

custo secure: How to prepare it and configure the data exchange

Some words ahead

With custo secure it is possible to transfer evaluations from one custo diagnostic server system to another one and to get the data back the same way. A classical example is the practice of a general doctor recording holter ECGs, transferring the data for analysis to a cardiologist and getting back later the processed evaluation with a report.

For the data transfer a double encrypted connection to a "park" service at the German AWS cloud is used, where only one of the encryption "envelopes" gets removed. This service offers a high availability, with no need for inbound data connections at the customer, but without giving AWS the possibility to read the data.

Preparation

Versions

Yes: You may guess it as it has been always this way: The custo diagnostic server version of the evaluation center must be the same or higher than the versions of all its connected sending practices. The same applies to the client side: The custo diagnostic client versions of all reporting clients of the evaluation center must be the same or higher than the sending custo diagnostic clients.

Connection

Both sides - the sending server as well as the receiving server - must have internet access to the AWS service. The following URLs are used:

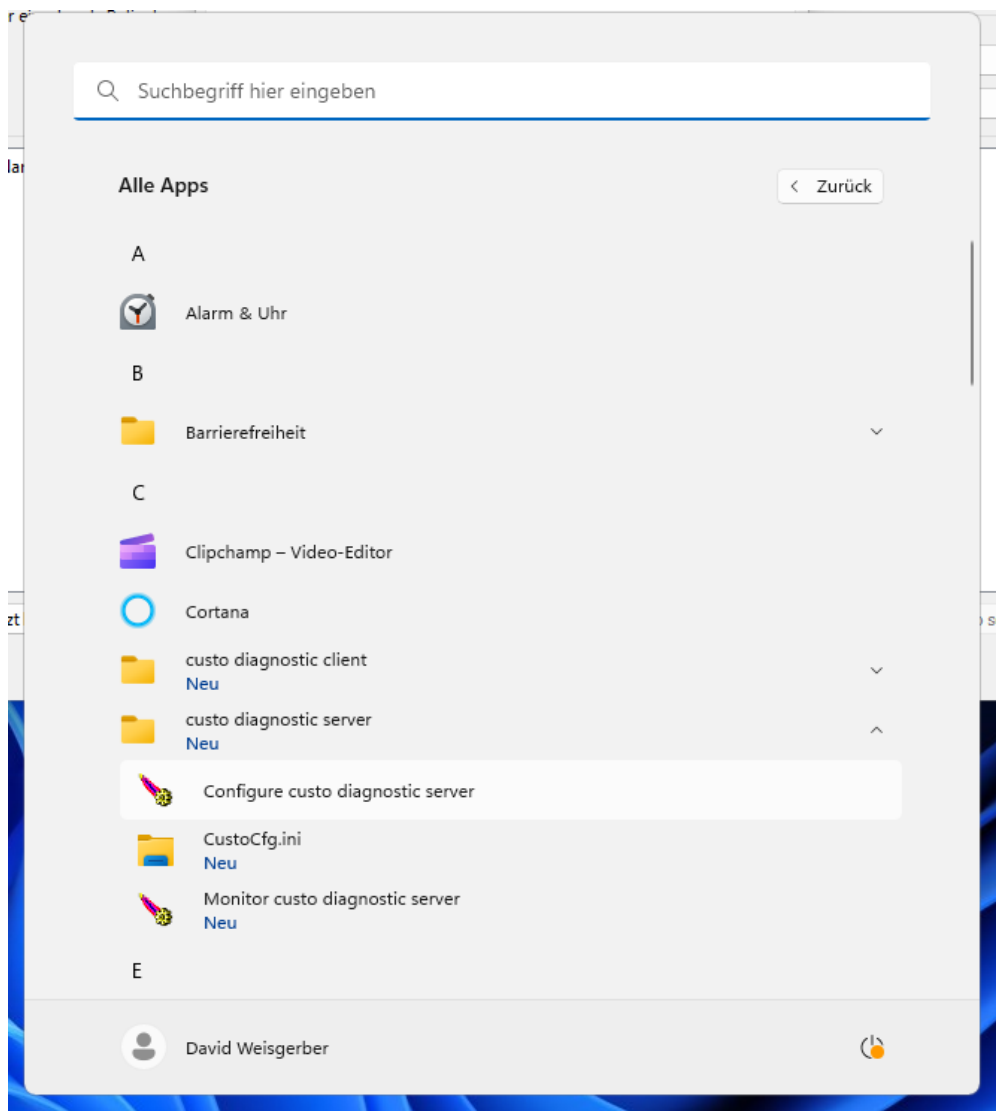
<https://api.secure.customed.de>

<https://secureproduction.s3.eu-central-1.amazonaws.com>

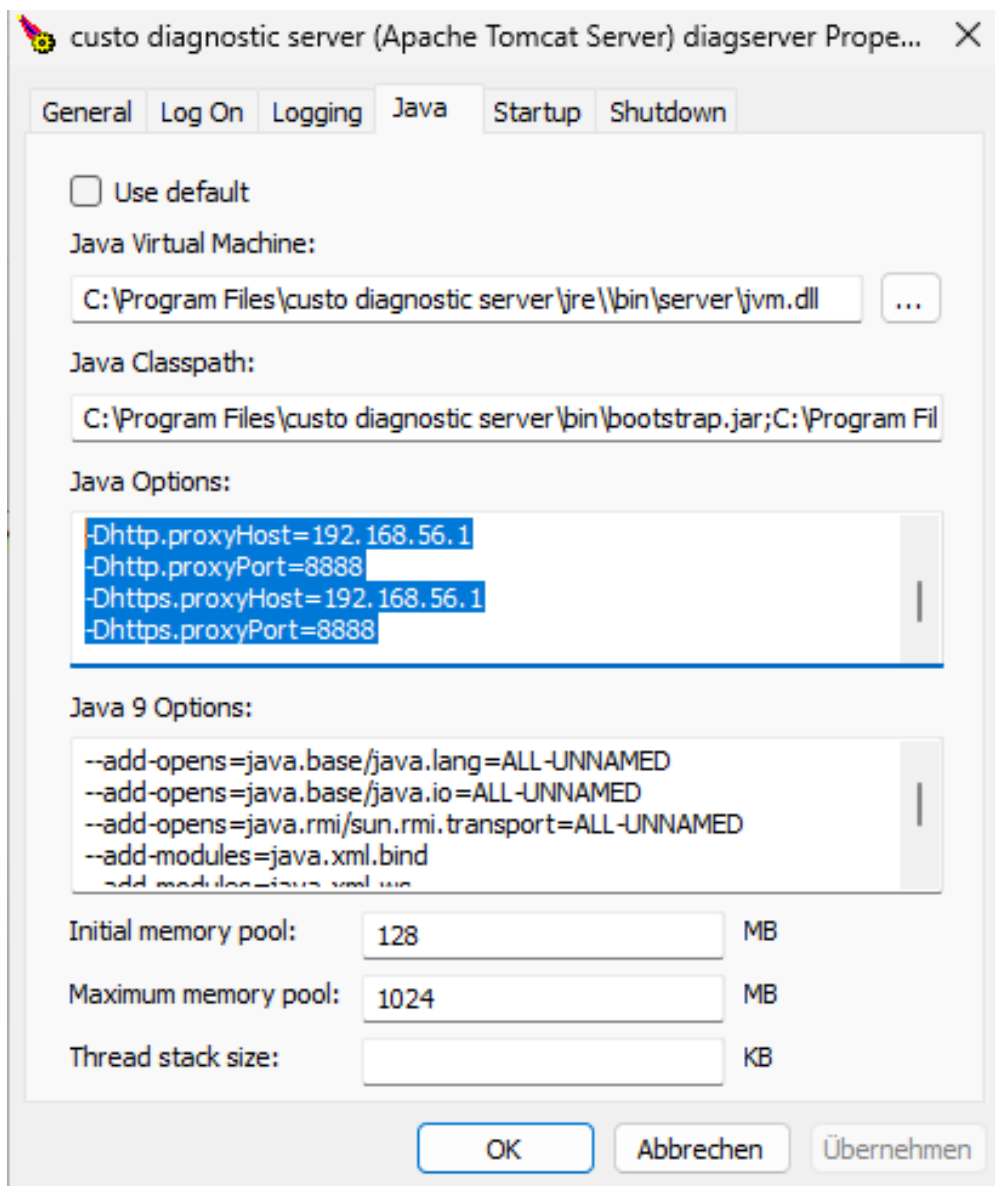
Those URLs are resolved to various changing IPs. The server may either directly fully access those services (for details check at AWS the IP scopes of the S3 service) or the server can use a proxy server having those internet access possibilities.

