Emergency Registries

Abstract

Multiple emergency services standards organizations are developing specifications based on IETF emergency calling and other IETF protocols. There is a desire among these organizations to use common registries, not tied to a particular country or national Standards Development Organization (SDO), in the long term pursuit of a single worldwide standard. This document asks IANA to create a set of registries and provides processes for expanding the set and populating them.

Status of This Memo

This Internet-Draft is submitted in full conformance with the provisions of BCP 78 and BCP 79.

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Table of Contents

1. Introduction

[RFC6443] establishes a framework for carrying emergency calls over the Internet using the SIP ([RFC3261]) protocol. Various regional organizations are developing standards for how calls conforming to this framework are handled within the Emergency Services IP Networks (ESInets) established by local, regional or national authorities to handle such calls and deliver them to the appropriate Public Safety Answering Point (PSAP). Many of these standards have needed registries of values used in the protocols and services the services define. Prior to this document, such registries were managed by the regional SDOs themselves. There is a desire among many of the regional emergency services SDOs to have a single worldwide standard for handling emergency calls, and as part of that effort, a single set of registries managed by a neutral party. This document requests IANA to establish a new top-level registry called "Emergency" and to create a set of sub-registries within that registry. This document does not provide initial contents of the registries, with some exceptions. The registries will be populated by requests from the regional SDOs, including The NENA i3 Standard [NENAi3].

2. Acknowledgements

Thanks to the workgroups and committees at NENA: The 9-1-1 Association, especially the Core Services and Agency Systems committees, as well as ETSI and EENA for their contributions to unify international emergency calling standards.

3. Conventions used in this document

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 this document, "NG9-1-1" is use to describe next-generation emergency calling services generally and is meant to include NG112 initiatives ongoing in Europe ([NG112]) and similar programs in other regions.

4. IANA Considerations

This document creates a number of registries. The initial values for these registries are not defined and will be submitted by regional and international SDOs such as NENA and ETSI.

4.1. SIP Reason Protocols

IANA is requested to add the value "emergency" to the SIP Protocols Registry ([SIPProto]).

4.1.1. Protocol Value

"emergency"

4.1.2. Protocol Cause

"Emergency call processing"

4.1.3. Reference

This document, and ([NENAi3]).

4.2. "Emergency" Group

IANA is requested to establish the registries within this section under the "Emergency" group. These registries contain enumerated values used for various aspects of emergency calling and call handling. New registries or subregistries in the "Emergency" group require a standards document, which MAY be a standards track RFC, but also MAY be a defined in a document from a recognized standards organization in which emergency services standards are in scope. Where a new registry or subregistry is defined in an external standards organization, an expert SHALL review the document to ascertain that it is relevant to the "Emergency" area, that the organization defining the registry is a recognized standards organization in which emergency services standards are in scope, that the document clearly articulates the management method for the regisry, which MUST be substantially similar to one or more of the management methods in [RFC8216], and if expert review is specified, that experts acceptable to the IESG for the registry are available. The expert(s) reviewing the new registry shall also request IANA to review the relevant documents using the same criteria as it would for a standards track RFC. The expert SHALL NOT approve the new registry unless IANA is satisfied it can maintain the registry with

the same or similar level of effort it expends for similar registries created by RFCs. If the management of the registry is specified as First Come First Served, which, per RFC8126 does not require an expert, an expert acceptable to the IESG must be available to answer questions about registrations and advise IANA of any issues in registrations in that registry.

These registries are needed in order to implement the NENA i3 Standard for Next-Generation 9-1-1 [NENAi3] as well as the NENA Standard for Emergency Incident Data Object [EIDO]. These standards, unless otherwise specified, will initially populate the registries created by this document. Some registries previously existed in the NENA Registry System [NRS], but the intent of international SDOs is to maintain next-generation emergency calling registries under IANA in the future. [NRS] will be maintained only for backwards compatibility, and for registries required only for North America.

4.3. "emergency" URN namespace

IANA is requested to register a new URN namespace for "emergency".

4.3.1. Namespace Identifier

emergency

4.3.2. Version

1

4.3.3. Date

RFC Editor: please insert the date this RFC was published

4.3.4. Registrant

IETF and the ecrit Working Group. Should the working group cease to exist, discussion should be directed to the Applications and Real-Time Area or general IETF discussion forums, or the IESG.

4.3.5. Purpose

This namespace is used for unique identifiers for use in emergency services, including emergency calls. Although most uses for these identifiers will be within private "Emergency Services IP Networks" (ESInets), some use in the public Internet is expected. These identifiers will be used in several countries, and hopefully, eventually, worldwide for handling of emergency calls and incidents. Prior to this document, North American emergency services used the "nena" Namespace Identifier (NID), defined in [RFC6061]. Most identifiers in top level class <<urn:nena>> will be replaced by identifiers in <<urn:emergency>> in pursuit of a single worldwide standard set for emergency services which are not controlled by a single public safety organization like NENA. Identifiers with this NID do not require resolution. Identifiers in this NID will be primarily specified in public safety standards SDOs, but some IETF standards may use or define them.

4.3.6. Syntax

The basic syntax for identifiers in the emergency NID is:

urn:emergency:<top level class>:<extended>

where

<top level class> is a member of the urn:emergency namespace registry, see Section 4.5

<extended> is a class-specific value defined by the document describing the registry entry. In many cases, the extension includes sub classes. For example:
urn:emergency:service:responder:police.local

There are no special encoding rules for identifiers in urn:emergency. URN equivalence is case insensitive. Hyphens are not expected in these identifiers, but if used, they are significant in comparisons. Quotes are not allowed in this NID. There are no special considerations for conforming to URN syntax. Percent encoding is permitted. There are no uses for q-components or f-components in this namespace.

4.3.7. Assignment

Assignment of top level classes is by standards documents, both standards-track RFCs and standards documents in other SDOs. See Section 4.5. Assignments within top level classes are as specified in the document that defines the class. Such documents MUST specify how uniqueness within the class is achieved.

4.3.8. Security and Privacy

The document defining a top level class MUST describe the security and privacy considerations of that class. In general, there are no special security considerations for these identifiers. Several top level classes are defined in this document. In some circumstances, these identifiers may indicate what kind of agency is involved with a public safety incident, and some may identify a specific agency. Transport encryption of the communications that contain the identifier in classes defined in this document is REQUIRED and MUST be TLS or an equally secure protocol. Specifications implementing classes in this document MAY allow exceptions to this encryption requirement if justified. Where a document defines top level class(es), it MUST state if transport encryption is required when conveying any indentifiers it defines.

