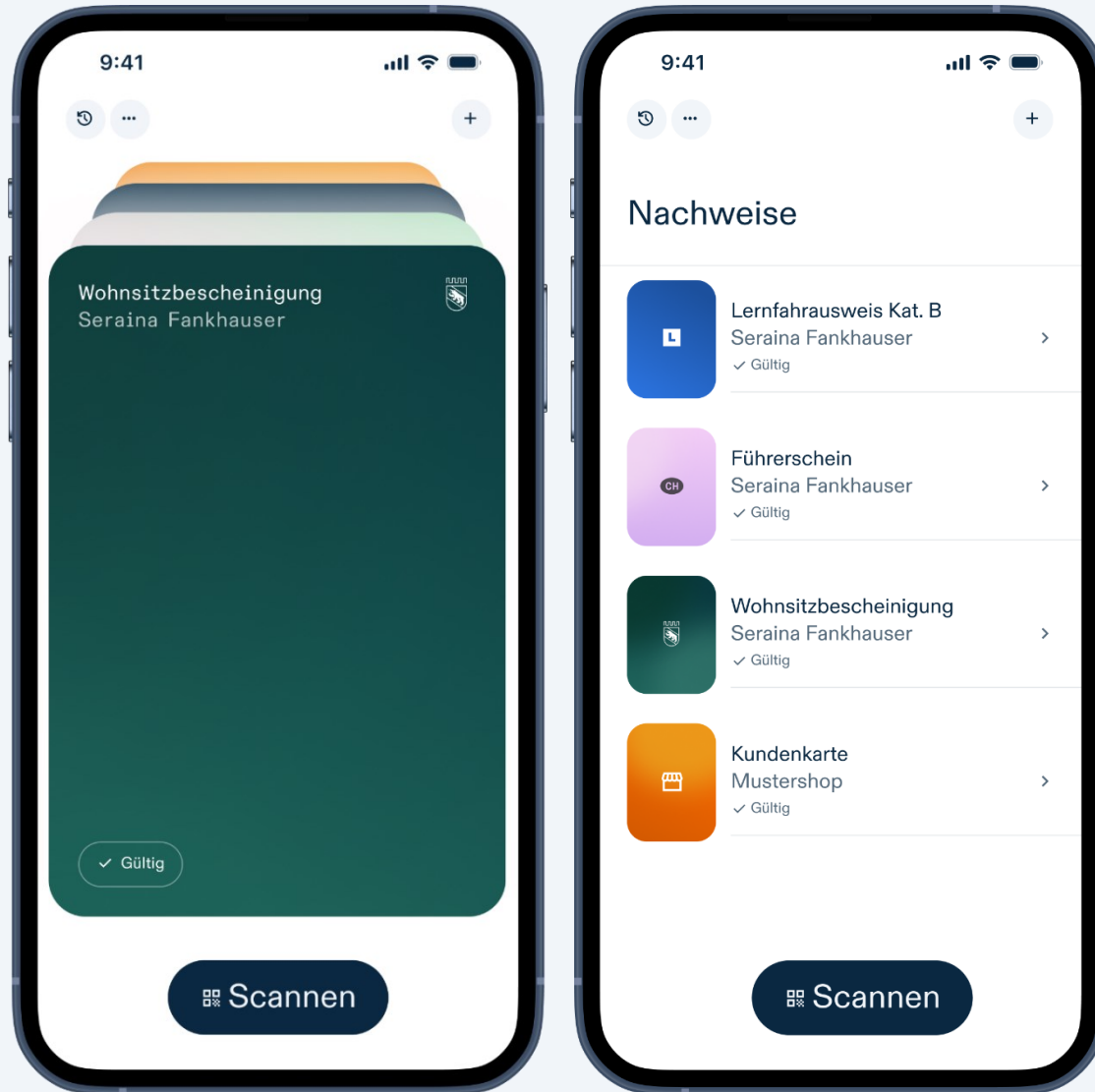


Design specifications

for verifiable credentials



Context



Feedback survey



Considerations and challenges (1 | 2)

