Beijing Release Planning Template

DRAFT PROPOSAL FOR COMMENTS

The content of this template is expected to be fill out for M1 Release Planning Milestone.

Overview

Project Name	VNFRQTS
Target Release Name	Beijing
Project Lifecycle State	Incubation . Refer to ONAP Charter, section 3.3 Project Lifecycle for further information
Participating Company	AT&T, China Mobile, Orange, Bell Canada, Amdocs, VMWare, Huawei, ZTE, Intel

Scope

What is this release trying to address?

- This project will deliver a unified set of **VNF Guidelines** and **VNF Requirements**.
    - The **VNF Guidelines** and **VNF Requirements** must be versioned to enable evolution based on operational experience
    - The **VNF Guidelines** and **VNF Requirements** will support the ONAP Architecture Principles.
    - *Update the* **VNF Requirements** *as prototype RFP text for the ONAP/Beijing release including:*
        - Hardware Platform Awareness *(HPA) Requirements*
        - *HEAT/TOSCA Information Model updates*
    - *Update the* **VNF Guidelines** *as for the ONAP/Beijing release*
- Identify a list of features and functionality will be developed.
    - The VNF Guidelines and Requirements will support the Release 1 Use Cases.
        - Use cases focused on VNF Requirements may be developed in this project, and they will need to be aligned with the ETE Platform use cases.
        - *Document the* **VNF Provider Guidelines for VNF Scaleout Use Case** *for the ONAP/Beijing release*
    - VNF Guidelines and Requirements are to be refined beyond prototype text (e.g. through EPIC statements, use cases) to deliver test cases and test procedures for us in VNF onboarding & validation. VNF Requirement level use cases to be aligned with ETE platform use cases
        - *Document the* **VNF Test Case Descriptions** *for VNF Package testing for the ONAP/Beijing release*
- Identify what is in or out of scope. During the development phase, it helps reduce discussion.

- VNF Guidelines may be forward looking, or include best practices in VNF design and VNF lifecycle processes.
- VNF Requirements from ONAP APIs should be linked to the ONAP Release
- VNF Requirements may include:
  - expected operational characteristics (e.g. security, resilience, upgradeability)
  - conditional requirements (e.g. When configured for deployment on High Availability Network Cloud Infrastructure, the VNF Shall …)
- Tool chain improvements
  - Develop requirements structure/ metadata to support better linkage / tracking with other ONAP projects
  - Develop templates for VNFs to demonstrate VNF Requirements conformance

Use Cases

Describe the use case this release is targeted for (better if reference to customer use case).

The TSC identified the following Use cases for Release A:

Release first proposed	TSC Use Case	VNFs identified in TSC Use case
Amsterdam	Use Case: Residential Broadband vCPE (Approved)	vBNG, vG_MUX, vG, vAAA, vDHCP, vDNS
Amsterdam	Use Case: vFW/vDNS (Approved)	vFW, vPacketGenerator, vDataSink, vDNS, vLoadBalancer, all VPP based.
Amsterdam	Use Case: VoLTE(approved)	vSBC, vPCSCF, vSPGW, vPCRF, VI/SCSCF, vTAS, VHSS, vMME
Beijing	5G- RAN deployment, Slicing, SON	
Beijing	Enterprise vCPE --potential R1 use cases' extension	vCPE, vAAA, vDHCP
Beijing	ONAP Change Management	
Beijing	SD-WAN	vBG
Beijing	Scale Out	VOLTE, vDNS
Beijing	Centralised Parser Distribution	

The VNF Requirements developed by this project are applicable to the VNFs identified in the TSC E2E use cases.

- a **VNF Provider (developer)** using VNF Requirements in designing, testing, and certifying a VNF for use on ONAP
- a **Service Provider** using VNF *Requirements as prototype text for RFPs* to acquire VNFs to run in an ONAP context see VNFRQTS-16
- VNF Validation Project uses VNF Test Descriptions developed by this project to implement VNF testing for validation purposes.

