CARGO COMMUNITY NETWORK

CARGONAUT

Creating Market Value for Singapore Airlines and clients

Proof of Concept Data Corridor 2.0

PoC Changi Airport Singapore – Amsterdam Schiphol Airport

February 2020

How a data corridor could create market value for Airlines & clients

- Recently Cargo Community Network succesfully concluded a PoC data corridor with Cargonaut: hereby it is now possible to exchange data (f.e. AWB-status) between the air cargo communities of Singapore Changi Airport and Amsterdam Schiphol Airport.
- Now we proved that this innovation is technically viable, the next step is to create value for the various actors in the air cargo chain.
- Selected Use case for the second phase of our PoC data corridor (PoC 2.0):

  Forwarder clients of Airlines have reported challenges in the exchange of data between 'Forwarders at origin' (FW-O) and 'Forwarders at destination' (FW-D). To assure a continuous flow of shipments, it would be useful for forwarders at destination to be able to access AWB-status-data concerning the shipments that they are supposed to take care of upon arrival. However, FW-Ds do not have a contractual relationship with the airline and are therefore relying on the Forwarder at origin to share data which facilitates an optimal logistical planning.

- To accomodate the full air cargo chain, in the future this innovation could include:

- a consignee; thereby a forwarder at destination will be able to easily inform their client
- a trucking company; thereby they could make adjustments in logistical planning if needed
- a subcontractor of a trucking company; since they don't have a direct contractual relation with the forwarder, they are waiting for the moment that the trucking company can share relevant data. A forwarder could choose to make relevant data instantly available for the subcontractors (who they dont know) by allowing their trucking company to share data with their 'friend'.

How a trusted data corridor could create market value for Airlines and their clients

- **Airlines could create added value for their client forwarders:**

  By making AWB-status-data not only accessible for their forwarder client (the forwarder at origin, with whom the airline has a contractual relationship) but also for 'their friend': the forwarder at destination who takes care of the shipment upon arrival. This would enable the FW-D to optimize logistical planning.

- **Airlines would stay in full control of their data:**

  By formulating a policy which regulates who can access which data till: these business decisions are enforced by the trust framework 'iSHARE' once the policy is placed at a trusted Port Community System.

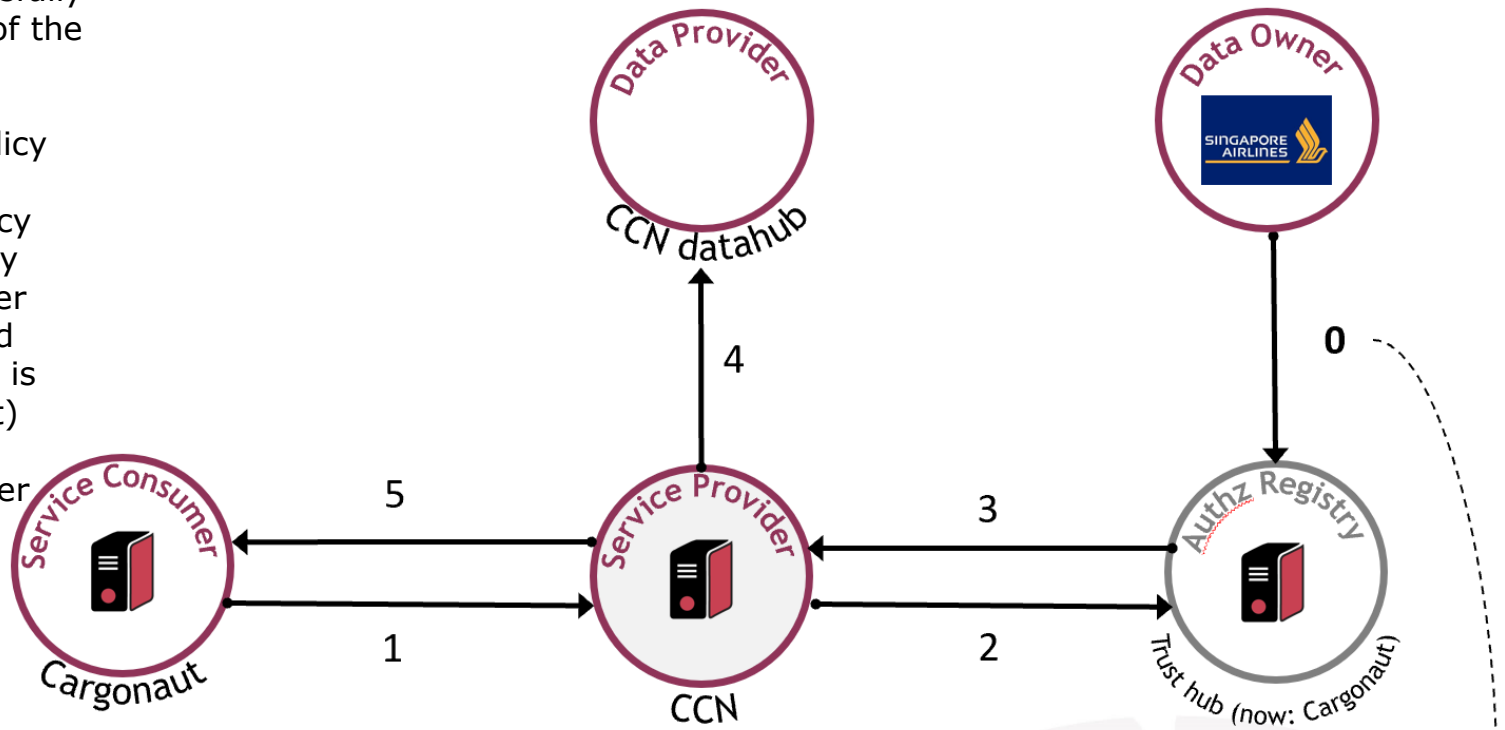
  In their policy an airline is able to:

