August 5, 2015

Source: ATIS WTSC
To: GSMA NG, GSMA WAS, 3GPP SA WG2
CC: 3GPP TSG-SA, 3GPP TSG-CT, 3GPP SA WG1, 3GPP SA WG3, 3GPP CT WG1, 3GPP CT WG3, 3GPP CT WG4, GSMA PSMC

The Alliance for Telecommunications Industry Solutions (ATIS) Wireless Technologies and Systems Committee (WTSC) thanks GSMA NG for their LS on the outline of the GSMA technical discussion of VoLTE Roaming architecture.

ATIS WTSC is leading the development of extensions to 3GPP's specifications for emergency communication (E9-1-1) for use in United States and Canada E9-1-1 services and capabilities.

ATIS WTSC has reviewed the S8HR candidate roaming architecture and considered the potential impacts on the US and Canada's deployment of emergency services. This Liaison Statement describes an initial response covering S8HR roaming architecture handling of E9-1-1 calls in the US and Canada.

1. Introduction

The US regulations for wireless emergency calls require that those calls are routed to the appropriate Public Safety Answering Point (PSAP) and that coarse location (Phase I) and enhanced location (Phase II) are delivered along with the call [Wireless Communication and Public Safety Act of 1999, Public Law 106-81, Oct 26, 1999]. Current implementations of US and Canadian emergency services (E9-1-1) are predicated on knowledge of the user's immediate location in order to route the E9-1-1 call to the correct PSAP and provide the emergency response quickly. The UE's location for E9-1-1 and subsequent mapping to a PSAP's jurisdiction are currently only known by the VPLMN, not the HPLMN in the case of a roaming UE.

The result is that the VPLMN is required to route all IMS E9-1-1 calls directly through the VPLMN's E-CSCF in all cases of E9-1-1 detection (i.e., by the UE, P-CSCF, or S-CSCF) and not the HPLMN's E-CSCF.

2. Scenarios

The referenced LS provided a discussion on certain aspects of emergency calls; however, other critical aspects were not described. It is important for ATIS WTSC's understanding of how the following scenarios would be handled in an S8HR roaming deployment and whether it can meet current E9-1-1 regulations and requirements:

a. When the VPLMN advertises support for IMS emergency calls and the E9-1-1 call request is recognized by the UE.
   b. When the VPLMN advertises support for IMS emergency calls and the E9-1-1 call request is recognized by the P-CSCF or S-CSCF in the HPLMN rather than by the UE.

3. Discussion

ATIS WTSC has not had sufficient time to study the proposal to have the UE initiate an unauthenticated/anonymous E9-1-1 call when the VPLMN does not advertise support for IMS emergency calls.

4. Actions:

To 3GPP SA2:

ATIS WTSC kindly requests 3GPP SA2 to provide a description how, given the US and Canadian E9-1-1 requirements described above, the two included scenarios would function between the VPLMN and HPLMN when S8HR is employed.

5. **Dates of upcoming ATIS WTSC meetings:**

September 21-25, 2015
January 11-15, 2016 (tentative)

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