

# CPR BROKER

*How to setup CPR Broker to work with  
Serviceplattformen*

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# INTRODUCTION

This document will describe how to setup CPR Broker to work with Serviceplatformen as a data provider. For instructions on installing and configuring CPR Broker in general, you should consult the documentation dedicated to these topics. You should make sure, that the version of the CPR Broker software of the given installation, for which you are planning to configure Serviceplatformen as a data provider, is of a version offering support for Serviceplatformen as a data provider. Consult the release notes regarding this.

This document will go through the services that needs to be activated at Serviceplatformen by the entering of a service agreement and provide links to the videos and guides at Serviceplatformen regarding this.

The document will also cover configuring Serviceplatformen as a data provider for CPR Broker – as well as the installation of a certificate needed to secure the communication between the CPR Broker installation and the services at Serviceplatformen.

# 1 SERVICE AGREEMENT

CPR Broker utilizes a set of services at Serviceplatformen, and all these services must be available for CPR Broker to use, when using Serviceplatformen as a data provider for it. To make the services available for CPR Broker the municipality must agree to a service agreement ("serviceaftale"). The next chapter lists the needed services. In this chapter links will be provided to guides to establish the needed service agreement for the municipality. In the process of establishing the needed service agreement, Serviceplatformen stipulates particular steps to be taken by the vendor of the IT-system (i.e. CPR Broker) and by the municipality respectively. Serviceplatformen has provided the following two small videos, to guide you through the steps needed to establish the needed service agreement, whether you're playing the part representing the vendor or you're representing the municipality. (If you're representing a municipality and wish to play both the parts of vendor and municipality in establishing the service agreement, you should probably contact support at Serviceplatform for questions regarding feasibility and guidance).

The link for the videos can be found here:

<https://www.serviceplatformen.dk/administration/help/provider-guidance>

(copy-paste the link into the browser)

The direct links are provided below:

<b>Vendor Guide Video:</b>	<a href="https://vimeopro.com/user10267807/serviceplatformen/video/127578621">https://vimeopro.com/user10267807/serviceplatformen/video/127578621</a>  (copy-paste the link into the browser)
<b>Municipality Guide Video:</b>	<a href="https://vimeopro.com/user10267807/serviceplatformen/video/127578619">https://vimeopro.com/user10267807/serviceplatformen/video/127578619</a>  (copy-paste the link into the browser)

For more details, you may choose to consult the guides below:

<b>Vendor Guide PDF:</b>	<a href="https://www.serviceplatformen.dk/administration/doc/USM0002%20Vejledning%20til%20leverandorer%20brug%20af%20Serviceplatformen.pdf">https://www.serviceplatformen.dk/administration/doc/USM0002%20Vejledning%20til%20leverandorer%20brug%20af%20Serviceplatformen.pdf</a>  (copy-paste the link into the browser)
<b>Municipality Guide PDF:</b>	<a href="https://www.serviceplatformen.dk/administration/doc/USM0003%20Vejledning%20til%20kommuners%20brug%20af">https://www.serviceplatformen.dk/administration/doc/USM0003%20Vejledning%20til%20kommuners%20brug%20af</a>

	<a href="#">%20Serviceplattformen.pdf</a> (copy-paste the link into the browser)
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To sum up the process of establishing the service agreement:

- a) Both the municipality and the vendor must each have logins at Serviceplattformen in accordance with their role in the agreement.
- b) The vendor must have a certificate ("funktionen-signatur") from NETS, that is to be used with the particular CPR-Broker installation.
- c) The vendor registers the particular installation of CPR Broker as a separate IT-System at Serviceplattformen. The before-mentioned certificate is tied to the IT-system as part of this process.
- d) The vendor configures the service agreement, including all the needed services (listed in the next chapter), to be used with the particular CPR Broker installation and requests that the relevant municipality approves the service agreement.
- e) The municipality approves the service agreement.

As already stated, the services that should be included in the service agreement is listed in the next chapter.

## 2 REQUIRED SERVICES

The diagram included below provides an overview of the needed services – and in the sections below the needed services are listed in more detail.

