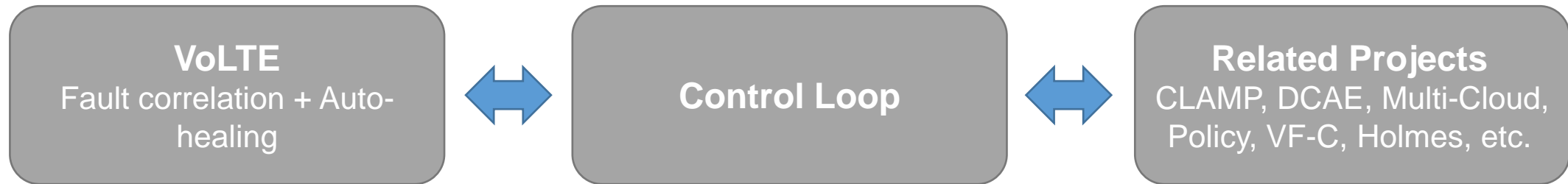


# VoLTE Use Case Control Loop Automation

July, 2017

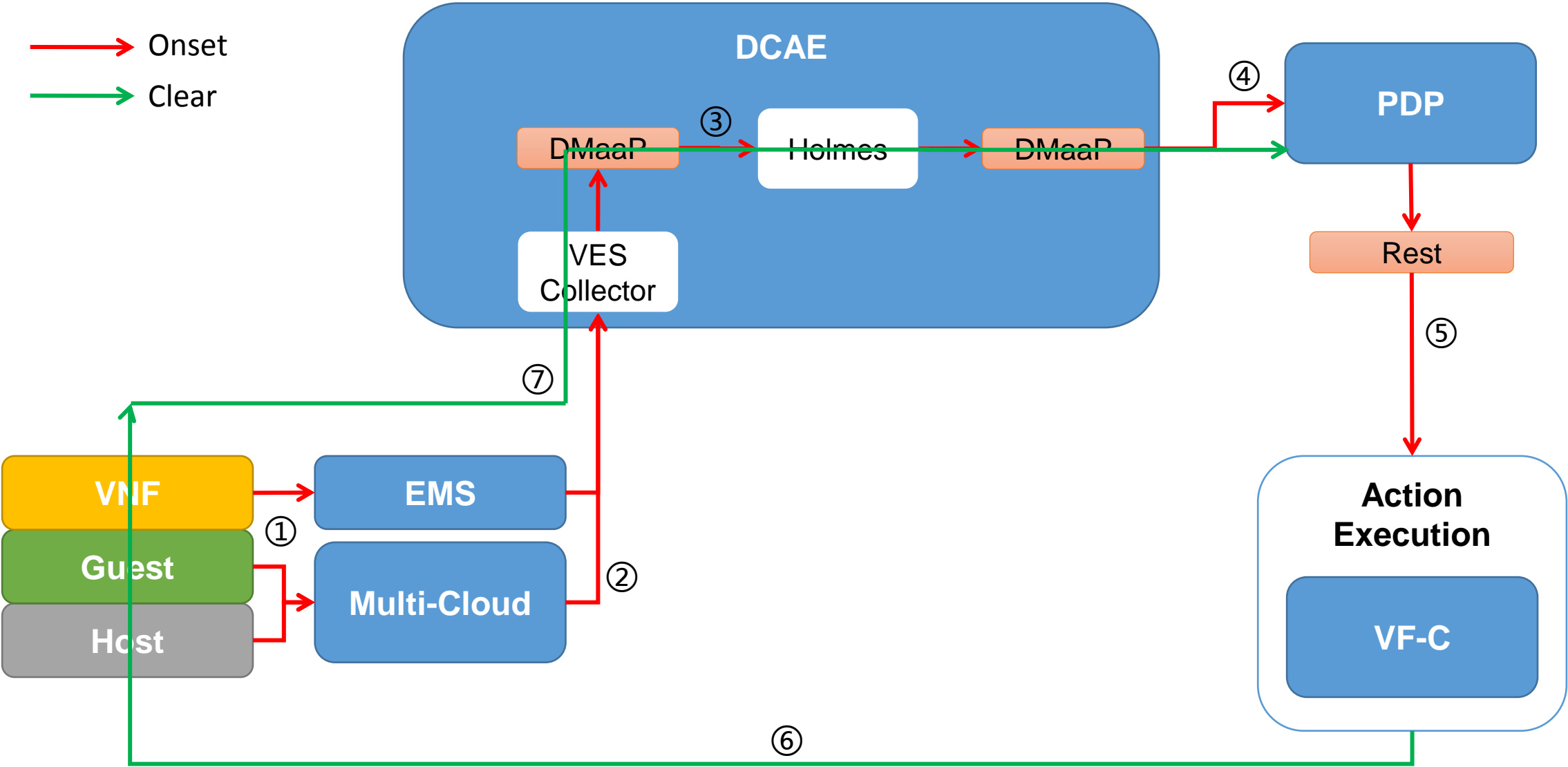
# Description



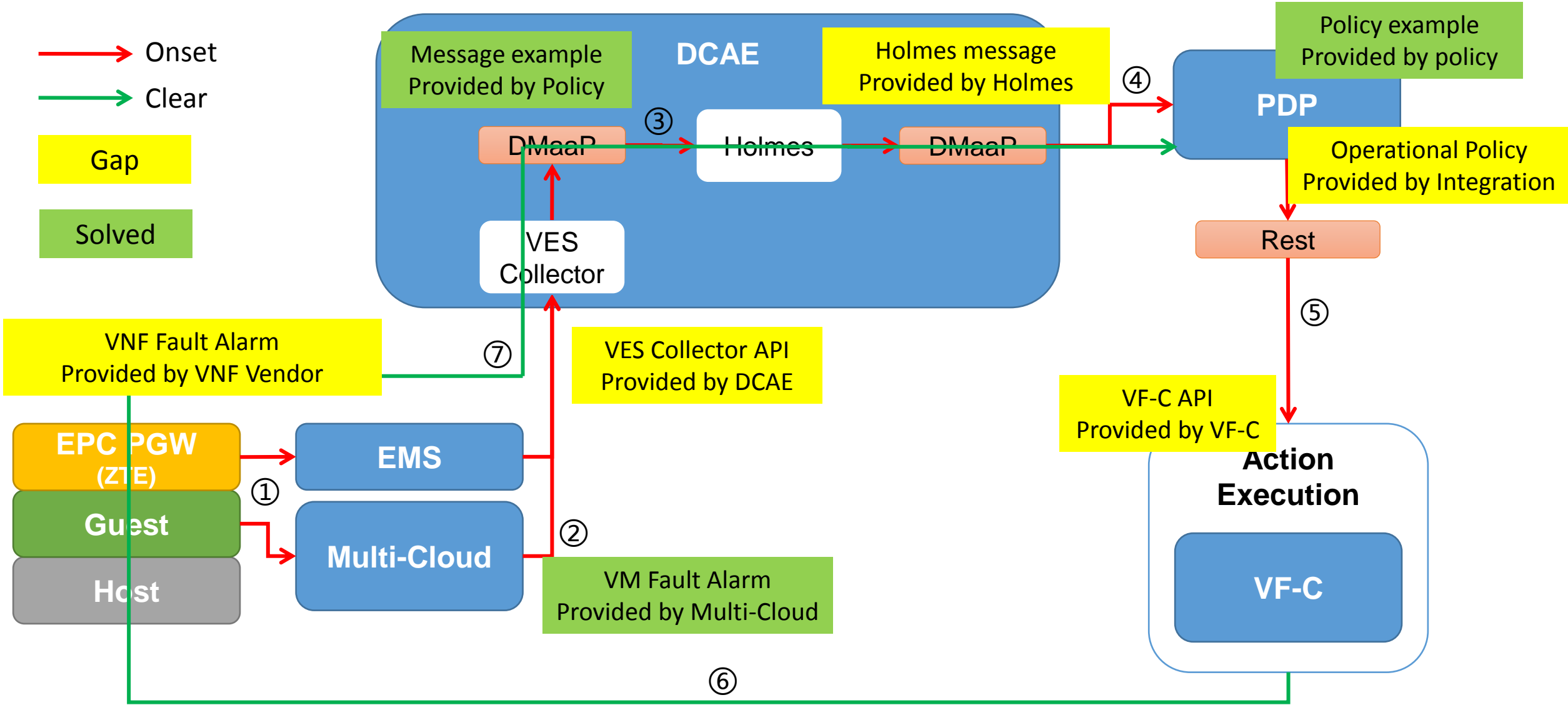
Here are the gaps need to discuss.

