NENA Standard for Emergency Incident Data Object (EIDO)

**Abstract**: As agencies and regions move forward with implementing NG9-1-1 and IP based emergency communications systems, it is critical that they adhere to a standardized, industry neutral format for exchanging emergency Incident information between disparate manufacturer’s systems located within one or more public safety agencies, and with other Incident stakeholders.

 

NENA Standard for Emergency Incident Data Object (EIDO)

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# Executive Overview

There are many Functional Elements (FEs) within an NG9-1-1 system that are used to process emergency calls. Some of these FEs may be within a specific agency, in another agency or elsewhere in an Emergency Services IP Network (ESInet). In many cases, an emergency call is related to, or results in the creation of an “Incident” as defined in NENA STA-010.2-2016 [[3]](#_Detailed_Functional_and). As public safety communication center personnel process emergency calls for service and their associated Incidents, new information about the Incidents is obtained. There are many sources available to communication center personnel for obtaining new Incident information during call handling, Incident creation, dispatch, Incident monitoring, and post Incident analysis processes. Newly gathered information, as well as changes in Incident status, must often be passed on to other FEs, other involved agencies, and frequently to non-emergency entities authorized to receive emergency Incident information. As agencies and regions move forward with implementing NG9-1-1 and IP based emergency communications systems, it is critical that they adhere to a standardized, industry-neutral format for exchanging emergency Incident information between disparate manufacturer’s systems located within one or more public safety agencies, and with other Incident stakeholders.

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These definitions are based on IETF RFC 2119 [2].

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## Reason for Issue/Reissue

NENA reserves the right to modify this document. Upon revision, the reason(s) will be provided in the table below.

| **Document Number** | **Approval Date** | **Reason For Issue/Reissue** |
| --- | --- | --- |
| NENA-STA-021.1-2021 | 10/19/2021 | Initial Document |
| NENA-STA-021.1a-2022 | ??/??/2022 | Publishing error corrections: Section 2.5 page 15 agentRoleRegistryText example values now match values from the “Agent Roles” registry. Section 2.10 page 29 answerDate description now say “date and time stamp” instead of “date”. Section 2.6 page 17 agencyType adds that values are from IANA urn:emergency:service:responder registry and the subregistries and provide examples. |

# Data Associated with an Emergency Incident

All mention of registries in this document reference IANA (https://www.iana.org/protocols) “emergency” registry unless specified otherwise.

## Data Components

Chapter 2 (Data Associated with an Emergency Incident) identifies the data elements associated with an emergency Incident grouped into various data components. Each data component, except Reference, has a common set of elements which include:

* Identifier ($id) – required - An identifier that uniquely labels a data component. For data components where there is an identifier such as a Call Identifier, Agency Identifier or Agent Identifier, that identifier is used for this member. For data components that do not have such an identifier, the form of the Identifier is a URN formed by the prefix “urn:emergency:uid:eidodatacomponent:”, a unique string containing alpha and/or numeric characters, the “:” character, and Agency Identifier of the Agency that created the data component. For example, “urn:emergency:uid:eidodatacomponent:a56e556d871:idx.psap.allegheny.pa.us” is a properly formatted eidodatacomponent. The identifier MUST be the same for all instances of this specific data component for all EIDOs for the incident, and unique from all other data components in the EIDO.
* lastUpdateTimeStamp - required - Timestamp of the last time the data component was modified. Must be in the W3C datetime format as specified in NENA-STA-010[[3]](#_Detailed_Functional_and).
* updatedByAgencyReference - mandatory – Reference to the agency that updated the data component last.
* updatedByAgentReference - conditional – Reference to the Agent that updated the data component last. Must be present if the data component was created or updated by an agent.

## Data Component Table Structure

The initial (heading) section of each data component contains the following information blocks:

* Data Component – the name of the data component (e.g., EIDO Header, Agency Information, etc.)
* Data Component Use – Identifies whether the data component is required or optional in EIDO instances.
* Minimum Number – the minimum occurrences of the data component allowed in EIDO instances.
* Maximum Number – the maximum occurrences of the data component allowed in EIDO instances.
* Child Of: Identifies the potential parents of which a data component can be a child. See the parent component to determine the relationship between the child and parent.
* Data Component Description – a general description of the purpose and contents of the data component.

The above information blocks are followed by a table that identifies the data elements included in the data components. Note that entire data components are included as a complex data element within their parent data component. In this case, the description identifies it as a complex data element (data component) and defines the relationship between the two data components.

The following information is included for each data element:

* JSON Name – Name of the data element.
* Use – identifies whether the data elements are required, optional or conditional. Data elements that are conditional describe the conditions when they are required and when they are optional. Required data elements can exist within optional data components. Required data elements of an optional data component are only required if the data component is included in an EIDO instance. For example, not all EIDO instances will contain a Dispatch Information data component since sufficient information to dispatch emergency resources to the Incident are not yet available or assigned resource statuses have not changed. However, if an EIDO instance contains a Dispatch Information data component, that data component must always contain the "Incident Type–Common" data element.
* Minimum number – the minimum occurrences of the data element that may be included in the data component.
* Maximum Number – the maximum occurrences of the data element that may be included in the data component.
* Description – a general description of the data element. For complex data elements (data components), the description identifies the relationship between the two data components.

Chapter 5 (References) includes sources and references that can be used to obtain additional information about related NENA standards, NIEM, and global justice terminology and standards.

Chapter 3 (IANA Actions) identifies registries that define the domain of values that must be used for specific EIDO elements.

## JSON Reference Data Component

**Data Component Use:** Optional component

**Min:** 0

**Max:** \*

**Child Of:** Agent, Agency, Split/Merge, Link, Incident, Call Data, Dispatch, Notes, Additional Data, Emergency Resource, Alarms and Sensors

**Data Component Description:** This Data Component is used by other data components to reference data components present elsewhere in the EIDO document.

Table ‑ JSON Reference Data Component

| **JSON Name** | **Use (required, optional,**  **conditional)** | **Min** | **Max** | **Description** |
| --- | --- | --- | --- | --- |
| $ref | Required | 1 | 1 | Data element containing the Identifier ($id) of the referenced data element. |

## Emergency Incident Data Object Data Component

**Data Component Use**: Required component

**Min:** 1

**Max:** 1

**Child Of:** None

**Data Component Description:** This is the parent data component that contains all the other data components to form an EIDO. This Data Component must always be present. A functional element receiving an eido for an incident where the state is already known and that need to know what changed it must compare the previously known state with the received EIDO.

In this data component, the identifier ($id) is the Incident Tracking Identifier. The Incident Tracking Identifier is a identifier assigned by the first element in the ESInet. The form of an Incident Tracking Identifier is defined in NENA-STA-010[[1]](#footnote-2)[3].

Incident Tracking Identifiers are globally unique and are associated with a single emergency Incident. The Incident Tracking Identifier can be associated with one or more emergency calls. It is carried through to any Incident resulting from an emergency call. It may or may not be the same as the local Incident ID.

When EIDO is exchanged not as part of an Incident, it contains an IncidentTrackingIdentifier as identified in STA-010 [3] where “unique string” is “0”. Example: urn:emergency:uid:Incidentid:0:police.state.pa.us.

Table ‑ Emergency Incident Data Object Component

| **JSON Name** | **Use (required, optional,**  **conditional)** | **Min** | **Max** | **Description** |
| --- | --- | --- | --- | --- |
| eidoVersion | Required | 1 | 1 | Version of the EIDO structure. For this version of the standard the value MUST be “1.0”. For non breaking change to the structure the minor version number will be incremented. For breaking change to the structure the major version number will be incremented. |
| issuingElementIdentification | Required | 1 | 1 | An identifier in the format defined in NENA-STA-010[[3]](#_Detailed_Functional_and).Identify the element that created the EIDO. |
| mergeComponent | Optional | 0 | \* | Complex data element (Data Component). Contains merge and split information related to the Incident. |
| linkComponent | Optional | 0 | \* | Complex data element (Data Component). Contains link information related to the Incident. |
| incidentComponent | Optional | 0 | 1 | Complex data element (Data Component). Contains general information about the Incident. |
| callComponent | Optional | 0 | \* | Complex data element (Data Component). Contains information about calls associated with the Incident. |
| callbackComponent | Optional | 0 | \* | Complex data element (Data Component). Contains information about how to call a person. |
| dispatchComponent | Optional | 0 | \* | Complex data element (Data Component). Contains dispatch information related to the Incident. |
| notesComponent | Optional | 0 | \* | Complex data element (Data Component). Contains Incident notes and comments associated with the Incident. |
| emergencyResourceComponent | Optional | 0 | \* | Complex data element (Data Component). Indentifies emergency resources involved with the Incident. |
| alarmsSensorComponent | Optional | 0 | \* | Complex data element (Data Component). Identifies Alarms/Sensors associated with the Incident. |
| agencyComponent | Required | 1 | \* | Complex data element (Data Component). Identifies all agencies involved with the Incident. |
| agentComponent | Conditional | 0 | \* | Complex data element (Data Component). Identifies all agent involved with the Incident. Must be provided if an Agent is involved in the Incident. |
| additionalDataComponent | Optional | 0 | \* | Complex data element (Data Component). All additional data related to the Incident. |
| locationComponent | Conditional: Required if a location is known about the Incident | 0 | \* | Complex data element (Data Component). All locations related to the Incident. |
| personComponent | Optional | 0 | \* | Complex data element (Data Component). Every person related to the Incident. |
| vehicleComponent | Optional | 0 | \* | Complex data element (Data Component). Every vehicle related to the Incident. |

## Agent Data Component

**Data Component Use**: Conditional Component

**Minimum Number:** 0

**Maximum Number:** \*

**Child Of:** Emergency Incident Data Object

**Data Component Description:** This Data Component contains information about agents (e.g., call takers, dispatchers, supervisors, responders, etc.) that are involved in the Incident. There may be multiple Agent Information data components in the case where both a call taker and dispatcher are involved in an Incident, where multiple dispatch agencies are associated with the same Incident, and similar situations.

Rarely, as in the case of automatically dispatched responses, the agent may be an automaton (automated system) such as an Interactive Media Response (IMR). Automatons that are actively involved in an Incident or call must be assigned an Agent ID that follows the i3 naming conventions (see NENA-STA-010 [3] for more information). In this data component, the identifier ($id) is the Agent Identifier.

Table ‑ Agent Data Component

| **JSON Name** | **Use (required, optional,**  **conditional)** | **Min** | **Max** | **Description** |
| --- | --- | --- | --- | --- |
| agentJcard | Optional | 0 | 1 | The agent’s contact information. |
| agentWorkstationPosition Identification | Conditional: Required if agent workstation has a position identification. | 0 | 1 | The workstation position ID within the agent’s agency. |
| agentRoleRegistryText | Required | 1 | \* | The Role of the Agent – Dispatching, Call Taking, etc. The acceptable roles are defined in a registry in NENA-STA-010 [3]. |
| notesReference | Optional | 0 | \* | Reference to a Notes Data Component. Contains optional alphanumeric text further describing the agent. |
| agencyReference | Required | 1 | 1 | Reference to an Agency Data Component. Identifies the agency employing or contracting with the agent. |

## Agency Data Component

**Data Component Use**: Required

**Minimum Number:** 1

**Maximum Number:** \*

**Child Of:** Emergency Incident Data Object

**Data Component Description:** Every EIDO will include at least one instance of this data component in the agency component of the Emergency Incident Data Object in order to identify the Agency creating the EIDO.

Many Incidents have one owner, a specific agency. Sometimes, ownership changes from one owner to another. In some jurisdictions, there can be more than one owner. Normally, ownership is passed from the current owner to another, but there are circumstances where ownership is unclear, and ownership must be claimed. The Agency Information data component provides a mechanism for establishing the agency that owns the Incident associated with the Incident tracking ID contained in the EIDO Header data component or for removing current ownership from that Incident.

Agencies in this context are construed broadly to include such organization as poison control centers, tow truck operators, hospitals and utility compagnies.

In this data component, the identifier ($id) is the Agency Identifier. The Agency Identifier Identifiy the agency. See NENA-STA-010 [3] Agency Identifier section for the format and requirements of the identifier data element within the identity component.

The agency whose identifier is found within this component MUST have a record in the Service/Agency Locator as defined in NENA-STA-010 [3]

Table ‑ Agency Data Component

| **JSON Name** | **Use (required, optional,**  **conditional)** | **Min** | **Max** | **Description** |
| --- | --- | --- | --- | --- |
| agencyJcard | Optional | 0 | 1 | The agency’s contact information. |
| agencyRoleDescriptionRegistryText | Required | 1 | \* | The role of the agency in relation to the Incident. Valid roles are available in the “EIDO-AgencyRole” registry and include:Dispatching, Dispatched, CallReceiving, and TransferredTo. See Section 3.1, below, for the registry description. |
| agencyType | Required | 1 | \* | One or more members of a list of available provider and agency types.  The agency types are taken from the IANA urn:emergency:service:responder registry and the subregistries defined for that registry. Values exclude the “urn:emergency:service:responder.” prefix. Example values: “police.federal.fbi”, “fire.forest”, “poison\_control” |
| notesReference | Optional | 0 | \* | Reference to a Notes Data Component. Contains optional alphanumeric text about the agency in the context of the incident. |
| incidentOwningAgencyIndicator | Optional | 0 | 1 | Boolean data element that, if true, indicates that the agency associated with the Agency ID contained in this data component owns; or, if false does not own, the Incident associated with the Incident tracking ID in the EIDO data component. Once set to true, it should only be set to false by the agency that originally set it true. Used to enable the exchange and update of Incident ownership information. Only one Agency Data Component can have this set to true in the EIDO. |

## Split/Merge Data Component

**Data Component Use:** Optional Component

**Minimum:** 0

**Maximum:** \*

**Child Of:** Emergency Incident Data Object

**Data Component Description:** An optional data component that is used to indicate the existence of a merged Incident Tracking ID or to split an Incident. The presence of a Split/Merge Information data component indicates that another Incident Tracking ID has been merged with or is being split from the Incident Tracking ID contained in the EIDO header.

Table ‑ Split/Merge Data Component

| **JSON Name** | **Use (required, optional,**  **conditional)** | **Min** | **Max** | **Description** |
| --- | --- | --- | --- | --- |
| incidentTrackingIdentifier | Required | 1 | 1 | The Incident Tracking Identification of the Incident that is being merged with, or split from the Incident represented by the Incident Tracking Identifcation contained in the EIDO Header. See Incident Split/Merge Indicator to determine the direction of the merge/split. |
| incidentMergeDirectionCode | Required | 1 | 1 | The role of the IncidentTrackingIdentifier in this data component.  Indicator is:  - “REPLACED” the Incident Tracking Identifier in this data component contains the old Incident Tracking Identifier. Only applies to a merge operation.  -“REPLACING” the Incident Tracking Identifier in this data component contains the new Incident Tracking Identifier. Only applies to a merge operation.  - “Split” The Incident Tracking Identifier contained in this data component is split from the Incident Tracking Identifier contained in the EIDO Header data component. The other data components contained in the EIDO contain the data elements of the split Incident. |

## Link Data Component

**Data Component Use**: Optional Component

**Minimum:** 0

**Maximum:** \*

**Child Of:** Emergency Incident Data Object

**Data Component Description:** An optional data component that is used to indicate the existence of linked calls and Incidents. A Link data component indicates that an Incident has been linked to the Incident Tracking Identifier in the EIDO header. Incidents are linked when it is determined that while they are separate Incidents, they are related in some way. When a link is declared, both Incident Tracking Identifiers continue to be used to track the individual Incidents.

Incidents may be linked in a hierarchical relationship. For more information on hierarchal Incidents see the Incident Tracking Identifier section of NENA-STA-010 [3].

Table ‑ Link Data Component

| **JSON Name** | **Use (required, optional,**  **conditional)** | **Min** | **Max** | **Description** |
| --- | --- | --- | --- | --- |
| incidentTrackingIdentifier | Required | 1 | 1 | The Incident Tracking Identifier of the Incident that is being linked to the Incident represented by the Incident Tracking Identifier contained in the EIDO Header. The nature of the link is defined by the link Indicator below. |
| transactionReasonText | Optional | 0 | 1 | Free format narrative description of the reason for the link. |
| involvedAgencyReference | Optional | 0 | \* | Other Agencies involved with the linked Incident if known. |
| linkDirectionCode | Required | 1 | 1 | The direction of the link –  If the value of the Link Indicator is:   * “Parent” The Incident Tracking Identifier contained in this data component is the parent of the Incident Tracking Identifier contained in the EIDO header. * “Child” The Incident Tracking Identifier contained in this data component is the child of the Incident Tracking Identifier in the EIDO header. * “Related” The Incident Tracking Identifier contained in this data component is related to the Incident Tracking Identifier in the EIDO header, without any parent-child relationship. * “UnLink” The Incident Tracking Identifier contained in this data component is unlinked from the Incident Tracking Identifier contained in the EIDO Header data component. |

## Incident Data Component

**Data Component Use:** Optional Component

**Minimum:** 0

**Maximum:** 1

**Child Of:** Emergency Incident Data Object

**Data Component Description:** The Incident Information data component is optional and is used to exchange general information about emergency Incidents gathered by emergency agents, emergency responders, from reporting parties (callers), and devices reporting emergency Incidents. Agencies responding to the same Incident may have different versions of the Incident Information data components for the Incident. Each agency's version of the Incident Information data component contains information that is relevant to their agency but may also contain shared information that is common to both agencies.

This module is used to exchange Incident update information, as well as for exchanging initial Incident creation information. For example, in high priority Incidents only partial information may be exchanged between call takers and dispatchers (i.e., the Incident’s type and location) while additional information is being collected. This data component is used for the initial, high priority exchange and the subsequent exchange containing the additional information collected after the initial exchange was completed. When multiple callers report a single Incident, this data component is used to update involved agents and responders about new information gathered from the other callers.

The Incident Information Data Component is also used to exchange general Incident information developed during dispatch operations. Call takers, Dispatchers, Emergency Resources, and Emergency Devices can enter information exchanged/carried by this data component.

Table ‑ Incident Data Component

| **JSON Name** | **Use (required, optional,**  **conditional)** | **Min** | | **Max** | **Description** |
| --- | --- | --- | --- | --- | --- |
| incidentTypeInternalCode | Optional | 0 | | 1 | An alphanumeric code indicating the category of the Incident. This is the internal code used by the local agencies involved in the Incident. |
| incidentTypeInternalText | Optional | 0 | | 1 | Textual description indicating the category of the Incident. This is the internal text used by the local agencies involved in the Incident. |
| incidentTypeCommonRegistryText | Required | 1 | | 1 | Incident type code that is available in the EIDO-IncidentType-Common” registry (see Section 3.2, below, for the registry description) and that most closely corresponds to the Incident Type internal code. APCO has developed an ANS set of globally unique common Incident type codes (APCO ANS 2.103.2-2019) [8], which form the basis for this registry. Each Agency should maintain a mapping of its Internal Incident Types (IncidentTypeInternal) to the list of Common Incident Types (IncidentTypeCommon). The Common Incident Type should be selected from this mapping when the EIDO is created to identify the Incident type using a common code that is globally understood. |
| incidentStatusInternalText | Optional | 0 | | \* | An alphanumeric code indicating the status of the Incident (active, closed, structure cleared, etc.). This is the internal code used by the local agencies involved in the Incident. |
| incidentStatusCommonRegistry  Text | Optional | 0 | | \* | Incident status code that is available in the Incident Status Registriy (see Section [3.3](#_Incident_Status-Common), below, for the registry description) and that most closely corresponds to the Incident Status-Internal. Typically used to track significant changes in an Incident’s status. Each Agency should maintain a mapping of its internal Incident status (IncidentStatusInternal) to the list of common Incident status (IncidentStatusCommon). The common Incident status should be selected from this mapping when an EIDO is created to identify the Incident status using a common code that is globally understood. |
| internalIncidentId | Optional | 0 | | 1 | The Internal Incident ID as an alphanumeric string assigned by the agency involved in the Incident. Used To exchange Incident information between systems using the same internal Incident IDs. Maintained for conformance with legacy systems. |
| agentReference | Optional | 0 | | \* | Reference to Agent Data Components. Identifies the agents (could be either an agent in a communication center or an emergency responder) that are involved in this Incident. |
| locationReference | Optional  (Required if available) | 0 | | \* | Reference to an Location Data Component. Contains Incident location information entered or updated by an agent receiving a call associated with the Incident. |
| personReference | Optional | 0 | | \* | Reference to an Person Data Component. Contains person information entered or updated by an agent receiving a call associated with the Incident. |
| vehicleReference | Optional | 0 | | \* | Reference to an Vehicle Data Component. Contains vehicle information entered or updated by an agent receiving a call associated with the Incident. |
| documentIdentification | Optional | | 0 | \* | The Document Identification connects the Incident to one or more associated follow-up reports and investigations. Each responding agency may have its own Document Identification. Also used by agency supervisor and other personnel to track the status of reports. |
| reportNumberType | Conditional: MUST be populated if Report Number is present | | 0 | 1 | Report number type codes that are available in the EIDO Registries (see Section 3.4, below, for the registry description); may be New or Reopened. |
| incidentPriorityInternalText | Optional | | 0 | 1 | Priority of the Incident as alphanumeric text for the agency being dispatched. This value may only be meaningful to the agency providing the information and other closely cooperating agencies. Note, that different responding agencies may assign different priorities to same Incident; for example, a high priority fire Incident may be a medium priority law enforcement Incident. |
| incidentCommonPriorityNumber | Optional | | 0 | 1 | Globally understood numeric Incident priority that ranges from 0 to 10, with 10 being the highest priority and 0 being the lowest priority. The Local Priority, described above, should be mapped to this (Common Priority) data element so that all involved and interested agencies can determine the relative priority of the Incident. |
| beatOrDispatchGroupText | Optional | | 0 | 1 | The beat or dispatch group that contains the Incident. Note that each agency involved in the Incident may have its own beat or dispatch group. |
| disposition | Optional | | 0 | \* | Complex data element. Contains Incident disposition information entered or updated by a dispatch agent and/or an emergency responder. |
| notesReference | Optional | | 0 | \* | Reference to a Notes Data Component. Contains optional alphanumeric text further describing the Incident. |

## Call Data Component

**Data Component Use:** Optional Component

**Minimum:** 0

**Maximum:** \*

**Child Of:** Emergency Incident Data Object

**Data Component Description:** The Call Information data component is optional and is used to exchange call information about the Incident received and collected by the agent identified in this data component. There can be more than one call about an Incident, and thus more than one instance of this data component can be in an EIDO. Some of the information in this data component is contained in the call, some is additional data associated with the call, and other information is collected by the agent.

Every participant in the call is referenced by either an agentReference or personReference.

In this data component, the identifier ($id) is the Call identifier. The Call identifier is automatically created by the first ESRP in the first ESInet that handles a call. Call Identifiers are globally unique and are only valid for a specific call.

Table ‑ Call Data Component

| **JSON Name** | **Use (required, optional,**  **conditional)** | **Min** | **Max** | **Description** |
| --- | --- | --- | --- | --- |
| relatedCallIdentifier | optional | 0 | \* | CallIdentifier of calls that are related to this call. Eg: Callbacks |
| queueIdentifier | optional | 0 | 1 | An identifier of a queue where the call is currently on. |
| standardPrimaryCallType | Required | 1 | 1 | Primary call type. Values limited to those in the LogEvent CallTypes registry with “Primary” classification. |
| standardSecondaryCallType | optional | 0 | 1 | Secondary call type. Values limited to those in the LogEvent CallTypes registry with “Secondary” classification. |
| localCallType | optional | 0 | 1 | Locally defined call type. |
| direction | Required | 1 | 1 | The “direction” member has one of these values, “incoming”, “outgoing” or “internal”, where “incoming” means received by the EIDO sender, “outgoing” means sent by the EIDO sender and “internal” means both caller and recipient are within the EIDO sender. |
| additionalDataReference | optional | 0 | \* | Reference to an Additional Data Data Component. Additional information about a call received that is involved in or related to the Incident. There may be multiple data providers for one call.  Additional Information is defined in RFC 7852 [6] |
| callStartTimestamp | Required | 1 | 1 | Date and time stamp of when the call was received. SHALL be represented by the “date-time” datatype described in RFC 3339, Section 5.6 as specified in NENA-STA-010.3-202x [3]. |
| answerDate | optional | 0 | 1 | A date and time stamp on which the call was answered by an agent. |
| callStateRegistryText | Required | 1 | 1 | Current call status (when the EIDO was created) from the available call statuses in the “Call States” registry i.e., callBegin, callAnswered, callEnd, partyAdd , etc. Values limited to those in the IANA CallStates registry. |
| agentReference | Conditional | 0 | \* | Reference to an Agent Data Component. Identifies the agent(s) that is involved with the call described in this data component and/or entered additional information related to the received call. Must always be present if one or more Agent is involved in the call. |
| callBackReference | Conditional | 0 | 1 | Reference to a call back data component. Identifies how the caller described in this data component can be called back. Required if available. |
| verstat | Conditional | 0 | 1 | Value of the verstat parameter. Required if known. |
| sipIdentity | Conditional | 0 | 1 | Content of the SIP identity header. Required if known. |
| locationReference | Conditional | 0 | \* | Reference to a Location Data Component. Contains call location information received with the call or updated by the agent receiving the call. Must be present if location is presented with the call. |
| notesReference | Optional | 0 | \* | Reference to a Notes Data Component. Contains optional alphanumeric text further describing the call. |
| personReference | Conditional | 0 | \* | Reference to a Person Data Component. Contains information about the caller(s). Must be present if the call is a SIP session. |

## Call Back Data Component

**Data Component Use:** Optional Component

**Minimum:** 0

**Maximum:** \*

**Child Of:** Emergency Incident Data Object

**Data Component Description:** This data component is used to exchange information about how to contact the Incident’s reporting parties.

