

# networkMaryland™ Advisory Group Meeting

November 18, 2008  
Annapolis, MD



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S T A T E O F M A R Y L A N D  
D E P A R T M E N T O F I N F O R M A T I O N T E C H N O L O G Y



# Meeting Agenda

- Welcome & Introductions
- New Business
- State of the Network
- Status of Project
- Other Business





# Welcome

- Introductions
- Gregory Urban – Director, networkMaryland™
- Elliot Schlanger – Chief of Information Technology
- Guests/Visitors





# New Business

- Announcements
- Meeting Minutes Approval
  - September 2008
- State Budget
  - Continue fiscal responsibility and look for additional ways to reduce costs to the State
- New ISP Contract
  - Awarded to Atlantech Online
  - 200 Mbps circuit delivered at UMCP
  - Redundant fiber paths from UMCP to Atlantech POP
  - Looking to move UMATS feed to Baltimore from UMCP





# New Business

- Ethernet Everywhere Update
  - New POP Hardware Purchased
    - Overture 5100 & Cisco ONS Transmux DS-3 cards
    - Equipment able to provide required flexibility (no 8-bundle limitations per DS3 circuit)
    - Integrates well within our existing ONS platforms
    - Will be deployed in all four LATAs
    - SONET equipment scheduled to arrive in mid-December
  - Roll-out of services have begun
    - Deployments in Western and Baltimore LATAs have begun
    - Eastern Shore deployments begin next week





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# Operational Subscribers

- 77 Operational Subscribers
- Circuit Breakdown
  - 86 ISP Circuits (+2)
  - 89 SwGI Circuits (+0)
  - 1399 Layer 2 Circuits (+15)
  - 10 VPN Subscriber Connections (+0)



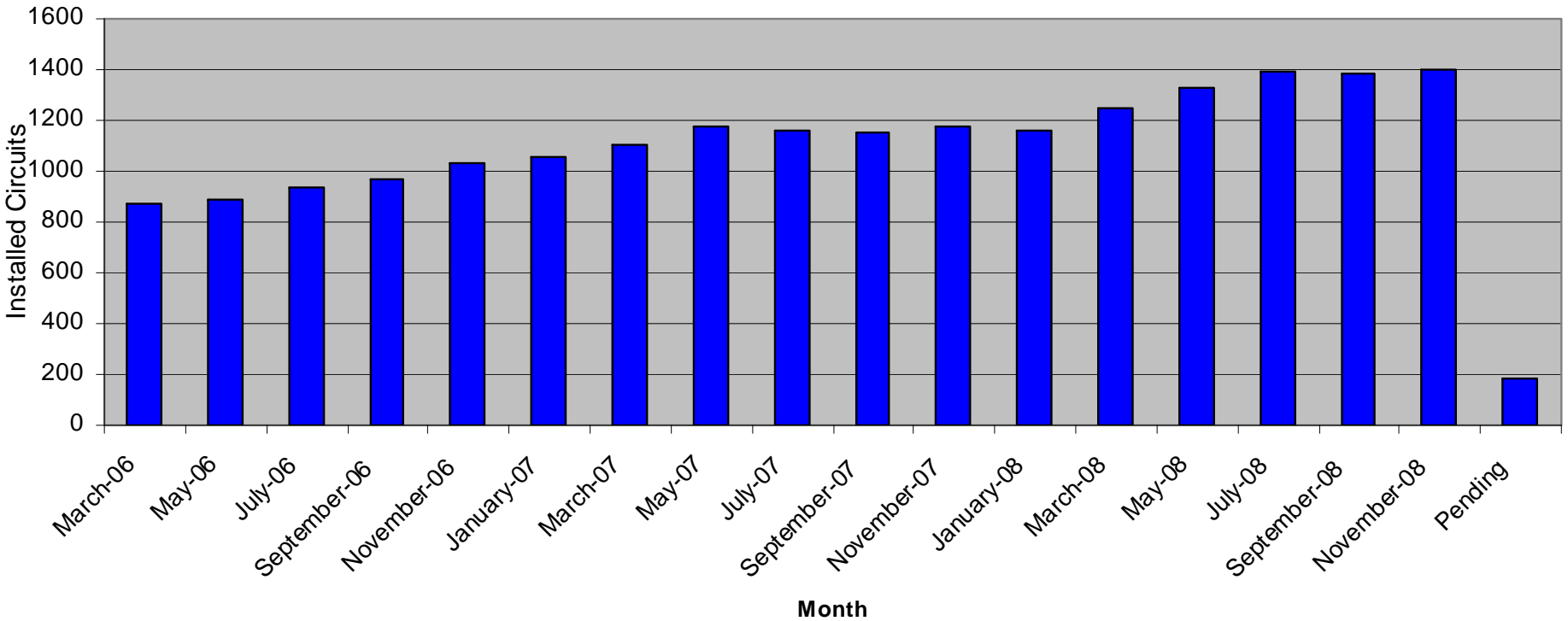
# Subscriber Provisioning

- 44 circuits are currently in the subscriber's testing/implementation phase
- 19 new circuits have been provisioned since the last meeting
- 48 circuits have been accepted by the subscriber since the last meeting





