

draft-gu-alto-redistribution

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Review on Basic Information

- Basic Requirements
 - 1. The ALTO Client should be able to identify the desired redistributed data.
 - 2. The ALTO Client should be able to check the validity of the information.
- Redistributable Information
 - Server Capability
 - Full Network Map
 - Full Path Cost Map among all PIDs

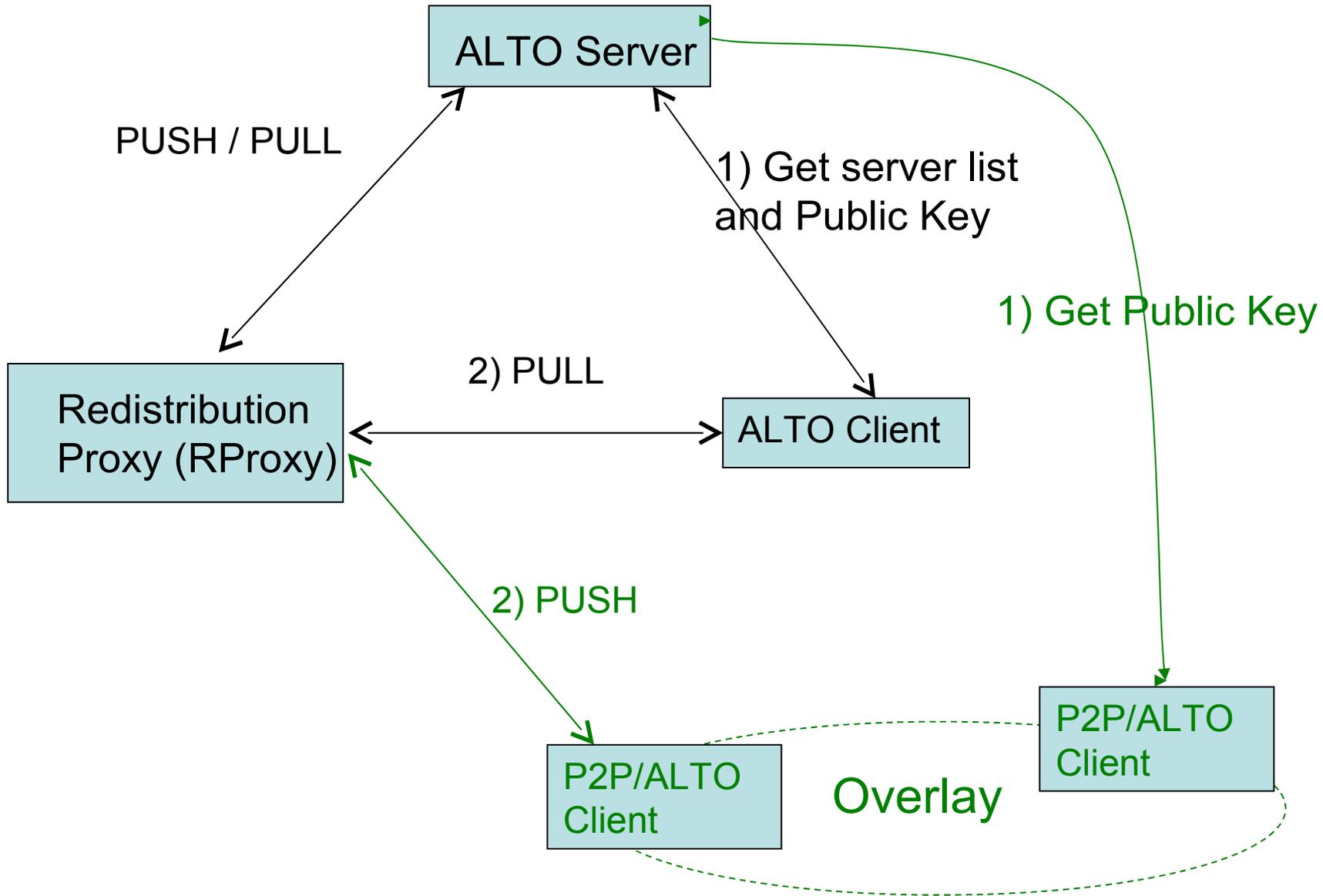
Scheme Design Questions

- How could peers decide whether to get ALTO Information from ALTO Server or to get from other clients?
- How could peers locate redistributed Information?
- What protocol is used for retrieving redistributed Information?
- How to update the Redistributed Information on time and who is responsible for updating.

