

# ALTO H1H2 and H12

draft-stiemerling-alto-h1h2-protocol-00 & draft-kiesel-alto-h12-00

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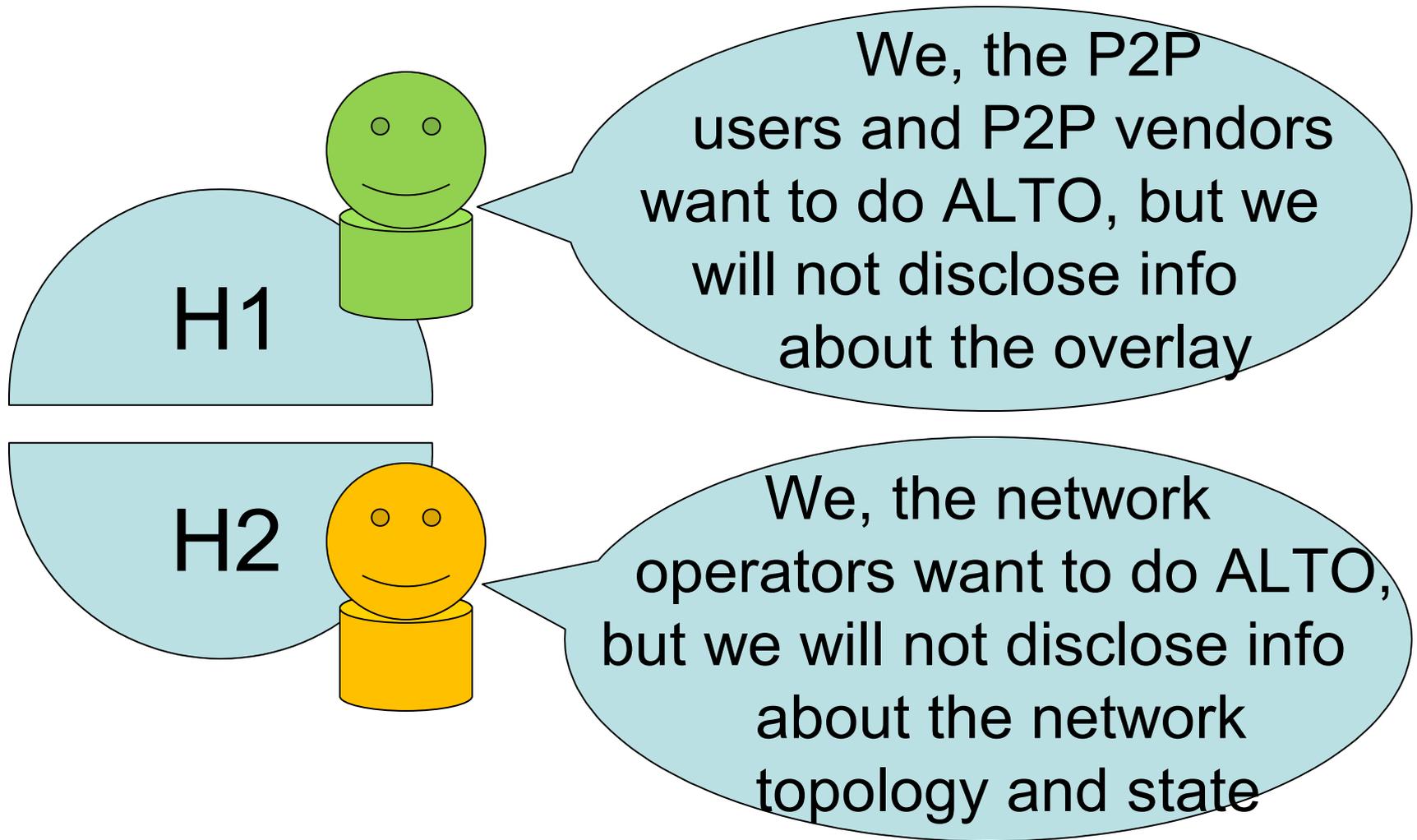
# Purpose of H1H2/H12 Drafts

- drafts do not have a real protocol (yet)
- sketch two types of information models for ALTO
- originated from past discussions that raised a number of issues before going for a protocol

