COMMONWEALTH OF VIRGINIA

Information Technology Resource Management (ITRM)

PUBLIC SAFETY ANSWERING POINT (PSAP) AND EMERGENCY SERVICE BOUNDARIES GEOSPATIAL DATA STANDARD

VIRGINIA INFORMATION TECHNOLOGIES AGENCY (VITA)

VIRGINIA GEOGRAPHIC INFORMATION NETWORK (VGIN)

Reviews

- Agency and or peer review was provided for agencies and other interested parties via series of Internet based forum of local and state government technologists.

Publication Version Control

Questions related to this publication should be directed to EA@vita.virginia.gov

This following table contains a history of revisions to this publication.

Version	Date	Revision Description
0.0	09/21/2017	Original standard

Identifying Changes in This Document

- See the latest entry in the revision table above.
- Vertical lines in the left margin indicate the paragraph has changes or additions. Specific changes in wording are noted using italics and underlines; with italics only indicating new/added language and italics that are underlined indicating language that has changed.

The following examples demonstrate how the reader may identify requirement and recommend practice updates and changes:

EXA-R-01 **Example with No Change –** The text is the same. The text is the same. The text is the same.

EXA-R-02 **Example with Revision –** The text is the same. *A wording change, update or clarification is made in this text.*

EXA-R-03 ***Example of New Text –*** *This language is new.*

~~**EXA-R-04** **Technology Standard Example of Deleted Standard –** This standard was rescinded on mm/dd/yyyy.~~

Preface

Publication Designation
PSAP and Emergency Service Boundaries Geospatial Data Standard (OTH 705-00)

Subject
Emergency Service Boundaries

Effective Date
09/21/2017

Compliance Date
09/21/2017

Supersedes
N/A

Scheduled Review:
This standard shall be reviewed on an annual basis.

Authority
Code of Virginia, §2.2-225 (Powers and duties of the Secretary of Technology (SoTech)

Code of Virginia, §2.2-2007 (Powers of the CIO)

Code of Virginia, §2.2-2027, (Powers and Duties of the Virginia Geographic Information Network Division)

Code of Virginia, §2.2-2031, (Powers and Duties of the Public Safety Communications Division)

Code of Virginia, §56-484.14, (Powers and Duties of the 9-1-1 Services Board)

Scope
This standard is applicable to all Executive Branch state agencies and institutions of higher education (hereinafter collectively referred to as "agencies") that are responsible for the management, development, purchase and use of information technology resources in the Commonwealth of Virginia. This standard does not apply to research projects, research initiatives or instructional programs at public institutions of higher education.

Purpose
This standard establishes direction and technical requirements which govern the acquisition, use and management of information technology resources by executive branch agencies.

Chief Information Officer of the Commonwealth (CIO)
Develops and approves statewide technical and data policies, standards and guidelines for information technology and related systems.

Virginia Information Technologies Agency (VITA)
At the direction of the CIO, VITA leads efforts that draft, review and update technical and data policies, standards, and guidelines for information technology and related systems. VITA uses requirements in IT technical and data related policies and standards when establishing contracts; reviewing procurement requests, agency IT projects, budget requests and strategic plans; and when developing and managing IT related services.

Information Technology Advisory Council (ITAC)
Advises the CIO and Secretary of Technology on the development, adoption and update of statewide technical and data policies, standards and guidelines for information technology and related systems.

Executive Branch Agencies
Provide input and review during the development, adoption and update of statewide technical and data policies, standards and guidelines for information technology and related systems. Comply with the requirements established by COV policies and standards. Apply for exceptions to requirements and standards when necessary.