- ① Examples of DCAE template, Blueprint, Config Policy, Operational Policy and related files needed to be designed and used in the control loop. If **a series of practical examples** can be provided, like all related examples of the vFW demo, which is better for us to understand.
- ② Developer **guidelines** to design the control loop to achieve the requirement of VoLTE. Demo of the entire process, e.g. create, deploy, etc., which is a better way help us to learn, if it can be provided.
- ③ The detail of **Holmes** integrated with DCAE, e.g. DCAE Template, API, etc.
- ④ The solution of convert **Holmes rules**, e.g. refer to Policy, or other solutions, etc.
- ⑤ The requirement of **Policy** to invoke the **API** of **VF-C**.
- ⑥ The **API** document of VES collector in **DCAE** is used by **VF-C** to report VNF FCAPS data.

# Story



# Story & Gaps

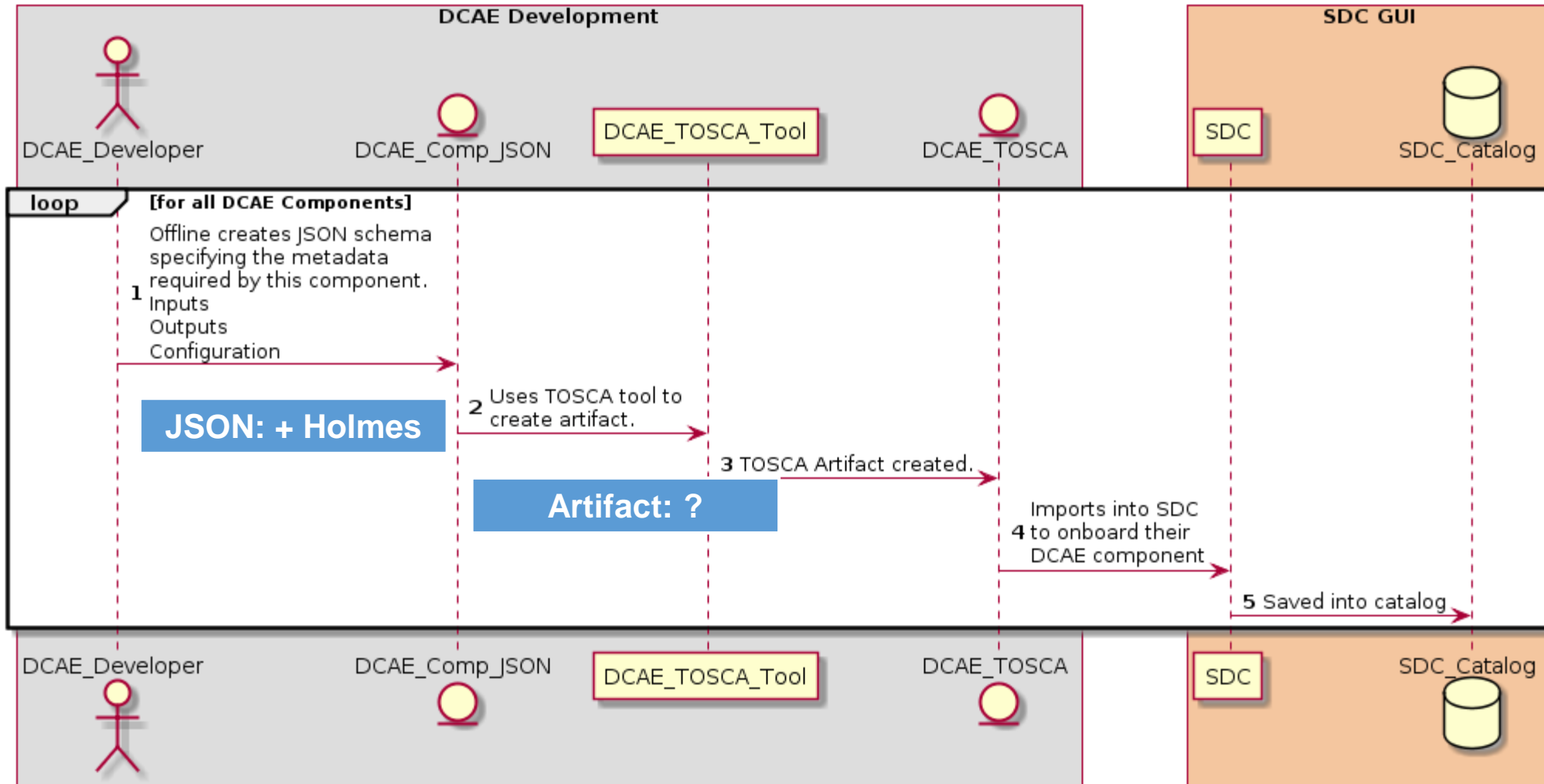


# Story

	Alarm	Action
VNF	VNF Fault Alarm	Restart VM/VNF
Guest	VM Fault Alarm VM OS abnormal, Kernel Panic, VM does not send a heartbeat to an external watchdog service for a long time.	
Host		

# 1. Onboarding

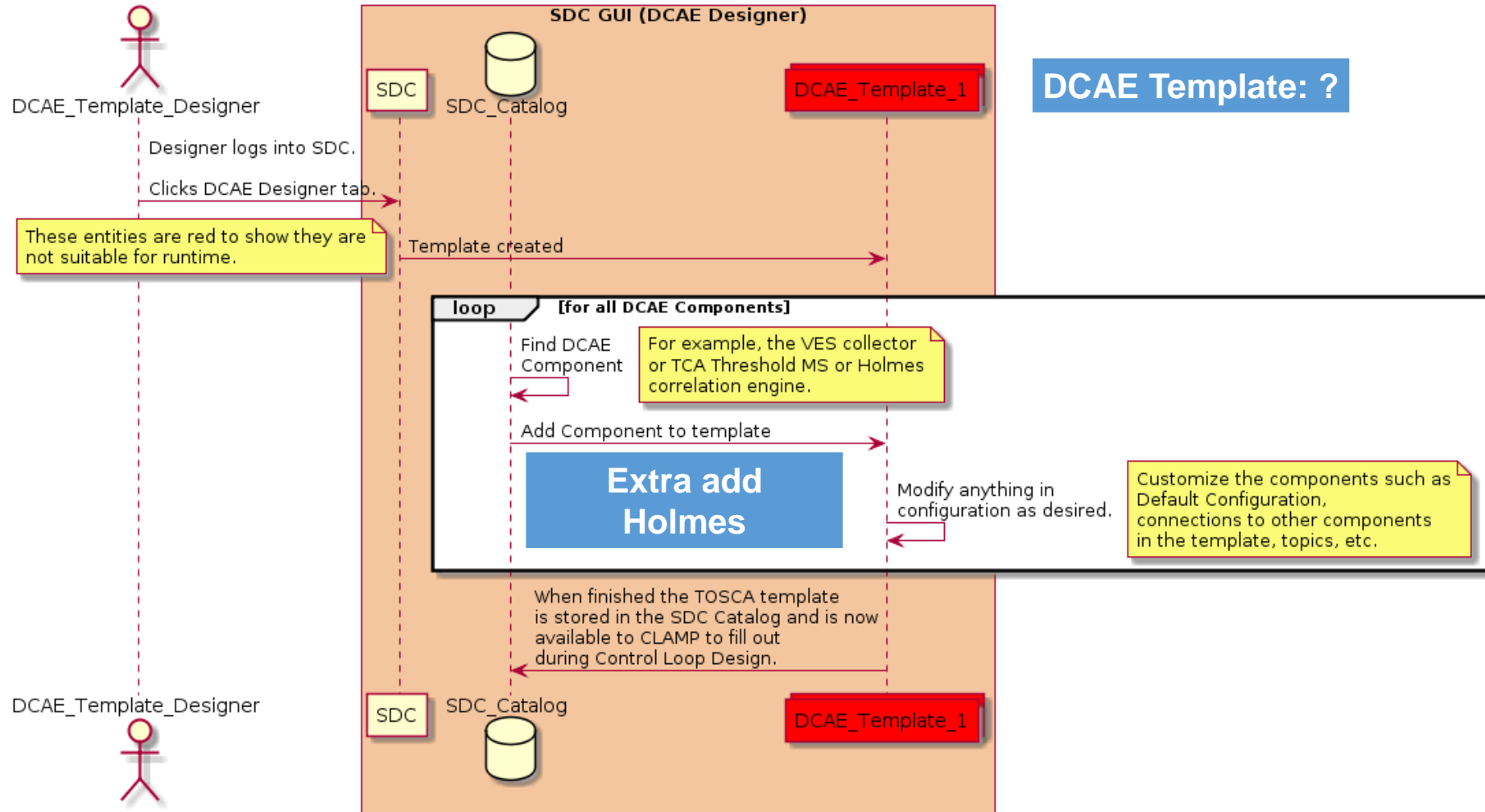
This is the flow for onboarding DCAE components. All components get onboarded and made available to DCAE template designer.



Beside JSON and Artifact, what others we need to do?

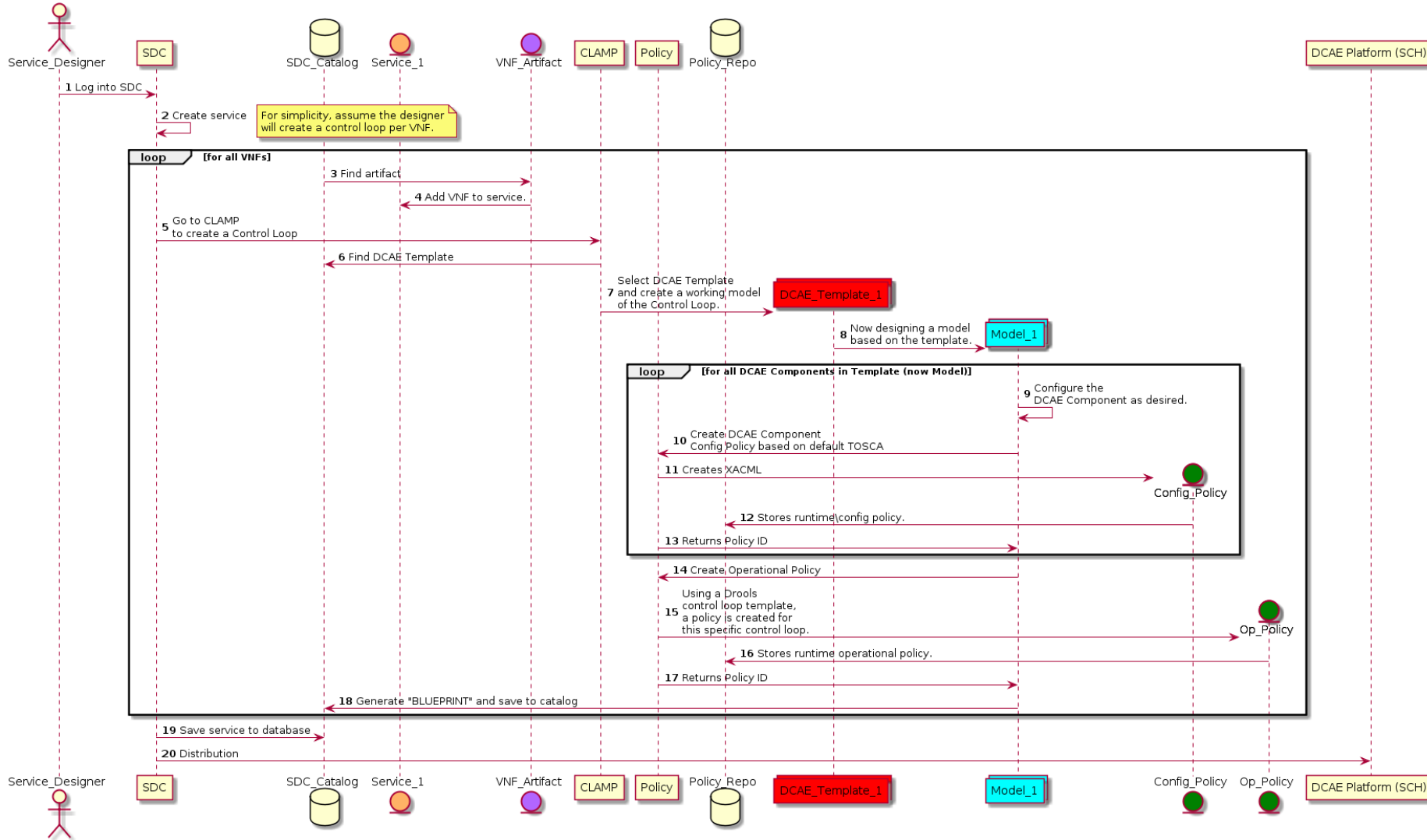
# 2.1 Template Creation

This is the flow for creating a reusable DCAE template. A reusable template is configured with on-boarded DCAE components such as collectors, analytics, microservices.



# 2.2 Service Composition

This is the flow during Service Design for designing Control Loop Blueprints via CLAMP.



