ARCHCOM: InfoFlow - SDC Service Distribution

STATUS: DRAFT

1. Scope

DESCRIPTION: This flow describes the distribution of the SDC Service CSAR. The SDC Service CSAR is a package of artifacts and output from design time that is created by the various design time GUIs. It captures the things associated with a service that has been defined in design time. This is then distributed to ONAP run-time components.
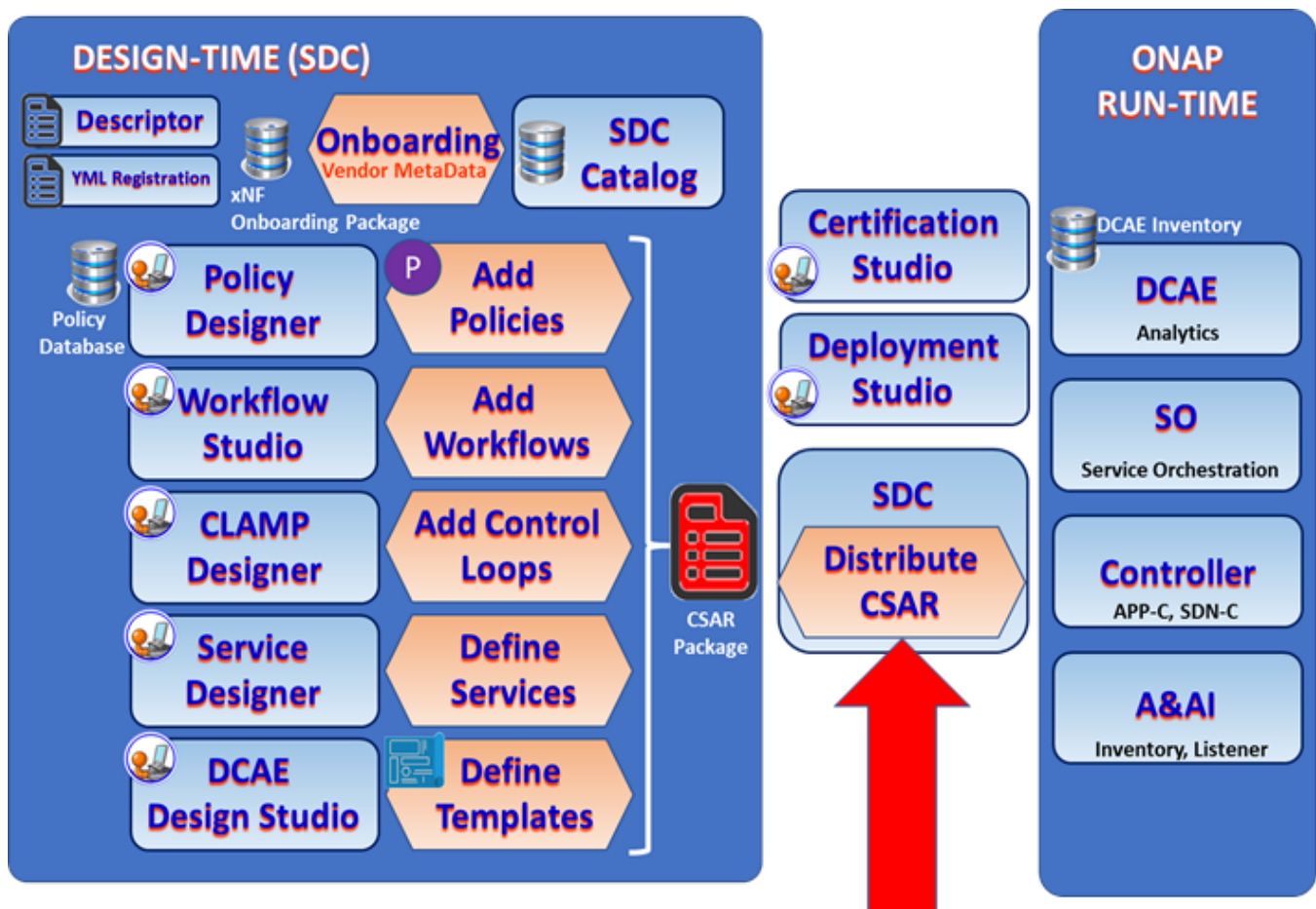
WHEN EXECUTED: After Design Time (before Run Time). When SDC Service CSAR package has been composed and is ready for distribution by SDC from a user at the Deployment Studio.