Significant Changes from IETF77

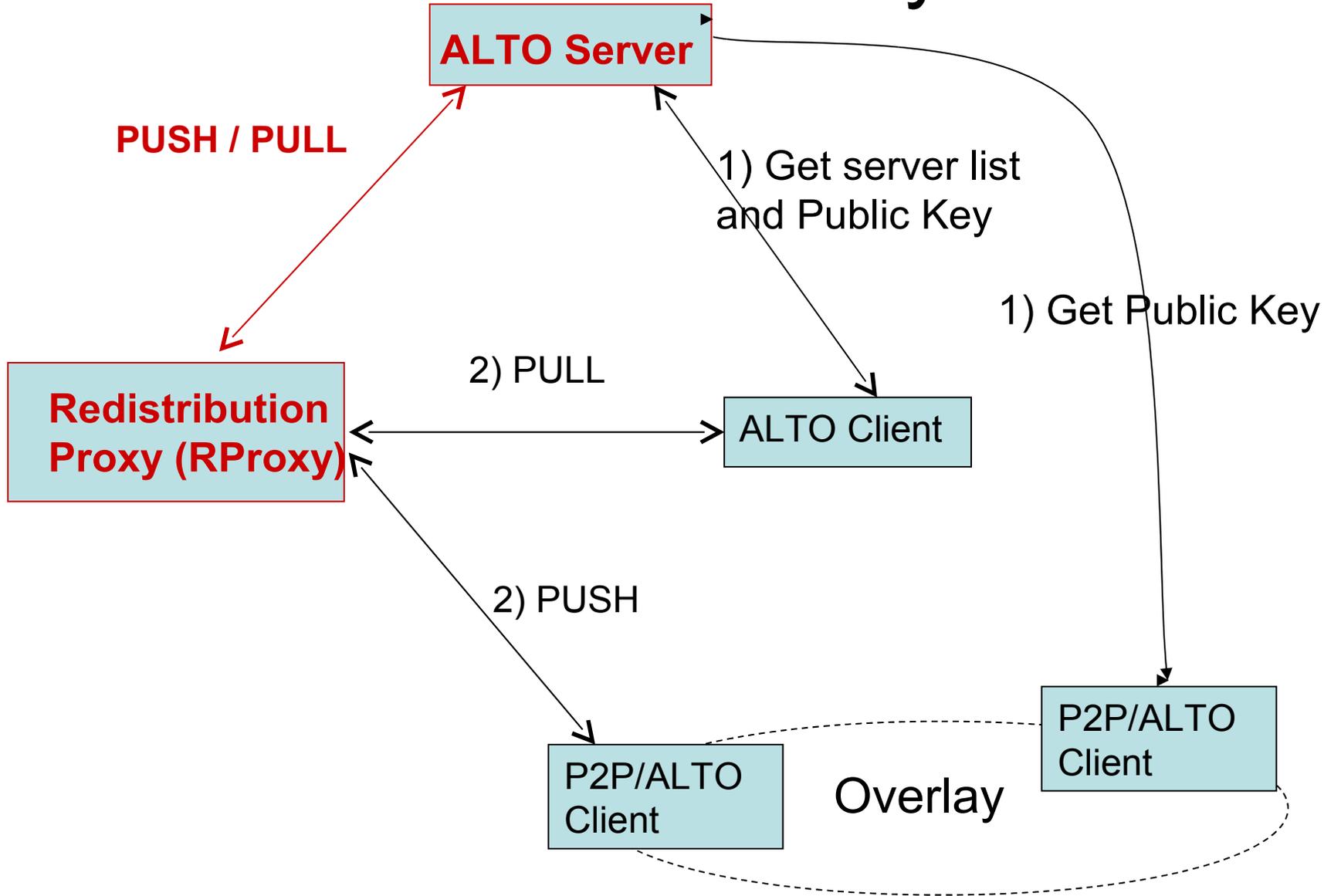
- Divide Redistribution Flow into two parts and introduce options for each part
 - Draft should be further updated
- For each of them, analyze the benefits and the requirements for ALTO system.