  - List their direct clients *(in this case: Forwarders at origin)*
  - Specify the specific data elements they wish to make available to a specific client *(in this case: status of certain AWBs)*
  - Choose the 'delegation depth': hereby the airline controls the level up to which their data could be shared within the air cargo chain *(in this case: if an airline would choose a delegation depth of '1'. This would enable their forwarder client to share the status of a specific AWB with the forwarder at destination)*

Previously we showed how Singapore Airlines could enable ‘friends’ of CCN to access AWB-status-data (which is stored at this Port Community System)

Data will flow successfully through conduction of the following steps:

0. Sending in a policy
1. Request data
2. Retrieve SQ policy
3. Provide SQ policy
4. Conclude whether permit is granted after which data is retrieved (or not)
5. Provide data to Service Consumer



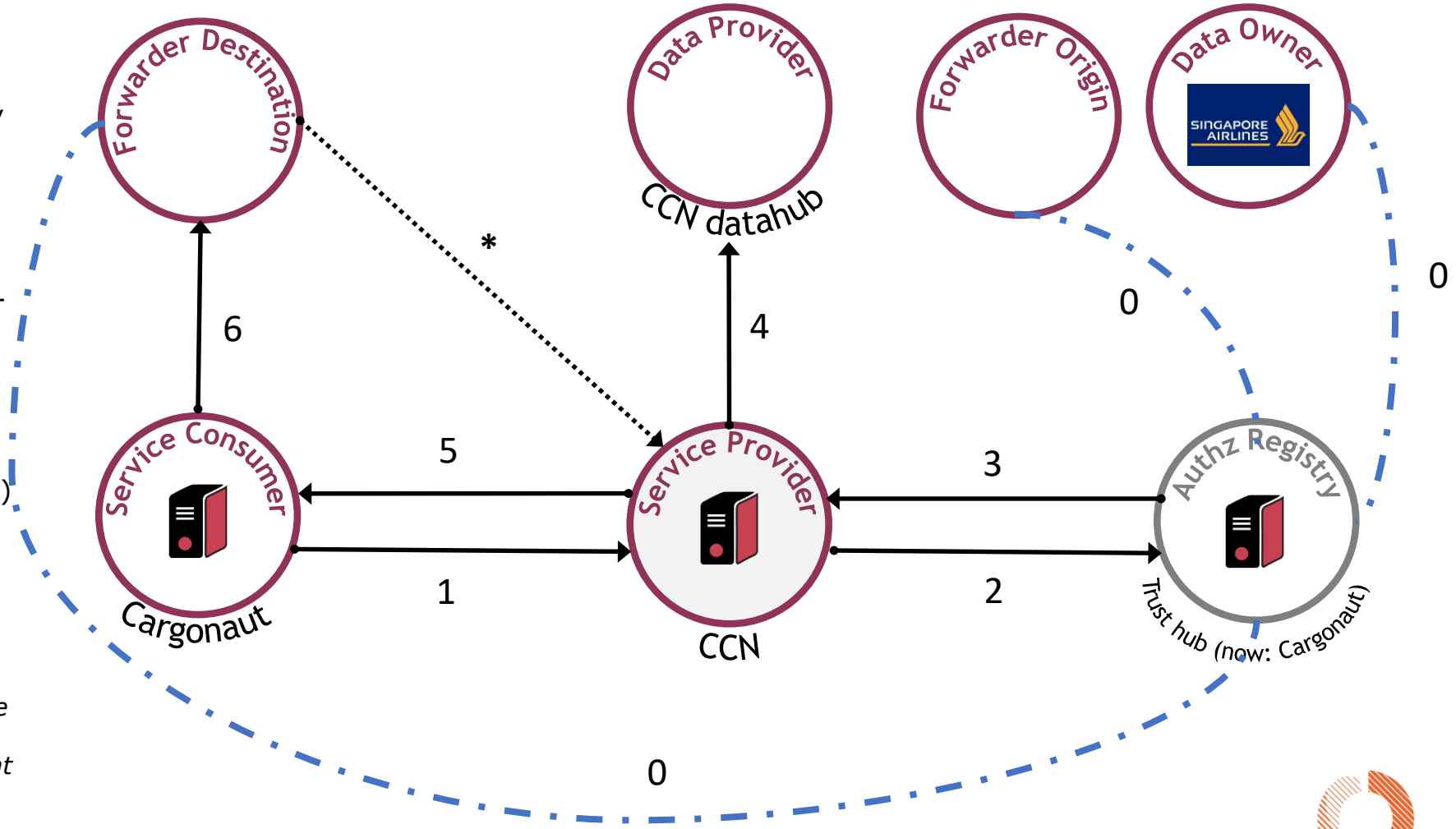
“I am Singapore Airlines, here is my policy which grants CCN the right to share AWB-status data (which is available in the CGN datahub) with a depth of 1” (this enables CCN to share with Cargonaut)

Now, we modelled the solution for the described use case for PoC 2.0: using the data corridor, forwarder-clients of Singapore Airlines could provide the Forwarder at Destination with access to SQ AWB-status-data

Based on the defined policies, the AWB-status-data can be obtained successfully by the Forwarder at Destination, according to the following steps:

