

Fleet Indexing Reference Guide

The AWS IoT Device Management fleet indexing service allows you to **index**, **search**, and **aggregate** your fleet data in the cloud.

Save this document as a reference to review material from the fleet indexing module.

Enable Fleet Indexing

Fleet indexing is disabled by default because usage incurs a cost. Enable fleet indexing using the console or CLI:

- Console: In the IoT Core console, choose **Settings**, scroll down to **Fleet indexing settings**.
- CLI: Use the [UpdateIndexingConfiguration](#) API.

When enabling, you can choose to enable:

- ☒ Thing indexing
 - ☒ Device shadows
 - ☐ Thing connectivity
- ☐ Thing group indexing

Aggregate

Search your device fleet for aggregate data of a specified field.

Aggregate data:

Statistics: Count, average, sum, minimum, maximum, sum of squares, variance, standard deviation

Cardinality: Count of unique values

Percentile: Value for each percentile group

- Console: In the IoT Core console, choose **Manage**, choose **Things**, choose **Fleet Indexing**, choose **Aggregate**.
- CLI: Use the [GetStatistics](#), [GetCardinality](#), and [GetPercentiles](#) APIs.

Components of an aggregation query

- Search query: (see table on right)
- Aggregation type: Statistics/Cardinality/Percentiles
- Aggregation field: (see bottom right)

Search



Search across your fleet data to find which devices in your fleet match the search criteria.

- Console: In the IoT Core console, choose **Manage**, choose **Things**, choose **Fleet Indexing**, choose **Search**.
- CLI: Use the [SearchIndex](#) API.

Search queries

| Query | Explanation |
|-------------------------------------|---|
| field: value | Search for fields that have a specific value. |
| value* | Search for a wildcard |
| field: [1 TO 5] | Search for an alphanumeric range |
| field1: [1 TO 5] OR field2: value>3 | Combine search terms with boolean statements |

Aggregation fields

When performing aggregation queries, an aggregation field is specified for the query.

Managed fields: A specific set of fields defined by AWS that contain data associated with IoT things, thing groups, and device shadows (based on your indexing mode).

Custom fields: Fields that you can add based on the indexing mode you choose. Custom fields are added when enabling fleet indexing.