

Installation & Configuration Guide

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# AEB Engines

Connection of host system to AEB  
data center via SFTP

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# 1 Introduction to SFTP

SFTP (Secure File Transfer Protocol) works much the same way as FTP.

The main difference is that with SFTP, access is encrypted over the Internet.

A public and a private key are used for this purpose. The two keys are generated on the client end (your company), and the public key is shared with AEB.

- » The private key should not be made public. Do not, for example, transmit it via email or store it on a generally accessible directory.
- » The technical requirements for this can be found in chapter 4.1.

## 2 Setup under Windows

To set up the SFTP connection under Windows, you were provided with two download links:

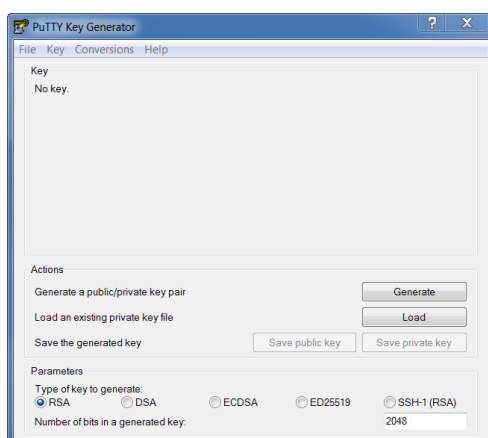
- The “puttygen.exe” tool is needed for key generation under Windows and
- The “psftp.exe” program is needed for the actual data transfer under Windows (see “ftp.exe”).

Download both programs and save them to your local PC.

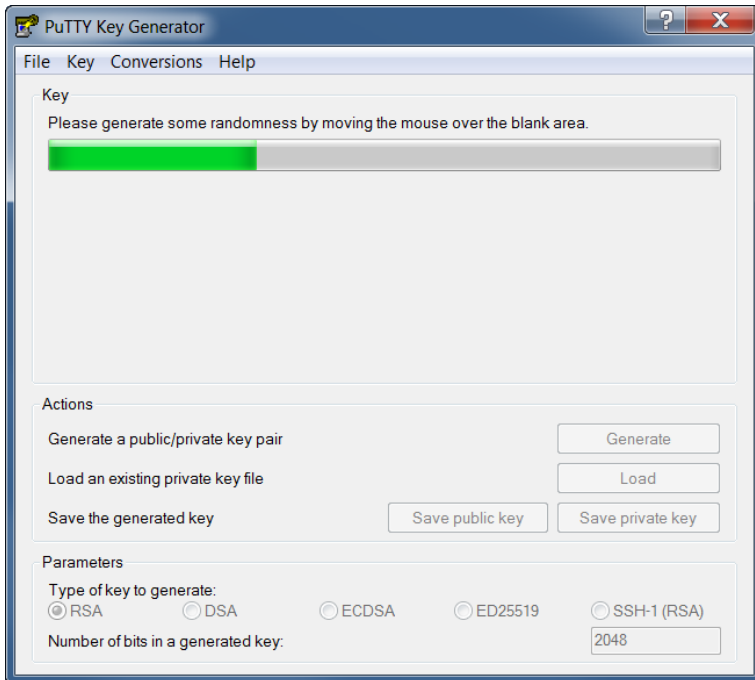
- » The programs are suggested by AEB SE, ultimately you are free to decide which programs you use for the SFTP connection.
- » The customer is responsible for the SFTP setup on the customer side.

### 2.1 Key generation

Start the “puttygen.exe” program. Check the parameters (see the screenshot below) and then click the *Generate* button.