Design and user-friendliness

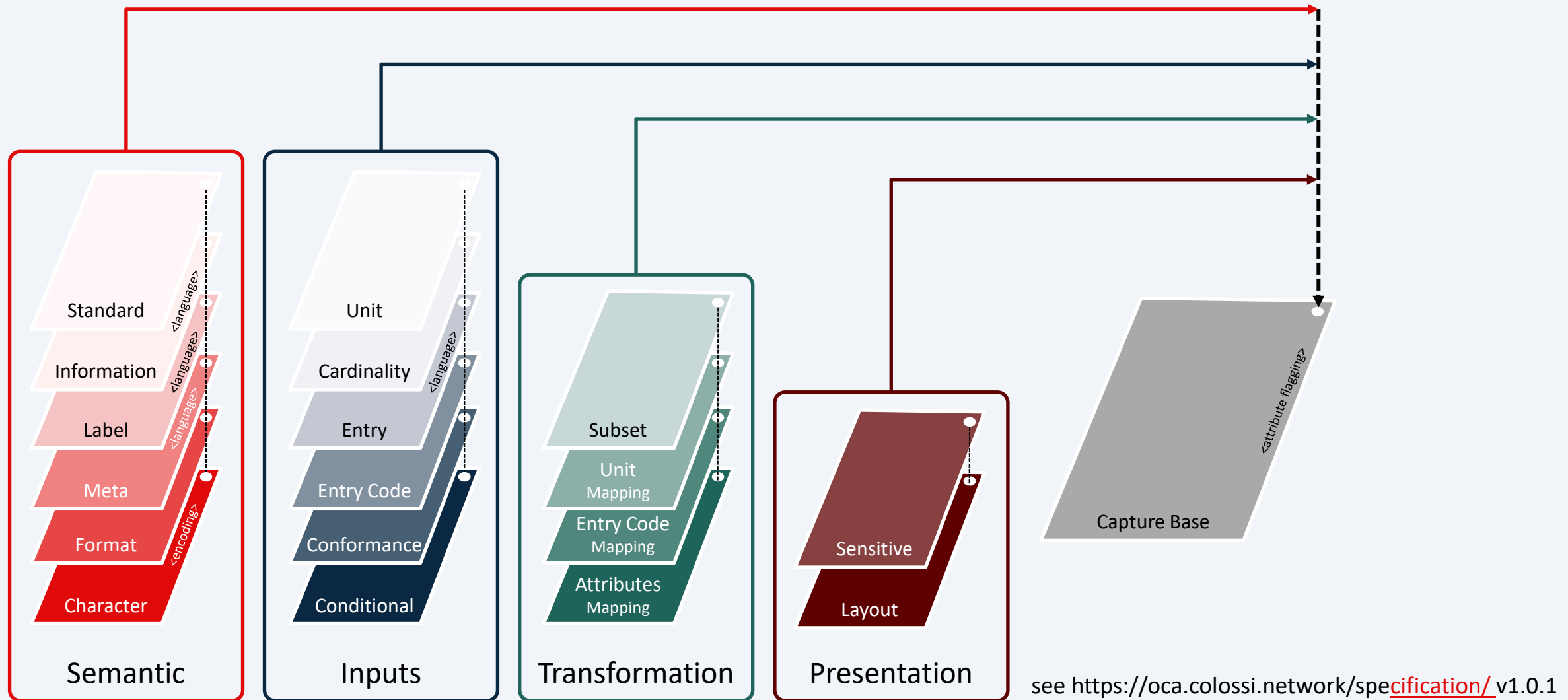
- Easy to use and easy to read thanks to **uniformity**
- The need to easily **distinguish** between VCs that are of the same type but belong to different people (e.g. E-IDs of family members)
- Meeting the requirements of **accessible** design by simplifying the enlargement and scaling of fonts

Considerations and challenges (2 | 2)

Exhibitor and wallet

- Definition of a standard for a **uniform appearance** of verifiable credentials
- Offer the **exhibitor** options for how her VC **appears** in the wallet
- Ensuring consistency and interoperability across different **participants** and **technologies**
- Lack of support by the protocols (e.g. OID4VCI Metadata)
- Extensibility & Theming
- Lifecycle of visual customizations

Overlays Capture Architecture (OCA)



Overlays Capture Architecture (OCA)

Is a **specification of guiding principles** to make data findable, accessible, interoperable and reusable.

