

Gaia-X Digital Clearing House (GXDCH)

STEP BY STEP: HOW TO BECOME A Gaia-X CONFORMANT SERVICE

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Assumed prerequisites:

- User is already familiar with the concepts of Gaia-X, like the [Verifiable Credential model](#) (digital signatures/using certificates/digital wallets).
- User has an EV SSL or an eIDAS certificate and the public part of the certificate is published via DID:WEB method.
- The user is familiar with the workflow described in the [Architecture document](#).

1. User wants to get Gaia-X Compliant Verifiable Credentials with the Compliance levels (Standard Compliance or Level1).

2. User decides what kind of Gaia-X Compliant Verifiable Credentials can be obtained from Gaia-X. (e.g.: LegalPerson). The compliance document describes the compliance for [Cloud Services](#) and [participants](#).

3. User decides the method to create the verifiable credential:

- Using and edit the examples in the vc-jwt.io/playground signer tool
- Using the [Credential Helper](#) with the Gaia-X ontology w3id.org/gaia-x/development#

4. Deploy a valid did:web with at least one verification method tied to a valid x509 certificate in the x5u/x5c attribute.

5. User decides how to sign each verifiable credential an Enveloped Verifiable Credential:

- Deploying and using the [vc-jwt](#) signer tool (with valid keypair and certificate)
- Using any third party tool with a valid keypair and certificate following the specification: <https://www.w3.org/TR/vc-jose-cose/#vc-json-jwt>

6. Use a trusted Legal Registration Notary to get a valid Verifiable Credential for the Registration number for every Legal Person within the previous step.

7. Using the same tool from the step 5, to sign a Verifiable Presentation containing all the previously signed verifiable credentials.

8. User calls the Gaia-X Compliance Service with the targeted Compliance level for their presentation.
The Gaia-X Compliance Service is connected in the background with the available clearing houses, and the call will go to one of the GXDCH instances. But the experience is seamless for the user.
If a user wishes to use a specific clearing house instance, this option is available by calling directly the API of the clearing house.
More information on how to obtain that can be found in the GXDCH status page: <https://docs.gaia-x.eu/#/gxdch>

9. If the verification fails, an error message will be returned to the user to identify the issue.

10. If the verification is successful, the user will receive a Gaia-X Verifiable Credential, containing the proof of the verification, signed by the clearing house which did the verification.

11. After having received the Gaia-X Verifiable Credential one can claim they are a Gaia-X Compliant Legal Participant, or have Gaia-X Compliant Services with a certain compliance level based on the proof in the VC returned by the Compliance Service.

12. The Gaia-X Compliant VCs can be:

- Stored in JWT file format saved on the user's device
- Stored in a digital wallet
- Pushed to the Credential Event Service