

# Emergency Data Exchange Language Situation Reporting (EDXL-SitRep) Version 1.0

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#### Additional artifacts:

This prose specification is one component of a Work Product that also includes:

- XML schemas: http://docs.oasis-open.org/emergency/edxl-sitrep/v1.0/csprd03/schemas/
- Example files: http://docs.oasis-open.org/emergency/edxl-sitrep/v1.0/csprd03/examples/

## Related work:

This specification is related to:

• Emergency Data Exchange Language (EDXL) Distribution Element v1.0. Edited by Michelle Raymond, Sylvia Webb, and Patti Iles Aymond. 01 May 2006. OASIS Standard. Latest version: http://docs.oasis-open.org/emergency/edxl-de/v1.0/EDXL-DE Spec v1.0.pdf.

- Emergency Data Exchange Language (EDXL) Hospital AVailablity Exchange (HAVE) v1.0. Edited by Sukumar Dwarkanath. 22 December 2009. OASIS Standard. Latest version: http://docs.oasis-open.org/emergency/edxl-have/v1.0/emergency\_edxl\_have-1.0.html.
- Emergency Data Exchange Language Resource Messaging (EDXL-RM) v1.0. Edited by Dr. Patti Aymond, Rex Brooks, Tim Grapes, Gary Ham, Dr. Renato lannella, Dr. Karen Robinson, Werner Joerg, and Alessandro Triglia. 22 December 2009. OASIS Standard. Latest version: <a href="http://docs.oasis-open.org/emergency/edxl-rm/v1.0/EDXL-RM-SPEC-V1.0.html">http://docs.oasis-open.org/emergency/edxl-rm/v1.0/EDXL-RM-SPEC-V1.0.html</a>.
- Emergency Data Exchange Language (EDXL) Common Types (CT) Version 1.0. Edited by Werner Joerg, Rex Brooks, Jeff Waters, and Don McGarry. 13 January 2015. Committee Specification Draft 03. Latest version: http://docs.oasis-open.org/emergency/edxl-ct/v1.0/edxl-ct-v1.0.html.
- Emergency Data Exchange Language (EDXL) Customer Information Quality (CIQ) Profile Version 1.0. Edited by Werner Joerg and Jeff Waters. 13 January 2015. Committee Specification Draft 04. Latest version: http://docs.oasis-open.org/emergency/edxl-ciq/v1.0/edxl-ciq-v1.0.html.
- Emergency Data Exchange Language (EDXL) GML Simple Features Profile Version 1.0. Edited by Werner Joerg. 13 January 2015. Committee Specification Draft 02. Latest version: http://docs.oasis-open.org/emergency/edxl-qsf/v1.0/edxl-qsf-v1.0.html.

#### **Declared XML namespaces:**

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#### Abstract:

This XML-based Emergency Data Exchange Language (EDXL) Situation Reporting specification describes a set of standard reports and elements that can be used for data sharing among emergency information systems, and that provide incident information for situation awareness on which incident command can base decisions.

#### Status:

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# 1 Introduction

All text is normative unless otherwise labeled.

# 1.1 Purpose

The ongoing goal of the Emergency Data eXchange Language (EDXL) project is to facilitate emergency information sharing and data exchange across the local, state, tribal, national and non-governmental organizations of different professions that provide emergency response and management services. EDXL accomplishes this goal by focusing on the standardization of specific messages (messaging interfaces) to facilitate emergency communication and coordination particularly when more than one profession or governmental jurisdiction is involved.

The current roster of EDXL Standards includes:

- The Common Alerting Protocol v1.2 specification (EDXL-CAP)
- The Distribution Element specification v1.0 (EDXL-DE)
- The Hospital AVailability Exchange specification v1.0 (EDXL-HAVE)
- The Resource Messaging specification v1.0 (EDXL-RM)

The primary purpose of the Emergency Data Exchange Language Situation Reporting (EDXL-SitRep) Specification is to provide a set of standard formats for XML emergency response messages specifically aimed at transmitting timely situation reports. These situation reports are specifically designed as payloads of the Emergency Data Exchange Language Distribution Element (EDXL-DE). Together EDXL-DE and EDXL-SitRep are intended to expedite well-informed incident command decisions needed to respond effectively and adapt to emergency incidents, facilitating communication across various responding organizations and up the chain of command. The Distribution Element may be thought of as a container that provides the information to route "payload" message sets (such as alerts, hospital availability reports, resource messages or situation reports), by including key routing information such as distribution type, geography, incident, and sender/recipient IDs.

The EDXL-SitRep message is constrained to the set of pre-defined Report types contained in this specification. The EDXL-SitRep message is intended to be the payload or one of the payloads of the Distribution Element which contains it.

# 1.2 History

Through a practitioner-driven approach, the Command, Control and Interoperability Division (CID) within the U.S. Department of Homeland Security's Science and Technology Directorate creates and deploys information resources to enable seamless and secure interactions among state, local, tribal, international, private entities, homeland security stakeholders and other federal entities. CID creates and deploys Information resources such as standards, frameworks, tools, and technologies.

CID is organized into five program areas: Basic/Futures Research; Cyber Security; Knowledge Management Tools; Office for Interoperability and Compatibility (OIC); and Reconnaissance, Surveillance, and Investigative Technologies.

Following voice interoperability programs such as SAFECOM, the OIC's interoperable messaging standards program was initiated as one of the President's e-Gov initiatives in 2001. The OIC mission is to serve as the standards program within the Federal Government to facilitate local, tribal, state, and federal public safety and emergency response agencies to improve emergency / disaster response through effective and efficient interoperable data sharing. OIC sponsors the process to facilitate practitioner requirements for the development of EDXL standards.

EDXL will accomplish this mission through the standardization of specific messages (XML messaging interfaces) which facilitate coordination and emergency communication between disparate software applications and systems - particularly when more than one profession or jurisdiction is involved. The EDXL program is an open, public practitioner-driven process driven solely by cross-profession emergency practitioners through an OIC-sponsored Practitioner Steering Group (PSG) and Standards Working Group (SWG). The EDXL program is also a public-private partnership working with the EIC (Emergency Interoperability Consortium), Vendor communities, and OASIS (Organization for the Advancement of Structured Information Standards), which develops and publishes the open, public EDXL standards free of charge.

The OIC-sponsored Practitioner Steering Group (PSG) governance was formalized following publication of the EDXL Distribution Element. It plays a key role in the direction, prioritization, definition, and execution of the DHS-OIC program. The group is comprised of representatives of major emergency response associations and organizations, setting priorities and providing recommendations regarding messaging standards development as well as the other facets of the OIC-EDXL program.

The PSG identified the EDXL Situation Reporting (EDXL-SitRep) Specification effort as the top priority standard by this group following the development of EDXL-DE, EDXL-HAVE and EDXL-RM. Utilizing standard process and governance, the requirements and specification effort was initiated by this group in partnership with industry members of the Emergency Interoperability Consortium (EIC) and the Standards Working Group (SWG). The EDXL-SitRep draft specification was developed based on explicitly defined requirements which were submitted to the OASIS Emergency Management Technical Committee (EM-TC) to begin work on this international EDXL-SitRep standard.

Tthe EDXL Situation Reporting standard defines five (5) separate and specific report types to support incident command decision-making across the emergency incident life-cycle. This includes preparedness, pre-staging of resources, initial, ongoing response, recovery and demobilization / release of resources and after-action analysis to identify needed improvements in ongoing preparedness.

# 1.3 Structure of the EDXL Situation Reporting Specification

The EDXL Situation Reporting standard document structure is defined using successively more detailed or constrained artifacts in the form of textual descriptions, diagrams, figures, tables and Appendices. The EDXL-SitRep XML Schema is provided separately. The overall structure of the EDXL Situation Report is first represented in an Element Reference Model (ERM). The ERM is the foundation from which individual constraint schemas (individual situation report types) are defined.

The structure of the EDXL Situation Reporting standard is defined in the following sections:

- Section 3.1, The Element Reference Model (ERM), shows the abstract structural relationships of the main components of the EDXL-SitRep.
- Section 3.2, Distribution of EDXL Situation Reporting, describes practitioner requirements which
  are met through the EDXL-Distribution Element (DE)
- Sections 3.4.2 through 3.4.6 define the five (5) individual EDXL-SitRep report types
- Section 4 The Data Dictionary, defines each element contained in the EDXL-SitRep standard message

These sections together define the message structure, message element definitions, optionality and cardinality.

The following descriptions provide a brief overview of each EDXL-SitRep component to assist with an overall understanding of this standard's diagrams, figures and tables.

The Non-normative Element Reference Model diagram in Figure 2 of Section 3.1 shows the abstract structural relationships of the main components shown as packages of specific message elements. The EDXLSitRepRoot ERM diagram in Figure 3 of Section 3.3.1 shows the structural relationships of the main Situation Report elements used throughout the individual situation reports.

- The EDXLSitRepRoot element of the EDXL-SitRep message, containing elements used throughout each individual situation report such as IReport, MessageID, PreparedBy, and IncidentID.
- 2. A SituationInformation report type identifies and describes the incident with message elements such as IncidentName, IncidentLocation and IncidentType.
- 3. A FieldObservation report type provides a fast and flexible basic report of an observation in the field by emergency response & management professionals, as a textual description by human parties acting as mobile sensors. This report type is intended for standardized receipt of Field Observations, which may then undergo verification and/or integration into formal Situation Reporting.
- 4. A CasualtyAndIllnessSummary report type provides counts by responders and non-responders for various categories such as fatalities, missing and hospitalized over specified time periods. These data items may be collected as needed and combined in the manner required for specific reports or for decision making purposes.
- A ResponseResourcesTotals report type contains responding resources and resource needs to manage and coordinate resource decisions. This report type keeps this information organized together for ease of reference and reuses the EDXL Resource Messaging Elements as needed.
- 6. A ManagementReportingSummary report type provides for the collection of data related to management concerns such as operational planning, damage and threat assessment, weather conditions, etc. It contains incident organization information where cross-profession or jurisdiction Incident Command structure is in place.
  - 6.1. A SituationSummary package provides supporting information for ManagementReportingSummary or user-defined custom reports.
  - 6.2. A DecisionSupportInformation package likewise provides detailed information supporting the ManagementReportingSummary report type or user-defined custom reports.
- 7. A Supporting Elements Model package provides the following:
  - 7.1. A CommonTypes Package of elements organized separately to be reused as needed, including, a ValueListTypeInformation subset.
  - 7.2. A ContactInformation Package of elements organized separately to be reused as needed, including the EDXL-CIQ Profile;
  - 7.3. A LocationInformation Package of elements organized separately to be reused as needed including the EDXL-GSF Profile.

Table 1 in Section 3.3 provides a Situation Report Type Summary of the five (5) specific types of Situation Report messages. This provides a quick overview of the message types contained in this standard.

# 1.4 Terminology

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC2119].

The term "Conditional" as used in this specification is to be interpreted that a message *element* MUST be used, according to specified rules, within a particular report message type (elements MUST be one of "Required," "Optional" or "Conditional").

## 1.5 Normative References

[EDXL-SitRep-Rqmts]

DHS S&T-OIC, EDXL Requirements Statement and draft Messaging Specification for the Situation Reporting Messaging Standard (EDXL-SitRep), Version 1.2 http://www.oasis-open.org/committees/download.php/32036/EDXL-SitRep-Rgmts-MsqSpec020209.pdf 2 February 2009.

# [RFC2119]

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#### [RFC3066]

H. Alvestrand, *Tags for the Identification of Languages*, IETF RFC 3066, January 2001. http://www.ietf.org/rfc/rfc3066.txt.

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National Geospatial Intelligence Agency, Department of Defense, *World Geodetic System 1984*, NGA Technical Report TR8350.2, January 2000. http://earth-info.nga.mil/GandG/publications/tr8350.2/wgs84fin.pdf.

#### [XML 1.0]

T. Bray, *Extensible Markup Language (XML) 1.0 (Third Edition)*, W3C REC-XML-20040204, (Fifth Edition), 26 November 2008. http://www.w3.org/TR/REC-xml/.

## [namespaces]

T. Bray, *Namespaces in XML*, W3C REC-xml-names-19990114, (Third Edition) W3C Recommendation 8 December 2009. http://www.w3.org/TR/REC-xml-names/.

#### [dateTime]

N. Freed, *XML Schema Part 2: Datatypes* (Second Edition), W3C REC-xmlschema-2, October 2004. http://www.w3.org/TR/xmlschema-2/#dateTime.

#### [EDXL-SitRep-Rqmts]

Emergency Data Exchange Language (EDXL) Requirements Statement and draft Messaging Specification for the Situation Reporting Messaging Standard (EDXL-SitRep) Version1.2, Prepared by the DHS S&T-OIC EDXL Messaging Standards Project Team, 2 February 2009. http://www.oasis-open.org/committees/download.php/32036/EDXL-SitRep-Rqmts-MsgSpec020209.pdf.

## [EDXL-DE]

Emergency Data Exchange Language (EDXL) Distribution Element Version 2.0, Edited by Jeff Waters, 19 Sept. 2013, Committee Specification CS02. Latest version: http://docs.oasis-open.org/emergency/edxl-de/v2.0/edxl-de-v2.0.html.

#### [EDXL-HAVE]

Emergency Data Exchange Language (EDXL) Hospital AVailablity Exchange, Edited by Sukumar Dwarkanath. 01 November 2008. OASIS Standard OS01. http://docs.oasis-open.org/emergency/edxl-have/os/emergency\_edxl\_have-1.0-spec-os.html. Latest version: http://docs.oasis-open.org/emergency/edxl-have/v1.0/emergency\_edxl\_have-1.0.html.

#### [EDXL-RM]

Emergency Data Exchange Language Resource Messaging (EDXL-RM) 1.0. Edited by Dr. Patti Aymond, Rex Brooks, Tim Grapes, Gary Ham, Dr. Renato Iannella, Dr. Karen Robinson, Werner Joerg, and Alessandro Triglia. 1 November 2008. OASIS Standard OS 01. http://docs.oasis-open.org/emergency/edxl-

rm/v1.0/os/EDXL-RM-v1.0-OS.html. Latest version: http://docs.oasis-open.org/emergency/edxl-rm/v1.0/EDXL-RM-SPEC-V1.0.html.

[EDXL-CT]

Emergency Data Exchange Language (EDXL) Common Types (CT) Version 1.0. Edited by Werner Joerg, Rex Brooks, Jeff Waters, and Don McGarry. 13 Jan. 2015.Committee Specification Draft CSD03. http://docs.oasis-open.org/emergency/edxl-ct/v1.0/edxl-ct-v1.0.html.

[EDXL-CIQ]

Emergency Data Exchange Language (EDXL) Customer Information Quality (CIQ) Profile Version1.0. Edited by Werner Joerg and Jeff Waters. OASIS Committee Specification Draft CSD04, 13 Jan. 2015. http://docs.oasis-open.org/emergency/edxl-ciq/v1.0/edxl-ciq-v1.0.html.

[EDXL-GSF]

Emergency Data Exchange Language (EDXL) GML Simple Features Profile Version 1.0, Edited by Werner Joerg and Lewis Leinenweber. OASIS Committee Specification Draft CSD02, 13 Jan. 2015. http://docs.oasis-open.org/emergency/edxl-gsf/v1.0/edxl-gsf-v1.0.pdf.

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# 1.6 Non-Normative References

[EDXL GFR]

EDXL General Functional Requirements, OASIS Emergency Management TC, 4 November 2004 http://www.oasis-open.org/committees/download.php/10031/EDXL%20General%20Functional%20Requirements.doc,

[EDXL-DE IG]

EDXL Distribution Element Implementer's Guide, Edited by Patti Aymond, 19 Aug. 2005. OASIS Working Draft WD01. http://www.oasis-open.org/committees/download.php/14120/EDXL\_Implementer%27sGuide.doc

[ISO 4217]

ISO 4217:2001, Codes for the representation of currencies and funds

[ISO 4217 codes]

ISO 4217 currency names and code elements.

http://www.iso.org/iso/support/faqs/faqs\_widely\_used\_standards/widely\_used\_standards other/currency codes/currency codes list-1.htm

[UCUM]

Gunther Schadow, Clement J. McDonald, *The Unified Code for Units of Measure, Version 1.6*, http://aurora.regenstrief.org/UCUM/ucum.html, Regenstrief Institute for Health Care, 2005.

# 2 Design Principles and Concepts (Non-normative)

Below are some of the guiding principles behind the development of EDXL-SitRep:

- Provide a standard message format for the Situation Report
- Separation of EDXL-SitRep message structure from routing header structure
- Provide separate specific formats for the distinct Situation Report Types in order to simplify implementation and use
- Enable dissemination of messages based on geographic delivery area
- Use and reuse of data content and models developed by other initiatives
- Business process-driven specific messaging needs across emergency professions
- Supporting everyday events and incident preparedness, as well as disasters
- Facilitate emergency information sharing and data exchange across the local, state, tribal, national and non-governmental organizations of different professions that provide emergency response and management services

# 2.1 Requirements for Design

The initial requirements submitted to the Technical Committee by the DHS-OIC sponsored EDXL Standards Working Group (SWG) described in Section 1.2 can be reviewed at: http://www.oasis-open.org/committees/download.php/32036/EDXL-SitRep-Rqmts-MsgSpec020209.pdf The word processing version of this document can be found at:

http://www.oasis-open.org/committees/download.php/32278/EDXL-SitRep-Rqmts-MsgSpec020209.doc

# 2.2 Example Usage Scenarios

**Note**: The following examples of usage scenarios were used as a basis for development of the practitioner requirements and messaging specification document which was submitted to OASIS. These scenarios are non-normative and not intended to be exhaustive or to reflect actual practices.

# 2.2.1 Train Derailment Example

This scenario follows the detection of a train derailment either by a GPS system or by a citizen report via 911/PSAP. An early use case, this specific case illustrated a number of areas where a clarification of the system needs to be made.

Full use case available: http://www.oasis-open.org/committees/download.php/32043/EDXL\_use\_case\_Train\_Derailv1.5final.doc.

This scenario includes subsequent developments in a traffic accident and biohazard incident.

# 2.2.2 Levee Break and Evacuation with Law Enforcement Focus

Levee Break and Evacuation with Law Enforcement Focus

The National Weather Service is reporting that there is no let-up in sight to the rain storm that has been drenching the area for the last 36 hours. An unprecedented amount of rain has fallen. A levee next to a local town is threatening to break.

Estimates of engineers indicate that the levee will only hold for another 2 hours. This is the time frame in which the initial response must take place. Emergency Management has notified local law enforcement:

that the 2,000 residents at risk must be evacuated immediately. 200 are elderly, of which 50 are non-ambulatory.

Rising water levels also threaten to cause two major rivers, one flowing through a major neighboring town to the west, to overflow their banks and cause massive flooding across the region. These floods will impact areas of the original town not affected by the impending levee break.

If these rivers do overflow their banks, then an additional and much larger number of people will need to be warned and evacuated.

Full use case available: http://www.oasis-open.org/committees/download.php/32042/EDXL\_use\_case\_LeveeBreakEvac\_v1.1final.doc.

## 2.2.3 EMS Call

This scenario takes place in Bayport on a coastal island across a bridge from Fisherville on the mainland. The nearest large city is Central City which is 40 miles away and has two hospitals. The first, Faith Hospital, is a regional cardiac catheterization and care center. Central City Hospital is a level 1 trauma center and operates a medevac helicopter service called Med Flight-1. Fisherville has a small community hospital with a physician-staffed ER. Fisherville Hospital runs a health clinic in Bayport, staffed by a physician assistant. The Bayport EMS (BEMS) staff supports the physician assistant, as well as Central City and Faith Hospital physicians who have patients in Bayport, by working in the clinic

Full use case available: http://www.oasis-open.org/committees/download.php/32041/EDXL use case EMS Callv1.4final.doc.

# 2.2.4 Road Rescue -- Highway Incident Scenario & Use Case

This scenario timeline was pieced together using actual documents supporting the "ROAD RESCUE 06 Exercise Plan", a joint, full scale mass casualty exercise involving Baltimore County, the private sector and the State of Maryland on March 20, 2006.

Full use case available: http://www.oasis-open.org/committees/download.php/32040/RoadRescue06ScenarioV1.3final.doc.

#### 2.2.5 Pandemic Influenza

This scenario models an H5N1 Influenza Pandemic outbreak first detected in South China which then spreads out to global involvement. This use case details the communications using EDXL, during the various stages or phases of response.

Full use case available: http://www.oasis-open.org/committees/download.php/32039/Pandemic Influenza ScenarioV1.7final.doc

# 3 EDXL Situation Reporting Model (Normative unless otherwise stated)

Section 3 of this Standard is normative unless otherwise stated. If any differences are found between any XML schema and its associated model, diagram, table or other artifact or text, then the XML schema shall always take precedence and the other artifact(s) must be changed to match the XML schema.

Note: Please report any such errors to OASIS.

# 3.1 Element Reference Model (Non-normative)

This section shows the EDXL–SitRep Element Reference Model (ERM). The purpose of the ERM is to define the SitRep structure and the relationships between the main entities and their elements. Using the Unified Modeling Language as a means to illustrate the relationships, the ERM is not strictly normative. It is important that the ERM is not used as an implementation model. The exact semantics and structure are captured in the subsequent sections in the specific predefined EDXL Situation Report Message Types.

The ERM is organized into a top level views first and then in groups of related elements with relationships between those groups and the report type in which they are used.

The Supporting Elements Model package is not specifically associated with any report type or group of elements because these sets of elements are common to all EDXL messages and may be used in any EDXL SitRep message to which they apply.

# 3.1.1 Report Types Instantiate Abstract Type IReport (Non-normative)

The EDXLSituationReporting XML Schema is provided separately and included in Appendix B. The top level element (<SitRep> aka <EDXLSitRepRoot>) contains the elements shown in Figure 1. In particular it contains a report-type dependent element report (<report>) of type <IReport>. <IReport> is an Abstract Type that serves as the basis for the five different SitRep report types as shown in Figure 2.

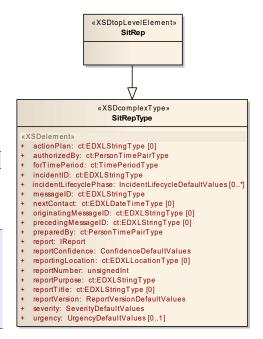


Figure 1: SitRep TopLevel Structure

This is explained in more detail in the Data Dictionary Section.

</xs:complexContent>

</xs:complexType>

Note: the code above declares the Report type based on <IReport> from the XML Schema shown below:

The EDXL Extensions Section elaborates on the "ext:ExtensionType" extension mechanism of EDXL.

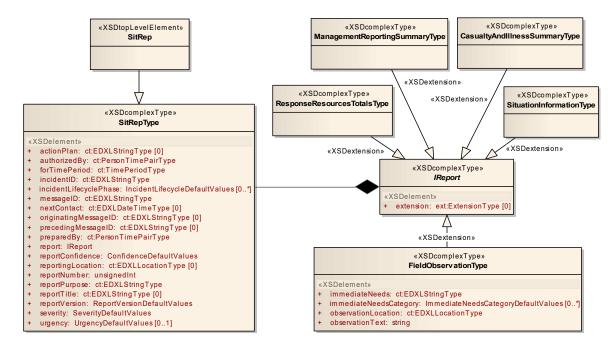


Figure 2: EDXL-SitRep Element Reference Model (ERM) - top level

The SitRep-ERM shows the element-level details for the main entities in EDXL-SitRep overall. The semantics for each of the elements is defined in Sections 3.3.2 through 3.3.5.

# 3.2 Distribution of EDXL-SitRep

The primary purpose of the Emergency Data Exchange Language Situation Reporting (EDXL-SitRep) Specification is to provide a set of standard formats for XML emergency messages containing information pertaining to the situation with which the message senders and recipients are involved. These EDXL-SitRep Messages are specifically designed as payloads of the EDXL-DE. Together EDXL-DE and EDXL-SitRep are intended to expedite activities associated with reporting on various situation and response activities. As set forth in Design Principles, routing and distribution information is found only in the EDXL-DE and not in the EDXL-SitRep.

While the EDXL-SitRep is designed to be an EDXL-DE payload, other routing mechanisms may be used to distribute EDXL-SitRep content if the message metadata is provided in the same form or if the sender specifies specific recipients of the payload.

# 3.2.1 EDXL Distribution Element (EDXL-DE)

EDXL Distribution Element (EDXL-DE) V 1.0 was approved as an OASIS standard in April 2006. The EDXL-DE provides a flexible message-distribution framework for data sharing among emergency

information systems using XML. The EDXL-DE may be used over any data transmission system, including, but not limited to, the SOAP HTTP binding.

The primary purpose of the Distribution Element is to facilitate the routing of emergency messages to recipients. The Distribution Element may be thought of as a container. It provides the information to route "payload" message sets by including key routing information such as distribution type, geography, incident, and sender/recipient IDs. Messages may be distributed to specific recipients, to recipients in a geographic area, or based on codes such as agency type (police, fire, etc.).

The following subsections describe practitioner requirements which are met through the EDXL-Distribution Element (DE).

# 3.2.1.1 Identifying SitRep MessageType

The Requirement for identifying the "Message Type" of the EDXL-SitRep is handled by the <distributionType> element of EDXL-DE v1.0. This is distinct from the "Report Type" of an EDXL-SitRep message. It is expected that most EDXL-SitRep messages will be of <distributionType> "Report" shown below.

The <distributionType> element defines the function of the message and this functional name for the EDXL-SitRep "Message Type" takes the form of an XML enumeration where the value must be one of:

- Report New information regarding an incident or activity.
- Update Updated information superseding a previous message.
- Cancel A cancellation or revocation of a previous message.
- Request A request for resources, information or action.
- Response A response to a previous request.
- Ack Acknowledgment of receipt of an earlier message.
- Error Rejection of an earlier message (for technical reasons).

It is important to note, as will be detailed later, that identifying a text message as a "Request" for a Situation Report is handled by the EDXL <distributionType> element.

# 3.2.1.2 Identifying Message Sender

The Requirement for identifying the "Message Sender" of the EDXL-SitRep is handled by one or two elements of EDXL-DE v1.0. The EDXL-DE v1.0 <senderID> or an element with the identical definition and properties MUST be present in the EDXL-DE or other routing mechanism used to distribute an EDXL-SitRep message. The <senderRole> or an element with the identical definition and properties MAY be present.

<senderRole> is expressed in an XML ValueList and Value.

• The list and associated value(s) is in the form:

• Where the content of <valueListUrn> is the Uniform Resource Name of a published list of values and definitions, and the content of <value> is a string (which may represent a number) denoting the value itself.

 Multiple instances of the <value>, MAY occur with a single <valueListUrn> within the <senderRole> container.

# 3.2.1.3 DateTime Message Sent

The EDXL-DE v1.0 <dateTimeSent> element is used to established the date and time the EDXL-DE package containing the EDXL-SitRep message is sent.

- DateTime elements are represented consistent with previous EDXL standards (24-hour clock):
- The date and time is represented in [DateTime] format (e. g., "2008-06-11T16:49:00-07:00" for 11 June 2008 at 16:49 PDT).
- Alphabetic time zone designators such as "Z" MUST NOT be used. The time zone for UTC MUST be represented as "-00:00" or "+00:00"

# 3.2.1.4 Identifying Situation Report Type

The message payload of an EDXL-DE package is a <contentObject> identified as <xmlContent> with a <contentDescription> of the EDXL-SitRep Report Type, i.e. FieldObservation, SituationInformation, ResponseResourcesTotals, CasualtyAndIllnessSummary or ManagementReportingSummary.

# 3.2.1.5 Multiple Report Types (Content Objects) in the Same 'Message'

The Requirement to carry multiple SitRep reports / report types in the same 'message' is handled by the the EDXL-DE v1.0, which can carry multiple content objects. Each <contentObject> MUST be well-formed <xmlContent>, or <nonXMLContent>. The EDXL-SitRep is designed to be well-formed XML for routing using the EDXL-DE.

Note: EDXL-DE 2.0 is expected to change the names 'xmlContent' and 'nonXMLContent'.

#### 3.2.1.6 MapSketch BinaryObject

The Requirement to carry a SitRep "map" or "sketch" as an object or image is handled by the the EDXL-DE v1.0 <nonXMLContent> object. The map or sketch may, for example provide information about the total incident area or total area of operations.

## 3.2.1.7 IncidentCommandStructureGraphic

A graphic representation for the IncidentCommandStructure detailed in the SitRep may be optionally provided as an aid to understanding the hierarchy of a given organization's or agency's position roles. This should be provided in the form of a graphic image carried by the EDXL-DE message header as separate content object.

#### 3.2.1.8 Signature

A digital version of a signature may optionally be included to provide the authority that authenticates a particular Situation Report. A digital signature must be provided in the form of a graphic image carried by the EDXL-DE message header as separate content object.

#### 3.2.1.9 Sensitivity and Releasability

The Requirement for identifying the "Sensitivity" or "Releasability" of an EDXL-SitRep is handled through the EDXL-DE v1.0 elements <Confidentiality> and <combinedConfidentiality>.

EDXL-DE has a top-level element <combinedConfidentiality> that indicates the confidentiality of the combined "Content Object" sub-elements. Generally the combined confidentiality is the most restrictive of the confidentiality elements in the "Content Object" element, but it can be more restrictive than any of the individual "Confidentiality" elements.

The <combindedConfidentiality> element MUST be present if a "Confidentiality" element is present in any of the "Content Object" elements.

"Confidentiality" elements are specified in ValueList structures and are used to meet the EDXL-SitRep requirements for "Sensitivity Text" approximately equivalent to a set of values like "Top Secret," "Sensitive, and Classified" and "Sensitive, but Unclassified."

"Confidentiality" elements are also used to meet the EDXL-SitRep requirements for "Releasability Level" which might also be approximately equivalent to a set of values above, but which might also be different, even within a single jurisdiction. So each jurisdiction should establish its own published ValueLists and policies governing these issues.

# 3.3 Supporting Elements

# 3.3.1 Common Types

Several Element Types, such as incidentStartDateTime, borrow re-usable elements from the EDXL Common Types that apply to and support multiple areas of the SitRep messages. For instance incidentStartDateTime relies on the EDXL-CT for a common date/time format.

The Supporting Elements Model distinguishes three groups of elements: CommonTypes (EDXL-CT), Contact Information (EDXL-CIQ) and Location Information (EDXL-GSF). In this Specification, only the EDXL-CT elements/types are being used directly; yet some elements in EDXL-CT depend on EDXL-CIQ (e.g. ct:PersonDetailsType) or on EDXL-GSF (e.g. ct:EDXLLocationType).

The following elements are used in this specification and can be found at the locations cited in the normative references in Section 1.6 above.

Supporting Element/Type	Defined In
ct:EDXLDateTimeType	EDXL-CT (Simple Types)
ct:EDXLStringType	EDXL-CT (Simple Types)
ct:CurrencyType	EDXL-CT (Simple Types)
ct:PercentageType	EDXL-CT (Simple Types)
ct:RemarksType	EDXL-CT (Simple Types)
ct:ValueType	EDXL-CT (Simple Types)
ct:EstimateType	EDXL-CT (Simple Types)
ct:PersonTimePairType	EDXL-CT (Complex Types)
ct:TimePeriodType	EDXL-CT (Complex Types)
ct:ValueListType	EDXL-CT (Complex Types)
ct:ValueKeyType	EDXL-CT (Complex Types)
ct:PersonDetailsType	EDXL-CT (Complex Types)
ct:EDXLLocationType	EDXL-CT (Complex Types)
ct:WeatherInfoType	EDXL-CT (Complex Types)
ct:ValueKeyIntPairType	EDXL-CT (Complex Types)
ct:ValueKeyStringPairType	EDXL-CT (Complex Types)
ct:ValueListURI	EDXL-CT (Top Level Elements)
ext:ExtensionType	EDXL-EXT

For a presentation of difference between ValueListType and ValueKeyType, see Appendix C.1: Selecting values from lists.

# 3.3.2 Community Extensions

SitRep supports supplemental inclusion of community-defined sets of name/value pairs, referred to here as "Community Extensions" or simply "Extensions" for short. For example, if you send a DE message with an alert or image about an earthquake, you might want to include some specific earthquake data, like the magnitude and depth of the earthquake. There are no earthquake-specific fields in the DE; however, your community can extend the DE to include that information which you represent as a set of parameter elements specifically designed to represent earthquake data. The "Community Extensions" concept solves several major problems for improving information sharing and developing standards for the emergency management community. First, the nature of emergencies is that the unexpected will happen and emergency managers need flexibility to send whatever information is needed. Second, an emergency begins and often stays local, so local authorities and users need control to send the information they decide is important to address the current emergency. Third, communities need the opportunity to explore potential new standards. The parameter name/value extension mechanism, along with the registration and best practice guidance, provides an on-ramp for communities to determine what works well for them. Those Community Extensions which are most successful can be incorporated formally into future standards. (For more detail see Appendix C.2: EDXL Extensions).

# 3.4 Situation Report Root and Report Types

As further described below, the EDXLSitRepRoot element is the top level element of the EDXL-SitRep message, containing elements used throughout each individual situation report. This section describes the primary components of EDXL-SitRep including the Root element and the five (5) Report Types.

The SitRep framework is based on a report model. In this model messages do not expect a Response, although a situation report can be requested. There is no inherent message exchange protocol represented in this standard.

A SitRep message MUST be carried as the payload of the EDXL-DE or any other distribution mechanism that satisfies the DE required parameters: distribution type values of Report, Update, Cancel, Request, Response, Ack and Error.

For example, the acknowledgement of a SitRep message is handled by the distribution mechanism. When a message recipient receives a SitRep message, it uses the EDXL-DE DistributionType value of "Ack" as an acknowledgement. An acknowledgement is intended to inform the sender that the SitRep message has been received.

EDXL-SitRep communication is characterized by two classes of primary actors An "Incident Command" is an actor that needs or requires a situation report to undertake response decision(s) during an incident. An "Incident Command System" is an owner, or distributor, or manager of situation reports that can meet the needs of Incident Command. These actors need not belong to the same jurisdiction or organization.

EDXL-SitRep provides five (5) situation report messages defined in this standard, which are summarized in Table 1 below.

Table 1: Situation Report Message Type Summary-- informative only. It shows how situation reports might flow in incident command

Message Type	Description	Message Sender
FieldObservationType	Basic report that describes an observation that is directly observed by the reporter (an emergency professional).	On-Scene Incident Command / Planning Section / Situation Unit
SituationInformationType	Message used to provide information on responding resources and resource needs to manage and coordinate resource decisions.	On-Scene Incident Command / Planning Section / Situation Unit
ResponseResourcesTotalsType	Message used to provide information on responding resources and resource needs to manage and coordinate resources.	On-Scene Incident Command / Logis- tics Section
CasualtyAndIllnessSummaryType	Message used to summarize information pertaining to the number and status of categorized casualties and victims of infectious agents associated with the incident.	Incident Command System/ Logistics Section / Services Unit / Medical Services
ManagementReportingSummaryType	Message used to summarize information and data relevant to ongoing management of incident response, typically used within the Incident Command Chain or across such chains between jurisdictions.	Incident Command System / PIO / Logis- tics Section / Com- munications

Table 2 (below) summarizes all the Message Types and their element contents, Including the Situation Report Root elements that can be used in any Message Type. The specific details on each of the Message Types are outlined in the following sections.

Table 2: Message Element Lists and Constraints

Table 2.1: Situation Report Root – applies to all message types

Message Element	[]	Message Element	[]	Message Element	[]
messageID	11	preparedBy	11	authorizedBy	11
reportPurpose	11	reportNumber	11	reportVersion	11
forTimePeriod	11	reportTitle	01	incidentID	1*
incidentLifecyclePhase	0*	originatingMessageID	01	precedingMessageID	0*
urgency	01	reportConfidence	11	severity	11
reportingLocation	01	actionPlan	01	nextContact	01
report	01				

Table 2.2: FieldObservation

Message Element	[]	Message Element	[]	Message Element	[]
observationLocation	11	immediateNeeds	11	immediateNeedsCategory	0*
observationText	11		·		·

Table 2.3: SituationInformation

Message Element	[]	Message Element	[]	Message Element	[]	
primaryIncidentInformation	01	subIncidentInformation	0*			
primaryIncidentInformation / subIncidentInformation						
incidentName	1*	incidentKind	0*	incidentComplexity	01	
incidentStartDateTime	01	geographicSize	11	disasterInformation	0*	
incidentLocation	11	jurisdictionInformation	0*	incidentStaging	0*	
IncidentInformationType.disasterInformation						
disasterName	11	disasterDeclarationAuthority	11	disasterDeclarationDateTime	11	

Note: situationInformation structure is actually a choice:

{{{primaryIncidentInformation [1..1]} {subIncidentInformation [0..\*]}} | {subIncidentInformation [1..\*]}} [1..1]

Table 2.4 ResponseResourcesTotals

Message Element	[]	Message Element	[]	Message Element	[]				
resourceTotal	1*	organizationAndAssignments	1*						
	resourceTotal								
branchDivisionGroup	11	resource	1*						
resourceTotal.resource									
agencyOrganization	11	resourceName	11	resourceTypeCategoryKind	01				
resourceDetail	01	isSufficient	01						
		resourceTotal.resource.resourceDe	etail						
resourcePersonnelCount	01	unassignedResourcePersonnel	01	resourceRequiredCount	01				
resourceCommittedCount	01	resourceOnHandCount	01	resourceStillNeededCount	01				
resourceRequestedCount	01	dateTimeOrdered	01	requestedArrival	01				
estimatedArrival	01	reportToLocation	01	overheadPosition	0*				
workAssignment	01	specialInstructions	01	specialEquipmentAndSupplies	0*				
additionalAssistingOrganizations	01	resourceStatus	01						
	res	courceTotal.resource.resourceDetail.res	ourceSta	ntus					
inventoryRefreshDateTime	11	deploymentStatus	01	availability	11				

organizationAndAssignments						
commandStructure	01	positionTitle	01	personName	01	
branch	01	reportsToPositionTitle	01	reportsToPersonName	01	
reportsToAgency	0*	reportsToBranch	01			

Note: responseResourcesTotals structure is actually a choice: {{resourceTotal [1..1]} | {organizationAndAssignments[1..1]} [1..\*]

Table 2.5 CasualtyAndIllnessSummary

Message Element	[]	Message Element	[]	Message Element	[]			
summaryCount	1*	notifiableDiseaseNumbers	1*					
	summaryCount							
casualtyAndIlInessCountCategory	11	responderSummaryCount	01	nonResponderSummaryCount	01			
responderSummaryCountToDate	01	nonResponderSummaryCountToDate	01	receivedMassImmunizations	01			
requireMassImmunizations	01	shelterCountEstimate	01					
	5	SummaryCount.casualtyAndIllnessCoun	tCatego	у				
countCategory	11	remarks	01	isEstimate	01			
		notifiableDiseaseNumbers						
diseaseSuspected	11	probableCause	11	countOfSuspectedCases	11			
countOfConfirmedCases	11							

Note: casualtyAndIllnessSummary structure is actually a choice: {{summaryCount [1..1] | {notifiableDiseaseNumbers [1..1]}} [1..\*]

Table 2.6 ManagementReportingSummary

Message Element	[]	Message Element	[]	Message Element	[]
situationSummary	11	decisionSupportInformation	01	jurisdictionInformation	0*
		situationSummary			
incidentCause	11	significantEvents	0*	damageAssessmentInformation	01
primaryHazards	11	hazMatIncidentReport	01	extentOfContamination	0*
generalPopulationStatus	01	externalAffairs	01	humanLifeAndSafetyThreat	01
lifeAndSafetyThreat	1*	incidentThreatSummaryAndRisk	0*	followOnIndication	01
infrastructureAffected	0*	debrisManagement	01	propertyDamage	0*
percentContained	01	requestsForAdditionalSupport	01	terrorismNexus	01
weatherEffects	01	WMDEffects	01	transportationSystems	0*
		situationSummary.externalAffair	S		
effectivePublicCommunication	01	talkingPoints	01	rumors	01
		situationSummary.debrisManagen	nent		•
totalDebrisGeneratedCY	01	debrisClearedToDateCY	01	debrisNotYetClearedCY	01
daysToClearanceComplete	01	percentOfJurisdictionWithDebrisImpacts	01	areasWithDebrisImpacts	0*
areasWhereWorkNotStarted	0*	debrisDisposedToDateCY	01	debrisNotYetDisposedCY	01

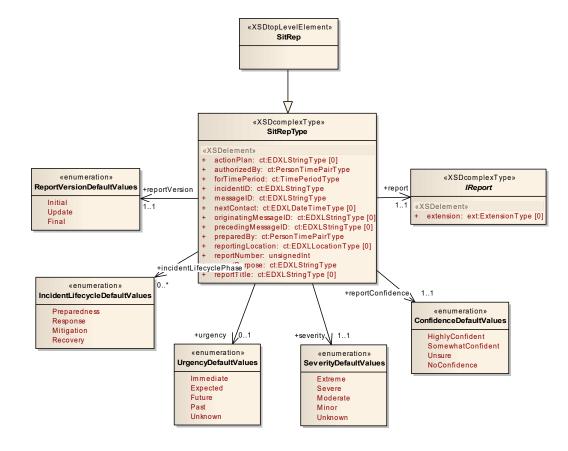
debrisStorageSitesPercentFilled	01	daysToDisposalComplete	01				
	•	situationSummary.propertyDam	age		•		
numberDamaged	11	damageCategory	11				
decisionSupportInformation							
projectedIncidentActivity	01	projectedNumberToBeSheltered	01	criticalResourceNeeds	0*		
projectedFinalIncidentSize	01	anticipatedCompletionDate	01	projectedDemobilizationStartDate	01		
estimatedCostsToDate	01	projectedFinalCosts	01	emergencyResponseIssues	0*		
strategicDiscussion	01	plannedActions	01				
		jurisdictionInformation	2				
name	11	geographicSize	11	location	11		
description	11						

Note: managementReportingSummary structure is actually a choice:

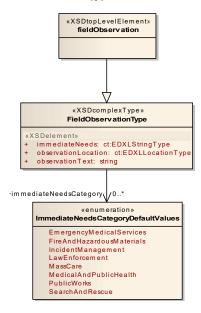
```
{{{situationSummary [1..1]} {decisionSupportInformation [0..1]} {jurisdictionInformation [0..*]}} | {{decisionSupportInformation [1..1]} {jurisdictionInformation [0..*]}} | {jurisdictionInformation [1..*}}
```

# 3.4.1 EDXLSitRep Root Elements

EDXLSitRepRoot elements are the collection of elements shown in the Element Reference Model below. The SitRepRoot is at the top of SitRep structure. These elements are common to all EDXL-SitRep Report types, and each of these elements can appear in any report. In contrast to the Supporting Element Types which are common, re-usable elements applicable across the Emergency Data Exchange Language standards, SitRepRoot elements are specific to EDXL-Situation Reporting.



It is of particular significance to note the relationship of the <fromDateTime> and <toDateTime> elements to their parent element <ForTimePeriod>. In this case, while both child elements are REQUIRED whenever the parent element is present, the parent element itself is REQUIRED, making the entire ensemble REQUIRED.



# 3.4.2 FieldObservation Report Type

## 3.4.2.1 Overview

The "FieldObservation" report type is used as a basic report that describes an observation that is directly observed by the reporter (an emergency professional), consisting of only four elements.

# 3.4.2.2 Field Observation Element Reference Model (Non-normative)

Figure 4 shows the FieldObservation report type Element Reference Model. The ERM shows the element-level details for the main entities in this fundamental report message type.

The schema for a FieldObservation message is supplied separately at http://docs.oasis-open.org/emergency/edxl-sr/v1.0/os/ and can be found in Appendix B.

Figure 4: EDXLSitRep ERM for FieldObservation Report Type

# 3.4.3 SituationInformation Report Type

#### 3.4.3.1 Overview

The "SituationInformation" report message type details the incident to which the current response is being mounted with elements such as incidentName, incidentKind, incidentComplexity and affectedJurisdiction. SituationInformation intends to draw a concise and accurate picture of the situation.

# 3.4.3.2 SituationInformation Element Reference Model

Figure 5 below shows the SituationInformation report type Element Reference Model. The ERM shows the element-level details for the main entities in the SituationInformation report message type.

In addition, there are rules that apply to several elements that should be reviewed in the Message Rules section.

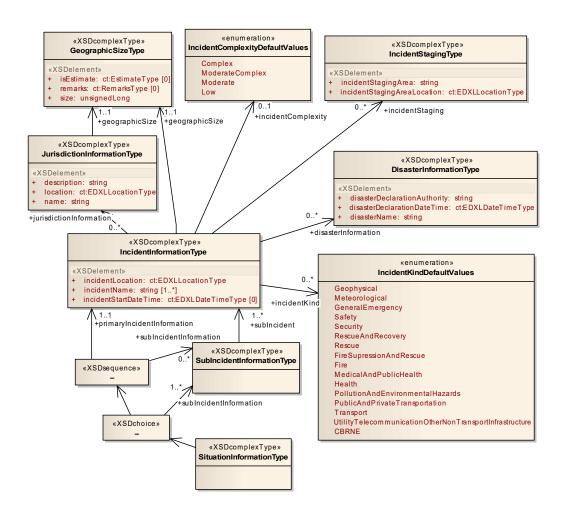


Figure 5: EDXLSitRep ERM for SituationInformation Message

The schema for a SituationInformation message is supplied separately at http://docs.oasis-open.org/emergency/edxl-sitrep/v1.0/os/ and can be found in Appendix B.

# 3.4.4 ResponseResourcesTotals Report Type

#### 3.4.4.1 Overview

The "ResponseResourcesTotals" report type is used to organize and report on the Resources needed or on hand for responding to the current incident.

# 3.4.4.2 ResponseResourcesTotals Element Reference Model

Figure 6 shows the ResponseResourcesTotals report type Element Reference Model. The ERM shows the element-level details for the main entities in the ResponseResourcesTotals report message type.

The schema for a FieldObservation message is supplied separately at http://docs.oasis-open.org/emergency/edxl-sitrep/v1.0/os/ and can be found in Appendix B.

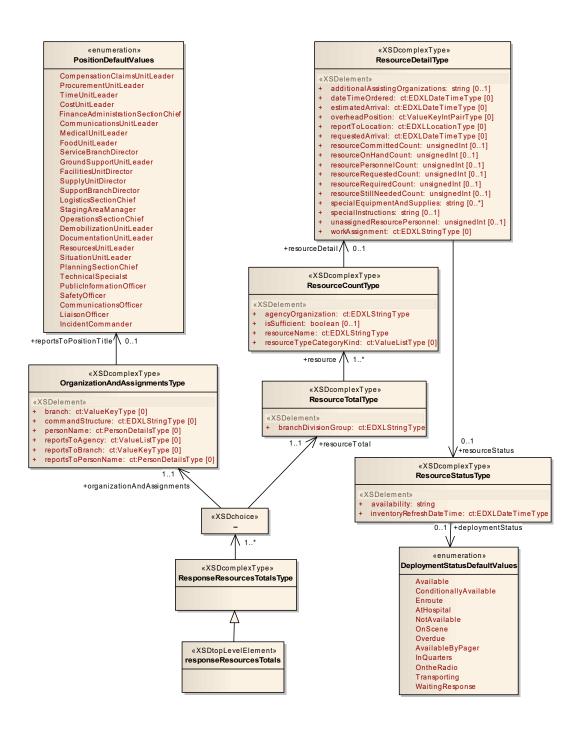


Figure 6: EDXLSitRep ERM for ResponseResourcesTotals Message

The schema for a ResponseResourcesTotals message is supplied separately at http://docs.oasis-open.org/emergency/edxl-sitrep/v1.0/os/ and can be found in Appendix B.

# 3.4.5 CasualtyAndIllnessSummary Report Type

#### 3.4.5.1 **Overview**

The "CasualtyAndIllnessSummary" report type is used to present a collection of vital data about the number and kind of casualties resulting from the incident. It is used by Incident Command to assess edxl-sitrep-v1.0-csprd03

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resource needs related to treating casualties and planning for associated needs such as Field Morgues, Field Hospitals, Temporary Shelters, etc.

# 3.4.5.2 CasualtyAndIllnessSummary Element Reference Model

Figure 7 below shows the CasualtyAndIllnessSummary report type Element Reference Model. The ERM shows the element-level details for the main entities in the CasualtyAndIllnessSummary report message type.

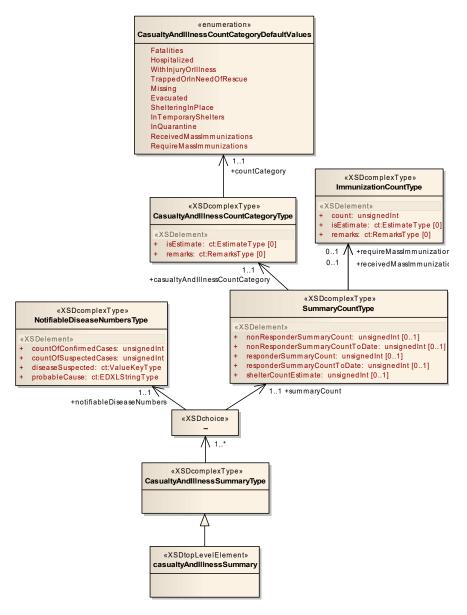


Figure 7 EDXLSitRep ERM for CasualtyAndIllnessSummary Message

The schema for a CasualtyAndIllnessSummary message is supplied separately at http://docs.oasis-open.org/emergency/edxl-sitrep/v1.0/os/ and can be found in Appendix B.

# 3.4.6 ManagementReportingSummary Report Type

#### 3.4.6.1 Overview

The "ManagementReportingSummary" report type is used to compile, organize and report on various aspects of incident management information across responding organizations and up the chain of command.

# 3.4.6.2 ManagementReportingSummary Element Reference Model

Figure 8 below shows the ManagementReportingSummary report type Element Reference Model. The ERM shows the element-level details for the main entities in the ManagementReportingSummary report message type.

The schema for a ManagementReportingSummary message is supplied separately at http://docs.oasis-open.org/emergency/edxl-sitrep/v1.0/os/ and can be found in Appendix B.

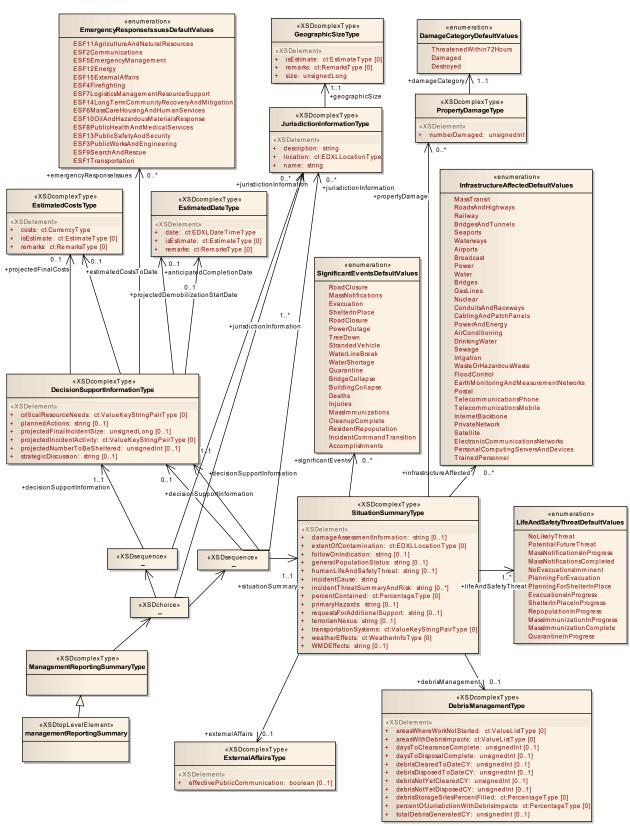


Figure 8: EDXLSitRep ERM for ManagementReportingSummary

# 4 Data Dictionary (Normative)

The data dictionary is intended to provide detailed definition of each element contained in the EDXL-SitRep standard. Where discrepancies may exist between this dictionary, the Element Reference Model (ERM), and the normative XML, the normative XML shall take precedence.

- Element Name of the element.
- Type Type or format of the element.
- Usage Optionality and Cardinality.
  - If no optionality specified, then the element is "Optional".
  - If no Cardinality specified, the element "MUST be used once and only once"
- **Definition** Definition of the element.
- Comments Additional comments or examples to add clarity.
- **Constraints** Limits imposed on the element. Also notes the container or "parent" to which the element belongs.
- Source Source of the requirement or usage of the element.
- Requirements Supported A code representing and referring to each requirement contained in the original submission from the practitioner process to OASIS. EACH general, functional or information requirement is accounted for by one or more elements in the data dictionary, and/or by relationships in the message structure, one or more business rules, or through the overall standard (e.g. for general and functional requirements).

# 4.1 "Routing Header" Elements

The following list of elements / information requirements are addressed through the OASIS EDXL-Distribution Element (DE) routing header (See Section 3.2 of this document for an explanation of each), which is used for routing and distribution of Situation information as well as other EDXL and non-EDXL payloads. The EDXL-SitRep standard is designed as a payload requiring use of a routing header, and specifically designed for use with the EDXL-Distribution Element (DE). The EDXL-DE is the required routing/distribution header for EDXL-SitReps unless an alternative routing header is available which meets all requirements of the EDXL-SitRep standard as specified in this section, and includes each element required of the EDXL-DE standard.

EDXL-SitRep Requirement	EDXL-DE Element(s)
Message Type	DistributionType
MessageSender	SenderID and SenderRole
SensitivityText	Confidentiality and combinedConfidentiality
ReleasabilityLevel	Confidentiality and combinedConfidentiality
Content Containers	"XMLcontent" and "nonXMLcontent" containers
SentDateTime	dateTimeSent
Signature	"nonXMLcontent" containers

# 4.2 EDXL SitRep Top Level Elements

The EDXL-SitRep message consists of a set of core data that are common to all reports and a report specific element named <report> of abstract type <IReport>. <IReport> can be instantiated by any one of the five (5) separate additional data structures, each of which is needed to build one of the five (5) specialized EDXL-SitReps. The schema is provided separately and replicated in Appendix B.

ElementType	SitRepType
Туре	xs:complexType
Definition	Top level element type of all situation reports
Comments	Holds elements common to all report types and a report specific element <report></report>
Constraints	Root element MUST appear once and only once
Valid Values / Examples	
Sub-elements	<ul> <li>messageID [11]: ct:EDXLStringType</li> <li>preparedBy [11]: ct:PersonTimePairType</li> <li>authorizedBy [11]: ct:PersonTimePairType</li> <li>reportPurpose [11]: ct:EDXLStringType</li> <li>reportNumber [1]: xs:unsignedInt</li> <li>reportVersion [11]: ReportVersionDefaultValues</li> <li>forTimePeriod [11]: ct:TimePeriodType</li> <li>reportTitle [01]: ct:EDXLStringType</li> <li>incidentID [1*]: ct:EDXLStringType</li> <li>incidentLifecyclePhase [0*]: IncidentLifecycleDefaultValues</li> <li>originatingMessageID [01]: ct:EDXLStringType</li> <li>precedingMessageID [0*]: ct:EDXLStringType</li> <li>urgency [01]: UrgencyDefaultValues</li> <li>reportConfidence [11]: ConfidenceDefaultValues</li> <li>severity [11]: SeverityDefaultValues</li> <li>reportingLocation [01]: ct:EDXLLocationType</li> <li>actionPlan [01]: ct:EDXLStringType</li> <li>nextContact [01]: ct:EDXLDateTimeType</li> <li>report [11]: IReport</li> </ul>
Used in	sitRep
Requirements Supported	SitRep Use Cases

# 4.2.1 IReport Type

The <report> element in SitRepType is a placeholder for report specific data. It is an abstract type that is instantiated by any one of the five (5) separate additional data structures, each of which is needed to build one of the five (5) specialized EDXL-SitReps.

This means that <IReport> is not directly used in an instance document. It is instantiated by a report specific type that extends the abstract type <IReport> and complements it with report specific, as shown here:

<xs:element name="Report" type="IReport" minOccurs="1" maxOccurs="1"/>

Report can then be used to declare the Report Type of any given EDXL-SitRep message as shown here:

<Report xsi:type="FieldObservation">

ElementType	IReport
Туре	xs:complexType abstract
Definition	Abstract Type used to characterize an EDXL-SitRep message as one of five (5) predefined kinds such as "FieldObservation".
Comments	See section 3.1.1 for diagrammatic representation of the relationship between IReport and Report.
Constraints	IReport MUST NOT be used directly in any EDXL-SitRep message of any Report Type. It is part of the XML Schema against which implementations need to be validated.
Valid Values / Examples	
Sub-elements	Extension [0*]: ext:ExtensionType
Used in	SitRepType
Requirements Supported	Message types

The five (5) distinct "Reports", defined in Sections 3.4.2 through 3.4.5, provide a method to componentize the overall EDXL-SitRep standard into logical groups of elements that support a common purpose.

For example, the 'Casualty and Illness Summary' is focused only on rollup or aggregation of numbers and percentages representing human casualties by categories such as fatalities, hospitalized or missing.

# 4.2.2 Common SitRep Elements

<sitRep> is the top level element of any sitRep message. It contains a set of shared message elements used across the five (5) predefined EDXL-SitRep "Reports", that convey information such as MessageID, PreparedBy and ForTimePeriod.

Element	messageID
Туре	ct:EDXLStringType
Usage	REQUIRED [11]
Definition	Each EDXL-SitRep contains an identifier that uniquely identifies the EDXL-SitRep message / Report.
Comments	The EDXL Distribution Element contains the "Distribution ID", which identifies the container for the distribution message information. messageID is the same element as

	used in EDXL-RM.
Constraints	Used in EDXLSitRepRoot element / container
Part of	SitRepType
Source	SitRep Use Cases, EDXL-RM
Requirements Supported	MessageID

Element	preparedBy
Туре	ct:PersonTimePairType
Usage	REQUIRED [11]
Definition	The person name and/or PositionTitle (ICSPositionTitle when an Incident Management Organization is in place) of the person preparing the information that makes up the message / report and the associated DateTime that this report was prepared
Comments	The preparedBy/Reporter/Originator may be different from the sender. Synonyms found in the NIMS SitRep: "Originator", "Reporter"
Constraints	Used in EDXLSitRepRoot element / container
Part of	SitRepType
Source	ICS-209
Requirements Supported	Contact-Role-Enumerations, Report-DateTime-Information

Element	authorizedBy
Туре	ct:PersonTimePairType
Usage	REQUIRED [11]
Definition	The person name and/or PositionTitle (ICSPositionTitle when an Incident Management Organziation is in place) of the person formally authorizing the information that makes up the message / report and the associated DateTime that this report was prepared
Comments	When an incident Management Organization is in place, this would be the Planning Section Chief or Incident Commander at the incident. On other incidents, it could be the jurisdiction's dispatch center manager, organizational administrator, or other manager.
Constraints	Used in EDXLSitRepRoot element / container
Part of	SitRepType
Source	ICS-209
Requirements Supported	Contact-Role-Enumerations, Report-DateTime-Information

Element	reportPurpose
Туре	ct:EDXLStringType
Usage	REQUIRED [11]
Definition	States the purpose of this Situation Report. May contain description information regarding why the report is being sent and required response or action, if any.
Comments	
Constraints	Used in SitRep element / container
Part of	SitRepType
Source	Found in some local incident/situation reports.
Requirements Supported	Report Purpose

Element	reportNumber
Туре	ct:EDXLStringType
Usage	REQUIRED [11]
Definition	A unique number for reporting an incident or event, used to identify each new or updated report instance. Used to support report tracking.
Comments	EXAMPLE: reportNumber is "12345" reportVersion is "Initial" (of Report # 12345)
Constraints	Used in SitRep element / container
Part of	SitRepType
Source	ICS-209
Requirements Supported	Report-Number-Version

Element	reportVersion
Туре	ct:ValueType
Usage	REQUIRED [11]
Definition	This indicates the current version of the specific SitRep MessageReportType report being submitted from the same source ("authorizedBy") for the same incident or event. If only one SitRep will be submitted, indicate BOTH "Initial" and "Final".
	Default value list: ReportVersionDefaultValues
Comments	

Constraints	Used in SitRep element / container
Part of	SitRepType
Source	ICS-209
Requirements Supported	Report-Number-Version

Element	forTimePeriod
Туре	ct:TimePeriodType
Usage	REQUIRED [11]
Definition	forTimePeriod designates the period of time between the <fromdatetime> and the <to-datetime> elements whose definitions immediately follow this element definition. forTimePeriod is used by the <reportnumber> and <reportversion> elements whose definitions immediate precede this element definition forTimePeriod SHOULD include all of the time since the last <sitrep> <reportnumber>/<reportversion> of this type was submitted. However, if this report is the originating EDXL-SitRep message for an incident, it should cover the time lapsed since the incident or event started. The forTimePeriod element MUST include one operational period, but MAY also include more than one Operational Period based on agency/organizational reporting requirements.  All elements of information contained in a given EDXL-SitRep message report type always apply only to the forTimePeriod specified by the <fromdatetime> and the <todatetime>.</todatetime></fromdatetime></reportversion></reportnumber></sitrep></reportversion></reportnumber></to-datetime></fromdatetime>
Comments	
Constraints	Used in SitRep element / container
Part of	SitRepType
Source	ICS 203, 207, 209, 215
Requirements Supported	Report-DateTime-Information

Element	reportTitle
Туре	ct:EDXLStringType
Usage	OPTIONAL [01]
Definition	reportTitle is the designation of a more specific title for the SitRep report other than or in addition to the title given as the value of the <sitrep> element.</sitrep>
Comments	Used to give a more particular title to an incident
Constraints	Used in SitRep element / container

Part of	SitRepType
Source	ICS-209
Requirements Supported	Report-Number-Version

Element	incidentID
Туре	ct:EDXLStringType
Usage	REQUIRED; MAY be used more than once [1*]
Definition	The name or other identifier of the incident to which the current message refers, that has been assigned to the incident by an authorized agency based on current guidance. The incident number may vary by jurisdiction and profession (e.g. law enforcement vs. Fire). The incident number may be a computer aided dispatch number, an accounting number, a disaster declaration number, or a combination of the state, unit/agency, and dispatch system number. "Unknown" is an acceptable value.
Comments	
Constraints	Used in SitRep element / container
Part of	SitRepType
Source	ICS 209 ("IncidentNumber")
Requirements Supported	Incident-Identifier

Element	incidentLifecyclePhase
Туре	ct:ValueType
Usage	OPTIONAL; MAY be used more than once [0*]
Definition	A code specifying the incident response lifecycle stage currently in effect
Comments	
Constraints	Default value list: IncidentLifecycleDefaultValues     Used in SitRep "SituationInformation" Report Type
Part of	SitRepType
Source	
Requirements Supported	IncidentLifecyclePhase

Element originatingMessageID	
------------------------------	--

Туре	ct:EDXLStringType
Usage	OPTIONAL [01]
Definition	Each EDXL-SitRep message contains a <messageid> that uniquely identifies the message. <originatingmessageid> identifies the <messageid> of the first message in a message sequence to which the message belongs. If the message is itself the originating message in a new sequence, <originatingmessageid> will have the same value as the <messageid> element. In some other cases, the <originatingmessageid> element will have the same value as the <pre>precedingMessageID&gt; element. The <originatingmessageid> value essentially forms a unique identifier for a group of related messages, linking them together so that the relationship between the messages is made explicit and unambiguous (and threads of messages can be tracked by software).</originatingmessageid></pre></originatingmessageid></messageid></originatingmessageid></messageid></originatingmessageid></messageid>
Comments	<ul> <li>Used to keep track of a string of related SitReps; especially given the fact that different jurisdictions may refer to the same incident or event in different ways and even define those different ways.</li> <li>This MessageID is a SitRep MessageID, not an EDXL-Distribution Element MessageID.</li> <li>Re-uses the same element as used in EDXL-RM</li> <li>Should be included if known</li> </ul>
Constraints	Used in SitRep element / container
Part of	SitRepType
Source	
Requirements Supported	MessageID

Element	precedingMessageID
Туре	ct:EDXLStringType
Usage	OPTIONAL; MAY be used once and only once. [0*]
Definition	The PrecedingMessageID identifies the message that immediately preceded the current message in the message sequence. This messageID is a SitRep <messageid> not an EDXL-Distribution Element MessageID.</messageid>
Comments	<ul> <li>Typically SitReps are sequential from a given sender or authoritative source, but parallel SitReps will occur from several senders or sources.</li> <li>This is particularly important given the fact that different jurisdictions may refer to the same incident or event in different ways and even define them differently.</li> </ul>
Constraints	Used in SitRep element / container
Part of	SitRepType
Source	
Requirements Supported	MessageID

Element	urgency
Туре	ct:ValueType
Usage	OPTIONAL [01]
Definition	The code denoting the importance and necessity of the SitRep message
Comments	<ul> <li>The <urgency>, <severity> and <reportconfidence> elements collectively distinguish less emphatic from more emphatic messages.</reportconfidence></severity></urgency></li> <li>Default value list: UrgencyDefaultValues</li> </ul>
Constraints	Used in SitRep element / container
Part of	SitRepType
Source	SitRep Use Cases, Common Alerting Protocol (CAP)
Requirements Supported	Urgency

Element	reportConfidence
Туре	ct:ValueType
Usage	REQUIRED [11]
Definition	The code denoting the level of confidence or sureness in the content of the EDXL-SitRep message, endorsed by the officer in the "AuthorizedBy" role.
Comments	<ul> <li>The <urgency>, <severity> and <reportconfidence> elements collectively distinguish less emphatic from more emphatic messages.</reportconfidence></severity></urgency></li> <li>Default value list: ConfidenceDefaultValues</li> </ul>
Constraints	Used in SitRep element / container
Part of	SitRepType
Source	SitRep Use Cases, Common Alerting Protocol (CAP)
Requirements Supported	ReportConfidence

Element	severity
Туре	ct:ValueType
Usage	REQUIRED [11]
Definition	The code denoting the severity of the subject incident or event.

Comments	<ul> <li>The <urgency>, <severity> and <reportconfidence> elements collectively distinguish less emphatic from more emphatic messages.</reportconfidence></severity></urgency></li> <li>Re-uses the same element as used in EDXL CAP 1.2</li> <li>Default value list: SeverityDefaultValues</li> </ul>
Constraints	Used in SitRep element / container
Part of	SitRepType
Source	SitRep Use Cases (not found in research, ICS or DHS forms)
Requirements Supported	Severity

Element	reportingLocation
Туре	ct:EDXLLocationType
Usage	OPTIONAL [01]
Definition	A structure representing the physical location and/or organization associated with the <pre></pre>
Comments	
Constraints	Used in SitRep element / container
Part of	SitRepType
Source	
Requirements Supported	Incident-Resource-Operational-Planning,
ported	Incident-Resource-Commitment-Summary

Element	actionPlan
Туре	ct:EDXLStringType
Usage	OPTIONAL [01]
Definition	General description of what the officer in the <pre></pre>
Comments	Synonyms of ActionPlan include "Way Forward," "Next Steps," "Moving On"
Constraints	Used in SitRep element / container
Part of	SitRepType

Source	National Incident Management System (NIMS)
Requirements Supported	Action-Plan

Element	nextContact
Туре	ct:EDXLDateTimeType
Usage	OPTIONAL [01]
Definition	DateTime of next contact or report planned by the <pre>preparedBy&gt;</pre> role to set expectations for provision or receipt of updated or additional information.
Comments	
Constraints	Used in SitRep element / container
Part of	SitRepType
Source	NIMS
Requirements Supported	Next-Contact

Element	report
Туре	IReport
Usage	REQUIRED; MUST be used once and only once [11]
Definition	<report> is the element used to create an instance of the IReport abstract type and through it, to specify the EDXL-SitRep Report Type of the message in which it is used.</report>
Comments	
Constraints	<ul> <li><report> MUST declare one of the five specific EDXL-SitRep Report Types:         <ul> <li>fieldObservation [01]: FieldObservationType</li> <li>situationInformation [01]: SituationInformationType</li> <li>responseResourcesTotals [01]: ResponseResourcesTotalsType</li> <li>casualtyAndIllnessSummary [01]: CasualtyAndIllnessSummaryType</li> <li>managementReportingSummary [01]: ManagementReportingSummaryType</li> </ul> </report></li> </ul>
Part of	SitRepType
Source	Used in the SitRep element / container
Requirements Supported	

#### 4.3 FieldObservation Report Type

The FieldObservation Report provides a basic Report Type intended for fast and flexible observation in the field by emergency response & management professionals, providing a collection of facts usually detected by human parties acting as mobile sensors and presented using plain text. Input sources will generally be mobile phones and other mobile devices.

The purpose of a Field Observation is to offer a standardized method of providing "on the ground" input from responders in the field. The intent is standardized receipt of Field Observations, which then may undergo verification and/or integration into formal Situation Reporting.

ElementType	FieldObservationType
Туре	xs: complexType extends IReport
Definition	FieldObservation refers to directly observed phenomena in the field reported by the actual witness to the events reported in this EDXL-SitRep report message type.
	This is an intentionally general report type meant to be reported as immediately and directly as possible.
Comments	Speculation, even if based on experience is discouraged in this report type, so discussion of the past causes and future development are not specifically included.
	FieldObservation is intended to be quick and brief to expedite the quickest possible appropriate response.
Constraints	Used in EDXL-SitRep FieldObservation report type.
Valid Values / Examples	
Sub-elements	<ul> <li>observationLocation [11]: ct:EDXLLocationType</li> <li>immediateNeeds [11]: ct:EDXLStringType</li> <li>immediateNeedsCategory [0*]: ImmediateNeedsCategoryDefaultValues</li> <li>observationText[11]: xs:string</li> </ul>
Used in	SitRepType
Requirements Supported	Flexibility

Element	observationLocation
Туре	ct:EDXLLocationType
Usage	REQUIRED [11]
Definition	A structure and/or textual description representing the physical location of the situation being observed, as opposed to the <reportinglocation> which represents the location of the observer or reporter.</reportinglocation>
Comments	
Constraints	<ul> <li>Needs the highest degree of accuracy possible given the limitations of the situation.</li> <li>Used in EDXL-SitRep FieldObservation report type</li> </ul>
Part of	FieldObservationType

Source	
Requirements Supported	Supporting Elements: Location Information

Element	immediateNeeds
Туре	ct:EDXLStringType
Usage	REQUIRED [11]
Definition	A textual description of any pressing needs that the observer feels must be dispatched or provided urgently.
Comments	<ul> <li>Intended to give advance notice of Resource Needs.</li> <li>Not intended to replace EDXL-RM,</li> </ul>
Constraints	
Part of	FieldObservationType
Source	
Requirements Supported	Coordination-with-EDXL-RM, Response-Resource-Information

Element	immediateNeedsCategory
Туре	ct:ValueType
Usage	OPTIONAL; MAY be used more than once [0*]
Definition	A category or classification of any pressing needs that the observer feels must be dispatched or provided urgently.
Comments	
Constraints	Default value list: ImmediateNeedsCategoryDefaultValues
Part of	FieldObservationType
Source	
Requirements Supported	Coordination-with-EDXL-RM, Response-Resource-Information

Element	observationText
Туре	xs:string

Usage	REQUIRED [11]
Definition	Description of the situation being observed and reported.
Comments	
Constraints	
Part of	FieldObservationType
Source	
Requirements Supported	Coordination-with-EDXL-RM, Response-Resource-Information

#### 4.4 SituationInformation Report Type

The SituationInformation Report Type identifies and describes the incident with which the message is concerned.

SituationInformation is also supported by the following re-usable elements found in the Supporting Elements (Section 3.3)

- Remarks
- LocationSize (LocationInformation)
- edxl-gsf [XML Structure] (LocationInformation)
- edxl-ciq [XML Structure] (ContactInformation)

Note: The combination of edxl-gsf & edxl-ciq contain a set of re-usable elements such as ContactDescription, ContactRole, ContactLocation, EDXLLocationType, and AdditionalContactInformation.

ElementType	SituationInformationType
Туре	xs:complexType extends IReport
Definition	Identifies and describes the incident with which the message is concerned
Comments	situationInformation structure is a choice:  {{{primaryIncidentInformation [11]} {subIncidentInformation [0*]}}   {subIncidentInformation [1*]}} [11]
Constraints	Used in EDXL-SitRep SituationInformation report type.
Valid Values / Examples	
Sub-elements	primaryIncidentInformation [01]: IncidentInformationType

	subIncidentInformation [0*]: SubIncidentKInformationType
Used in	SitRepType
Requirements Supported	Flexibility

Element	primaryIncidentInformation
Туре	IncidentInformationType
Usage	OPTIONAL [01]
Definition	The primaryIncidentInformation identifies and describes the initial incident.
Comments	
Constraints	Used in SitRep "Situation Information" Report Type
Part of	SituationInformationType
Source	ICS 209
Requirements Supported	Incident-Identifier

### 4.4.1 SubIncidentInformationType

SubIncidentInformationType elements are sequences of subIncidents that describe complex incidents

ElementType	SubIncidentInformationType
Туре	xs:sequence
Definition	A sequence of subincidents of type IncidentInformationType
Comments	
Constraints	
Valid Values / Examples	
Sub-elements	subIncident [1*]: IncidentInformationType
Used in	IncidentInformationType
Requirements Supported	Incident-Identifier

### 4.4.2 IncidentInformationType

IncidentInformationType elements identify the key items common to all incidents such as Name, Type, Complexity, etc.

ElementType	IncidentInformationType
Туре	xs:complexType
Definition	Identifies elements common to all incidents
Comments	
Constraints	
Valid Values / Examples	
Sub-elements	<ul> <li>incidentName [1*]: xs:string</li> <li>incidentKind [0*]: IncidentKindDefaultValues</li> <li>incidentComplexity [01]: IncidentComplexityDefaultValues</li> <li>incidentStartDateTime [01]: ct:EDXLDateTimeType</li> <li>geographicSize [11]: GeographicSizeType</li> <li>disasterInformation [0*]: DisasterInformationType</li> <li>incidentLocation [11]: ct:EDXLLocationType</li> <li>jurisdictionInformation [0*]: JurisdictionInformationType</li> <li>incidentStaging [0*]: IncidentStagingType</li> </ul>
Used in	SituationInformationType.primaryIncidentInformation, SubIncidentInformationType
Requirements Supported	Incident-Identifier

Element	incidentName
Туре	xs:string
Usage	REQUIRED; MAY be used more than once [1*]
Definition	The name assigned to the incident (often by the Incident Commmander or lead Agency).
Comments	Situation Information MUST carry one or multiple incident names. A formally declared incident may have a name which can change during the incident lifespan. Previous names MUST be carried. In addition, the same incident is sometimes assigned different names by different jurisdictions, organizations or agencies. These multiple incident names MUST be carried.
Constraints	Used in SitRep "SituationInformation" Report Type
Part of	IncidentInformationType
Source	ICS 201, 203, 207, 209, 215
Requirements Supported	Incident-Name; Incident-Identifier

Element	incidentKind
Туре	ct:ValueType

Usage	OPTIONAL; MAY be used more than once [0*]
Definition	General type or category of Incident.
Comments	
Constraints	<ul> <li>Default value list: IncidentKindDefaultValues</li> <li>Used in SitRep "SituationInformation" Report Type</li> </ul>
Part of	IncidentInformationType
Source	DHS InitialSitRep, DHS Spot Report, ICS-209
Requirements Supported	Incident-Type

Element	incidentComplexity
Туре	ct:ValueType
Usage	OPTIONAL [01]
Definition	Information indicating the complexity, complications, level of difficulty or cross-profession / jurisdiction / organization aspects involved in addressing or responding to the incident.
Comments	ICS-209 term = "Incident Type or Complexity Level"
Constraints	<ul> <li>Default value list: IncidentComplexityDefaultValues</li> <li>Used in SitRep "Situation Information" Report type</li> </ul>
Part of	IncidentInformationType
Source	ICS 209, practitioners
Requirements Supported	Incident-Complexity

Element	incidentStartDateTime
Туре	ct:EDXLDateTimeType
Usage	OPTIONAL [01]
Definition	The Date and Time the Incident started or was first observed.
Comments	Always paired with the element "Estimate" (Boolean) to indicate whether the DateTime is estimated vs. known.  • See Appendix C: Time Elements
Constraints	Used in SitRep "Situation Information" element / container

Part of	IncidentInformationType
Source	ICS 209
Requirements Supported	Incident-Start-DateTime

Element	geographicSize
Туре	GeographicSizeType
Usage	REQUIRED [11]
Definition	The two-dimensional geographic footprint of the incident measured in meters squared, providing the overall size of the incident in terms of geography.
Comments	<ul> <li>May be used with the common element "Estimate" to indicate whether the size is estimated or known.</li> <li>May be used with the common element "Remarks"</li> </ul>
Constraints	Used in SitRep "Situation Information" Report Type
Part of	IncidentInformationType, JurisdictionInformationType
Source	
Requirements Supported	Incident-Size

Element	incidentLocation
Туре	ct:EDXLLocationType
Usage	REQUIRED [11]
Definition	The physical location of the incident applying reusable <edxllocationtype> components to express location information using a variety of options including geopolitical (e.g. addresses) and geospatial (e.g. lat/long).</edxllocationtype>
Comments	
Constraints	Used in SitRep "Situation Information" Report Type.
Part of	IncidentInformationType
Source	ICS-209
Requirements Supported	Incident-Location

Element	disasterInformation
Туре	DisasterInformationType
Usage	OPTIONAL; MAY be used more than once [0*]
Definition	An XML structure containing the following three required elements:      disasterName     disasterDeclarationAuthority     disasterDeclarationDateTime disasterInformation provides information about any disaster(s) that are associated with this incident
Comments	
Constraints	Used in SitRep "SituationInformation" Report Type
Part of	IncidentInformationType
Source	SitRep Use Cases
Requirements Supported	Incident-Identifer

Element	jurisdictionInformation
Туре	JurisdictionInformationType
Usage	REQUIRED; MAY be used more than once (one for each Staging Area) [1*]
Definition	The physical location of each IncidentStagingArea applying reusable EDXLLocationType-components to express location information using a variety of options including geopolitical (e.g. addresses) and geospatial (e.g. lat/long).  Part of the IncidentStaging XML structure.and always paired with IncidentStagingArea
Comments	3 3 7 1 3 3
Commonte	
Constraints	Used in SitRep "Situation Information" Report Type
Part of	IncidentInformationType,
Part Oi	ManagementReportingSummaryType
Source	ICS 209
Requirements Supported	Incident-Staging-Areas

Element	incidentStaging
Туре	IncidentStagingType

Usage	OPTIONAL; MAY be used more than once (one for each Staging Area) [0*]
Definition	The physical location of each IncidentStagingArea applying reusable EDXLLocationType components to express location information using a variety of options including geopolitical (e.g. addresses) and geospatial (e.g. lat/long).
	Part of the IncidentStaging XML structure; always paired with IncidentStagingArea
Comments	
Constraints	Used in SitRep "Situation Information" Report Type
Part of	IncidentInformationType
Source	ICS 209
Requirements Supported	Incident-Staging-Areas

ElementType	IncidentStagingType
Туре	xs:complexType
Definition	
Comments	
Constraints	
Valid Values / Examples	
Sub-elements	<ul> <li>IncidentStagingArea [[11]: xs:string</li> <li>incidentStagingAreaLocation [11]: ct:EDXLLocationType</li> </ul>
Used in	IncidentInformationType.incidentStaging
Requirements Supported	

## 4.4.2.1 DisasterInformation Complex Type

ElementType	DisasterInformationType
Туре	xs:complexType
Definition	
Comments	
Constraints	
Valid Values / Examples	
Sub-elements	disasterName [11]: xs:string

	<ul> <li>disasterDeclarationAuthority [11]: xs:string</li> <li>disasterDeclarationDateTime [11]: ct:EDXLDateTimeType</li> </ul>
Used in	IncidentInformationType.disasterInformation
Requirements Supported	

Element	disasterName
Туре	xs:string
Usage	REQUIRED [11]
Definition	The name assigned to the disaster that is associated with this incident by the Disaster-DeclarationAuthority.
	Part of the DisasterInformation XML structure.
Comments	
Constraints	Used in SitRep "SituationInformation" Report Type
Part of	DisasterInformationType
Source	SitRep Use Cases
Requirements Supported	Incident-Identifer

Element	disasterDeclarationAuthority
Туре	xs:string
Usage	REQUIRED [11]
Definition	The organization, agency or authority that officially declared the disaster that is associated with this incident.
	Part of the DisasterInformation XML structure.
Comments	
Constraints	Used in SitRep "SituationInformation" Report Type
Part of	DisasterInformationType
Source	SitRep Use Cases
Requirements Supported	Incident-Identifer

Туре	ct:EDXLDateTimeType
Usage	REQUIRED [11]
Definition	The Date and Time a formal disaster is declared by an authority
Comments	
Constraints	Used in SitRep "Situation Information" Report Type
Part of	DisasterInformationType
Source	SitRep Use Cases
Requirements Supported	Report-DateTime-Information

#### 4.5 ResponseResourcesTotals Report Type

The ResponseResourcesTotals Report Type contains elements to identify resource needs and resources to meet those needs. These elements are used to manage and coordinate resource decisions. For each Resource "TypeCategoryKind" a "Count" MUST be present.

Elements from the following EDXL-RM container elements MAY be used as input to ResponseResourcesTotals Report Types.

- Resource
- Ownership Information
- Resource Information
- Schedule Information with all ScheduleTypes
- Assignment Information
- · Assignment Instructions

Response Resource contains zero to many ResponseResource Elements of Type ResponseResourceType

For each ResponseResource element of Type ResponseResourceType, one and only one of each ResponseResourceDetail Element of Type ResponseResourceDetailType is allowed.

Counts contained in the Response Resource Detail are provided for each Resource / Resource Type/Category/Kind supplied by an agency within a Branch, Division or Group.

EXAMPLE: The following provides a partial example of resource counts (and totals), but does not include all elements. Note that EDXL-SitRep carries resource count information; however totals are not carried by this structure. Totals are to be calculated by end applications.

	Branch/Dlv./Group -1							
Agency / Organization	Resource Name	Resource Type/Cnt/Kind	Required	8 Personnel moodsted w/ Rgd resource	Committed	On-Hand	Still Needed	Anquested
FEMA	Mobile Field Kitchen - Food & Water	TypeII	3	2	3	0	3	3
FEMA	Shelter Management Team	Typel	2	6	1	0	1	2
FEMA	Special-Needs Shelter	TypeIII	2	1	0	0	2	2
State of TN	Water Truck	TypeII	1	1	1	1	0	0
State of TN	Crew Transport	Typell	2	1	2	2	0	0
State of TN	Debris Management Section	Typel	2	8	0	0	2	0
	Dozer (Bulldozer; Track Dozer)	TypeII	2	1	1	1	1	1
8	TOTAL		14	20	8	4	9	8

ElementType	ResponseResourcesTotalsType
Туре	xs:complexType extends IReport
Definition	
Comments	responseResourcesTotals structure consists of one or more repetitions of a choice: {{resourceTotal [11]}   {organizationAndAssignments[11]} [1*]
Constraints	
Valid Values / Examples	
Sub-elements	<ul> <li>resourceTotal [1*]: ResourceTotalType</li> <li>organizationAndAssignments [1*]: OrganizationAndAssignmentsType</li> </ul>
Used in	responseResourcesTotals
Requirements Supported	Response-Resource-Information

Element	resourceTotal	
Туре	ResourceTotalType	
Usage	OPTIONAL; MAY be used more than once [0*]	
Definition	The current total count (available inventory) of a given resource.	
Comments		
Constraints		
Part of	ResponseResourcesTotalsType	
Source		
Requirements Supported	Response-Resource-Information	

Element	organizationAndAssignments	
Туре	OrganizationAndAssignmentsType	
Usage	OPTIONAL; MAY be used more than once [0*]	
Definition	IncidentCommand Structure documentation and Assignments	
Comments		
Constraints		
Part of	ResponseResourcesTotalsType	
Source		
Requirements Supported	Incident-Command-Structure, Incident-Command-Organization	

## 4.5.1 ResourceTotal Complex Types

ElementType	ResourceTotalType
Туре	xs:complexType
Definition	
Comments	
Constraints	
Valid Values / Examples	
Sub-elements	<ul> <li>branchDivisionGroup [11]: ct:EDXLStringType</li> <li>resource [1*]: ResourceCountType</li> </ul>
Used in	ResponseResourcesTotalType.resourceTotal
Requirements Supported	

Element	branchDivisionGroup
Туре	ct:EDXLStringType
Usage	REQUIRED [11]
Definition	Name of an Incident Command Branch, Division, or Group, or their leadership title or name, or the name of a location (such as a "staging area") committing each Type / Category or Kind of resource

Comments	Supported by the edxl-ciq [XML Structure]			
Constraints	Used in EDXL-SitRep ResponseResourceTotals Report Type.			
Part of	ResourceTotalType			
Source	ICS 215			
Requirements Supported	Incident-Resouce-Commitment; Incident-Resource-Operational-Planning; Incident-Command-Organization			

Element	resource
Туре	ResourceCountType
Usage	REQUIRED; MAY be used more than once [1*]
Definition	Specific individual named resource,
Comments	
Constraints	
Part of	ResourceTotalType
Source	
Requirements Supported	

## 4.5.1.1 ResourceCount Complex Types

ElementType	ResourceCountType
Туре	xs:complexType
Definition	
Comments	
Constraints	
Valid Values / Examples	
Sub-elements	<ul> <li>agencyOrganization [11]: ct:EDXLStringType</li> <li>resourceName [11]: ct:EDXLStringType</li> <li>resourceTypeCategoryKind [01]: ct:ValueListType</li> <li>resourceDetail [01]: ResourceDetailType</li> <li>isSufficient [01]: xs:boolean</li> </ul>
Used in	ResourceTotalType.resource
Requirements Supported	

Element	agencyOrganization
Туре	ct:EDXLStringType
Usage	REQUIRED [11]
	The Agency or Organization contributing the resource(s) to the incident, perhaps through mutual aid agreements.  An agency is a type of organization, which is a division of government with a specific func-
Definition	tion, or a nongovernmental organization (e.g., private contractor, business, etc.) that offers a particular kind of assistance. In ICS, agencies are defined as jurisdictional (having statutory responsibility for incident mitigation) or assisting and/or cooperating (providing resources and/or assistance)
Comments	Supported by the edxl-ciq [XML Structure]
Constraints	Used in EDXL-SitRep ResponseResourcesTotals Report Type
Part of	ResourceCountType
Source	ICS-209, 215j
Requirements Supported	Incident-Resource-Commitment; Incident-Resource-Operational-Planning;Incident-Command-Organization

Element	resourceName
Туре	ct:EDXLStringType
Usage	REQUIRED [11]
Definition	A name or title of the resource used for identification and tracking.
Comments	
Constraints	Used in EDXL-SitRep ResponseResourcesTotals Report Type.
Part of	ResourceCountType
Source	ICS 209
Requirements Supported	Response Resources-Information

Element	resourceTypeCategoryKind
Туре	ct:ValueListType
Usage	OPTIONAL; may be used once and only once [01]
Definition	Short reference to the name of the resource type, category or kind associated with the

	resource name.
	Similar resources my be grouped together for this purpose (for example, do not list every type of fire engine –rather, it may be advisable to list two generalized types of engines, such as "structure fire engines" and "wildland fire engines" with totals for each).
	Examples:
Comments	Fixed wing cargo aircraft
	Mobile Field Kitchen / Type II / Food & Water
	<ul><li>"Decontamination" unit</li></ul>
	- Type 1 Fire Engine
	- Type 4 Helicopter
Constraints	Used in EDXL-SitRep ResponseResourcesTotals Report Type.
Part of	ResourceCountType
Source	ICS 209
Requirements Supported	Response Resources-Information

Element	resourceDetail
Туре	ResourceDetailType
Usage	OPTIONAL; may be used once and only once [01]
Definition	Summary information, often rendered in "counts" about resources involved in emergency operations.
Comments	
Constraints	
Part of	ResourceCountType
Source	
Requirements Supported	Response Resources-Information

Element	isSufficient
Туре	xs:boolean
Usage	OPTIONAL; may be used once and only once [01]
Definition	A "yes" or "no" value indicating whether or not a given resource is sufficient to fill current or projected requirements.

Comments	
Constraints	
Part of	ResourceCountType
Source	
Requirements Supported	Response Resources-Information

## 4.5.1.1.1 ResourceDetail Complex Type

ElementType	ResourceDetailType
Туре	xs:complexType
Definition	
Comments	
Constraints	
Valid Values / Examples	
Sub-elements	<ul> <li>resourcePersonnelCount: xs:unsignedInt [01]</li> <li>unassignedResourcePersonnel: xs:unsignedInt [01]</li> <li>resourceRequiredCount: xs:unsignedInt [01]</li> <li>resourceCommittedCount: xs:unsignedInt [01]</li> <li>resourceOnHandCount: xs:unsignedInt [01]</li> <li>resourceStillNeededCount: xs:unsignedInt [01]</li> <li>resourceRequestedCount: xs:unsignedInt [01]</li> <li>dateTimeOrdered: ct:EDXLDateTimeType [01]</li> <li>requestedArrival: ct:EDXLDateTimeType [01]</li> <li>estimatedArrival: ct:EDXLDateTimeType [01]</li> <li>reportToLocation: ct:EDXLLocationType [01]</li> <li>overheadPosition: ct:ValueKeyIntPairType [01]</li> <li>workAssignment: ct:EDXLStringType [01]</li> <li>specialInstructions: xs:string [01]</li> <li>specialEquipmentAndSupplies: xs:string [01]</li> <li>resourceStatus: ResourceStatusType [01]</li> </ul>
Used in	ResourceCountType.resourceDetail
Requirements Supported	

Element	resourcePersonnelCount
Туре	xs:unsignedInt
Usage	OPTIONAL; may be used once and only once [01]
Definition	The personnel associated with or required to operate each required resource by

	"Type/Category/Kind" provided by an "Agency or Organization
Comments	
Constraints	Used in EDXL-SitRep ResponseResourcesTotals Report Type.
Part of	ResourceDetailType
Source	
Requirements Supported	Incident-Resource-Commitment-Summary

Element	[responseResourcesTotals.resourceTotal.resource.resourceDetail.] unassignedResourcePersonnel
Туре	xs:unsignedInt
Usage	OPTIONAL; may be used once and only once [01]
Definition	The number of additional individuals (or individuals on overhead) that are not assigned to a specific resource by agency or organization.
Comments	
Constraints	Used in EDXL-SitRep ResponseResourcesTotals Report Type
Part of	ResourceDetailType
Source	
Requirements Supported	Incident-Resource-Commitment-Summary

Element	resourceRequiredCount
Туре	xs:unsignedInt
Usage	OPTIONAL; may be used once and only once [01]
Definition	The number of resources by "Type/Category/Kind" provided by an "Agency or Organization", required to meet a specified need or work assignment.
Comments	
Constraints	Used in EDXL-SitRep "ResponseResourcesTotalsDetail" element group
Part of	ResourceDetailType
Source	ICS 209
Requirements Supported	Incident-Resource-Commitment-Summary

Element	resourceCommittedCount
Туре	xs:unsignedInt
Usage	OPTIONAL; may be used once and only once [01]
Definition	The number of resources by "Type/Category/Kind" provided by an "Agency or Organization", committed to meet the specified need or work assignment. "Committed" refers to an obligation or confirmation from the resource supplier that resource has been allocated to this resource request or order, but has not yet been provided and is not yet "on-hand".
Comments	EDXL-RM message data may be used to provide transaction information which may be totaled to calculate this count
Constraints	Used in EDXL-SitRep "ResponseResourcesTotalsDetail" element group
Part of	ResourceDetailType
Source	ICS 209
Requirements Supported	Incident-Resource-Commitment-Summary

Element	resourceOnHandCount
Туре	xs:unsignedInt
Usage	OPTIONAL; may be used once and only once [01]
Definition	The number of resources by "Type/Category/Kind" provided by an "Agency or Organization", currently on-hand to meet the specified need or work assignment. "On-hand" refers to a resource that has been provided, has arrived and is available on site to meet the specified need or work assignment.
Comments	<ul> <li>Some ICS forms refer to this as "Resources-Have"</li> <li>EDXL-RM message data may be used to provide transaction information which may be totaled to calculate this count</li> </ul>
Constraints	Used in EDXL-SitRep "ResponseResourcesTotalsDetail" element group
Part of	ResourceDetailType
Source	ICS 215
Requirements Supported	Incident-Resource-Operational-Planning

Element	resourceStillNeededCount
Туре	xs:unsignedInt
Usage	OPTIONAL; may be used once and only once [01]

Definition	The number of resources by "Type/Category/Kind" provided by an "Agency or Organization", still needed to meet a specified need or work assignment. "Needed" refers to resources that may or may not be requested or committed; but are not yet "on-hand"
Comments	Defined as "ResourceOnHandCount" subtracted from the "ResourceCommittedCount"
Constraints	Used in EDXL-SitRep "ResponseResourcesTotalsDetail" element group
Part of	ResourceDetailType
Source	ICS 215
Requirements Supported	Incident-Resource-Operational-Planning

Element	resourceRequestedCount
Туре	xs:unsignedInt
Usage	OPTIONAL; may be used once and only once [01]
Definition	The number of resources by "Type/Category/Kind" provided by an "Agency or Organization", that has been requested or ordered in order to meet a specified need or work assignment.
Comments	EDXL-RM message data may be used to provide transaction information which may be totaled to calculate this count
Constraints	Used in EDXL-SitRep "ResponseResourcesTotalsDetail" element group
Part of	ResourceDetailType
Source	ICS 215
Requirements Supported	Incident-Resource-Operational-Planning

Element	dateTimeOrdered
Туре	ct:EDXLDateTimeType
Usage	OPTIONAL; may be used once and only once [01]
Definition	The Date/Time that the resource was requested or ordered in order to fill the specified need or work assignment.
Comments	
Constraints	Used in EDXL-SitRep "ResponseResourcesTotalsDetail" element group
Part of	ResourceDetailType
Source	ICS 201

Requirements Supported
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Element	requestedArrival
Туре	ct:EDXLDateTimeType
Usage	OPTIONAL; may be used once and only once [01]
Definition	The DateTime when the "requested" / "ordered" resource is requested to arrive at the "reportToLocation" (i.e. When the resource is needed)
Comments	<ul> <li>ICS uses the term "delivery" vs. "arrival". "Arrival" is used here because this applies to Human Resources also.</li> <li>In EDXL-RM, "RequestedArrival" is an enumerated value of element "ScheduleType"</li> </ul>
Constraints	
Part of	ResourceDetailType
Source	
Requirements Supported	

Element	estimatedArrival
Туре	ct:EDXLDateTimeType
Usage	OPTIONAL; may be used once and only once [01]
Definition	The DateTime when the "requested" / "ordered" resource is expected to arrive at its "ReportTo" location
Comments	In EDXL-RM, "EstimatedArrival I" is an enumerated value of element "ScheduleType"
Constraints	Used in EDXL-SitRep "ResponseResourcesTotalsDetail" element group
Part of	ResourceDetailType
Source	ICS 215
Requirements Supported	Incident-Resource-Operational-Planning

Element	reportToLocation
Туре	ct:EDXLLocationType
Usage	OPTIONAL; may be used once and only once [01]
Definition	The location where the resources are to report or be delivered (e.g. "IncidentStagingArea",

	"IncidentLocation").
Comments	EDXL-RM message data may be used to provide ReportToLocation information (See EDXL-RM "ScheduleInformation" Element).
Constraints	Used in EDXL-SitRep "ResponseResourcesTotalsDetail" element group
Part of	ResourceDetailType
Source	ICS 215
Requirements Supported	Incident-Resource-Operational-Planning

Element	overheadPosition	
Туре	ct:ValueKeyIntPairType	
Usage	OPTIONAL; may be used more than once [0*]	
Definition	This element provides a list (ValueKey: xsd:AnyURI) of OverheadPosition (s), each associated with a value (a string in this case to provide a count-integer).  An "OverheadPosition" is a resource with a role or position (or a group of resources with the same role or position) that is not assigned to or associated with any previously identified Resource	
Comments	<ul> <li>Overhead Position Examples:</li> <li>Division Supervisor</li> <li>Group Supervisor</li> <li>Assistant Safety Officer</li> <li>Technical Specialst</li> </ul>	
Constraints	Used in EDXL-SitRep "ResponseResourcesTotalsDetail" element group	
Part of	ResourceDetailType	
Source	ICS 215	
Requirements Supported	Incident-Resource-Operational-Planning	

Element	workAssignment
Туре	ct:EDXLStringType
Usage	OPTIONAL; may be used once and only once [01]
Definition	Description of the anticipated work assignments given to the resource
Comments	

Constraints	Used in EDXL-SitRep "ResponseResourcesTotalsDetail" element group
Part of	ResourceDetailType
Source	ICS 215
Requirements Supported	Incident-Decision-Support-Instructions; Incident-Command-Organization

Element	specialInstructions
Туре	xs:string
Usage	OPTIONAL; may be used once and only once [01]
Definition	Description of any special instructions to the resource regarding their assignment, reporting location or any other instructions.
Comments	
Constraints	Used in EDXL-SitRep "ResponseResourcesTotalsDetail" element group
Part of	ResourceDetailType
Source	ICS 215
Requirements Supported	Incident-Decision-Support-Instructions; Incident-Command-Organization

Element	specialEquipmentAndSupplies
Туре	xs:string
Usage	OPTIONAL; may be used more than once [0*]
Definition	For each "Branch/Division/Group/Location" / "WorkAssignment/SpecialInstructions" combination, a listing of special equipment or supplies needed.
Comments	
Constraints	Used in EDXL-SitRep "ResponseResourcesTotalsDetail" element group
Part of	ResourceDetailType
Source	ICS 215
Requirements Supported	Incident-Resource-Operational-Planning

Element	additionalAssistingOrganizations
Туре	xs:string

Usage	OPTIONAL; may be used once and only once [01]
Definition	A list of all other agencies and organizations that are not included in the formal "ResponseResource" information (who are not directly involved in the incident, but are providing support.)
Comments	Examples may include ambulance services, Red Cross, DHS, utility companies.  Do not repeat any resources / organizations listed in the "Incident Resource Commitment Summary".
Constraints	Used in EDXL-SitRep "ResponseResourcesTotalsDetail" element group
Part of	ResourceDetailType
Source	ICS 209
Requirements Supported	Incident-Resource-Commitment-Summary

Element	resourceStatus
Туре	ResourceStatusType
Usage	OPTIONAL; may be used once and only once [01]
Definition	
Comments	
Constraints	
Part of	ResourceDetailType
Source	
Requirements Supported	

ElementType	ResourceStatusType
Туре	xs:complexType
Definition	
Comments	
Constraints	
Valid Values / Examples	
Sub-elements	<ul> <li>inventoryRefreshDateTime [11]: ct:EDXLDateTimeType</li> <li>deploymentStatus [01]: DeploymentStatusDefaultValues</li> <li>availability [11]: xs:string</li> </ul>
Used in	ResourceDetailType.resourceStatus

Requirements Supported	ρ-	

Element	inventoryRefreshDateTime
Туре	ct:EDXLDateTimeType
Usage	REQUIRED [11]
Definition	The DateTime at which inventory records were last updated with current values.
Comments	
Constraints	Used in EDXL-SitRep ResponseResourceTotals Report Type.
Part of	ResourceStatusType
Source	
Requirements Supported	Incident-Resouce-Commitment; Incident-Resource-Operational-Planning; Incident-Command-Organization

Element	deploymentStatus
Туре	ct:ValueType
Usage	OPTIONAL; may be used once and only once [01]
Definition	The DeploymentStatus element is a value corresponding to the value for a ValueListType supplied by the resource provider
	Default value list: DeploymentStatusDefaultValues
Comments	
Constraints	
Part of	ResourceStatusType
Source	
Requirements Supported	Incident-Resouce-Commitment; Incident-Resource-Operational-Planning; Incident-Command-Organization

Element	availability
Туре	xs:string
Usage	REQUIRED [11]

Definition	Availability provides information on whether or not a resource is available, and any incidental information not otherwise provided that relates to resource availability.
Comments	
Constraints	
Part of	ResourceStatusType
Source	
Requirements Supported	Incident-Resouce-Commitment; Incident-Resource-Operational-Planning; Incident-Command-Organization

#### 4.5.2 OrganizationAndAssignments Complex Type

Incident Organization & Assignments is a component of the "ResponseResourcesTotals" ReportType, providing a hierarchical XML organization structure including information on the names, titles, assignments, organization structure and contact information when an incident Command Structure is put into place (i.e. "who's in charge of what").

The purpose is to provide a standard structure with which to carry the Positions, Names, Agency, Branch, and "Report-To" relationships required to share incident organization information as needed across agencies and up the chain of command, such that end applications may if desired create or populate an incident command structure chart.

Note that an actual graphic representing the pictorial representation of the Incident Organization Chart may be carried using a content object within the EDXL-Distribution element, whether produced from the SitRep organization data or produced by other means.

Incident Organization information is also supported by the following re-usable elements associated with the appropriate element:

- EDXLLocationType [XML Structure]
- Remarks

ElementType	OrganizationAndAssignmentsType
Туре	xs:complexType
Definition	See above
Comments	
Constraints	
Valid Values / Examples	
Sub-elements	<ul> <li>commandStructure [01]: ct:EDXLStringType</li> <li>positionTitle [01]: PositionDefaultValues</li> <li>personName [01]: ct:PersonDetailsType</li> <li>branch [01]: ct:ValueKeyType</li> <li>reportsToPositionTitle [01]: PositionDefaultValues</li> <li>reportsToPersonName [01]: ct:PersonDetailsType</li> <li>reportsToAgency [0*]: ct:ValueListType</li> </ul>

	reportsToBranch [01]: ct:ValueKeyType
Used in	ResponseResourcesTotalsType.organizationAndAssignments
Requirements Supported	

Element	commandStructure
Туре	ct:EDXLString
Usage	OPTIONAL; may be used once and only once [01]
Definition	A name given to the top level of the organization structure of an Incident Command Structure (also referred to as an "Incident Management Organization and "Unified Command"), when such an organization is in place in response to a large and/or complicated incident requiring cross-profession and jurisdiction coordination. This name typically contains reference to the incident or disaster name.
	The overall structure contains the Positions, Names, Agency, Branch, and "Report-To" relationships required to share incident organization information as needed across agencies and up the chain of command, such that end applications may if desired create or populate an incident command structure chart.
	Incident Command structure and personnel may change over the course of an incident, or shifts may transition in/out of active incident management roles.
	Uses edxl-ciq [XML Structure]
Comments	The SitRepRoot contains common elements such as sentDateTime and forTimePeriod which is associated with an Incident CommandStructure
Constraints	
Part of	OrganizationAndAssignmentsType
Source	ICS 201, ICS 203
Requirements Supported	Incident-Command-Organization, Incident-Organization-and-Assignments

Element	positionTitle
Туре	ct:ValueType
Usage	OPTIONAL; may be used once and only once [01]
Definition	A position name, role name or title of a professional that may fall at any level of the Incident Command Structure hierarchy  Default value list: PositionDefaultValues
Comments	<ul> <li>Additional elements that may be included with each PositionTitle include:</li> <li>personName</li> <li>agency</li> <li>branch</li> </ul>

	<ul> <li>reportToPositionTitle</li> <li>reportToPersonName</li> <li>reportToAgency</li> <li>reportToBranch</li> </ul>
Constraints	
Part of	OrganizationAndAssignmentsType
Source	ICS 201, ICS 203
Requirements Supported	Incident-Command-Organization

Element	personName
Туре	ct:PersonDetailsType
Usage	OPTIONAL; may be used once and only once [01]
Definition	Container for person name details
Comments	Same person with many types (e.g. alias, pet name, nick name) of names can be used by this container.
Constraints	
Part of	OrganizationAndAssignmentsType
Source	ICS 201, ICS 203
Requirements Supported	Incident-Command-Organization

Element	branch
Туре	ct:ValueKeyType
Usage	OPTIONAL; may be used once and only once [01]
Definition	The organizational level having functional or geographic responsibility for major parts of incident operations. The Branch level is organizationally between Section and Division/Group in the Operations Section, and between Section and Units in the Logistics Section. Branches are identified by the use of Roman Numerals or by functional name (e.g. medical, security, etc.).
Comments	
Constraints	
Part of	OrganizationAndAssignmentsType
Source	ICS 201, ICS 203

Requirements Supported	Incident-Command-Organization
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Element	reportsToPositionTitle
Туре	ct:ValueType
Usage	OPTIONAL; may be used once and only once [01]
Definition	A position name, role name or title of a professional that the current PositionTitle Value reports to in the Incident Command Structure hierarchy  Default value list: PositionDefaultValues
Comments	<ul> <li>Additional elements that may be included with each ReportsToPositionTitle include:</li> <li>reportsToPersonName</li> <li>reportsToAgency</li> <li>reportsToBranch</li> </ul>
Constraints	
Part of	OrganizationAndAssignmentsType
Source	ICS 201, ICS 203
Requirements Supported	Incident-Command-Organization

Element	reportsToPersonName
Туре	ct:PersonDetailsType
Usage	OPTIONAL; may be used once and only once [01]
Definition	Name of the person filling the ReportsToPositionTitle or role within the Incident Command Structure hierarchy
Comments	
Constraints	
Part of	OrganizationAndAssignmentsType
Source	ICS 201, ICS 203
Requirements Supported	Incident-Command-Organization

Element	reportsToAgency
Туре	ct:ValueListType
Usage	OPTIONAL; may be used more than once [0*]

Definition	An agency is a type of organization, which is a division of government with a specific function, or a nongovernmental organization (e.g., private contractor, business, etc.) that offers a particular kind of assistance. In ICS, agencies are defined as jurisdictional (having statutory responsibility for incident mitigation) or assisting and/or cooperating (providing resources and/or assistance). (See Assisting Agency, Cooperating Agency, and Multi-agency.)
Comments	
Constraints	
Part of	OrganizationAndAssignmentsType
Source	ICS 201, ICS 203
Requirements Supported	Incident-Command-Organization

Element	reportsToBranch
Туре	ct:ValueKeyType
Usage	OPTIONAL; may be used once and only once [01]
Definition	The organizational level having functional or geographic responsibility for major parts of incident operations. The Branch level is organizationally between Section and Division/Group in the Operations Section, and between Section and Units in the Logistics Section. Branches are identified by the use of Roman Numerals or by functional name (e.g. medical, security, etc.)
Comments	
Constraints	
Part of	OrganizationAndAssignmentsType
Source	ICS 201, ICS 203
Requirements Supported	Incident-Command-Organization

## 4.6 CasualtyAndIllnessSummary Report Type

The "Casualty and Illness Summary" Report Type provides casualty numbers and percentages by prescribed categories over specified time periods. Casualty information categories are further segregated by responders (per the NIMS definition) and non-responders (members of the public).

Fatality information or responder status information MUST be actual, and never estimated.

Note: In regard to "Totals", totals can be calculated, so separate elements for those values are not included

Each Casualty and Illness Category value (except "#Fatalities") may be paired with the element "Estimate" (Boolean) to indicate whether the Casualty figure is estimated vs. known / actual.

The example below provides a possible application report which may be developed by an application or system. Although this example shows totals and percentages for illustration, only the raw data counts are carried using this standard.

The example illustrates a list of Casualty and Illness Categories which were selected, including for each the Responder Summary Count and Non-Responder Summary Count for This Reporting Period, and the same for Total Number to Date.

#### Non-normative example

	Number This Reporting Pe- riod		Total N	lumber To D	ate	
Casualty & Illness Summary Categories	Responder Summary Count	Non-Re- sponder Summary Count	Total This Period	Responder Summary Count	Non-Re- sponder Summary Count	Total to Date
NumberOfFatalities	1		1	1	2	3
NumberOfHospitalized			0	2	2	4
NumberOfWithInjury/Illness			0		6	6
NumberOfTrapped/In need of rescue			0			0
NumberOfMissing			0	2	2	4
NumberOfEvacuated			0			0
NumberOfSheltering In Place			0			0
NumberInTemporaryShelters			0			0
NumberInQuarantine			0			0
HaveReceivedMassImmunization- sCount			0			0
RequireMassImmunizationsCount			0			0
TOTAL	1	0	1	5	12	17

Total number of casualties affected

Responder Summary Percentage: Non-Responder Summary Per100.00%

29.41%

centage:

0.00%

70.59%

Remarks:

ElementType	CasualtyAndIlInessSummaryType
Туре	xs:complexType extends IReport
Definition	
Comments	casualtyAndIllnessSummary structure is a choice: {{summaryCount [11]   {notifiableDiseaseNumbers [11]}} [1*]
Constraints	
Valid Values / Examples	
Sub-elements	summaryCount [11]: SummaryCountType

	notifiableDiseaseNumbers [11]: NotifiableDiseaseNumbersType
Used in	casualtyAndIllnessSummary
Requirements Supported	

Element	summaryCount
Туре	SummaryCountType
Usage	REQUIRED [11]
Definition	
Comments	
Constraints	
Part of	CasualtyAndIllnessSummaryType
Source	
Requirements Supported	Casualty-and-Illness-Summary

Element	notifiableDiseaseNumbers
Туре	NotifiableDiseaseNumbersType
Usage	REQUIRED [11]
Definition	
Comments	
Constraints	
Part of	CasualtyAndIllnessSummaryType
Source	
Requirements Supported	Casualty-and-Illness-Summary

# 4.6.1 SummaryCount Complex Type

ElementType	SummaryCountType
Туре	xs:complexType
Definition	

Comments	
Constraints	
Valid Values / Examples	
Sub-elements	<ul> <li>casualtyAndIllnessCountCategory [11]: CasualtyAndIllnessCountCategoryType</li> <li>responderSummaryCount [01]: xs:unsignedInt</li> <li>nonResponderSummaryCountToDate [01]: xs:unsignedInt</li> <li>responderSummaryCountToDate [01]: xs:unsignedInt</li> <li>nonResponderSummaryCountToDate [01]:xs:unsignedInt</li> <li>receivedMassImmunizations [01]: ImmunizationCountType</li> <li>requireMassImmunization [01]: ImmunizationCountType</li> <li>shelterCountEstimate[01]: xs:unsignedInt</li> </ul>
Used in	CasualtyAndIllnessSummaryType.summaryCount
Requirements Supported	

The CasualtyAndIllnessSummary Report Type as a whole is optional. However, if any one or more elements from the CasualtyAndIllnessSummary Element Group is completed, then a full report MUST be created and transmitted to the appropriate recipient(s) with roll up to summary numbers "by period". Summary statistics / totals are broken out by Responders, Non-Responders and overall total.

ElementType	CasualtyAndIllnessCountCategoryType
Туре	xs:complexType
Definition	
Comments	
Constraints	
Valid Values / Examples	
Sub-elements	<ul> <li>countCategory [11]: CasualtyAndIllnessCountCategoryDefaultValues</li> <li>remarks [01]: ct:RemarksType</li> <li>isEstimate [01]: ct:EstimateType</li> </ul>
Used in	SummaryCountType.casualtyAndIllnessCountCategory
Requirements Supported	

Element	countCategory	
Туре	ct:ValueType	

Usage	REQUIRED [11]
Definition	A type of casualty or illness, used to collect counts and statistics by types of casualties.  Part of the CasualtyAndIllnessSummaryCount XML structure.  Default value list: CasualtyAndIllnessCountCategoryDefaultValues
Comments	A casualty is any person impacted in some way by an emergency situation or disaster.
Constraints	
Part of	CasualtyAndIllnessCountCategoryType
Source	ICS 209
Requirements Supported	Casualty-and-Illness-Summary

Element	responderSummaryCount
Туре	xs:unsignedInt
Usage	OPTIONAL; may be used once and only once [01]
Definition	For each casualtyAndIllnessCountCategory, the count of Responder Casualties for this reporting period.
	Part of the casualtyAndIllnessSummaryCount XML structure.
Comments	"Responders" are those personnel belonging to organizations and agencies officially assisting and cooperating with response efforts, and may be included as part of unified command partnerships. Responders may include both paid professionals and volunteer personnel who have recognized emergency response authority at the time of the incident, such as a firefighter, EMT, police officer or Incident Commander.
Constraints	Used in EDXL-SitRep "CasualtyAndIllnessSummary" Report Type
Part of	SummaryCountType
Source	ICS 209
Requirements Supported	Casualty-and-Illness-Summary

Element	nonResponderSummaryCount
Туре	xs:unsignedInt
Usage	OPTIONAL; may be used once and only once [01]
Definition	For each casualtyAndIllnessCountCategory, the count of Non-Responder Casualties for this reporting period.  Part of the CasualtyAndIllnessCountCategoryType XML structure.
Comments	"Non-Responders" are those civilians who are affected by the incident, but who are not in-

	cluded as part of the authorized response effort (are not categorized as "Responders".)
Constraints	Used in EDXL-SitRep CasualtyAndIllnessSummary Report Type.
Part of	SummaryCountType
Source	ICS 209
Requirements Supported	Casualty-and-Illness-Summary

Element	responderSummaryCountToDate
Туре	xs:unsignedInt
Usage	OPTIONAL; may be used once and only once [01]
Definition	For each CasualtyAndIllnessCountCategory, the count of Non-Responder Casualties for this incident to date.  Part of the CasualtyAndIllnessCountCategoryType XML structure.
Comments	<ul> <li>"Non-Responders" are those civilians who are affected by the incident, but who are not included as part of the authorized response effort (are not categorized as "Responders".)</li> <li>E.g. the NumberOfFatalities for this reporting period is 1; however the NumberOfFatalities totaled to date is 3</li> </ul>
Constraints	Used in EDXL-SitRep CasualtyAndIllnessSummary Report Type.
Part of	SummaryCountType
Source	ICS 209
Requirements Supported	Casualty-and-Illness-Summary

Element	nonResponderSummaryCountToDate
Туре	xs:unsignedInt
Usage	OPTIONAL; may be used once and only once [01]
Definition	For each CasualtyAndIllnessCountCategory, the count of Non-Responder Casualties for this incident to date.  Part of the CasualtyAndIllnessSummaryCount XML structure.
Comments	<ul> <li>"Non-Responders" are those civilians who are affected by the incident, but who are not included as part of the authorized response effort (are not categorized as "Responders".)</li> <li>E.g. the NumberOfFatalities for this reporting period is 1; however the NumberOfFatalities totaled to date is 3</li> </ul>
Constraints	Used in EDXL-SitRep CasualtyAndIllnessSummary Report Type.

Part of	SummaryCountType
Source	ICS 209
Requirements Supported	Casualty-and-Illness-Summary

ElementType	ImmunizationCountType
Туре	xs:complexType
Definition	
Comments	
Constraints	
Valid Values / Examples	
Sub-elements	<ul> <li>count [11]: xs:unsignedInt</li> <li>remarks [01]: ct:RemarksType</li> <li>isEstimate [01]: ct:EstimateType</li> </ul>
Used in	SummaryCountType.receivedMassImmunizations SummaryCountType.requireMassImmunizations
Requirements Supported	

Element	receivedMassImmunizations
Туре	ImmunizationCountType
Usage	OPTIONAL [01]
Definition	The number count of people who have received immunizations relevant specifically to incident conditions and/or as part of incident operations.
Comments	This number is not included in any Casualty and Illness Summary totals
Constraints	Used in EDXL-SitRep CasualtyAndIllnessSummary Report Type.
Part of	SummaryCountType
Source	ICS 209
Requirements Supported	Casualty-and-Illness-Summary

Element	requireMassImmunizations	
Туре	ImmunizationCountType	

Usage	OPTIONAL [01]
Definition	The number of people who require immunizations relevant specifically to incident conditions and/or as part of incident operations.
Comments	Count in this element refers to number of people.
Constraints	Used in EDXL-SitRep CasualtyAndIllnessSummary Report Type.
Part of	SummaryCountType
Source	ICS 209
Requirements Supported	Casualty-and-Illness-Summary

Element	shelterCountEstimate
Туре	xs:unsignedInt
Usage	OPTIONAL [01]
Definition	The total number of people projected to require shelter due to the incident, to assist planning and matching of resources.
Comments	This number is not included in any Casualty and Illness Summary totals
Constraints	Used in EDXL-SitRep CasualtyAndIllnessSummary Report Type.
Part of	SummaryCountType
Source	ICS 209
Requirements Supported	Casualty-and-Illness-Summary

## 4.6.2 NotifiableDiseaseNumbers Complex Type

A notifiable disease is one for which regular, frequent, timely information on individual cases is considered necessary to prevent and control that disease.

Can re-use the common element "estimated"...

ElementType	NotifiableDiseaseNumbersType
Туре	xs:complexType
Definition	
Comments	
Constraints	

Valid Values / Examples	
Sub-elements	<ul> <li>diseaseSuspected [11]: ct:ValueKeyType</li> <li>probableCause [11]: ct:EDXLStringType</li> <li>countOfSuspectedCases [11]: xs:unsignedInt</li> <li>countOfConfirmedCases [11]: xs:unsignedInt</li> </ul>
Used in	CasualtyAndIllnessSummaryType.notifiableDiseaseNumbers
Requirements Supported	

Element	diseaseSuspected
Туре	ct:ValueKeyType
Usage	REQUIRED [11]
Definition	A notifiable disease is one for which regular, frequent, timely information on individual cases is considered necessary to prevent and control that disease. The list of notifiable diseases varies over time and by state. The list of nationally notifiable diseases is reviewed and modified by the Council of State and Territorial Epidemiologists (CSTE) and CDC once each year and is available on the Internet at:http://www.cdc.gov/ncphi/disss/nndss/phs/infdis.htm
Comments	
Constraints	Used in EDXL-SitRep NotifiableDiseaseNumbers element group within the EDXL-SitRep CasualtyAndIllnessSummary Report Type
Part of	NotifiableDiseaseNumbersType
Source	
Requirements Supported	Notifiable-Disease-Numbers

Element	probableCause
Туре	ct:EDXLStringType
Usage	REQUIRED [11]
Definition	Description of the most likely cause of the suspected disease.
Comments	
Constraints	Used in EDXL-SitRep NotifiableDiseaseNumbers element group within the EDXL-SitRep CasualtyAndIllnessSummary Report Type
Part of	NotifiableDiseaseNumbersType
Source	

Requirements Supported	Notifiable-Disease-Numbers
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Element	countOfSuspectedCases
Туре	xs:unsignedInt
Usage	REQUIRED [11]
Definition	The number of cases alleged but not confirmed of the suspected disease.
Comments	
Constraints	Used in EDXL-SitRep NotifiableDiseaseNumbers element group within the EDXL-SitRep CasualtyAndIllnessSummary Report Type
Part of	NotifiableDiseaseNumbersType
Source	
Requirements Supported	Notifiable-Disease-Numbers

Element	countOfConfirmedCases
Туре	xs:unsignedInt
Usage	REQUIRED [11]
Definition	The number of cases officially confirmed of the suspected disease
Comments	
Constraints	Used in EDXL-SitRep NotifiableDiseaseNumbers element group within the EDXL-SitRep CasualtyAndIllnessSummary Report Type
Part of	NotifiableDiseaseNumbersType
Source	
Requirements Supported	Notifiable-Disease-Numbers

# 4.7 ManagementReportingSummary Report Type

The ManagementReportingSummary Report Type contains elements to manage information related to situation information such as property categories, damage assessments, transportation systems, hazards, weather concerns and general threats to the life and property. It has many areas of concern that overlap the other topical categories of situation information, response resources and casualty information related to overall population health.

The foregoing topical categories fall in the SituationSummary Element Group, while the information more directly related to making decisions is gathered into IncidentDecisionSupportInformation Element Group. This group contains.elements such as ProjectedIncidentActivity, StrategicDiscussion, PlannedActions.

ElementType	ManagementReportingSummaryType
Туре	xs:complexType extends IReport
Definition	The element group gathered in SituationSummary identifies situation status and descrbes information aimed, primarily as support for human decision-making across the organizations involved and within the chain of command.  SituationSummary focuses on information about infrastructure and Primary Hazards,
	Threat to Human Life and Safety, Infrastructure Affected and Possible Cascading Effects.
	managementReportingSummary structure is a choice:
Comments	{{{situationSummary [11]} {decisionSupportInformation [01]} {jurisdictionInformation [0*]}}
	{{decisionSupportInformation [11]} {jurisdictionInformation [0*]}}
	{jurisdictionInformation [1*]}}
Constraints	
Valid Values / Examples	
Sub-elements	situationSummary[11]: SituationSummaryType
	decisionSupportInformation [01]: DecisionSupportInformationType
	jurisdictionInformation [0*]: JurisdictionInformationType
Used in	managementReportingSummary
Requirements Supported	

Element	situationSummary
Туре	SituationSummaryType
Usage	REQUIRED [11]
Definition	The element group gathered in SituationSummary identifies situation status and describes information aimed, primarily as support for human decision-making across the organizations involved and within the chain of command.  SituationSummary focuses on information about infrastructure and Primary Hazards, Threat to Human Life and Safety, Infrastructure Affected and Possible Cascading Effects.
Comments	
Constraints	
Part of	ManagementReportingSummaryType
Source	

	Incident-Response-Information
ported	

Element	decisionSupportInformation
Туре	DecisionSupportInformationType
Usage	OPTIONAL; may be used once and only once [01]
Definition	DecisionSupportInformation provides information pertaining to decisions required in as timely a fashion as possible. Such information needs to be gathered, assembled and presented to incident command with as much analysis as time allows throughout the lifecycle of the incident and response.
Comments	
Constraints	
Part of	ManagementReportingSummaryType
Source	
Requirements Supported	Incident-Response-Information

Element	jurisdictionInformation
Туре	JurisdictionInformationType
Usage	OPTIONAL; may be used more than once [0*]
Definition	JurisdictionInformation provides key information about incident command and the various organizations involved in the response. Jurisdiction Information is key to making quick decisions that do not exceed the authority of the jurisdiction involved
Comments	
Constraints	
Part of	ManagementReportingSummaryType,
	IncidentInformationType
Source	
Requirements Supported	Incident-Response-Information

## 4.7.1 SituationSummary Complex Type

The SituationSummary element group provides concise status and descriptive information about the overall situation, primarily as input to human decision-making across coordinating organizations and up the chain of command . SituationSummary focuses on information about the current situation affecting people and infrastructure safety such as Primary Hazards, Threat to Human Life and Safety, Infrastructure Affected and Possible Cascading Effects.

ElementType	SituationSummaryType
Туре	xs:complexType
Definition	See above
Comments	
Constraints	
Valid Values / Examples	
	incidentCause [11]: xs:string
	significantEvents [0*]: SignificantEventsDefaultValues
	damageAssessmentInformation [01]: xs:string
	primaryHazards [01]: xs:string
	hazMatIncidentReport [11]: xs:any
	extentOfContamination [0*]: ct:EDXLLocationType
	generalPopulationStatus [01]: xs:string
	externalAffairs [01]: ExternalAffairsType
	humanLifeAndSafetyThreat [01]: xs:string
	lifeAndSafetyThreat [1*]: LifeAndSafetyThreatDefaultValues
Sub-elements	incidentThreatSummaryAndRisk [0*]: xs:string
	followOnIndication [01]: xs:string
	infrastructureAffected [0*]: InfrastructureAffectedDefaultValues
	debrisManagement [01]: DebrisManagementType
	propertyDamage [0*]: PropertyDamageType
	percentContained [01]: ct:PercentageType
	requestsForAdditionalSupport [01]: xs:string
	terrorismNexus [01]: xs:string
	weatherEffects [01]: ct:WeatherInfoType
	WMDEffects [01]: xs:string
	transportationSystems [0*]: ct:ValueKeyStringPairType
Used in	ManagementReportingSummaryType.situationSummary
Requirements Sup- ported	

Element	incidentCause
Туре	xs:string

Usage	REQUIRED; once and only once [11]
Definition	The known or suspected cause of the incident such as "tornado", "wildfire", "bridge collapse", "parade", "vehicle fire", "mass casualty", etc.
Comments	May be used with the common element "Estimate" to indicate whether the size is estimated or known
Constraints	
Part of	SituationSummaryType
Source	ICS 209
Requirements Supported	Situation-Summary-Information Information Requirement #28

Element	significantEvents
Туре	ct:ValueType
Usage	OPTIONAL; may be used more than once [0*]
Definition	This element provides a list (ValueKey: xsd:AnyURI) of SignificantEvent(s), each associated with a value. The value is a string providing a textual description summarizing significant results, decisions or progress resulting from an incident such as, evacuations, incident growth, etc. during the period being reported ("ForTimePeriod"). For example, road closures, evacuations, progress made, accomplishments, incident command transitions, repopulation of formerly evacuated areas, etc. Includes specifics, for example road closures include road number and duration of closure.  Default value list: SignificantEventsDefaultValues
Comments	Re-uses the element "Remarks" to include specifics
Constraints	Used in EDXL-SitRep SituationSummary element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	SituationSummaryType
Source	ICS 209
Requirements Supported	Situation-Summary-Information

Element	damageAssessmentInformation
Туре	xs:string
Usage	OPTIONAL; may be used once and only once [01]
Definition	Textual description summarizing damage and/or restriction of use/availability to residential or commercial property, natural resources, critical infrastructure and key resources, etc. Includes a short summary of damage or use or access restrictions caused by the incident.
Comments	

Constraints	Used in EDXL-SitRep SituationSummary element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	SituationSummaryType
Source	ICS 209
Requirements Supported	Situation-Summary-Information

Element	primaryHazards
Туре	xs:string
Usage	OPTIONAL; may be used once and only once [01]
Definition	Textual description summarizing hazardous chemicals, fuel types, infectious agents, radiation, etc. When relevant includes the appropriate primary materials, fuels or other hazards involved in the incident that are leaking, burning, infecting or otherwise causing major problems. Examples include hazardous chemicals, wildland fuel models, biohazards, explosive materials, oil, gas etc.
Comments	
Constraints	Used in EDXL-SitRep SituationSummary element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	SituationSummaryType
Source	ICS 209
Requirements Supported	Situation-Summary-Information

Element	hazMatIncidentReport
Туре	xs:any
Usage	OPTIONAL; may be used once and only once [01]
Definition	This element provides a brief overall HazMat summary, providing an XML structure which fulfills the information needs contained in "HazMat* Incident Report Form 5800.1 (DOT – IEEE 1512)". IEEE 1512 may be used as well as other namespaced existing standards Existing HazMat Structures may be used.
Comments	Schema defines it as: <pre></pre>
Constraints	Used in EDXL-SitRep SituationSummary element group within the EDXL-SitRep ManagementReportingSummary Report Type

Part of	SituationSummaryType
Source	SitRep Used Cases
Requirements Supported	Situation-Summary-Information

Element	extentOfContamination
Туре	ct:EDXLLocationType
Usage	OPTIONAL; may be used more than once [0*]
Definition	The geographical extent or "footprint" of the Contamination
Comments	
Constraints	Used in EDXL-SitRep SituationSummary element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	SituationSummaryType
Source	
Requirements Supported	Situation-Summary-Information

Element	generalPopulationStatus
Туре	xs:string
Usage	OPTIONAL; may be used once and only once [01]
Definition	General status description of the general population in designated counties during emergencies or disasters.
Comments	
Constraints	Used in EDXL-SitRep SituationSummary element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	SituationSummaryType
Source	
Requirements Supported	Situation-Summary-Information

Element	externalAffairs
Туре	ExternalAffairsType
Usage	OPTIONAL; may be used once and only once [01]

Definition	Information about concerns that are external to the managementReportingSummary context that nevertheless needs to be taken into account by the responder organizations and jurisdictions
Comments	
Constraints	
Part of	SituationSummaryType
Source	
Requirements Supported	

Element	humanLifeAndSafetyThreat
Туре	xs:string
Usage	OPTIONAL; may be used once and only once [01]
Definition	Textual description of hazards which are potentially dangerous and cause a threat to human life and safety
Comments	<ul> <li>This element reflected in the similar "LifeAndSafetyThreat" element in the IncidentDecisionSupportInformation element group.</li> <li>This is a textual element in SituationSummary element group that is reflected by a more structural, decision-oriented version of essentially the same kind of data.</li> </ul>
Constraints	Used in EDXL-SitRep SituationSummary element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	SituationSummaryType
Source	ICS 209
Requirements Supported	Situation-Summary-Information

Element	lifeAndSafetyThreat
Туре	ct:ValueType
Usage	REQUIRED; may be used more than once [1*]
Definition	A code indicating the current state of the threat and actions taken to manage it.
Comments	Ensure not duplicate with Situation Summary info, or ensure consistent terminology which differentiates.
	Re-uses the element "Remarks" to include notes related to each code.
	This element is reflected by "humanLifeAndSafetyThreat" element in the "situationSummary" element group
	Default value list: LifeAndSafetyThreatDefaultValues

Constraints	Used in EDXL-SitRep SituationSummary element group within the EDXL-SitRep ManagementReportingSummary Report Type  Used in EDXL-SitRep IncidentDecisionSupportInformation element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	SituationSummaryType
Source	ICS 209
Requirements Supported	Incident-Decision-Support-Information

Element	incidentThreatSummaryAndRisk
Туре	xs:string
Usage	OPTIONAL; may be used more than once [0*]
Definition	A summary of the current threat and risk potential, movement, escalation, or spread over 12-, 24-, 48- and 72-hour standard time frames represented in the "StandardTimeFrames" common type, and any threat or risk anticipated after 72-hours.
Comments	Note: See EAS time frames also for potential adoption / reuse  Used in conjunction with the "StandardTimeFrames" element (ValueListURN).
Constraints	Used in EDXL-SitRep SituationSummary element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	SituationSummaryType
Source	ICS 209
Requirements Supported	Incident-Decision-Support-Information

Element	followOnIndication
Туре	xs:string
Usage	OPTIONAL; may be used once and only once [01]
Definition	Textual description of known or anticipated incidents that will or may happen as a result of, or otherwise immediately following, the current incident
Comments	
Constraints	Used in EDXL-SitRep SituationSummary element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	SituationSummaryType
Source	
Requirements Sup-	Situation-Summary-Information

Element	infrastructureAffected
Туре	ct:ValueType
Usage	OPTIONAL; may be used more than once [0*]
Definition	Infrastructure and/or operational systems actually or most likely affected by disaster
Comments	The purpose of this element is similar to the purpose of the threat element above and in IncidentDecisionSupportInformation.  Default value list: InfrastructureAffectedDefaultValues
Constraints	Used in SitRep "Situation Summary" element / container
Part of	SituationSummaryType
Source	
Requirements Supported	Situation-Summary-Information

Element	debrisManagement
Туре	DebrisManagementType
Usage	OPTIONAL; may be used once and only once [01]
Definition	Tracks the details of debris management.in the incident being reported
Comments	
Constraints	
Part of	SituationSummaryType
Source	
Requirements Supported	

Element	propertyDamage
Туре	PropertyDamageType
Usage	OPTIONAL; may be used more than once [0*]
Definition	Tracks the property categories that are threatened, damaged or destroyed by the disaster or incident.
Comments	
Constraints	

Part of	SituationSummaryType
Source	
Requirements Supported	

Element	percentContained
Туре	ct:PercentageType
Usage	OPTIONAL; may be used once and only once [01]
Definition	Estimated percentage of the incident that has been contained, or where work to complete response to the incident has been completed.
Comments	e.g. 80%
Constraints	Used in EDXL-SitRep SituationSummary element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	SituationSummaryType
Source	
Requirements Supported	Situation-Summary-Information

Element	requestsForAdditionalSupport
Туре	xs:string
Usage	OPTIONAL; may be used once and only once [01]
Definition	General description or summary of requests for additional resources or personnel – high-level textual summary of "Response Resources".
Comments	EDXL-RM messages may be referred to, or used to provide this and/or more detailed information.
Constraints	Used in EDXL-SitRep SituationSummary element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	SituationSummaryType
Source	
Requirements Supported	Situation-Summary-Information

Element	terrorismNexus
Туре	xs:string

Usage	OPTIONAL; may be used once and only once [01]
Definition	Textual description of any connections that may exist with terrorist acts associated with this incident.
Comments	
Constraints	Used in EDXL-SitRep SituationSummary element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	SituationSummaryType
Source	
Requirements Supported	Situation-Summary-Information

Element	weatherEffects
Туре	ct:WeatherInfoType
Usage	OPTIONAL; may be used once and only once [01]
Definition	Text indicating Current and predicted weather and related factors that may effect or cause concern for the incident and related areas, in the form of a short synopsis on weather factors.
Comments	<ul> <li>Always paired with Weather Concerns</li> <li>Includes current and/or predicted weather factors, and the time frame for predictions. Includes relevant factors listed below and other weather information relative to the incident, such as flooding, hurricanes, etc.</li> </ul>
Constraints	Used in EDXL-SitRep SituationSummary element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	SituationSummaryType
Source	ICS 209
Requirements Supported	Situation-Summary-Information

Element	WMDEffects
Туре	xs:string
Usage	OPTIONAL; may be used once and only once [01]
Definition	Textual descripton of any effects produced by weapons of mass destruction.
Comments	

Constraints	Used in EDXL-SitRep SituationSummary element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	SituationSummaryType
Source	
Requirements Supported	Situation-Summary-Information

Element	transportationSystems
Туре	ct:ValueKeyStringPairType
Usage	OPTIONAL; may be used more than once [0*]
Definition	A list of Transportation systems, such as surface roadways, inland waterways, airports, etc., so that each may be associated with a status.
Comments	
Constraints	Used in EDXL-SitRepSituationSummary element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	SituationSummaryType
Source	ICS 209
Requirements Supported	Situation Summary-Information

### 4.7.1.1 External Affairs Complex Type

The ExternalAffairs element group provides information about concerns that are external to the ManagementReportingSummary context that nevertheless need to be taken into account by the responder organizations and jurisdictions.

ElementType	ExternalAffairsType
Туре	xs:complexType
Definition	Tracks concerns that are external to the ManagementReportingSummary context
Comments	
Constraints	
Valid Values / Examples	
	effectivePublicCommunication [01]: xs:boolean
Sub-elements	talkingPoints [01]: xs:complexType
	rumors [01]: xs:complexType

Used in	SituationSummaryType.externalAffairs
Requirements Supported	

Element	effectivePublicCommunication
Туре	xs:boolean
Usage	OPTIONAL; may be used once and only once [01]
Definition	The EffectivePublicCommunication element is aimed at gauging whether or not the responding agency is communicating well with the at-risk public as well as the public at large.
Comments	
Constraints	
Part of	ExternalAffairsType
Source	
Requirements Supported	Incident-Response-Information

Element	talkingPoints
Туре	xs:complexType
Usage	OPTIONAL; may be used once and only once [01]
Definition	TalkingPoints is the container element for individual Talking Points
Comments	
	<xs:complextype></xs:complextype>
Constraints	<xs:sequence></xs:sequence>
	<xs:element maxoccurs="unbounded" name="talkingPoint" type="xs:string"></xs:element>
Part of	ExternalAffairsType
Source	
Requirements Supported	Incident-Response-Information

Element	talkingPoint	
Туре	xs:string	

Usage	OPTIONAL; may be used more than once [0*]
Definition	TalkingPoint is the individual item of information which the responding agency organization wishes to communicate to the public or coordinating agencies with regard to the incident that the responding organizations are engaging.
Comments	
Constraints	
Part of	ExternalAffairsType.talkingPoints
Source	
Requirements Supported	Incident-Response-Information

Element	rumors
Туре	xs:complexType
Usage	OPTIONAL; may be used once and only once [01]
Definition	rumors is the container element for individual Rumor elements
Comments	
Constraints	<pre><xs:complextype>   <xs:sequence>     <xs:element maxoccurs="unbounded" name="rumor" type="xs:string"></xs:element>     </xs:sequence> </xs:complextype></pre>
Part of	ExternalAffairsType
Source	
Requirements Supported	Incident-Response-Information

Element	rumor
Туре	xs:string
Usage	OPTIONAL; may be used more than once [0*]
Definition	rumor is the individual item of information which the responding agency organization wishes to communicate to the public or coordinating agencies with regard to the incident that the responding organizations are engaging.
Comments	
Constraints	

Part of	ExternalAffairsType.rumors
Source	
Requirements Supported	Incident-Response-Information

**4.7.1.2 DebrisManagement Complex Type**Elements in the DebrisManagement ComplexType are used to track the details of debris management.in the incident being reported.

ElementType	DebrisManagementType
Туре	xs:complexType
Definition	Elements to track the details of debris management
Comments	
Constraints	
Valid Values / Examples	
	totalDebrisGeneratedCY [01]: xs:unsignedInt
	debrisClearedToDateCY [01]: xs:unsignedInt
	debrisNotYetClearedCY [01]: xs:unsignedInt
	daysToClearanceComplete [01]: xs:unsignedInt
	percentOfJurisdictionWithDebrisImpacts [01]: ct:PercentageType
Sub-elements	areasWithDebrisImpacts [0*]: ct:ValueListType
	areasWhereWorkNotStarted [0*]: ct:ValueListType
	debrisDisposedToDateCY [01]: xs:unsignedInt
	debrisNotYetDisposedCY [01]: xs:unsignedInt
	debrisStorageSitesPercentFilled [01]: ct:PercentageType
	daysToDisposalComplete [01]: xs:unsignedInt
Used in	SituationSummaryType.debrisManagement
Requirements Supported	

Element	totalDebrisGeneratedCY
Туре	xs:unsignedInt
Usage	OPTIONAL; may be used once and only once [01]
Definition	TotalDebrisGeneratedCY stands for Total Debris Generated in the Incident being reported

	in the unit of measure of Cubic Yards
Comments	
Constraints	Used in EDXL-DebrisManagement ComplexType within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	DebrisManagementType
Source	
Requirements Supported	Situation Summary-Information

Element	debrisClearedToDateCY
Туре	xs:unsignedInt
Usage	OPTIONAL; may be used once and only once [01]
Definition	DebrisClearedToDateCY stands for Debris Cleared To Date in the Incident being reported in the unit of measure of Cubic Yards.
Comments	
Constraints	Used in EDXL-DebrisManagement ComplexType within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	DebrisManagementType
Source	
Requirements Supported	Situation Summary-Information

debrisNotYetClearedCY
xs:unsignedInt
OPTIONAL; may be used once and only once [01]
debrisNotYetClearedCY stands for Debris Not Yet Cleared in the Incident being reported in the unit of measure of Cubic Yards.
Used in EDXL-DebrisManagement ComplexType within the EDXL-SitRep ManagementReportingSummary Report Type
DebrisManagementType
Situation Summary-Information

Element	daysToClearanceComplete
Туре	xs:unsignedInt
Usage	OPTIONAL; may be used once and only once [01]
Definition	DaysToClearanceComplete stands for number of Days To Complete Clearance of Debris in the Incident being reported.
Comments	
Constraints	Used in EDXL-DebrisManagement ComplexType within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	DebrisManagementType
Source	
Requirements Supported	Situation Summary-Information

Element	percentOfJurisdictionWithDebrisImpacts
Туре	ct:PercentageType
Usage	OPTIONAL; may be used once and only once [01]
Definition	PercentOfJurisdictionWithDebrisImpacts stands for Percent Of the Reporting Jurisdiction that has sustained the impact of Debris in the Incident being reported as a percentage of the total area of the Jurisdiction in question.
Comments	
Constraints	Used in EDXL-DebrisManagement ComplexType within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	DebrisManagementType
Source	
Requirements Supported	Situation Summary-Information

Element	areasWithDebrisImpacts
Туре	ct:ValueListType
Usage	OPTIONAL; may be used more than once [0*]
Definition	AreasWithDebrisImpacts stands for areas named in the ValueListType within the Jurisdiction in the Incident being reported which have Debris Impacts.