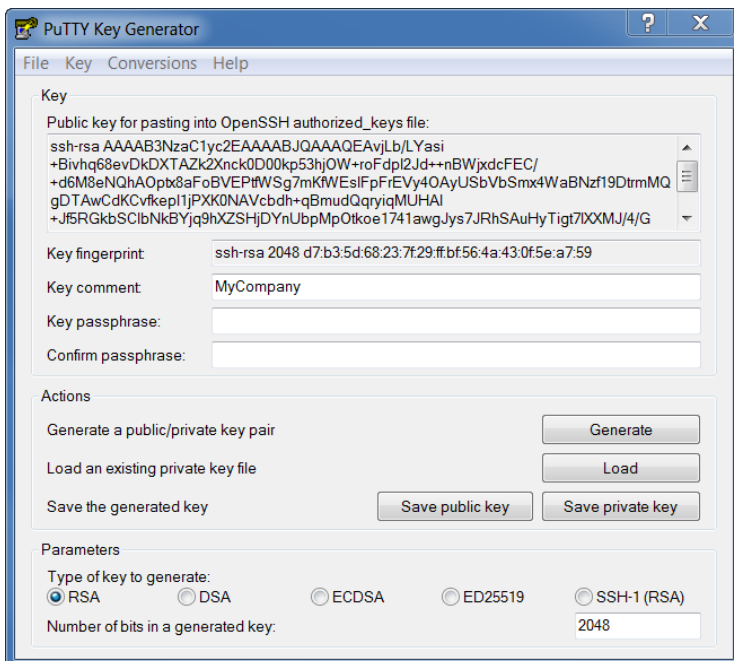


- » Make sure that the “RSA” type is selected and that 2048 bits or 4096 bits are entered as the key length. Move the mouse pointer arbitrarily on this screen until the key generation is completed (see green progress bar).

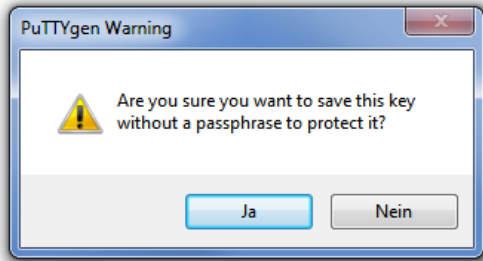


In the *Key comment* field, enter your company name. After that, first click the *Save public key* button and then the *Save private key* button.

As file names, please use the “MyCompanyPublicKey” and “MyCompanyPrivateKey” convention.



When saving your private key, the following dialog will appear, which you need to confirm by clicking on Yes.



## 2.2 Transmission of the public key

Send the public key, i.e. your file "MyCompanyPublicKey" as an email attachment to the person who sent you the email which contained this document.

» Send us **only the public key** ("MyCompanyPublicKey") and never the private key ("MyCompanyPrivateKey").

After creating your new SFTP account, we will contact you again by email to inform you of your new SFTP user name.

## 3 Setup under Linux

For setup under Linux, an installed OpenSSH package including the two programs named "ssh-keygen" and "sftp" is necessary.

### 3.1 Key generation

Log in to your Linux machine as the user who will later perform the data transfer and enter the following command:

```
ssh-keygen -t rsa
```

Use the suggested directory as the destination location by confirming the query with ENTER. Leave the passphrase query empty.

There should now exist a ".ssh" directory in the home directory of the used user, where you can find the private key ("id\_rsa") and the public key ("id\_rsa.pub").

### 3.2 Transmission of the public key

Send us the public key (i.e. the file "id\_rsa.pub") as an email attachment to to the person who sent you the email which contained this document.

» Send us **only the public key** ("id\_rsa.pub") and **never** the private key ("id\_rsa").

After creating your new SFTP account, we will contact you again by email to inform you of your new SFTP user name.

## 4 Connection test and sample scripts

A connection test is only possible after activation by us (see chapters 2.2 or 3.2).

The examples in chapters 4.2 and 4.3 are Windows examples (“psftp.exe” program). Under Linux, the “sftp” program is to be used accordingly, the responses can deviate slightly. Furthermore, under Linux the parameter “-i <YourPrivateKey>” for the private key does not exist in the call, since under Linux the “id\_rsa” file is automatically searched for and found in the corresponding “.ssh” directory when the connection is established.

### 4.1 Technical requirements

The requirement is that the computer from which the connection and upload is to take place can reach the hostname prod01.sftp.app.aeb.com or prod02.sftp.app.aeb.com (product-specific, see setup email or information from the project manager) via the Internet using SSH (TCP port 22). If you use an Internet proxy, the connections for the respective hostname must be enabled in the Internet proxy.

