NENA Standard

For

NG9-1-1 Additional Data

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**NENA
STANDARD DOCUMENT**

<u>NOTICE</u>

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It is possible that certain advances in technology will precede these revisions. Therefore, this NENA standard should not be the only source of information used. **NENA** recommends that readers contact their Telecommunications Carrier representative to ensure compatibility with the 9-1-1 network.

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NENA's committees have developed this document. Recommendations for change to this document may be submitted to:

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Acknowledgments:

The National Emergency Number Association (NENA) Joint Data Technical/PSAP Operations & Next Generation Integration Committees, Next Generation Data Development Working Group developed this document.

NENA recognizes the following industry experts and their companies for their contributions in development of this document.

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1 Executive Overview

With the implementation of NG9-1-1 there will be many forms of additional data available to emergency responders. This document covers the use of additional data associated with a call, a location, a caller and a PSAP. Together with the SIP Invite and PIDF-LO, additional data associated with a call has the ability to look at other data sources; i.e., Vehicle Emergency Data Set (VEDS) to assist in determining the appropriate call routing and handling.

NENA defined the use of supportive and supplemental data in the Future Path Plan, and USDOT included it in their documentation. Supportive data is data used during the 9-1-1 call flow to provide proper routing instructions such as Vehicle Emergency Data Set (VEDS). Supplemental data is retrieved after the call reaches the PSAP or the responding emergency agency such as building data or medical records. The working group tried to separate additional data into these two categories, but because some additional data may be used either with the call flow or upon response, the group determined it would be better to term all data not in the SIP Invite or PIDF-LO as Additional Data. Supportive and supplemental data are often indistinguishable and inter-changeable. NENA NG9-1-1 documents do not differentiate.

Any of the additional data elements within this document or available from an external data source may be used by PSAP management to establish business rules/policies for call handling and routing.

AdditionalCallData service is implemented using web service clients in the ESRP.

AdditionalCallData service may be invoked when the ESRP receives a call with AdditionalCallData. The resulting AdditionalCallData structure is an input to the Policy Routing Function. The ESRP must be able to accommodate multiple AdditionalCallData services and structures for the same call.

More detailed information on Additional Data may be found in Detailed Functional and Interface Standards for Next Generation 9-1-1 Version 1.0 (i3), NENA 08-XXX, Version 1.0, draft and NENA Information Document Building Business Rules for Call Routing and Handling in NG9-1-1, NENA XX-XXX, Version 1.0, draft.

2 Introduction

2.1 Operational Impacts Summary

Each 9-1-1 Authority will need to determine what additional data is available to them and how it will be used to assist with emergency response.

PSAP management will need to ascertain what additional data will arrive with 9-1-1 calls after the implementation of NG9-1-1.

Proper training for all call takers and dispatchers is absolutely mandatory.

2.2 Security Impacts Summary

All additional data must be handled to ensure that the privacy of the information is secured. Additional data associated with a location or a caller will require appropriate login/password assignment for each authorized employee allowed access to this information.

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2.3 Document Terminology

The terms "shall", "must" and "required" are used throughout this document to indicate required parameters and to differentiate from those parameters that are recommendations. Recommendations are identified by the words "desirable" or "preferably".

2.4 Reason for Issue/Reissue

This document is issued to provide information on the use of Additional Data with the implementation of NG9-1-1.

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

Version	Date	Reason For Changes
Original	09/17/09	Initial Document – portions to be merged with i3, Stage 3, document. Some information will also be used to develop guidelines for PSAP management.

2.5 Recommendation for Additional Development Work

Additional work is required to identify entities that are able to provide additional data associated with a location and with a caller. Those entities include, but are not limited to electronic medical record providers and building information.

2.6 Date Compliance

All systems that are associated with the 9-1-1 process shall be designed and engineered to ensure that no detrimental, or other noticeable impact of any kind, will occur as a result of a date/time change up to 30 years subsequent to the manufacture of the system. This shall include embedded application, computer based or any other type application.

