networkMaryland[™] Advisory Group Meeting



October 15, 2013 Annapolis, MD



DEPARTMENT OF INFORMATION TECHNOLOGY



Meeting Agenda

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





Welcome

- Introductions
- Dave Mangrum: Director, Networks Division DoIT
- Guests/Visitors





New Business

4

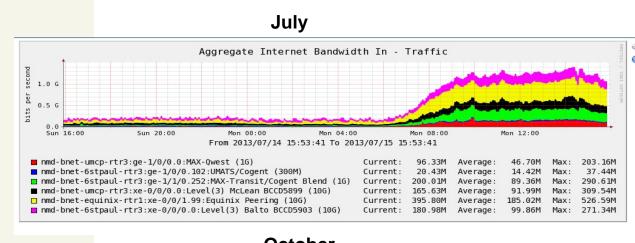
- Meeting Minutes Approval
 - July 2013: Will be reviewed and ratified via E-mail
- County MOU
 - Report on current MOU process

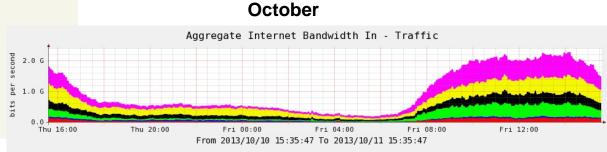




Equinix Peering

Peering Partner Status Google Completed Akamai Completed Blackboard Completed Yahoo Completed Completed Amazon Microsoft Completed Symnatec Completed Facebook Completed Verizon Communications Working DropBox Working Pandora Working **NetFlix** Working Working Zynga Twitter Working





nmd-bnet-umcp-rtr3:ge-1/0/0.0:MAX-Qwest (1G)	Current:	109.91M	Ave rage :	56.51M	Max:	150.67M
nmd-bnet-6stpaul-rtr3:ge-1/0/0.102:UMATS/Cogent (300M)	Current:	30.78M	Ave rage :	30.19M	Max:	61.80M
nmd-bnet-6stpaul-rtr3:ge-1/1/0.252:MAX-Transit/Cogent Blend (1G)	Current:	238.69M	Ave rage :	161.17M	Max:	479.93M
nmd-bnet-umcp-rtr3:xe-0/0/0.0:Level(3) McLean BCCD5899 (106)	Current:	242.99M	Ave rage :	171.08M	Max:	427.41M
nmd-bnet-equinix-rtrl:xe-0/0/1.99:Equinix Peering (10G)		430.35M	Ave rage :	277.66M	Max:	581.08M
nmd-bnet-6stpaul-rtr3:xe-0/0/0.0:Level(3) Balto BCCD5903 (10G)	Current:	433.15M	Ave rage :	281.49M	Max:	779.12M





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Operational Subscribers

- 897 Operational Subscribers: 8 new subscribers
- 9 Operational Subscribers: 4 new subscribers
 - Calvert County Service Pending
 - Hilltop Institute (at UMBC) Service Installed
 - Queen Anne's County Service Pending
 - University of Maryland Baltimore Service Pending
- Circuit Breakdown:
 - 101 ISP Circuits (+7)
 - 92 SwGI Circuits (+1)
 - 1247 Layer 2 Circuits (-119)
 - 13 VPN Subscriber Connections (+0)
 - 93 VPRN Circuits (+33)

529 EE Circuits (+14)



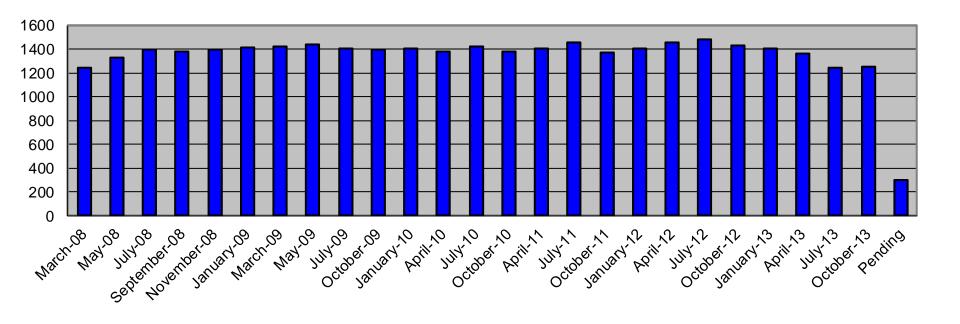
Subscriber Provisioning

- 137 Provisioning requests were received.
- 249 Cumulative active provisioning requests are in process. 97 Operational Subscribers: 8 new subscribers
- 86 tickets were completed (Customer Acceptance Form sent to customer).
- Of the 86 completed tickets, 70 were accepted/closed.