# Where we are...

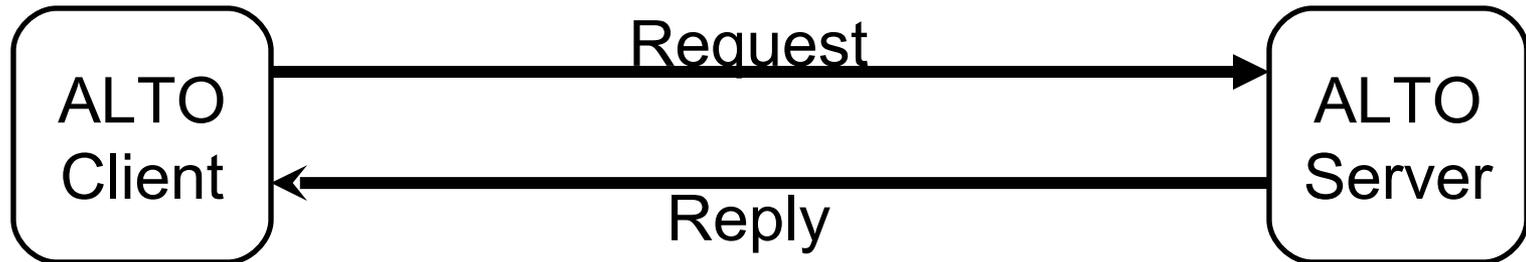
- Players in ALTO space:
  - Users, i.e., operators of regular peers
  - Tracker operators
  - P2P software vendors
  - Network operators
- and we have **some** of them here
- but not all of them
- **may** or **may not** limit our view

