



Request for Proposal #0019241

for

Ethernet Transport Services

February 27, 2012

RFP #0019241
GENERAL INFORMATION FORM

1. **QUESTIONS:** All inquiries for information regarding this solicitation should be directed to Roger Gupta, VCO, Phone: (540) 231-4177, e-mail: ragupta@vt.edu.
2. **DUE DATE:** Sealed Proposals will be received until April 10, 2012 at 3:00 PM. Failure to submit proposals to the correct location by the designated date and hour will result in disqualification.
3. **ADDRESS:** Proposals should be mailed or hand delivered to: Virginia Polytechnic Institute And State University (Virginia Tech), Purchasing Department, 270 Southgate Center (0333), Blacksburg, Virginia 24061. Reference the Opening Date and Hour, and RFP Number in the lower left corner of the return envelope or package.
4. **ELECTRONIC PRE-PROPOSAL QUESTION & ANSWER PERIOD:** See Section IX. for information regarding an electronic pre-proposal Q&A.
5. **TYPE OF BUSINESS:** (Please check all applicable classifications). If your classification is certified by the Virginia Department of Minority Business Enterprise, provide your certification number: _____. For certification assistance, please visit: <http://www.dmbe.state.va.us/swamcert.html>.

_____ **Large**

_____ **Small business** – An independently owned and operated business which, together with affiliates, has 250 or fewer employees or average annual gross receipts of \$10 million or less averaged over the previous three years. Department of Minority Business Enterprise (DMBE) certified women-owned and minority-owned business shall also be considered small business when they have received DMBE small business certification.

_____ **Women-owned business** – A business concern that is at least 51% owned by one or more women who are U. S. citizens or legal resident aliens, or in the case of a corporation, partnership, or limited liability company or other entity, at least 51% of the equity ownership interest is owned by one or more women who are citizens of the United States or non-citizens who are in full compliance with the United States immigration law, and both the management and daily business operations are controlled by one or more women who are U. S. citizens or legal resident aliens.

_____ **Minority-owned business** – A business concern that is at least 51% owned by one or more minority individuals (see Section 2.2-1401, Code of Virginia) or in the case of a corporation, partnership, or limited liability company or other entity, at least 51% of the equity ownership interest in the corporation, partnership, or limited liability company or other entity is owned by one or more minority individuals and both the management and daily business operations are controlled by one or more minority individuals.

6. **COMPANY INFORMATION/SIGNATURE:** In compliance with this Request For Proposal and to all the conditions imposed therein and hereby incorporated by reference, the undersigned offers and agrees to furnish the services in accordance with the attached signed proposal and as mutually agreed upon by subsequent negotiation.

FULL LEGAL NAME (PRINT) (Company name as it appears with your Federal Taxpayer Number)		FEDERAL TAXPAYER NUMBER (ID#)	
BUSINESS NAME/DBA NAME/TA NAME (If different than the Full Legal Name)		FEDERAL TAXPAYER NUMBER (If different than ID# above)	
BILLING NAME (Company name as it appears on your invoice)		FEDERAL TAXPAYER NUMBER (If different than ID# above)	
PURCHASE ORDER ADDRESS		PAYMENT ADDRESS	
CONTACT NAME/TITLE (PRINT)		SIGNATURE (IN INK)	DATE
E-MAIL ADDRESS	TELEPHONE NUMBER	TOLL FREE TELEPHONE NUMBER	FAX NUMBER TO RECEIVE E-PROCUREMENT ORDERS

08/11

I. PURPOSE:

The purpose of this Request for Proposal (RFP) is to solicit sealed proposals to establish a contract or contracts through competitive negotiations for Ethernet Transport Services to connect sites to National LambdaRail (NLR), Internet2, and other regional, national, and international research and education network resources for Virginia Polytechnic Institute and State University (Virginia Tech), an agency of the Commonwealth of Virginia.

II. CONTRACT PERIOD:

The term of this contract is for five year(s), or as negotiated. There will be an option for five one-year renewals, or as negotiated.

III. BACKGROUND:

This solicitation is being issued by Virginia Tech on behalf of the Mid-Atlantic Terascale Partnership (MATP). MATP is a consortium of research institutions including private and public sector entities in the mid-Atlantic region of the United States. MATP is one of thirteen regional network groups who own an interest in NLR. MATP represents member institutions in Virginia, Maryland, and the District of Columbia facilitating access to NLR's Washington node located in McLean, Virginia.

NLR is an ultra-high-speed, fiber-optic network covering 12,000 miles and 21 states across the United States. Owned by the nation's research and education community, NLR puts control of the network in the hands of scientists, instructors, and students. With a total capacity of 1600 Gbps, production 40G wavelengths implemented and planning underway for 100G wavelengths, NLR is the U.S.' cutting edge network platform for a wide range of advanced research projects and public-private partnerships.

MATP and NLR members require updated regional network infrastructure and services to connect member institutions and affiliates to NLR and to other research and education resources including Internet2, the Mid-Atlantic Crossroads (MAX), area university campuses, federal research facilities, and others. On behalf of MATP, Virginia Tech operates the National Capital Region Aggregation Facility (NatCap) which provides access and exchange among such resources.

The two NatCap nodes with demarcation points (demarc) are located at:

21701 Filigree Court, Ashburn VA 20147, Equinix DC5::51310:VIRGINIA TECH

1755 Old Meadow Road, McLean VA 22102, Level3 Colo Rack C07.15

IV. EVA BUSINESS-TO-GOVERNMENT ELECTRONIC PROCUREMENT SYSTEM:

The eVA Internet electronic procurement solution streamlines and automates government purchasing activities within the Commonwealth of Virginia. Virginia Tech, and other state agencies and institutions, have been directed by the Governor to maximize the use of this system in the procurement of goods and services. *We are, therefore, requesting that your firm register as a trading partner within the eVA system.*

There are registration fees and transaction fees involved with the use of eVA. These fees must be considered in the provision of quotes, bids and price proposals offered to Virginia Tech. Failure to register within the eVA system may result in the quote, bid or proposal from your firm being rejected and the award made to another vendor who is registered in the eVA system.

Registration in the eVA system is accomplished on-line. Your firm must provide the necessary information. Please visit the eVA website portal at <http://www.eva.virginia.gov/register/vendorreg.htm> and **register both with eVA and Ariba**. *This process needs to be completed before Virginia Tech can issue your firm a Purchase Order or contract.* If your firm conducts business from multiple geographic locations, please register these locations in your initial registration.

For registration and technical assistance, reference the eVA website at: eVACustomerCare@dgs.virginia.gov, or call 866-289-7367 or 804-371-2525.

V. CONTRACT PARTICIPATION:



It is the intent of this solicitation and resulting contract to allow for cooperative procurement. Accordingly, any public body, public or private health, public or private educational, or public or private research institutions, or any affiliates of a participating entity, specifically including but not limited to MATP members and their affiliates, may access any resulting contract.

Participation by the entities described above in this cooperative procurement is strictly voluntary. The resultant contract shall be extended to the entities indicated above to purchase at contract prices in accordance with contract terms. The Contractor shall notify Virginia Tech in writing of any such entities accessing the contract. No modification of this contract or execution of a separate contract is required to participate. The Contractor will provide semi-annual usage reports for all entities accessing the Contract. Participating entities shall place their own orders directly with the Contractor and shall fully and independently administer their use of the contract to include contractual disputes, invoicing and payments without direct administration from Virginia Tech. Virginia Tech shall not be held liable for any costs or damages incurred by any other participating entity as a result of any authorization by the Contractor to extend the contract. It is understood and agreed that Virginia Tech is not responsible for the acts or omissions of any entity, and will not be considered in default of the contract no matter the circumstances.

Use of this contract does not preclude any participating entity from using other contracts or competitive processes as the need may be.

VI. STATEMENT OF NEEDS:

Virginia Tech needs the services of a contractor or contractors to address the following:

- A. Virginia Tech seeks high performance, “research grade”, Ethernet transport services in a range of capacities (10 Mbps – 10Gbps) in Virginia, Maryland, and DC to connect MATP satellite locations, affiliates, labs, and others to NatCap/NLR, to MATP member’s sites, or to other resources. The Ethernet transport services must be capable of supporting high performance computing and multimedia applications such as telepresence operating on the NLR network.
- B. Virginia Tech prefers a comprehensive solution offering Ethernet transport services from a single contractor or an alliance of contractors represented by a primary contractor.
- C. Virginia Tech prefers a flat rate, “postalized” pricing model for Ethernet transport services with wide availability. However, proposals which vary from these preferences will be considered and Virginia Tech reserves the right to negotiate and award multiple contracts.
- D. Ordering parties may be MATP members or public or private research institutions or others throughout the region with a need to connect to the NatCap aggregation facilities operated by Virginia Tech to reach National LambdaRail, Internet2, the MATP member campuses, or others. Ordering parties may use the service in point to point or multipoint configurations to meet application requirements.
- E. Proposed solutions should be designed to provide Expedited Forwarding (EF) for delay sensitive traffic to guarantee packet loss is less than .05%, one-way delay is less than 60ms and jitter is less than 10ms.

VII. PROPOSAL PREPARATION AND SUBMISSION:

A. General Requirements

1. RFP Response: In order to be considered for selection, Offerors must submit a complete response to this RFP. **One hard copy signed original and two electronic copies on CD or flash drive** of each proposal must be submitted to:

Virginia Tech
Purchasing Department (0333)
270 Southgate Center
Blacksburg, VA 24061

Reference the Opening Date and Hour, and RFP Number in the lower left hand corner of the return envelope or package.

No other distribution of the proposals shall be made by the Offeror.

2. Proposal Preparation:

- a. Proposals shall be signed by an authorized representative of the Offeror. All information requested should be submitted. **Failure to submit all information requested may result in Virginia Tech requiring prompt submission of missing information and/or giving a lowered evaluation of the proposal.** Proposals which are substantially incomplete or lack key information may be rejected by Virginia Tech at its discretion. Mandatory requirements are those required by law or regulation or are such that they cannot be waived and are not subject to negotiation.
- b. Proposals should be prepared simply and economically providing a straightforward, concise description of capabilities to satisfy the requirements of the RFP. Emphasis should be on completeness and clarity of content.
- c. **Proposals should be organized in the order in which the requirements are presented in the RFP.** All pages of the proposal should be numbered. Each paragraph in the proposal should reference the paragraph number of the corresponding section of the RFP. It is also helpful to cite the paragraph number, subletter, and repeat the text of the requirement as it appears in the RFP. If a response covers more than one page, the paragraph number and subletter should be repeated at the top of the next page. The proposal should contain a table of contents which cross references the RFP requirements. Information which the offeror desires to present that does not fall within any of the requirements of the RFP should be inserted at an appropriate place or be attached at the end of the proposal and designated as additional material. **Proposals that are not organized in this manner risk elimination from consideration if the evaluators are unable to find where the RFP requirements are specifically addressed.**
- d. Each copy of the proposal should be bound in a single volume where practical. All documentation submitted with the proposal should be bound in that single volume.
- e. Ownership of all data, material and documentation originated and prepared for Virginia Tech pursuant to the RFP shall belong exclusively to Virginia Tech and be subject to public inspection in accordance with the Virginia Freedom of Information Act. Trade secrets or proprietary information submitted by an Offeror shall not be subject to public disclosure under the Virginia Freedom of Information Act. However, to prevent disclosure the Offeror must invoke the protections of Section 2.2-4342F of the Code of Virginia, in writing, either before or at the time the data or other materials is submitted. The written request must specifically identify the data or other materials to be protected and state the reasons why protection is necessary. The proprietary or trade secret material submitted must be identified by some distinct method such as highlighting or underlining and must indicate only the specific words, figures, or paragraphs that constitute trade secret or proprietary information. The classification of an entire proposal document, line item prices and/or total proposal prices as proprietary or trade secrets is not acceptable and may result in rejection of the proposal.