Table ‑ Call Back Data Component

| **JSON Name** | **Use (required, optional,**  **conditional)** | **Min** | **Max** | **Description** |
| --- | --- | --- | --- | --- |
| callBackInformationUri | conditional | 0 | \* | Information that enables agents and responders to call back. URI(s) found in the P-Asserted-Identity header if provided else the URI in the From header. |
| deviceContactHeader | Required | 0 | 1 | Content of the device contact header. Information that enables agents and responders to possibly reach (call back) the device that initiated the call. Note, that this information is only guaranteed to be valid during the call and for a few minutes after it ends. |
| updatedCbn | Optional | 0 | \* | Complex data element. Identifies additional telephone numbers and SIP equivalents that can be used to contact the individual that made the call described in this data component. |

## Updated Call Back Number Data Component

**Data Component Use:** Optional Component

**Minimum:** 0

**Maximum:** \*

**Child Of:** Call Back

**Data Component Description:** This data component is optional and is used to exchange information about additional phone numbers that can be used to contact the Incident’s reporting parties.

Table ‑ Updated Call Back Number Data Component

| **JSON Name** | **Use (required, optional,**  **conditional)** | **Min** | **Max** | **Description** |
| --- | --- | --- | --- | --- |
| updatedCbnIdentifierUri | Required | 1 | 1 | This data element (in the form of a URI) is used to track additional telephone number or SIP equivalents that can be used to contact the reporting party of the parent call. |
| updatedCbnCallerDescription | Optional | 0 | 1 | Descriptive (alphanumeric) text that provides additional information about the updated call back number such as hours to use it, days to use it, and the type of number (e.g., work, home, friend, etc.) |

## Dispatch Data Component

**Data Component Use:** Optional Component

**Minimum:** 0

**Maximum:** \*

**Child Of:** Emergency Incident Data Object

**Data Component Description:** This Data Component contains dispatch related information. It allows updates to be sent and received between Incident Handling FEs and Dispatch FEs, between different Dispatch FEs that are working the same Incident, and enables exchanging information provided directly by emergency responders. It can also be used to provide dispatch related status updates to involved agencies and authorized stakeholders.

Table ‑ Dispatch Data Component

| **JSON Name** | **Use (required, optional,**  **conditional)** | **Min** | **Max** | | **Description** |
| --- | --- | --- | --- | --- | --- |
| agencyReference | Optional | 0 | | 1 | Reference to an Agency Data Component. Agency that was dispatched through action performed in this data component. Note, that if several agencies are dispatched (one fire and one police, two fire agencies, etc.), there must be a separate instance of the dispatch data component for each dispatched agency. Agencies are globally unique. |
| agentReference | Optional | 0 | | 1 | Reference to an Agent Data Component. Identifies the agent that completed the dispatch operation described in, and/or entered the information contained in this data component. |
| emergencyResourceReference | Optional | 0 | | \* | Reference to an Emergency Resource Data Component. Contains information about emergency responders assigned (dispatched) to the Incident, as well as their status and location updates. This data component is not required when emergency responders update their  status and/or location directly without requiring dispatcher entry. |
| notesReference | Optional | 0 | | \* | Reference to a Notes Data Component. Contains optional alphanumeric text further describing the dispatch. |

## Disposition Data Component

**Data Component Use:** Optional Component

**Minimum:** 0

**Maximum:** \*

**Child Of:** Incident Information and Responder Information

**Data Component Description:** Agency specific and standardized disposition codes assigned to an Incident. Multiple disposition codes per Incident are supported. Either a responder or a dispatcher can close an Incident and assign a final disposition codes to it.

Table ‑ Disposition Data Component

| **JSON Name** | **Use (required, optional,**  **conditional)** | **Min** | **Max** | **Description** |
| --- | --- | --- | --- | --- |
| dispositionCommonRegistryCode | Required | 1 | 1 | 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 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 EMS disciplines. See Section [3.4](#_Common_Disposition_Code), below, for the description of the registry. |
| dispositionPrimaryIndicator | Optional | 0 | 1 | A designation of whether the common disposition code is the primary disposition code for the Incident. Note that multiple primary codes are allowed, but some systems may not be able handle more than one primary common disposition code. It is possible that no codes are marked as primary. The value is Boolean, where True is a primary disposition code. |
| dispositionCategoryText | Optional | 0 | 1 | An agency-specific, alphanumeric code that indicates how the Incident was closed. The Common Disposition Code, referenced above, should be mapped to the closest value of this data element. |
| dispositionDescriptionText | Conditional: MUST be populated if Disposition Code Type is presentOptional  otherwise. | 0 | 1 | Descriptive text describing the Disposition Code Internal. Disposition codes may be agency specific and this field explains the meaning of the internal disposition code. |
| notesReference | Optional | 0 | \* | Reference to a Notes Data Component. Contains optional alphanumeric text further describing the disposition code. |

## Notes Data Component

**Data Component Use:** Optional Component

**Minimum**: 0

**Maximum**: \*

**Child Of**: Emergency Incident Data Object

**Description**: This Data Component is typically populated by emergency service agents and responders and occasionally by automated devices. There may be multiple notes from the same agent and there may be notes from multiple agents and agencies.

Table ‑ Notes Data Component

| **JSON Name** | **Use (required, optional,**  **conditional)** | **Min** | **Max** | **Description** |
| --- | --- | --- | --- | --- |
| notesActionComments | Required | 1 | 1 | Notes created by an agent entered in HTML fragments, as supported by NIEM, and shall be limited to 16 MB. HTML is used to allow multimedia data to be contained in the notes. Security issues may arise from embedding scripts, images, and other references including JavaScript in notes and the receiving system may ignore or filter out such embedded  information. |
| agentReference | Optional | 0 | 1 | Reference to an Agent Data Component. Identifies the agent and agency that entered the note contained in this data component. Defaults to the Agency Information included in the EIDO header, if this data component is not present. |

## Person Data Component

**Data Component Use**: Optional Component

**Minimum:** 0

**Maximum:** \*

**Child Of:** Emergency Incident Data Object

**Data Component Description:** This Data Component is used to exchange information about people associated with an Incident including: callers, suspects, victims, witnesses and other individuals involved in the Incident. The information is provided by reporting parties and emergency responders. Responders can enter the information either directly through their mobile data computers or via their assigned dispatchers.

An instance of Person Data Component MUST be created along with a Call Data Component at the beginning of an emergency call. The Person Data Component must have the personIncidentRoleRegistryText element set to "caller" and the callBackReference element refers to the same Call Back Data Component designated by the Call Data Component. If the emergency call included a SubscriberInfo Additional Data block, the Additional Data Component reference for that block and its associated ProviderInfo block SHOULD be specified in an additionalDataReference element. At the end of the emergency call, while the EIDO may no longer include a Call Data Component, the caller's details will continue to be found in the Person Data Component.

Table ‑ Person Data Component

| **JSON Name** | **Use (required, optional,**  **conditional)** | **Min** | **Max** | **Description** |
| --- | --- | --- | --- | --- |
| personIncidentRoleRegistryText | Required | 1 | \* | Describes the relationship (Caller, Victim, suspect, etc.) of a person to the Incident.  Available person types are contained in the Person Role registry. See section [3.6](#_Person_Type), below for the registry description. Note that there could be multiple relationships as when the reporting party is also the victim. |
| callIdentifier | conditional | 0 | \* | Call Identifier of the calls this person was involved on. Must be provided if this person was involved in a call. Must be an Identifier as defined in the Call Identifier section of NENA-STA-010 [3]. |
| locationReference | Optional | 0 | \* | Reference to an Location Data Component. Location of the person. |
| notesReference | Optional | 0 | \* | Reference to a Notes Data Component. Contains optional alphanumeric text further describing the person. |
| ncPersonComponent | Optional | 0 | 1 | NIEM Core Person Type, a data type for a human being. |
| additionalDataReference | Optional | 0 | \* | Additional Data about a person. |
| callBackReference | Conditional | 0 | 1 | Reference to a call back data component. Identifies how the person described in this data component can be called back. Required if available. |

## Vehicle Data Component

**Data Component Use**: Optional Component

**Minimum**: 0

**Maximum**: \*

**Child Of**: Emergency Incident Data Object

**Data Component Description**: This Data Component is used to exchange information about vehicles associated with an Incident including: suspect vehicles, vehicles involved in accidents, and other vehicles involved with the Incident. The information is provided by reporting parties and emergency responders. Responders can enter the information either directly through their mobile data computers or via their assigned dispatchers.

**Note**: Vehicle telematics information is not located in this data component. It is located in additional data associated with a call.

Table ‑ Vehicle Data Component

| **JSON Name** | **Use (required, optional,**  **conditional)** | **Min** | **Max** | **Description** |
| --- | --- | --- | --- | --- |
| vehicleRelationshipType | Required | 1 | \* | Describes the relationship (victim’s vehicle, accident vehicle, suspect vehicle, etc.) of a vehicle to the Incident. Available vehicle relationship types are contained in the “EIDO-VehicleRelationshipType” registry. See Section 3.7, below, for the registry description. |
| vehicleRelationshipTimeStamp | Required | 1 | 1 | The date and time that the relationship of the vehicle to the Incident was established by this data component instance. SHALL be represented by the “date-time” datatype described in RFC 3339, Section 5.6 as specified in NENA-STA-010. |
| additionalDataReference | Optional | 0 | \* | Reference to an Additional Data Data Component. Additional information about a vehicle that is involved in or related to the Incident. There may be multiple data providers for one vehicle. |
| locationReference | Optional | 0 | \* | Reference to a Location Data Component. Location of the vehicle. |
| notesReference | Optional | 0 | \* | Reference to a Notes Data Component. Contains optional alphanumeric text further describing the vehicle. |
| ncVehicleComponent | Optional | 0 | 1 | NIEM Core VehicleType. A data type for a conveyance designed to carry an operator, passengers and/or cargo, over land. |

## Location Data Component

**Data Component Use**: Optional Component.

**Minimum**: 0

**Maximum**: \*

**Child Of**: Emergency Incident Data Object

**Data Component Description:** This Data Component represents a location description. The type of location may be the caller’s location, the Incident’s location or another type of location indicated by the Location Type field in the data component. In order to dispatch emergency responders an “initial” Incident location is required. It may be the same as the caller’s location, but it may also evolve as the Incident progresses. For example, emergency responders are initially dispatched to the caller’s location, the caller verbally describes a different location for the Incident, and finally the first responders arrive at the scene and relates yet another location for the Incident. The Incident’s location may also be mobile such as a caller reporting an Incident from a moving vehicle or a law enforcement chase in progress.

The location data component references or includes a PIDF-LO as documented in NENA-STA-010[[3]](#_Detailed_Functional_and).

The EIDO incorporates many data elements from NIEM, which in turn, incorporates many different methods of conveying a location, including shapes, coordinates, addresses and others. This is required for interoperability with systems that are conformant with NIEM that are not NG9-1-1 systems. Even when the components of a NIEM-conformant location have the same information as a PIDF-LO, it will not be PIDF-LO and will not be compatible with NG9-1-1 systems. Since there is not a single location type in NIEM, there are many different NIEM-conformant location formats that may be received by an NG9-1-1 system and may be found in an EIDO. Location in NG9-1-1 is expressed as PIDF-LO, so whenever possible, any conveyance of location in an EIDO is preferred to be PIDF-LO, even though a NIEM-conformant location received or conveyed in an EIDO may not be a PIDF-LO. This may require construction of a PIDF-LO when NIEM-conformant location information is received by an NG9-1-1 entity.

When expressing a location in a civic format, the PIDF-LO by itself is unable to describe either a Cross Street or an Intersection. In this document:

\* An Intersection is a location that is described as the convergence of more than one street, regardless of the orientation of the streets to each other. This includes perpendicular, T-shaped, Y shaped and any other orientation of streets. Intersections have at least two and may have more than two streets. The location is the Intersection itself.

\* A Cross Street is an additional piece of information about a location, and describes the nearest streets that cross or terminate near the location. The Cross Street can have a perpendicular, T-shaped, Y-shaped or any other orientation of the Cross Street to the street the location is on. The Cross Street is not the location: it is near the location. There could be more than one Cross Street if a location is in, or near the middle of a block, or the Cross Street has multiple street names (such as when a street changes names on either side of the street the location is on).

To represent Intersections and Cross Streets, we use additional PIDF-LOs. The PIDF-LO SHOULD have country, A1, A2, A3 and/or A4, MAY have A5 fields, and MUST have a street name. Implementations MUST be prepared to receive a Cross Street or Intersection PIDF that does not contain one or more of country, A1-A5. If they are missing, they are assumed to be the same as the values in the primary location PIDF. For an Intersection, address number MAY be provided. If present it is interpreted as a block number. For a Cross Street, a civic address MUST be provided in locationByValue or locationByReferenceUrl. In this case, address number must be provided unless two cross streets are provided or the road ends past the cross street (e.g., cul de sac).

Cross streets and Intersection are represented as separate PIDF object and not multiple location in a single PIDF.Cross Street and Intersection are mutually exclusive. If one is provided, the other MUST NOT be provided.

Table ‑ Location Data Component

| **JSON Name** | **Use (required, optional,**  **conditional)** | **Min** | **Max** | **Description** |
| --- | --- | --- | --- | --- |
| locationTypeDescriptionRegistry  Text | Required | 1 | 1 | Location type (Caller, Initial, CurrentIncident, Staging, Investigation, Tower Location, Other) as defined in a registry. See Section [3.8](#_Location_Type), below for the registry description. |
| locationByValue | Conditional: MUST be populated if Location By  Reference is not populated. Otherwise it MUST be omitted. | 0 | 1 | The Location Information data component must support all PIDF-LO data elements though many of these elements may not be present in an EIDO.  When populated this data element must contain civic or geodetic location elements. |
| locationByReferenceUrl | Conditional: MUST be populated if Location By Value is not populated. Otherwise it MUST be omitted. | 0 | 1 | A URL that can be dereferenced to obtain the location of the indicated location type. The resulting dereference must support the PIDF- LO data elements defined in Location By Value. This is particularly useful for indicating the location of moving devices such as callers in moving vehicles. The current  location of the device can be de-referenced and inserted into the Incident record. |
| locationDescriptionText | Optional | 0 | 1 | Optional text further describing the location type.  Note that the Location may be the Caller’s  location, Incident’s location or another type of location depending on the Location Type field. |
| crossStreetByValue | Optional | 0 | \* | The nearest Cross Street to the Incident’s location in PIDF-LO format. |
| crossStreetByReferenceUrl | Optional | 0 | \* | The URL of the nearest Cross Street to the Incident’s location. |
| intersectingStreetByValue | Optional | 0 | \* | The nearest Intersection to the Incident’s location in PIDF-LO format. |
| intersectingStreetByReferenceUrl | Optional | 0 | \* | The URL of the nearest Intersection to the Incident’s location. |
| cellTowerSectorId | Optional | 0 | 1 | Text field contain the ID of the nearest cell tower and the sector/face of the tower receiving the call. May be used with the “Provided By” field of the PIDF-LO to identify the carrier if carrier specific data is needed. |
| additionalDataReference | Optional | 0 | \* | Reference to Additional Data Data Component. Contains additional data associated with a location. |
| notesReference | Optional | 0 | \* | Reference to a Notes Data Component. Contains optional alphanumeric text further describing the location. |

## Additional Data Data Component

**Data Component Use**: Optional Component

**Minimum**: 0

**Maximum**: \*

**Child Of**: Emergency Incident Data Object

**Data Component Description**: This data component is optional and is used to exchange information about individuals, call or location associated with a call received by an agent handling the Incident. This data component is used to track and exchange this information as defined in RFC7852.

Table ‑ Additional Data Data Component

| **JSON Name** | **Use (required, optional,**  **conditional)** | **Min** | **Max** | **Description** |
| --- | --- | --- | --- | --- |
| additionalDataByReferenceUrl | Conditional: MUST be populated if additionalDataDetail is not populated. Otherwise it MUST be omitted. | 0 | 1 | The URL is a link to additional information data component received about the parent. Allow the dereferencing of additional information associated with a call related to the Incident. |
| additionalDataByValue | Conditional: MUST only be populated if additionalDataURL is not populated. Otherwise it MUST be omitted. | 0 | 1 | If additional data associated with a call is sent by value these fields contain the information. |
| urlPurpose | Conditional: MUST be populated if a purpose have been sent along with the URL | 0 | 1 | Purpose that accompanied the URL. For example, the purpose parameter sent with the URL in the Call-Info headers. |
| notesReference | Optional | 0 | \* | Reference to a Notes Data Component. Contains notes and comments related to the Additional Data that were entered by agents and emergency responders. |

## Emergency Resource Data Component

**Data Component Use**: Optional Component

**Minimum**: 0

**Maximum**: \*

**Child Of**: Emergency Incident Data Object

**Data Component Description**: An emergency resource can be a vehicle, a person (foot patrol), an organizational unit such as a squad or strike team, and other emergency responder configurations. An emergency resource is described by a unique unit ID and unit type. There may be multiple Emergency Resource data components where multiple emergency resources are dispatched to a single Incident. When resources are assigned to an Incident by a dispatcher, then the parent data component is Dispatch Information and the same agency and agent that entered the information contained in the Dispatch Information data component entered the information contained in the Emergency Resource data component. However, when resources update their status or change the Incident, then the parent data component is the EIDO Header. Agent Information data components references of Emergency Resource instances identify the individuals associated with the emergency response unit; for example officer Jeff Smith and John Jones are currently operating (riding in) engine number 52.   
In this data component, the identifier ($id) is the unit ID. Format of the identifier is defined as resource@AgencyId eg: [engine52@riversideFD.riverside.ca.](mailto:Fire1@riversideFD.riverside.ca)

Table ‑ Emergency Resource Data Component

| **JSON Name** | **Use (required, optional,**  **conditional)** | **Min** | **Max** | **Description** |
| --- | --- | --- | --- | --- |
| emergencyResourceTypeCommonRegistryText | Required | 1 | 1 | A standard code for an emergency type (FireTruckLadder, PatrolUnit, etc.). Restricted to values in EIDO-EmergencyResourceType-Common registry (see Section 3.11, below). |
| emergencyResourceTypeInternalText | Optional | 0 | 1 | A local code for an emergency resource type. |
| resourceAttributeRegistryText | Required | 0 | \* | A standard code for an emergency resource attribute (skill and equipment) possessed by an emergency resource). Restricted to values in EIDO- ResourceAttribute registry (see Section 3.12, below). |
| emergencyResourceName | Optional | 0 | 1 | Common name of the emergency resource. |
| primaryUnitStatusRegistryText | Required | 1 | 1 | The common, globally unique, status that sets the emergency resource’s ability to be assigned to an emergency Incident. An emergency resource can only have one Primary Unit Status-Common at any given time. Available options for Primary Unit Status-Common are contained the “EIDO-PrimaryUnitStatus-Common” registry. See Section [3.9](#_Primary_Unit_Status-Common), below, for the registry description.  Agencies should map their Unit Status-Internal to the most appropriate combination of Primary Unit Status-Common and  Secondary Unit Status-Common available in the registry. |
| secondaryUnitStatusRegistryText | Required | 1 | \* | Globally unique, statuses that further qualifies the Primary Unit Status by providing more detail about the associated Primary status. Some systems may not be able to handle Secondary statuses, which is acceptable, but not recommended.  Available options for Secondary Unit Status-Common are contained the “EIDO- SecondaryUnitStatus-Common” registry. See Section 3.10, below, for the registry description.  Agencies should map their Unit Status- Internal to the most appropriate combination of Primary Unit Status-Common and Secondary Unit Status-Common available in the registry. |
| notesReference | Optional | 0 | \* | Reference to a Notes Data Component. Contains notes and comments related to the status of an emergency responder (e.g., time that status is expected to change, etc.) |
| unitStatusInternal | Optional | 0 | \* | Local or internal status of a response unit. May be meaningful only to the owning agency and possibly to other closely affiliated agencies. Some systems may not be able to handle multiple Unit Statuses-Internal. |
| agentReference | Required | 1 | \* | Reference to an Agent Data Component. Identifies the agents currently staffing the emergency responder unit and the agency to which the unit belongs. If the responding unit updated the Incident directly on their FRC, then the agent role identifies which individual entered the information as well as their role in the emergency response unit (driver, passenger, etc.). |
| unitLocationReference | Optional | 0 | 1 | Reference to an Location Data Component. Valid location of the unit at the time indicated by the Date/Time Stamp. |
| unitDestinationReference | Optional | 0 | 1 | Reference to an Location Data Component. Location where the Emergency Resource is going. |
| eta | Optional | 0 | 1 | Timestamp of when the unit is expected to reach it's destination |
| personReference | Optional | 0 | \* | Reference to a Person Data Component. Contains person information entered or updated directly by an emergency responder. |
| vehicleReference | Optional | 0 | \* | Reference to a Vehicle Data Component. Contains vehicle information entered or updated directly by an emergency responder. Represent the vehicle(s) used by the Emergency Resource. |

## Alarms and Sensors Data Component

**Data Component Use**: Optional Component

**Minimum**: 0

**Maximum**: \*

**Child Of**: Emergency Incident Data Object

**Data Component Description**: This Data Component is only used to support the exchange of the legacy APCO CSAA ANS interface [12]. There may not be an i3 call associated with this alarm. The Incident Record Handling FE will have a direct interface that supports APCO CSAA ANS and the FE will use it to automatically extract the relevant information and create an Incident. This data component provides a link to the original information received from the alarm company. Any other form of Alarm or Sensor data will be contained in the Additional Data Associated with a Call.

Table ‑ Alarms and Sensors Data Component

| **JSON Name** | **Use (required, optional,**  **conditional)** | **Min** | **Max** | **Description** |
| --- | --- | --- | --- | --- |
| csaaAlarmInformation | Conditional: MUST be populated if alarmURL is not populated . Otherwise it MUST be omitted. | 0 | 1 | Original automated alarm data that triggered the creation of the Incident.  Read in NIEM schema Alarm and Sensor data. For Alarms this would be the APCO/CSAA ANS 2.101.2-2014 [12] standard. |
| alarmUrl | Conditional: MUST be populated if CSAAAlarmInformation is not populated. Otherwise it MUST be omitted. | 0 | 1 | Link to the automated alarm data that initiated the Incident. There may be more than one transmission for a single Incident.  Enable the receiving agency to dereference and obtain the original alarm information that triggered the Incident. |
| agentReference | Optional | 0 | 1 | Reference to an Agent Data Component. Identifies the agent and agency that processed the Alarm/Sensor information described in this data component. Defaults to the Agent Information included in the EIDO header, if this data component is not present. |
| notesReference | Optional | 0 | \* | Reference to a Notes Data Component. Contains optional alphanumeric text further describing the Incident. |

# IANA Actions

This section describes the registries defined for the Data Components contained in Chapter 2 of the document.

Each defined registry is linked to one or more data elements specified in the data components contained in Chapter 2 (Data Associated with an Emergency Incident). Each registry is named after the data element that uses it and includes references to the Data Components that contain the registry's data element.

## Agency Role Registry

The “Agency Role” data element is described in Section 2.6 (Agency Data Component) of the document.

IANA is requested to add the following values to the “EIDO-AgencyRole” registry.

Table ‑ Agency Role Registry

| **Value** | **Literal Description** | **Reference** |
| --- | --- | --- |
| Assisting | An agency is assisting on, or being consulted regarding an Incident. | This document |
| CallReceiving | The Agency that received the emergency call. | This document |
| Dispatched | The Agency that had emergency resources dispatched to an Incident. | This document |
| Dispatching | The Agency that dispatched emergency resources to an Incident. | This document |
| Informational | An agency is receiving information regarding an Incident, but is not otherwise participating. | This document |
| TransferredTo | The Agency to which the emergency call is being transferred. | This document |

## Incident Type – Common Registry

The “Incident Type – Common” data element is described in Section 2.9 (Incident Data Component) and Section 2.13 (Dispatch Data Component) of the document.

IANA is requested to add the following values to the “EIDO-IncidentType-Common” registry.

