

ALTO Protocol

draft-ietf-alto-protocol-13

**Richard Alimi (Ed.), Reinaldo Penno (Ed.), Stefano Previdi,
Stanislav Shalunov, Richard Woundy, Y. Richard Yang (Ed.)**

Grateful to contributions from large number of collaborators;
see draft for complete list.

Outline

- Changes after WGLC
- Outstanding Issues

Changes: -12 → -13 (and new version to be uploaded)

- AD reviews by Martin
- Many editorial changes and clarifications
- More interesting changes
 - Added Sec. 11: Manageability Considerations
 - Define Version Tag match (2nd para. of Sec. 5.3) as exact match
 - An ALTO Server MAY -> MUST support SSL/TLS [RFC5246] to implement server and/or client authentication, encryption, and/or integrity (Sec. 6.3.5)
 - Cost type identifier on priv: and exp: added MUST add an additional string to reduce potential collision
 - Input parameter constraints (Sec. 6.8.4.1.3): JSONString constraints; -> constraints<0..*>
 - Remove OPTIONAL of map vtag from endpoint property

Outstanding Issues: To-Be-Fixed

- Add ALTO Error Code Registry table (a new section Sec. 9.5)
- Specify Services (and parameters) that are mandatory to be implemented by an ALTO Server
 - In -07 but not in later versions, plan to add back

Outstanding Issues: WG Discussions

- Discussion: Specify behaviors when Client/Server detects non-conforming behaviors
 - Example: Server's HTTP responses indicates OK but ALTO response indicates error (Sec. 6.3.7)
 - Example: Client does not specify `Accept: application/alto-error+json` in `GET /networkmap`, but there is an ALTO error
 - Plan: Apply Postel's Principle; add some normative language on such cases
- Discussion: Specify behaviors of degenerated map filtering service
 - Do we enforce non-empty `PID/AddressType`?
 - If allows empty, design choices: Default to complete map or reporting an error

Outstanding Issues: WG Discussions

- Discussion: Endpoint property
 - Do we use a generic key-value store, or need a registry (e.g., connectiontype, pid)?
 - Currently each endpoint property is a string (Sec. 6.6.6), but some properties need multiple information items, e.g., pid and associated network map vtag. Do we change to array or general json obj?
- Discussion: Unifying cost-mode and cost-type to a single type
 - e.g., routingcost-num and routingcost-ord