4.3.9. Interoperability

Many of the identifiers in <urn:emergency> are similar in construction and use to identifiers originally defined in urn:nena. Backwards compatibility with those identifiers MUST be specified in the documents that use them. NENA STA-010.3-2021 is the document that defined and uses most of the identifiers in "<urn:nena>"; a future revision is expected to address backwards compatibility requirements between "<urn:emergency>" and "<urn:nena>". There are no other interoperability issues.

4.3.10. Resolution

No resolution of these identifiers is defined.

4.4. Emergency Call Additional Data Registry

IANA is requested to move the Emergency Call Additional Data registry and its sub-registries to the Emergency Registry.

4.5. "urn:emergency" registry

IANA is requested to create a registry for the emergency NID top level classes in the Emergency Registry.

4.5.1. Name

urn:emergency

4.5.2. Information Needed to Create a New Value

Name of the top level class, a short description and a reference to a document that defines it.

4.5.3. Registration policy

Specification Required [RFC8126], which requires expert review. The specification MUST be from the IETF or a recognized standards organization that creates standards for emergency services. The expert must confirm:

- the requested class is appropriate for emergency services
- if the registering organization is not the IETF, that it is an appropriate organization to define the class
- that the purpose adequately describes the new class, and
- the reference leads to a document that clearly describes the use of the class.

Also see Section 4.5.5.

4.5.4. Content

This registry contains:

- The ASCII "Name" of the "top level" class (a short string)
- The ASCII "Purpose" of the label (explanatory text)
- A "Reference" (URI) to the standard that defines the label

4.5.5. Subregistries for top level classes of urn:emergency

In most cases, top level classes of urn:emergency will define subregistries. Several levels of subregistries may be needed. The document that defines the class MUST define the subregistry if needed. IETF and emergency service standards organizations MAY define subregistries of <<urn:emergency>>. Instructions to IANA for the subregistry MUST conform to [RFC8126]. The expert reviewer for the top level class works with IANA to assure that they do if the standards organization creating the subregistry is not the IETF.

4.5.5.1. "urn:emergency:service" Subregistry

IANA is requested to create a subregistry for "urn:emergency:service" under "urn:emergency".

When calls are routed to or within an Emergency Services IP Network (ESInet), the routing element queries a LoST [RFC5222] server for the (nominal) route. It does so with a service URN. External routing is accomplished with "urn:service:sos", as defined by [RFC5031]. Within an ESInet, values under this registry are used.

Service URNs as defined here begin with "urn:emergency:service". The sub-namespace defined by this registry MAY be further subdivided (potentially several times), by sub-registries under this sub-registry. The separator between urn:emergency:service and the entry in the subregistry is a colon (":"). A new entry starting with "urn:emergency:service" SHOULD denote a new type of route, which MUST be distinguished by the LoST server from other uses. For example, emergency calls being routed to or within the ESInet use "urn:emergency:service:sos" (or a subspace of it). Calls routed by a PSAP to a responder use "urn:emergency:service:responder" (the type of responder is also included, e.g., "urn:emergency:service:responder.police"). A client specifies the URN in a LoST query, and the LoST Server uses it to choose a (nominal) route.

4.5.5.1.1. Name

urn:emergency:service

4.5.5.1.2. Information Needed to Create a New Value

Name of the entry, a short description and a reference to a document that defines it.

4.5.5.1.3. Registration policy

Specification Required [RFC8126], which requires expert review. The specification MUST be from the IETF or a recognized standards organization that creates standards for emergency services. The expert must confirm:

- the requested class is appropriate for emergency services
- if the registering organization is not the IETF, that it is an appropriate organization to define the class
- that the purpose adequately describes the new class, and
- the reference leads to a document that clearly describes the use of the class.

Also see Section 4.5.5.

4.5.5.1.4. Content

This registry contains:

- The ASCII "Name" of the value (a short string)
- The ASCII "Purpose" of the value (explanatory text)
- A "Reference" (URI) to the document that defines the value

4.5.5.2. "urn:emergency:service:sos" Subregistry

IANA is requested to creates a subregistry for "urn:emergency:service:sos" under "urn:emergency:service".

Routing of emergency calls within the ESInet is a primary function of systems that process such calls. When routing entities must route calls within the ESInet, they query the LoST Server for the route. Routing for emergency calls may involve multiple levels of routing entities. Each level may need a different URN to be distinguishable. Routing of emergency calls, including instant messages and non-interactive calls within an ESInet, is accomplished with a URN beginning with "urn:emergency:service:sos". The "urn:emergency:service:sos" registry contains values appropriate for the various levels of routing within the ESInet. The separator between urn:emergency:service:sos and an entry in the subregistry is a colon (":").

4.5.5.2.1. Name

urn:emergency:service:sos

4.5.5.2.2. Information Needed to Create a New Value

Name of the entry, a short description and a reference to a document that defines it.

4.5.5.2.3. Registration policy

Specification Required [RFC8126], which requires expert review. The specification MUST be from the IETF or a recognized standards organization that creates standards for emergency services. The expert must confirm:

- the requested class is appropriate for emergency services
- if the registering organization is not the IETF, that it is an appropriate organization to define the class
- that the purpose adequately describes the new class, and
- the reference leads to a document that clearly describes the use of the class.

Also see Section 4.5.5.

4.5.5.2.4. Content

This registry contains:

- The ASCII "Name" of the service value (a short string)
- The ASCII "Purpose" of the value (explanatory text)
- A "Reference" (URI) to the document that defines the value

4.5.5.3. "urn:emergency:service:test" Registry

IANA is requested to creates a subregistry for "urn:emergency:service:test" under "urn:emergency:service".

Test calls are directed to "urn:service:test.sos". To route such test calls where the routing infrastructure uses multiple levels of routing, and thus uses URNs in the "urn:emergency:service:sos" registry, service URNs are needed for test calls with corresponding levels. IANA is requested to create an entry in the "urn:emergency:service" registry with the name "test" and with the purpose noted as "routing test calls within the ESInet toward a primary PSAP". The reference will be to the registry created by this section, "urn:emergency:service:test". The separator between the "test" label and the service ("urn:emergency:service:test" registry entry) is a period ".". The "urn:emergency:service:test" registry contains label values corresponding to the levels in the "urn:emergency:service:sos" registry. These registries are normally kept in sync, an entry added to "urn:emergency:service:sos" should also add a corresponding entry to urn:emergency:service:test.