Can be used to add important metadata to a VC to **clearly define** its **visual representation**.

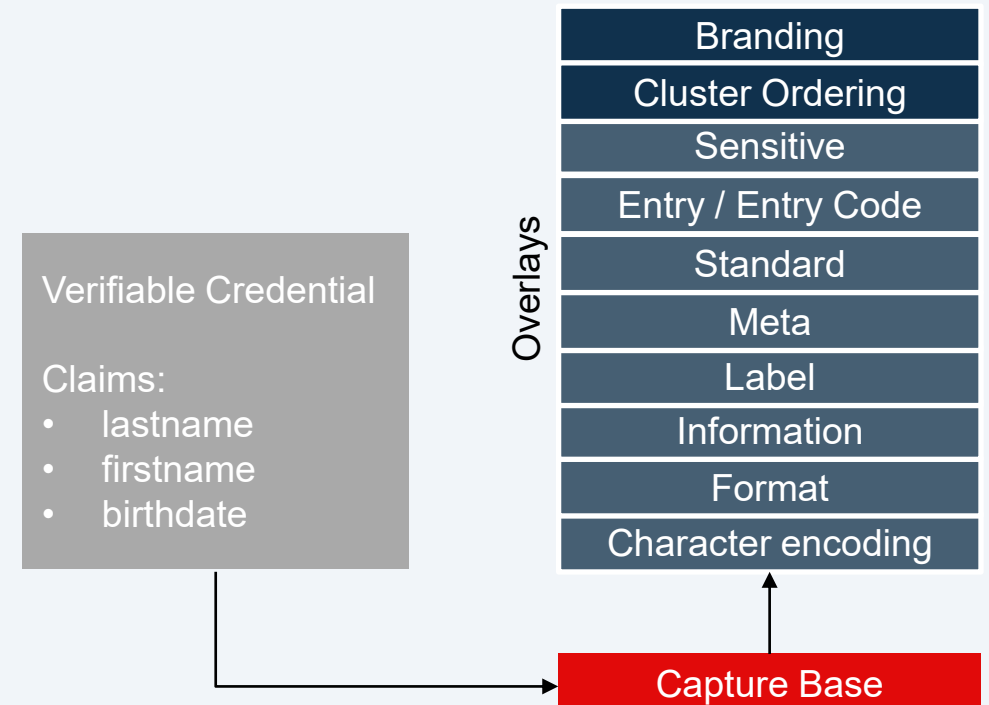
Cryptographically bound objects enable an integrity check.

Separate metadata for each **language** (localization).

OCA file

Based on a simple mapping of attributes, additional metadata is specified in topic-related *overlays* in a *capture base*.

```
{
  "capture_base":{
    "type": "spec/capture_base/1.0",
    "digest": "EVNPeboG_IqGJOBMjP4mOR3F6Ueq1We3YQ4UAkr1oMHc",
    "attributes":{
      "lastname": "Text",
      "firstname": "Text",
      "birthDate": "DateTime"
    }
  },
  "overlays":[
    {
      "capture_base": "EVNPeboG_IqGJOBMjP4mOR3F6Ueq1We3YQ4UAkr1oMHc",
      "type": "spec/overlays/label/1.0",
      "language": "de-CH",
      "attribute_labels": {
        "lastname": "Name",
        "firstname": "First name",
        "birthDate": "Date of birth"
      }
    }
  ]
}
```