Table ‑ Incident Type – Common Registry

| **Value** | **Literal Description** | **Reference** |
| --- | --- | --- |
| NONEMERG | The Incident is not an emergency. | This document |
| 911H | 9-1-1 Hang Up | APCO 2.103.2-2019 |
| 911OPN | 9-1-1 Open Line | APCO 2.103.2-2019 |
| ABDOM | Abdominal Pain or Problems | APCO 2.103.2-2019 |
| ABDUCTF | Abduction Family | APCO 2.103.2-2019 |
| ABDUCTNF | Abduction Non-Family | APCO 2.103.2-2019 |
| ABUSE | Abuse | APCO 2.103.2-2019 |
| ACCIND | Industrial Accident | APCO 2.103.2-2019 |
| ACTSHOOT | Active Shooter | APCO 2.103.2-2019 |
| ADMIN | Administrative | APCO 2.103.2-2019 |
| AIR | Aircraft Related Incidents | APCO 2.103.2-2019 |
| AIRINC | Airport Incident (not Aircraft) | APCO 2.103.2-2019 |
| ALIEN | Immigration | APCO 2.103.2-2019 |
| ALLERGIC | Allergic Reaction, Insect Stings | APCO 2.103.2-2019 |
| ALMA | Alarm Audible | APCO 2.103.2-2019 |
| ALMB | Commercial Alarm | APCO 2.103.2-2019 |
| ALMH | Panic/Duress/Hold Up Alarm | APCO 2.103.2-2019 |
| ALMR | Resdential Alarm | APCO 2.103.2-2019 |
| ALRBA | Burglar Alarm-Audible | APCO 2.103.2-2019 |
| ALRBOX | Box Alarm | APCO 2.103.2-2019 |
| ALRBS | Burglar Alarm - Silent | APCO 2.103.2-2019 |
| ALRCO | Carbon Monoxide | APCO 2.103.2-2019 |
| ALRCO2 | Fire Alarm - CO2 | APCO 2.103.2-2019 |
| ALRDEFIB | Automated Implantable Cardiac Defibrillator (AICD) Alarm or Event | APCO 2.103.2-2019 |
| ALRF | Generic Fire Alarm | APCO 2.103.2-2019 |
| ALRGAS | Fire Alarm - Gas | APCO 2.103.2-2019 |
| ALRHEAT | Fire Alarm - Heat | APCO 2.103.2-2019 |
| ALRKPAD | Fire Alarm - Keypad | APCO 2.103.2-2019 |
| ALRMED | Medical Alarm | APCO 2.103.2-2019 |
| ALRNGAS | Fire Alarm - Natural Gas | APCO 2.103.2-2019 |
| ALRPANA | Panic Alarm Audible | APCO 2.103.2-2019 |
| ALRPANS | Panic Alarm Silent | APCO 2.103.2-2019 |
| ALRPROPN | Fire Alarm - Propane | APCO 2.103.2-2019 |
| ALRPULL | Fire Alarm - Pull Station | APCO 2.103.2-2019 |
| ALRROBA | Robbery Alarm Audible | APCO 2.103.2-2019 |
| ALRROBS | Robbery Alarm Silent | APCO 2.103.2-2019 |
| ALRU | Alarm Unknown | APCO 2.103.2-2019 |
| ALRVEH | Vehicle Alarm | APCO 2.103.2-2019 |
| ALRWTR | Fire Alarm - Water Flow | APCO 2.103.2-2019 |
| ALS | Advanced Life Support Incident | APCO 2.103.2-2019 |
| ANIMAL | Animal | APCO 2.103.2-2019 |
| ASSAULT | With or Without Injury | APCO 2.103.2-2019 |
| ASSIST | Assist to Other Agency or Request for Manpower | APCO 2.103.2-2019 |
| ATL | ATL | APCO 2.103.2-2019 |
| BACK | Non-Traumatic | APCO 2.103.2-2019 |
| BARICADE | Barricaded | APCO 2.103.2-2019 |
| BIO | Biological Threat | APCO 2.103.2-2019 |
| BITE | Animal Bites or Attack by an Animal | APCO 2.103.2-2019 |
| BLDCLPSE | Collapsed Building Includes Technical Rescue Incidents | APCO 2.103.2-2019 |
| BLEEDING | Includes Rectal, Vaginal, Non-Traumatic | APCO 2.103.2-2019 |
| BLS | Basic Life Support Incident | APCO 2.103.2-2019 |
| BOMB | Bomb Threat Or Investigation | APCO 2.103.2-2019 |
| BRGCLPSE | Bridge Collapse | APCO 2.103.2-2019 |
| BURGLARY | Burglary | APCO 2.103.2-2019 |
| BURN | Burns | APCO 2.103.2-2019 |
| CARDIAC | Cardiac Related Event, Heart Attack, Chest Pain | APCO 2.103.2-2019 |
| CARJACK | Carjack | APCO 2.103.2-2019 |
| CDX | Civil Dispute | APCO 2.103.2-2019 |
| CHEMICAL | Includes Chemical and Environmental Incidents | APCO 2.103.2-2019 |
| CHESPAIN | Chest Pain Non-Cardiac | APCO 2.103.2-2019 |
| CHOKE | Choking | APCO 2.103.2-2019 |
| CITASST | Public Assistance, Citizen Standby, Public Service | APCO 2.103.2-2019 |
| CIVDIS | Civil Disobedience | APCO 2.103.2-2019 |
| CIVIL | Civil | APCO 2.103.2-2019 |
| CNTRFT | Counterfeit Money | APCO 2.103.2-2019 |
| COURT | Court Order Serve | APCO 2.103.2-2019 |
| CRIMPS | Impersonation | APCO 2.103.2-2019 |
| CRIMTRAF | Criminal Traffic | APCO 2.103.2-2019 |
| CRWD | Large, Rowdy Crowd | APCO 2.103.2-2019 |
| CU1 | Civil Unrest Violent | APCO 2.103.2-2019 |
| CU2 | Civil Unrest Non-Violent | APCO 2.103.2-2019 |
| CU3 | Civil Unrest Information | APCO 2.103.2-2019 |
| CURFEW | Curfew Violation | APCO 2.103.2-2019 |
| CUST | Custodial Issues | APCO 2.103.2-2019 |
| DEATH | Obvious Death, Found Body | APCO 2.103.2-2019 |
| DEATHNTF | Death Notification | APCO 2.103.2-2019 |
| DIABETIC | Diabetic | APCO 2.103.2-2019 |
| DISORD | Disorderly | APCO 2.103.2-2019 |
| DISVEH | Disabled Vehicle | APCO 2.103.2-2019 |
| DMPX | Person Dumping Rubbish, In Progress | APCO 2.103.2-2019 |
| DROWN | Drowning | APCO 2.103.2-2019 |
| DRUGPAR | Drug Paraphernalia | APCO 2.103.2-2019 |
| DRUGS | Drugs | APCO 2.103.2-2019 |
| DUI | DUI | APCO 2.103.2-2019 |
| DVA | Domestic Violent | APCO 2.103.2-2019 |
| DVNA | Domestic Non-Violent | APCO 2.103.2-2019 |
| EDP | EDP, Emotional Disturbance, Abnormal Behavior | APCO 2.103.2-2019 |
| ELEC | Includes Struck By Lightning | APCO 2.103.2-2019 |
| ELECHZD | Electrical Hazard | APCO 2.103.2-2019 |
| ELUDING | Eluding | APCO 2.103.2-2019 |
| ENTRAP | Includes Accidental Entrapments and Inaccessible Incidents | APCO 2.103.2-2019 |
| ESCAPE | Escape | APCO 2.103.2-2019 |
| EXPLOS | Explosion | APCO 2.103.2-2019 |
| EXPOSURE | Heat or Cold Exposure | APCO 2.103.2-2019 |
| EXTORT | Extort | APCO 2.103.2-2019 |
| EYE | Eye Problems or Injury | APCO 2.103.2-2019 |
| FAIRC | Fire Aircraft | APCO 2.103.2-2019 |
| FALL | Fall | APCO 2.103.2-2019 |
| FAM | Family Offense | APCO 2.103.2-2019 |
| FAPT | Fire Apartment | APCO 2.103.2-2019 |
| FARSON | Fire Arson | APCO 2.103.2-2019 |
| FAS | Felonious Assault - No Suspect | APCO 2.103.2-2019 |
| FASX | Felonious Assault - Suspect In Area | APCO 2.103.2-2019 |
| FBRUSH | Includes Trees, Brush, Grass, Controlled Burns with No Structural Exposure, Outdoor Fires | APCO 2.103.2-2019 |
| FELEC | Fire Electrical, Includes Arcing Wires, Shorted Electrical Equipment, Light Ballast, Transformers. | APCO 2.103.2-2019 |
| FFUEL | Includes Gas Stations, Fuel Refinery | APCO 2.103.2-2019 |
| FIGHT | Fight | APCO 2.103.2-2019 |
| FIREWRKS | Fireworks | APCO 2.103.2-2019 |
| FMARINE | Fire Marine, Includes Marine Vessels & Boats On Waterways (For Boats On Land Use Fire Vehicle) | APCO 2.103.2-2019 |
| FORCENTR | Includes Breech, Forcible Entry Required For Structure, Residential Lock Outs | APCO 2.103.2-2019 |
| FOTHER | Includes Other Types Not Listed | APCO 2.103.2-2019 |
| FRAUD | Fraud, Bad Checks, ID Theft, Counterfeit Money | APCO 2.103.2-2019 |
| FREPORT | Response to take Fire Report Only, No Active Fire, Incident Not In Progress | APCO 2.103.2-2019 |
| FSMOKE | Fire Smoke, Includes Fire Investigations, Smoke Odors No Flames Seen | APCO 2.103.2-2019 |
| FSTRU | Includes Sheds, Attached Garages, House Fires | APCO 2.103.2-2019 |
| FTRAILER | Fire Trailer | APCO 2.103.2-2019 |
| FTRAIN | Any Type of Railway Fire, Locomotive, Rail Car, Passenger Car, Etc. | APCO 2.103.2-2019 |
| FTRASH | Fire Trash, Refuse Fires, Garbage Cans, Dumpsters | APCO 2.103.2-2019 |
| FTRUCK | Includes Large Vehicles Such As Rv, Tractor Trailers, Dump Trucks, Buses | APCO 2.103.2-2019 |
| FUNK | Fire Unknown | APCO 2.103.2-2019 |
| FVEH | Fire Vehicle | APCO 2.103.2-2019 |
| FVEH | Includes Small or Medium Size Vehicles, Cars, SUVs, Cans, Pick-Up Trucks | APCO 2.103.2-2019 |
| GASLEAK | Includes Natural Gas, Liquid Fuel or Propane Leaks | APCO 2.103.2-2019 |
| GASLEAKI | Gas Leak Inside | APCO 2.103.2-2019 |
| GASLEAKO | Gas Leak Outside | APCO 2.103.2-2019 |
| HARR | Harassment | APCO 2.103.2-2019 |
| HATE | Hate Crime | APCO 2.103.2-2019 |
| HAZ | Wires Down, Other Natural Hazards | APCO 2.103.2-2019 |
| HAZMAT | Hazardous Materials Incident Can Include Large Fuel Spill (>100 Gallons), Chemical, Biological, Radiological or Nuclear | APCO 2.103.2-2019 |
| HEADACHE | Headache | APCO 2.103.2-2019 |
| HEMRG | Hemorrhage | APCO 2.103.2-2019 |
| HLP1 | Police/Fire/EMS In Trouble | APCO 2.103.2-2019 |
| HLP2 | Police/Fire/EMS Nonemergency | APCO 2.103.2-2019 |
| HOLD | Citizen/Security Holding Suspect | APCO 2.103.2-2019 |
| HOMICIDE | Homicide | APCO 2.103.2-2019 |
| HOSTAGE | Hostage | APCO 2.103.2-2019 |
| IMP | Impersonation | APCO 2.103.2-2019 |
| INDECENT | Indecent | APCO 2.103.2-2019 |
| INFO | Information | APCO 2.103.2-2019 |
| INTERNET | Internet Crimes | APCO 2.103.2-2019 |
| INTOX | Intoxicated | APCO 2.103.2-2019 |
| INVEST | Investigation | APCO 2.103.2-2019 |
| JUV | Juvenile Offense | APCO 2.103.2-2019 |
| LARCENY | Larceny | APCO 2.103.2-2019 |
| LIQUOR | Liquor Violation | APCO 2.103.2-2019 |
| MAJORINC | Major Incident | APCO 2.103.2-2019 |
| MAYDAY | Mayday | APCO 2.103.2-2019 |
| MAYDAY | Immediate Assistance, Request, Emergency Back-Up Request | APCO 2.103.2-2019 |
| MCI | MCI - Typically Used As A Code Declared By Incident Command | APCO 2.103.2-2019 |
| MISBOATR | Missing Boater | APCO 2.103.2-2019 |
| MISCON | Misconduct | APCO 2.103.2-2019 |
| MNTL | Mental Person Non-Violent | APCO 2.103.2-2019 |
| MTLV | Mental Person Violent | APCO 2.103.2-2019 |
| MVA | Motor Vehicle Accident, No Injury - Can Be Received As Automated Crash Notification | APCO 2.103.2-2019 |
| MVAHR | Hit & Run | APCO 2.103.2-2019 |
| MVAINJY | Motor Vehicle Accident With Injury - can be received rs Automated Crash Notification, includes Car, Pedestrian, ATV Accidents | APCO 2.103.2-2019 |
| MVAUNK | MVA Unk | APCO 2.103.2-2019 |
| MVCP | Motor Vehicle Collision on Private Property | APCO 2.103.2-2019 |
| NCIC | NCIC Hit | APCO 2.103.2-2019 |
| NCRASLTWF | Assault with Weapon | APCO 2.103.2-2019 |
| NCRCPRF | Medical - Cardiopulmonary Resuscitation | APCO 2.103.2-2019 |
| NCRELEV | Rescue - Elevator | APCO 2.103.2-2019 |
| NCRFACTR | Approved, Field Infusion Of Blood Products Necessary For Life-Saving Intervention | APCO 2.103.2-2019 |
| NCRMUAIDF | Mutual Aid Fire | APCO 2.103.2-2019 |
| NCRNDE | Notification Event, Local Only, No Units Dispatched | APCO 2.103.2-2019 |
| NCRNONE | None - No Code Found | APCO 2.103.2-2019 |
| NCRTASKFORCE | Task Force | APCO 2.103.2-2019 |
| NCRTESTF | Test Call - Fire | APCO 2.103.2-2019 |
| NCRTRANS | Transportation Incident, includes Planes, Trains, Subway, Etc. | APCO 2.103.2-2019 |
| NEGLECT | Neglect | APCO 2.103.2-2019 |
| NOISE | Noise | APCO 2.103.2-2019 |
| OD | Overdose - Accidental, Poisoning, Accidental Ingestion | APCO 2.103.2-2019 |
| ODOR | Odor Investigation - any type | APCO 2.103.2-2019 |
| OPEN | Unsecure-Bldg | APCO 2.103.2-2019 |
| ORDERV | Order Violation | APCO 2.103.2-2019 |
| PANDEMIC | Pandemic Flu or Illness Outbreak, Epidemic | APCO 2.103.2-2019 |
| PARKING | Parking | APCO 2.103.2-2019 |
| PERFND | Found Person | APCO 2.103.2-2019 |
| PERMISS | Missing Person | APCO 2.103.2-2019 |
| PERSUSP | Suspicious Person | APCO 2.103.2-2019 |
| PERUNCON | Unconscious Person, includes Fainting and Near Fainting | APCO 2.103.2-2019 |
| PERWANT | Wanted Person | APCO 2.103.2-2019 |
| PHANDLE | Panhandling | APCO 2.103.2-2019 |
| PREG | Pregnancy Problems, Childbirth, Miscarriage | APCO 2.103.2-2019 |
| APCO 2.103.2-2019 |
| PROPFND | Found Property | APCO 2.103.2-2019 |
| PROPLOST | Lost Property | APCO 2.103.2-2019 |
| PROPSTLN | Stolen Property | APCO 2.103.2-2019 |
| PROW | Prowler | APCO 2.103.2-2019 |
| PUBWKS | Public Works / Utilities | APCO 2.103.2-2019 |
| PURSUIT | Pursuit | APCO 2.103.2-2019 |
| RADIAT | Includes Nuclear Incidents | APCO 2.103.2-2019 |
| RECKDRV | Reckless Driver | APCO 2.103.2-2019 |
| REPO | Repo | APCO 2.103.2-2019 |
| RESCUE | Includes Lock-Ins, High Angle Rescue | APCO 2.103.2-2019 |
| RESIST | Resisting Arrest | APCO 2.103.2-2019 |
| RESP | Difficulty Breathing, Shortness Of Breath, Respiratory Issue | APCO 2.103.2-2019 |
| RESPARR | Respiratory Arrest | APCO 2.103.2-2019 |
| ROBBERY | Robbery | APCO 2.103.2-2019 |
| RUNAWAY | Runaway | APCO 2.103.2-2019 |
| SAR | Search And Rescue | APCO 2.103.2-2019 |
| SCH | School Offense | APCO 2.103.2-2019 |
| SCRM | Person Screaming | APCO 2.103.2-2019 |
| SEIZURE | Includes Convulsions | APCO 2.103.2-2019 |
| SEXOFFNS | Sex Offense | APCO 2.103.2-2019 |
| SHOOT | Shooting | APCO 2.103.2-2019 |
| SHOPLIFT | Shoplifting | APCO 2.103.2-2019 |
| SICK | Sick Person Non-Specific, General Illness, Flu | APCO 2.103.2-2019 |
| SLMP | Person Slumped In Vehicle | APCO 2.103.2-2019 |
| SMOKING | Smoking | APCO 2.103.2-2019 |
| SOL | Solicitors | APCO 2.103.2-2019 |
| STABBING | Stabbing | APCO 2.103.2-2019 |
| STDBY | Police, Fire Or EMS | APCO 2.103.2-2019 |
| STKX | Stalking With Suspect On Scene | APCO 2.103.2-2019 |
| STROKE | Stroke Or Cerebral Vascular Accident (Cva) | APCO 2.103.2-2019 |
| APCO 2.103.2-2019 |
| SUBJSTP | Subject Stop | APCO 2.103.2-2019 |
| SUICIDE | Suicide | APCO 2.103.2-2019 |
| SUICTHRT | Attempt Or Threatening Suicide | APCO 2.103.2-2019 |
| SUSP | Suspicious Incident,Circumstances, Unknown Problems | APCO 2.103.2-2019 |
| TERROR | Terrorist Activity | APCO 2.103.2-2019 |
| THAZ | Traffic Hazard | APCO 2.103.2-2019 |
| THREATS | Threats | APCO 2.103.2-2019 |
| TOW | Tow | APCO 2.103.2-2019 |
| TRAIN | Incidents Other Than Fires or Derailments Related to Trains | APCO 2.103.2-2019 |
| TRAINDRL | Train Derail | APCO 2.103.2-2019 |
| TRANSFER | Inter-Facility Transfer, Palliative Care, also Used For Transfer of Apparatus Between Jurisdictions. | APCO 2.103.2-2019 |
| TRAUMA | Traumatic Injury including Head Injury | APCO 2.103.2-2019 |
| TRAUMAP | Penetrating Trauma | APCO 2.103.2-2019 |
| TRESPASS | Trespass | APCO 2.103.2-2019 |
| TROUBLE | Unknown Type Trouble | APCO 2.103.2-2019 |
| TRUANT | Truant | APCO 2.103.2-2019 |
| TSTOP | Traffic Stop | APCO 2.103.2-2019 |
| VAG | Vagrant/Panhandler | APCO 2.103.2-2019 |
| VANDAL | Vandalism | APCO 2.103.2-2019 |
| VEHABND | Abandoned Veh | APCO 2.103.2-2019 |
| VEHASST | Motorist Assist | APCO 2.103.2-2019 |
| VEHLOCK | Vehicle Lock Out | APCO 2.103.2-2019 |
| VEHREC | Recovered Vehicle | APCO 2.103.2-2019 |
| VEHSTLN | Stolen Vehicle | APCO 2.103.2-2019 |
| VEHSUSP | Suspicious Vehicle | APCO 2.103.2-2019 |
| VICE | Vice | APCO 2.103.2-2019 |
| WARRANT | Search Warrant | APCO 2.103.2-2019 |
| WATER | All Water Incidents, Diving & Scuba Accidents, Boat/Jet Ski Accident, Water | APCO 2.103.2-2019 |
| WEAPON | Weapon Violation | APCO 2.103.2-2019 |
| WELFARE | Man Down Check, Welfare Check | APCO 2.103.2-2019 |
| WILDLIFE | Wildlife Violations | APCO 2.103.2-2019 |
| WIRES | Wires Down | APCO 2.103.2-2019 |
| XTRICATE | Confined Space Rescue, Vehicle Extrication | APCO 2.103.2-2019 |

## Incident Status-Common

The “Incident Status-Common” data element is described in Section 2.9 (Incident Information Data Component) of this document.[[2]](#footnote-3)

IANA is requested to add the following values to the “EIDO-IncidentStatus-Common” registry.

Table ‑ Incident Status – Common Registry

| **Value** | **Literal Description** | **Reference** |
| --- | --- | --- |
| Active | The Incident is active. | This document |
| Cancelled | Incident cancelled. | This document |
| Closed | Incident closed. | This document |
| FireUnderControl | Emergency responder has declared that a fire is under control. | This document |
| NewLocation | The Incident’s location has changed. | This document |
| ReOpened | Incident has been re-opened. | This document |
| ResourcesAssigned | Incident has had at least one emergency resource assigned to it. | This document |
| ResourcesEnroute | At least one emergency resource is en route to the Incident. | This document |
| ResourcesOnscene | At least one emergency resource has arrived at the location (on scene) of the Incident. | This document |
| StructureCleared | Emergency responder has declared that the structure has been cleared. | This document |

## Report Number Type

The “Report Number Type” data element is described in Section 2.9 (Incident Data Component) of this document.

IANA is requested to add the following values to the “EIDO-ReportNumberType” registry.

Table ‑ Report Number Type Registry

| **Value** | **Literal Description** | **Reference** |
| --- | --- | --- |
| New | The report number is new | This document |
| Ongoing | The report number has not changed | This document |
| Reopened | The report number was previously issued, the related Incident was closed and the report and/or Incident are being activated again | This document |

## Common Disposition Codes

The “Disposition Type” data element is described in Section 2.14 (Disposition Data component) of this document. The initial values for this registry are adopted from APCO ANS 1.111.2-2018: Common Disposition Codes for Data Exchange.[[3]](#footnote-4)

IANA is requested to add the following values to the “EIDO-CommonDispositionCode” registry. Because 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.

Table ‑ Common Disposition Codes Registry

|  |  |  |
| --- | --- | --- |
| **Value** | **Literal Description** | **Reference** |
| 01 | Report Taken | APCO ANS 1.111.2-2018 |
| 02 | No Report Taken | APCO ANS 1.111.2-2018 |
| 03 | Arrest | APCO ANS 1.111.2-2018 |
| 04 | Citation Issued (Verbal Or Written) | APCO ANS 1.111.2-2018 |
| 05 | Assignment Completed/Settled By Phone Contact | APCO ANS 1.111.2-2018 |
| 06 | Broadcast/Attempt to Locate (ATL) | APCO ANS 1.111.2-2018 |
| 07 | Civil | APCO ANS 1.111.2-2018 |
| 08 | Follow-Up Report Taken | APCO ANS 1.111.2-2018 |
| 09 | Summons/Infraction Issued | APCO ANS 1.111.2-2018 |
| 10 | Event Cancelled | APCO ANS 1.111.2-2018 |
| 11 | Field Interview | APCO ANS 1.111.2-2018 |
| 12 | Property (Seized Or Found) | APCO ANS 1.111.2-2018 |
| 13 | Information/Administrative | APCO ANS 1.111.2-2018 |
| 14 | Gone On Arrival (GOA)/Unable To Locate (UATL) | APCO ANS 1.111.2-2018 |
| 15 | Referred to partner agency/Animal Control/Medics/Fire, etc | APCO ANS 1.111.2-2018 |
| 16 | Transport/Escort Given | APCO ANS 1.111.2-2018 |
| 17 | False Alarm caused by: Weather, Power Outage/Other Related Cause/Animal | APCO ANS 1.111.2-2018 |
| 18 | Assignment Completed/Settled By Contact | APCO ANS 1.111.2-2018 |
| 19 | Building Condemned | APCO ANS 1.111.2-2018 |
| 20 | Building Secure | APCO ANS 1.111.2-2018 |
| 21 | Unit Cancelled enroute | APCO ANS 1.111.2-2018 |
| 22 | Cancelled - Duplicate Call | APCO ANS 1.111.2-2018 |
| 23 | Fire Control or Extinguishment (NFIRS 10) | APCO ANS 1.111.2-2018 |
| 24 | Search and Rescue (NFIRS 20) | APCO ANS 1.111.2-2018 |
| 25 | EMS and Transport (NFIRS 30) | APCO ANS 1.111.2-2018 |
| 26 | Hazardous Condition (NFIRS 40) | APCO ANS 1.111.2-2018 |
| 27 | Fires, Rescues and Hazardous Conditions (NFIRS 50) | APCO ANS 1.111.2-2018 |
| 28 | Systems and Services (NFIRS 60) | APCO ANS 1.111.2-2018 |
| 29 | Assistance (NFIRS 70) | APCO ANS 1.111.2-2018 |
| 30 | Information, Investigation, and Enforcement (NFIRS 80) | APCO ANS 1.111.2-2018 |
| 31 | Fill-In, Standby (NFIRS 90) | APCO ANS 1.111.2-2018 |
| 32 | Cancelled (Prior to Arrival at Scene) | APCO ANS 1.111.2-2018 |
| 33 | Patient Treated, Transported by Law Enforcement | APCO ANS 1.111.2-2018 |
| 34 | Patient Treated, Transported by Private Vehicle | APCO ANS 1.111.2-2018 |
| 35 | Standby-No Services or Support Provided | APCO ANS 1.111.2-2018 |
| 36 | Standby-Public Safety, Fire, or EMS Operational Support | APCO ANS 1.111.2-2018 |
| 37 | Transport of Body Parts or Organs Only | APCO ANS 1.111.2-2018 |
| 38 | No Patient Found | APCO ANS 1.111.2-2018 |
| 39 | Patient Dead at Scene-No EMS Transport | APCO ANS 1.111.2-2018 |
| 40 | Patient Dead at Scene-Transported by EMS | APCO ANS 1.111.2-2018 |
| 41 | Patient Evaluated, No Treatment/Transport Required | APCO ANS 1.111.2-2018 |
| 42 | Patient Refused Evaluation/Care | APCO ANS 1.111.2-2018 |
| 43 | Patient Treated, Released (Without Transport) | APCO ANS 1.111.2-2018 |
| 44 | Patient Treated, Transferred Care to Another EMS | APCO ANS 1.111.2-2018 |
| 45 | Patient Treated, Transported by EMS | APCO ANS 1.111.2-2018 |
| 46 | RESERVED | Future release of APCO ANS 1.111.x |
| 47 | RESERVED | Future release of APCO ANS 1.111.x |
| 48 | RESERVED | Future release of APCO ANS 1.111.x |
| 49 | RESERVED | Future release of APCO ANS 1.111.x |
| 50 | RESERVED | Future release of APCO ANS 1.111.x |
| 51 | RESERVED | Future release of APCO ANS 1.111.x |
| 52 | RESERVED | Future release of APCO ANS 1.111.x |
| 53 | RESERVED | Future release of APCO ANS 1.111.x |
| 54 | RESERVED | Future release of APCO ANS 1.111.x |
| 55 | RESERVED | Future release of APCO ANS 1.111.x |
| 56 | RESERVED | Future release of APCO ANS 1.111.x |
| 57 | RESERVED | Future release of APCO ANS 1.111.x |
| 58 | RESERVED | Future release of APCO ANS 1.111.x |
| 59 | RESERVED | Future release of APCO ANS 1.111.x |
| 60 | RESERVED | Future release of APCO ANS 1.111.x |
| 61 | RESERVED | Future release of APCO ANS 1.111.x |
| 62 | RESERVED | Future release of APCO ANS 1.111.x |
| 63 | RESERVED | Future release of APCO ANS 1.111.x |
| 64 | RESERVED | Future release of APCO ANS 1.111.x |
| 65 | RESERVED | Future release of APCO ANS 1.111.x |
| 66 | RESERVED | Future release of APCO ANS 1.111.x |
| 67 | RESERVED | Future release of APCO ANS 1.111.x |
| 68 | RESERVED | Future release of APCO ANS 1.111.x |
| 69 | RESERVED | Future release of APCO ANS 1.111.x |
| 70 | RESERVED | Future release of APCO ANS 1.111.x |
| 71 | RESERVED | Future release of APCO ANS 1.111.x |
| 72 | RESERVED | Future release of APCO ANS 1.111.x |
| 73 | RESERVED | Future release of APCO ANS 1.111.x |
| 74 | RESERVED | Future release of APCO ANS 1.111.x |
| 75 | RESERVED | Future release of APCO ANS 1.111.x |
| 76 | RESERVED | Future release of APCO ANS 1.111.x |
| 77 | RESERVED | Future release of APCO ANS 1.111.x |
| 78 | RESERVED | Future release of APCO ANS 1.111.x |
| 79 | RESERVED | Future release of APCO ANS 1.111.x |
| 80 | RESERVED | Future release of APCO ANS 1.111.x |
| 81 | RESERVED | Future release of APCO ANS 1.111.x |
| 82 | RESERVED | Future release of APCO ANS 1.111.x |
| 83 | RESERVED | Future release of APCO ANS 1.111.x |
| 84 | RESERVED | Future release of APCO ANS 1.111.x |
| 85 | RESERVED | Future release of APCO ANS 1.111.x |
| 86 | RESERVED | Future release of APCO ANS 1.111.x |
| 87 | RESERVED | Future release of APCO ANS 1.111.x |
| 88 | RESERVED | Future release of APCO ANS 1.111.x |
| 89 | RESERVED | Future release of APCO ANS 1.111.x |
| 90 | RESERVED | Future release of APCO ANS 1.111.x |
| 91 | RESERVED | Future release of APCO ANS 1.111.x |
| 92 | RESERVED | Future release of APCO ANS 1.111.x |
| 93 | RESERVED | Future release of APCO ANS 1.111.x |
| 94 | RESERVED | Future release of APCO ANS 1.111.x |
| 95 | RESERVED | Future release of APCO ANS 1.111.x |
| 96 | RESERVED | Future release of APCO ANS 1.111.x |
| 97 | RESERVED | Future release of APCO ANS 1.111.x |
| 98 | RESERVED | Future release of APCO ANS 1.111.x |
| 99 | RESERVED | Future release of APCO ANS 1.111.x |
| 100 | RESERVED | Future release of APCO ANS 1.111.x |

## Person Role

The “Person Type” data element is described in Section 2.16 (Person Data Component) of this document.