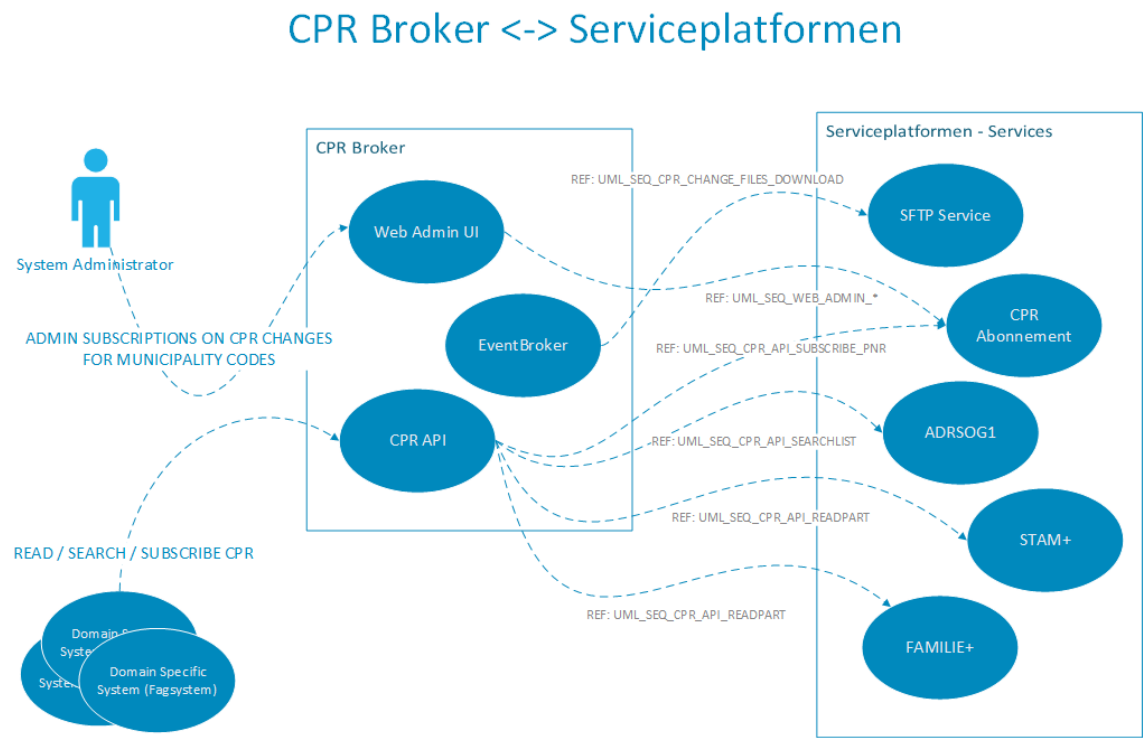


Illustration 1: CPR Broker and Serviceplattformen services

### 2.1 Service CPR Abonnement

Service	Serviceplattformen Service UUID	URL
CPR Abonnement	9cdccc2f-3243-11e2-8fef-d4bed98c5934	<a href="https://www.serviceplattformen.dk/administration/serviceOverview/show?uuid=9cdccc2f-3243-11e2-8fef-d4bed98c5934">https://www.serviceplattformen.dk/administration/serviceOverview/show?uuid=9cdccc2f-3243-11e2-8fef-d4bed98c5934</a> (copy-paste the link into the browser)

The 'CPR Abonnement'-service is needed for CPR Broker to receive updates from Serviceplatformen, when changes occur related to relevant CPR numbers. Serviceplatformen will generate files with the changed CPR numbers relevant for the particular CPR Broker installation and provide the files for download at a protected SFTP-account at their SFTP-service. Consult the URL in the table above for more information regarding the service, including information about price.

## 2.2 Service *ADRSOG1*

Service	Serviceplatformen Service UUID	URL
ADRSOG1 - CPR Opslag (lokal)	6538f113-b1e6-4b21-8fe1-28b7bf78a1bd	<a href="https://www.serviceplatformen.dk/administration/serviceOverview/show?uuid=6538f113-b1e6-4b21-8fe1-28b7bf78a1bd">https://www.serviceplatformen.dk/administration/serviceOverview/show?uuid=6538f113-b1e6-4b21-8fe1-28b7bf78a1bd</a> (copy-paste the link into the browser)

The 'ADRSOG1 - CPR Opslag (lokal)'-service is needed for CPR Broker to perform searches in the replica of CPR data hosted by Serviceplatformen. Consult the URL above for more information regarding the service, including information about price.

