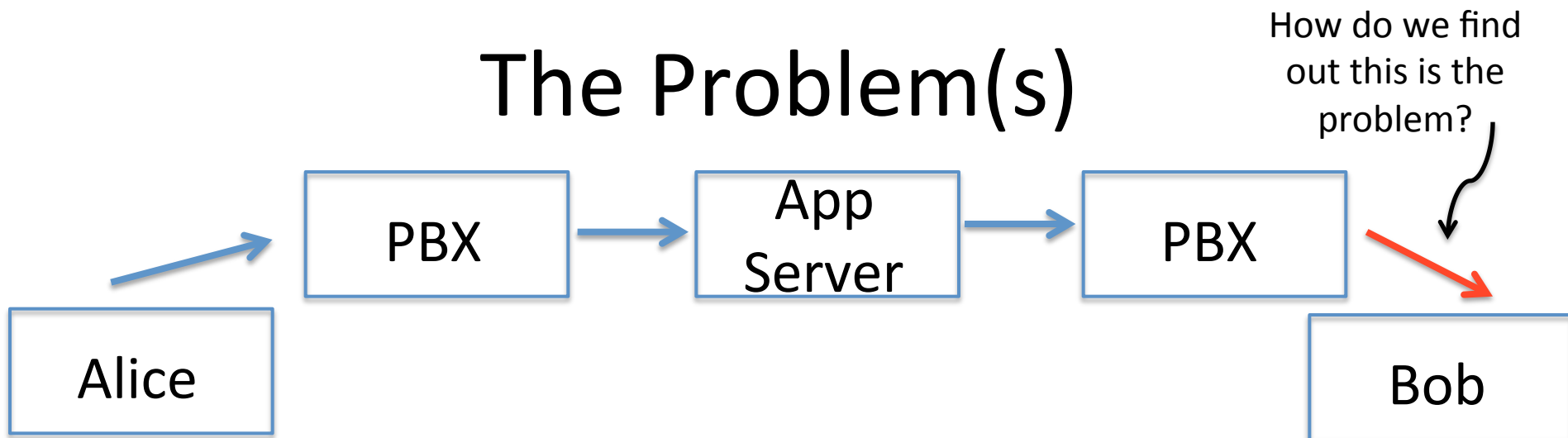


A straw-man proposal for a
media-based traceroute
function for SIP
draft-kaplan-straw-sip-traceroute-00

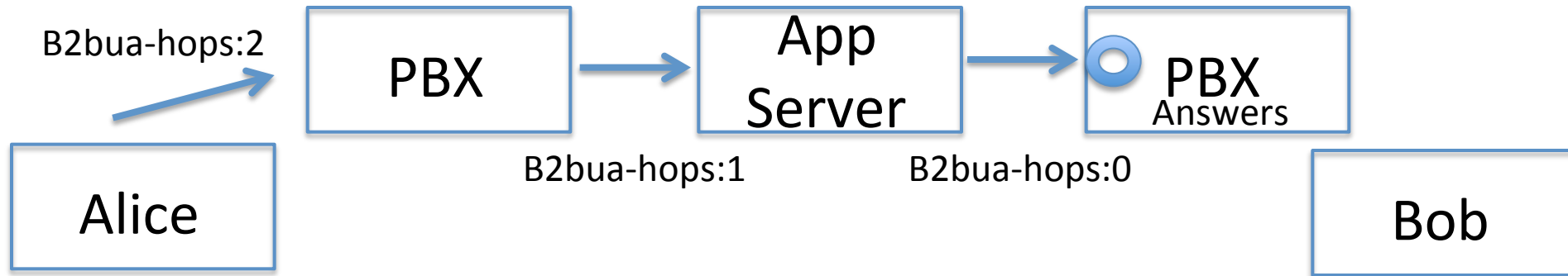
Hadriel Kaplan

The Problem(s)



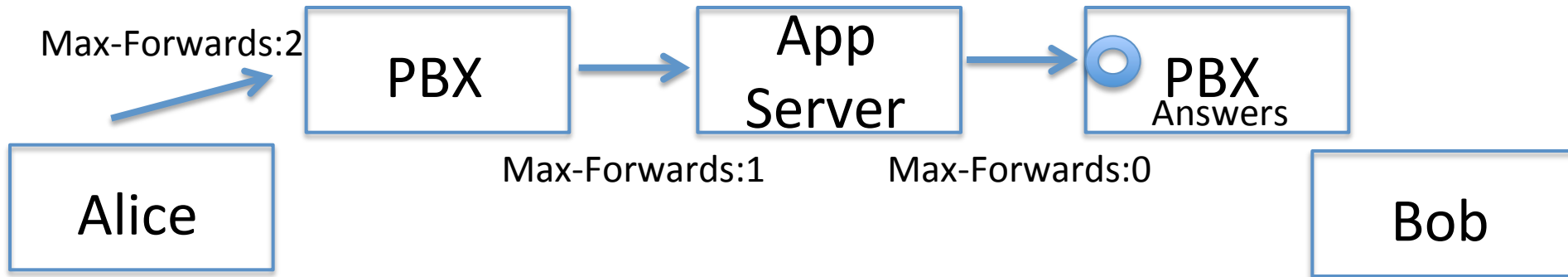
- Troubleshooting failed or poor media calls is difficult
 - If you call a 911/112 test number and media is bad, what do you do next?
- In IP, people start running traceroute
- It would be nice to have the same for SIP media sessions

Proposed Solution #1



- A new header (surprise!)
 - ‘B2bua-hops: 70’
- Like Max-Forwards, this header gets decremented by middleboxes
 - but only media-plane B2BUAs
- When it reaches 0, the B2BUA answers it
 - Or responds with 483 if it can’t answer it, with Contact-URI

Proposed Solution #2



- Use Max-Forwards, answer when it's 0 and SDP says 'loopback'
 - Plus a bunch of other policy authorization rules of course
- Other middleboxes will also decrement it, and reject
 - Too bad... If at first you don't succeed: try, try again
- What's the downside?
 - Some middleboxes randomly change Max-Forwards
 - Indistinguishable from detected loops



Max-Forwards

Pros

Cons



- No new header
- No new header
- No new header
- Works the same as traceroute for other SIP messages
- Follows KISS principle

- Some middleboxes randomly change Max-Forwards
- Indistinguishable from loops
- Can't do offer-less/delayed-offer INVITE mode
- No reason to go to IETF 91 in Hawaii

Wait a minute, didn't the loop-detect draft require us to reject it?

- Sure, it has a MUST reject when Max-Forwards equals 0
- If this is an IETF doc, this traceroute draft would update the loop-detect one with a "...unless..." clause
- If it's not an IETF doc, then a vendor can still do it
 - There is no protocol police, and IETF specs are not laws
 - A B2BUA simply wouldn't be following the loop-detect draft for a specific condition
 - And if the B2BUA gets it wrong and creates a loop due to it, that's its fault, not the IETF's

Open Issues

- Repeat from IETF 84: is anyone interested in this type of thing?
- Should we use Max-Forwards, a new header, or something in SDP?