

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding ("MOU"), dated the __ day of __, 2016, is between the County Board of Arlington County, Virginia ("County"), a body corporate, and the University of Maryland ("UMD"), a public agency and instrumentality of the State of Maryland, on behalf of its Mid-Atlantic Crossroads ("MAX") (each a "Party" and together the "Parties").

RECITALS

WHEREAS, UMD desires to install, for the purposes provided hereinafter, equipment , as described in Exhibit B, owned by UMD ("UMD's Equipment") in the County's Network Operations Center ("NOC") which is located on the sixth floor of the County administrative offices in a building at 2100 Clarendon Blvd, Arlington, Virginia 22201 (the "Building");

WHEREAS, the County desires to receive, through UMD's Equipment, certain connections to telecommunications services as more specifically described hereinafter; and,

WHEREAS, by this MOU, and subject to UMD complying with the applicable provisions of this MOU, the County gives permission to UMD to place in the NOC UMD's Equipment in designated locations as hereafter described.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows.

I. TERM

The term of this MOU shall be ten (10) years with an option for either Party, upon mutual written agreement of the Parties, to renew this MOU for one (1) additional five-year term.

II. SERVICES, ROLES AND RESPONSIBILITIES OF THE PARTIES

A. Hosting

1. The County will provide UMD with space, as depicted in Exhibit A, in the NOC for the purpose of UMD co-locating UMD's Equipment as described in Exhibit B. The County will provide, at its sole cost and expense, rack space, environmental controls, and electric power from County power sources to UMD's Equipment. The County also will provide to UMD, for its non-exclusive use, the following space and County Equipment, described in Exhibit A, in the NOC:

- a. Two 4-Post 23 inch racks in a closed and lockable cabinet (APC AR3150 750mm wide NetShelter SX cabinet with optional AR7510 23 inch EIA rails installed).
- b. Two 208V single phase/30 amp circuits to each rack;

- c. Duplex 120V 15 amp ac outlet for on-site devices; and
- d. Power feeds connected to diverse building power distribution units, which are connected to a backup generator.

2. This MOU shall not be amended to allow UMD to use more than two racks in the NOC, unless such amendment is consistent with the then-current Arlington County NOC interconnection policy;

3. The space to be provided to UMD shall be on a non-exclusive basis. Upon ninety days prior written notice to UMD, the County may reasonably require UMD to move UMD's Equipment, at UMD's expense, to accommodate any future reconfiguration by the County of any County Equipment within, or relocation of, the NOC. If UMD is required to move its equipment, then the County will offer UMD equivalent space and access to fiber connections in a new location within the NOC, and provide extension of existing circuits to the new location.

4. UMD may use its Equipment only for the following purposes:

- i. To provide UMD's provider (presently Mid-Atlantic Crossroads ("MAX")) with connections to other commercial network providers and County dark fiber, provided that MAX first becomes a ConnectArlington licensee, as prescribed in Section II.F of this MOU;
- ii. To provide third parties with a connection between the MAX network and the County's dark fiber.

B. Prohibited Uses

UMD is expressly prohibited from:

- 1. Using other County Equipment, except those specifically identified in this MOU as available for UMD's use, located in the NOC, unless such use is approved in writing by the County;
- 2. Adding or changing UMD's Equipment identified in Exhibit B, unless such addition or change is approved in writing by the County, and such approval shall not be unreasonably withheld; and
- 3. Using County Equipment or UMD Equipment for any purpose other than those enumerated in section II.A.4 of this MOU.

C. Network Connections

- 1. UMD, at its sole cost and expense, will provide the County with a
 - i. Ten-Gigabit Ethernet port, owned by UMD, to the County-owned networking equipment located in the NOC. The County shall have at

all times full control of the port, which may be used and changed as determined by the County. Additionally, at no cost to the County, UMD shall provide the County with:

- a. MAX Layer 3 IP routing which shall include the following:
 - i. Layer 2 Ethernet services;
 - ii. A One-Gigabit Layer 2 VLAN to Amazon Web Services (“AWS”) via the MAX AWS Direct Connect Service; and,
 - iii. Access to Internet2 as well as other Layer 3 routes on the MAX network. County is responsible for fees charged by Internet2 and other organizations to access their infrastructure.
2. Primary internet service to the County is not offered by UMD as part of this MOU. If the County desires connections to services other than those described in subsection C.1 above, then the County will pay for such services, and corresponding connections to obtain such services. The County will be required to pay for any connection or service fees charged to the County by any service providers for the County to obtain services from such providers.
3. UMD shall not be liable to the County for any non-UMD activity associated with the County’s Amazon and Cloud user accounts for the AWS connection through AWS Direct Connect.

