

ALTO Deployment Considerations

draft-ietf-alto-deployments

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Changes

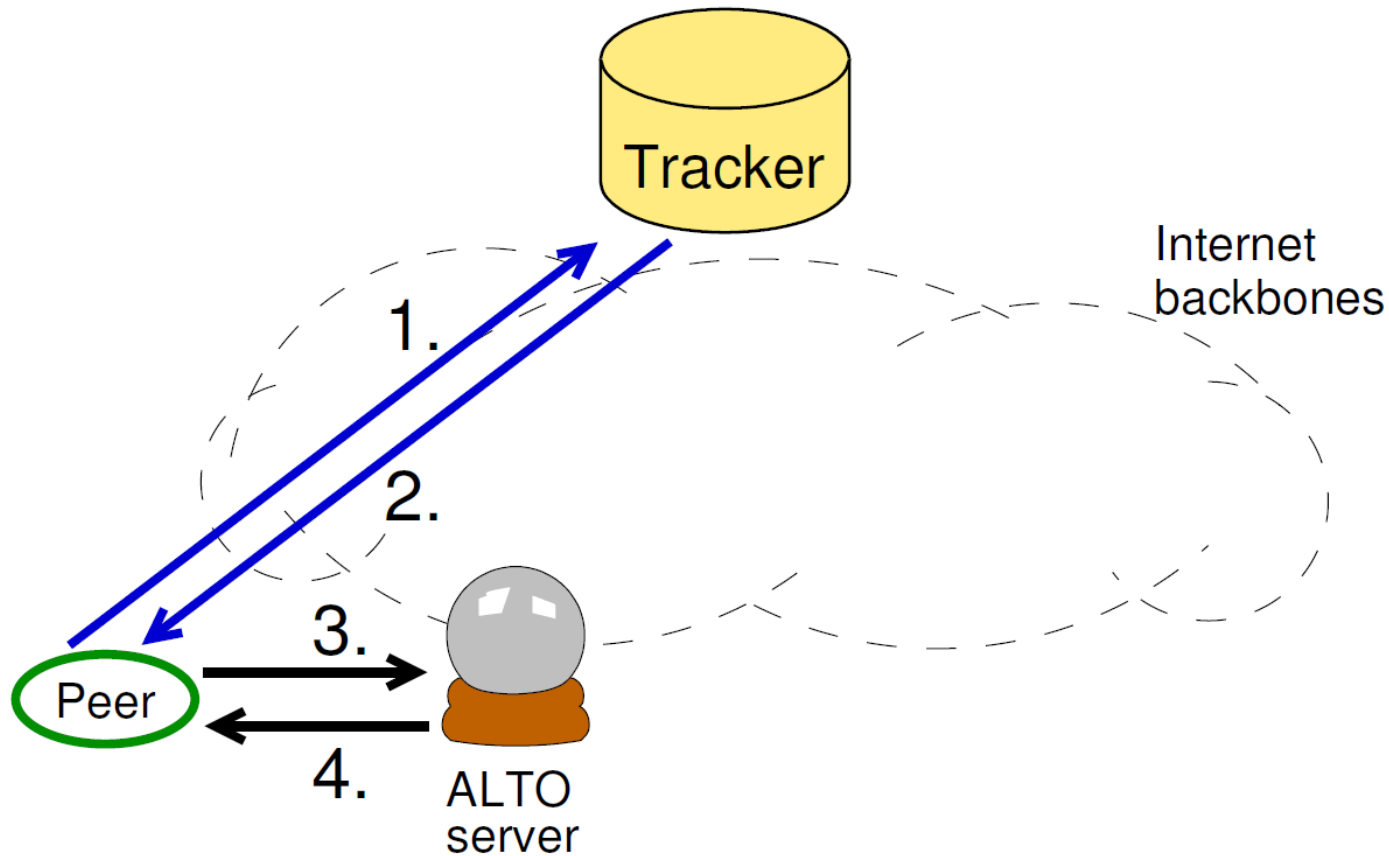
- draft-ietf-alto-deployments-00
 - adopted WG item
 - new name to from draft-stiemerling-alto-deployments-06
- draft-ietf-alto-deployments-01
 - applied new structure as proposed during the virtual interim
 - see next slides