# Installed Circuits





# Executive Branch

## Executive Branch networkMaryland Subscribers as of November 17, 2008

Treasurer	Internet SwGI Layer 2	Comptroller	Internet SwGI Layer 2 *	Governor's Office	Internet SwGI Layer 2 *	Attorney General	Internet SwGI Layer 2	Secretary of State	Internet SwGI Layer 2
Aging	Internet SwGI ** Layer 2	Agriculture	Internet SwGI Layer 2 *	Budget & Management	Internet SwGI Layer 2	Business & Economic Development	Internet SwGI Layer 2 ** *	Education	Internet SwGI Layer 2 *
Environment	Internet SwGI Layer 2 *	General Services	Internet SwGI Layer 2	Health & Mental Hygiene	Internet SwGI Layer 2 *	Housing & Community Development	Internet SwGI Layer 2	Human Resources	Internet SwGI Layer 2 *
Information Technology	Internet SwGI Layer 2	Juvenile Services	Internet SwGI Layer 2 ** *	Labor, Licensing & Regulation	Internet SwGI Layer 2 *	Natural Resources	Internet SwGI Layer 2 *	Planning	Internet SwGI Layer 2
		Public Safety Correctional Services	Internet SwGI Layer 2 *	State Police	Internet SwGI Layer 2 *	Transportation	Internet SwGI Layer 2 *	Veteran's Affairs	Internet SwGI Layer 2

### Legend:

Agency is Not Receiving networkMaryland Service - A Cost Savings exists if networkMaryland provides service
Agency Expressed Interest in Receiving networkMaryland Service
Agency is in Process of Receiving networkMaryland Service (JCR submitted)
Agency is Receiving networkMaryland Service
Size of Agency is small and does not realize a significant cost savings by connecting to networkMaryland or the service is not required

\* networkMaryland Provisioning has been completed, Department is in process of migrating to service

\*\* Agency is receiving networkMaryland service through parent, primary agency

\* - denotes a change in service since the last Advisory Group Meeting





# Non-Executive Branch

## Non-Executive Branch networkMaryland Subscribers as of November 17, 2008

Office of People's Council Internet SwGI Layer 2	Judiciary Internet SwGI Layer 2 *	MD General Assembly Internet SwGI Layer 2	Office of Legislative Auditors Internet SwGI Layer 2	State Lottery Internet SwGI Layer 2
State Board of Elections Internet SwGI Layer 2 *	Maryland State Archives Internet SwGI Layer 2	Department of Assessment and Taxation Internet SwGI Layer 2 *	MIEMMS Internet SwGI Layer 2	Subsequent Injury Fund Internet SwGI Layer 2
Commission of Human Relations Internet SwGI Layer 2	Office for Children Internet SwGI Layer 2	Office of Public Defender Internet SwGI Layer 2	Dept. of Rehabilitative Services Internet ** SwGI** Layer 2 *	Dept. of Military Internet SwGI Layer 2
Workers' Compensation Commission Internet SwGI Layer 2	State Retirement Agency Internet SwGI Layer 2 *	Maryland State Retirement Plan Internet SwGI Layer 2	MD Auto Insurance Fund Internet SwGI Layer 2	State Board of Contract Appeals Internet SwGI Layer 2
MD Higher Education Commission Internet SwGI Layer 2 *	College Savings Plans of Maryland Internet SwGI Layer 2 *	Office of Crime Control & Prevention Internet SwGI Layer 2	Maryland Emergency Management Agency Internet SwGI Layer 2	MD Stadium Authority Internet SwGI Layer 2
Public Service Commission Internet SwGI Layer 2 *	Office of Admin Hearings Internet SwGI Layer 2 *	MD Insurance Administration Internet SwGI Layer 2	Office of State Prosecutor Internet SwGI Layer 2	Canal Place Authority Internet SwGI Layer 2

### Legend:

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Agency is in Process of Receiving networkMaryland Service (JCR submitted)
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Register of Wills Internet SwGI Layer 2 *
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# Non-State Customers