PURPOSE: To distribute the SDC Service CSAR to the run-time components

INFORMATION PASSED: Service CSAR package.

ACTORS:

- Service Designer
- Operations Specialist
- SDC (Deployment Studio)
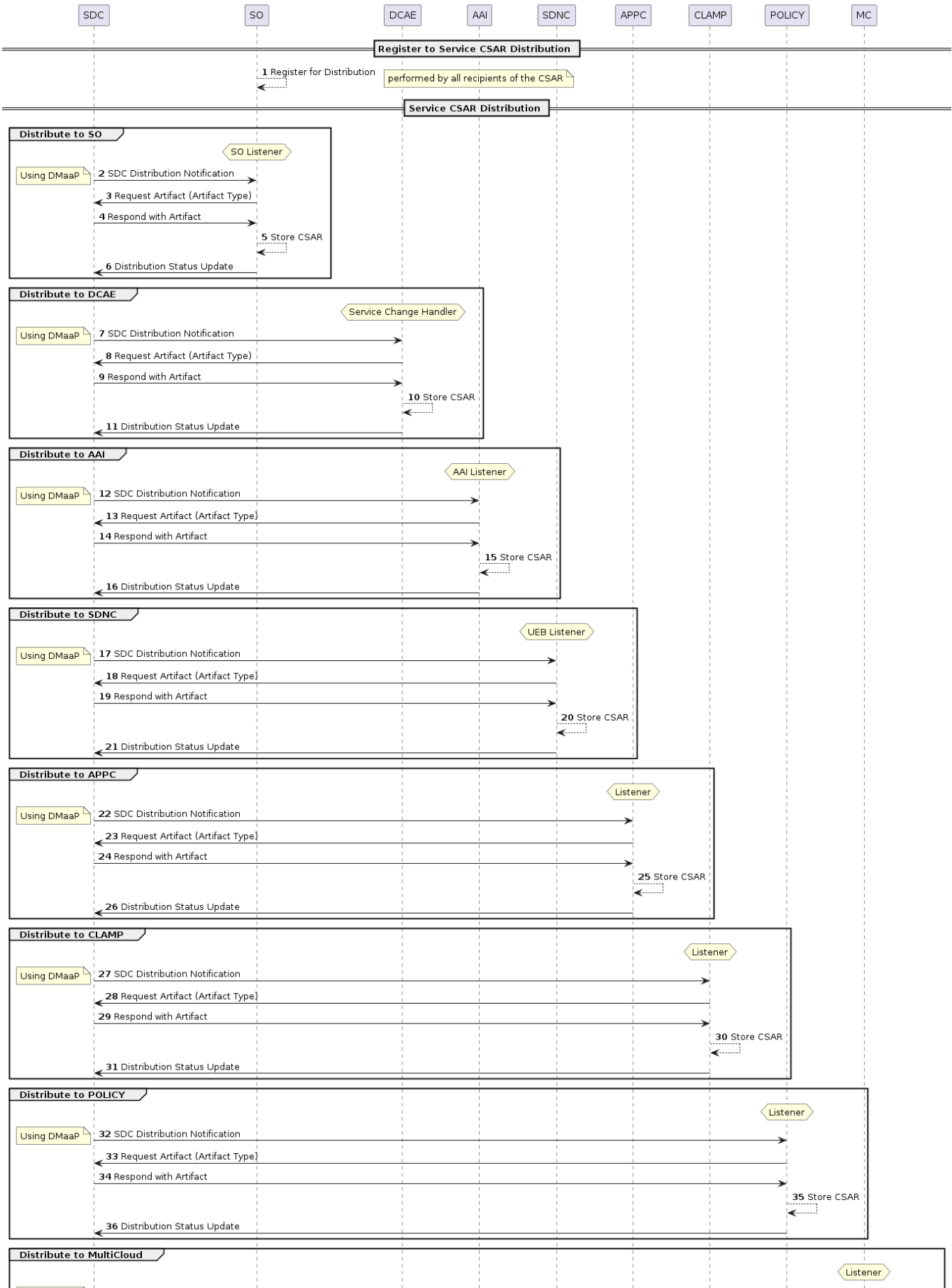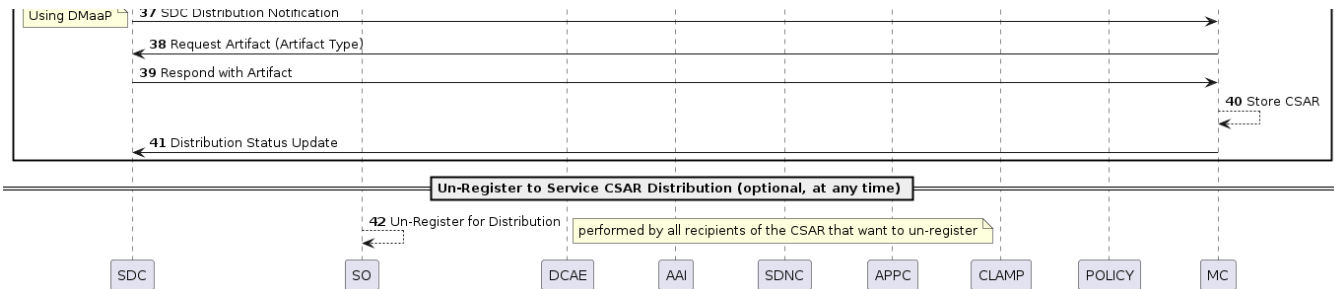