Comments	
Constraints	Used in EDXL-DebrisManagement ComplexType within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	DebrisManagementType
Source	
Requirements Supported	Situation Summary-Information

Element	areasWhereWorkNotStarted
Туре	ct:ValueListType
Usage	OPTIONAL; may be used more than once [0*]
Definition	AreasWhereWorkNotStarted stands for areas named in the ValueListType within the Jurisdiction in the Incident being reported where work has not yet begun on Debris Removal.
Comments	
Constraints	Used in EDXL-DebrisManagement ComplexType within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	DebrisManagementType
Source	
Requirements Supported	Situation Summary-Information

Element	debrisDisposedToDateCY
Туре	xs:unsignedInt
Usage	OPTIONAL; may be used once and only once [01]
Definition	DebrisDisposedToDateCY stands for Total Debris disposed of in the Incident being reported in the unit of measure of Cubic Yards.
Comments	
Constraints	Used in EDXL-DebrisManagement ComplexType within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	DebrisManagementType
Source	ICS 209
Requirements Supported	Situation Summary-Information

Element	debrisNotYetDisposedCY
Туре	xs:unsignedInt
Usage	OPTIONAL; may be used once and only once [01]
Definition	DebrisNotYetDisposedCY stands for Total Debris that has not yet been disposed of in the Incident being reported in the unit of measure of Cubic Yards.
Comments	
Constraints	Used in EDXL-DebrisManagement ComplexType within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	DebrisManagementType
Source	
Requirements Supported	Situation Summary-Information

Element	debrisStorageSitesPercentFilled
Туре	ct:PercentageType
Usage	OPTIONAL; may be used once and only once [01]
Definition	DebrisStorageSitesPercentFilled stands for Percentage of Total space available in Debris Storage Sites which has been filled in the Incident being reported.
Comments	
Constraints	Used in EDXL-DebrisManagement ComplexType within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	DebrisManagementType
Source	
Requirements Supported	Situation Summary-Information

Element	daysToDisposalComplete
Туре	xs:unsignedInt
Usage	OPTIONAL; may be used once and only once [01]
Definition	DaysToDisposalComplete stands for number of days remaining to complete disposal of the debris in the incident being reported
Comments	
Constraints	Used in EDXL-DebrisManagement ComplexType within the EDXL-SitRep

	ManagementReportingSummary Report Type
Part of	DebrisManagementType
Source	
Requirements Supported	Situation Summary-Information

# 4.7.1.3 PropertyDamage Complex Type

ElementType	PropertyDamageType
Туре	xs:complexType
Definition	Tracks numbers and categories of property damage
Comments	
Constraints	
Valid Values / Examples	
Sub-elements	<ul> <li>numberDamaged [11]: xs:unsignedInt</li> <li>damageCategory [11]: DamageCategoryDefaultValues</li> </ul>
Used in	SituationSummaryType.propertyDamage
Requirements Supported	

Element	numberDamaged
Туре	xs:unsignedInt
Usage	REQUIRED; [11]
Definition	
Comments	
Constraints	
Part of	PropertyDamageType
Source	
Requirements Supported	

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Туре	ct:ValueType
Usage	REQUIRED [11]
Definition	Default value list: DamageCategoryDefaultValues
Comments	
Constraints	
Part of	PropertyDamageType
Source	
Requirements Supported	

#### 4.7.2 DecisionSupportInformation Complex Type

Elements in the Incident DecisionSupportInformation element group provide general management-level status and descriptive information about resources, scope and status of the incident response, and time and cost estimates such as projected # Of People To Be Sheltered, Anticipated Incident Management Completion Date, and Emergency Response Issues / Operational Activities. Incident Decision Support information also utilizes the following supporting elements:

- LocationSizeUOM
- StandardTimeFrames
- Remarks

ElementType	DecisionSupportInformationType
Туре	xs:complexType
Definition	
Comments	
Constraints	
Valid Values / Examples	
Sub-elements	projectedIncidentActivity [01]: ct:ValueKeyStringPairType
	projectedNumberToBeSheltered [01]: xs:unsignedInt
	criticalResourceNeeds [0*]: ct:ValueKeyStringPairType
	projectedFinalIncidentSize [01]: xs:unsignedLong
	anticipatedCompletionDate [01]: EstimatedDateType
	projectedDemobilizationStartDate [01]: EstimatedDateType
	estimatedCostsToDate [01]: EstimatedCostsType

	<ul> <li>projectedFinalCosts [01]: EstimatedCostsType</li> <li>emergencyResponseIssues [0*]: EmergencyResponseIssuesDefaultValues</li> <li>strategicDiscussion [01]: xs:string</li> <li>plannedActions [01]: xs:string</li> </ul>
Used in	ManagementReportingSummaryType.decisionSupportInformation
Requirements Supported	

Element	projectedIncidentActivity
Туре	ct:ValueKeyStringPairType
Usage	OPTIONAL; may be used once and only once [01]
Definition	An estimate when it is appropriate to do so of the projected incident activity, potential, movement, escalation, or spread and influencing factors during the next operational period. Direction/scope in which the incident is expected to spread, migrate, or expand during the next operational period, or other factors that may cause activity changes.
Comments	Include an estimate of the acreage or area that will likely be affected. If known, provide the above information in 12-, 24-, 48- and 72-hour time frames, and any activity anticipated after 72-hours
Constraints	Used in EDXL-SitRep IncidentDecisionSupportInformation element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	DecisionSupportInformationType
Source	ICS 209
Requirements Supported	Incident-Decision-Support-Information

Element	projectedNumberToBeSheltered
Туре	xs:unsignedInt
Usage	OPTIONAL; may be used once and only once [01]
Definition	The total number of people projected to require shelter due to the incident, to assist planning and matching of resources.
Comments	This is not a "CasualtyAndIllnessCategory". This number is not included in any Casualty and Illness Summary totals
Constraints	Used in EDXL-SitRep IncidentDecisionSupportInformation element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	DecisionSupportInformationType

Source	
Requirements Supported	Incident-Decision-Support-Information

Element	criticalResourceNeeds
Туре	ct:ValueKeyStringPairType
Usage	OPTIONAL; may be used more than once [0*]
Definition	A summary of the overall resource needs required over 12-, 24-, 48- and 72-hour time frames, and anticipated after 72-hours
Comments	Used in conjunction with the "StandardTimeFrames" element (ValueListURN).
Constraints	Used in EDXL-SitRep IncidentDecisionSupportInformation element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	DecisionSupportInformationType
Source	ICS 209
Requirements Supported	Incident-Decision-Support-Information

Element	projectedFinalIncidentSize
Туре	xs:unsignedLong
Usage	OPTIONAL; may be used once and only once [01]
Definition	An estimate of the total physical area likely to be involved or affected over the course of the incident.
Comments	<ul> <li>Use labels for acres, hectares, square miles, etc., as appropriate (Use the "LocationSizeUOM" element).</li> <li>Though both came from ICS-209, need to be clear difference and purpose vs. "Incident Size". Note that Incident Size may be actual or estimated.</li> </ul>
Constraints	Used in EDXL-SitRep IncidentDecisionSupportInformation element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	DecisionSupportInformationType
Source	ICS 209
Requirements Supported	Incident-Decision-Support-Information

Element anticipatedCompletionDate	
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Туре	EstimatedDateType
Usage	OPTIONAL; may be used once and only once [01]
Definition	The Date/Time at which incident containment or control is expected, or at which time the incident is expected to be closed or when significant incident support will be discontinued.
Comments	
Constraints	Used in EDXL-SitRep IncidentDecisionSupportInformation element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	DecisionSupportInformationType
Source	ICS 209
Requirements Supported	Incident-Decision-Support-Information

Element	projectedDemobilizationStartDate
Туре	EstimatedDateType
Usage	OPTIONAL; may be used once and only once [01]
Definition	The Date/Time at which major or significant demobilization is likely.
Comments	
Constraints	Used in EDXL-SitRep IncidentDecisionSupportInformation element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	DecisionSupportInformationType
Source	ICS 209
Requirements Supported	Incident-Decision-Support-Information

ElementType	EstimatedDateType
Туре	xs:complexType
Definition	
Comments	
Constraints	
Valid Values / Examples	
Sub-elements	<ul><li>date: ct:EDXLDateTimeType</li><li>isEstimate: ct:EstimateType</li></ul>

	remarks: ct:RemarksType
Used in	DecisionSupportInformationType.anticipatedCompletionDate,  DecisionSupportInformationType.projectedDemobilizationStartDate
Requirements Supported	

Element	estimatedCostsToDate
Туре	EstimatedCostsType
Usage	OPTIONAL; may be used once and only once [01]
Definition	An estimate of the total costs for the incident once all financial costs have been processed based on current spending and projected incident activity levels.
Comments	
Constraints	Always used with the CurrencyType common element (e.g. USD)      Used in EDXL-SitRep IncidentDecisionSupportInformation element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	DecisionSupportInformationType
Source	ICS 209
Requirements Supported	Incident-Decision-Support-Information

Element	projectedFinalCosts
Туре	EstimatedCostsType
Usage	OPTIONAL; may be used once and only once [01]
Definition	An estimate of the total costs for the incident once all financial costs have been processed based on current spending and projected incident activity levels.
Comments	
Constraints	Always used with the CurrencyType common element (e.g. USD)      Used in EDXL-SitRep IncidentDecisionSupportInformation element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	DecisionSupportInformationType
Source	ICS 209
Requirements Supported	Incident-Decision-Support-Information

ElementType	EstimatedCostsType
Туре	xs:complexType
Definition	
Comments	
Constraints	
Valid Values / Examples	
Sub-elements	<ul> <li>costs: ct:CurrencyType</li> <li>isEstimate: ct:EstimateType</li> <li>remarks: ct:RemarksType</li> </ul>
Used in	DecisionSupportInformationType.estimatedCostsToDate, DecisionSupportInformationType.projectedFinalCosts
Requirements Supported	

Element	emergencyResponselssues
Туре	ct:ValueType
Usage	OPTIONAL; may be used more than once [0*]
Definition	Brief overview of current and critical response activities, and initiatives for each Emergency Support Function (ESF) as applicable. Identify any new mission assignments. If not activated, so indicate. If deactivated, indicate deactivation date. Overview should be provided for each standard ESF as appropriate.
Comments	Default values list: EmergencyResponselssuesDefaultValues
Constraints	Used in EDXL-SitRep IncidentDecisionSupportInformation element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	DecisionSupportInformationType
Source	DHS SitRep Update Report, DHS/FEMA SitRep Worksheet
Requirements Supported	

Element	strategicDiscussion
Туре	xs:string
Usage	OPTIONAL; may be used once and only once [01]
Definition	Discussion of planned activities over the next operational period, explaining the relation of

	overall strategy, constraints, and current available information to:  1. Critical resource needs identified. 2. The Incident Action Plan and management objectives and targets, 3. Anticipated results.  Explain major problems and concerns such as operational challenges, incident management problems, and social, political, economic, or environmental concerns or impacts.
Comments	
Constraints	Used in EDXL-SitRep IncidentDecisionSupportInformation element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	DecisionSupportInformationType
Source	DHS SitRep Update Report, DHS/FEMA SitRep Worksheet
Requirements Supported	

Element	plannedActions
Туре	xs:string
Usage	OPTIONAL; may be used once and only once [01]
Definition	Discussion of planned actions over the next operational period.
Comments	
Constraints	Used in EDXL-SitRep IncidentDecisionSupportInformation element group within the EDXL-SitRep ManagementReportingSummary Report Type
Part of	DecisionSupportInformationType
Source	DHS SitRep Update Report, DHS/FEMA SitRep Worksheet
Requirements Supported	

# 4.8 Common Complex Types

## 4.8.1 GeographicSize Complex Type

ElementType	GeographicSizeType
Туре	xs:complexType
Definition	Captures qualified two-dimensional geographic footprint measured in meters squared
Comments	
Constraints	

Valid Values / Examples	
Sub-elements	<ul> <li>size [11]: xs:unsignedLong</li> <li>isEstimate [01]: ct:EstimateType</li> <li>remarks [01]: ct:RemarksType</li> </ul>
Used in	IncidentInformationType.geographicSize  JurisdictionInformationType.geographicSize
Requirements Supported	Incident-Size

#### 4.8.2 JurisdictionInformation Complex Type

"Jurisdiction" is a complex, reusable element used to identify and/or describe political Jurisdiction(s) (see glossary) affected by the incident.

Also supported by the following elements:

- LocationInformation: edxl-gsf [XML Structure]
- ContactInformation: edxl-ciq [XML Structure]

Note: edxl-gsf & edxl-ciq contain a set of re-usable elements such as ContactDescription, ContactRole, ContactLocation, EDXLLocationType, and AdditionalContactInformation.

ElementType	JurisdictionInformationType
Туре	xs:complexType
Definition	An XML structure containing four required elements (name, geographicSize, location, description)  Provides information about any jurisdiction(s) that are associated with, impacted by or in charge of this incident.
Comments	
Constraints	
Valid Values / Examples	
Sub-elements	<ul> <li>name [11]: xs:string</li> <li>geographicSize [11]: GeographicSizeType (1)</li> <li>location [11]: ct:EDXLLocationType</li> <li>description [11]: xs:string</li> </ul>
Used in	IncidentInformationType.jurisdictionInformation  ManagementReportingSummaryType.jurisdictionInformation
Requirements Supported	

Element	name
Туре	xs:string

Usage	REQUIRED [11]
Definition	The name of the jurisdiction (a pre-defined physical location or geo-political area, organization or agency over which legal authority extends) affected by the incident, where the incident originated, or which holds certain authority within its own jurisdiction as well as authority and responsibility in regard to mutual aid agreements.  Part of the AffectedJurisdiction XML structure.
Comments	<ul> <li>It is recognized that this definition mixes two types of concepts:</li> <li>Reference to an organization or agency that has "Authority" over something (such as an incident, or a set of identified resources). Jurisdiction in this sense may be general, such as "federal", "city", or "state", or may be specific agency names such as "Warren County", "US Coast Guard", "Panama City", and "NYPD".</li> <li>Reference to a pre-defined physical location or geo-political area</li> <li>Though a jurisdiction itself is not a person, role, or title, a jurisdiction has assigned to it one or more government personnel with legal authority for certain types of decision-making such as allocation of emergency resources and invocation of mutual aid agreements.</li> </ul>
Constraints	<ul> <li>Terms used on ICS-209: "Incident Location Information: Incident Jurisdiction"</li> <li>Used in EDXL-SitRep SituationInformation and ManagementReportingSummary" Report Types.</li> </ul>
Part of	JurisdictionInformationType
Source	ICS 209
Requirements Supported	Situation-Summary-Information

Element	geographicSize
Туре	GeographicSizeType
Usage	REQUIRED [11]
Definition	<ul> <li>Always paired with one "AffectedJurisdictionName"</li> <li>May be used with the common element "Estimate" to indicate whether the size is estimated or known.</li> <li>May be used with the common element "Remarks"</li> </ul>
Comments	
Constraints	Used in EDXL-SitRep SituationInformation and ManagementReportingSummary" Report Types.
Part of	JurisdictionInformationType, IncidentInformationType
Source	ICS 209
Requirements Sup-	Situation-Summary-Information

Element	location
Туре	ct:EDXLLocationType
Usage	REQUIRED [11]
Definition	Refers to the physical location of the affected area within an "AffectedJurisdictionName", applying reusable edxl-gsf components to express location information using a variety of options including geopolitical (e.g. addresses) and geospatial (e.g. lat/long).  Part of the AffectedJurisdiction XML structure.
Comments	Always paired with one "AffectedJurisdictionName"
Constraints	Used in EDXL-SitRep SituationInformation and ManagementReportingSummary" Report Types.
Part of	JurisdictionInformationType
Source	ICS 209
Requirements Supported	Situation-Summary-Information

Element	description
Туре	xs:string
Usage	REQUIRED [11]
Definition	A textual descripton of the "AffectedJurisdictionName" which may provide further information about the incident effects on that Jurisdiction and/or description of the Affected-JurisdictionSize if precise information is not available.  Part of the AffectedJurisdiction XML structure.
Comments	Always paired with one "AffectedJurisdictionName"
Constraints	Used in EDXL-SitRep SituationInformation and ManagementReportingSummary" Report Types.
Part of	JurisdictionInformationType
Source	ICS 209
Requirements Supported	Situation-Summary-Information

### 4.9 Default Value Lists

ElementType	ReportVersionDefaultValues
Туре	ct:ValueType

Definition	Default enumerated values for reportVersion
Comments	This indicates the current version of the specific SitRep MessageReportType report being submitted from the same source ("authorizedBy") for the same incident or event. If only one SitRep will be submitted, indicate BOTH "Initial" and "Final".
Constraints	Enumeration
Valid Values / Examples	<ul> <li>"Initial" - This is the first transmission of this kind of Report from the same source ("AuthorizedBy") for this incident or event. The "Initial" Report MAY contain the "OriginatingMessageID".</li> <li>"Update" - A subsequent SitRep MessageReportType from the same source ("AuthorizedBy") for the same incident or event.</li> <li>"Final" - The last of this specific SitRep MessageReportType to be submitted from same source ("AuthorizedBy") for the same incident or event. A SitRep may also have a ReportVersion of "Final" if they become part of a new Complex Incident (although this is rare)</li> </ul>
Sub-elements	
Used in	SitRepType.reportVersion
Requirements Supported	

ElementType	IncidentLifecycleDefaultValues
Туре	ct:ValueType
Definition	Default enumerated values for incidentLifeCycle
Comments	
Constraints	Enumeration
Valid Values / Examples	<ul><li> "Preparedness"</li><li> "Response"</li><li> "Mitigation"</li><li> "Recovery"</li></ul>
Sub-elements	
Used in	SitRepType.incidentLifecyclePhase
Requirements Supported	

ElementType	UrgencyDefaultValues
Туре	ct:ValueType
Definition	Default enumerated values for urgency
Comments	Inherited from CAP 1.2
Constraints	Enumeration

Valid Values / Examples	<ul> <li>"Immediate" - Responsive action SHOULD be taken immediately.</li> <li>"Expected" - Responsive action SHOULD be taken soon (within next hour).</li> <li>"Future" - Responsive action SHOULD be taken in the near future.</li> <li>"Past" - Responsive action is no longer required.</li> <li>"Unknown" - Urgency not known.</li> </ul>
Sub-elements	
Used in	SitRepType.urgency
Requirements Supported	

ElementType	ConfidenceDefaultValues
Туре	ct:ValueType
Definition	Default enumerated values for reportConfidence
Comments	
Constraints	Enumeration
Valid Values / Examples	<ul> <li>"HighlyConfident" – Topmost level of confidence.</li> <li>"SomewhatConfident" – Medium level of confidence.</li> <li>"Unsure" – Low level of confidence.</li> <li>"NoConfidence" – Lack of confidence – Can be used to support cancellation of previous report</li> </ul>
Sub-elements	
Used in	SitRepType.reportConfidence
Requirements Supported	

ElementType	SeverityDefaultValues
Туре	ct:ValueType
Definition	Default enumerated values for severity
Comments	Inherited from CAP 1.2
Constraints	Enumeration
Valid Values / Examples	<ul> <li>"Extreme" - Extraordinary threat to life or property.</li> <li>"Severe" - Significant threat to life or property.</li> <li>"Moderate" - Possible threat to life or property.</li> <li>"Minor" - Minimal threat to life or property.</li> <li>"Unknown" - Severity unknown</li> </ul>
Sub-elements	
Used in	SitRepType.severity
Requirements Sup-	

ElementType	ImmediateNeedsCategoryDefaultValues
Туре	ct:ValueType
Definition	Default enumerated values for immediateNeedsCategory
Comments	
Constraints	Enumeration
Valid Values / Examples	<ul> <li>"EmergencyMedicalServices"</li> <li>"FireAndHazardousMaterials"</li> <li>"IncidentManagement"</li> <li>"LawEnforcement"</li> <li>"MassCare"</li> <li>"MedicalAndPublicHealth"</li> <li>"PublicWorks"</li> <li>"SearchAndRescue"</li> </ul>
Sub-elements	
Used in	FieldObservationType.immediateNeedsCategory
Requirements Supported	

ElementType	IncidentKindDefaultValues
Туре	ct:ValueType
Definition	Default enumerated values for incidentKind
Comments	Inherited from EDXL-CAP CategoryType
Constraints	Enumeration
Valid Values / Examples	<ul> <li>"Geophysical" - Geophysical (inc. landslide)</li> <li>"Meteorological" - Meteorological (inc. flood)</li> <li>"GeneralEmergency" - General emergency</li> <li>"Safety" - Public safety</li> <li>"Security" - Law enforcement, military, homeland and local/private security</li> <li>"RescueAndRecovery" - Rescue and recovery</li> <li>"Rescue" - Rescue</li> <li>"FireSupressionAndRescue – Fire suppression and rescue</li> <li>"Fire" - Fire</li> <li>"MedicalAndPublicHealth" - Medical and public health</li> <li>"Health" - Health</li> <li>"PollutionAndEnvironmentalHazard" - Pollution and other environmental hazard</li> <li>"PublicAndPrivateTransportation" - Public and private transportation</li> <li>"Transport" - Transport</li> <li>"UtilityTelecommunicationOtherNonTranspotInfrastructure" - Utility, telecommunication, other non-transport infrastructure</li> <li>"CBRNE" - Chemical, Biological, Radiological, Nuclear or High-Yield Explosive threat or attack.</li> </ul>

Sub-elements	
Used in	IncidentInformationType.incidentKind
Requirements Supported	

ElementType	IncidentComplexityDefaultValues
Туре	ct:ValueType
Definition	Default enumerated values for incidentComplexity
Comments	
Constraints	Enumeration
Valid Values / Examples	<ul> <li>"Complex" – Public / Professional preparedness is low, Coordination Complexity and involvement is high (local, regional, state and national)</li> <li>"ModerateComplex" – Public / Professional preparedness is moderate-high, Coordination Complexity and involvement is high (local, regional, state, possibly national).</li> <li>"Moderate" – Public / Professional preparedness is high, Coordination Complexity and involvement is moderate (local, regional)</li> <li>"Low" - Public / Professional preparedness is high, Coordination Complexity and involvement is low (local only)</li> </ul>
Sub-elements	
Used in	IncidentInformationType.incidentComplexity
Requirements Supported	

ElementType	DeploymentStatusDefaultValues
Туре	ct:ValueType
Definition	Default enumerated values for deploymentStatus
Comments	
Constraints	Enumeration
Valid Values / Examples	<ul> <li>"Available"</li> <li>"ConditionallyAvailable"</li> <li>"EnRoute"</li> <li>"AtHospital"</li> <li>"NotAvailable"</li> <li>"OnScene"</li> <li>"Overdue"</li> <li>"AvailableByPager"</li> <li>"InQuarters"</li> <li>"OnTheRadio"</li> <li>"Transporting"</li> <li>"WaitingResponse"</li> </ul>
Sub-elements	

Used in	ResourceStatusType.deploymentStatus
Requirements Supported	

ElementType	PositionDefaultValues			
Туре	ct:ValueType			
Definition	Default enumerated values for positionTitle			
Comments				
Constraints	Enumeration			
Valid Values / Examples	<ul> <li>"CompensationClaimsUnitLeader"</li> <li>"ProcurementUnitLeader"</li> <li>"CostUnitLeader"</li> <li>"FinanceAdministrationSectionChief"</li> <li>"CommunicationsUnitLeader"</li> <li>"MedicalUnitLeader"</li> <li>"FoodUnitLeader"</li> <li>"ServiceBranchDirector"</li> <li>"GroundSupportUnitLeader"</li> <li>"FacilitiesUnitDirector"</li> <li>"SupplyUnitDirector"</li> <li>"SupplyUnitDirector"</li> <li>"SupplyInitDirector"</li> <li>"StagingAreaManager"</li> <li>"OperationsSectionChief"</li> <li>"DemobilizationUnitLeader"</li> <li>"BesourcesUnitLeader"</li> <li>"SituationUnitLeader"</li> <li>"SituationUnitLeader"</li> <li>"PlanningSectionChief"</li> <li>"TechnicalSpecialist"</li> <li>"PublicInformationOfficer"</li> <li>"SafetyOfficer"</li> <li>"CommunicationsOfficer"</li> <li>"LiaisonOfficer"</li> <li>"IncidentCommander"</li> </ul>			
Sub-elements				
Used in	OrganizationAndAssignmentsType.positionTitle OrganizationAndAssignmentsType.reportsToPositionTitle			
Requirements Supported				

ElementType	CasualtyAndIllnessCountCategoryDefaultValues		
Туре	ct:ValueType		
Definition	Default enumerated values for positionTitle		

Comments		
Constraints	Enumeration	
Valid Values / Examples	<ul> <li>"Fatalities" – Deceased</li> <li>"Hospitalized" – In-route or arrived at an Emergency Department or Hospital</li> <li>"WithInjuryOrllIness" – Physical or mental damage or sickness including those that may be caused through a biological event such as an epidemic or an exposure to toxic or radiological substances.</li> <li>"TrappedOrlnNeedOfRescue" – In need of rescue due to incident or other conditions</li> <li>"Missing" – Cannot be located</li> <li>"Evacuated" – Accounted for and being evacuated from the scene</li> <li>"ShelteringInPlace" – Accounted for but sheltering in their original location at time of the incident</li> <li>"InTemporaryShelters" – Accounted for and have been placed in a temporary shelter</li> <li>"InQuarantine" – Accounted for and under quarantine by authorities</li> <li>"ReceivedMassImmunizations"</li> <li>"RequireMassImmunizations"</li> </ul>	
Sub-elements		
Used in	CasualtyAndIllnessCountCategoryType.countCategory	
Requirements Supported		

ElementType	SignificantEventsDefaultValues			
Туре	ct:ValueType			
Definition	Default enumerated values for significantEvents			
Comments				
Constraints	Enumeration			
Valid Values / Examples	<ul> <li>"RoadClosure"</li> <li>"MassNotifications"</li> <li>"Evacuation"</li> <li>"ShelterInPlace"</li> <li>"PowerOutage"</li> <li>"TreeDown"</li> <li>"StrandedVehicle"</li> <li>"WaterLineBreak"</li> <li>"WaterShortage"</li> <li>"Quarantine"</li> <li>"BridgeCollapse"</li> <li>"BuildingCollapse"</li> <li>"Deaths"</li> <li>"Injuries"</li> <li>"MassImmunizations"</li> <li>"CleanupComplete"</li> <li>"ResidentRepopulation"</li> <li>"IncidentCommandTransition"</li> <li>"Accomplishments"</li> </ul>			
Sub-elements				
Used in	SituationSummaryType.significantEvents			

quirements Sup-	
ported	

ElementType	LifeAndSafetyThreatDefaultValues			
Туре	ct:ValueType			
Definition	Default values for lifeAndSafetyThreat			
Comments				
Constraints	Enumeration			
Valid Values / Examples	<ul> <li>"NoLikelyThreat" - No likely threat to life and safety.</li> <li>"PotentialFutureThreat" - Potential future threat to life and safety.</li> <li>"MassNotificationsInProgress" - Mass notifications in progress regarding emergency situations, evacuations, shelter in place, or other public safety advisories relating to this incident. These may include use of threat and alert systems such as the Emergency Alert System or a "reverse 911" system.</li> <li>"MassNotificationsCompleted" - "Casualty and Illness Summary" by Responder has been completed and submitted for this "ForTimePeriod"</li> <li>"NoEvacuationsImminent" - Evacuations are not anticipated in the near future based on current information.</li> <li>"PlanningForEvacuation" - Evacuation planning is underway in relation to this incident.</li> <li>"PlanningForShelterInPlace" - Planning is underway for shelter in place activities related to this incident.</li> <li>"EvacuationsInProgress" - There are active evacuations in progress relating to this incident.</li> <li>"ShelterInPlaceInProgress" - There are active shelter- in-place actions in progress relating to this incident.</li> <li>"RepopulationInProgress" - There is an active repopulation in progress relevant to this incident.</li> <li>"MassImmunizationInProgress" - There is an active mass immunization in progress relevant to this incident.</li> <li>"MassImmunizationComplete" - A mass immunization effort has been completed in specific relation to this incident.</li> <li>"QuarantineInProgress" - There is an active quarantine in progress relative specifically to this incident.</li> </ul>			
Sub-elements				
Used in	SituationSummaryType.lifeAndSafetyThreat			
Requirements Supported				

ElementType	InfrastructureAffectedDefaultValues		
Туре	ct:ValueType		
Definition	Default values for infrastructureAffected		
Comments			
Constraints	Enumeration		
Valid Values / Examples	"MassTransit"     "RoadsAndHighways"		

	<ul> <li>"Railway"</li> <li>"BridgesAndTunnels"</li> <li>"Seaports"</li> <li>"Waterways"</li> <li>"Airports"</li> <li>"Broadcast" - (TV, Radio, etc.)</li> <li>"Power"</li> <li>"Water"</li> <li>"Bridges"</li> <li>"GasLines"</li> <li>"Nuclear"</li> <li>"ConduitsAndRaceways"</li> <li>"CablingAndPatchPanels"</li> <li>"PowerAndEnergy"</li> <li>"AirConditioning"</li> <li>"DrinkingWater"</li> <li>"Sewage"</li> <li>"Irrigation"</li> <li>"WasteOrHazardousWaste"</li> <li>"FloodControl" - Dikes, Levees</li> <li>"EarthMonitoringAndMeasurementNetworks" - (Tidal, Meteorological, Seismometer, etc.)</li> <li>"Postal"</li> <li>"TelecommunicationsPhone"</li> <li>"TelecommunicationsMobile"</li> <li>"InternetBackbone"</li> <li>"PrivateNetwork"</li> <li>"Satellite"</li> <li>"ElectronicCommunicationsNetworks"</li> <li>"PersonalComputingServersAndDevices"</li> <li>"TrainedPersonnel"</li> </ul>
Sub-elements	
Used in	SituationSummaryType.infrastructureAffected
Requirements Supported	

ElementType	)amageCategoryDefaultValues			
Туре	ct:ValueType			
Definition	efault values for damageCategory			
Comments				
Constraints	numeration			
Valid Values / Examples	<ul> <li>Threatened within 72 hours</li> <li>Damaged</li> <li>Destroyed</li> </ul>			
Sub-elements				
Used in	PropertyDamageType.damageCategory			
Requirements Supported				

ElementType	EmergencyResponselssuesDefaultValues			
Туре	√alueType			
Definition	fault values for emergencyResponseIssues			
Comments				
Constraints				
Valid Values / Examples	<ul> <li>"ESF11AgricultureAndNaturalResources"</li> <li>"ESF2Communications"</li> <li>"ESF5EmergencyManagement"</li> <li>"ESF12Energy"</li> <li>"ESF15ExternalAffairs"</li> <li>"ESF4Firefighting"</li> <li>"ESF7LogisticsManagementResourceSupport"</li> <li>"ESF14LongTermCommunityRecoveryAndMitigation"</li> <li>"ESF6MassCareHousingAndHumanServices"</li> <li>"ESF10OilAndHazardousMaterialsResponse"</li> <li>"ESF8PublicHealthAndMedicalServices"</li> <li>"ESF8PublicSafetyAndSecurity"</li> <li>"ESF3PublicWorksAndEngineering"</li> <li>"ESF9SearchAndRescue"</li> <li>"ESF1Transportation"</li> </ul>			
Sub-elements				
Used in	DecisionSupportInformationType.emergencyResponseIssues			
Requirements Supported				

#### 5 Conformance

The EDXL-SitRep v1.0 specification has been written with the objective of making conformance to its requirements straightforward and unambiguous.