## Non-State entities\Counties\Municipalities networkMaryland Subscribers as of November 17, 2008

Baltimore City	Internet
	SwGl
	Layer 2

Charles County Government	Internet *
	SwGl
	Layer 2

University System of Maryland	Internet
	SwGl
	Layer 2

Frederick County Government	Internet
	SwGl
	Layer 2

Baltimore City State's Attorney Office	Internet
	SwGl
	Layer 2

Carroll County Gov't	Internet
	SwGl
	Layer 2

Maryland School for the Deaf	Internet
	SwGl
	Layer 2

Montgomery County Government	Internet *
	SwGl
	Layer 2

Baltimore City Community College	Internet
	SwGl
	Layer 2

Caroline County Gov't	Internet
	SwGl
	Layer 2

Alleghany County Board of Education	Internet
	SwGl
	Layer 2

Prince Georges County Government	Internet *
	SwGl
	Layer 2

Baltimore County Government	Internet
	SwGl
	Layer 2

Ocean City Gov't	Internet
	SwGl
	Layer 2

Anne Arundel County Government	Internet *
	SwGl
	Layer 2

Howard County Government	Internet
	SwGl
	Layer 2

MD Public TV (MPT)	Internet
	SwGl
	Layer 2

Garrett County Public Schools	Internet
	SwGl
	Layer 2

St. Mary's County Gov't	Internet
	SwGl
	Layer 2

CAPWIN	Internet
	SwGl
	Layer 2

**Legend:**

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City of Laurel Gov't	Internet
	SwGl
	Layer 2

Washington County (BWA)	Internet
	SwGl
	Layer 2

Maryland Environmental Service	Internet
	SwGl
	Layer 2

Washington County Public Network (WCPN)	Internet
	SwGl
	Layer 2

College of Southern MD	Internet *
	SwGl
	Layer 2 *

Women, Children & Infants Program(WIC)	Internet
	SwGl
	Layer 2



# New Provisioning Activity

- *Ethernet Everywhere: Requests continues to pour in!*
  - Western LATA sites scheduled to be turned up by end of month
  - DHMH & MSDE: Services activated in Baltimore
    - DS3 circuit will be installed at 4201 Patterson Ave. to service MDoT & DHMH
  - MDoT: Submitted 13 requests (mostly Western LATA)
  - DPSCS: Submitted 10 requests during its first phase of deployment
  - OAH (Office of Administrative Hearings):
    - A single connection to carry both ISP & SwGI traffic.
    - Avoids purchasing two leased lines to receive both services.
  - MDA (Dept. of Agriculture): Submitted 38 requests, one for each of their remote offices





# Other Provisioning Activity

- Denton MSC
  - All provisioned circuits are marked Operational
- Salisbury MSC
  - All provisioned circuits are marked Operational
  - Agencies partnering together to handle the physical cabling for connecting to the networkMaryland™ CPE.
- Frederick County
  - Diverse ISP path for county
  - Waiting on FiberGate agreement to be signed.



# Operations

- Operational Improvements
  - Successfully migrated DoIT\DBM's L2 connection between Annapolis & Baltimore off of ATM & onto Ethernet\MPLS
    - Polycom Videoconferencing System was also migrated off of the Verizon ISDN network and uses this new connection today!
  - Reterminated DJS's networkMaryland™ services to a location with that has power backed up by a generator
  - Cisco platforms undergoing software upgrades over the next several weeks so that all devices will be running a consistent code base
  - ISP transition to Atlantech underway. Turn-up will occur by end of this month. (Qwest contract ends in mid-December)



# Performance Standards & Service Levels – July 2008

<b>RFP Section 2.9.1 Service Desk Tickets</b>			
	<b>Severity 1</b>	<b>Severity 2</b>	<b>Severity 3</b>
Number of Cases relating to "outages"	0	1	10
Begin Diagnosis (5 min, 5 min, 5 min)	100%	100%	80%
Notification to State (10 min, 10 min, 10 min)	100%	100%	100%
Onsite Support with Parts (4 hours, 4 hours, NBD)	100%	100%	100%
1st Escalation to NetMD (2 hours, 4 hours, NBD)	100%	100%	100%
2nd Escalation to NetMD (2 hours, 4 hours, NBD) after 1st	100%	100%	100%
3rd Escalation to NetMD (2 hours, 4 hours, NBD) after 2nd	100%	100%	100%
Resolution Notification (10 min, 10 min, 10 min)	100%	100%	100%
<b>RFP Section 2.9.2 Fault Detection &amp; Repair</b>			
95% of service affecting outages repaired prior to 1st escalation	90.9%		
98% of service affecting outages repaired prior to 2nd escalation	100.0%		
<b>RFP Section 2.9.3 Service Availability</b>			
ISP 99.9% available	100%		
SWGf 99.9% available	100%		
L2 Services 99.9% available	100%		







