
National Capital Region Geospatial Data Exchange



Governance Priorities and Action Plan Priorities and Plan of Action Resulting from Governance Workshop Conducted December 14, 2011 and January 24, 2012

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NCR GDx Governance Priorities and Action Plan

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1.0 Document Control

1.1 Document Information

| Information | |
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1.2 Document History

| Version | Issue Date | Changes |
|---------|------------|------------------------------|
| 1.0 | 01/14/2012 | Initial Document Preparation |
| 1.1 | 01/27/2012 | Final Document |
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NCR GDx Governance Priorities and Action Plan

2.0 Introduction

The **National Capital Region Geospatial Data Exchange** (NCR GDx) is an inter-region, multi-jurisdictional data sharing portal created under the auspices of the Metropolitan Washington Council of Governments by a team of consultants led by KCI Technologies, Inc. Over nine months from April to December 2011, the KCI Team worked with NCR participants to define requirements for the design and customization of the open source vUSA software, developed for the Department of Homeland Security, to create the NCR GDx.

The KCI Team is rolling out the web-based portal in January of 2012 to enable the secure and easy sharing of spatial information between NCR participants across all levels of government as well as with participating public, private and non-profit entities. The NCR GDx is a unique and highly versatile tool for enhanced NCR participant response and coordination during emergency events while providing new tools for cooperative planning and operation.

During the development of the NCR GDx web portal it was recognized by project sponsors and participants alike that sustaining the technical success of the NCR GDx requires clearly defined governance policies and procedures. The KCI Team was asked to facilitate a workshop with NCR GDx sponsors and users to identify the primary governance issues and tasks that need to be addressed and to prioritize these needs.

Based on the input received during the workshop, the KCI Team was asked to document the outcome and findings of the workshop defining:

- The governance issues, needs and priorities that need to be addressed.
- An interim structure for advancing NCR GDx governance.
- Recommendations for formalizing participation and the NCR GDx's governance body's organizational structure.
- The governance development priorities identified by the workshop participants.

2.1 Methodology

The KCI Team facilitated a four hour workshop focused on NCR GDx governance on December 14, 2011 with a follow-up and confirmation workshop conducted on January 24, 2012. The workshops were facilitated by Bob Finkle of the KCI Team. Mr. Finkle led the group through an agenda that identified and interactively documented NCR GDx governance issues and needs, ensuring that both organizational support needs and technical support needs were fully explored.

The Governance issues and needs identified during the workshop were documented on the white board and discussion was facilitated until all participants understood the issues and needs, and agreement was reached that the item was valid and appropriate to NCR GDx governance. The group then worked through each issue and need to define the primary tasks associated with addressing the issue/need. Mr. Finkle then led the group through a consensus-based prioritization of the issues, needs and tasks.

2.2 Participants

The individuals attending and participating in the workshops are listed in Table 1.

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Table 1
Participants in NCR GDx Governance Workshop