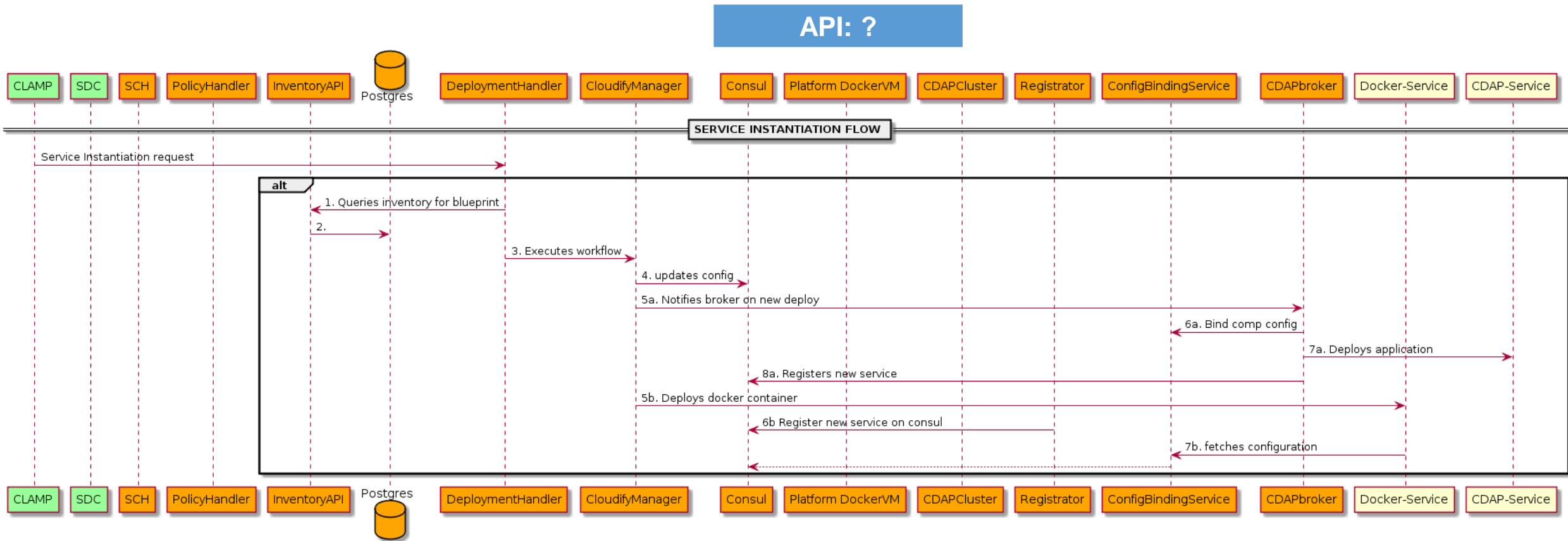
Config policy:  
wiki

Operational policy:  
wiki

Blueprint: ?



# 4. Run time



# Gap (3) & (4) – Holmes

## Rule Designer

- Cooperate with Policy

## Holmes DCAE Onboarding

Refer to CLAMP doc

- Holmes team provides onboarding information (Component Spec)
  - ❑ Metadata
  - ❑ Interfaces (i.e. DMaaP subscribe/publish)
  - ❑ Configuration Parameters (e.g. Drools Logic)
  - ❑ Auxiliary Details
  - ❑ List of Artifacts
- This information is used to generate a blueprint (template for use in CLAMP) and Policy definition

## Related to DMaaP

- DMaaP Topic, e.g. the topic between DCAE and Policy, DCAE-CL-EVENT
- How to get data from and back message to DMaaP? Sample code will provide by DCAE team.
- What is the message looks like?
  - Wiki: Control Loop Event Messages: DCAE Event for vFirewall

## Rules

- Convert to TOSCA

## Others

- ?

# Gap (5) & (6) - API

- API:
  - Policy -> VF-C
    - ❑ Requirements from Policy team -> discuss by email
  - VF-C / Multi-VIM -> DCAE (VES Collector)
    - ❑ The API document of VES collector to report data.
    - ❑ Naming standard
    - ❑ vfstatus

# Relation with SDC

- Upload the spec -> dcae-cli / tosca tool -> catalog
