



Advanced Technical Solutions, LLC

Providing network solutions that work!

PO Box 469 - Hurricane, WV 25526

Phone 304-757-6542

Toll Free 1-877-479-5438

www.atsnetworking.com

Department of Administration
Purchasing Division
Building 15
2019 Washington Street, East
Charleston, WV 25305-0130
Attention: Shelly Murray, Buyer

Advanced Technical Solutions, LLC
John W. Calvert, Account Manager
304-757-6542, Ext. 323
304-201-4287 Fax

RFQ #EDD327891
Bid Opening Date: 5-19-2010 (By Addendum #1)
Bid Opening Time: 1:30 PM

RECEIVED

2010 MAY 19 AM 8:54

WV PURCHASING
DIVISION

Microsoft
CERTIFIED

Partner



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER
EDD327891

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
SHELLY MURRAY 304-558-8801

VENDOR

*323141320 304-757-6542
 ADVANCED TECHNICAL SOLUTIONS
 PO BOX 149
 SCOTT DEPOT WV 25560-0149

SHIP TO

DEPARTMENT OF EDUCATION
 BUILDING 6
 1900 KANAWHA BOULEVARD, EAST
 CHARLESTON, WV
 25305-0330

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
04/05/2010				

BID OPENING DATE: 05/13/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	LS		920-45		
<p>THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, THE WEST VIRGINIA DEPARTMENT OF EDUCATION, IS SOLICITING BIDS FOR AN INTERNET FILTERING AND REPORTIN SOLUTION PER THE ATTACHED SPECIFICATIONS.</p> <p>TECHNICAL QUESTIONS MUST BE SUBMITTED IN WRITING TO SHELLY MURRAY IN THE WEST VIRGINIA PURCHASING DIVISION VIA MAIL AT THE ADDRESS SHOWN AT THE TOP OF THIS RFQ, VIA FAX AT 304-558-4115, OR VIA E-MAIL AT SHELLY.L.MURRAY@WV.GOV. DEADLINE FOR ALL TECHNICAL QUESTIONS IS 04/27/2010 AT THE CLOSE OF BUSINESS. ALL TECHNICAL QUESTIONS RECEIVED, IF ANY, WILL BE ADDRESSED BY ADDENDUM AFTER THE DEADLINE.</p> <p>INTERNET FILTERING AND REPORTING SOLUTION</p> <p>EXHIBIT 3</p> <p>LIFE OF CONTRACT: THIS CONTRACT BECOMES EFFECTIVE UPON AWARD AND EXTENDS FOR A PERIOD OF ONE (1) YEAR OR UNTIL SUCH "REASONABLE TIME" THEREAFTER AS IS NECESSARY TO OBTAIN A NEW CONTRACT OR RENEW THE ORIGINAL CONTRACT. THE "REASONABLE TIME" PERIOD SHALL NOT EXCEED TWELVE (12) MONTHS. DURING THIS "REASONABLE TIME" THE VENDOR MAY TERMINATE THIS CONTRACT FOR ANY REASON UPON GIVING THE DIRECTOR OF PURCHASING 30 DAYS WRITTEN NOTICE.</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Shelly Murray</i>	TELEPHONE 304-757-6542	DATE 5-10-2010
TITLE Account Manager	FEIN 55-0772695	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

GENERAL TERMS & CONDITIONS
REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)

1. Awards will be made in the best interest of the State of West Virginia.
2. The State may accept or reject in part, or in whole, any bid.
3. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
4. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods this Purchase Order/Contract becomes void and of no effect after June 30.
5. Payment may only be made after the delivery and acceptance of goods or services.
6. Interest may be paid for late payment in accordance with the *West Virginia Code*.
7. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
8. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
9. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
10. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern the purchasing process.
11. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
12. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, the State may deem this contract null and void, and terminate such contract without further order.
13. **HIPAA BUSINESS ASSOCIATE ADDENDUM:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at www.state.wv.us/admin/purchase/vrc/hipaa.htm and is hereby made part of the agreement. Provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
14. **CONFIDENTIALITY:** The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.
15. **LICENSING:** Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, and the West Virginia Insurance Commission. The vendor must provide all necessary releases to obtain information to enable the director or spending unit to verify that the vendor is licensed and in good standing with the above entities.
16. **ANTITRUST:** In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, or person or entity submitting a bid for the same material, supplies, equipment or services and is in all respects fair and without collusion or Fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

INSTRUCTIONS TO BIDDERS

1. Use the quotation forms provided by the Purchasing Division. Complete all sections of the quotation form.
2. Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
3. Unit prices shall prevail in case of discrepancy. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
4. All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130
5. Communication during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited (W.Va. C.S.R. §148-1-6.6).