To ensure true compliance, the manufacturer shall upon request, provide verifiable test results to an industry acceptable test plan such as Telcordia GR-2945 or equivalent.

2.7 Anticipated Timeline

Additional data is an integral piece of NG9-1-1 and must be considered during implementation planning.

2.8 Costs Factors

The working group is not currently aware of any additional fees for using additional data, but that must be taken into consideration during NG9-1-1 implementation planning.

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2.9   Future Path Plan Criteria for Technical Evolution

In present and future applications of all technologies used for 9-1-1 call and data delivery, it is a requirement to maintain the same level or improve on the reliability and service characteristics inherent in present 9-1-1 system design.

New methods or solutions for current and future service needs and options should meet the criteria below. This inherently requires knowledge of current 9-1-1 system design factors and concepts, in order to evaluate new proposed methods or solutions against the Path Plan criteria.

Criteria to meet the Definition/Requirement:

1. Reliability/dependability as governed by NENA's technical standards and other generally accepted base characteristics of E9-1-1 service
2. Service parity for all potential 9-1-1 callers
3. Least complicated system design that results in fewest components to achieve needs (simplicity, maintainable)
4. Maximum probabilities for call and data delivery with least cost approach
5. Documented procedures, practices, and processes to ensure adequate implementation and ongoing maintenance for 9-1-1 systems

This basic technical policy is a guideline to focus technical development work on maintaining fundamental characteristics of E9-1-1 service by anyone providing equipment, software, or services.

2.10   Cost Recovery Considerations

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

2.11   Additional Impacts (non cost related)

Additional training of all PSAP and emergency responders will be required in order that they understand what additional data is available within their work environment. Management will probably need to work out agreements with additional data providers.

2.12   Intellectual Property Rights Policy

NENA takes no position regarding the validity or scope of any Intellectual Property Rights or other rights that might be claimed to pertain to the implementation or use of the technology described in this document or the extent to which any license under such rights might or might not be available; nor does it represent that it has made any independent effort to identify any such rights.

NENA invites any interested party to bring to its attention any copyrights, patents or patent applications, or other proprietary rights that may cover technology that may be required to implement this standard.

Please address the information to: National Emergency Number Association
4350 N Fairfax Dr, Suite 750
Arlington, VA 22203-1695
800-332-3911 or: commleadership@nena.org

2.13 Acronyms/Abbreviations/Definitions

Some acronyms/abbreviations used in this document have not yet been included in the master glossary. After initial approval of this document, they will be included. See NENA Master Glossary of 9-1-1 Terminology located on the NENA web site for a complete listing of terms used in NENA documents.

The following Acronyms are used in this document:		
Acronym	*Description*	*** N)ew (U)pdate*

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3   Additional Data Associated with a call/caller/location/PSAP

Additional Data is defined as data that is associated with a call, a caller or a location. This data may also be either additional data depending on when the data is accessed, with the call or once the call is received at the PSAP. A call is a generic term meaning an interactive multimedia session or an unattended device event.

3.1   Additional Data Associated with a Call (submit to IETF for standardization)

Additional data may be associated with a specific 9-1-1 call. This data may be provided by the device which places the call, or any intermediary, such as a carrier, telematics provider, alarm company or video relay, who handles the call. Devices may provide additional data; any intermediary handling the call must provide additional data, when available. The data is in the form of an XML data structure, retrieved by a simple HTTPS GET operation. The call includes a Call-Info header as in Session Initiation Protocol, J. Rosenberg et. al. Internet Engineering Task Force, RFC 3261, http://www.ietf.org/rfc/rfc3261.txt. The "purpose" parameter is set to "emergencyCallData" <reference IETF doc when available>. The XML data structure is defined by NENA XML Schema [TBD].

More than one Call-Data header with an emergencyCallData purpose can be expected. The device may insert one, and an intermediary may insert its own. When there are multiple intermediaries each intermediary may each insert one. For example, a telematics service provider may provide one and the mobile carrier handling the call may provide one.

Additional Data Associated with a Call
(There may be multiple instances of this data structure as discussed above.)