## 2.3 Service *STAM+*

Service	Serviceplatformen Service UUID	URL
STAM+ - CPR Opslag (lokal)	7baec3a5-26a5-4922-80fd-37f3bad3dfcb	<a href="https://www.serviceplatformen.dk/administration/serviceOverview/show?uuid=7baec3a5-26a5-4922-80fd-37f3bad3dfcb">https://www.serviceplatformen.dk/administration/serviceOverview/show?uuid=7baec3a5-26a5-4922-80fd-37f3bad3dfcb</a> (copy-paste the link into the browser)

The 'STAM+ - CPR Opslag (lokal)'-service is needed for CPR Broker to read CPR records in the replica of CPR data hosted by Serviceplatformen. It supplements the service 'Familie+' by directly returning street and post district names in the lookup operations. Consult the URL above for more information regarding the service, including information

about price.

## 2.4 Service Familie+

Service	Serviceplatformen Service UUID	URL
Familie+ - CPR Opslag (lokal)	a34cf599-26e4-4609-bfbd-2490d3d1c3ab	<a href="https://www.serviceplatformen.dk/administration/serviceOverview/show?uuid=a34cf599-26e4-4609-bfbd-2490d3d1c3ab">https://www.serviceplatformen.dk/administration/serviceOverview/show?uuid=a34cf599-26e4-4609-bfbd-2490d3d1c3ab</a> (copy-paste the link into the browser)

The 'Familie+ - CPR Opslag (lokal)'-service is needed for CPR Broker to read CPR records in the replica of CPR data hosted by Serviceplatformen. It is supplemented by the service 'STAM+', that is also required (covered by the section dedicated to that service). Consult the URL above for more information regarding the 'Familie+'-service, including information about price.



## 3 SFTP

For CPR Broker to be able to download the files with CPR changes from Serviceplatformen - (cf. the section regarding 'Service CPR Abonnement' above) – the IT-system (i.e. 'CPR Broker - municipality X') registered by the vendor at Serviceplatformen, must be tied to the public key of a key pair used in the encrypted and authorized communication between the particular CPR Broker installation and the SFTP-service hosted by Serviceplatformen. (Please notice, that this private/public key pair is not related to the certificate from NETS ("funktions-signatur"), which is also required – but used for other types of communication between CPR Broker and Serviceplatformen.)

Serviceplatformen has provided the following guide to their SFTP-service for IT-vendors:

<https://www.serviceplatformen.dk/administration/doc/USM0005%20Vejledning%20til%20Serviceplatformens%20SFTP%20Service.pdf>

(copy-paste the link into the browser)

For configuring CPR Broker to work with the SFTP-service you need to complete the steps in the section '*6.1.1.1 Generering af SSH nøgler*' and in section '*4 Oprettelse af SFTP-aftale på Serviceplatformen*'.

### 3.1 Notes Regarding Section '*6.1.1.1 Generering af SSH nøgler*'

As you complete the steps for generating the needed private/public key pair, you may want to follow the steps diligently. Otherwise, if you choose to use another platform for generating the keys (like Linux or Mac), you should be aware of the fact, that the versions of the ssh-keygen tool on these platforms may operate with different default values and the setup at Serviceplatformen have been known to be a bit particular, in terms of the expectations to the format of the public part of the rsa key, that you paste into the relevant input field of the web form, when you tie the IT-system to the key (which is covered in section 3.2 below).

You should probably end up with a public key that format-wise looks similar to the one shown below. When the time comes to paste it into the input field in the web gui (cf. section 3.2 below), you should remember to make sure, that no line breaks are entered/pasted into the input field.