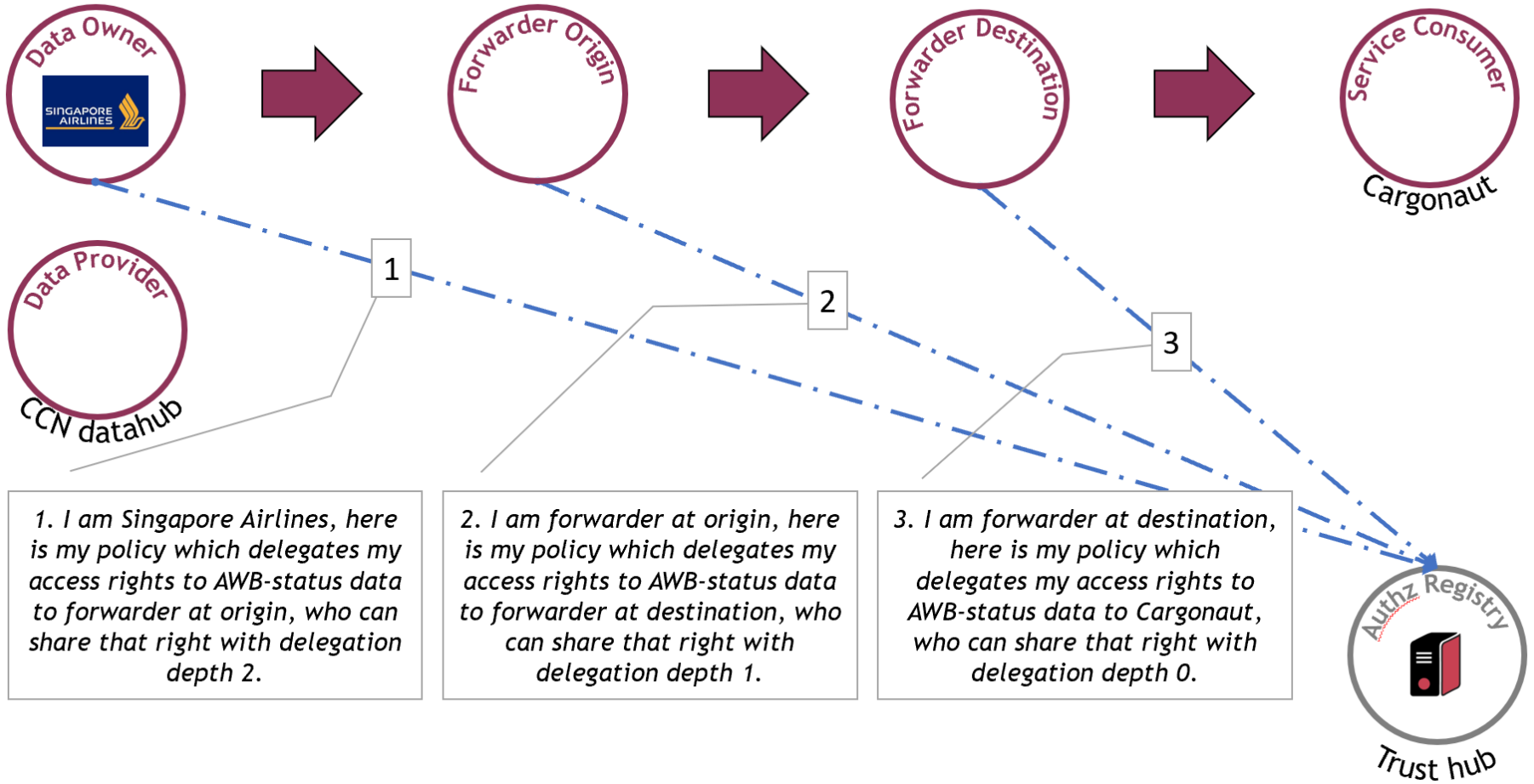
0. Sending in policies *(as described in next slide)*
1. Request data on behalf of forwarder at destination *(based on separate business agreement)*
2. Retrieve SQ policy
3. Provide SQ policy
4. Conclude whether permit is granted after which data is retrieved (or not)
5. Provide data to Service Consumer
6. Provide data based on business agreement

***** *technically, the forwarder at destination has been granted the right to access the data directly at CCN, but chooses to retrieve the data through Cargonaut, since the PCS could enrich the data f.e. with other relevant data*



To enable the described flow of data, policies are sent in which reflect the logistical agreements between actors. Thereby it creates the trust framework which assures the data sovereignty & controls the data flow

Independent of how the data flows, the owner of the data stays in full control because of the logistical agreements he has made with other actors in the chain, which shall be reflected in the policies.



Frontrunners can now step in to experience a secure and innovative way of sharing data

- If your company wishes to stay ahead of f.e. intregrators who have full data control across the air cargo chain, then joining this PoC offers a possibility to improve the way you exchange data with actors involved with your shipments.
- Airlines and their client Forwarders can join this PoC by:
- Creating a policy (see slide 3) which assures control over their data which is stored at their trusted Port Community System
- Exploring which forwarder client (with shipments on the corridor of Changi Airport – Amsterdam Schiphol Airport) could be interested to become a innovation front runner by joining this PoC. Concretely this would mean: selecting a limited amount of real shipment of which the AWB-status-data could be used for data exchange as explained in slide 5.
- Joining the PoC is relatively easily if AWB-status-data is stored at your Port Community System and we will accomodate you whereever needed. Since we understand that innovation with data exchange can feel tricky, we are glad to clarify any concern or question you may have and we wish to re-emphazise that you as a company can remain in full control over your data: iSHARE is simply creating a data-exchange based on the existing logistical agreements in the air cargo chain.