DECADE Requirements

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Outline

- ■ Summary of Changes

- ■ Open Issues

Change Summary (1 of 2)

- Made the draft P2P-agnostic

  - ❏ *Target Application* definition indicates the properties of applications that DECADE intends to support

    - Application with explicit control on the storage and network resources used to deliver content to a large number of users / end-hosts
    - Large content divided into smaller blocks for flexible distribution
    - Distributed content immutable

  - ❏ No more "peer" or "P2P" used in normative text

- Removed "Application-independent API" requirement

- MUST specify at least one mandatory data protocol

  - ❏ Motivation: provide at least a basic mode of operation

Change Summary (2 of 2)

- **New requirements**
  - DECADE SHOULD support redirection to another DECADE server
  - DECADE MAY support client-supplied hints on stored data
    - Example: P2P live-streaming app may not need data persisted to disk
    - May make use of underlying mechanism (there's a proposal for this in NFS); this is a storage requirement
- **Updated requirements**
  - Object deletion request MAY have an overwrite flag
    - Utility depends on naming scheme, but that's an architecture discussion
  - Status information from DECADE server also includes:
    - Resource usage, quotas, permissions
    - This includes operations by others which were authorized by a client

Open Issues (1)

- Target Applications for DECADE

- Do you agree with definition of Target Application?

  - ❏ Is it clear enough?

  - ❏ Is it sufficiently narrow?

    - If not, what properties should be removed?

  - ❏ Does it capture the desired use cases?

    - If not, what properties should be added?

  - ❏ NOTE: We do not wish to name "classes" of applications

    - The lines can be blurry, and they can evolve

Open Issues (2)

- Should properties of a naming scheme be added to requirements?
  - Examples:
    - DECADE name MUST be known to the client before it is stored
    - DECADE name MUST NOT require creation of a new registry

Open Issues (3)

- Which status information should be available to DECADE clients?

  - ❑ Some comments on mailing list indicated a desire to get *server* status information (e.g., load)

  - ❑ Current draft takes the approach of only providing status for a client's own usage (and usage that it explicitly authorized)

- Possible benefits of status information

  - ❑ Easier to determine an appropriate DECADE server *(not in charter!)*

  - ❑ This might be satisfied in other ways

    - DNS load balancing, or explicitly via ALTO

- Downsides to server status information

  - ❑ Not well-defined (what does *load* mean? Some metrics may be implementation-specific)

  - ❑ Security risk if openly accessible ("I'm already loaded; flood me first!")

Items to be Addressed

- Requirements of a discovery mechanism
  - No, we will not create a new one if at all possible