An HTTP-based DECADE Resource Protocol

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Overview

- Was presented in the IETF 82nd Taipei.

- Open Issues
    - Remote Get Object Message
    - Access and Resource Control

Open Issue (1)
Remote Get Object Message

- This operation is used to download objects from a remote DECADE server via another DECADE Server.

- Two options:
  - Using HTTP Post
    - The only difference between "Remote Get Object" message and "Get Object" message is that in the request of the former, the client should indicate the address of the remote DECADE server with X-DECADE-ORIGIN header.
      - E.g., "X-DECADE-ORIGIN: origin.com"
  - Defining a new HTTP message

Open Issue (2)
Access and Resource Control

- Candidate protocols
  - Kerberos
    - Working on the basis of "tickets" to allow nodes to prove their identity to one another in a secure manner.
    - Cannot provide complete support for resource control.
  - AAA
    - Mainly used in management environment
    - Extending the binary-value-pairs may be possible to grant network resources for data access, but a text-based protocol may be preferred.
  - OAuth v2
    - Granting access to the resource owner's resources from a third party without explicitly exposing the resource owner's credentials.
    - The three-leg-style access assumption is different from the access requirement in the DECADE system environment.
    - Certain grant types can be extended for access and resource control in DECADE.

Thank you !