
Import IVI Manager's Summary

For the company: Ministry of Transport of the Czech Republic

Project contractor: AUTOCONT a.s.

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1 Document Version History

Date	Version	Description	Author
06/04/2023	0v1	Initial document version	Martin Šantrůček
13/04/2023	0v2	Updates of permitted certification authorities	Martin Šantrůček
18/04/2023	0v3	Final version	Pavel Zůna

2 List of Abbreviations

Abbreviation	Meaning
CA	Certification Authority - accredited certification service provider
e-COC	Certificate of conformity in electronic format
IS TP Application	Application Technical Inspection Information System
IVI	The IVI (Initial Vehicle Information) contains all the data of the e-COC sheet plus additional technical items. The IVI is also a module/function used to send/retrieve the e-COC sheet to/from EUCARIS.
MT	Ministry of Transport of the Czech Republic
WS	Web services, technology that enables the exchange of information between systems.

3 Verifying the Identity of Entities

The transfer of IVI (Initial Vehicle Information) documents in electronic form to the IS TP Application is based on the XML format of the transferred data as described in the XSAD template specified by the EU using EUCARIS services.

Through its service provider for communication with the IS TP Application, the vehicle manufacturer can send its IVI files, and at the same time the IS TP Application will offer the possibility to check the sent IVI files.

A certificate-based authentication algorithm is used for sending IVI files by the manufacturer and their acceptance by the IS TP Application. Each sending entity must have a valid public part of its communication certificate in the IS TP Application.

The IS TP Application performs the following verification:

- Checks the validity of certificates
- If the certificate is valid, the service checks the certificate - checking whether the certificate is enabled for the "Import IVI" function

If these conditions are not met, communication will be terminated immediately.

4 Which IVI Files Does the IS TP Application Store?

After checking the access permissions to the service, the IS TP Application checks the IVI file itself according to the given XSD templates.

Checks are performed on the validity of the structures, which must match the XSD in the allowed versions, on the values of selected attributes and on the validation of selected data within the XML attributes - for example, the uniqueness of some values.

If the checks are OK, the TI IS application service will save the record and send the return status (OK) to the sending application.

If there is an error in the checks, then the IS TP Application will send the error and will not save the IVI file itself.

Therefore, the TI IS application will only store IVI files if:

- The sending entity has a valid certificate with permission to send IVI files
- The data in the IVI files are formally checked and do not contain data errors.

4.1 Response - Processing OK - Saving the IVI file in the TI IS Application

The service for sending IVI returns only IsSuccess with a value of true.

```
<s:Envelope xmlns:s=http://schemas.xmlsoap.org/soap/envelope/>
  <s:Body>
    <ImportIVIResponse xmlns=http://tempuri.org/>
      <ImportIVIResult
xmlns:a=http://schemas.datacontract.org/2004/07/STK.Wcf.Service.DataContracts.Vehicle
xmlns:i=http://www.w3.org/2001/XMLSchema-instance>
        <Result
xmlns=http://schemas.datacontract.org/2004/07/STK.Core.Public.DataContracts>
```

```

        <IsSuccess>true</IsSuccess>
        <ItemOutputs/>
        <Outputs/>
    </Result>
</ImportIVIResult>
</ImportIVIResponse>
</s:Body>
</s:Envelope>

```

4.2 Response - Processing with Error - No IVI file Saved in the IS TP Application

The service for sending IVI returns IsSuccess with a value of false and a list of errors in the Outputs section.

```

<s:Envelope xmlns:s=http://schemas.xmlsoap.org/soap/envelope/&gt;
  <s:body>
    <ImportIVIResponse xmlns=http://tempuri.org/&gt;
      <ImportIVIResult
xmlns:a=http://schemas.datacontract.org/2004/07/STK.Wcf.Service.DataContracts.Vehicle
xmlns:i=http://www.w3.org/2001/XMLSchema-instance&gt;
        <Result
xmlns=http://schemas.datacontract.org/2004/07/STK.Core.Public.DataContracts&gt;
          <IsSuccess>>false</IsSuccess>
          <ItemOutputs/>
          <Outputs>
            <ResultType.Output>
              <Code>DuplicateIVIReferenceID</Code>
              <Message>Duplicate IVIReferenceID</Message>
            </ResultType.Output>
          </Outputs>
        </Result>
      </ImportIVIResult>
    </ImportIVIResponse>
  </s:body>
</s:Envelope>

```

5 How Do I Check My IVI Files?

There are two options for checking IVI files.

