

# Manufacturer CA Service Provider User Guide

Document version: v1.1

## Table of Contents

<b>Revision.....</b>	<b>3</b>
<b>Definitions.....</b>	<b>3</b>
<b>Overall process.....</b>	<b>3</b>
<b>Manufacturer CA Service Provider Registration .....</b>	<b>4</b>
<b>Manufacturer Certificate Authority Setup .....</b>	<b>5</b>
<b>Manufacturer CA Certificate Signing .....</b>	<b>6</b>
<b>Adobe Acrobat Certificate Warning .....</b>	<b>7</b>
<b>Product Unit Certificate Signing .....</b>	<b>10</b>

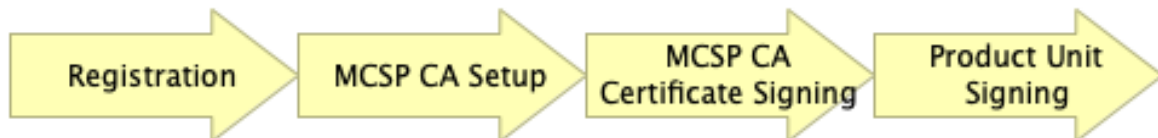
## Revision

Version	Release Date	Summary of changes
0.1	12 April 2021	Initial creation
1.0	21 April 2021	Final version Correction of grammatical errors
1.1	10 May 2021	Added few steps in Manufacturer Certificate Authority Setup

## Definitions

MCSP	Manufacturer CA Service Provider
RCSP	Root CA Service Provider
WPC	Wireless Power Consortium
CA	Certificate Authority
LLA	Logo Licensing Administration

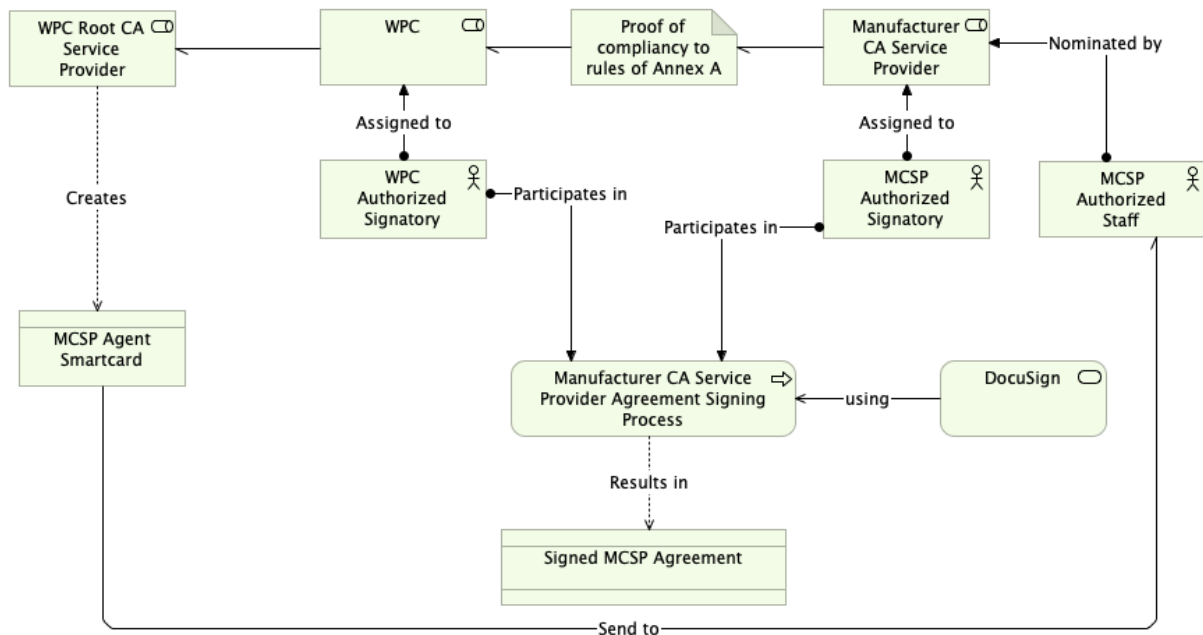
## Overall process



### Disclaimer:

The overall process consists of 4 main blocks. This document intends to limit the scope to what is required from a WPC viewpoint and has no ambition to describe the whole supply chain.