Installed Circuits







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Service Level Performance

Severity 1

- Power: 8
- Hardware: 2

July 2013	1 - Critical	2 - High	3 - Normal
# of Cases Relating to Outages	10	97	44
Initial Response from Detection (10m, 10m, 10m)	10	97	41
	100 %	100 %	93 %
	10	97	41
Begin Diagnosis (10m, 10m, 10m)	100 %	100 %	93 %
Initial Notificaiton to State (10m, 10m, 10m)	100 %	100 %	100 %
# of Cases for Onsite Support with Parts	2	2	2
Onsite Support With Parts (4h, 4h, 24h)	2	1	0
	100 %	50 %	0 %
Total # of Cases Included in Escalation SLA's (Not Approved for Exemption)	5	38	35
1st Escalation (20m, 4h, 24h)	4	37	33
	80 %	97 %	94 %
2nd Escalation (1h, 4h, 24h)	5	37	35
	100 %	97 %	100 %
3rd Escalation (1h, 4h, 24h)	5	37	35
	100 %	97 %	100 %
Resolution Notification (10m, 10m, 10m)	100 %	100 %	100 %





Service Level Performance

Severity 1

- Power: 3
- Verizon: 4
- Temperature Alerts: 2

August 2013	1 - Critical	2 - High	3 - Normal
# of Cases Relating to Outages	9	104	30
Initial Response from Detection (10m, 10m, 10m)	9 100 %	100 96 %	30 100 %
	9	100	30
Begin Diagnosis (10m, 10m, 10m)	100 %	96 %	100 %
Initial Notificaiton to State (10m, 10m, 10m)	100 <mark>%</mark>	100 %	100 %
# of Cases for Onsite Support with Parts	0	0	2
Onsite Support With Parts (4h, 4h, 24h)			
	100 %	100 %	0 %
Total # of Cases Included in Escalation SLA's (Not Approved for Exemption)	7	42	24
1st Escalation (20m, 4h, 24h)	4	40	24
	57 %	95 %	100 %
2nd Escalation (1h, 4h, 24h)	6	40	24
	86 %	95 %	100 %
3rd Escalation (1h, 4h, 24h)	6	40	24
	86 %	95 %	100 %
Resolution Notification (10m, 10m, 10m)	100 %	100 %	100 %





Service Level Performance

Severity 1

- Power Outage: 2
- Verizon: 4
- Customer Hardware: 2
- Test Ticket: 1

1			
September 2013	1 - Critical	2 - High	3 - Normal
# of Cases Relating to Outages	9	81	25
Initial Response from Detection (10m, 10m, 10m)	8 89 %	80 99 %	21 84 %
	8	80	21
Begin Diagnosis (10m, 10m, 10m)	89 %	99 %	84 %
Initial Notificaiton to State (10m, 10m, 10m)	100 %	100 %	100 %
# of Cases for Onsite Support with Parts	0	0	1
Onsite Support With Parts (4h, 4h, 24h)	0	0	0
	100 %	100 %	0 %
Total # of Cases Included in Escalation SLA's (Not Approved for Exemption)	1	34	20
1st Escalation (20m, 4h, 24h)	0	32	20
	0 %	94 %	100 %
2nd Escalation (1h, 4h, 24h)	0	32	20
	0 %	94 %	100 %
3rd Escalation (1h, 4h, 24h)	1	32	20
	100 %	94 %	100 %
Resolution Notification (10m, 10m, 10m)	100 %	100 %	100 %