Data Element	Use	XML Tag	Description
Data Provided by	Required	<DataProvidedBy>	This is a plain language string suitable for displaying the name of the service provider that created the additional data structure. If the device created the structure the value is identical to the contact header in the SIP Invite. This data is required and should reflect the contact information of the owner of the device.
Reason for Need: Inform the call taker the identity of the entity providing the additional call data structure.			
How Used by Call Taker: Allows the call taker to interpret the data in this structure. The source of the information often influences how the information is used, believed or verified.			

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Provided by Company ID	Conditional	<ProviderCompanyID>	A jurisdiction specific code for the provider shown in the "Provided by" element that created the structure of the call. NOTE: In the US, the NENA Company ID must appear here. Additional information may be found at http://cid.nena.org/. The NENA Company ID shall be in the form of any URI for example: urn:nena:companyid:<NENA Company ID>. This data is required unless the additional data structure is provided by the device.

Reason for Need: Inform the call taker the identity of the entity providing the additional call data structure.

How Used by Call Taker: Where jurisdictions have lists of providers the Provider Company ID can lead to a wealth of information associated with the code.

Provided by Contact URI	Required	<ContractURI>	For a Service Provider the contact should be a 24x7 contact number. If provided by an entity without a 24X7, they must provide the provided by contact information. This must be a SIP URI. If a telephone number is the contact address it should be provided in the form of sip:telephonenumber@serviceprovider:user=phone. If the call is from a device, this data is required and should reflect the contact information of the owner of the device.

Reason for Need: Additional data providers may need to be contacted for error or other unusual circumstances.

How Used by Call Taker: To contact the supplier of the additional data provider structure.

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Provided by Language(s) supported	Conditional	\<LanguagePreference\>	Provided by's alpha 2-character code as defined in ISO 639-1:2002 (http://www.iso.org/iso/catalogue_detail?csnumber=22109) Codes for the representation of names of languages -- Part 1: Alpha-2 code
			Multiple instances of this element may occur. Order is significant; preferred language should appear first.
			This data is required unless the message is from a data only device.

Reason for Need: Information needed to determine if 9-1-1 Authority can communicate with the Service Provider or if language line will be needed.

How Used by Call Taker: If calltaker cannot speak language(s) supported by the Service Provider, language line will need to be added in to conversation.

vCARD of Provided By	Optional	\<ProvidedByContact\>	There are many fields in the vCARD. The creator of the data structure is encouraged to provide as much information as they have available. A minimum of subscriber provided by's name, address and contact number should be provided.
			Footnote: If allowed by law providers must send subscriber name and address regardless of published or non-published telephone number indicator.
			vCARD version 3 is defined in two parts:
			• RFC 2425, MIME Content-Type for Directory Information http://www.ietf.org/rfc/rfc2425.txt • RFC 2426, vCARD MIME Directory Profile http://www.ietf.org/rfc/rfc2426.txt

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Reason for Need: Information needed to determine additional contact information.			
How Used by Call Taker: Assists call taker by providing additional contact information that may not be included in the SIP invite or the PIDF-LO. Can display a picture of the caller to the call taker.			
Data Associated with the Caller	Optional	<DataAssoc-CallerData>	This is the URL for Data Associated with the Caller. The url is provided by the caller to his carrier. The carrier is not responsible for the url or the data that the url points to.
Reason for Need: Provide PSAP with information that is specific to the person originating the call.			
How Used by Call Taker: Call taker may use to obtain information when caller is unable to provide and verify information with the caller. EX: Emergency contact information and medical data.			
Service Environment	Required	<SvcEnvironment>	This defines if the call service type is a Business or Residence caller. Currently, the only valid entries are Business or Residence.
Reason for Need: To assist in determining equipment and manpower requirements.			
How Used by Call Taker: Information may be used to determine equipment and manpower requirements for emergency responders.			
Service Delivered by Provider to End User	Required	<SvcDelByProvider>	This defines the type of service the end user has subscribed to. The implied mobility of this service cannot be relied upon. A NENA Registry System will reflect the following valid entries: • Mobile Telephone Service: Includes Satellite, CDMA, GSM, Wi-Fi, WiMAX, LTE (Long Term Evolution) • Fixed Public Pay/Coin telephones: Any coin or credit card operated

