

BROADBAND NETWORK SERVICES AGREEMENT

This Broadband Network Services Agreement (“Agreement”) is made by and between Virginia Polytechnic Institute and State University (“Virginia Tech”) and Bell Atlantic-Virginia Incorporated (“Contractor”) as of this _____ day of June, 1996.

1. Services.

Contractor (itself and/or through its subcontractors) shall provide the services described in Appendix A (including any incidental software Contractor deems it necessary to provide in connection therewith) (“Services”) to any Ordering Party (as defined below). The Services are offered on an individual case basis (ICB). A partial list of anticipated ATM switch locations is provided in Appendix D.

2. Price.

The prices for the Services as set forth in Appendix B shall be applicable to each Ordering Party; provided that any Ordering Party not listed in Appendix C may be required to pay additional construction charges, as set forth in Appendix B.

3. Term.

This Agreement shall become effective upon execution by the parties. However, the Term of the Agreement shall commence upon acceptance by Virginia Tech of the initial five (5) ATM circuits provided by Contractor (“Effective Date”). This Agreement shall be in effect for a period of eighty four (84) consecutive months from the Effective Date followed by three (3) twelve (12) month renewals unless either party gives the other at least ninety (90) days advance written notice prior to each twelve (12) month renewal of its intent to terminate this Agreement. Contained within the term of this Agreement is “Phase I” which incorporates, at a minimum, the initial five ATM circuits for a period of eighteen (18) months.

4. General Contract Terms and Conditions

4.1 Purchasing Entity/Orders.

Virginia Polytechnic Institute and State University is an agency of the Commonwealth of Virginia. Virginia Polytechnic Institute and State University may also be referred to as Virginia Tech, or the University in this document. Virginia Tech may also be an Ordering Party under this Agreement.

Virginia Community College System is an agency of the Commonwealth of Virginia. Virginia Community College System may also be referred to as the Community Colleges or VCCS. VCCS may also be an Ordering Party under this Agreement.

Old Dominion University is an agency of the Commonwealth of Virginia. Old Dominion University may also be referred to as ODU. ODU may also be an Ordering Party under this Agreement.

Vendor, Offeror, and/or Contractor refers to Bell Atlantic.

“Ordering Party” is defined in Section 5.15.

“Holder of the Contract.” Virginia Tech is the Holder of the Contract.

4.2 Vendor's Manual

The provisions of the Commonwealth of Virginia Vendor's Manual and any revisions thereto, are hereby incorporated into this Agreement in their entirety to the extent not inconsistent with the terms and conditions contained in this Agreement.

4.3 Applicable Laws and Courts

This Agreement shall be governed in all respects by the laws of the Commonwealth of Virginia and any litigation with respect thereto shall be brought in the courts of the Commonwealth. Contractor shall comply with applicable federal, state and local laws and regulations.

4.4 Anti-Discrimination

Contractor certifies to the Commonwealth that they will conform to the provisions of the Federal Civil Rights Act of 1964, as amended, as well as the Virginia Fair Employment Contracting Act of 1975, as amended, where applicable, the Virginians With Disabilities Act, the Americans With Disabilities Act, and Section 11-51 of the Virginia Public Procurement Act which provides:

In every contract over \$10,000 the provisions in 1. and 2. below apply:

a. During the performance of this contract, the Contractor agrees as follows:

1. The Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex or national origin, or disabilities, except where

religion, sex or national origin is a bona fide occupational qualification reasonably necessary to the normal operation of the Contractor. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause.

2. The Contractor, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, will state that such Contractor is an equal opportunity employer.

3. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.

b. The Contractor will include the provisions of 1. above in every subcontract or purchase order over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

4.5 Ethics in Public Contracting

Contractor certifies that its proposals in connection with this Agreement were made without collusion or fraud and that it has not offered nor received any kickbacks or inducements from any other offeror, supplier, manufacturer or subcontractor in connection with such proposals, and that it has not conferred on any public employee having official responsibility for this procurement transaction any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal value, present or promised unless consideration of substantially equal or greater value was exchanged.

4.6 Immigration Reform and Control Act of 1986

Contractor certifies that it does not and will not during the performance of this contract employ illegal alien workers or otherwise violate the provisions of the federal Immigration Reform and Control Act of 1986.

4.7 Debarment Status

Contractor certifies that it is not currently debarred by the Commonwealth of Virginia from submitting bids or proposals on contracts for the type of goods and/or services covered by this contract, nor is it an agent of any person or entity that is currently so debarred.

4.8 Payment

4.8.1 To Prime Contractor.

4.8.1.1 Invoices for Services ordered, delivered and accepted shall be submitted by Contractor directly to each Ordering Party at the payment address shown on the purchase order. All invoices shall show the Virginia Tech contract number and/or the Ordering Party purchase order number; social security number (for individual contractors) or the federal employer identification number (for proprietorships, partnerships, and corporations).

4.8.1.2 Any payment terms requiring payment in less than 30 days will be regarded as requiring payment 30 days after invoice or delivery, whichever occurs last. This shall not affect offers of discounts for payment in less than 30 days, however. If the invoiced party does not pay any invoice in full within thirty (30) days after the due date, it will pay Contractor 1.25% per month (or the maximum rate allowed by law, if lower) on the unpaid balance prorated daily, until the balance is paid in full. Should a different relationship exist between the Ordering Party and the Party responsible for remittance, the Ordering Party shall provide the appropriate billing information to Bell Atlantic prior to installation. Bell Atlantic will be the point of contact for all billing issues related to this Agreement. All such questions should be directed to the Bell Atlantic Customer Service Agent.

4.8.1.3 All goods or services provided and used in the performance of Services under this Agreement or purchase order, that are to be paid for with public funds, shall be billed by Contractor at the contract price, regardless of which public agency is being billed.

4.8.1.4 The following shall be deemed to be the date of payment: the date of postmark in all cases where payment is made by mail, or the date of offset when offset proceedings have been instituted as authorized under the Virginia Debt Collection Act.