3. Oral Presentation: Offerors who submit a proposal in response to this RFP may be required to give an oral presentation of their proposal to Virginia Tech. This will provide an opportunity for the Offeror to clarify or elaborate on the proposal but will in no way change the original proposal. Virginia Tech will schedule the time and location of these presentations. Oral presentations are an option of Virginia Tech and may not be conducted. Therefore, proposals should be complete.

B. Specific Requirements

Proposals should be as thorough and detailed as possible so that Virginia Tech may properly evaluate your capabilities to provide the required services. Offerors are required to submit the following information/items as a complete proposal:

1. Price:

a. Pricing for Services

- 1) Prices must include all applicable taxes, surcharges, and fees which would apply to a tax exempt agency of the Commonwealth of Virginia. Contractor shall not assess any such additional charges on any ordering party unless required to do so by law and provided that ordering parties which are not tax-exempt will pay the required additional charges. Offeror may provide differing intrastate and interstate prices to account for applicable or required additional charges. Please comment on your ability to comply.
- 2) An example MATP site list is provided as Attachment C. This is intended only as a representative list to enable comparison of proposals. This is not a complete list of potential sites and MATP members will be under no obligation to purchase service for any site listed.
 - a) Referring to Attachment C, provide complete pricing for all services offered including recurring and non-recurring charges.
 - b) Identify any sites in Attachment C which cannot be served.
 - c) Identify any sites in Attachment C which would incur additional charges and provide pricing details.
 - d) Identify any sites in Attachment C not served by fiber which would incur construction charges.
 - e) Provide pricing details for any charges related to fiber construction. Virginia Tech prefers proposals that offer a standardized rate for fiber construction where necessary. For example, contractor might offer fiber construction for sites within X feet of an existing middle mile fiber path at a rate of \$Y per linear foot.
 - f) Describe how prices will be determined for service to additional sites not listed in Attachment C.
 - g) Referring to Attachment C, complete the example pricing table provided as Attachment D.

b. Payment to Virginia Tech and/or MATP members for Use of NatCap Node Ports

- 1) Virginia Tech and/or MATP members must recover the full cost of operating the NatCap nodes. In order to ensure full cost recovery, Contractor shall pay Virginia Tech or MATP members a port fee for use of these ports. As part of final contract negotiations, Contractor and Virginia Tech will develop mutually agreeable procedures for verifying capacity availability and upgrading NatCap ports to ensure all costs to Virginia Tech are recovered. At the NatCap nodes and at MATP member sites, Contractor will be expected to aggregate access circuits onto high capacity ports. Virginia Tech and MATP members will provide 1GE and 10GE ports on the NatCap switches and Member site equipment respectively to Contractor for this purpose. Please indicate your ability to comply with this requirement.
 - a) For proposal preparation, assume 1GE port fees will be \$500 non-recurring and \$900 monthly recurring. 10GE port fees will be \$1,000 non-recurring and \$1,500 monthly recurring. Contractor

must include these costs in pricing offered to Virginia Tech or ordering parties for Ethernet transport services. Please indicate your ability to comply with this requirement.

b) Contractor shall be responsible for defining the recommended oversubscription rates at all aggregation points. Please indicate your ability to comply with this requirement.

2) Contractor may separately propose an alternative method for cost recovery for the NatCap ports used.

2. Plan for providing Ethernet transport services:

a. Describe your plan for providing Ethernet transport services that will meet Virginia Tech's needs. Include a narrative indicating how the needs described in Section VI will be met.

b. Provide a full description including technical data and any variance from the required specifications. Virginia Tech will consider proposals that deliver Ethernet access to sites not served by fiber over alternative media (copper, wireless, etc).

c. Stipulate if and when service will be available for any site or service that is not available.

d. Describe in detail your organization's ability to support these required characteristics:

1) One-way network delay: less than 60 milliseconds

2) Peak-to-peak delay variation (jitter): less than 10 milliseconds

3) Packet loss: less than .05 percent

4) High network availability (possibly with customer selectable options for number of nines)

5) Ability to extend customers 802.1q and 802.1p services to connection points

6) Ability to handle Ethernet packets with full 1500 bytes of data plus the standard Ethernet and 802.1q headers

e. Describe your level of Support for Metro Ethernet Forum (MEF) and Carrier Ethernet standards.

f. Provide Service Level Agreement (SLA) details for each service.

