ARC Multi-Cloud Component Description - Guilin (R7) Release

MC Multi-Cloud:

High Level Component Definition and Architectural Relationships

Don't know why cannot update the diagram here, refer to ARC Multi-Cloud Component Description - Guilin (R7) Release (Copy)

The multi-cloud function provides mediation capabilities to connect to different infrastructure providers.

- Adapt ONAP to VM based infrastructure such as openstack,Azure
- Adapt ONAP to Container Orchestration Engine, such as K8S
- Discovery and registration of resource information.
- Relay FCAPS data from infrastructure to DCAE

2. MultiCloud API definitions

Multi-Cloud provides the following interfaces:

Interface Name	Interface Definition	Interface Capabilities
MCE-2	Resource Lifecycle Management Interface Provides a course grain VNF level LCM interface in a template driven and cloud agnostic way	Provides: - Infrastuture workload LCM (instantiate, query, Delete Infrastructure workloads)
MCE-3	N/A Place holder for SDN interconnect interface	Envisaged Future Capability
MCE-4	Atomic Resource LCM Provides a fine graned resource LCM interface at the VM level. This is an atomic resource level workload LCM (specific to openstack resources)	Provides: - Image Management: (Create/Delete/Get Images) - Network Management (Create/Delete /Query connectivity) - Subnetwork Management ((Create/Delete /Query sub-networks) - Virtual Point Management (Create/Delete /Query Virtual endpoints) - Server Management (Create/Delete/Query Virtual Servers) - Heal Server - Flavour Management (Create/Delete/Query VM Flavors) - Volume Management (Create/Delete/Query Storage Volumes) - Tenant Management (Create/Delete/Query Infrastructure Tenants)
MCE-5	Placement Optimization Interface Provides real time available capacity information	Provides: - Query for real-time available capacity information

MCE-6	Cloud VIM Registration interface Expose Interface to trigger MultiCloud plugin to discover the infrastructure resource and register them to AAI	Provides: • VIM Management (Update VIM info, unregister VIM info)

Note: xxxI interface is a Component internal interface. xxxxE interface is a component external interface

The current API documents can be found at: https://onap.readthedocs.io/en/latest/submodules/multicloud/framework.git/docs/MultiCloud-APIv1-Specification.html

MultiCloud consumes the following Interfaces:

Interface Name	Purpose Reason For Use
SDCE-6	To receive the cloud orchestration artifact from SDC
MCE-1	Consume the services from the cloud provider. It is specific to each cloud type (by plugin approach)
DCAEE-X	Supply Virtual Infrastructure FCAPS Events to DCAE
AAIE-1	Consume the services from AAI to access infrastructure resource inventory

3. Component Description:

A more detailed figure and description of the component.

<< For later inclusion >>

4. known system limitations
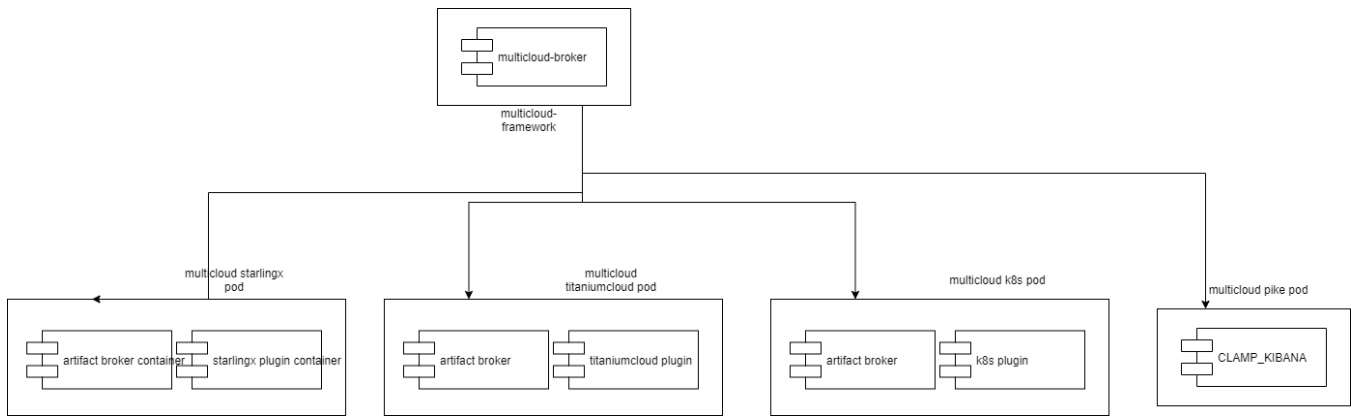
Runtime: to be filled in

5. Used Models

Multi-Cloud uses the following models:

- AAI Cloud Region Model

6. System Deployment Architecture

Multicloud consists of X containers:

- Do you have a figure here that?

multicloud-broker

multicloud-
framework

multicloud starlingx
pod

artifact broker container   starlingx plugin container

multicloud
titaniumcloud pod

artifact broker   titaniumcloud plugin

multicloud k8s pod

artifact broker   k8s plugin

multicloud pike pod

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7. New Capabilities in this Release

This release, Multi-Cloud adds the following Capabilities:

- Artifactbroker will support new artifact format based on helm chart.

8. References

1. Multicloud interface specification: https://onap.readthedocs.io/en/latest/submodules/multicloud/framework.git/docs/MultiCloud-APIv1-Specification.html
2. MultiCloud Architecture: https://docs.onap.org/en/casablanca/submodules/multicloud/framework.git/docs/MultiCloud-Architecture.html