

networkMaryland™ Advisory Group Meeting

January 22, 2009

Annapolis, MD



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™
- Guests/Visitors





New Business

- Announcements
- Meeting Minutes Approval
 - November 2008
- State Budget
 - Continue fiscal responsibility
 - FY2010 Rates established – Rates lowered by up to 25%
- Bylaws and Policy Committee
 - Membership selected at November meeting
 - Committee will review Bylaws and suggest changes
 - Bylaws were last updated in January 2005.



New Business

- Ethernet Everywhere Update
 - New POP Hardware Installed in all 4 LATAs
 - SONET equipment installed at Easton and Hagerstown
 - SONET equipment will be installed in UMCP and Baltimore this month
- Services deployments have begun
 - Initial deployments completed in most LATAs
 - Full deployment in Western and Eastern Shore LATAs are in progress now that SONET equipment has been installed





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Operational Subscribers

- 77 Operational Subscribers
- Circuit Breakdown
 - 85 ISP Circuits
 - 105 SwGI Circuits
 - 1415 Layer 2 Circuits (+16)
 - 10 VPN Subscriber Connections (+0)

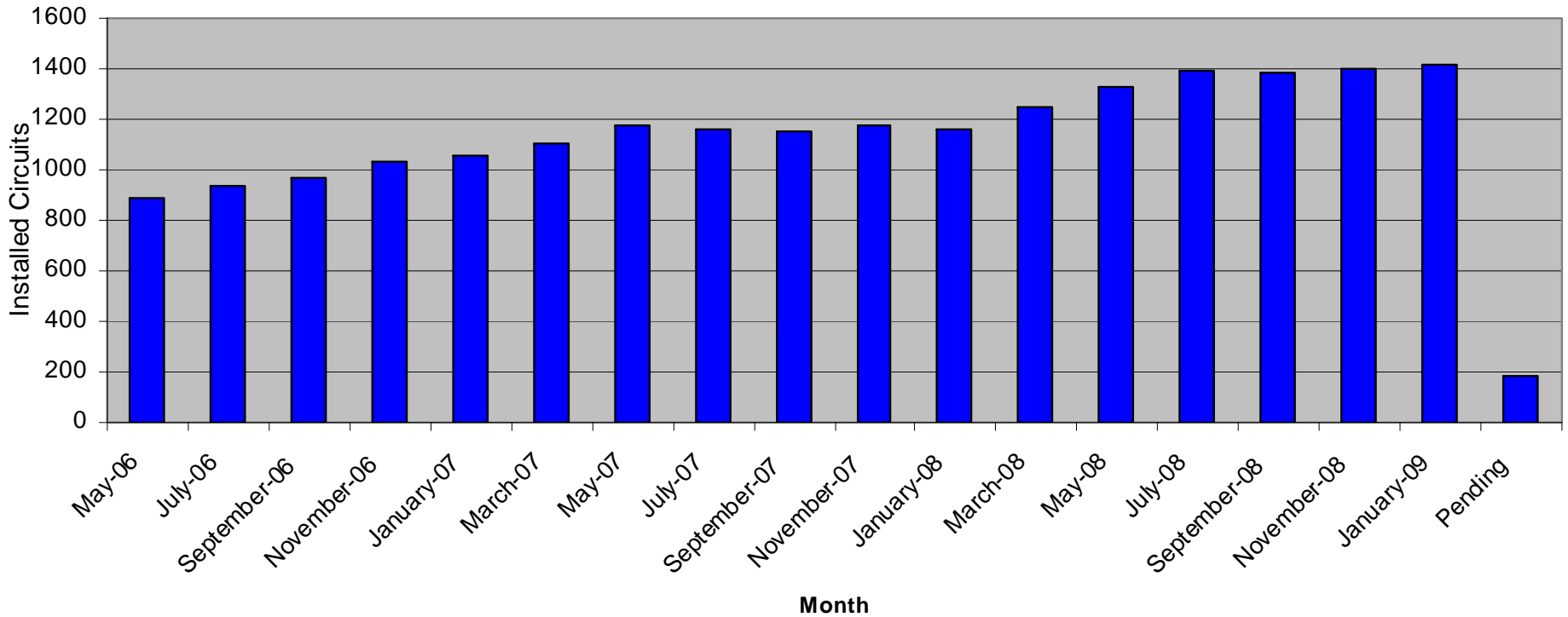


Subscriber Provisioning

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



Installed Circuits





Executive Branch

Executive Branch networkMaryland Subscribers as of January 20, 2009

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 January 20, 2009

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

Register of Wills Internet SwGI Layer 2 *
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Non-State Customers

Non-State entities\Counties\Municipalities networkMaryland Subscribers as of January 20, 2009

Baltimore City	Internet
	SwGI
	Layer 2

Charles County Government	Internet
	SwGI
	Layer 2

University System of Maryland	Internet
	SwGI
	Layer 2

Frederick County Government	Internet
	SwGI
	Layer 2

Baltimore City State's Attorney Office	Internet
	SwGI
	Layer 2

Carroll County Gov't	Internet
	SwGI
	Layer 2

Maryland School for the Deaf	Internet
	SwGI
	Layer 2

Montgomery County Government	Internet
	SwGI
	Layer 2

Baltimore City Community College	Internet
	SwGI
	Layer 2

Caroline County Gov't	Internet
	SwGI
	Layer 2