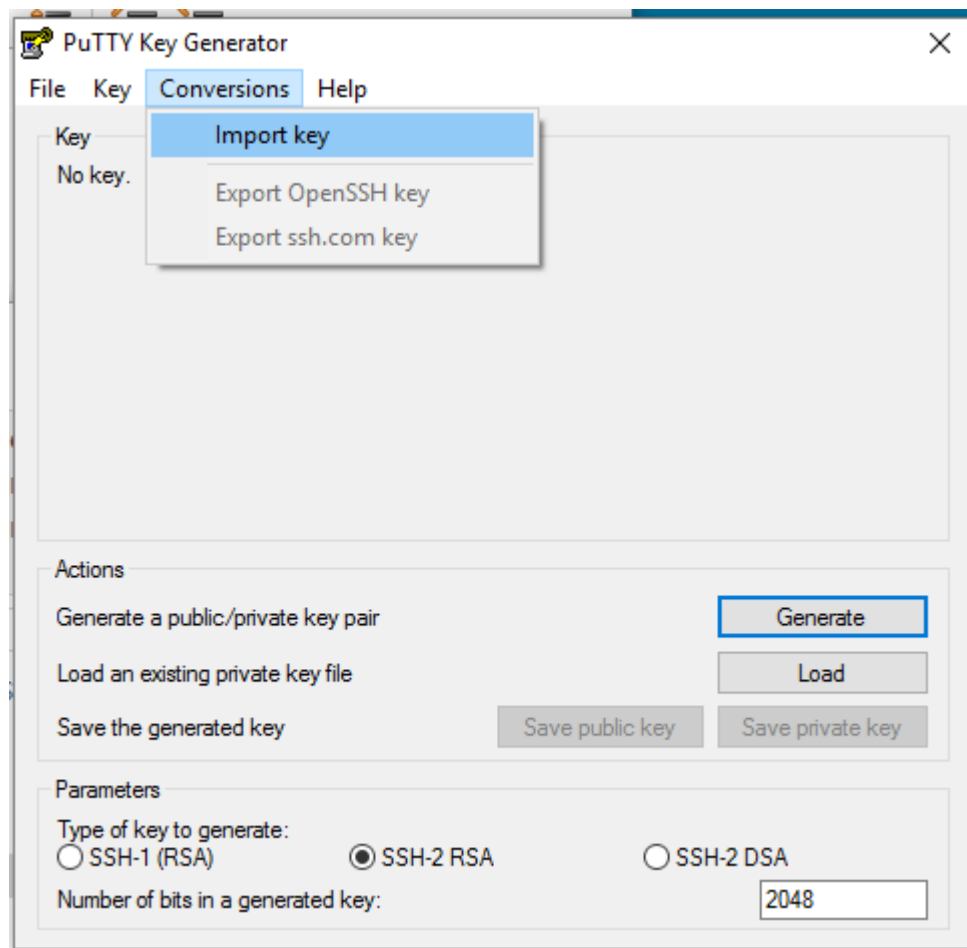
```
ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAQAC288Sq7Q0X9cewfcjxLwC/OiKnvYZYXwmMMMT7avv
ayibK9xYK7QYyrcq5BtQ17mtF6px5z3FSs5HXKJQKB48wIt+2qs9gSdU8eBofCmXdfnr1LX
tbTwpoGwaR1Cu0S/n5y1RA7HRnf37uJanZZFGdHeV+38zsn1qZN/KQ9D/RJyXCwpJudEmxM
3RMMCVUxHvCvjyglDQtC5YM1axDEEzPvZv2tKnBXwa7+93TXsU7uDzJkWvtxvstYL2uU8Ik
TIbao6B1/gSG/CR70ujyJ8qHCgZMmu+LRb1X59Ao5CaAk7JJ9mAaU0h4wVQmU02jrd/ieiC
twoRfbqLWqdGoSywF user@pc-4003
```

After you have generated a private/public-key pair in accordance with the guide, you need to create another **variant/format** of the **private key** you just generated, so that it can be used with WinSCP, which is the software, that CPR Broker uses to communicate with the SFTP-server at Serviceplatformen. The WinSCP software uses the native private key format of PuTTY (.ppk). To make a variant of the private key, that we already generated, available in the PuTTY format, we need to use the tool 'PuTTY Key Generator' (puttygen.exe). The tool is open source software and can be downloaded at the URL below:

<http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html>

(copy-paste the link into the browser)

When you have downloaded and started the tool by clicking it's icon, you should choose the menu item 'Conversions' → 'Import key'.



*Illustration 2: PuTTY Key Generator - Choosing menu item 'Import Key'*

In the file browser that appears, navigate to the folder where you saved the **private key**,

generated following the guide linked to above. Choose the **private** key file. The tool will prompt you to enter the pass-phrase, that you entered when you generated the key. When you have entered the pass-phrase, the window depicted below should appear. Click the button 'Save private key' and save the private key in the .ppk format. At a later stage, when configuring the Serviceplatformen data provider, you'll need to provide the path to the .ppk-file just generated.