IANA is requested to add the following values to the “EIDO-PersonRole” registry.

Table ‑ Person Role Registry

| **Value** | **Literal Description** | **Reference** |
| --- | --- | --- |
| InvolvedPerson | Person described in the Person Information data component is involved in the Incident. Used when no other relationship is known. | This document |
| Caller | Person described in the Person Information data component is a caller. | This document |
| Patient | Person described in the Person Information data component is involved in the Incident as a patient. | This document |
| PatientAcquaintance | Person described in the Person Information data component is an acquaintance of a patient involved in the Incident. | This document |
| PatientRelative | Person described in the Person Information data component is a relative of a patient involved in the Incident. | This document |
| PersonOfInterest | Person described in the Person Information data component is involved in the Incident as a person of interest. | This document |
| ReportingParty | Person described in the Person Information data component is involved in the Incident as a reporting party. | This document |
| Suspect | Person described in the Person Information data component is involved in the Incident as a suspect. | This document |
| Victim | Person described in the Person Information data component is involved in the Incident as a victim. | This document |
| VictimAcquaintance | Person described in the Person Information data component is an acquaintance of a victim involved in the Incident. | This document |
| VictimRelative | Person described in the Person Information data component is a relative of a victim involved in the Incident. | This document |
| Witness | Person described in the Person Information data component is involved in the Incident as a witness. | This document |

## Vehicle Relationship Type

The “Vehicle Relationship Type” data element is described in Section 2.17 (Vehicle Data Component) of this document.

IANA is requested to add the following values to the “EIDO-VehicleRelationshipType” registry.

Table ‑ Vehicle Relationship Type Registry

|  |  |  |
| --- | --- | --- |
| **Value** | **Literal Description** | **Reference** |
| AccidentVehicle | The vehicle described in the Vehicle Information data component is involved in the Incident as an accident vehicle. | This document |
| InvolvedVehicle | The vehicle described in the Vehicle Information data component is involved in the Incident. Used when no other relationship is known. | This document |
| SuspectVehicle | The vehicle described in the Vehicle Information data component is involved in the Incident as a suspect's vehicle. | This document |
| VictimVehicle | The vehicle described in the Vehicle Information data component is involved in the Incident as a victim's vehicle. | This document |
| WitnessVehicle | The vehicle described in the Vehicle Information data component is involved in the Incident as a witness's vehicle. | This document |
| ResponseVehicle | The vehicle described in the Vehicle Information data component may be involved in the Incident response. | This document |

## Location Type

The “Location Type” data element is described in Section 2.18 (Location Data Component) of this document.

IANA is requested to add the following values to the “EIDO-LocationType” registry.

Table ‑ Location Type Registry

|  |  |  |
| --- | --- | --- |
| **Value** | **Literal Description** | **Reference** |
| RoutingLocation | For a location referenced in a call represent the location that was used to route the call. Can be used by other data component to indicate their routing location. | This document |
| Caller | The Location Information data component contains the caller's location. | This document |
| CurrentIncident | The Location Information data component contains the current reported location of the Incident. When Incident Location is mentioned, it refers to a Location where Location Type has this value. | This document |
| InitialIncident | The Location Information data component contains the initial Incident's location. | This document |
| Investigation | The Location Information data component contains the Incident's investigation location. | This document |
| Other | Location is unspecified. | This document |
| Staging | The Location Information data component contains a staging location for emergency responders assigned to the Incident. | This document |
| TowerLocation | The Location Information data component contains the location of a cell tower that processed the call. | This document |
| UnitLocation | The Location Information data component contains the location of an emergency responder. | This document |

## Primary Unit Status-Common

The “Primary Unit Status-Common” data element is described in Section 2.20 (Emergency Resource Data Component) of this document.[[4]](#footnote-5)

IANA is requested to add the following values to the “EIDO-PrimaryUnitStatus-Common” registry.

Table ‑ Primary Unit Status-Common Registry

|  |  |  |
| --- | --- | --- |
| **Value** | **Literal Description** | **Reference** |
| Available | Emergency Unit is available for Dispatch. | This document |
| ConditionallyAvailable | Emergency Unit is assigned to an activity, but is available for dispatch or reassignment. | This document |
| NotAvailable | Emergency Unit is not available for Dispatch and cannot be assigned to a call. | This document |

## Secondary Unit Status-Common

The “Secondary Unit Status-Common” data element is described in Section 2.20 (Emergency Resource Data Component) of this document.

IANA is requested to add the following values to the “EIDO-SecondaryUnitStatus-Common” registry.

Table ‑ Secondary Unit Status-Common Registry

| **Value** | **Literal Description** | **Reference** |
| --- | --- | --- |
| AcknowledgedTransmission | Emergency unit acknowledged receipt of a dispatch/assignment. | This document |
| AlternateLocation | Emergency unit is at an alternate location when used as a standalone secondary status or is en route to, transporting to, arrived at, etc. when used in combination with another secondary unit status-common. | This document |
| Arrived | Emergency unit arrived at the Incident location or at some other location. | This document |
| Assigned | Emergency unit has been assigned to an Incident or to some other event. | This document |
| AssignmentCancelled | Emergency unit's assignment to an activity has been cancelled. This is an observation useful for tracking unit history and Incident progress. | This document |
| BacktoAssignedArea | Emergency unit is back to patrolling or covering its assigned area, beat, or district. This is an observation useful for tracking unit history. | This document |
| Backup | Emergency unit is backing up another emergency unit on an Incident. | This document |
| Break | Emergency unit is on a break. | This document |
| CheckedIn | Emergency unit checked in with its dispatcher. This is an observation useful for tracking unit history and Incident progress. | This document |
| Cleared | Emergency unit cleared the Incident location or some other location. | This document |
| COP\_or\_POP | Emergency unit is involved in Community Oriented Policing or Problem Oriented Policing activities. | This document |
| Court | Emergency unit is assigned to Court. | This document |
| CoveringAlternateArea | Emergency unit is patrolling, has moved up, or is covering an alternate area, beat, station, or district when used as a standalone secondary status or is en route to, arrived at, etc. when used in combination with another secondary unit status-common. | This document |
| Delayed | Emergency unit is delayed from arriving at the Incident's location or some other location. | This document |
| Departed | Emergency unit has departed a location, where another, simultaneously assigned, secondary unit status-common describes the destination (e.g., Departed and Court). | This document |
| Dispatched | Emergency unit has been dispatched to an Incident or some other event. | This document |
| EnRoute | Emergency unit is en route to an Incident location or some other location. | This document |
| EquipmentIssues | Emergency unit is experiencing equipment issues. | This document |
| Event | Emergency unit is at an event (parade, concert, etc.) when used as a standalone secondary status-common or is en route to, arrived at, etc. when used in combination with another secondary unit status-common. | This document |
| Hospital | Emergency unit is at the hospital when used as a standalone secondary unit status-common or is en route to, transporting to, arrived at, etc. when used in combination with another secondary unit status-common. | This document |
| InService | Emergency unit is in service. | This document |
| Investigation | Emergency unit is assigned to investigate an active or closed Incident. | This document |
| Location | A location other than the Incident that is used with en route, arrived, etc. | This document |
| Meal | Emergency unit is at lunch, dinner, breakfast or some other meal. | This document |
| Meeting | Emergency unit is involved in a meeting when used as a standalone secondary unit status-common or is en route to, arrived at, etc. when used in combination with another secondary unit status-common. | This document |
| OffDuty | Emergency Unit is off duty. | This document |
| OnDuty | Emergency unit is on duty. | This document |
| OnScene | Emergency Unit is located at the scene (location) of the Incident. | This document |
| OutofService | Emergency unit is out of service. | This document |
| PatientContact | Emergency responders made contact with a patient involved in the Incident. This is an observation useful for tracking unit history and Incident progress. | This document |
| Post | Emergency unit is at a post when used as a standalone secondary unit status-common or is en route to, arrived at, etc. when used in combination with another secondary unit status-common. | This document |
| ResponderInitiatedEvent | Emergency unit is on a self initiated event that is not a traffic stop. | This document |
| RollCall | Emergency unit is at Roll Call when used as a standalone secondary unit status-common or is en route to, arrived at, etc. when used in combination with another secondary unit status-common. | This document |
| Roster | Emergency unit has automatically been activated, but is not yet available and has not checked in. | This document |
| ShiftPending | Emergency unit’s end of shift is pending. | This document |
| Staging | Emergency unit is at an Incident's staging location when used as a standalone secondary unit status-common or is en route to, arrived at, etc. when used in combination with another secondary unit status-common. | This document |
| Station | Emergency unit is at its headquarters, station, or substation when used as a standalone secondary unit status-common or is en route to, transporting to, arrived at, etc. when used in combination with another secondary unit status-common. | This document |
| TrafficStop | Emergency unit is on scene at a self initiated traffic stop. | This document |
| Training | Emergency unit and responders are participating in a training activity. | This document |
| Transporting | Emergency unit is transporting or escorting a person or equipment to a location or destination. | This document |
| Unmanned | Emergency unit is not adequately staffed. | This document |

## Emergency Resource Type-Common

The “Emergency Resource Type-Common” data element is described in Section 2.20 (Emergency Resource Data Component) of this document.

IANA is requested to add the following values to the “EIDO-EmergencyResourceType-Common” registry

Table ‑ Emergency Resource Type-Common Registry

| **Value** | **Literal Description** | **Reference** |
| --- | --- | --- |
| AirAmbulanceFixedWing | Air Ambulance (Fixed-Wing) | This document |
| AirAmbulanceRotaryWing | Air Ambulance (Rotary-Wing) | This document |
| AirSearchTeam | Air Search Team | This document |
| AirborneCommunicationRelayTeamFixed | Airborne Communications Relay Team (Fixed-Wing) | This document |
| FixedWingAircraft | Aircraft, Fixed Wing | This document |
| RotaryWingAircraft | Aircraft, Rotary Wing | This document |
| AirborneTransportTeamFixedWing | Airborne Transport Team (Fixed-Wing) | This document |
| AirCompressor | Air Compressor and Air Refilling | This document |
| AirConditioner-Heater | Air Conditioner/Heater | This document |
| ATV | All Terrain Vehicle | This document |
| GroundALSAmbulance | Ambulance, Advance Life Support (Ground) | This document |
| LargeAnimalRescueTeam | Large Animal (horse, cow, etc.) Rescue Team | This document |
| LargeAnimalShelteringTeam | Large Animal (horse, cow, etc.) Sheltering Team | This document |
| LargeAnimalTransportTeam | Large Animal (horse, cow, etc.) Transport Team | This document |
| SmallAnimalRescueTeam | Small Animal (cat, dog, etc.) Rescue Team | This document |
| SmallAnimalShelteringTeam | Small Animal (cat, dog, etc.) Sheltering Team | This document |
| SmallAnimalTransportTeam | Small Animal (cat, dog, etc.) Transport Team | This document |
| AssaultHomicideUnit | Assault / Homicide Unit | This document |
| GroundBLSAmbulance | Ambulance, Basic Life Support (Ground) | This document |
| BikeTeam | Bike Team | This document |
| BombSquad | Bomb Squad/Explosives Team | This document |
| BrushFireEngineType3 | Type 3 Brush Fire Engine (120GPM, 500 gal tank, 1000' 1.5" or larger, 800' 1 " or larger, 3 crew members) | This document |
| BrushFireEngineType4 | Type 4 Brush Fire Engine (70 GPM, 750 Gal tank, 300' 1.5" & 300? 1" or larger, 3 crew members) | This document |
| BrushFireEngineType5 | Type 5 Brush Fire Engine (50 GPM, 500 Gal, 300' 1.5" & 300? 1" or larger, 3 crew members) | This document |
| BrushFireEngineType6 | Type 6 Brush Fire Engine (50 GPM, 200 Gal, 300' 1.5" & 300? 1" or larger, 2 crew members) | This document |
| BrushFireEngineType7 | Type 7 Brush Fire Engine (20 GPM, 125 Gal tank, 200 and 200' on 1.5 and 1" hose, 2 crew members) | This document |
| Bus | Buses | This document |
| CanineSearchandRescue | Canine Search and Rescue Team | This document |
| DisasterCollapsedStructureCanineTech | Disaster Collapsed Structure Canine Search Technician | This document |
| CaveSearchandRescue | Cave Search and Rescue Team | This document |
| CivilServiceOfficer | Civil Service Officer | This document |
| CoastGuard | Coast Guard Search and Rescue | This document |
| CollapseSearchandRescue | Collapse Search and Rescue Teams | This document |
| CommandLevel4 | Initial Responding Resources that arrive on scene | This document |
| CommandLevel3 | Field Supervisor (patrol sergeant, detective sergeant, battalion chief, etc.) | This document |
| CommandLevel2 | Section, Precinct or Division Chief/Commander | This document |
| CommandLevel1 | Department/Agency chief, sheriff, deputy chief, assistant chief, etc. | This document |
| CommSupportTeam | Communications Support Team | This document |
| CommunityPolicingUnit | Community/Neighborhood Policing Unit | This document |
| Crane | Crane | This document |
| CrisisInterventionUnit | Crisis Intervention Unit | This document |
| ResponderCrewTransport | Responder Crew/Team Transport | This document |
| DetoxTransport | Detox Transport | This document |
| UnmannedAerialVehicle | Unmanned Aerial Vehicle (Drone) | This document |
| ElectronicBoard | Electronic Board | This document |
| FireBoat | Fire Boat | This document |
| FireTruckLadder | Fire Truck - Aerial (Ladder or Platform) | This document |
| FireFoamTender | Foam Tender, Firefighting | This document |
| FoamTank | Foam Tank | This document |
| ForensicEvidence | Forensic Evidence | This document |
| FuelTender | Fuel Tender (Gasoline, Diesel, AvGas, aka Gas Tanker) | This document |
| GangEnforcement | Gang Enforcement | This document |
| HazMatTeam | HazMat Entry Team | This document |
| FireHelicopter | Helicopters, Firefighting | This document |
| HeavyRescue | Heavy Rescue Apparatus | This document |
| IncidentManagementTeam | Incident Management Team | This document |
| Investigator | Investigator | This document |
| LawEnforcementCommandUnit | Law Enforcement Command Unit | This document |
| PatrolUnit | Law Enforcement Patrol Unit | This document |
| SchoolOfficer | Law Enforcement School Officer | This document |
| LightRescue | Light Rescue Apparatus (Jeep and Other Vehicles) | This document |
| MaintenanceandRepairTeam | Maintenance and Repair Team - Light Equipment Public Works | This document |
| ParkingEnforcement | Parking Enforcement | This document |
| MobileCommunicationCenter | Mobile Communications Center (Also referred to as "Mobile EOC") | This document |
| MobileSupportVehicle | Mobile Support Vehicle | This document |
| CrowdControlTeam | Law Enforcement Crowd Control Team | This document |
| MountedPatrol | Mounted Patrol | This document |
| MountainSearchandRescueTeam | Mountain Search and Rescue Team | This document |
| MedicalTransportVehicle | Multi-Patient Medical Transport Vehicle | This document |
| ParkRanger | Park Ranger | This document |
| DiveTeam | Public Safety Dive Team | This document |
| RapidResponseSpecialist | Rapid Response Specialist | This document |
| RoadSweeper | Road Sweeper | This document |
| SafetyOfficer | Safety Officer/Chief | This document |
| SnowBlower | Snow Blower | This document |
| SnowCat | Snow Cat | This document |
| StructureFireEngineType1 | Type 1 Structure Fire Engine (1000 GPM, 400 Gal tank, 1200' 2.5" hose or larger, 400' 1.5" hose or larger (attack line), 200' 1" hose or larger, ladder 20' or longer, 500GPM master stream, and 4 crew members) | This document |
| StructureFireEngineType2 | Type 2 Structure Fire Engine (500GPM, 400 Gal Tank, hose 1000', 5400', 300' respectively, ladder 20' or longer, no master stream and 3 crew members) | This document |
| SWAT | SWAT/Tactical Teams | This document |
| SwiftwaterRescueTeam | Swiftwater/Flood Search and Rescue Team | This document |
| VehicularCrimesTeam | Vehicular Crimes Team | This document |
| Veterinarian | Veterinarian | This document |
| WaterRescueTeam | Ocean/Lake/Other Water Body Rescue Team | This document |
| TrafficUnit | Traffic Unit/Officer | This document |
| TransitOfficer | Transit Officer/Deputy | This document |
| DumpTruck | Truck, Dump | This document |
| TowTruck | Truck, Tow (Wrecker) | This document |
| PlowTruck | Truck, Plow | This document |
| TugBoat | Tug Boat (General) | This document |
| VictimAdvocate | Victim Advocate Unit | This document |
| DeWateringWaterPump | Water Pumps, De-Watering | This document |
| WasteWaterPump | Water Pumps, Wastewater | This document |
| FireWaterTender | Water Tender, Firefighting (Tanker) | This document |
| WaterTruck | Truck, Water | This document |
| WheelDozer | Wheel Dozer | This document |
| WheelLoaderBackhoe | Wheel Loader Backhoe | This document |
| WheelLoader | Wheel Loaders | This document |
| WheelLoaderSkidSteer | Wheel Loaders, Skid Steer | This document |
| WoodChipper | Wood Chipper | This document |
| WildlandTaskForce | Wild Land Task Force | This document |
| StrikeTeam | Strike Team | This document |
| HotShotTeam | Hot Shot Team | This document |

## Resource Attribute

The “Resource Attribute” data element is described in Section 2.20 (Emergency Resource Data Component) of this document.

IANA is requested to add the following values to the “EIDO-ResourceAttribute” registry.