Alleghany County Board of Education	Internet
	SwGI
	Layer 2

Prince Georges County Government	Internet
	SwGI
	Layer 2

Baltimore County Government	Internet
	SwGI
	Layer 2

Ocean City Gov't	Internet
	SwGI
	Layer 2

Anne Arundel County Government	Internet
	SwGI
	Layer 2

Howard County Government	Internet
	SwGI
	Layer 2

MD Public TV (MPT)	Internet
	SwGI
	Layer 2

Garrett County Public Schools	Internet
	SwGI
	Layer 2

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

CAPWIN	Internet
	SwGI
	Layer 2

City of Laurel Gov't	Internet
	SwGI
	Layer 2

Washington County (BWA)	Internet
	SwGI
	Layer 2

Maryland Environmental Service	Internet
	SwGI
	Layer 2

Washington County Public Network (WCPN)	Internet
	SwGI
	Layer 2

College of Southern MD	Internet
	SwGI
	Layer 2

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

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New Provisioning Activity

- Ethernet Everywhere
 - Western LATA: sites turned up for MDoT & DPSCS
 - Baltimore LATA: sites turned up for DHMH & MSDE
 - MDA (Dept. of Agriculture):
 - Turned up sites at Easton & Leonardtown, College Park, Upper Marlboro, Forest Hill & Cockeyville
 - Baltimore and Western sites will commence once SONET equipment is completed
 - OAH (Office of Administrative Hearings):
 - A single connection to carry both ISP & SwGI traffic.
 - Avoids purchasing two leased lines to receive both services.





Other Provisioning Activity

- 4201 Patterson Avenue
 - DS3 circuit installed to provide service to MDOT, DHMH, and DHR
- MHEC (Higher Education Commission):
 - Upgraded their Internet bandwidth to 4.5 Mbps
- MD State Police
 - Migrated their SwGI connection off of DPSCS's
 - WAN migration off of DPSCS completed
 - Next step: Replace existing connection to DPSCS by implementing a VPN tunnel between their respective firewalls



Operations

- Operational Improvements
 - Software upgrades completed on all Cisco routing and switching platforms.
 - ISP transition to Atlantech occurred in December.
 - Upgraded to 250 Mbps of Internet based on traffic volume
- Planned Operational Activities
 - Software and hardware upgrades scheduled for Juniper routing platforms
 - Hardware requirements have been identified and are in the process of being procured