Minimum Viable Product

- A **VNF Guidelines** document summarizing VNF provider oriented deliverables and providing informative, forward lookiging guidance.
- A set of Integrated **VNF Requirements** for use as prototype RFP text.
- **VNF Test Descriptions** for use by VNF Validation project, traceable from the VNF Requirments
- **VNF Use Case** - VNF Provider Guidelines for VNF Scale Out Use Case

Functionalities

List the functionalities that this release is committing to deliver by providing a link to JIRA Epics and Stories. In the JIRA Priority field, specify the priority (either High, Medium, Low). The priority will be used in case de-scoping is required. Don't assign High priority to all functionalities.

Epics

Key	Summary	T	Created	Updated	Due	Assignee	Reporter	P	Status	Resolution
VNFRQTS-158	VNF Requirements improvements to support Beijing Functional Requirements	⚡	Jan 16, 2018	Jul 10, 2019		Unassigned	None	=	CLOSED	Done
VNFRQTS-155	Develop ONAP/Beijing release VNF Requirements as prototype RFP text	⚡	Dec 06, 2017	Aug 08, 2018		Unassigned	None	=	CLOSED	Done

Key	Summary	T	Created	Updated	Due	Assignee	Reporter	P	Status	Resolution
VNFRQTS-50	Create User Stories to illustrate common VNF behaviors	⚡	Jul 31, 2017	Aug 08, 2018		Unassigned	None	=	CLOSED	Done
VNFRQTS-48	update the ONAP wiki	⚡	Jul 24, 2017	Aug 08, 2018		Unassigned	None	=	CLOSED	Done
VNFRQTS-8	Develop Requirements and Test descriptions for VNF validation	⚡	Jul 11, 2017	Aug 08, 2018		Unassigned	None	=	CLOSED	Done
VNFRQTS-7	Develop requirements for information that a VNF Package MUST contain	⚡	Jul 11, 2017	Aug 31, 2018		Unassigned	None	=	CLOSED	Done

6 issues

Stories

Key	Summary	T	Created	Updated	Due	Assignee	Reporter	P	Status	Resolution
VNFRQTS-222	Fix Documentation RST Warnings	🔖	May 22, 2018	Aug 08, 2018		Unassigned	None	=	CLOSED	Done
VNFRQTS-191	PNF Guidelines	🔖	Mar 20, 2018	Aug 08, 2018		Unassigned	None	=	CLOSED	Done
VNFRQTS-180	copyright License Header in all source files	🔖	Feb 06, 2018	Aug 08, 2018		Unassigned	None	=	CLOSED	Done
VNFRQTS-178	identify set of VNF Requirements with Information Elements in the VNF Package	🔖	Jan 25, 2018	Aug 08, 2018		Unassigned	None	=	CLOSED	Done
VNFRQTS-177	Identify set of VNF requirements testable by inspecting the VNF Package	🔖	Jan 25, 2018	Aug 12, 2023		Unassigned	None	^	CLOSED	Done
VNFRQTS-160	PNF Requirements	🔖	Jan 23, 2018	Aug 08, 2018		Unassigned	None	=	CLOSED	Done
VNFRQTS-154	VNFC Scaling Use Case	🔖	Dec 05, 2017	Aug 08, 2018		Unassigned	None	=	CLOSED	Done
VNFRQTS-153	RC2 checklist	🔖	Dec 05, 2017	Aug 08, 2018		Unassigned	None	=	CLOSED	Done
VNFRQTS-152	Create RC1 checklist for review by the TSC	🔖	Dec 05, 2017	Aug 08, 2018		Unassigned	None	=	CLOSED	Done
VNFRQTS-151	Create RC0 Checklist	🔖	Dec 05, 2017	Aug 08, 2018		Unassigned	None	=	CLOSED	Done
VNFRQTS-150	M4 Milestone Cheklist	🔖	Dec 05, 2017	Aug 08, 2018		Unassigned	None	=	CLOSED	Done
VNFRQTS-149	M3 Milestone Checklist	🔖	Dec 05, 2017	Aug 08, 2018		Unassigned	None	=	CLOSED	Done
VNFRQTS-148	M2 Milestone Checklist	🔖	Dec 05, 2017	Aug 08, 2018		Unassigned	None	=	CLOSED	Done

