

# Decentralized Identifiers (DIDs)

- Globally unique URI-like scheme
- Verifiable, persistent, and does not require a central registry
- Resolves (points) to a DID Document
- Did method specifies how to CRUD the DID Document

Scheme

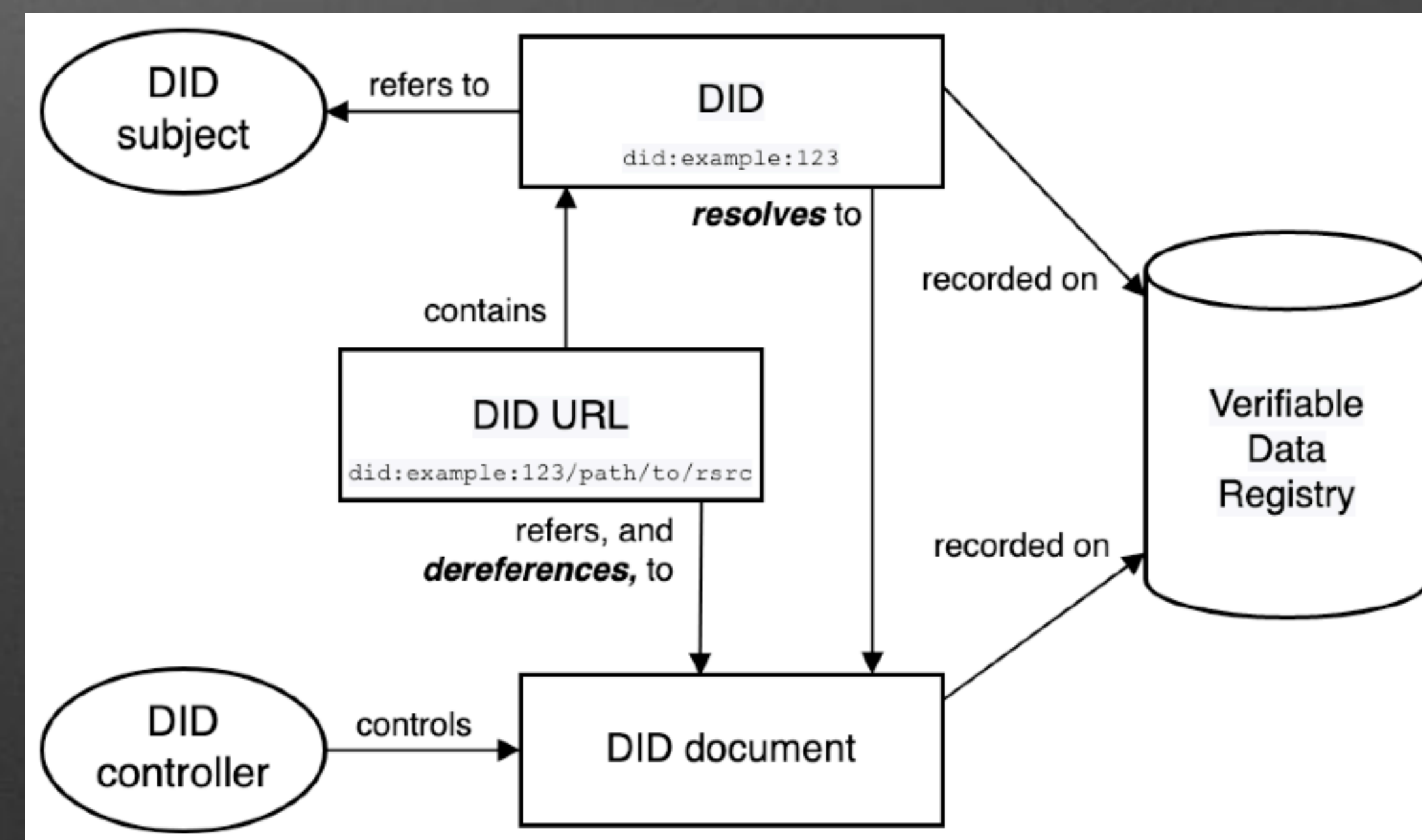
`did:example:123456789abcdefghi`

**DID Method**      **DID Method-Specific Identifier**

```
# Parse a did:web DID
did_string = 'did:web:identity.foundation'

did = DIDX(did_string)
=> #<DIDX::Web:0x000000010bb1ad30 @id="did:web:identity.foundation", @method="web",

# Resolve to a did:web's DID Document
did.document
=> #<DIDX::Document:0x000000010aa597d0 @assertion_method=nil, @authentication=nil,
```





```
{
  "@context": [
    "https://www.w3.org/ns/did/v1",
    "https://w3id.org/security/suites/ed25519-2020/v1"
  ],
  "id": "did:example:123",
  "authentication": [
    {
      "id": "did:example:123#z6MkecaLyHuYWkayBDLw5ihndj3T1m6zKTGqau3A51G7RBf3",
      "type": "Ed25519VerificationKey2020", // external (property value)
      "controller": "did:example:123",
      "publicKeyMultibase": "zAKJP3f7BD6W4iWEQ9jwndVTCBq8ua2Utt8EEjJ6Vxsf"
    }
  ],
  "capabilityInvocation": [
    {
      "id": "did:example:123#z6MkhdmzFu659ZJ4XKj31vtEDmjvsi5yDZG5L7Caz63oP39k",
      "type": "Ed25519VerificationKey2020", // external (property value)
      "controller": "did:example:123",
      "publicKeyMultibase": "z4BWwfeqdp1obQptLLMvPNgBw48p7og1ie6Hf9p5nTpNN"
    }
  ],
  "capabilityDelegation": [
    {
      "id": "did:example:123#z6Mkw94ByR26zMSkNdCUi6FNRsWnc2DFEeDXyBGJ5KTzSWyi",
      "type": "Ed25519VerificationKey2020", // external (property value)
      "controller": "did:example:123",
      "publicKeyMultibase": "zHgo9PAmfeoxHG8Mn2XHXamxnnSwPpkyBHAMNF3VyXJCL"
    }
  ],
  "assertionMethod": [
    {
      "id": "did:example:123#z6MkiukuAuQAE8ozxvmahnQGzApvtW7KT5XXKfojjwbdEomY",
      "type": "Ed25519VerificationKey2020", // external (property value)
      "controller": "did:example:123",
      "publicKeyMultibase": "z5TVraf9itbKXrRvt2DSS95Gw4vqU3CHAdetoufdcKazA"
    }
  ]
}
```