Performance Standards & Service Levels – October 2008

RFP Section 2.9.1 Service Desk Tickets			
	Severity 1	Severity 2	Severity 3
Number of Cases relating to "outages"	5	5	11
Begin Diagnosis (5 min, 5 min, 5 min)	80%	80%	100%
Notification to State (10 min, 10 min, 10 min)	100%	100%	100%
Onsite Support with Parts (4 hours, 4 hours, NBD)	80%	100%	100%
1st Escalation to NetMD (2 hours, 4 hours, NBD)	80%	100%	100%
2nd Escalation to NetMD (2 hours, 4 hours, NBD) after 1st	80%	100%	100%
3rd Escalation to NetMD (2 hours, 4 hours, NBD) after 2nd	80%	100%	100%
Resolution Notification (10 min, 10 min, 10 min)	100%	100%	100%

RFP Section 2.9.2 Fault Detection & Repair		
95% of service affecting outages repaired prior to 1st escalation	95.2%	
98% of service affecting outages repaired prior to 2nd escalation	95.2%	

RFP Section 2.9.3 Service Availability		
ISP 99.9% available	99.03%	
SWGI 99.9% available	99.03%	
L2 Services 99.9% available	99.03%	





Performance Standards & Service Levels – November 2008

RFP Section 2.9.1 Service Desk Tickets			
	Severity 1	Severity 2	Severity 3
Number of Cases relating to "outages"	3	4	12
Begin Diagnosis (5 min, 5 min, 5 min)	100%	100%	92%
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%
RFP Section 2.9.2 Fault Detection & Repair			
95% of service affecting outages repaired prior to 1st escalation	94.7%		
98% of service affecting outages repaired prior to 2nd escalation	100.0%		
RFP Section 2.9.3 Service Availability			
ISP 99.9% available	98.04%		
SWGI 99.9% available	98.05%		
L2 Services 99.9% available	97.40%		



Performance Standards & Service Levels – December 2008

RFP Section 2.9.1 Service Desk Tickets

	Severity 1	Severity 2	Severity 3
Number of Cases relating to "outages"	3	0	19
Begin Diagnosis (5 min, 5 min, 5 min)	100%	100%	95%
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%

RFP Section 2.9.2 Fault Detection & Repair

95% of service affecting outages repaired prior to 1st escalation	100.0%	
98% of service affecting outages repaired prior to 2nd escalation	100.0%	

RFP Section 2.9.3 Service Availability

ISP 99.9% available	100.00%	
SWGI 99.9% available	100.00%	
L2 Services 99.9% available	100.00%	





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- **Status of Project**
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Project Status

- Agreements
 - FiberGate resource sharing agreement signed by company and goes to the BPW for approval 1/28.
 - MOU with St. Mary's County executed
 - Terms for MOU with Calvert County agreed to. MOU is in legal review with the County



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
 - Parts list created pending hardware certification
 - Estimated completion – July 2009
 - 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 BMAN Node: Completed: Jan 20, 2009
 - New PoP established to support DBED's new offices
 - SAILOR-provided fiber from WTC to 6 St. Paul
 - All DBED services and connections up and running
- 217 E. Redwood St. BMAN equipment relocation
 - Moved PoP from the 11th floor to the 13th floor.
 - Affected entities: Dept. of Disabilities, Office for the Deaf & Hard of Hearing and College Savings Plan of Maryland
 - All networkMarylandTM provided services up and running