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
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 Charleston, WV 25305-0130

Request for Quotation

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ADDRESS CORRESPONDENCE TO ATTENTION OF
SHELLY MURRAY 304-558-8801

VENDOR

*323141320 304-757-6542
 ADVANCED TECHNICAL SOLUTIONS
 PO BOX 149
 SCOTT DEPOT WV 25560-0149

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 25305-0330

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
04/05/2010				

BID OPENING DATE: 05/13/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>UNLESS SPECIFIC PROVISIONS ARE STIPULATED ELSEWHERE IN THIS CONTRACT DOCUMENT, THE TERMS, CONDITIONS AND PRICING SET HEREIN ARE FIRM FOR THE LIFE OF THE CONTRACT.</p> <p>RENEWAL: THIS CONTRACT MAY BE RENEWED UPON THE MUTUAL WRITTEN CONSENT OF THE SPENDING UNIT AND VENDOR, SUBMITTED TO THE DIRECTOR OF PURCHASING THIRTY (30) DAYS PRIOR TO THE EXPIRATION DATE. SUCH RENEWAL SHALL BE IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE ORIGINAL CONTRACT AND SHALL BE LIMITED TO TWO (2) ONE (1) YEAR PERIODS.</p> <p>CANCELLATION: THE DIRECTOR OF PURCHASING RESERVES THE RIGHT TO CANCEL THIS CONTRACT IMMEDIATELY UPON WRITTEN NOTICE TO THE VENDOR IF THE COMMODITIES AND/OR SERVICES SUPPLIED ARE OF AN INFERIOR QUALITY OR DO NOT CONFORM TO THE SPECIFICATIONS OF THE BID AND CONTRACT HEREIN.</p> <p>OPEN MARKET CLAUSE: THE DIRECTOR OF PURCHASING MAY AUTHORIZE A SPENDING UNIT TO PURCHASE ON THE OPEN MARKET, WITHOUT THE FILING OF A REQUISITION OR COST ESTIMATE, ITEMS SPECIFIED ON THIS CONTRACT FOR IMMEDIATE DELIVERY IN EMERGENCIES DUE TO UNFORESEEN CAUSES (INCLUDING BUT NOT LIMITED TO DELAYS IN TRANSPORTATION OR AN UNANTICIPATED INCREASE IN THE VOLUME OF WORK.)</p> <p>BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THE CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER.</p> <p>THE TERMS AND CONDITIONS CONTAINED IN THIS CONTRACT SHALL SUPERSEDE ANY AND ALL SUBSEQUENT TERMS AND CONDITIONS WHICH MAY APPEAR ON ANY ATTACHED PRINTED</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
<i>John W Cabot</i>	304-757-6542	5-10-2010
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE
Account Mgr	55-0772695	

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



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04/05/2010				

BID OPENING DATE: **05/13/2010** BID OPENING TIME: **01:30PM**

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
CONTACT PERSON (PLEASE PRINT CLEARLY): JOHN W CALVERT - 304-757-6542 x323 jalvert@atsnetworking.com						
***** THIS IS THE END OF RFQ EDD327891 ***** TOTAL:						\$ 271,163.48

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>John W Calvert</i>	TELEPHONE 304-757-6542	DATE 5-10-2010
TITLE Account Mgr	FEIN 55-0772695	ADDRESS CHANGES TO BE NOTED ABOVE

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05/04/2010				

BID OPENING DATE: 05/19/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
ADDENDUM NO. 1						
<p>THIS ADDENDUM IS ISSUED TO ADDRESS THE QUESTIONS RECEIVED PRIOR TO THE QUESTION SUBMISSION DEADLINE OF 04/27/2010.</p> <p>THE BID OPENING DATE IS EXTENDED:</p> <p>FROM: 05/13/2010 TO : 05/19/2010</p>						
001	1	LS		920-45		
INTERNET FILTERING AND REPORTING SOLUTION						
EXHIBIT 10						
REQUISITION NO.: EDD327891						
ADDENDUM ACKNOWLEDGEMENT						
I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY PROPOSAL, PLANS AND/OR SPECIFICATION, ETC.						
ADDENDUM NO.'S:						
NO. 1 ✓						
NO. 2						
NO. 3						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>John W. Cabot</i>	TELEPHONE 304-757-6542	DATE 5-10-2010
TITLE Account Mgr	FEIN 55-0772695	ADDRESS CHANGES TO BE NOTED ABOVE