g. Indicate availability of point-to-point, point-to-multipoint, and multipoint-to-multipoint Ethernet services.

h. Describe your support for committed information rates and peak information rates.

i. Describe your ability to extend/pass-on channel services to/through other service providers.

j. Describe your ability to handle jumbo Ethernet frames up to 9000 bytes of payload.

k. Describe your Performance metrics: monitored, reported, and available on demand.

l. Describe your Quality of Service for multimedia traffic.

m. Provide details on security.

n. Describe reliability, including redundancy and diversity.

o. Describe your ability to provide support.

p. Aggregation of Access Circuits and Connectivity

- 1) Contractor shall aggregate access circuits onto high capacity ports at one or more NatCap nodes on equipment owned by Virginia Tech or at MATP primary member sites on equipment owned by a MATP member. Please indicate your ability to comply with this requirement.
- 2) Contractor shall bear all costs associated with the use of these ports as described in Section VII.B.1.b. Please indicate your ability to comply with this requirement.
- 3) Contractor shall provide all cross connects and other facilities required to complete the connections. Please indicate your ability to comply with this requirement.
- 4) Contractor shall be responsible for maintaining adequate access capacity to NatCap nodes in order to guarantee performance of Ethernet transport services including defining the recommended oversubscription rates at all aggregation points. Please indicate your ability to comply with this requirement.
- 5) Offeror may propose alternative means of providing connectivity to NatCap and primary member sites.

q. Optional Internet Service:

Offeror may propose transit internet access services to be available either through one of the NatCap nodes or through a VLAN on the Ethernet access service. Offeror should provide all facilities required to use internet service including but not limited to any required cross connects, ports on the Virginia Tech NatCap switch, IP address space, customer support, customer billing, etc.

- 1) Provide a complete description of any internet service offered.
- 2) Describe the proposed mechanism(s) for providing customer access to the internet service.
- 3) State whether the service supports native IPv6.
- 4) State whether Offeror will agree to peer with MATP, AS 40220, at the Equinix Exchange or otherwise to exchange non-transit routes on a settlement-free basis and provide a proposed peering agreement if such an agreement would be required.

3. Qualifications and Experience:

Describe your qualifications and experience in providing Ethernet transport services and provide four (4) recent references, either educational or governmental, for whom you have provided the type of services described herein. Include the date(s) the services were furnished, the client name, address and the name and phone number of the individual Virginia Tech has your permission to contact.

4. Service Availability, Support, Operations, and Billing:

- a. Contractor shall provide proactive service monitoring with customer support and fault resolution available at all times (24x7x365). Contractor should operate one or more Network Operations Center(s) (NOC) accessible to ordering parties to ensure high availability and performance. Contractor shall provide details of its monitoring, reporting and notification systems and procedures. Please indicate your ability to comply.
- b. Contractor NOC must work closely with the Virginia Tech Operations Center (VTOC) for high level analysis, planning, and problem resolution. VTOC will require root cause analysis reports of all outages and service problems. Please indicate your ability to comply with these requirements.
- c. Contractor must operate a carrier-class network with resilient communications paths, error detection, reporting, and correction. All network components must operate continuously, in the core network as well as edge networks, despite component failure or distributed-denial-of-service (DDoS) attacks. Contractor should have the ability to perform software and hardware upgrades and maintenance while the network continues to operate. Maintenance windows should occur off peak hours with effective

notification and communication with ordering parties. Please indicate your ability to comply with these requirements.

- d. Contractor must offer a Service Level Agreement with stated availability and restitution to ordering parties for non-compliance.
- e. Contractor must provide timely and accurate billing to ordering parties. Contractor will bill each ordering party directly.

5. Small, Women-owned and Minority-owned Business (SWAM) Utilization:

If your business can not be classified as SWAM, describe your plan for utilizing SWAM subcontractors if awarded a contract. Describe your ability to provide reporting on SWAM subcontracting spend when requested. If your firm or any business that you plan to subcontract with can be classified as SWAM, but has not been certified by the Virginia Department of Minority Business Enterprise (DMBE), it is expected that the certification process will be initiated no later than the time of the award. If your firm is currently certified, you agree to maintain your certification for the life of the contract. For assistance with SWAM certification, visit the DMBE website at www.dmbv.org.

6. The return of the General Information Form and addenda, if any, signed and filled out as required.

VIII. SELECTION CRITERIA AND AWARD:

A. Selection Criteria

Proposals will be evaluated by Virginia Tech using the following:

<u>Criteria</u>	<u>Maximum Point Value</u>
1. Price	40
2. Plan for providing Ethernet transport service	25
3. Qualifications and Experience	15
4. Service Availability, Support, Operations, and Billing	10
5. SWAM Utilization	10
	Total 100

B. Award

Selection shall be made of two or more offerors deemed to be fully qualified and best suited among those submitting proposals on the basis of the evaluation factors included in the Request for Proposal, including price, if so stated in the Request for Proposal. Negotiations shall then be conducted with the offerors so selected. Price shall be considered, but need not be the sole determining factor. After negotiations have been conducted with each offeror so selected, Virginia Tech shall select the offeror which, in its opinion, has made the best proposal, and shall award the contract to that offeror. Virginia Tech may cancel this Request for Proposal or reject proposals at any time prior to an award. Should Virginia Tech determine in writing and in its sole discretion that only one offeror has made the best proposal, a contract may be negotiated and awarded to that offeror. The award document will be a contract incorporating by reference all the requirements, terms and conditions of this solicitation and the Contractor's proposal as negotiated. See Attachment B for sample contract form.