Project Status

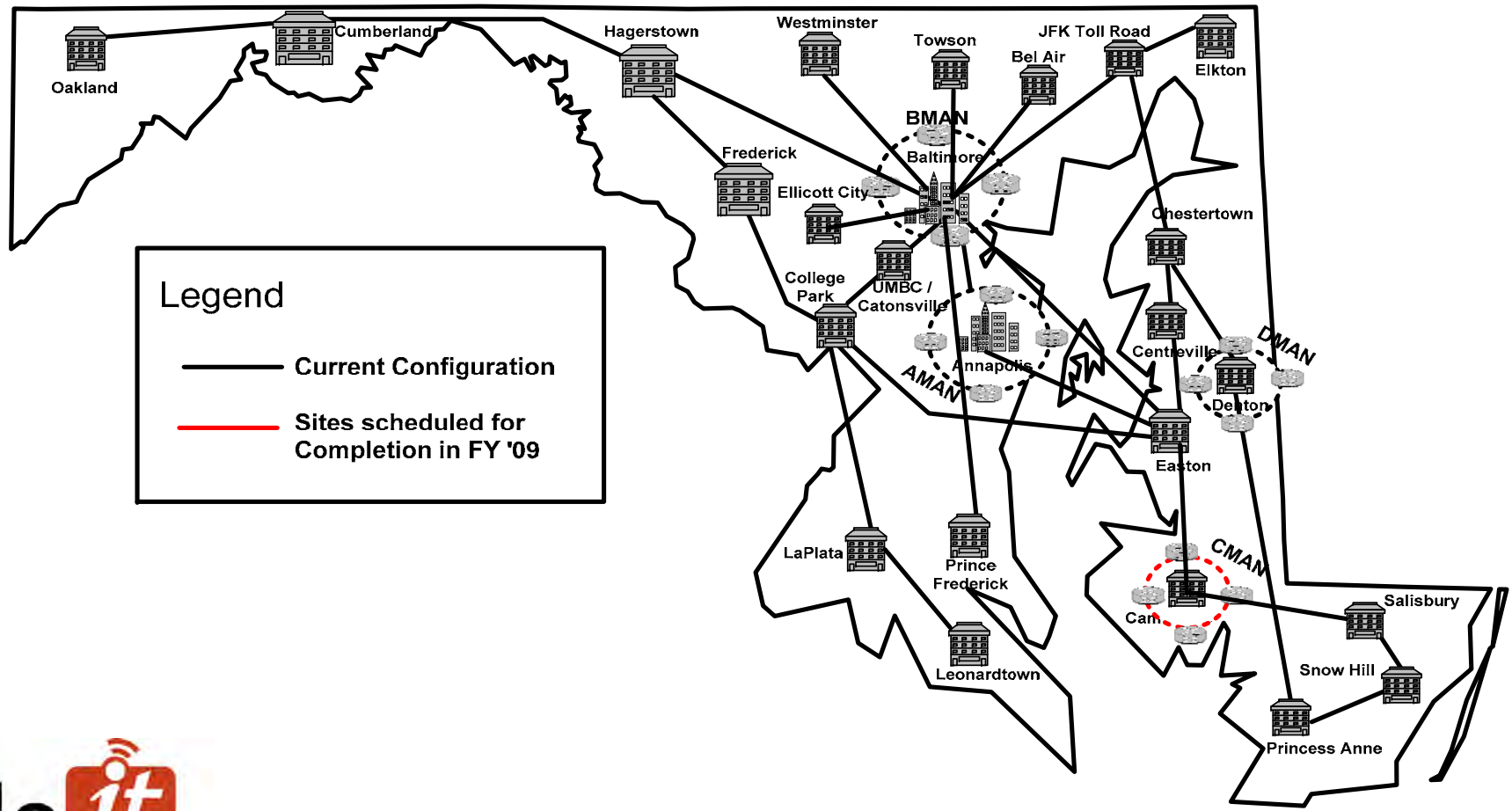
- Frederick MAN
 - Build a diverse fiber path & dual connect Frederick to UMCP and Hagerstown
 - Frederick County has ordered a redundant ISP connection
 - Preliminary design and project plan created to establish second networkMaryland™ PoP in Frederick
 - FiberGate fiber needs to be spliced into the State backbone
- Cambridge MAN (No status change)
 - Equipment has been received
 - Fiber installation in progress by Bay Country Communications





Network Overview

(January 2009)





Fiber Projects

- St. Mary's County
 - Receive one pair of fiber from Leonardtown MSC to US301 connecting to La Plata via Level3 fiber.
 - Task Order out for bid to connect existing State & Metrocast fiber under the Cable and Wiring Master Contract.
- 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
 - February 9th, 2009, 1:30 PM @ UMBC Technology Center
 - Merged with UMATS engineering meeting
- Closing Questions or Comments



Meeting Adjourned

