Emergency Data Exchange Language (EDXL) Hospital AVailability Exchange (HAVE) Version 2.0

Working Draft 01

01 May 2013

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[OASIS Emergency Management TC](http://www.oasis-open.org/committees/emergency/)

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Additional artifacts:

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

* XML schemas: (list file names or directory name)
* Other parts (list titles and/or file names)

Related work:

This specification replaces or supersedes:

* *Emergency Data Exchange Language (EDXL) Hospital AVailability Exchange (HAVE) Version 1.0*. 22 December 2009. OASIS Standard Incorporating Approved Errata. <http://docs.oasis-open.org/emergency/edxl-have/v1.0/errata/edxl-have-v1.0-os-errata-os.html>

This specification is related to:

* *Emergency Data Exchange Language (EDXL) Distribution Element v1.0*, <http://docs.oasis-open.org/emergency/edxl-de/v1.0/EDXL-DE_Spec_v1.0.pdf>
* *Emergency Data Exchange Language (EDXL) Resource Messaging v1.0*, <http://docs.oasis-open.org/emergency/edxl-rm/v1.0/errata/EDXL-RM-v1.0-OS-errata-os.html>
* *Emergency Data Exchange Language Common Types v1.0*, <http://docs.oasis-open.org/emergency/edxl-ct/v1.0/edxl-ct-v1.0.html>
* *Emergency Data Exchange Language Customer Information Quality v1.0*, <http://docs.oasis-open.org/emergency/edxl-ciq/v1.0/edxl-ciq-v1.0.html>

Declared XML namespaces:

* list namespaces declared within this specification

Abstract:

Summary of the technical purpose of the document.

Status:

This [Working Draft](http://www.oasis-open.org/committees/process.php#dWorkingDraft) (WD) has been produced by one or more TC Members; it has not yet been voted on by the TC or [approved](http://www.oasis-open.org/committees/process.php#committeeDraft) as a Committee Draft (Committee Specification Draft or a Committee Note Draft). The OASIS document [Approval Process](http://www.oasis-open.org/committees/process.php#standApprovProcess) begins officially with a TC vote to approve a WD as a Committee Draft. A TC may approve a Working Draft, revise it, and re-approve it any number of times as a Committee Draft.

Initial URI pattern:

http://docs.oasis-open.org/emergency/edxl-have/v2.0/csd01/edxl-have-v2.0-csd01.doc

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# Introduction

## 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 published EDXL Standards includes:

* The Common Alerting Protocol v1.2 specification (EDXL-CAP), with various dedicated profiles
* The Distribution Element Specification v2.0 (EDXL-DE)
* The Hospital AVailability Exchange specification v1.0 (EDXL-HAVE)
* The Resource Messaging specification v1.0 (EDXL-RM)
* The Situation Reporting specification v1.0 (EDXL-SitRep)

The primary purpose of EDXL-HAVE is to provide an XML-based reporting format that allows information to be shared about a set (network?) of health facilities including the communication of the status of a health facility, its services, and its resources. These include bed capacity and availability, emergency department status, staffing levels, available service coverage, and the status of a health facilities operations and resources.

The primary audience for EDXL-HAVE is the broad community that interacts with health facilities and it is intended to be used as a tool to automate information flow in and out of the health network. It is not intended to be a tool used for internal administration of health facilities as other standards organizations (e.g. <<NEED HL7 REFERENCE>>).

## History

<<DARRELL to document history including use in Haiti and perhaps Los Angeles County – **BRIAN** – can we reference Mitre’s use there???>>

<< FROM HAVE1.0:

In a disaster or emergency situation, there is a need for hospitals to be able to communicate with each other, and with other members of the emergency response community. The ability to exchange data in regard to hospitals’ bed availability, status, services, and capacity enables both hospitals and other emergency agencies to respond to emergencies and disaster situations with greater efficiency and speed. In particular, it will allow emergency dispatchers and managers to make sound logistics decisions - where to route victims, which hospitals have the ability to provide the needed service. Many hospitals have expressed the need for, and indeed are currently using, commercial or self-developed information technology that allows them to publish this information to other hospitals in a region, as well as EOCs, 9-1-1 centers, and EMS responders via a Web-based tool.