In case you use a proxy server (only then):

Open the "Configure custo diagnostic server" program and stop the custo diagnostic server service in the "General" tab:



Then go to the "Java" tab:



Enter the following lines:

```
-Dhttp.proxyHost=<HOST IP>
-Dhttp.proxyPort=<HOST Port>
-Dhttps.proxyHost=<HOST IP>
-Dhttps.proxyPort=<HOST Port>
```

Most important for custo secure is the definition of the HTTPs proxy. In case the proxy requires user authentication as well you may add as well:

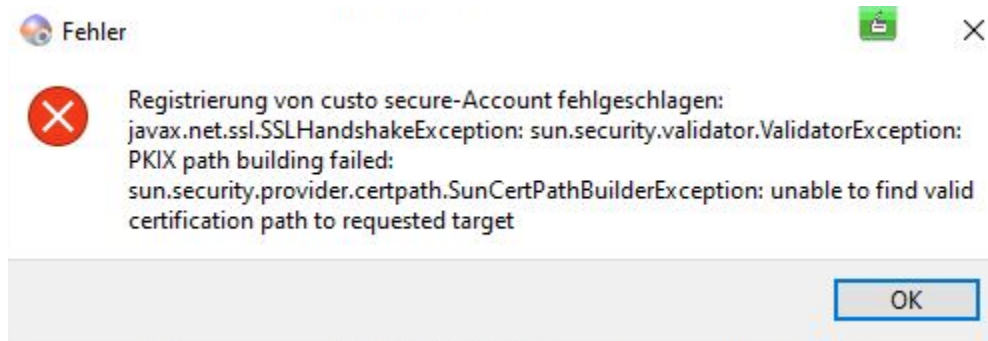
```
-Dhttp.proxyUser=<user name>
-Dhttp.proxyPassword=<password>
-Dhttps.proxyUser=<user name>
-Dhttps.proxyPassword=<password>
```

Afterwards go back to the general tab and start the service.

Be careful: In case of an upgrade / update of the custo diagnostic server version you should in general uninstall the custo diagnostic server, reboot and install the new version. With this all proxy settings will be gone. So best well document the proxy settings of the customer, so that you can configure them again afterwards.

Certificate trust

The custo diagnostic server (sending practice as well as evaluation center) must trust the certificates of the custo secure AWS service. In most cases this will be the case by default. However, in some cases this may not be the case with an error like the one below:



Log on the computer where the custo diagnostic server is installed.

Open the management console "Computer Certificates" and navigate there to the "Trusted Root Certificates" store. Make sure that the certificate "Amazon Root CA 1" is present.

If not you have to download the certificate "Amazon Root CA 1" (File: "AmazonRootCA1.cer", Distinguished Name: "CN=Amazon Root CA 1,O=Amazon,C=US") from here: <https://www.amazontrust.com/repository/>.

Then you have to import the downloaded certificate to the "Trusted Root Certificates" store. You can right click on the certificate file and select "Import" or import the certificate in the certificate store management tool as well.

Review if there are any older expired certificate of Amazon Root CAs in the trusted root certificate store. If so remove them.

Afterwards reboot the operating system of the computer.

Evaluation center setup

Evaluation center account

If you want to set up a new evaluation center:

Log on with your own computer to the custo secure administration service and create an account for the evaluation center:

Auswertezentrale

Name

Cardiologist Heart

E-Mail

heartmaster@aol.com

Kundennummer

0815

ÜBERNEHMEN

ABBRECHEN

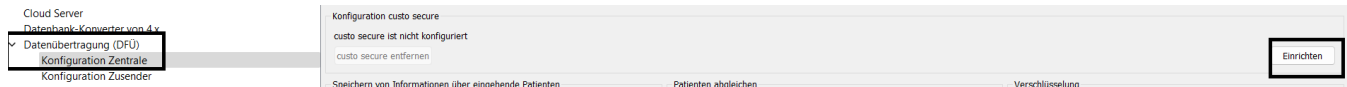
ing	Version	Lizenznummer	Kommentar
42	custo diagnostic server 5.6.11 build ...	108700	
55	custo diagnostic server 5.6.10 build ...	108788	
17	custo diagnostic server 5.6.5 build 53	108429	
54	custo diagnostic server 5.6.10 build ...	107210	
07	custo diagnostic server 5.6.10 build ...	108215	
47	custo diagnostic server 5.6.10 build ...	120899	
04	custo diagnostic server 5.6.6 build 70	110269	
48	custo diagnostic server 5.6.10 build ...	117736	
21	custo diagnostic server 5.6.8 build 1...	107127	
35	custo diagnostic server 5.6.10 build ...	112443	

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Save the config file which your browser will create and transfer it to the computer setting up the evaluation center in the custo diagnostic service center.

Initial setup

Open the service center and navigate to administration where you should find the RDT section:



Click on "Einrichten" and select the file you have created at the administration web page.

