

Tracker Server Push API

(JSON Format)

V1.1

| Versions | Modify Date | Detail | Remark |
|----------|-------------|---------|-----------|
| | | | |
| V1.0 | 2018-05-13 | Created | John Liu |
| V1.1 | 2019-01-31 | Revised | Noam Zeng |
| | | | |
| | | | |

Index

| | |
|--------------------------|----------|
| INTRODUCTION..... | 3 |
| DATA PACKETS..... | 3 |
| UPULSE..... | 3 |
| URPLOC..... | 3 |
| ERRORCODE..... | 4 |
| OBJECTS..... | 4 |
| #PULSE..... | 4 |
| #RPLOC..... | 4 |
| #STATUS..... | 5 |
| #GPS..... | 5 |
| #STATISTIC..... | 5 |

Introduction

Once the PUSH endpoints have been set up in the Anytrek Management System, the TrackerServer will automatically forward all the data packets from the devices. The protocol can be either HTTP POST or TCP, the body contents are the all same. There will be two kinds of data packets: uPulse and uRpLoc, the first one for heartbeats and the second one for location reports.

The protocol is applicable to all Anytrek products, however, not all parameters are available/valid in all models. For example, Temperature Sensor is only available on ThermoTrack products; ACC detection is only available on In-Dash Tracker; SOS and Tamper Detection are only available on Solar Trackers. Please read the specifications of the product, or contact our support team for more details.

Data Packets

uPulse

1. Description

Heartbeat packet from devices.

2. HTTP/TCP Body Example

```
{
  "c": "uPulse",
  "id": "86217603644154",
  "psw": "000000",
  "ver": 32,
  "t": "20180613140456",
  "infoIndex": 7, "settingIndex": 1,
  "sta": { "bat": 3.982526, "wir": 0, "charging": 0, "acc": 1 },
  "cid": { "system": "gsm", "mcc": 0, "mnc": 0, "lac": 0, "cid": 0 }
}
```

3. HTTP/TCP Response (Optional)

```
{ErrorCode:#ErrorCode}
```

uRpLoc

1. Description

Location report packet from devices.

2. HTTP/TCP Body Example

```
{
  "c": "uRpLoc",
  "id": "86217603644154",
```

```

    "psw": "000000",
    "ver": 32,
    "t": "20180613183630",
    "infoIndex": 7, "settingIndex": 1,
    "gps": {"lng": -117.557159, "spd": 0, "alt": 0, "hdg": 0, "lat": 34.063046},
    "sta": {"acc": 1, "wir": 43, "current": 0, "bat": 3.94623, "charging": 0},
    "statistic": {"originalEvent": 0, "event": 0, "mileage": 396}
}

```

3. HTTP/TCP Response (Optional)

```
{ErrorCode:#ErrorCode}
```

ErrorCode

| Error Code | Description |
|------------|---|
| 200 | OK |
| 400-01 | invalid parameter or empty for required parameter |
| 400-02 | Device ID does not exist |
| 400-03 | Device ID is not activated |
| 500-01 | System Error |

Objects

#Pulse

| Field | Type | Length | Description |
|--------------|---------|--------|--------------------------------|
| c | String | | "uPulse" |
| id | String | 14 | Device ID |
| psw | String | 6 | Device password |
| ver | Integer | | Firmware Version |
| t | String | | UTC Time: yyyyMMddHHmmss |
| infoIndex | Integer | | Update index of device info |
| settingIndex | Integer | | Update index of device setting |
| sta | #Status | | Status object, see #Status |

#RpLoc

| Field | Type | Length | Description |
|-------|--------|--------|-------------|
| c | String | | "uRpLoc" |
| id | String | 14 | Device ID |

| | | | |
|--------------|------------|---|--|
| psw | String | 6 | Device password |
| ver | Integer | | Firmware Version |
| t | String | | UTC Time: yyyyMMddHHmmss |
| infoIndex | Integer | | Update index of device info |
| settingIndex | Integer | | Update index of device setting |
| sta | #Status | | Status object, see #Status |
| gps | #GPS | | GPS object |
| statistic | #Statistic | | Statistic data generated from the device |

#Status

| Field | Type | Length | Description |
|-------------|-------|--------|--|
| wir | int | | Wireless signal strength, in percentage |
| current | float | | Battery recharging current in mA |
| bat | int | | Battery voltage in Voltage |
| charging | int | | 0: battery not charging, 1: battery charging |
| temperature | int | | Temperature sensor value, in Celsius |
| acc | int | | ACC detection, 0: ACC off, 1: ACC ON |

#GPS

| Field | Type | Length | Description |
|-------|--------|--------|--|
| lat | double | | Latitude |
| lng | double | | Longitude |
| spd | int | | Speed in km per hour |
| hdg | int | | Heading, 0~360, start from North direction |
| alt | int | | Altitude in meters |

#Statistic

| Field | Type | Length | Description |
|---------------|------|--------|--|
| originalEvent | int | | 0: idle, 1: driving |
| event | int | | Reserved for future use |
| mileage | int | | Total mileage in meters since last reset |