Virginia Tech reserves the right to award more than one contract as a result of this solicitation.

IX. OPTIONAL PRE-PROPOSAL ELECTRONIC QUESTION & ANSWER PERIOD:

Virginia Tech will conduct an optional pre-proposal electronic Q&A period to commence upon issuance of this solicitation. The purpose of the electronic Q&A is to allow potential Offerors an opportunity to present questions and obtain clarification relative to any facet of this Request for Proposal.

Offerors may submit questions or requests for clarification in writing via email to Roger Gupta, VCO, e-mail: ragupta@vt.edu. Any responses will be issued together as an addendum and published via the Purchasing web site as indicated in the Addendum Section XII.

X. INVOICES:

Invoices for goods or services provided under any contract resulting from this solicitation shall be submitted to:

Virginia Polytechnic Institute and State University
Accounts Payable
201 Southgate Center
Blacksburg, VA 24061

XI. METHOD OF PAYMENT:

Virginia Tech will authorize payment to the contractor as negotiated in any resulting contract from the aforementioned Request for Proposal.

Payment can be expedited through the use of the Wells One AP Control Payment System. Virginia Tech strongly encourages participation in this program. For more information on this program please refer to Virginia Tech's Purchasing website: <http://www.purch.vt.edu/Department/WellsOne.html> or contact the person in Purchasing identified in the RFP.

XII. ADDENDUM:

Any **ADDENDUM** issued for this solicitation may be accessed at <http://www.purch.vt.edu/html.docs/bids.php>. Since a paper copy of the addendum will not be mailed to you, we encourage you to check the web site regularly.

XIII. CONTRACT ADMINISTRATION:

- A. William Dougherty, Executive Director, Network Infrastructure and Services, at Virginia Tech or his designee, shall be identified as the Contract Administrator and shall use all powers under the contract to enforce its faithful performance.
- B. The Contract Administrator, or his/her designee, shall determine the amount, quantity, acceptability, fitness of all aspects of the services and shall decide all other questions in connection with the services. The Contract Administrator, or his/her designee, shall not have authority to approve changes in the services which alter the concept or which call for an extension of time for this contract. Any modifications made must be authorized by the Virginia Tech Purchasing Department through a written amendment to the contract.

XIV. TERMS AND CONDITIONS:

This solicitation and any resulting contract/purchase order shall be governed by the attached terms and conditions.

XV. ATTACHMENTS:

Attachment A - Terms and Conditions
Attachment B - Standard Contract Form
Attachment C - Example MATP Site List
Attachment D – Price Example

ATTACHMENT A

TERMS AND CONDITIONS

RFP General Terms and Conditions

http://www.purch.vt.edu/html.docs/terms/GTC_RFP_07272011.pdf

Special Terms and Conditions

1. **AUDIT:** The Contractor hereby agrees to retain all books, records, and other documents relative to this contract 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 the State auditors shall have full access and the right to examine any of said materials during said period.
2. **AVAILABILITY OF FUNDS:** It is understood and agreed between the parties herein that Virginia Tech shall be bound hereunder only to the extent of the funds available or which may hereafter become available for the purpose of this agreement.
3. **CANCELLATION OF CONTRACT:** Virginia Tech reserves the right to cancel and terminate any resulting contract, in part or in whole, without penalty, upon 60 days written notice to the Contractor. In the event the initial contract period is for more than 12 months, the resulting contract may be terminated by either party, without penalty, after the initial 12 months of the contract period upon 60 days written notice to the other party. Any contract cancellation notice shall not relieve the Contractor of the obligation to deliver and/or perform on all outstanding orders issued prior to the effective date of cancellation.
4. **CERTIFICATION TESTING AND ACCEPTANCE:** The system specified in the contract shall be considered ready for production testing upon receipt of documentation from the Contractor that a successful system audit or diagnostic test was performed at the site demonstrating that the system meets the minimum design/performance capabilities stipulated by the contract. The system shall be deemed ready for production certification testing on the day following receipt of this documentation. Virginia Tech shall provide written confirmation of its acceptance following successful completion of the production certification test. All specifications are measured from the customer premises equipment at the affiliated site to the NatCap Mclean node or associated member site. All benchmark testing will abide by the methodology outlined by RFC 2544: "Benchmark Methodology for Network Interconnect Devices".
5. **COMMUNICATIONS:** Communications regarding this Request for Proposals (RFP) shall be formal from the date of issue for this RFP, until either a Contractor has been selected or the Purchasing Department rejects all proposals. Formal communications will be directed to the Purchasing Department. Informal communications, including but not limited to request for information, comments or speculations regarding this RFP to any University employee other than Purchasing Department representative may result in the offending Offeror's proposal being rejected.
6. **CONTRACT DOCUMENTS:** The contract entered into by the parties shall consist of the Request for Proposal including all modifications thereof, the proposal submitted by the Contractor, the written results of negotiations, the Commonwealth Standard Contract Form, all of which shall be referred to collectively as the Contract Documents.
7. **IDENTIFICATION OF PROPOSAL ENVELOPE:** If a special envelope is not furnished, or if return in the special envelope is not possible, the signed proposal should be returned in a separate envelope or package, sealed and addressed as follows:
VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
Purchasing Department (0333)
270 Southgate Center
Blacksburg, VA 24061
Reference the opening date and hour, and RFP Number in the lower left corner of the envelope or package.
If a proposal not contained in the special envelope is mailed, the Offeror takes the risk that the envelope, even if marked as described above, may be inadvertently opened and the information compromised which may cause the proposal to be disqualified. No other correspondence or other proposals should be placed in the envelope. Proposals may be hand delivered to the Virginia Tech Purchasing Department.
8. **INDEPENDENT CONTRACTOR:** The contractor shall not be an employee of Virginia Tech, but shall be an independent contractor.
Nothing in this agreement shall be construed as authority for the contractor to make commitments which shall bind Virginia Tech, or to otherwise act on behalf of Virginia Tech, except as Virginia Tech may expressly authorize in writing.
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 will 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.

