Customer REST API

This is a RESTful HTTP API. It is secured using TLS, and OAuth2 bearer tokens.

All request timestamps are RFC3339 formatted UTC timestamps: example: 2020-04-02T22:15:56Z. For requests that provide a CSV response option, the timezone can be modified by setting the `timezone` query parameter. This parameter accepts values from the [IANA timezone database](#).

Examples provided assume knowledge of HTTP requests and responses. You will need to know how to make HTTP requests and read the responses for your chosen technology/platform/language.

Variables are represented as `<<VARIABLE_NAME>>`, they are required to be supplied.

Authentication

Request to resource APIs require a JSON Web Token (JWT) set as a Bearer token for the HTTP Authorization header.

```
Authorization: Bearer <<JWT>>
```

Get Access Token (JWT)

- `<<CLIENT_ID>>` : TSI Link API Client ID
- `<<CLIENT_SECRET>>` : TSI Link API Client Secret

Request

```
POST /oauth/token HTTP/1.1
Host: tsi-prd.auth0.com
Content-Type: application/x-www-form-urlencoded


grant_type=client_credentials&client_id=<<CLIENT_ID>>&client_secret=<<CLIENT_SECRET>>&audience=https://tsi-prd.appspot.com/api/v1/
```

Response

You will need to extract the value of the "access_token" field, this is the value for the `<<JWT>>` variable in the resource calls.

```
{
    "access_token": "<<JWT>>",
    "scope": "api:read:device",
    "expires_in": 86400,
    "token_type": "Bearer"
}
```

Resources

Get Devices

- `<<ACCOUNT_ID>>` : TSI Link Account ID

Request

```
GET /api/v1/external/account/<<ACCOUNT_ID>>/device HTTP/1.1
Host: https://tsi-prd.appspot.com
Authorization: Bearer <<JWT>>
```

Response

Response is an array of account devices

```
[
    {
        "accountID": "<<ACCOUNT_ID>>",
        "deviceID": "<<DEVICE_ID>>",
        "model": "8143",
        "serial": "81431901001",
        "metadata": {
            "friendlyName": "Backyard Unit",
            "isPublic": false,
            "isIndoor": false,
            "longitude": -117.41719256,
            "latitude": 34.00092146
        },
        "status": "registered",
        "createdAt": "2020-04-02T22:15:56Z",
        "createdBy": "<<USER_ID>>",
        "updatedAt": "2020-04-03T18:28:08Z",
        "updatedBy": "<<USER_ID>>"
    }
]
```

Get Telemetry (Age)

- `<<ACCOUNT_ID>>` : TSI Link Account ID
- `<<AGE>>` : days before current date
- `<<TIMEZONE>>` : response timestamps' timezone

A value of 30 for age equals all telemetry events in the last 30 days

Request

```
GET /api/v1/external/account/<<ACCOUNT_ID>>/telemetry?age=<<AGE>>&timezone=<<TIMEZONE>> HTTP/1.1
Host: https://tsi-prd.appspot.com
Authorization: Bearer <<JWT>>
```

Optional header - `Accept: text/csv` - can be used to format response into CSV file.

Response

Response is an array of telemetry records or a CSV file with the same columns and values.

```
[
    {
        "accountID": "<<ACCOUNT_ID>>",
        "deviceID": "<<DEVICE_ID>>",
        "timestamp": "2020-04-02T22:15:53Z",
        "model": "8143",
        "serial": "81431901001",
        "longitude": -117.8313194,
        "latitude": 34.0012627,
        "isPublic": false,
        "isIndoor": false,
        "sps30_fanspd": 6000,
        "sps30_mcpm10": 5,
        "sps30_mcpm10_aqi": 5,
        "sps30_mcpm1x0": 5,
        "sps30_mcpm2x5": 5,
        "sps30_mcpm2x5_aqi": 21,
        "sps30_mcpm4x0": 5,
        "sps30_ncpm0x5": 37,
        "sps30_ncpm10": 43,
        "sps30_ncpm1x0": 43,
        "sps30_ncpm2x5": 43,
        "sps30_ncpm4x0": 43,
        "sps30_serial": "0EE9CB329340F4AD",
        "sps30_status": 0,
        "sps30_tpsize": 0.5,
        "tiber_rh": 39,
        "tiber_status": 0,
        "tiber_temp": 26.2
    }
]
```

