

GO COMMITTEE #2  
April 2, 2015

Worksession

MEMORANDUM

March 31, 2015

TO: Government Operations and Fiscal Policy Committee

FROM: Dr. Costis Toregas, Council IT Adviser

SUBJECT: Workplan - Interagency Technology Policy and Coordination Committee (ITPCC)

ITPCC Principals (invited):

Jerry Johnson, Washington Suburban Sanitary Commission (WSSC) (Chair)  
Larry A. Bowers, Montgomery County Public Schools (MCPS)  
Dr. DeRionne Pollard, Montgomery College (MC)  
Timothy Firestine, Montgomery County Government  
Casey Anderson, Maryland-National Capital Park and Planning Commission (M-NCPPC)  
Stacy Spann, Housing Opportunities Commission (HOC)  
Steve Farber, County Council

ITPCC CIO Subcommittee Membership:

Mujib Lodhi, WSSC (Chair)  
Carl Whitman, Montgomery College  
Sonny Segal, Montgomery County Government  
Henry Mobayeni, M-NCPPC  
Scott Ewart, HOC  
Sherwin Collette, MCPS

Gary Thomas, ITPCC staff

### Summary of Staff Recommendations:

1. Review 2016 work program and suggest projects of interest to the Committee and the Council. These may include:
  - a. Enabling the full implementation of the ITPCC FY15 pilots.
  - b. Acceleration of Public Wi-Fi deployment in all agency properties.
  - c. Strengthening of common cyber security programs and practices across agencies.
  - d. Faster deployment of Open Data strategies in all agencies.
  - e. Exploration of new governance and funding strategies for FiberNet.
  - f. Creation of a County Broadband Strategy that takes advantage of all agency resources and needs.
  - g. Development of an Enterprise Strategic Plan for IT use across all agencies.
2. Direct Council staff to target specific Committee budget discussions later this month to ensure that resource commitments are made within each agency, and collectively through the ITPCC allocations, so that this well-focused program moves forward in 2016.
3. Request that Open Data policies in each agency be explicitly considered for action by the relevant policy-setting bodies in 2016.

### Background

The ITPCC Principals Chair has conveyed by letter to the GO Chair (on 1-11) his overview of the 2015 ITPCC accomplishments and the targets for 2016 execution. The Workplan aligns with the 2 year Plan already reviewed by the Committee last year, and each of the categories are in areas of Committee interest. Funding for the Workplan has been a challenge for two reasons: 1) the major economic downturn of the last few years; and 2) the difficulty of budgeting for cross-agency projects. As the economic downturn is abating, the first part of the difficulty is being overcome, but the second is still a challenge. For FY15, the Council agreed with the recommendation of this Committee to provide \$125,000 as an initial contribution to the Interagency Technology Fund (ITF) from which the ITPCC can draw to fund specific high-value projects that impact all agencies. This allocation enabled the funding of a cyber security assessment in all agencies beyond MCG (that had already undertaken this assessment); additional projects may be launched during the balance of FY15, thanks to this directed ITF funding.

### Highlights of the Workplan

The Workplan has 5 major elements, with projects in three of them this year to date:

#### 1. **Access to Data and Information**

Three projects were actively pursued and will be completed within FY15:

- a. GIS Data Visualization pilot
- b. Interagency Web Search Capability pilot
- c. Interagency Open Data Initiative Pilot. The Committee will remember that a request is pending for articulation of Open Data policies in each of the Agencies beyond MCG. The Open Data Bill 23-12, enacted by the Council on December 4, 2012 and effective March 18, 2013, applies to MCG programs and data sets and is guided by the Open Data Implementation Plan (ODIP) timeframe and requirements. Committee members may want to ask agency leaders present to give an indication of how each of their agencies approaches the topic of Open Data and what are differences caused by laws or other barriers that may make a truly Countywide Open Data initiative difficult.

Each of these projects is on time and within budget, and shows clear evidence of the usefulness of the ITPCC in creating a climate of innovation that encourages cross-agency collaboration and solutions.