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:

- A. Worker's Compensation - Statutory requirements and benefits.
- B. Employers Liability - \$100,000.00
- C. General Liability - \$500,000.00 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.
- D. Automobile Liability - \$500,000.00
- E. Builders Risk – For all renovation and new construction projects under \$100,000 Virginia Tech will provide All Risk – Builders Risk Insurance. For all renovation contracts, and new construction from \$100,000 up to \$500,000 the contractor will be required to provide All Risk – Builders Risk Insurance in the amount of the contract and name Virginia Tech as additional insured. All insurance verifications of insurance will be through a valid insurance certificate.

The contractor agrees to be responsible for, indemnify, defend and hold harmless Virginia Tech, its officers, agents and employees from the payment of all sums of money by reason of any claim against them arising out of any and all occurrences resulting in bodily or mental injury or property damage that may happen to occur in connection with and during the performance of the contract, including but not limited to claims under the Worker's Compensation Act. The contractor agrees that it will, at all times, after the completion of the work, be responsible for, indemnify, defend and hold harmless Virginia Tech, its officers, agents and employees from all liabilities resulting from bodily or mental injury or property damage directly or indirectly arising out of the performance or nonperformance of the contract.

10. **Notices:** Any notices to be given by either party to the other pursuant to any contract resulting from this solicitation shall be in writing, hand delivered or mailed to the address of the respective party at the following address:

If to Contractor: Address Shown On RFP Cover Page
Attention: Name Of Person Signing RFP

If to Virginia Tech:

Virginia Polytechnic Institute and State University
Attn: Roger Gupta
Purchasing Department (0333)
270 Southgate Center
Blacksburg, VA 24061

and

Virginia Polytechnic Institute and State University
Attn: William Dougherty
Network Infrastructure and Services Department
1770 Forecast Drive
Blacksburg, VA 24061

11. **SAFETY:** The Contractor bears sole responsibility for the safety of its employees. The Contractor shall take all steps necessary to establish, administer, and enforce safety rules that meet the regulatory requirements of the Virginia Department of Labor and Industry (VDLI) and the Occupational Safety and Health Administration (OSHA). The contractor shall take steps as necessary to protect the safety and health of university employees, students, and visitors during the performance of their work. In addition, the contractor must also provide the university with a written safety program that it intends to follow in pursuing work under this contract. By entering into a contract with Virginia Tech, the contractor and its subcontractors agree to abide by the requirements described in Safety Requirements for Contractors and Subcontractors located on Virginia Tech's Environmental, Health and Safety Services (EHSS) web site at this URL http://www.ehss.vt.edu/programs/contractor_safety.php. A copy of the publication may also be obtained by contacting EHSS at 540/231- 5985. No work under this contract will be permitted until the university is assured that the contractor has an adequate safety program in effect.
12. **SEVERAL LIABILITY:** Virginia Tech will be severally liable to the extent of its purchases made against any contract resulting from this solicitation. Applicable entities described herein will be severally liable to the extent of their purchases made against any contract resulting from this solicitation.

13. **WORK SITE DAMAGES:** Any damage to existing utilities, equipment or finished surfaces resulting from the performance of this contract shall be repaired to the Owner's satisfaction at the Contractor's expense.

ATTACHMENT B

**Standard Contract form for reference only
Offerors do not need to fill in this form**

**COMMONWEALTH OF VIRGINIA
STANDARD CONTRACT**

Contract Number: _____

This contract entered into this ____ day of _____, 20____, by _____, hereinafter called the "Contractor" and Commonwealth of Virginia, Virginia Polytechnic Institute and State University called "Virginia Tech".

WITNESSETH that the Contractor and Virginia Tech, in consideration of the mutual covenants, promises and agreements herein contained, agrees as follows:

SCOPE OF CONTRACT: The Contractor shall provide the _____ to Virginia Tech as set forth in the Contract Documents.

PERIOD OF CONTRACT: From _____ through _____.

COMPENSATION AND METHOD OF PAYMENT: The Contractor shall be paid by Virginia Tech in accordance with the contract documents.

CONTRACT DOCUMENT: The contract documents shall consist of this signed contract, Request For Proposal Number _____ dated _____, together with all written modifications thereof and the proposal submitted by the Contractor dated _____ and the Contractor's letter dated _____, all of which contract documents are incorporated herein.

In WITNESS WHEREOF, the parties have caused this Contract to be duly executed intending to be bound thereby.

