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
• 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?