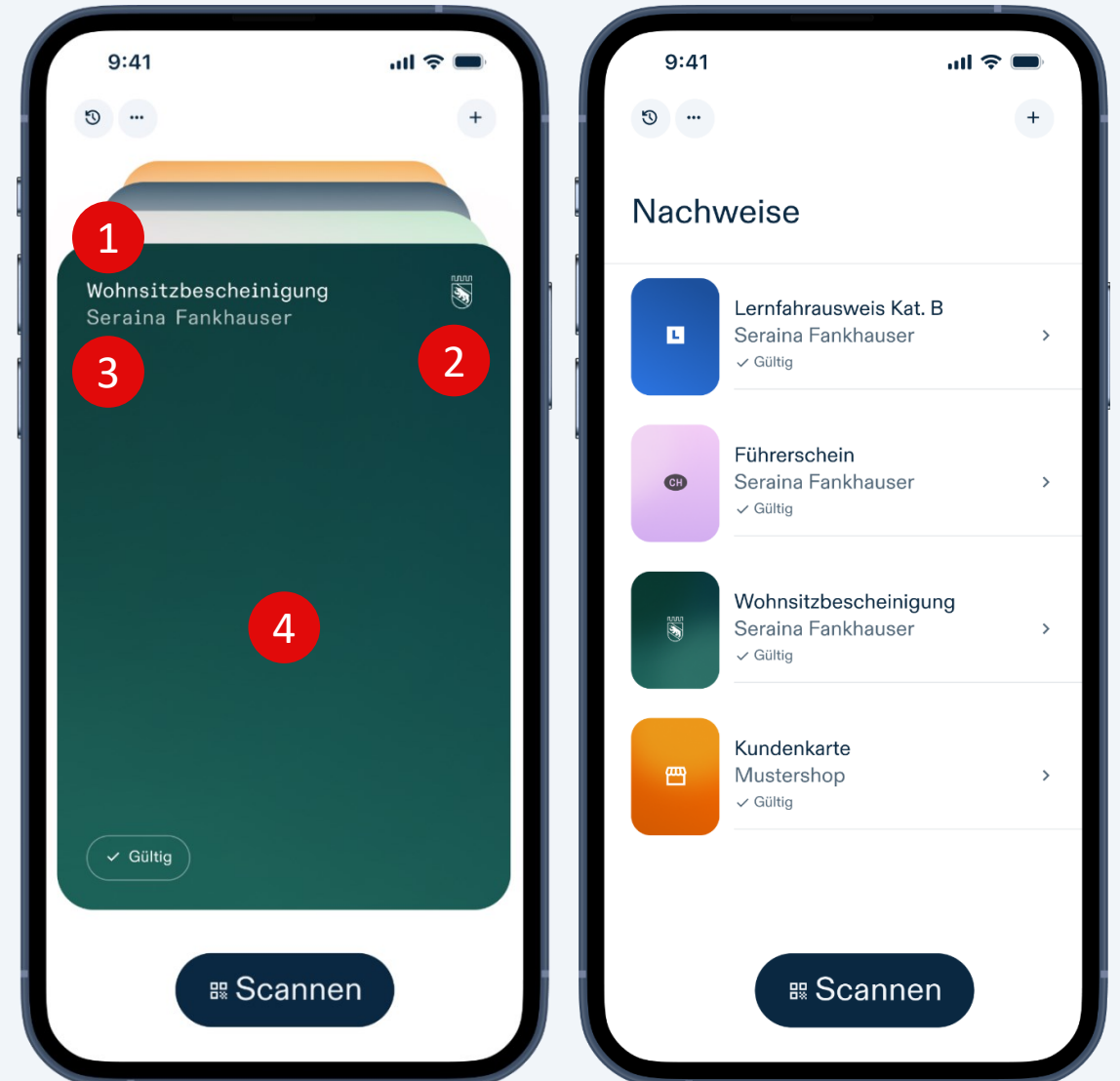


Overview VC

Design

What is shown

- 1 VC Title
- 2 Icon
- 3 Two attributes
- 4 Background color



Overview VC

OCA Overlays

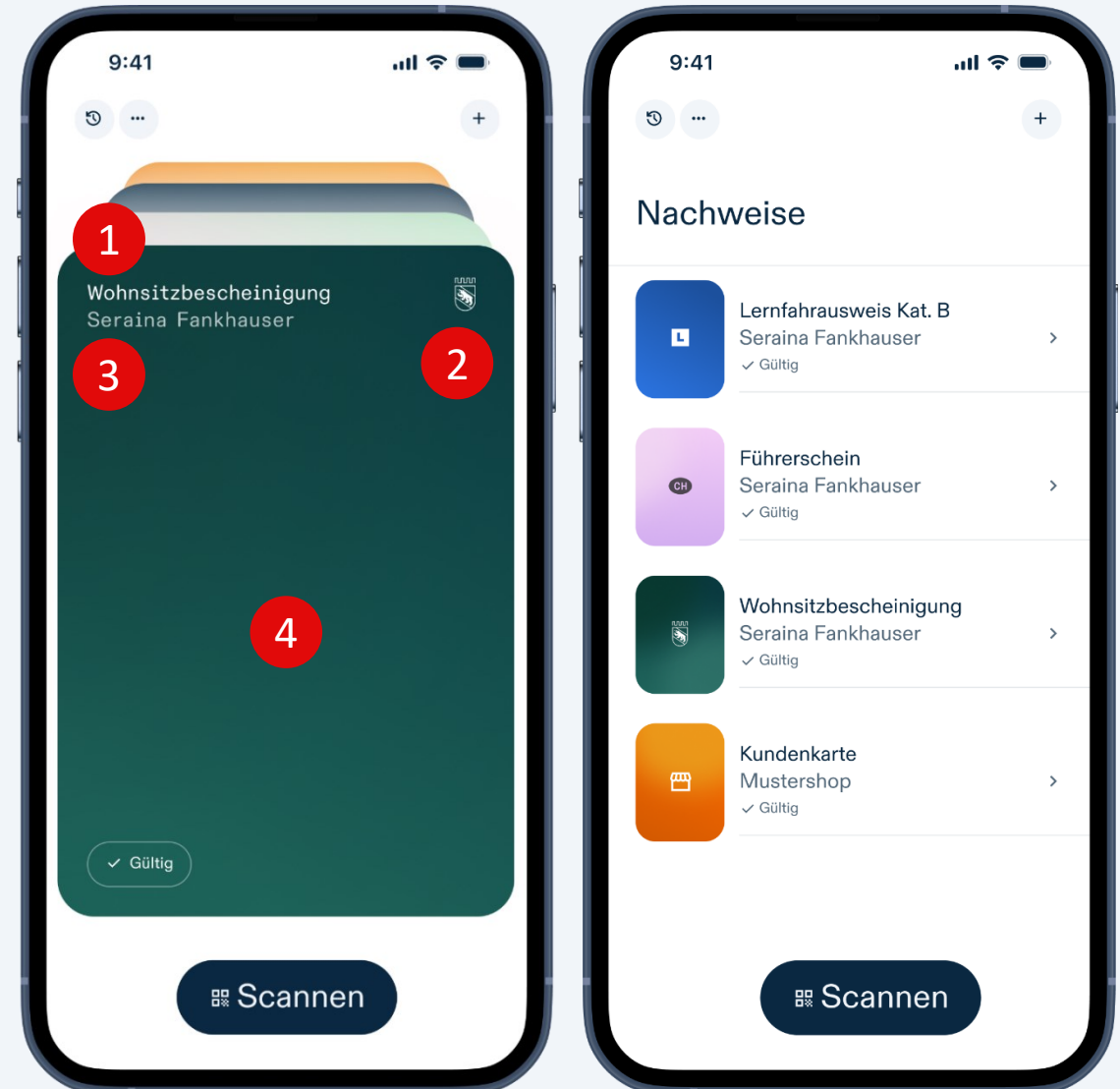
What is implemented with

1 Meta

```
{
  "type": "spec/overlays/meta/1.0",
  "capture_base": "EVNPeboG_IqGJObMjP4mOR3F6Ueq1We3YQ4UAkr1oMHc",
  "language": "de",
  "name": "Certificate of residence"
},
{
  "type": "spec/overlays/meta/1.0",
  "capture_base": "EVNPeboG_IqGJObMjP4mOR3F6Ueq1We3YQ4UAkr1oMHc",
  "language": "fr",
  "name": "Attestation de domicile"
}
```