| Name | Organization | Dec 14 2011 | Jan 24 2012 |
|--------------------------|--|----------------|------------------|
| Alford, Michael | Touchstone | | X |
| Aunapu, Christopher | PMISE | | X |
| Babin, Steve | Johns Hopkins | | X |
| Bianchi, Todd | DC Fire and EMS | X | |
| Bohan, Gail | City of Fairfax | X | WebEx & Phone |
| Booth, Jeffrey | US Department of Homeland Security | | X |
| Callahan, Patrick | Prince George's County | | X |
| Caplan, Marc | DHS Science and Technology | X | X |
| Conry, Tom | Fairfax County | | X |
| Donald, Edward | Metropolitan Washington Airports Authority | X | X |
| Dye, Richard | Maryland State Highway Administration / CHART | | X |
| Engstrom, Patti | Touchstone | X | X |
| Finkle, Bob | TechGlobal, KCI Team Facilitator | X | X |
| Franklin, Charlotte | Arlington County - NVERS | X | |
| Hammel, Heidi | KCI | X | X |
| Horne, Robert | DC OCTO | X | X |
| Johnson, Erik | DC Fire and EMS | X | X |
| Kile, Martha | MWCOG | X | X |
| Liddle, Michael | County of Fairfax | X | |
| McKinley, Jayme | Touchstone Consulting - NVERS | X | X |
| McWreath, Harry | Department of the Interior | | X |
| Nugent, Jennifer | All Hazards Consortium | | X |
| Osborne, Jesse | Northcom | | X |
| Rivkin-Fish, Ziggy | NCR-Net | X | |
| Scheurich, Scott | Fairfax County | X | X |
| Semwanga, Nina | DC Fire and EMS | X | X |
| Spittel, Brad | KCI | | X |
| Umberger, Adriana | Prince George's County - NCR-Net | X | |
| Vandeyar-Wise, Christine | Montgomery County | | |
| Watson-Grady, Debra | Prince William County | | X |
| Weinshenker, Marc | City of Rockville | Phone | X |
| Wells, Ed | WMATA | X | |
| White, John | Arlington County - NVERS | X | |
| Widner, Dan | VITA | | WebEx & Phone |
| Young, Jerome A. | DC Fire and EMS | X | |

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3.0 NCR GDx Governance Needs

The NCR GDx project has established the technical and operational feasibility of highly secure, web-based inter-regional data sharing and in doing so has garnered the enthusiastic support of a large number of participants throughout the National Capital Region. To realize the vision of its sponsors, the NCR GDx project needs to graduate from its project status to an on-going program. During the course of the workshop, four primary needs were identified as essential to establishing NCR GDx program governance and sustaining the interoperability services provided by the NCR GDx:

1. Define Membership to the NCR GDx
2. Establish NCR GDx Governance
3. Define Needed Governance Functions and Structure
4. Define and Prepare Needed Policies and Procedures
5. Prepare a Strategic Plan to Define Funding Needs

The following lists each of these needs with a full description and discussion of the requirements that must be addressed to fulfill the need.

3.1 Defining NCR GDx Membership

There are several membership classes of central importance to successful operation of the NCR GDx web portal. Membership classes that were identified and discussed during the workshop include:

- **Governance Board Membership:** the individuals providing policy direction and exercising final decision making authority concerning the funding and operation of the NCR GDx.
- **Agency Membership:** the state, county, city, regional, federal, non-profit, and private sector organizations that are given access to the NCR GDx web portal.
- **Agency Administrators:** the NCR GDx administrator that serves within each agency that creates and administers individual user accounts and NCR GDx privileges
- **Users:** the individual user within each agency who accesses and uses the NCR GDx portal. Users represent diverse interests and skills that include GIS professionals, emergency and public safety dispatch operators, emergency and public safety responders, managers, planners and researchers.
- **Super Administrator:** a single individual assigned to oversee and provide policy direction to the Agency Administrators. While it is clear that some form of policy direction and oversight will need to be provided to the Agency Administrators, it has not been decided if this function should be discharged through a single individual, a group of individuals or a committee.

NCR GDx governance will need to include the definition and documentation of the following for each membership class:

1. Requirements for admitting individuals or agencies/organizations.
2. Requirements for maintaining membership.
3. Rules and procedures for succession / replacement of individuals within each membership class.
4. Methods and procedures for maintaining membership rosters and records.

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5. For Users: criteria, authorization and status monitoring procedures need to be defined for granting NCR GDx Advanced privileges and security clearance above FOUO.