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State of West Virginia
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Request for Quotation

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 304-558-8801

VENDOR

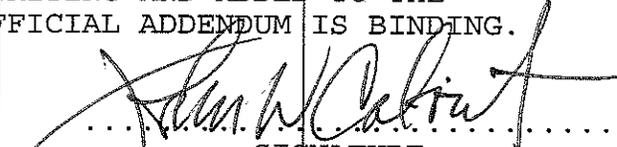
*323141320 304-757-6542
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05/04/2010				

BID OPENING DATE: 05/19/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
NO. 4					
NO. 5					
<p>I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF BIDS.</p> <p>VENDOR MUST CLEARLY UNDERSTAND THAT ANY VERBAL REPRESENTATION MADE OR ASSUMED TO BE MADE DURING ANY ORAL DISCUSSION HELD BETWEEN VENDOR'S REPRESENTATIVES AND ANY STATE PERSONNEL IS NOT BINDING. ONLY THE INFORMATION ISSUED IN WRITING AND ADDED TO THE SPECIFICATIONS BY AN OFFICIAL ADDENDUM IS BINDING.</p> <p style="text-align: center;">  SIGNATURE Advanced Technical Solutions LLC COMPANY 5-10-2010 DATE </p> <p>NOTE: THIS ADDENDUM ACKNOWLEDGEMENT SHOULD BE SUBMITTED WITH THE BID.</p> <p>----- END OF ADDENDUM NO. 1 -----</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE 	TELEPHONE 304-757-6542	DATE 5-10-2010
TITLE Account mgr	FEIN 55-0712695	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

RFQ No. EDD 327891

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

EXCEPTION: The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

Under penalty of law for false swearing (*West Virginia Code* §61-5-3), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

WITNESS THE FOLLOWING SIGNATURE

Vendor's Name: ADVANCED TECHNICAL SOLUTIONS LLC

Authorized Signature: [Signature] Date: 4/30/2010

State of West Virginia

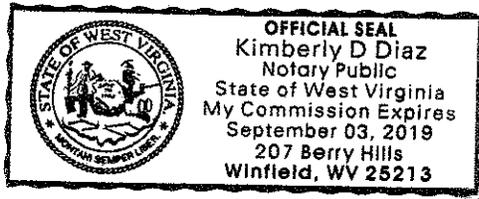
County of Putnam, to-wit:

Taken, subscribed, and sworn to before me this 30 day of April, 2010.

My Commission expires September 03, 2019.

AFFIX SEAL HERE

NOTARY PUBLIC [Signature]



State of West Virginia VENDOR PREFERENCE CERTIFICATE

Certification and application* is hereby made for Preference in accordance with *West Virginia Code*, §5A-3-37. (Does not apply to construction contracts). *West Virginia Code*, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the *West Virginia Code*. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Resident Vendor Preference, if applicable.

1. **Application is made for 2.5% resident vendor preference for the reason checked:**
 Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; or,
 Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or,
 Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; or,
2. **Application is made for 2.5% resident vendor preference for the reason checked:**
 Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
3. **Application is made for 2.5% resident vendor preference for the reason checked:**
 Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
4. **Application is made for 5% resident vendor preference for the reason checked:**
 Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; or,
5. **Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:**
 Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; or,
6. **Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:**
 Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Under penalty of law for false swearing (*West Virginia Code*, §61-5-3), Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: Advanced Technical Solutions

Signed: 

Date: 5-10-2010

Title: Account Manager

*Check any combination of preference consideration(s) indicated above, which you are entitled to receive.

West Virginia Department of Education

REQUEST FOR QUOTATION

EDD327891

Introduction

The West Virginia Department of Education (WVDE) is soliciting quotations for an **Internet filtering and reporting solution** that consists of software, licensing, software upgrades/updates, database updates and technical support. The vendor has the option to include servers or appliances and associated costs in the quotation if the vendor's software will not meet the requirements of this RFQ when installed on WVDE owned servers which are described in Section I-Current Environment.

