Background

The first ever Workshop on the OASIS Emergency Data Exchange Language (EDXL) Standards was held 22 September 2017 in Rome, hosted by the National Fire Corps Academy of Italy, Istituto Superiore Antincendi (ISA) and OASIS, the Organization for the Advancement of Structured Information Standards. The meeting began with opening remarks and a welcome by Stephano Marsella, Director of the Italian Fire Corps and from Elysa Jones, Chair of the OASIS Emergency Management Technical Committee (EMTC).

The Workshop was a technical meeting intended solely for information sharing among experts. Accordingly, the 18 Workshop participants from 5 countries represented themselves; they did not formally represent any organizations with which they were affiliated.

The following documents may be also of interest:

- The Program lists all of the Workshop agenda topics and links to the presentations;
- The list of Speakers includes speaker biographies and portraits;
- The list of Participants gives name, organizational affiliation, and e-mail address of each.

Ancillary Meetings

The EDXL Workshop took place following an all-day CAP Training Day on 19 September and a two-day CAP Workshop 20-21 September 2017.

Report Process

The following report is summarized by the Workshop Program Chair, Elysa Jones, reviewed by speakers and participants before making the report public.
Notes by Agenda Item

2.1 Introduction to EDXL

Elysa Jones, provided an overview of the full family of EDXL specifications to include the Common Alerting Protocol (CAP), Distribution Element (DE), Tracking of Emergency Patients (TEP), Hospital Availability (HAVE), Resource Messaging (RM), Situation Reporting (SitRep) and the Tracking of Emergency Clients (TEC). Each of these specifications has been developed based on practitioner needs through a well-defined process to support the emergency management mission. The specification was defined and current status provided.

2.2 EDXL Framework Toolkit (English and Italian)

Rex Brooks, Secretary and longtime contributor to the OASIS EMTC described how EDXL grew out of a process that included input from first responders/practitioners, governmental agencies, vendor/implementers and concerned members of the public. It did not grow out of a either a top-down or bottom-up approach, but a combination of both as appropriate. With the current set of specifications complete, we were able to begin to effectively see it as a whole and identify the common structure that evolved out of the standards development process.

The presentation focused on the recent effort to craft a framework-toolkit that fulfills the need for development-support for developer-implementers. To improve and support adoption, tools need to be available for implementers. He suggested and provided an example of the kind of software library that would provide uniform, easy to use common functions to read, write, store, send and convert messages in each EDXL specification. The example of the CAP Library provided by Google was presented as an example that could be followed. A form builder, map view and table view were identified as components that would help developers. A set of reference implementations were then cited as the next important step in providing tools for developers. An example was provided with a DE wrapped CAP message. When the DE is used to wrap an EDXL message, a tool like the CAP Validator must insure each type of EDXL message validates on its own.

Because the DE is a central routing envelope for EDXL messages, many comments on DE 1.0 have been addressed and a Committee Specification for DE 2.0 developed. There is work underway in the EMTC to review the requirements for the DE 2.0 and undertake a focused effort to finalize the DE 2.0 as a standard. A way to include and welcome the community of EDXL users in this process is being explored. The EMTC welcomes also any input to these tools, their development and reference implementations.

2.3 Italian Fire Corps Plan to Adopt EDXL

Marcello Marzoli of the Italian Fire Corps presented their plans to adopt EDXL. The Fire Corps is the central agency for all emergency response. They began a year ago evaluating the EDXL suite with particular attention to CAP, DE, RM and SitRep and the TEC draft. They have used CAP for many years with private distribution but routing the message needed to be achieved as well as filtering for different recipients. He described how the DE could be used to achieve their objectives. RM was evaluated for resource logistics being a more proper tool than the two CAP
parameters now used with this purpose. They are now studying on how to best implement RM. SitRep can be used in field reporting and collecting various inputs for Apps and reporting. TEC is of interest and will continue to be studied as the need for tracking victims whether they are injured or not is a key responsibility of rescuers. He noted that the need was identified in key disasters and it was apparent how helpful TEC could be.

2.4 Handling of EDXL-DE Messages for Information Distribution Using JIXEL Share

Massimo Cristaldi, CTO of IES Solutions described their JIXEL Share Product and how the EDXL-DE is used for information routing. The company believes strongly in interoperability and improving communication between citizens and authorities. The DE for routing both XML and nonXML content helps support this interoperability. The tools and elements of JIXEL were shown in context. He presented two scenarios describing the how JIXEL Share is able to route data to support information sharing.

Break and Group Photo

3.1 The Sahana EDXL Experience

Nuwan Waidyanatha, Director, Sahana Foundation provided a background of the organization and a list of the interoperability standards used. He described the 2010 Haiti earthquake response and the use of HAVE 1.0 to share hospital information. He also described the Sahana Message Broker, SAMBRO with deployments in Myanmar, Maldives and the Philippines. The Washington State example showed how EDXL-SitRep can be used to integrate feeds from various providers of data. He identified issues that would make SitRep better such as an incident ID, incident linkage and filtering criteria. In another project Sarvodaya, Sahana investigated how CAP and SitRep could work together and their findings were presented in a previous CAP Workshop. The use of RM was considered for another project but not pursued due to cost/benefit constraints.

3.2 Bridging the Gap Between Healthcare and Emergency Response

Elysa Jones, CEO of HoneycombIQ presented on the EDXL-TEP and EDXL-HAVE use case. She included the current status of the specifications and the work with the international hospital messaging standards organization, Health Level 7 (HL7). The ability to gather patient data from first encounter, through field hospital and emergency medical services (EMS) through to hospital care is supported by the transforms to/from TEP. HAVE provides critical information on available facilities to advise dispatch where patients can best be routed depending on their needs. The interaction between the OASIS TEP and the HL7 Admit, Discharge, and Transfer messages is documented in a jointly agreed bidirectional transformation specification.

3.3 Ardent, Inc. use of EDXL

Don McGarry, CTO of Ardent Management Consulting presented Ardent’s first responder tools. He described first responder’s needs for better information sharing and awareness and more quickly generating reports. Their tools for message routing, a mobile application, a vehicle application and dashboard application were described. The Vortex system overview showed how EDXL-DE is used to share information then visualize the data for real-time collaboration. The WatchTower mobile application featured automated GPS-aware messaging.
3.4 C2-SENSE

Mert Gencturk was unable to attend but provided a Research Project Video on the C2-SENSE project. As we ran out of time during the workshop to watch this together, it is provided here at [link].

Workshop Closure and Comments

All agreed the EDXL workshop was a useful event. Eduard commented that he did not have a good understanding of EDXL prior to this meeting. He is interested and intrigued with the capabilities these specifications provide. We discussed the need for future workshops. The group agreed that we should continue it in conjunction with the CAP Workshop if possible and that a full day should be provided next time. Ben suggested and others agreed there needs to be earlier and wider publicity about the workshop.

Eduard said and others agreed the framework/toolkit is useful. Nuwan suggested a JSON focus is not needed.

While Eliot Christian did not attend the EDXL workshop, he asked that the EDXL team reach out to Google to fix the error in their CAP Validator that shows CAP 1.2 Rural Fire EDXL-DE feed message as containing valid CAP.

The workshop was closed with members being invited to join the OASIS EMTC if they are interested. Even if not joining, all are invited to provide comments and suggestions for the tools and adoption of these standards. Please provide any feedback on the EDXL efforts to the Chair for sharing with the Committee.

One way to communicate with the OASIS EMTC is through the emergency-dev mailing list, which is open to the public without any requirement for membership in OASIS. You can subscribe to this list at [mailto:emergency-dev@oasis-open.org].