



**Virtual USA  
National Information  
Sharing Agreement**

**V2.0**

## **Virtual USA National Information Sharing Agreement v2.0**

### **Preface to the Virtual USA National Information Sharing Agreement**

Information sharing across jurisdictional boundaries and disciplines before, during, and after emergencies and disasters remains challenging whereby professionals rely on their trusted, established relationships as their primary source for useful information sharing. This was the impetus for the Department of Homeland Security's Science and Technology Directorate's First Responders Group (DHS S&T FRG) to develop the Virtual USA (vUSA) program.

vUSA is a collaborative effort among DHS S&T, other DHS entities, the National Information Sharing Consortium (NISC) and Federal, Tribal, State and Local Government, and Non-Governmental and private organizations involved in emergency management. This ability to share information strengthens the emergency management community's understanding of a situation allowing better decisions to be made based on more complete information. The vUSA approach is a blend of process and technology, helping agencies develop relationships and agreements among partners while providing the data pipeline that allows these agencies to easily share information.

The vUSA National Information Sharing Agreement v2.0 ("Agreement") is a simple and concise document that establishes the basic terms of use for using vUSA's Information-Sharing Capability (ISC), also called the Virtual Library. The vUSA-ISC is used for sharing geospatial and non-geospatial information across jurisdictional boundaries for enhanced situational awareness when responding to natural and man-made emergencies and disasters. The Agreement frames the trusted environment to share a jurisdiction's information and informs other jurisdictions that this Agreement has been approved at the highest jurisdictional levels for emergency response. In this regard, the Agreement serves to establish the "trusted relationship" among vUSA participants and that the information shared is based on the authoritative data source.

To date, many Federal and state jurisdictions have signed this Agreement (or predecessor agreements during the conduct of several regional pilots). A state's sub-jurisdictions (e.g. counties, cities, etc.) may leverage their state's signed Agreement and participate in information sharing under their home state. In these cases, the sub-jurisdictions would be given vUSA-ISC accounts and have their access administered by their state. However, if a sub-jurisdiction chooses to administer their own vUSA-ISC account then they would sign the Agreement and establish their own rules for administration and access. For example, if Nebraska signs the Agreement and creates an account, the City of Lincoln could join the Virtual USA community as a sub-jurisdiction and Nebraska would administer its account. Alternatively, the City of Lincoln could sign the Agreement itself and administer its own account. Either way, both Nebraska and the City of Lincoln would be responsible for abiding to the terms of the Agreement.

The DHS S&T FRG and the National Information Sharing Consortium (NISC) fully supports empowering first responders at all levels of government to share information across jurisdictional boundaries and removing barriers to information sharing. Included in this empowerment is the Agreement to set up a trusted environment within the vUSA-ISC to share real-time information. For more information, please visit <https://vusa.us> or e-mail [virtualusa@nisconsortium.org](mailto:virtualusa@nisconsortium.org).

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This document may be cited as the Virtual USA (vUSA) National Information Sharing Agreement (herein referred to as “Agreement”) Version 2.0

### **SECTION I – PURPOSE**

The purpose of this Agreement is to govern the nationwide access to and usage of the vUSA information sharing capability (vUSA-ISC) and to establish basic terms of use. This agreement provides a framework to govern multi-jurisdictional and multi-disciplinary information-sharing within the vUSA-ISC, regardless of the type of data, information, or imagery that is shared. Core principles of the vUSA National Information Sharing Agreement include:

- Simplicity
- Practitioner/user-driven
- Creating a trusted environment
- Creating a “culture of collaboration”
- Respecting stakeholder parity
- Respecting data owner rights; data providers maintain ownership and control of their data

These basic principles are central to the establishment of a vUSA-ISC trusted environment as required by practitioners from across the Nation and from a broad array of disciplines.

### **SECTION II – AUTHORITIES AND GENERAL IMPLEMENTATION**

All vUSA Participating Members of the vUSA-ISC trusted environment as defined in Appendix II are required to become a signatory to this Agreement as defined in section eight, including any federal, state, regional, tribal, or local governments, as well as private sector and non-governmental organizations that request access to the vUSA-ISC.<sup>1</sup> The National Information Sharing Consortium (NISC) or its designee will serve as the governance body that seeks to maintain the trusted environment and ensure Participating Members abide by the terms of use set forth in this Agreement. The data and information accessible to the vUSA-ISC will be derived from each Participating Member’s own legally maintained data sources or records systems, and the vUSA-ISC is not in any manner intended to be an official repository of original records, or to be used as a substitute for one, nor is the information in the system intended to be accorded any independent record system status. Rather, this electronic system is merely a means to provide timely access for the Participating Members to information that replicates existing files, data sources or records systems.

