draft-fieau-https-delivery-delegation-02

CDNI WG

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Latest changes

- Added a section on HTTPS delivery delegation requirements
- Rephrased HTTPS section
- Added a section on a Lurk in CDNI

HTTPS delivery requirements

- on user side
  - The end-user wants to have its content delivered over the CP domain whatever the CDN chosen
  - User agent: cert and domain must match

- on CDN side
  - a uCDN must designate the dCDN to deliver the requested content in a secure way
  - the uCDN and dCDN must be able to provide the CP/uCDN certificate to the user agent
  - a uCDN should not expose the CP private keys to the dCDN
  - a uCDN must provide the necessary credentials to the dCDN when delivering contents to the UA

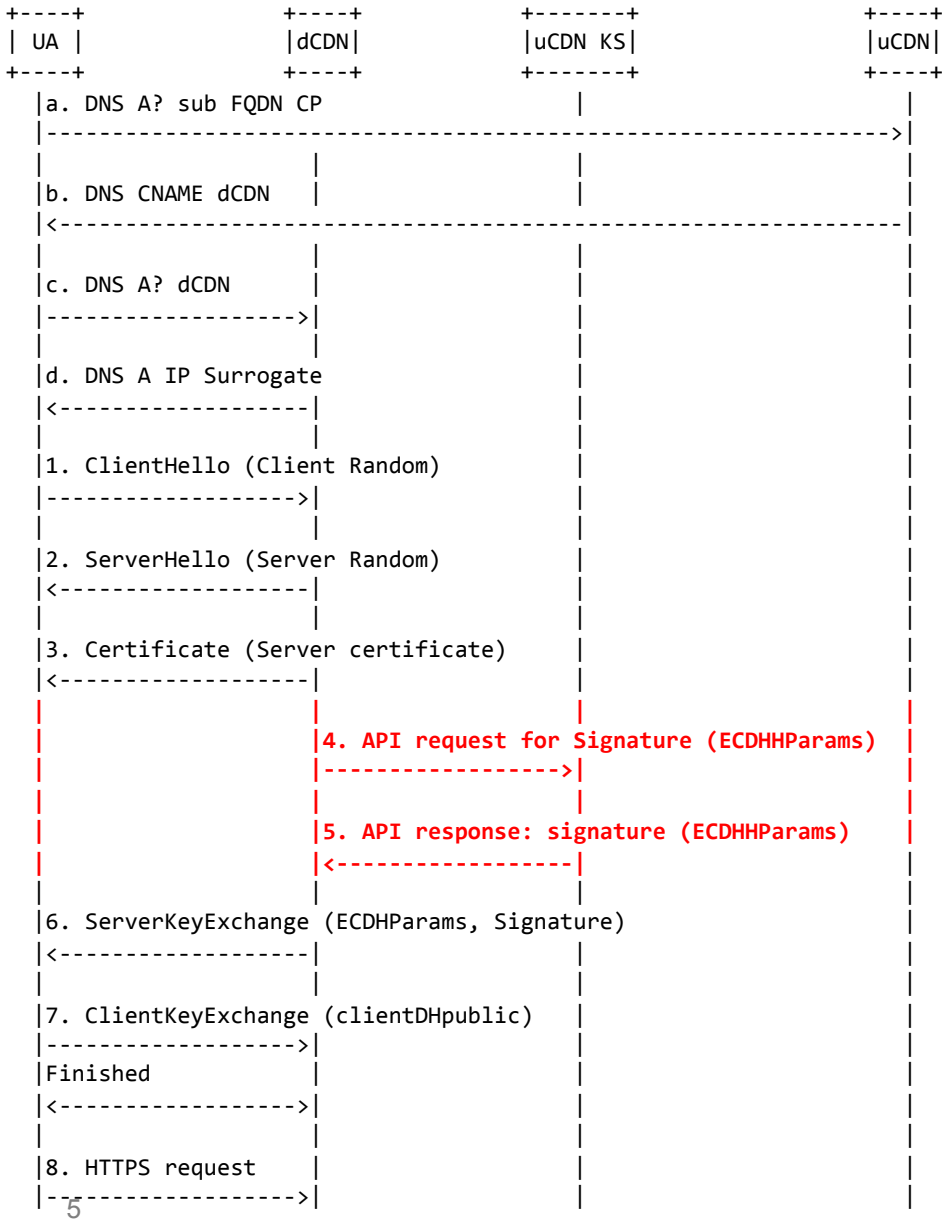
Lurk interface for CDNI

- Lurk for CDNI would allow the Content provider (or uCDN) private keys to remain under his authority, while contents would be delivered by a dCDN using his certificate

- https://tools.ietf.org/html/draft-mglt-lurk-tls-use-cases-00

- Several use cases for CDNI
  - “Nominal”: KS under the uCDN authority
  - “Cascaded”: KS under the CP authority
  - …

"Nominal" case for HTTPS delegation using Lurk



- A uCDN delegates the HTTPS content delivery to a dCDN.
- The uCDN doesn't want to provide the dCDN with its private keys (i.e. for legal/ security/… reasons)
- Only the uCDN needs valid certificates received by the Content Provider (CP),
- whereas the dCDN would rely on security materials received from the uCDN Key Server (KS) for the TLS session establishment.
- The dCDN will deliver HTTPS content to the user agent using the uCDN (or CP) certificate.

Discussion

- Architecture
- Certificates
- Security
- …

Next steps

- Other “Lurk” use cases for CDNI
- Detail token based solutions