside to POD/Genesis support MANO vPODs

[https://etherpad.opnfv.org/p/infra\\_dec\\_hackfest](https://etherpad.opnfv.org/p/infra_dec_hackfest)

#### **[ GC ] Giuseppe Carella (Orchestra) provided details for OPNFV MANO Integration.**

In general, in Orchestra we would be interested in having some integration scenarios which could be useful for covering test cases for MANO frameworks. We have already an upstream project [1] doing something similar to VNF Onboarding functest, and our initial plan was to integrate this project within OPNFV functest, as already mentioned earlier to Jose. With the approach taken in your vnf onboarding abstraction I see that this integration won't be really easily doable. Main reason is that our integration-test framework already splits the test cases in different steps, while you cover at the moment mainly two steps (deploy VNF and test VNF)

- registration of a VIM instance
- on boarding a NSD
- deployment a NSR using the on boarded NSD from previous step
- testing that the NS is really deployed (optional in case of negative testing)
- deletion of the NSR
- deletion of the NSD
- unregistration of the VIM

With our framework, it is possible to define a scenario (and the steps which needs to be executed) directly using a configuration file. An example of a scenario can be found here [2], deploying an iperf server and client network service and testing that the client connected effectively with the server (therefore testing that dependencies were correctly configured between VNFs).

Although I see that your approach can be further extended to include those additional steps, I would suggest not to have them as part of VNF testing, rather starting creating a new set of test cases which can be part of a MANO group (or maybe including them in the feature tests group?). Nevertheless, coding the test steps in a specific programming language will also limit the integration of existing external frameworks (like the one we already have) MANO providers may already have implemented.

In summary, talking about the Orchestra project, we will provide soon the code for testing the deployment of a VNF (vIMS based on OpenIMSCore) implementing the abstract class you provided and following the approach taken for cloudify. However, as we assume that in the future the Orchestra project will be directly integrated with at least one installer, we would like to include some more comprehensive use cases that can execute several (positive and negative) test cases, possibly using already existing frameworks (like the one I mentioned). Would that be feasible within functest?

[ 1 ]

<https://github.com/openbaton/integration-tests>

[ 2 ]

<https://github.com/openbaton/integration-tests/blob/master/src/main/resources/integration-test-scenarios/scenario-real-iperf.ini>

**[AT ]Canonical's and OAI input for VNFM**

[Canonical and OAI inputs to OPNFV MANO for VNFM](#)

**[ DC ] Debyang Chaudhari of Rebaqa Automation on ABOT BDD test framework**

[ABOT BDD Framework](#)

**[ RP ] Ramchandran Parkash on following on VNFD and NSD information Model Challenges in ETSI NFV**

VNFD Challenges

- VNFD Connection Points
- VNFD Deployment Flavour & associated changes in VDU topology
- Lifecycle management events and scripts referenced in the VNFD
- Enhanced Platform Awareness Attributes

NSD Challenges

- Deployment flavour complexity
- Nested service ambiguities
- Local Affinity Rules vs Affinity Groups