



# National Capital Region Geospatial Data Exchange

---

Robert Horne

Washington Regional Threat and Analysis Center

Heidi Hammel

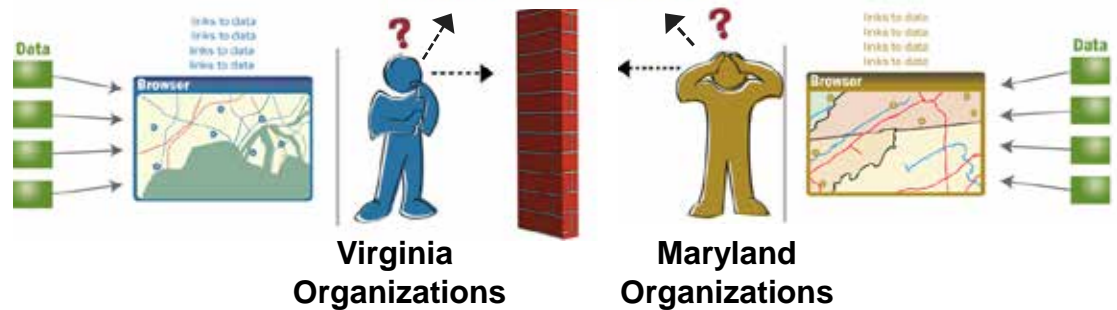
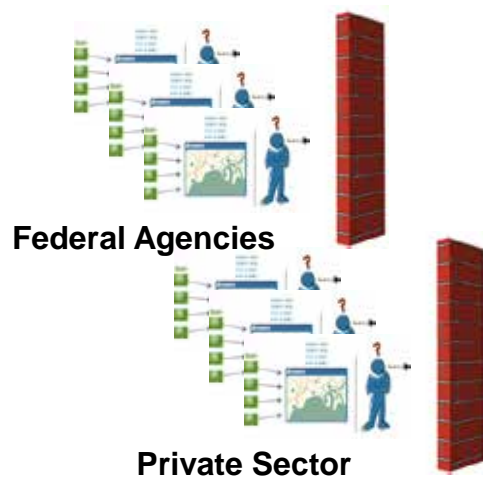
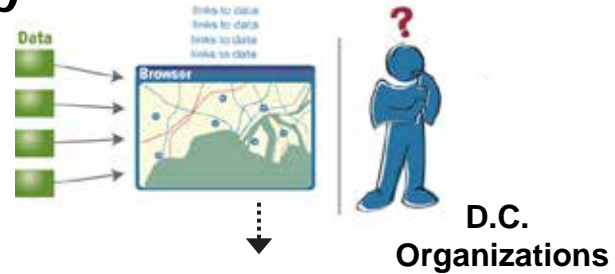
KCI Technologies, Inc.



# Achieving Interoperability

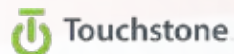
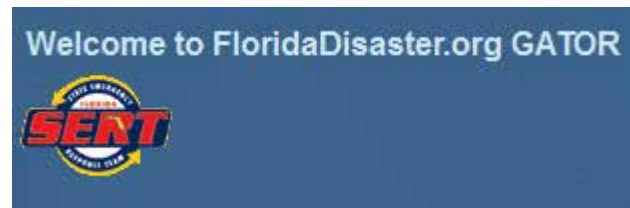
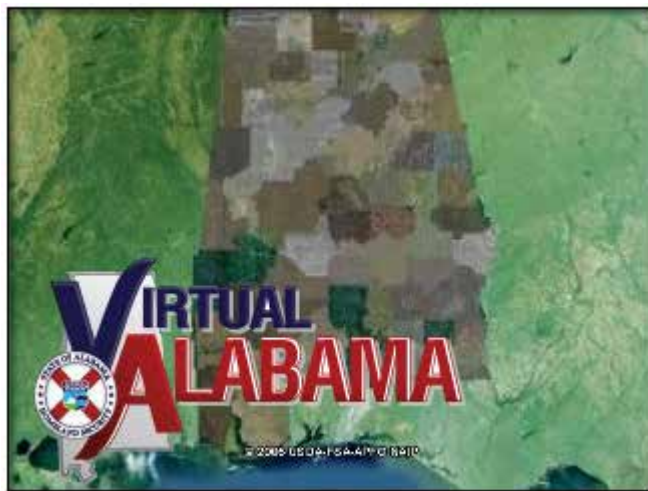
Still need ability to easily & securely share situational awareness information:

- § Across NCR States & D.C.
- § Between agencies at different levels of government with common response missions





# Achieving Interoperability

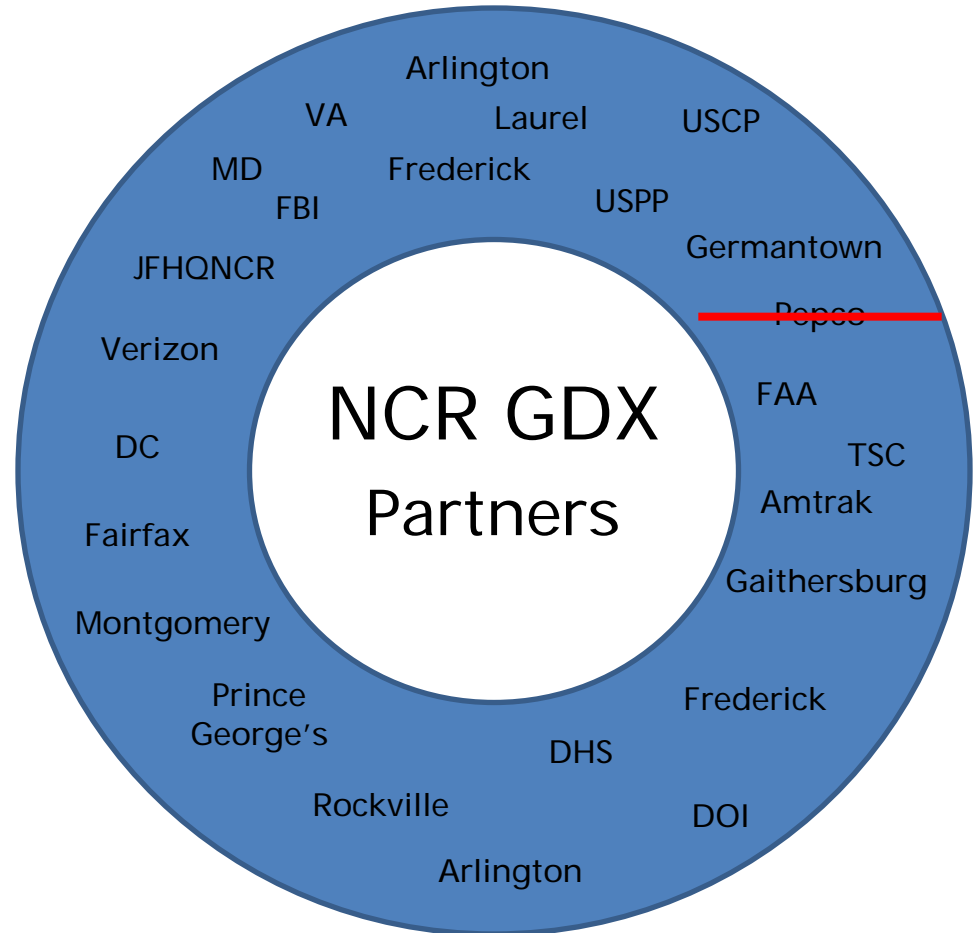




# Achieving Interoperability

## vUSA Hierarchy

- ~~• Federal~~
  - ~~• State~~
  - ~~• Local~~
  - Agency





# Nation Capital Region Geospatial Data Exchange Project

---

Grant from U.S. Department of Homeland Security  
(DHS)

Purpose:

- § Establish secure ability to share data across MD-VA-DC region
  - Between jurisdictions, levels of government and organizations
  - Between agencies and responders
- § Exploit live web services to discover and consume data
- § Build upon existing interoperability initiatives
- § Use **vUSA** framework developed for DHS
- § Utilize input for MD-VA-DC Stakeholders to customize **vUSA**





# What is NCR GDX?

---

It is NOT:

- § Another data viewer
- § An alternative to an existing interoperability initiative or system
- § Not just for GIS



# What is NCR GDX?

It IS:

§ An enabler of data

## A secure data exchange portal

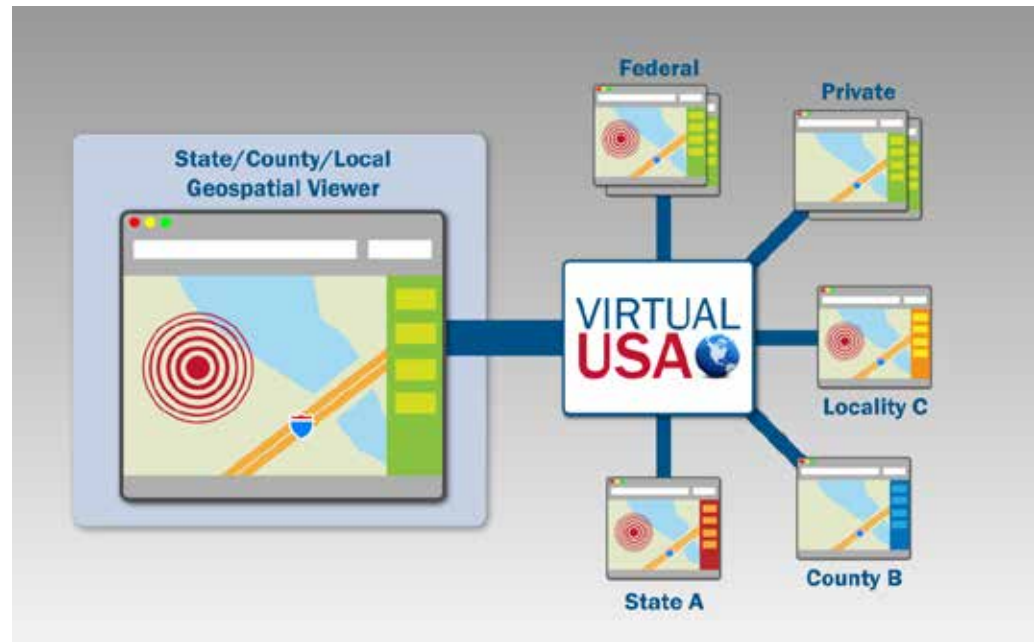
§ Enabling SOC standards & web services

§ Supports:

- GIS
- CAD
- WebEOC
- Video
- Static documents

§ Accessible from within existing systems

- VIPER,
- EMMA,
- ISAVE, etc.





# Data Sharing Security

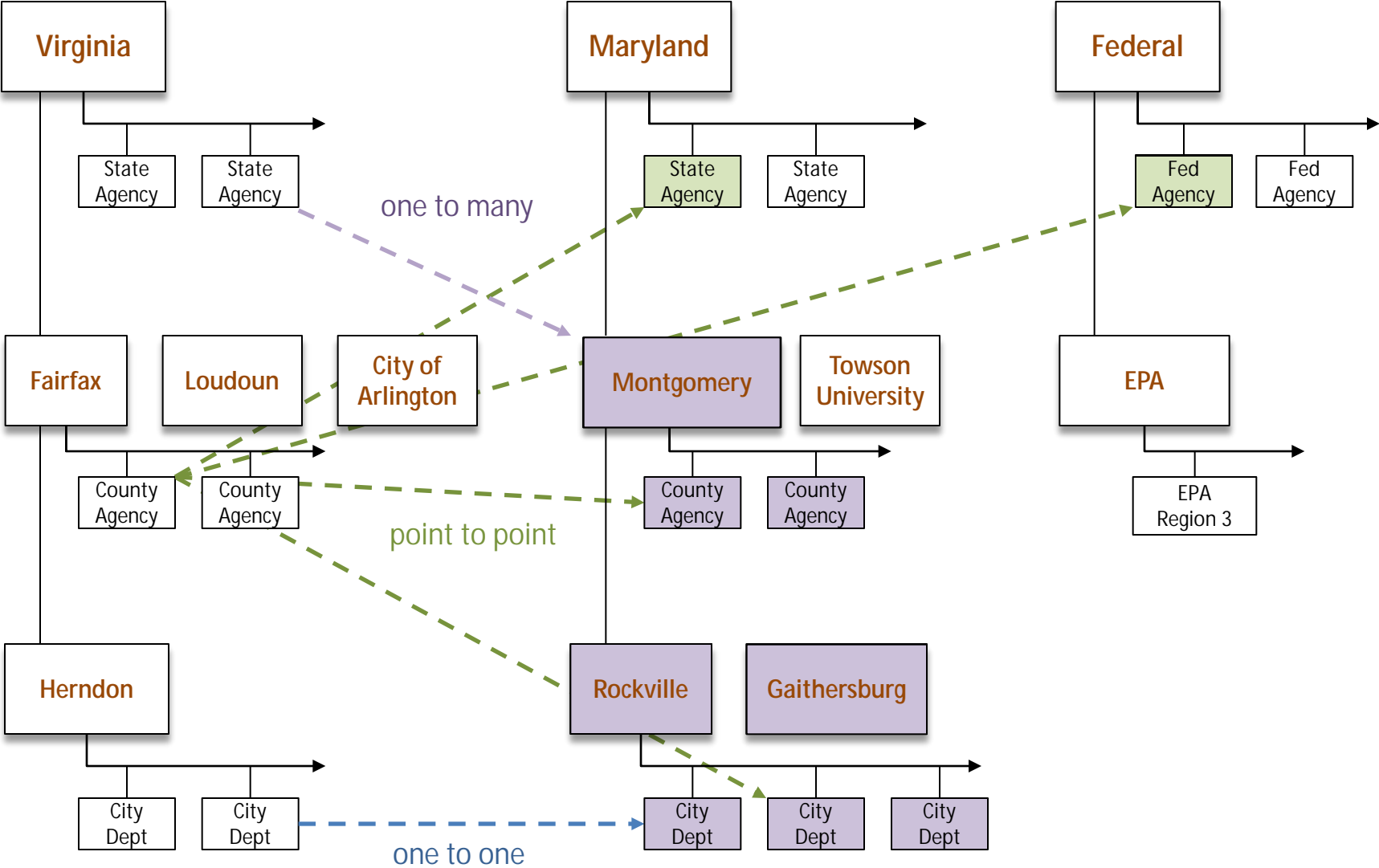
---

NCR GDx provides 4 controls for achieving security around data sharing:

- § Share Time Limits
- § URL Proxies
- § Organizational Controls
- § Role-based Controls



# Data Sharing Security: Without Organizational Levels





# Publishing Data

---

## NCR Event Types

- § Kinds/categories of data needed?
- § Who has the data?
- § Who needs the data?

## Types of Data to Publish

- GIS
- CAD
- WebEOC
- Video
- Static documents



Desktops

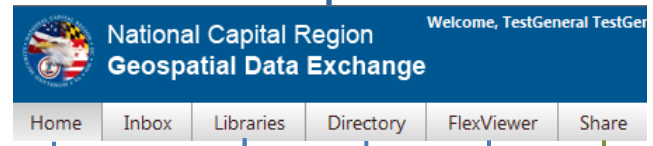
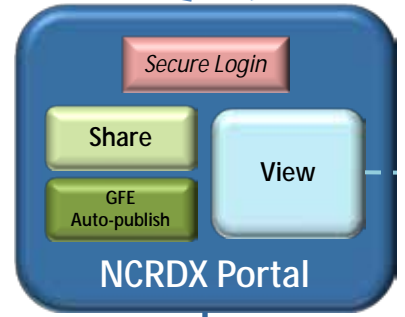


Authenticated Browsers



External Applications

NCR PARTICIPANT COMMUNITY



General Users



Administrators



### VIEW ACCESS

From NCR GDx Portal



FlexViewer

From Browsers



Google

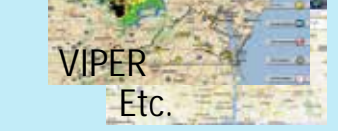
FlexViewer

Etc.

From External Apps



WebEOC



VIPER

Etc.

From ArcGIS Desktops



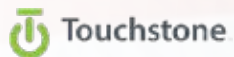
Publish Tool

Consume Tool





# Demonstration





# Summary of NCR GDX Benefits

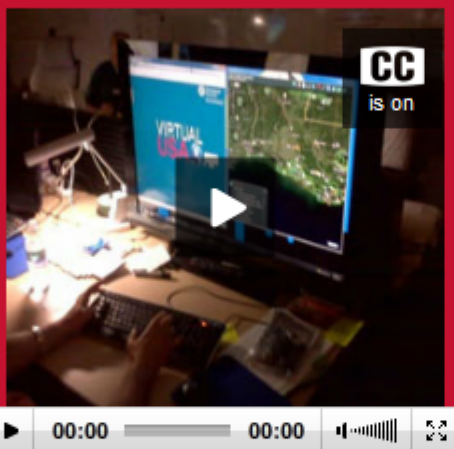
---

1. Robust ability to **publish, share and view** data among all participants in NCR region
2. Advanced information **security features** to protect sensitive data and sources
3. **Easy-to-use**
4. Ability to access via **NCRnet** or the **Internet**
5. Ability to **access from agency systems** (VIPER, OSPREY, WebEOC, etc.)
6. Create and join special purpose **Communities and Events** for regional planning and coordination
7. Easy method to **request data** and **making announcements**
8. **Support for non-ArcGIS Server participants** (ability to publish data feeds)



## National Capital Region Geospatial Data Exchange

*This video provides an overview of the principles and goals of the National Capital Region Geospatial Data Exchange (NCRDX). The project draws from and builds on the experience of the national Virtual USA initiative. It enables faster discovery and exchange of critical information presented in a geographic context.*



### Registered Users

Are you a member of a Metropolitan Washington Council of Governments jurisdiction or associated agency? If so, you can log in here or request a username and password for the NCR Geospatial Data Exchange.

Username

Password

Login

[Request user access](#) to NCRDX.

Welcome to the National Capital Region Geospatial Data Exchange!

Regional Chief Information Officers and Geographic Information System Managers of the National Capital Region (Maryland-Virginia-DC) have identified a need to produce, maintain and share a set of common operating data. In response to this need, The Metropolitan Washington Council of Government's CIO Committee's Subcommittee for GIS has received a grant from the United States Department of Homeland Security to establish a **National Capital Region Geospatial Data Exchange (NCRDX)**.

### Contact Us

If you would like additional information or user access to the NCR Geospatial Data





## Home

Welcome to the **NCR Geospatial Data Exchange**, a dynamic data catalog where you can discover and share information and collaborate with partners from across the National Capital Region.

### My NCR Geospatial Data Exchange

Name	Date Modified
My Library (0)	
My Uploads (1) It has been 28 days since you checked My Uploads. <a href="#">Snooze reminder for 2 weeks</a>	Nov 08, 2011
Notifications (0)	
Alerts (0)	

### Partner and Common Libraries

#### Common Library

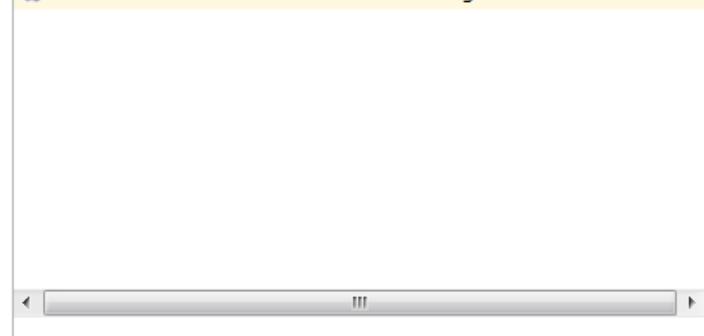
Common Library (11)

#### Partner Libraries

- Partner Type -

### Announcements

**Welcome to the NCRDX Stakeholders' Meeting** Nov 09, 2011



### Collaborate

Chat

Feedback



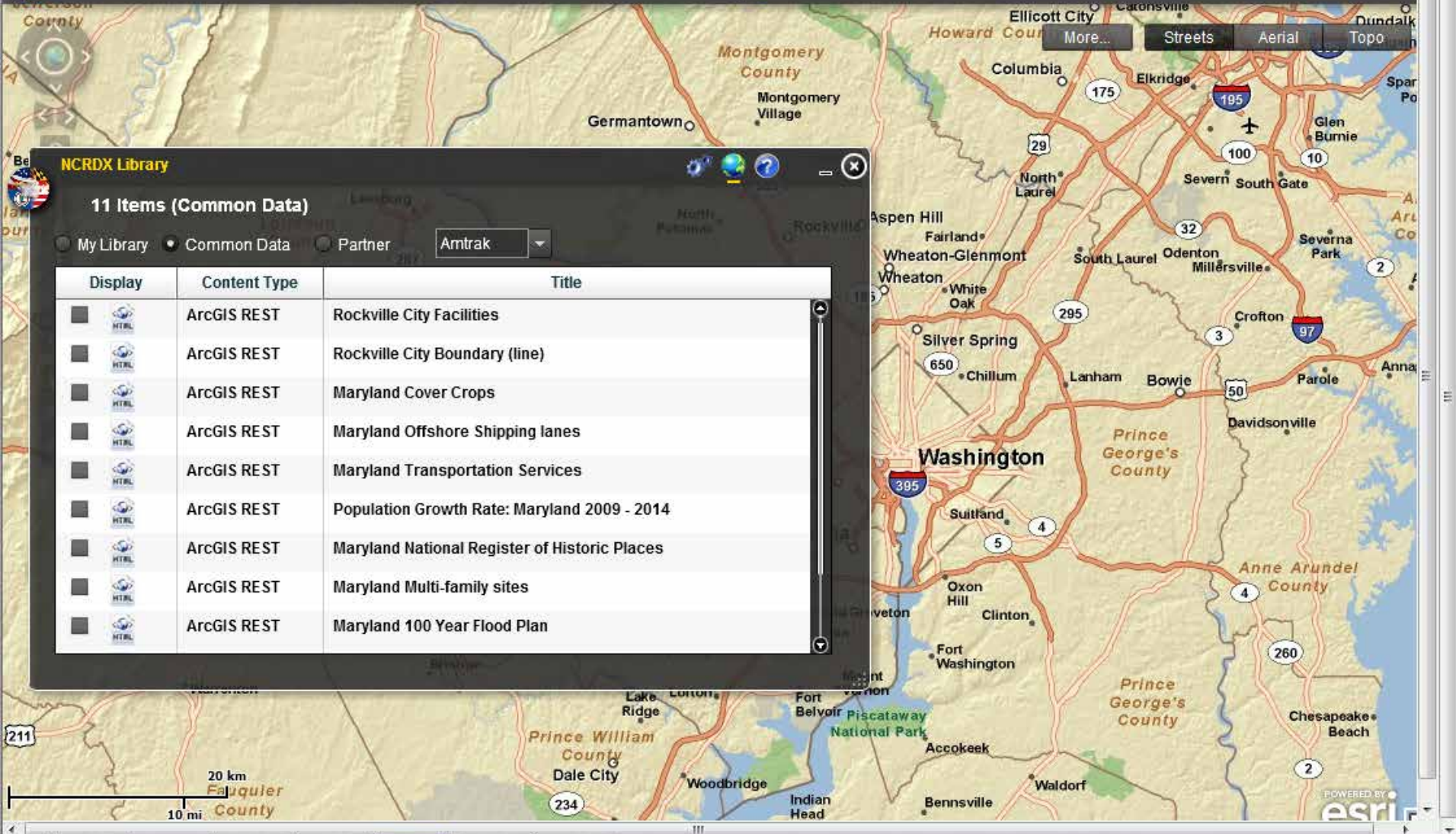
## Libraries

[My Library](#) | [My Shares](#) | [Partners](#) | [Common](#) | [Search Results](#)

Title	File type	Posted by	Organization	Partner	Upload Date	Rating
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
> Rockville City Facilities	ArcGIS REST	Marc Weinschenker	City of Rockville	Maryland	12/06/11 14:34	☆☆☆☆+
> Rockville City Boundary (line)	ArcGIS REST	Marc Weinschenker	City of Rockville	Maryland	12/05/11 15:33	☆☆☆☆+
> Maryland Cover Crops	ArcGIS REST	MDAdmin MDAdmin	Maryland	Maryland	11/08/11 18:22	☆☆☆☆+
> Maryland Offshore Shipping lanes	ArcGIS REST	MDAdmin MDAdmin	Maryland	Maryland	11/08/11 18:19	☆☆☆☆+
> Maryland Transportation Services	ArcGIS REST	MDAdmin MDAdmin	Maryland	Maryland	11/08/11 18:18	☆☆☆☆+
> Population Growth Rate: Maryland 2009 - 2014	ArcGIS REST	MDAdmin MDAdmin	Maryland	Maryland	11/08/11 18:15	☆☆☆☆+
> Maryland National Register of Historic Places	ArcGIS REST	MDAdmin MDAdmin	Maryland	Maryland	11/08/11 18:07	☆☆☆☆+
> Maryland Multi-family sites	ArcGIS REST	MDAdmin MDAdmin	Maryland	Maryland	11/08/11 18:00	☆☆☆☆+
> Maryland 100 Year Flood Plan	ArcGIS REST	MDAdmin MDAdmin	Maryland	Maryland	11/08/11 17:51	☆☆☆☆+
> Maryland State Health Data	ArcGIS REST	MDAdmin MDAdmin	Maryland	Maryland	11/08/11 17:47	☆☆☆☆+
> Maryland Inland Waters: Wetlands map	ArcGIS REST	MDAdmin MDAdmin	Maryland	Maryland	11/08/11 17:30	☆☆☆☆+



# NCRDX FlexViewer 2.3\_6



**NCRDX Library**

11 Items (Common Data)

My Library
  Common Data
  Partner

Display	Content Type	Title
<input type="checkbox"/>	ArcGIS REST	Rockville City Facilities
<input type="checkbox"/>	ArcGIS REST	Rockville City Boundary (line)
<input type="checkbox"/>	ArcGIS REST	Maryland Cover Crops
<input type="checkbox"/>	ArcGIS REST	Maryland Offshore Shipping lanes
<input type="checkbox"/>	ArcGIS REST	Maryland Transportation Services
<input type="checkbox"/>	ArcGIS REST	Population Growth Rate: Maryland 2009 - 2014
<input type="checkbox"/>	ArcGIS REST	Maryland National Register of Historic Places
<input type="checkbox"/>	ArcGIS REST	Maryland Multi-family sites
<input type="checkbox"/>	ArcGIS REST	Maryland 100 Year Flood Plan





**1. Enter Info**   2. Share   3. Review and Upload

NCRDX allows you to share files, sites, and methodologies with the community. You can also chat with other members of the community.

Select Type of Share    File    Link    \*  

Link \*

[Expand All](#) | [Collapse All](#)

**Title and Description**

Title \*

Description \*

Keywords

**Emergency Support Function (select all that apply)**

**Event Type (select all that apply)**





Untitled - ArcMap - ArcEditor

File Edit View Bookmarks Insert Selection Geoprocessing Customize Windows Help

Network: Flow Analysis Trace Task: Find Common Ancestors

Table Of Contents

Layers

NCR Geosp.

NCR GDE User Log In

User name  
hammelh

Password  
\*\*\*\*\*

Login Cancel

Save Don't Save

Catalog

Location: Home - Documents\ArcGIS

- Home - Documents\ArcGIS
  - AddIns
  - Default
  - Toolbox
  - Folder Connections
  - Toolboxes
  - Database Servers
  - Database Connections
  - GIS Servers

276.69 565.836 Unknown Units



ArcMap to NCR Geospatial Data Exchange - Consume

11 Items (Common Data)

My Library   
  Common Data   
  Partners

Status	Content Type	Title	Posted By	Partner	Upload Date
<input type="checkbox"/>	ArcGIS REST	Rockville City Facilities	Marc Weinsenker	City of Rockville	Dec 06, 2011
<input type="checkbox"/>	ArcGIS REST	Rockville City Boundary (line)	Marc Weinsenker	City of Rockville	Dec 05, 2011
<input type="checkbox"/>	ArcGIS REST	Maryland Cover Crops	MDAdmin MDAdmin	Maryland	Nov 08, 2011
<input type="checkbox"/>	ArcGIS REST	Maryland Offshore Shipping lanes	MDAdmin MDAdmin	Maryland	Nov 08, 2011
<input type="checkbox"/>	ArcGIS REST	Maryland Transportation Ser...	MDAdmin MDAdmin	Maryland	Nov 08, 2011
<input type="checkbox"/>	ArcGIS REST	Population Growth Rate: Maryland 2009 - 2014	MDAdmin MDAdmin	Maryland	Nov 08, 2011
<input type="checkbox"/>	ArcGIS REST	Maryland National Register o...	MDAdmin MDAdmin	Maryland	Nov 08, 2011
<input type="checkbox"/>	ArcGIS REST	Maryland Multi-family sites	MDAdmin MDAdmin	Maryland	Nov 08, 2011
<input type="checkbox"/>	ArcGIS REST	Maryland 100 Year Flood Plan	MDAdmin MDAdmin	Maryland	Nov 08, 2011
<input type="checkbox"/>	ArcGIS REST	Maryland State Health Data	MDAdmin MDAdmin	Maryland	Nov 08, 2011
<input type="checkbox"/>	ArcGIS REST	Maryland Inland Waters: We...	MDAdmin MDAdmin	Maryland	Nov 08, 2011
<input type="checkbox"/>					





ArcMap to NCR Geospatial Data Exchange publish

### Select layers to publish to NCR Geospatial Data Exchange

Geospatial | Projection

Map feature layers to publish ...

- Parks\_/\_Centers

Map service name   
*\* Will not accept spaces or unique characters*

Map extent to publish ...

- Current Extent
- Full Extent
- Extent of selected layer:

*(Only fields selected as visible will be published)*

User Information

User Name   
Organization