

User Manual

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1 Disclaimer

The tool "DRI Connection-Test" is intended exclusively for testing the signed connection from an external client to the FMA Liechtenstein. This allows the user to verify the correct installation of the certificates and to test the connection to the DRI Webservice. The tool is intended to assist the financial intermediary or its software vendors in developing their own software solution.

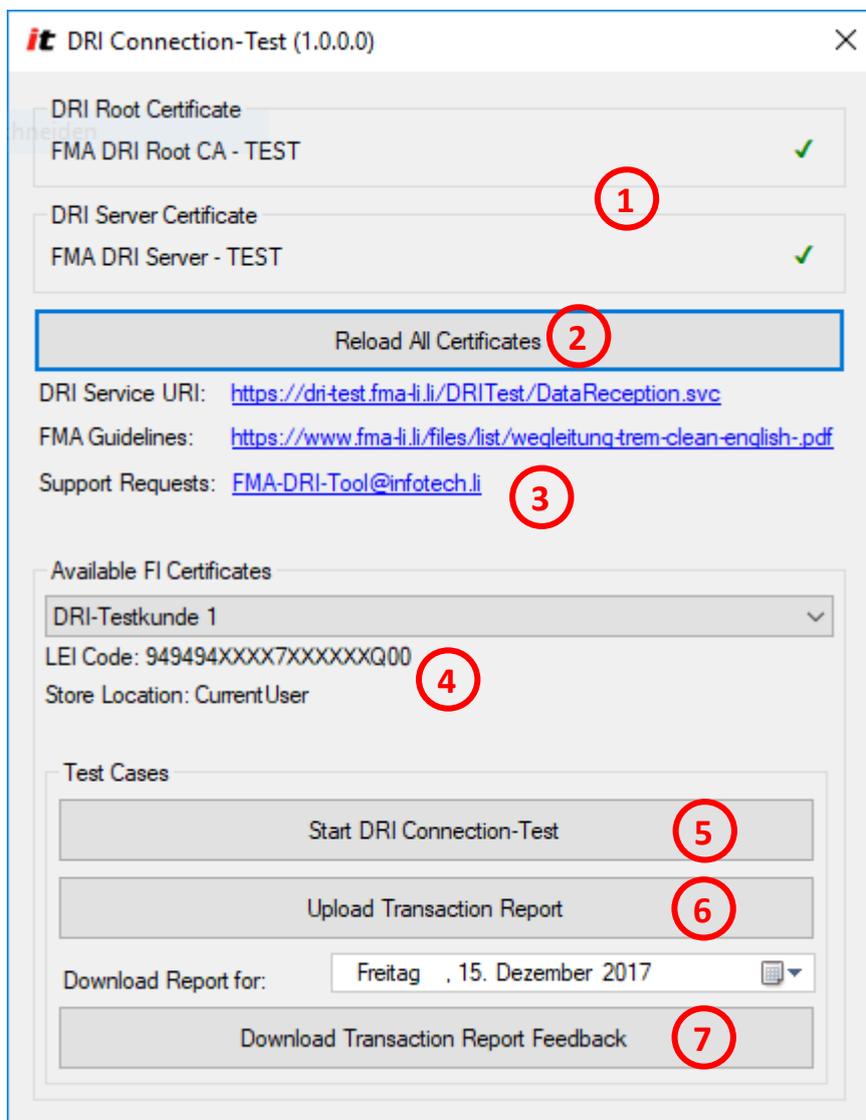
The tool is available until 31.10.2018 and is then no longer usable.

The other functions beside the Connection-Test, such as the upload of data may only be done for test purposes. The user must ensure in advance that he delivers the correct data to the correct destination. The responsibility lies entirely with the user of the tool.

The tool is offered by the company Infotech AG in Schaan based on specifications by the FMA Liechtenstein.