4.8.2 Subcontractors.

4.8.2.1 Contractor is hereby obligated to pay the subcontractor(s) within seven (7) days of Contractor's receipt of payment from the Commonwealth for the proportionate share of the payment received for Services performed by the subcontractor(s) under this Agreement; or

4.8.2.2 Contractor is hereby obligated to notify the Ordering Party and the subcontractor(s), in writing, of Contractor's intention to withhold payment and the reason. Contractor is obligated to pay the subcontractor(s) interest at the rate of one percent (1%) per month (unless otherwise provided under the terms of the contract) on all amounts owed by Contractor that remain unpaid seven (7) days following receipt of payment from the Commonwealth, except for amounts withheld as stated above. The date of mailing of any payment by US Mail is deemed to be payment to the addressee. These provisions apply to each subtier contractor performing under the primary contract. Contractor's obligation to pay an interest charge to a subcontractor may not be construed to be an obligation of an Ordering Party.

4.9 Qualifications of Offerors

An Ordering Party may make such reasonable investigations as deemed proper and necessary to determine the ability of Contractor to perform the Services and Contractor shall furnish to any Ordering Party all such information and data for this purpose as may be requested. Virginia Tech reserves the right to inspect Contractor's physical facilities prior to commencement of the Services to satisfy questions regarding Contractor's capabilities. Virginia Tech further reserves the right to reject any bid or proposal if the evidence submitted by, or investigations of, such Contractor, fails to satisfy Virginia Tech that Contractor is properly qualified to carry out the obligations of this Agreement and to complete the Services/furnish the item(s) contemplated herein.

4.10 Testing and Inspection

Any Ordering Party reserves the right to conduct any test/inspection it may deem advisable to assure supplies and Services conform to specifications. The Ordering Party shall be responsible for all testing and inspection it may deem to undertake, except for (i) acceptance testing provided under the System Acceptance section of this Agreement, or (ii) any tests or inspections required due to a material change in the services provided.

4.11 Assignment of Contract

Upon prior written notice to Virginia Tech, Contractor may assign this Agreement in whole or in part to any entity in which Contractor or its parent company owns, directly or indirectly, a greater than fifty percent (50%) voting interest; provided that the assignee is financially sound and has the capability to perform the Services in substantially the same manner as the assignor. All other assignments shall be made with Virginia Tech's written consent, which shall not be unreasonably withheld.

4.12 Changes

4.12.1 Addenda to the Contract

4.12.1.1 Virginia Tech shall issue a written addendum to Contractor when Virginia Tech determines the need for a change. Where Contractor determines that the requested change will affect the contract price, Contractor shall advise Virginia Tech of adjustments to the contract price and/or the schedule for completion of the Services and such adjustments shall be reflected in the addendum. Minor changes which do not affect the contract price shall be carried out by Contractor at the written direction of Virginia Tech under a Change Order.

4.12.1.2 No addendum shall be effective until its terms are agreed to and signed by the parties hereto.

4.12.1.3 Price adjustments which may be necessary under the preceding paragraphs shall cover all labor, supervision, equipment, materials and tools necessary to carry out the change.

4.12.2 Change Orders

4.12.2.1 A Project Manager appointed by Contractor, in consultation with a representative of the Ordering Party, will direct the performance and completion of the Services.

4.12.2.2 An Ordering Party may request changes during the time period between the firm configuration date and the date of acceptance if it is determined by Contractor and the Ordering Party that this will not impact the completion of Service on time or delay the Acceptance. Thereafter, the Ordering Party may, subject to the provisions of this Section, add to, delete from, or modify the Services (hereinafter a "Change") by change order.

4.12.2.3 No change order shall be effective until its terms are agreed to and signed by the parties hereto.

4.13 Taxes

Sales to Virginia Tech and the Commonwealth of Virginia are normally exempt from State sales tax. State Sales and Use Tax Certificates of Exemption, Form ST-12, will be issued upon request. Deliveries against this contract shall be free of federal excise and transportation taxes for tax exempt entities. The Commonwealth of Virginia's excise tax exemption registration number is 54-73-0076K. If an Ordering Party is not tax exempt it shall be responsible for all taxes associated with the Services except those on Contractor's net income.

4.14 EO/AA Statement

Virginia Tech, an equal opportunity, affirmative action institution covered by presidential executive order 11246 as amended, advises all contractors, subcontractors, vendors and suppliers that direct receipt of federal funds may require appropriate action on their part.

4.15 Indemnification

Contractor shall indemnify, hold harmless and defend Virginia Tech and all Ordering Parties against all losses, claims, damages and liabilities arising from claims by third parties relating to physical injury or to death of individuals or relating to damage to tangible property and will promptly pay costs, reasonable attorney's fees, settlements, judgments and any damages awarded or resulting from any such claims, to the extent such losses, claims, damages and liabilities are due to the negligence of Contractor, its agents, employees or subcontractors; provided, however, that the Ordering Party shall promptly advise Contractor of any such claim and shall cooperate and may assist Contractor in the defense or settlement of such claim, but at such time as Contractor shall assume responsibility in writing therefore, Contractor shall have sole control thereof, subject however to the requirements of Section 2.1-127 of the Code of Virginia or any successor statute. If principles of governmental or public law are involved, an Ordering Party may, at its option and expense, participate in the defense of the suit.

5. Special Contract Terms and Conditions

5.1 Audit

Contractor hereby agrees to retain all books, records, and other documents relative to this Agreement for five (5) years after final payment, or until audited by the Commonwealth of Virginia, whichever is sooner. Virginia Tech, its authorized agents, and/or State auditors shall have full access to and the right to examine any of said materials during said period at a time mutually agreeable to the parties. Such audit shall be subject to reasonable confidentiality restrictions.

5.2 Availability of Funds

It is understood and agreed between the parties herein that an Ordering Party shall be bound hereunder only to the extent of the funds available to it or which may hereafter

become available for the purpose of this Agreement. Should it be necessary for an Ordering Party to terminate the Services performed by Contractor under this paragraph, such party shall make every reasonable effort to secure such funds to pay Contractor for Services performed by Contractor and accepted by an Ordering Party up to and including the date of termination. Should funds subsequently become available to the Ordering Party to continue the Services, then it shall promptly pay Contractor for all Services performed by Contractor and accepted by the Ordering Party for which Contractor has not received payment up to and including the date of termination of Services by the Ordering Party.