4 Branding

```
{
  "type": "aries/overlays/branding/1.0"
  "capture_base": "EVNPeboG_IqGJObMjP4mOR3F6Ueq1We3YQ4UAkr1oMHc",
  "theme": "light",
  "logo": "data:image/png;base64,iBBgoABBB...",
  "primary_background_color": "#114545",
  "primary_attribute": "firstname",
  "secondary_attribute": "lastname"
}
```







VC Detail View

Design

What is shown

- 1 Grouping and sequence of attributes
- 2 Attributes Names (multilingual)
- 3 Attribute types (text, numbers, bool, date)
- 4 Pictures
- 5 List of abbreviations

Inhalt	Ausweisnummer 003
Foto 	Unterschrift 
Amtlicher Name Muster	Gültigkeit
Vorname(n) Seraina	Ausstellungsdatum 18. November 2022
Geburtsdatum 17. November 1980	Ablaufdatum 20. Februar 2033
Heimatort Bern	Status Gültig
Ergänzungen 1	Aussteller:in
Kategorie B (PKW, Kleinbus, Wohnmobil <3,5 t.)	 Strassenverkehrsamt AR >
Zulassungsnummer 600.000.000	 Falsche Daten >
Verfügungen 01 / 101 / 112	
Faber Pin 008066702	
Ausweisnummer 003	





