# Sources of Data

## SOAP Web Services

Used by BOOMI in all integration scenarios, these can be used to query for data on most entities:

* Entitlements and Line-items
* Devices and Servers
* Accounts and Users
* Suites, Products, and Features

Most queries are straightforward, but web services are not suitable for anything more that simple filtering; some data is not easily accessible and may interfere with existing integration workflows.

## Data Access API

The data access API is based on Snowflake – even if Materialise does not purchase this option – and provides access to data for the last 30 days. The API provides a REST interface to the following entities:

* Entitlements and entitlement history
* Devices and device history
* Accounts
* Users
* Fulfilment – suitable for R1
* Products and features

Data is returned as paginated Json payloads and should be more easily manipulated than web service data and query filters are more powerful.

## Data Extracts API

The data extracts API provides access to transactional information on the following entities:

* Entitlements
* Devices and served devices
* Accounts and users
* Fulfilments
* Usage
* Products

This is a REST API that delivers data as CSV or ZIP files containing the transactional information. The transactional frequency is configured in FNO and can reasonably be set as low as 10 minutes. Once the artifacts have been processed, they can be deleted.

## Notifications

FNO now allows web hooks to be provided for certain real-time events. For the time being there is no need for this level of complexity.

## Conditional Notifications

FNO now allows notifications to be generated for selected entity types based on defined trigger values and sent as emails.

## Snowflake

Will provide the most complete view of data in FNO with a latency of less than two hours: however, Materialise have not purchased this option.