## Manufacturer CA Service Provider Registration



For a member to become a Manufacturer CA Service Provider (MCSP), the Manufacturer Certification Authority Service Provider Agreement needs to be signed.

Reference agreements can be found at <https://www.wirelesspowerconsortium.com/qi-authentication/>

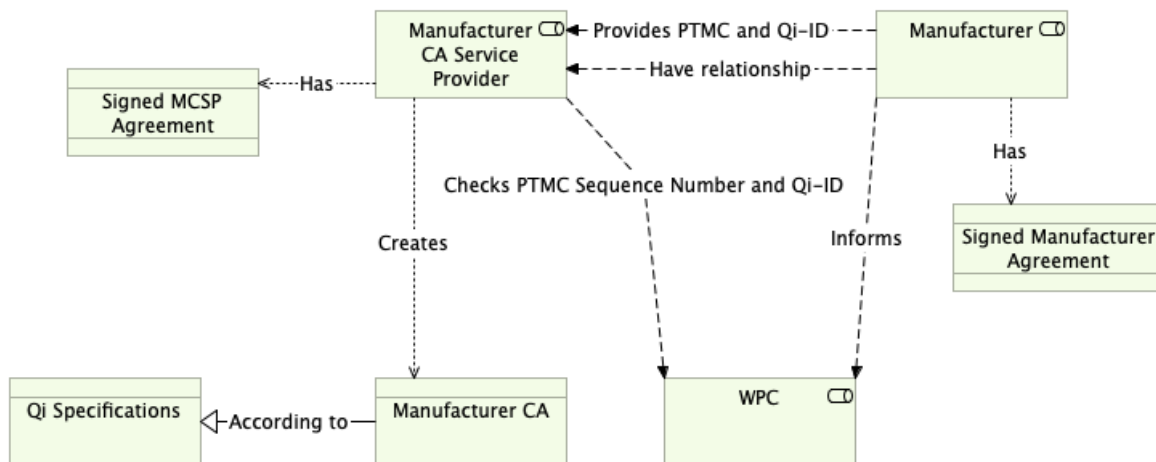
To start the agreement signing process, the candidate MCSP needs a mail describing the intentions to [lla@wirelesspowerconsortium.com](mailto:lla@wirelesspowerconsortium.com) and can already include proof of compliance with the rules as detailed in Annex A of the MCSP agreement.

After successful assessment, by WPC LLA, of the provided proof and completion of the agreement signing process, the MCSP is now enabled to supply product unit certificates to authorized manufacturers. Authorized manufacturers are those manufacturers that have completed the signing process of the Authorized Manufacturer Agreement.

The MCSP will need to nominate staff authorized to request MCSP CA certificates. WPC LLA will provide the Root CA the details of those people. They will receive from the Root CA each a smartcard (MCSP Agent smartcard) to be used to sign the CSR submission form (PDF).

Allow at least 12 business days after registration for the Root CA to prepare and ship the smartcards.

