Transports of explosive materials (TranV)

Of the judicial act results the Czech Police obligation to track transports of explosive materials within domestic and foreign routes.

Applied to carriers it is prescribed routine and standartised protocols to be followed as mean of providing the Police with usable status and tracked vehicle position data.
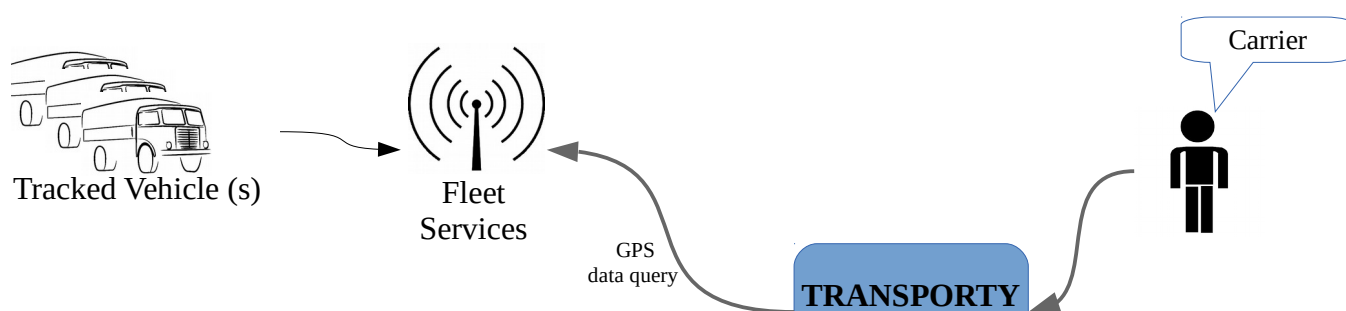
The communication between the location provider and Police works as follow:

1. doing requests for vehicle gps information
2. these requests are active only during transport time (defined by TranV user)

The responsibility for logging and providing the data lies on carrier.

Therefore is necessary to negotiate and instruct carrier's positioning/tracking provider to prepare him for such data streaming.

Following graphs and chapters describes the way, formats and relevant interfaces.

Obsah

1. Basic premises for TranV – tracked vehicle interconnectivity.

1. Vehicle is equipped with positioning/status unit.
2. The unit is connected to relevant control system.

2. What to do before the TranV is used.

1. Deliver your vehicle tracking system provider with this document.
2. Obtain connected unit (vehicle) ID for each registration plate and (or) other authentification/verification keys/marks, if such are available or necessary.
3. Secure vehicle connection to TranV (see „TranV- tracked vehicles connection")

3. ID adjustment in the TranV

Responsible subject (carrier) creates list of vehicles to be potentially tracked by TranV.

List also includes all kinds of parameters and useful data (see above)

Vehicle listing includes ID marks inscription, and description/completion of parameters necessary to connect vehicle with TranV systém.

Those parameters consists mandatory ID of the vehicle (unit) and other 2 to 3 optional parameters.

The way of utilising the above mentioned parameters further describes this document.

3.1. *Connecting (Login) with unit ID only.*

(Positioning Provider demands the unit ID only)

Example of fictitious URL for obtaining vehicle position is :

$$http://www.map.cz/?vehicle=12345$$

Providers MAP URL *http://www.map.cz/?vehicle=#vehicle#*, will replace certain vehicle pattern #vehicle# with value inscribed by carrier in entry form.

Úprava dopravního prostředku

Způsob dopravy:

autem

Tovární značka vč. modelu:

Fiat 128

RZ:

ABC-15-15

Poskytovatel lokalizace:

MAP

Lokalizační kód (identifikační kód vozidla):

12345

Uložit   Zavřít   Ověřit připojení   ✔ Čas posledního ověření: 21.02.2014 01:07

- Potřebujete propojit sledování svých vozidel a PČR/TranV?

3.2. Connecting with unit ID and 1 parameter.

The MAP1 provider demands unit ID and username.

URL example for vehicle position :

- `https://www.map1.cz/?vehicle=12345&user=customer1`

At MAP Provider the URL record `https://www.map1.cz/?vehicle=#vehicle#&user=#user#`, will be certain vehicle pattern #vehicle# and #user# replaced with values, inscribed by carrier in entry form..

Úprava dopravního prostředku

Způsob dopravy:

autem

Tovární značka vč. modelu:

Fiat 123

RZ:

ABC-15-15

Poskytovatel lokalizace:

MAP1

Lokalizační kód (identifikační kód vozidla):

12345

Uživatelské jméno

customer1

Uložit   Zavřít   Ověřit připojení   ✔ Čas posledního ověření: 21.02.2014 01:07

- Potřebujete propojit sledování svých vozidel a PČR/TranV?

3.3. Connecting with unit ID and 2 parameters.

The MAPS provider demands unit ID, username and password.

