


*City of Alexandria, Virginia*

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MEMORANDUM

DATE: JANUARY 2, 2008

TO: THE HONORABLE MAYOR AND MEMBRES OF CITY COUNCIL

FROM: JAMES K. HARTMANN, CITY MANAGER 

SUBJECT: APPROVAL OF MEMORANDUM OF UNDERSTANDING AUTHORIZING  
THE INTERCONNECTION OF THE CABLE TELEVISION INSTITUTIONAL  
NETWORKS OF THE CITY OF ALEXANDRIA AND THE COUNTY OF  
FAIRFAX

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**ISSUE:** Memorandum of Understanding authorizing interconnection of the City of Alexandria and Fairfax County cable television systems to conduct government business via their Institutional Networks (I-Nets).

**RECOMMENDATION:** That City Council:

- (1) Approve the interconnection between the Alexandria and Fairfax County cable systems; and
- (2) Authorize the City Manager to execute, on behalf of the City and to deliver the memorandum of understanding, in essentially the same form that is presented to Council (Attachment 1) with such changes as are approved by the City Manager and the City Attorney.

**DISCUSSION:** This proposed interconnection will allow Alexandria to conduct government business affecting Alexandria, Fairfax and the broader National Capital Region (NCR) through the NCR Interoperability Program (NCRIP). Alexandria and Arlington's institutional networks are already interconnected due to a joint inter-jurisdictional effort in 2005, which was the first local government I-Net interconnection in the region, and which served as the model for this new NCR effort, as well as for other potential governmental I-Net interconnections in the United States.

The NCRIP is constructing a regional public safety network (NCRnet) for the mutual benefit of local NCR jurisdictions and their first responders by using existing I-Net fibers and extending them where needed to interconnect all NCR jurisdictions I-Nets with each other. This new connection between Fairfax County and Alexandria will facilitate this regional inter-jurisdictional sharing of computer aided dispatch (CAD), and other governmental information

providing enhanced situational awareness for public safety. Eventually jurisdictions will be able to see how public safety units in connected jurisdictions are deployed reducing response times and increasing the ability to provide mutual support. It would also be the system used to connect NCR jurisdictions to a regional data exchange hub which is currently under discussion. The interconnect will be engineered in such a way as to protect Alexandria's I-Net from any unwanted external traffic and retain complete control over our network. The construction will be a joint venture between Cox Communications, Inc. in Fairfax County and Comcast Communications, Inc. in Alexandria. Comcast will work with Cox to complete the fiber construction between Cox Communications, 2917 Eskridge Road, Fairfax County to Markham St / Little River Turnpike at intersection of Zircon Drive in Fairfax County to the demark of the Fairfax County line buttressing against the City of Alexandria and from this point to Comcast Communications, 3900 Wheeler Avenue in Alexandria. The physical interconnection will be by construction of a twenty-four (24) count single mode fire optic cable between the two sites. Cox Communications has entered into a contractual relationship with NCRIP to secure payment from the appropriated federal funds for this project and is responsible for all funding to Comcast for this project.

The proposal will be presented to the Fairfax County Board of Supervisors for approval this month.

**FISCAL IMPACT:** This interconnection will be completed without cost to the City. The NCRIP will fund the construction through federal grants. The estimated one-time construction cost is \$221,497 which will cover the additional materials and installation for the termination of the fiber cable being built by Cox Business Services. Routine operational and maintenance costs for the I-Net connection should be minimal and will be covered through the City's Information Technology Services operating budget. If and when a regional data exchange hub is created, there would be ongoing to-be-determined costs related to operating and maintaining such a hub.