D. Scheduled Maintenance and Access

1. The County will provide to UMD a secure facility with environmental and power monitoring and will notify UMD promptly when the County becomes aware of any electric power and environmental system interruptions, provided however that the County shall not be liable for any power interruptions or outages.
2. The County will provide UMD with access to UMD’s Equipment for scheduled maintenance at times agreed to by the Parties. Such access shall be granted to the persons described in Exhibit C and shall be supervised by the County personnel.
3. UMD shall be solely responsible for configuring UMD’s Equipment to self-monitor and deliver alarms to UMD, as appropriate. As such, the County will not monitor the operation of UMD’s Equipment.
4. The County will conduct periodic scheduled maintenance on the County’s infrastructure and network systems, which maintenance periodically may cause UMD’s Equipment to be unavailable or offline. The County will notify UMD of scheduled maintenance at least thirty (30) calendar days before the beginning of such maintenance by contacting the MAX Network Operation

Center at tel: (301) 314-6666 or noc@maxgigapop.net, and by adding a notification to the change control application before and after the maintenance has been completed. UMD will be responsible for testing UMD's Equipment after receiving notification that the County's scheduled maintenance is complete and the network systems are available and online.

5. UMD, and not the County, shall be responsible for the operation and maintenance of all of UMD's Equipment. UMD shall notify the County at least thirty (30) calendar days before UMD's Equipment will be unavailable or offline for scheduled maintenance by, or on behalf of, UMD.
6. UMD shall contact the County at least 24 hours before UMD desires access to the NOC for UMD to conduct scheduled maintenance on UMD's Equipment. Such notification shall be made to the persons and by the means (i.e. telephone and email) described in Exhibit C.
7. The County is a tenant in the Building. The County's ability to provide to others permission for access to certain areas in the Building outside of the NOC may be limited by the County's rights under a Building lease between CESC One Courthouse Plaza, LLC (as Landlord) and the County Board of Arlington County, Virginia (as Tenant), dated October 23, 2002 ("Building Lease"). As such, the County will make reasonable efforts to facilitate UMD's contact with the Landlord's property manager of the Building and the County's Facility Manager for any access needed by UMD.

E. Emergency Maintenance and Access

1. If the County becomes aware of a failure or outage of UMD's Equipment, the County will notify UMD. Such notification shall be made to the MAX Network Operation Center at tel: (301) 314-6666 or noc@maxgigapop.net. This provision shall not relieve UMD of its independent obligation to monitor UMD's Equipment.
2. In the event of a UMD emergency that UMD determines, in its reasonable judgment, requires immediate access to the NOC, and maintenance or other work on UMD's Equipment, then UMD shall notify the County, as soon as is reasonably possible, of the need for such maintenance and access. Such notification shall be made to the persons and by the applicable means described in Exhibit C. The County will respond and coordinate County-supervised access to the NOC as soon as practicable under the circumstances.

F. ConnectArlington Dark Fiber

1. The County will permit UMD to allow MAX and organizations served by MAX to cross connect fibers from the UMD racks to the ConnectArlington fiber panel, provided that MAX or each such organization served by MAX may be required to first become a ConnectArlington licensee by entering into the then-current Arlington County Dark Fiber License Agreement, and by

complying with the then-current County policies, procedures and rate schedules. Once MAX has entered into a Dark Fiber License Agreement with the County, the purchase of additional fibers shall be governed by the terms and conditions, and applicable pricing, as specified in the Dark Fiber License Agreement for additional fibers.

2. The County and UMD will develop an agreed-upon mechanism to cross connect fibers from the UMD racks to the ConnectArlington fiber panel.