2. Pre-Conditions

The preconditions are:

- PNFD and VNFD have been mapped to platform data/information model.
- SDC contains the verified service and resource descriptors

- Associated resources (PNF, VNF, ANF) used by services have been properly onboarded.
- Services have been defined in design time, and associated templates, control loops, blueprints have been incorporated into the service
- SDC has composed the Service Design CSAR package ready for distribution.
- The Certification Studio has certified the Package ready for distribution
- The Deployment Studio operator has identified the Service Design CSAR package for distribution

3. Information Flow

SDC Service Distribution-1

SDC	SO	DCAE	AAI	SDNC	APPC	CLAMP	POLICY	MC

Register to Service CSAR Distribution

1 Register for Distribution

performed by all recipients of the CSAR

Service CSAR Distribution

Distribute to SO

SO Listener

Using DMaaP

2 SDC Distribution Notification

3 Request Artifact (Artifact Type)

4 Respond with Artifact

5 Store CSAR

6 Distribution Status Update

Distribute to DCAE

Service Change Handler

Using DMaaP

7 SDC Distribution Notification

8 Request Artifact (Artifact Type)

9 Respond with Artifact

10 Store CSAR

11 Distribution Status Update

Distribute to AAI

AAI Listener

Using DMaaP

12 SDC Distribution Notification

13 Request Artifact (Artifact Type)

14 Respond with Artifact

15 Store CSAR

16 Distribution Status Update

Distribute to SDNC

UEB Listener

Using DMaaP

17 SDC Distribution Notification

18 Request Artifact (Artifact Type)

19 Respond with Artifact

20 Store CSAR

21 Distribution Status Update

Distribute to APPC

Listener

Using DMaaP

22 SDC Distribution Notification

23 Request Artifact (Artifact Type)

24 Respond with Artifact

25 Store CSAR

26 Distribution Status Update

Distribute to CLAMP

Listener

Using DMaaP

27 SDC Distribution Notification

28 Request Artifact (Artifact Type)

29 Respond with Artifact

30 Store CSAR

31 Distribution Status Update

Distribute to POLICY

Listener

Using DMaaP

32 SDC Distribution Notification

33 Request Artifact (Artifact Type)

34 Respond with Artifact

35 Store CSAR

36 Distribution Status Update

Distribute to MultiCloud

Listener

Using DMaaP

Using DMaaP | **37** SDC Distribution Notification

38 Request Artifact (Artifact Type)

39 Respond with Artifact

40 Store CSAR

41 Distribution Status Update

Un-Register to Service CSAR Distribution (optional, at any time)

42 Un-Register for Distribution

performed by all recipients of the CSAR that want to un-register

SDC SO DCAE AAI SDNC APPC CLAMP POLICY MC

The following text describes each of the steps in the above flow. More details and exceptions can be described in the detailed descriptions. Wiki page links can also be linked for a reader to explore more.