Throughout this Request for Quotation (RFQ) the term "filtering solution" is used to refer to all vendor provided software and hardware used to perform Internet filtering and reporting functions, including but not limited to application software, operating system and database software.

The terms "server" and "servers" are used to refer to the hardware or appliances on which any component of the filtering solution is installed.

Every statement of this RFQ that includes the word "must" or "shall" is a mandatory requirement. A vendor should not submit a bid if the filtering solution cannot meet every mandatory requirement.

The products and services that are bid **must** be capable of providing a level of service appropriate for Internet Service Provider (ISP) facilities with 3 gigabits of Internet bandwidth. School based or district based filtering solutions are not an acceptable response to this RFQ.

The WVDE currently has two independent Internet connections for the K-12 public schools. Internet filtering solutions **must** be installed at both Points of Presence (POP). Because of the diverse needs of schools, the WVDE **must** have selective filtering levels and capabilities for delegated administration of tailored filtering policies or profiles for different subnets. Updates to the filtering solution **must** be provided at least once each day to ensure that the filtering database is up-to-date using multiple methods and resources for the review of content on Internet sites. The Internet filtering **must** meet the requirements of the E-rate program (refer to <http://www.sl.universalservice.org/>) and the West Virginia Board of Education Policy 2460 that is available online at <http://wvde.state.wv.us/policies/p2460.html>. Information relevant to the Children's Internet Protection Act (CIPA) and the Federal requirement to implement Internet filtering is detailed at the URL <http://www.fcc.gov/cgb/consumerfacts/cipa.html>.

The Children's' Online Privacy Protection Act (COPPA) **must** not be violated by any requirements of the filtering solution to collect personal information about students. Refer to <http://www.ftc.gov/coppa/> for information about COPPA.

Section I – Current Environment

Approximately 700 public schools in 57 school districts of West Virginia are connected with a privately addressed TCP/IP statewide network. The network uses the private Class A range of 10.0.0.0 IP addresses. The POPs are equipped with Cisco 6513 switches that contain Cisco router and Cisco PIX firewall modules that route and translate the private IP addresses to our Class B 168.216.0.0 public network IP addresses. A Packeteer appliance is used to manage bandwidth. The Internet filtering **shall** be done at the two POPs where the K-12 network is routed to the ISP. The POPs are located in the WVNET facilities in Morgantown, WV and in the IS&C facilities at Building 6 of the State Capitol Complex at Charleston, WV. Each one of the two POPs connects approximately 70,000 unique computers to the Internet with 3 gigabits/second of bandwidth.

POP Site #1 Charleston, WV, is equipped with the following WVDE owned servers on which the filtering solution may be installed.

8 (eight) Dell 2850 servers with following specifications:
3 GHz XEON Processor with 2 MB cache, 2 GB DDR2 dimm, dual 73GB scsi drives in mirrored RAID, dual onboard gigabit copper ethernet NICs.

1 (one) Dell 2850 servers with following specifications:
3 GHz XEON Processor with 2 MB cache, 2 GB DDR2 dimm, dual 73GB scsi drives in mirrored RAID, dual onboard gigabit copper ethernet NICs, and one 1 TB storage for reports and log files.

POP Site #2 Morgantown, WV, is equipped with the following WVDE owned servers on which the filtering solution may be installed:

8 (eight) Dell 2850 servers with following specifications:
3 GHz XEON Processor with 2 MB cache, 2 GB DDR2 dimm, dual 73GB scsi drives in mirrored RAID, dual onboard gigabit copper ethernet NICs.

1 (one) Dell 2850 servers with following specifications:
3 GHz XEON Processor with 2 MB cache, 2 GB DDR2 dimm, dual 73GB scsi drives in mirrored RAID, dual onboard gigabit copper ethernet NICs, and one 1 TB storage for reports and log files.

If the servers described above are not adequate to support the vendor's filtering solution, the vendor **must** include appropriate servers or appliances and associated costs in the response to this RFQ.

The total number of computers to be filtered is approximately 140,000 computers. The Internet filtering **must** occur at the point in the network after which the K-12 core routers consolidate Internet traffic but before the firewall dynamically changes the private IP addresses to public IP addresses as shown in the diagram on attachment A. The filtering servers and reporting servers **must** operate within the scope of the K-12 private network so that filtering control and reporting will reflect the private IP addresses of the client computers. In the event that portable computers are connected to residential, public, or other

networks, an option **must** be available to provide continued filtering of Internet web sites. No caching appliances are currently in use; however the Internet filtering solution **must** support the option for the WVDE to install caching appliances.