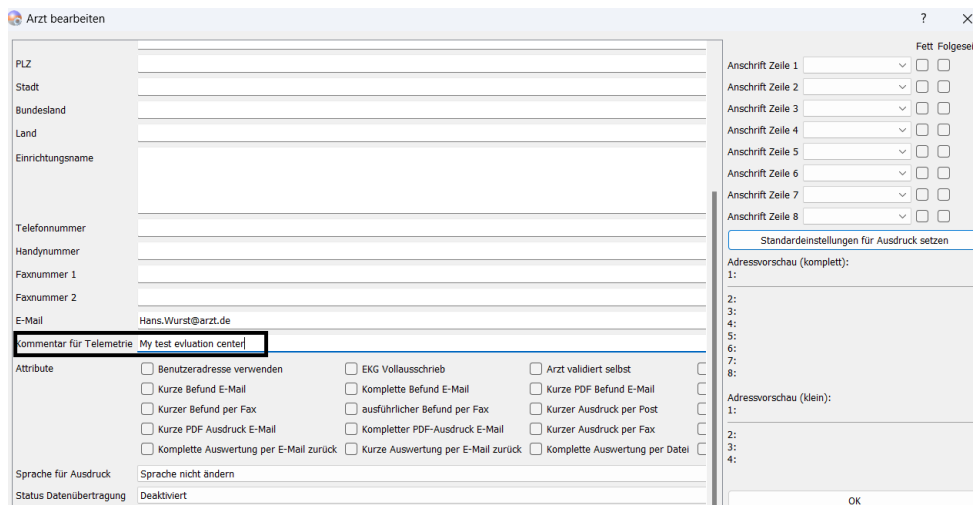
This should then create a connection between the custo secure service and the evaluation center.

To secure the setup and for better troubleshooting do 2 more steps:

1) Back up the private key of the evaluation center and store it at a save place:



2) Go to the system doctor and fill the comments field there: This will help you with the troubleshooting later, as you can see this information in the custo secure admin service after the next sync:



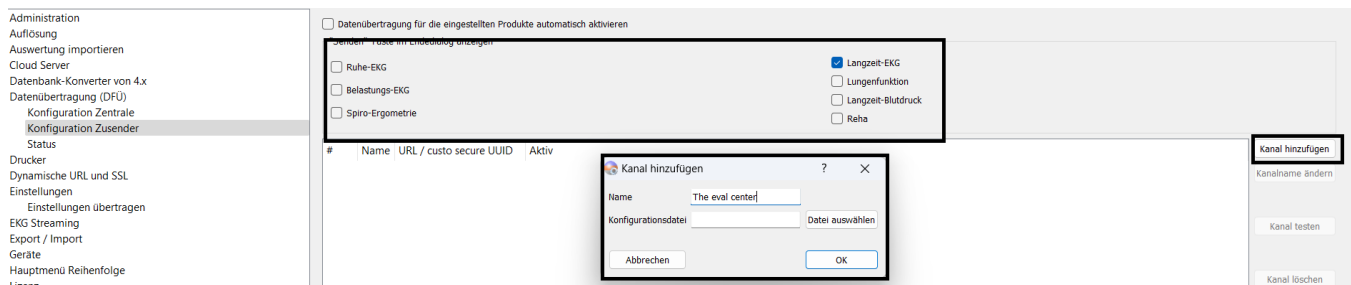
In the custo secure admin service it should look like this:

custo secure administration						
Händler / Auswertezentralen [Vermed-Tec]						
Name	E-Mail	Kundennummer	API Version	Letzte Aktualisierung	Version	Lizenznummer
Internistische Schwerpunktpraxis			12	2023-04-03 10:00:41	custo diagnostic server 5.6.11 build ...	
GP H			12	2023-04-03 10:00:42	custo diagnostic server 5.6.10 build ...	

Set up of sending practices

Account set up

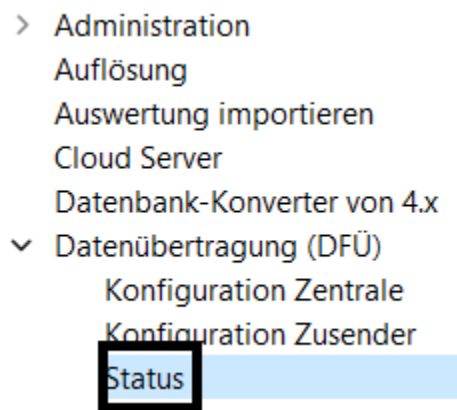
In the service center of the evaluation center create a doctor for the sending practice with the details:



This should then register the sending practice at the custo secure service and the config should be ready.

Analysis and Logs

In the service centers of the evaluation center as well as in the ones of the sending practices you should see the data transfer status:



Please note that by default the custo diagnostic service contacts the custo secure service only every 10 minutes. For troubleshooting you may go to Tasks - Scheduler in the service center, mark the `datatransfer.execute` task and click on the start button at the bottom. This will run the task within the next minute.

In the custo secure admin service you can as well see the last server contact point in time of the relevant custo diagnostic server, its version, the comments for telemetry field content and pending files. Check if the status is plausible. Please note that by re-registering the evaluation center or the sending practice custo secure may create a new record - so check twice if you monitor the right record.