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			device.
			• One way outbound service
			• Inmate call/service
			• Soft dialtone/quick service/warm disconnect/suspended
			• Multi-line telephone system (MLTS): Includes all PBX, Centrex, key systems, Shared Tenant Service.
			• Sensor, unattended: Includes devices that generate DATA ONLY. This is one-way information exchange and there will be no other form of communication.
			• Sensor, attended: Includes devices that are supported by a monitoring service provider or automatically open a two-way communication path.
			• Wireline: Plain Old Telephone Service (POTS).

			• VoIP Telephone Service: A type of service that offers communication over internet protocol.
			  - Fixed
			  - Nomadic – put detail of nomadic and mobile in explanation
			  - Mobile
			  - Unknown

Reason for Need: Knowing the type of service may assist the PSAP with the handling of the call.			
How Used by Call Taker: Calltaker may be able to determine if the caller is stationary or mobile and if they will have voice communications with the caller or is it a data only event.			
Device Classification	Optional	<DeviceClassification>	If the device provides the data structure, the device information should be provided. If the Service Provider provides the structure and it knows what the device is, the Service

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			Provider should provide the device information. Often the carrier does not know what the device is. It is possible to receive 2 data structures, one created by the device and one created by the Service Provider.
			Information about the device, not how it's being used.
			Example: Master bedroom phone is desktop – caller is very close to the phone, but if it identifies as cordless handset the caller may be further away.
			Device classification helps with location determination – cordless phone won't go far – cell can rebid. Device classification depends on how the location is obtained – fixed vs. dynamic. May also be location by reference by access network providing location
			This data element defines the kind of device making the 9-1-1 call. A NENA Registry System will reflect the following valid entries: - Cordless handset - Fixed phone - Mobile handset - ATA – analog terminal adapter - Satellite phone - Stationary computing device (alarm system, data sensor) - Guardian devices - Desktop PC - Laptop computing device - Tablet computing device - Alarm system - Data sensor - Personal beacons (spot) - Auto telematics (indicates VEDS

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			data set)
			- Trucking telematics - Farm equipment telematics - Marine telematics - PDA (personal digital assistant) - PND (personal navigation device) - Smart phone (Blackberry, PDAs) - Internet tablet - gaming console - Video phone - Other text device - Not Available
			Different Devices may use different conventions to provide their information. We need to know what it represents, so a Registry is in order. The registry needs to define what the device value actually means.

Reason for Need: The device classification describes the capability of the calling device. For example, does the device require human intervention to initiate a call or is this call the result of programmed instructions. Does the calling device have the ability to rebid for location or condition changes? Is this device interactive or a one-way reporting device?

How Used by Call Taker: May assist with location of caller. For example, a cordless handset may be outside or next door. May provide calltaker some context about the caller.

Device Manufacturer	Optional	<DeviceMfgr>	Manufacturer is electronically stored on the device.
			Different Devices may use different conventions to provide their information. We need to know what it represents, so a Registry is in order.
			Need to be able to Standardize as much as possible with a uniform naming convention.
			A NENA Registry System will reflect the valid entries.

Reason for Need: Used by PSAP management for post-mortem investigation/resolution.

How Used by Call Taker: Probably not used by calltaker, but by PSAP management.

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Device Model Number	Optional	<DeviceModel#>	Model number is electronically stored on the device.

Reason for Need: Used by PSAP management for after action investigation/resolution.

How Used by Call Taker: Probably not used by calltaker, but by PSAP management.

Unique Device Identifier	Optional	<UniqueDeviceID>	Characters that identify the specific device making the call or creating an Event.

Reason for Need: May be needed when trying to obtain a subpoena to obtain customer information in instances where location info did not display or someone is making false 9-1-1 calls. May also be used when working with safe houses that are using non-initialized phones.

How Used by Call Taker: Probably not used by calltaker they would need to refer to management for investigation.