Table ‑ Resource Attribute Registry

| **Value** | **Literal Description** | **Reference** |
| --- | --- | --- |
| AdvancedEMT | Advanced Emergency Medical Technician | This document |
| AdvancedPRN | Advanced Practice Registered Nurse (Nurse Practitioner) | This document |
| ReconAircraft | Aircraft, Reconnaissance, manhunts and surveillance, surveys | This document |
| SearchandRescueAircraft | Aircraft, Search and Rescue | This document |
| PursuitAircraft | Aircraft, Pursuit | This document |
| AerialPhotographyAircraft | Aircraft, Aerial Photography | This document |
| TransportAircraft | Aircraft, Transport | This document |
| AirBags | Air Bags (special equipment) | This document |
| AirMedicalTransportParamedic | Air Medical Transport Paramedic | This document |
| AirMedicalTransportPhysician | Air Medical Transport Physician | This document |
| AirMedicalTransportPilot | Air Medical Transport Pilot | This document |
| AirMedicalTransportNurse | Air Medical Transport Registered Nurse | This document |
| AirportFirefighter | Airport Firefighter | This document |
| AmbulanceStrikeTeamLeader | Ambulance Strike Team / Ambulance Task Force Leader | This document |
| AnimalCaseManager | Animal Case Manager | This document |
| AnimalControlSpecialist | Animal Control Specialist | This document |
| AnimalDiseaseEpidemiologist | Animal Disease Epidemiologist | This document |
| AnimalHandlingSpecialist | Animal Handling Specialist | This document |
| AnimalTechnician | Animal Technician | This document |
| Bicycle | Bicycle | This document |
| CarbonMonoxideDetector | Carbon Monoxide Detector | This document |
| CivilFieldEngineer | Civil/Field Engineer | This document |
| CrisisInterventionSpecialist | Crisis Intervention Specialist | This document |
| ConfinedSpaceRescueEquipBasic | Confined Space Rescue Equipment - Basic | This document |
| ConfinedSpaceRescueEquipAdvanced | Confined Space Rescue Equipment - Advanced | This document |
| ConcreteCutter | Concrete Cutter | This document |
| DiveTeam | Certified Dive Team Member | This document |
| DrugRecognitionExpert | Drug Recognition Expert | This document |
| DrugK9 | Drug Canine | This document |
| ElectronicArrowBoard | Electronic Arrow Board | This document |
| ElectronicVariableMessageBoard | Electronic Variable Message Board | This document |
| EmergencyVehicleOperator | Emergency Vehicle Operator | This document |
| EmergencyVehicleOperatorHeavy | Emergency Vehicle Operator - Heavy | This document |
| EMSPhysician | EMS Physician | This document |
| EMT | Emergency Medical Technician | This document |
| ExplosiveK9 | Explosive Canine | This document |
| ExtricationEquipmentBasic | Extrication Equipment - Basic | This document |
| ExtricationEquipmentAdvanced | Extrication Equipment - Advanced | This document |
| FireApparatusDriver\_Operator | Fire Apparatus Driver/Operator | This document |
| FireInspector | Fire Inspector | This document |
| Firefighter | Firefighter | This document |
| FLIR | FLIR Thermal Imaging | This document |
| Floodlights | Floodlights | This document |
| JawsOfLife | Hurst Tool (Jaws of Life) | This document |
| Generators | Generators | This document |
| HazMatOfficer | HazMat Officer | This document |
| HelicopterSearchandRescuePilot | Rotary Pilot | This document |
| HelicopterSearchandRescueTech | Fixed Wing Pilot | This document |
| HighAngleRescueEquipment | High Angle Rescue specialist | This document |
| HostageNegotiator | Hostage Negotiator | This document |
| IceRescueEquipment | Ice Rescue Equipment | This document |
| AbkhazianInterpreter | Language Interpreter -- Abkhazian (abk) | This document |
| AchineseInterpreter | Language Interpreter -- Achinese (ace) | This document |
| AcoliInterpreter | Language Interpreter -- Acoli (ach) | This document |
| AdangmeInterpreter | Language Interpreter -- Adangme (ada) | This document |
| AdygheAdygeiInterpreter | Language Interpreter -- Adyghe Adygei (ady) | This document |
| AfarInterpreter | Language Interpreter -- Afar (aar) | This document |
| AfrihiliInterpreter | Language Interpreter -- Afrihili (afh) | This document |
| AfrikaansInterpreter | Language Interpreter -- Afrikaans (afr) | This document |
| Afro-AsiaticLanguagesInterpreter | Language Interpreter -- Afro-Asiatic Languages (afa) | This document |
| AinuInterpreter | Language Interpreter -- Ainu (ain) | This document |
| AkanInterpreter | Language Interpreter -- Akan (aka) | This document |
| AkkadianInterpreter | Language Interpreter -- Akkadian (akk) | This document |
| AlbanianInterpreter | Language Interpreter -- Albanian (alb (B)) | This document |
| AleutInterpreter | Language Interpreter -- Aleut (ale) | This document |
| AlgonquianLanguagesInterpreter | Language Interpreter -- Algonquian Languages (alg) | This document |
| AltaicLanguagesInterpreter | Language Interpreter -- Altaic Languages (tut) | This document |
| AmharicInterpreter | Language Interpreter -- Amharic (amh) | This document |
| AngikaInterpreter | Language Interpreter -- Angika (anp) | This document |
| ApachelanguagesInterpreter | Language Interpreter -- Apache languages (apa) | This document |
| ArabicInterpreter | Language Interpreter -- Arabic (ara) | This document |
| AragoneseInterpreter | Language Interpreter -- Aragonese (arg) | This document |
| AramaicInterpreter | Language Interpreter -- Aramaic (arc) | This document |
| ArapahoInterpreter | Language Interpreter -- Arapaho (arp) | This document |
| ArawakInterpreter | Language Interpreter -- Arawak (arw) | This document |
| ArmenianInterpreter | Language Interpreter -- Armenian (arm (B)) | This document |
| AromanianArumanianMacedo-RomanianInterpreter | Language Interpreter -- Aromanian Arumanian Macedo-Romanian (rup) | This document |
| AssameseInterpreter | Language Interpreter -- Assamese (asm) | This document |
| AsturianBableLeoneseAsturleoneseInterpreter | Language Interpreter -- Asturian Bable Leonese Asturleonese (ast) | This document |
| AthapascanLanguagesInterpreter | Language Interpreter -- Athapascan Languages (ath) | This document |
| AustronesianLanguagesInterpreter | Language Interpreter -- Austronesian Languages (map) | This document |
| AvaricInterpreter | Language Interpreter -- Avaric (ava) | This document |
| AvestanInterpreter | Language Interpreter -- Avestan (ave) | This document |
| AwadhiInterpreter | Language Interpreter -- Awadhi (awa) | This document |
| AymaraInterpreter | Language Interpreter -- Aymara (aym) | This document |
| AzerbaijaniInterpreter | Language Interpreter -- Azerbaijani (aze) | This document |
| BalineseInterpreter | Language Interpreter -- Balinese (ban) | This document |
| BalticLanguagesInterpreter | Language Interpreter -- Baltic Languages (bat) | This document |
| BaluchiInterpreter | Language Interpreter -- Baluchi (bal) | This document |
| BambaraInterpreter | Language Interpreter -- Bambara (bam) | This document |
| BamilekeLanguagesInterpreter | Language Interpreter -- Bamileke Languages (bai) | This document |
| BandaLanguagesInterpreter | Language Interpreter -- Banda Languages (bad) | This document |
| BantuLanguagesInterpreter | Language Interpreter -- Bantu Languages (bnt) | This document |
| BasaInterpreter | Language Interpreter -- Basa (bas) | This document |
| BashkirInterpreter | Language Interpreter -- Bashkir (bak) | This document |
| BasqueInterpreter | Language Interpreter -- Basque (baq (B)) | This document |
| BatakLanguagesInterpreter | Language Interpreter -- Batak Languages (btk) | This document |
| BejaBedawiyetInterpreter | Language Interpreter -- Beja Bedawiyet (bej) | This document |
| BelarusianInterpreter | Language Interpreter -- Belarusian (bel) | This document |
| BembaInterpreter | Language Interpreter -- Bemba (bem) | This document |
| BengaliInterpreter | Language Interpreter -- Bengali (ben) | This document |
| BerberLanguagesInterpreter | Language Interpreter -- Berber Languages (ber) | This document |
| BhojpuriInterpreter | Language Interpreter -- Bhojpuri (bho) | This document |
| BihariLanguagesInterpreter | Language Interpreter -- Bihari Languages (bih) | This document |
| BikolInterpreter | Language Interpreter -- Bikol (bik) | This document |
| BiniEdoInterpreter | Language Interpreter -- Bini Edo (bin) | This document |
| BislamaInterpreter | Language Interpreter -- Bislama (bis) | This document |
| BlinBilinInterpreter | Language Interpreter -- Blin Bilin (byn) | This document |
| BlissymbolsBlissymbolicsBlissInterpreter | Language Interpreter -- Blissymbols Blissymbolics Bliss (zbl) | This document |
| BosnianInterpreter | Language Interpreter -- Bosnian (bos) | This document |
| BrajInterpreter | Language Interpreter -- Braj (bra) | This document |
| BretonInterpreter | Language Interpreter -- Breton (bre) | This document |
| BugineseInterpreter | Language Interpreter -- Buginese (bug) | This document |
| BulgarianInterpreter | Language Interpreter -- Bulgarian (bul) | This document |
| BuriatInterpreter | Language Interpreter -- Buriat (bua) | This document |
| BurmeseInterpreter | Language Interpreter -- Burmese (bur (B)) | This document |
| CaddoInterpreter | Language Interpreter -- Caddo (cad) | This document |
| CatalanValencianInterpreter | Language Interpreter -- Catalan Valencian (cat) | This document |
| CaucasianLanguagesInterpreter | Language Interpreter -- Caucasian languages (cau) | This document |
| CebuanoInterpreter | Language Interpreter -- Cebuano (ceb) | This document |
| CelticLanguagesInterpreter | Language Interpreter -- Celtic Languages (cel) | This document |
| CentralAmericanIndianLanguagesInterpreter | Language Interpreter -- Central American Indian Languages (cai) | This document |
| CentralKhmerInterpreter | Language Interpreter -- Central Khmer (khm) | This document |
| ChagataiInterpreter | Language Interpreter -- Chagatai (chg) | This document |
| ChamicLanguagesInterpreter | Language Interpreter -- Chamic Languages (cmc) | This document |
| ChamorroInterpreter | Language Interpreter -- Chamorro (cha) | This document |
| ChechenInterpreter | Language Interpreter -- Chechen (che) | This document |
| CherokeeInterpreter | Language Interpreter -- Cherokee (chr) | This document |
| CheyenneInterpreter | Language Interpreter -- Cheyenne (chy) | This document |
| ChibchaInterpreter | Language Interpreter -- Chibcha (chb) | This document |
| ChichewaChewaNyanjaInterpreter | Language Interpreter -- Chichewa Chewa Nyanja (nya) | This document |
| ChineseInterpreter | Language Interpreter -- Chinese (chi (B)) | This document |
| ChinookJargonInterpreter | Language Interpreter -- Chinook Jargon (chn) | This document |
| ChipewyanDeneSulineInterpreter | Language Interpreter -- Chipewyan Dene Suline (chp) | This document |
| ChoctawInterpreter | Language Interpreter -- Choctaw (cho) | This document |
| ChuukeseInterpreter | Language Interpreter -- Chuukese (chk) | This document |
| ChuvashInterpreter | Language Interpreter -- Chuvash (chv) | This document |
| ClassicalNewariOldNewariClassicalNepalBhasaInterpreter | Language Interpreter -- Classical Newari Old Newari Classical Nepal Bhasa (nwc) | This document |
| ClassicalSyriacInterpreter | Language Interpreter -- Classical Syriac (syc) | This document |
| CopticInterpreter | Language Interpreter -- Coptic (cop) | This document |
| CornishInterpreter | Language Interpreter -- Cornish (cor) | This document |
| CorsicanInterpreter | Language Interpreter -- Corsican (cos) | This document |
| CreeInterpreter | Language Interpreter -- Cree (cre) | This document |
| CreekInterpreter | Language Interpreter -- Creek (mus) | This document |
| CreolesPidginsEnglishBasedInterpreter | Language Interpreter -- Creoles Pidgins English Based (cpe) | This document |
| CreolesPidginsFrenchBasedInterpreter | Language Interpreter -- Creoles Pidgins French Based (cpf) | This document |
| CreolesPidginsInterpreter | Language Interpreter -- Creoles Pidgins (crp) | This document |
| CreolesPidginsPortugueseBasedInterpreter | Language Interpreter -- Creoles Pidgins Portuguese Based (cpp) | This document |
| CrimeanTatarCrimeanTurkishInterpreter | Language Interpreter -- Crimean Tatar Crimean Turkish (crh) | This document |
| CroatianInterpreter | Language Interpreter -- Croatian (hrv) | This document |
| CushiticLanguagesInterpreter | Language Interpreter -- Cushitic Languages (cus) | This document |
| CzechInterpreter | Language Interpreter -- Czech (cze (B)) | This document |
| DakotaInterpreter | Language Interpreter -- Dakota (dak) | This document |
| DanishInterpreter | Language Interpreter -- Danish (dan) | This document |
| DargwaInterpreter | Language Interpreter -- Dargwa (dar) | This document |
| DelawareInterpreter | Language Interpreter -- Delaware (del) | This document |
| DinkaInterpreter | Language Interpreter -- Dinka (din) | This document |
| DivehiDhivehiMaldivianInterpreter | Language Interpreter -- Divehi Dhivehi Maldivian (div) | This document |
| DogribInterpreter | Language Interpreter -- Dogrib (dgr) | This document |
| DogriInterpreter | Language Interpreter -- Dogri (doi) | This document |
| DravidianLanguagesInterpreter | Language Interpreter -- Dravidian Languages (dra) | This document |
| DualaInterpreter | Language Interpreter -- Duala (dua) | This document |
| DutchFlemishInterpreter | Language Interpreter -- Dutch Flemish (dut (B)) | This document |
| DyulaInterpreter | Language Interpreter -- Dyula (dyu) | This document |
| DzongkhaInterpreter | Language Interpreter -- Dzongkha (dzo) | This document |
| EasternFrisianInterpreter | Language Interpreter -- Eastern Frisian (frs) | This document |
| EfikInterpreter | Language Interpreter -- Efik (efi) | This document |
| EkajukInterpreter | Language Interpreter -- Ekajuk (eka) | This document |
| ElamiteInterpreter | Language Interpreter -- Elamite (elx) | This document |
| EnglishInterpreter | Language Interpreter -- English (eng) | This document |
| ErzyaInterpreter | Language Interpreter -- Erzya (myv) | This document |
| EsperantoInterpreter | Language Interpreter -- Esperanto (epo) | This document |
| EstonianInterpreter | Language Interpreter -- Estonian (est) | This document |
| EweInterpreter | Language Interpreter -- Ewe (ewe) | This document |
| EwondoInterpreter | Language Interpreter -- Ewondo (ewo) | This document |
| FangInterpreter | Language Interpreter -- Fang (fan) | This document |
| FantiInterpreter | Language Interpreter -- Fanti (fat) | This document |
| FaroeseInterpreter | Language Interpreter -- Faroese (fao) | This document |
| FijianInterpreter | Language Interpreter -- Fijian (fij) | This document |
| FilipinoPilipinoInterpreter | Language Interpreter -- Filipino Pilipino (fil) | This document |
| FinnishInterpreter | Language Interpreter -- Finnish (fin) | This document |
| FinnoUgrianLanguagesInterpreter | Language Interpreter -- Finno Ugrian Languages (fiu) | This document |
| FonInterpreter | Language Interpreter -- Fon (fon) | This document |
| FrenchInterpreter | Language Interpreter -- French (fre (B)) | This document |
| FriulianInterpreter | Language Interpreter -- Friulian (fur) | This document |
| FulahInterpreter | Language Interpreter -- Fulah (ful) | This document |
| GaelicScottishGaelicInterpreter | Language Interpreter -- Gaelic Scottish Gaelic (gla) | This document |
| GaInterpreter | Language Interpreter -- Ga (gaa) | This document |
| GalibiCaribInterpreter | Language Interpreter -- Galibi Carib (car) | This document |
| GalicianInterpreter | Language Interpreter -- Galician (glg) | This document |
| GandaInterpreter | Language Interpreter -- Ganda (lug) | This document |
| GayoInterpreter | Language Interpreter -- Gayo (gay) | This document |
| GbayaInterpreter | Language Interpreter -- Gbaya (gba) | This document |
| GeezInterpreter | Language Interpreter -- Geez (gez) | This document |
| GeorgianInterpreter | Language Interpreter -- Georgian (geo (B)) | This document |
| GermanInterpreter | Language Interpreter -- German (ger (B)) | This document |
| GilberteseInterpreter | Language Interpreter -- Gilbertese (gil) | This document |
| GondiInterpreter | Language Interpreter -- Gondi (gon) | This document |
| GorontaloInterpreter | Language Interpreter -- Gorontalo (gor) | This document |
| GothicInterpreter | Language Interpreter -- Gothic (got) | This document |
| GreboInterpreter | Language Interpreter -- Grebo (grb) | This document |
| GreekModernInterpreter | Language Interpreter -- Greek Modern (gre (B)) | This document |
| GuaraniInterpreter | Language Interpreter -- Guarani (grn) | This document |
| GujaratiInterpreter | Language Interpreter -- Gujarati (guj) | This document |
| GwichinInterpreter | Language Interpreter -- Gwich'in (gwi) | This document |
| HaidaInterpreter | Language Interpreter -- Haida (hai) | This document |
| HaitianHaitianCreoleInterpreter | Language Interpreter -- Haitian Haitian Creole (hat) | This document |
| HausaInterpreter | Language Interpreter -- Hausa (hau) | This document |
| HawaiianInterpreter | Language Interpreter -- Hawaiian (haw) | This document |
| HebrewInterpreter | Language Interpreter -- Hebrew (heb) | This document |
| HereroInterpreter | Language Interpreter -- Herero (her) | This document |
| HiligaynonInterpreter | Language Interpreter -- Hiligaynon (hil) | This document |
| HimachaliWesternPahariLanguagesInterpreter | Language Interpreter -- Himachali Western Pahari Languages (him) | This document |
| HindiInterpreter | Language Interpreter -- Hindi (hin) | This document |
| HiriMotuInterpreter | Language Interpreter -- Hiri Motu (hmo) | This document |
| HittiteInterpreter | Language Interpreter -- Hittite (hit) | This document |
| HmongMongInterpreter | Language Interpreter -- Hmong Mong (hmn) | This document |
| HungarianInterpreter | Language Interpreter -- Hungarian (hun) | This document |
| HupaInterpreter | Language Interpreter -- Hupa (hup) | This document |
| IbanInterpreter | Language Interpreter -- Iban (iba) | This document |
| IcelandicInterpreter | Language Interpreter -- Icelandic (ice (B)) | This document |
| IdoInterpreter | Language Interpreter -- Ido (ido) | This document |
| IgboInterpreter | Language Interpreter -- Igbo (ibo) | This document |
| IjolanguagesInterpreter | Language Interpreter -- Ijolanguages (ijo) | This document |
| IlokoInterpreter | Language Interpreter -- Iloko (ilo) | This document |
| InariSamiInterpreter | Language Interpreter -- Inari Sami (smn) | This document |
| IndicLanguagesInterpreter | Language Interpreter -- Indic Languages (inc) | This document |
| Indo-EuropeanLanguagesInterpreter | Language Interpreter -- Indo-European Languages (ine) | This document |
| IndonesianInterpreter | Language Interpreter -- Indonesian (ind) | This document |
| IngushInterpreter | Language Interpreter -- Ingush (inh) | This document |
| InterlingueOccidentalInterpreter | Language Interpreter -- Interlingue Occidental (ile) | This document |
| InuktitutInterpreter | Language Interpreter -- Inuktitut (iku) | This document |
| InupiaqInterpreter | Language Interpreter -- Inupiaq (ipk) | This document |
| IranianLanguagesInterpreter | Language Interpreter -- Iranian Languages (ira) | This document |
| IrishInterpreter | Language Interpreter -- Irish (gle) | This document |
| IroquoianLanguagesInterpreter | Language Interpreter -- Iroquoian Languages (iro) | This document |
| ItalianInterpreter | Language Interpreter -- Italian (ita) | This document |
| JapaneseInterpreter | Language Interpreter -- Japanese (jpn) | This document |
| JavaneseInterpreter | Language Interpreter -- Javanese (jav) | This document |
| Judeo-ArabicInterpreter | Language Interpreter -- Judeo-Arabic (jrb) | This document |
| Judeo-PersianInterpreter | Language Interpreter -- Judeo-Persian (jpr) | This document |
| KabardianInterpreter | Language Interpreter -- Kabardian (kbd) | This document |
| KabyleInterpreter | Language Interpreter -- Kabyle (kab) | This document |
| KachinJingphoInterpreter | Language Interpreter -- Kachin Jingpho (kac) | This document |
| KalaallisutGreenlandicInterpreter | Language Interpreter -- Kalaallisut Greenlandic (kal) | This document |
| KalmykOiratInterpreter | Language Interpreter -- Kalmyk Oirat (xal) | This document |
| KambaInterpreter | Language Interpreter -- Kamba (kam) | This document |
| KannadaInterpreter | Language Interpreter -- Kannada (kan) | This document |
| KanuriInterpreter | Language Interpreter -- Kanuri (kau) | This document |
| Karachay-BalkarInterpreter | Language Interpreter -- Karachay-Balkar (krc) | This document |
| Kara-KalpakInterpreter | Language Interpreter -- Kara-Kalpak (kaa) | This document |
| KarelianInterpreter | Language Interpreter -- Karelian (krl) | This document |
| KarenLanguagesInterpreter | Language Interpreter -- Karen Languages (kar) | This document |
| KashmiriInterpreter | Language Interpreter -- Kashmiri (kas) | This document |
| KashubianInterpreter | Language Interpreter -- Kashubian (csb) | This document |
| KawiInterpreter | Language Interpreter -- Kawi (kaw) | This document |
| KazakhInterpreter | Language Interpreter -- Kazakh (kaz) | This document |
| KhasiInterpreter | Language Interpreter -- Khasi (kha) | This document |
| KhoisanLanguagesInterpreter | Language Interpreter -- Khoisan Languages (khi) | This document |
| KhotaneseSakanInterpreter | Language Interpreter -- Khotanese Sakan (kho) | This document |
| KikuyuGikuyuInterpreter | Language Interpreter -- Kikuyu Gikuyu (kik) | This document |
| KimbunduInterpreter | Language Interpreter -- Kimbundu (kmb) | This document |
| KinyarwandaInterpreter | Language Interpreter -- Kinyarwanda (kin) | This document |
| KirghizKyrgyzInterpreter | Language Interpreter -- Kirghiz Kyrgyz (kir) | This document |
| KlingontlhIngan-HolInterpreter | Language Interpreter -- KlingontlhIngan-Hol (tlh) | This document |
| KomiInterpreter | Language Interpreter -- Komi (kom) | This document |
| KongoInterpreter | Language Interpreter -- Kongo (kon) | This document |
| KonkaniInterpreter | Language Interpreter -- Konkani (kok) | This document |
| KoreanInterpreter | Language Interpreter -- Korean (kor) | This document |
| KosraeanInterpreter | Language Interpreter -- Kosraean (kos) | This document |
| KpelleInterpreter | Language Interpreter -- Kpelle (kpe) | This document |
| KruLanguagesInterpreter | Language Interpreter -- Kru Languages (kro) | This document |
| KuanyamaKwanyamaInterpreter | Language Interpreter -- Kuanyama Kwanyama (kua) | This document |
| KumykInterpreter | Language Interpreter -- Kumyk (kum) | This document |
| KurdishInterpreter | Language Interpreter -- Kurdish (kur) | This document |
| KurukhInterpreter | Language Interpreter -- Kurukh (kru) | This document |
| KutenaiInterpreter | Language Interpreter -- Kutenai (kut) | This document |
| LadinoInterpreter | Language Interpreter -- Ladino (lad) | This document |
| LahndaInterpreter | Language Interpreter -- Lahnda (lah) | This document |
| LambaInterpreter | Language Interpreter -- Lamba (lam) | This document |
| LandDayakLanguagesInterpreter | Language Interpreter -- Land Dayak Languages (day) | This document |
| LaoInterpreter | Language Interpreter -- Lao (lao) | This document |
| LatinInterpreter | Language Interpreter -- Latin (lat) | This document |
| LatvianInterpreter | Language Interpreter -- Latvian (lav) | This document |
| LezghianInterpreter | Language Interpreter -- Lezghian (lez) | This document |
| LimburganLimburgerLimburgishInterpreter | Language Interpreter -- Limburgan Limburger Limburgish (lim) | This document |
| LingalaInterpreter | Language Interpreter -- Lingala (lin) | This document |
| LithuanianInterpreter | Language Interpreter -- Lithuanian (lit) | This document |
| LojbanInterpreter | Language Interpreter -- Lojban (jbo) | This document |
| LowerSorbianInterpreter | Language Interpreter -- Lower Sorbian (dsb) | This document |
| LoziInterpreter | Language Interpreter -- Lozi (loz) | This document |
| Luba-KatangaInterpreter | Language Interpreter -- Luba-Katanga (lub) | This document |
| Luba-LuluaInterpreter | Language Interpreter -- Luba-Lulua (lua) | This document |
| LuisenoInterpreter | Language Interpreter -- Luiseno (lui) | This document |
| LuleSamiInterpreter | Language Interpreter -- Lule Sami (smj) | This document |
| LundaInterpreter | Language Interpreter -- Lunda (lun) | This document |
| Luo-KenyaTanzania-Interpreter | Language Interpreter -- Luo(KenyaTanzania) (luo) | This document |
| LushaiInterpreter | Language Interpreter -- Lushai (lus) | This document |
| LuxembourgishLetzeburgeschInterpreter | Language Interpreter -- Luxembourgish Letzeburgesch (ltz) | This document |
| MacedonianInterpreter | Language Interpreter -- Macedonian (mac (B)) | This document |
| MadureseInterpreter | Language Interpreter -- Madurese (mad) | This document |
| MagahiInterpreter | Language Interpreter -- Magahi (mag) | This document |
| MaithiliInterpreter | Language Interpreter -- Maithili (mai) | This document |
| MakasarInterpreter | Language Interpreter -- Makasar (mak) | This document |
| MalagasyInterpreter | Language Interpreter -- Malagasy (mlg) | This document |
| MalayalamInterpreter | Language Interpreter -- Malayalam (mal) | This document |
| MalayInterpreter | Language Interpreter -- Malay (may (B)) | This document |
| MalteseInterpreter | Language Interpreter -- Maltese (mlt) | This document |
| ManchuInterpreter | Language Interpreter -- Manchu (mnc) | This document |
| MandarInterpreter | Language Interpreter -- Mandar (mdr) | This document |
| MandingoInterpreter | Language Interpreter -- Mandingo (man) | This document |
| ManipuriInterpreter | Language Interpreter -- Manipuri (mni) | This document |
| ManoboLanguagesInterpreter | Language Interpreter -- Manobo Languages (mno) | This document |
| ManxInterpreter | Language Interpreter -- Manx (glv) | This document |
| MaoriInterpreter | Language Interpreter -- Maori (mao (B)) | This document |
| MapudungunMapucheInterpreter | Language Interpreter -- Mapudungun Mapuche (arn) | This document |
| MarathiInterpreter | Language Interpreter -- Marathi (mar) | This document |
| MariInterpreter | Language Interpreter -- Mari (chm) | This document |
| MarshalleseInterpreter | Language Interpreter -- Marshallese (mah) | This document |
| MarwariInterpreter | Language Interpreter -- Marwari (mwr) | This document |
| MasaiInterpreter | Language Interpreter -- Masai (mas) | This document |
| MayanLanguagesInterpreter | Language Interpreter -- Mayan Languages (myn) | This document |
| MendeInterpreter | Language Interpreter -- Mende (men) | This document |
| MikmaqMicmacInterpreter | Language Interpreter -- Mi'kmaq Micmac (mic) | This document |
| MinangkabauInterpreter | Language Interpreter -- Minangkabau (min) | This document |
| MirandeseInterpreter | Language Interpreter -- Mirandese (mwl) | This document |
| MohawkInterpreter | Language Interpreter -- Mohawk (moh) | This document |
| MokshaInterpreter | Language Interpreter -- Moksha (mdf) | This document |
| MongoInterpreter | Language Interpreter -- Mongo (lol) | This document |
| MongolianInterpreter | Language Interpreter -- Mongolian (mon) | This document |
| Mon-KhmerLanguagesInterpreter | Language Interpreter -- Mon-Khmer Languages (mkh) | This document |
| MossiInterpreter | Language Interpreter -- Mossi (mos) | This document |
| MundaLanguagesInterpreter | Language Interpreter -- Munda Languages (mun) | This document |
| NahuatlLanguagesInterpreter | Language Interpreter -- Nahuatl Languages (nah) | This document |
| NauruInterpreter | Language Interpreter -- Nauru (nau) | This document |
| NavajoNavahoInterpreter | Language Interpreter -- Navajo Navaho (nav) | This document |
| NdebeleNorthNdebeleInterpreter | Language Interpreter -- Ndebele North Ndebele (nde) | This document |
| NdebeleSouthNdebeleInterpreter | Language Interpreter -- Ndebele South Ndebele (nbl) | This document |
| NdongaInterpreter | Language Interpreter -- Ndonga (ndo) | This document |
| NeapolitanInterpreter | Language Interpreter -- Neapolitan (nap) | This document |
| NepalBhasaNewariInterpreter | Language Interpreter -- Nepal Bhasa Newari (new) | This document |
| NepaliInterpreter | Language Interpreter -- Nepali (nep) | This document |
| NiasInterpreter | Language Interpreter -- Nias (nia) | This document |
| Niger-KordofanianLanguagesInterpreter | Language Interpreter -- Niger-Kordofanian Languages (nic) | This document |
| Nilo-SaharanLanguagesInterpreter | Language Interpreter -- Nilo-Saharan Languages (ssa) | This document |
| NiueanInterpreter | Language Interpreter -- Niuean (niu) | This document |
| NKoInterpreter | Language Interpreter -- N'Ko (nqo) | This document |
| NogaiInterpreter | Language Interpreter -- Nogai (nog) | This document |
| NorseOldInterpreter | Language Interpreter -- Norse Old (non) | This document |
| NorthernFrisianInterpreter | Language Interpreter -- Northern Frisian (frr) | This document |
| NorthernSamiInterpreter | Language Interpreter -- Northern Sami (sme) | This document |
| NorwegianBokmalInterpreter | Language Interpreter -- Norwegian Bokm?l (nob) | This document |
| NorwegianInterpreter | Language Interpreter -- Norwegian (nno) | This document |
| NubianLanguagesInterpreter | Language Interpreter -- Nubian Languages (nub) | This document |
| NyamweziInterpreter | Language Interpreter -- Nyamwezi (nym) | This document |
| NyankoleInterpreter | Language Interpreter -- Nyankole (nyn) | This document |
| NyoroInterpreter | Language Interpreter -- Nyoro (nyo) | This document |
| NzimaInterpreter | Language Interpreter -- Nzima (nzi) | This document |
| OccitanInterpreter | Language Interpreter -- Occitan (oci) | This document |
| OjibwaInterpreter | Language Interpreter -- Ojibwa (oji) | This document |
| OriyaInterpreter | Language Interpreter -- Oriya (ori) | This document |
| OromoInterpreter | Language Interpreter -- Oromo (orm) | This document |
| OsageInterpreter | Language Interpreter -- Osage (osa) | This document |
| OssetianOsseticInterpreter | Language Interpreter -- Ossetian Ossetic (oss) | This document |
| OtomianLanguagesInterpreter | Language Interpreter -- Otomian Languages (oto) | This document |
| PahlaviInterpreter | Language Interpreter -- Pahlavi (pal) | This document |
| PalauanInterpreter | Language Interpreter -- Palauan (pau) | This document |
| PaliInterpreter | Language Interpreter -- Pali (pli) | This document |
| PampangaKapampanganInterpreter | Language Interpreter -- Pampanga Kapampangan (pam) | This document |
| PangasinanInterpreter | Language Interpreter -- Pangasinan (pag) | This document |
| PanjabiPunjabiInterpreter | Language Interpreter -- Panjabi Punjabi (pan) | This document |
| PapiamentoInterpreter | Language Interpreter -- Papiamento (pap) | This document |
| PapuanLanguagesInterpreter | Language Interpreter -- Papuan Languages (paa) | This document |
| PediSepediNorthernSothoInterpreter | Language Interpreter -- Pedi Sepedi Northern Sotho (nso) | This document |
| PersianInterpreter | Language Interpreter -- Persian (per (B)) | This document |
| PhilippineLanguagesInterpreter | Language Interpreter -- Philippine Languages (phi) | This document |
| PhoenicianInterpreter | Language Interpreter -- Phoenician (phn) | This document |
| PohnpeianInterpreter | Language Interpreter -- Pohnpeian (pon) | This document |
| PolishInterpreter | Language Interpreter -- Polish (pol) | This document |
| PortugueseInterpreter | Language Interpreter -- Portuguese (por) | This document |
| PrakritLanguagesInterpreter | Language Interpreter -- Prakrit Languages (pra) | This document |
| PushtoPashtoInterpreter | Language Interpreter -- Pushto Pashto (pus) | This document |
| QuechuaInterpreter | Language Interpreter -- Quechua (que) | This document |
| RajasthaniInterpreter | Language Interpreter -- Rajasthani (raj) | This document |
| RapanuiInterpreter | Language Interpreter -- Rapanui (rap) | This document |
| RarotonganCookIslandsMaoriInterpreter | Language Interpreter -- Rarotongan Cook Islands Maori (rar) | This document |
| RomanianMoldavianMoldovanInterpreter | Language Interpreter -- Romanian Moldavian Moldovan (rum (B)) | This document |
| RomanshInterpreter | Language Interpreter -- Romansh (roh) | This document |
| RomanyInterpreter | Language Interpreter -- Romany (rom) | This document |
| RundiInterpreter | Language Interpreter -- Rundi (run) | This document |
| RussianInterpreter | Language Interpreter -- Russian (rus) | This document |
| SalishanLanguagesInterpreter | Language Interpreter -- Salishan Languages (sal) | This document |
| SamaritanAramaicInterpreter | Language Interpreter -- Samaritan Aramaic (sam) | This document |
| SamiLanguagesInterpreter | Language Interpreter -- Sami Languages (smi) | This document |
| SamoanInterpreter | Language Interpreter -- Samoan (smo) | This document |
| SandaweInterpreter | Language Interpreter -- Sandawe (sad) | This document |
| SangoInterpreter | Language Interpreter -- Sango (sag) | This document |
| SanskritInterpreter | Language Interpreter -- Sanskrit (san) | This document |
| SantaliInterpreter | Language Interpreter -- Santali (sat) | This document |
| SardinianInterpreter | Language Interpreter -- Sardinian (srd) | This document |
| SasakInterpreter | Language Interpreter -- Sasak (sas) | This document |
| ScotsInterpreter | Language Interpreter -- Scots (sco) | This document |
| SelkupInterpreter | Language Interpreter -- Selkup (sel) | This document |
| SemiticLanguagesInterpreter | Language Interpreter -- Semitic Languages (sem) | This document |
| SerbianInterpreter | Language Interpreter -- Serbian (srp) | This document |
| SererInterpreter | Language Interpreter -- Serer (srr) | This document |
| ShanInterpreter | Language Interpreter -- Shan (shn) | This document |
| ShonaInterpreter | Language Interpreter -- Shona (sna) | This document |
| SichuanYiNuosuInterpreter | Language Interpreter -- Sichuan YiNuosu (iii) | This document |
| SicilianInterpreter | Language Interpreter -- Sicilian (scn) | This document |
| SidamoInterpreter | Language Interpreter -- Sidamo (sid) | This document |
| SignLanguagesInterpreter | Language Interpreter -- Sign Languages (sgn) | This document |
| SiksikaInterpreter | Language Interpreter -- Siksika (bla) | This document |
| SindhiInterpreter | Language Interpreter -- Sindhi (snd) | This document |
| SinhalaSinhaleseInterpreter | Language Interpreter -- Sinhala Sinhalese (sin) | This document |
| Sino-TibetanLanguagesInterpreter | Language Interpreter -- Sino-Tibetan Languages (sit) | This document |
| SiouanLanguagesInterpreter | Language Interpreter -- Siouan Languages (sio) | This document |
| SkoltSamiInterpreter | Language Interpreter -- Skolt Sami (sms) | This document |
| Slave(Athapascan)Interpreter | Language Interpreter -- Slave - Athapascan (den) | This document |
| SlavicLanguagesInterpreter | Language Interpreter -- Slavic Languages (sla) | This document |
| SlavicSlavonicOldBulgarianInterpreter | Language Interpreter -- Slavic Slavonic Old Bulgarian (chu) | This document |
| SlovakInterpreter | Language Interpreter -- Slovak (slo (B)) | This document |
| SlovenianInterpreter | Language Interpreter -- Slovenian (slv) | This document |
| SogdianInterpreter | Language Interpreter -- Sogdian (sog) | This document |
| SomaliInterpreter | Language Interpreter -- Somali (som) | This document |
| SonghaiLanguagesInterpreter | Language Interpreter -- Songhai Languages (son) | This document |
| SoninkeInterpreter | Language Interpreter -- Soninke (snk) | This document |
| SorbianLanguagesInterpreter | Language Interpreter -- Sorbian Languages (wen) | This document |
| SothoSouthernInterpreter | Language Interpreter -- Sotho Southern (sot) | This document |
| SouthAmericanIndianLanguagesInterpreter | Language Interpreter -- South American Indian Languages (sai) | This document |
| SouthernAltaiInterpreter | Language Interpreter -- Southern Altai (alt) | This document |
| SouthernSamiInterpreter | Language Interpreter -- Southern Sami (sma) | This document |
| SpanishCastilianInterpreter | Language Interpreter -- Spanish Castilian (spa) | This document |
| SrananTongoInterpreter | Language Interpreter -- Sranan Tongo (srn) | This document |
| StandardMoroccanTamazightInterpreter | Language Interpreter -- Standard Moroccan Tamazight (zgh) | This document |
| SukumaInterpreter | Language Interpreter -- Sukuma (suk) | This document |
| SumerianInterpreter | Language Interpreter -- Sumerian (sux) | This document |
| SundaneseInterpreter | Language Interpreter -- Sundanese (sun) | This document |
| SusuInterpreter | Language Interpreter -- Susu (sus) | This document |
| SwahiliInterpreter | Language Interpreter -- Swahili (swa) | This document |
| SwatiInterpreter | Language Interpreter -- Swati (ssw) | This document |
| SwedishInterpreter | Language Interpreter -- Swedish (swe) | This document |
| SwissGermanAlemannicAlsatianInterpreter | Language Interpreter -- Swiss German Alemannic Alsatian (gsw) | This document |
| SyriacInterpreter | Language Interpreter -- Syriac (syr) | This document |
| TagalogInterpreter | Language Interpreter -- Tagalog (tgl) | This document |
| TahitianInterpreter | Language Interpreter -- Tahitian (tah) | This document |
| TaiLanguagesInterpreter | Language Interpreter -- Tai Languages (tai) | This document |
| TajikInterpreter | Language Interpreter -- Tajik (tgk) | This document |
| TamashekInterpreter | Language Interpreter -- Tamashek (tmh) | This document |
| TamilInterpreter | Language Interpreter -- Tamil (tam) | This document |
| TatarInterpreter | Language Interpreter -- Tatar (tat) | This document |
| TeluguInterpreter | Language Interpreter -- Telugu (tel) | This document |
| TerenoInterpreter | Language Interpreter -- Tereno (ter) | This document |
| TetumInterpreter | Language Interpreter -- Tetum (tet) | This document |
| ThaiInterpreter | Language Interpreter -- Thai (tha) | This document |
| TibetanInterpreter | Language Interpreter -- Tibetan (tib (B)) | This document |
| TigreInterpreter | Language Interpreter -- Tigre (tig) | This document |
| TigrinyaInterpreter | Language Interpreter -- Tigrinya (tir) | This document |
| TimneInterpreter | Language Interpreter -- Timne (tem) | This document |
| TivInterpreter | Language Interpreter -- Tiv (tiv) | This document |
| TlingitInterpreter | Language Interpreter -- Tlingit (tli) | This document |
| TokelauInterpreter | Language Interpreter -- Tokelau (tkl) | This document |
| TokPisinInterpreter | Language Interpreter -- Tok Pisin (tpi) | This document |
| TongaNyasaInterpreter | Language Interpreter -- Tonga Nyasa (tog) | This document |
| Tonga-TongaIslands-Interpreter | Language Interpreter -- Tonga (Tonga Islands) (ton) | This document |
| TsimshianInterpreter | Language Interpreter -- Tsimshian (tsi) | This document |
| TsongaInterpreter | Language Interpreter -- Tsonga (tso) | This document |
| TswanaInterpreter | Language Interpreter -- Tswana (tsn) | This document |
| TumbukaInterpreter | Language Interpreter -- Tumbuka (tum) | This document |
| TupiLanguagesInterpreter | Language Interpreter -- Tupi Languages (tup) | This document |
| TurkishInterpreter | Language Interpreter -- Turkish (tur) | This document |
| TurkmenInterpreter | Language Interpreter -- Turkmen (tuk) | This document |
| TuvaluInterpreter | Language Interpreter -- Tuvalu (tvl) | This document |
| TuvinianInterpreter | Language Interpreter -- Tuvinian (tyv) | This document |
| TwiInterpreter | Language Interpreter -- Twi (twi) | This document |
| UdmurtInterpreter | Language Interpreter -- Udmurt (udm) | This document |
| UgariticInterpreter | Language Interpreter -- Ugaritic (uga) | This document |
| UighurUyghurInterpreter | Language Interpreter -- Uighur Uyghur (uig) | This document |
| UkrainianInterpreter | Language Interpreter -- Ukrainian (ukr) | This document |
| UmbunduInterpreter | Language Interpreter -- Umbundu (umb) | This document |
| UpperSorbianInterpreter | Language Interpreter -- Upper Sorbian (hsb) | This document |
| UrduInterpreter | Language Interpreter -- Urdu (urd) | This document |
| UzbekInterpreter | Language Interpreter -- Uzbek (uzb) | This document |
| VaiInterpreter | Language Interpreter -- Vai (vai) | This document |
| VendaInterpreter | Language Interpreter -- Venda (ven) | This document |
| VietnameseInterpreter | Language Interpreter -- Vietnamese (vie) | This document |
| VolapukInterpreter | Language Interpreter -- Volap?k (vol) | This document |
| VoticInterpreter | Language Interpreter -- Votic (vot) | This document |
| WakashanLanguagesInterpreter | Language Interpreter -- Wakashan Languages (wak) | This document |
| WalloonInterpreter | Language Interpreter -- Walloon (wln) | This document |
| WarayInterpreter | Language Interpreter -- Waray (war) | This document |
| WashoInterpreter | Language Interpreter -- Washo (was) | This document |
| WelshInterpreter | Language Interpreter -- Welsh (wel (B)) | This document |
| WesternFrisianInterpreter | Language Interpreter -- Western Frisian (fry) | This document |
| WolaittaWolayttaInterpreter | Language Interpreter -- Wolaitta Wolaytta (wal) | This document |
| WolofInterpreter | Language Interpreter -- Wolof (wol) | This document |
| XhosaInterpreter | Language Interpreter -- Xhosa (xho) | This document |
| YakutInterpreter | Language Interpreter -- Yakut (sah) | This document |
| YaoInterpreter | Language Interpreter -- Yao (yao) | This document |
| YapeseInterpreter | Language Interpreter -- Yapese (yap) | This document |
| YiddishInterpreter | Language Interpreter -- Yiddish (yid) | This document |
| YorubaInterpreter | Language Interpreter -- Yoruba (yor) | This document |
| YupikLanguagesInterpreter | Language Interpreter -- Yupik Languages (ypk) | This document |
| ZandeLanguagesInterpreter | Language Interpreter -- Zande Languages (znd) | This document |
| ZapotecInterpreter | Language Interpreter -- Zapotec (zap) | This document |
| ZazaDimiliDimlKirdkiKirmanjkiInterpreter | Language Interpreter -- Zaza Dimili Diml Kirdki Kirmanjki (zza) | This document |
| ZenagaInterpreter | Language Interpreter -- Zenaga (zen) | This document |
| ZhuangChuangInterpreter | Language Interpreter -- Zhuang Chuang (zha) | This document |
| ZuluInterpreter | Language Interpreter -- Zulu (zul) | This document |
| ZuniInterpreter | Language Interpreter -- Zuni (zun) | This document |
| LoJack | LoJack? Stolen Vehicle Recovery System | This document |
| CrowdControlSpecialist | Crowd Control Specialist | This document |
| MountainSearchandRescueTech | Mountain Search and/or Rescue Technical Specialist | This document |
| NarcoticsIdentificationKitOperator | Narcotics Identification Kit Operator | This document |
| Paramedic | Paramedic | This document |
| PortablePumpFloating | Portable Pump -- Floating | This document |
| PortablePumpSubmersible | Portable Pump -- Submersible | This document |
| PublicInformationOfficer | Public Information Officer | This document |
| Telecommunicator | Public Safety Telecommunicator | This document |
| RadiologicTech | Radiologic Technician | This document |
| RadiationDetector | Victoreen Radiation Detector | This document |
| RegisteredNurse | Registered Nurse | This document |
| RescueRope | Rescue Rope | This document |
| SCBA | Self-Contained Breathing Apparatus | This document |
| Shotgun | Shotgun | This document |
| StructuralCollapaseRescueTech | Structural Collapse Rescue Technician | This document |
| StructuralEngineer | Structural Engineer | This document |
| SWAT | SWAT Officer | This document |
| SwiftwaterRescueEquipment | Swift Water Rescue Equipment | This document |
| SwiftwaterRescueTech | Swift Water/Flood Rescue Technical Specialist | This document |
| TaserTrained | Taser Trained | This document |
| ThermalCamera | Thermal Imaging Camera | This document |
| VacuumWater | Vacuum / Water | This document |
| WaterCanineSearchTech | Water Canine Search Technician | This document |
| WildLandFireTools | Wildland Fire Fighting Tools | This document |