4.5.5.3.1. Name

urn:emergency:service:test

4.5.5.3.2. Information Needed to Create a New Value

Name of the entry, a short description and a reference to a document that defines it.

4.5.5.3.3. Registration policy

Specification Required [RFC8126], which requires expert review. Normally, entries in urn:emergency:service:test mirror those in urn:emergency:service:sos. If there are any discrepancies the expert shall determine if the requested entry meets the use defined above and the specification document adequately describes how the entry is used.

4.5.5.3.4. Content

The content of this registry should mirror the content of urn:service:test:sos except with the "test" label as described above.

4.5.5.4. "urn:emergency:service:responder" Registry

IANA is requested to create the "urn:emergency:service:responder" subregistry under "urn:emergency:service"

Once a PSAP gets a call, they may have to transfer the call to a secondary PSAP. The secondary PSAP is chosen based on the type of responder, and the location of the caller. Routing of emergency calls from a PSAP towards a responder is accomplished with a URN beginning with "urn:emergency:service:responder". IANA is requested to create an entry in the "urn:emergency:service" registry with the name "responder" and with the purpose noted as "routing emergency calls within the ESInet towards a responder". The reference will be to the registry created by this section, "urn:emergency:service:responder".

The "urn:emergency:service:responder" registry contains label values appropriate for the types of responders within the ESInet. The separator between the "responder" label and the type of responder ("urn:emergency:service:responder" registry value) is a period ".". This registry is also

used in other contexts where an agency type is useful. For those purposes, a 'psap' entry is provided. "urn:emergency:service:responder.psap" must not be used to route emergency calls. It is not equivalent to, or a substitute for "urn:service:sos" or "urn:emergency:service:sos".

Some of the entries in this registry will require further subdivision. Subregistries for such divisions are REQUIRED.

4.5.5.4.1. Name

urn:emergency:service:responder

4.5.5.4.2. Information Needed to Create a New Value

Name of the entry, a short description and a reference to a document that defines it.

4.5.5.4.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a kind of responder, considered broadly. For example, a tow truck operator may be considered a responder.

4.5.5.4.4. Content

This registry contains:

- • The ASCII "Name" of the responder (a short string)
- • The ASCII "Purpose" of the responder (explanatory text)
- • A "Reference" (URI) to a document that defines the label

4.5.5.5. "urn:emergency:service:responder.police" Subregistry

There are many different kinds of law enforcement agencies that have distinct differences in jurisdiction and formation (for example, police department organized under a municipal government as opposed to the sheriff's office organized under an elected sheriff). This subregistry delineates different types of police agenices under the urn:emergency:service:responder:police registry. The separator between urn:emergency:responder.police and the entry in this subregistry is a period (".").

4.5.5.5.1. Name

urn:emergency:service:responder.police

4.5.5.5.2. Information Needed to Create a New Value

Name of the entry, a short description and a reference to a document that defines it.

4.5.5.5.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a kind of police department, considered broadly. The names used for various kinds of police departments varies from country to country. The expert is requested to

try to minimize the number of entries in the registry, but is not expected to have to learn the details of how police forces are organized in any country. An English name is preferred, to match the existing entries.

4.5.5.5.4.   Content

This registry contains:

- The UTF-8 "Name" of the agency type
- The ASCII "Description" of the agency type
- A "Reference" with a URI either to the document that defines the entry.

Note that the Name is defined as UTF-8, to permit names that have no English equivalent

4.5.5.6.   "police.federal" Subregistry

There are several federal police agencies. This registry is a subregistry of "urn:emergency:service:responder.police." and lists each police agency operating at the federal/national level. The "federal.police" registry contains label values appropriate for the types of national police responders within the ESInet. This is distinct from the parent subregistry, "police.federal", which includes the names for specific federal agencies. This is as opposed to the "responder.police" subregistry which indicated the agency TYPE (police). The separator between the "police.federal" label and the type of responder ("urn:emergency:service:responder.police.federal" registry value) is a period ".".

4.5.5.6.1.   Name

urn:emergency:service:responder.police.federal

4.5.5.6.2.   Information Needed to Create a New Value

Short and long forms of the entry and a reference to a document that defines it or a person that requested the entry. The short form of the entry is often an abbreviation, while the long form is the official full agency name.

4.5.5.6.3.   Registration policy

Expert Review. No standards document required. The expert should confirm that each entry represents a kind of federal police department, considered broadly. As this is a specific agency, entries for different countries may be different.

4.5.5.6.4.   Content

This registry contains:

- The UTF-8 short "Name" of the agency, usually an abbreviation (e.g., "FBI")
- The UTF-8 "Full Name" of the agency (e.g., "Federal Bureau of Investigation")
- A "Reference" with a URI either to the document requested the registry entry or contact contact information for the individual who contributed the value.

Note that the Name is defined as UTF-8, and locally significant names are expressly permitted.

4.5.5.7. "urn:emergency:service:responder.fire" Subregistry

This registry has a similar purposes as the "responder.police" subregistry, except for differentiating among types of fire response agencies (for example, "forest" or "private").

4.5.5.7.1. Name

urn:emergency:service:responder.fire

4.5.5.7.2. Information Needed to Create a New Value

Name of the entry, a short description and a reference to a document that specifies the entry.

4.5.5.7.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a kind of fire department, considered broadly. The names used for various kinds of fire departments vary from country to country. The expert is requested to try to minimize the number of entries in the registry, but is not expected to have to learn the details of how fire departments are organized in any country. An English name is preferred, to match the existing entries.

4.5.5.7.4. Content

This registry contains:

- The UTF-8 "Name" of the agency type
- The ASCII "Description" of the agency type
- A "Reference" with a URI to the document that specifies the entry.

Note that the Name is defined as UTF-8, to permit names that have no English equivalent

4.5.5.8. "urn:emergency:service:responder.ems" Subregistry

This registry has a similar purpose as the "responder.police" subregistry, except for types of Emergency Medical Service response agencies (for example, "Local" or "countyParish").

4.5.5.8.1. Name

urn:emergency:service:responder.ems

4.5.5.8.2. Information Needed to Create a New Value

Name of the entry, a short description and a reference to a document that specifies the entry.