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Project Status

• One Maryland Broadband Network - Overview

Entity	CAI Goal	CAI Actual	% Complete	Fiber Goal	Fiber Actual	% Complete
DoIT	291	147	51%	524	464	88%
Frederick Co.	58	27	47%	n/a	n/a	n/a
ICBN	657	190	29%	836	670	80%
TOTAL	1006	364	38%	1360	1134	83%





OMBN Progress - DolT

Major elements	Completed	Total	Percent Complete
Surveys	34	34	100%
Site Plans	34	34	100%
Sites	34	34	100%
Deployed			
10 Gb Links	33	52	63%
OMBN Links	32	38	84%
ICBN Links	1	14	7%
Metro-E Core	17	19	89%





Project Status

- Backbone Upgrade :
 - Completed 10 Gb Southern Ring
 - Completed 10 Gb Eastern Shore Ring
 - Completed 20 Gb UMCP to Oakland
- Forecast : Ringing out Western Maryland and Eastern to Western Shore
 - Western region ring
 - Cumberland \rightarrow McLean \rightarrow Oxon Hill
 - East to West Ring
 - Eastern Shore connection to Baltimore via Elkton





OMBN Metro-E Status

- Deployed:
 - Garrett
 - St Mary's
- Forecast
 - Allegany
 - Calvert
 - Cecil
 - Washington





Project Status

- Presence at Equinix
 - All equipment deployed and configured
 - Router is active on peering fabric
 - Waiting for configuration of lambda from MAX (imminent)
- SwGI as a "Trusted Network"
 - Create a network device security policy
 - Develop a SwGI Network Security Plan
 - Create network device hardening procedures
 - Audit security configurations
 - Certify SwGI as a trusted entity
 - Update the SwGI Routing Policy





Project Status

- QoS
 - For Layer3 services (not L2 circuits)
 - Created QoS policy and customer profile sheets
 - Pilot on the eastern shore (VPRN)
- Circuit Reconciliation
 - Decommissioned five (5) of nine (9) ATM/FRASI Aggregation OC-3
 - Migrated all remaining FRASI circuits onto the remaining four
 (4) OC3s, one per LATA





Verizon end of service for Frame Relay services

- Final date 12/31/14
- Need to migrate all FRASI services onto new last mile solution
- Summary of remaining circuits that need to be migrated
 - 196 FRASI circuits
 - 36 FRASI will be replaced with a Metro-E solutuion
 - 18 Agencies





Fiber Projects

- Completed This Quarter
 - MEMA
 - 1 South Street, Baltimore (MHBE)
- Working
 - 120 Broadway, Centreville (MSC)
 - 750 Pratt Street, Baltimore (MHBE)
 - Springfield Complex, Sykesville (DHMH)
 - 6 West Washington Street, Hagerstown (MSDE)
 - 251 Rowe Blvd, Annapolis (OPD)
 - 110 Franklin Street, Denton (OPD)
 - 101 Catalpa, La Plata (MDA, DAT, OPD)
 - Jessup Correctional Institute (DPSCS)





Fiber Projects

• Fiber Path Feasibility Studies

- Calvert Health Department Locations in Prince Frederick
- 300 North Gay Street, Baltimore (Juvenile Justice Center)
- 405 Naylor Mill Road, Salisbury (Juvenile Services)
- 234 Merrimac Court, Prince Frederick (MHBE)
- 216 E.Pulaski Highway, Elkton (MHBE)
- 424 W. Market Street, Snow Hill (DPSCS)
- 2525 Riva Road, Annapolis (DORS)
- 201 Broadway Street, Centreville (DPSCS)
- Fritz Building, 300 W. Carroll Street, Salisbury
- 106 E. Main Street, Elkton (DJS)
- 259 Najoles Road, Millersville (MES)
- 11670 Somerset Avenue, Princess Anne (DPSCS)
- 111101 Gilroy Road, Hunt Valley (OAH)
- 17 W. Pennsylvania Avenue, Towson (DPSCS)
 - 10, 100, & 110 North Calvert Street, Baltimore (DHCD, DPSCS, Circuit Court)





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Other Business

- High Availability Working Group
 - Tuesday, January 8, 2014, 10:00 AM @ Knowtion Center
- Closing Questions or Comments





Meeting Adjourned



