# PCP Server Selection

## draft-ietf-pcp-server-selection-01
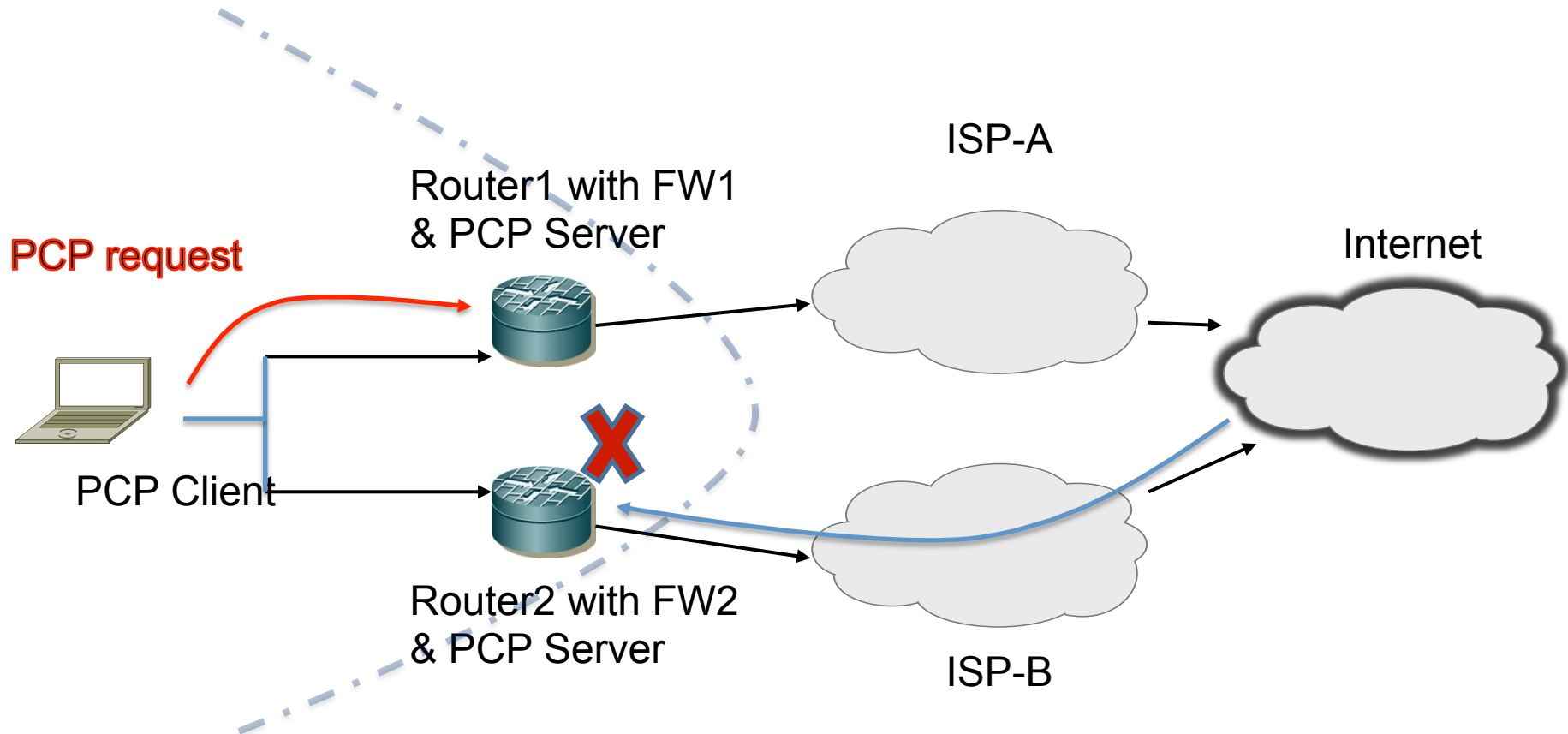
