Policy R2 Beijing M1 Release Planning Template

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

Overview

Project Name	Policy Framework
Target Release Name	Beijing
Project Lifecycle State	Incubation
Participating Company	AT&T, Intel, Ericsson, Huawei

Scope

What is this release trying to address?

The Policy Framework will be addressing the following for the Beijing Release:

- Platform Maturity Guidelines (Highest Priority)
- 50% JUnit Test Coverage (Highest Priority)
- Integration with OOF to support Hardware Enabled Placement Policies (Medium Priority)
- Control Loop Enhancements for Scale Out (Lowest Priority)
- SDC Distribution Integration (Lowest Priority)
- Policy Lifecycle API (Lowest Priority)

Use Cases

A best effort will be applied to support Integration testing for the existing R1 Use Cases assuming there are NO changes made to those Use Cases.

Hardware Platform Enablement In ONAP - Dependency will be on Intel to supply the required resources. A best effort will be applied to support Intel resources in lieu of Platform Maturity Guidelines and JUnit Test Code Coverage 50%.

VNF Scale Out (vDNS only - requirements planning) - We will do as much work as possible prior to Cassablanca for supporting the auto scale out use case. Dependent on the amount of requirements planning the APP-C team can do.

Minimum Viable Product

- Policy Portal Dashboard - Console GUI where Models, Templates can be imported, updated, deleted, as well as, policies can be created, updated and deleted. The console GUI also has a dashboard where PDP's can be grouped and where Operators can control where policies are distributed to.
- Policy PAP web application - Policy backend that manages communication with PDP engines for policy distribution.
- Policy Drools PDP - run-time execution of Control Loop operational policies. Supports queries from other ONAP components to retrieve
- Policy XACML PDP - run-time execution of Control Loop configuration policies of DCAE collectors, analytics and micro services.
- Policy BRMS Gateway - intermediary backend for distributing policies to the Drools PDP and configuration details to the Drools PDP controller.

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

No issues found

Stories

Key	Summary	T	Created	Updated	Due	Assignee	Reporter	P	Status	Resolution

No issues found

Longer term roadmap

- Integration with SDC to support future Policy Design GUI integration into SDC
  - We are waiting or SDC to produce their SDK for integration at the end of Beijing
- Policy Lifecycle API
  - Not enough resources or time to fully implement this and make it available to other Components. We expect to have at the very least appropriate documentation, models, and swagger yaml files.
- Distribution of PDPs across the network - in lieu of support future performance requirements for Control Loops (Eg. a Control Loop must address an issue within X milliseconds of detection in an automated fashion)
  - PDP distribution needs to be enhanced to support multiple PDP's being located in edge, core, global datacenters. (i.e geo-distribution)
  - This should also support high availability and resiliency within each datacenter
  - PDP's designed as Microservices and deployed via OOM registering with MSB

Release Deliverables

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

Deliverable Name	Deliverable Description
Policy Portal Dashboard	Executable
Policy PAP web application	Executable
	API - internal to the Policy Platform. The Policy PDP engines use this API to synchronize policies being distributed.
Policy Drools PDP	Executable
Policy XACML PDP	Executable
	API - external to ONAP components. The API is used to CRUD Policies, Deploy Policies, and query for Policy Decisions.

Policy BRMS Gateway	Executable
MariaDB	SQL database • Stores policies and their versions • Stores templates/models and their versions • Stores PDP grouping information • Stores Policy distribution details
Nexus Repo	This repository is used by the Policy Drools PDP to retrieve distributed policies and their dependent jars.
Policy Lifecycle API	Description/Documentation
Policy SDC Distribution Integration	Executable

Sub-Components

Activities related to sub-components must be in sync with the overall release.