Contractor: _____ Virginia Tech

By: _____ By: _____

Title: _____

Example MATP Member Sites

RFP SITE ID	NatCap Aggregation Points	Site Name	Address	City	State	Zip Code
NC1	NatCap Equinix	Equinix Facility	21701 Filigree Court, DC5::51310:VIRGINIA TECH, Cabinet 0209	Ashburn	VA	20147
NC2	NatCap McLean	Level3 Colo	1755 Old Meadow Road, Rack C07.15	McLean	VA	22102

Primary MATP Campus Demarc Locations (prospective meet points for direct fiber access)

	Member	Site Name	Address	City	State	Zip Code	Telephone	Contact
P1	Virginia Tech (VT)	Andrews Information Systems Building	1700 Pratt Drive Near intersection Plantation	Blacksburg	VA	24061	540-231-xxxx	lawsonj@vt.edu
P2	Virginia Tech (VT)	Plantation Road Meet Point	Road and Prices Fork Road	Blacksburg	VA	24061	540-231-xxxx	lawsonj@vt.edu
P3	Virginia Tech (VT)	MBC POP Bedford	1633 Venture Blvd	Bedford	VA	24523		lawsonj@vt.edu
P4	Virginia Tech (VT)	MBC POP Bonsack	40 Eastpark Drive	Roanoke	VA	24012		lawsonj@vt.edu
P5	College of William and Mary (WM)	College of William & Mary Blow Hall	262 Richmond Rd.	Williamsburg	VA	23187	757-221-3005	dsfens@wm.edu
P6	College of William and Mary (WM)	College of William & Mary School of Ed.	301 Monticello Rd.	Williamsburg	VA	23187	757-221-3005	dsfens@wm.edu
P7	Virginia Commonwealth University (VCU)	Pocahontas Building	900 East Main Street	Richmond	VA	23219	804-828-1802	wmjones@vcu.edu
P8	Virginia Commonwealth University (VCU)	Grace E. Harris Hall	1015 Floyd Ave	Richmond	VA	23220		wmjones@vcu.edu
P9	George Mason University (GMU)	Fairfax Campus	4400 University Drive	Fairfax	VA	22030		randers@gmu.edu
P10	George Mason University (GMU)	Prince William Campus	10900 University Blvd.	Manassas	VA	20110		randers@gmu.edu
P11	George Mason University (GMU)	Arlington Campus	3301 N. Fairfax Drive	Arlington	VA	22201		randers@gmu.edu
P12	Old Dominion University (ODU)		4608 Hampton Blvd	Norfolk	VA	23529		wcjones@odu.edu
P13	University of Virginia (UVA)	ITC-Carruthers Hall	1001 N. Emmet St.	Charlottesville	VA	22901		
P14	James Madison University (JMU)	Health / Human Services Building	701 Carrier Drive	Harrisonburg	VA	22807		johnsolv@jmu.edu
P15	James Madison University (JMU)	Wilson Hall	900 South Main Street	Harrisonburg	VA	22807		johnsolv@jmu.edu

Representative MATP Member Affiliated Sites

(this is a sample list of MATP Member sites and does not reflect all possible sites)

	Member	Site Identifier	Address	City	State	Zip Code	Telephone
M1	VT	Equine Medical Center	17690 Old Waterford Road	Leesburg	VA	20176	703-771-6800
M2	VT	Occoquan Watershed Monitoring Lab	9408 Prince William St	Manassas	VA	20110	703-361-5606
M3	Multiple	Roanoke Higher Education Center	108 North Jefferson Street	Roanoke	VA	24016	540-767-6161
M4	VT	Richmond Center	2810 N. Parham Road, Suite 300	Richmond	VA	23294	804-662-7288
M5	Multiple	Southwest Virginia Higher Ed Center	One Partnership Circle	Abingdon	VA	24210	276-619-4300
M6	VT	Hampton Roads Center	1444 Diamond Springs Road	Virginia Beach	VA	23455	757-363-3900
M7	VT	Alson H Smith Jr Research Center	595 Laurel Grove Road	Winchester	VA	22602	540-869-2560
M8	VT	Eastern Shore Research Center	33446 Research Drive	Painter	VA	23420	757-414-0724
M9	VT	Eastern Virginia Research Center	2229 Menokin Road	Warsaw	VA	22572	804-333-3485
M10	VT	Middleburg Research Center	5527 Sullivans Mill Road	Middleburg	VA	20117	540-687-3521
M11	VT	Northern Piedmont Research Center	14471 Research Road	Orange	VA	22960	540-672-2660
M12	VT	Reynolds Homestead Research Center	407 Homestead Lane	Critz	VA	24082	276-694-4135
M13	VT	Shenandoah Valley Research Center	128 McCormick Farm Circle	Steeles Tavern	VA	24476	540-377-2255
M14	VT	Southern Piedmont Research Center	2375 Darvills Road	Blackstone	VA	23824	434-292-5331
M15	VT	Southwest Virginia Research Center	12326 VPI Farm Road	Glade Spring	VA	24340	276-944-2200
M16	VT	Tidewater Research Center	6321 Holland Road	Suffolk	VA	23437	757-657-6450
M17	VT	Virginia Seafood Research Center	102 S. King Street	Hampton	VA	23669	757-727-4861
M18	VT	New River Energy Research and Training Center	550 Industrial Drive	Christiansburg	VA	24073	540-260-9081 dmeadows@chpc2.org
M19	VT	Airfield 4-H Conference Center (SE)	15189 Airfield Road	Wakefield	VA	23888	757-899-4901
M20	VT	Holiday Lake 4-H Educational Center	1267 4-H Camp Road	Appomattox	VA	24522	434-248-5444
M21	VT	Jamestown 4-H Educational Center	3751 4-H Club Road	Williamsburg	VA	23185	757-253-4931
M22	VT	Northern Virginia 4-H Educational Center	600 4-H Center Drive	Front Royal	VA	22630	540-635-7171
M23	VT	W.E. Skelton 4-H Educational Conf. Center	775 Hermitage Road	Wirtz	VA	24184	540-721-2759