Get Telemetry (After Date)

- `<<ACCOUNT_ID>>` : TSI Link Account ID
- `<<AFTER_DATE>>` : RFC3339 UTC timestamp, records returned will be after this timestamp (it is not inclusive).
- `<<TIMEZONE>>` : response timestamps' timezone

Request

```
GET /api/v1/external/account/<<ACCOUNT_ID>>/telemetry?after=<<AFTER_DATE>>&timezone=<<TIMEZONE>> HTTP/1.1
Host: https://tsi-prd.appspot.com
Authorization: Bearer <<JWT>>
```

Optional header - `Accept: text/csv` - can be used to format response into CSV file.

Response

Response is an array of telemetry records

```
[
    {
        "accountID": "<<ACCOUNT_ID>>",
        "deviceID": "<<DEVICE_ID>>",
        "timestamp": "2020-04-02T22:15:53Z",
        "model": "8143",
        "serial": "81431901001",
        "longitude": -117.8313194,
        "latitude": 34.0012627,
        "isPublic": false,
        "isIndoor": false,
        "sps30_fanspd": 6000,
        "sps30_mcpm10": 5,
        "sps30_mcpm10_aqi": 5,
        "sps30_mcpm1x0": 5,
        "sps30_mcpm2x5": 5,
        "sps30_mcpm2x5_aqi": 21,
        "sps30_mcpm4x0": 5,
        "sps30_ncpm0x5": 37,
        "sps30_ncpm10": 43,
        "sps30_ncpm1x0": 43,
        "sps30_ncpm2x5": 43,
        "sps30_ncpm4x0": 43,
        "sps30_serial": "0EE9CB329340F4AD",
        "sps30_status": 0,
        "sps30_tpsize": 0.5,
        "tiber_rh": 39,
        "tiber_status": 0,
        "tiber_temp": 26.2
    }
]
```

Get Device Telemetry (Age)

- `<<ACCOUNT_ID>>` : TSI Link Account ID
- `<<DEVICE_ID>>` : TSI Link Device ID
- `<<AGE>>` : days before current date
- `<<TIMEZONE>>` : response timestamps' timezone

A value of 30 for age equals all telemetry events in the last 30 days

Request

```
GET /api/v1/external/account/<<ACCOUNT_ID>>/device/<<DEVICE_ID>>/telemetry?age=<<AGE>>&timezone=<<TIMEZONE>> HTTP/1.1
Host: https://tsi-prd.appspot.com
Authorization: Bearer <<JWT>>
```

Optional header - `Accept: text/csv` - can be used to format response into CSV file.

Response

Response is an array of telemetry records or a CSV file with the same columns and values.

```
[
    {
        "accountID": "<<ACCOUNT_ID>>",
        "deviceID": "<<DEVICE_ID>>",
        "timestamp": "2020-04-02T22:15:53Z",
        "model": "8143",
        "serial": "81431901001",
        "longitude": -117.8313194,
        "latitude": 34.0012627,
        "isPublic": false,
        "isIndoor": false,
        "sps30_fanspd": 6000,
        "sps30_mcpm10": 5,
        "sps30_mcpm10_aqi": 5,
        "sps30_mcpm1x0": 5,
        "sps30_mcpm2x5": 5,
        "sps30_mcpm2x5_aqi": 21,
        "sps30_mcpm4x0": 5,
        "sps30_ncpm0x5": 37,
        "sps30_ncpm10": 43,
        "sps30_ncpm1x0": 43,
        "sps30_ncpm2x5": 43,
        "sps30_ncpm4x0": 43,
        "sps30_serial": "0EE9CB329340F4AD",
        "sps30_status": 0,
        "sps30_tpsize": 0.5,
        "tiber_rh": 39,
        "tiber_status": 0,
        "tiber_temp": 26.2
    }
]
```