Systems that are available today do not record or present data in a standardized format, creating a serious barrier to data sharing between hospitals and emergency response groups. Without data standards, parties of various kinds are unable to view data from hospitals in a state or region that use a different system – unless a specialized interface is developed. Alternatively, such officials must get special passwords and toggle between web pages to get a full picture. Other local emergency responders are unable to get the data imported into the emergency IT tools they use (e.g. a 9-1-1 computer-aided dispatch system or an EOC consequence information management system). They too must get a pass word and go to the appropriate web page. This is very inefficient. A uniform data standard will allow different applications and systems to communicate seamlessly.

END FROM HAVE1.0>>

## Structure of the EDXL Hospital Availability Exchange Specification

The EDXL-HAVE 2.0 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-HAVE XML Schema is provided separately. The overall structure of the EDXL-HAVE 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-HAVE standard is defined in the following sections:

* Section 2 summarizes the design principles of the standard and shows several usage scenarios;
* Section 3 provides and informal overview of EDXL-HAVE. In particular:
  + Section 3.1 presents an extensive definition of a HAVE report;
  + Section 3.2 describes essential supporting elements in the EDXL Common Types collection, including the use of EDXL Extensions;
  + Section 3.3 presents the Element Reference Model (ERM) which shows the abstract structural relationships of the main components of EDXL-HAVE;
  + Section 3.4 discusses how the distribution requirements for EDXL-HAVE messages may be met through several mechanisms, including EDXL-Distribution Element (DE) and as general data payloads;
  + Section 3.5 presents a summary of the elements that make up a HAVE message.
* Section 4 The Data Dictionary formally defines each element contained in the EDXL-HAVE standard message.
* Section 5 provides conformance information.

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

cardinality.

## 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].

In addition, within this Specification, the keyword “CONDITIONAL” should be interpreted as potentially “REQUIRED” or “OPTIONAL” depending on the surrounding context. The term “REQUIRED” means that empty elements or NULL values are NOT allowed.

For increased precision, these terms are complemented with the inclusive interval notation [lb .. ub], where lb stands for lower bound (default 0) and ub stands for upper bound (default '\*' - any > 1). E.g. [1..1] means REQUIRED, exactly once, [..\*] means OPTIONAL, any number of times.

## Normative References

[RFC2119] Bradner, S., “Key words for use in RFCs to Indicate Requirement Levels”, BCP 14, RFC 2119, March 1997. <http://www.ietf.org/rfc/rfc2119.txt>.

[EDXL-CIQ] <<reference for CIQ>>

[EDXL:

## Non-Normative References

[HL7] Health Level Seven International - <http://www.hl7.org/>

**NOTE: The proper format for citation of technical work produced by an OASIS TC (whether Standards Track or Non-Standards Track) is:**

**[Citation Label]**

Work Product [title](http://docs.oasis-open.org/specGuidelines/ndr/namingDirectives.html#workProductName) (italicized). Approval date (DD Month YYYY). OASIS [Stage](http://docs.oasis-open.org/specGuidelines/ndr/namingDirectives.html#stage) Identifier and [Revision](http://docs.oasis-open.org/specGuidelines/ndr/namingDirectives.html#revision) Number (*e.g.*, OASIS Committee Specification Draft 01). Principal URI ([version-specific URI](http://docs.oasis-open.org/specGuidelines/ndr/namingDirectives.html#this-version), *e.g*., with filename component: somespec-v1.0-csd01.html).

For example:

**[OpenDoc-1.2]** *Open Document Format for Office Applications (OpenDocument) Version 1.2*. 19 January 2011. OASIS Committee Specification Draft 07. <http://docs.oasis-open.org/office/v1.2/csd07/OpenDocument-v1.2-csd07.html>.

**[CAP-1.2]** *Common Alerting Protocol Version 1.2*. 01 July 2010. OASIS Standard. <http://docs.oasis-open.org/emergency/cap/v1.2/CAP-v1.2-os.html>.

