IETF 114 [Hybrid]
ALTO
Working Group

Chairs:

Mohamed Boucadair mohamed.boucadair@orange.com

Qin Wu bill.wu@huawei.com

- Online Agenda and Slides: https://datatracker.ietf.org/meeting/114/session/alto
- Data tracker: http://datatracker.ietf.org/wg/alto/
- Tools: http://tools.ietf.org/wg/alto
- Notes: https://codimd.ietf.org/notes-ietf-114-alto

Note Well

This is a reminder of IETF policies in effect on various topics such as patents or code of conduct. It is only meant to point you in the right direction. Exceptions may apply. The IETF's patent policy and the definition of an IETF "contribution" and "participation" are set forth in BCP 79; please read it carefully.

As a reminder:
* By participating in the IETF, you agree to follow IETF processes and policies.
* If you are aware that any IETF contribution is covered by patents or patent applications that are owned or controlled by you or your sponsor, you must disclose that fact, or not participate in the discussion.
* As a participant in or attendee to any IETF activity you acknowledge that written, audio, video, and photographic records of meetings may be made public.
* Personal information that you provide to IETF will be handled in accordance with the IETF Privacy Statement.
* As a participant or attendee, you agree to work respectfully with other participants; please contact the ombudsteam (https://www.ietf.org/contact/ombudsteam/) if you have questions or concerns about this.

Definitive information is in the documents listed below and other IETF BCPs. For advice, please talk to WG chairs or ADs:
* BCP 9 (Internet Standards Process)
* BCP 25 (Working Group processes)
* BCP 25 (Anti-Harassment Procedures)
* BCP 54 (Code of Conduct)
* BCP 78 (Copyright)
* BCP 79 (Patents, Participation)
* https://www.ietf.org/privacy-policy/ (Privacy Policy)

Also see: http://www.ietf.org/about/note-well.html:

IETF Conduct Guidelines

- The IESG has asked all chairs to remind their working groups of the need for appropriate behavior. This is described in more detail in BCP 54. In summary:
  - IETF participants extend respect and courtesy to their colleagues at all times.
  - IETF participants have impersonal discussions.
  - IETF participants devise solutions for the global Internet that meet the needs of diverse technical and operational environments.
  - Individuals are prepared to contribute to the ongoing work of the group.

Reminder: IPR Disclosure Process

- We follow process put in place in other groups as a result of very late IPR disclosures – This is not a required IETF process
- Includes Polling of draft authors & contributors:
  - Prior to moving to next step in WG process a. Before an individual draft becomes a WG document and b. Before a WG document goes to last call
  - Requires IPR compliance statement from all listed in draft

- New Step

  – Request that an IPR statement be sent to the list by any new author or contributor when added to a WG document

Administrative

The session is recorded

- **Meetecho**
  - Using meetecho queue control
    - Enter the queue by pressing the raise hand ,leave w
    - Speak using ,stop w
  - Chat/Jabber available for use
  - Bluesheets
- **Note taking**
  - https://codimd.ietf.org/notes-ietf-114-alto
  - Please help with minute taking
    (only discussion needs to be captured)
- Online Agenda and Slides at:
    https://datatracker.ietf.org/meeting/114/session/alto
- Session Participant Guide:
    https://www.ietf.org/how/meetings/technology/meetecho-guide-participant/
- Data tracker: http://datatracker.ietf.org/wg/alto/
- Jabber: xmpp:alto@jabber.ietf.org?join
- Tools: http://tools.ietf.org/wg/alto

Working Remote

- **Utilize the mailing list!**
  - Working Group consensus is determined on the mailing list
  - Mailing list is to be used for WG decision making and discussions
    - Resolving open issues
    - Reviewing changes to WG documents
    - Introducing new drafts
    - Potential new Working Group topics

- **On-line meetings**
  - On-line interims can be scheduled as needed
    - Periodically, or as needed to cover a specific topic
    - WG members can make requests to chairs
  - Likely to continue for some time in place of physical meetings

- **Informal (working) meetings**
  - WG WebEx is available
  - WG members can make requests to chairs/secretary
  - These meetings will be announced on the WG list

