CLAMP R7 - Architecture Review (done with Architecture team the 28th July 2020)

1. **Project Overview**
   CLAMP is the place where you manage the runtime of the Control loop in ONAP:
   a. you can configure the parameters of the µS composing the Control Loop:
      i. this is achieved by creating/updating/deleting policies (configuration policies).
      ii. the above policies will be associated to the deployed µS
      iii. Associate a Control Loop to a Service
   b. you can configure the Operation to be taken by the Control Loop:
      i. this is achieved by creating/updating/deleting policies (operational policies).
   c. you can deploy/un-deploy Control Loop flow(blueprint) to DCAE.
   d. in separated/independent Docker containers, you have the "Control Loop Dashboard" which is an ELK stack dedicated to display DMAAP messages related to runtime control loop messages (from DCAE/Policy/APPC).

2. **New component capabilities for Guilin, i.e. the functional enhancements**
   a. None (waiting finalization of DCAE-MOD interface design to continue Self Serve Control-Loop)

3. **New or modified interfaces**
   a. None.

4. **Interface naming**
   CLAMP supports the following interfaces:
   a. Control Loop Life Cycle Management User interface (LCM UI) for, refer to CLAMPE1 in architecture description (ARC CLAMP Component Description - Guilin and ARC CLAMP Component Description - Guilin (R7) Release (New)):
      i. selecting the Control Loop flow.
      ii. selecting the Service/VNF to be associated with the Flow
      iii. entering configuration policy parameter.
      iv. entering operational policy parameter.
      v. manage lifecycle of DCAE blueprint (Control Loop flow).
   b. Control Loop dashboard User Interface based on "Kibana" (ELK stack, completely independent from LCM UI), refer to CLAMPE2 in architecture description (ARC CLAMP Component Description - Guilin and ARC CLAMP Component Description - Guilin (R7) Release (New)).

5. **Reference to the interfaces**
   a. for the UI see readthedocs(obviously still under development for Dublin) : CLAMP latest user guide
   b. internal interface are available via swagger : clamp swagger pdf

6. **What are the system limits**
   a. none so far, CLAMP is not a in the path of runtime call, so it is not heavily hit by massive amount of call. So auto scaling is not really required but could be added.
   b. DB redundancy/HA relies on kubernetes and persistent volume. mariaDB cluster can be a future improvement
   c. Application redundancy/HA relies on kubernetes.

7. **Involved use cases, architectural capabilities or functional requirements**
   a. scaling use cases (Test only for CLAMP)
   b. Self Serve Control Loop: Self Serve Control Loops v2 (design only in Guilin for CLAMP)
   c. Support of Native Policy (Test Only for CLAMP)
   d. Support of Policy Filtering (Test Only for CLAMP)

8. **Listing of new or impacted models used by the project (for information only)**
   a. None.