**MWCOG GIS Committee Meeting Minutes**
Tuesday, July 27, 2010

**1. Welcome and Introductions**

Robert Horne, WRTAC Fusion Center, began the meeting with brief introductions of GIS Committee Members, COG staff, and guests. Mr. Horne introduced the team from SRA/Touchstone Consulting that is working on Virtual USA for the Department of Homeland Security (DHS). Mr. Horne explained that that he had seen a presentation about Virtual USA while he was at the Google Earth Conference and thought that the rest of the committee would be interested in the project.

**2. Regional Interoperability Work by Virtual USA**

Cameron Hogan (Touchstone Consulting) began his presentation with a brief overview of the Virtual USA project. The presentation was recently given at the ESRI Users’ Conference last week. The DHS Science and Technology Directorate Command, Control and Interoperability Division, led by Dr. David Boyd, has identified the need to gather and view comprehensive real-time emerging info and overlay this info with existing GIS data to perform on-the-fly analysis. Mr. Hogan explained that there is a national problem in the inability to share information seamlessly and to collaborate in real time for crisis management, resource management, and CAD. Technological barriers are small but there is a need to overcome cultural governance issues. The challenge was inefficient use of resources.

Mr. Hogan said that Dr. Boyd is a proponent of a bottom-up approach from the local level that is practitioner driven and based on their needs. The strategy involves building upon existing frameworks and investments. Because 87% of incidents are local, the project is centered around day-to-day events on the local level. The system is a technology-agnostic platform that is resilient, redundant, and allows states to maintain their sovereignty.

The data in Virtual USA is maintained by data owners where local and state data stays in local hands. The system is not a clearinghouse or data warehouse, but a way to view data. The actual data is not stored on Virtual USA, so data owners do not lose control.

There are two pilot projects underway and one in the works. DHS did not want to dictate ‘one size fits all’, so each region is developing their own projects. The pilots are located in the Southeast, the Pacific Northwest, and the Northeast. The Southeast project was launched earlier than planned as a result of the gulf oil spill. The different approaches include a web-based interface, an interface with existing catalogs, and a virtual globe.

The Virtual USA project in Louisiana project allows the Gulf states to share data across borders and to access daily incident management reports from BP. The system has streamlined data sharing and has included BP’s live feeds.

Ahmad Yasin (Touchstone Consulting) provided a demonstration of the Virtual USA system.

Tom Conry (Fairfax County) asked how logins are managed. Mr. Hogan replied that they do not have identity management yet. The user is either in or out of the system.

Mr. Yasin explained that each entity can define delegation authorities about who can see what, how long data remains in the system, and how it is shared. He provided more details about the system’s functionality: Data can be uploaded along with information about the data, or there can be a link to the data. The interface supports a variety of file types, including .kml, .kmz, .pdf, and .shp. The data remains visible for a limited time, then it expires.

Files can appear in priority areas that make them easier to see and access. The interface provides a way to view, see, and share data. For example, Wal-mart has provided a link to its inventory of supplies. There are different user roles, including: contractor, security, emergency response, and executive.

Mr. Horne asked if a user can add roles. Mr. Yasin replied no, but the program can be customized.

David McMillion (MWCOG) asked how WebEOC fits into the project. Mr. Yasin replied that WebEOC is not integrated; Virtual USA is more of a platform to share data.

Mr. Yasin continued his presentation with an overview of the viewer capabilities of Virtual USA: When the user clicks “Show in Viewer” the data opens in Google Earth. The team is trying to integrate other viewers. Many entities do not have their own viewers, but more and more have viewers for their processes. Virtual USA allows users to find data and then see it on any viewer. Touchstone also created EPAEarth using Google Earth Enterprise. Users of EPAEarth can toggle between their own imagery and the Google imagery. They have integrated searching for data and searching for metadata, they also added some basic GIS tools to EPA Earth.

Mr. Conry asked if Virtual USA will be able to link to VIPER. Mr. Yasin replied that it will and also to Google Earth. Their goal is to have people be able to use this to discover data for use in their own viewers.

Mr. Hogan added that the oil spill activated the project on an accelerated timeframe. The system is running on SRA’s servers.

Barney Krucoff (DC GIS) asked if the multiple pilots are similar. Mr. Hogan explained that when adding all the pilot partners together there are 19 to 20 states involved. The pilots have some similarities, but there are also differences. An example is that the Pacific Northwest pilot is more organized around visualization systems, while the Southeast project is more ad hoc. Also, the specifics are different in terms of focus. For example, the Southeast has a strong hurricane component. However, there is commonality in governance and agreements. Each pilot uses lessons learned from the other pilots.

Mr. Conry asked who hosts Virtual USA. Mr. Hogan replied that all of the projects are hosted on SRA servers. The long-term solution is to have an entity to independently manage it. There is also a question if there is a need for a new organization, such as a 501c3 to manage it in the long-term. Mr. Conry commented that the NCR has its own fiber optic network which is independent of commercial pathways. The COG CIOs may also want to make use of what we already have. States have their own systems where they can interface with others in a trusted environment.

Ed Wells (WMATA) asked if Virtual USA a hosting service and not a product. Mr. Yasin replied that he would not call it just hosting services, because it is much more than that, the power lies in the ability to transform that data. Mr. Hogan added that the real value is that it is a very trusted site that everyone is putting data into. Once a place reaches a critical mass for data, it becomes place for trusted authoritative information.

Mr. Conry said that whatever system is implemented in the region has to go through the CIOs. He stated that the Virtual USA system relies on the assumption that we can get to the SRA servers, he asked if it would be possible to use their product and their best practices but on our own system. Mr. Horne asked if we had it running on our own system, would we be able to connect to the States & Region III and to the Fusion Centers. Mr. Hogan replied that they could help with that. Any sharing beyond our system could be done through Virtual USA, but the system itself could be designed so that it would not depend on connectivity to Virtual USA.

Mr. Conry noted that Mr. Yasin was not connecting to a https site; he asked if Virtual USA would be a secure connection. Mr. Yasin stated that the next step is to build additional security.

Mr. Conry asked how the project is funded. Mr. Hogan responded that the project is funded through DHS as an R & D project within Command Control & Interoperability, a piece of Science and Technology Directorate. Right now they have not touched the more secure data. People aren’t sharing it if they do not want it public. Virtual USA is focused on connecting geospatial platforms. They are also trying to see where there may be overlaps between the various DHS geospatial programs. Mr. Horne stated that there needs to be a middle ground between data that is on the evening news and HSIN data that cannot be shared with anyone.

Mr. Conry asked what the common threads are among the projects. Mr. Hogan responded that with process mapping in the Pacific Northwest pilot, they are beginning to see commonalities. The Southeast is most organized around Emergency Support Functions (ESFs). They are beginning to amass a core amount of data.

Mr. McMillion (COG-Public Safety) asked how we define situational awareness. They will be hiring consultants to define what this means. Mr. Hogan responded that the simple definition is having what you need to know, when you need it, in form you need to see it. The relationship between agencies is important. Through experience, people are beginning to identify all the layers that are needed.

Mr. Conry asked about the long-term viability of Virtual USA and what the funding level is. Mr. Hogan responded that there is a great amount of momentum from the states. There is not a critical mass yet, but there soon will be. The Pacific Northwest pilot participants said that they would continue with the project even if it were not funded. Once SRA/Touchstone Consulting is done, the project will be self-driving and self-sustaining over time. They may use SRA/Touchstone, they may go with someone else, or they may do it in-house. Mr. Hogan explained that state systems are evolving and building on what works and what does not.

Mr. Wells asked what is needed to advance this effort. Mr. Hogan responded that building the primary governance is the most difficult thing. Stakeholder management to work out business processes and ‘deconflicting’ between states and agencies. Also, creating information sharing agreements is critical, it is more than permissions management, must get people together to work out governance using facilitated sessions.

Mr. Krucoff asked if the information sharing agreements are on paper, are they available for the GIS Committee to review. Mr. Hogan responded that some principles are standard and some are more stringent. They have some MOAs, it is better to have less formal agreements. Several of the MOAs have backing of DHS state-level directors. They will try to get examples for us. They are working on building standard operating procedures.

Mr. Wells asked how map symbology is handled. Mr. Yasin responded that symbology is a longer-term issue. Symbology becomes critical as more users submit data. The Methods Attribute section lets the user provide information about symbology.

Mr. Conry asked if there was standard symbology and definitions among the entities involved in the oil spill. Mr. Yasin responded that all entities published their own data, as they display it. At one point, BP was publishing static maps; they asked them to share the source data so that others could be on the same page.

Mr. Yasin mentioned that Google Earth comes with basic layers, they are hoping to get some basic layers so that there will not be definition conflicts. Mr. Horne stated that this will be an issue that we need to deal with on the fly. We will not know where the gaps and differences are until we see them. Mr. Horne suggested that we do not need to have exact data matches, when there is an incident in DC, DC’s data will be used, if there is an incident in Fairfax, Fairfax data will be used.

Mr. Woods asked if any of the standards have been vetted by FGDC, Mr. Yasin responded that they are just starting to reach out to them as well as OGC for data standards and data transfer standards.

Mr. Horne suggested that we discuss symbology standards as a group. We will want the ability to change symbology on our individual systems.

Mr. Woods asked if SRA/Touchstone has had issues of data being shared that should not be shared because of national security issues. Mr. Hogan responded that they have not run into that problem yet, the technology is driving people to share more and more data.

**3. GIS Data Exchange Project Kickoff**

Mr. Krucoff suggested that the committee should set up a briefing with Lockheed Martin and Frederick County to learn about the MD PSIC project status. Patrick Callahan (Prince George’s County) reported that the newly purchased hardware and application will be installed in a data center in Prince George’s County during the week of August 9th.

The committee then discussed the Virtual USA project in more detail. Mr. Conry suggested the committee should identify data gaps in current activities. Mr. Krucoff pointed out that among DHS staff there are many views on the Virtual USA system, but basically the technology does what we ultimately want, to post data and have others discover it. Mr. Horne commented that it will be interesting to watch the Pacific Northwest pilot group to see if they decide to continue the project independently. We could follow them and if they fail follow it to that point and fix it.

Mr. Conry explained that one of the constraints in developing a regional project is that the grant money expires in about a year. Also, the Senior Policy Group wants to do a more thorough needs assessment. Mr. Horne added that he believes that the expiration date is from one year of the award date. Mr. Conry reported that there is a Situational Awareness Investment plan in the works. Chief Swartz in Arlington has done a lot of work on this: Identifying what we need to know; and identifying what components we need to get there and where the data gaps are. They consider our project to be an input to that.

Mr. McMillion reported that investment plan is in progress. They are hoping to identify funds for the plan at The Senior Policy Group meeting on July 29th. There are 15 investment areas and the group has only started on six. The additional nine should be completed by the end of the year with the goal to have plans prepared in the November timeframe. On a conference call last Friday they discussed additional requirements and discussed going to Congress/DHS to ask for more funding. Mr. Krucoff asked if we could brief that group on what our group is doing. Mr. Conry stated that he was on the conference call last week and was able to communicate some of what we are doing: Task 1 of the GIS Data Exchange project deals with some of that. We all have Situational Awareness applications in our jurisdictions that we can point them to.

Mr. Horne stated that we really have two parallel projects: the “how” and the “what”. The “how” is the method of how we are going to share data. Regardless of datasets, if the “how” is set in place we can move forward to share data. Mr. Conry added that part of the process will be starting to feed data so people know it is there, in order to increase visibility. Mr. Horne stated that the most important part is Standard Operating Procedures. We also need to define the nuts and bolts – will it go over fiber etc.

Mr. Krucoff stated that we need more awareness of what we do in the area of situational awareness. He gave an example of someone in the District who made a static map of downed trees after the most recent storm, they were not aware that they could get a real-time map of the ever-changing downed-tree environment from Robert. Mr. Conry reiterated that we need more visibility of what GIS does.

Mr. Wells mentioned that there is a set of categories that we have already agreed to share. He will circulate the list as a starting point.

Jack Markey (Frederick County Emergency Manger) called in to the meeting. He said that he needs to get the group up to speed on the MD PSIC project and could arrange to bring the Lockheed team for a briefing. They are currently working to get hardware to Prince George’s County. Mr. Conry added that we need to have the briefing soon so that we know what hardware is there. Ms. Kile informed the group that the next meeting will be August 24th and suggested there be a briefing from Jack Markey and Lockheed before then. Mr. Markey said that he could set up a conference call to discuss what will be delivered and to discuss the next steps of the larger effort. Mr. Callahan confirmed the hardware installation will occur the week of August 9th.

Mr. Krucoff said that the group should examine a private version of ArcGIS.com to see if it would fit our needs. He said that the interface is good, but there are some limitations. Ms. Kile said that she would ask ESRI to present it at the GIS Committee meeting on August 24th.

Mr. Horne suggested that we may need two RFPs, one for the “what” – determining what to share, setting up the SOPs, and a second RFP to cover the “how” – the hardware. Mr. Conry added that the DEH may be able to help us with the hardware. Mr. Conry added that the data exchange hub has contracted with Verizon and that it has GIS capabilities included. Mr. Callahan added they are moving some of their hardware to Verizon. We also need to be cognizant of how we can get external access to the NCRnet so that not everyone has to be on the NCRnet. Patrick Callahan stated that he thinks that they have taken links to the Federal Government into account as part of the NCRNet.

Mr. Wells suggested that the group needs to figure out what we want to do with imagery. Mr. Conry suggested that we use Google imagery since the locals feed them the data.

Mr. Stipek suggested that we revisit the Minimum Essential Geospatial Dataset (MEGDS) to help us decide on what to share. Mr. Krucoff argued that the MEGDS is not important, that base maps are irrelevant, live feeds are important. Mr. Horne argued that the infrastructure is the most important piece, if the infrastructure is place, we can set up another feed within minutes.

Steve Chozick (Alexandria) agreed that the live feeds are important but he said some of the data is not available in-house. Determining what the live feeds will be is important, we need to know what we need to share regionally so we can get it together internally.

Mr. Callahan said that one of the first things Lockheed Martin did in launching the MD PSIC project was to ask First Responders what was important to them. Cross-border incidents were mentioned as being of high importance. In Prince George’s County they currently, have new data every eight minutes. Getting individual jurisdictions to push data out to the region at that frequency is going to be difficult.

Mr. Krucoff listed EOC incidents, 311 calls, and things put together for the incident – parade routes, staging areas, shelters, as the three types of live feeds we should consider. Mr. Callahan asked if everyone had Automatic Vehicle Locator (AVL) data available. Mr. Horne replied that they do not for police cars, but they do for fire and ambulance. He added that there is a regional project to have data-rich ambulance AVL linked to hospital capacity. Mr. Chozick said that they have AVL on some public works vehicles and buses, but snow plows can be an issue because many of them are private. Mr. Krucoff stated that DC owns many plows now, but that they were not large enough for the snowfall in February. Mr. Woods stated there is a need to look at plow size vs. street capacity, some large plows cannot be sent down narrow streets. He also stated that there is a need to stitch the Evacuation Routes together at a regional level so that they are covered in an emergency.

Mr. Conry recommended looking at what we need to do locally to feed the regional system and make recommendations to fill data gaps. Mr. Horne stated that if another jurisdiction serves up a certain data layer, we can use them as an example of budget savings to get motivation to do it in our jurisdictions.

Ms. Kile asked if a GECCO would get us along the way to the “what”. Mr. Krucoff responded that the GECCO people had approached us, but now they have disappeared. He said he is concerned about the shortness of our timeframe. He added that the All Hazards Consortium is doing a conference in September. Mr. Krucoff believes that the value of the GECCO would be to get more exposure and to bring in our bosses and emergency management people have them learn what GIS can do, so that they can come to us to get what they want and help us fill in the pieces that we don’t quite have.

Mr. Horne talked about the Project Management Plan, he said our money would be better spent bringing those who are lagging up to speed than doing a comprehensive data inventory. We need to expose feeds to existing data, but we cannot outfit every flow in the region with a modem.

Mr. Chozick stated that the value increases so much if we know we are all doing it. Identifying the gaps and the needs gives the home jurisdiction the leverage to go and get the missing data.

Mr. Krucoff stated that we need to hear from Jack Markey in order to go ahead with part of it. But we also need to start writing the RFPs as soon as possible. The SAA has contacted us but we do not have actual funds yet. Mr. Conry suggested that we could include in the RFP that they validate what Lockheed found in MD for data needs for DC and VA. We need the documents that Lockheed produced. Ms. Kile offered to ask Mr. Markey to release the Implementation Plan to the GIS Committee in advance of the conference call with Lockheed. Mr. Conry pointed out that the CIOs want us to build on the MD experience. We need to stress to Mr. Markey that in order to benefit from the MD PSIC lessens-learned, we need to get the documentation. We could hire some of the same people as the ones in the PSIC project. They may have a COG rider on the contract with Lockheed. We may also be able to go with a sole-source agreement. There have been some concerns about what is the take away from the PSIC project for all the money involved. We just want to make sure that we work with them where we can. If groundwork comes out if the MD PSIC process, than it is worth it.

The committee agreed to have a briefing from Mr. Markey and the Lockheed Martin team before the next committee meeting. Afterwards, the committee will set up subcommittees to work on the RFPs. Mr. Krucoff offered to find out when the funds expire.

**4. Other Business**

Mr. Wells announced he was gathering cadastral data for WMATA and that he will be coming to committee members individually for data. They will need it for Metro corridors and development sites around them. Their legacy data is messy and WMATA GIS is cleaning it up.

The next meeting will be held August 24th. There was request to have a briefing from ESRI.

**Upcoming Meetings:**

August 24th 10:00am
September 28th 10:00am
October 26th 10:00am