

Doc: ESMI-060-R1
Title: Clarifications/Notes Regarding NENA Technical Committee Comments
Date: Apr 15, 2005
Contact: Mike Fargano (ESIF TF34 Co-Chair)

For original NENA Technical Committee Comments (w/o Clarification): See ESMI-060

The right column in the table that follows are clarification notes that were taken by Mike Fargano during the April 12, 2005 TF34 Virtual Meeting; Nadine Abbott also contributed to some of the notes. The clarifications were provided primarily by Brian Rosen as the spokesperson for the following NENA Technical Committee Delegation:

- Billy Ragsdale Sr. (NENA Technical Committee Chair/Liaison);
- Roger Hixson (NENA Technical Issues Director);
- Nate Wilcox (NENA VoIP/Packet Technical Committee Chair);
- Nadine Abbott (NENA VoIP Location Working Group Leader);
- Brian Rosen (NENA VoIP Long Term Definition Working Group Leader).

NENA Tech Committee Comments	Clarifications/Notes
1. Too many layers used in this protocol for no clear reason.	<i>General Comments:</i> <ul style="list-style-type: none"> • Work should just stop. • Wrong direction. • Should take a web services approach. • No place in I3 Architecture • No new protocols are needed
2. Inadequate security considerations.	<ul style="list-style-type: none"> • Need unified security across all public safety • Broader agreements? Where? No answer yet. Possible answer in 6 months. • Agency vs. agent (some service are agency dependent) • Define algorithm to assist in implementation. • Walled garden assumed in document.
3. No policy mechanism(s) – rules established for who can do what.	<ul style="list-style-type: none"> • Policy by agency - independent of service (e.g., PSAP should state it). • Need Role based policy
4. No role based authentication and policy. Simply put, in this model everyone can do and get at everything.	<ul style="list-style-type: none"> • See above.

<p>5. No consideration of other evolving public safety standards (EXDL message wrapper, CAP alerting protocol, Global Justice XML schema are some examples).</p>	<ul style="list-style-type: none"> • Lots of work in the industry – including some that started after TF34 work started. • We have the contribution <i>ESMI-035</i> (List of Potential EISI Interfaces, Tim Dunn) • More contributions are welcome.
<p>6. Lack of complete examples implemented on the specification.</p>	<ul style="list-style-type: none"> • Work examples all the way through
<p>7. No apparent coordination with other potential users of the system (EMS service providers, fire departments, poison control, police, HAZMAT, coast guard etc) – may not be technical.</p>	<p>See 5</p>
<p>8. Wrong scope of ESnet. It's role is different depending on the effort (NRIC VII 1D for example) – collaboration is key (see #7)</p>	<ul style="list-style-type: none"> • No network per agency • No special network
<p>9. Incorrect assumption of primary transaction. For example, a PSAP query to an ALI database may not be necessary in the future.</p>	<ul style="list-style-type: none"> • ALI goes away • Smart network goes away. • There will be DBs
<p>10. Lack of understanding and confusion how service definitions map on to protocol mechanisms. For example, without a complete understanding of the EISI interface it is hard to determine how protocol mechanisms will map.</p>	<ul style="list-style-type: none"> • What do service need? • What are requirements of services?
<p>11. The heartbeat mechanism is too complex.</p>	<ul style="list-style-type: none"> • No need for specific heartbeat • Just a timer will do.
<p>12. Registration and authentication of the CESE and RG once the SSL SA is established is duplicative and unnecessary. If these credentials are not passed in the SSL tunnel than privacy is suspect and could create other problems (e.g replay attack).</p>	<ul style="list-style-type: none"> • If tunnel is there – it is a duplication. • Not a full understanding of threat model.
<p>13. What happens if you do not get an ACK? No corrective action is described.</p>	
<p>14. How do you re-establish an event if it is not completed before the connection physically terminates?</p>	<ul style="list-style-type: none"> • Mechanism not well defined.
<p>15. Can message transactions be interleaved (rather than only asynchronous) and is there a limit of</p>	<ul style="list-style-type: none"> • Confusing; need clarity. • Infinite number of events?

the number of transactions that either end is supposed to maintain? (we assume “yes” to the first question as it appears the ETSP allows that but it is not clear).	
16. What is a “service subscription”?	<ul style="list-style-type: none"> • Need more clarity.
17. How long do you maintain event context?	<ul style="list-style-type: none"> • How do you know when it is over?
18. Why are misroutes, discrepancies, bridge notifications and instant messaging first class services?	<ul style="list-style-type: none"> • Either single purpose or general purpose. Not both.
19. The term “event” should imply action and not a database query (to adhere to typical protocol design definitions of the word).	<ul style="list-style-type: none"> • Perhaps a better word than “event”?
20. The EEID should be sent in the first message and echoed in all subsequent messages – not sent initially in the third message.	<ul style="list-style-type: none"> • EEID in third message? It should be the first message. • Who ever sends the first message – should set EEID
21. Why is EEeventResponse and EEeventInfo included in one message?	<ul style="list-style-type: none"> • Combine responses
22. The interaction where the CESE creates an event context (which is a query) to which the RG responds, but the CESE is the entity that finishes the transaction is too restrictive. It is more complex than it needs to be.	<ul style="list-style-type: none"> • Make more general; make bi-directional. • Requested to insert original comments via email, as follows: <p><i>The style of interaction where the CESE creates an event context (which is a query) to which the RG responds, but the CESE is the entity that finishes the transaction is too restrictive. It means you can't have a simple database query mechanism where the CESE just does a query and the RG responds and the transaction is over. It also assumes that the RG maintains state across the event. That too is too restrictive; there are many services that are stateless. Further, context can be maintained for a long time without state, but it's usually hard to maintain state for a long time. The Event doesn't have to be state, it can just be context. There are services that need to know the end of the event (call), but I</i></p>

	<i>suspect they are the minority.</i>
23. No notion of events, incidents and higher level contexts shared among call takers, PSAPs or ESNets.	<ul style="list-style-type: none"> • Transfer of events broadly. • Impact naming space.
24. How are overlapping events handled?	<ul style="list-style-type: none"> • Interleaving • Requested to insert original comments via email, as follows: <p><i>No discussion of overlapping events. I presume that events can overlap, but the text doesn't deal with the consequences of that.</i></p>
25. Instead of using jabber on this interface why not use SIMPLE since it describes the use of SIP anyway? The whole IM requirement may be inappropriate and not very useful if it is only restricted to an event.	<ul style="list-style-type: none"> • SIMPLE will work be better if SIP is used.
26. How does the RG know that two events started by two different CESE's are the same event? How is a CESE going to keep messages straight if two of its call takers have the same EEID on different transactions?	<ul style="list-style-type: none"> • Correlation issue.
27. Security of active event messages is not adequate.	<ul style="list-style-type: none"> • More security is needed where multiple entities are impacted. •
28. What is "appropriate authorization" as stated in "Administrative Reports in 7.1.6.3" and what does it mean?	<ul style="list-style-type: none"> • Need clarity; mechanism.
29. Section 7.2.1 describes a connection set up, a connection manager and a sequence of messages none of which is defined anywhere in the document.	<ul style="list-style-type: none"> • Not referenced anywhere else in doc.
30. You have tied the TCP connections to the application layer protocol due to the persistent TCP connections suggestion. Has there been an examination of any alternatives? (see #1)	<ul style="list-style-type: none"> • Persistent TCP is hard to maintain in a shaky infrastructure • Why use TCP? • Alternatives – async IDs – then don't care about persistence • Context – independent of tunnel
31. In section 8 the use of SIP is not clear and seems out of place. The entire section is confusing.	<ul style="list-style-type: none"> • Not clear • Inappropriate?
32. TCP is a byte stream which requires	<ul style="list-style-type: none"> • Don't use message length

<p>a delimiter, a byte count, or a structure – why is message length optional?</p>	<ul style="list-style-type: none"> • Use delimiter • Don't use both.
<p>33. Has BEEP (RFC3080) been considered for any of the action protocols and events?</p>	<ul style="list-style-type: none"> • Alternative to persistent TCP.
<p>34. It would appear that the requirements do not consider other efforts (global justice for example) and use of existing protocols has not been fully thought out (web services and BEEP for example).</p>	<ul style="list-style-type: none"> • Would be good if EISI was provided at the same time.