Event Record Data Design

```
model HyperledgerEvent {
  id            String      @id @default(uuid())
  createdAt     DateTime    @default(now())
  updatedAt     DateTime    @updatedAt
  status        EventStatus
  key           String
  collection    String
  blockNumber   Int
  orderNumber   String
  invoiceNumber String?
  ecomCode      String
  eventName     String
}
```

Field	Description
Id	unique identifier
createdAt	Auto time stamp of when created
updatedAt	Auto time stamp of when updated
status	A status to reflect in which state the record sits, possible values include: OPEN, PROCESSING, COMPLETE and IGNORE
key	The key from hyperledger used to query
collection	The collection the event belongs to
blockNumber	The Hyperledger block number for that event, this value is not unique to one event
orderNumber	The order number for a given event
invoiceNumber	If relevant, the invoice number for a given event, this important for methods such as submit return
ecomCode	The e-commerce code for a given order
eventName	This reflects the possible contract event names, possible values include: CLAIM_STATUS, DECLARATION_STATUS and chainCode

Records use whilst subscribing to Hyperledger

The following query is performed at startup:

```
SELECT a1.${eventName}, MAX(${blockNumber}) AS 'highestBlockNumber'
FROM
(
```

```
  SELECT ${eventName}, MAX(${blockNumber}) AS 'highestBlockNumber'
  FROM HyperledgerEvent AS a
  GROUP BY ${eventName}
) a1
JOIN HyperledgerEvent AS b
ON b.${eventName} = a1.${eventName}
AND b.${blockNumber} != a1.highestBlockNumber
GROUP BY a1.${eventName}
```

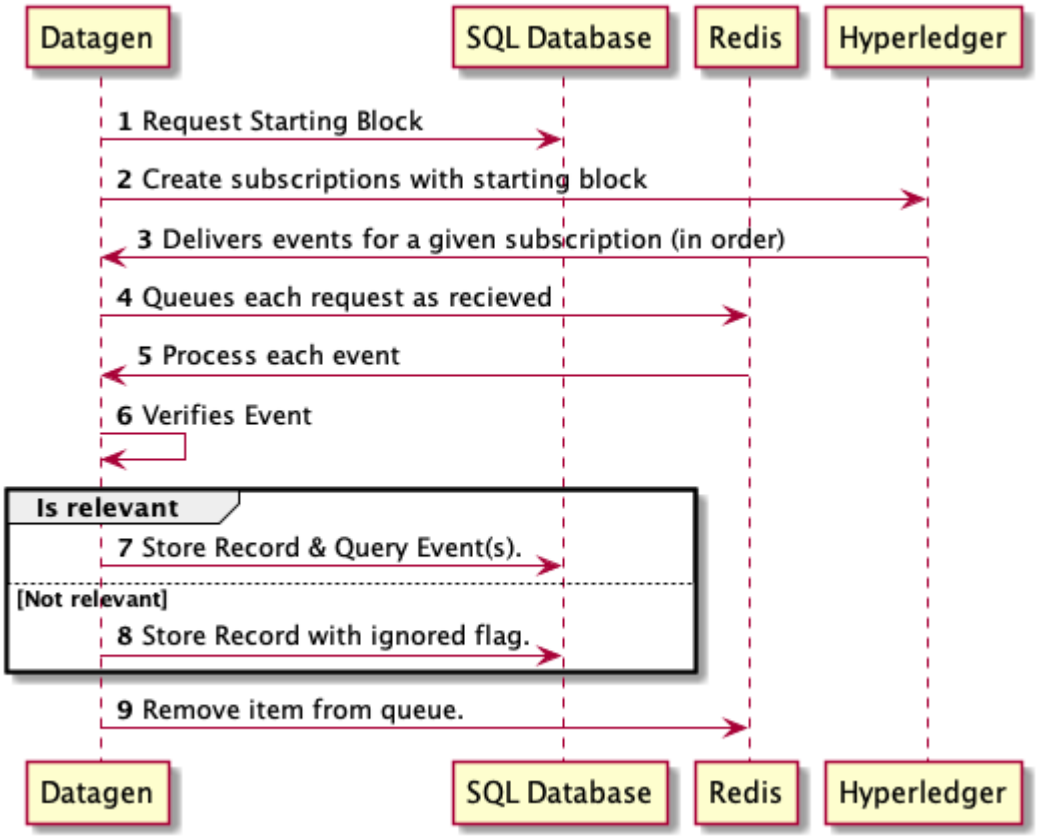
The result of this query returns the following data structure:

```
[
  {
    eventName: "Chain",
    highestBlock: 4
  },
  {
    eventName: "Declaration",
    highestBlock: 2
  }
]
```

Per subscription we determine the starting block is the second highest known block number. This is done to ensure we haven't missed any events within any of the known blocks.

Subscription sequence

This figure gives an overview as to how the subscription are created.



Processing Queue

This figure gives an overview as to how the queue processes the events: