Emergency Management Technical Committee (EMTC)

CAP Implementation Workshop

30 September 2020

Elysa Jones, Chair OASIS
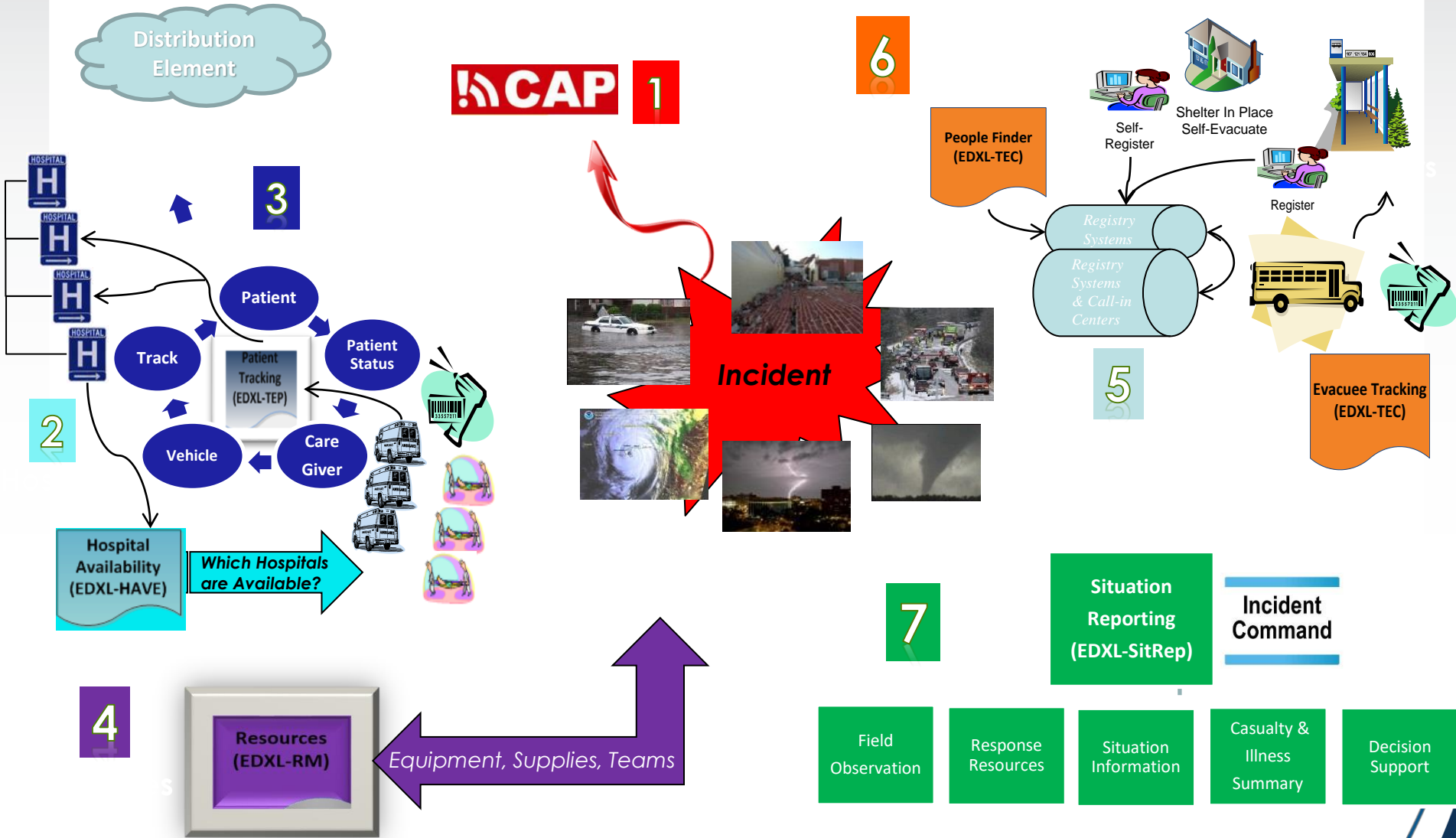
Emergency Management Technical Committee

Emergency Interoperability Member Section

Agenda

- Overview of Specifications
  - Emergency Data Exchange Language (EDXL)
- Common Alerting Protocol (CAP)
  - Event Terms List

EDXL family of Emergency Management Standards

Distribution Element

CAP **1**

6

People Finder (EDXL-TEC)

Self-Register

Shelter In Place Self-Evacuate

Register

3

Patient

Track

Patient Tracking (EDXL-TEP)

Patient Status

Vehicle

Care Giver

Incident

Registry Systems

Registry Systems & Call-in Centers

5

Evacuee Tracking (EDXL-TEC)

2

Hospital Availability (EDXL-HAVE)

Which Hospitals are Available?

4

Resources (EDXL-RM)

Equipment, Supplies, Teams

7

Situation Reporting (EDXL-SitRep)

Incident Command

Field Observation	Response Resources	Situation Information	Casualty & Illness Summary	Decision Support

OASIS

Emergency Data Exchange Language (EDXL)

EDXL is a family of standards, providing a common language, or interface, for data exchange across emergency-related systems
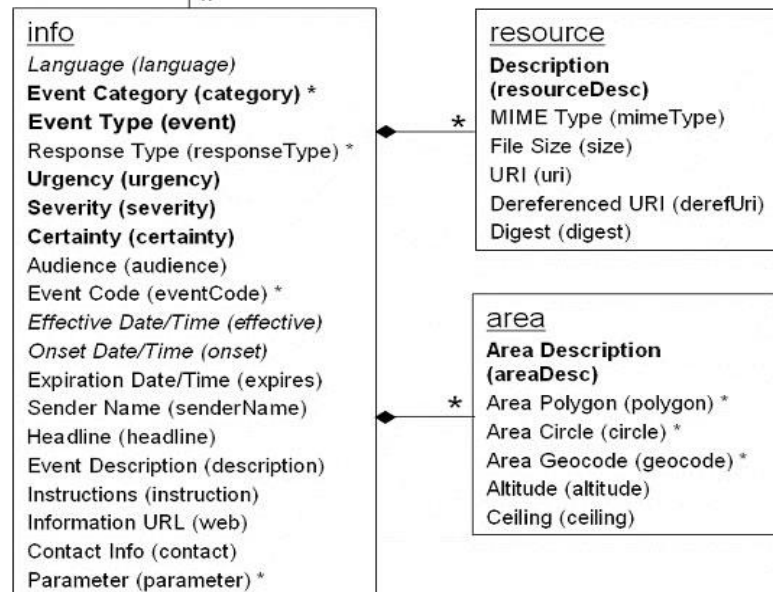
- **Common Alerting Protocol (CAP)**
  - Emergency alerts, **CAP** notifications, and public warnings
- **Distribution Element (EDXL-DE)**
  - Wrap and route any emergency information (XML and non-XML)
- **Resource Messaging (EDXL-RM)**
  - Emergency resource information
- **Hospital AVailability Exchange (EDXL-HAVE)**
  - Hospital status, services, resources

- **Tracking of Emergency Patients (EDXL-TEP)**
  - Emergency patient and EMS tracking information
- **Situation Reporting (EDXL-SitRep)**
  - Situation / incident / event and response information
- **Tracking of Emergency Clients (EDXL-TEC)**
  - Emergency Evacuee tracking and Shelter information

Overview – CAP Object Model

alert
Message ID (identifier)
Sender ID (sender)
Sent Date/Time (sent)
Message Status (status)
Message Type (msgType)
Source (source)
Scope (scope)
Restriction (restriction)
Addresses (addresses)
Handling Code (code) *
Note (note)
Reference IDs (references)
Incident IDs (incidents)

Elements in **boldface** are mandatory; elements in *italics* have default values that will be assumed if the element is not present; asterisks (*) indicate that multiple instances are permitted.

*

info
Language (language)
Event Category (category) *
Event Type (event)
Response Type (responseType) *
Urgency (urgency)
Severity (severity)
Certainty (certainty)
Audience (audience)
Event Code (eventCode) *
Effective Date/Time (effective)
Onset Date/Time (onset)
Expiration Date/Time (expires)
Sender Name (senderName)
Headline (headline)
Event Description (description)
Instructions (instruction)
Information URL (web)
Contact Info (contact)
Parameter (parameter) *

resource
Description (resourceDesc)
MIME Type (mimeType)
File Size (size)
URI (uri)
Dereferenced URI (derefUri)
Digest (digest)

*

area
Area Description (areaDesc)
Area Polygon (polygon) *
Area Circle (circle) *
Area Geocode (geocode) *
Altitude (altitude)
Ceiling (ceiling)

*

- **Simple**
- **Extensible**
- **Flexible**
- **Human Readable**
- **Powerful**

Introduction

- OASIS EMTC CAP SC has developed a list of "event" terms for use in alert messaging systems.

- The event terms list has been created at the request of international CAP users

- The approach to developing the list has been to focus on how the list can help when comparing event terms.

- Many alerting authorities have their own terms that work well in the communities they serve.
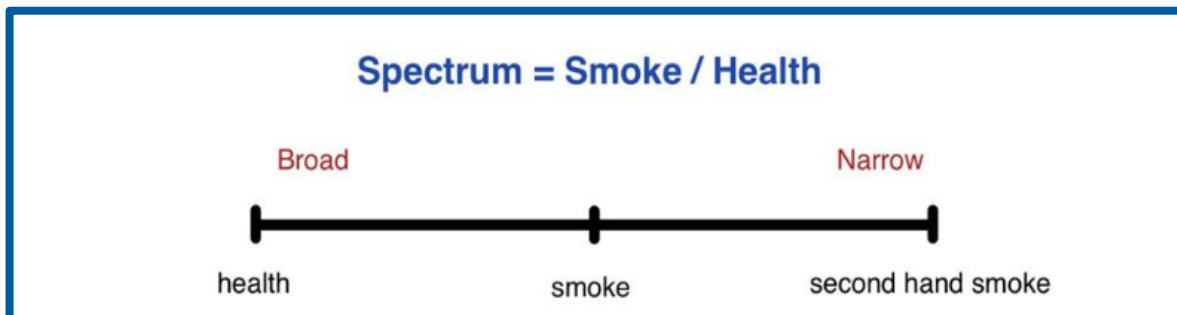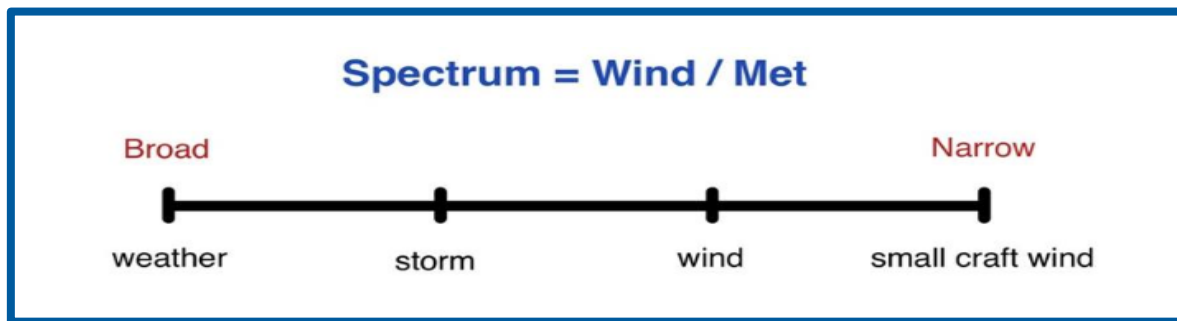
Background – CAP Design

- CAP is designed to convey information associated to an event of interest.

- An "event" is something that happens in a given place during an interval of time

- The varied uses of the required "event" element inhibits interoperability.

- The typing of the subject event is left for communities that use CAP to define.

- An "event type" often embodies notions of impact.

- An "alert" is a signal to heighten attention.

- An "alert type" engages a social aspect.

Event Terms

- What event types are alert-able is the decision of a community of users.

- Properly referencing subject events to an event type is an aspect of effective communication.

- One group cannot possibly pick the best term for known event types.

- The event terms list will be large and every growing to accommodate a variety of interpretations.

- CAP event type codes can help support auto processing.

- CAP XML supports the final audience as well as processing along the distribution path.

- The CAP category element also plays into the decision-making element in CAP
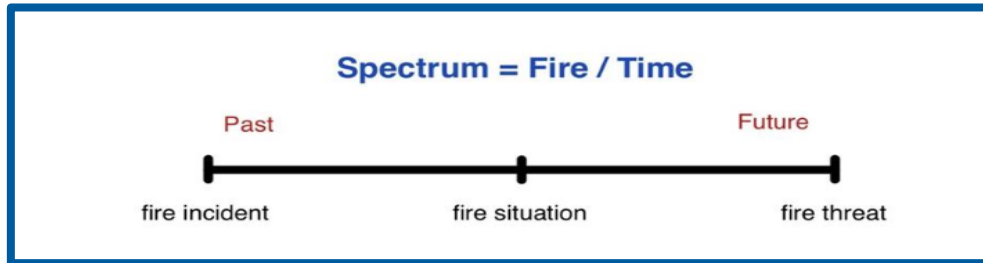
Event Term Spectrums

- Alerting authorities are most concerned about the social aspect of alerting

- Terms can be very specific or very general regarding what information is to be conveyed.
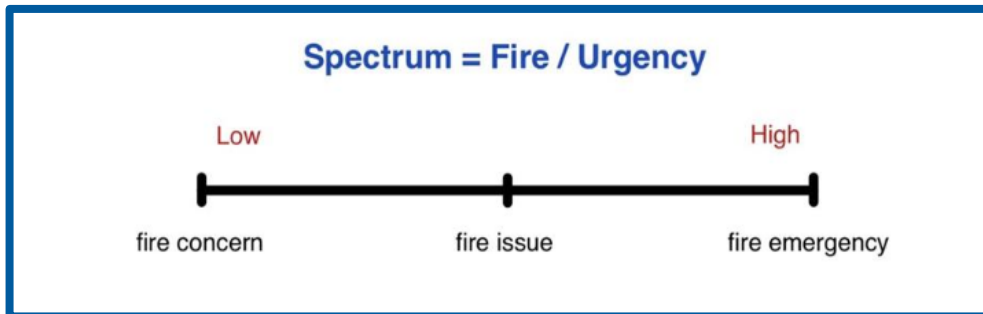
Spectrum = Wind / Met

Broad

Narrow

weather

storm

wind

small craft wind

Spectrum = Smoke / Health

Broad

Narrow

health

smoke

second hand smoke

Spectrum Considerations

- Past, present and future spectrum

Spectrum = Fire / Time

Past		Future
fire incident	fire situation	fire threat

- Urgency spectrum

Spectrum = Fire / Urgency

Low		High
fire concern	fire issue	fire emergency

- Intersecting spectrums

Spectrum Concept

- A spectrum is a grouping of terms is brought together under one defined range to provide a means of comparing terms.

- Related terms

- Narrow terms

- Terms vs preferred terms

- Other language terms

- Other lists

Event Terms List

- A list of "event" terms for use in alert messaging systems.

- Submitted event terms

- What event terms will be added to the list

- What event terms will not be added to the list

Procedures

- OASIS Committee Note

- Intended audience

  - Originators with no local Event Terms List and no local Event Code list

  - Originators with no local Event Terms List but with a local Event Code list

  - Originators with a local Event Terms List but with no local Event Code list

  - Consumers that prefer to process the <event> element in a CAP message

  - Consumers that prefer to process the <eventCode> element in a CAP message

- Dealing with requests for new terms or codes

Next Steps

- Event Terms Committee Note – Nov 1, 2020

- Subject Matter Expert Meeting – Dec 4, Dec 11

- Finalize and Publish Committee Note – 1Q2021

- Next Work Product for the CAP SC
    - Practices guide for mobile device CAP alerts

References

- OASIS Home Page: www.OASIS-open.org

- Emergency Management Technical Committee Home Page: https://www.oasis-open.org/committees/tc_home.php?wg_abbrev=emergency

- All approved EDXL specifications: http://docs.oasis-open.org/emergency/

- EDXL Overview Video: https://www.youtube.com/watch?v=7eoV5XwZVO8

- EDXL Overview Video (Italian): https://vimeo.com/234306686?utm_source=email&utm_medium=vimeo-cliptranscode-201504&utm_campaign=29220

- CAP Logo: http://docs.oasis-open.org/emergency/edxl-cap-logo/

- Practices Guide Elements: http://docs.oasis-open.org/emergency-adopt/cap-elements/

- Practices Guide Feeds: http://docs.oasis-open.org/emergency-adopt/cap-feeds/

Questions

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