4.5.5.8.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a kind of emergency medical service, considered broadly. The names used for various kinds of emergency medical services varies from country to country. The expert is

requested to try to minimize the number of entries in the registry, but is not expected to have to learn the details of how emergency medical services are organized in any country. An English name is preferred, to match the existing entries.

4.5.5.8.4. Content

This registry contains:

- The UTF-8 "Name" of the agency type
- The ASCII "Description" of the agency type
- A "Reference" with a URI to the document that specifies the entry.

Note that the Name is defined as UTF-8, to permit names that have no English equivalent

4.5.5.9. "urn:emergency:service:serviceAgencyLocator" Subregistry

Agencies connected to an ESInet need to connect to various services and public safety agencies. A service called the Service/Agency Locator provides a directory ("white pages") of agencies, together with key information about the service or agency. The Service/Agency Locator is a distributed database. There are several mechanisms by which the Service/Agency Locator can be searched to locate a specific service or agency. When searching for a service by location, the LoST protocol ([RFC5222] is used, which accepts a URN that specifies the service being searched by location. This registry provides URNS to be used in a LoST query to find a specific service at a particular location.

4.5.5.9.1. Name

urn:emergency:service:serviceAgencyLocator

4.5.5.9.2. Information Needed to Create a New Value

Short and long versions of the service and a reference to a document that specifies it.

4.5.5.9.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a kind of service the Service/Agency Locator holds information for.

4.5.5.9.4. Content

This subregistry contains:

- The "Service Identifier" of the service (e.g."ESRP")
- The long "Service" name of the service (e.g., "Emergency Services Routing Proxy")
- A "Reference" with a URI to the document that requested the service.

4.5.5.10. "urn:emergency:uid" Registry

Various entities need to create globally unique identifiers. A simple way to do that is to combine a locally unique identifier and a domain name (which is globally unique). However, many entities need to create more than one type of globally unique identifier and knowing the type of identifier is helpful in diagnosing problems. For this purpose, the UID URN subregistry creates unique strings used to prepend identifiers that indicate the type of identifier it is.

This document does not describe the structure of the identifier beyond the urn:emergency:uid prefix and the value in this registry. The defining specification MUST describe the structure of the identifier.

4.5.5.10.1. Name

urn:emergency:uid

4.5.5.10.2. Information Needed to Create a New Value

Name of the entry, a short description and a reference to the document that specifies the entry.

4.5.5.10.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a new type of identifier, and that the document specifies the structure of that identifier.

4.5.5.10.4. Content

this registry contains:

- The UTF-8 "Name" of the identifier prefix
- The UTF-8 "Purpose" of the identifier prefix
- A "Reference" with a URI to the document that requested the registry entry.

4.5.5.11. "urn:emergency:media-feature" Registry

SIP Media Feature tags as defined in [RFC3840] are used to indicate user agent capabilities. SIP elements inside ESInets use this mechanism to indicate availablity of certain emergency call specific functionality. Since these media feature tags are specific to emergency calling, are primarily defined in non-IETF documents and not used outside an ESInet, they are not appropriate for registration in the SIP Media Feature Tag Registry. This registry provides a similar function to the registry defined in RFC3840. The separator between the "urn:emergency:media-feature" and the content of this registry is a colon (":").

4.5.5.11.1. Name

urn:emergency:media-feature

4.5.5.11.2. Information Needed to Create a New Value

A short tag, purpose description and a reference to the document that specifies the entry.

4.5.5.11.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a new type of SIP media feature tag and that the document specifies how it is used.

4.5.5.11.4. Content

This registry contains:

- A short ASCII "Tag"
- A long ASCII "Purpose"
- A "Reference" with a URI to the document that requested the registry entry.

4.6. Internal Services Registries

The following are additional registries used internally in an ESInet:

4.6.1. "serviceNames" Registry

A variety of services are used during the processing of emergency calls. These services are deployed within an ESInet and are discoverable using the LoST [RFC5222] protocol or a discovery service known as the Service/Agency Locator (SAL). Standardized query terms are needed for both discovery mechanisms to work. When querying LoST, the service URNs in section 4.4.5.1. "urn:emergency:service" Subregistry are used. When querying the SAL, service names from the registry defined in this section are used. IANA is requested to create the ServiceNames subregistry in the Emergency Registry.

4.6.1.1. Name

serviceNames

4.6.1.2. Information Needed to Create a New Value

Short and long names of the service and a reference to the document that specifies the service.

4.6.1.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a new type of service.

4.6.1.4. Content

This registry contains:

- An ASCII short "Service Name" of the service (e.g., "ADR")
- An ASCII long "Service" name of the service (e.g., "Additional Data Repository")
- A "Reference", a URI to the document that defines the service.

4.6.2. "serviceState" Registry

All services have a common notion of "state" which comes from this registry.

4.6.2.1. Name

serviceNames

4.6.2.2. Information Needed to Create a New Value

Name and description of the state and a reference to the document that specifies it.

4.6.2.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a new type of identifier, and that the document specifies the structure of that identifier.

4.6.2.4. Content

This registry contains:

- The short "Name" of the service state (e.g., "Normal" or "ScheduledMaintenanceDown")
- The long "Description" of the service state (e.g., "The service is operating normally. Calls can be sent to this destination normally.")
- A "Reference" with a URI to the document that defines the state.

4.6.3. "elementState" Registry

Services are instantiated in physical servers or other equipment, each of which is called an "element". Typically, multiple elements are configured for a service for redundancy, and an instance of multiple services can be instantiated in one element. Elements have a common notion of state which comes from this registry.

4.6.3.1. Name

elementState

4.6.3.2. Information Needed to Create a New Value

Name and description of the state and a reference to the document that specifies it.

4.6.3.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a new state and the specification adequately describes it.

4.6.3.4. Content

This registry contains:

- The short "Name" of the element state (e.g., "Normal" or "ScheduledMaintenanceDown")

- The long "Description" of the element state (e.g., "The service is operating normally. Calls can be sent to this element normally.")
- A "Reference" with a URI to the document that defines the state.

4.6.4. "SIPHeaderIsOperatorConditions" Registry

Some emergency standards use a policy based routing mechanism where a policy rule has a series of testable conditions. One such condition is "SIPHeaderCondition" which tests a SIP header field in the INVITE or MESSAGE of a call (such as "From", "To", "Contact", etc.). SIPHeaderCondition has an "operator" member has three potential values:

- "EQ" for an equality match
- "SS" for a substring match
- "IS" for a registry-defined match

The latter condition includes a value from this registry and tests the header with the criteria defined for the value.