**ATTACHMENT:** Memorandum of Understanding Concerning Initial Interconnection of Institutional Networks

**STAFF:**

Rose Williams Boyd, Director of Citizen Assistance

Mike Herway, Director, Information Technology Services

Tom Trobridge, Deputy Director, Information Technology Services

MEMORANDUM OF UNDERSTANDING  
CONCERNING INTERCONNECTION OF  
INSTITUTIONAL NETWORK SYSTEMS

THIS MEMORANDUM OF UNDERSTANDING ("MOU") is dated into this \_\_\_\_ day of \_\_\_\_, 2008 between the City of Alexandria, a municipal corporation of the Commonwealth of Virginia ("City") and its City Council, the governing body of the City of Alexandria, Virginia ("City"), and the County Board of Supervisors for Fairfax County, Virginia ("County Board"), the governing body of Fairfax County, Virginia ("County"). The City and the County Board are jointly referred to hereinafter as the "Parties." The City and the County Board are sometimes individually referred to hereafter as "Party."

WHEREAS, the City granted to Comcast of Potomac, L.L.C., a Delaware limited liability company ("Comcast") a franchise to construct and operate a cable system within the boundaries of the City ("Franchise"); and

WHEREAS, the County granted to Cox Communications, a Certificate of Public Convenience and Necessity to construct and operate a cable system within the boundaries of the County ("Certificate"); and

WHEREAS, the Franchise and the Certificate require the installation by Cox / Comcast of institutional network ("I-Net") systems, consisting of two way fiber optical systems linking public, educational, and governmental facilities within the boundaries of the respective jurisdictions; and

WHEREAS, the Franchise and the Certificate authorize the interconnection of such I-Net systems; and

WHEREAS, by this MOU, the City and the County Board agree upon certain terms and conditions upon which an initial pilot project I-Net interconnection will be accomplished.

NOW, THEREFORE, in consideration of the mutual covenants and conditions of this MOU, and good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows.

1. Purpose. The purpose of this MOU is to state the terms and conditions upon which one interconnection of the City and the County I-Net systems will be accomplished, initially on the basis of a pilot project, for the purpose of conducting government business that affects both jurisdictions. The I-Net interconnection will consist of a twenty-four (24) count single modem fiber optic cable between the two sites ("Interconnection") from the County from Markham Street/Little River Turnpike Intersection to its termination in the City at 3900 Wheeler Avenue. This work will be constructed in accordance with the Statement of Work Installation of Fiber

Interconnection between COX MTC to Markham Street/Little River Turnpike Intersection (Pole# PEN87) (Attachment 1) and the Coterminous Agreement Statement of Work Installation of Fiber Interconnection between Cox Communications and Comcast (Attachment 2).

2. Duration of Initial Interconnection & Subsequent Agreements. The duration of the initial interconnection shall begin on the first day when Cox / Comcast complete and the City and County accept the Interconnection Work. The Parties will require Cox/Comcast to notify the City and County in writing fifteen (15) days in advance of completion of construction. The notice shall include the date that Cox/Comcast is prepared to conduct an OTDR test at 1550 nm and 1310 nm end-to-end. The Interconnection shall be deemed successfully completed if: (i) maximum link losses do not exceed 0.5 dB/km at 1310 nm, (ii) maximum link losses do not exceed 0.35 dB/km at 1550 nm, (iii) connector losses do not exceed 0.3 dB, and (iv) splice losses do not exceed 0.1 dB.
3. Interconnection Construction Cost. The City and the County Board agree that this project will be funded by a federal grant and neither jurisdiction will budget for or fund initial planning, engineering or construction of the interconnect. The NCRIP estimates a one time construction cost of \$221,496.88 for this work, which will cover the additional materials and installation for the termination of the fiber cable being built by Cox Business Services.
4. Project Officers. The City designates the Division Chief, I-Net/Operations as the City Project Officer and the Network Engineer III, I-Net/Operations as City Backup Project Officer for the purpose of administering this MOU on behalf of the City. The County Board designates the Director, Executive/Regional Technology Initiatives as the County Project Officer and the Manager, Network Services as the County Backup Project Officer for the purpose of administering this MOU on behalf of the County Board. The Parties agree that all communications regarding this MOU, and the subjects hereof, shall be made to or through the above Project and Backup officers on behalf of the Parties. The Parties shall ensure that they continually provide the other Party with the telephone numbers and schedules of staff who will be available outside of regular business hours.
5. Services Access. After execution of this MOU and before the Interconnection Work begins, an Interconnection Steering Committee ("ISC") shall be formed, the Chief Technology Officer (CTO) for Fairfax County and the Chief Information Officer for the City of Alexandria are to receive and consider requests for the use of the Interconnection for inter-jurisdictional information technology services and future interconnections to other jurisdictions. The ISC also shall recommend to the City and the County Board the terms upon which any future services should be allowed

