Interface Design Description - offer-contract

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1 Interface Design Description Overview

The offer-contract service is used to allow systems to offer a contract to buy some piece of data from other systems. When a system makes an offer to the offer-contract service the contract system will publish the offer through the event handler using the event `REQUEST_RECEIVED` to allow for the systems which might hold the data to easily get the offer. Offer-contract uses HTTP/SECURE/JSON.

Table 1 Pointers to SD documents.

Service description	Path
offer-contract	Service_Description__SD____offer_contract.pdf

2 Interfaces

2.1 Request structure

The service of offer-contract is a REST API endpoint which is accessed by a POST request. The structure of the JSON object can be seen below:

```
{
  "offer-amount": Integer,
  "ident-hash": String,
  "data-hash": String,
  "request-address": String,
  "request-port": Integer
}
```

The `offer-amount` is the amount of currency which the system is willing to pay for the data. The `ident-hash` is the hash which allows the buyer of data to identify itself to the contract system and the seller of the data. The `data-hash` is the hash which identifies the data which the system wants to buy. Lastly the `request-address` and `request-port` is the buyers address and port to allow for the contract system to relay the acception or rejection of the offer.

2.2 Response structure

The `offer-contract` service will response with a HTTP response of:

- `200 OK` if the offer was published
- `400 Bad request` if the request structure is incomplete/incorrect
- `401 Unauthorized` if the standard arrowhead authorization protocol is not followed