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<sup>1</sup> Those entities that have signed the Regional vUSA MOA, the PNW MOA, or previous versions of the vUSA National Information Sharing Agreement will be grandfathered into this Agreement.

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### SECTION III – AUTHORIZED REPRESENTATIVE RESPONSIBILITIES

The vUSA Participating Member shall, insofar as practical, acquire and develop information sharing capabilities (e.g., a centralized visualization tool, de-centralized information sharing practices, etc.) that best meet the needs of their organization and maintain reliable data sources. The Participating Member is responsible for designating an Authorized Representative who will be responsible for formulating that Participating Member's own internal policies and procedures for the administration of their membership and activities related to the vUSA-ISC.

The vUSA Participating Member may request assistance of other vUSA Participating Members by contacting them directly at any time.

The Participating Member shall notify the NISC or its designee of any change to its Authorized Representative.

### SECTION IV - INFORMATION REQUIREMENTS

Information Assurance: Each vUSA Participating Member will provide information assurance to verify, to the extent possible, that all shared data is derived from an authoritative data source. vUSA Participating Members and their users, as defined in Appendix II, shall not interfere with another vUSA Participating Member's authoritative data provider, hereinafter referred to as the Custodial Owner as defined in Appendix II, but will agree to work through the vUSA Participating Member for follow-up information. Users will share information in accordance with the vUSA-ISC architecture, which requires a minimum-level of required metadata, as well as particular file formats highlighted within Appendix I.

vUSA Participating Members will use any information or technical assistance provided by other Participating Members at their own risk.

### SECTION V – ARCHITECTURE

vUSA Participating Members will be responsible for developing the respective internal information sharing architectures within their agencies or organizations necessary to support information sharing across disparate capabilities. vUSA Participating Members will, within their respective architectures, identify and work to solve technical challenges that hinder or prevent information sharing. At a minimum, vUSA Participating Members will assist the NISC in governing the terms of use for the vUSA-ISC, how to share data files, security requirements and identity management standards for all Participating Members as outlined hereafter.

vUSA-ISC: Insofar as practical, users shall agree to share information directly with other users on the basis of the terms outlined in this Agreement and may provide access to the layers that they choose to share through the vUSA-ISC. Users can share information upon their discretion by granting access to select users through the vUSA-ISC.

Data: Users agree to use open standards and publish their data files in the data file extensions allowed by the vUSA information sharing capability.

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Security: Users will adhere to their Participating Member's security requirements and the baseline system security requirements for information to be shared across all Participating Members within vUSA once established by the NISC or its designee.

Identity Management: vUSA Participating Members will vet users through their own internal process. vUSA Participating Members will sponsor individual user participation and grant access to the vUSA-ISC according to their discretion. vUSA Participating Members may enter into agreements with other non-vUSA participating agencies or organizations (third parties) to facilitate the temporary/provisional use (ninety days) of the vUSA-ISC to support ongoing preparedness, planning or operations at the discretion of the vUSA Participating Member. In instances where a vUSA Participating Member has facilitated the use of the vUSA-ISC for another jurisdiction or private sector organization and that jurisdiction or private sector organization becomes a vUSA Participating Member, the users will be realigned as appropriate. There shall be no mandate made by a vUSA Participating Member that users of another jurisdiction or private sector organization must rely on them for access to the vUSA-ISC and cannot become a vUSA Participating Member in their own right.

### **SECTION VI - PERMISSIONS TO SHARE**

Due to the potential sensitivity of information shared relative to a multi-jurisdictional incident, users agree to adhere to information sharing permissions in accordance with each Participating Member's freedom of information laws or similar guidelines. Users must obtain the permission of the vUSA Participating Member that posted the information in the vUSA-ISC prior to sharing information with third parties as outlined in Section V. This may be performed on a case-by-case basis, or through a formal mechanism (e.g., memorandum of understanding).

### **SECTION VII - IMPLEMENTATION**

This Agreement is for the sole benefit of the Participating Member, and no third party is intended to be a beneficiary thereof or have any rights as a consequence except when being used for incident response and/or planning through a Participating Member. Any Participating Member may withdraw from this Agreement by submitting a written or e-mail request to the NISC or its designee. Vetted users permitted access by their Participating Member interested in terminating their access to the vUSA-ISC should notify their Authorized Representative of the decision to do so in order to enable the Participating Member to oversee the administration of their usage. Users who withdraw from the vUSA-ISC continue to be responsible for the provisions in this Agreement until they receive notice from their Authorized Representative that their withdrawal is effective.

The vUSA-ISC host will, in conjunction with the NISC or its designee, be responsible for the adjudication of issues ensuing from Participating Member withdrawal or a non-adherence to this agreement.

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### SECTION VIII – VALIDITY

This Agreement shall be construed to effectuate the purposes stated in Section I. If any provision of this Agreement is declared unlawful, or its applicability to any person or circumstances is held invalid, the legality of the remainder of this Agreement and its applicability to other persons and circumstances shall not be affected.

Participating Members that have established governance agreements granting them access to the vUSA-ISC prior to January 1, 2013 shall be deemed signatories of this Agreement (v2.0) and shall be subject to all of the terms of this agreement, and shall enjoy all the rights and privileges afforded by this agreement without being required to sign below. As of the date of this agreement, those Participating Members include the states of Alabama, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, Missouri, North Carolina, South Carolina, Tennessee, Virginia, and the Wal-Mart Corporation with a fully executed copy of their governance agreement on file, and the states of Idaho, Montana, Oregon, and Washington with a fully executed copy of their governance agreement on file. Additional Federal Government Participating Members include: U.S. Coast Guard, U.S. Department of Homeland Security (DHS), U.S. Department of Veterans Affairs, DHS National Protection and Programs Directorate, U.S. Department of Health and Human Services, National Guard Bureau, NORTHCOM, U.S. Forest Service, and the U.S. Geological Survey. Provisional Federal and State Government and Non-governmental Agency Participating Members as of January 1, 2013 include: Arizona, Arkansas, California, Connecticut, Illinois, Indiana, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, Ohio, Oklahoma, Rhode Island, Texas, Vermont, American Red Cross, U.S. Environmental Protection Agency, DHS Federal Emergency Management Agency, National Oceanic and Atmospheric Administration, U.S. Census Bureau, U.S. Department of the Navy, and the U.S. Treasury Department.

The signatory of this agreement shall be the authorized agent of a jurisdiction's organization, or private sector organization, having a role in the coordination and management of emergency response. Said signatory shall possess legal authority to bind the jurisdiction or private sector organization to this agreement as a Participating Member. The signatory shall appoint the Participating Member's Authorized Representative.

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**Signature**

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**Title**

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### Jurisdiction/Organization

#### Appendix I – Metadata and File Formats

Members agree to provide data layers with the metadata listed below using the following metadata guiding principles:

#### Virtual USA - Metadata Guiding Principles

1. **Do not** create a new standard or practice. Instead **utilize an existing standard or practice to the extent possible**. The Metadata standards below are a subset of the FGDC Metadata Standard which is consistent with established documentation practices in the geospatial community.
2. **Do not attempt to force compliance**. Instead accept what metadata may exist for any particular dataset and work to improve associated metadata over time
3. **Encourage utilization of adopted vUSA Metadata Standards** and practice for current and future metadata documentation. Further encourage the inclusion of an expanded set of metadata fields toward full compliance with the FGDC metadata standard over time.

#### Virtual USA - Metadata Standards

Fields	vUSA Pacific NW Pilot Metadata Standards (Aligned with FGDC Metadata Standard)	PNW Pilot – “Metadata Light”	SE ROPP – “Metadata Light”
1	Title	Required	
2	Originator	Required	<i>Originator</i>
3	Description	Required	<i>Description</i>
4	Update Frequency	Required	<i>Update Frequency</i>
5	Use Constraints	Required	
6	Contact Organization (Contact Information)	Required	<i>Data Coordinator (Point of Access)</i>
7	<i>Format *</i>	<i>Required for Virtual Library Upload</i>	
8	<i>Online Linkage (Published Access Point) *</i>	<i>Required for Virtual Library Upload</i>	<i>Published Access</i>
9	<i>Bounding Coordinates</i>	<i>Highly Desirable</i>	
10	<i>Entity Attributes</i>	<i>Highly Desirable</i>	
11	<i>Theme Keyword(s)</i>	<i>Highly Desirable</i>	

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\* **Note: Format (i.e. KML, XML, GeoRSS, REST, ATOM, etc.) and Published Access Point (Data Location – i.e. URL)** will be required metadata fields during the upload process to the Virtual Library but will not be required metadata within the dataset/file being shared.

### Virtual USA Pacific Northwest Pilot - Metadata Glossary V1.0

Fields	Metadata Fields	Metadata Field Definitions *
1	Title	The name by which the data set is known.
2	Originator	The name of an organization or individual that developed the data set.
3	Description	A characterization of the data set, including its intended use, limitations, and descriptive spatial extent of the data.
4	Update Frequency	The frequency with which changes and additions are made to the data set after the initial data set is completed.
5	Use constraints	Restrictions and legal prerequisites for using the data set after access is granted. These include any use constraints applied to assure the protection of privacy or intellectual property, and any special restrictions or limitations on using the data set.
6	Contact Organization (Contact Information)	<p>Identity of, and means to communicate with, person(s) and organization(s) associated with the data set. The information below should be provided if available and applicable.</p> <ul style="list-style-type: none"> <li>• Contact_Person_Primary</li> <li>• Contact_Organization_Primary</li> <li>• Contact_Position</li> <li>• Contact_Address</li> <li>• Contact_Voice_Telephone</li> <li>• Contact_TDD/TTY_Telephone</li> <li>• Contact_Facsimile_Telephone</li> <li>• Contact_Electronic_Mail_Address</li> <li>• Hours_of_Service</li> <li>• Contact_Instructions</li> </ul>
7	Format **	The file format(s) in which the data set is provided. For the vUSA PNW Pilot – members have agreed to provide/share data in one (1) or more of the following formats- KML, XML, KMZ, GeoRSS, REST Services, WMS, and ATOM.

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Fields	Metadata Fields	Metadata Field Definitions *
8	Online Linkage <i>(Published Access Point)</i>	The name of an online computer resource that contains the data set. Entries should follow the Uniform Resource Locator convention of the Internet.
9	Bounding Coordinates	The limits of coverage of a data set expressed by latitude and longitude values in the order western-most, eastern-most, northern-most, and southern-most.
10	Entity Attributes	Details about the information content of the data set, including the entity types, their attributes, and the domains from which attribute values may be assigned.
11	Theme Keyword(s)	Common-use word or phrase used to describe the subject of the data set.

\* *Federal Geographic Data Committee FGDC-STD-001-1998  
Content Standard for Digital Geospatial Metadata*

\*\* *Definition used in the vUSA PNW Pilot*

### FILE FORMATS

Members agree to provide/share data in one (1) or more of the following formats:

1. XML - (Extensible Markup Language) - is a set of rules for encoding documents in machine-readable form
2. KML – (formerly Keyhole Markup Language) - KML is an XML language focused on geographic visualization, including annotation of maps and images.
3. KMZ – A KMZ file consists of a main KML file and zero or more supporting files that are packaged using a Zip utility into one unit, called an archive. The KMZ file can then be stored and shared/accessed as a single entity
4. GeoRSS – Geo RSS (Really Simple Syndication) is a family of web feed formats used to publish frequently updated content (in this case - Geographically referenced content). There are currently two encodings of GeoRSS – GeoRSS Simple and GeoRSS Geography Markup Language (GML) which is an XML grammar for expressing geographical features.
5. WMS - Web Map Service Interface Standard (WMS) provides a simple HTTP interface for requesting geo-registered map images from one or more distributed geospatial databases
6. REST Services – Representational State Transfer (REST) Services Application Programming Interface (API) supports various formats, including KML, HTML, lyr (layer file), nmf (ArcGIS Explorer map file), jsapi (JavaScript), ve (Virtual Earth), and gmaps (Google Maps)
7. ATOM - The Atom Syndication Format is an XML language used for web feeds.

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**Note:** If the primary file format of the dataset is KML or KMZ, members agree to provide/share data in at least one additional alternative file format listed above. In addition, members agree to develop a common protocol/approach for providing access to data using secure and non secure http (https:// and http://) as appropriate.

### Appendix II – DEFINITIONS

<b>Term</b>	<b>Definition</b>
vUSA-ISC	The national information sharing capability iteratively developed in collaboration with practitioners; currently the Generation V Prototype.
User	Any person granted access to the vUSA-ISC by an Participating Member that is a signatory to this Agreement.
Authorized Representative	The Participating Member's designee who will be responsible for formulating the jurisdiction's own internal policies and procedures for the administration of their membership and activities related to the vUSA-ISC
Custodial Owner	A provider or owner of data or information.
Participating Member	Jurisdictions who have signed the MOA
Host	The super-administrator of the vUSA-ISC; currently the National Information Sharing Consortium (NISC) supporting by the U.S. Department of Homeland Security.
Signatory	The authorized agent of a jurisdiction's organization charged to coordinate and manage emergency response. Said signatory shall possess legal authority to bind the jurisdiction to this agreement as a Participating Member.
NISC	The NISC is an established group of practitioners dedicated to development and operation of the Virtual USA program. The NISC or designee will serve as the governance body for use of the vUSA-ISC.

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### APPENDIX III - VIRTUAL USA INFORMATION SHARING ENVIRONMENT

#### Overview

The vUSA Information-Sharing Environment (<https://vusa.us/>) enables registered partners (including state, tribal, Federal, and private sector entities) to securely share emergency-related information between geospatial viewers.

The vUSA Information-Sharing Environment is available to entities that have signed the vUSA National Information Sharing Agreement<sup>2</sup>. Organizations that are in the process of signing the National Information Sharing Agreement may participate on a provisional basis.

Participating agencies web-enable data such as evacuation status, damage reports, traffic congestion, or approaching storm intensity and make the data feeds discoverable on the vUSA Information Sharing Environment. A partner can then see and display the information in its own native information sharing environment, typically an interactive mapping application/viewer. The vUSA approach is a blend of process and technology, assisting agencies in developing relationships and agreements among partners while providing the data pipeline that allows these agencies to easily share information. The success of vUSA rests not only on improving technical capabilities, but on encouraging trusted relationships among the community at all levels.

#### Secure, Customized, and Controlled Data Sharing

Through its interactions with users, DHS S&T FRG has learned that agencies are more comfortable sharing important information when they maintain constant control over their own data. In the vUSA solution, agencies decide what information they want to post, with whom they want to share it, for how long, and in what format(s). Agencies can elect whether to share information with a select subset of system users or make the links available to all users as part of the “Common Data” library. The system further includes an alerting function, allowing agencies to announce when new information is available.

Registered users can customize their participation by configuring their catalog view (“My Library”). Notification settings allow a user to passively search and receive a notification based on user-specified criteria, such as emergency support function, geographic areas, or specified keywords. Users can adjust their individual preferences at will, allowing them to customize the dynamic vUSA solution to support and meet their needs.

Agencies are generally encouraged to share web-enabled data feeds, rather than the data itself, allowing them to maintain data ownership while ensuring that users have access to the most up to date information. vUSA has the ability to encrypt and proxy all links: i.e. the recipient does not

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<sup>2</sup> The Virtual USA Information-Sharing Environment is also open to Federal, Tribal, State and Local Governments, Non-Governmental Organizations and other participating members that have signed either the Southeast Regional Operations Platform Pilot (SE ROPP) Memoranda of Agreement (MOA), the Pacific Northwest (PNW) Pilot MOA, or previous versions of this National MOA.

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receive the true address of a shared link, but rather a masked or proxied link which is translated back to the true address when used.

### **Administration and User Access**

Once an organization has joined vUSA, it is solely responsible for signing up its own users. The vUSA Administration capability allows users designated as “Admins” to perform the management and administrative functions of their respective entities (Federal, Tribal, State, Local Government, on-Governmental, or Private Organization). Admins can:

- (1) Establish user accounts within their respective entities;
- (2) Assign roles to users;
- (3) Modify the content of the interface for users within their respective entities; and
- (4) Designate other users within their entities as “admins” as well.

This functionality allows each entity to maintain its sovereignty and govern itself within the vUSA Environment. Sub-organizations within a partner organization (a county or city within a state, or a department within an agency, etc.) can be given control to manage its own users, at the discretion of the immediately superior organization.

### **Data Sources: Links versus Files**

Rather than exchanging data files, vUSA participants are strongly encouraged to exchange web-enabled links, which allow users access data feeds and visualize the information in their local viewers.

For instance, information regarding the location of an incident can be sent directly from a data server to a browser-based viewing tool by simply sharing the URL or Web address of the data feed, rather than emailing or uploading a full-sized, stand-alone data file.

Although the system does support the exchange of traditional data files as well, modern emergency response visualization tools and analytics strongly prefer data sharing via links because:

- The information received is always the most up-to-date available on the originating source.
- The sharing process is “light weight,” since it exchanges addresses rather than full geospatial files, which can be extremely large.
- The data owner retains complete control of the sharing process and can disconnect at will.

vUSA encourages agencies to make data available as one or more of the standard data feeds prescribed by the Open Geospatial Consortium (OGC) including KML/KMZ, XML, GeoRSS, RSS, ArcGIS REST, ATOM, WMS, HTML.