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