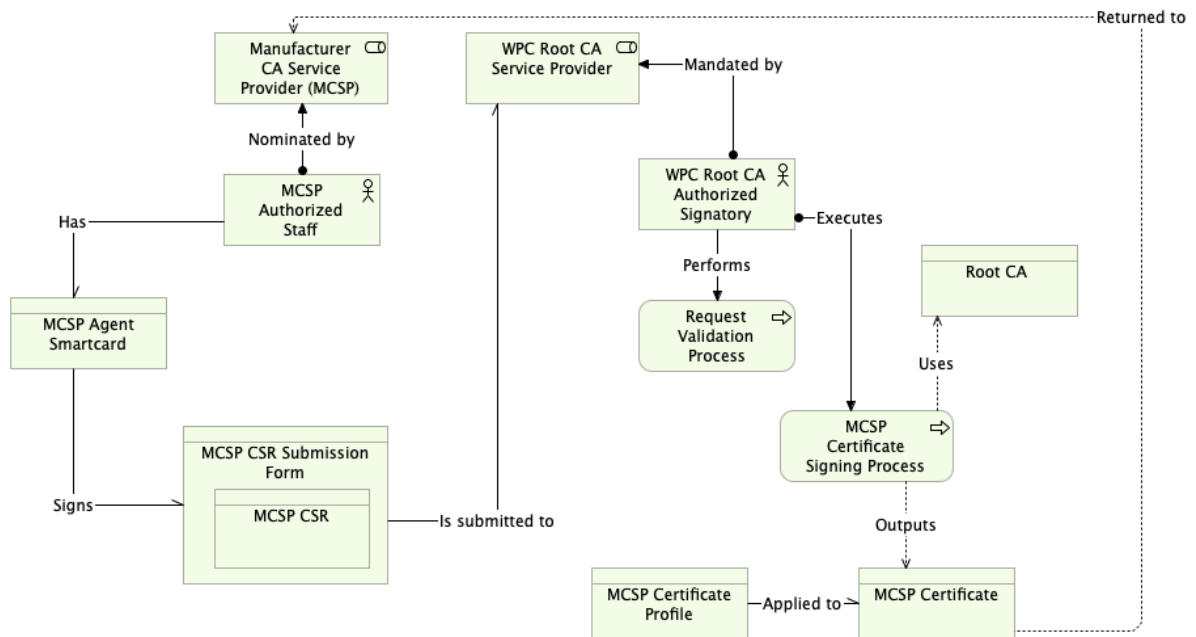
## Manufacturer Certificate Authority Setup



Before the MCSP is able to create a Manufacturer CA and provide product unit certificates to authorized manufacturers, following has to be completed:

- Make sure that company that asked you to provide MCSP service has signed the Authorized Manufacturer Agreement with the WPC;
- Make sure that the authorized manufacturer has informed WPC of the relationship (the authorized manufacturer must tell the LLA which MCSP will supply the product unit certificates for its products);
- Ask the manufacturer to provide you with the PTMC that is needed in the CSR.
- Verify that the PTMC belongs to this manufacturer. See:<https://members.wirelesspowerconsortium.com/members/members-info/swg/prmc.html>
- Check with WPC LLA (lla@wirelesspowerconsortium.com):
  - o That the manufacturer has signed the Authorized Manufacturer Agreement;
  - o That the authorized manufacturer has informed the LLA that this MCSP will supply the product unit certificates for its products.
- Adhere to the specifics of the Manufacturer Certificate Authority (to be found in the Qi Specifications - Authentication Protocol, section 3 Certificates and Private Keys (<https://members.wirelesspowerconsortium.com/members/members-info/swg/specifications.html>))

## Manufacturer CA Certificate Signing



Once the Manufacturer Certificate Authority has been created for the appropriate Manufacturer PTMC, the MCSP needs to submit the CA CSR to the Root CA for signing.

The Root CA will perform one signing session per month, the exact schedule can be found on <https://www.wirelesspowerconsortium.com/qi-authentication/>.

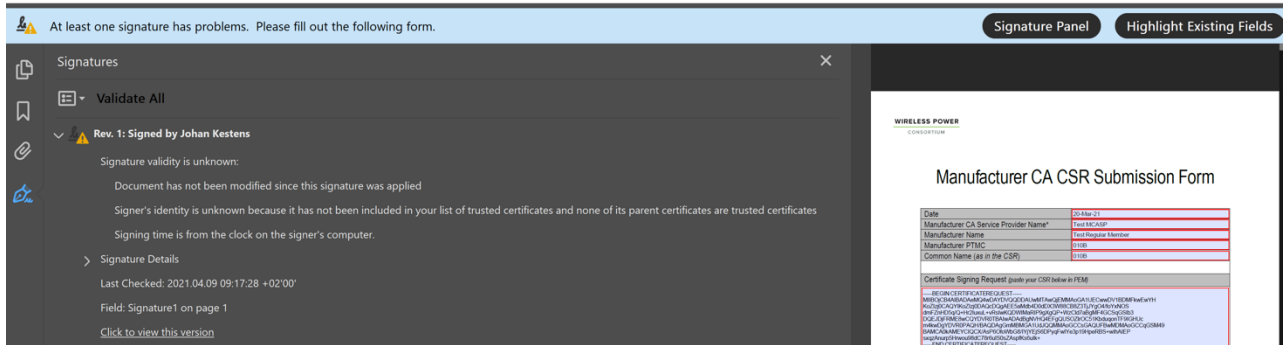
The MCSP needs to obtain a copy of the CSR Submission form, to be found on the above website. All fields of the PDF are mandatory.

