

City of Alexandria, Virginia

MEMORANDUM

DATE: JUNE 17, 2004

TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL

FROM: PHILIP SUNDERLAND, CITY MANAGER ^{ps}

SUBJECT: REQUEST TO APPROVE INTERCONNECTION OF INSTITUTIONAL NETWORKS BETWEEN ALEXANDRIA AND ARLINGTON COUNTY AND THE INITIAL MEMORANDUM OF UNDERSTANDING BETWEEN THE TWO JURISDICTIONS

ISSUE: Request for approval of an interconnection between the Alexandria and Arlington cable television systems (both are owned and operated by Comcast Communications, Inc) to conduct government business via the institutional networks (I-Nets) and initial memorandum of understanding (Attachment 1).

RECOMMENDATION: That City Council:

- (1) Approve the interconnection between the Alexandria and Arlington cable television systems; and
- (2) Authorize the City Manager to execute, on behalf of the City and to deliver the memorandum of understanding, in substantially the form presented to the Council with such changes as are approved by the City Manager and the City Attorney.

DISCUSSION: The purpose of the interconnection is to conduct government business that affects Alexandria and Arlington. Initially, the interconnection will be used to provide video arraignment services to the Northern Virginia Detention Center (Attachment 2). It will also allow public safety staff to connect their computer added dispatch (CAD) systems. Each jurisdiction will be able to see how units in both jurisdictions are deployed, and this will provide another telecommunications path between jurisdictions during emergency situations in the event the local telephone system is not operational. During Hurricane Isabel and on September 11, 2001, the system was unable to accommodate the demand or failed due to storm conditions. Future plans include the migration of the City's payroll system, which runs on Arlington County's mainframe from a Verizon T-1 line to the I-Net, and backup capability for public safety (police and fire) emergency communications. A future further I-Net interconnection to Fairfax County's I-Net is being discussed. Other Northern Virginia jurisdictions upon learning of this Alexandria-Arlington interconnection initiative also were interested in possible future interconnections.

The interconnection will utilize Comcast’s fiber infrastructure and the endpoints will be Fire Station 203, located at 2801 Cameron Mills Road in Alexandria, and the Fairlington Community Center, located at 3308 South Stafford Street in Arlington (Attachment 3). An inter-jurisdictional Alexandria and Arlington staff group will determine when and how additional services will be added to the I-Net.

The Arlington County Board will be considering this proposal in July.

FISCAL IMPACT: Comcast estimates the total cost to be \$42,457 (Attachment 4). Alexandria and Arlington will each pay one half of the actual cost for the interconnection work.

ATTACHMENTS:

- Attachment 1. Proposed Memorandum of Understanding Concerning Initial Interconnection of Institutional Network Systems
- Attachment 2. Arlington/Alexandria Video Arraignment Support Process
- Attachment 3. Map of Proposed Route for I-Net Interconnection
- Attachment 4. Cost Estimate for Arlington/Alexandria Interconnect

STAFF:

Rose Williams Boyd, Director of Citizen Assistance
William Cole, Director of Information Technology Services

MEMORANDUM OF UNDERSTANDING
CONCERNING INITIAL INTERCONNECTION OF
INSTITUTIONAL NETWORK SYSTEMS

THIS MEMORANDUM OF UNDERSTANDING ("MOU") is dated into this ____ day of ____, 2004 between the City Council of Alexandria, Virginia ("City Council"), the governing body of the City of Alexandria, Virginia ("City"), and the County Board of Arlington County, Virginia ("County Board"), the governing body of Arlington County, Virginia ("County"). The City Council and the County Board are jointly referred to hereinafter as the "Parties." The City Council and the County Board are sometimes individually referred to hereafter as "Party."

WHEREAS, the City Council 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 Comcast, 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 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 Council 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 acknowledge, 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 12 strand single modem fiber optic cable ("Interconnection") installed by Comcast within real estate wherein Comcast presently is permitted to construct its cable system ("Interconnection Work"). The Interconnection endpoints will be Fire Station 203, located at 2801 Cameron Mills Road in Alexandria, and Fairlington Community Center, located at 3308 South Stafford Street in Arlington. Attached to this MOU as Attachment 1 is the proposed route of the Interconnection.