If you have questions about using the application, you can contact Infotech AG by e-mail (services costs CHF 180.-/h): dri-connection-test@infotech.li

2 User Interface Overview



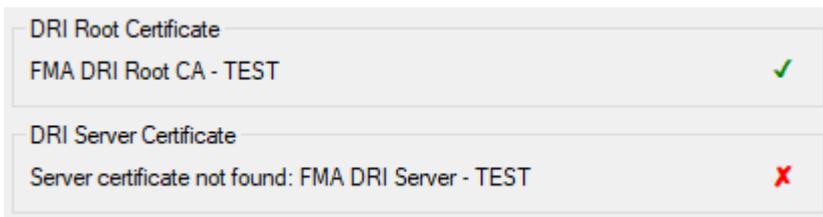
3 Tool Functionality

In this section the functionality of the DRI Connection-Test is explained according to  the numbers shown in the user interface overview in section 2.

Certificate Installation Status

This status section visualizes if the *FMI DRI Root CA* certificate and the *FMA DRI Server* certificates are installed in the right place on the computer. It is indicated by two green check icons that the certificates are installed correctly just as shown in the illustration above in section 2.

The case that one or both certificates cannot be found is indicated by a red cross as shown in the image below. In this example the server certificate is not installed correctly.



For more information on how to install all certificates correctly, please consult the appropriate guide by the FMA: <https://www.fma-li.li/files/list/wegleitung-trem-clean-english-.pdf>

Certificate-Check Repetition

In case one or more certificates could not be found, you can install them correctly and redo the certificate installation validation by pressing the “Reload all Certificates” Button.

Useful Links

This section contains a set of useful hyperlinks to establish a successful DRI Webservice connection.

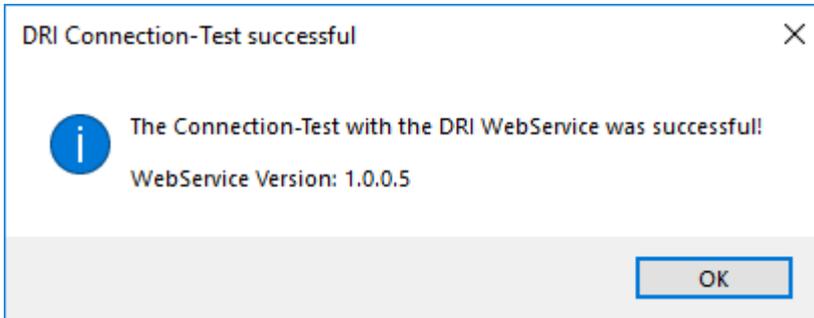
- *DRI Service URI*: Link to the actual DRI Webservice
- *FMA Guidelines*: Detailed information on how to install all certificates correctly
- *Support Requests*: If you cannot establish a successful connection despite this manual, please contact the support using the given support e-mail address

FI Certificate Selection

The drop-down box contains all FI client certificates that have been found on the computer. Upon a selection with the drop-down box, the *LEI Code* which corresponds with the certificate is shown for clarity. This can be useful when multiple certificates use the same FI name. In addition the *installation location* of the certificate is shown. This helps to pinpoint any installation mistakes. Note that the web-browser only considers certificates installed in the *CurrentUser* certificate store. All functionality below the FI Certificate Selection depends on the selected certificate.