# Impacts, Considerations, Abbreviations, Terms, and Definitions

The FEs exchanging the data defined in the EIDO may be physically or virtually connected to each other. The FEs may belong to one or more disparate manufacturer’s systems located within the same public safety agency or within different agencies.

## Operations Impacts Summary

A standardized format for electronically exchanging emergency Incident information will provide stakeholders with many operational benefits. These benefits are similar to those realized when agencies implement a local or regional “CAD to CAD” exchange. Use of the EIDO at a national, regional, and local level and within communication centers themselves is critical to the implementation of NG9-1-1 (i3) compliant systems [3] .

## Technical Impacts Summary

As with the implementation of any technical standard, the final EIDO will have significant impact. Initially, all FE’s involved in the exchange of emergency Incident information (e.g. call handling, logging, dispatch, etc.) will need to be modified to comply with EIDO transactions. Minimal impacts are expected on the ESInet or other E9-1-1 IP based networks however they will need to be compatible with the EIDO structure in order to carry EIDOs from one FE to another.

## Security Impacts Summary

EIDOs carry confidential information and they must be transmitted over secure transports such as TLS (Transport Layer Security) protected TCP (Transmission Control Protocol), and only to/from i3 authenticated FEs and systems [[3]](#_Detailed_Functional_and) . EIDOs accessible to authenticated FEs and other systems must have their contents filtered to contain only data authorized to be transmitted to those systems by the data owner's policy. Furthermore, FEs and systems that pass EIDOs or their contents along to other FEs and systems must filter those EIDO instances based on the authentication of the receiving FEs and other systems to contain only data authorized to be transmitted to those FEs and systems by the data owner's policy.

## Recommendation for Additional Development Work

Future versions may expand the EIDO to include new data components and data elements, provide additional allowable registry values, or modified to support additional emergency Incident related exchanges such as the transfer of a patient's medical diagnostics, administered procedures, and medical status between transporting ambulances and receiving hospitals.

Table ‑ Additonal Development Work

| **Section(s)** | **Reference to future work** |
| --- | --- |
| 2 | Add radio channels/push to talk information |
| 2.17, Appendix A | Include NIEM Commercial vehicle type |
| 2, Appendix A | Adding NIEM Injury treatment type |
| Appendix A | Conformance with future NIEM JSON version |
| 2 | Add weapon information. |
| TBD | Consider using JSON-LD context for NIEM compliance. |
| Apppendix A | Add a floor type that include floor integers. |
| TBD | Add a mapping between EIDO and NIEM em:EmergencyIncidentType |
| 2 | Add the concept of automaton identifier |
| 3.1 | Make TransferredTo Agency role transient |
| 2.7,2.8 | Add reason code for split/merge and Link components |
| 2.9 | Add information about how an incident is originally reported. |
| 2.x | Add URL for media related to an Incident. |

## Anticipated Timeline

EIDO is an integral piece of NG9-1-1 and must be considered during implementation planning. Early implementations are anticipated considering the migration to NG9‑1‑1 in Canada.

## Cost Factors

Significant consideration was given to the cost impact of proposing yet another “change” to 9-1-1 stakeholders. Standardizing the format of Incident information exchange, however, is critical for NG9-1-1’s true potential to be realized [3]. Absent this standard, Incident information data exchanges will continue to rely on limited, proprietary implementations that are costly and offer limited capability to share Incident information both within and between communication centers.

It should be noted that implementation of the EIDO IEPD ANS, as well as most NG9-1-1 systems, may require updates to existing public safety systems resident at communication centers.

## Cost Recovery Considerations

Normal business practices shall be assumed to be the cost recovery mechanism.

## Additional Impacts (non-cost related)

The information or requirements contained in this document are not expected to have additional impacts, based on the analysis of the authoring group.

## Abbreviations, Terms, and Definitions

See NENA Master Glossary of 9‑1‑1 Terminology, NENA‑ADM‑000 [1], for a complete listing of terms used in NENA documents. All abbreviations used in this document are listed below, along with any new or updated terms and definitions.

| **Term or Abbreviation (Expansion)** | **Definition / Description** | | ***WG Recommendations for Master Glossary:* (THIS COLUMN WILL BE DELETED BEFORE PUBLICATION)**   * (OK)Master Glossary Reviewed & Accepted * *(A)dd* * *(D)elete* * *(DA)Don’t add* * *(U)pdate* * *Other (text suggestions)* |
| --- | --- | --- | --- |
| Data Component | | A structure composed of multiple Data Elements. | DA |
| Data Element | | A unit of information composed of a name and value. The value can be a number, a boolean, a character string or a Data Component. | DA |
| EIDO (Emergency Incident Data Object) | | A JSON-based (JavaScript Object Notation) object that is used to share emergency Incident information between and among authorized entities and systems. NENA has adopted the JSON-based EIDO for sharing Incident information among authorized NG9-1-1 entities and systems. | OK |
| ESInet (Emergency Services IP Network) | | An ESInet is a managed IP network that is used for emergency services communications, and which can be shared by all public safety agencies. It provides the IP transport infrastructure upon which independent application platforms and core services can be deployed, including, but not restricted to, those necessary for providing NG9‑1‑1 services. ESInets may be constructed from a mix of dedicated and shared facilities. ESInets may be interconnected at local, regional, state, federal, national and international levels to form an IP-based inter-network (network of networks). The term ESInet designates the network, not the services that ride on the network. See [NGCS (Next Generation Core Services)](https://nenawiki.org/wiki/NGCS_(NG9-1-1_Core_Services)). | OK |
| FE (Functional Element) | | A set of software features that may be combined with hardware interfaces and operations on those interfaces to accomplish a defined task. | OK |
| FRC (Field Responder Client) | | A device or software installed on a device such as computer, tablet or smartphone used by field responders to access public safety systems, such as to receive dispatch instructions or perform database lookups. FRCs are often colloquially referred to as "MDT" or "Mobile Data Terminals". | A |
| IMR (Interactive Media Response) | | An automated service used to play announcements, record responses and interact with callers using any or all of audio, video and text. | OK |
| MDT (Mobile Data Terminal) | | A computerized device used in a vehicle to exchange information between an end user and a communications center. MDTs are a specific type of FRC (Field Responder Client). | U |
| Report Number | | A number associated with an emergency Incident that once generated indicates that a follow up report or investigation will be associated with the Incident. May also be known as: case number, fire Incident number, department report numbers and other variations depending on the types of service agencies involved and local customs. Typically, the report number is sequential within a year and also identifies the agency for which it is issued. Within an agency, the report number is globally unique. More than one report number may be associated with a single Incident. | DA |
| SIP (Session Initiation Protocol) | | A protocol specified by the IETF (RFC 3261) that defines a method for establishing multimedia sessions over the Internet. Used as the call signaling protocol in VoIP, NENA i2 and NENA i3. | OK |
| TCP (Transmission Control Protocol) | | A communications protocol linking different computer platforms across networks. TCP/IP functions at the 3rd and 4th levels of the open system integration model. | DA |
| TLS (Transport Layer Security) | | An IETF standard protocol that provides authentication, integrity protection, and confidentiality using mutually negotiated cryptographic capabilities and digital certificates on a connection such as TCP. | OK |
| URL (Uniform Resource Locator) | | A URL is a type of URI specifically used for describing and navigating to a resource (e.g. [http://www.nena.org](http://www.nena.org/)) | OK |

# References

1. National Emergency Number Association. *Master Glossary of 9‑1‑1 Terminology.* [NENA-ADM-000.23-2020](https://www.nena.org/page/Glossary). Arlington, VA: NENA, approved January 20, 2020.
2. Internet Engineering Task Force. *Key words for use in RFCs to Indicate Requirement Levels.* S. Bradner. [RFC 2119](https://tools.ietf.org/html/rfc2119), March 1997.
3. National Emergency Number Association. *NENA Detailed Functional and Interface Standards for the NENA i3 Solution.* [NENA-STA-010.2-2016](https://www.nena.org/general/custom.asp?page=i3_Stage3) (originally 08-003). Arlington, VA: NENA, approved September 10, 2016.
4. National Emergency Number Association. *NENA i3 Standard for Next Generation 9‑1‑1.* [NENA-STA-010.3-202Y](https://www.nena.org/general/custom.asp?page=i3_Stage3). Arlington, VA: NENA (forthcoming).
5. NIEM Program Management Office. *Introduction to the National Information Exchange Model (NIEM)*, version 0.3. Issued February 12, 2007. <https://reference.niem.gov/niem/guidance/introduction/0.3/niem-introduction-0.3.pdf>
6. Internet Engineering Task Force. *Additional Data Related to an Emergency Call.* R. Gellens, B. Rosen, H. Tschofenig, R. Marshall, J. Winterbottom. [RFC 7852](https://tools.ietf.org/html/rfc7852)
7. Internet Engineering Task Force. *A Uniform Resource Name (URN) for Emergency and Other Well-Known Services*. H. Schulzrinne. [RFC 5031](http://tools.ietf.org/html/rfc5031), January 2008.
8. Association of Public-Safety Communications Officials. *Public Safety Communications Common Incident Types for Data Exchange*. [APCO ANS 2.103.2-2019](https://cdn.ymaws.com/www.ijis.org/resource/collection/FA7CC2D0-8ABE-4946-BD92-5B81E09DEE85/Common_Incident_Type_Codes_Standard_FINAL_2012.pdf). Daytona Beach, FL: APCO, approved 2019.
9. Internet Engineering Task Force. *Presence Information Data Format (PIDF).* H. Sugano, S. Fujimoto, G. Klyne, A. Bateman, W. Carr, and J. Peterson. [RFC 3863](https://tools.ietf.org/html/rfc3863), August 2004.
10. Internet Engineering Task Force. *A Presence-based GEOPRIV Location Object Format*. J. Peterson. [RFC 4119](https://tools.ietf.org/html/rfc4119), December 2005.
11. Internet Engineering Task Force. *GEOPRIV Presence Information Data Format Location Object (PIDF-LO) Usage Clarification, Considerations, and Recommendations.* J. Winterbottom, M. Thomson, and H. Tschofenig. [RFC 5491](https://tools.ietf.org/html/rfc5491), March 2009.
12. Association of Public-Safety Communications Officials. *Alarm Monitoring Company to Public Safety Answering Point (PSAP) Computer-Aided Dispatch (CAD) Automated Secure Alarm Protocol (ASAP)*. [APCO/CSAA ANS 2.101.2-2014](https://www.apcointl.org/download/alarm-monitoring-company-to-psap-cad-automated-secure-alarm-protocol-asap/?wpdmdl=5938). Daytona Beach, FL: APCO, approved August 5, 2014.

# Exhibits

Not Applicable.

1. Required NIEM data element that need to be supported for EIDO compliance

The Person data component and the Vehicle data component both contains their respective NIEM data components. The NIEM PersonType and VehicleType also contains other NIEM data components.

In order for implementations to be interoperable, a subset of these NIEM data elements and data components must be supported by every EIDO implementation. In this context support means that the data element must be preserved when transmitting, receiving, storing or retrieving an EIDO.

To be compliant with this standard any EIDO implementation must support the following.

