

## DID Resolution

A work item of the W3C CCG

17<sup>th</sup> October 2019

**IPR rules apply!**

Zoom Call:

<https://zoom.us/j/7077077007>

Text Chat:

<http://irc.w3.org/?channels=ccg>  
(type q+ to get into the queue)

**This call is being recorded!**

## Agenda Thursday 17 October 2019

Welcome and CCG IPR reminder

Call info and scribe selection

Agenda creation/review/prioritization

Proposed improvements to DID URL Dereferencing algorithm, to better account for fragments (see #47 and RWoT#9 insights)

AOB

Next meeting

dereference(**did:xyz:1234#keys-1**)

dereference(**did:xyz:1234**, options)

resolve(**did:xyz:1234**, options)

DID DOCUMENT

DID DOCUMENT

dereference(**#keys-1**)

PART OF DID DOCUMENT

```
{
  "@context": ["https://www.w3.org/2019/did/v1"],
  "id": "did:xyz:1234",
  "publicKey": [{
    ...
  }],
  "service": [{
    ...
  }]
}
```

```
{
  "@context": ["https://www.w3.org/2019/did/v1"],
  "id": "did:xyz:1234#keys-1",
  "type": "RsaVerificationKey2018",
  "publicKeyPem": "-----BEGIN PUB...01010"
}
```



CLIENT

LOCAL BINDING  
LIBRARY API CALL

DID RESOLVER

REMOTE READ

DECENTRALIZED IDENTIFIER REGISTRY



dereference(**did:xyz:1234#keys-1**)

dereference(**did:xyz:1234#keys-1**, options)

resolve(**did:xyz:1234**, options)

DID DOCUMENT

dereference(**#keys-1**)

PART OF DID DOCUMENT

PART OF DID DOCUMENT

```
{
  "@context": ["https://www.w3.org/2019/did/v1"],
  "id": "did:xyz:1234",
  "publicKey": [{
    ...
  }],
  "service": [{
    ...
  }]
}
```

```
{
  "@context": ["https://www.w3.org/2019/did/v1"],
  "id": "did:xyz:1234#keys-1",
  "type": "RsaVerificationKey2018",
  "publicKeyPem": "-----BEGIN PUB...01010"
}
```



CLIENT

LOCAL BINDING  
LIBRARY API CALL

DID RESOLVER

REMOTE READ

DECENTRALIZED IDENTIFIER REGISTRY



dereference(**did:xyz:1234;service=agent/path?query#frag**)

dereference(**did:xyz:1234;service=agent/path?query**, options)

resolve(**did:xyz:1234**, options)

DID DOCUMENT

```
{
  "@context": ["https://www.w3.org/2019/did/v1"],
  "id": "did:xyz:1234",
  "publicKey": [{
    ...
  }],
  "service": [{
    ...
  }]
}
```

dereference(**;service=agent/path?query**, options)

SERVICE ENDPOINT URL

https://example.com/myagent/profile?query

SERVICE ENDPOINT URL

https://example.com/myagent/profile?query

dereference(**#keys-1**)

SERVICE ENDPOINT URL

https://example.com/myagent/profile?query#frag



CLIENT

LOCAL BINDING  
LIBRARY API CALL

DID RESOLVER

REMOTE READ

DECENTRALIZED IDENTIFIER REGISTRY



dereference(**did:xyz:1234**;service=agent/path?query#frag)

dereference(**did:xyz:1234**;service=agent/path?query#frag, options)

resolve(**did:xyz:1234**, options)

DID DOCUMENT

dereference(**;service=agent/path?query#frag**, options)

SERVICE ENDPOINT URL

SERVICE ENDPOINT URL

```
{
  "@context": ["https://www.w3.org/2019/did/v1"],
  "id": "did:xyz:1234",
  "publicKey": [{
    ...
  }],
  "service": [{
    ...
  }]
}
```

https://example.com/myagent/profile?query#frag

https://example.com/myagent/profile?query#frag



CLIENT

LOCAL BINDING

LIBRARY API CALL

DID RESOLVER

REMOTE READ

DECENTRALIZED IDENTIFIER REGISTRY



dereference(**did:xyz:1234#keys-1**)

dereference(**did:xyz:1234**, options)

resolve(**did:xyz:1234**, options)

resolve(**did:xyz:1234**, options)

DID DOCUMENT

DID DOCUMENT

DID DOCUMENT

dereference(**#keys-1**)

PART OF DID DOCUMENT



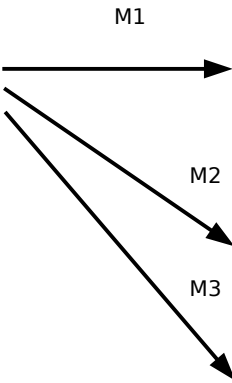
CLIENT

LOCAL BINDING  
LIBRARY API CALL

DID RESOLVER

REMOTE BINDING  
HTTPS GET

DID RESOLVER



DECENTRALIZED IDENTIFIER REGISTRY

DECENTRALIZED IDENTIFIER REGISTRY

DECENTRALIZED IDENTIFIER REGISTRY