#### **5.1 Conformance Targets**

The two following conformance targets are defined in order to support the specification of conformance to this standard:

- EDXL-SitRep Message; and
- EDXL-SitRep Message Producer and Consumer.

An EDXL-SitRep Message is an XML 1.0 element whose syntax and semantics are specified in this standard. An EDXL-SitRep Message Producer is a software entity that produces EDXL-SitRep Messages.

**Note**: All the existing requirements for the production of an incoming EDXL-SitRep message are, in fact, requirements on the type and content of the EDXL-SitRep message that a consumer MUST be capable of consuming in order to ingest and process an EDXL-SitRep message. Therefore, a conforming EDXL-SitRep Message Consumer will necessarily meet all the existing requirements for the production of EDXL-SitRep messages.

# 5.2 Conformance Summaries for EDXL-SitRep Messages and Producers

In summary, an EDXL-SitRep Message is one of the five (5) report type elements specified in sections 3.4.2 to 3.4.6.

Requirements for an EDXL-SitRep Message Producer are given in Section 5.4, and summarized here. An EDXL-SitRep Message Producer is a software entity that produces conforming EDXL-SitRep Messages whenever an EDXL-SitRep Message is expected.

#### 5.3 Conformance as an EDXL-SitRep Message

#### 5.3.1 EDXL-SitRep Message

An XML 1.0 element is a conforming EDXL-SitRep Message if and only if:

- a) it meets the general requirements specified in Section 3.3;
- b) if its namespace name is "urn:oasis:names:tc:emergency:EDXL:SitRep:1.0:msg", then its local name is one of the five (5) report type names specified in sections 3.5 to 3.9 (also listed in Table 1), and the element is valid according to the schema located at http://docs.oasis-open.org/emergency/EDXL-SitRep/EDXL-SitRep.xsd, where validation is performed against the element declaration with the same local name;
- c) if its namespace name is "urn:oasis:names:tc:emergency:EDXL:SitRep:1.0:msg", then its content (which includes the content of each of its descendants) meets all the additional mandatory requirements provided in the specific subsection of Section 3 (sections 3.5 to 3.9) corresponding to the element's name, with the exception of the Message Flow; such requirements include:
  - the content of the Element Reference Model:
  - each of the Message Rules; and
  - the normative parts (element name, usage, and constraints) of any Data Dictionary entries (in Section 4.) corresponding to the elements that actually occur in the content of the element;

#### 5.4 Conformance as an EDXL-SitRep Message Producer

A software entity is a conforming EDXL-SitRep Message Producer if and only if it is constructed in such a way that any XML 1.0 element produced by it and present in a place in which a conforming EDXL-SitRep message is expected (based on contextual information) is indeed a conforming EDXL-SitRep message according to this standard.

**Note**: The condition above can be satisfied in many different ways. Here are some examples of possible scenarios:

- a standard distribution protocol (say, EDXL-DE) transfers EDXL-SitRep messages; a branch of a local responder agency involved in responding to a local incident has sent an EDXL-SitRep SituationInformation Report Type message to an the Incident Command Divisional Commander which claims to be a conforming EDXL-SitRep Message Producer and Consumer, and has received an EDXL-DE message of DistributionType "Ack" including the MessageID of the EDXL-SitRep SituationInformation Report Type message sent earlier, which is therefore expected to communicate that the EDXL-SitRep SituationInformation Report Type message sent earlier has been received and ingested.
- a local test environment has been set up, and the application under test (which claims to be a
  conforming EDXL-SitRep Message Producer) has the ability to produce an EDXL-SitRep message and write it to a file in a directory in response to a request coming from the testing tool; the
  testing tool has sent many requests to the application under test and is now verifying all the files
  present in the directory, which is expected to contain only conforming EDXL-SitRep Messages.

### **Appendix A Acknowledgments**

The following individuals have participated in the creation of this specification and are gratefully acknowledged:

#### **Participants:**

Rex Brooks, Network Centric Operations Industry Consortium (NCOIC)
Tim Grapes, Evolution Technologies, Inc., DHS Science and Technology Directorate, Office of Interoperability and Compatibility
Werner Joerg, Individual
Tom Ferrentino, Individual
Gary Ham, Individual
Don McGarry, MITRE Corporation

Brian Wilkins, MITRE Corporation Rob Torchon, Individual

### Appendix B EDXL-SituationReporting XML Schema

The EDXL-SituationReporting XML Schema is provided here for the sake of convenience and as a separate file that can be downloaded at

http://docs.oasis-open.org/emergency/edxl-sitrep/v1.0/csd01/schemas-and-examples/EDXLSitRep.xsd. Please note that all schemas needed for implementation of this specification can also be found at http://docs.oasis-open.org/emergency/edxl-sitrep/v1.0/csd01/schemas-and-examples/

```
<?xml version="1.0" encoding="utf-8"?>
     Emergency Data Exchange Language Situation Reporting (EDXL-SitRep) Version 1.0
     Working Draft WD22
     26 July 2015
     Copyright (c) OASIS Open 2015. All Rights Reserved.
 <!-- edited with XMLSpy v2012 sp1 (x64) (http://www.altova.com) by Donald P. McGarry et al.
  (The Mitre Corporation) -->
  <xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"</pre>
      xmlns:edxl-gsf="urn:oasis:names:tc:emergency:edxl:gsf:1.0"
      xmlns:ct="urn:oasis:names:tc:emergency:edxl:ct:1.0'
      xmlns="urn:oasis:names:tc:emergency:EDXL:SitRep:1.0"
      xmlns:ext="urn:oasis:names:tc:emergency:edxl:extension:1.0"
      targetNamespace="urn:oasis:names:tc:emergency:EDXL:SitRep:1.0"
      elementFormDefault="qualified" attributeFormDefault="qualified">
    <xs:import namespace="urn:oasis:names:tc:emergency:edxl:ct:1.0"</pre>
      schemaLocation="./edxl-ct-v1.0-wd05.xsd"/>
    <xs:import namespace="urn:oasis:names:tc:emergency:edxl:gsf:1.0"</pre>
      schemaLocation="./edxl-gsf.v1.0.xsd"/>
    <xs:import namespace="urn:oasis:names:tc:emergency:edxl:extension:1.0"</pre>
      schemaLocation="./edxl-ext-v1.0.xsd"/>
    <xs:complexType name="IReport" abstract="true">
      <xs:sequence>
        <xs:element name="extension" type="ext:ExtensionType"</pre>
          minOccurs="0" maxOccurs="unbounded"/>
      </xs:sequence>
    </xs:complexType>
    <!--Complex Types in Document Order-->
    <xs:complexType name="DisasterInformationType">
      <xs:seauence>
        <xs:element name="disasterName" type="xs:string"/>
        <xs:element name="disasterDeclarationAuthority" type="xs:string"/>
<xs:element name="disasterDeclarationDateTime" type="ct:EDXLDateTimeType"/>
      </xs:sequence>
    </xs:complexType>
    <xs:complexType name="IncidentStagingType">
        <xs:element name="incidentStagingArea" type="xs:string"/>
        <xs:element name="incidentStagingAreaLocation" type="ct:EDXLLocationType"/>
      </xs:sequence>
    </xs:complexType>
    <xs:complexType name="ResourceTotalType">
        <xs:element name="branchDivisionGroup" type="ct:EDXLStringType"/>
        <xs:element name="resource" type="ResourceCountType" max0ccurs="unbounded"/>
      </xs:sequence>
    </xs:complexType>
    <xs:complexType name="ResourceStatusType">
        <xs:element name="inventoryRefreshDateTime" type="ct:EDXLDateTimeType"/>
        <xs:element name="deploymentStatus" type="DeploymentStatusDefaultValues" minOccurs="0"/>
        <xs:element name="availability" type="xs:string"/>
      </xs:sequence>
    </xs:complexType>
    <xs:complexType name="ResourceCountType">
      <xs:sequence>
```

```
<xs:element name="agencyOrganization" type="ct:EDXLStringType"/>
    <xs:element name="resourceName" type="ct:EDXLStringType"/>
    <xs:element name="resourceTypeCategoryKind" type="ct:ValueListType" minOccurs="0"/>
    <xs:element name="resourceDetail" type="ResourceDetailType" minOccurs="0"/>
    <xs:element name="isSufficient" type="xs:boolean" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="ResourceDetailType">
  <xs:sequence>
    <xs:element name="resourcePersonnelCount" type="xs:unsignedInt" minOccurs="0"/>
    <xs:element name="unassignedResourcePersonnel" type="xs:unsignedInt" minOccurs="0"/>
    <xs:element name="resourceRequiredCount" type="xs:unsignedInt" minOccurs="0"/>
    <xs:element name="resourceCommittedCount" type="xs:unsignedInt" minOccurs="0"/>
    <xs:element name="resourceOnHandCount" type="xs:unsignedInt" minOccurs="0"/>
    <xs:element name="resourceStillNeededCount" type="xs:unsignedInt" minOccurs="0"/>
    <xs:element name="resourceRequestedCount" type="xs:unsignedInt" minOccurs="0"/>
    <xs:element name="dateTimeOrdered" type="ct:EDXLDateTimeType" minOccurs="0"/>
    <xs:element name="requestedArrival" type="ct:EDXLDateTimeType" minOccurs="0"/>
<xs:element name="estimatedArrival" type="ct:EDXLDateTimeType" minOccurs="0"/>
    <xs:element name="reportToLocation" type="ct:EDXLLocationType" minOccurs="0"/>
    <xs:element name="overheadPosition" type="ct:ValueKeyIntPairType"</pre>
      minOccurs="0" maxOccurs="unbounded"/>
    <xs:element name="workAssignment" type="ct:EDXLStringType" minOccurs="0"/>
<xs:element name="specialInstructions" type="xs:string" minOccurs="0"/>
    <xs:element name="specialEquipmentAndSupplies" type="xs:string"</pre>
      minOccurs="0" maxOccurs="unbounded"/>
    <xs:element name="additionalAssistingOrganizations" type="xs:string" minOccurs="0"/>
    <xs:element name="resourceStatus" type="ResourceStatusType" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="OrganizationAndAssignmentsType">
  <xs:sequence>
    <xs:element name="commandStructure" type="ct:EDXLStringType" minOccurs="0"/>
    <xs:element name="positionTitle" type="PositionDefaultValues" minOccurs="0"/>
    <xs:element name="personName" type="ct:PersonDetailsType" minOccurs="0"/>
    <xs:element name="branch" type="ct:ValueKeyType" minOccurs="0"/>
    <xs:element name="reportsToPositionTitle" type="PositionDefaultValues" minOccurs="0"/>
    <xs:element name="reportsToPersonName" type="ct:PersonDetailsType" minOccurs="0"/>
    <xs:element name="reportsToAgency" type="ct:ValueListType"</pre>
      minOccurs="0" maxOccurs="unbounded"/>
    <xs:element name="reportsToBranch" type="ct:ValueKeyType" minOccurs="0"/>
  </xs:sequence>
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<xs:complexType name="ImmunizationCountType">
  <xs:seauence>
    <xs:element name="count" type="xs:unsignedInt" />
    <xs:element name="remarks" type="ct:RemarksType" minOccurs="0"/>
    <xs:element name="isEstimate" type="ct:EstimateType" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="SummaryCountType">
  <xs:sequence>
    <xs:element name="casualtyAndIllnessCountCategory"</pre>
      type="CasualtyAndIllnessCountCategoryType"/>
    <xs:element name="responderSummaryCount" type="xs:unsignedInt" minOccurs="0"/>
    <xs:element name="nonResponderSummaryCount" type="xs:unsignedInt" minOccurs="0"/>
    <xs:element name="responderSummaryCountToDate" type="xs:unsignedInt" minOccurs="0"/>
    <xs:element name="nonResponderSummaryCountToDate" type="xs:unsignedInt" minOccurs="0"/>
    <xs:element name="receivedMassImmunizations" type="ImmunizationCountType"</pre>
      minOccurs="0"/>
    <xs:element name="requireMassImmunizations" type="ImmunizationCountType" minOccurs="0"/>
    <xs:element name="shelterCountEstimate" type="xs:unsignedInt" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="NotifiableDiseaseNumbersType">
    <xs:element name="diseaseSuspected" type="ct:ValueKeyType"/>
    <xs:element name="probableCause" type="ct:EDXLStringType"/>
    <xs:element name="countOfSuspectedCases" type="xs:unsignedInt"/>
    <xs:element name="countOfConfirmedCases" type="xs:unsignedInt"/>
```

```
</xs:sequence>
</xs:complexType>
<xs:complexType name="DebrisManagementType">
    <xs:element name="totalDebrisGeneratedCY" type="xs:unsignedInt" minOccurs="0"/>
    <xs:element name="debrisClearedToDateCY" type="xs:unsignedInt" minOccurs="0"/>
    <xs:element name="debrisNotYetClearedCY" type="xs:unsignedInt" minOccurs="0"/>
    <xs:element name="daysToClearanceComplete" type="xs:unsignedInt" minOccurs="0"/>
    <xs:element name="percentOfJurisdictionWithDebrisImpacts" type="ct:PercentageType"</pre>
     minOccurs="0"/>
    <xs:element name="areasWithDebrisImpacts" type="ct:ValueListType"</pre>
      minOccurs="0" maxOccurs="unbounded"/>
    <xs:element name="areasWhereWorkNotStarted" type="ct:ValueListType"</pre>
      minOccurs="0" maxOccurs="unbounded"/>
    <xs:element name="debrisDisposedToDateCY" type="xs:unsignedInt" minOccurs="0"/>
    <xs:element name="debrisNotYetDisposedCY" type="xs:unsignedInt" minOccurs="0"/>
    <xs:element name="debrisStorageSitesPercentFilled" type="ct:PercentageType"</pre>
      minOccurs="0"/>
    <xs:element name="daysToDisposalComplete" type="xs:unsignedInt" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>
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  <xs:sequence>
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    <xs:element name="talkingPoints" minOccurs="0">
      <xs:complexType>
        <xs:seauence>
          <xs:element name="talkingPoint" type="xs:string" maxOccurs="unbounded"/>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
    <xs:element name="rumors" minOccurs="0">
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        </xs:sequence>
      </xs:complexType>
    </xs:element>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="SituationSummaryType">
  <xs:seauence>
    <xs:element name="incidentCause" type="xs:string"/>
    <xs:element name="significantEvents" type="SignificantEventsDefaultValues"</pre>
      minOccurs="0" maxOccurs="unbounded"/>
    <xs:element name="damageAssessmentInformation" type="xs:string" minOccurs="0"/>
    <xs:element name="primaryHazards" type="xs:string" minOccurs="0"/>
    <xs:element name="hazMatIncidentReport">
      <xs:complexType>
        <xs:sequence>
          <xs:any namespace="##other" processContents="lax" minOccurs="0"/>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
    <xs:element name="extentOfContamination" type="ct:EDXLLocationType"</pre>
      minOccurs="0" maxOccurs="unbounded"/>
    <xs:element name="generalPopulationStatus" type="xs:string" minOccurs="0"/>
    <xs:element name="externalAffairs" type="ExternalAffairsType" minOccurs="0"/>
    <xs:element name="humanLifeAndSafetyThreat" type="xs:string" minOccurs="0"/>
    <xs:element name="lifeAndSafetyThreat" type="LifeAndSafetyThreatDefaultValues"</pre>
      maxOccurs="unbounded"/>
    <xs:element name="incidentThreatSummaryAndRisk" type="xs:string"</pre>
      minOccurs="0" maxOccurs="unbounded"/>
    <xs:element name="followOnIndication" type="xs:string" minOccurs="0"/>
    <xs:element name="infrastructureAffected" type="InfrastructureAffectedDefaultValues"</pre>
       minOccurs="0" maxOccurs="unbounded"/>
    <xs:element name="debrisManagement" type="DebrisManagementType" minOccurs="0"/>
    <xs:element name="propertyDamage" type="PropertyDamageType"</pre>
      minOccurs="0" maxOccurs="unbounded"/>
    <xs:element name="percentContained" type="ct:PercentageType" minOccurs="0"/>
```

```
<xs:element name="requestsForAdditionalSupport" type="xs:string" minOccurs="0"/>
    <xs:element name="terrorismNexus" type="xs:string" minOccurs="0"/>
<xs:element name="weatherEffects" type="ct:WeatherInfoType" minOccurs="0"/>
    <xs:element name="WMDEffects" type="xs:string" minOccurs="0"/>
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  </xs:sequence>
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    <xs:element name="remarks" type="ct:RemarksType" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>
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    <xs:element name="remarks" type="ct:RemarksType" minOccurs="0"/>
 </xs:sequence>
</xs:complexType>
<xs:complexType name="DecisionSupportInformationType">
  <xs:seauence>
    <xs:element name="projectedIncidentActivity" type="ct:ValueKeyStringPairType"</pre>
      minOccurs="0"/>
    <xs:element name="projectedNumberToBeSheltered" type="xs:unsignedInt" minOccurs="0"/>
    <xs:element name="criticalResourceNeeds" type="ct:ValueKeyStringPairType"</pre>
      minOccurs="0" maxOccurs="unbounded"/>
    <xs:element name="projectedFinalIncidentSize" type="xs:unsignedLong" minOccurs="0"/>
    <xs:element name="anticipatedCompletionDate" type="EstimatedDateType" minOccurs="0"/>
    <xs:element name="projectedDemobilizationStartDate" type="EstimatedDateType"</pre>
      minOccurs="0"/>
    <xs:element name="estimatedCostsToDate" type="EstimatedCostsType" minOccurs="0"/>
    <xs:element name="projectedFinalCosts" type="EstimatedCostsType" minOccurs="0"/>
    <xs:element name="emergencyResponseIssues" type="EmergencyResponseIssuesDefaultValues"</pre>
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    <xs:element name="strategicDiscussion" type="xs:string" minOccurs="0"/>
    <xs:element name="plannedActions" type="xs:string" minOccurs="0"/>
</xs:complexType>
<xs:complexType name="IncidentInformationType">
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    <xs:element name="incidentKind" type="IncidentKindDefaultValues"</pre>
      minOccurs="0" maxOccurs="unbounded"/>
    <xs:element name="incidentComplexity" type="IncidentComplexityDefaultValues"</pre>
      minOccurs="0"/>
    <xs:element name="incidentStartDateTime" type="ct:EDXLDateTimeType" minOccurs="0"/>
    <xs:element name="geographicSize" type="GeographicSizeType" />
    <xs:element name="disasterInformation" type="DisasterInformationType"</pre>
      minOccurs="0" maxOccurs="unbounded"/>
    <xs:element name="incidentLocation" type="ct:EDXLLocationType"/>
    <xs:element name="jurisdictionInformation" type="JurisdictionInformationType"</pre>
      minOccurs="0" maxOccurs="unbounded"/>
    <xs:element name="incidentStaging" type="IncidentStagingType"</pre>
      minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="CasualtyAndIllnessCountCategoryType">
  <xs:sequence>
    <xs:element name="countCategory" type="CasualtyAndIllnessCountCategoryDefaultValues"/>
<xs:element name="remarks" type="ct:RemarksType" minOccurs="0"/>
    <xs:element name="isEstimate" type="ct:EstimateType" minOccurs="0"/>
```

```
</xs:sequence>
</xs:complexType>
<xs:complexType name="JurisdictionInformationType">
    <xs:element name="name" type="xs:string"/>
    <xs:element name="geographicSize" type="GeographicSizeType" />
    <xs:element name="location" type="ct:EDXLLocationType"/>
    <xs:element name="description" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="GeographicSizeType">
  <xs:seauence>
    <xs:element name="size" type="xs:unsignedLong"/>
    <xs:element name="isEstimate" type="ct:EstimateType" minOccurs="0"/>
    <xs:element name="remarks" type="ct:RemarksType" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>
<!--/Complex Types in Documet Order-->
<!--Root Element-->
<xs:element name="sitRep" type="SitRepType"/>
<xs:complexType name="SitRepType">
  <xs:sequence>
    <xs:element name="messageID" type="ct:EDXLStringType"/>
    <xs:element name="preparedBy" type="ct:PersonTimePairType"/>
    <xs:element name="authorizedBy" type="ct:PersonTimePairType"/>
    <xs:element name="reportPurpose" type="ct:EDXLStringType"/>
    <xs:element name="reportNumber" type="xs:unsignedInt"/>
    <xs:element name="reportVersion" type="ReportVersionDefaultValues"/>
<xs:element name="forTimePeriod" type="ct:TimePeriodType"/>
    <xs:element name="reportTitle" type="ct:EDXLStringType" minOccurs="0"/>
    <xs:element name="incidentID" type="ct:EDXLStringType"max0ccurs="unbounded"/>
    <xs:element name="incidentLifecyclePhase" type="IncidentLifecycleDefaultValues"</pre>
      minOccurs="0" maxOccurs="unbounded"/>
    <xs:element name="originatingMessageID" type="ct:EDXLStringType" minOccurs="0"/>
    <xs:element name="precedingMessageID" type="ct:EDXLStringType"</pre>
      minOccurs="0" maxOccurs="unbounded"/>
    <xs:element name="urgency" type="UrgencyDefaultValues" minOccurs="0"/>
    <xs:element name="reportConfidence" type="ConfidenceDefaultValues"/>
    <xs:element name="severity" type="SeverityDefaultValues"/>
    <xs:element name="reportingLocation" type="ct:EDXLLocationType" minOccurs="0"/>
    <xs:element name="actionPlan" type="ct:EDXLStringType" minOccurs="0"/>
    <xs:element name="nextContact" type="ct:EDXLDateTimeType" minOccurs="0"/>
    <xs:element name="report" type="IReport"/>
  </xs:sequence>
</xs:complexType>
<!--End Root-->
<!--Subreport Types-->
<xs:element name="managementReportingSummary" type="ManagementReportingSummaryType"/>
<xs:element name="responseResourcesTotals" type="ResponseResourcesTotalsType"/>
<xs:element name="fieldObservation" type="FieldObservationType"/>
<xs:element name="situationInformation" type="SituationInformationType"/>
<xs:element name="casualtyAndIllnessSummary" type="CasualtyAndIllnessSummaryType"/>
<xs:complexType name="FieldObservationType">
  <xs:complexContent>
    <xs:extension base="IReport">
      <xs:sequence>
        <xs:element name="observationLocation" type="ct:EDXLLocationType"/>
        <xs:element name="immediateNeeds" type="ct:EDXLStringType"/>
<xs:element name="immediateNeedsCategory" type="ImmediateNeedsCategoryDefaultValues"</pre>
          minOccurs="0" maxOccurs="unbounded"/>
        <xs:element name="observationText" type="xs:string"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
<xs:complexType name="SituationInformationType">
  <xs:complexContent>
    <xs:extension base="IReport">
      <xs:sequence>
        <xs:choice>
```

```
<xs:sequence>
            <xs:element name="primaryIncidentInformation" type="IncidentInformationType"/>
            <xs:element name="subIncidentInformation" type="SubIncidentInformationType"</pre>
              minOccurs="0" maxOccurs="unbounded"/>
          </xs:sequence>
          <xs:element name="subIncidentInformation" type="SubIncidentInformationType"</pre>
            maxOccurs="unbounded"/>
        </xs:choice>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
<xs:complexType name="ResponseResourcesTotalsType">
  <xs:complexContent>
    <xs:extension base="IReport">
      <xs:sequence>
        <xs:choice maxOccurs="unbounded">
          <xs:element name="resourceTotal" type="ResourceTotalType"/>
          <xs:element name="organizationAndAssignments"</pre>
            type="OrganizationAndAssignmentsType"/>
        </xs:choice>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
<xs:complexType name="CasualtyAndIllnessSummaryType">
  <xs:complexContent>
    <xs:extension base="IReport">
      <xs:sequence>
        <xs:choice maxOccurs="unbounded">
          <xs:element name="summaryCount" type="SummaryCountType"/>
          <xs:element name="notifiableDiseaseNumbers" type="NotifiableDiseaseNumbersType"/>
        </xs:choice>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
<xs:complexType name="ManagementReportingSummaryType">
  <xs:complexContent>
    <xs:extension base="IReport">
      <xs:sequence>
        <xs:choice>
          <xs:sequence>
            <xs:element name="situationSummary" type="SituationSummaryType"/>
            <xs:element name="decisionSupportInformation"</pre>
              type="DecisionSupportInformationType" minOccurs="0"/>
            <xs:element name="jurisdictionInformation" type="JurisdictionInformationType"</pre>
              minOccurs="0" maxOccurs="unbounded"/>
          </xs:sequence>
          <xs:sequence>
            <xs:element name="decisionSupportInformation"</pre>
              type="DecisionSupportInformationType"/>
            <xs:element name="jurisdictionInformation" type="JurisdictionInformationType"</pre>
              minOccurs="0" maxOccurs="unbounded"/>
          </xs:sequence>
          <xs:element name="jurisdictionInformation" type="JurisdictionInformationType"</pre>
            maxOccurs="unbounded"/>
        </xs:choice>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
<xs:complexType name="SubIncidentInformationType">
  <xs:sequence>
    <xs:element name="subIncident" type="IncidentInformationType" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
<xs:simpleType name="DeploymentStatusDefaultValues">
  <xs:restriction base="ct:ValueType">
    <xs:enumeration value="Available"/>
```

```
<xs:enumeration value="ConditionallyAvailable"/>
    <xs:enumeration value="Enroute"/>
    <xs:enumeration value="AtHospital"/>
    <xs:enumeration value="NotAvailable"/>
   <xs:enumeration value="OnScene"/>
    <xs:enumeration value="Overdue"/>
    <xs:enumeration value="AvailableByPager"/>
    <xs:enumeration value="InQuarters"/>
    <xs:enumeration value="OntheRadio"/>
    <xs:enumeration value="Transporting"/>
    <xs:enumeration value="WaitingResponse"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="ReportVersionDefaultValues">
  <xs:restriction base="ct:ValueType">
    <xs:enumeration value="Initial"/>
    <xs:enumeration value="Update"/>
    <xs:enumeration value="Final"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="IncidentLifecycleDefaultValues">
  <xs:restriction base="ct:ValueType">
    <xs:enumeration value="Preparedness"/>
    <xs:enumeration value="Response"/>
    <xs:enumeration value="Mitigation"/>
    <xs:enumeration value="Recovery"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="UrgencyDefaultValues">
  <xs:restriction base="ct:ValueType">
    <xs:enumeration value="Immediate"/>
    <xs:enumeration value="Expected"/>
    <xs:enumeration value="Future"/>
    <xs:enumeration value="Past"/>
    <xs:enumeration value="Unknown"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="ConfidenceDefaultValues">
  <xs:restriction base="ct:ValueType">
    <xs:enumeration value="HighlyConfident "/>
    <xs:enumeration value="SomewhatConfident"/>
    <xs:enumeration value="Unsure"/>
    <xs:enumeration value="NoConfidence"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="SeverityDefaultValues">
  <xs:restriction base="ct:ValueType">
    <xs:enumeration value="Extreme"/>
    <xs:enumeration value="Severe"/>
    <xs:enumeration value="Moderate"/>
    <xs:enumeration value="Minor"/>
    <xs:enumeration value="Unknown"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="ImmediateNeedsCategoryDefaultValues">
  <xs:restriction base="ct:ValueType">
    <xs:enumeration value="EmergencyMedicalServices"/>
    <xs:enumeration value="FireAndHazardousMaterials"/>
    <xs:enumeration value="IncidentManagement"/>
    <xs:enumeration value="LawEnforcement"/>
    <xs:enumeration value="MassCare"/>
    <xs:enumeration value="MedicalAndPublicHealth"/>
    <xs:enumeration value="PublicWorks"/>
    <xs:enumeration value="SearchAndRescue"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="IncidentKindDefaultValues">
  <xs:restriction base="ct:ValueType">
    <xs:enumeration value="Geophysical"/>
    <xs:enumeration value="Meteorological"/>
```

```
<xs:enumeration value="GeneralEmergency"/>
    <xs:enumeration value="Safety"/>
    <xs:enumeration value="Security"/>
    <xs:enumeration value="RescueAndRecovery"/>
    <xs:enumeration value="Rescue"/>
    <xs:enumeration value="FireSupressionAndRescue"/>
    <xs:enumeration value="Fire"/>
    <xs:enumeration value="MedicalAndPublicHealth"/>
    <xs:enumeration value="Health"/>
    <xs:enumeration value="PollutionAndEnvironmentalHazards"/>
    <xs:enumeration value="PublicAndPrivateTransportation"/>
    <xs:enumeration value="Transport"/>
    <xs:enumeration value="UtilityTelecommunicationOtherNonTransportInfrastructure"/>
    <xs:enumeration value="CBRNE"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="PositionDefaultValues">
  <xs:restriction base="ct:ValueType">
    <xs:enumeration value="CompensationClaimsUnitLeader"/>
    <xs:enumeration value="ProcurementUnitLeader"/>
    <xs:enumeration value="TimeUnitLeader"/>
    <xs:enumeration value="CostUnitLeader"/>
    <xs:enumeration value="FinanceAdministrationSectionChief"/>
    <xs:enumeration value="CommunicationsUnitLeader"/>
    <xs:enumeration value="MedicalUnitLeader"/>
    <xs:enumeration value="FoodUnitLeader"/>
    <xs:enumeration value="ServiceBranchDirector"/>
    <xs:enumeration value="GroundSupportUnitLeader"/>
    <xs:enumeration value="FacilitiesUnitDirector"/>
    <xs:enumeration value="SupplyUnitDirector"/>
    <xs:enumeration value="SupportBranchDirector"/>
    <xs:enumeration value="LogisticsSectionChief"/>
    <xs:enumeration value="StagingAreaManager"/>
    <xs:enumeration value="OperationsSectionChief"/>
    <xs:enumeration value="DemobilizationUnitLeader"/>
    <xs:enumeration value="DocumentationUnitLeader"/>
    <xs:enumeration value="ResourcesUnitLeader"/>
    <xs:enumeration value="SituationUnitLeader"/>
    <xs:enumeration value="PlanningSectionChief"/>
    <xs:enumeration value="TechnicalSpecialst"/>
    <xs:enumeration value="PublicInformationOfficer"/>
    <xs:enumeration value="SafetyOfficer"/>
    <xs:enumeration value="CommunicationsOfficer"/>
    <xs:enumeration value="LiaisonOfficer"/>
    <xs:enumeration value="IncidentCommander"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="CasualtyAndIllnessCountCategoryDefaultValues">
  <xs:restriction base="ct:ValueType">
    <xs:enumeration value="Fatalities"/>
    <xs:enumeration value="Hospitalized"/>
    <xs:enumeration value="WithInjuryOrIllness"/>
    <xs:enumeration value="TrappedOrInNeedOfRescue"/>
    <xs:enumeration value="Missing"/>
   <xs:enumeration value="Evacuated"/>
    <xs:enumeration value="ShelteringInPlace"/>
    <xs:enumeration value="InTemporaryShelters"/>
    <xs:enumeration value="InQuarantine"/>
    <xs:enumeration value="ReceivedMassImmunizations"/>
    <xs:enumeration value="RequireMassImmunizations"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="SignificantEventsDefaultValues">
  <xs:restriction base="ct:ValueType">
    <xs:enumeration value="RoadClosure"/>
    <xs:enumeration value="MassNotifications"/>
    <xs:enumeration value="Evacuation"/>
    <xs:enumeration value="ShelterInPlace"/>
    <xs:enumeration value="PowerOutage"/>
    <xs:enumeration value="TreeDown"/>
```

```
<xs:enumeration value="StrandedVehicle"/>
    <xs:enumeration value="WaterLineBreak"/>
    <xs:enumeration value="WaterShortage"/>
    <xs:enumeration value="Quarantine"/>
    <xs:enumeration value="BridgeCollapse"/>
    <xs:enumeration value="BuildingCollapse"/>
    <xs:enumeration value="Deaths"/>
    <xs:enumeration value="Injuries"/>
    <xs:enumeration value="MassImmunizations"/>
    <xs:enumeration value="CleanupComplete"/>
    <xs:enumeration value="ResidentRepopulation"/>
    <xs:enumeration value="IncidentCommandTransition"/>
    <xs:enumeration value="Accomplishments"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="LifeAndSafetyThreatDefaultValues">
  <xs:restriction base="ct:ValueType">
    <xs:enumeration value="NoLikelyThreat"/>
    <xs:enumeration value="PotentialFutureThreat"/>
    <xs:enumeration value="MassNotificationsInProgress"/>
    <xs:enumeration value="MassNotificationsCompleted"/>
    <xs:enumeration value="NoEvacuationsImminent"/>
    <xs:enumeration value="PlanningForEvacuation"/>
    <xs:enumeration value="PlanningForShelterInPlace"/>
   <xs:enumeration value="EvacuationsInProgress"/>
    <xs:enumeration value="ShelterInPlaceInProgress"/>
    <xs:enumeration value="RepopulationInProgress"/>
    <xs:enumeration value="MassImmunizationInProgress"/>
    <xs:enumeration value="MassImmunizationComplete"/>
    <xs:enumeration value="QuarantineInProgress"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="InfrastructureAffectedDefaultValues">
  <xs:restriction base="ct:ValueType">
    <xs:enumeration value="MassTransit"/>
    <xs:enumeration value="RoadsAndHighways"/>
    <xs:enumeration value="Railway"/>
    <xs:enumeration value="BridgesAndTunnels"/>
    <xs:enumeration value="Seaports"/>
    <xs:enumeration value="Waterways"/>
    <xs:enumeration value="Airports"/>
    <xs:enumeration value="Broadcast"/>
    <xs:enumeration value="Power"/>
    <xs:enumeration value="Water"/>
    <xs:enumeration value="Bridges"/>
    <xs:enumeration value="GasLines"/>
    <xs:enumeration value="Nuclear"/>
    <xs:enumeration value="ConduitsAndRaceways"/>
    <xs:enumeration value="CablingAndPatchPanels"/>
    <xs:enumeration value="PowerAndEnergy"/>
    <xs:enumeration value="AirConditioning"/>
    <xs:enumeration value="DrinkingWater"/>
    <xs:enumeration value="Sewage"/>
    <xs:enumeration value="Irrigation"/>
    <xs:enumeration value="WasteOrHazardousWaste"/>
    <xs:enumeration value="FloodControl"/>
    <xs:enumeration value="EarthMonitoringAndMeasurementNetworks"/>
    <xs:enumeration value="Postal"/>
    <xs:enumeration value="TelecommunicationsPhone"/>
    <xs:enumeration value="TelecommunicationsMobile"/>
    <xs:enumeration value="InternetBackbone"/>
    <xs:enumeration value="PrivateNetwork"/>
    <xs:enumeration value="Satellite"/>
    <xs:enumeration value="ElectronicCommunicationsNetworks"/>
    <xs:enumeration value="PersonalComputingServersAndDevices"/>
    <xs:enumeration value="TrainedPersonnel"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="DamageCategoryDefaultValues">
  <xs:restriction base="ct:ValueType">
```

```
<xs:enumeration value="ThreatenedWithin72Hours"/>
        <xs:enumeration value="Damaged"/>
        <xs:enumeration value="Destroyed"/>
      </xs:restriction>
    </xs:simpleType>
    <xs:simpleType name="EmergencyResponseIssuesDefaultValues">
      <xs:restriction base="ct:ValueType">
        <xs:enumeration value="ESF11AgricultureAndNaturalResources"/>
        <xs:enumeration value="ESF2Communications"/>
        <xs:enumeration value="ESF5EmergencyManagement"/>
        <xs:enumeration value="ESF12Energy"/>
        <xs:enumeration value="ESF15ExternalAffairs"/>
        <xs:enumeration value="ESF4Firefighting"/>
        <xs:enumeration value="ESF7LogisticsManagementResourceSupport"/>
        <xs:enumeration value="ESF14LongTermCommunityRecoveryAndMitigation"/>
        <xs:enumeration value="ESF6MassCareHousingAndHumanServices"/>
        <xs:enumeration value="ESF100ilAndHazardousMaterialsResponse"/>
<xs:enumeration value="ESF8PublicHealthAndMedicalServices"/>
        <xs:enumeration value="ESF13PublicSafetyAndSecurity"/>
        <xs:enumeration value="ESF3PublicWorksAndEngineering"/>
        <xs:enumeration value="ESF9SearchAndRescue"/>
        <xs:enumeration value="ESF1Transportation"/>
      </xs:restriction>
    </xs:simpleType>
    <xs:simpleType name="IncidentComplexityDefaultValues">
      <xs:restriction base="ct:ValueType">
        <xs:enumeration value="Complex"/>
        <xs:enumeration value="ModerateComplex"/>
        <xs:enumeration value="Moderate"/>
        <xs:enumeration value="Low"/>
      </xs:restriction>
    </xs:simpleType>
</xs:schema>
```