VNFR QTS-147	M1 Release Plan Checklist	🔖	Dec 05, 2017	Aug 08, 2018	Unassigned	None	═	CLOSED	Done
VNFR QTS-95	Updating the TOSCA YAML VNF Modeling Requirements based on agreed VNF package model	🔖	Aug 31, 2017	Aug 08, 2018	Unassigned	None	═	CLOSED	Done
VNFR QTS-51	Develop use case description for VNF onboarding from VNF provider perspective	🔖	Jul 31, 2017	Aug 08, 2018	Unassigned	None	═	CLOSED	Done
VNFR QTS-29	identify VNF requirements for configurations developed during design	🔖	Jul 19, 2017	Aug 08, 2018	Unassigned	None	═	CLOSED	Done
VNFR QTS-28	Collection of VNF requirements impacting the VNF Package definition for use by VNF SDK, SDC, VNF Validation and Modeling Projects	🔖	Jul 19, 2017	Aug 08, 2018	Unassigned	None	═	CLOSED	Done

18 issues

Longer term roadmap

Amsterdam- deliver overview VNF Guidelines & prototype RFP text requirements.

Beijing - Update Amsterdam deliverable for new ONAP features, Test Descriptions for VNF Package Testing, VNF Scaling Use case, tooling improvements

Casablanca - Extend tracability of VNF testing (VNF Requirments Database),additional VNF provider use cases, Update Bejing deliverable for new ONAP features

Dublin - Design time VNF testing description, additional VNF provider use cases, Update Casablancadeliverable for new ONAP features

El Alto - Run time VNF testing description, update Dublin deliverable for new ONAP features

Frankfurt - Update El Alto deliverable for new ONAP features

Release Deliverables

Indicate the outcome (Executable, Source Code, Library, API description, Tool, Documentation, Release Note...) of this release.

Deliverable Name	Deliverable Description
VNF Guidelines	Documentation. Provides a high level informative overview of guidance towards VNF providers. (provided since Amsterdam release)
VNF Requirements	Documentation. Provides individually numbered requirements for VNFs (provided since Amsterdam release)
VNF Use Cases	Documentation. Provides guidelines for VNF providers on use cases on interest to VNF providers (new deliverable in Beijing release)
VNF Test Case	Documentation. Provides test case descriptions for how to test VNFs. (new deliverable in Beijing release)
VNF EPICs	documentation (future)

Sub-Components

Deliverable	repo	Files Structure of repo

VNF Guidelines:	vnfrqts/guidelines	File per chapter
VNF Requirements:	vnfrqts/requirements	File per chapter
VNF Use Cases:	vnfrqts/usecases	File per Use Case
VNF Test Descriptions:	vnfrqts/testcases	File Per Test Case Dscription
VNF EPICs:	vnfrqts/epics	not used in Beijing Release

Sub-components are repositories are consolidate in a single centralized place. Edit the Release Components name for your project in the centralized page.

Architecture

High level architecture diagram

The VNF Requirements Project is not delivering ONAP platform code, rather it delivers documentation targeted to VNF providers to enable thme to develop VNFS which can be more easily onboarded and operated by an Operator using an ONAP platform.
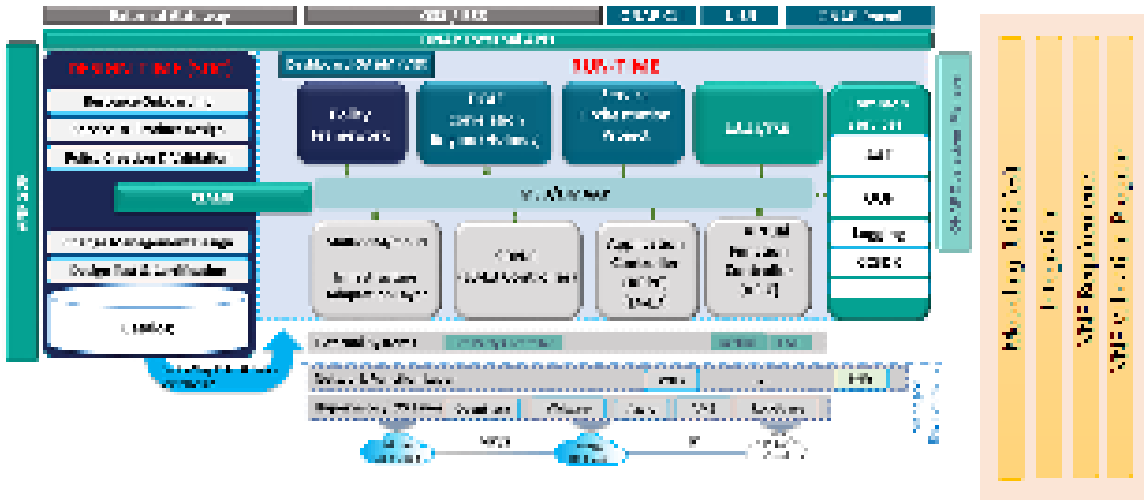
Platform Maturity

Refering to CII Badging Security Program and Platform Maturity Requirements, fill out the table below by indicating the actual level , the targeted level for the current release and the evidences on how you plan to achieve the targeted level.

Area	Actual Level	Targeted Level for current Release	How, Evidences	Comments
Performance	NA	VNFRQTS is primarily a documentation project and does not deliver ONAP platform code		0 -- none 1 – baseline performance criteria identified and measured 2 & 3 – performance improvement plans created & implemented
Stability	NA	VNFRQTS is primarily a documentation project and does not deliver ONAP platform code		0 – none 1 – 72 hours component level soak w/random transactions 2 – 72 hours platform level soak w/random transactions 3 – 6 months track record of reduced defect rate
Resiliency	NA	VNFRQTS is primarily a documentation project and does not deliver ONAP platform code		0 – none 1 – manual failure and recovery (< 30 minutes) 2 – automated detection and recovery (single site) 3 – automated detection and recovery (geo redundancy)

Security	NA	VNFRQTS is primarily a documentation project and does not deliver ONAP platform code		0 – none 1 – CII Passing badge + 50% Test Coverage 2 – CII Silver badge; internal communication encrypted; role-based access control and authorization for all calls 3 – CII Gold
Scalabil ity	NA	VNFRQTS is primarily a documentation project and does not deliver ONAP platform code		0 – no ability to scale 1 – single site horizontal scaling 2 – geographic scaling 3 – scaling across multiple ONAP instances
Manag eability	NA	VNFRQTS is primarily a documentation project and does not deliver ONAP platform code		1 – single logging system across components; instantiation in < 1 hour 2 – ability to upgrade a single component; tracing across components; externalized configuration management
Usability	1	VNF Guidelines VNF Requirements **VNF Use Cases (new)** **VNF Test Case Descriptions (new)**	http://docs.onap.org/en/latest /guides/onap-user/vnfprovider. html additional types of documentation to move towards level 2 with: Use cases (tutorial/ usability) Test Case Descriptions (testing)	1 – user guide; deployment documentation; API documentation 2 – UI consistency; usability testing; tutorial documentation

API Incoming Dependencies

Other ONAP projects that this VNF Requirements project depends on:

- SDN-C   (for API requirements on VNFs)
- APPC   (for VNF configuration requirements)
- VF-C   (for VNF life cycle managment and configuration)
- Service Design & Creation   (for VNF onboarding)
- DCAE   (for VNF reporting requirements)
- Authentication and authorization Framework (for VNF Security Requirements)
- Modeling   (for Tosca Data Modeling for VNF)
- Multi-VIM/ MultiCloud (for network cloud infrastructure requirements)

The VNF Requirments does not produce code interfaciong with platform APIs. The VNF Requirments do consolate requirements from ONAP platform compontents that impact the design and development of VNFs. These ONAP platform components in the table below generate APIs that impact VNFs and so these are generally reflected in the VNF Requirements.

