Subject: EAP unsolicited response packets

Referring to draft-arkko-pppext-eap-aka-01.txt , QUALCOMM wishes to discuss the following statement:

```
In the EAP AKA protocol, the EAP-Request/Identity message is
optional when applicable. If the client can positively determine
that it has to authenticate, it MAY send an unsolicited EAP-
Response/Identity to the authenticator with an EAP Identifier value
it has picked up itself. The client MUST NOT send an unsolicited
EAP-Response/Identity if it has already received an EAP-
Request/Identity packet. The client MUST send an EAP-
Response/Identity to all received EAP-Request/Identity packets,
using the Identifier value in the EAP-Request/Identity. If the
authenticator receives an unsolicited EAP-Response/Identity, it
SHOULD process the packet as if it had requested it. If the
authenticator receives an EAP-Response/Identity with an incorrect
Identifier value in response to the first EAP-Request/Identity it
has sent to the client, then the authenticator SHOULD still accept
the EAP-Response/Identity packet.
```

One of our participants in the IETF comments:

> AKA allows for unsolicited Identity Response packets. Firstly, this violates EAP. EAP requires that Response packets be sent ONLY after a Request. Secondly, EAP requires that Request and Response packet pairs have matching Identifier fields. It seems to me unsolicited Response packets allows a race condition and Identifier fields for Identity/Request and Identity/Response packets will not match. The AKA draft doesn't account for this possibility.

> This will have to be fixed. Probably, the unsolicited Responses are a bad idea. I suspect the race condition will prolong the negotiation instead of shortening it as the authors envision.

While our participant refers above to the messages being sent between client and the authenticator, I believe that this represents a major departure in the philosophy of EAP and might prolong the negotiation of the desired extension to EAP, impacting 3GPP schedules.

Further:

> There would be no point to an Informational RFC for AKA. Informational RFC aren't for specifying protocols.

And:

> If you think AKA is a good idea, then join the list and say so! That would be far
> more effective than comments from a dilettante like me. You don't actually have
> to go to IETF meetings to be an effective participant in a WG. I worked on
> MIME for several years before I attended an IETF meeting in person.