



## The EENA Next Generation 112 Technical Committee

**Hannes Tschofenig, Chairman of the Committee**

### Introduction

Summoning police, the fire department or an ambulance in emergencies is one of the fundamental and most-valued functions of the telephone. As telephone functionality moves from circuit-switched telephony to Internet Protocol telephony, its users rightfully expect that this core functionality will continue to work at least as well as it has for the legacy technology. New devices and services are being made available that could be used to make a request for help, which are not traditional telephones, and users are increasingly expecting them to be used to place emergency calls.

As the number of IP enabled devices steadily increases, various stakeholders (telecom operators, independent VoIP providers, PSAP operators, device manufacturers, VoIP equipment manufacturers, etc.) have started to implement and deploy parts of the IP-based emergency services architecture. The standardization community has over the last ten years published a number of specifications, often focusing on specific deployment environments. Groups in different countries, typically lead by the PSAP operator community, have now started to investigate on how to integrate VoIP emergency calls into their existing infrastructure. As an example, the activities provided by the Network Interoperability Consultative Committee (NICC) in the UK fit into this scheme. There, the NENA i2 architecture has been profiled to allow VoIP-based emergency calls to enter the legacy emergency services network.

In a longer-term the emergency services networks will want to upgrade their infrastructure to IP-based technologies and thereby will be able to take advantage of the rich Internet multimedia capabilities. According to available analysis, mostly conducted in the US, cost savings are going to be a side-effect of the final transition to IP.

### A Roadmap for Europe

The US is probably the most advanced country with respect to their work on IP emergency services, thanks to the work done by members of the National Emergency Number Association (NENA). On a high-level, the technical work in NENA developed the i2 (updated by NENA i2.5) and the i3 specifications whereby the differences are largely based on the assumptions being made about the capabilities of the infrastructure available to the PSAP operator. For i2, the

EENA asbl  
Avenue Louise, 262  
B-1050 Brussels / Belgium  
Tel : +32 (0)2 53 49 789  
info@eena.org  
[www.eena.org](http://www.eena.org)

is a non-for-profit association



PSAP operator receives emergency calls via the PSTN and for i3 the PSAP operator deploys an IP-based emergency services network.

The European situation shows differences to the US environment since individual member states operate under a very different framework. Nevertheless, the technical standards are still applicable to these environments even though some profiling is requirement to consider the deployment differences.

The EENA NG112 group has looked into the current state of IP-based emergency services in the different member states and has done a fair amount of work on developing requirements for an IP-based emergency services solution. The requirements document is advanced enough to expect publication as a stable reference within the next few months.

With the participation of NENA experts the group was able to investigate the technical properties and to provide feedback to the ongoing NENA i3 stage 3 specification. It is expected that the i3 specification will be utilized as a starting point for the European environment mainly for two reasons:

- A considerable amount of work has been spent on the i3 specifications. They are the most advanced specification available today. The i3 architecture has successfully been prototyped by the US DoT NG9-1-1 project and is being considered within the EU funded REACH-112 pilot project.
- NENA members were able to design an architecture that reuses other standards as much as possible. This avoids redundant work and creates the foundations for high-quality specifications.

It is crucial for the success of the EENA NG112 technical committee to involve as many technical experts within Europe as possible. The membership policy for this technical group is intentionally created in a liberal and open fashion. Membership is targeted at the individual level rather than on a company level.

The mode of working in the technical group is mainly via phone conferences, mailing lists and document sharing.

EENA asbl  
Avenue Louise, 262  
B-1050 Brussels / Belgium  
Tel : +32 (0)2 53 49 789  
info@eena.org  
[www.eena.org](http://www.eena.org)

is a non-for-profit association