III. GENERAL PROVISIONS

A. Contractors

1. UMD may hire contractors to install, repair, replace, upgrade and maintain UMD's Equipment, provided that UMD ensures that such contractors comply with the obligations of UMD, all County requests, and the provisions of this MOU. UMD shall require its contractors to maintain insurance coverage in amounts deemed reasonable and prudent by the County Risk Manager. Such contractor insurance policies shall provide that the County, its elected and appointed officials, officers, employees, contractors, and agents are additional named insureds on such insurance policies.
2. UMD shall require its contractors and agents to maintain a commercial general liability insurance policy that, at a minimum, covers \$1,000,000 per occurrence and \$2,000,000 annual general aggregate. UMD shall require its contractors or agents to present proof of such coverage to the County upon request. The County may deny access to the Building and the NOC to any UMD contractor or agent that does not have such coverage, or refuses to produce proof of such coverage.

B. UMD Insurance Requirements

1. UMD is self-insured pursuant to Annotated Code of Maryland, State Finance and Procurement Article, Title 9, as amended from time to time. UMD, and not the County, will be responsible for UMD's equipment and for any damage caused by the negligence of UMD employees or agents acting within the scope of their employment or agency.
2. UMD shall maintain insurance sufficient to cover the full value of UMD's Equipment. UMD shall present proof of such coverage to the County upon request.

C. Publicity

The Parties agree that no press release or other public announcements regarding this MOU or any agreements contemplated thereby shall be made without prior review and written agreement signed by duly authorized representatives of both Parties.

D. No Interest in Real or Personal Property of County or Others

This MOU constitutes permission for UMD to place certain equipment in the NOC. By this MOU, the County is not transferring or granting to UMD any rights in real estate, rights in personal property of the County or others, or any similar rights or interests held by the County.

E. Damage to County Personal Property

UMD shall be liable to the County for all damage caused by UMD, its employees, contractors, and agents to any County equipment, wherever located, within the Building.

F. No Third Party Beneficiaries

This MOU is not intended by either Party to provide third persons or entities with any remedy, claim, liability, reimbursement, cause of action, or other right or privilege, as a third party beneficiary. The County shall not be liable to any third party for any interruptions to service arising from its obligations under this MOU.

G. No Partnership

In all matters pertaining to this MOU, the relationship of the County and UMD shall be that of a body politic and an instrumentality of the State of Maryland. Neither the County nor UMD shall make any representations or warranties that their relationship is other than that stated in the preceding sentence.

H. No Agency

UMD shall have no authority, express or implied, to act as agent, for any purpose, of the County, its officers, officials, or any of its departments. The County is not UMD's agent and shall have no authority, express or implied, to act as agent of UMD for any purpose.

I. No Waiver of Rights

No waiver by the County or by UMD of any breach of any covenant, condition or requirement specified for this MOU shall operate as a continuing waiver of such covenant, condition or requirement, or of any subsequent breach.

J. No Waiver of Sovereign Immunity

Nothing in this MOU, nor any action taken by any of the Parties pursuant to this MOU, nor any document which arises out of this MOU, shall constitute or be construed as a waiver of the sovereign immunity of the County or UMD, including their elected and appointed officials, officers and employees.

K. Release and Waiver of Subrogation

UMD agrees to release the County from any and all claims with respect to any loss covered by (or which should have been covered by) the insurance coverages required by this MOU. For purposes of this Section, all deductibles shall be considered insured losses.

L. Reservation of Rights by County

Neither the entering into this MOU by the County, nor any provision hereof, shall be deemed to conflict with, limit, or preclude the County's enforcement of its ordinances, regulations and policies, or the exercise of its governmental functions and police powers.

M. No Assignment

Unless otherwise specifically provided herein, UMD shall not have the right to assign this MOU, or any part thereof, without the prior written consent of the County. Any such assignment shall not relieve UMD of its duty to perform fully all of the agreements, covenants, and conditions set forth in this MOU.

N. Force Majeure

Neither Party shall be liable for any failure to perform its responsibilities under this MOU if the failure results from any act of nature or other cause beyond the party's reasonable control.

O. Dispute Resolution

1. The County and UMD may each conduct periodic evaluations of this MOU and the exercise of the Parties' rights and obligations hereunder. At the request of either Party, the Parties will meet annually, or more frequently, to discuss the need for any amendment(s) to this MOU. The meetings may be in person, by conference call, or by other means.
2. If an issue regarding or arising out of this MOU cannot be resolved by the staffs of the respective Parties, then the issue will be brought to the attention of the County's Chief Information Officer and UMD's Vice President for

Information Technology and Chief Information Officer for resolution. If the Parties still cannot resolve the issue, then the issue will be brought to the County Manager for final administrative decision.