4.6.4.1. Name

SIPHeaderIsOperatorConditions

4.6.4.2. Information Needed to Create a New Value

Name and description of the test and a reference to the document that specifies it.

4.6.4.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a new test and the specification adequately describes it.

4.6.4.4. Content

This registry contains:

- A short UTF-8 "Name"
- The long UTF-8 "Description"
- A "Reference" with a URI to the document that requested the registry entry.

4.6.5. "queueState" Registry

In some emergency services standards emergency calls are delivered to queues. The state of a queue is standardized, and this registry defines the allowed states of a queue.

4.6.5.1. Name

queueState

4.6.5.2. Information Needed to Create a New Value

Short name and description of the state and a reference to the document that specifies it.

4.6.5.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a new state and the specification adequately describes it.

4.6.5.4. Content

This registry contains:

- A short ASCII "Name"
- The long ASCII "Description"
- A "Reference" with a URI to the document that requested the registry entry.

4.6.6. "securityPosture" Registry

Emergency Services agencies may be attacked in an effort to disrupt their services. Some emergency services standards allow for various elements, services and other entities to communicate their current security status, ranging on a color scale from Green to Red. This allows downstram and upstream entities to evaluate the current security conditions of a given entity, such as other parts of the system or a Security Operations Center.

4.6.6.1. Name

securityPosture

4.6.6.2. Information Needed to Create a New Value

Name and purpose of the state and a reference to the document that specifies it.

4.6.6.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a new security posture, the value is consistent with the existing values and the specification adequately describes it.

4.6.6.4. Content

This registry contains:

- A short ASCII "Value"
- The long ASCII "Purpose"
- A "Reference" with a URI to the document that requested the registry entry.

4.6.7. "ESRP Notify Event Code" Registry

An Emergency Services Routing Proxy routes emergency calls using a policy based routing mechanism. The policy mechanism includes a function that can notify an entity when it encounters a defined condition. This registry defines a common set of codes that tell the recipient why it received the notification.

4.6.7.1. Name

ESRP Notify Event Code

4.6.7.2. Information Needed to Create a New Value

Name and description of the code and a reference to the document that specifies it.

4.6.7.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a new code and the specification adequately describes it.

4.6.7.4. Content

This registry contains:

- A short ASCII "Name"
- The long ASCII "Description"
- A "Reference" with a URI to the document that requested the registry entry.

4.6.8. "Route Cause" Registry

The Emergency Services Routing Proxy routes calls using its Policy Routing Function. The result of evaluating a rule set is a Route action that routes the call towards a PSAP or responder. The Route action includes a Cause value, which is placed in a SIP Reason header associated with a History-Info header that informs the recipient why it got the call. A registry is provided for the values in the cause. The Route action cause is an enumeration, but the Reason header has a numeric cause value and a text string. IANA is requested to create a registry to enumerate allowable Route Cause values.

4.6.8.1. Name

Route Cause

4.6.8.2. Information Needed to Create a New Value

Short value, integer code, description of the cause and a reference to the document that specifies it.

4.6.8.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a new cause, the code is unique and appropriate, and the specification adequately describes it.

4.6.8.4. Content

This registry contains:

- The ASCII "Value" (a short string)
- The "Code" value (a 3-digit integer)

- The ASCII "Text" description (explanatory text, a string)
- A "Reference" (URI) to the document that requests the entry

4.6.9. "LogEvent" Registry

In emergency services, logging is used extensively. Some emergency services standards define the interface to the loging service and the format of the data logged. Each event that occurs has a separately logged "event", and the name and parameters of each type of event are standardized. The "logEvent" registry enumerates the types of log records that can be logged.

4.6.9.1. Name

logEvent

4.6.9.2. Information Needed to Create a New Value

Name and purpose of the log event and a reference to the document that specifies it.

4.6.9.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a new log event and the specification adequately describes it.

4.6.9.4. Content

This registry contains:

- The ASCII "Name" (a short string)
- The ASCII "Purpose" (explanatory text, a string)
- A "Reference" (URI) to the document that requests the entry

4.6.10. "LogEvent Protocol" Registry

In the CallSignalingMessage log event, the protocol of the message must be logged. This registry provides a registry for the protocol used for the logging event.

4.6.10.1. Name

LogEvent Protocol

4.6.10.2. Information Needed to Create a New Value

Name a reference to the document that specifies the protocol.

4.6.10.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a new protocol and the specification is an appropriate definition for the protocol.

4.6.10.4. Content

This registry contains:

- The ASCII "Name" of the protocol used (a short string)
- A "Reference" to the document that requests the entry, such as an RFC

4.6.11. "LogEvent CallTypes" Registry

The type of Call is logegd with the StartCall and EndCall LogEvents. The StartCall log event includes a "callType" parameter. These call types are enumerated in this registry. The logEvent allows a call to have primary and secondary call types. The registry denotes which call types may be primary call types and which may be secondary.

4.6.11.1. Name

LogEvent CallType

4.6.11.2. Information Needed to Create a New Value

Name and description of the call type and a reference to the document that specifies it and the classification (primary or secondary) of the call type.

4.6.11.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a new call type, the specification adequately describes it and the classification is appropriate.

4.6.11.4. Content

This registry contains:

- The ASCII "Name" (e.g., "emergency") (a short string)
- The ASCII "Description" (e.g., "Call is deemed urgent call and treated as such") (explanatory text, a string)
- The ASCII "Classification" (e.g., "Primary") (a string)
- A "Reference" (URI) to the document that requests the entry

4.6.12. "Call States" Registry

The state of an emergncy call is logged when it changes (e.g., "callBegin" or "callAnswered"). Each change in state is associated with a log event for that change in state. Many of these log events correlate with transactions in SIP.

4.6.12.1. Name

Call States

4.6.12.2. Information Needed to Create a New Value

Name and purpose of the state and a reference to the document that specifies it.

4.6.12.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a new state and the specification adequately describes it.

4.6.12.4. Content

This registry contains:

- The ASCII "Name" (a short string)
- The ASCII "Purpose" (explanatory text, a string)
- A "Reference" (URI) to the document that requests the entry

4.6.13. "LogEvent Announcement Types" Registry

In some circumstances where a call taker is not available immediately, an automated system may play a (potentially multimedia) announcement to the caller. A log event records the playback. This registry defines the generic type of announcement that was played to the caller.