# Design Principles & Concepts (non-normative)

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

* Support day-to-day and crisis use of the standard.
* Facilitate sharing of information amongst the general public, all levels of government, first nation/tribal, international, and non-governmental organizations.
* Provide a simple information report that allows first responders, emergency managers, community leaders, politicians, and other stakeholders to get a quick glimpse of the state of the health network in a community.
* Provide a non-invasive way for a health facility to keep the communities that they serve abreast of developments that impact their ability to provide care.
* Be respectful of the boundaries of internal health facility information and the information that is relevant externally.
* Separation of EDXL-HAVE reports from being tied to a particular method of delivery.
* Use and reuse of data, content, and models developed by other initiatives that align with EDXL-HAVE.
* Provide a baseline set of services, operations, and resources to allow health facilities to start using HAVE quickly, while allowing for controlled extension where warranted.

## Requirements for Design

<< TODO: Locate requirements for HAVE – IS THIS IT??? <https://www.oasis-open.org/apps/org/workgroup/emergency-have/download.php/38356/EDXL-HAVE-SC-SOP_DRAFT_dpm.docx>

DARRELL has emailed Elysa for this information.

>>

<< TEP EXAMPLE:

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/338215/EDXL-TEP-Rqmts&draftMessagingSpecFinalV2.2_05-05-2010.pdf>

Referenced within the specification document, the Project Initiation Document (PID) contains the effort purpose, objectives and scope:

[http://www.oasis-open.org/committees/download.php/...](http://www.oasis-open.org/committees/download.php/......)

>>

## Example Usage Scenarios

The following scenarios illustrate how EDXL-HAVE 2.0 can be used in the field.

### Day-to-Day – Dialysis Patient:

On a routine pickup a social worker picks up an elderly patient that needs routine maintenance. Normally the dialysis is performed at the closest facility but the social worker knows that the small facility’s dialysis unit is not operating at capacity. A quick query to view the local health facilities presents several within a 20-minute drive and the social work places a call and coordinates with one of the alternate facilities.

### First Responder – Responding with Critical Care

As the result of a multi-unit residential fire, ambulances are dispatched and Incident Commander indicates that there are 2 critical and 3 serious burn victims. The nearest hospital can only take in 2 burn victims normally but the current state of the burn unit is not known. By examining the state of the local facilities health officials can coordinate which victims are to be taken to the surrounding health facilities.

### Mass-Scale Vaccination Clinics

Under pandemic conditions that community is implementing a vaccination program with the hospitals, urgent care clinics, private clinics, and temporary clinics providing vaccinations. The public and key officials, and the media can have immediate visibility into the wait times and service availability at each of the vaccination sites. EDXL-HAVE provides the ability to display service availability for each facility, reference on a map, by colour code and to provide an indication of wait times if they are available.

### Disaster Response:

Following a major earthquake in the developing world, NGOs, various government responders, and local officials (and non-officials) establish temporary health-care facilities to meet the urgent and non-urgent health needs of those injured or killed by the earthquake and ensuing issues. Coordination of multiple dimensions are critical: what services are available, what is the capacity of the facilities, what resources they are missing or can share, where are the facilities located, who are the official points of contacts, what agency is running the facility, what are the hours operation, etc.

As the event unfolds there is a Cholera outbreak due to damaged sanitation. There is a clear need identified to track 2 particular services (e.g. Cholera Vaccination and Cholera Treatment) that were too specific to be part of the default HAVE 2.0 services taxonomy. After a meeting of the coordinating agencies, the data being shared is extended to include Cholera Vaccination and Cholera Treatment services, including the standard metrics (capacity, colour code for status, etc.)

### Exercises

<<TEP makes reference to several exercises – do we want to do the same? We have only one that I am aware of (CAUSE Resilience 2) but the in-field use of a “hacked” HAVE 1.0 by LA County may help>>

# EDXL HAVE

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.

## HAVE Report Definition (non-normative)

The HAVE Report is a single EDXL message that is intended to provide sharing of the services, operations, and capacities of health facilities. Health facilities in HAVE include hospitals, urgent care clinics, temporary facilities, and other facilities that may provide health services for a community. <<more needed>>

Typical actors:

* Senders – hospital administrators, hospital networks, health providers, NGOs << more>>
* Recipients – first responders, dispatch operators, emergency managers,

## Supporting Elements (non-normative)

### Common Types

Supporting Element Types borrow re-usable elements from the EDXL Common Types (ct:) that apply to and support multiple areas of the HAVE 2.0 reports, such as Location, <<MORE>> etc.. For instance incidentLocation relies on ct:EDXLLocationType, which consists of either EDXLGeoLocation for geographical information or EDXLGeoPoliticalLocation for geopolitical information. EDXLGeoLocation is of type edxl-gsf:EDXLGeoLocationType and EDXLGeoPoliticalLocation is of type ct:EDXLGeoPoliticalLocationType. This latter type consists of either a GeoCode (of type ct:ValueListType) or an Address (of type edxl-ciq:xAL:AddressType).