* 1. Person Type

Table A‑ Person Type

| **JSON Name** | **NIEM Data element** | **Type** | **Description** | **Comment** |
| --- | --- | --- | --- | --- |
| ageMeasure | nc:PersonAgeMeasure | nc:TimeMeasureType | A measurement of the age of a person. |  |
| birthDate | nc:PersonBirthDate | nc:DateType | A date a person was born. |  |
| birthLocation | nc:PersonBirthLocation | nc:LocationType | A location where a person was born. |  |
| bloodTypeCode | j:PersonBloodTypeCode | ncic:BLTCodeType | A blood group and RH factor of a person. |  |
| buildCode | j:PersonBuildCode | ndex:PersonBuildCodeType | A person's physique or body shape. |  |
| citizenshipIso3166Alpha2Code | nc:PersonCitizenshipISO3166Alpha2Code | iso\_3166:CountryAlpha2CodeType | A country that assigns rights, duties, and privileges to a person because of the birth or naturalization of the person in that country. |  |
| clothing | j:PersonClothing | j:ClothingType | An article of clothing, dress, or attire for a person. |  |
| complexion | nc:PersonComplexionText | nc:TextType | An appearance or condition of the skin of a person. | clear, freckled, wrinkled |
| description | nc:PersonDescriptionText | nc:TextType | A description of a person. |  |
| digitalImage | nc:PersonDigitalImage | nc:ImageType | A photograph or image of a person in a digital format. |  |
| disguise | nc:PersonDisguiseDescriptionText | nc:TextType | A description of something a person wears to conceal or mislead others as to the true appearance or identity of that person. | wig, mask, glasses, uniform |
| ethnicityCode | j:PersonEthnicityCode | ucr:EthnicityCodeType | A cultural lineage of a person. |  |
| eyeColorCode | j:PersonEyeColorCode | ncic:EYECodeType | A color of the eyes of a person. |  |
| eyewearCode | j:PersonEyewearCode | ndex:PersonEyewearCodeType | A description of glasses or other eyewear a person wears. |  |
| facialHairCode | j:PersonFacialHairCode | ndex:PersonFacialHairCodeType | A kind of facial hair of a person. |  |
| generalAppearance | nc:PersonGeneralAppearanceDescriptionText | nc:TextType | A description of the way a person looks and is presented overall. |  |
| hairAppearance | nc:PersonHairAppearanceText | nc:TextType | An overall appearance of the hair of a person. |  |
| hairCategory | nc:PersonHairCategoryText | nc:TextType | A kind of hair of a person, such as wavy or straight. |  |
| hairColorCode | j:PersonHairColorCode | ncic:HAIRCodeType | A color of the hair of a person. |  |
| hairLengthCode | j:PersonHairLengthCode | ndex:PersonHairLengthCodeType | A length of hair of a person. |  |
| hairStyleCode | j:PersonHairStyleCode | ndex:PersonHairStyleCodeType | A style or cut of hair worn by a person. |  |
| handedness | nc:PersonHandednessText | nc:TextType | A hand with which a person is more adept using. | left, right, ambidextrous |
| height | nc:PersonHeightMeasure | nc:LengthMeasureType | A measurement of the height of a person. |  |
| injury | nc:PersonInjury | nc:InjuryType | A form of physical harm or damage sustained by a person. |  |
| jewelry | nc:PersonJewelryDescriptionText | nc:TextType | A description of adornments a person wears. |  |
| languageIsEnglish | nc:PersonLanguageEnglishIndicator | niem-xs:boolean | True if a person understands and speaks English; false otherwise. |  |
| license | nc:PersonLicenseIdentification | nc:IdentificationType | An identification that references a license certification or registration of a person for some purpose. | This may be granted to certify a professional occupation or skill. |
| isLiving | nc:PersonLivingIndicator | niem-xs:boolean | True if a person is alive; false if a person is dead. | This indicator may be useful if a person is known to be dead but the death date is unknown. |
| unionStatusText | nc:PersonUnionStatusText | nc:TextType | A legal status of a union between two people. |  |
| mentalState | nc:PersonMentalStateText | nc:TextType | A mental condition of a person. |  |
| name | nc:PersonName | nc:PersonNameType | A combination of names and/or titles by which a person is known. |  |
| nationalIdentification | nc:PersonNationalIdentification | nc:IdentificationType | An identification that references a person within a country but is not based on fingerprint. |  |
| nationalityCode | nc:PersonNationalityISO3166Alpha2Code | iso\_3166:CountryAlpha2CodeType | A country of a person's citizenship or a country in which a person is deemed a national. |  |
| physicalFeature | nc:PersonPhysicalFeature | nc:PhysicalFeatureType | A prominent or easily identifiable aspect of a person. |  |
| primaryLanguage | nc:PersonPrimaryLanguage | nc:PersonLanguageType | A capacity of a person for a language with which that person has the strongest familiarity. | native language.  This can also be used for bi-lingual or multi-lingual people. |
| raceCode | j:PersonRaceCode | ncic:RACECodeType | A classification of a person based on factors such as geographical locations and genetics. |  |
| sexCode | j:PersonSexCode | ncic:SEXCodeType | A gender or sex of a person. |  |
| sexualOrientation | nc:PersonSexualOrientationText | nc:TextType | A target gender of the sexual interest of a person. |  |
| skinToneCode | j:PersonSkinToneCode | ncic:SKINCodeType | A color or tone of the skin of a person. |  |
| ssnIdentification | nc:PersonSSNIdentification | nc:IdentificationType | A unique identification reference to a living person; assigned by a country. | In the US and Canada, this is a 9-digit numeric identifier. ssn, SSN, social security number, social insurance number |
| weight | nc:PersonWeightMeasure | nc:WeightMeasureType | A measurement of the weight of a person. |  |
| nationalityIso3166Alpha2Code | nc:PersonNationalityISO3166Alpha2Code | iso\_3166:CountryAlpha2CodeType | A country of a person's citizenship or a country in which a person is deemed a national. |  |
| accent | nc:PersonAccentText | nc:TextType | A manner of pronunciation; a way of pronouncing words that may indicate the place of origin or social background of the speaker. |  |
| medicalCondition | nc:PersonMedicalCondition | nc:MedicalConditionType | A state of health for a person, on-going or present. |  |
| medicalDescription | nc:PersonMedicalDescriptionText | nc:TextType | A description of the overall health of a person. |  |
| medicationRequired | nc:PersonMedicationRequiredText | nc:TextType | A medication and dosage required for a person. |  |
| mood | nc:PersonMoodDescriptionText | nc:TextType | A description of a state of feeling of a person. | temper, humor |
| physicalDisability | nc:PersonPhysicalDisabilityText | nc:TextType | A physical disability of a person. |  |
| emergencyContact | nc:PersonEmergencyContactInformation | nc:ContactInformationType | A means of contacting someone in the event of an emergency. |  |

* 1. Vehicle Type

Table A‑ Vehicle Type

| **JSON Name** | **Data element** | **Type** | **Description** | **Comment** |
| --- | --- | --- | --- | --- |
| condition | nc:ItemConditionText | nc:TextType | A state or appearance of an item. | new, used, damaged |
| description | nc:ItemDescriptionText | nc:TextType | A description of an item. |  |
| owner | nc:ItemOwner | nc:EntityType | An entity which owns a property item. | property owner |
| ownerAppliedID | nc:ItemOwnerAppliedID | niem-xs:string | An identifier applied to an item by the owner. | A number on a car to identify it within a fleet of cars. |
| serialIdentification | nc:ItemSerialIdentification | nc:IdentificationType | An identification inscribed on or attached to a part, collection of parts, or complete unit by the manufacturer. |  |
| category | nc:ItemCategoryText | nc:TextType | A kind of property item. |  |
| colorPrimaryCode | j:ConveyanceColorPrimaryCode | ncic:VCOCodeType | A single, upper-most, front-most, or majority color of a vehicle. |  |
| colorSecondaryCode | j:ConveyanceColorSecondaryCode | ncic:VCOCodeType | A lower-most or rear-most color of a two-tone vehicle or a lesser color of a multi-colored vehicle. |  |
| image | nc:ItemImage | nc:ImageType | A binary representation of an image of an item. |  |
| makeName | nc:ItemMakeName | nc:ProperNameTextType | A name of the manufacturer that produced an item. |  |
| modelName | nc:ItemModelName | nc:ProperNameTextType | A name of a specific design or kind of item made by a manufacturer. |  |
| modelYear | nc:ItemModelYearDate | niem-xs:gYear | A year in which an item was manufactured or produced. |  |
| styleCode | j:VehicleStyleCode | ncic:VSTCodeType | A style of a vehicle. |  |
| registrationPlateIdentification | j:ConveyanceRegistrationPlateIdentification | nc:IdentificationType | An identification on a metal plate fixed to a conveyance. |  |
| isMotorized | nc:ConveyanceMotorizedIndicator | niem-xs:boolean | True if a conveyance is powered by a motor; false otherwise. |  |
| isTowed | nc:ConveyanceTowedIndicator | niem-xs:boolean | True if a conveyance is towed; false otherwise. |  |
| useAnsiD20Code | j:VehicleUseANSID20Code | aamva\_d20:VehicleUseCodeType | A manner or way in which a vehicle is used. |  |
| isCMV | nc:VehicleCMVIndicator | niem-xs:boolean | True if a vehicle is a commercial motor vehicle; false otherwise. |  |
| doorQuantity | nc:VehicleDoorQuantity | niem-xs:nonNegativeInteger | A number of doors on a vehicle. |  |
| identification | nc:VehicleIdentification | nc:IdentificationType | A unique identification for a specific vehicle. | VIN, VIN number, registration, plate |
| makeCode | j:VehicleMakeCode | ncic:VMACodeType | A manufacturer of a vehicle. |  |
| modelCode | j:VehicleModelCode | ncic:VMOCodeType | A specific design or class of vehicle made by a manufacturer. |  |
| isRental | nc:ItemRentalIndicator | niem-xs:boolean | True if an item is rented; false otherwise. | Applies to short term rental service only. |
| towerAssociation | nc:VehicleTowerAssociation | nc:ItemEntityAssociationType | An association between a vehicle and the entity that towed it. |  |
| vina | j:VehicleVINAText | nc:TextType | A Vehicle Identification Number Analysis; a combination of a vehicle make and model information. |  |
| isWanted | j:VehicleWantedIndicator | niem-xs:boolean | True if a vehicle is being searched for by law enforcement; false otherwise. |  |

* 1. Date Type

Table A‑ Date Type

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **JSON Name** | **Data element** | **Type** | **Description** | **Comment** |
| date | nc:Date | niem-xs:date | A full date. |  |
| dateTime | nc:DateTime | niem-xs:dateTime | A full date and time. |  |
| fiscalYear | nc:FiscalYearDate | nc:FiscalYearDateType | A year of a twelve month period that does not necessarily correspond to the calendar year. |  |
| yearMonth | nc:YearMonthDate | niem-xs:gYearMonth | A year and month. |  |
| marginOfError | nc:DateMarginOfErrorDuration | niem-xs:duration | A subjective assessment of the uncertainty of an estimated point by bounding an elements value with an estimated margin of error. |  |

* 1. Location Type

Table A‑ Locataion Type

| **JSON Name** | **Data element** | **Type** | **Description** | **Comment** |
| --- | --- | --- | --- | --- |
| address | nc:Address | nc:AddressType | A postal location to which paper mail can be directed. |  |
| addressGrid | nc:AddressGrid | nc:AddressGridType | A location identified by a unit of a grid system overlaid on an area. |  |
| area | nc:LocationArea | nc:AreaType | A location identified by geographic boundaries. |  |
| wgs84LocationCylinder | mo:WGS84LocationCylinder | mo:WGS84LocationCylinderType | A location identified by a cylinder oriented vertically and centered on a point described with WGS84 coordinates. If it is appropriate for the radius and half-height properties to represent an error value (for example, because the event is a laser-designated target), then the true event location follows a normal distribution such that the cylinder defines the one-sigma (p≈0.67)(almost equal to) deviation. (A cylinder with twice the volume would be the two-sigma (p≈0.95)(almost equal to) deviation, etc.) Otherwise the cylinder encloses the full physical extent of the event. |  |
| categoryCodeText | it:LocationCategoryCodeText | nc:TextType | A category of operation performed at a given Location |  |
| categoryText | nc:LocationCategoryText | nc:TextType | A kind or functional description of a location. |  |
| contact | nc:LocationContactInformation | nc:ContactInformationType | A set of contact information for a location. |  |
| addressCrossStreet | nc:AddressCrossStreet | nc:CrossStreetType | A location identified by two or more streets which intersect. | NIEM uses the term CrossStreet as a location but this document uses it to denote proximity to a location. |
| description | nc:LocationDescriptionText | nc:TextType | A description of a location. |  |
| locationLandmark | nc:LocationLandmarkText | nc:TextType | A distinguishing physical feature at a location. |  |
| name | nc:LocationName | nc:ProperNameTextType | A name of a location. |  |
| floorNumber | nc:LocationFloorNumberText | nc:TextType | A floor number of a location. |  |
| uncertainty | mo:LocationUncertaintyArea | nc:AreaType | An area of uncertainty about a location. |  |

* 1. Image Type

Table A‑ Image Type

| **JSON Name** | **Data element** | **Type** | **Description** | **Comment** |
| --- | --- | --- | --- | --- |
| id | nc:BinaryID | niem-xs:string | An identifier that references a binary object. |  |
| isAvailable | nc:BinaryAvailableIndicator | niem-xs:boolean | True if a binary is available; false if it is not. |  |
| captureDate | nc:BinaryCaptureDate | nc:DateType | A date on which a binary object is captured or created. | This is the date an image was taken, an audio file was recorded, ... |
| description | nc:BinaryDescriptionText | nc:TextType | A description of a binary object. |  |
| format | nc:BinaryFormatText | nc:TextType | A file format or content type of a binary object. |  |
| uri | nc:BinaryURI | niem-xs:anyURI | A URL or file reference of a binary object. |  |
| size | nc:BinarySizeValue | nc:NonNegativeDecimalType | A size of a binary object in kilobytes. |  |
| categoryText | nc:BinaryCategoryText | nc:TextType | A kind of object that has been encoded. | mug shot, driver license picture, audio confession |
| height | nc:ImageHeightValue | niem-xs:nonNegativeInteger | A height of an image in pixels. |  |
| width | nc:ImageWidthValue | niem-xs:nonNegativeInteger | A width of an image in pixels. |  |

* 1. Length Measure Type

Table A‑ Length Measure Type

| **JSON Name** | **Data element** | **Type** | **Description** | **Comment** |
| --- | --- | --- | --- | --- |
| doubleValue | nc:MeasureDoubleValue | niem-xs:double | A double measurement value. |  |
| doubleRange | nc:MeasureDoubleRange | nc:DoubleRangeType | A double measurement range. |  |
| textList | nc:MeasureTextList | nc:StringListType | A list of measurement values , all using the same measurement method/device and of the same units. |  |
| unitText | nc:MeasureUnitText | nc:TextType | A unit that qualifies the measurement value. |  |
| method | nc:MeasureMethodText | nc:TextType | A method used to make a measurement. |  |
| unitCode | nc:LengthUnitCode | unece:LengthCodeType | A unit of measure of a length value. |  |

* 1. Injury Type

Table A‑ Injury Type

| **JSON Name** | **Data element** | **Type** | **Description** | **Comment** |
| --- | --- | --- | --- | --- |
| categoryCode | j:InjuryCategoryCode | nc:TextType | A kind of bodily harm or injury. |  |
| date | nc:InjuryDate | nc:DateType | A date on which an injury occurred. | In EIDO InjuryDate should include DateRange/EndDate and DateRange/StartDate |
| description | nc:InjuryDescriptionText | nc:TextType | A description of an injury. |  |
| locationCode | j:InjuryLocationNDEXCode | nc:TextType | A place on the body of a person where an injury occurred. |  |
| severity | nc:InjurySeverityText | nc:TextType | A degree of the seriousness or intensity of an injury. |  |

* 1. Organization Type

Table A‑ Organizaation Type

| **JSON Name** | **Data element** | **Type** | **Description** | **Comment** |
| --- | --- | --- | --- | --- |
| activity | nc:OrganizationActivityText | nc:TextType | An activity that an organization is known or thought to be involved with. | Ex: law enforcement, supervision |
| branchName | nc:OrganizationBranchName | nc:TextType | A name of the chapter or branch by which an organization is known within a larger group of organizations. |  |
| dayContact | nc:OrganizationDayContactInformation | nc:ContactInformationType | A means of contacting an organization during daytime hours. |  |
| doingBusinessAsName | nc:OrganizationDoingBusinessAsName | nc:TextType | A name an organization uses for conducting business. |  |
| emergencyContact | nc:OrganizationEmergencyContactInformation | nc:ContactInformationType | A means of contacting an organization in the event of an emergency. |  |
| establishedDate | nc:OrganizationEstablishedDate | nc:DateType | A date an organization was started. |  |
| eveningContact | nc:OrganizationEveningContactInformation | nc:ContactInformationType | A means of contacting an organization during evening or early night hours. |  |
| identification | nc:OrganizationIdentification | nc:IdentificationType | An identification that references an organization. | For a school, this would be a school identifier, for a lien holder, this would be a lien holder identifier, for a court, this would be a court identifier. |
| localIdentification | nc:OrganizationLocalIdentification | nc:IdentificationType | An identification assigned at a local level to an organization. |  |
| location | nc:OrganizationLocation | nc:LocationType | A location of an organization. |  |
| name | nc:OrganizationName | nc:TextType | A name of an organization. |  |
| nightContact | nc:OrganizationNightContactInformation | nc:ContactInformationType | A means of contacting an organization during late-night hours. |  |
| otherIdentification | nc:OrganizationOtherIdentification | nc:IdentificationType | An alternate identification assigned to an organization. |  |
| primaryContact | nc:OrganizationPrimaryContactInformation | nc:ContactInformationType | A preferred means of contacting an organization. |  |
| principalOfficial | nc:OrganizationPrincipalOfficial | nc:PersonType | A chief or high ranking executive of an organization. |  |
| status | nc:OrganizationStatus | nc:StatusType | A status of an organization. | Examples include: active, inactive |
| subUnit | nc:OrganizationSubUnit | nc:OrganizationType | A division of an organization. | Ex: department, group |
| taxIdentification | nc:OrganizationTaxIdentification | nc:IdentificationType | A tax identification assigned to an organization. | Ex: Federal Employer Identification Number, FEIN, an Employer Identification Number, EIN |
| abbreviation | nc:OrganizationAbbreviationText | nc:TextType | An abbreviation, acronym, or code for an organization name. | Ex: FBI, NCIC |
| description | nc:OrganizationDescriptionText | nc:TextType | A description of an organization. |  |

* 1. Identification Type

Table A‑ Identification Type

| **JSON Name** | **Data element** | **Type** | **Description** | **Comment** |
| --- | --- | --- | --- | --- |
| id | nc:IdentificationID | niem-xs:string | An identifier. |  |
| categoryCode | j:PersonIDCategoryCode | ncic:MNUCodeType | A kind of identifier assigned to a person. |  |
| categoryDescription | nc:IdentificationCategoryDescriptionText | nc:TextType | A description of a kind of identification. |  |
| effectiveDate | nc:IdentificationEffectiveDate | nc:DateType | A date an identification takes effect. | This may or may not be the issue date. |
| expirationDate | nc:IdentificationExpirationDate | nc:DateType | A date after which an identification is no longer valid. |  |
| jurisdiction | nc:IdentificationJurisdiction | nc:JurisdictionType | An area, region, or unit where a unique identification is issued. | For EIDO only nc:JurisdictionText in JurisdictionType must be supported |
| source | nc:IdentificationSourceText | nc:TextType | A person, organization, or locale which issues an identification. |  |
| status | nc:IdentificationStatus | nc:StatusType | A status of an identification. | Ex: valid, expired, revoked, suspended, replaced, duplicate, lost |

* 1. Status Type

Table A‑ Status Type

| **JSON Name** | **Data element** | **Type** | **Description** | **Comment** |
| --- | --- | --- | --- | --- |
| status | nc:StatusText | nc:TextType | A status or condition of something or someone. |  |
| date | nc:StatusDate | nc:DateType | A date a status was set, effected, or reported. |  |
| description | nc:StatusDescriptionText | nc:TextType | A description of a status or condition of something or someone. |  |
| issuerIdentification | nc:StatusIssuerIdentification | nc:IdentificationType | An identification of a person or organization which assigns a status. |  |

* 1. Address Type

Table A‑ Address Type

| **JSON Name** | **Data element** | **Type** | **Description** | **Comment** |
| --- | --- | --- | --- | --- |
| fullText | nc:AddressFullText | nc:TextType | A complete address. | Usually includes street, city, state, and zip code information. Can also include other mailing specifics such as PO Box, apartment number, or suite number. |
| recipientName | nc:AddressRecipientName | nc:TextType | A name of a person, organization, or other recipient to whom physical mail may be sent. |  |
| buildingName | nc:AddressBuildingName | nc:TextType | A name of a specific building at an address to distinguish it from other buildings at the same site. |  |
| deliveryPointId | nc:AddressDeliveryPointID | niem-xs:string | An identifier of a single place or unit at which mail is delivered. |  |
| privateMailbox | nc:AddressPrivateMailboxText | nc:TextType | A private mailbox within a company. | mail stop code |
| secondaryUnit | nc:AddressSecondaryUnitText | nc:TextType | A particular unit within a larger unit or grouping at a location. | Ex: apartment number, suite number |
| routeName | nc:LocationRouteName | nc:TextType | A name and number of a postal route. |  |
| street | nc:LocationStreet | nc:StreetType | A road, thoroughfare or highway. |  |
| city | nc:LocationCityName | nc:ProperNameTextType | A name of a city or town. |  |
| countyCode | nc:LocationCountyCode | census:USCountyCodeType | A county, parish, vicinage, or other such geopolitical subdivision of a state. |  |
| state | nc:LocationState | nc:StateType | A state, commonwealth, province, or other such geopolitical subdivision of a country. | Only nc:LocationStateFIPS5-2Code is required to be supported in StateType |
| country | nc:LocationCountry | nc:CountryType | A country, territory, dependency, or other such geopolitical subdivision of a location. | Only nc:LocationCountryISO3166Alpha2Code is required to be supported in CountryType |

* 1. Area Type

Table A‑ Area Type

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **JSON Name** | **Data element** | **Type** | **Description** | **Comment** |
| wgs84LocationEllipse | mo:WGS84LocationEllipse | mo:WGS84EllipseType | A area region described by an ellipse specified by a point, major axis, minor axis and rotation, using WGS84, meters, and decimal degrees. |  |
| wgs84LocationExternalPolygon | mo:WGS84LocationExternalPolygon | mo:WGS84ExternalPolygonType | An area region described by a polygon with no interior region, using WGS84 coordinates. |  |

* 1. ContractInformation Type

Table A‑ ContractInformation Type

| **JSON Name** | **Data element** | **Type** | **Description** | **Comment** |
| --- | --- | --- | --- | --- |
| emailId | nc:ContactEmailID | niem-xs:string | An electronic mailing address by which a person or organization may be contacted. |  |
| instantMessenger | nc:ContactInstantMessenger | nc:InstantMessengerType | A user account for an instant messaging program by which a person or organization may be contacted. |  |
| mailingAddress | nc:ContactMailingAddress | nc:AddressType | A postal address by which a person or organization may be contacted. |  |
| radio | nc:ContactRadio | nc:ContactRadioType | A method of contacting a person or organization by messages over a radio. |  |
| telephoneNumber | nc:ContactTelephoneNumber | nc:TelephoneNumberType | A telephone number for a telecommunication device by which a person or organization may be contacted. |  |
| entity | nc:ContactEntity | nc:EntityType | An entity that may be contacted by using the given contact information. |  |
| entityDescription | nc:ContactEntityDescriptionText | nc:TextType | A description of the entity being contacted. | This could be a title or function of the person with the given contact information.' |
| informationDescription | nc:ContactInformationDescriptionText | nc:TextType | A description of the contact information. |  |
| responder | nc:ContactResponder | nc:PersonType | A third party person who answers a call and connects or directs the caller to the intended person. |  |

* 1. Entity Type

Table A‑ Entity Type

| **JSON Name** | **Data element** | **Type** | **Description** | **Comment** |
| --- | --- | --- | --- | --- |
| organization | nc:EntityOrganization | nc:OrganizationType | An organization capable of bearing legal rights and responsibilities. |  |
| person | nc:EntityPerson | nc:PersonType | A person capable of bearing legal rights and responsibilities. |  |

* 1. CrossStreet Type

Table A‑ Cross Street Type

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **JSON Name** | **Data element** | **Type** | **Description** | **Comment** |
| description | nc:CrossStreetDescriptionText | nc:TextType | A description of a street intersection. | NIEM uses the term CrossStreet as a location but this document uses it to denote proximity to a location. |
| relativeLocation | nc:CrossStreetRelativeLocation | nc:RelativeLocationType | A location of something relative to a street intersection. |  |

* 1. PhysicalFeature Type

Table A‑ PhysicalFeature Type

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **JSON Name** | **Data element** | **Type** | **Description** | **Comment** |
| generalCategory | nc:PhysicalFeatureGeneralCategoryText | nc:TextType | A general kind of physical feature. | Ex: scar, mark, tattoo, missing limb |
| categoryCode | j:PhysicalFeatureCategoryCode | nc:TextType | A specific kind of physical feature. |  |
| description | nc:PhysicalFeatureDescriptionText | nc:TextType | A description of a physical feature. |  |
| image | nc:PhysicalFeatureImage | nc:ImageType | A digital image of a physical feature. |  |
| location | nc:PhysicalFeatureLocationText | nc:TextType | A location on a person's body of a physical feature. |  |

* 1. MedicalCondition Type

Table A‑ MedicalCondition Type

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **JSON Name** | **Data element** | **Type** | **Description** | **Comment** |
| conditionText | nc:MedicalConditionText | nc:TextType | A state of health, on-going or present. | Ex: scar, mark, tattoo, missing limb |
| cause | nc:MedicalConditionCauseText | nc:TextType | A trigger that can initiate the onset of a medical condition. | Ex: drug, food, allergen |
| description | nc:MedicalConditionDescriptionText | nc:TextType | A description of a medical condition. |  |
| isPresent | nc:MedicalConditionPresentIndicator | niem-xs:boolean | True if a medical condition currently exists; false otherwise. |  |
| severity | nc:MedicalConditionSeverityText | nc:TextType | A degree to which a medical condition is affecting a person. |  |
| dateRange | nc:MedicalConditionDateRange | nc:DateRangeType | A date range for the start and end of a medical condition. |  |