Type of Device Identifier	Optional	<TypeOfDeviceID>	Identifies the type of device identifier being generated in the unique device identifier data element. A NENA Registry System will reflect the following valid entries: - MEID (CDMA) - ESN (Electronic Serial Number - superseded by MEID) - MAC (Media Access Control) Address - any IEEE device with an Ethernet, Wi-Fi connection - WiMAX has a device certificate - IMEI (International Mobile Equipment Identifier - GSM) - Unique Device Identifier (Unique identifier for medical devices) - RFID (Radio Frequency Identification) - Sensors (types to be identified in next document version)

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			• Manufacturer Serial Number

| **Reason for Need: calls from uninitiated devices would give an identifier that could be associated with erroneous calls --- use the number to identify what type of capabilities there are   Could also use this information to block specific types of calls.** |||||

| **How Used by Call Taker:** Additional information that may be used to assist with call handling. |||||

Non-NENA XML schema Device/service specific additional data structure	Optional	<devicespecificSchema>	A URI representing additional data whose schema is specific to the device or service which created it. An example is the VEDs structure for a vehicle telematics device. The structure can be referenced via URI and used in the policy routing function business rules/policies or for access by call takers or responders. Non-NENA XML schemas must be registered in NENA's Registry System. Some possible sources are: • NPAC • Hazmat International Association of Fire Chiefs • DHS/EPA E-Plan for HazMat • NFPA - National Fire Protection Association • National Alliance for Public Safety GIS (NA-PSG) • US DOT Pipeline and Hazardous Materials Safety Administration (PHMSA) examples of additional data. • Fire Service Data Model • IEEE 1512® - USDOT Model for traffic incidents • Smart Building (NIST) • VEDS • Different data may be created by each classification; i.e., telematics creates VEDS data set - can be

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			different types of data depending on device. May want to describe type of data for each device.

Reason for Need: This data element will allow for identification of a non-NENA XML Schema, which may have additional data that will assist in emergency response.

How Used by Call Taker: This data element will allow the end user (calltaker or first responder) to know what type of additional data may be available to aid in providing the needed emergency services.

Telephone Number Privacy Indicator	Required	<TNPrivacyIndicator>	Allowable Values: Published or Non-Published

Reason for Need: Some State regulations require that Non-Published subscriber name remains private to all including 9-1-1. Where this regulation is in place, the end user's name must be overlaid with blanks or the verbiage, "Non-Published Number."

How Used by Call Taker: This is not beneficial to PSAPs; however, they must follow state regulations. This indicator will allow for coding that overlays the non-published subscriber name with the verbiage "Non-Published Number."

vCARD for Subscriber's Data	Required	<SubscriberData>	Information known by the Service Provider about the subscriber; i.e., Name, Address, Calling Party Number, Main Telephone Number and any other data.

If the subscriber is an enterprise, this is the vCARD of the enterprise and the Company Name is used not the Name of the Caller. The telephone number is the main telephone number at the location of the call. The address should be where the call is originating from. |

Reason for Need: Critical information required for proper call handling and dispatching.

How Used by the Call Taker: Critical information required for proper call handling and dispatching.

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3.2   Additional Data Associated with a Location

Data associated with a location is provided in an xml data structure retrieved from a web service. The ECRF has an "additionalData" service (urn:service:sos.additionalData) which returns the URI for the data associated with a location to authorized entities. The xml data structure returned will be defined in future work. This structure must be able to be broken into sections, or separate XML documents for building owner and multiple instances of tenant information. The PIDF-LO has fields for very fine grained location information. PIDF-LO uses an OGC Geography Markup Language (GML) application schema to encode geodetic location elements. The encoding specified WGS84 2d as the coordinate reference system. The normative reference for the WGS84 parameters is contained in the EPSG CRS registry, reference code 4326. The additional location data structure includes floor plan information, and the additional call data includes subscriber name/address. Either can be used to determine which tenant the call originates from.

As the working group completes interface arrangements with different entities, this document will be updated to reflect that information.