The CSR needs to be paste into the PDF. Once all fields are completed, the authorized staff needs to sign the PDF using the Agent smartcard received from the Root CA.

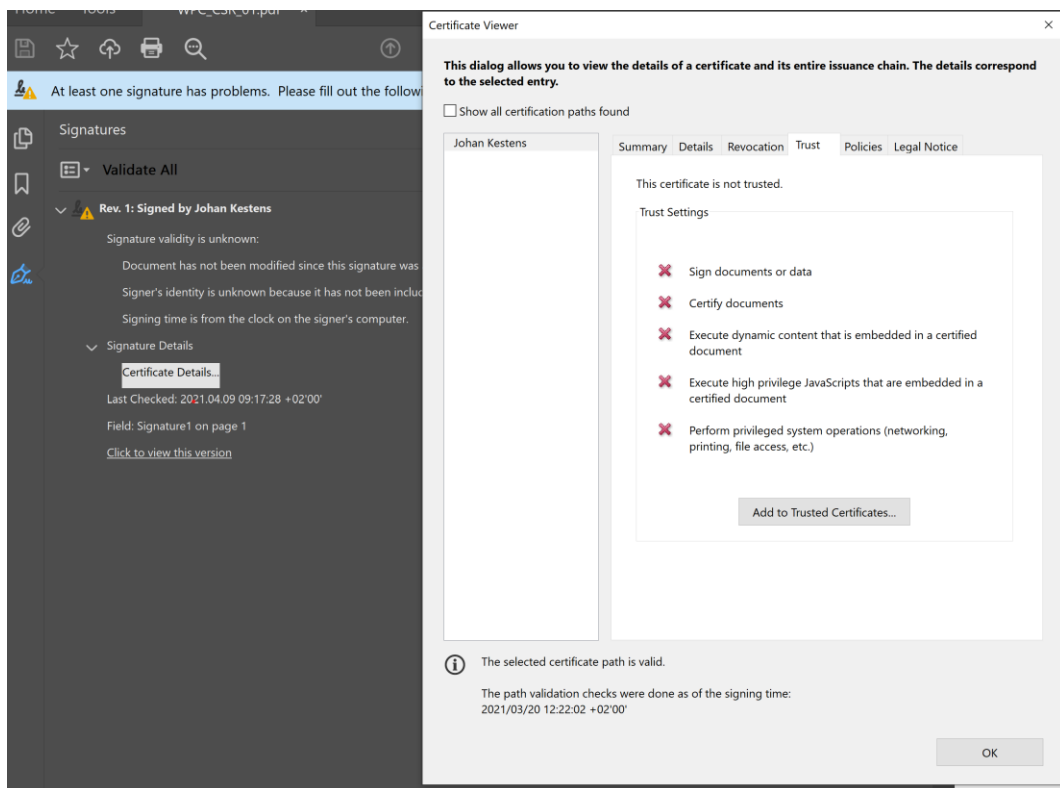
## Adobe Acrobat Certificate Warning

Since the Agent smartcards are issued from a private Certificate Authority, especially created for these smartcards, Adobe will not recognize the applied signature as being valid. To eliminate this, the certificate needs to be added to the Trusted list of the local Adobe.