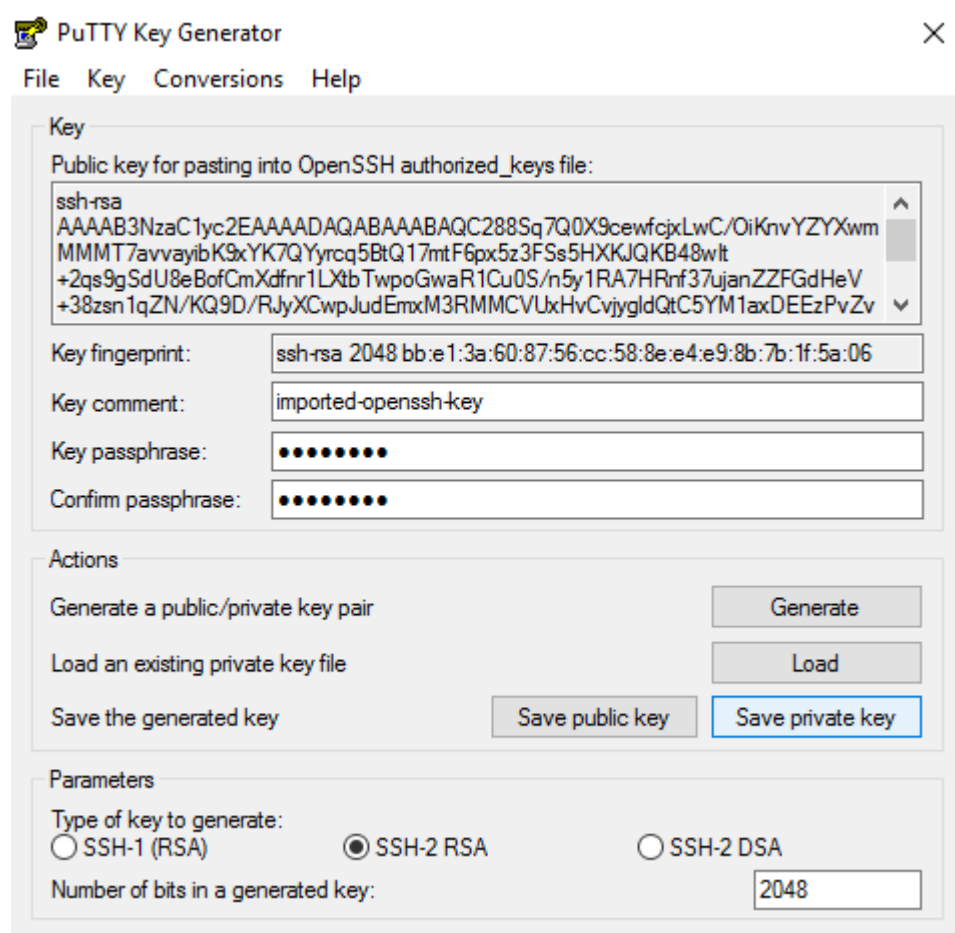


Illustration 3: Illustration 2: PuTTY Key Generator - Clicking button 'Save private key'

## 3.2 Notes Regarding Section '4 Oprettelse af SFTP-aftale på Serviceplatformen'

When you complete the steps outlined in section '4 Oprettelse af SFTP-aftale på Serviceplatformen' in the guide at Serviceplatformen linked to above, you should make sure to choose 'Simpel' for the option 'Filudvekslingstype'. This is important, otherwise the downloading of files with changed CPR-numbers from Serviceplatformens SFTP service will

not work.

## 4 CERTIFICATE INSTALLATION

As mentioned in section '1. Service Agreement' you (as an IT-vendor) need to install a certificate ("funktions-signatur") from NETS for CPR Broker to communicate safely with Serviceplattformen. Consult the information at NETS for instructions on how to order and obtain the certificate ("funktions-signatur").

You then need to install the certificate ("funktions- signatur/certifikat") on the server, where CPR Broker is installed and running. The certificate needs to be available for usage by the windows account running the IIS-service on the server, where CPR Broker is installed. You may use mmc.exe (Microsoft Management Console) and the 'Certificates'-snap-in to import the certificate. The certificate may be imported into the 'Personal' Logical Store Name.

When the certificate is imported, you need to take note of the serial number of the certificate. The serial number is to be used when configuring the Serviceplattform data provider, as covered in next section. Microsoft Management Console may be used to view the serial number of the certificate.

## 5 CONFIGURE DATA PROVIDER

General information about configuring data providers for CPR Broker can be found in section '6.2 Data Provides' of the 'CPR Broker – Installation and setup' document. Please refer to that document for general information regarding the topic.

In this section we'll cover the configuration option specific to the Serviceplatformen data provider.