## Nov 2013 IETF 88 Meeting

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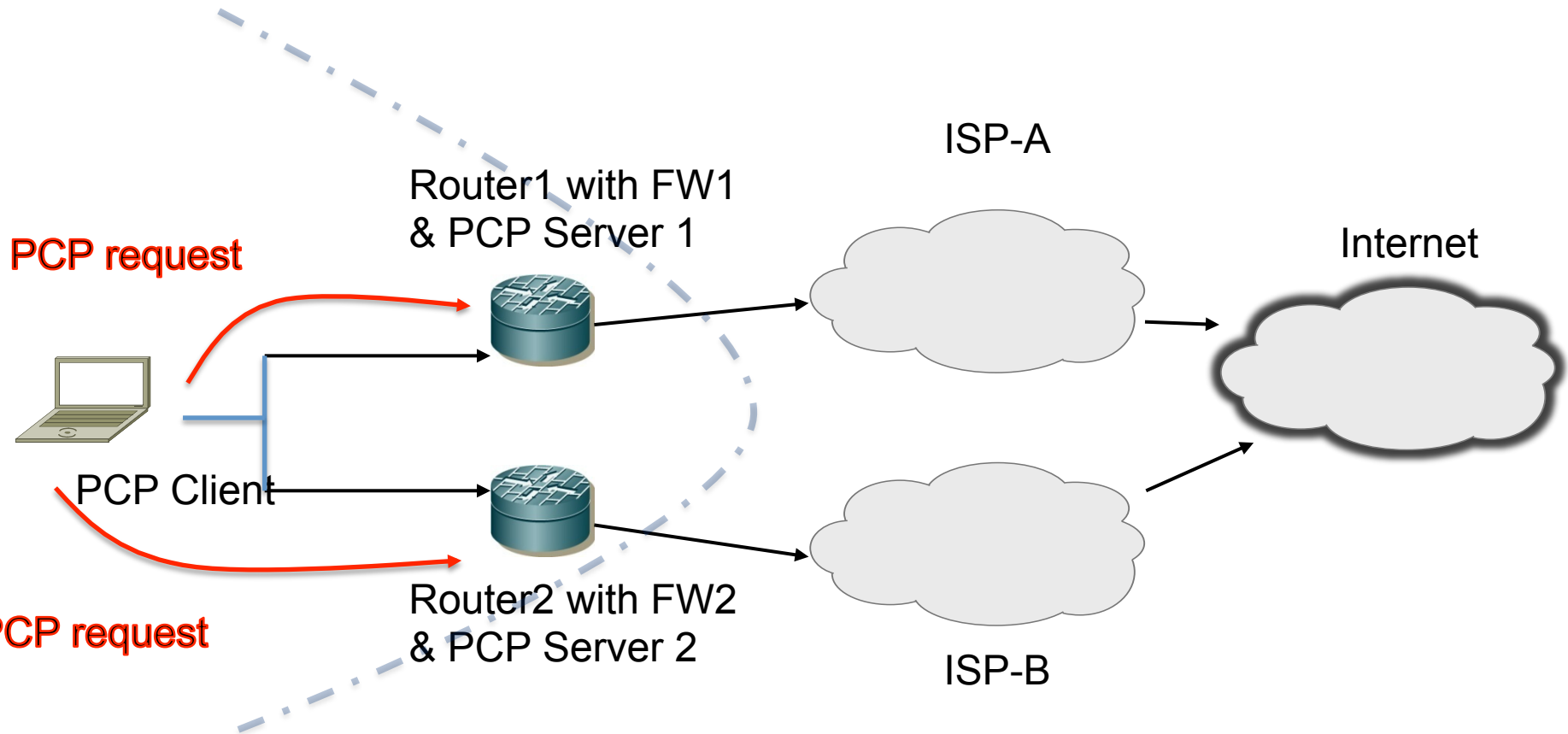
# Agenda