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

<< re-cast from a HAVE perspective>>

FROM TEP:

Supporting Element Types borrow re-usable elements from the EDXL Common Types (ct:) that apply to and support multiple areas of the TEP 1.0 messages, such as Location, PatientContact etc.. For instance incidentLocation relies on ct:EDXLLocationType, which consists of either EDXLGeoLocation for geographical information or EDXLGeoPoliticalLocation for geopolitical information. EDXLGeoLocation is of type edxl-gsf:EDXLGeoLocationType and EDXLGeoPoliticalLocation is of type ct:EDXLGeoPoliticalLocationType. This latter type consists of either a GeoCode (of type ct:ValueListType) or an Address (of type edxl-ciq:xAL:AddressType).

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

| Supporting Element/Type | Defined In |
| --- | --- |
| ct:EDXLDateTimeType | EDXL-CT (Simple Types) |
| ct:EDXLStringType | EDXL-CT (Simple Types) |
| ct:ValueListURIType | EDXL-CT (Simple Types) |
| ct:ValueType | EDXL-CT (Simple Types) |
| ct:ValueListType | EDXL-CT (Complex Types) |
| ct:ValueKeyType | EDXL-CT (Complex Types) |
| ct:EDXLGeoPoliticalLocationType | EDXL-CT (Complex Types) |
| ct:EDXLLocationType | EDXL-CT (Complex Types) |
| gsf:EDXLGeoLocationType | EDXL-GSF |
| ct:ValueListURI | EDXL-CT (Top Level Elements) |
| xal:addressType | EDXL-CIQ |
|  |  |

Some elements of the common type “ct:EDXLStringType” are denoted as [token] in the accompanying XMLper the following reference:

[token] N. Freed, XML Schema Part 2: Datatypes Second Edition, http://www.w3.org/TR/xmlschema-2/#token, W3C REC-xmlschema-2, October 2004.

The definition for token as found in the OASIS common types is: “The[value space](http://www.w3.org/TR/xmlschema-2/#dt-value-space)of **token** is the set of strings that do not contain the carriage return (#xD), line feed (#xA) nor tab (#x9) characters, that have no leading or trailing spaces (#x20) and that have no internal sequences of two or more spaces.”

The implication is that the XML parser will change string entries to removecarriage returns, line feeds, tab characters, leading or trailing spaces, and internal sequences of two or more spaces.

^^ END TEP:

<< TODO:

* Rationalize CT types that carried forward

Confirm that the versions of key standards (CIQ in particular) are OK.

>>

### Selecting Values from Lists

FROM TEP:

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 <<replace with HAVE specific types>> 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 .

^^ END TEP

<<TODO: clarify how the above applies (or doesn’t) to HAVE 2.0 >>

### ValueListType

<< REPLACE with HAVE-centric treatment of the ValueListType>>

FROM TEP:

The schema for ct:ValueListType is defined as

<xs:complexType name="ValueListType">

<xs:sequence>

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

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

</xs:sequence>

</xs:complexType>

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>

…

<ct:Value>*value*\_n</ct:Value>

</*elementName*>

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”).

^^^ END TEP

<< TODO: replace with HAVE-centric example >>

### ValueKeyType

<< REPLACE with HAVE-centric treatment of the ValueKeyType>>

FROM TEP:

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>

</xs:complexType>

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:ValueListURI>

<ct:Value>Green</ct:Value>

</eyeColor>

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

^^ END TEP

<< REPLACE with HAVE-centric example >>

### EDXL Extensions (needed?)

<< BRIAN – confirm that this section is not needed>>

## Element Reference Model (non-normative)

<<DIAGRAM – DARRELL to create using Sparx EA >>

## Distribution of EDXL-HAVE (non-normative)

<<NOTE: TEP (WD04) ties itself to EDXL-DE and or another messaging system due to its requirement for message metadata. Is there desire in HAVE to make this same tie? To date discussions have not indicated this.>>

HAVE messages are intended to be payloads of various messaging and/or delivery systems. Messaging systems such as EDXL-DE can treat a HAVE message as a payload. Similarly, non-message-based systems (e.g. RESTful web service) can deliver a HAVE message just as easily. An individual facility may provide an up-to-date report via a web service. An aggregator could poll the facilities that are of interest for a particular reason, or in a Publish-Subscribe scenario, subscribe to the facilities of interest.