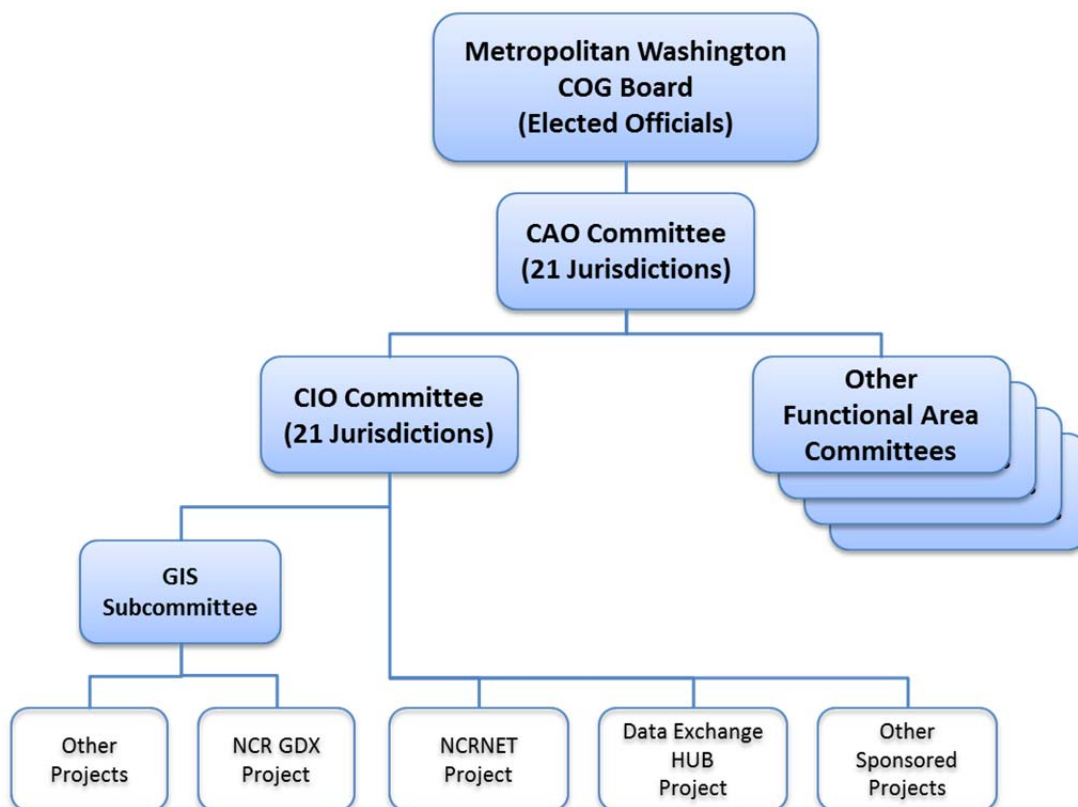
3.2 Establish NCR GDx Governance

The NCR GDx needs governance that provides accountability and representation for all of its participants while ensuring it receives the organizational and technical support needed for sustained operation.

To date, the vision and sponsorship of the NCR GDx project has come through the Metropolitan Washington Council of Governments (COG). The COG's Chief Administrative Officers (CAO) Committee identified the need for information interoperability in the NCR and developed the plan that has led to the creation of NCRNET, the Data Exchange Hub project and the NCR GDx project.

Figure 1 provides a high-level view of the structure of the COG as it relates to these interoperability projects. All of these initiatives come under the sponsorship and oversight of the CIO Committee which provides representation from 21 NCR jurisdictions. The NCR GDx project is directed by a Steering Committee formed from the CIO Committee's GIS Subcommittee.

Figure 1
Organizational Structure of Current NCR GDx Project Sponsorship



Based on this information, the following consensus decisions were made by the workshop participants:

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1. Work within COG Framework

The NCR GDx Governance workshop participants were in unanimous agreement that the preferred approach to NCR GDx governance is to work within the existing framework and governance structures provided by the COG.

2. Achieve Formal Recognition

A recommendation needs to be prepared and delivered to the CAO Committee that requests the creation of an NCR GDx governing body within the COG's operating structure. This recommendation needs to be drafted first for the review and approval of the GIS Subcommittee and CIO Committee and then formally brought to the CAO Committee for adoption.

The NCR GDx recommendation document should have as its primary goal the endorsement of the NCR GDx program with the assignment of an official governing committee for the program. Elements that need to be addressed in the recommendation include:

- Overview of the COG and CAO's vision of and mandate for NCR interoperability.
- Documentation of what the NCR GDx is, what it provides, and how it has implemented key elements of CAO's vision and plan.
- Description of the participation and process for designing and implementing the NCR GDx.
- Identification of any gaps and plans for enhancements to the NCR GDx.
- Governance functions critical to sustaining and fully realizing the NCR GDx vision.
- Current funding and a forecast of funding that will be needed.
- Draft of the NCR GDx Charter, that addresses:
 - Purpose and reason for formation
 - Organization goals, community served and brief statement of plan for achieving goals
 - Membership and requirements for becoming a member
 - How NCR GDx will be governed;
 - Structure and membership of Governance Board and Board responsibilities
 - Procedure for amending the Charter
- Recommendations for membership and criteria of NCR GDx Governing committee.

3. Provide for Interim Governance

Until formal recognition is achieved and a NCR GDx governance body is formed, the NCR GDx program needs a mechanism for collecting and reviewing participant information, making decisions and preparing governance recommendations. It was agreed by all participants that the existing NCR GDx Steering Committee and the CIO's GIS Subcommittee should continue in this role, serving as the NCR GDx program's interim governance and decision making body and oversight committee.

3.3 Define Needed NCR GDx Governance Functions and Structure

During the NCR GDx workshop, four different types or levels of governance were discussed. These can be categorized into the following governance functions:

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- **Oversight and Authorization:** accountability and authorization of plans and budgets by elected officials, high-level managers, sponsors and resource providers.
- **Organizational Governance:** the creation of policy and procedures for managing and monitoring membership; the coordination, development and management of strategy, plans and budgets; decision making associated with the prioritization and execution of plans and budgets.
- **Technical Governance:** the creation of procedures and requirements for delivering consistent, high quality service, performing system administration, managing and supporting the system and its users. This includes the critical function of change management.
- **User Representation:** input from service users on evolving functional needs, system utilization and issues.

The on-going success of the NCR GDX requires that each of these functions be exercised through its governance bodies and structure. The intended creation of a NCR GDX governing board or committee that functions within the COG's committee structure will provide for the exercise of organizational governance and would provide the necessary oversight and authorization function.

However, it is unlikely that an NCR GDX governing committee will be able to also satisfy the need for technical governance and user representation. As a result, the NCR GDX governance structure may need to include the creation of a NCR GDX technical subcommittee. Ideas expressed during the workshop for potential members to the technical group included GIS Managers from the GIS Subcommittee, Public Safety/ESF representatives, and non-governmental partners.

NCR GDX governance will also need to devise a mechanism by which constructive input from NCR GDX users (general users and ESF users) are solicited and responded to.

3.4 Define and Prepare Needed Policies and Procedures

NCR GDX policies and procedures need to be developed and approved for the orderly and efficient management of NCR GDX affairs. These policies and procedures are needed to manage both the organizational and the technical aspects of the NCR GDX.

Organizational Policies and Procedures

Organizational policies, procedures and agreement forms need to be developed and approved through the NCR GDX governance body. It is recognized that the need for these guidance and control documents will grow and evolve over time but the following initial categories of organizational policies, procedures and agreements were identified:

- **NCR GDX Membership Policy and Procedures** are needed for managing all categories of NCR GDX membership as documented in Section 2.1. The technical requirements associated with some membership classes will require input from the NCR GDX technical subcommittee if it is created or, at a minimum, from NCR GDX technical representatives serving in an ad-hoc technical task force.
- **NCR GDX Participation and Cooperation Agreements** need to be developed for agencies and organizations that wish to become an NCR GDX member and access the NCR GDX web portal.
- **Operational/Service Level Agreements** will need to be defined and developed to define and manage expectations and performance between the various entities and vendors supporting

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the NCR GDx. These agreements will require guidance and input from an NCR GDx technical committee or task force.

Technical Policies and Procedures

Technical policies, procedures and standards need to be developed to support the operation of the NCR GDx. While the need for these instruments will grow and evolve over time, several technical policy and procedure documents were identified during the workshop for early development and implementation:

- **NCR GDx Help Desk Responsibilities, Procedures, Standards and Instructions** need to be developed. The NCR GDx Help Desk Procedures need to be prepared for two audiences:
 1. **Participant Agency Help Desk Operations:** each participating agency will need to incorporate NCR GDx Help functions into the operation of its internal IT Help Desk operation.
 2. **Central NCR GDx Help Desk:** policy and procedures for maintaining and delivering a central NCR GDx Help Desk service that supports each agency help desk function will also need to be developed.
- **Change Management Procedures and Responsibilities** need to be developed and defined to control the technical management, operation and evolution of the hardware, software and network environments the NCR GDx relies upon.
- **NCR GDx Standard Operating Procedures** need to be developed. These should identify all the individuals (agency and vendor) who have responsibilities for supporting the NCR GDx, define the roles and responsibilities of each individual, document all routine operational and support tasks and task procedures, and define problem resolution escalation procedures that incorporate Help Desk operations.

Relevant Models and Templates for NCR GDx Policies and Procedures

Models and templates are available and should be used by the NCR GDx as it develops its organizational and technical policies and procedures, as well as its promotional literature. Models and templates that have been identified include:

- vUSA National Memorandum of Agreement
- CAD2CAD SOPs (Standard Operating Procedures): includes workflow diagrams for incident management and change management. Available from NCR-NET, Scott Scheurich and at: http://www.ncrnet.us/documents/Documents3/Incident_Management.pdf and http://www.ncrnet.us/documents/CAD2CAD_Documentations28/Service_SOPs/Change_Management/CAD2CAD_Change_Management_VZ.pdf.
- SLA and OLA templates and examples (NCR-NET, Scott Scheurich).
- ICI Change Management Policy, draft (NCR-NET, Scott Scheurich).
- Service Catalog for Interoperable Communications Infrastructure, draft (NCR-NET, Scott Scheurich);

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- Promotional literature for CAD2CAD system (NCR-NET, Scott Scheurich) available at: http://www.ncrnet.us/documents/CAD2CAD_Documentations28/CAD2CAD_Publicity/Revised%20ICC_local_03_24_2011_v6.pdf

3.5 Prepare NCR GDx Strategic Plan to Define Funding Needs

The NCR GDx is currently funded to April, 2013 through an Urban Area Security Initiatives grant provided by FEMA's Homeland Security Grant Program. To ensure this funding is put to its best use and to lay the foundation for supporting the on-going operation of the NCR GDx, it is of critical importance that a strategic plan be prepared.

A five year NCR GDx strategic plan should be developed that documents the needs, development scope, requirements, personnel, funding and plan of action for the NCR GDx program. The following provides a high level topic outline of the 5 year NCR GDx strategic plan:

- NCR GDx Functionality
 - What functions and capabilities are currently provided by the NCR GDx?
 - What NCR GDx enhancements are needed to meet end user service needs, emergency response needs and NCR GDx operational needs over the next 5 years?
 - What are the scope and high level requirements for each enhancement?
- Hardware/Software/Network Requirements
 - What hardware/software/network resources currently support the NCR GDx?
 - What hardware/software/network additions or upgrades are needed over the next 5 years?
- Data Management
 - What data, if any, needs to be purchased for the NCR GDx?
 - Define NCR GDx's data standardization needs and tasks
- Organizational Development and Support
 - What are the NCR GDx staffing needs and skill requirements over the next 5 years for:
 - Design and implementation of NCR GDx enhancements?
 - Hardware/software/network additions, upgrades and
 - Standards development and promulgation?
 - On-going operation, administration and management of the NCR GDx?
 - Training, advocacy and outreach?
 - How will NCR GDx staffing needs be met (e.g., through contractors, participants, NCR GDx funded positions)?
- Funding Requirements
 - 5 year capital budget
 - 5 year operating budget
 - Funding sources and alternative funding methods and models
- Action Plan and Schedule of Activities
 - Tasks
 - Task and task management responsibilities
 - Schedule and duration of tasks

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4.0 Priority Actions for Implementing NCR GDx Governance

The governance workshop participants created a priority ranking for addressing the NCR GDx governance needs. While all participants agreed that it was of high importance that the entire agenda of governance needs be acted upon and addressed the following provides the consensus view of their order of importance.

1. Create the NCR GDx governance recommendation and achieve CIO and CAO approval.
2. Create the NCR GDx governance charter.
3. Establish NCR GDx governing body, associated committees and committee membership.
4. Define requirements, rules and procedures for managing all other categories of NCR GDx membership (focusing first on NCR GDx Administrators).
5. Develop policies, procedures and plans for technical operation and support and for the organizational management of the NCR GDx.
6. Define and document funding needs and mechanisms through the development of the NCR GDx strategic plan.

Figure 2 on the next page provides a suggested responsibility matrix for the creation and approval of each of the priority governance tasks.

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Figure 2
Suggested Responsibility Matrix
for Performing and Approving Priority NCR GDx Governance Tasks

| NCR GDx Governance Task | CAO/CIO Committee | NCR GDx Steering Committee (interim) | NCR GDx Governance Committee | NCR GDx Technical Group | NCR GDx Delegate or Contractor | NCR GDx Stakeholders | NCR GDx Support Vendors |
|---|-------------------|--------------------------------------|------------------------------|-------------------------|--------------------------------|----------------------|-------------------------|
| Governance Recommendation | ✓✓ | x | | | x | | |
| NCR GDx Charter | ✓✓ | 👤✓ | | | x | | |
| Establish NCR GDx Governance | ✓✓ | | | | | | |
| Membership Procedures for NCR GDx Committees | | ✓ | | 👤 | x | 👤 | |
| Establish NCR GDx Subcommittees/Task Forces | | | ✓✓ | 👤 | | | |
| Membership Procedures for NCR GDx Administrators | | | ✓✓ | 👤✓ | x | | |
| Membership Procedures for NCR GDx Agencies and User | | | ✓✓ | 👤 | x | 👤 | |
| NCR Participation Agreements | | | ✓✓ | | x | 👤 | |
| Operational/Service Level Agreements | | | ✓✓ | ✓ | x | | 👤 |
| NCR GDx Help Desk Standards and Procedures | | | ✓✓ | ✓ | x | | |
| Agency Help Desk Standards and Procedures for NCR GDx | | | ✓✓ | ✓ | x | 👤 | |
| NCR GDx Change Management Procedures | | | ✓✓ | ✓ | x | | |
| NCR GDx Standard Operating Procedures | | | ✓✓ | ✓ | | | |
| Prepare Strategic Plan | | | 👤 | 👤 | x | 👤 | 👤 |
| Approve Strategic Plan | ✓✓ | | ✓ | ✓ | | | |

Final Approval ✓✓
 Approval ✓
 Primary Responsible x
 Provide Input 👤

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5.0 Approval

The signatures below indicate review and acceptance of the NCR Geospatial Data Exchange Requirements document, and will initiate the development and implementation of the solution by the KCI team. Any additional requirements identified that are outside of the defined scope as detailed in the Requirements document will be managed and using a change management process to ensure proper analysis and design steps are executed.

Mr. Robert Horne
Contract Manager / NCR Geospatial Data Exchange
District of Columbia Office of Chief Technology Officer

Date