Redistribution Architecture



- Redistribution Proxy (RProxy):
 - ISP deployed
 - App. deployed, e.g. Tracker or Supernode
- Used to receive and redistribute ALTO Information

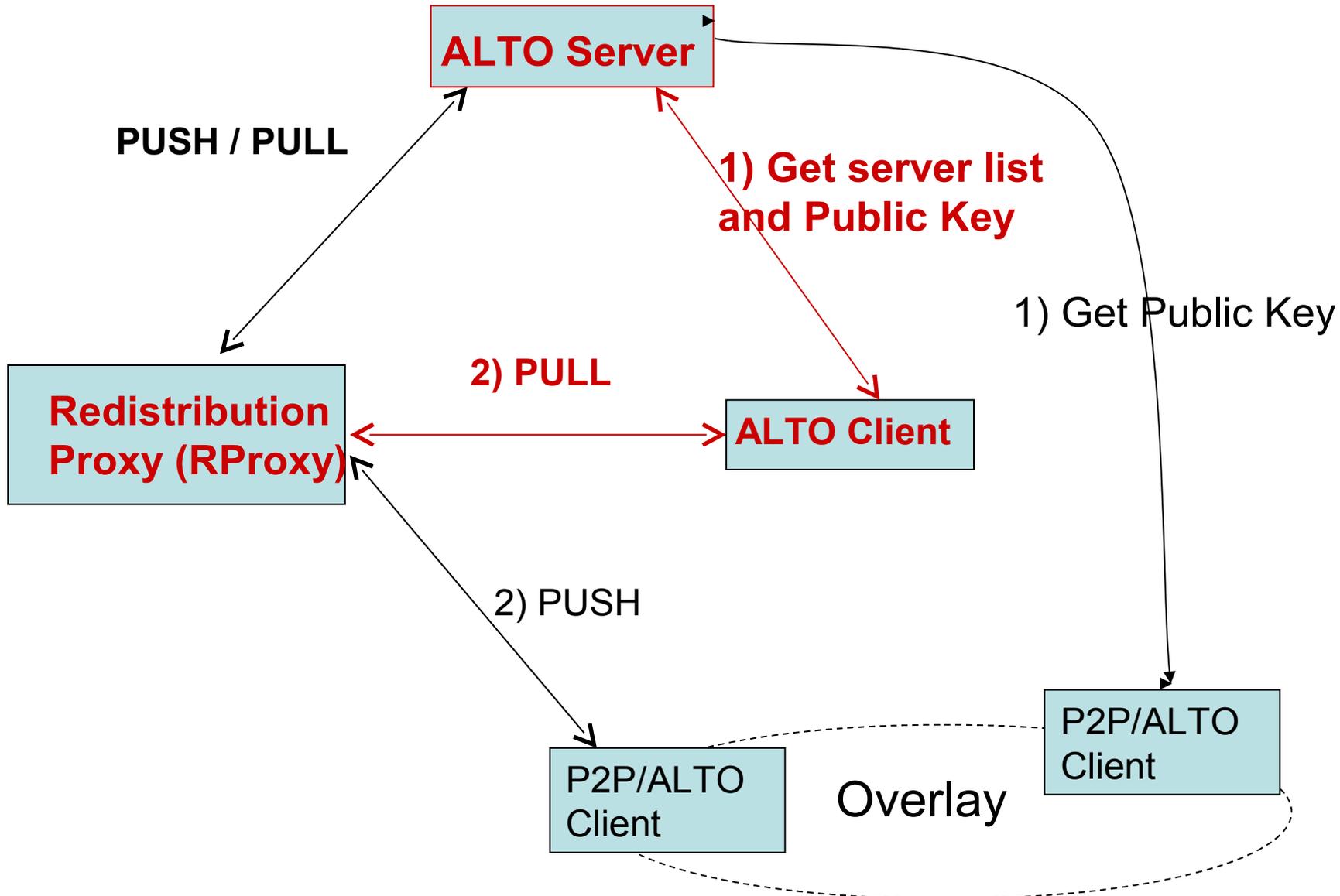
Communication between ALTO Server and RProxy



Communication between ALTO Server and RProxy

- Two options:
 - PULL: RProxy ask for the ALTO Infor. frequently, or when expired.
 - PUSH: ALTO Server send updated Infor. to RProxy as soon as the Infor changed.
- RProxy runs ALTO Protocol

