Italian Fire Corps plan to adopt EDXL

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Italian National Fire Corps (CNVVF)

- 18 Regional Directorates
- 100 Provincial HQ
- >700 Fire Stations
- > 35,000 Firefighters

Multi agencies coordination
Technical rescue
Civil protection
Italian National Fire Corps (CNVVF)

- Fire protection rules
- Fire safety controls on high fire risk buildings (> 100,000/year)
- Controls on “Seveso” plants (> 300)
- Fire safety controls on radioactive substances storage buildings
- Fire safety controls on Cultural Heritage buildings

- 16 Canadair CL 415
- AB 412
- 2 Piaggio P180
- Sikorsky
- Erickson S64F
- UAVs
- Divers stations
- Floods rescue
- Harbors Fire service

3 central training centers
CNNVF plan to adopt EDXL

Soon after the CAP Implementation Workshop 2016 in Bangkok, CNVVF initiated a thorough analysis of the EDXL suite of standards, with particular attention to:

- EDXL Common Alerting Protocol (EDXL-CAP)
- EDXL Distribution Element (EDXL-DE)
- EDXL Resource Messaging (EDXL-RM)
- EDXL Situation Reporting (EDXL-SitRep)

and to the draft standard:

- EDXL-Tracking of Emergency Clients (EDXL-TEC)
EDXL Common Alerting Protocol (EDXL-CAP) (1)

Up to now CNVVF has only issued <scope>Private CAP alerts, mainly for policy reasons.
There were technical issues too:

• Our routing system use the field <addresses> to distribute our alerts

• Our management of <scope>Public CAP alerts was clumsy at best: a switch to show them or not for all the recipients, no way to select the interested ones

• No way to manage <scope>Restricted CAP alerts: the addresses selected by the sender have to be fixed, no flexibility in the routing rules
EDXL Common Alerting Protocol (EDXL-CAP) (2)

Other technical reasons:

We distribute our alerts to several recipients, which do not need to know the same informations, so that we filter the outbound alerts on the basis of the needs

• But <identifier>, <sender> and <addresses> are the same:

• how to distinguish different filtered versions of the same alert?
EDXL Distribution Element (EDXL-DE) (1)

While at first glance adding an envelop to a CAP seems only to add weight to the data flow, EDXL-DE offers an elegant solution to the previously listed issues:

• a <distributionID> field to keep track of different filtered versions of the same alert (having the same CAP <identifier>)

• <senderID>, <explicitAddress> and/or <targetArea> to transmit outbound well formatted, ‘ready to send’ alerts to be issued by other Authorities (e.g., public alerts to be issued by Prefettura xx to evacuate xx area)
EDXL Distribution Element (EDXL-DE) (2)

EDXL-DE <distributionID>, <senderID>,
<explicitAddress> and/or <targetArea>

- to distribute inbound <scope>Public CAP alerts to the only interested recipients, e.g.,
- addressing to the only CNVVVF Catania and Messina HQ, Sicily Directorate and National Control Centre Public CAP alerts regarding that area and issued by Regione Sicilia)
EDXL Distribution Element (EDXL-DE) (3)

EDXL-DE <distributionID>, <senderID>, <explicitAddress> and/or <targetArea>

- to distribute outbound <scope>Public CAP alerts to recipients able to distribute them further on, e.g.,
  - to specific press agencies, addressing to them public alerts generated by CNVVF to update on changes to the red zone boundaries after earthquakes or other safety measures
EDXL Distribution Element (EDXL-DE) (4)

EDXL-DE <distributionID>, <senderID>,
<explicitAddress> and/or <targetArea>

• to distribute outbound <scope>Restricted CAP alerts to the interested recipients on the basis of a rule, adding flexibility to the routing, e.g.,

• <restriction>VF.1 to send CNVVF HQ alerts to the competent Regional Directorate and National Control Centre
EDXL Resource Messaging (EDXL-RM)

Up to now we use specific parameters to report on the use of our resources:

<parameter><valueName>INCIDENTPROGRESS</valueName></parameter>
<parameter><valueName>VEHICLES</valueName></parameter>

Such choice allowed a fast implementation, but it is not efficient, nor flexible.

We are studying a possible use of EDXL-RM taking the move from the ReportResourceDeploymentStatus Message and its elements, e.g.,

<Resource><ResourceStatus><DeploymentStatus>
<rm:Value>In Transit</rm:Value>
EDXL Situation Reporting (EDXL-SitRep)

In 2017 CNVVF and EC JRC signed an agreement to improve emergency management through innovative tools, including FRT – Field Reporting Tool:

- APP to collect georeferenced data (PoI, images, etc.) on the field
- Server to present them and promptly create reports

Aiming at distributing such informations to the right recipients, we plan to use

- EDXL-CAP to format the collected data and
- EDXL-SitRep to format the reports generated thereof
EDXL-Tracking of Emergency Clients (EDXL-TEC)

While still not a standard, EDXL-TEC is most interesting to manage large emergencies, to keep track of numerous victims (injured or not) rescued or collected by different rescuers’ organisations e.g.,

• 2012 Costa Concordia disaster
• 2017 Manchester Arena bombing
• 2017 Portugal wildfires

As per CAP, CNVVVF will study and test the operational use of EDXL-TEC in such scenarios within the framework of the EC innovation project IN-PREP (2017-2019).
Thank you