over the Interconnection. The ISC shall advise the Parties on allowable services based on multiple criteria including, but not limited to, the networking policies of the City and the County, the potential impact of a service to impact existing network services, and the impact of a new service on potential future services.

6. Equipment Specifications. The Parties shall jointly determine the specifications of the Interconnection equipment needed to accomplish the Approved Uses. No Interconnection specifications shall be deemed to be acceptable to the Parties unless and until such specifications are approved in writing by the City's and County's Project Officers.
7. Cost of Equipment Acquisition and Maintenance. Each of the Parties is responsible for acquiring and paying for the equipment located within the boundaries of their respective jurisdictions including, but not limited to, all network interface equipment and interfaces, digital video encoders and decoders, network monitoring systems, and facility cabling.
8. Fiber Maintenance. Cox/Comcast shall be responsible for maintenance and repair for the Interconnection as such responsibilities are required by the Franchise and by the Certificate.
9. Support Process. Each Party's Project Officer must keep each other informed of the problem resolution status.
10. Security. The Parties of this Agreement shall be responsible for protecting their own networks from "Harmful Traffic" emanating from the other Party. "Harmful Traffic" means communications that may potentially cause loss or degradation of service for users of the Interconnect or may result in viruses, undesired files or applications on servers or user devices. Both Project Officers shall make best efforts that Harmful Traffic does not pass into the network of the other Party. To prevent Harmful Traffic over the Interconnect, the Parties may take appropriate actions, including disconnecting their equipment from the Interconnection.
11. Non-Appropriation. Each of the Parties obligations under this MOU are subject to appropriation of funds by the City and by the County Board for the specific purposes to pay for, and to satisfy, such Parties respective obligations under this MOU.
12. No Waiver of Sovereign Immunity. Notwithstanding any other provisions of this MOU to the contrary, nothing in this MOU, nor any action taken by either of the Parties, the Project Officers, or any of the Parties elected or appointed officials officers or employees, pursuant to this MOU, nor any document which arises out of this MOU shall constitute or be construed as

a waiver of either the sovereign immunity or governmental immunity of the such persons and entities.

13. Governing Law and Venue. This MOU shall be construed and enforced in accordance with the laws of the Commonwealth of Virginia. The Parties hereto agree that all disputes arising hereunder shall be brought in a court of competent jurisdiction.
14. No Third Party Beneficiaries. The Parties hereto mutually agree that no provision of this MOU shall create in the public, or in any person or entity other than those signing this MOU as parties hereto, rights as a third party beneficiary hereunder, or authorize any person or entity, not a party hereto, to maintain any action for person injury, property damage, or breach of contract pursuant to the terms of this MOU or otherwise. Nothing herein shall be construed to release Cox/Comcast from their obligations under the Franchise and the Certificate, respectively.
15. Entire Agreement, Amendments. This MOU contains and embodies the entire agreement of the Parties. No representations, inducements, or agreements, oral or otherwise, between the Parties not contained and embodied in said MOU shall be of any force and 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 Parties and duly signed by authorized persons on behalf of the Parties.

In Witness Whereof, the Parties have executed this MOU on the dates indicated below, and this MOU is effective upon the later of such dates.

THE CITY OF ALEXANDRIA,  
VIRGINIA, a municipal corporation of  
Virginia

Witness

\_\_\_\_\_

By: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

Approved as to form:

\_\_\_\_\_  
Assistant City Attorney

THE COUNTY BOARD OF SUPERVISORS  
FAIRFAX COUNTY, VIRGINIA

Witness

\_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Approved as to form:

\_\_\_\_\_

County Attorney