3GPP TSG SA WG3 Security — S3#22 **S3-020045**

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Title: Correspondence from S Hayes (TSG CN Chairman): Results from recent IETF coordination meeting

Results from recent IETF coordination meeting (mail#2)From: Stephen Hayes (EUS) [Stephen.Hayes@AM1.ERICSSON.SE]
Sent: 16 February 2002 01:27
To: 3GPP_TSG_SA@LIST.ETSI.FR
Subject: Results from recent IETF coordination meeting (mail#2)

Dear Colleagues,

As part of the ongoing coordination effort between the 3GPP and IETF, I would like to report the results of recent discussions between the IETF ADs, Ileana Leuca, myself, and various IETF WG chairs, editors and rapporteurs (Conference call held Feb 15).

The recent discussions cover 3 areas:
1. Overall progress within the IETF in meeting the 3GPP delivery dates
2. Mechanisms for providing 3GPP specific headers
3. Areas of IETF concern with regard to SIP interoperability

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1. Overall progress within the IETF in meeting the 3GPP delivery dates:

The IETF continues to work very hard to meet the dates needed by the 3GPP. The work has been organized into a series of bundles.

Bundle 0 are items that are already on the agenda for the next IESG meeting. This bundle includes:
- draft-ietf-mmusic-sdp-ipv6
- draft-ietf-tls-aes
- draft-ietf-avt-amr

Bundle 1 are items that are expected to have an RFC number allocated by March 8. This bundle includes:
- draft-ietf-sip-rfc2543bis
- draft-ietf-mmusic-offer-answer
- draft-ietf-sip-100rel
- draft-ietf-sip-srv
- draft-ietf-sip-events

Note that this (in conjunction with Bundle 0) will fulfill all the dependencies needed for 2543bis.

Bundle 2 includes items that are targeted to go to WG last call on March 1st. This bundle includes:
- draft-ietf-sip-update
- draft-ietf-sip-manyfolks
- draft-ietf-sip-privacy
- the path header draft (still need WG consensus to make this a WG item)
- the call-auth draft (informational)

At least one more bundle is planned before the 3GPP June 7 cutoff date, but the contents are still under discussion. It is likely this will include the drafts required for 3GPP security plus other drafts needed by the 3GPP.

The sigcomp work is not currently included in a bundle but is likely to fit in the timeframe for bundle 2 or 3.

2. Mechanisms for providing 3GPP specific headers

The WG chair and IETF ADs are currently working on changes to "the SIP change process". These changes will provide a mechanism for the registration of non-general headers. These headers will not require the consensus of the SIP WG. The exact mechanisms are being discussed and will likely be presented to the IETF on Tuesday (so no details can be given here).

However, this new mechanism is very likely an attractive alternative to the XML body that is the current CN1 working assumption.

3. Areas of concern over SIP interoperability.

Work within the IETF has been progressing and is progressing rapidly. There are new capabilities in 2543bis-07 and new concepts such as the unify draft that affect assumptions made by 3GPP. 3GPP should adapt to these changes if we want to be interoperable. Some changes which the IETF would like the 3GPP to consider are:

a. Adopt loose routing: 3GPP should adopt the loose-routing capability recently added to 2543bis-07. This functionality greatly simplifies the overall routing model, and was added primarily as a result to 3GPP issues. As a corollary to this, it may be possible to eliminate the P-CSCF Stripping the Route/Record-Route/Via headers. Currently the P-CSCF handles Route, Record-Route, and Via headers on behalf of the mobile terminal. This requires a lot of state on the P-CSCF and can be difficult to implement and reduces reliability. If loose-routing is adopted then this behaviors should be re-evaluated since less information will needs to be carried.

b. Adopt IETF path header: 3GPP is encouraged to use the IETF proposed path header which is more general than the 3GPP version. It is likely that the IETF version will become a working group draft by the end of next week (by Feb 22). I recommend this be taken as the trigger within 3GPP that the IETF is committed to this concept and we can plan on using the IETF version of path.

c. Use Max-Forwarded loop detection: The 3GPP is encouraged to use the simplified loop detection mechanism now included in 2543bis-07 (Max-Forward)

d. Incorporate unify impacts: The 3GPP should incorporate the changes due to the introduction of the update method and resulting changes in manyfolks.

e. Hiding of the "dialed number": Currently, when routing an inbound call to a terminal, the S-CSCF should place the Contact address of the target terminal in the request URI when forwarding an incoming request to that terminal. 3GPP may need a mechanism to convey which public identity was targeted without revealing the actual "dialed number" which could have been a speed dial, service, or other address. This requirement should be further discussed in the SIPPING working group, but may be satisfied by the proposed Visited header.

f. DTMF support: DTMF data sent in INFO has known problems and is unlikely to be standardized or endorsed by the IETF. For end-to-end DTMF, other alternatives such as sending it using AMR should be considered.

g. SIP roles in 3GPP documentation: A SIP intermediary which initiates a BYE acts as a B2BUA (at least for a short period of time). The blurring of proxy and B2BUA roles in the 3GPP documents has been the source of much confusion. Members of the SIP community may provide an informational document which attempts to explain some of the design and implementation decisions affecting B2BUAs. In any case, the 3GPP documents should reflect the appropriate roles in its specifications to avoid codifying this confusion.

h. XML bodies should be opaque to proxies: If an XML body is used (this may not be required anymore), it should not be used for information which is parsed or modified by proxies. Sending bodies of a limited size between SIP user agents is acceptable. (Note that a "proxy server" which subscribes to a service is temporarily acting as a user agent for that dialog.)

One side effect of using general IETF specifications is that to be compliant with those specs, you must implement all the mandatory parts. These include some capabilities that might never be used in a 3GPP network (or might be used, it is hard to predict). 3GPP needs to be aware of these mandatory requirements:

i. Basic security interoperability: The SIP specification requires User Agents to implement Digest Authentication, and SIP over TCP. The SIP specification requires Proxy Servers to implement Digest Authentication, SIP over TCP, and SIP over TLS. While the 3GPP IMS subsystem may not currently make use of these features, they should be implemented to allow for interoperability with other SIP entities. Note that this functionality may be never used, due to the policy of the carrier, but it should be available if it is ever needed.

j. Loose binding of services: A fundamental distinction between 3G view of the world and the Internet view of the world is the level of service binding. The Internet uses a very loose coupling of services, and for 3GPP to fully take advantage of the Internet, the 3G model would need to allow for this loose coupling. Specifically, 3G could allow for the decomposition of inbound calling, outbound calling, access to the IP network, and reserved QoS. Thus a user could simply subscribe to GPRS access (perhaps at a flat monthly rate) and not choose to use any of the other services. Another user may choose to place local outbound calls directly to a visited network (P-CSCF), send other outbound calls directly to an ITSP (for example dialpad), and only use the inbound calling feature of the home network (S-CSCF). The IETF request is for 3GPP-compliant implementations to support this model. Home or Visited carriers can choose to require a tight binding and forbid (by policy) the scenarios described above.

Regards,

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