5.3 Contract Documents

This Agreement shall consist of this Broadband Network Services Agreement, the Request for Proposal, (as amended), the signed proposal submitted by Contractor in response to the RFP and any amendments thereto, all of which shall be referred to collectively as the Contract Documents. In the event of a conflict among the Contract Documents, the order of precedence shall be: (i) This Broadband Network Service Agreement; (ii) the Terms and Conditions contained in the RFP and amendments thereto; and (iii) Contractor's response to the RFP and any amendments thereto.

5.4 Contract Administration

Virginia Tech shall designate in writing the name of the Contract Administrator who shall work with Contractor in formulating mutually acceptable project administration plans. Other personnel may be designated by the Contract Administrator to assist in the administration of this Agreement.

The Contract Administrator shall use all powers under this Agreement to enforce its faithful performance. The Contract Administrator shall determine the amount, quality, and acceptability of the Services and shall decide all other questions in connection with the Services.

The Contract Administrator shall have no authority to approve or order changes in the Services which alter the concept or which call for an extension of time or a change in the contract price.

5.5 Drug Free Workplace

Contractor acknowledges and certifies that it understands that the following acts by Contractor, its employees, and/or agents performing Services on state property are prohibited:

(I) The unlawful manufacture, distribution, dispensing, possession or use of alcohol or other drugs; and

(II) Any impairment or incapacitation from the use of alcohol or other drugs (except the use of drugs for legitimate medical purposes).

Contractor further acknowledges and certifies that it understands that a violation of these prohibitions constitutes a breach of contract and may result in default action being taken by Virginia Tech in addition to any criminal penalties that may result from such conduct.

5.6 Conflict of Interest

Contractor represents to Virginia Tech that its entering into this Agreement with Virginia Tech does not entail any violation of the Virginia Conflict of Interests Act.

5.7 Certifications

Contractor hereby certifies its compliance with the following:

5.7.1 Virginia Conflict of Interests Act

5.7.2 Virginia Freedom of Information Act

5.7.3 Virginia Fair Employment Contracting Act

5.7.4 Virginia Procurement Act

5.7.5 Federal Immigration Reform and Control Act of 1986.

5.8 Independent Contractor

The Contractor shall not be an employee of Virginia Tech, but shall be an independent contractor.

Nothing in this Agreement should be construed as authority for the Contractor to make commitments which shall bind the Ordering Party, or to otherwise act on behalf of the Ordering Party, except as the Ordering Party may expressly authorize in writing.

5.9 Insurance

By signing and submitting a proposal under this solicitation, the Offeror certifies that if awarded the contract, it will have the following insurance coverages at the time the work commences. Additionally, it shall maintain these during the entire term of the contract and that all insurance coverages will be provided by insurance companies authorized to sell insurance in Virginia by the Virginia State Corporation Commission or through a program of self insurance. During the period of the contract, Virginia Tech reserves the right to require the Contractor to furnish certificates of insurance for the coverage required.

INSURANCE COVERAGES AND LIMITS REQUIRED:

I. Worker's Compensation - Statutory requirements and benefits.

II. Employers Liability - \$100,000.00

III. General Liability - \$500,000 combined single limit. Virginia Tech and the Commonwealth of Virginia shall be named as an additional insured with respect to goods/services being procured. This coverage is to include Premises/Operations Liability, Products and Completed Operations Coverage, Independent Contractor's Liability, Owner's and Contractor's Protective Liability and Personal Injury Liability.

IV. Automobile Liability - \$500,000.

5.10 Viable Offeror

Evidence of the continued solvency and viability of Contractor may be required by Virginia Tech. At any point during the Term, Virginia Tech may seek assurances of Contractor's solvency.

5.11 Infringement Actions

5.11.1 Contractor, at its own expense, shall defend any suit brought against an Ordering Party for the infringement of patents, copyrights or trade secrets enforceable in the United States if the claim of infringement is alleged to relate to or arise from Contractor's or the Ordering Party's use of any Services provided by Contractor in connection with performance of this Agreement. In such suit, Contractor shall indemnify the Ordering Party, its agents, officers and employees for any loss, liability or expense incurred as a result of such suit.

5.11.2 The Ordering Party shall notify Contractor of such suit within a reasonable time after learning of it and shall give Contractor the full right and opportunity to conduct the defense of the suit, subject however to the requirements of Section 2.1-127 of the Code of Virginia or any successor statute. If principles of governmental or public law are involved, the Ordering Party may, at its option and expense, participate in the defense of the suit.

5.11.3 Contractor shall not be required to indemnify the Ordering Party for any loss, liability, or expense to the extent it arises out of the Ordering Party's own specifications or design or to the extent it arises from the combination of the Services furnished hereunder with any equipment or software not supplied by Contractor.

5.11.4 If any Service (or any product necessary to provide such Service) becomes, or in Contractor's opinion, is likely to become, the subject of a claim of infringement, Contractor may, at its option, provide noninfringing substitutes that are satisfactory to the Ordering Party, or at Contractor's option and expense, may obtain the right for the Ordering Party to continue the use of such Service. If the use of such Services by an Ordering Party is prevented by permanent injunction or by Contractor's failure to procure the right for an Ordering Party to continue using the Services, Contractor agrees to terminate the Services and refund the total amount the Ordering Party has paid Contractor under this Agreement for such infringing Services, less one and one half (1.5%) percent of the total paid for each month of use by Ordering Party. This obligation is in addition to the obligations in the foregoing paragraphs of this Section.