API Name	API Description	API Definition Date	API Delivery date	API Definition link (i.e. swagger)
APPC	VNF configuration requirements	M2	M3	APPC Documentation
Authentication and authorization Framework	VNF Security Requirements	M2	M3	
DCAE	VNF reporting requirements	M2	M3	DCAE APIs documentation
Modeling	Tosca Data Modeling for VNF	N/A		ONAP Modelling Specifications
Multi-VIM/ MultiCloud	network cloud infrastructure requirements	N/A		MultiCloud Documentation
SDN-C	API requirements on VNFs	M2	M3	SDNC APIs documentation
Service Design & Creation	VNF onboarding	M2	M3	SDC documentation
VF-C	VNF life cycle management and configuration	M2	M3	VF-C APIs documentation

API Outgoing Dependencies

The VNF Requirements do not provide code with APIs, but the VNF Requirements are used as inputs by a number of other ONAP projects.

API Name	API Description	API Definition Date	API Delivery date	API Definition link (i.e. swagger)
VNF SDK	VNF tooling should support the development and packaging of VNFs that are conformant to the VNF Requirements	N/A		
VNF Validation program (ICE)	VNF Validation should be traceable against the VNF Requirements	N/A see the VNFRQTS <> VNF Validation project Workflowwiki page		
Documentation	References to deliverables produced by this project may be included in various ONAP release documents maintained through the documentation project	N/A see the VNFRQTS <> Documentation Project Workflows wiki page		
Reference VNFs (now Integration Project)	Reference VNFs should be VNF Requirement compliant. The Integration Project maintaining those Reference VNFS would be dependent on the VNF Requirements for validating compliance.	N/A see the VNFRQTS <> Integration Project Workflow wiki page		

Third Party Products Dependencies

The VNF Requirements is documentation rather than code so there is no dependency on 3rd party products other than the documentation and development tool chains provided through the Linux Foundation.

Testing and Integration Plans

Provide a description of the testing activities (unit test, functional test, automation,...) that will be performed by the team within the scope of this release.

Describe the plan to integrate and test the release deliverables within the overall ONAP system.
Confirm that resources have been allocated to perform such activities.

Gaps

This section is used to document a limitation on a functionality or platform support. We are currently aware of this limitation and it will be delivered in a future Release.
List identified release gaps (if any), and its impact.

Gaps identified	Impact
VNF Requirements linkage to testing	VNF Requirements are current provided for RFP purposes, but the linkage to testing and validation of those requirments is not yet in place This release provides initial generic test plan descriptions for testing of VNFs based on the VNF Package. It does not provide test descriptions for design time or run time functional testing of VNFs. The testing linkage is also costrained by the scope of the VNF Information model in the VNF Package and the relationships identified between that information model and the VNF requirements.
Hardware / infrastructure requirements	The Amsterdam release requirments had a placeholder (Chapter 6) for VNF requirements associated with the hardwrae executuion environment. Additional requirments are expected in this area from the Multi-VIM project, and perhaps the PNF related features.
HEAT/TOSCA requirements	The Amsterdam release requirments has text on HEAT and TOSCA requirmenst but not numbered requirments text. This is expected to be improved as part of the Beijing release work.

Known Defects and Issues

Provide a link toward the list of all known project bugs.

Key	Summary	T	Created	Updated	Due	Assignee	Reporter	P	Status	Resolution

No issues found

Risks

List the risks identified for this release along with the plan to prevent the risk to occur (mitigation) and the plan of action in the case the risk would materialized (contingency).

Risk identified	Mitigation Plan	Contingency Plan
ONAP supporting multiple onboarding formats	work with VNF SDK, VVP and SDC to minimize the risk.	Document the desired direction in the forward looking VNF Guidelines

Resources

Fill out the Resources Committed to the Release centralized page.