1. **REGISTER FOR DISTRIBUTION** – SO, DCAE, A&AI, SDN-C, APP-C, VF-C register for distribution of the SDC Artifact distribution via the registration service of the <u>SDCE-6</u> interface. This is performed by all recipients of the CSAR. This allows the ONAP platform component to receive the message which will contain the package later on.
2. **SDC DISTRIBUTION NOTIFICATION (with SO)** – SDC Distributes to service CSAR SO using the <u>SDCE-6</u> interface. The SO listener retrieves the SDC CSAR package. SDC distributes the Service Distribution CSAR package which includes all of the artifacts, templates and resources related to the service created in design time. SDC publishes a topic onto DMaaP. Any RT component that has subscribed to that topic can get that package.
3. **REQUEST ARTIFACT** - The ONAP platform component can request for the artifacts required by the component.
4. **RESPOND WITH ARTIFACT** - The artifacts or SDC CSAR Package is retrieved from the DMaaP Bus. SDC responds with the package.
5. **STORE CSAR PACKAGE** – SO stores the distributed package.
6. **DISTRIBUTION STATUS UPDATE (with SO)** - SO responds to the SDC Distribution exchange using <u>SDCE-6</u>.
7. **SDC DISTRIBUTION NOTIFICATION (with DCAE)** - SDC Distributes service CSAR to DCAE using the <u>SDCE-6</u> interface, the DCAE *Service Change Handler* retrieves the SDC CSAR package, SDC distributes the Service Distribution CSAR package which includes all of the artifacts, including templates and resources related to the service created at design time.
8. **REQUEST ARTIFACT** - The ONAP platform component can request for the artifacts required by the component.
9. **RESPOND WITH ARTIFACT** - The artifacts or SDC CSAR Package is retrieved from the DMaaP Bus. SDC responds with the package.
10. **STORE CSAR PACKAGE** – DCAE stores the distributed package.
11. **DISTRIBUTION STATUS UPDATE (with DCAE)** - DCAE responds to the SDC Distribution exchange using <u>SDCE-6</u>.
12. **SDC DISTRIBUTION NOTIFICATION (with A&AI)** - SDC Distributes service CSAR to A&AI using the <u>SDCE-6</u> interface, the A&AI listener retrieves the SDC CSAR package, SDC distributes the Service Distribution CSAR package which includes all of the artifacts, including templates and resources related to the service created at design time.
13. **REQUEST ARTIFACT** - The ONAP platform component can request for the artifacts required by the component.
14. **RESPOND WITH ARTIFACT** - The artifacts or SDC CSAR Package is retrieved from the DMaaP Bus. SDC responds with the package.
15. **STORE CSAR PACKAGE** – A&AI stores the distributed package.
16. **DISTRIBUTION STATUS UPDATE (with A&AI)** - A&AI responds to the SDC Distribution exchange using <u>SDCE-6</u>.
17. **SDC DISTRIBUTION NOTIFICATION (with SDN-C)** - SDC Distributes service CSAR to SDN-C using the <u>SDCE-6</u> interface, the SDN-C UEB listener retrieves the SDC CSAR package, SDC distributes the Service Distribution CSAR package which includes all of the artifacts, including templates and resources related to the service created at design time.
18. **REQUEST ARTIFACT** - The ONAP platform component can request for the artifacts required by the component.
19. **RESPOND WITH ARTIFACT** - The artifacts or SDC CSAR Package is retrieved from the DMaaP Bus. SDC responds with the package.
20. **STORE CSAR PACKAGE** – SDN-C stores the distributed package.
21. **DISTRIBUTION STATUS UPDATE (with SDN-C)** - SDN-C responds to the SDC Distribution exchange using <u>SDCE-6</u>.
22. **SDC DISTRIBUTION NOTIFICATION (with APP-C)** - SDC Distributes service CSAR to APP-C using the <u>SDCE-6</u> interface, the APP-C listener retrieves the SDC CSAR package, SDC distributes the Service Distribution CSAR package which includes all of the artifacts, including templates and resources related to the service created at design time.
23. **REQUEST ARTIFACT** - The ONAP platform component can request for the artifacts required by the component.
24. **RESPOND WITH ARTIFACT** - The artifacts or SDC CSAR Package is retrieved from the DMaaP Bus. SDC responds with the package.
25. **STORE CSAR PACKAGE** – APP-C stores the distributed package.
26. **DISTRIBUTION STATUS UPDATE (with APP-C)** - APP-C responds to the SDC Distribution exchange using <u>SDCE-6</u>.
27. **SDC DISTRIBUTION NOTIFICATION (with CLAMP)** - SDC Distributes service CSAR to CLAMP using the <u>SDCE-6</u> interface, the CLAMP listener retrieves the SDC CSAR package, SDC distributes the Service Distribution CSAR package which includes all of the artifacts, including templates and resources related to the service created at design time.
28. **REQUEST ARTIFACT** - The ONAP platform component can request for the artifacts required by the component.
29. **RESPOND WITH ARTIFACT** - The artifacts or SDC CSAR Package is retrieved from the DMaaP Bus. SDC responds with the package.
30. **STORE CSAR PACKAGE** – CLAMP stores the distributed package.
31. **DISTRIBUTION STATUS UPDATE (with CLAMP)** - CLAMP responds to the SDC Distribution exchange using <u>SDCE-6</u>.
32. **SDC DISTRIBUTION NOTIFICATION (with POLICY)** - SDC Distributes service CSAR to POLICY using the <u>SDCE-6</u> interface, the POLICY listener retrieves the SDC CSAR package, SDC distributes the Service Distribution CSAR package which includes all of the artifacts, including templates and resources related to the service created at design time.
33. **REQUEST ARTIFACT** - The ONAP platform component can request for the artifacts required by the component.
34. **RESPOND WITH ARTIFACT** - The artifacts or SDC CSAR Package is retrieved from the DMaaP Bus. SDC responds with the package.
35. **STORE CSAR PACKAGE** – POLICY stores the distributed package.
36. **DISTRIBUTION STATUS UPDATE (with POLICY)** - POLICY responds to the SDC Distribution exchange using <u>SDCE-6</u>.
37. **SDC DISTRIBUTION NOTIFICATION (with MULTICLOUD)** - SDC Distributes service CSAR to Multi-Cloud using the <u>SDCE-6</u> interface, the Multi-Cloud listner retrieves the SDC CSAR package, SDC distributes the Service Distribution CSAR package which includes all of the artifacts, including templates and resources related to the service created at design time.
38. **REQUEST ARTIFACT** - The ONAP platform component can request for the artifacts required by the component.
39. **RESPOND WITH ARTIFACT** - The artifacts or SDC CSAR Package is retrieved from the DMaaP Bus. SDC responds with the package.
40. **STORE CSAR PACKAGE** – Multi-Cloud stores the distributed package.
41. **DISTRIBUTION STATUS UPDATE (with MULTICLOUD)** - Multi-Cloud responds to the SDC Distribution exchange using <u>SDCE-6</u>.
42. **UN-REGISTER FROM CSAR DISTRIBUTION -** At any time, any module can un-register from the reception of the CSAR using the Register for distribution service of <u>SDCE-6</u> interface.