# Performance Standards & Service Levels – August 2008

<b>RFP Section 2.9.1 Service Desk Tickets</b>			
	<b>Severity 1</b>	<b>Severity 2</b>	<b>Severity 3</b>
Number of Cases relating to "outages"	0	0	7
Begin Diagnosis (5 min, 5 min, 5 min)	100%	100%	71%
Notification to State (10 min, 10 min, 10 min)	100%	100%	100%
Onsite Support with Parts (4 hours, 4 hours, NBD)	100%	100%	100%
1st Escalation to NetMD (2 hours, 4 hours, NBD)	100%	100%	100%
2nd Escalation to NetMD (2 hours, 4 hours, NBD) after 1st	100%	100%	100%
3rd Escalation to NetMD (2 hours, 4 hours, NBD) after 2nd	100%	100%	100%
Resolution Notification (10 min, 10 min, 10 min)	100%	100%	100%
<b>RFP Section 2.9.2 Fault Detection &amp; Repair</b>			
95% of service affecting outages repaired prior to 1st escalation	42.9%		
98% of service affecting outages repaired prior to 2nd escalation	42.9%		
<b>RFP Section 2.9.3 Service Availability</b>			
ISP 99.9% available	100%		
SWGI 99.9% available	100%		
L2 Services 99.9% available	100%		





# Performance Standards & Service Levels – September 2008

<b>RFP Section 2.9.1 Service Desk Tickets</b>			
	<b>Severity 1</b>	<b>Severity 2</b>	<b>Severity 3</b>
Number of Cases relating to "outages"	1	1	10
Begin Diagnosis (5 min, 5 min, 5 min)	100%	100%	70%
Notification to State (10 min, 10 min, 10 min)	100%	100%	100%
Onsite Support with Parts (4 hours, 4 hours, NBD)	100%	100%	100%
1st Escalation to NetMD (2 hours, 4 hours, NBD)	100%	100%	100%
2nd Escalation to NetMD (2 hours, 4 hours, NBD) after 1st	100%	100%	100%
3rd Escalation to NetMD (2 hours, 4 hours, NBD) after 2nd	100%	100%	100%
Resolution Notification (10 min, 10 min, 10 min)	100%	100%	100%
<b>RFP Section 2.9.2 Fault Detection &amp; Repair</b>			
95% of service affecting outages repaired prior to 1st escalation	100.0%		
98% of service affecting outages repaired prior to 2nd escalation	100.0%		
<b>RFP Section 2.9.3 Service Availability</b>			
ISP 99.9% available	100.00%		
SWGfI 99.9% available	99.82%		
L2 Services 99.9% available	99.82%		





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# Project Status

- Migration from ATM to Native IP
  - Phase V: MultiService Centers
    - Updating design – evaluating MPLS aware equipment at each MSC – Still evaluating hardware options
    - Schedule will be updated
  - Phase VI: Last Mile (FRASI Replacement)
    - Ethernet Everywhere is expected to have a major role
    - Circuit aggregation equipment will support Ethernet Everywhere & clear channel circuits to customer owned CPE
    - No planning has begun





# Project Status

- **BMAN Upgrade**
  - Phase III: Redesign of Core in Baltimore
  - Project has been suspended due to lack of resources.
- **Deployment of multi-cast capabilities on SWGI**
  - Working with CHART to
    - Distribute video feeds to non-MDOT subscribers
    - Assist with development & lab testing of CHART video distribution
    - Assist deploying equipment at subscriber locations
  - Lab testing hardware and software versions
  - Requires upgrading all Juniper routers to latest code release