5.12 Breach

5.12.1 The Contractor shall be deemed in breach of this Agreement if the Contractor

(i) fails to make any Service ready for Acceptance Tests by the specified delivery date and such failure to deliver continues for a period of fifteen (15) days;

(ii) repeatedly fails to respond to requests for maintenance or other required service within the time limits set forth in this Agreement;

(iii) fails to comply with any other term of this Agreement and fails to cure such noncompliance within ten days (or such greater period as is acceptable to the

Ordering Party) following Contractor's receipt of a Show Cause Notice identifying such noncompliance; or

(iv) fails to provide a written response to the University's Show Cause Notice within ten days after receiving same.

The Contractor shall not be in breach of this Agreement so long as its default was due to causes beyond the reasonable control of, and occurred without any fault or negligence on the part of both the Contractor and its subcontractors. Such causes may include, but are not restricted to, acts of God or of the public enemy, acts of the Commonwealth in its sovereign capacity, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather.

In the event of breach, in addition to any other remedies provided by law, the University or any applicable Ordering Party may cancel its obligations with respect to any or all unaccepted Services. All costs for deinstallation and return of equipment shall be borne by the Contractor. No waiver of, or consent to, any breach shall be effective unless expressly made in writing and signed by the waiving or consenting party's duly-authorized representative;

5.12.2 In the event an Ordering Party is in breach or default of any of the material terms or conditions of this Agreement and has not cured such breach or default within thirty (30) days after written receipt of notice from Contractor, then Contractor may terminate this Agreement with respect to the Ordering Party and pursue all remedies available to it under law.

5.13 Buy Outs - Third Party Acquisition

Contractor shall throughout the term maintain sufficient rights in any intellectual property associated with the Services as necessary to offer the Services. Further, if a third party acquires substantially all of Contractor's assets, such third party by taking any benefit (including acceptance of payment) under this Agreement shall be deemed to have ratified this Agreement. The failure of such a third party to acknowledge its obligations to adhere to the terms and conditions of this Agreement shall constitute a breach of this Agreement for which both the third party and Contractor shall be liable and subject to debarment.

5.14 Negotiated Procurement - Multiple Contracts

Virginia Tech may have multiple contracts as part of this procurement. Virginia Tech reserves the right to negotiate for and procure separately any components of the offering supplied by third parties. Virginia Tech reserves the right to accept subsets of the offering

After twenty four (24) months and continuing at intervals of twelve (12) months throughout this Agreement, either party may petition the other for the amendment of rates, terms, and conditions described in this Agreement. Failure to reach closure on any such amendments does not terminate or abbreviate the rates, terms, and conditions herein.

New services may be added at any time during the Agreement at mutually agreeable prices, terms, and conditions. New sites may be added to this Agreement prior to Acceptance if mutually agreed to by the Contractor and Virginia Tech. Contractor shall be obligated to provide a continual and good faith effort to ensure that the services and obligations described herein are provided in a timely, reliable fashion, and that the rates are at or below competitive and comparable rates for comparable services.

On a case by case basis Contractor reserves the right to lower its prices for a particular Ordering Party from the rates specified herein without requiring Contractor to lower its rates for other Ordering Parties.

5.15 Orders

Under this arrangement, the contract will be held by Virginia Tech. Any and all institutions of higher education, public and private schools, private educational sites, agencies, and localities of the Commonwealth of Virginia, up to and including those political subdivisions as recognized in the Code of Virginia, Section 8.01-385(3)iii, ("Ordering Party"), are eligible to purchase services under this Agreement at the rates, terms, and conditions contained herein to the extent permitted by applicable law and regulation; and Contractor and Virginia Tech will each undertake reasonable efforts to help ensure that all Ordering Parties' participation in this Agreement is permissible under such law and regulation.

Ordering Parties may order services by issuing a purchase order against this Agreement so long as the purchase order requests Services covered by this Agreement and Contractor's response to the RFP. Invoices resulting from such ordered Services shall be submitted directly to the payment address shown on the purchase order. Virginia Tech shall not be held liable for payment for Services ordered by other Ordering Parties. Each such Ordering Party shall be bound by the terms and conditions of this Agreement.

If any Ordering Party cancels after thirty six (36) months of service, there will be no cancellation fee. Any Ordering Party may cancel before the end of this Agreement term after twenty four (24) months of Service, but may not cancel prior to that time. Should an Ordering Party terminate after twenty four (24) months of Service but before the end of thirty six (36) months of Service, the Ordering Party shall pay a cancellation fee equivalent to the rate of three (3) months of the Service then subscribed to.

Should an Ordering Party join the network with less than twenty four (24) months remaining on the Agreement, and a renewal has not been executed, the Ordering Party will be provided rates on an individual case basis. These rates will be calculated on a sliding scale which reflects the number of months remaining divided by the total dollar commitment of twenty four (24) months of the requested service.

6. Cooperation With Other Contractors

Contractor shall cooperate with all other contractors participating in the subject matter of this Agreement. Further, Contractor shall act as the prime contractor and single point of contact for other Vision Alliance contractors for such purposes as described in this Agreement.

7. Limitation of Liability

Contractor's entire liability under this Agreement to any Ordering Party shall be limited to the entire amount paid under the Agreement by that Ordering Party. Regardless of the legal or equitable basis of the claim or of actual notice, Contractor shall not be liable for incidental, consequential, indirect or special damages, whether recovery of such damages is sought in tort (including those due to Contractor's negligence), contract, or otherwise, even if Contractor had notice of the possibility of such damages. Contractor shall not be liable for delay, loss or damage or any other consequences of acts, omissions or events beyond its reasonable control. Delays attributable to such acts, omissions or events which affect the work schedule, shall result in equitable adjustments to the work schedule by change order for a period of time at least equal to the period of delay.

7.1 Severability.

If any term or condition of this Agreement should be invalidated by a change in applicable law or by a court, such invalidity shall not affect the validity of any other term or condition hereof.

7.2 Contingency.

Neither party shall be held responsible for any delay or failure in performance hereunder caused by fires, strikes, embargoes, requirements imposed by government regulation, court order, civil or military authorities, acts of God or by the public enemy, or other similar causes beyond such party's control.