P. Survival

In addition to any term, paragraph or section of this MOU which specifically states that the same survives the expiration or termination of this MOU, the following sections also shall survive: Dispute Resolution, Termination, No Assignment, No Waiver of Sovereign Immunity, Removal of UMD's Equipment Upon Expiration or Termination of MOU, and Force Majeure.

Q. Termination

Either Party may terminate this MOU by giving ninety (90) days' prior written notice to the non-terminating Party. Contact information for notification purposes is contained in Exhibit C to this MOU.

R. Removal of UMD's Equipment Upon Expiration or Termination of MOU

Not later than ninety (90) days after expiration or termination of this MOU, UMD shall, at its sole cost and expense, remove UMD's Equipment from the NOC. If UMD fails to remove UMD's Equipment within such time period, then the County may upon seven (7) days prior written notice to UMD, consider such Equipment abandoned to the County.

S. Notices

Except as otherwise specified in Exhibit C, all notices and communications hereunder shall be in writing and shall be either hand delivered, sent by commercial carrier (such as Federal Express) or sent by United States registered or certified mail, return receipt requested, at the following addresses or such other address hereafter provided by notice to the other party:

If to UMD:

Assistant Vice President and Chief Technology Officer
Mid-Atlantic Crossroads
University of Maryland
5825 University Research Court
Suite 2500
College Park, MD 20740

And

Vice President and Chief Information Officer
Division of Information Technology
University of Maryland
College Park, MD 20742

With a copy to:

Office of the General Counsel
University of Maryland
2101 Main Administration Building
College Park, MD 20742

If to Arlington County:

Jack Belcher
Chief Information Officer
Department of Technology Services – Arlington County
2100 Clarendon Blvd – Suite 610
Arlington, VA 22201

And

Nathaniel Wentland
Infrastructure & Operations Director
Department of Technology Services – Arlington County
2100 Clarendon Blvd – Suite 610
Arlington, VA 22201

With a copy to:
County Attorney's Office
Arlington County
2100 Clarendon Blvd – Suite 403
Arlington, VA 22201

Any party may, by notice given at least five (5) days before such change becomes effective, designate a new address to which such notices shall be sent. Notice shall be deemed effective upon receipt.

T. Severability

The sections, paragraphs, sentences, clauses and phrases of this MOU are severable.

U. Entire MOU and Amendment

This MOU together with all exhibits, contain and embody the entire agreement of the Parties. No representations, inducements, or agreements, oral or otherwise, between the Parties not contained in this Agreement shall be of any force or effect. This MOU may not be amended, modified, or changed in whole or in part in any manner other than by an agreement in writing approved by the County Board of Arlington County and duly signed by the duly authorized representatives of each of the Parties.

V. Incorporation of Recitals and Exhibits

The Recitals and Exhibits A through D are incorporated herein by reference as though set forth fully in this MOU.

W. Effective Date

This MOU shall be effective on the date when this MOU is executed on behalf of the County, after approval of this MOU by the County Board. UMD shall execute the MOU before the County.

IN WITNESS WHEREOF, persons duly authorized by the respective Parties hereto have executed this Memorandum of Understanding as of the below dates.