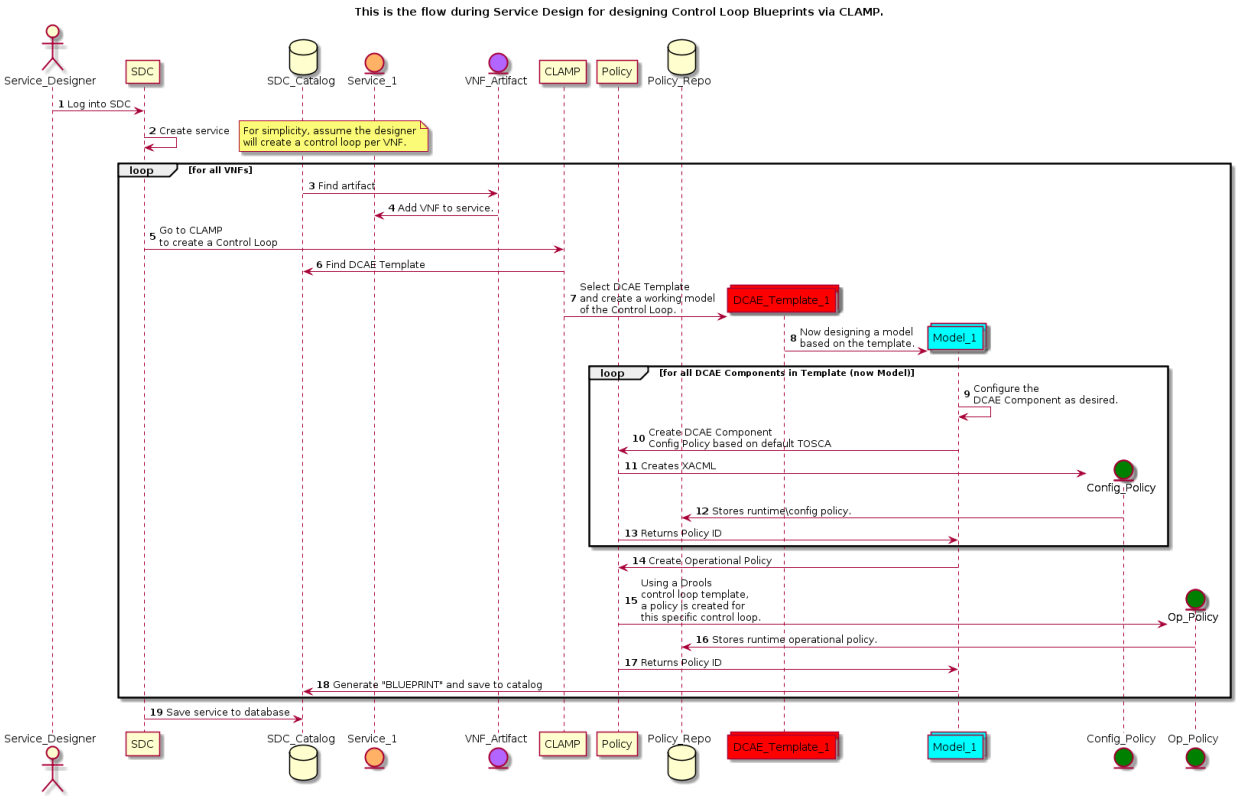
Sub-components are repositories and are consolidated in a single centralized place. Edit the Release Components name for your project in the centralized page.

