Improving ICE Interface Selection Using Port Control Protocol (PCP) Flow Extension

draft-reddy-mmusic-ice-best-interface-pcp-00

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Problem Statement - ICE

- Host with multiple network interfaces. Each interface may have different link characteristics.

- How to choose the best interface for media streams ?

- ICE Agent does not have any info to prioritize candidates from multiple interfaces.
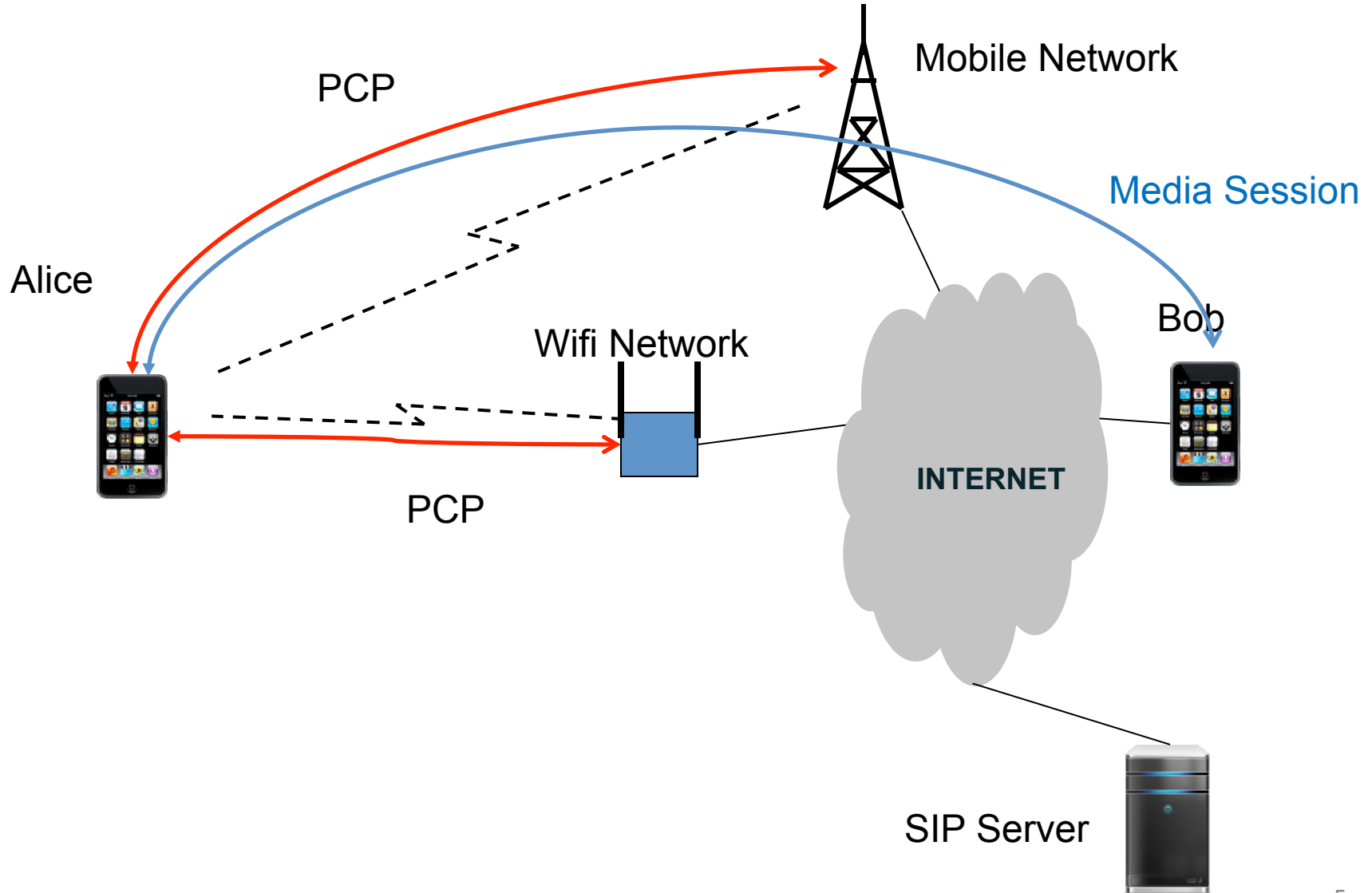
PCP FLOWDATA OPTION