**THE COUNTY BOARD OF
ARLINGTON COUNTY, VIRGINIA**

Mark J. Schwartz
Signature

MARK J. SCHWARTZ
Printed Name

COUNTY MANAGER
Title

MAY 27, 2016
Date

UNIVERSITY OF MARYLAND

Eric L. Denna
Signature

Eric L. Denna
Printed Name

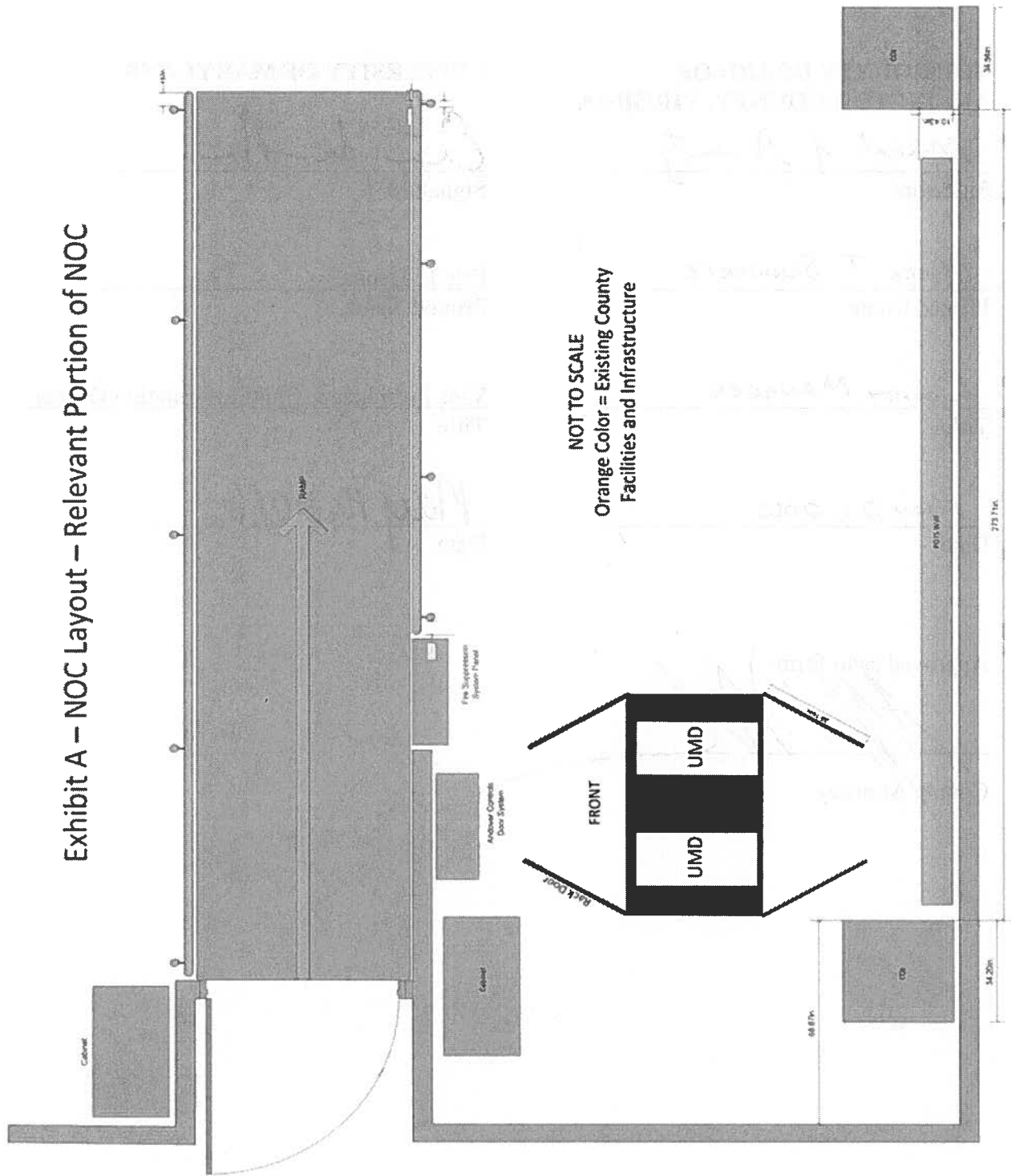
Vice President & Chief Information Officer
Title

May 10, 2016
Date

Approved as to form

[Signature]
County Attorney

EXHIBIT A – SPACE TO BE PROVIDED TO UMD/COUNTY EQUIPMENT



List of Arlington County Equipment For Use by UMD

- Two (2) Rittal TS82 Rack, 47U. 87" Height (2200mm) x 28" (700mm) Wide x 42" (1050mm) Deep Enclosure. 19" to 23" internal equipment width capable.
- One (1) Rittal 2200H1050D Sidewalls.
- Two (2) Switched POPS (Per Outlet Power Sensing) CDU with PIPS (Per Inlet Power Sensing), 0U, 18 x IEC C13, 6 x IEC C19, 3 x LED Amp Meters, 208V 3-Phase Delta, 30A w/ NEMA L15-30P Connector and 10ft (3m) Cord, Bottom/Front Cord Entry, 2 x Temp/Humid Capable, With Circuit Breakers Features: Locking Outlets
- Two (2) Switched POPS (Per Outlet Power Sensing) CDU (Expansion Unit) with PIPS (Per Inlet Power Sensing), 0U, 18 x IEC C13, 6 x IEC C19, 3 x LED Amp Meters, 208V 3-Phase Delta, 30A w/ NEMA L15-30P Connector and 10ft (3m) Cord, Bottom/Front Cord Entry, Circuit Breakers Features: Locking
- One (1) AirFlow cubes and brush