New Structure

- General ALTO Deployment Considerations
 - location of ALTO-Server (intra-ISP, extra-ISP)
 - how alto can be used (provided guidance in draft-05)
 - how to populate/provision the data in the server (cost/net-maps)
- Using ALTO for P2P
 - (start with content from draft-05)
- Using ALTO for CDN
 - (initially provide link to CDN draft)
- Advanced features
 - Cascading ALTO
 - v4/v6
 - monitoring ALTO
- API for ALTO Clients
- Security Considerations

Different possibilities for location of ALTO client

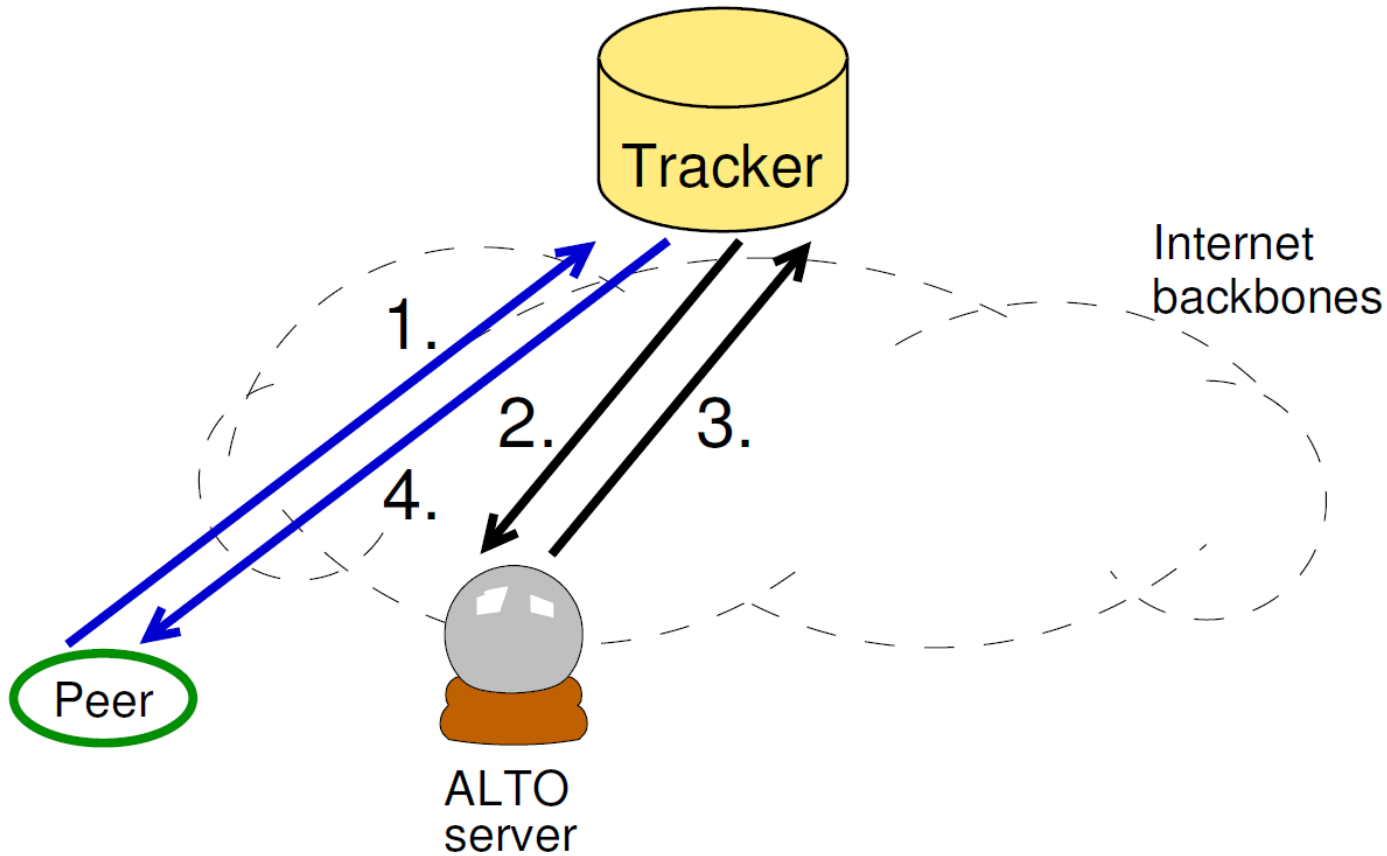
Possibility 1: ALTO client in the resource