4.6.13.1. Name

LogEvent Announcement Type

4.6.13.2. Information Needed to Create a New Value

Name and purpose of the announcement type and a reference to the document that specifies it.

4.6.13.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a new announcement type and the specification adequately describes it.

4.6.13.4. Content

This registry contains:

- The ASCII "Name" (a short string)
- The ASCII "Purpose" (explanatory text, a string)
- A "Reference" (URI) to the document that requests the entry

4.6.14. "non-RTP Media Types" Registry

Most media in an emergency calls uses Real Time Transport Protocol (RTP), [RFC3550]. LogEvents for RTP transported media record what kind of media was used in the call. To record what kind of media was used when RTP is not the transport protocol (such as, for example, instant messaging), values in this registry are used in the log event.

4.6.14.1. Name

non-RTP Media Types

4.6.14.2. Information Needed to Create a New Value

Name and description of the media

4.6.14.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a new type of media not carried in RTP.

4.6.14.4. Content

This registry contains:

- The ASCII "Name" (a short string)
- The ASCII "Description" (explanatory text, a string)

4.6.15. "Agency Roles" Registry

In handling emergency calls Agencies are classified by a specified Agency Role (e.g., "Dispatch"). The role of the agency should not be confused with the type of agency (such as "Fire"). Agency types are enumerated in this registry.

4.6.15.1. Name

Agency Roles

4.6.15.2. Information Needed to Create a New Value

Name and description of the role

4.6.15.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a new type of role.

4.6.15.4. Content

This registry contains:

- The ASCII "Role" (a short string)
- The ASCII "Description" (explanatory text, a string)
- A "Reference" (URI) with either contact information for the entity that or a URI to the document that requests the entry.

4.6.16. "Agent Roles" Registry

Agents are people or automata that are associated with an agency. Agents have roles (e.g., "Dispatching", "Calltaking"). Agency types are enumerated in this registry.

4.6.16.1. Name

Agent Roles

4.6.16.2. Information Needed to Create a New Value

Name and description of the role

4.6.16.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a new type of role.

4.6.16.4. Content

This registry contains:

- The ASCII "Role" (a short string)
- The ASCII "Description" (explanatory text, a string)
- A "Reference" (URI) with either contact information for the entity that or a URI to the document that requests the entry.

4.6.17. "Status Codes" Registry

Interfaces in the standards used by this registry use standard status codes where appropriate. However there are many circumstances where a more specific error code is used within an ESInet. This registry enumerates the codes.

4.6.17.1. Name

Status Codes

4.6.17.2. Information Needed to Create a New Value

Status code and text used in the response

4.6.17.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a new status code, the numeric value is appropriate and the specification adequately describes its use.

4.6.17.4. Content

This registry contains:

- The "Status Code" (a 3 digit integer)
- The ASCII "Description" (explanatory text, a string)
- A "Reference" (URI) to the document that requests the entry.

4.6.18. "Interface Names" Registry

Emergency standards define interfaces that are used by other services and elements within an ESInet. Policy based access control mechanisms are used to control use of the interfaces. The policy uses the entries in this registry to name the interface the policy applies to.

4.6.18.1.   Name

Interface Names

4.6.18.2.   Information Needed to Create a New Value

Name of the interface

4.6.18.3.   Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a new interface.

4.6.18.4.   Content

This registry contains:

- The ASCII "Name" (a short string)
- A "Reference" (URI) to the document that requests the entry

4.6.19.   "Match Type" Registry

When using the LoST protocol [RFC5222] to validate a location prior to using it in an emergency call, a match against a civic address record in the LoST server may not be the most specific record intended by the Location Information Server. This arises because authorities may not have incomplete records. The emergency standards define an extension to LoST that returns the type of record that matched the location information in the LoST request. This registry enumerates the match types that can be returned.

4.6.19.1.   Name

Match Type

4.6.19.2.   Information Needed to Create a New Value

Name of the interface

4.6.19.3.   Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a new interface.

4.6.19.4.   Content

This registry contains:

- The UTF-8 "Token" (a short string) (e.g., "Road Centerline" or "Hybrid").
- The ASCII "Description" (explanatory text, a string)
- A "Reference" (URI) to the document that requests the entry

4.6.20. "GIS Layers" Registry

A Geospatial Information System (GIS) contains features (points, lines, polygons, etc.) each with a set of attributes, organized in "layers". Layers (such as discipline-specific service regions, road centerlines, address points, etc. are common in GIS systems used by emergency services. This registry enumerates the names of layers that are used for emergency services alongf with a shorter version that may be used in databases or interfaces.

4.6.20.1. Name

GIS Layers

4.6.20.2. Information Needed to Create a New Value

Full name of the layer and a short version of the name

4.6.20.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a new GIS layer.

4.6.20.4. Content

This registry contains:

- The UTF-8 Full "Name"
- The UTF-8 "Layer Indicator"
- A "Reference" (URI) to the document that requests the entry

4.6.21. "Policy Type" Registry

Policy is widely used in emergency services standards to allow agencies to control the use of their information, control how routing is accomplished within an ESInet, and several other instances. Policies are housed in a standardized "Policy Store". Policies have a type, which identifies how they are used. This registry enumerates policy types a Policy Store may have.

4.6.21.1. Name

Policy Type

4.6.21.2. Information Needed to Create a New Value

Type, format and use of the policy

4.6.21.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a new interface.

4.6.21.4. Content

This registry contains:

- The UTF-8 "Type" of the policy (a short string) (e.g., "LoST")
- The UTF-8 "Format" of the policy (e.g., "XACML")
- The UTF-8 "Use" of the policy (e.g., "Access rights for Spatial Interface")
- A "Reference" (URI) to the document that requests the entry

4.6.22. "Discrepancy Report Status Token" Registry

Errors and discrepancies may occur in any set of data, including databases, configurations, etc. Standardized Discrepancy Report (DR) functions allow reporting and responding to reports of discrepancies across vendors. Various types of DRs and responses are defined in the standards. Many of the reports and/or responses have elements that are tokens in a restricted list. This registry enumerates the tokens, and where they can be used.