2. Duration of Initial Interconnection & Subsequent Agreements. The duration of the initial interconnection shall begin on the first day when Comcast completes and the City and County accept the Interconnection Work. The Parties will require 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 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. The duration of the initial interconnection shall end one hundred and twenty (120) calendar days after such completion and acceptance ("Pilot Period"). The Pilot Period may be extended, in writing, by mutual agreement of the Parties.
3. Use of Interconnection during Pilot Period; Approved Uses. The Interconnection shall be used during the Pilot Period for the purpose of conducting governmental business mutually agreed upon by the Parties. All use of the Interconnection after the Pilot Period shall be governed by a subsequent agreement between the Parties. The Interconnection shall be used initially by the Parties to provide for the operation of the City's payroll system, to support a video arraignment connection between the County Sheriff's Office and the Northern Virginia Juvenile Detention Center, and to support publicly accessible Internet Protocol Services (IP Services"). IP Services are data, video or voice services provided in packetized form compatible with Internet standards. IP Services can be transported, switched and routed via Internet standards compliant equipment used by the County and the City. IP Services do not include video, serial data (i.e. RS-232) or circuit-based (i.e. T1, DS0) communications in native format. Non-IP Services can be converted to IP Services by the appropriate encoding or packetizing device or terminal server. All of the above described services are hereafter referred to as "Approved Uses."
4. Interconnection Construction Cost. The City Council and the County Board agree to each pay to Comcast, upon completion and acceptance by the Parties of the Interconnection, one half of the costs of the Interconnect Work. The total cost presently is estimated by Comcast to be \$42,457 ("Estimated Total Cost"). Attached to this MOU as Attachment 2 is Comcast's estimate for the Interconnection and the Interconnection Work. The City and County will each pay one-half of the actual cost of the Interconnection Work. The City and the County shall have exclusive use of all fiber built for the Interconnection. Those portions of the Interconnection located within the County will be owned by the County Board. Those portions of the Interconnection located within the City will be owned by the City Council.
5. Project Officers. The City Council 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 Council. The County Board designates the Deputy Director, Network Services as the County Project Officer and the Director, 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.

6. Services Access. After execution of this MOU and before the Interconnection Work begins, an Interconnection Steering Committee ("ISC") shall be formed the Chief Information Officers of Arlington County and the City of Alexandria 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 Council 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.
7. 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 Project Officer and by the County Project Officer.
8. 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.
9. Fiber Maintenance. Comcast shall be responsible for maintenance and repair for the Interconnection as such responsibilities are required by the Franchise and by the Certificate.
10. Backup Connection. During the Pilot Period, the City Council agrees to continue to use an existing T-1 line presently running from 2100 Clarendon Boulevard, Arlington, VA to 301 King Street, Alexandria, VA for operation of the payroll system. Upon completion of the Pilot Phase, the City Council may discontinue use of such T-1 line.
11. Support Process. The support process for problem resolution is shown in Attachment 3. Each Party's Project Officer must keep each other informed of the problem resolution status.
12. 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.

13. Non-Appropriation. Each of the Parties obligations under this MOU are subject to appropriation of funds by the City Council and by the County Board for the specific purposes to pay for, and to satisfy, such Parties respective obligations under this MOU.
14. 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.
15. 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.
16. 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 Comcast from their obligations under the Franchise and the Certificate, respectively.
17. 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 or the dates indicated below, and this MOU is effective upon the later of such dates.

THE CITY COUNCIL OF THE
CITY OF ALEXANDRIA, VIRGINIA

Witness

By: _____
Title: _____
Date: _____

Approved as to form:

City Attorney

Approved as to form:

Assistant City Attorney

THE COUNTY BOARD OF
ARLINGTON COUNTY, VIRGINIA

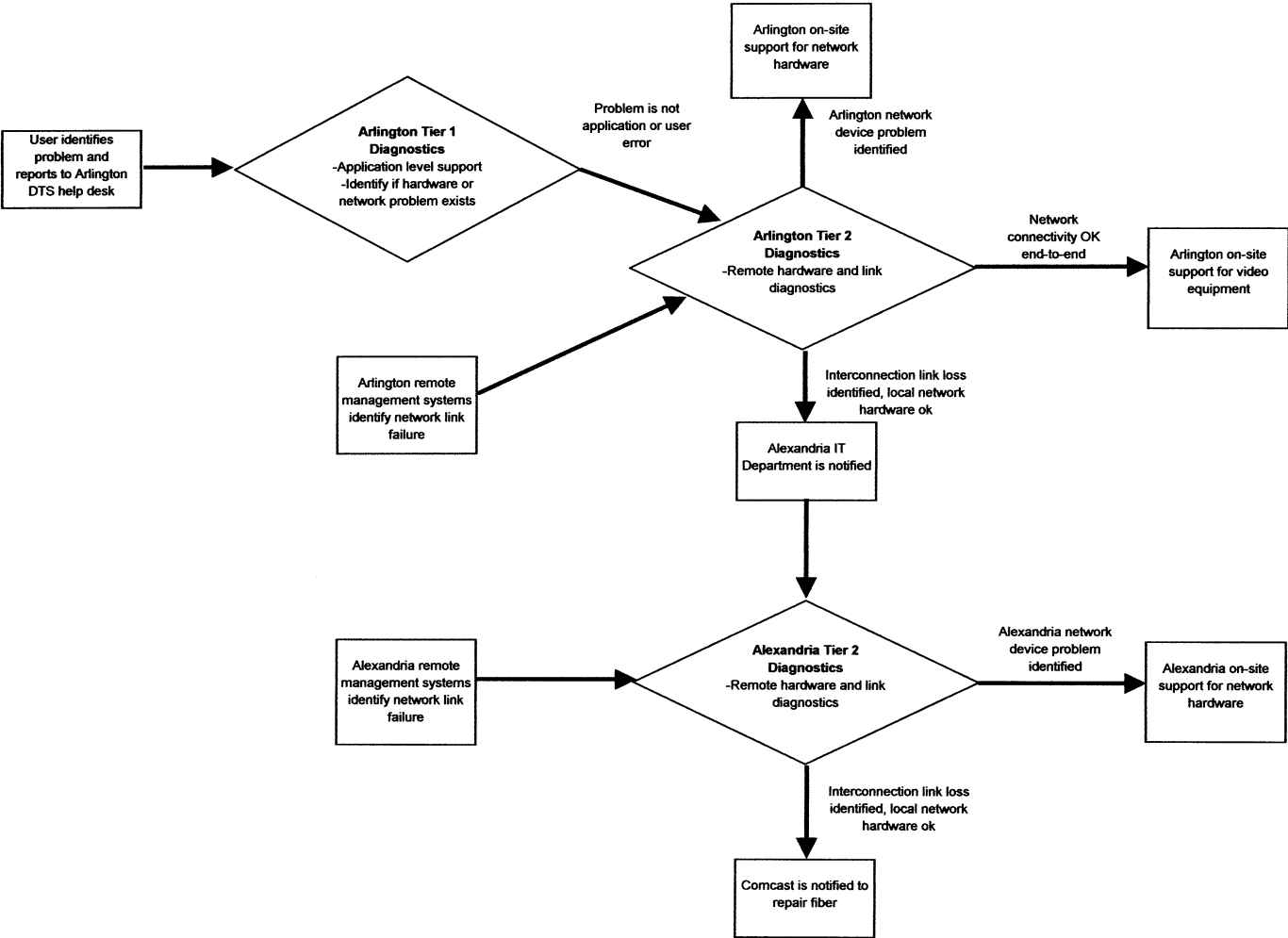
Witness

By: _____
Title: _____
Date: _____

Approved as to form:

County Attorney

Arlington / Alexandria Video Arraignment
Support Process





Cost Estimate for Arlington/Alexandria Interconnect

Fiber I.C. for A / A				
Labor		# Units	Cost per unit	Total
Trenching		409	\$17.25	\$7,055.25
R/R decorative brick side walk			\$28.75	\$0.00
Directional bore			\$23.00	\$0.00
Building core drill			\$172.50	\$0.00
Street cut open trench		45	\$21.85	\$983.25
Fiber Splicing	Loose	24	\$28.75	\$690.00
	Ribbon		\$86.25	\$0.00
Build splice case & 2 cables		2	\$534.75	\$1,069.50
Each additional cable			\$57.50	\$0.00
Site visit & re-entry/location		1	\$230.00	\$230.00
Install cable in conduit:	Includes:	1632	\$1.95	\$3,182.40
Install Vaults	36 x 36		\$468.00	\$0.00
	17 x 30	2	\$287.50	\$575.00
	Other Size			
Splicing	Taps	0	\$26.45	\$0.00
	Amps	0	\$103.50	\$0.00
	DC	0	\$31.62	\$0.00
Pole Transfers	Per location	0	\$105.00	\$0.00
Comcast Engineering:	Hourly	32	\$146.33	\$4,682.56
Aerial Cabling	Per foot cost		\$4.28	\$0.00
Over lash Fiber	Per Foot Cost	6390	\$1.25	\$7,987.50
Attachment permits	Each		\$3.27	\$0.00
Construct EMT			\$17.82	\$0.00
Permitting:				
	Field activities	8	\$488.75	\$3,910.00
	Designating	16	\$115.00	\$1,840.00
Engineering	Work Crew	8	\$115.00	\$920.00
	Contract Manager	1	\$138.00	\$138.00
	Project Manager	2	\$132.25	\$264.50
	Project Planner	4	\$109.25	\$437.00
	Planner	16	\$66.70	\$1,067.20
Arlington County			\$0.00	\$0.00
Verizon manhole survey			\$253.00	\$0.00
Verizon manhole knockout			\$1,725.00	\$0.00
Power Supply Permit			\$46.00	\$0.00
			Total Labor:	\$35,032.16

Cost Estimate for Arlington/Alexandria Interconnect

Materials		Units	Cost per unit	Total
Conduit:			\$7.18	\$0.00
EMT Pull Box			\$57.50	\$0.00
4" Conduit			\$2.30	\$0.00
4" EMT			\$2.87	\$0.00
Interduct		409	\$1.15	\$470.35
Fiber	432ct		\$8.74	\$0.00
	192ct		\$3.98	\$0.00
	120ct		\$2.47	\$0.00
	96ct		\$2.01	\$0.00
	24ct		\$1.15	\$0.00
	12ct	8022	\$0.44	\$3,529.68
Misc Material		8022	\$0.33	\$2,647.26
Coax cable				
		0	\$1.03	\$0.00
Vaults	36 x 36		\$162.57	\$0.00
	17 x 30	2	\$112.12	\$224.24
Electronic		0	\$1.81	\$0.00
Passive		0	\$2.40	\$0.00
			Total Materials:	\$6,871.53
			Total Labor:	\$35,032.16
			Tax & Freight	\$553.16
			Total Labor & Material	\$42,456.85