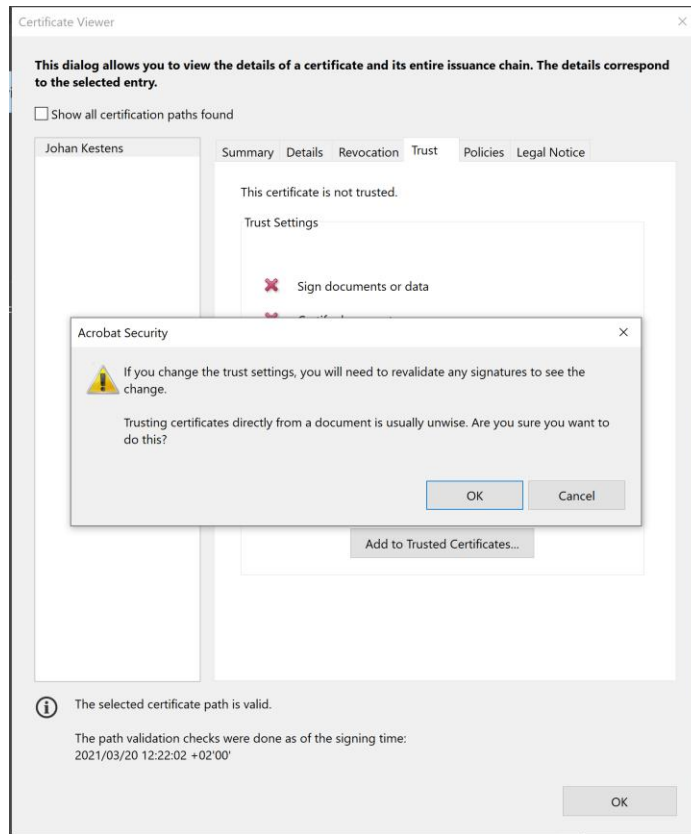
When opening the signed PDF, there will be a warning message that indicates that there are problems with a signature.



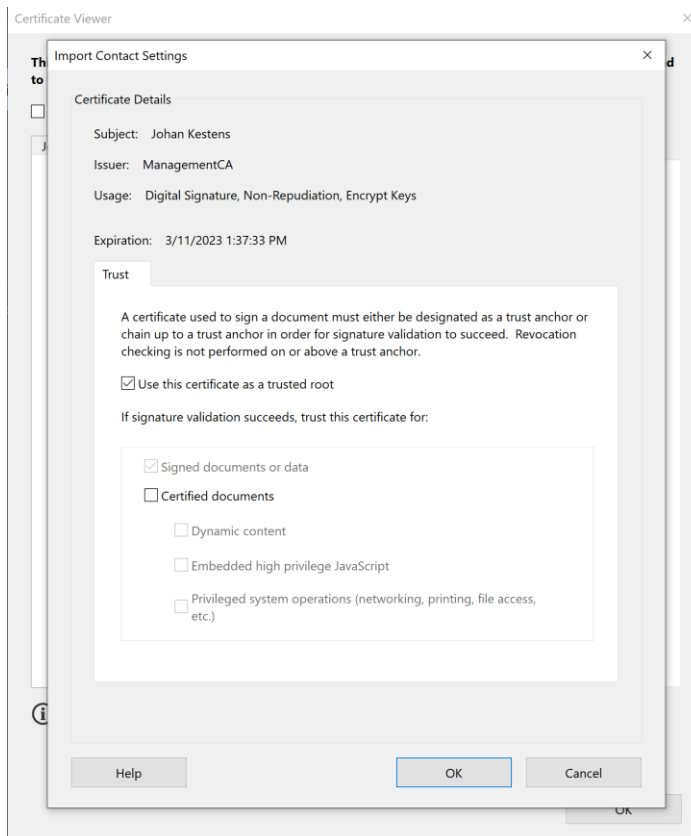
Expand the Signature Details and click on 'Certificate Details'. A new window will open, the Certificate Viewer window and go to the Trust tab and click 'Add to Trusted Certificates'



A warning message will appear, click 'OK'.

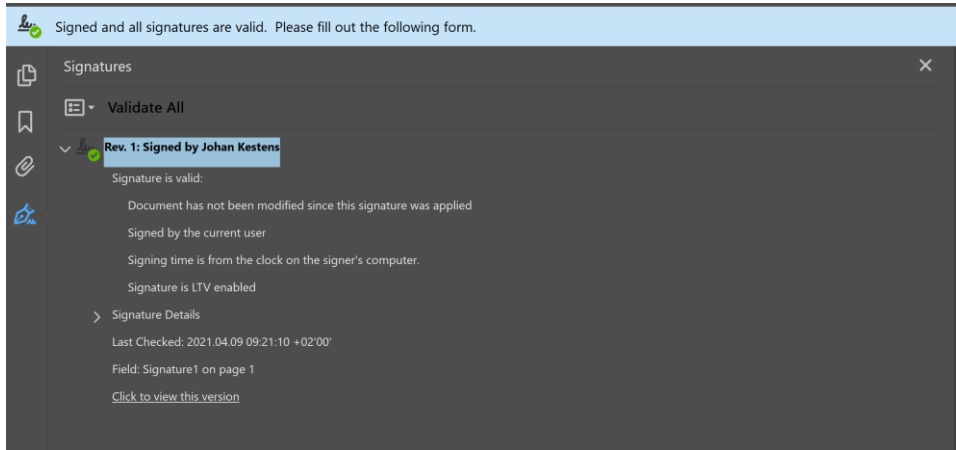


On the next screen, nothing special has to be done, just click 'OK'.

