Sixfold Open Visibility API

The Sixfold Open Visibility API provides real-time visibility information for authorized parties.

The example shown below is based on the latest version of the `Sixfold Open Visibility API`.

Server URL: `https://api.sixfold.com`

Security

The Sixfold Open Visibility API uses an `API key` to authenticate requests. The API key is provided by Sixfold to the external party in order to authorize access to given working shipments available in the Sixfold RTV platform.

Your API key gives access to the company's assets, such as shipments and vehicles, so make sure to keep it secure!

The authentication of the requests is performed using Bearer Authentication. Your `API key` is the `Bearer token`.

API requests must be made over `HTTPS`. Requests made over `HTTP` or without Bearer Authentication will fail.

Receiving visibility data of working shipments

The list contains all working shipments, that are:

- currently being tracked and fulfilling the transport orders
- failed or completed approximately within last hour
- allowed by authentication token

Shipments not started yet, completed shipments or shipments where the tracking failed are not contained in a response.

GET *https://api.sixfold.com/v1/open-visibility/shipments*

Response:

```
{
  "shipments": [
    {
      "shipment_id": "0ca37b9a-68e4-4239-a2e9-2652373c88",
      "shipper_transport_number": "T1234",
      "platform_transport_number": "PT983549358",
      "latest_position": {
        "license_plate": "001ABC",
        "timestamp": "2020-09-05T12:05.00Z",
        "position": {
          "lat": 59.1789858,
          "lng": 24.3741112
        }
      },
      "stops": [
        {
          "stop_id": "ST00000",
          "type": "loading",
```

```json
          "status": "departed",
          "deliveries": [
            {
              "delivery_id": "D123",
              "purchase_order_number": "PO234",
              "order_number": "O678",
              "delivery_number": "D123"
            }
          ]
        },
        {
          "stop_id": "ST111111",
          "type": "unloading",
          "status": "unvisited",
          "deliveries": [
            {
              "delivery_id": "D123",
              "purchase_order_number": "PO234",
              "order_number": "O678",
              "delivery_number": "D123"
            }
          ],
          "eta": "2020-09-05T14:55.00Z",
        },
        {
          "stop_id": "ST222222",
          "type": "unloading",
          "status": "unvisited",
          "deliveries": [],
          "eta": "2020-09-05T18:04.00Z",
          "eta_checked_at": "2020-09-05T17:59.00Z"
        }
      ]
    }
  ],
  "page_info": {
    "cursor": "c2l4Zm9sZF9hcGlfZXhhbXBsZQ=="
  }
}
```

API response descriptions

Shipment location update

If the exact GPS location of shipment is known to Sixfold, it is exposed in the `latest_position` element of the API response. This information is kept up-to-date only during the shipment working window (from first loading until last unloading).

Open Visibility API configurable response

Some fields are missing by default. It is possible to configure response to have additional fields in the `stops` section. These configurable fields are: `status`, `eta` and `eta_checked_at`.

Real-time visibility information on stops

Real-time visibility information of stops that the vehicle is supposed to visit is always recalculated from the latest known data to Sixfold. Stop level RTV info involves predicted ETA (estimated time of arrival) in **eta** field, if it is available.

The RTV info of stop can be in one of the following states from the perspective of the shipment execution:

- unvisited - truck not yet arrived to stop
- en_route - truck is driving towards stop
- at_stop - truck has arrived to stop
- departed - truck departed from stop
- skipped - truck skipped the stop
- tractor_switch - shipment is being carried out by two different trucks that are expected to switch the shipment between this and preceding stop, but tractor switch has not been detected yet

Depending on the status, ETA is available if:

- For **unvisited** and **en_route** stops, ETA is shown if it's possible to calculate it.
- For **at_stop**, **departed**, **skipped** and **tractor_switch** status stops, ETA info is not available.

Restrictions

- Real-time visibility info is not updated outside the shipment working window (from first loading until last unloading).