

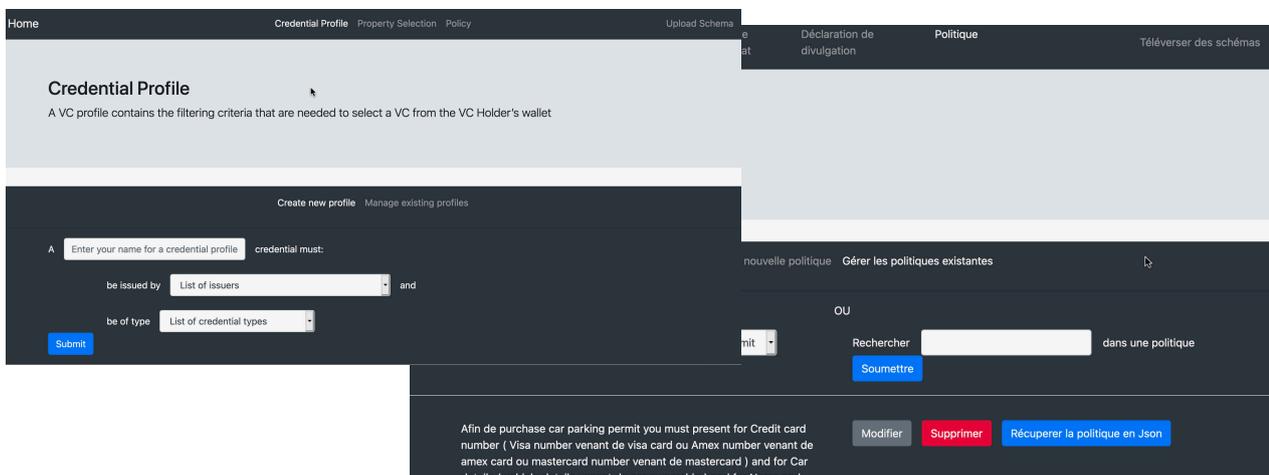
SSI Policy Management

Enabling SSI Interoperability

The W3C Verifiable Credentials Data Model recommendation specifies the data structure for verifiable credentials, but this is not enough to ensure interoperability of the many different SSI eco-systems that exist. The W3C recommendation supports 3 different types of cryptography, an infinite number of DDI methods, and no protocols for transferring credentials or policies. Consequently very few SSI eco-systems can interoperate.

Verifiable Credentials Ltd Policy Management Infrastructure is designed to aid international interoperability in the following ways:

- a multi-lingual controlled natural language (CNL) policy server that enable a resource manager, using a standard web browser, to easily formulate their verifiable credential policy in words and phrases they can easily understand, in their own spoken language.



The screenshot displays two overlapping web interface panels. The top panel, titled 'Credential Profile', includes a navigation bar with 'Home', 'Credential Profile', 'Property Selection', 'Policy', and 'Upload Schema'. Below the title, it states: 'A VC profile contains the filtering criteria that are needed to select a VC from the VC Holder's wallet'. The bottom panel, titled 'Politique', has a navigation bar with 'Déclaration de divulgation', 'Politique', and 'Téléverser des schémas'. It features a search bar with the text 'Rechercher' and 'dans une politique', and a 'Soumettre' button. Below the search bar, there are buttons for 'Modifier', 'Supprimer', and 'Récupérer la politique en Json'. A small text block at the bottom of the 'Politique' panel reads: 'Afin de purchase car parking permit you must present for Credit card number (Visa number venant de Visa card ou Amex number venant de amex card ou mastercard number venant de mastercard) and for Car details (vehicle details, permit details, membership card for Amex and...'.

- a policy conversion server that converts the manager's semantic policy into the different syntactic policies that are understood by each of the resource's supported SSI eco-systems.
- a policy registry that stores the different syntactic policies so that all the verifiable credential wallets from the supported SSI eco-systems can obtain the manager's semantic policy in the format and syntax they understand.
- a set of easy to use APIs for storing and retrieving the policies in both CNL and the SSI supported syntaxes, allowing a resource to support many different architectures and application level protocols.

Armed with the above, any verifiable credential wallet can obtain the manager's policy in the syntax and format it understands, and consequently determine which verifiable presentation to return to the resource. Together with the **Simple Universal Verifier**, the resource is able to accept any supported verifiable presentation, validate that it conforms to the manager's policy, and obtain the validated credentials in response. The resource may then continue processing the user's request, sure in the knowledge that the user has been verified according to the manager's policy.

The policy management server can be configured with any verifiable credentials schemas, structured using the JSON schema standard. These populate the drop down menus in the GUI.

The manager's spoken language is automatically selected using the browser's language settings.