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April 12, 2012

Chairman  
**John Donovan**  
AT&T

Jeff Goldthorp  
Chief, Communications Systems Analysis Division  
Public Safety and Homeland Security Bureau  
Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554

First Vice Chairman  
**Nick Adamo**  
Cisco Systems

Second Vice Chairman  
**Thomas Sawanobori**  
Verizon

RE: ATIS ESIF Work on the Baseline and Trending of Uncertainty (ESIF Issue 71)  
PS Docket No. 07-114

Treasurer  
**Joseph Hanley**  
Telephone and Data  
Systems

Dear Jeff:

President & Chief  
Executive Officer  
**Susan M. Miller**  
ATIS

The Alliance for Telecommunications Industry Solutions (ATIS) is writing to update you on technical work that is underway in the ATIS Emergency Services Interconnection Forum (ESIF) relating to confidence and uncertainty data. This work was referenced in the Communications Security, Reliability and Interoperability Council (CSRIC) III Working Group 3 Final Report on Outdoor Location Accuracy.

Vice President of  
Finance & Operations  
**William J. Klein**  
ATIS

ATIS is a technical planning and standards development organization for the information, entertainment and communications industry. More than 200 companies actively formulate standards in ATIS' Committees and Forums, covering issues including: IPTV, Cloud Services, Energy Efficiency, IP-Based and Wireless Technologies, Quality of Service, Billing and Operational Support, Emergency Services, Architectural Platforms and Emerging Networks. ATIS ESIF facilitates the identification and resolution of technical and operational issues related to the interconnection of emergency services networks with other networks through the voluntary participation of interested parties, including representatives from telecommunications service providers, manufacturers and PSAPs.

ESIF's work on this particular issue began in October of 2010 in response to the Commission's *Second Report and Order* in PS Docket No. 07-114 (10-176), which required wireless service providers to offer confidence and uncertainty data on a per call basis upon PSAP request. ATIS ESIF noted that there is a need to determine how, for a given area, empirical accuracy test data (both ground truth accuracy and calculated positioning uncertainty) and live subscriber positioning results are related over time.

ESIF's work effort resulted in findings and conclusions based on the analysis of real-time and network-captured data associated with E911 calls. The analysis included both handset-based and network-based technologies utilized today for E911. Below are the findings and conclusions from this work:

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- The analysis of empirical test call data and live 911 call data for both CDMA and GSM networks has, in isolation, failed to support the trending of uncertainty. If uncertainty data is used in accuracy analysis, it must be calibrated with empirical test call data for the same test area.
- Uncertainty trending cannot be used in a vacuum but, instead, must be used in combination with other Key Performance Indicators (KPIs) that are properly collected and analyzed. Different location technologies need to be analyzed separately.
- Carriers use multiple KPIs to monitor location system performance. These KPIs include, but are not limited to:
  - Yields for given use environments;
  - Relative distribution of fix types;
  - Empirical Test Data (actual error measurements); and
  - Latency/Time to first fix.
- Taken together, these KPIs are very useful in helping to determine when system performance has degraded, and therefore in helping identify when further testing and system improvements are needed at the local level. However, different combinations of KPIs may be most effective depending on which technology(ies) are being examined.
- Initial compliance at the county- or PSAP-level needs to be established through empirical data collection methods that include ground truth and actual error measurements pursuant to the Commission's rules.

Pursuant to the Commission's rules, one copy of this letter is being filed electronically for inclusion in the public record of the above-referenced proceedings.

If there are any questions regarding this matter, please do not hesitate to contact the undersigned.

Sincerely,



Thomas Goode  
General Counsel

cc: Gustavo Pavon, TruePosition – Chair, ATIS ESIF  
Kelly Springer, AT&T – 1<sup>st</sup> Vice Chair, ATIS ESIF  
Kathy McMahon, APCO International – 2<sup>nd</sup> Vice Chair, ATIS ESIF  
Stephen J. Wisely, APCO International – CSRIC WG3 Co-Chair  
Richard Craig, Verizon Wireless – CSRIC WG3 Co-Chair  
Steve Barclay, ATIS Director, Standards Development