- **➔ Peer queries first the tracker and then invokes ALTO for guidance regarding the tracker's result list**

Different possibilities for location of ALTO client

Possibility 2: ALTO client in the resource

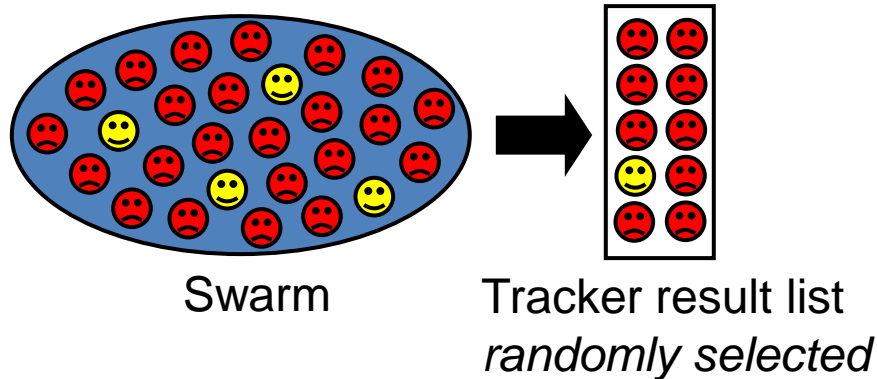


- **Tracker with embedded ALTO client optimizes its result list before returning it to the client**

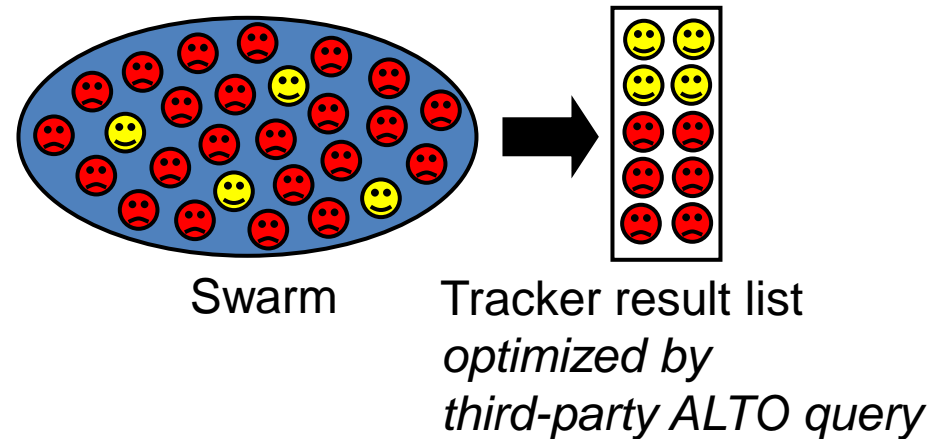
The need for 3rd party ALTO queries

Why a peer-based solution is not sufficient

- Peer-based ALTO queries



- Tracker-based ALTO queries



- Numerical example

- Swarm with 10,000 peers, 100 desirable peers, 100 entries in tracker result list
- Regular query to the tracker yields (as input for later ALTO query) ...
 - With probability 36%, the return list contains *not a single favorable peer*
 - With probability 99%, there are *only four or less of the favorable peers* on the list
- Peer-based ALTO query does not see enough “good” peers

- ➔ Peer-based ALTO queries of limited benefit in tracker-based P2P system

Configuration and Monitoring by ISPs

- based on [draft-sun-alto-ispdeployment](#)
- discusses how to configure ALTO from an ISPs view
- discusses how monitor can look like
- there is proposed text and it is in progress

Conclusions

- new structure
- integrated lot of text from requirements draft
 - e.g., Host Group Descriptors and Rating Criteria
- document bit behind schedule
- tbd: update version mid of April

- other related drafts to look at
 - CDN draft
 - Net/Server APIs
 - Inter-ALTO Communication Problem Statement