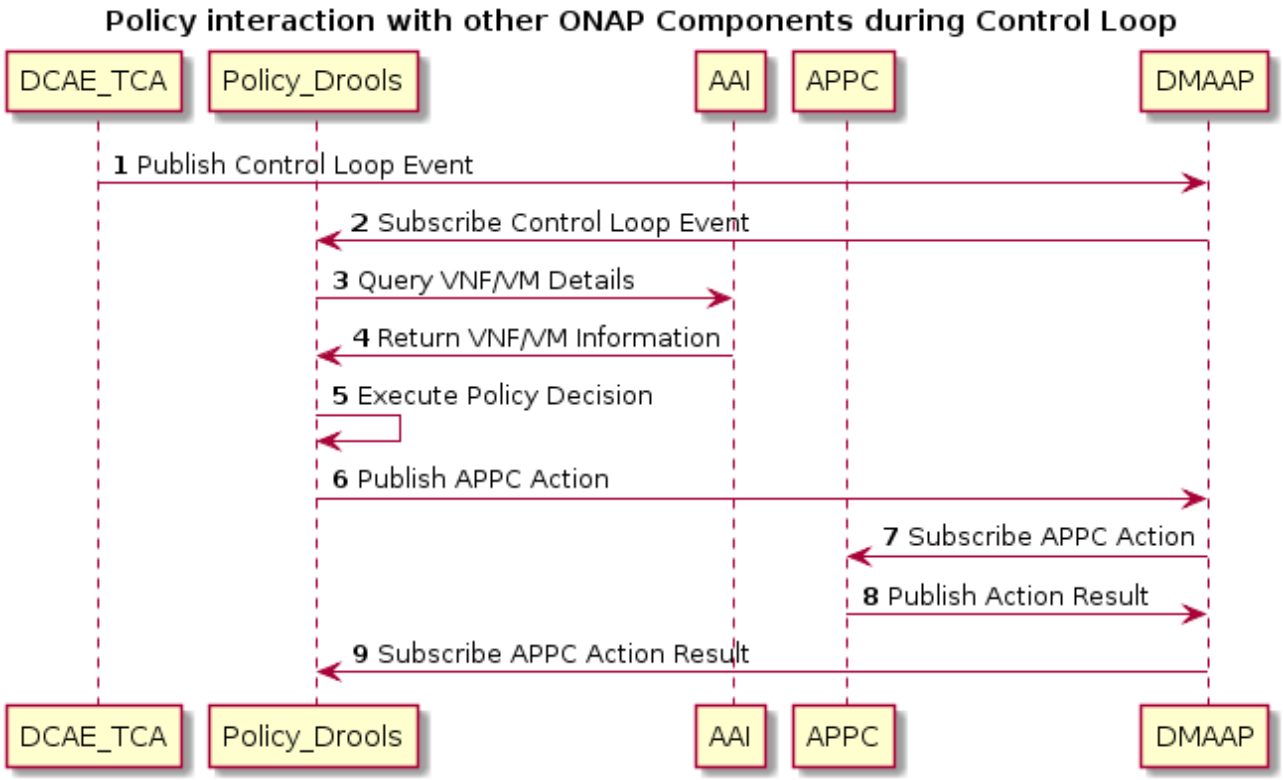
Architecture

High level architecture diagram

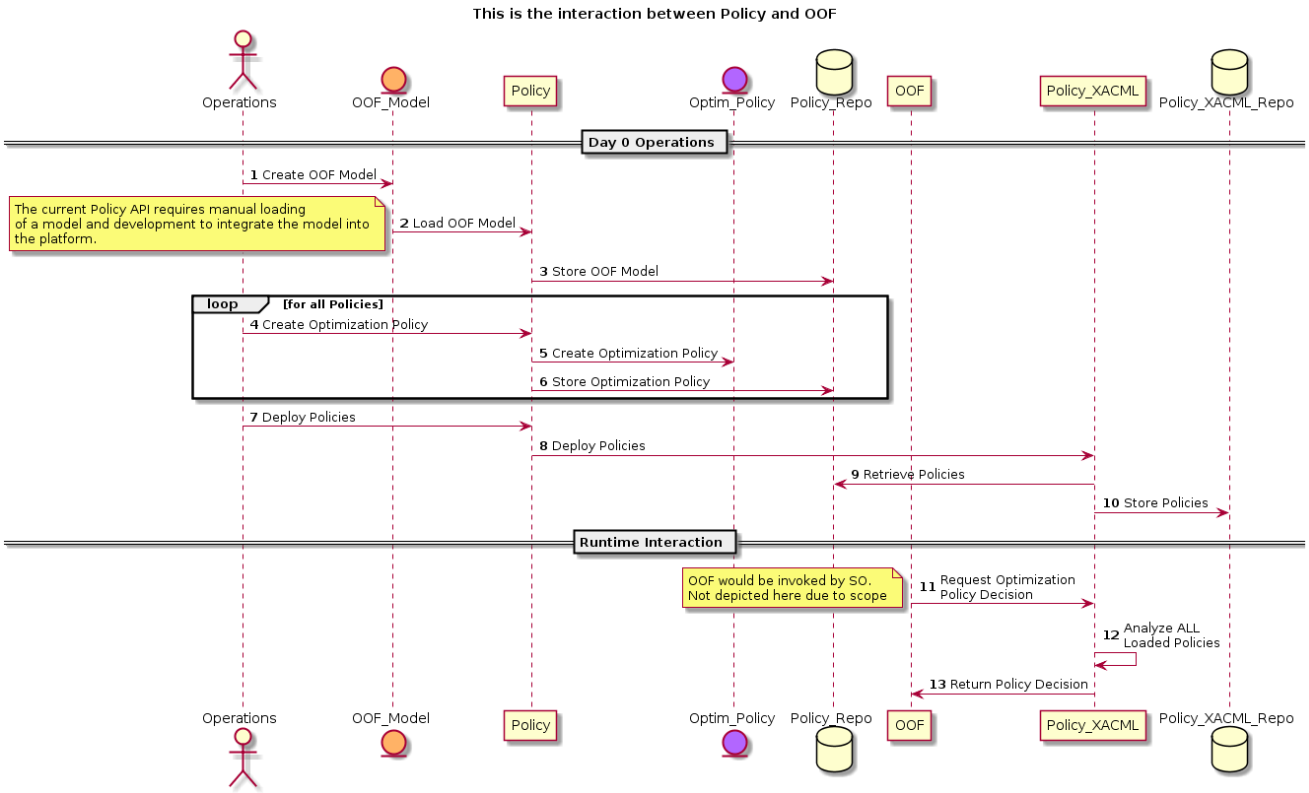
Indicate where your project fit within the ONAP Archiecture diagram.