## 2. Strengthening the County **Digital Infrastructure**

FiberNet II is a major connectivity platform that allows high speed interaction among hundreds of agency buildings, schools, and housing units across the County. The expansion of the physical plant made possible through the ARRA grant is complete, and now the time has come to incorporate the new capacity in the operations plan. Already, thanks to decisive action by this committee and the full Council in January, a Network Operating Center (NOC) is under development, so the FiberNet system can continue to develop into a world class network.

The FiberNet NOC FY16 funding will be taken up in detail when the DTS and Cable Plan budgets come before the Committee later on April 20, 2015. It is evident that the full funding levels for a full year of operations reviewed by this Committee and full Council and endorsed in January 2015 are currently not in the recommended FY16 budget. A thorough analysis and recommendation will be made at that time.

## 3. Exploring Strategies for **Sustaining IT Assets** and Investments

The Red-Yellow-Green chart of the health of major systems across agencies has become a signature outcome of the ITPCC. The status for each agency appears in the attachment to the GO Committee #1 packet, "Overview – Agencies' FY16 IT Programs and Budgets". Based on this input, overall risk appears to be declining given continued investment in IT major systems at the agency level.

## 4. **Managing Risks** and Ensuring Continuity of Operations

The results from the cyber security assessment undertaken through the ITF-designated program sponsorship may now lead to penetration testing in a coordinated and planned manner - and the timing is absolutely crucial, given the increase of cyber attacks in industry, government, and society at large.

## 5. **Strategic Visioning** and Planning

Preliminary planning discussions have been initiated within the CIO Subcommittee for a CIO Retreat in 2015; scope and requirements for a FiberNet study with focus on governance issues, resource and implementation requirements, and future funding alternatives; and the need for a Digital Government/Digital Montgomery Roadmap for long range planning.



# Washington Suburban Sanitary Commission

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Jerry N. Johnson

March 26, 2015

The Honorable Nancy Navarro, Chair  
Government Operations and Fiscal Policy Committee  
Montgomery County Council  
Stella B. Werner Council Office Building  
100 Maryland Avenue, 6th Floor  
Rockville, Maryland 20850

RE: Interagency Technology Policy and Coordination Committee (ITPCC)

Dear Chair Navarro:

The Interagency Technology Policy and Coordination Committee (ITPCC) is pleased to offer this update regarding the status of the FYs15-16 work program formerly adopted on August 8, 2014 (Attachment A). The plan consists of a portfolio of projects that are consistent with ITPCC program priorities and mission that aligns interagency technology efforts to improve how our residents live, work, and learn in a digital Montgomery County. This strategy is arrayed along five program areas: Expanded Access to Data and Information; Strengthening the County Digital Infrastructure; Exploring Strategies for Sustaining IT Assets and Investments; Managing Risks and Ensuring Continuity of Operations; and Strategic Visioning and Planning.

This update will focus primarily on six projects encompassing three major program areas of our work plan: expanded access to data and information; strengthening the County digital infrastructure; and managing risks and ensuring continuity of operations.

**GIS Data Visualization Pilot Project**

<http://gismontgomery.maps.arcgis.com/home/>.

The GIS Data Visualization pilot project is essentially complete and undergoing final technical refinements. A common interagency cloud-based portal (gisMontgomery) for web-based GIS applications using ESRI ArcGIS Online (AGO) cloud services was successfully developed.

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This site provides a GIS portal where data viewer applications, or simply GIS data is organized in a centralized location for use by the public and county staff alike. After the formal FY15 project kickoff meeting on August 19, 2014, "How to" documentation for County users was developed, a Montgomery County Food Council web application leveraging the new food inspections dataset was delivered, 75 County staff from 23 agencies, departments, and municipalities were provided training in the use of the portal, and 40 of those staff members who did not already have a license were issued a new license for this portal. A final report detailing findings and future recommendations is being prepared. The formal 'go-live' public announcement will be issued by June 2015.

The ITPCC would like to thank MNCPPC for accepting the leadership role of project sponsor, and particularly acknowledge the extraordinary accomplishment of Christopher McGovern, Project Manager, in successfully developing this application and greatly enhancing public access to GIS data and information for our digital citizens.

#### **Interagency Web Search Capability Project**

This project will develop and test a solution for searching across agency websites rather than searching each site separately, and presenting the digital citizen with a more comprehensive view of information they are seeking. The Interagency Web Search Capability Project received full funding in the final FY15 budget action on May 22, 2014.

The Web Search project team re-convened on September 4, 2014, reviewed the project scope and tasks, updated the schedule, and confirmed the planned deliverables. The process of procuring the required Google Site Search capability for the interagency project was completed in late December 2014. The Google Site Search Engine was configured to crawl applicable Agency web sites between January and March 2015. A review of the application prototype by the project team was completed on March 20, 2015. Technical back-end elements were examined to improve overall performance and content delivery from agency sites. In April, the team will work to build and implement a responsive, user-friendly, Interagency Search Form/Results application prototype for public facing interface design and functionality. This will be iterative, and several prototypes will be developed and tested. In May, web search and discovery change request and technical support procedures and forms to facilitate search engine optimization and security will be created and implemented. The *Web Content Search and Discovery Guide* to provide recommendations, best practices, and guidelines for improving content discovery will be completed and provided to agencies.

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In June, training for agency Google Site Search Administrators will be provided as necessary. Final closeout of the pilot phase, assessment of the viability and benefits of expanded use of the Google Site Search solution will be completed by the end of FY15.

### **Interagency Open Data Update**

The Interagency Open Data Pilot project explored the feasibility of enhancing the availability of open data sets from the ITPCC agencies by efficiently leveraging and utilizing the experiences, tools, processes and procedures, and support from the Montgomery County Government Department of Technology Services (MCG-DTS) dataMontgomery initiative. This pilot project resulted in a massive knowledge transfer to all of the participating ITPCC agencies. Agency datasets are now published for most agencies, with only a couple still undergoing final technical adjustments to automate the data feeds across agencies, dataset edits, and final reviews. By June 2015 each agency is expected to have at least one data set (in some cases more) published on MCG's dataMontgomery web portal. This project successfully demonstrates the technical and program capability to expand the Montgomery County Open Data program to the ITPCC agencies.

In the pilot phase, concerns were raised regarding potential liability for unintended consequences that could arise from publishing outside agency data to the County's dataMontgomery site. As a result, a Memorandum of Understanding has been drafted by MCG for use with any further expansion of non-MCG datasets on dataMontgomery. Future program efforts may include expansion of interagency open dataset offerings, and development of individual agency open data policies that will govern future participation and expansion of this program. The ITPCC agencies will again look to MCG-DTS for guidance in developing agency open data policies, and will consult with the CIOs and Council staff as this effort unfolds. Completion of a final report and formal pilot project closeout is targeted for June 2015

### **Interagency Security Controls Maturity Benchmarking Study**

This project provides an important component of the interagency work program focused on management of risks and ensuring the continuity of operations. The CEB (Corporate Executive Board) Controls Maturity Benchmarking Service project provided the participating ITPCC agencies with the capability to assess and map individual agency security maturity levels as measured against a standard security reference model (NIST 800-53). Results have been provided to all ITPCC agencies as of March 19, 2015.

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Additionally, results were also integrated in a manner that provides an aggregated interagency view of security maturity in the ITPCC agencies. The results identify potential areas for remediation focus, and next steps to allow decision makers to triage and focus limited resources. A joint CIO/CEB analyst workshop will be scheduled in April 2015 to discuss the findings and develop recommendations to be advanced to the ITPCC. A joint ITPCC/CEB analyst presentation is planned for the next ITPCC meeting. ITPCC guidance will inform the next phase of what is anticipated to be a multiyear project effort.

#### **Agency Project Coordination System (APC)**

The Agency Project Coordination system (APC), a cloud-based solution administered by WSSC, allows "near real-time" data sharing, analysis, and reporting capabilities that is critical to the planning, coordination and management of infrastructure projects within the public Right-of-Way. APC enables near-real-time data consolidation from various agencies which enhances the viewing and analysis of enterprise data to support strategic business goals. Construction activities or system outages are more efficiently coordinated and notifications delivered as close to real time as possible across various agencies. The technology solutions link multiple agencies and private sector businesses. Current participants to the APC program include: Washington Suburban Sanitary Commission, Montgomery County Departments of Permitting Services and Department of Transportation; Prince George's Count: Departments of Permitting, Inspections, and Enforcement, and Department of Public Works and Transportation; Maryland State Highway Administration; several Municipalities including: City Of Gaithersburg, City of Takoma Park, College Park, Chevy Chase, Bowie, and Washington Gas.

APC provides numerous benefits such as: near real-time information among Counties and Utilities on planned and on-going construction projects in County Rights-of-Way; prevention of unnecessary pavement cuts; ability to have a Geographical view of projects with visual detection of conflicts between construction projects; reduced the need to meet face to face every few weeks with different agencies resulting in both time and cost savings; enables State agencies, Counties, Municipalities, and Utilities to proactively resolve potential conflicts or overlaps in their proposed implementation schedules. APC is promoting consistency and transparency in the management of public planned infrastructure improvement activities and has encouraged many agencies to examine and improve their own data management systems to allow consistent and robust data sharing.

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So far, as many as 70 different projects have been coordinated or conflicts resolved by WSSC with Montgomery and Prince George's county governments, the Maryland State Highway Administration, and the City of Takoma Park Maryland. This project demonstrates the potential improved service delivery to ratepayers and taxpayers that may be achieved through a multi-agency, integrated, and coordinated effort.

### **FiberNet Network Operations Center (NOC)**

The approved ITPCC work plan for FiberNet includes establishing a network operations center (NOC) for FiberNet, the County owned and operated fiber optic network that provides high speed network infrastructure to the ITPCC agencies. The NOC solution was recommended unanimously by the FiberNet Technical Advisory Group (ITAG) in 2013, and subsequently approved by the CIO Subcommittee and ITPCC, but ultimately not funded in the final FY15 budget action in May 2014. Subsequently, an attempt to secure the necessary funding through the regular supplemental budget process failed, and on December 2, 2014 the ITPCC Principals attempted to resolve the issues. The Principals did not emerge with a unanimous decision, and the issue was forwarded the County Council. On January 27, 2015, the Council voted unanimously in support of a Special Supplemental Appropriation to fund FY15 startup costs of \$360,000 to establish a FiberNet NOC as described in the August 13, 2014 supplemental request justification from MCG CIO, Sonny Segal. Council also indicated that full funding for FY16 to continue implementation of the solution was expected. To better monitor implementation progress, Council requested a monthly progress report from the Executive branch with the first report due on March 1, 2015. The March 2015 NOC implementation status report may be found as Attachment B to this letter. The contracted project manager for the NOC implementation met with the FiberNet Network Services Manager on March 18, 2015, signaling the start of implementation of the NOC solution. The FY16 Executive Recommended Operating Budget released on March 16, 2015 contains recommended funding levels for the NOC implementation next year at variance from that recommended by Council on January 27, 2015. Council review and final decision for support of the FiberNet NOC implementation in FY16 will be completed in May 2015.

### **FiberNet--Other**

With initial funding of the NOC solution approved, and the Project Manager hired, implementation of other areas of the FY16 FiberNet work plan are expect to follow quickly, including: development of the NOC Concept of Operations (CONOPS); developing a formal staffing plan; defining roles and responsibilities;

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completing agency Service Level Agreements (SLAs); and documenting operating standards, and fully staffing and operating the FiberNet NOC. Progress continues on the FiberNet HUB upgrades needed to fully utilize ARRA fiber, with five out of twelve hubs completed. Approximately one hub is completed every 3 months. While lighting all remaining MCPS elementary schools remains among the highest priorities, delays may continue as MCPS performs some internal hardware upgrades to accommodate the 1 gb/sec capability enabled by the ARRA fiber. Detailed documentation of the FiberNet optical plant using OSPInsight continues. If implementation continues without significant diversion of resources to other areas, it is probable that FiberNet II can be completed as envisioned within the next 18-24 months, thus providing a robust and reliable technological base for FiberNet III and future initiatives that may be enabled by this County resource. As the ITPCC agencies indicated in their public testimony on January 27, 2015, FiberNet is mission critical infrastructure to all of us, a major utility service for County digital communications, and a true nexus between effective service delivery and achieving our mission to improve how our residents live, work, and learn in a digital Montgomery County.

### **Summary**

The ITPCC remains committed to the interagency approach for technology where feasible, and remains constantly aware that the "taxpayer sees only one government". We continue to focus on outcomes of our work that improves how the County residents live, work, and learn in a digital Montgomery County. This is accomplished by the dedicated efforts of many staff across our six agencies, and is reflected in the projects described above.

ITPCC will continue to pursue opportunities for interagency cooperation and efficient service delivery, and the members of the ITPCC thank the County Council for its continued support and welcome its input.

Sincerely,



Jerry N. Johnson  
General Manager/CEO, WSSC

Chair, Interagency Technology Policy and  
Coordination Committee (ITPCC)

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Attachments (2)

cc: The Honorable Hans Riemer  
The Honorable Sidney Katz  
ITPCC Principals  
ITPCC CIO Subcommittee

**Interagency Technology Policy and Coordination Committee  
ITPCC FYs 2015-2016 Work Plan**

**1.0 Digital Citizenship/Digital Montgomery--Access to Data and Information**

• **Interagency Open Data Program**

This project will expand the capabilities developed in the pilot phase to enable any ITPCC agency to publish additional open data sets through the MCG-DTS dataMontgomery program. ITPCC agencies may formalize agency specific open data policies and expand open data set offerings.

• **Interagency Web Search Capability Pilot**

This project was deferred in the previous work plan because of uncertain funding resources in FY14. It is fully ready for implementation. This project is intended to strengthen citizen access to information contained within agency web sites that current search solutions do not easily reveal. The feasibility and implications of leveraging the MCG Google Search solution for web crawling and indexing outside agency site information, and a solution for presentation of the data will be implemented. Funding has now been approved for FY15.

• **Interagency GIS Data Portal**

The project will expand the availability and content of GIS information and applications through the interagency GIS portal (gisMontgomery), developed in Phase I, and expand the offerings to a broad base of GIS users. It is intended to enhance the offerings to the broader Digital Community and openMontgomery initiatives, enhance GIS data visualization and access through a centralized interagency portal, and support web, mobile device, and other applications that leverage Montgomery County's GIS resources and infrastructure.

• **Interagency Social Media Communications Pilot**

This pilot project will examine of potential uses for select social media tools through the creation of a limited scope test project within the CIO Subcommittee, or a project subgroup.

**2.0 Strengthening IT Infrastructure**

• **FiberNet II Buildout**

Specific priorities include:

- Implement the FiberNet plan as reflected in the approved FYs15-20 FiberNet CIP.
- Complete the scheduled Hub Fiber Distribution Center Rebuild for FiberNet Hubs to accommodate new ARRA fiber and existing fiber.
- Establish the FiberNet Network Operations Center (NOC) in coordination with the MCG-DOT Traffic Management Center (TMC) to provide 7/24/365 operational monitoring and outage responses for network operations that is necessary to meet Service Level Agreement reliability requirements for the network.
- Complete and document agency and site specific details required by the FiberNet SLA.
- Continue to document the FiberNet optical plant using OSOInsight.

• **FiberNet II Utilization Study**

Perform a study to investigate and recommend the highest and best uses for the post-ARRA FiberNet II. Scope may include: identify any legal restrictions that constrain options to expand utilization beyond strictly MCG government use; identify potential conflicts other non-MCG entities; identify specific prohibited uses and constraints; identify specific opportunities for monetizing the asset to produce revenue and other benefits to the County; identify resources and

other requirements needed to implement recommendations.

- **Interagency Mobile Systems Joint Application Development and Coordination**  
Continue to build upon and coordinate interagency joint solution development to leverage knowledge, technical expertise, share applications, manage legal issues, and sharing policy guidelines related to mobile computing.
- **Agency Project Coordination [APC Project]**  
An evolving and expanded effort resulting from the joint MCG/WSSC Right of Way project initiative in FY14 is proposed for FYs 15-16.

### **3.0 Sustainable Plan for Managing Interagency IT Assets**

- **Interagency IT Human Asset Development**  
Explore feasibility, develop scope, and develop requirements for a coordinated interagency human asset development project focused on technology. This project may include on-the-job training (OJT) components, work-study (WS), internships, and enhanced workforce training components in current and rapidly emerging areas of need.
- **Major IT Systems Planning and Funding Strategies**  
The CIO Subcommittee will work with OMB and Council staff to re-engage this effort in FY15 to reduce the risks associated with “fix on failure” practices. Agencies desire to coordinate with established budget and planning processes to improve resource allocation decisions for sustainable upgrade and replacement strategies over the long term.

### **4.0 Interagency Risk Management—CyberSecurity, COOP, and Mutual Aid Coordination**

- **Information Assurance and CyberSecurity**  
Select an industry standard security reference model to enable agencies to map current security and risk management practices to a standard model and assess individual maturity levels of compliance, vulnerability, and risk; prioritize findings; determine remediation requirements; implement corrective action plans; test. The goal is to improve the level of organizational maturity in securing information and cyber assets, and to actively engage both technical and non-IT workforce elements in risk management.

### **5.0 Strategic Visioning and Planning**

- **Interagency CIO IT Strategic Planning Retreat**  
The CIO Staff Subcommittee will conduct its second interagency group retreat to engage in long range strategic visioning and priority setting for interagency information technologies and solutions.
- **Interagency FiberNet 5-year Strategic Plan**  
Develop scope and requirements for an interagency 5-year FiberNet Strategic Plan for Montgomery County. The last FiberNet Strategic plan was completed in 2002.
- **Digital Government/Digital Montgomery Roadmap**  
Develop an interagency IT Strategic Plan/Roadmap for Montgomery County utilizing professional services to create and publish a comprehensive 5-year plan.

[Recommendation approved unanimously by CIO Subcommittee, May 30, 2014]

APPROVED by ITPCC: August 8, 2014

**MEMORANDUM**

March 3, 2015

**TO:** Nancy Navarro, Chair  
Government Operations and Fiscal Policy Committee  
Montgomery County Council

**FROM:** H. N. Sonny Segal, Director  
Department of Technology Services

**SUBJECT:** Status Report on the Implementation of the FiberNet Network Operations Center (NOC)

The purpose of this memorandum is to provide an update on the status of the efforts to implement a NOC, as requested in your memorandum dated February 3, 2015.

In order to plan, resource and implement the NOC in the shortest period of time, the current efforts are to retain the services of a contracted project manager with experience in standing up and operating a NOC. DTS has interviewed and selected a candidate. This individual is expected to join on March 16, 2015 and will report to the FiberNet Network Services Manager. Upon joining, the project manager will develop the NOC Concept of Operations, staffing plan, roles and responsibilities, service level agreements and operating standards. Concurrently, DTS is drafting the Task Order Proposal Request (TOPR) for procuring the services of operators who will staff the NOC.

The NOC Project Manager (PM) will help finalize the TOPR scope of work immediately upon joining to facilitate the execution of the following timeline:

No.	Milestone	Target Completion Date	Issues/Comments
1.	Project Manager retained	March 16, 2015	Task Order in progress
2.	NOC logistics completed	April 27, 2015	In-progress
3.	NOC staff retained	May 30, 2015	Procurement action required
4.	Phase 1: Ramp-up	July 1, 2015	Includes training
5.	Concept of Operations drafted	July 15, 2015	Requires PM
6.	Phase 2: 24x7 Operation	October 1, 2015	Monitoring, call taking
7.	SLAs negotiated	October 31, 2015	ITPCC agencies
8.	Phase 3: Full function operation	March 1, 2016	Design review, change management
9.	Phase 4: TMC integration	December 1, 2016	FY17 activity

As indicated by the timeline, services will be gradually introduced over a period of eleven months of operation to achieve a full-function NOC.

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Pursuant to your February 3 memo, the following table summarizes the funds balance as of the last day of February 2015.

<b>Item</b>	<b>Amount (\$)</b>
NOC Funds Balance	\$360,000

I look forward to providing the next status update in the first week of April.

c: Timothy L. Firestine, Chief Administrative Officer  
Jennifer Hughes, Director, Office of Management and Budget  
Fariba Kassiri, Assistant Chief Administrative Officer  
Dieter Klinger, Chief Operation Officer, DTS  
Max Stuckey, Chief, Telecommunications Division, DTS  
John Castner, Manager, Network Services, DTS