8. Acceptance Testing

8.1 Overview

The Services shall be subject to acceptance testing as provided herein to determine whether they meet the Acceptance Criteria. Testing of the first five sites (Virginia Tech's main campus, Virginia Tech's Northern Virginia Graduate Center, New River Community College, Blue Ridge Community College, and Old Dominion University's main campus) identified in Section 1.2 of the RFP (as amended) shall be conducted in accordance with Section 8.5. Thereafter, acceptance testing shall be handled on a per circuit basis under Section 8.6. Each type of acceptance test is referred to below as "Acceptance Tests."

8.2 Acceptance Criteria

Acceptance Tests will measure conformance to and interoperability with generally accepted and implemented ATM Forum, ITU and other official industry standards and specifications, ("Acceptance Criteria"), including the following:

- UNI 3.0
- PNNI-0 (IISP)
- PVCs - point to point
- PVCs - point to multipoint *
- PVPs - virtual path switching
- SVCs - point to point
- SVCs - point to multipoint *

*as available

To the extent an Ordering Party's premises ATM switch conforms to such standards, Contractor will help support the interoperability of the switch with the Services. However, if such switch does not properly conform to any of these standards, it shall not be grounds for Non-Acceptance or Conditional Acceptance (except as specifically provided in Section 8.5); provided, however, that in such event, Contractor and the Ordering Party will work in good faith with the switch vendor and other relevant parties to remedy the nonconformance.

Within sixty (60) days of the effective date of the Agreement, Virginia Tech and Contractor will develop a plan to test the conformance of the Services to the Acceptance Test Criteria ("Acceptance Test Plan"). All Acceptance Tests shall be conducted in accordance with the Acceptance Test Plan. During the term of the Agreement, Virginia Tech and Contractor will mutually revise the Acceptance Test Plan to accommodate any evolving official industry standards which become part of the Acceptance Test Criteria.

8.3 Acceptance, Conditional Acceptance and Non-Acceptance

“Acceptance” shall occur at the end of the Acceptance Tests if Services satisfy the Acceptance Criteria. The party conducting the Acceptance Tests shall provide timely notice of Acceptance as provided herein. Failure of Virginia Tech or another Ordering Party to conduct Acceptance Tests within the time period prescribed or to provide required notice shall be deemed “Acceptance.”

“Conditional Acceptance” shall occur at the end of the Acceptance Tests if the Services substantially meet the Acceptance Criteria but for a number of insignificant problems which will be remedied within a time frame mutually agreed upon by both parties. If the problems are corrected within the specified time, the Services will be deemed Accepted; otherwise, Conditional Acceptance will automatically revert to Non-Acceptance. The party conducting the Acceptance Tests shall provide timely notice as provided herein of Conditional Acceptance and the reasons therefor.

“Non-Acceptance” shall occur at the end of the Acceptance Tests if the Services do not meet the Acceptance Criteria for reasons other than covered by Conditional Acceptance. The party conducting the Acceptance Tests shall provide timely notice as provided herein of Non-Acceptance and the reasons therefor.

8.4 Events Upon Conditional Acceptance or Non-Acceptance

In the event of Non-Acceptance, Contractor will initiate corrective action and again present the Services for Acceptance Tests once the identified deficiencies have been corrected. The party who conducted the initial Acceptance Tests may elect to retest only the failed parameters or require a full retest of the circuit, and will schedule this activity no later than thirty (30) days after presentation by Contractor for retesting.

In the event of Conditional Acceptance, Contractor will initiate corrective action and again present the Services for Acceptance Tests once the identified deficiencies have been corrected. The party who conducted the initial Acceptance Tests will retest the failed parameters or require a full retest of the circuit. Contractor will attempt to schedule this activity no later than thirty (30) days after presentation by Contractor for retesting.

8.5 System Acceptance Tests

Virginia Tech shall begin Acceptance Tests of the five (5) sites identified in Section 1.2 of the RFP (as amended) within fourteen (14) days after Contractor notifies Virginia Tech that such sites are interconnected and operational. This fourteen (14) day period is intended to allow Contractor and Virginia Tech to differentiate between initial system problems resulting from insufficient experience with the network and legitimate system problems that will require attention, correction and resolution. In addition to the Acceptance Criteria, the system acceptance tests will include verification of Contractor’s maintenance methods and procedures. The parties will also work together during this

time period to ensure that the FORE Systems' ASX-200BX ATM switch and Contractor's ATM equipment are interoperable in accordance with the standards set forth in section 8.2 and, if not, will cooperate with FORE Systems and other relevant parties to correct such nonconformance prior to Acceptance (provided that Virginia Tech's failure to accept the system because of such switch nonconformance shall not be deemed a default or breach by Contractor). Following Acceptance Tests, Virginia Tech shall notify Contractor within fifteen (15) days of its Acceptance, Non-acceptance or Conditional Acceptance of the system. Billing for these sites will commence three (3) months after Acceptance.

8.6 Circuit Acceptance Tests

Except as provided in Section 8.5, an Ordering Party shall begin Acceptance Tests following Contractor's installation and interconnection of each ATM circuit, unless a different time period is agreed to in writing by Contractor and such Ordering Party. Acceptance Tests will be completed within thirty (30) days thereafter. Following Acceptance Tests, the Ordering Party shall notify Contractor within fifteen (15) days of its Acceptance, Non-acceptance or Conditional Acceptance of the circuit tested. For each such circuit, billing will commence upon Acceptance.

IN WITNESS WHEREOF, a duly authorized representative of each party has executed this Agreement effective as of the day and year first above written.

**VIRGINIA POLYTECHNIC INSTITUTE AND
STATE UNIVERSITY**

BELL ATLANTIC - VIRGINIA, INC.

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

Appendix A

Description of Service for Virginia Tech

Network Service

Contractor will provide ATM Network Services in accordance with the terms and conditions of this Agreement as further described herein.