NENA is working with *National Institute of Standards and Technology* (NIST) to determine compatibility and availability of "Smart Building" data, primarily data required for fire agencies http://www.nist.gov.

NENA is also working with Building Information Spatial Data Model (BISDM) Committee, which is responsible for the development of the Building Information Model (BIM). This group formed in late 2007 as a community of interest focused on creating a GIS data model for buildings. They are a volunteer organization dedicated to providing a collection of best practices, case studies, and templates that individuals can adopt or adapt to their specific project needs.

Some of the data elements that may be available from additional databases related to building details are:
1. Building Owner
    a. Name of building
    b. Street Address of building
    c. Owner name/address/contact info
    d. Manager name/address/contact info
    e. Front desk contact info
    f. Security contact info
    g. Building maintenance/engineering contact info
    h. Structural engineering contact info
    i. Use (residential/industrial/office/mixed)
    j. Construction
    k. Entrance Information
    l. BIM (Building Information Model) – 3D
    m. Floor Plans

    n. Method for floor numbering (Firefighters Use: entrance used by fire is 1 and moves up in increments of 1)
    o. HVAC
    p. Surveillance
    q. Elevator
    r. Alarm System
    s. Automatic defibrillators
    t. Sensor data (video, smoke, heat, water, etc.)
    u. Fire control panels
    v. Toxic chemical locations/ hazardous materials
    w. Access / Ingress info to the structure
    x. Fire Hydrants (main size, number and size of outlets, GPM available from largest outlet, etc.)

2. Tenant (multiple)
    a. Name. address, contact numbers of tenant
    b. Suite/Floor (Where does 1st floor start? Need to standardize? How do you handle a building with multiple entrances on different sides of the bldg?)
    c. Floor Plan
    d. Front Desk contact info
    e. Security contact info
    f. Engineering contact info
    g. Use
    h. Entrance Information
    i. Surveillance
    j. Alarm System

3. Parcel/Lot maps
    a. Pictures
    b. Aerial Imagery/ Pictometry
    c. Address Points

Some other areas where additional data with a location may be available include:

- Surface Water: Future document releases will determine if this information will be obtained from another entity or if the data can be stored in GIS. Consideration will be given to use of the XML data schemes for CityXML, specifically building.xmd as defined by the Open Geospatial Consortium and agreed upon by NIST and others. See reference at: http://www.citygmlwiki.org/index.php/XML_namespaces_and_schemaLocations).

- Hydrants: Hazardous locations, prior and pending incidents at location, location of hydrants, draft points, storm water infrastructure, unsafe / do not enter buildings, weight and height restrictions along route (bridges, underpasses), special needs citizens, fire control panel location, standpipe locations on buildings, time-of-day / intelligent routing to incidents, traffic control, type of structure, etc.

- HazMat: Consideration will be given to Hazmat E-Plan (https://erplan.net/eplan/login.htm). This is a joint DHS/EPA project. DHS is the overall program manager and responsible for funding, while EPA's role is as an advisor and supports the partnership with marketing efforts.

Additional Data Associated with a Location

Data Element	Use	XML Tag	Description
TBD		**TDB**	**TBD**
Reason for Need: This data will be extremely useful to emergency responders when trying to enter a building. Knowing where devices are located and how to enter/exit the building are critical and may save lives.			
How Used by Call Taker: This information may be useful to the calltaker so they may notify the emergency responders where certain items are located.			
Location Reference	Optional	<Reference>	Reflects a URI for additional location data; i.e., building data that has implemented "SmartBuilding" concept.
Reason for Need: Specific building data will be critical to emergency responders. Example: location of hazardous chemicals in the event of a fire.			
How Used by Call Taker: Emergency responders will be able to access a URI and find out specific details about a building; i.e., electrical boxes, ingress/egress data, alarms, location of stairs, etc,			

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3.3 Additional Data Associated with a Caller

Data associated with a caller is provided in an xml data structure retrieved from a web service. The call may include a header containing the URI for the data associated with the caller. The web service may be operated by the carrier, or it may be operated by an independent service provider, who would offer a URI for the data associated with the caller to every carrier the caller uses. The URI would be part of the Home Subscriber Server (HSS or equivalent user profile). The entity operating the domain MUST construct the URI to maintain the privacy of the caller. The entity may provide each carrier, if the caller has more than one carrier, with a different URI, any of which would return the same data. The caller-data URI MUST be provided automatically on emergency calls. There may be multiple URI/urls and each will lead to one or more instances of the XML data elements defined below.

