Modularity for Integration Usability

[Recap1] Problem statement at Dublin Arch. Meeting

Problem Statement

- ONAP is too complex, too big and hard to make changes.
- ONAP Components are monolithic (SDN-C, SO) and large, not sharing common utilities
- Service providers might have a specific module already implemented and would like to integrate that module into ONAP
  - External controllers (e.g. VNFM, SDN Controller), external orchestrators, collectors, analytic microservices
- Service providers would like to deploy ONAP incrementally, whereas today ONAP supports all-or-nothing approach
  - Core components of ONAP such as SDC, SO, and A&AI must be deployed
  - Other components can be added on as needed basis, depending on the scope of use
- Should ONAP modules migrate to cloud-native microservices?

Can incorporate additional issues and/or more details if available

https://wiki.onap.org/display/DW/Dublin+Architecture+Planning+Meeting
Vimal Begwani, John Jensen, John Ng, Chaker Al-Hakim, Margaret Chiosi, Seshu Kumar "ONAP Modularization", Dublin Architecture Planning Meeting, Oct 29th 2018.

[Recap2] Discussion of Modularization II at Dublin Arch. Meeting

Modularization - 1

- Aligned working assumption on terminology:
  - **Module**: Implements a business capability accessed through a defined set of APIs
    - E.g. A DCAE Data Collector microservice, A&AI data repository
  - **Component:** A collection of modules that are related in some form
    - E.g. SO, Controllers, A&AI, etc
  - **ONAP**: A collection of ONAP Components
  - **Microservice**:Small, single-capability focused, standalone services
    - E.g. IP address assignment, Tosca parser
  - **Cloud-Native**: Container-packaged, dynamically managed, microservicesoriented applications
    - E.g. Containerized microservices managed by Kubernetes
  - **Service Mesh**: Connective tissue between microservices
    - E.g. traffic control, resiliency, security, observability
    - Control plane (Istio, linkerd) and Data plane (Envoy, linkerd)
    - Note: This is different from service chaining
- Aligned working assumption on approach
  - Evolutionary approach
  - One component at a time
  - Start with SO and Controllers

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DUBLIN Architecture and Modelling F2F meeting Draft Summary Slides.

[Recap3] Discussion of Modularization II at Dublin Arch. Meeting

Modularity - II

- SO Decomposition working assumption
  - API handler
  - Request DB
  - BPMN Infra
  - SDC controller
  - Catalog Adapter
  - Adapters for the controllers (SDNC/VFC/…) and
  - Cloud Adapter
- Controller decomposition working assumption:
  - Extract IP assignment from the controllers as a common microservice
  - Extract Tosca Parser from SO and make a common microservice
- Feedback welcome to mature to working assumption for Dublin.
  - Will discuss in Project meetings
  - Will share with PTLs in PTL meeting

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DUBLIN Architecture and Modelling F2F meeting Draft Summary Slides.

Current progress of Modularity and Our question

<Our recognition of progress>

- As the above-cited slides, several issues of Modularization were discussed on Dublin Architecture Planning meeting.

- Modularity for incremental deployment is **very important for consumption.**

- **So, we'd like to see the current progress** of Modularity for Frankfurt release and further releases.

<Question>

- How is the **current progress on modularity (Microservice) of each PT?**
- **What is the future plan for modularity?**

Talk to us (on Modularity Questions)

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