Contractor will provide network based ATM Cell Relay Services from its Central Offices (as described in RFP 608149). These services will comply with ATM Forum standards. The services will be capable of providing voice, data and video connectivity at speeds of DS-1, DS-3 and OC-3c originating from central office based ATM switch(es) at locations designated by Contractor (refer to Appendix D for initial switch locations). These services will be delivered via fiber or copper facilities and be terminated at the Ordering Party's recognized demarcation point. From that point of termination, the Ordering Party may extend the services and interface the service into its own ATM premises devices or Contractor-provided ATM premises devices. Contractor or its subcontractor providing the service will install and test the network connection as appropriate to ensure the facility is terminated correctly and that the network service portion is operating correctly. Should an Ordering Party request premises fiber extensions beyond the recognized demarcation point, Contractor will provide a quotation to perform this work reflecting the time and material costs to properly install the service.

The following interfaces and features will be available:

- ATMF UNI v3.0
- ATMF UNI v3.1 *
- ATMF NNI (PNNI-0/IISP)
- ATMF NNI (PNNI-1)*
- PVCs (Point to point)
- PVCs (Point to Multipoint) *
- SVCs (Point to point)
- SVCs (Point to Multipoint) *
- CBR
- VBR
- UBR
- ABR *

*These services and standards will be supported subject to availability and completion of successful technical and operational trials conducted by Contractor and the Ordering Party. Contractor will work in good faith with the Ordering Party to implement and support these services as soon as possible following the availability of the service and will not unreasonably delay or withhold deployment.

The following additional features will be available subject to the switch manufacturer's schedule and successful testing by Contractor on or near the dates indicated below:

BICI 1.0	08/96
BICI 1.1 (w/out PM Cell Support)	12/96
BICI 1.1 (w/ PM Cell Support)	05/97
DS-1 Circuit Emulation	09/96*
DS-1 UNI	09/96**
DS-1 NNI (PNNI)	11/96**

* Dependent upon successful vendor evaluation and technical/operational trial, this feature may be available prior to 9/96 by using an access concentrator provided by Contractor rather than providing the service directly out of the ATM switch.

** These services and standards will be supported subject to availability and completion of successful technical and operational trials conducted by Contractor and the Ordering Party. Contractor will work in good faith with the Ordering Party to implement and support these services as soon as possible following the availability of the service and will not unreasonably delay or withhold deployment.

For the term of the contract, Contractor will continue to deploy standards based service to ensure services are not impaired in any way through obsolescence. Contractor will make a good faith effort to deploy any service requested by Virginia Tech in accordance with ATM Forum and other official industry standards.

Contractor will ensure that the network components managed by Contractor will deliver very high quality services sufficient to enable Ordering Parties to fully utilize the access services purchased.

From time to time, Contractor, at its discretion, may petition Virginia Tech to add additional complementary ATM voice, video and data services to this Agreement.

Carrier Access

Contractor will provide Access Carrier Extensions to mutually agreed upon interlata carrier points of presence within the Commonwealth of Virginia. Contractor will provision Access Carrier Extension bandwidth on a per switch basis at a minimum engineering ratio of 1:3 to the aggregate bandwidth of the DS1 and DS3 local access loops within the switch. Contractor will provision Access Carrier Extension bandwidth on a per switch basis at a minimum engineering ratio of 1:2 to the aggregate bandwidth of the OC3c local access loops within the switch. During the period of this Agreement, if this access ratio becomes unacceptable, Contractor will renegotiate this portion of the contract.

Contractor will manage the Carrier Extensions for purposes of performance monitoring and fault resolution. When bandwidth upgrades are necessary in order to maintain the minimum ratios stated above, Contractor will complete all work necessary to accomplish such upgrades in conjunction with the selected interlata carrier. Upon receipt of an order which necessitates an upgrade of an Access Carrier Extension, Contractor will notify the selected interlata carrier of the required upgrade within five (5) working days. Contractor will coordinate upgrades with the selected interlata carrier. The cost of this access and management is contained in the rates identified in Appendix B.

Contractor will provide OC3c connections initially in the Roanoke, Lynchburg, Culpeper and Richmond LATAs concurrent with the placement of the first DS3 or OC3c order in each LATA. OC3c extensions will be placed in subsequent LATAs based upon acceptance ability of the interexchange carrier in the local serving area.

Example:

<u>Customer Loops</u>	<u>Access Loops</u>
1st OC3c	2 DS3s
1st DS3	
2nd DS3	3rd DS3 or 1st OC3 (At Contractor's discretion)
3rd DS3	
4th DS3	
5th DS3	4th DS3 or DS3 plus 1st OC3 (At Contractor's discretion)

As additional local loops (DS1, DS3, OC3c) are provisioned, the loop bandwidth to access bandwidth ratio will be maintained.

Trouble Reporting

Contractor understands that any Ordering Party may designate a third party, Single Point of Contact (SPOC Designee) for end-to-end coordination of trouble reporting and resolution. In this event, a Bell Atlantic Major Customer Center (MCC) will cooperate fully with the SPOC Designee to ensure all quality of service and service restoration objectives are met. Virginia Tech, at its discretion, will retain the capability to interact directly with the MCC and Bell Atlantic will provide full access to Virginia Tech to the MCC for this purpose.

Contractor will provide a toll free 800-number for reporting network problems to a Bell Atlantic Major Customer Center (MCC) from which the MCC will provide coverage twenty-

four (24) hours a day, seven (7) days a week. The MCC will serve as a single point of contact for trouble reporting and service restoration coordination among Vision Alliance members and will provide a six (6) hour mean time to repair objective on all services.

The MCC will provide fault tracking by assigning a tracking number for each circuit and/or service affecting problem reported. This tracking number will be used by the MCC to facilitate service restoration information and status reporting. The MCC will facilitate service restoration by coordinating activities between Bell Atlantic's partners, including inside and outside technicians, as required. The MCC will provide status on service restoration at an interval to be agreed upon by Virginia Tech and Bell Atlantic. Upon determination of the cause of a service affecting condition and an estimate on restore time, the MCC will notify both the Ordering Party and/or SPOC Designee and, for Phase I or longer if mutually agreed, Virginia Tech. Upon request by Virginia Tech, Bell Atlantic will provide a monthly report of all Vision Alliance related service affecting conditions.