If the url is used to retrieve the data subsequent to the call, the data may have changed; therefore, if this data must be kept, it must be retrieved while the call is in progress and stored by the PSAP.

NENA will need to coordinate with electronic medical records providers or developers such as Healthcare Information and Management Society http://www.himss.org, MEDNET World http://mednetworld.com, TeleMedic http://www.telemedicsystems.com, National Institute of Health http://www.nih.gov, COMCARE http://www.comcare.org, and others all have great information that may be useful to EMS or Trauma Centers.

As the working group completes interface arrangements with different entities, this document will be updated to reflect that information.

Additional Data Associated with a Caller

Data Element	Use	XML Tag	Description
Caller vCARD	Optional	<CallerContact>	A properly completed vCARD will contain information including the following: Full Name, Address (postal), State, zip code, Birthday, Photo, Telephone numbers (work, cell, home, FAX), e-mail address, longitude and latitude (of home?), Title, Role, Logo, and will contain Content-Language (i.e. EN or FR).
			There are many fields in the vCARD. The creator of the data structure is encouraged to provide as much information as they have available. A minimum of subscriber name, address and contact telephone numbers should be provided.

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			Footnote: If allowed by law, providers must send subscriber name and address regardless of published or non-published telephone number indicator.
			vCARD version 3 is defined in two parts:
			o RFC 2425, MIME Content-Type for Directory Information http://www.ietf.org/rfc/rfc2425.txt
			RFC 2426, vCARD MIME Directory Profile http://www.ietf.org/rfc/rfc2426.txt

Reason for Need: To provide contact information for every potential caller at subscriber address.

How Used by Call Taker: To provide contact information specific to the caller

| Ancillary Data URI | Required | <AncillaryDataURI> | This will be a URI where additional ancillary data is available. The data may include medical data (blood pressure monitor, pacemaker). This data must be in XML format. |

Reason for Need: To determine special needs of caller (disability) to for use when caller requires medical transport to hospital

How Used by Call Taker: To ascertain whether special equipment is necessary for dispatched emergency service provider

| Emergency Contact vCARD | Optional | <EmergContact> | Caller's emergency contact information. Relationship will be an attribute of the emergency contact's vCARD, |
| | | | Note: Version 2 will add instructions on how to identify ICE (In Case of Emergency) |

Reason for Need: To be used when caller requires medical transport to hospital or next of kin needs to be notified.

How Used by Call Taker: Name used when call taker attempts to contact Emergency Contact

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3.4 Additional Data associated with a PSAP

When a PSAP handles a call it develops information about the call, which must be passed to subsequent PSAPs, dispatchers and/or responders. This structure or a reference to it will be passed with a transferred call or as part of a CAD interface.

Additional Data Associated with a PSAP

Data Element	Use	XML Tag	Description
Incident Location	Required	<IncidentLocation>	This element reflects the location of the incident as ascertained by the calltaker and could be a copy of the caller or initially provided location. Provided as Location by Reference or Location by Value. NOTE: Content in direct (CID) – SIP location conveyance document.
Reason for Need: This information will be essential to responders when trying to locate a specific incident not at the same location as the caller.			
How Used by Call Taker: The calltaker will be adding the incident location if it is different from the caller location.			
Incident Identifier	Required	<IncidentIdentifier>	An identifier assigned by the first PSAP which declares an incident. The form of an Incident Identifier is a URI GUID. Incident Identifiers are globally unique. Refer to NENA 08-002. This is a value created by some mechanism within the ESInet that is unique to a specific incident and is only valid for that incident. This value must be capable of being overridden to allow a calltaker to enter a specific incident identifier.
Reason for Need: To associate repeat calls about the same incident. For coordinating the response. For tracking, logging and reporting on each type of incident. May be used by crime analysis tracking			