- Signal the application's network requirements to the access network
  - So certain network flows receive different service than other network flows
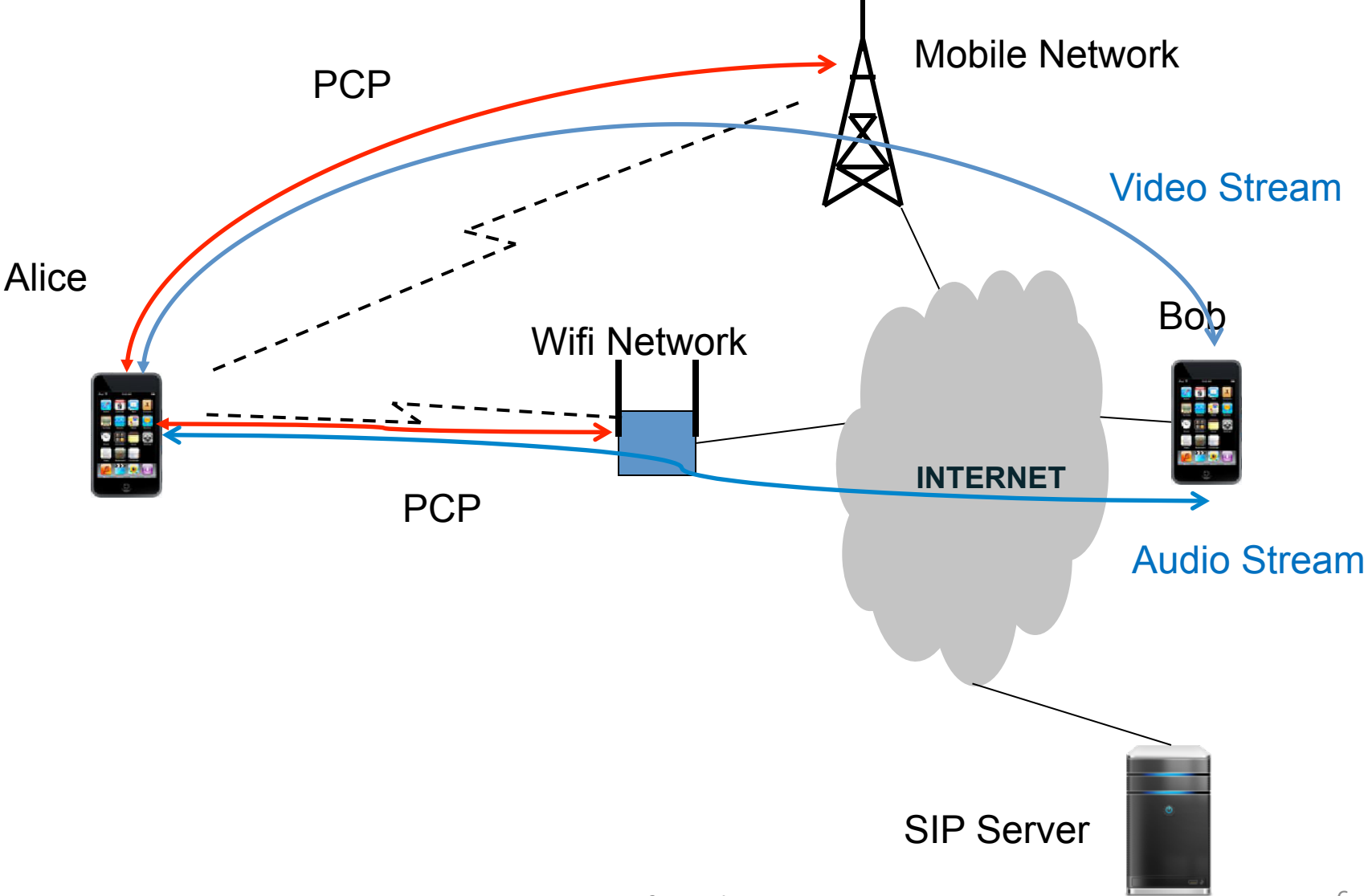- Signal access network's ability to accommodate the flow