Related ITRM Policies, Standards, and Guidelines
Current version of ITRM Standard:

GIS Data Standards, 3/14/2015 (VITA-VGIN)
VGIN Administrative Boundary Data Standard (OTH 702-00) (09/01/2015)

Road Centerline Data Standard (OTH 703-00) (03/22/2016)
Virginia Address Point Data Standard (OTH 704-00) (09/21/2017)

Table of Contents

1. Background

The Virginia Information Technologies Agency (VITA) and the VITA Integrated Services Program (VITA-ISP), including the Virginia Geographic Information Network (VGIN) Division, and Public Safety Communications (PSC) Division have produced this document to provide guidance for the development and maintenance of statewide Emergency Service Boundary datasets. The creation of the datasets mentioned in this standard are a necessary foundation to support Next Generation 9-1-1 (NG9-1-1) technologies which utilize GIS-based call routing.

NG9-1-1 is an Internet Protocol (IP) based system comprised of managed Emergency Services IP networks (ESInets), functional elements (applications), and databases that replicate traditional E9-1-1 features and functions and provides additional capabilities. NG9-1-1 is designed to provide access to emergency services from all connected communications sources, and provide multimedia data capabilities to Public Safety Answering Points (PSAPs) and other emergency service organizations (www.nena.org/resource/resmgr/ng9-1-1_project/whatisng911.pdf).

The National Emergency Number Association (NENA) specializes in standardizing data to be used in public safety systems for the purpose of emergency response. The NENA DRAFT NG9-1-1 GIS Data Model is a NENA standard (NENA-STA-006 DRAFT) and was used as the authoritative basis for this document. STA-006 states that Public Safety Answering Point boundaries (hereafter referred to as PSAP boundaries) and Emergency Service Boundaries for fire, EMS and police/law enforcement response areas are a required for use by NG9-1-1 systems.

While this document closely includes the required components of NENA-STA-006, it also includes some additional fields that will be helpful in coordinating a migration from current 9-1-1. These additional fields will support PSAPs as they plan and implement deployment of NG9-1-1 technologies.

2. Purpose and Scope

The Public Safety Answering Point (PSAP) and Emergency Service Boundary Geospatial Data Standard implements, as a Commonwealth ITRM Standard, the data file naming conventions, coordinate systems, geometry, attributes, dataset type and specifications for the dataset depicting PSAP and other emergency service boundaries in Virginia. The standard is applicable to commonwealth local governments and state agencies and serves as the data source of record at the state level for PSAP boundary spatial features within the Commonwealth of Virginia. This layer depicts the polygons and related attribute information that defines the geographic areas of PSAP and emergency service boundaries within the Commonwealth of Virginia.

PSAP Boundaries - Each PSAP Boundary defines the geographic area of a PSAP that has primary responsibilities for an emergency request. A geographic location can only have one designated PSAP. This layer is a required layer in the NENA NG9-1-1 GIS Data Model and will be used by the NG9-1-1 Emergency Call Routing Function (ECRF) to perform a geographic query to determine to which PSAP an emergency request is routed. An emergency request is routed using the NG9-1-1 Core Services based upon the geographic location of the request (a point), and the PSAP boundary polygon in which the point is located.

Emergency Service Boundaries – Each emergency service boundary defines the geographic area of responsibility of an emergency service agency (fire, EMS, law enforcement). This information is used today by Computer Aided Dispatch (CAD) systems within PSAPs to correctly identify the primary response agencies. This same data may be used within NG9-1-1 systems to support “selective transfer” functionality when the call needs to be transferred to another agency. Currently, this layer is required by the NENA NG9-1-1 GIS Data Model.

The Virginia Geographic Information Network (VGIN) is coordinating the development and maintenance of the statewide PSAP and Emergency Service boundary datasets in conjunction with local governments across the Commonwealth in order to create a seamless georeferenced database accessible feature class containing these boundaries.

3. Developing PSAP and Emergency Service Boundaries

While PSAP boundaries can be aggregated from locality GIS and related 9-1-1 datasets, most localities do not have a dedicated PSAP boundary. In many cases, the boundary can be approximated by the boundary depicted in the Virginia Administrative Boundary dataset (OTH-702-00). However, there are locations where adjacent PSAPs in Virginia have adjusted their shared PSAP boundaries in order to facilitate 9-1-1 call processing and emergency response. When developing the PSAP boundary dataset, it will be important to take into account both of these scenarios.