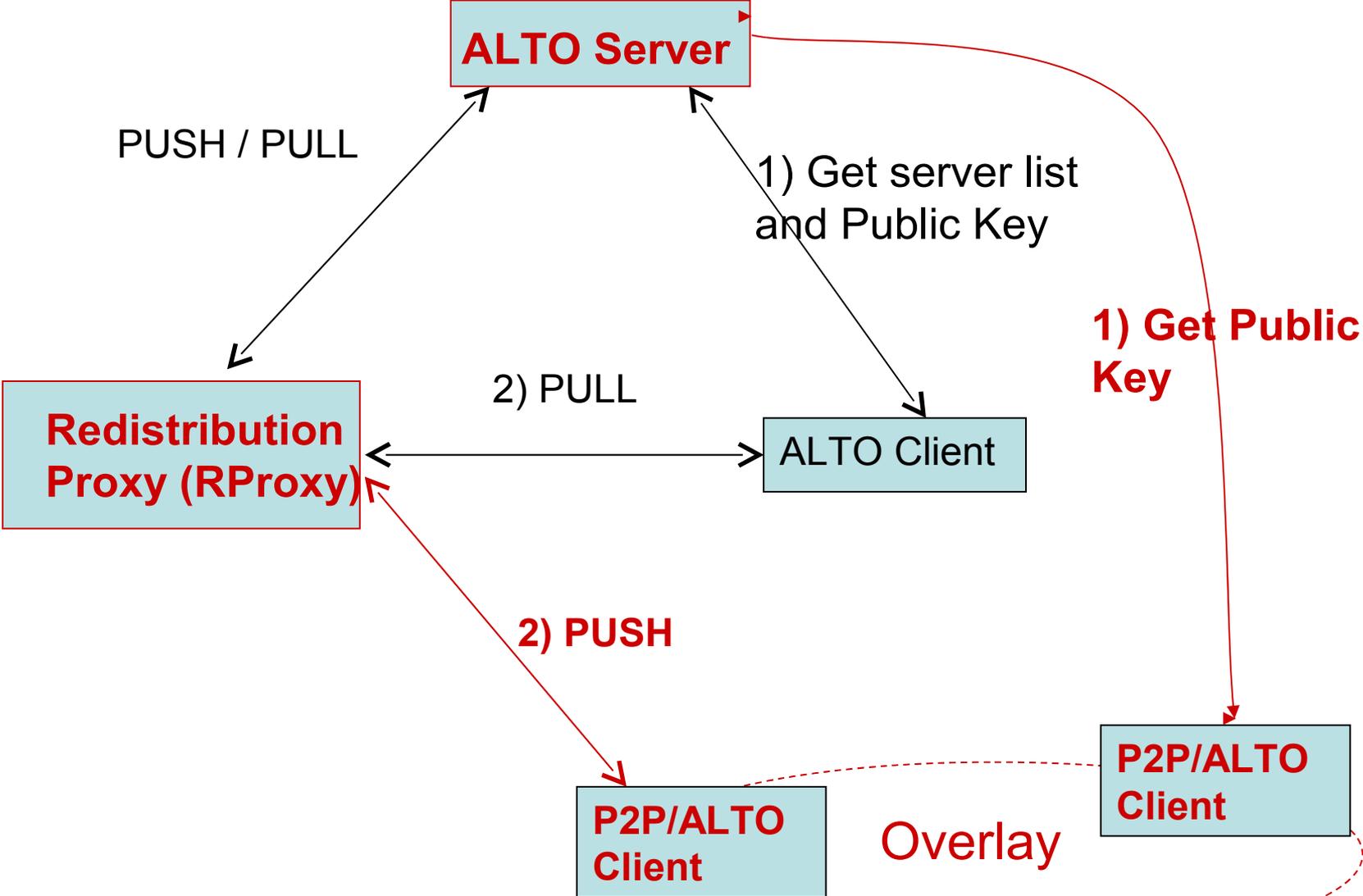
PULL from RProxy



PULL from RProxy

- Step 1: Client requests Server Capability from ALTO Server and server responds with Server List, which includes its Public key and the URL of RProxy. Afterwards client will ask the URL for ALTO infor., without judging it's an ALTO Server or a RProxy. ALTO Protocol is used.
- Step 2: Client connects with an URL in the list and requests for ALTO Infor. ALTO Protocol is used.
- Step 3: If RProxy hasn't this required Infor., it pulls the infor from ALTO Server.

PUSH from RProxy



PUSH from RProxy

- Suitable for P2P Application, e.g. PPLive.
- Step 1: Client requests Server Capability from ALTO Server and server responds with its Public key. ALTO Protocol is used.
- Parallel Step 1: RProxy publishes ALTO Infor. into Overlay, using P2P Protocol.
- Step 2: Client looks up for ALTO Infor. in the Overlay, using P2P Protocol.
- Step 3: If fails to find in the Overlay, it follows the steps in PULL Case.

- Make no decision on which scheme wins. Leave it as an implementation design choice based on the concrete situations.
- Detail mechanism will update align with ALTO Protocol.

1) Does the WG recognize a need for a document discussing design and implementation considerations for redistribution?

2) If yes, what is the suggested way to progress the document?