Agenda Item:

Source: Ericsson, Nokia

Title: EAP Extensions - status report

Document for: Informative

1   Scope and objectives

The scope of this document is to briefly describe the current status of IETF standardization efforts related to the use of Extensible Authentication Protocol (EAP) and UMTS Authentication and Key Agreement (AKA) for SIP authentication.

2   Status of EAP Extensions

The current working assumption of SA3 in authenticating IMS subscribers is to use AKA, and use it through EAP. There are two technical parts in making this happen:

1. Introducing AKA to EAP.

2. Introducing EAP to HTTP/SIP.

2.1   AKA to EAP

Regarding AKA within EAP, a -00 Internet Draft exists as a joint work with Ericsson and Nokia. This draft has been discussed on the PPPEXT mailing list in the IETF, but not in the meeting as the PPPEXT will only meet in Salt Lake City. We have asked for "Standards Track" status but as of now we have not gotten any comments on the status issue.

Ericsson and Nokia intend to submit a new version soon. This will contain the following parts:

- Modifications requested on the mailing list, e.g. the exact way used to signal that GSM authentication is not acceptable.

- A new (optional) feature allowing identity privacy in a manner similar to EAP SRP.

2.2   EAP to HTTP/SIP

Regarding EAP within HTTP/SIP, a -00 Internet Draft also exists as a joint work with Ericsson and Nokia. The draft has been sent to the mailing lists, but as of now there is only feedback outside the list. This feedback has been mostly positive, though one comment was (from Microsoft) that they'd rather see GSS_API/Kerberos - based mechanisms for applications. The draft has been presented to the AAA WG, where it was noted that the 3GPP2 folks preferred EAP AKA over their earlier attempt at DIAMETER AKA. It was also agreed that a multimedia/SIP application for DIAMETER will be necessary in any case, regardless of the possibility to reuse NASREQ parts.

A slot was requested to present the draft also in the SIP WG and SIP Security Bar-BOF, but both groups seemed more interested to talk about general requirements for security and frameworks, rather than specific solutions beyond current RFC 2543bis issues. Peter Howard (Vodafone) held a presentation in the SIPPING group which contained in part also a presentation of the EAP HTTP/SIP approach. A comment from Scott Bradner was that it is absolutely forbidden to make 3GPP specific extensions (he made this comment at the time Peter had explained that we could have added AKA directly to SIP but before he went on to explain the generic approach). In view of

this, it seems that some general model at least will be necessary. However, a lot of work remains in making the IETF recognize the need of 3GPP to use their own authentication schemes.

Ericsson and Nokia intend to proceed on this area in the following way:

1. Make the requirements and submit them to the IETF. Use this to argue for the need.

2. If necessary, revise the EAP HTTP/SIP draft and produce a new version to the IETF.

3. In the Salt Lake City meeting, aim to have it agreed that the requirements are real.

4. In the same meeting, present the EAP approach (and possibly competing approaches, if any), and get an initial understanding on the correct direction.

5. During Dec-Feb, discuss the issue on the mailing list, and arrive at a fine-tuned solution most people agree on.

6. WG final call, March IETF meeting, and then an IETF last call results in the document entering the RFC Editor queue in April.