Policy Interaction with CLAMP during Design Time





Policy Interaction with OOF



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	Level 1	Level 1	**POLICY-392** - Getting issue details... STATUS	• 0 -- none • 1 – baseline performance criteria identified and measured • 2 & 3 – performance improvement plans created & implemented
Stability	Level 1	Level 1	**POLICY-512** - Getting issue details... STATUS	• 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	Level 1	Level 2	**POLICY-513** - Getting issue details... STATUS	• 0 – none • 1 – manual failure and recovery (< 30 minutes) • 2 – automated detection and recovery (single site) • 3 – automated detection and recovery (geo redundancy)

Security	Level 1	Level 1	POLICY-514 - Getting issue details... STATUS	• 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
Scalability	Level 0	Level 1	POLICY-515 - Getting issue details... STATUS *NOTE - due to lack of resources, Policy may not be able to do this work. It is "Low" priority per Jason's slides from TSC 1/4 /2018.	• 0 – no ability to scale • 1 – single site horizontal scaling • 2 – geographic scaling • 3 – scaling across multiple ONAP instances
Manageability	Level 1	Level 1	POLICY-516 - Getting issue details... STATUS	• 1 – single logging system across components; instantiation in < 1 hour • 2 – ability to upgrade a single component; tracing across components; externalized configuration management
Usability	Level 1	Level 1	POLICY-517 - Getting issue details... STATUS	• 1 – user guide; deployment documentation; API documentation • 2 – UI consistency; usability testing; tutorial documentation

• API Incoming Dependencies

List the API this project is expecting from other projects.
Prior to Release Planning review, Team Leads must agreed on the date by which the API will be fully defined. The API Delivery date must not be later than the release API Freeze date.

Prior to the delivery date, it is a good practice to organize an API review with the API consumers.

API Name	API Description	API Definition Date	API Delivery date	API Definition link (i.e. swagger)
AAI	REST Web Service for AAI	We are dependent on that team to provide us this.		
Control Loop Event Messages	Dmaap messages published by DCAE when a Control Loop Event occurs.	Amsterdam	n/a	n/a
APP-C	Dmaap message LCM API for Restart and ModifyConfig	Amsterdam		
SO	API for auto scaling	Amsterdam		
DMAAP	API for publish/subscribe to DCAE Control Loop Events and APP-C API	Amsterdam		

• API Outgoing Dependencies

API this project is delivering to other projects.

API Name	API Description	API Definition Date	API Delivery date	API Definition link (i.e.swagger)
Policy Client API	This API is used by other ONAP components to create, update and delete policy(s).	Amsterdam version - no changes		Policy API
Policy Query API	This API is used by other ONAP components responsible for enforcing policy during runtime.	Amsterdam version - no changes		Policy API
Policy Lifecycle API	The new Policy Lifecycle API description, documentation, models, etc.	M3 API Freeze. We do not expect our clients to be able to utilize this API in Beijing.	M3	TBD

• Third Party Products Dependencies

Third Party Products mean products that are mandatory to provide services for your components. Development of new functionality in third party product may or not be expected.
List the Third Party Products (OpenStack, ODL, RabbitMQ, ElasticSearch,Crystal Reports, ...).

Name	Description	Version
MariaDB	The MariaDB is the repository that holds all the policies, templates, PDP group, and deployment information.	10.0
Nexus	The Nexus repository holds all the currently deployed Operational (i.e. Drools policies) and their dependent artifacts.	2.14.2-01
ElasticSearch	Used to search text within policy.	5.4.0
Ubuntu	Operating system	14.04

In case there are specific dependencies (Centos 7 vs Ubuntu 16. Etc.) list them as well.

- # Testing and Integration Plans
  - JUnit tests: 50% code coverage is the goal for all repositories.
  - Functional tests: cover all possible Control Loop API calls. Simulating CLAMP and DCAE API calls
    - If resources become available, we will add more API calls such as delete, update.
    - Policy R2 Beijing CSIT Functional Test Cases
  - Integration Test Plans - In progress: Policy R2 Beijing - Integration Test Plans

"Confirm that resources have been allocated to perform such activities" - at this point I do not have enough resources to cover both making the changes for Platform Maturity and help with testing.