The registry contains the name of the element in the DR object that uses the token, and the DR type that uses that element. More than one element could use the same token, and more than one DR type could use the same element name (and token values). This means registration requests can specify more than one value in the "Name" and "DiscrepancyReports" columns, and a new registration can add a value to "Name" or "Discrepancy Report" for an existing entry.

4.6.22.1. Name

Discrepancy Report Status Token

4.6.22.2. Information Needed to Create a New Value

Token, Member Name where token is used, Discrepancy Report where token is used.

4.6.22.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that each entry represents a new interface.

4.6.22.4. Content

This registry contains:

- The ASCII "Token" of the DR (a short string) (e.g., "LocationReferenceNotResolved")
- The ASCII "Member" of the type of DR (e.g., "Problem" or "Query"). More than one is allowed
- The ACII "Discrepancy Reports" of included discrepancy report(s) included (e.g., "LoSTDiscrepancyResponse, BCFDiscrepancyReport"). More than one is allowed.
- A "Reference" (URI) to document(s) that request the entry

4.6.23. "Event Package" Registry

SIP Event Package registration procedures are defined in [RFC5727] and are applicable for any SIP events used on the Internet. For use within an ESInet only, emergency standards define several SIP Event packages that are not specified in IETF RFCs. This registry enumerates those event packages.

4.6.23.1. Name

Event Package

4.6.23.2. Information Needed to Create a New Value

Name of the Event Package

4.6.23.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that the event package is documented roughly similar to SIP Event Package registration requirements in [RFC5727].

4.6.23.4. Content

This registry contains:

- The ASCII "Name" (a short string)
- A "Reference" (URI) to the document that requests the entry

4.6.24. "LoggingServiceMediaErrorReasonCodes" Registry

When logging real time media in an ESInet, the recording mechanism may fail, and a log event, RecordingFailedLogEvent is defined to log that failure. The reason why the media recording failed is documented with an entry from this registry.

4.6.24.1. Name

LoggingServiceMediaErrorReasonCodes

4.6.24.2. Information Needed to Create a New Value

Name and description of the reason code.

4.6.24.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that the the entry represents a new reason for media failure.

4.6.24.4. Content

This registry contains:

- The ASCII "Name" (a short string)

- The ASCII "Description" (explanatory text, a string)
- A "Reference" (URI) to the document that requests the entry

4.6.24.5. Initial Values

Name	Description	Reference
lostConnection	The connection to the SRS was lost and could not be re-established	This document
dropOuts	There were significant number of missing media packets	This document

Table 1: Initial Values

4.7. EIDO Registries

Following are registries needed to implement the Emergency Incident Data Object, the standard way to represent incident state when passed between entities in an ESInet or other emergency services networks, [EIDO].

4.7.1. "EIDO-AgencyRole" Registry

The role of the agency in relation to the Incident (e.g., "Call Receiving", "Dispatching", "Dispatched"). This may differ from agency role as defined in the Agency Role registry.

4.7.1.1. Name

EIDO-AgencyRole

4.7.1.2. Information Needed to Create a New Value

Value and description of the role.

4.7.1.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that the the entry represents a new role.

4.7.1.4. Content

This registry contains:

- The UTF-8 "Value" (a short string)
- The UTF-8 "Literal Description" (a short string)
- A "Reference" (URI) to the document that requests the entry

4.7.2. "EIDO-IncidentType-Common" Registry

When multiple agencies are involved in an incident, the type of incident must be communicated clearly. Many agencies have internal incident typing systems that are incompatible with each other. The Association of Public Safety Communications Offials (APCO) has documented a set of incident types which are the original basis for this registry ([APCO]), but there is no registry of codes. This registry forms the complete listing of common type codes.

4.7.2.1. Name

EIDO-IncidentType-Common

4.7.2.2. Information Needed to Create a New Value

Name and description of the reason code.

4.7.2.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that the the entry represents a new incident type. Generally this registry should track the APCO document, but additional codes are allowed to be added provided they are unique from the APCO codes and are adequately documented in the specification.

4.7.2.4. Content

This registry contains:

- The ASCII "Value" (a short string)
- The ASCII "Literal Description" (a short string)
- A "Reference" (URI) to the document that requests the entry

4.7.3. "EIDO-IncidentStatus-Common" Registry

When multiple agencies are involved in an incident, the status of incident must be communicated clearly. Many agencies have internal incident status reporting systems that are incompatible with each other. This registry enumerates status codes used in an EIDO.

4.7.3.1. Name

EIDO-IncidentStatus-Common

4.7.3.2. Information Needed to Create a New Value

Name and description of the staus code.

4.7.3.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that the the entry represents a new incident status.

4.7.3.4. Content

This registry contains:

- The ASCII "Value" (a short string)
- The ASCII "Literal Description" (a short string)
- A "Reference" (URI) to the document that requests the entry

4.7.4. "EIDO-ReportNumberType" Registry

Used to indicate the current status of the report number associated with an incident. If a report number is present in an EIDO, it is required to indicate the current status of the report number (.e.g, "New" or "Ongoing"). This registry enumerates the allowed statuses

4.7.4.1. Name

EIDO-ReportNumberType

4.7.4.2. Information Needed to Create a New Value

Name and description of the type.

4.7.4.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that the the entry represents a new report number type.

4.7.4.4. Content

This registry contains:

- The UTF-8 "Value" (a short string)
- The UTF-8 "Literal Description" (a short string)
- A "Reference" (URI) to the document that requests the entry

4.7.5. "EIDO-CommonDispositionCode" Registry

An agency assigns a disposition to an incident when its participation in the incident ends. The disposition code indicates whether follow-up reports are required and conveys other information about the incident, such as whether it resulted from a false or actual alarm. They are used to exchange the status and follow up requirements of an incident upon its closure. The disposition codes are drawn from a registry containing common disposition codes for Police, Fire and EMS disciplines. These codes are defined by [APCO1.111] and implemented by [EIDO].

APCO ANS 1.111.2-2018 uses a two-digit integer as an incident status code. IANA is also requested to hold values 46-100 for future versions of the standard.

4.7.5.1. Name

EIDO-CommonDispositionCode

4.7.5.2. Information Needed to Create a New Value

Name and description of the disposition code.

4.7.5.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that the the entry represents a new incident type. Generally this registry should track the APCO document, but additional codes are allowed to be added provided they are unique from the APCO codes and are adequately documented in the specification.