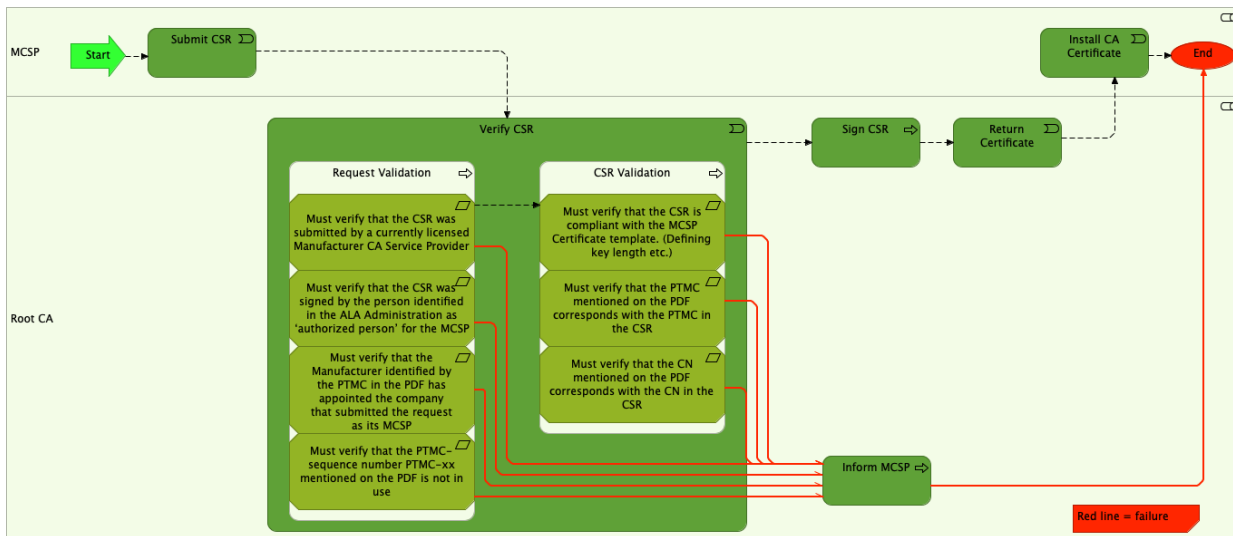




Close all windows and return to the signed document. Click 'Validate All' and now the signature is being accepted.



When the Root CA receives the Manufacturer CA SubmissionForm, the Root CA will perform certain validations, as detailed below.



In case of errors are detected in the validation steps, the Root CA will inform the submitter accordingly, identifying the point(s) that failed validation. In case no errors are detected, the CSR will be signing during the next planned signing session.

## Product Unit Certificate Signing

Once the Manufacturer CA certificate has been signed by the Root CA, the Manufacturer CA Service Provider can start issuing Product Unit certificates for its customers.

Before issuing product unit certificates to an authorized manufacturer, the MCSP must check with WPC LLA ([lla@wirelesspowerconsortium.com](mailto:lla@wirelesspowerconsortium.com)) that Product Unit Certificates with that Qi-ID and PTMC may be issued to this authorized manufacturer, with the following procedure:

1. Ask the authorized manufacturer that requested the Product Unit Certificates to provide you with the Qi-ID and PTMC of the product that will use the Product Unit Certificates
2. Do not allow a request if the PTMC does not belong to the company that requested the Product Unit Certificates
3. Ask the WPC by email ([lla@wirelesspowerconsortium.com](mailto:lla@wirelesspowerconsortium.com)) to confirm that the that Product Unit Certificates with that Qi-ID and PTMC may be issued to this authorized manufacturer.

The process on issuing these certificates is beyond the scope of this document and is between the Manufacturer CA Service Providers and customers.