VC Detail View

OCA Overlays

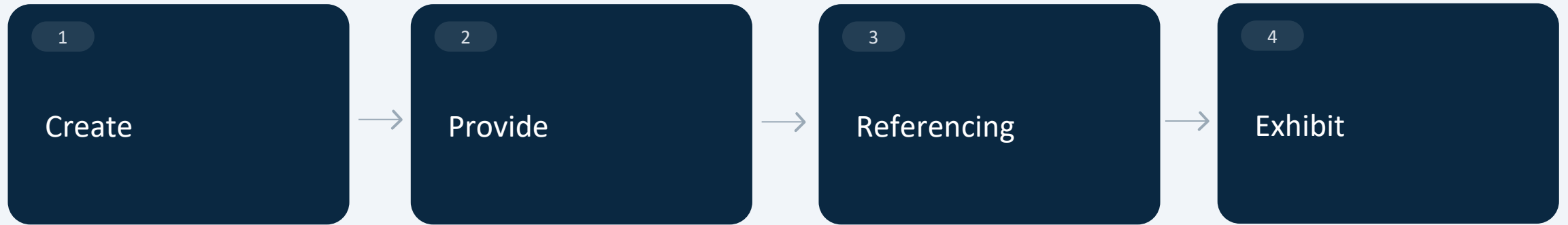
What is implemented with

1 Cluster Ordering

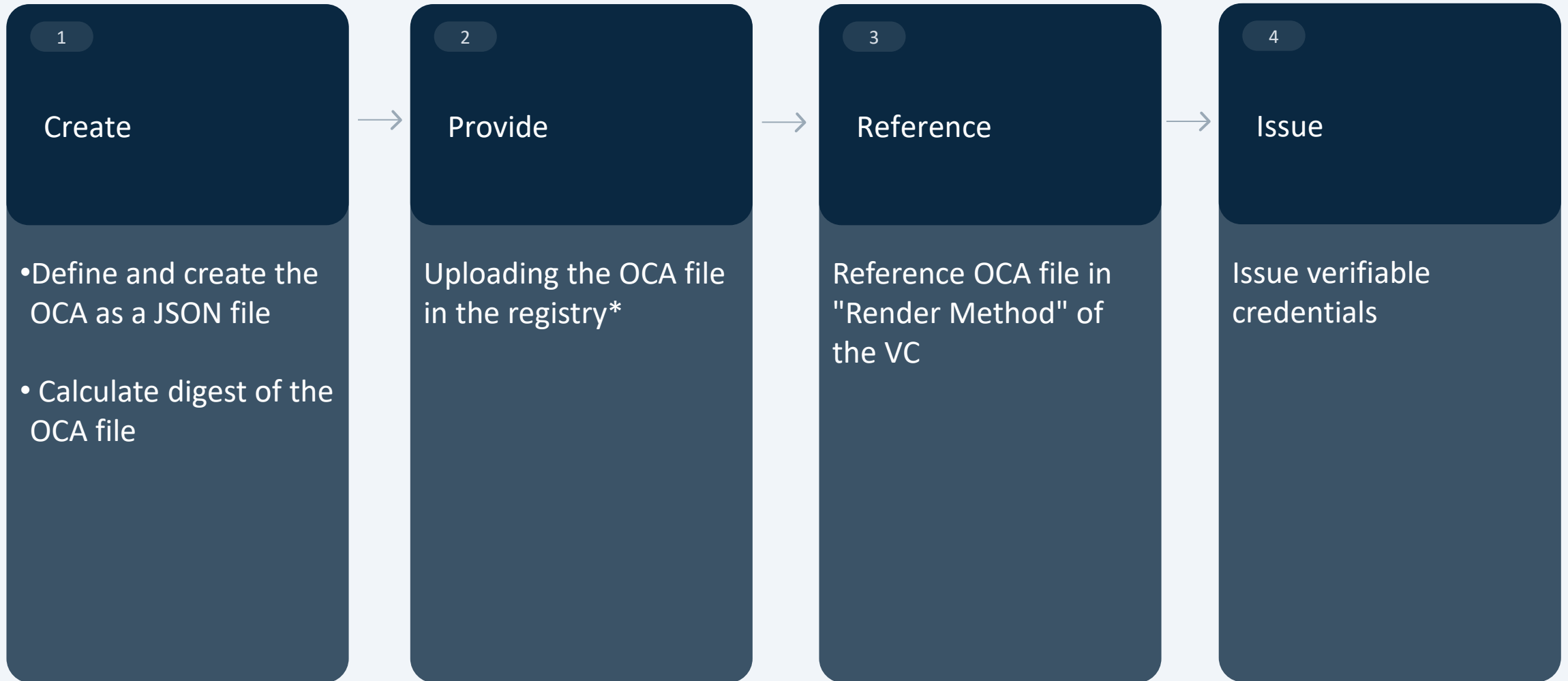
```
{
  "type": "admin-ch/overlays/cluster_ordering/1.0",
  "capture_base": "EVNPeboG_IqGJObmjPUAkr1oMHc",
  "language": "de",
  "cluster_order": {
    "content": 1,
    "additional": 2
  },
  "cluster_labels": {
    "content": "Inhalt",
    "additional": "Ergänzungen"
  },
  "attribute_cluster_order": {
    "content": {
      "firstname": 2,
      "lastname": 3,
      "photoImage": 1,
      "birthDate": 4
    },
    "additional": {
      "category": 1,
      "number": 2
    }
  }
}
```

Inhalt	Ausweisnummer 003
Foto 	Unterschrift 
Amtlicher Name Muster	Gültigkeit
Vorname(n) Seraina	Ausstellungsdatum 18. November 2022
Geburtsdatum 17. November 1980	Ablaufdatum 20. Februar 2033
Heimatort Bern	Status Gültig
Ergänzungen	Aussteller:in
Kategorie B (PKW, Kleinbus, Wohnmobil <3,5 t.)	 Strassenverkehrsamt AR >
Zulassungsnummer 600.000.000	 Falsche Daten >
Verfügungen 01 / 101 / 112	
Faber Pin 008066702	
Ausweisnummer 003	