Section II - Technical Requirements

General

The vendor bid **must** provide an Internet filtering solution capable of filtering 140,000 total computers in a network consisting of two POPs. The solution **must** be configured to support 70,000 client computers using 3 gigabits/sec of bandwidth at each POP.

The vendor **must** provide evidence of at least one current, successful installation of the Internet filtering solution in a network configuration servicing 70,000 computers with 3 gigabits/second of Internet bandwidth.

The filtering solution **must** be a POP based installation; a filtering solution which involves the installation of filtering software or hardware school districts or individual schools is not acceptable.

The vendor **must** provide Internet filtering and reporting application software and all necessary supporting software including, but not limited to, operating system and database software.

The Internet filtering solution **must** meet the requirements of this RFQ using servers/appliances provided by the vendor or when installed on the WVDE owned equipment identified in Section I – Current Environment.

The WVDE will provide server hardware, equipment racks, networking components and cabling as specified in Section I – Current Environment.

The filtering solution **must** support gigabit speed, copper based, Ethernet network interfaces.

The filtering solution **must** not exceed a total of 12 servers or appliances at each POP.

The total of all hardware components of the filtering solution for each POP **must** be rack mountable and not occupy more than 24 units of rack space (about 48”) at each POP site. The equipment **must** operate on 110-120 Volts AC power.

In the event the winning bid does not meet the requirements of this RFQ when installed on vendor provided server/appliances or on the existing equipment identified in Section I- Current Environment, the vendor **must** provide additional servers and any other associated installation, shipping, labor and configuration expenses at no cost to the WVDE or the contract will be immediately terminated.

There **must** be no requirement for any configuration changes of any networking equipment or computers that are connected to the private WV K-12 network at the school districts or individual schools

The filtering solution **must** provide client software which can be installed on mobile computers that will enforce the same filtering parameters whether a mobile computer is connected to the WV K-12 network or connected by wired or wireless networking to the Internet via any other Internet service provider. The client software **must** not be a VPN (virtual private networking) or similar type of client and **must** not rely on a web browser setting such as a proxy server configuration.

The filtering solution **must** have the capability to filter based on the IP address of the client computer and not require user authentication.

The filtering solution **must** have the capability to be integrated with unified authentication systems such as LDAP and Active Directory service.

The Internet filtering solution **must** be engineered and operate with redundancy such that the failure of one server or appliance at a POP will not reduce the capability to provide filtering for 70,000 computers at 3 gigabits/sec of throughput.

The vendor **must** begin installation no later than 30 days after receipt of the purchase order and must be completed within 60 days of receipt of the purchase order.

Internet Filtering

The filtering solution **must** provide a web based interface for all management and configuration tasks which can be performed by WVDE.

The filtering solution **must** have the capability to be configured to block Internet access in the event of the failure of the filtering solution at a POP so that unfiltered Internet access is prevented.

The Internet filtering provided as a result of this RFQ **must** be verified by the vendor to meet the requirements of the Children's Internet Protection Act (CIPA) (refer to <http://www.fcc.gov/cgb/consumerfacts/cipa.html>) and the West Virginia Board of Education Policy 2460 that is available online at <http://wvde.state.wv.us/policies/p2460.html>.

The filtering solution **must** be verified by the vendor to comply with the Children's Online Privacy Protection Act (COPPA). The filtering process **must** not require the collection of any personal information from any users under the age of 13.

The filtering solution **must** provide the capability for the WVDE to selectively enable filtering of content based on categories of web sites or individual web sites using the http and https protocols.

The vendor **must** include all categories that the vendor offers on the product. The vendor **must** not offer a reduced number of categories in an attempt to reduce costs by providing only the categories that are identified in this RFQ.