EXHIBIT B – UMD’s EQUIPMENT

1. List of UMD’s Equipment

Rack PDUs
DC Rectifier
DWDM Switching Equipment
Ethernet Switches
Servers

2. Additions or Replacements to UMD’s Equipment

Periodically, UMD may add or replace equipment provided that UMD:

- a) Obtains prior written consent of the County for such addition, or replacement; which consent may be withheld by the Director of the Department of Technology Services in his/her sole, but reasonable, discretion;
- b) Complies with all other provisions of this MOU including, without limitation, spatial, power, and insurance requirements; and
- c) Is responsible for all costs and expenses related to the installation and removal of such additional and replacement equipment.

EXHIBIT C – POINTS OF CONTACT / NOTICES / MEANS

Arlington County Department of Technology Services*					
Role	Name	Vehicle	Communication	Advance Notice	Comments
Data Center Manager	James Tolson	Phone:703-228-7530 Email: Jtolson@arlingtonva.us	Emergency work/Maintenance	30 days in advance for maintenance	Server/NOC Related Issues
Service Maintenance Team Leader	Anil Gupta	Phone: 703-228-0582 Email: agupta@arlingtonva.us	Emergency work/Maintenance	30 days in advance for maintenance	Server/NOC Related Issues
Program Manager	Nathaniel Wentland	Phone: 703-228-4776 Email: nwentland@arlingtonva.us	Termination of agreement/ Emergency Work/Maintenance	30 days in advance for maintenance	Network Connectivity
Technical POC	Thel Shields	Phone: 703-228-0604 Email: tshields@arlingtonva.us	Emergency Work/Maintenance	30 days in advance for maintenance	Network Connectivity support
Technical POC/Presidio Group	Ryan Thatcher	Phone: 703-228-7191 Email: rthatcher@arlingtonva.us	Emergency Work/Maintenance	Emergency work- best effort notification	After Hours work

* Except for a notice of termination, which shall be in writing as otherwise prescribed in this MOU, email shall be the first and primary means of notification, followed by phone calls as the secondary means of communications. Arlington County requires at least 30 calendar days advance notice for all routine maintenance and non-emergency activities.

University of Maryland			
Role	Name	Telephone	Email
Program Manager	Tripti Sinha	(301) 405-1721	tsinha@umd.edu
Network Operation Center	MAX NOC	(301) 314-6666	noc@maxgigapop.net
Technical POC	Quang Bach	(301) 314-9499	qbach@umd.edu
Technical POC	Bruce Crabill	(301) 314-4127	bcrabill@umd.edu
Technical POC	Dave Diller	(301) 314-4155	ddiller@umd.edu
Technical POC	Tom Lehman	(301) 314-6286	tlehman@umd.edu

Technical POC	Don Wolfe	(301) 405-4441	jwolfe@umd.edu

MAX Address for Notices:

Vice President and Chief Information Officer
 Division of Information Technology
 University of Maryland
 College Park, MD 20742

And

Assistant Vice President and Chief Technology Officer
 Mid-Atlantic Crossroads
 University of Maryland
 5825 University Research Court
 Suite 2500
 College Park, MD 20740

With a copy to:

Office of the General Counsel
 University of Maryland
 2101 Main Administration Building

Arlington County Address for Notices:

Jack Belcher
 Chief Information Officer
 Department of Technology Services – Arlington County
 2100 Clarendon Blvd – Suite 610
 Arlington, VA 22201

And

Nathaniel Wentland
 Infrastructure & Operations Director
 Department of Technology Services – Arlington County
 2100 Clarendon Blvd – Suite 610

Arlington, VA 22201

With a copy to:
County Attorney's Office
Arlington County
2100 Clarendon Blvd – Suite 403
Arlington, VA 22201

EXHIBIT D – ARLINGTON COUNTY POLICY AND DARK FIBER LICENSE AGREEMENT

ARLINGTON COUNTY
COMMUNITY DEVELOPMENT DEPARTMENT
2100 S. BRADY BLVD. - 5TH FLOOR
ARLINGTON, VA 22202