Agenda

```
Introduction (Chairs)                                      10 minutes

    Session Intro & WG Status

Chartered Items:
    ALTO OAM Support                                       30 minutes
    https://tools.ietf.org/html/draft-ietf-alto-oam-yang-01
    Discussion Leaders: Jensen Zhang/Dhruv Dhody
    Goals: Status update, pending issues, and next steps

    ALTO over New Transport                                30 minutes
    https://tools.ietf.org/html/draft-ietf-alto-new-transport-01
    Discussion Leader: Roland Scott/Richard YANG
    Goals: Plan to address reviews and next steps

Deployment Experience Update:                              20 minutes
    ALTO Code bases and Deployment
    https://github.com/ietf-wg-alto/wg-materials
    Discussion Leaders: Jordi Ros Giralt/Luis Contreras/Ziyang Xing

Non-Chartered Items:
    Considering ALTO as Network Exposure Fuctions          15 minutes
    https://tools.ietf.org/html/draft-contreras-alto-ietf-nef-01/
    https://tools.ietf.org/html/draft-contreras-alto-service-edge-05/
    https://tools.ietf.org/html/draft-lcsr-alto-service-functions-01/
    Discussion Leader: Luis Contreras

    Architecture of Computing Power Optical Network        10 minutes
    https://datatracker.ietf.org/doc/draft-sun-alto-arch-computing-optical-network/
    Discussion Leader: Sun Zhengjie

Wrapup (Chairs)                                            5 minutes
```

Document Updates: RFCs, IESG Processing, WGLC, New Adoptions

- New RFCs
  - RFC9240 (draft-ietf-alto-unified-props-new)
  - RFC9241 (draft-ietf-alto-cdni-request-routing-alto)
  - RFC9274 coming (draft-ietf-alto-cost-mode)

- RFC Editor's Queue
  - draft-ietf-alto-path-vector
  - draft-ietf-alto-performance-metrics
- WG Drafts
  - draft-ietf-alto-oam-yang
  - draft-ietf-alto-new-transport
    - See next for the requested external reviews
- Errata (Verified)
  - https://www.rfc-editor.org/errata/eid6732 (Samuel Weiler)
  - https://www.rfc-editor.org/errata/eid6874 (Mohamed Boucadair)
  - https://www.rfc-editor.org/errata/eid6876 (Mohamed Boucadair)

Milestones Status Update

Ongoing Milestones:

- Sept 2022: Send ALTO new Transport to IESG for publication

- Dec 2022: Send ALTO YANG Model to IESG for publication

- Dec 2022: ALTO deployment and challenges documentation

Closed Milestones:

April 2022: Send Cost Modes Specification to IESG for publication

External Reviews

- The following reviews were requested (and received) for the transport draft
  - ARTART Early review
  - HTTP WG
  - Mark Nottigham

- Thanks to Spencer, Martin, and Mark

- The authors will update the WG about the status of addressing these reviews and the outcome of engaging with the reviewers

ALTO Weekly Meetings Update on MoWIE&PBE-CC

- Several weekly meetings was scheduled in May, June, and July to discuss PBE-CC proposal from Princeton & cellular network information exposure from Tencent
  - Professor Kyle Jamieson joined with Yaxiong Xie, Professor <u>Jennifer Rexford discussed integration of NG Scope with ALTO.</u>
    - <u>PBE-CC</u> CC in cellular networks using physical layer BW measurements
    - <u>NG-Scope paper</u>: First-ever channel capacity telemetry tool in cellular networks
    - [NG-Scope codebase](#)
  - Tecent Yixue lei brought up again their experience with cellular information aggregation which was documented in MOWIE and <u>new version</u> submitted in July 11th
    - [MoWIE paper](#): Adaptive network information exposure in mobile networks
  - Zhili Meng from Alibaba shared Shortest Control Loop paper
    - Inter-AP Solution: Zhuge: Achieving Consistent Low Latency for Wireless Real-Time Communications with the Shortest Control Loop
  - It was agreed to come up with a coherent framework to investigate:
    - What cellular information to collect
    - How to transport the collected/processed information to the application
    - How to react to the information

Socializing ALTO

- More dissemination effort

- A collective effort is needed to share the contributions of ALTO with operators and application developers

- We are seeking for volunteers to:
  - Build an ALTO tutorial
  - Present in OPSAREA, ART, and similar venues
  - A slot was assigned in OPSAWG in IETF#114

- A paper targeting the IETF Blog or the IP Journal is being edited

- More visibility and increase use of the ALTO software packages