The vendor **must** provide, but is not limited to, the pre-populated categories of the following classifications or equivalent classifications of content on web sites:

- Pornography
- Obscenity
- Dating (including sites for the purpose of establishing personal relationships)
- Gambling
- Criminal Activities (sites that condone or provide instructions for criminal activity)
- Illegal Drugs (sites that condone or provide instructions for illegal drug use, manufacturing and distribution)
- Anonymous Proxies (anonymizers to bypass filtering or hide the true source of Internet activity)
- Computer crimes, cracking and hacking (sites that condone or provide instructions for these activities)
- Malicious code (sites that contain, distribute, or execute malicious code such as malware, viruses, root kits, bots, etc or retrieve information from computers that are infected with malicious code)
- Instant messaging sites
- Peer to Peer (P2P sites)
- Phishing (fraudulent sites that imitate authentic sites, often to lure people into submitting personal or financial information.)
- Hate, racism, discrimination (sites that condone or encourage violence against or suppression of any minorities or grouping based on race, religion, sexual orientation, ethnicity or any other social grouping characteristic)

The filtering solution **must** have the capability to allow or deny access to any individual web site, URL, or IP address whether or not it is included in any vendor provided category.

The filtering solution **must** have the capability to permit the WVDE to create unlimited additional custom categories.

The filtering solution **must** have the capability to permit the use of “regular expressions” (includes wild-card characters and other variables to specify complex text strings) when creating custom allow or deny lists of URL web addresses or search terms.

The filtering solution **must** have the capability to block traffic related to peer-to-peer file sharing protocols.

The filtering solution **must** have the capability to enforce the “safe searching” mode of Google, Bing and Yahoo search engines, regardless of the settings chosen by an end user that is using those search engines.

The filtering solution **must** provide capabilities to create manageable client groups based on IP address ranges and assign names to those groups.

The capability **must** exist to delegate management of groups by creating additional administrators with restricted rights who can be assigned to manage filtering parameters for specific groups.

The filtering solution **must** provide for customizable, granular permissions so that additional administrator/user accounts can be tailored on a user by user basis to match the rights of a user to the tasks that a user needs to perform.

The filtering solution **must** have the capability to selectively display WVDE customized “site blocked” pages based on the client group and/or the categorization of the blocked web site.

The filtering solution **must** have the capability to selectively display WVDE customized “informational” pages based on the client group and/or the categorization of web sites to which access is allowed.

The filtering solution **must** have the capability to be configured to only perform filtering of outgoing requests and to perform no filtering of incoming traffic.

The product offered by the vendor **must** perform Internet filtering primarily by comparing outgoing requests to a database of categorized URLs and IP addresses to determine whether an attempt to access a site on the Internet is to be blocked or permitted.

Any other Internet filtering methods of the filtering solution, such as “on the fly” evaluation of incoming content, **must** be able to be selectively disabled at the option of the WVDE.

The filtering solution **must** provide a web based display of status and performance graphs for all components of the filtering solution.

The filtering solution **must** have the capability for the WVDE to set customized filtering policies based on the time of day and the day of the week for individual IP addresses and/or groups of client IP addresses.

The Internet filtering solution **must** not masquerade, spoof or change the source IP address of the computers on the K-12 network. The source IP address of the client computer **must** be passed to the PIX firewall.

The Internet filtering and reporting servers **must** operate on and report on the 10.0.0.0 private network IP addresses of the WVDE K-12 network.

The filtering solution **must** have a synchronization capability. Synchronization means that when the WVDE makes a filtering configuration change using the web management tool, that change will be distributed to all of the filtering servers at both POPs. That change distribution **must** take effect automatically within 5 minutes after the act of saving of the configuration change, or be accomplished manually with no more than 5 mouse clicks after the configuration change is saved.

Internet Use Reporting

The filtering solution **must** provide a web-based reporting application and a minimum of one terabyte of log file storage at each POP.

The filtering solution **must** provide a method for the WVDE to download log files in a generic text format for analysis and archival storage.

Complete details of web browsing activity **must** be stored in log files and **must** include, at a minimum, the complete URL, date and time and IP address of the client computer.

All end user functions of the reporting application **must** be accessible via a web interface.

The reporting solution **must** provide the capability to create reports based on specific IP address, web site address, date and time of day.

The reporting capabilities **must** include the ability to schedule aggregate reports of web site accesses by categories, ranges of IP addresses and time periods.

The reporting capabilities **must** include the ability to create "on demand" custom reports on selected client IP addresses, specific URLs and time periods.

Section III - Contract Terms

The contract that results from this RFQ will remain in effect for one (1) year from the date of award, with an option to renew for two (2) additional one (1) year periods.

The costs for software and the annual licensing for Internet filtering can be invoiced upon delivery and acceptance by the WVDE. The technical support costs are payable in arrears and **shall** be invoiced not more often than on a monthly basis.

