



DLF

NETWORKING

Virtual Technical Meetings

End User Advisory Group

ONAP Working Group

CSP Priorities for ONAP

Release H Edition

Requirements from CSPs, What Do The End Users See Important in ONAP ?

- Top priorities for individual service providers
- Curated & Ratified EUAG Survey Requirements
 - Automated Testing Survey Curated Results / Requirements
 - SDN Adoption Survey
 - Intelligent Network and AI for CSPs
- Program Specific Requirements
 - CNTT
 - ...

NTT (Labs) Priorities

Key priorities from NTT for ONAP Release "H"

@ Ken Kanishima



Closed-Loop Enhancement

- Closed-loop enhancement is central to Zero Touch Automation.
- Large number and wide variation of loop instances are expected to be possible.
- Efforts towards fewer designer manual tasks are highly appreciated.
- Continue aligning more with standard models



Platform Maturity

- Overall maturity improvement needed.
- Continue enforcing project review.
- More transparency and details on usecases' integration test needed so that they could be verified with reproducing tests.



Documentation from User Perspective

- What capabilities are and aren't released and to what extent exactly.
- What users need to do and in what order, including manual workaround, from e2e viewpoint. Improvement work from this perspective that started in Guilin is expected to continue.



Platform Modularity

- is necessary to:
- Begin with simple evaluations
 - Begin incremental deployment excluding unfamiliar components/modules.
 - Integrate with operators' own/3rd party components/modules.

SDO Alignment and External Harmonization

- More TMF APIs to support; align resource modeling with TMF SID
- Bi-directional alignment with ETSI ZSM
- Harmonization with ETSI NFV-based VNFM implementations to suit users' environments
- Core Networking and Edge communities should work seamlessly to achieve e2e requirements on communication

Allow users to integrate closed loop automation more easily

China Mobile priorities

Key priorities from China Mobile for ONAP Release "H"

@ Lingli Deng
@ Lei Huang



For Key Services- 5G network slicing & intelligent application



For Application Promotion

- Improve code maturity , reduce deployment complexity.
- Encourage customized minimal release based on Use Case.
- Reduce hard coding , provide platform-independent model asset lifecycle management for service applications.



For Ecological Construction

- NFV automatic testing platform ;
- VNF/CNF/Intelligent application certification test, support OVP.

For Key Services- 5G network slicing & intelligent application

Description

- 5G Network Slicing is one of the key features of 5G. The essence of Network Slicing is in sharing network resources (PNFs, VNFs, CNFs) while satisfying widely varying and sometimes seemingly contradictory requirements to different customers in an optimal manner. E2E Network Slice consists of RAN, Transport and Core network slice sub-nets. G release intends to implement the modeling, orchestration and assurance of a simple network slice (e.g. eMBB). Plan to expand the current 5G slicing use case implementation, including E2E network slicing of 5G RAN and transport network slice sub-nets.
- Use E2E management control capabilities to implement network automatic and intelligent control SON applications.

What needs to be done

- Provide a full E2E Slicing solution involving RAN and Transport and core NSSMF. Architecture preference is to implement CSMF, NSMF, NSSMFs within ONAP and configure and set up NFs by ONAP.
- Enhancement of RAN slicing, TN slicing, Core Slicing within ONAP based on Guilin outcomes. Workout on the remaining issues: Endpoint implementation, Subnet capability check, etc.
- Close loop and intelligent slicing at E2E slicing level and slice subnet level: KPI monitoring, Slice/ Cross-slice resource allocation; SLA guarantee, etc.

For Application Promotion

Improve code maturity, security and test coverage

Reduce deployment complexity , improve documentation

Publish optimized minimal release based on Use Case

Provide platform-independent model asset lifecycle management for service applications, reduce hard coding per case.

For Ecological Construction - Automatic testing platform

Description

- **Auto Design**- Provide a quick test service(topology) design composed of tested PNF/VNF/CNF and test environment, as well as supports the import and reuse test service(topology) between different test environments.
- **Auto Deploy**- To achieve automatic test environment deployment which include tested PNF/VNF/CNF and test tools/instruments
- **Auto Testing**l - integrate different format of test cases/tools/instruments from different vendors
- **Auto Analysis & Certification**- Provide certified product release markets.

What needs to be done

- Improve the ONAP components existing capabilities to better support automatic testing platform .
- Achieve TOSCA VNF certification test and badge issuance, and continue to improve OVP1.0.
- Promote the development of next-generation OVP badges for cloud infrastructure and CNF, support OVP2.0.
- Expand OVP to support the development of intelligent application badges .

Orange Priorities

Key priorities from Orange for ONAP Release "H"

@ Olivier Augizeau, Eric Debeau



Platform Modularity

- Separate ONAP core components from use cases (example: don't want to have specific CCVPN, vFW, vDNS code when installing ONAP components.)
- Provide deployment dependencies graph to enable easy and partial cherry picking of ONAP components.



Platform Security

- Focus on ONAP user security (AAA – Authentication, Authorization, Accounting) and RBAC (coherent multi components approach)



Platform Industrialization

- Provide a « use case free » ONAP installer
- Provide G to H upgrade procedure keeping in H existing running data in G. (focus on core components)
- Back-up / restore (focus on core components)
- Log format standardization between components.