# H is for Hemispheres



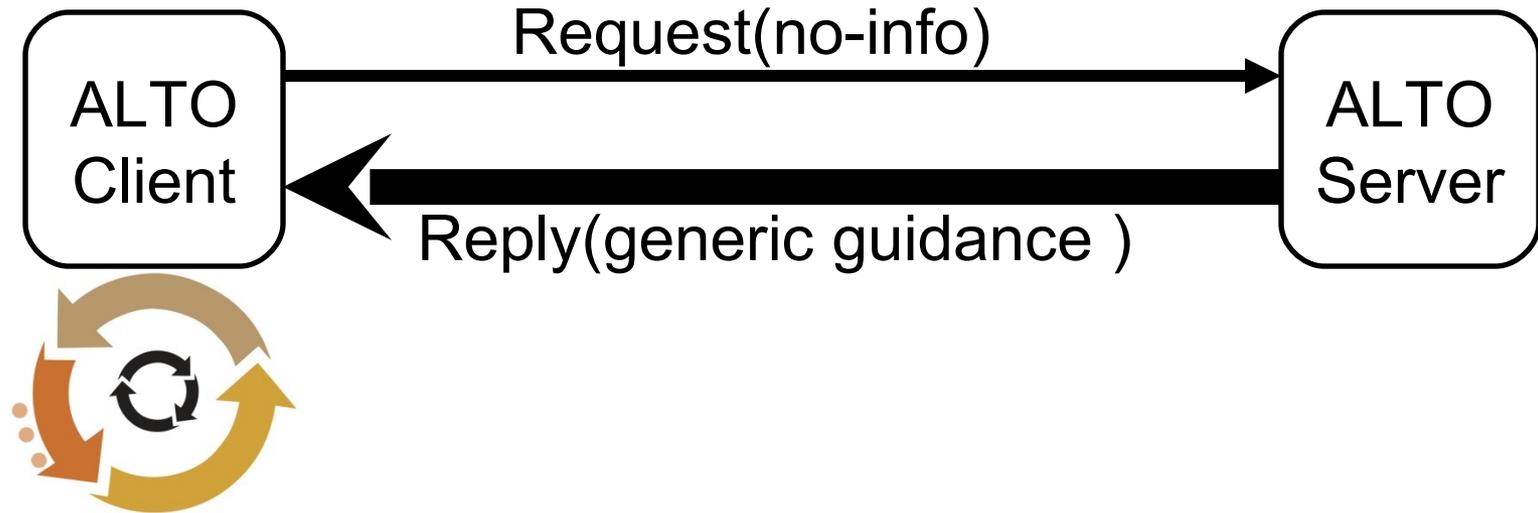
**How to bring them together?**

# Communication Model



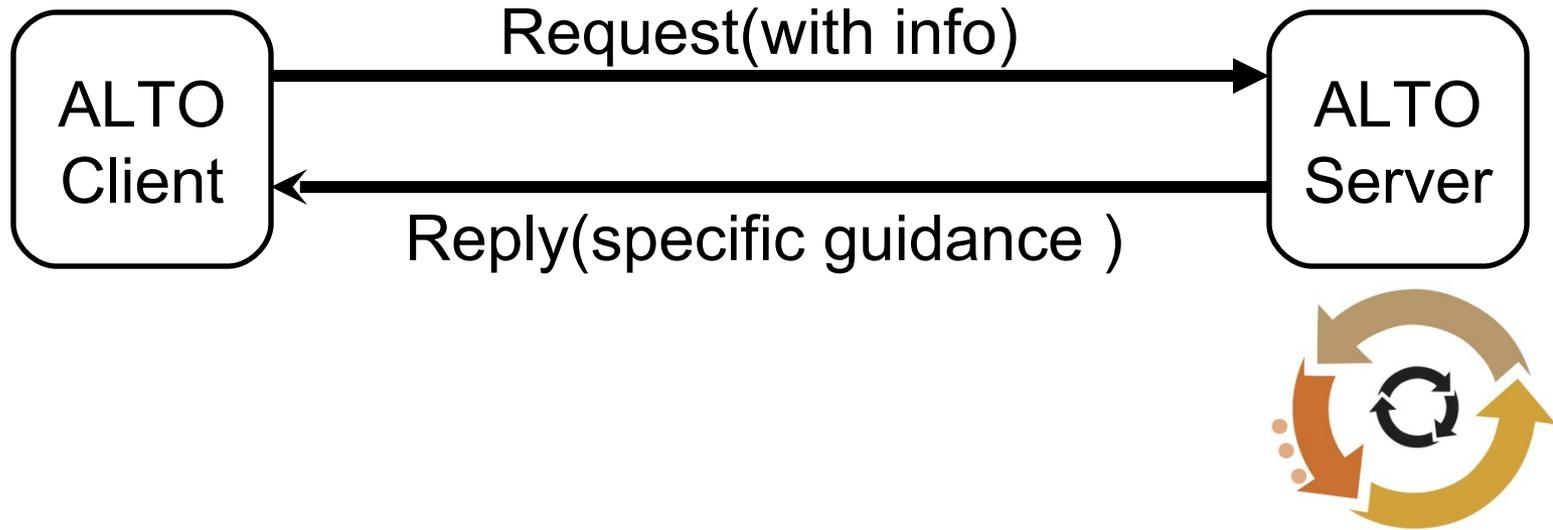
- Protocol seems to be easy
- Eventually, the ALTO information will be used to sort a list of IP addr's. according to some criteria, and pick the top ones
- But what information is stored and processed where and when?

# H1 Model



- ALTO client sends request only, w/o any information about IP addr etc
- ALTO server replies w/ generic guidance
- ALTO client works out his preferences by using server info

# H2 Model



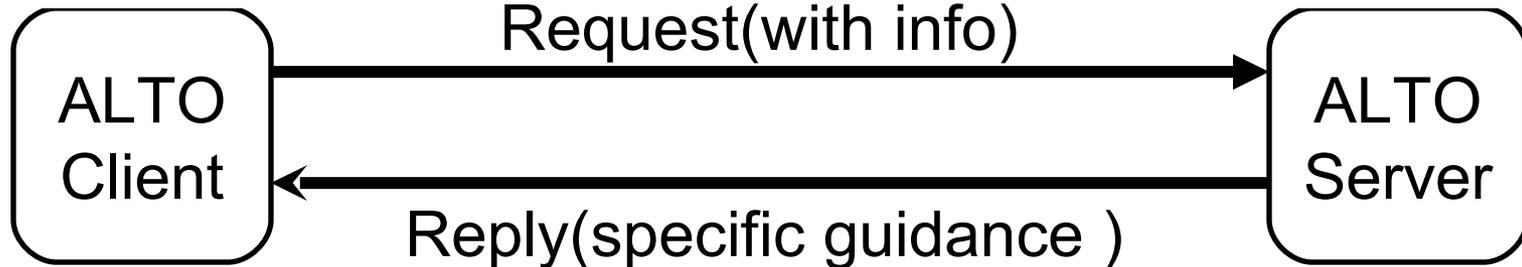
- ALTO client sends request w/ information about IP addr etc
- ALTO server works out his preferences by using server info
- ALTO server replies w/ specific guidance

# H1H2 Server/Client model

- client can state his way of operating
  - either H1, or H2, or H1H2
- server replies with accepted set
  - either H1, or H2, or nothing
- very likely end up with
  - client asking H1
  - server wanting H2
  - nobody is happy.



# H12 Model



- client can send info
  - IP address, IP address prefixed (e.g., /24)
  - up to the client to decide how specific
- server works out his preferences by using client's info
- server replies with specific guidance
  - can be a 1:1 answer of request (replying with /24)
  - can be much broader answer (replying with /16)
  - can be more narrow answer (replying with multiple /24)

# Conclusions

- H1H2 wacky - no option
- H1 only - no option
- H2 only - no option
- H12 - an option
  - each side has control about level of detail
- Both work with or without tracker
  - shouldn't work with tracker only, there are p2p protocols w/o tracker
- There are two orthogonal issues:
  - where the client is located (peer, tracker)
  - if generic guidance are loaded to client or IP addr are pushed to server

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