### 4.2 Manual connection (e.g. Trade Compliance Management)

Start a command line/DOS box (Start – execute – “cmd”) in the directory where you unpacked the “psftp.exe” program. Enter the following command line:

```
psftp -i <YourPrivateKey> <UserName>@prod01.sftp.app.aeb.com
```

<YourPrivateKey> is to be replaced with the “MyCompanyPrivateKey” file created in chapter 2.1. The <UserName> you have received from us by email as described in chapter 2.2.

If the connection is successful, you will receive a PSFTP prompt:

```
Using username "<UserName>".
Remote working directory is /
psftp>
```

From there, you can then change to the corresponding product directory and there to the subdirectory “in\_tmp” or “import” (see chapter 5, in this example “ce”) and upload a file for testing (e.g. “c:\tmp\test.txt”, which you must create locally beforehand).

After that, you should move the uploaded test file to the actual “in” directory: The PSFTP **help** command gives you an overview of the available PSFTP commands.

```
psftp> cd ce/in_tmp
Remote directory is now /ce/in_tmp
psftp> put c:\tmp\test.txt
local:c:\tmp\test.txt => remote:/ce/in_tmp/test.txt

psftp> mv test.txt ../in/
/ce/in_tmp/test.txt -> /ce/in/test.txt
```

```
psftp>
```

To upload multiple files, you must use the “mput” command instead of “put”, for example:

```
psftp> mput c:\tmp\*.txt
local:c:\tmp\test1.txt => remote:/ce/in_tmp/test1.txt
local:c:\tmp\test2.txt => remote:/ce/in_tmp/test2.txt
psftp>
```

### 4.3 Automated upload and download (e.g. Trade Compliance Management)

» The following chapters include examples for how to set up an automated upload or download. This is product-specific and not available for all products.

#### 4.3.1 Automated upload

For automated upload of host system data, the SFTP commands must be written to a script file. To ensure that the uploaded host system files are not imported too early (during the upload), the files should first be written to a corresponding “in\_tmp” directory and only then moved to the corresponding “in” or “import” directory.

To ensure that the files are subsequently imported by the downstream processes in the AEB data center, they must also have product-specific file extensions (see chapter 5).

The following Windows sample scripts are intended as a guideline and may need to be modified or extended depending on your circumstances.

Create a script file (e.g. “C:\tmp\aeb-upload.ftp”) with the following content:

```
cd ce/in_tmp
lcd <your local source directory>\
mput * mv * ../in/
quit
```

After that the connection including automatic upload can be started with the following command:

```
psftp -i <IhrPrivateKey> <UserName>@prod01.sftp.app.aeb.com -b c:\tmp\aeb-
upload.ftp
```

<YourPrivateKey> is to be replaced with the “MyCompanyPrivateKey” file created in chapter 2.1. The <UserName> you have received from us by email as described in chapter 2.2.

#### 4.3.2 Automated download

For automated download of files with subsequent automatic deletion from the SFTP server, the commands must also be written to a script file. Create a script file (e.g. “C:\tmp\aeb-download.ftp”) with the following content:

```
cd ce/out_tmp
lcd <YourLocalTargetDirectory>\
rm *
mv ../out/*.<Extension> .
```

```
mget *  
quit
```

Replace <Extension> with the extension that will be given to the files to be downloaded once they have been written (see chapter 5).

» Caution: In this example, the files from the previous download script run are first deleted (“rm \*”) from the corresponding “out\_tmp” folder so that the new files can then be moved from the “out” folder to the “out\_tmp” folder. You may have to ensure between download script runs that you have received the files from your previous download.

After that, the connection including automatic download can be started with the following command:

```
psftp -i <YourPrivateKey> <UserName>@prod01.sftp.app.aeb.com -b c:\tmp\aeb-  
download.ftp
```

<YourPrivateKey> is to be replaced with the “MyCompanyPrivateKey” file created in chapter 2.1. The <UserName> you have received from us by email as described in chapter 2.2.

The commands for the connection including automatic upload/download can each be saved as a batch script (e.g. “download.cmd” or “upload.cmd”). These can then be created on a Windows computer as a “scheduled task” / “task scheduling” in the control panel, so that this is executed accordingly at regular intervals and thus the data is automatically uploaded or downloaded.



## 5 Product directories and file extensions

Your SFTP account can be used for multiple AEB applications.

» For file transfer, clarify the product directory and file extension with your AEB project contact.

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