Get Device Telemetry (After Date)

- `<<ACCOUNT_ID>>` : TSI Link Account ID
- `<<DEVICE_ID>>` : TSI Link Device ID
- `<<AFTER_DATE>>` : RFC3339 UTC timestamp, records returned will be after this timestamp (it is not inclusive).
- `<<TIMEZONE>>` : response timestamps' timezone

Request

```
GET /api/v1/external/account/<<ACCOUNT_ID>>/device/<<DEVICE_ID>>/telemetry?after=<<AFTER_DATE>>&timezone=<<TIMEZONE>> HTTP/1.1
Host: https://tsi-prd.appspot.com
Authorization: Bearer <<JWT>>
```

Optional header - `Accept: text/csv` - can be used to format response into CSV file.

Response

Response is an array of telemetry records

```
[
    {
        "accountID": "<<ACCOUNT_ID>>",
        "deviceID": "<<DEVICE_ID>>",
        "timestamp": "2020-04-02T22:15:53Z",
        "model": "8143",
        "serial": "81431901001",
        "longitude": -117.8313194,
        "latitude": 34.0012627,
        "isPublic": false,
        "isIndoor": false,
        "sps30_fanspd": 6000,
        "sps30_mcpm10": 5,
        "sps30_mcpm10_aqi": 5,
        "sps30_mcpm1x0": 5,
        "sps30_mcpm2x5": 5,
        "sps30_mcpm2x5_aqi": 21,
        "sps30_mcpm4x0": 5,
        "sps30_ncpm0x5": 37,
        "sps30_ncpm10": 43,
        "sps30_ncpm1x0": 43,
        "sps30_ncpm2x5": 43,
        "sps30_ncpm4x0": 43,
        "sps30_serial": "0EE9CB329340F4AD",
        "sps30_status": 0,
        "sps30_tpsize": 0.5,
        "tiber_rh": 39,
        "tiber_status": 0,
        "tiber_temp": 26.2
    }
]
```

Get Latest Device Telemetry

- <<ACCOUNT_ID>> : TSI Link Account ID
- <<DEVICE_ID>> : TSI Link Device ID

Request

```
GET /api/v1/external/account/<<ACCOUNT_ID>>/device/<<DEVICE_ID>>/telemetry?latest=true HTTP/1.1
Host: https://tsi-prd.appspot.com
Authorization: Bearer <<JWT>>
```

Response

Response is a single telemetry record

```json
{
    "accountID": "<<ACCOUNT_ID>>",
    "deviceID": "<<DEVICE_ID>>",
    "timestamp": "2020-04-07T22:42:24Z",
    "model": "8143",
    "serial": "81431901001",
    "longitude": -117.41719256,
    "latitude": 34.00092146,
    "isPublic": false,
    "isIndoor": false,
    "sps30_fanspd": 5999,
    "sps30_mcpm10": 3,
    "sps30_mcpm10_aqi": 3,
    "sps30_mcpm1x0": 3,
    "sps30_mcpm2x5": 3,
    "sps30_mcpm2x5_aqi": 13,
    "sps30_mcpm4x0": 3,
    "sps30_ncpm0x5": 21,
    "sps30_ncpm10": 24,
    "sps30_ncpm1x0": 24,
    "sps30_ncpm2x5": 24,
    "sps30_ncpm4x0": 24,
    "sps30_serial": "0EE9CB329340F4AD",
    "sps30_status": 0,
    "sps30_tpsize": 0.49,
    "tiber_rh": 71,
    "tiber_status": 0,
    "tiber_temp": 17.1
}
```