# Project Status

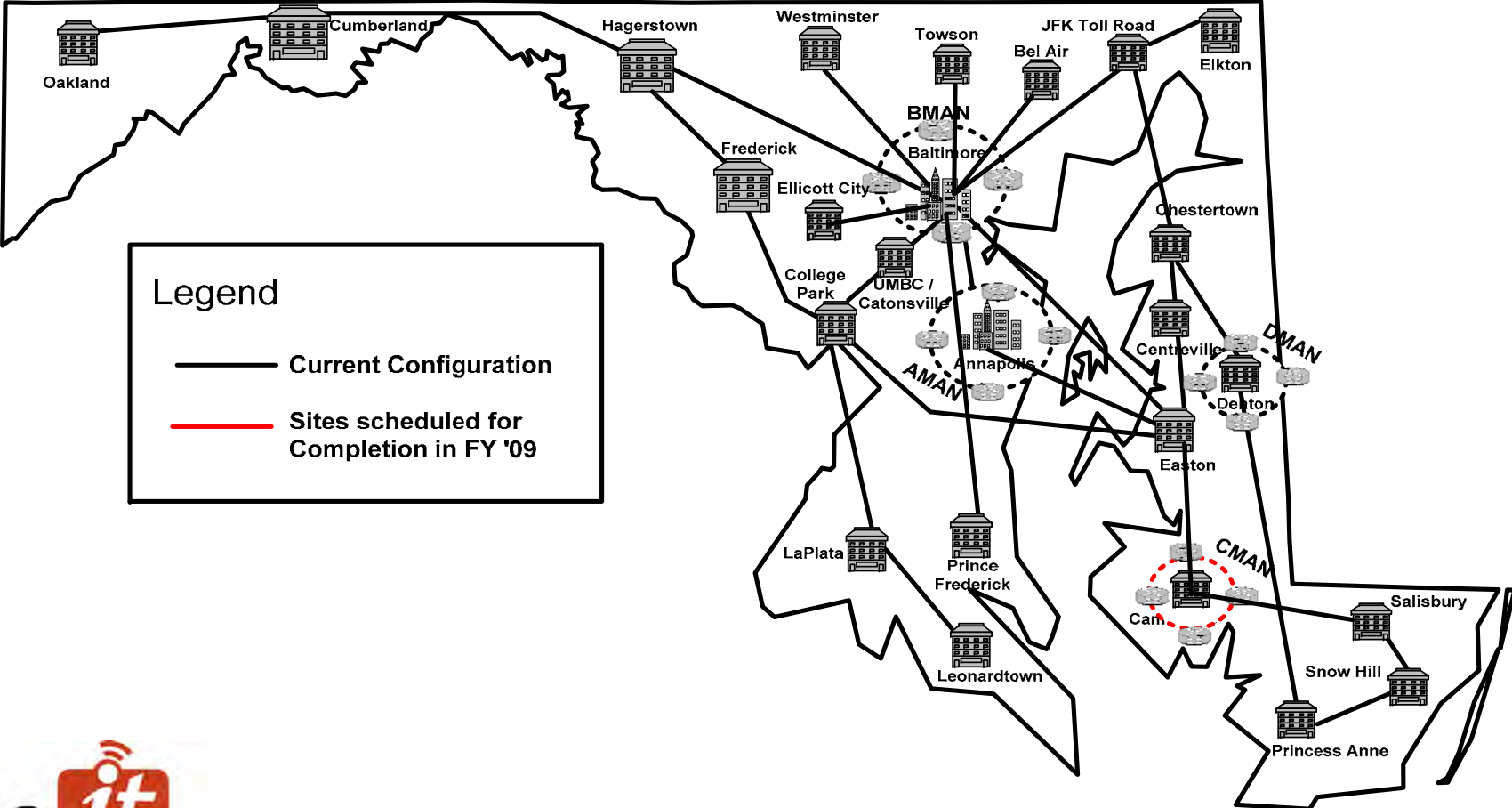
- World Trade Center (Anticipated completion: Jan 2009)
  - New PoP established to support DBED's new offices
  - SAILOR-provided fiber from WTC to 6 St. Paul
  - Established project plans and milestones to meet completion date
  - Equipment has been ordered
  - Also tied to the 217 E. Redwood St. BMAN equipment relocation
    - Coordinating with the Dept. of Disabilities and College Savings Plan of Maryland on their new connections to networkMaryland™
- Cambridge MAN (No status change)
  - Equipment has been received
  - Fiber installation in progress by Bay Country Communications
- Frederick MAN (No status change)
  - Pending FiberGate resource sharing agreement
  - Build a diverse fiber path & dual connect Frederick to UMCP/Hagerstown





# Network Overview

(November 2008)





# Fiber Projects

- St. Mary's County
  - Receive one pair of fiber from Leonardtown MSC to US301 connecting to La Plata via Level3 fiber.
  - Construction connecting State & Metrocast fiber on hold pending a new work order under the Cable and Wiring Master Contract.
  - MOU in review by county
- Pikesville
  - Working with MSP, DPSCS, Baltimore County, and Baltimore City Police to build fiber along Reisterstown Road in the Pikesville Area
  - Ordering Verizon Ethernet services as interim solution







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# Other Business

- Advisory Group Charter Changes
- networkMaryland™ Engineering Committee meeting
  - December 8th, 2008, 1:30 PM @ UMBC Technology Center
  - Merged with UMATS engineering meeting
- Closing Questions or Comments



# Meeting Adjourned