- DCAE template design -> catalog
- Service design (CL Blueprint) -> catalog

# Summary – move to the wiki page

No.	Gaps	Action Owner	When?
1	JSON – Component Spec.	DCAE	vescollector-componentspec.json
2	Artifact	DCAE	
3	DCAE Template Example	DCAE	N/A
4	Cloudify Blueprint Example	CLAMP?	TBD - Ron
5	VNF Fault Alarm	VNF Vendor	Yuan
6	VM Fault Alarm	Multi-VIM	VM Fault Alarm
7	VES Collector API, Naming Standard	DCAE	Alok
8	Sample code: message get from and back to DMaaP	DCAE	
9	DMaaP API: sub/pub, query, etc.		
10	DMaaP Message example	Policy	Control Loop Event Messages: DCAE Event for vFirewall
11	Holmes -> DMaaP: Message, topic (refer to example)	Holmes	
12	Holmes Rules	Holmes	Convert to TOSCA, refer to example provided by Policy
13	Policy examples (Config + Operation)	Policy	TOSCA: DCAE Component Policy (for Control Loop) Yaml: Example Operational Policy for vFirewall Use Case
14	VoLTE Use Case Policy, DCAE Template, Holmes Rules, Blueprint	Integration	
15	VF-C API	VF-C	
16	Any documents to help developing	all	

# Requirements from related projects

- What should VoLTE use case provide to CLAMP, DCAE, Policy, etc.?

# Thanks!

Any others?