5 Start DRI Connection-Test

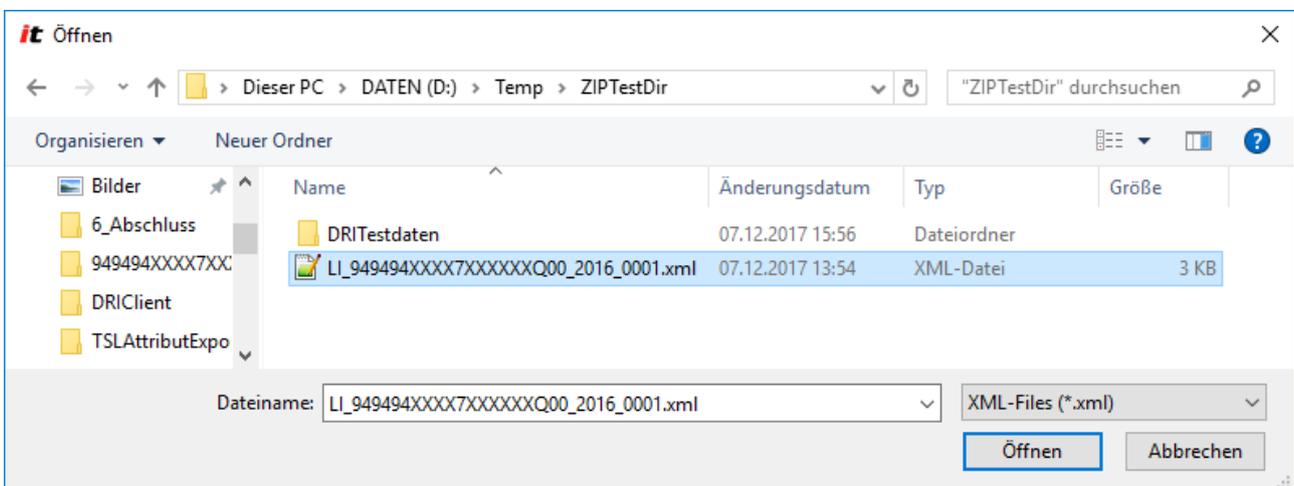
With this button, the connection with the DRI Webservice can be tested. A successful connection test indicates that all certificates are installed correctly and now firewall issues etc. remain. A successful connection test is communicated by an information message as shown below.



In case of a connection error, an error message is shown to provide information on how to troubleshoot possible configuration of installation mistakes. Once all issues are resolved and a connection is possible, the absence of technical issues is proven.

6 Upload Transaction Report

Once a connection with the DRI Webservice is possible, the DRI Connection-Test can also be used to verify the data format of uploaded transaction reports. As shown below, an open file dialog is used to select a transaction report for upload.



After a successful upload, information about the format correctness of the submitted transaction report is shown in a message box. In case the transaction report is rejected because of formatting issues, please consult the guide for this topic which is provided by the FMA: <https://www.fma-li.li/files/list/fma-wl-2017-24-ausfuehrende-bestimmungen-in-bezug-zu-meldepflichtigen-transaktionen-nach-mifir.pdf>

7 Certificate installation status

Once a report has been successfully uploaded, a report file can be downloaded one day after the submission. For this purpose select the appropriate day in the date picker to download the reports for that specific day.

4 Accessing the DRI Webservice programmatically

The goal of the DRI Connection-Test tool is to assist you in building your own sophisticated solution to upload your transaction reports automatically. For this purpose, programmatic effort is necessary. As a starting point you can use the small console application demo project: *DRIConsoleClient*. This project is meant to give you an idea on how to integrate a permanent solution into your own workflow. This console client provides as a C# project and is shipped along with the DRI Connection-Test tool.

The relevant source code to test the connection with the DRI Webservice is shown in the code listing below.

```
static void Main(string[] args)
{
    try
    {
        using (var lClient = new DataReceptionClient())
        {
            lClient.Open();

            var lVer = lClient.GetModuleVersion();
            Console.WriteLine($"The Connection-Test successful!");
            Console.WriteLine($"WebService Version: {lVer}");

            lClient.Close();
        }
    }
    catch (FaultException lEx)
    {
        Console.WriteLine("Negative Response from DRI-Server");
        Console.WriteLine(lEx.Message);
    }
    catch (Exception lEx)
    {
        Console.WriteLine("ERROR:");
        Console.WriteLine(CreateExceptionMessage(lEx));
    }
}
```

5 Java Solution

If you want to use Java to integrate the up- and download of transaction reports into your own software, a Java sample is available to showcase how this can be accomplished. If you are interested in this sample, please contact the FMA Liechtenstein or the DRI Connection-Test support.