### **Appendix C EDXL Special Mechanisms**

#### **Appendix C.1 Selecting values from lists**

The ValueList and ValueKey types are part of the EDXL Common Types collection. They allow standards adopters to use topic specific lists of values for elements such as raceEthnicity, fluenSpokenLanguages, specialTransportationNeeds, etc.. Both types have identical structure, but ValueList allows for selection of multiple values [1..\*] in the list, whereas ValueKey allows for selection of only one [1..1] value in the list.

When using a ValueList / ValueKey structure the user can specify a user-defined list by URI (either using the "urn:..." format or the more familiar "http://..." format) and then include user-defined values from that list. This structure has several advantages: (a) it provides flexibility for local communities to use community-defined terms and vocabulary; (b) it allows for the external maintenance of local or standardized lists; and (c) it avoids the problems inherent in attempting to constantly update hard-coded enumerations in a specification.

An existing vetted list should be referenced for defaults, but users could also reference their own value list.

#### Appendix C.1.1 ValueListType

```
The schema for ct:ValueListType is defined as
```

and its application to the XML description of an element *elementName* of type ct:ValueListType would be:

```
<elementName>
        <ct:ValueListURI>valueListURI</ct:ValueListURI>
        <ct:Value>value_1
...
        <ct:Value>value_n
```

In the Data Dictionary we describe examples of elements of type ct:ValueListType by listing value assignments to *valueListURI* and *value* 1, ..., *value* n.

So for instance an example for "specialMedicalNeeds" is described by

```
valueListURI = urn:myagency:gov:ahrq:specialMedicalNeeds and
```

```
value 1 = Ventilator
```

```
value_2 = Oxygen
```

which stands for

```
<specialMedicalNeeds>
```

```
<ct:ValueListURI>urn:myagency:gov:ahrq:specialMedicalNeeds</ct:ValueListURI> <ct:Value>Ventilator</ct:Value>
```

```
<ct:Value>Oxygen</ct:Value>
```

```
</specialMedicalNeeds>
```

This example contains two special needs, one whose value is "Ventilator" and one whose value is "Oxygen". These are notional needs created for this example. The needs are identified as values from a list whose unique Uniform Reference Identifier (URI) is "urn:myagency:gov:ahrq:specialMedicalNeeds".

A note about ValueList: the multiplicity of ValueList can be a source for confusion. Typically, 1 is the maximum number of occurrences of ValueList. This means that at most one such list may occur for a given element; this does not preclude the user from selecting multiple entries from that list (maxOccurs = "unbounded").

#### Appendix C.1.2 ValueKeyType

</xs:complexType>

```
The schema for ValueKeyType is defined as

<xs:complexType name="ValueKeyType">

<xs:sequence>

<xs:element ref="ct:ValueListURI" minOccurs="1" maxOccurs="1"/>

<xs:element ref="ct:Value" minOccurs="1" maxOccurs="1"/>

</xs:sequence>
```

and its application to the XML description of an element elementName of type ct:ValueKeyType would be:

```
<elementName>
     <ct:ValueListURI>valueListURI</ct:ValueListURI>
     <ct:Value>value</ct:Value>
</elementName>
```

This example uses a published list of values and definitions and selects one specific entry to describe the eyeColor of a patient:

```
    valueListURI = urn:myagency:gov:OMG:eyeColors
    value = Green
    which stands for
    <eyeColor>
    <ct:ValueListURI>urn:myagency:gov:OMG:eyeColors
    <ct:ValueScreen</li>
    </eyeColor>
```

Following the approach in ValueList, we'd point ValueListURI to some other list to make a different selection of eye colors available.

#### **Appendix C.2 EDXL Extensions**

The challenge when developing standardized formats is to balance the need to define specific elements of emergency information that we can all agree upon and yet provide flexibility for local communities to include their particular information using their familiar vocabulary. EDXL addresses this concern by providing the common defined terms in the formal standards for the former, and by providing extension mechanisms for the latter.

Typical needs are:

- 1. *Community augmentation*: community adds new information that is associated with the EDXL standard. Examples: adding HL7 translation information to the TEP.
- 2. *List augmentation*: community adds new values (enumerations) to the default set of values in the standard. Example: adding FlightRisk value to the TEP contingencyMedicalSpecialityCode list.
- 3. *List replacement*:: community replaces the default set of values in the standard in its entirety. Example: defining TriageStatus with number codes instead of colors.

4. *List redefinition*: community reassigns the meaning of the default set of values in the standard in its entirety. Example: redefining the Black TriageCode to mean actively dying but not yet deceased.

EDXL combines the CommunityExtension mechanism with the ValueList and ValueKey types to deal with these needs. CommunityExtension addresses need 1.; ValueList / ValueKey address need 3.; and combined they address needs 2. and 4.

For more details about EDXL Extensions and usage guidance, refer to the white paper **[EDXL Extensions]** referenced in section 1.6 above.

A "CommunityExtension", or simply "Extension", is a term used to describe supplemental message information that a community wants to add to the otherwise standard message information normally contained within an EDXL standard message. It is defined by the ExtensionType which consists of a [1..\*] set of name/value pairs.

The schema for ExtensionType is defined as

```
<xs:complexType name="ExtensionType">
    <!-- Base type to allow communities to extend/augment an EDXL data standard -->
    <xs:sequence>
        <xs:element name="community" type="xs:anyURI">
               <!-- Unique community identifier -->
        </xs:element>
        <xs:element name="id" type="xs:anyURI">
               <!-- Unique identifier for this extension -->
        </xs:element>
        <xs:element name="parameter" type="ext:ParameterType" maxOccurs="unbounded"/>
    </xs:sequence>
</xs:complexType>
where "ParameterType" is defined as a group of elements used to extend/augment the data standard
    <xs:sequence>
        <xs:element name="nameURI" type="ext:ParameterNameType">
               <!-- Unique identifier of a parameter -->
        </xs:element>
        <xs:element name="value" type="ext:ParameterValueType" maxOccurs="unbounded"/>
    </xs:sequence>
with "ParameterNameType" being defined as a URI with optional xPath attribute
and "ParameterValueType" being defined as a ct:EDXLStringType" with optional "uom" attribute.
```

Its application to the XML description of an element *elementName* of type ext:ExtensionType would be:

If that extension is to be used for adding a community specific item in an enumeration, we indicate this by adding

```
<xsd:enumeration value="ExtensionValue"/>
to the enumeration affected.
```

Note that this mechanism should be used only for required elements – if an element is optional, it could be completely replaced by any community extension, with its own name and structure.

Note also that for each example we assume that the schema contains the following element to allow for adding extensions:

```
<xsd:element name="extension"
type="ext:ExtensionType" minOccurs="0" maxOccurs="unbounded"/>
```

#### **Appendix C.2.1 Community augmentation**

The following example illustrates the use of ExtensionType to build a community specific "layer" .

Example: adding an "earthquake layer" to an EDXL standard

XML invocation:

```
<extension>
    <community>http://www.myCommunity.org/layers/earthquake/</community>
    <id>earthquakeLayer</id>
    <parameter>
       <nameURI>http://example/layers/earthquake/Magnitude</nameURI>
       <value uom="http://example/layers/earthquake/RichterScale">5.3</value>
    </parameter>
    <parameter>
       <nameURI>http://example/layers/earthquake/EventTime</nameURI>
       <value>2010-08-30T23:25:40+00:00
    </parameter>
    <parameter>
       <nameURI>http://example/layers/earthquake/Depth</nameURI>
       <value uom="http://qudt.org/vocab/unit/MileInternational>38.7</value>
    </parameter>
</extension>
```

#### Appendix C.2.2 List augmentation

If the list is defined as a ValueList or a ValueKey, then use the corresponding mechanisms described above to point to revised lists. If the list is defined as an enumeration, then the augmentation can be achieved with the Extension mechanism.

The following example illustrates the use of ExtensionType to add community specific enumeration(s).

Example: adding "ReleasedForRehab" and "PostRehabRecidivismt" o PatientCurrentDispositionDefaultValues enumeration in TEP

schema particulars:

```
<xsd:simpleType name="PatientCurrentDispositionDefaultValues">
   <xsd:restriction base="ct:EDXLStringType">
       <xsd:enumeration value="Discharged "/>
       <xsd:enumeration value="Transferred"/>
       <xsd:enumeration value="Deceased"/>
       <xsd:enumeration value="NoTreatmentRequired"/>
       <xsd:enumeration value="RefusedCare"/>
       <xsd:enumeration value="TreatedAndReleased"/>
       <xsd:enumeration value="TreatedAndTransferredCare"/>
       <xsd:enumeration value="TreatedAndTransported"/>
       <xsd:enumeration value="Admitted"/>
       <xsd:enumeration value="TreatedAndTransportedToHospital"/>
       <xsd:enumeration value="Pending-Ongoing"/>
       <xsd:enumeration value="ExtensionValue"/>
   </xsd:restriction>
</xsd:simpleType>
```

and some URI (e.g. www.patientDispositionExtension.org), enumerates the additional values:

```
<xsd:restriction base="ct:EDXLStringType">
    <xsd:enumeration value="ReleasedForRehab"/>
    <xsd:enumeration value="PostRehabRecidivism"/>
</xsd:restriction>
XML invocations:
<patientCurrentDisposition>ExtensionValue</patientCurrentDisposition>
<extension>
    <community>http://www.patientDispositionExtension.org</community>
    <id>specialDispositionRehab</id>
    <parameter>
        <nameURI xPath="/.../patientCurrentDisposition">
           http://example/US/EMS/dispositionCodes
        </nameURI>
        <value>ReleasedForRehab</value>
    </parameter>
</extension>
```

#### Appendix C.2.3 List replacement

If the list is defined as a ValueList or a ValueKey, then use the corresponding mechanisms described above to point to a replacement list. If the list is defined as an enumeration, then the replacement can be achieved with the Extension mechanism.

Example: the default triage codes are {"Red", "Yellow", "Green, "Blue", "Black" and "ExtensionValue"}. To allow for the use of "Purple" from a different list of values, the TEP message would look like:

```
<TEPMessage>
   <extension>
      <community>http://example/US/EMS</community>
      <id>layer2</id>
      <parameter>
        <nameURI xPath="./patient/patientEncounter/patientCare/triageStatus">
               http://example/US/EMS/triageCodes
        </nameURI>
        <value>Purple</value>
      </parameter>
   </extension>
   <patient>
      <patientEncounter>
         <patientCare>
               <triageStatus>ExtensionValue</triageStatus>
         </patientCare>
      </patientEncounter>
   </patient>
</TEPMessage>
```

#### **Appendix C.2.4 List redefinition**

If the list is defined as a ValueList or a ValueKey, then use the corresponding mechanisms described above to point to list redefinitions. If the list is defined as an enumeration, then the redefinition can be achieved with the Extension mechanism. Note that list redefinition may pose significant risk to

interoperability and therefore, whether the list is completely redefined or only partially, best practices suggest that the extension mechanism must be used, to signal that risk.

Example: if one or more triage values are the same but have different meaning, then we use a redefined list with Extension:

```
<TEPMessage>
   <extension>
      <community>http://example/US/EMS</community>
      <id>layer2</id>
      <parameter>
         <nameURI xPath="./patient/patientEncounter/patientCare/triageStatus">
               http://example/US/EMS/triageCodes
         </nameURI>
         <value>Black</value>
      </parameter>
   </extension>
   <patient>
      <patientEncounter>
         <patientCare>
               <triageStatus>ExtensionValue</triageStatus>
         </patientCare>
      </patientEncounter>
   </patient>
</TEPMessage>
```

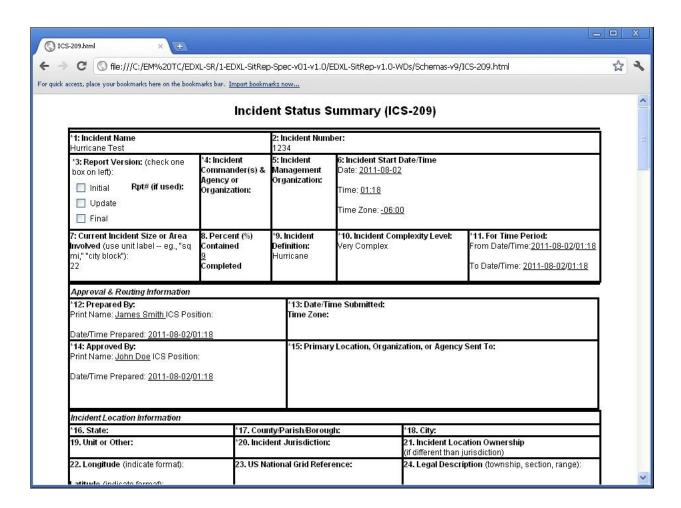
### **Appendix D - Examples**

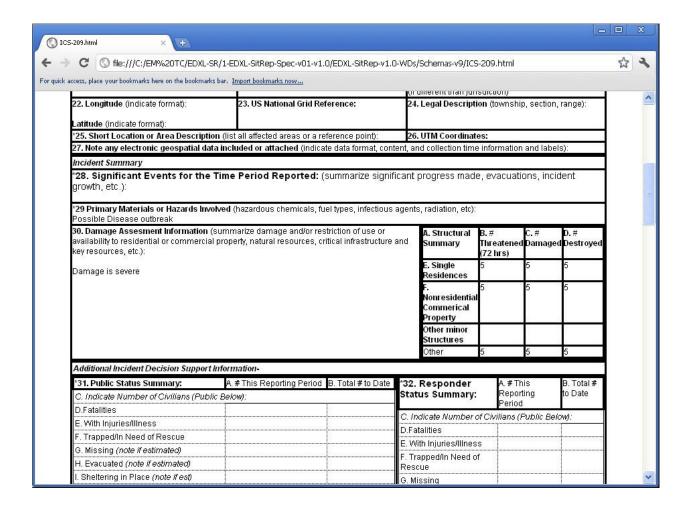
Example code for each of the Situation Reports contained in this specification are available at: http://docs.oasis-open.org/emergency/edxl-sitrep/v1.0/csd01/schemas-and-examples/

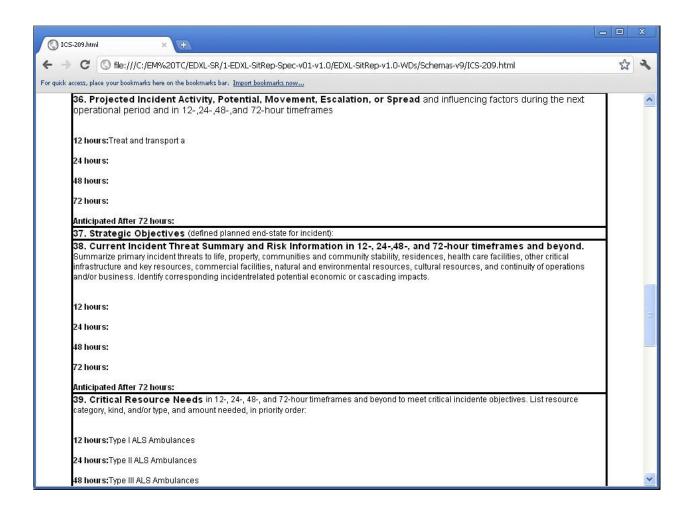
These examples show all required and optional elements for each of the reports.

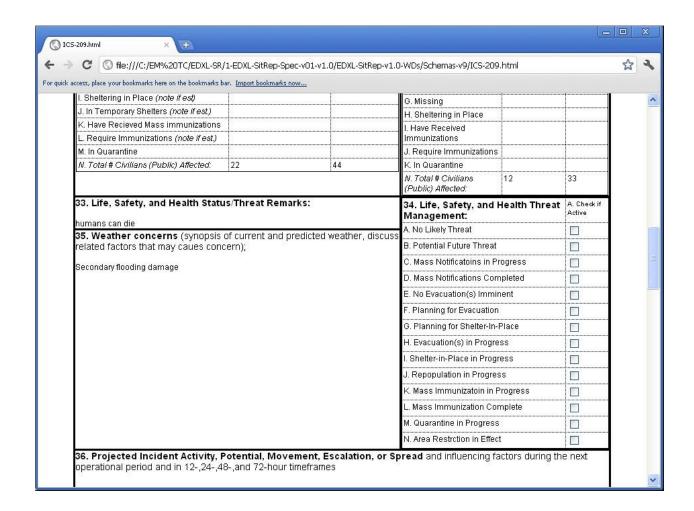
#### Appendix D.1 ICS209 Web Form Example

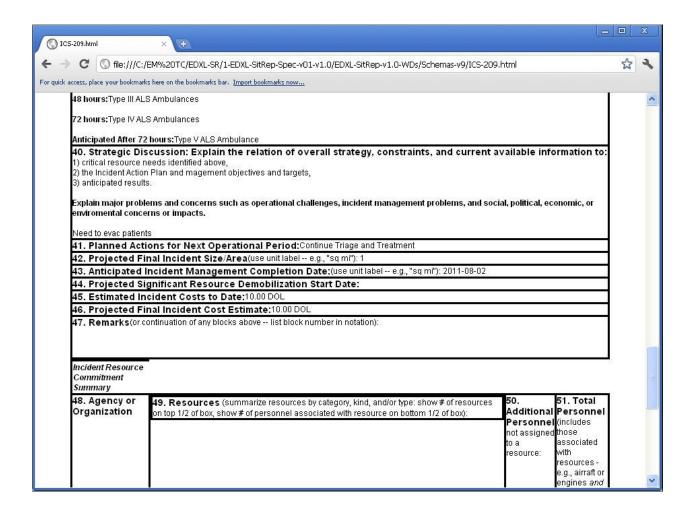
The following example shows how a typical Incident Command System (ICS) form ICS209 using EDXL-SitRep-v1.0 could be filled out. The six images that follow show vertically sequential web browser screenshots that use the code for the XSLT Stylesheet and the example code for this example that are also available at http://docs.oasis-open.org/emergency/edxl-sitrep/v1.0/csd01/schemas-and-examples/

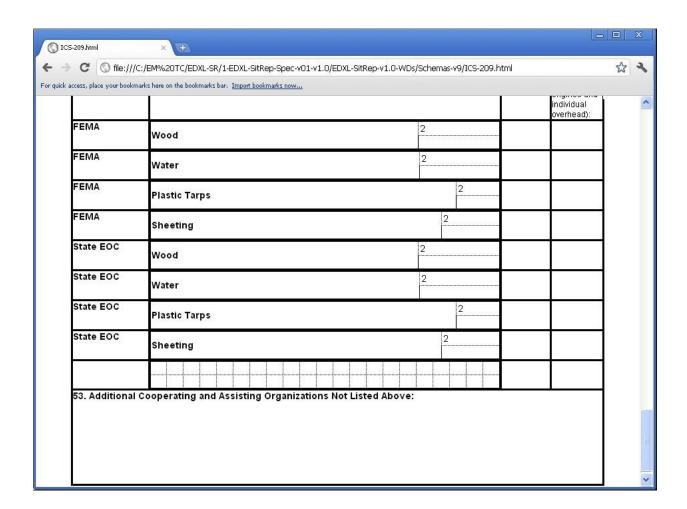












## **Appendix E Revision History**

Revision	Date	Editor	Changes Made
[Rev number]	[Rev Date]	[Modified By]	[Summary of Changes]

edxl-sitrep- v1.0-wd08	23 Nov. 2010	Rex Brooks	First Full Working Draft
edxl-sitrep- v1.0-wd011	31 Dec. 2010	Rex Brooks	Major Revision Working Draft
edxl-sitrep- v1.0-wd015	10 Aug. 2011	Rex Brooks	Major Revision Working Draft
edxl-sitrep- v1.0-wd016	27 Sept. 2011	Rex Brooks	Major Revision Working Draft submitted for Emergency Management Technical Committee approval as Committee Specification Draft
edxl-sitrep- v1.0-wd18	24 April 2012	Rex Brooks	Major Revision Working Draft submitted for Emergency Management Technical Committee approval as Committee Specification Draft
edxl-sitRep- v1.0-wd21	20 Feb 25 June 2015	Werner Joerg	Major revision + document rebuild for SC review;
	23 July 2015		Added "Part of" field in Element tables of Data Dictionary
edxl-sitRep- v1.0-wd22	27 July 2015	Werner Joerg	Clean up comments; adapt/restructure schemas
edxl-sitRep- v1.0-csd03	06 Sept. 2015	Werner Joerg	Updated WD22 to CSD03