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M24	VT	Southwest Virginia 4-H Educational Center	25236 Hillman Highway	Abindgdon	VA	24210	276-676-6180
	Member	Site Identifier	Address	City	State	Zip Code	Telephone Contact
M25	WM	VIMS Watermen's Hall	1375 Greate Rd	Gloucester Pt	Va	23062	804-684-7080 gary@vims.edu
M26	WM	VIMS Eastern Shore Laboratory	40 Atlantic Ave	Wacheapreague	Va	23480	804-684-7080 gary@vims.edu
	Member	Site Identifier	Address	City	State	Zip Code	Telephone
M27	VCU	Rice Center for Environmental Life Sciences	3701 John Tyler Memorial Hwy	Charles City	VA	23030	
M28	VCU	Northern Virginia School of Social Work	6295 Edsall Road	Alexandria	VA	22312	
M29	VCU	Physical Plant Administration Building	1050 Oliver Hill Way	Richmond	VA	23219	
M30	VCU	3600 Centre	3600 West Broad Street	Richmond	VA	23230	
M31	VCU	TTAC and Community Service Center	10 East Franklin Street	Richmond	VA	23219	
M32	VCU	Virginia Institute for Social Services Training Activities	1604 Santa Rosa Road	Henrico	VA	23229	
M33	VCU	700 Centre	700 East Franklin Street	Richmond	VA	23219	
M34	VCU	Transportation Safety Training Center	1310-1312 West Main Street	Richmond	VA	23220	
M35	VCU	Center for Cultural Experiences in Prevention	906 West Broad Street	Richmond	VA	23220	
M36	VCU	Rehabilitation Research Training Center	1314 West Main Street	Richmond	VA	23220	
M37	VCU	Dance and Choreography Building	1315 Floyd Avenue	Richmond	VA	23220	
M38	VCU	Center for Psychological Services	612-620 North Lombardy Street	Richmond	VA	23220	
	Member	Site Identifier	Address	City	State	Zip Code	Telephone
M39	GMU	Virginia Center for Innovative Technologies	2214 Rock Hill Rd	Herndon	VA	22070	
M40	GMU	Loudoun Center	21641 Ridgetop Circle	Sterling	VA	20166	
M41	GMU	Mason Enterprise Center	4031 University Drive	Fairfax	VA	22030	
M42	GMU	Smithsonian Conservation Biology Institute	1500 Remount Rd	Front Royal	VA	22630	
M43	GMU	Mathy House	11020 Popes Head Rd	Fairfax	VA	22030	
M44	GMU	Kellar Center	3807 University Drive	Fairfax	VA	22030	
M45	GMU	Point of View	7301 Old Spring Drive	Lorton	VA	22079	
M46	GMU	Center for Ocean-Land Atmospheric Studies	4041 Powder Mill Rd Suite 302	Calverton	MD	20705	
M47	GMU	LAITS	6301 Ivy Lane Suite 620	Greenbelt	MD	20770	
M48	GMU		10340 Democracy Lane	Fairfax	VA	22030	

RFP #0019241 Attachment D

Price Example

Referring to the site list in Attachment C, complete the following pricing table. For this example, assume a point to point configuration from each remote site to a multiplexed UNI at the designated NatCap location.

Proposed solutions should be designed to provide expedited forwarding (EF) for delay sensitive traffic to guarantee packet loss is less than .05%, one-way delay is less than 60ms, and jitter is less than 10ms. All other traffic should be engineered for best effort service. The "EF" column specifies the per-site bandwidth requirement for traffic that requires expedited forwarding.

Connect following sites to NC1, NatCap Equinix

Site	Site Name	UNI Mbps	CIR Mbps	EF Mbps	Specify NRC \$	Specify MRC \$
P1	VT Andrews Information Systems Building	10,000	10,000	-		
M6	Hampton Roads Center	1,000	1,000	50		
M7	Alson H Smith Jr Research Center	1,000	1,000	50		
M8	Eastern Shore Research Center	1,000	1,000	50		
M9	Eastern Virginia Research Center	1,000	100	50		
M10	Middleburg Research Center	1,000	100	50		
M11	Northern Piedmont Research Center	100	50	10		
M12	Reynolds Homestead Research Center	100	50	10		
M13	Shenandoah Valley Research Center	100	50	10		
M14	Southern Piedmont Research Center	1,000	1,000	50		

Connect following sites to NC2, NatCap McLean

Site	Site Name	UNI Mbps	CIR Mbps	EF Mbps	Specify NRC \$	Specify MRC \$
P5	College of William and Mary Blow Hall	10,000	10,000	-		
M15	Southwest Virginia Research Center	100	50	10		
M16	Tidewater Research Center	1,000	1,000	50		
M17	Virginia Seafood Research Center	1,000	100	50		
M19	Airfield 4-H Conference Center (SE)	1,000	100	50		
M20	Holiday Lake 4-H Educational Center	100	50	10		
M21	Jamestown 4-H Educational Center	100	50	10		
M22	Northern Virginia 4-H Educational Center	1,000	100	50		
M23	W.E. Skelton 4-H Educational Conf. Center	1,000	1,000	50		
M24	Southwest Virginia 4-H Educational Center	100	50	10		

CIR means committed information rate. UNI means user network interface. NRC means non-recurring charge. MRC means monthly recurring charge.