However, most localities have emergency service boundary datasets depicting fire, ems and law enforcement response areas. These boundaries are typically used by CAD systems within the PSAP. The statewide boundary dataset can make use of these existing local response agency service boundaries.

3.1. PSAP Boundary Dataset Publication Format

File and Feature Naming Conventions

Dataset Published Title (Release in YYYY Format)	"Virginia NG9-1-1 Service Boundary Dataset YYYYMM"
Dataset Type	ESRI-compatible File Geodatabase
Feature Geodatabase File Name	"VA_NG911_SERVICE_BOUNDARY_POLYGONS"
Geodatabase Feature Classes	"VA_PSAPS" – Contains NG9-1-1 compliant geometry and attribute information for PSAPs in Virginia "VA_RESPONSE_AGENCY_POLICE" – Contains NG9-1-1 compliant geometry and attribute information for police response agencies in Virginia "VA_RESPONSE_AGENCY_FIRE" – Contains NG9-1-1 compliant geometry and attribute information for fire response agencies in Virginia "VA_RESPONSE_AGENCY_EMS" – Contains NG9-1-1 compliant geometry and attribute information for EMS response agencies in Virginia

Coordinate Systems and Geometry

Projected Coordinate System	Lambert Conformal Conic Virginia
Geographic Coordinate System	GCS North American 1983
Geometry Type	ESRI Polygon

3.2. Dataset Schema

NENA-STA-006 defines the required data schema for PSAP and emergency service boundaries used for NG9-1-1. As a result, all fields from the NENA standard are also included in this document. Additional preliminary work from NENA has identified that the fields from the schema can be broken into two categories. The first category includes fields from the schema that can be populated by 9-1-1 authorities and states as they prepare for NG9-1-1 (prior to working with their NG9-1-1 Service Provider). The second category includes the remaining fields that will require coordination with and assistance from the NG9-1-1 Service Provider once that service provider is selected.
Please note that the Mandatory/Optional column in the table below refers to the requirements of the NENA NG9-1-1 GIS Data Model. All fields below from the NENA GIS Data Model have been included in this data standard.

PSAP Boundary Data Schema

Descriptive Name	Field Name	Mandatory / Optional	Type	Field Width	Source of Attribution
Source of Data	Source	Mandatory	Alphanumeric	75	Local/State
Date Updated	DateUpdate	Mandatory	Date	20	Local/State
Display Name	DsplayName	Mandatory	Alphanumeric	60	Local/State
State	State	Mandatory	Alphanumeric	2	Local/State
Effective Date	Effective	Optional	Date	20	Local/State
Expiration Date	Expire	Optional	Date	20	Local/State
Service URN	ServiceURN	Mandatory	Alphanumeric	50	Local/State
Service Number	ServiceNum	Optional	Alphanumeric	15	Local/State
Emergency Service Boundary NENA	ES_NGUID	Mandatory	Alphanumeric	100	NG9-1-1 Service Provider
Agency ID	Agency_ID	Mandatory	Alphanumeric	100	NG9-1-1 Service Provider
Service URI	ServiceURI	Mandatory	Alphanumeric	254	NG9-1-1 Service Provider
Agency vCard URI	AVcard_URI	Mandatory	Alphanumeric	254	NG9-1-1 Service Provider
FCC PSAP ID	FCCID_PSAP	Mandatory VA Standard	Integer	4	Local/State