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			system.
How Used by Call Taker: May use to associate repeat calls; i.e., wireless calls reporting same incident, domestic violence, repeat callers, hang-up calls, etc.			
Call Identifier	Required	<CallIdentifer>	An identifier assigned by the first element in the first ESInet which handles a call. The form of a Call Identifier is a Globally Unique Identifier (GUID). Call Identifiers are globally unique. This is a value automatically created by the ESInet that is unique to a specific call and is only valid for that call.
Reason for Need: This differentiates each call from all other calls. Used for logging and record keeping. May be able to track down any issues that occurred with a specific call.			
How Used by Call Taker: May use to associate any data about that specific call and to track what occurred on that call to this unique call identifier.			
Agency Identifier	Required	<AgencyIdentifier>	A agency has an identifier (URI) which is globally unique. Each type of agency must provide a method for assigning identifiers (and public key credentials) to an agency.
Reason for Need: This differentiates each agency from all others. Used for logging and record keeping. May be able to track down any issues that occurred with a specific call or agency.			
How Used by Call Taker: Probably not used by calltaker, but could be critical in post-mortem resolution of issues.			
Agent Identifier	Required	<AgentIdentifier>	Each agent has an identifier which is globally unique. Each agency must provide a method for assigning identifiers (and public key credentials) to an agent.
Reason for Need: This differentiates each agent (calltaker, responder, hospital, etc.) from all others. Used for logging and record keeping. May be able to track down any issues that occurred with a specific call or agent.			
How Used by Call Taker: Probably not used by initial calltaker, but may be used by secondary PSAPs or subsequent responders. Could be critical in post-mortem resolution of issues.			

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All Receiving Agencies	Required	<AllReceivingAgencies>	This entry is populated by the originating agency by listing each agency the call is sent to.
Reason for Need: This will indicate all agencies that handled the call.			
How Used by Call Taker: This is the id of the receiving agency and may be used for follow-up about call or post-mortem resolution.			
Calltaker Notes	Optional	<CalltakerNotes>	This will reflect all additional notes gathered by the calltaker during the initial contact with the 9-1-1 caller. Any additional notes on location that result from verification or validation of address or correcting the address (such as the case when a daughter calls 9-1-1 to report her mother is having chest pains who lives three states away).
Reason for Need: Data to be used by responders and other agencies as needed.			
How Used by Call Taker: Used to capture additional information verbally obtained from the caller.			
Reason for Transfer	Required	<ReasonForTransfer>	Reason the call was being transferred to a different PSAP/agency (such as the case when a daughter calls 9-1-1 to report her mother is having chest pains who lives three states away)., for example, misrouted, dispatched to fire, etc.
Reason for Need: Tracking of all transfer points during an active 9-1-1 call.			
How Used by Call Taker: Tracking of all transfer points during an active 9-1-1 call.			
Disposition Code	Required	<Disposition Code>	Follow the NIEM standard which is to use full English description and not codes.
Reason for Need: Management and historical tracking.			
How Used by Call Taker: Management and historical tracking.			

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Free Text	O	<FreeText>	This will allow any additional information that is important to the call to be entered.
Reason for Need: Management and historical tracking.			
How Used by Call Taker: Management and historical tracking.			

4   Recommended Reading and References

NENA 02-010, NENA Standard Data Formats for ALI Data Exchange & GIS Mapping, Version 8.1, January 8, 2008

NENA 08-002, Functional and Interface Standards for Next Generation 9-1-1 (i3), Version 1.0, December 18, 2007

NENA 08-XXX, Detailed Functional and Interface Standards for Next Generation 9-1-1 Version 1.0, (i3)

NENA 08-751, Technical Requirements Document i3 (Long Term Definition), Issue 1, September 28, 2006

5   Exhibits

Currently N/A

6   Previous Acknowledgments

N/A – New Technical Standard Document

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