Algorithm Overview for ICE

- On Network attach, determine if the network supports PCP

- On Session setup, query link characteristics of each interface

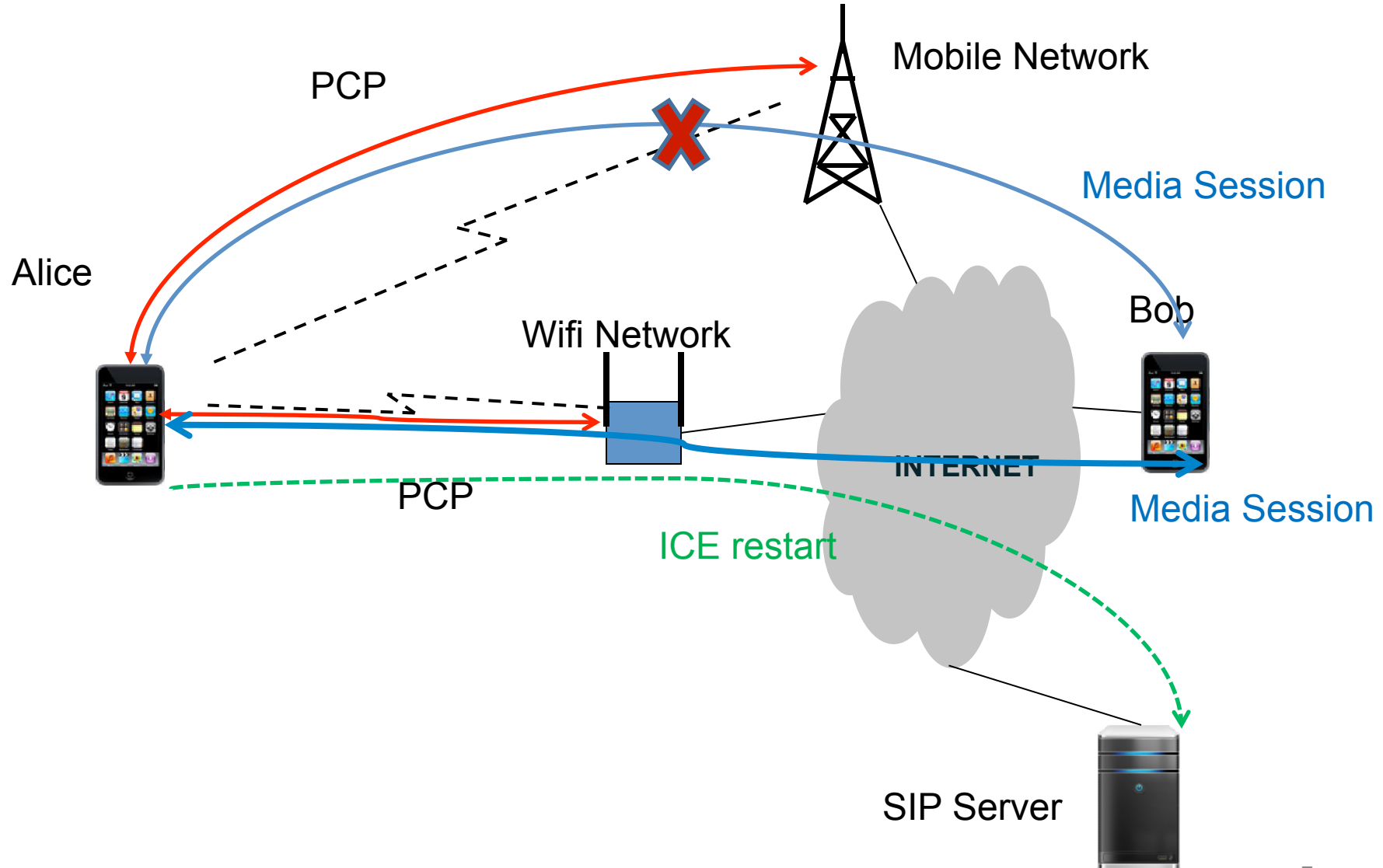- Prioritize the ICE candidates accordingly

Algorithm overview for ICE

PCP

Mobile Network

Media Session

Alice

Bob

Wifi Network

INTERNET

PCP

SIP Server

Multiple Interfaces for media streams

PCP

Mobile Network

Video Stream

Alice

Bob

Wifi Network

INTERNET

PCP

Audio Stream

SIP Server

Availability of New Interfaces

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QUESTIONS ?