Application of the OCA as exhibitor

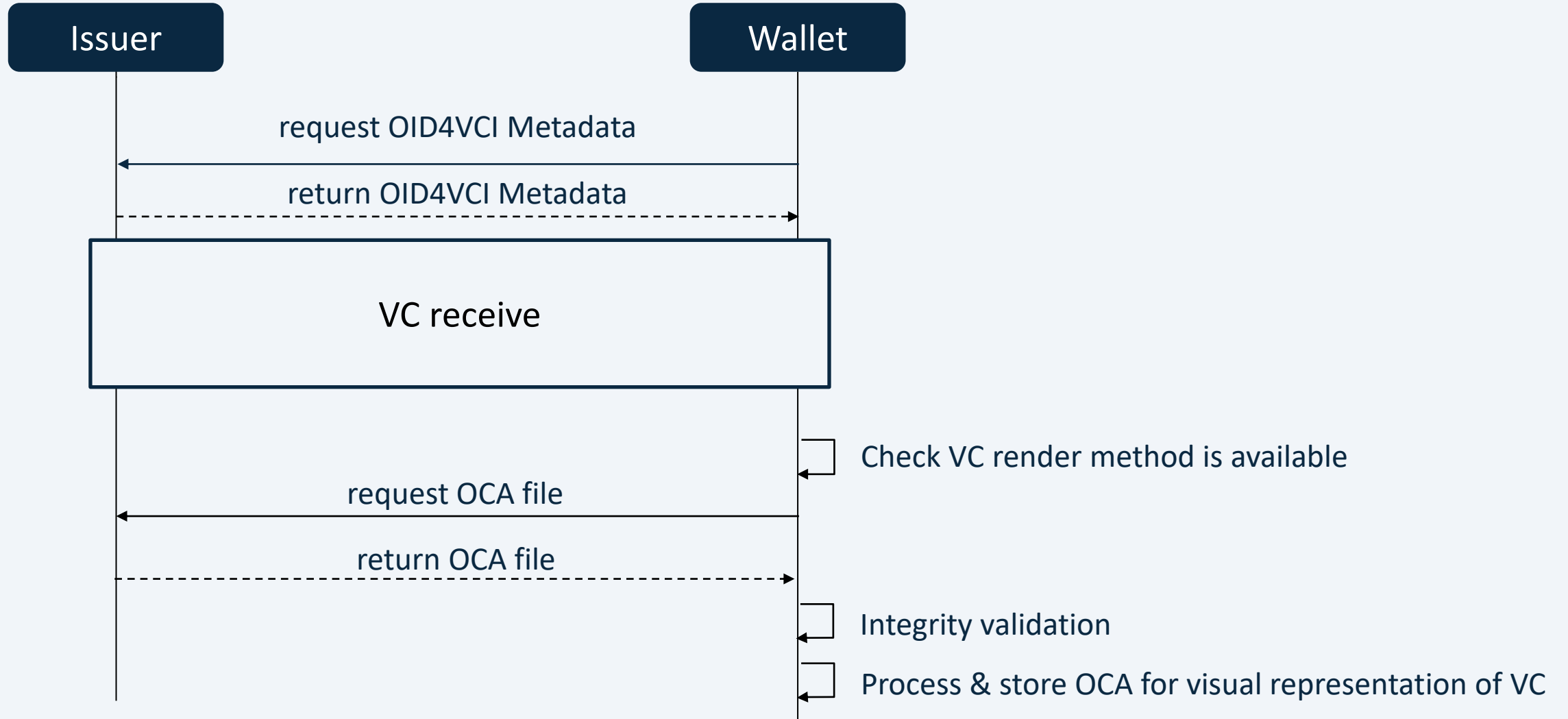


Application of the OCA as exhibitor



* Location of OCA storage still to be defined

OCA subscription in the wallet



OCA extensions

JSON pointer for attribute mapping

```
{
  "capture_base":{
    "type": "spec/capture_base/1.0",
    "classification": "",
    "digest": "EVNPeboG_IqGJ0bMjP4mOR3F6Ueq1We3YQ4UAkr1oMHc",
    "attributes":{
      "/credentialSubject/givenName": "Text",
    }
  }
}
```

Additional overlays

Aries Branding & Cluster Ordering

OCA referencing in VC with "Render Method"

W3C VC Data Model:

```
"renderMethod": [{
  }, "id":
  "https://example.com/oca/IEY2Sow9DYS8cSCrwtKqBdpZE1kI8.json",
  "type": "OverlaysCaptureBundleV1
}]
```

SD-JWT VC:

```
"render": {
  "type": "OverlaysCaptureBundleV1"
  "oca": "https://example.com/oca/IEY2Sow9DYS8cSAUN3oqBdpZE1kI8.json"
}
```

Data URI for media such as images

data:image/png;base64,iBKE0DHxgljNBAA09TXL0Y40HwAAAAABJRUErkJggg==

Thank you



[Github.com/e-id-admin](https://github.com/e-id-admin)



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra