

networkMaryland™ Advisory Group  
September 19, 2006  
Annapolis, MD

Next meeting to be held  
November 21, 2006 10 AM to 12 PM



**Attendees:**

**Advisory Group**

Ron Brothers  
Mike McCarty  
Steve Molnar  
Chuck Bristow  
Ron Ward  
Paul Thorn  
Barb Pivec  
Sydney Drake  
Pat Wallace

**Guest**

Jason Ross  
Robert Bowman  
Rich Ramsey  
Bob Bream

**DBM**

Ellis Kitchen  
Greg Urban  
Tim Kwong  
Gary Moulton  
Tia McCoy

## **Welcome & Introductions**

Greg Urban called meeting to order.

Introduced himself, Ellis Kitchen and Tim Kwong, and reviewed agenda.  
State Chief of Information Technology

Opened the floor for questions and/or advice.

## **Approval of minutes from July meeting**

Due to technical difficulties, we were unable to capture the recording of the minutes for the July meeting.

There were three key items discussed outside of the agenda

The recommendation that we do a user survey for the customers.

This has been discussed with Maryland.gov.

The Board asked for a financial overview

This is the budget season and the accountants are working to get the budget ready for next but we anticipate having the numbers ready for the next meeting.

Carroll County was looking for redundant connectivity

We haven't engaged that process but it is captured in the networkMaryland™ plan.

## **State of the Network**

67 Subscribers today

Change of 2 from the last meeting.

Circuit Breakdown

71 ISP Circuits

77 SwGI Circuits

968 Layer 2 Circuits

12 VPN Connections

## **Executive Branch**

There is not much of a change since the last meeting, because a good portion of them have already migrated to networkMaryland™.

## **Non Executive Branch**

Counties and other Governor's offices and commissions would be listed under this heading. The red asterisks indicate changes since the last meeting.

The State Board of Elections is in the process of receiving Internet service from networkMaryland™.

The Office of Public Defender, Baltimore City Community College and the MD Stadium Authority are in the process of receiving SwGI service from networkMaryland™.

CAPWIN and the MD General Assembly are receiving SwGI service from networkMaryland™.

## Operations

### Milestones\New Business

Legacy FMIS migration continues

Only 4 remaining customers

All customers are waiting for equipment to arrive and some are awaiting network integration assistance.

Change of 2 since last meeting.

VPN Concentrator

LAN-to-LAN tunnels – 8 agencies connected

VPN clients – 4 agencies operating today

Many Intra-LATA T-1s submitted to VZ for DISCONNECTION!

(Only 8 remaining circuits left)

When the 4 remaining customers migrate we will be able to put in a disconnect order for the 8 remaining circuits.

Challenges:

Remaining Agencies waiting for equipment to arrive

Requesting integration assistance\expertise

New SMTP Mail appliance arrived and in process of configuration

Has arrived in Hanover and we anticipate it to be in operation by the next Advisory Group meeting.

Baltimore ISP RFP has been awarded to Qwest

Bandwidth: 100 Mbps upgradeable to 1000 Mbps

At 6 St. Paul street.

## Upcoming Tasks

### Customers on the Horizon

Carroll County Gov't – ISP & SwGI (pending MOU)

Baltimore County Gov't – pending MOU completion with MDOT

The MOU had to be modified. The original MOU was written with reference to an aerial design, using aerial fiber.

Baltimore County has just identified an underground fiber route for the entire length.

SAILOR Ethernet hand-off @ Elkton

This will be a 200 megabit handoff at Elkton which will allow

SAILOR to have connectivity from their offices in Baltimore up to Elkton.

St. Mary's County – ISP & SwGI (pending MOU)

Garrett County (once the PoP is operational)

We are in the process of helping the County with their connection into networkMaryland™.

Caroline County – waiting on Splice enclosures to be installed in Denton  
VoIP trial with MSP (Northeast to Easton)

Router is in place and ready to deliver services

Coordinating interface details with MSP

The router is in place at the JFK location and ready to deliver services. Once the coordination is complete with MSP the next step is provisioning circuits and getting the PBXs to talk to one another.

### **Circuit Provisioning and Acceptance**

251 circuits are currently in the customer's testing/implementation phase

29 new circuits have been provisioned since the last meeting

29 circuits have been accepted by the customer since the last meeting.

### **Growth Chart**

We are steadily going up. We are close to reaching the one thousand mark. We are making a big push to get acceptance on circuits. Some of them are in use and some have been in the queue so long they aren't needed. We are trying to clean them up.

### **Project Status**

Prince Frederick PoP:

Completed & Accepted

Ellicott City MSC PoP:

Completed & Accepted as of September 14th

Elkton MSC PoP:

Completed & Operational as of September 8th

Acceptance expected by September 30<sup>th</sup>

Garrett County MSC PoP completed!

Completed & Operational as of September 14th

Working with the County for ISP & SwGI services

Leonardtown MSC:

Equipment installed and configured

Waiting on Verizon leased circuit.

Anticipate completion by Sept. 30

Once this is completed we will have a presence in all the counties and the City of Baltimore and we'll have the first iteration of our backbone.

## JIS Data Center

Project Management Plan completed. Anticipated completion December 2006

AA County will get their nwMD services from this PoP

We've come to an agreement on what we're going to build and how we are going to build it. The project management plan has been completed. Anne Arundel County will be getting service out of this Data Center.

## Stabilizing the Core - Annapolis spur

Fiber Path for Segment 2 (Rowe Blvd. to the General Services Bldg.) was completed

Alternate path was utilized as workaround for damaged conduit

Fiber still needs to be terminated in DGS building

All the parts have come in for this project. As of Wednesday (9/13/06) it had not been completed but, to our understanding it is supposed to be completed before this Friday (9/22/06).

## DWDM Ring (Partnership with USM, MDOT)

All fiber construction has been completed!

Final splicing will be completed this week (9/18 – 9/22) after splicing, testing will complete the task

Equipment installation & configuration has already started.

The projected turn-up date is October 1, 2006. networkMaryland's™ portion is an OC48 between 6 St. Paul and College Park. This will be built redundantly so we'll have two paths between the two locations.

## Future POP & Fiber Builds

Elkton SONET Node: Located on the Level3 fiber route next to the Elkton Library (SAILOR partnership)

Elkton MSC POP: Fiber build from SONET node to MSC

Towson POP: Baltimore County will build fiber route to County Data Center, nwMD will install POP (pending MOU)

## Eastern Shore Microwave Backbone

Working to upgrade DC power at POP sites

Investigating additional redundancy via partnership with Sailor

## Teltronics Contract – Microwave link management

Created operational sparing model

Monitoring performance of microwave links between Eastern Shore sites

Sharing of data and information on signal loss to determine source/cause

## **networkMaryland™ Overview**

There are still two red areas (Towson and Leonardtown), but we are working hard on those.

## **Other Business**

How many leased circuits are we doing? Over the years we were trying to move away from the leased circuits and replace them with our own. How were we moving over the last couple of years? Are we acquiring more and more leased services or were we continuing to divest ourselves of them as the opportunities arise?

We have about 6 or 7 PoPs of leased circuits. We had to choose between getting the network built and continuing to wait for resource share agreements to fall in place. We opted to move to leased arrangements. We will continue to search for resource sharing opportunities and when they occur we will abandon the leased services and move to our own operating services. For example we are very hopeful that the Eastern Shore Broadband initiative will give some opportunities to do that. There is work going on with the Tri County Council in Southern Maryland to build a fiber ring between the three counties, we want to be involved in that and exchange assets for assets. We chose the correct course to get the network built using leased service rather than waiting for things that might never happen.

In 2003 we had all leased services except for College Park, Annapolis and Baltimore. We were mostly using something called the Digital Backbone network which was about a million and a half a year in leased services. That network has been decommissioned. The FMIS network that used to be a leased network has been decommissioned. We have decommissioned about four to four and a half million dollars worth of leased services in the last 12 months or so.

The Elkton PoP is an example of putting a leased circuit in but not abandoning the opportunity. We are still moving forward with trying bring them onto the network and fiber based, divesting ourselves from the leased circuit. It's still part of the plan and part of the ongoing build of the network.

Is the signal loss at the Eastern Shore PoPs repetitive? It looks like you are trying to tighten up that microwave network.

The microwave back bone was new to us when we built it, so we learned operational things when we started operating it. We learned some things in first six months of operating it. Going back, looking link by link and making sure that we can get the same level of performance and availability out of the Eastern Shore as we are on the Western Shore. Right now there are no customer affecting issues with performance on the Eastern Shore. It's a primary portion of our network and we are focused on its performance.

Are we using licensed frequency or unlicensed frequency for the microwave shocks on the Eastern Shore and throughout networkMaryland™?

Licensed frequency.

We are starting to work on a disaster recovery plan and additional redundancy is part of the network build out. Those are two other areas we are focusing on and coming up with some more strategy and planning for. As the network becomes relied upon by more customers, these are major issues that we and the customers have in common.

Are there any intentions on expanding the VoIP network?

Yes, the trial with Maryland State Police is using a trunk PBX to PBX. Once we get this successful we can look at standardizing that as an offering and can go ahead and take it to the next level and see what other ways we can support VoIP. Clearly it is a direction we are headed in as well as the industry.

Have we done any economic modeling in terms of offering VoIP to the public sector?

We haven't yet; we wanted to prove the technology first. Once we've proven that we'll do a business case on it. We believe that the incremental cost of rolling out VoIP is pretty small. But we do have to compare that the declining price points in the market place for local services and intra LATA toll.

Where are you pulling from in Elkton that you need a wireless shot over to the Eastern Shore? Is it wireless or is fiber?

Our shot to the Eastern Shore comes from the JFK toll plaza. Its wireless from there over to Chestertown.

nwMD Engineering Committee meeting

Oct. 9, 2006, 1:30 PM @ UMBC Tech Center

Merged with UMATS engineering meeting

Richard Rose is your host

Do think that we'll be able to discuss financial aspects by our next meeting?

Everyone is working on there FY08 budgets, that runs through about the second week in October, so our budget analysts are working six or seven days a week trying to get all that done.

Is networkMaryland going to be asking for additional funds?

Our funding is flat; I don't think we need to ask for additional funds, which means our billing rates will stay constant as well.

Meeting Adjourned.