4.7.5.4. Content

This registry contains:

- The 2 or 3 digit integer code
- The ASCII "Literal Description" (a short string)
- A "Reference" (URI) to the document that requests the entry

4.7.6. "EIDO-PersonRole" Registry

EIDOs may contain Person objects that describe a person someohow involved in an incident. The "role" of a person in an EIDO describes the relationship (Caller, Victim, suspect, etc.) of a person to the incident. This registry enumerates allowable roles. A person can have multiple roles in an incident.

4.7.6.1. Name

EIDO-PersonRole

4.7.6.2. Information Needed to Create a New Value

Name and description of the role.

4.7.6.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that the the entry represents a new role.

4.7.6.4. Content

This registry contains:

- The ASCII "Value" (a short string)
- The ASCII "Literal Description" (a short string)
- A "Reference" (URI) to the document that requests the entry

4.7.7. "EIDO-VehicleRelationshipType" Registry

A VehicleRelationshipType describes the relationship (victim's vehicle, accident vehicle, suspect vehicle, etc.) of a vehicle to the incident. This registry enumerate the allowable relationship types allowed.

4.7.7.1. Name

EIDO-VehicleRelationshipType

4.7.7.2. Information Needed to Create a New Value

Name and description of the relationship type.

4.7.7.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that the the entry represents a new relationship type.

4.7.7.4. Content

This registry contains:

- The ASCII "Value" (a short string)
- The ASCII "Literal Description" (a short string)
- A "Reference" (URI) to the document that requests the entry

4.7.8. "EIDO-LocationType" Registry

A LocationType conveys the location type (Caller, Initial, CurrentIncident, Staging, Investigation, Tower Location, etc.) of a location and its relationship to an ongoing incident. This registry enumerate the allowed LocationTypes.

4.7.8.1. Name

EIDO-LocationType

4.7.8.2. Information Needed to Create a New Value

Name and description of the relationship type.

4.7.8.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that the the entry represents a new relationship type.

4.7.8.4. Content

This registry contains:

- The ASCII "Value" (a short string)
- The ASCII "Literal Description" (a short string)
- A "Reference" (URI) to the document that requests the entry

4.7.9. "EIDO-PrimaryUnitStatus-Common" Registry

A PrimaryUnitStatus-Common is a standardized code for the current status of an emergency response units (e.g., whether a fire engine is "available" or "notAvailable"). This registry enumerates the allowed primary status codes. Primary status is a fundamental status ("notAvailable") rather than a "why" the unit is in that status. See Section 4.7.10 for the latter information.

4.7.9.1. Name

EIDO-PrimaryUnitStatus-Common

4.7.9.2. Information Needed to Create a New Value

Name and description of the status code.

4.7.9.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that the the entry represents a new primary unit status.

4.7.9.4. Content

This registry contains:

- The ASCII "Value" (a short string)
- The ASCII "Literal Description" (a short string)
- A "Reference" (URI) to the document that requests the entry

4.7.10. "EIDO-SecondaryUnitStatus-Common" Registry

Statuses that further qualifies the Primary Unit Status by providing more detail about the associated primary status. This registry enumerates the allowed secondary status values.

4.7.10.1. Name

EIDO-SecondaryUnitStatus-Common

4.7.10.2. Information Needed to Create a New Value

Name and description of the status.

4.7.10.3. Registration policy

Specification Required [RFC8126], which requires expert review. The expert should confirm that the the entry represents a new secondary unit status.

4.7.10.4. Content

This registry contains:

- The ASCII "Value" (a short string)

- The ASCII "Literal Description" (a short string)
- A "Reference" (URI) to the document that requests the entry

4.7.11.   "EIDO-EmergencyResourceType-Common" Registry

A standardized code for an emergency resource type (e.g., BombSquad, AirAmbulanceRotaryWing). Resource Types are teams and/equipment as opposed to individuals with a skill set. This registry enumerates allowed resource types.

4.7.11.1.   Name

EIDO-EmergencyResourceType-Common

4.7.11.2.   Information Needed to Create a New Value

Name and description of the resource type.

4.7.11.3.   Registration policy

First Come, First Served and Expert Review. The expert should confirm that the the entry represents a new resource type. Use of trademarked names, or vendor specific terms is discouraged.

4.7.11.4.   Content

This registry contains:

- The UTF-8 "Value" (a short string)
- The UTF-8 "Literal Description" (a short string)
- A "Reference" (URI) to the document that requests the entry

4.7.12.   "EIDO-ResourceAttribute" Registry

A standard code for an emergency resource attribute (skill and equipment; e.g., "EMSPhysician, "EMT", "SCBA". Also indicates an interpreter's translation abilities, such as "UkranianInterpreter") possessed by an emergency resource). This registry enumerates the allowed attributes.

4.7.12.1.   Name

EIDO-ResourceAttribute

4.7.12.2.   Information Needed to Create a New Value

Name and description of the resource attribute.

4.7.12.3.   Registration policy

Expert Review. No standards document required. The expert should confirm that the the entry represents a new resource attribute. Use of trademarked names, or vendor specific terms is discouraged.

4.7.12.4. Content

This registry contains:

- The UTF-8 "Value" (a short string)
- The UTF-8 "Literal Description" (a short string)
- A "Reference" (URI) to the document that requests the entry

4.7.13. "eidoExtensionId" Registry

Vendors and users are highly likely to need to extend an EIDO to handle capabilities not common to all implementations. It is useful to at least list all such extensions and provide a way to inform others of what they are. This registry provides a way to inform others about a proprietary extension to the EIDO.

4.7.13.1. Name

EIDO-Resource Attribute

4.7.13.2. Information Needed to Create a New Value

Owner, contact, unique identifier, description and a reference to a schema. Note that the "Contact" may not be in English and therefore is specified as UTF-8.

4.7.13.3. Registration policy

Expert Review. No standards document required. The expert should confirm that the the entry is complete, the provided URIs resolve to reasonable locations and the ID is unique.

4.7.13.4. Content

This registry contains:

- The UTF-8 "Owner" of the extension (either a person or an organization) (a short string)
- A stable "Contact" (URI) to contact the Owner
- The ASCII "ID" (a unique short string)
- The ASCII "Literal Description" (a short string)
- A "Reference" (URI) to the extension schema

5. Security Considerations

This document only defines registries populated by other documents, not how they are used. As such there are no special security considerations introduced by this document, outside of those considerations specific to a given registry (e.g., the "securityPosture" registry), although those considerations are introduced by the source document and not this one.

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