Bell Atlantic will provide service assurance reporting services. Bell Atlantic will provide network monitoring seven days a week, twenty four hours a day. Upon detecting potential service affecting conditions on an ATM Network Management System, the MCC will report this condition to a pre-determined Ordering Party and/or SPOC Designee and, for Phase I or longer if mutually agreed, Virginia Tech contact. If upon verification, it is determined that the problem resides in the customer premises equipment, the MCC will log the problem and notify Ordering Party and/or SPOC Designee and, for Phase I or longer if mutually agreed, the Virginia Tech contact. If it is determined that the service affecting condition is in the network, the MCC will immediately assign a tracking number to the report and correct the condition.

A mutually agreed upon, detailed escalation procedure will be developed and implemented prior to service commencement.

In the event an Ordering Party requires trouble coordination with the IXC, a charge as described in Appendix B will apply.

Ordering

Bell Atlantic will provide a single point of contact among Vision Alliance Members for the ordering and installation of services provided under this Agreement. All services ordered from this Agreement will be directed to a Bell Atlantic Customer Service Representative, to be named prior to service commencement. An ATM Service Request form will be completed by the Ordering Party and mailed, faxed or electronically communicated to the Bell Atlantic Customer Service Representative. Virginia Tech will provide input on the selection of the Bell Atlantic Customer Service Representative.

Receipt of the order will be acknowledged within twenty four (24) hours and the appropriate provisioning information will be confirmed using one of the aforementioned mediums. Information such as access line speed, due dates, installation and termination locations, charges and fees will be included in this correspondence. Standard service intervals listed below will apply where facilities are available. Where facilities are not available, individual installation intervals may apply. For locations not specifically identified in Appendix C, which are not served directly on fiber and where a special construction charge is applicable, a special construction charge, identified in Appendix B, will be charged to install the service.

<u>Service</u>	<u>Installation Interval</u>
OC-3c UNI/NNI	90 days
DS-3 UNI/NNI	90 days
DS-1 UNI/NNI	90 days
DS-1 Circuit Emulation	90 days
Frame to ATM UNI	60 days
SMDS to ATM UNI	60 days
Path or circuit configuration changes	5 business days

Should Contractor ATM service previously exist at a location and an upgrade in access line speed or the addition of a new facility be requested, reduced intervals may be negotiated by the Ordering Party.

Ordering Parties may relocate or upgrade services within the Commonwealth and not incur cancellation charges provided that service orders are initiated from the same Ordering Party for replacement services concurrent with service orders deinstalling the original service. Normal installation charges will apply. Where facilities are not available, individual installation intervals may apply. For the relocation or upgrade of a circuit for which a location is not specifically identified in Appendix C of this Agreement and which is not served directly on fiber and where a special construction charge is applicable, a special construction charge, identified in Appendix B, will be charged to install the service. At the time that Virginia Tech or other Ordering Parties require ATM services at locations other than those locations identified in Appendix C, Bell Atlantic will proceed to execute LEC subcontract agreements in order to fulfill the requirements of the contract. Execution of subcontracts will not unreasonably extend the agreed-to installation timeline.

Appendix B Prices for Services

The following services are available at the following rates:

Service	Monthly Rate	Installation
OC-3c UNI/NNI	\$7,200	\$2000
DS-3 UNI/NNI	\$3,400	\$1000
DS-1 Circuit Emulation	\$ 420	\$500
DS-1 UNI/NNI	\$ 420	\$500
Frame Relay to ATM UNI	\$ TBD	\$ TBD
Frame Relay 56K UNI	\$ TBD	\$ TBD
Frame Relay DS1 UNI	\$ TBD	\$ TBD
SMDS to ATM UNI	\$ TBD	\$ TBD
SMDS 56K UNI	\$ TBD	\$ TBD
SMDS DS1 UNI	\$ TBD	\$ TBD
Enhanced Network Management	\$ TBD	\$ TBD
Bell Atlantic Network Integration	\$TBD/hour	
ATM Consulting Services		

The proposed prices for DS3 and OC3c services are based upon meeting a minimum projection of sixty (60) sites within twenty four (24) months from the Effective Date. Of the 60 sites, fifty (50) will be high bandwidth sites at DS3 or higher. Of the 50 high bandwidth sites, forty five (45) will be at Virginia Tech, ODU, or VCCS locations. At least two (2) of the forty five (45) sites will be OC3c connections. If Contractor does not receive orders for the sixty (60) site minimum within 24 months, each Ordering Party subscribing to DS3 service will pay an additional \$500 per month per respective DS3 UNI for the months of service. Each Ordering Party subscribing to OC3c service will pay an additional \$1,200 per month per respective OC3c UNI for the months of service. The additional \$500 and \$1,200 respective fees will no longer be in effect upon reaching the 60 site minimum.

Once the minimum projection of 60 sites is met, the DS1 UNI/NNI monthly rate will be lowered for all Ordering Parties to \$350.

Once 100 sites are connected, a minimum of which 90 are DS3 or higher of which at least 20 are OC3 or higher, the DS3 UNI/NNI monthly rate will be lowered for all Ordering Parties to \$3,200 and the OC3cUNI/NNI monthly rate will be lowered for all Ordering Parties to \$6,840.

In conjunction with this Agreement, Contractor will provide OC3c UNI/NNI or, at the discretion of Virginia Tech, DS3 ATM UNI/NNI service within a LATA to the initial five sites which are Virginia Tech Blacksburg, ODU, Norfolk, New River Community College, Dublin, Blue Ridge Community College, Weyers Cave, and VT's Northern Virginia Graduate Center, for three months at no cost.

During the first twenty four months of this Agreement there will be no additional charges for features such as Constant Bit Rate, Virtual Paths, Virtual Channels, Switched Virtual Circuits, Available Bit Rate, Unspecified Bit Rate, and Point to Multipoint services. There will be an administrative charge of \$25.00 per request for unlimited reconfigurations per UNI in order to administer Virtual Channel mapping. After the initial twenty four months, these aforementioned services are subject to the annual contract petition process. PVC administration, Constant Bit Rate, Virtual Paths, Virtual Channels, Switched Virtual Circuits, and Point to Multipoint services may be evaluated and may be re-negotiated.

