# System description - Data Consumer

## February 5, 2020

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#### 1 System Description Overview

The data consumer can buy data from the data producers through the contract system. The data consumer sends a contract offer to the contract system. The contract system will then relay back to the data consumer if a data producer accepted or rejected the contract offer. Normally the reason the offer was reject is because of an insufficient amount of currency was offered for the data or the data does not exist.

If the offer was rejected, the consumer will need to create a new contract offer and send it to the contract system once again.

If the offer was accepted, the consumer can now directly contact the data producer which accepted the offer to retrieve the data.

### 2 Behaviour Diagrams

Fig. 1 shows how the data consumer interacts with other systems.

The consumer offers a contract to the contract system. Once the contract system knows if the offer was accepted or rejected it is relayed back to the data consumer.

If the offer was accepted, the consumer can now query the data producer who accepted the contract for the data. Otherwise the data consumer needs to create a new contract offer.

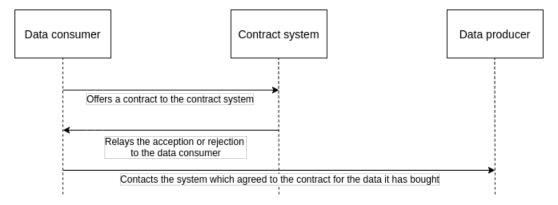


Figure 1: Behaviour diagram of the data consumer





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### 3 Application services

Table 1 shows which services the data consumer produces and Table 2 shows which services the system consumes. The path to the IDDs will be linked in respective table.

#### 3.1 Produced Services

| Service      | IDD Document Reference                             |
|--------------|--|
| accept-relay | Interface_Design_DescriptionIDDaccept_relay.pdf    |
| reject-relay | Interface _Design _DescriptionIDDreject _relay.pdf |

Table 1: Showing the data consumer provided services.

#### 3.2 Consumed Services

| Service        | IDD Document Reference                            |
|----------------|---|
| offer-contract | Interface_Design_DescriptionIDDoffer_contract.pdf |
| get-data       | Interface_Design_DescriptionIDDget_data.pdf       |

Table 2: Showing the data consumer consumed services.

## 4 Security

This system is a work in progress which means only basic security exists, such as SSL and basic token security. Currently it is possible to get data from a data producer which an consumer has bought by guessing the identifying hash.