Build a common automation framework
for multi-purposes custom use cases and
ready for production

Telecom Italia priorities

Key priorities from TIM for ONAP Release "H"

@ Cecilia Corbi, Alessandro D'Alessandro, Marco Signorelli



Application level: 5G slicing full support



Ensure ONAP components to be flexible reconfigured, easily extensible, partially re-installable (e.g. re-install a single functional component)



Increase ONAP platform maturity (especially for Manageability and scalability) and overcoming current hard coded behaviour

Enhance E2E LCM of services: from VNF/CNF validation to deployment

Application level: 5G slicing full support

What needs to be done

- Provide a full E2E Slicing solution involving RAN, Transport and 5G core NSSMF.
- Align ONAP solution with RAN/Transport/Core state of art (developments and standards). That also implies enhancing transport modeling that may reflect a real network
- Managing in a fully automated way all aspect of service LCM (from day0 to day N)

Bring ONAP functional maturity and flexibility to seamless orchestrate any service without manual interventions

Description

- Adopting frameworks that ensure ONAP core components to be flexible reconfigured and to support new services without being changed
- ONAP currently requires manual configurations to drive specific orchestration behaviors. Just as an example
 - definition of specific E2E workflows
 - Some ONAP modules requires to be recompiled or stopped when new services are introduced. Just as an example
 - A&AI schema cannot be changed on the fly

What needs to be done

- Identify ONAP modules that need to be manually configured depending on the service
- Identify solutions that overcome above limitations
- Adopt identified solutions

Remarks

- A la carte, Macro and E2E orchestration approach provide great flexibility in service orchestration but the framework require specialized skills to implement unforeseen orchestration patterns. Tosca engine should be evaluated for ONAP SO
- New services may need modification of A&AI schema that is currently quite complex to be done. Schema shall be changed while A&AI related containers are running

Support 5G Core, O-RAN and slicing services

Description

- Most of 5G Applications should be released by 1 year and should run on CaaS/KaaS/PaaS.
- Time to market is fundamental for ONAP to have a chance to be the reference orchestration solution. Continue maintaining too much efforts on ONAP development for legacy infrastructure/applications would not be beneficial.

What needs to be done

- Implementing framework capabilities to fully support 5G cloud native applications by one year

Increase ONAP platform maturity (non functional objectives)

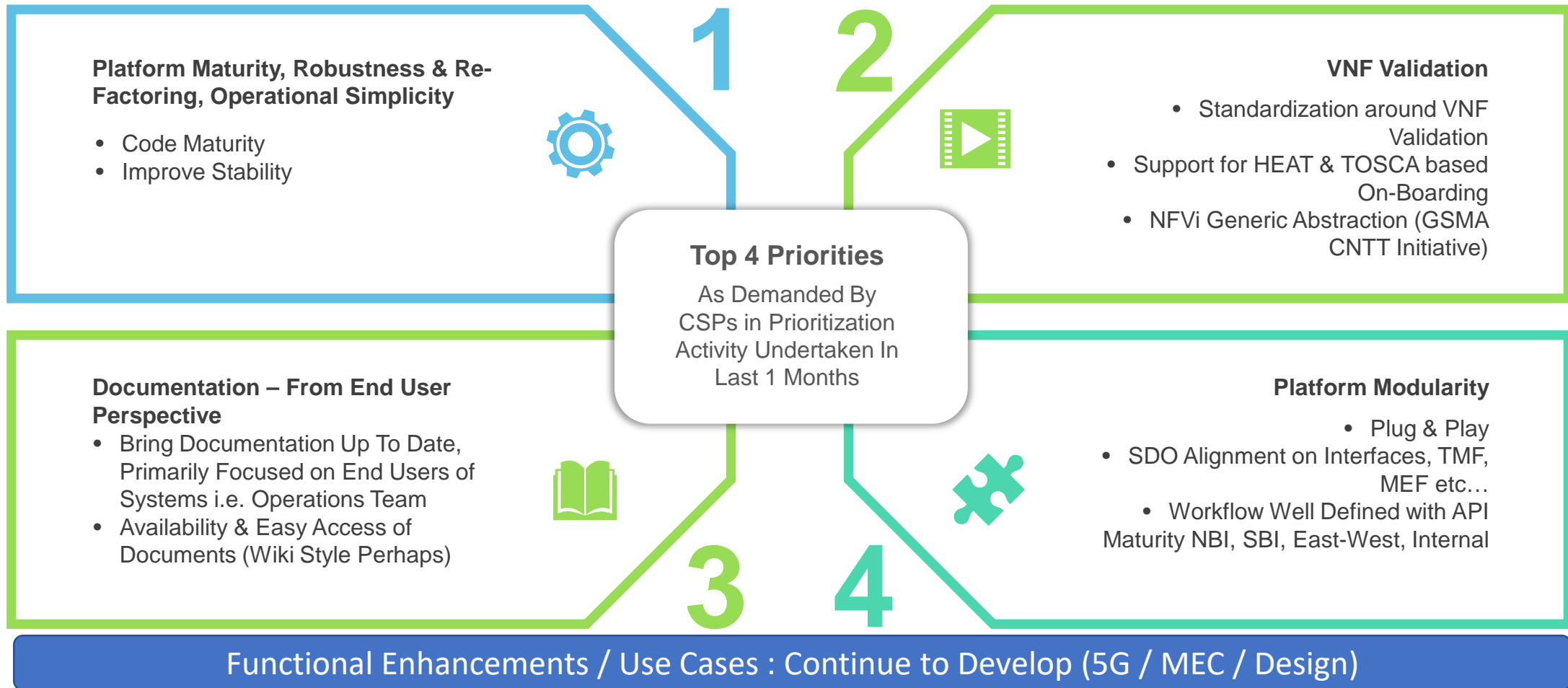
Description

- Installation and platform operation is not deterministic yet;
- The installation success rate depends on the number of installed modules
- Some dependency still exist among modules;
- Platform is not as much modular as should be;
- Documentation need further improvement especially to document APIs and functional and non-functional feature maturity

What needs to be done

- Increase ONAP platform maturity by fixing the above mentioned issues

Normalized (Top) Priorities



Thank you