- # 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
Template Code is inefficient with respect to threading	Drools is single-threaded. When a RESTful API call is made, it should be done in a thread vs polling. Else it holds up the processing of events/rules. The RESTful API calls to A&AI, SO and VF-C should be done in a separate thread.
Policy GUI limitations	Unable to update templates This visual update of Control Loop Operational Policies is not user-friendly Not a truly model-driven architecture. Code must be written in order to support new models.

- # 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
POLICY-1098	Correct namespace in update-vfw-op-policy.sh		Sep 08, 2018	Sep 21, 2018		Unassigned	None	=	CLOSED	Done
POLICY-1097	Policy Casablanca docker image versions used in Beijing branch OOM Charts		Sep 07, 2018	Sep 19, 2018		Unassigned	None	^	CLOSED	Done
POLICY-1077	hyperlink links are missing		Aug 23, 2018	Oct 12, 2018		Unassigned	None	=	CLOSED	Not a Bug
POLICY-880	SB00: Policy is not responding to TCA ONSET from DCAE		Jun 05, 2018	Jun 07, 2018		Unassigned	None	^^	CLOSED	Done
POLICY-879	pdp-d: workaround for policy-878		Jun 01, 2018	Jul 10, 2019		Unassigned	None	^	CLOSED	Done
POLICY-877	Cosmetic changes on docker repo for heat installs		May 31, 2018	Jun 01, 2018		Unassigned	None	^	CLOSED	Done

POLICY-870	Don't flood pooling error.log with extractor messages		May 24, 2018	May 25, 2018	Unassigned	None		CLOSED	Done
POLICY-868	Policy should not send authorization header for null username		May 24, 2018	Aug 12, 2023	Unassigned	None		CLOSED	Done
POLICY-854	BRMS policy does not get propagated		May 22, 2018	May 26, 2018	Unassigned	None		CLOSED	Done
POLICY-853	update aai and mso urls for heat environments		May 22, 2018	May 24, 2018	Unassigned	None		CLOSED	Done
POLICY-852	reduce size of pending transactions cache to record transaction completion audit /metric logs		May 22, 2018	May 23, 2018	Unassigned	None		CLOSED	Done
POLICY-850	Cannot disable NBI		May 22, 2018	May 22, 2018	Borislav Glozman	Borislav Glozman		CLOSED	Not a Bug
POLICY-843	brmsgw doesn't push policies to nexus		May 18, 2018	May 25, 2018	Unassigned	None		CLOSED	Done
POLICY-802	PDP-X pooling skipping "-2"		May 17, 2018	May 21, 2018	Unassigned	None		CLOSED	Done
POLICY-800	Policy accesses SO using wrong credentials		May 16, 2018	May 17, 2018	Unassigned	None		CLOSED	Done
POLICY-797	heat install - decouple policy from looking heat artifact_version.txt		May 15, 2018	May 16, 2018	Unassigned	None		CLOSED	Done
POLICY-796	VirtualControlLoopEvent facts are piling up		May 15, 2018	May 16, 2018	Unassigned	None		CLOSED	Done
POLICY-795	PDP-X allow configuration on OOM install to survive upgrades		May 14, 2018	May 17, 2018	Unassigned	None		CLOSED	Done
POLICY-794	features distributed-locking and pooling-dmaap should not package unnecessary dependencies		May 14, 2018	May 14, 2018	Unassigned	None		CLOSED	Done
POLICY-793	Remove requestId from SO request and '-1' to instance		May 11, 2018	May 14, 2018	Unassigned	None		CLOSED	Done

Showing 20 out of 102 issues

- # 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
Resources	Actively seeking community support.	Current resources are only enough to satisfy the Highest Priority Epics (Platform Maturity, JUnit 50% test coverage). But that will be difficult to achieve.
policy/engine - Difficult to obtain 50% JUnit code coverage based on the extreme amount of cyclomatic complexity and code refactoring needed to remove nested statements.	Deprecation of the repository is possible with re-write of components that is needed to support Platform Maturity requirements.	Request TSC for exception for that specific repository.

- # 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.

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
To fill out	To fill out	To fill out

Documentation, Training

- Highlight the team contributions to the specific document related to he project (Config guide, installation guide...).
- Highlight the team contributions to the overall Release Documentation and training asset
- High level list of documentation, training and tutorials necessary to understand the release capabilities, configuration and operation.
- Documentation includes items such as:
  - Installation instructions
  - Configuration instructions
  - Developer guide
  - End User guide
  - Admin guide
  - ...

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.

Charter Compliance

The project team comply with the ONAP Charter.