### New data provider

Type:

Url:	<input type="text"/>
Service agreement UUID:	<input type="text"/>
User system UUID:	<input type="text"/>
User UUID:	<input type="text"/>
Certificate serial number:	<input type="text"/>
Extracts folder:	<input type="text"/>
SFTP Address:	<input type="text"/>
SFTP Port:	<input type="text"/>
SFTP User:	<input type="text"/>
SFTP SSH Private Key Path:	<input type="text"/>
SFTP SSH Private Key Password:	<input type="text"/>
SFTP SSH Host Key Fingerprint:	<input type="text"/>
Filename Regex filter:	<input type="text"/>
SFTP Process Files From Sender Named:	<input type="text"/>
SFTP Remote Path (e.g. \IN):	<input type="text"/>
ADRSOG1 - cost:	<input type="text"/>
CPR Subscription - cost:	<input type="text"/>
<b>Insert</b>	

*Illustration 4: Serviceplatformen Data Provider Configuration Options*

Below here is included a table, with information regarding the options specific to Serviceplatformen data provider.

Configuration Option	Value	Description
Url	https://prod.serviceplatformen.dk/	URL referring to the production environment at Serviceplatformen.
Service agreement UUID	Example: 98c04260-758c-11e2-	This is the UUID assigned to the service

	9e96-1100200c9a43	agreement covered in section 1 of this document. Consult the video guide for the IT-vendor referred to in that section, for info on how to obtain the particular UUID of your particular service agreement.
<b>User System UUID</b>	Example: 10c04260-637c-11e2-9e96-1100200c9a80	This is the UUID assigned to the IT-system, that you as a vendor registered at Serviceplatformen and that the service agreement is tied to. Consult the video guide for the IT-vendor referred to in section 1 of this document, for info on how to obtain the particular UUID of your particular IT-system.
<b>User UUID</b>	Example: 85c04260-192c-11e2-9e96-1100200c9a57	This is the UUID of the municipality, that is covered by the service agreement and on behalf of which this particular CPR Broker installation will access the services at Serviceplatformen. Consult the video guide for the IT-vendor referred to in section 1 of this document, for info on how to obtain the particular UUID of the relevant municipality related to the service agreement.
<b>Certificate serial number</b>	Example: 24 8b 35 76	This is the serial number of the certificate ('funktions-certifikat') that you installed on the CPR Broker server in section 4 and that you (as a vendor) tied to the IT-system, when registering it at Serviceplatformen.
<b>Extracts-folder</b>	Example: C:\ServicePlatformExtracts	This option identifies the folder, where the downloaded files from Serviceplatformen SFTP-service is stored. Please notice that the windows account that is executing the CPR Broker backend service should have read/write permissions to this folder.
<b>SFTP Address</b>	213.174.67.11	The IP-address of the SFTP-server of the production environment of Serviceplatformen.
<b>SFTP Port</b>	22	The tcp/ip port number of the sftp service.
<b>SFTP User</b>		This is the user name chosen, when you completed the setup of the sftp-account for the IT-system at Serviceplatformen (cf. section 3.2 above).
<b>SFTP SSH Private Key Path</b>	Example: C:\keys\id_rsa.ppk	This identifies the full path to the private key in PuTTY format, that you created in section 3.1.

		Please notice, that the windows account executing the CPR Broker backend service should have permissions to read this file.
<b>SFTP SSH Private Key Password</b>		This is the pass-phrase, that you chose, when you generated the SSH key pair.
<b>SFTP SSH Host Key Fingerprint</b>	ssh-rsa 2048 a7:36:eb:65:ce:3f:d8:21:e6:7a:7b:9 5:4b:b5:6a:60	The finger print of the public key of the SFTP-server of the production environment at Serviceplatformen.
<b>Filename Regex filter</b>		This option is currently not used. Just leave the field blank.
<b>SFTP Process Files From Sender Named</b>		This option is currently not used. Just leave the field blank.
<b>SFTP Remote Path</b>	/IN	The remote path at the SFTP server, where files with CPR changes are stored by Serviceplatformens 'CPR Abonnement'-service.



## 6 ADDITIONAL STEPS NOT COVERED

Depending on the usage patterns of the particular CPR Broker installation that you are undertaking, you may need to perform additional steps. This may include using the CPR Broker Web Admin UI to place a subscription at Serviceplatformen on all changes for all CPR-numbers in a given municipality code - as well performing steps to bootstrap the local CPR Broker database with all CPR-numbers for that municipality code. The questions (regarding particular usage patterns of the given installation) and instructions related to this, are out of scope of this guide.

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