



Control Loop E2E

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Agenda

- Identifying the Current Gaps in Control Loop
 - Platform capabilities that need to be in place
 - Capturing VNF Service Assurance Recommendations
 - Design Time Building of Control Loop Missing Capabilities
 - Runtime Monitoring Dashboard Missing
- Need for Control Loop Subcommittee
 - Multiple if not ALL the projects are involved in Control Loop in some way, need a subcommittee to help guide/organize the projects together
- What are the control loops we need to support in the future?
 - Given future desired control loops, what is the roadmap for the platform to support those capabilities?

R1 Gaps – Platform Capabilities

- What needs to be in place in the platform BEFORE we onboard a VNF
 - DCAE Collectors/Microservices need to be onboarded
 - When building the configuration policies, the model and process seems overly complicated. How do we simplify this?
 - Missing policy for VES Collector and Holmes
 - Done via configuration
 - DCAE Templates (Blueprints) need to be manually generated
 - Must move from a manual process to general implementation
 - Dmaap Topics utilized
 - Setting up and configuring amongst the components isn't straightforward

R1 Gaps – Platform Capabilities - continued

- What needs to be in place in the platform BEFORE we onboard a VNF
 - Specifying Controller Actions
 - API's hardcoded and implemented into both design time and runtime processes
 - Current API's are overly complicated.
 - Can we simplify the messaging between Policy to Controllers?
 - Can we have Common Controller API and/or a simplified API Specification?
 - Missing capability to extend the platform to support NON-Controller Actions
 - Eg. In CLAMP I want to be able to specify actions supported by internal applications
 - Policy Control Loop Templates
 - Policy has the capability to support multiple Control Loop templates. But how does CLAMP choose which one to use? Right now it is hard-coded.
 - Need flexibility for Control Loop Designers to choose which template they wish to use to support a Control Loop Policy

R1 Gaps – Platform Capabilities - continued

- What needs to be in place in the platform BEFORE we onboard a VNF
 - Ability to specify Guard Policies
 - The Policy Platform already supports Guard Policies. How do we integrate that into the Design Process?

R1 Gaps – Capturing VNF Recommendations

- What is the best way to model/capture VNF Recommendations for Service Assurance
 - POC in AT&T for VES Onboarding VNF Artifact
 - Is TOSCA a better choice for capturing this?
- Need recommendations/help from Modeling/VNFRequirements and VNF Onboarding projects/subcommittees teams.

R1 Gaps – Design Time Building of Control Loops

- The integration with SDC and building control loops is incomplete
 - What is the user experience that we want?

R1 Gaps – Runtime Monitoring

- There isn't a good Dashboard Monitoring tool in place
 - What is the user experience that we want with that?
 - Should have at least the ability to view Control Loops in Progress
 - Should be policy centric so that Operations Teams can interactively change/build Control Loops on-the-fly
 - Usage of Control Loop ID and Request ID in all the projects to track how a Control Loop incident is executed E2E
 - Not all projects have the ability to track this
 - Eg. RESTful API's do not have this header X-ECOMP-REQUESTID to track this.
 - Useful for debugging and integration testing
 - Useful for doing machine learning/deep learning on Control Loops

R1 Gaps – Control Loop Subcommittee

- Control Loop isn't just about DCAE/Policy/CLAMP. Many teams are involved as well as are needed for planning and organizing.
 - All the controllers: APP-C, VFC, SO
 - SDC/VID for design
 - A&AI for topology and runtime look up
 - Dmaap for Topic setup
 - Logging for Tracking Control Loops during Runtime and for doing post-control loop auditing/analyzing/machine learning/etc.

R1 Gaps – Future Control Loops

- Given future desired control loops, what is the roadmap for the platform to support those capabilities? What is missing?
 - Control Loops for Control Loops?