2022-06-DD - ONAP: Enabling BOD-Based Feasibility Check and Service Provisioning including Time-Aware Calendarization for E-Line Services

Topic Leader(s)

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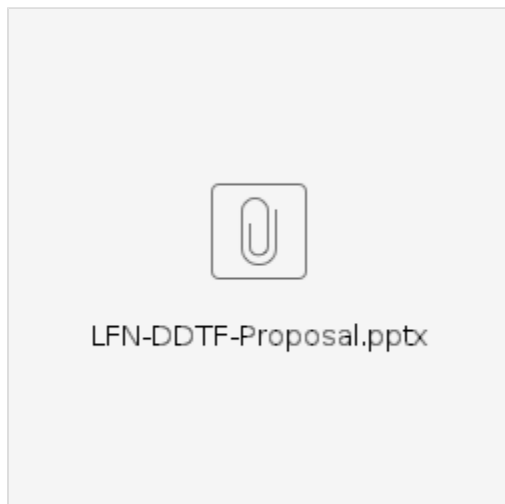- Ali Mohammad Fouladgar

Topic Description

Use case implementation of E-Line services including time-aware calendarization Bandwidth-on-Demand (BoD) feasibility check and service provisioning. The scope includes implementation of functional features (service templates, BPMN processes, DGs, etc…) as well as adding scheduler for the purpose of time-aware calendarization

Topic Overview

We successfully deployed ONAP as a service orchestrator for E-Line services. We designed and developed various resource types, service templates and resource templates for enabling service orchestration. One of the major contributions was to ensure resource and service definitions are compliant with standards while still support our use case. This required modification to ONAP built-in AAI schema. To do so, we actively collaborated with MEF LSO technical committee, and we developed information models that are fully compliant with MEF standards. Enabling automated network discovery was another key contribution. This was achieved by developing Directed Graph (DG) plugins for SDN-C which connected to a 3rd-party controller and enabled network discovery. To automatically and periodically discover network resources, we developed a custom-built application that is configurable to schedule periodic network re-discovery. Additional DGs were also developed to enable service provisioning. In addition, we developed new BPMN processes to orchestrate the E2E service flows, including feasibility check requests. Finally, to achieve BOD capabilities, such as time-aware calendarization and bandwidth modification schedules, we developed custom-built application that enable scheduling tasks in a given time, including future time (i.e., service activation/termination, BoD schedules, etc…).

Slides & Recording

LFN-DDTF-Proposal.pptx

In person presentation including a demo (presenter Ahmad Khalil) ~30 min

Agenda

- Overview
- Development Timeline
- A&AI Development
- Feasibility Check & Scheduling Flow
- K8S Cronjob – Base Scheduler
- Demo
- Q&A

Minutes

Action Items

- [ ]