➢ Discuss comments received

# IPv6 Multi-homing



ISP-A

Router1 with FW1
& PCP Server

Internet

PCP request

PCP Client

Router2 with FW2
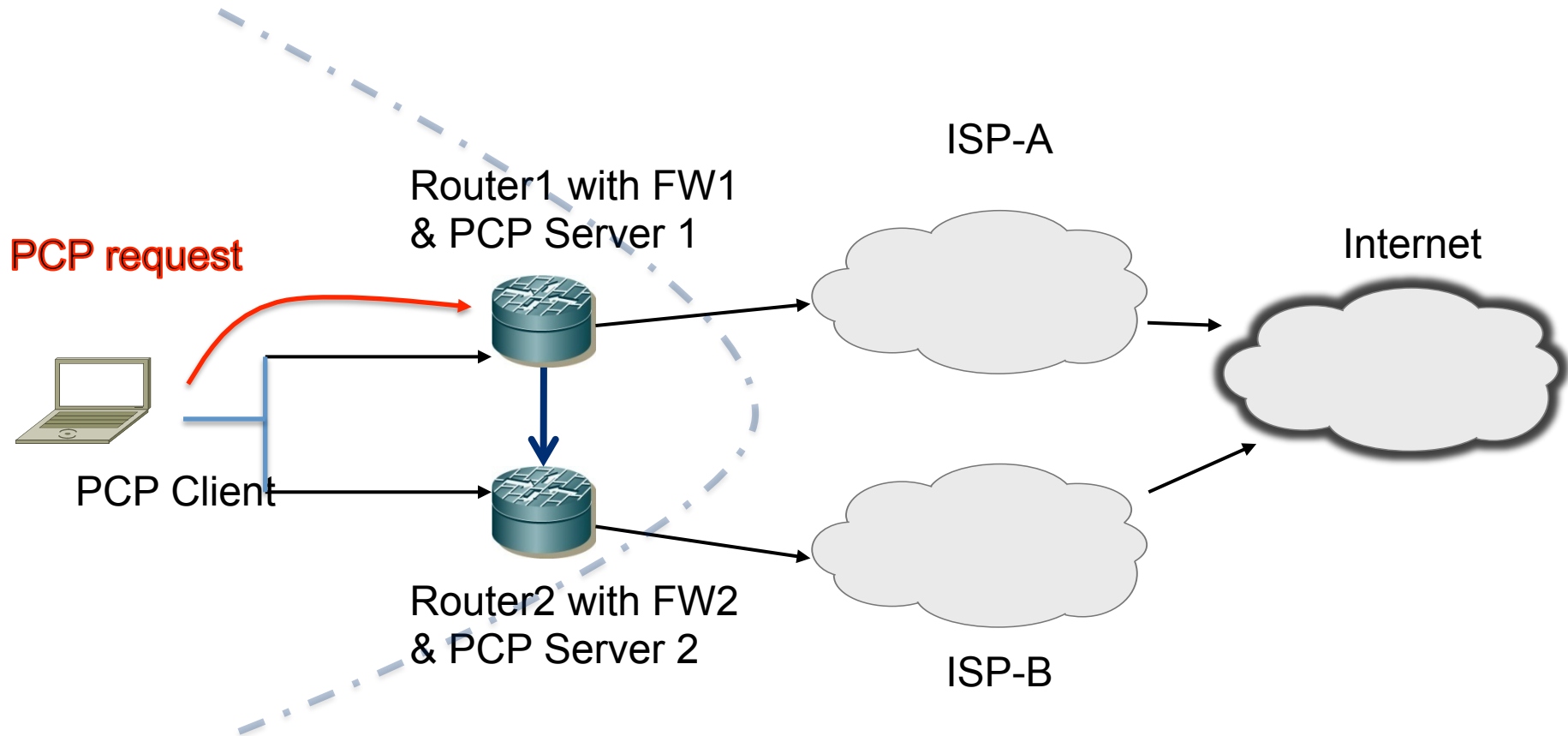& PCP Server

ISP-B

- Broken – Traffic from remote peer communicating with client over ISP-B is broken because Router2 with FW2 has no mappings.

# Solution - A



**PCP client talks to both PCP servers**.

# Solution - B



**PCP client only talks to one PCP server; which syncs to other PCP server.**

# Benefits of Solution - A

- Works for NAT devices which assign addresses of distinct address families. Example NAT64, NPTv6.

- For PCP Flow extensions, responses could be different from Router 1 and 2.
  - Application has flexibility to pick appropriate ISP based on PCP responses.

# Benefits of Solution - A

- ➢ Multiple physical interfaces = Multiple virtual interfaces.
  - ➢ Cellular + Wifi = 2 wired ISP.
- ➢ PCP client needs the capability to talk to multiple servers.
  - ➢ ICE Agent uses PCP to learn and prioritize candidates from multiple interfaces.
  - ➢ MPTCP stack needs PCP client to communicate with multiple PCP servers to reduce keepalives, pick interface for primary sub-flow etc

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# Ordering of PCP Server addresses

- If PCP client wants IPv4 mapping then sort IPv4 server IP's from as per RFC 6724 and then try them one by one until one responds. **Reason:** THIRD_PARTY option should be used which is not optimal.

# Name verses IP addresses

- Draft will be updated to use IP addresses instead of names.  PCP DHCP draft uses IP addresses.

# Finished