

Open Visibility API

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

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

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

Security

The Open Visibility API uses an `API key` to authenticate requests. The API key is provided by Visibility Hub to the external party in order to authorize access to given working shipments available in the Visibility Hub 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": "2022-09-05T12:05:00Z",
        "position": {
          "lat": 59.1789858,
          "lng": 24.3741112
        }
      }
    },
    {
      "stops": [
        {
          "stop_id": "ST00000",
          "type": "loading",
          "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": "2022-09-05T14:55:00Z",
  },
  {
    "stop_id": "ST222222",
    "type": "unloading",
    "status": "unvisited",
    "deliveries": [],
    "eta": "2022-09-05T18:04:00Z",
    "eta_checked_at": "2020-09-05T17:59:00Z",
    "eta_source": "internal"
  }
]
}
},
"page_info": {
  "cursor": "c214Zm9sZF9hcGlhZlZlXhhbXBsZQ=="
}
}

```

API response descriptions

Transport and delivery identifiers

To identify the transport and/or delivery, the following fields are provided. Each transport has one to many deliveries (ie. orders). In the deliveries list, you find the following identifiers:

Transport level

- `shipment_id`: Visibility Hub's unique reference of the shipment
- `shipper_transport_number`: Customer defined reference of the transport
- `platform_transport_number`: Platform's (E.g Transporeon) unique reference of the transport

Delivery level

- `delivery_id` : Platform's (E.g Transporeon) unique reference of the delivery
- `delivery_number` : Customer defined reference of the delivery
- `order_number` : Customer defined reference of the order
- `purchase_order_number` : Customer defined reference of the purchase order

Shipment location update

If the exact GPS location of shipment is known to Visibility Hub, 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 Visibility Hub. 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 unavailable outside the shipment working window (from first loading until last unloading).