Emergency Service Boundary Data Schema

Descriptive Name	Field Name	Mandatory / Optional	Type	Field Width	Source of Attribution
Source of Data	Source	Mandatory	Alphanumeric	75	Local/State
Date Updated	DateUpdate	Mandatory	Date	20	Local/State
Display Name	DsplayName	Mandatory	Alphanumeric	60	Local/State
State	State	Mandatory	Alphanumeric	2	Local/State
Effective Date	Effective	Optional	Date	20	Local/State
Expiration Date	Expire	Optional	Date	20	Local/State
Service URN	ServiceURN	Mandatory	Alphanumeric	50	Local/State
Service Number	ServiceNum	Optional	Alphanumeric	15	Local/State
Emergency Service Boundary NENA	ES_NGUID	Mandatory	Alphanumeric	100	NG9-1-1 Service Provider
Agency ID	Agency_ID	Mandatory	Alphanumeric	100	NG9-1-1 Service Provider
Service URI	ServiceURI	Mandatory	Alphanumeric	254	NG9-1-1 Service Provider
Agency vCard URI	AVcard_URI	Mandatory	Alphanumeric	254	NG9-1-1 Service Provider

3.3. Field Descriptions, Definitions and Domains

Note: With the exception of FCC PSAP ID, all other fields were taken from the December 2016 draft of the NENA NG9-1-1 GIS Data Model.

Source of Data

Description: Agency that last updated the record, usually the name of the 9-1-1 Authority. This MAY be represented by the domain name of the agency.
Domain: None
Example: New River Valley, Eastern Shore

Date Updated

Description: The UTC date and time that the record was created or last modified. This value SHOULD be populated upon modifications to attributes, geometry or both.
Domain: Restricted to ISO 8601 compliant values in Coordinated Universal Time (UTC). Values are not allowed to be in the future.
Example: 2017-04-26T18:31:29-04 (representing a record updated on April 26, 2017 at 2:31 and 29 seconds PM US Eastern Daylight Time)

Display Name

Description: A description or "name" of the service provider that offers services within the area of a PSAP or an Emergency Service Boundary. This value MUST be suitable for display to human users.
Domain: None
Example: New York Police Department; Med-Life Ambulance Services

State

Description: The name of a state or state equivalent, represented by the two-letter abbreviation given in USPS Publication 28 [12], Appendix B.
Domain: ISO 3166-2 includes the same abbreviations as USPS Publication 28, Appendix B, with the exception of the additional one for the nine minor uninhabited islands owned by the US: These abbreviations are also freely available at https://www.census.gov/geo/reference/ansi_statetables.html
Example: VA; DC; KY; MD; NC; TN; WV

Emergency Service Boundary NENA Globally Unique ID

Description: The NENA globally unique ID for each Emergency Service Boundary and PSAP Boundary. Each record in the Emergency Service Boundary layer and the PSAP Boundary layer must have a globally unique ID. When coalescing data from other local 9-1-1 Authorities into the ECRF and LVF, this unique ID MUST continue to have only one occurrence. One way to accomplish this is to append the 9-1-1 Authority's domain to the end of the internally calculated feature ID. Emergency Service Boundary data is unique in that the data fields and their attributes are only a template to be reused for each Emergency Service Boundary. For the Emergency Service Boundary there may be a separate dataset for Law, Fire, and EMS, and other Emergency Services such as Poison Control, Forest Service, Coast Guard, and potentially many others.
Domain: None
Example: It is suggested that the Emergency Service Boundary NENA Globally Unique ID start with the type of emergency service (e.g. EMS, LAW, FIRE, PSAP).

- Feature ID 243 in the EMS Emergency Service Boundary layer would be represented as EMS243@911Authority_domain.state.us

- Feature ID 44 in the Law Emergency Service Boundary layer would be represented as LAW44@911Authority_domain.state.us
- Feature ID 18 in the Fire Emergency Service Boundary layer would be represented as FIRE18@911Authority_domain.state.us
- Feature ID 7 in the PSAP Boundary layer would be represented as PSAP7@911Authority_domain.state.us

NOTE: When an Emergency Service Boundary or PSAP Boundary crosses into one or more states, the Emergency Service Boundary SHOULD be split at the State boundary or State equivalent with the State and the Emergency Service Boundary NENA Globally Unique ID being the only difference in the attributes.

Agency ID

Description: A Domain Name System (DNS) domain name which is used to uniquely identify the agency represented by the boundary.
Domain: MUST be a registered DNS domain name. See NENA Registry System at: https://www.nena.org/?nena_registry_system
Example: psap.harriscounty.tx.us

Service URI

Description: URI for call routing. This attribute is contained in the Emergency Service Boundary layer and will define the Service URI of the service. The URI is usually a Session Initiation Protocol (e.g. SIP or SIPs) URI but MAY be a telephone number (e.g. tel) URI that defines the route to reach the service.
Domain: Registered domain name; RFC 1035 (available at (https://www.ietf.org/rfc/rfc1035.txt) defines the process to register a domain name.
Example: sips:sos.psap@eoc.houston.tx.us; tel:+12025551212

Service URN

Description: The URN used to select the service for which a route is desired. The ECRF is queried with a location and a service URN that returns the Service URI.
Domain: RFC 5031 defines the Service URN, NENA-STA-010 defines the domain of allowable values
Example: urn:nena:service:sos.psap is the URN used for PSAP service boundaries

NOTE: As defined by the NENA standards, PSAP and emergency service boundaries shall be populated with the following values in the in the ServiceURN field:

- PSAP – “urn:nena:service:sos.psap”
- police – “urn:nena:service:responder.police”
- fire – “urn:nena:service:responder.fire”
- ems – “urn:nena:service:responder.ems”

Agency vCard URI

Description: The vCard is a file format standard for electronic business cards. The Agency vCard URI is the internet address of an XML data structure which contains contact information (Name of Agency, Contact phone numbers, etc.) in the form of a vCard (RFC 6350).
Domain: None
Example: http://tools.ietf.org/html/rfc6350

Effective Date

Description: The UTC date and time that the record is scheduled to take effect.
Domain: Timestamp as defined in NENA-STA-010 that in turn conforms to W3C dateTime.

Example: 2010-10-09T13:01:35-04 (representing a record that will become active on October 9, 2010 at 9:01 and 35 seconds AM US Eastern Daylight Time)
NOTE: This field is used when time and date of a change is known. For example, the time and date an annexation or PSAP consolidation takes effect.

Expiration Date

Description: Date when the information in the record is no longer considered valid.
Domain: TimeStamp as defined in NENA-STA-010 that in turn conforms to W3C dateTime.
Example: 2010-10-09T13:01:35-04 (representing a record will expire and no longer be valid on October 9, 2010 at 9:01 and 35 seconds AM US Eastern Daylight Time)
NOTE: This field is used when time and date of a change is known. For example, the time and date an annexation or PSAP consolidation takes effect and the previous boundary is retired.

Service Number

Description: The numbers that would be dialed on a 12-digit keypad to reach the emergency service appropriate for the location. This is not the same as an Emergency Service Number (ESN) in Legacy E9-1-1 systems.
Domain: A dialable number or dial string
Example: 911

FCC PSAP ID

Description: The unique ID assigned to a primary PSAP by the Federal Communications Commission (FCC).
Domain: A listing of active FCC ID values is available from the FCC website at https://www.fcc.gov/general/9-1-1-master-psap-registry. Please note that this listing includes other PSAPS, so only Primary PSAPs will be included in the PSAP Boundaries dataset.
Example: 7160 (refers to Lynchburg), 7103 (refers to Chesterfield), 7144 (refers to Harrisonburg-Rockingham)

3.4. Creating a Preliminary PSAP Boundary Dataset

In legacy 9-1-1 systems, an emergency call for service with a civic address is associated with the Master Street Address Guide (MSAG). The MSAG is a tabular dataset that is maintained and coordinated by the 9-1-1 service provider and the PSAP. As PSAPs prepare for NG9-1-1, it will be necessary to transition from the tabular MSAG to a geospatial dataset that depicts the boundaries of each PSAP. Additionally, as a part of the 2016 VITA-ISP statewide MSAG/ALI/GIS analysis, a draft polygon dataset was created that depicts the following attributes:

- MSAG Community
- Emergency Service Number (ESN)
- County or County Equivalent (Counties and Independent Cities)

The ESN values depicted in this dataset can be correlated to an individual PSAP and are helpful in creating a PSAP Boundary dataset. Since this dataset also contains a field for County/County Equivalent, it will be possible to identify the locations where the PSAP Boundary may not follow a locality boundary, or where the current extent of a PSAP (as depicted in the MSAG) may need to get updated to depict the proper extent of the PSAP.

Additionally, the related VITA Address Point Geospatial Data Standard (OTH-705-00) includes a field for PSAP. This enables the statewide address point dataset to be used to assist in visualization of PSAP boundaries, and it may be helpful in this process.

3.5. Refining PSAP and Emergency Service Boundaries

The draft dataset described in section 2.4 will be used to facilitate discussion between neighboring PSAPs to determine the proper depiction of their shared PSAP boundary. In some cases this may require coordination with a neighboring PSAP in an adjacent state. The process of PSAP boundary refinement will not be described in great detail within this document, but will be a separate process facilitated by VITA-ISP in coordination with PSAPs and GIS offices across the Commonwealth.

It is strongly recommended that VITA-ISP, PSAPs and GIS offices make every effort to coordinate all related GIS data layers (PSAP boundaries, Emergency Service Boundaries, Address Points, Road Centerlines, Administrative Boundaries). While that process is not currently defined within this standard, coordination between the datasets are currently essential to effective 9-1-1 call processing today and will be a requirement to ensure proper call routing and processing in the NG9-1-1 environment.

4. Metadata

VA_PSAPS

File Geodatabase Feature Class

Summary

The seamless Public Safety Answering Point (PSAP) Boundary base layer is critical to the effective and efficient coordination and delivery of 9-1-1 services and Next Generation 9-1-1 (NG9-1-1) services and is a critical component in the development of spatial data guidelines and standards, supporting the cost-effective sharing of GIS data and expertise across the Commonwealth.

Description

The Virginia Geographic Information Network (VGIN) coordinates and manages the development of a consistent, seamless, statewide digital PSAP Boundary file that contains PSAP Name, service area, update date and many other components. The NG9-1-1 GIS Data Plan leverages the Commonwealth's investment in the VBMP digital Orthophotography, statewide address points and statewide road centerlines datasets and is focused on creating a single statewide, consistent digital PSAP boundary polygon file. The PSAP Boundary polygon data layer is a dynamic dataset supported and maintained by Virginia's PSAPs and VGIN. Updates will be published at least twice a year, at the same time as other statewide datasets.

Credits

VITA, VGIN, Virginia Localities

Use Limitations

This dataset is developed and maintained by the Virginia Geographic Information Network (VGIN) in order to facilitate and support NG9-1-1 deployment planning. While every effort has been made to support the current versions of standards from the National Emergency Number Association (NENA), use of this dataset specifically for NG9-1-1 purposes should be coordinated with the appropriate NG9-1-1 Service Provider. Additionally, portions of this dataset may be exempt from disclosure under the Virginia Freedom of Information Act (FOIA).

Extent

West -83.837899 **East** -75.722738
North 39.471582 **South** 36.524413

Scale Range

Maximum (zoomed in) 1:5,000
Minimum (zoomed out) 1:150,000,000

VA_RESPONSE_AGENCY_POLICE

File Geodatabase Feature Class

Summary

The statewide seamless Police Response Agency is critical to the effective and efficient coordination and delivery of 9-1-1 services and Next Generation 9-1-1 (NG9-1-1) services and is a critical component in the development of spatial data guidelines and standards, supporting the cost-effective sharing of GIS data and expertise across the Commonwealth. For Virginia, this is the primary responding law enforcement agency for a given area (typically a police department or sheriff's office).

Description

The Virginia Geographic Information Network (VGIN) coordinates and manages the development of a consistent, seamless, statewide digital Police Response Agency Service Boundary file that contains Emergency Service Agency Name, service area, update date and many other components. The NG9-1-1 GIS Data Plan leverages the Commonwealth's investment in the VBMP digital Orthophotography, statewide address points and statewide road centerlines datasets and is focused on creating statewide geospatial datasets that support 9-1-1 and NG9-1-1. The Police Response Agency Boundary polygon data layer is a dynamic dataset supported and maintained by Virginia's localities and VGIN. Updates will be published at least twice a year, at the same time as other statewide datasets.

This datasets does NOT depict where law enforcement agencies have jurisdiction. That is defined by the Code of Virginia and applicable law. There may be instances where law enforcement agencies have jurisdiction beyond the areas depicted in this dataset, however this dataset is designed to show the best available data depicting law enforcement agency service areas.

Credits

VITA, VGIN, Virginia Localities

Use Limitations

This dataset is developed and maintained by the Virginia Geographic Information Network (VGIN) in order to facilitate and support NG9-1-1 deployment planning. While every effort has been made to support the current versions of standards from the National Emergency Number Association (NENA), use of this dataset specifically for NG9-1-1 purposes should be coordinated with the appropriate NG9-1-1 Service Provider. Additionally, portions of this dataset may be exempt from disclosure under the Virginia Freedom of Information Act (FOIA).

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Scale Range

Maximum (zoomed in) 1:5,000
Minimum (zoomed out) 1:150,000,000

VA_RESPONSE_AGENCY_FIRE

File Geodatabase Feature Class

Summary

The statewide seamless Fire Response Agency is critical to the effective and efficient coordination and delivery of 9-1-1 services and Next Generation 9-1-1 (NG9-1-1) services and is a critical component in the development of spatial data guidelines and standards, supporting the cost-effective sharing of GIS data and expertise across the Commonwealth.

Description

The Virginia Geographic Information Network (VGIN) coordinates and manages the development of a consistent, seamless, statewide digital Fire Response Agency Service Boundary file that contains Emergency Service Agency Name, service area, update date and many other components. The NG9-1-1 GIS Data Plan leverages the Commonwealth's investment in the VBMP digital Orthophotography, statewide address points and statewide road centerlines datasets and is focused on creating statewide geospatial datasets that support 9-1-1 and NG9-1-1. The Fire Response Agency Boundary polygon data layer is a dynamic dataset supported and maintained by Virginia's localities and VGIN. Updates will be published at least twice a year, at the same time as other statewide datasets.

Credits

VITA, VGIN, Virginia Localities

Use Limitations

This dataset is developed and maintained by the Virginia Geographic Information Network (VGIN) in order to facilitate and support NG9-1-1 deployment planning. While every effort has been made to support the current versions of standards from the National Emergency Number Association (NENA), use of this dataset specifically for NG9-1-1 purposes should be coordinated with the appropriate NG9-1-1 Service Provider. Additionally, portions of this dataset may be exempt from disclosure under the Virginia Freedom of Information Act (FOIA).

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Scale Range

Maximum (zoomed in) 1:5,000
Minimum (zoomed out) 1:150,000,000

VA_RESPONSE_AGENCY_EMS

File Geodatabase Feature Class

Summary

The statewide seamless EMS Response Agency is critical to the effective and efficient coordination and delivery of 9-1-1 services and Next Generation 9-1-1 (NG9-1-1) services and is a critical component in the development of spatial data guidelines and standards, supporting the cost-effective sharing of GIS data and expertise across the Commonwealth.

Description

The Virginia Geographic Information Network (VGIN) coordinates and manages the development of a consistent, seamless, statewide digital Emergency Medical Services Response Agency Service Boundary file that contains Emergency Service Agency Name, service area, update date and many other components. The NG9-1-1 GIS Data Plan leverages the Commonwealth's investment in the VBMP digital Orthophotography, statewide address points and statewide road centerlines datasets and is focused on creating statewide geospatial datasets that support 9-1-1 and NG9-1-1. The EMS Response Agency Boundary polygon data layer is a dynamic dataset supported and maintained by Virginia's localities and VGIN. Updates will be published at least twice a year, at the same time as other statewide datasets.

Credits

VITA, VGIN, Virginia Localities

Use Limitations

This dataset is developed and maintained by the Virginia Geographic Information Network (VGIN) in order to facilitate and support NG9-1-1 deployment planning. While every effort has been made to support the current versions of standards from the National Emergency Number Association (NENA), use of this dataset specifically for NG9-1-1 purposes should be coordinated with the appropriate NG9-1-1 Service Provider. Additionally, portions of this dataset may be exempt from disclosure under the Virginia Freedom of Information Act (FOIA).

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Scale Range

Maximum (zoomed in) 1:5,000
Minimum (zoomed out) 1:150,000,000

5. References

1) VITA OTH 702-00 – VGIN Administrative Boundary Geospatial Data Standard

https://www.vita.virginia.gov/uploadedFiles/VITA_Main_Public/Library/PSGs/VGINAdministrativeBoundaryDataStandardOTH70200.pdf

2) VITA OTH 703-00 – Virginia Road Centerline Geospatial Data Standard

https://www.vita.virginia.gov/uploadedFiles/VITA_Main_Public/Library/PSGs/VirginiaRCLDataStandardOTH70300.pdf

3) VITA OTH ###-## – Virginia Address Points Geospatial Data Standard (DRAFT)

https://www.vita.virginia.gov/uploadedFiles/VITA_Main_Public/ISP/VGIN/Address_Points/2016-11-14_Virginia_Address_Points_Standard_draft.pdf

4) NENA-STA-005 - NENA Standards for the Provisioning and Maintenance of GIS data to ECRF and LVFs

https://www.nena.org/resource/resmgr/standards/NENA-STA-005_ECRF-LVF_STA_Ex.pdf

5) NENA-STA-006 (DRAFT) - NG9-1-1 GIS Data Model (First Public Review)

https://dev.nena.org/kws/public/download/9828/20161206_NG9-1-1%20GIS%20Data%20Model_PubRvw.pdf

6) NENA-STA-010 - NENA Detailed Functional and Interface Standards for the NENA i3 Solution

https://www.nena.org/resource/resmgr/standards/NENA-STA-010.2_i3_Architectu.pdf

7) NENA 02-010 – NENA Standard Data Formats for 9-1-1 Data Exchange & GIS Mapping

http://c.ymcdn.com/sites/www.nena.org/resource/collection/C74A8084-E3BD-405D-93C2-48AFCFA5B490/NENA_02-010-v9_Data_Formats_for_ALI_MSAG_GIS.pdf

8) NENA 02-014 - NENA GIS Data Collection and Maintenance Standards
http://c.ymcdn.com/sites/www.nena.org/resource/collection/C74A8084-E3BD-405D-93C2-48AFCFA5B490/NENA_02-014-v1_GIS_Data_Collection_and_Maintenance.pdf
NENA 71-501 - NENA Information For Synchronizing MSAG/ALI Databases with GIS data
https://c.ymcdn.com/sites/www.nena.org/resource/collection/F2E0D66A-4824-418C-8670-3238D262B84A/NENA_71-501-v1_Synchronizing_GIS_Databases_with_MSAG_and_ALI.pdf

9) NENA Registry System - Documents acceptable domain values for NENA standards: http://technet.nena.org/nrs/registry/_registries.xml