4. Post Condition

The post-conditions are:

- The SDC Service CSAR package contains the (1) Service Descriptor, (2) Resource Descriptor, (3) Service Artifacts, (4) Templates and blueprints associated with the service.
- SO has successfully received and stored SDC Service CSAR package.
- SO will contain (in local storage) all of the artifacts & components of the SDC Service CSAR Package.
- DCAE has successfully received and stored the SDC Service CSAR Package.
- DCAE will contain (in local storage) all of the artifacts & components of the SDC Service CSAR Package.
- A&AI has successfully received and stored SDC Service CSAR package .
- A&AI will contain (in local storage) all of the artifacts & components of the SDC Service CSAR Package.
- SDN-C has successfully received and stored SDC Service CSAR package .
- SDN-C will contain (in local storage) all of the artifacts & components of the SDC Service CSAR Package.
- APP-C has successfully received and stored SDC Service CSAR package .
- APP-C will contain (in local storage) all of the artifacts & components of the SDC Service CSAR Package.
- CLAMP has successfully received and stored SDC Service CSAR package .
- CLAMP will contain (in local storage) all of the artifacts & components of the SDC Service CSAR Package.
- POLICY has successfully received and stored SDC Service CSAR package .
- POLICY will contain (in local storage) all of the artifacts & components of the SDC Service CSAR Package.
- Multi-cloud has successfully received and stored SDC Service CSAR package .
- Multi-cloud will contain (in local storage) all of the artifacts & components of the SDC Service CSAR Package.

5. References

- https://wiki.onap.org/display/DW/SDC+Distribution+client+AID