The first option is to automatically evaluate the responses (status values) received in the IVI service - synchronous query-response mode.

The second option is to ask staff of the MT to enter the user into the IS TP Application (the sending entity must already have been entered into the IS TP Application), and to assign the "e-COC – Issuer (eCOC – Vystavovatel)" role to this user within the entity.

A user with the role "e-COC - ISSUER" will see the menu "e-COC - IVI" after logging into the IS TP Application, domain "Vehicles".

Uživatelské jméno:	<input type="text"/>
Heslo:	<input type="password"/>
Doména - systém:	Stanice <input type="radio"/> Vozidla <input checked="" type="radio"/> Agenda <input type="radio"/>
Zapomněl jste heslo? Klikněte zde.	<input type="button" value="Přihlásit"/> <input style="float: right;" type="button" value="?"/>

After selecting it, the application will display the received IVI files for its subject and the user will have the option to search for the file (record) according to the entered VIN.

ID záznamu	VIN	Typové schválení ES	Kategorie	Výrobce (zasílající subjekt)	Vytvořeno v IS TP
32	TMB112347N8037843	e8*2007/46*0249*23	M1	AUTOCONT a.s. [IC: 04308697]	16.03.2023 14:38:59
31	TMB112347N8037843	e8*2007/46*0249*23	M1	AUTOCONT a.s. [IC: 04308697]	16.03.2023 14:38:10
9	TMB112347N8037843	e8*2007/46*0249*23	M1	AUTOCONT a.s. [IC: 04308697]	07.02.2023 10:20:01
7	TMB112347N8037842	e8*2007/46*0249*23		AUTOCONT a.s. [IC: 04308697]	07.02.2023 10:15:24
2	TMB112347N8037847	e8*2007/46*0249*23		AUTOCONT a.s. [IC: 04308697]	01.02.2023 12:59:03

For each record, you can download its IVI file to check your data.

6 List of Approved CA's

For identity access to the IS TP Application, it is necessary to have a certificate from one of the [accredited certification service providers](#). Only a commercial certificate can be set up for login; you cannot use a qualified certificate.

In the field of asymmetric cryptography, the MT approves all certificates from these CA's (the type of certificate must be **Commercial**):

Publisher	Website
První certifikační autorita, a.s.	www.ica.cz
Česká pošta, s.p.	vca.postsignum.cz
eIdentity, a.s.	www.eidentity.cz
DigiCert (Thawte, DigiCert)	https://www.digicert.com
GeoTrust	https://www.geotrust.com/
Sectigo	https://sectigo.com/
T-Systems Enterprise Services	
European	https://commissign.pki.ec.europa.eu/index_en.htm

This list of approved CA's is valid as of 13/4/2023. The current list of certificate providers approved for communication with the IS TP Application is defined by the decree of the Cybersecurity Manager of the Ministry of Transport of the Czech Republic in Standard No. 3, Approved Cryptographic Means.

6.1 Certificates

Certificates used as authentication certificates must include the Extended Key Usage (EKU) extension:

- Client identity verification (1.3.6.1.5.5.7.3.2)

See also

https://docs.aws.amazon.com/acm/latest/APIReference/API_ExtendedKeyUsage.html

6.2 Managing Certificates in the IS TP Application

The public part of the certificate must be entered and approved in the IS TP Application. This action is carried out by an authorised person of an entity registered in the IS TP Application (a company represented by an ID number) or by the IS TP Application administrator.

After the certificate is approved by the IS TP Application administrator, the certificate will be enabled for communication using WS.

7 Description for Programmers

A description for programmers is provided in a separate document and is available on request from staff of the MT.