Release Milestone

The milestones are defined at the Release Level and all the supporting project agreed to comply with these dates.

Date	Project	Deliverable
1/8/18	VNF Requirments	Draft M1 Project Plan available on VNFRQTS Project Wiki
1/18/18	VNF Requirments	ONAP Beijing M1 Milestone - planning process complete
2/12/18	VNF Requirments	ONAP Beijing M2 Milestone - functionality freeze
3/8/18	VNF Requirments	ONAP Beijing M3 Milestone - API data model freeze
3/29/18	VNF Requirments	ONAP Beijing M4 Milestone - code freeze
4/19/18	VNF Requirments	ONAP Beijing RC0 Milestone
5/3/18	VNF Requirments	ONAP Beijing RC1 Milestone
5/17/18	VNF Requirments	ONAP Beijing RC2 Milestone
5/24/18	VNF Requirments	ONAP Beijing Signoff Milestone

Team Internal Milestone

This section is optional and may be used to document internal milestones within a project team or multiple project teams. For instance, in the case the team has made agreement with other team to deliver some artifacts on a certain date that are not in the release milestone, it is erecommended to provide these agreements and dates in this section.

It is not expected to have a detailed project plan.

Date	Project	Deliverable
1/16/18	Sprint 7 start	Draft M1 Project Plan available on VNFRQTS Project Wiki M1 checklisy available before ONAP Beijing M1 Milestone - planning process complete 1/18
1/30/18	Sprint 7 complete Sprint 8 start	Draft structure of Use case and test case Descriptions available before ONAP Beijing M2 Milestone - functionality freeze 2/12
2/13/18	Sprint 8 complete Sprint 9 start	
2/27/18	Sprint 9 complete Sprint 10 start	before ONAP Beijing M3 Milestone - API data model freeze 3/8
3/13/18	Sprint 10 complete Sprint 11 start	

3/27/18	Sprint 11 complete Sprint 12 start	before ONAP Beijing M4 Milestone - code freeze 3/29
4/10/18	Sprint 12 complete Sprint 13 start	Finalize complete drafts before ONAP Beijing RC0 Milestone 4/19
4/24/18	Sprint 13 complete Sprint 14 start	Bug fixes only prior to RC1 5/3
5/8/18	Sprint 14 complete Sprint 15 start	Bug fixes only prior to RC2 5/17
5/22/18	Sprint 15 complete	Bug fixes only prior to signoff 5/24

Documentation, Training

- VNF Guidelines
    - component lead - Wenyao Guan (China Mobile)
    - Forward looking guidance
- VNF Requirements
    - component lead - Herb Patten (AT&T)
    - VNF Conformance requirements
- VNF Use Cases
    - component lead - Scott Blandford
    - tutorial
- VNF Test Case Descriptions
    - component lead - Steven Wright
    - Description of how to test the VNF Requirements

> ⚠️ **Note**
>
> The Documentation project will provide the Documentation Tool Chain to edit, configure, store and publish all Documentation asset.

Other Information

Vendor Neutral

If this project is coming from an existing proprietary codebase, ensure that all proprietary trademarks, logos, product names, etc. have been removed. All ONAP deliverables must comply with this rule and be agnostic of any proprietary symbols.

Free and Open Source Software

FOSS activities are critical to the delivery of the whole ONAP initiative. The information may not be fully available at Release Planning, however to avoid late refactoring, it is critical to accomplish this task as early as possible.
List all third party Free and Open Source Software used within the release and provide License type (BSD, MIT, Apache, GNU GPL,...).
In the case non Apache License are found inform immediately the TSC and the Release Manager and document your reasoning on why you believe we can use a non Apache version 2 license.

Each project must edit its project table available at Project FOSS. This vnfrqts project is a documentation project using the LF toolchain coordinated via the documentation project.

Charter Compliance

The project team comply with the ONAP Charter.