1. Mapping between vCard and NIEM Person Type

Table B‑1 Mapping between vCard and NIEM Person Type

| **vCard Data Properties** | **NIEM Data Element** |
| --- | --- |
| General Properties: |  |
| BEGIN | No Mapping |
| END | No Mapping |
| SOURCE | No Mapping |
| KIND | No Mapping |
|
| XML | No Mapping |
| Identification Properties: |  |
| FN | nc:PersonFullName |
| N | nc:PersonSurName |
| nc:PersonGivenName |
| nc:PersonMiddleName |
| nc:PersonNamePrefixText |
| nc:PersonNameSuffixText |
| NICKNAME | im:PersonNickName |
| PHOTO | nc:PersonDigitalImage |
| BDAY | nc:PersonBirthDate |
| ANNIVERSARY | No Mapping |
| GENDER | j:PersonSexCode |
| ADR | nc:AddressPrivateMailboxText |
| nc:AddressSecondaryUnitText |
| nc:LocationStreet |
| nc:LocationCityName |
| nc:LocationCityName |
| nc:LocationPostalCode |
| nc:LocationCountry |
| TEL | nc:FullTelephoneNumber |
| EMAIL | nc:Email |
| IMPP | nc:ContactInstantMessenger |
| LANG | nc:PersonPrimaryLanguage |
| TZ | No Mapping |
| GEO | geo:LocationGeospatialPoint |
| TITLE | em:JobTitleOrRoleName |
| ROLE | em:JobTitleOrRoleName |
| ORG | nc:OrganizationName |
| MEMBER | nc:OrganizationBranchName |
| nc:OrganizationPrimaryContactInformation |
| RELATED | No Mapping except for emergency contact: nc:PersonEmergencyContactInformation |
| CATEGORIES | nc:PersonDescriptionText |
| NOTE | nc:PersonDescriptionText |
| PRODID | No Mapping |
| REV | No Mapping |
| SOUND | No Mapping |
| UID | nc:PersonOtherIdentification |
| CLIENTPIDMAP | No Mapping |
| URL | nc:URLID |
| VERSION | No Mapping |
| KEY | nc:ContactWebsiteURI |
| FBURL | nc:ContactWebsiteURI |
| CALADRURI | nc:ContactWebsiteURI |
| CALURI | nc:ContactWebsiteURI |

# 

1. OpenAPI Schema

The schemas defined in this document are described using OpenAPI V3, with JSON-ld exchange schemas for NIEM conformance. This section contains the OpenAPI interface definition as a YAML object. Only the component section of this schema is relevant to the EIDO JSON object described in this document. The normative reference can be found in NENA git hub repository available here https://github.com/NENA911/EIDO-JSON.

openapi: 3.0.2

info:

title: Emergency Incident Data Object (EIDO)

description: >-

A standard format and content definition for exchanging emergency incident

related data.

contact:

name: NENA

email: commleadership@nena.org

version: '1.0.0'

servers:

- url: 'http://localhost/'

- url: 'https://localhost/'

paths:

'/EIDO/{IncidentId}':

get:

tags:

- Dereference

summary: Dereference an EIDO reference

operationId: GetEIDO

parameters:

- name: IncidentId

in: path

required: true

description: The id of the incident represented in the EIDO

schema:

type: string

responses:

'200':

description: OK

content:

application/json:

schema:

$ref: '#/components/schemas/EmergencyIncidentDataObjectType'

components:

schemas:

ReferenceType:

title: Reference

required:

- $ref

properties:

$ref:

type: string

description: The $id value of the referenced data component

PrologueType:

title: Prologue

required:

- $id

- lastUpdateTimeStamp

- updatedByAgencyReference

type: object

properties:

$id:

type: string

description: Globally unique identifier of the data component

lastUpdateTimeStamp:

type: string

description: Timestamp of the last time the data component was modified

format: date-time

updatedByAgencyReference:

$ref: '#/components/schemas/ReferenceType'

description:

Owning Agency Identifier. This includes private and public

providers. Agencies are globally unique.

updatedByAgentReference:

$ref: '#/components/schemas/ReferenceType'

description:

A globally unique identifier of the agent or automaton that updated

the data component last

description: A common prologue on each data component

AgencyType:

title: Agency Type

description:

A data type for an organization that owns or is otherwise related to an

emergency incident.

allOf:

- $ref: '#/components/schemas/PrologueType'

- type: object

required:

- agencyRoleDescriptionRegistryText

- agencyType

properties:

agencyJcard:

type: string

description:

The agency’s contact information.

agencyRoleDescriptionRegistryText:

type: array

description: Shall only contains values present in the Agency Role registry

items:

type: string

incidentOwningAgencyIndicator:

type: boolean

description: True if an agency owns the emergency incident; false otherwise

agencyType:

type: array

items:

type: string

description: One or more members of a list of available provider and agency types such as Law Enforcement, Fire, EMS, Consolidated Dispatch, Ambulance Company, etc. Agency Types are defined in the IANA SOS- SubServices registry

notesReference:

type: array

description:

Reference to a Notes Data Component. Contains optional

alphanumeric text further describing the agency.

items:

$ref: '#/components/schemas/ReferenceType'

AgentType:

title: Agent Type

description: A data type for information about agents (e.g., call takers,

dispatchers, supervisors, responding emergency resources, etc.) and

automated systems acting as agents that are involved in an incident.

allOf:

- $ref: '#/components/schemas/PrologueType'

- type: object

required:

- personRoleRegistryText

- agencyReference

properties:

agentJcard:

type: string

description:

The agent’s contact information.

agentWorkstationPositionIdentification:

type: string

description:

The workstation position ID within the agent’s agency.

agentRoleRegistryText:

type: array

items:

type: string

description: Shall only contains values present in the Agent Role registry

agencyReference:

$ref: '#/components/schemas/ReferenceType'

description: Linked element type is AgencyType

notesReference:

type: array

description:

Reference to a Notes Data Component. Contains optional

alphanumeric text further describing the agent.

items:

$ref: '#/components/schemas/ReferenceType'

IncidentMergeDirectionCodeSimpleType:

title: Incident Merge Direction Code Simple Type

type: string

description: A data type for a code list for a direction of a merge or split.

example: REPLACING

enum:

- REPLACING

- REPLACED

- SPLIT

MergeInformationType:

title: MergeInformationType

description: A data type for information about a merged or split incident.

allOf:

- $ref: '#/components/schemas/PrologueType'

- type: object

required:

- incidentMergeDirectionCode

- incidentTrackingIdentifier

properties:

incidentTrackingIdentifier:

type: string

description:

The Incident Tracking Identification of the Incident

that is being merged with, or split from the Incident.

incidentMergeDirectionCode:

$ref: '#/components/schemas/IncidentMergeDirectionCodeSimpleType'

LinkDirectionCodeSimpleType:

title: Link Direction Code Simple Type

type: string

description: A data type for a code list for a kind of link performed.

example: PARENT

enum:

- PARENT

- CHILD

- RELATED

- UNLINK

LinkInformationType:

title: Link Information Type

description: A data type for information about a linked incident.

allOf:

- $ref: '#/components/schemas/PrologueType'

- type: object

required:

- incidentTrackingIdentifier

- linkDirectionCode

properties:

incidentTrackingIdentifier:

type: string

description: A globally unique emergency incident identifier.

transactionReasonText:

type: string

description: Free format narrative description of the reason for the link

involvedAgencyReference:

$ref: '#/components/schemas/ReferenceType'

description:

Agencies involved with the linked incident. Must be populated if

the agency sending the EIDO is not involved with the linked

incident.

linkDirectionCode:

$ref: '#/components/schemas/LinkDirectionCodeSimpleType'

NotesType:

title: Notes Type

description: A data type for notes and comments associated with an incident.

allOf:

- $ref: '#/components/schemas/PrologueType'

- type: object

required:

- notesActionComments

properties:

notesActionComments:

type: string

description: A note about an incident created by an agent; in HTML5 format.

agentReference:

$ref: '#/components/schemas/ReferenceType'

description: Linked element type is AgentType

AdditionalDataType:

title: Additional Data Type

description:

A data type for additional information associated with an incident call,

location, or person.

allOf:

- $ref: '#/components/schemas/PrologueType'

- type: object

properties:

additionalDataByReferenceUrl:

type: string

description: A URL that references additional data associated with a call.

additionalDataByValue:

type: string

description: Additional data associated with a call.

urlPurpose:

type: string

description: Purpose that accompanied the URL. For example, the purpose parameter sent with the URL in the Call-Info headers.

notesReference:

type: array

description:

Notes and comments associated with an incident. Linked elements

type are NotesType

items:

$ref: '#/components/schemas/ReferenceType'

LocationInformationType:

title: Location Information Type

description: A data type for a location associated with an incident.

allOf:

- $ref: '#/components/schemas/PrologueType'

- type: object

required:

- locationTypeDescriptionRegistryText

properties:

locationTypeDescriptionRegistryText:

type: string

description: Shall only contains values present in the Location type registry

locationByValue:

type: string

description:

A type for an external adapter for a Presence Information Data

Format-Location Object (PIDF-LO).

locationDescriptionText:

type: string

description: Optional text further describing the location type.

locationByReferenceUrl:

type: string

description:

A URL where a location associated with an incident can be

dereferenced.

format: uri

crossStreetByValue:

type: array

description:

A nearest cross street to an incident's location in PIDF-LO

format.

items:

type: string

crossStreetByReferenceUrl:

type: array

description:

A URL where a nearest cross street to an incident's location can

be dereferenced.

items:

type: string

intersectingStreetByValue:

type: array

description: An additional street, that with the location forms an

intersection, in PIDF-LO format.

items:

type: string

intersectingStreetByReferenceUrl:

type: array

description:

A URL where an additional street, that with the location forms

an intersection, can be dereferenced.

items:

type: string

cellTowerSectorId:

type: string

description:

The nearest cell tower and sector/face of the tower receiving a

call associated with an incident.

additionalDataReference:

type: array

description:

Additional information associated with an incident call,

location, or person. Linked elements type are AdditionalDataType

items:

$ref: '#/components/schemas/ReferenceType'

notesReference:

type: array

description:

Notes and comments associated with an incident. Linked elements

type are NotesType

items:

$ref: '#/components/schemas/ReferenceType'

PersonInformationType:

title: Person Information Type

description: A data type for information about a person associated with an incident.

allOf:

- $ref: '#/components/schemas/PrologueType'

- type: object

required:

- personIncidentRoleRegistryText

properties:

ncPersonComponent:

$ref: 'NIEMComponents/nc.yaml#/components/schemas/ncPersonType'

personIncidentRoleRegistryText:

type: array

description: Shall only contains values present in the Person Role registry

items:

type: string

callIdentifier:

type: array

description: Call Identifier of the calls this person was involved on.

items:

type: string

additionalDataReference:

type: array

description:

Additional information associated with an incident call,

location, or person. Linked elements type are AdditionalDataType

items:

$ref: '#/components/schemas/ReferenceType'

locationReference:

type: array

description:

A location associated with an Person. Linked elements type is

LocationInformationType

items:

$ref: '#/components/schemas/ReferenceType'

notesReference:

type: array

description:

Reference to a Notes Data Component. Contains optional

alphanumeric text further describing the person.

items:

$ref: '#/components/schemas/ReferenceType'

callBackReference:

$ref: '#/components/schemas/ReferenceType'

description:

Reference to a call back data component. Identifies how the person

described in this data component can be called back. DispositionType:

title: Disposition Type

description:

A data type for incident disposition information entered or updated by a

dispatch agent and/or a responding emergency resource.

allOf:

- $ref: '#/components/schemas/PrologueType'

- type: object

required:

- dispositionCommonRegistryCode

properties:

dispositionCommonRegistryCode:

type: string

description:

Shall only contains values present in the Common Disposition

Code registry

dispositionPrimaryIndicator:

type: boolean

description:

True if the common disposition is the primary disposition for an

agency for an incident; false otherwise.

dispositionCategoryText:

type: string

dispositionDescriptionText:

type: string

notesReference:

type: array

description:

Reference to a Notes Data Component. Contains optional

alphanumeric text further describing the incident.

items:

$ref: '#/components/schemas/ReferenceType'

VehicleInformationType:

title: Vehicle Information Type

allOf:

- $ref: '#/components/schemas/PrologueType'

- type: object

required:

- vehicleRelationshipType

- vehicleRelationshipTimeStamp

properties:

ncVehicleComponent:

$ref: 'NIEMComponents//nc.yaml#/components/schemas/ncVehicleType'

vehicleRelationshipType:

type: array

description:

Information about a vehicle associated with an incident. Shall

only contains values present in the Vehicle Relationship Type

registry

items:

type: string

vehicleRelationshipTimeStamp:

type: string

description:

The date and time that the relationship of the vehicle to the

incident was established

format: date-time

additionalDataReference:

type: array

description:

Additional information associated with a vehicle. Linked

elements type is AdditionalDataType

items:

$ref: '#/components/schemas/ReferenceType'

locationReference:

type: array

description:

A location associated with an vehicle. Linked elements type is

LocationInformationType

items:

$ref: '#/components/schemas/ReferenceType'

notesReference:

type: array

description:

Reference to a Notes Data Component. Contains optional

alphanumeric text further describing the vehicle.

items:

$ref: '#/components/schemas/ReferenceType'

IncidentInformationType:

title: Incident Information Type

description:

A data type for general information about emergency incidents gathered

by emergency agents, responding emergency resources, from reporting

parties (callers), and devices reporting emergency incidents.

allOf:

- $ref: '#/components/schemas/PrologueType'

- type: object

required:

- incidentTypeCommonRegistryText

properties:

incidentTypeInternalCode:

type: string

description:

An alphanumeric code indicating the category of the incident.

This is the internal code used by the local agencies involved in

the incident.

incidentTypeInternalText:

type: string

description:

Textual description indicating the category of the incident.

This is the internal text used by the local agencies involved in

the incident.

incidentTypeCommonRegistryText:

type: string

description: Shall only contains values present in the Incident Type registry

incidentStatusInternalText:

type: array

description:

An internal code used by a local agency for a status of an

incident.

items:

type: string

incidentStatusCommonRegistryText:

type: array

description:

Shall only contains values present in the Incident Status

registry

items:

type: string

internalIncidentId:

type: string

agentReference:

type: array

description: Linked elements type is AgentType

items:

$ref: '#/components/schemas/ReferenceType'

locationReference:

type: array

description:

A location associated with an incident. Linked elements type is

LocationInformationType

items:

$ref: '#/components/schemas/ReferenceType'

personReference:

type: array

description:

Information about a person associated with an incident. Linked

elements type is PersonInformationType

items:

$ref: '#/components/schemas/ReferenceType'

vehicleReference:

type: array

description:

Information about a vehicle associated with an incident. Linked

elements type is VehicleInformationType

items:

$ref: '#/components/schemas/ReferenceType'

documentIdentification:

type: array

items:

type: string

reportNumberType:

type: string

incidentPriorityInternalText:

type: string

description:

An internal value used by a local agency for the priority of an

incident.

incidentCommonPriorityNumber:

type: integer

description: A globally unique priority of an incident.

format: int32

beatOrDispatchGroupText:

type: string

description: A beat or dispatch group that contains an incident.

dispositionComponent:

type: array

description:

Incident disposition information entered or updated by a

dispatch agent and/or a responding emergency resource.

items:

$ref: '#/components/schemas/DispositionType'

notesReference:

type: array

description:

Reference to a Notes Data Component. Contains optional

alphanumeric text further describing the incident.

items:

$ref: '#/components/schemas/ReferenceType'

UpdatedCBNType:

title: Updated CBN Type

description:

A data type for additional telephone numbers and SIP equivalents that

can be used to contact the individual that made a call associated with

an incident.

allOf:

- $ref: '#/components/schemas/PrologueType'

- type: object

required:

- updatedCbnIdentifierUri

properties:

updatedCbnIdentifierUri:

type: string

description:

A telephone number or SIP equivalent of a reporting party

described in the parent call.

format: uri

updatedCbnCallerDescription:

type: string

description:

Additional descriptive text about an updated caller call back

number such as the days and hours to use it and the type of

number (e.g., work, home, friend, etc.).

CallInformationType:

title: CallInformationType

description:

A data type for call information about an incident received and

collected by an agent.

allOf:

- $ref: '#/components/schemas/PrologueType'

- type: object

required:

- callStatusRegistryText

- standardPrimaryCallType

- direction

- callStartTimestamp

properties:

relatedCallIdentifier:

type: array

description:

CallIdentifier of calls that are related to this call. Eg

Callbacks

items:

type: string

queueIdentifier:

type: string

description:

An identifier of a queue where the call is currently on.

standardPrimaryCallType:

type: string

description:

Values limited to those in the LogEvent CallTypes registry with

“Primary” classification.

standardSecondaryCallType:

type: string

description:

Values limited to those in the LogEvent CallTypes registry with

“Secondary” classification.

localCallType:

type: string

description:

Locally defined call type.

direction:

type: string

enum:

- incoming

- outgoing

- internal

description:

“incoming” means received by the EIDO sender, “outgoing” means sent

by the EIDO sender and “internal” means both caller and recipient

are within the EIDO sender.

additionalDataReference:

type: array

description:

Additional information associated with an incident call,

location, or person. Linked elements type is AdditionalDataType

items:

$ref: '#/components/schemas/ReferenceType'

callStartTimestamp:

type: string

description: Date and time stamp of when the call was received.

format: date-time

answerDate:

type: string

description: A date on which the call was answered by an agent.

format: date-time

callStateRegistryText:

type: string

description: Shall only contains values present in the Call Status registry

callBackReference:

$ref: '#/components/schemas/ReferenceType'

description:

Reference to a call back data component. Identifies how the caller

described in this data component can be called back.

items:

$ref: '#/components/schemas/ReferenceType'

verstat:

type: string

description:

Value of the verstat parameter. Required if known.

sipIdentity:

type: string

description:

Content of the SIP identity header. Required if known.

agentReference:

type: array

description: Linked elements type is AgentType

items:

$ref: '#/components/schemas/ReferenceType'

locationReference:

type: array

description:

A location associated with an incident. Linked elements type is

LocationInformationType

items:

$ref: '#/components/schemas/ReferenceType'

personReference:

type: array

description:

Information about a person associated with an incident. Linked

elements type is PersonInformationType

items:

$ref: '#/components/schemas/ReferenceType'

notesReference:

type: array

description:

Contains optional alphanumeric text further describing the call.

Linked elements type are NotesType

items:

$ref: '#/components/schemas/ReferenceType'

CallbackType:

title: Callback Type

description:

This data component is used to exchange information about

how to contact the Incident’s reporting parties.

allOf:

- $ref: '#/components/schemas/PrologueType'

- type: object

properties:

callBackInformationUri:

type: array

description:

Information that enables agents and responders to call

back. URI(s) found in the P-Asserted-Identity header if provided

else the URI in the From header.

items:

type: string

deviceContactHeader:

type: string

description:

Content of the device contact header. Information that

enables agents and responders to possibly reach (call back) the

device that initiated the call.

updatedCbn:

description:

Identifies additional telephone numbers and SIP

equivalents that can be used to contact.

$ref: '#/components/schemas/UpdatedCBNType'

EmergencyResourceType:

title: Emergency Resource Type

description: A data type for a resource (vehicle, person [foot patrol],

organizational unit such as a squad or strike team, and other emergency

responder configurations) that responds to an emergency incident.

allOf:

- $ref: '#/components/schemas/PrologueType'

- type: object

required:

- agentReference

- emergencyResourceTypeCommonRegistryText

- primaryUnitStatusRegistryText

- resourceAttributeRegistryText

- secondaryUnitStatusRegistryText

properties:

eta:

type: string

description: Timestamp of when the unit is expected to reach it's destination

format: date-time

emergencyResourceTypeCommonRegistryText:

type: string

description:

Shall only contains values present in the Emergency Resource

Type registry

emergencyResourceTypeInternalText:

type: string

description: A local code for an emergency resource type.

resourceAttributeRegistryText:

type: array

description:

Shall only contains values present in the Resource Attribute

registry

items:

type: string

emergencyResourceName:

type: string

description:

Common name of the emergency resource.

primaryUnitStatusRegistryText:

type: string

description:

Shall only contains values present in the Primary Unit Status

registry

secondaryUnitStatusRegistryText:

type: array

description:

Shall only contains values present in the Secondary Unit Status

registry

items:

type: string

notesReference:

type: array

description:

Reference to a Notes Data Component. Contains optional

alphanumeric text further describing the incident.

items:

$ref: '#/components/schemas/ReferenceType'

unitStatusInternal:

type: array

description: A local code for a status of an emergency resource.

items:

type: string

agentReference:

type: array

description:

Information about agents (e.g., call takers, dispatchers,

supervisors, responding emergency resources, etc.) and automated

systems acting as agents that are involved in an incident.

Linked elements type is AgentType

items:

$ref: '#/components/schemas/ReferenceType'

unitLocationReference:

$ref: '#/components/schemas/ReferenceType'

description: Linked elements type is LocationInformationType

unitDestinationReference:

$ref: '#/components/schemas/ReferenceType'

description: Linked elements type is LocationInformationType

personReference:

type: array

description:

Information about a person associated with an incident. Linked

elements type is PersonInformationType

items:

$ref: '#/components/schemas/ReferenceType'

vehicleReference:

type: array

description:

Information about a vehicle associated with an incident. Linked

elements type is VehicleInformationType

items:

$ref: '#/components/schemas/ReferenceType'

DispatchInformationType:

title: Dispatch Information Type

description: A data type for dispatch information related to an incident.

allOf:

- $ref: '#/components/schemas/PrologueType'

- type: object

properties:

agencyReference:

$ref: '#/components/schemas/ReferenceType'

description:

Reference to an AgencyType. Agency that was dispatched

through action performed in this data component.

agentReference:

$ref: '#/components/schemas/ReferenceType'

description:

Linked elements type is AgentType. Identifies the agent that

completed the dispatch operation described

emergencyResourceReference:

type: array

description:

A resource (vehicle, person [foot patrol], organizational unit

such as a squad or strike team, and other emergency responder

configurations) that responds to an emergency incident. Linked

elements type is EmergencyResourceType

items:

$ref: '#/components/schemas/ReferenceType'

notesReference:

type: array

description:

Contains optional alphanumeric text further describing the dispatch.

Linked elements type are NotesType

items:

$ref: '#/components/schemas/ReferenceType'

AlarmsSensorsType:

title: AlarmsSensorsType

description:

A data type for alarms and sensors information associated with an

incident.

allOf:

- $ref: '#/components/schemas/PrologueType'

- type: object

properties:

csaaAlarmInformation:

type: string

description:

Central Station Alarm Association (CSAA) data associated with an

incident.

alarmUrl:

type: string

description:

A URL that references Central Station Alarm Association (CSAA)

data associated with an incident.

format: uri

agentReference:

$ref: '#/components/schemas/ReferenceType'

description: Linked elements type is AgentType

notesReference:

type: array

description:

Contains optional alphanumeric text further describing the dispatch.

Linked elements type are NotesType

items:

$ref: '#/components/schemas/ReferenceType'

EmergencyIncidentDataObjectType:

title: Emergency Incident Data Object Type

description:

A data type for an information exchange containing emergency incident

related data.

allOf:

- $ref: '#/components/schemas/PrologueType'

- type: object

required:

- eidoVersion

- issuingElementIdentification

- agencyComponent

properties:

eidoVersion:

type: string

description: Version of the EIDO structure.

enum:

- '1.0'

issuingElementIdentification:

type: string

description:

An identifier of a functional element that created the EIDO

instance.

mergeComponent:

type: array

description: Information about a merged or split incident.

items:

$ref: '#/components/schemas/MergeInformationType'

linkComponent:

type: array

description: Information about a linked incident.

items:

$ref: '#/components/schemas/LinkInformationType'

incidentComponent:

$ref: '#/components/schemas/IncidentInformationType'

description:

General information about the emergency incident gathered by

emergency agents, responding emergency resources, from reporting

parties (callers), and devices reporting emergency incidents.

callComponent:

type: array

description:

Call information about an incident received and collected by an

agent.

items:

$ref: '#/components/schemas/CallInformationType'

callbackComponent:

type: array

description:

Contains information about how to call a person.

items:

$ref: '#/components/schemas/CallbackType'

dispatchComponent:

type: array

description: Dispatch information related to an incident.

items:

$ref: '#/components/schemas/DispatchInformationType'

alarmsSensorsComponent:

type: array

description: Alarms and sensors information associated with an incident.

items:

$ref: '#/components/schemas/AlarmsSensorsType'

agencyComponent:

type: array

description: All agencies referenced in this document are listed here

items:

$ref: '#/components/schemas/AgencyType'

agentComponent:

type: array

description: All agents referenced in this document are listed here

items:

$ref: '#/components/schemas/AgentType'

notesComponent:

type: array

description: All notes referenced in this document are listed here

items:

$ref: '#/components/schemas/NotesType'

additionalDataComponent:

type: array

description: All additional data referenced in this document are listed here

items:

$ref: '#/components/schemas/AdditionalDataType'

locationComponent:

type: array

description:

All location informations referenced in this document are listed

here

items:

$ref: '#/components/schemas/LocationInformationType'

personComponent:

type: array

description:

All person informations referenced in this document are listed

here

items:

$ref: '#/components/schemas/PersonInformationType'

vehicleComponent:

type: array

description:

All vehicle informations referenced in this document are listed

here

items:

$ref: '#/components/schemas/VehicleInformationType'

emergencyResourceComponent:

type: array

description:

All emergency resources information referenced in this document

are listed here

items:

$ref: '#/components/schemas/EmergencyResourceType'

'@context':

type: object

description: JSON-LD context

properties:

'@vocab':

type: string

enum:

- './JSON-LD\_Contexts/EmergencyIncidentDataObjectType.jsonld'

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* Brandon Abley, Technical Issues Director
* April Heinze, ENP, PSAP Operations Director

1. NENA-STA-010 include text to handle the case of sending the EIDO by reference or value in a transferred SIP call. [↑](#footnote-ref-2)
2. The goal of the incident statuses contained in the registry is to use distinct entries that are readily identifiable by agents receiving an EIDO. Multiple incident statuses may be used to specify complex situations such as an active fire incident that has had a structure cleared. In this case, the following incident statuses could be assigned: “Active” and “StructureCleared.” Incident status codes may be used to indicate either when a particular event occurred during the incident (patient contact) and/or when the incident’s status has changed (ResourcesOnscene). [↑](#footnote-ref-3)
3. Available at <https://www.apcointl.org/download/apco_ans_1-111-2-2018-disposition-codes/?wpdmdl=5997&ind=0>. Retrieved 22 April 2021. [↑](#footnote-ref-4)
4. The purpose of the common (global) primary unit statuses is to enable an agency that needs a particular type of resource to ascertain the availability of that resource in a different agency and to either request that resource from the agency that owns it (mutual aid) or to assign it to an incident (automatic aid). In most situations, agreements will be structured between the two agencies enabling automatic and mutual aid. [↑](#footnote-ref-5)