In the event an Ordering Party requires trouble coordination with the IXC, a charge of \$215.00 will apply per month per UNI for DS3 and higher services and \$150 per month per UNI for DS1 services.

For locations not specifically identified in Appendix C, which are not served directly on fiber and where a special construction charge is applicable, a special construction charge, not to exceed \$6.75 per foot, will be charged to install the service. The construction cost will be calculated from the closest available distribution fiber presence to the final location.

For the relocation of a circuit which location is not specifically identified in the RFP and/or Appendix C of this Agreement and which is not served directly on fiber and where a special construction charge is applicable, a special construction charge, not to exceed \$6.75 per foot, will be charged to install the service. The cost will be calculated from the closest available distribution fiber presence to the final location.

Appendix C- A Partial List of Participating Sites

<u>Name</u>	<u>Location</u>	<u>Type</u>
SW Higher Ed Center	Abingdon	University
Virginia Highlands	Abingdon	Community College
Southside Virginia Christianna Campus	Alberta	Community College
Northern Virginia Alexandria	Alexandria	Community College
Northern Virginia Annandale	Annandale	Community College
Mountain Empire	Big Stone Gap	Community College
Virginia Tech	Blacksburg	University
Southern Piedmont Agricultural Research Center	Blackstone	University
Buckingham High School	Buckingham County	High School
Randolph Henry High School	Charlotte Courthouse	High School
Piedmont Virginia	Charlottesville	Community College
Tidewater Chesapeake Campus	Chesapeake	Community College
John Tyler Chester Campus	Chester	Community College
Christiansburg High School	Christiansburg	High School
New River CC	Christiansburg	Community College
Dabney Lancaster	Clifton Forge	Community College
Reynolds Homestead Forest Resources Research Center	Critz	University
Danville	Danville	Community College
Dinwiddie High School	Dinwiddie County	High School
New River Community College	Dublin	Community College
Greenville County	Emporia	High School
Southside CC	Emporia	Community College
NOVA Graduate Center	Falls Church	University
Longwood	Farmville	College
Prince Edward HS	Farmville	High School
Paul D. Camp Franklin Campus	Franklin	Community College
Germanna CC	Fredericksburg	Community College
Southwest Virginia Agricultural Experiment Station	Glade Spring	University
Rappahannock Glens Campus	Glens	Community College
JSR Western Campus	Goochland	Community College
Virginia Consortium of Engineering and Science Universities	Hampton	University
Virginia Seafood Agricultural Experiment Station	Hampton	University
Thomas Nelson	Hampton	Community College

Southside Virginia John Daniel Campus	Keysville	Community College
Brunswick Academy High School	Lawrenceville	High School
Marion du Pont Scott Equine Medical Center	Leesburg	University
Germanna	Locust Grove	Community College
Central Virginia	Lynchburg	Community College
Northern Virginia Manassas	Manassas	Community College
Occoquan Watershed Monitoring Laboratory	Manassas	University
Patrick Henry	Martinsville	Community College
Eastern Shore	Melfa	Community College
Middleburg Agricultural Experimental Station	Middleburg	University
Lord Fairfax Middletown Campus	Middletown	Community College
John Tyler Midlothian Campus	Midlothian	Community College
John Tyler CC	Midlothian	Community College
Old Dominion University	Norfolk	University
Tidewater Norfolk Campus	Norfolk	Community College
Nottoway Senior High School	Nottoway County	High School
Northern Piedmont Agricultural Experiment Station	Orange	University
Eastern Shore Agricultural Experiment Station	Painter	University
Tidewater Portsmouth Campus	Portsmouth	Community College
Radford	Radford	University
Southwest Virginia	Richlands	Community College
JSR/ODU/Va Tech	Richmond	Community College
JSR Parham Road Campus	Richmond	Community College
J. Sargeant Reynolds	Richmond	Community College
VCU	Richmond	University
Virginia Western Community College	Roanoke	Community College
Roanoke Valley Graduate Center	Roanoke	University
Hotel Roanoke	Roanoke	University
Shawsville High School	Shawsville	High School
* Bluestone High School	Skipwith	High School
Halifax County High School	South Boston	High School
Parkview High School	South Hill	High School
Shenandoah Valley Agricultural Research Center	Steele's Tavern	University
Northern Virginia Loudoun	Sterling	Community College
Tidewater Agricultural Research Center	Suffolk	University
Paul D. Camp Suffolk Campus	Suffolk	Community College
Lunenburg Central Senior High School	Victoria	High School

Tidewater Va Beach Campus	Virginia Beach	Community College
Hampton Roads Graduate Center	Virginia Beach	University
Hampton Roads Agricultural Research Center	Virginia Beach	University
Lord Fairfax Fauquier Campus	Warrenton	Community College
Rappahannock Warsaw Campus	Warsaw	Community College
Eastern Virginia Agricultural Research Center	Warsaw	University
Blue Ridge CC	Waynesboro	Community College
Blue Ridge Community College	Weyers Cave	Community College
Thomas Nelson CC	Williamsburg	Community College
Alson H. Smith, Jr. Agricultural Research Center	Winchester	University
Northern Virginia Woodbridge	Woodbridge	Community College
Wytheville	Wytheville	Community College

NOTE: This list does not represent all of the sites and localities that will be considered as the project develops and may not reflect all the sites identified in the RFP.

* At the time of contract signing, special construction charges may apply only to Bluestone High School, Skipwith.

Appendix D
Partial List of Bell Atlantic ATM Switch Locations

LATA	POP Location	CLLI Code
236	Arlington	ARTNVAARDSO
246	Fredericksburg	FRBGVAFBDSO
250	Lynchburg, Church Street	LYBGVACHDSO
244	Roanoke, Luck Avenue	RONKVALKDSO
252	Norfolk, Bute Street	NRFLVABSDSO
248	Richmond, Grace Street	RCMDVAGRDSO
248 *	Richmond, Patterson	RCMDVAPSDSO

* For LATA 248, the switch may be located at EITHER Grace Street OR Patterson.