Fictional position URL is:

```
https://car12b4:qwerty@www.maps.cz/?vehicle=12345
```

At MAP Provider the URL record *https://#user#:#password#@www.maps.cz/?vehicle=#vehicle#*, will replace vehicle pattern #vehicle#, #user# and #password# with values, inscribed by carrier in entry form..

TranV connection to vehicle tracking/monitoring system

Úprava dopravního prostředku

Způsob dopravy:

> autem

Tovární značka vč. modelu:

> Fiat 128

RZ:

> ABC-15-15

Poskytovatel lokalizace:

> MAPS

Lokalizační kód (identifikační kód vozidla):

> 12345

Uživatelské jméno

> car12b4

Heslo

> qwerty

Uložit   Zavřít   Ověřit připojení   ✔ Čas posledního ověření: 21.02.2014 01:07

• Potřebujete propojit sledování svých vozidel a PČR/TranV?

3.4. Way of communication with a fleet server

Query by protocol HTTP/HTTPS is secured by following methods:

- username + password

Restricted adjustment of positioning IP addresses.

If communication from TranV system (incoming requests) for actual location

- **is <u>filtered</u> based on IP addreses (for example by firewall or Web Server) please inquire following IP addresses (keep <u>OLD</u> and add <u>NEW</u> one):**
  - ~~**94.199.45.228**~~ **(Czech Police server old IP address) – former IP address which was replaced by new one in 24th July 2019. This address isn't used any more!**
  - **<u>185.17.212.196</u> (Czech Police server valid IP address) – IP address is used for communication since 24th July 2019!**
  - 81.91.214.218 (test server, eago systems)

IP address change is planned to 24th July 2019 12 o'clock and it will také aprox. 30 – 60 minutes.

You can find actual information on web portal TRANV. There will be also information if date will change.

- **is not filtered then <u>no change</u> is needed (you don't need to change anything)**

<u>Note</u>: even in this case we suggest to <u>monitor</u> situation continuously and to check news on web portal;

- **<u>High Availability solution</u> is used (HA – for example Round Robin)**
  - you don't need to revoke this solution but you will have to perform all steps mentioned above for <u>each</u> node.

Provider delivers URL access for positioning service. With delivered URL is necessary to designate identification parameters.

Examples of URL parameter names:

- *https://www.map1.cz/?vehicle=12345&user=customer1*
  - *vehicle – unit ID*
  - *user – username or nickname*
- *https://username:password@www.maps.cz/?vehicle=12345*
  - *username*
  - *password*
  - *vehicle ID*

We will need repeatedly *access to your firewall or web server logs for communication testing. We actually support only cooperation for network communication (through firewall or web server) – it is not application test from production system.*

3.5. Data transfer security

With **HTTP** transfer are all data transmitted in unsecured way.

With use of secured **HTTPS** channel, only initial connection with provider's end point (server). Cryptographics data are exchanged and following communication, including parameters/authentification data transmission is strictly encrypted, including the parameters and identification data transfer, so the stream is readable just for TranV side and Provider.

The HTTPS protocol is highly recommended. The Provider can also limit access to a IP address list.

3.6. Certain Ports Service Exposure

Due security policy the number of ports accessible through TranV application is strictly limited to:

- **80** for HTTP
- **443** for HTTPS

3.7. Vehicle position request form

HTTP/HTTPS, GET type request. Specified vehicle and related parameters (login)

For URL construction is possible to use:

- Unit ID (mandatory)
- up to 3 optional parameters

URL parameters name is free.

Format with unit Id only, examples:

- *http://www.ex.cz/?vehicle=12345*
- *https://www.ex.cz:443/?car=12345*
- *https://www.ex.cz:443/12345*
- Format with unit ID and one optional parameter example:
- *http://www.ex.cz/?vehicle=12345&customer_id=cust1*

Unit ID request format is „*vehicle;*" *together with two optional parameters for login with username and password*

(example)

- *https://user:password@www.ex.cz/?vehicle=12345*

3.8. Fleet server response format

Fleet server response includes position/time data.

If requested vehicle exists, fleet server HTTP returns status 200 and response with XML data.

XML response format:

```
<?xml version="1.0"?>
<gps
        lat="48123456"
        lng="12123456"
        time="2013-11-15T11:00:00.000Z"
        status="ONLINE"
        for="BA1254X7"
    />
```

where

- lng = longitude
- lat = latitude
- time = time of measured coordinates according to XML pattern
- status = vehicle status
    - ONLINE (engine started)

- • OFFLINE
- • UNKNOWN
- • for = vehicle of interest

If unit of certain ID does not exist, than the status HTTP 204 is returned.

3.9. Position update frequency

During active period determined by carrier, the fleet server will be requested for vehicle position. The frequency of such query will be in minutes (1-5).