## HAVE Elements

# Data Dictionary (normative)

FROM TEP:

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

**Element** / **ElementType**– Name of the element or element type.

**Type** – Type or format of the element.

**Usage** – Optionality and Cardinality (the latter is for Element only).

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 / type.

**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.

**Valid Values / Examples** – A list of values that apply to this particular element, or examples which apply in order to clarify the definition. Where valid values are specified for ValueListURN/Value type pairs, these values are suggested as defaults, allowing implementations to use their own value list, or insert their own value by extending the defaults.

**Sub-elements** – List of references to elements that are part of this element

**Used In** – 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). Key:

gReq# - “General” requirement number.

fReq# - “Functional” requirement number.

iReq# - “Information” requirement number.

***Namespace prefixes***: we use the following prefixes for namespace scoping of elements and types

xsd = "<http://www.w3.org/2001/XMLSchema>"

predefined types in XMLSchema space

ct = "urn:oasis:names:tc:emergency:edxl:ct:1.0"

common types in EDXL space

ext = "urn:oasis:names:tc:emergency:edxl:extension:1.0"

extension mechanism for EDXL Standards

xal = "urn:oasis:names:tc:emergency:edxl:ciq:1.0:xal"

elements / types in EDXL-CIQ-xAL (extensible Address Language) space

tep = "urn:oasis:names:tc:emergency:EDXL:TEP:1.0"

elements / types in EDXL-TEP space

tep-ct = "urn:oasis:names:tc:emergency:EDXL:TEP:Defaults:1.0"

common types in EDXL-TEP space

For an explanation of examples for ValueListType and ValueKeyType, see sections 3.2.2 and 3.2.3.

***Naming convention***: in order to mark a clear distinction between elements and types, names of elements shall not contain the string “Type” and shall be formatted in camel-type (lower case leading alpha character); types are to be terminated by the string “Type” and shall be formatted in Pascal-type (upper case leading alpha character). Acronyms that are part of a type/element identifier should preserve their all upper case format.

^^ END TEP:

<<TODO: discuss with HAVE SC about the exact format – is there a tool to generate this?>>

## HAVE Message

Example table from TEP:

|  |  |
| --- | --- |
| **Element** | **TEPMessage** |
| Type | xsd:complexType |
| Usage | REQUIRED; MUST be used once and only once |
| Definition | Group of elements used to uniquely identify a TEP message and its source. |
| Comments |  |
| Constraints |  |
| Valid Values / Examples |  |
| Sub-elements | * [messageID](#messageID|table) [1..1]: ct:[EDXLStringType](#3.2.1.Common_Types|outline) * [systemID](#systemID|table) [0..1]: ct:[EDXLStringType](#3.2.1.Common_Types|outline) * [patient](#patient|table) [1..1]: tep:[PatientType](#PatientType|table) * extension [0..\*]: ext:ExtensionType |
| Used In | EDXL-TEP |
| Requirements Supported |  |

## Facility

## Services

## Resources

## Operations

## Staffing

# Conformance

The last numbered section in the specification must be the Conformance section. Conformance Statements/Clauses go here.

<< ANYONE? WHAT GOES HERE???

## CONFORMANCE TARGETS

CONFORMANCE AS AN EDXL-HAVE REPORT

CONFORMANCE AS AN EDXL-HAVE REPORT PRODUCER

**Note: The example shown below is for informative purposes only and is a snippet of the schema – to illustrate the content.**

1. EDXL-HAVE EXAMPLE (NON-NORMATIVE)
2. Service Types and Capacities (NON-NORMATIVE)
3. Acknowledgments

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

Participants:

[Participant Name, Affiliation | Individual Member]

[Participant Name, Affiliation | Individual Member]

1. Title Text

text

* 1. Subsidiary section

text

* + 1. Sub-subsidiary section

text

1. Revision History

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