Any terms and conditions **must** be submitted with the bid. After award, no changes will be allowed which modify and terms and conditions. Award will not be made until all terms and conditions are agreed to by the State.

The vendor is solely responsible for all work performed under the contract and for all services offered and products to be delivered under the terms of this contract.

If the successful vendor is not the direct source, the vendor **must** provide documentation of being an authorized reseller to provide the equipment, filtering updates, maintenance and technical support.

Section IV - Service Requirements

The vendor **must** provide modification or replacement of software that fails to perform according to the specifications. The vendor also **must** provide any software upgrades, at no cost to the State, that are necessary during the term of the contract in order to continue to meet the Internet filtering capabilities specified. This requirement includes replacement, at no cost to the State, which may be necessary due to possible end-of-life designation by the manufacturer.

The WVDE network staff will provide and maintain WVDE provided servers, associated networking hardware and wiring. The WVDE network engineers will be responsible for load balancing network traffic to the servers of the filtering solution. The WVDE will be responsible for purchasing additional servers and network hardware when necessary to accommodate increases in bandwidth the number of clients to be filtered.

The filtering solution installation, configuration and testing at both the Charleston and Morgantown sites **must** be completed by the vendor within 30 days after the award of the contract. The vendor is responsible for any transportation and lodging costs of the installer.

The Internet filtering **must** support the bandwidth requirements of 3 gigabits/sec and 70,000 client computers at each one of the two POPs as identified in the specifications in Section II- Technical Requirements.

The vendor understands that technical support includes verifying that all hardware and/or software remains operational in the event of WVDE modification, replacement or upgrade of any servers or network configurations that impact the functioning of the filtering solution. These costs are to be included in the line item for technical support on the cost page.

Toll-free telephone and e-mail technical support **must** be available 7:00 AM to 5:00 PM Monday through Friday, Eastern Time (GMT -0500) for designated WVDE networking staff. Any costs associated with this requirement are to be included in the line item for technical support on the cost page.

The vendor **must** provide a function that permits any user of the WV K-12 network to submit a web site to be reviewed and appropriately categorized by the vendor. This function allows the vendor to receive feedback with the intent of improving delivery of services or product functionality.

Section V - Vendor Response

The vendor is to complete the Cost Worksheet.

The vendor **must** provide evidence of at least one current, successful installation of the Internet filtering solution in a network configuration servicing 70,000 or more computers

with 3 gigabits/second or more of Internet bandwidth. Use the following table.

Project Name	# of computers filtered	Internet bandwidth
San Diego Unified School Dist	70,000	600M
Henrico County School Dist	50,000	300M
State of Delaware	60,000	300M

— See Attachment I —

If the vendor fails to identify any costs that are required to meet the terms, requirements and conditions of this Quotation, it **shall** be the responsibility of the successful vendor to pay those costs and such costs will not be passed on to the WVDE or the State of West Virginia.

Pricing **must** be stated on the basis of one-year contracts.

The actual number of licenses purchased may vary from year to year. The quantities of computers listed on the Cost Worksheets are estimates only. The actual quantity to be purchased will be specified in a purchase order.

Filtering licensing prices **must** be quoted based on the number of computers filtered annually so that the WVDE can determine the basis of the pricing submitted in the quote.

Software updates/upgrades and technical support **must** be priced on an annual basis and this item is reflected as such on the cost page.

The vendor is responsible for any costs due to product end of life that will require replacement or upgrading of the vendor provided software or hardware during the term of the contract.

Section VI – Cost Evaluation

All quotes **shall** be all inclusive. No separate reimbursements will be made for travel or any other expense.

The State intends to award the bid to the vendor with the lowest grand total costs to provide a complete Internet filtering solution, including software, filtering updates, licensing, technical support and maintenance according to the specifications. As previously explained, the vendor may also include servers in the bid if the filtering solution cannot meet the requirements of this RFQ when installed on the WVDE equipment identified in Section I – Current Environment.

The WVDE reserves the right to purchase in part or in whole any products and services offered by the vendor in the response to this RFQ. The actual number of licenses purchased each year will be based on a count of computers, provided by the WVDE, on the date of the annual contract renewals.

Cost Worksheet

Item	Vendor Description	Quantity	Unit Cost	Total Cost
Annual software cost for Filtering Servers.*	Included with WAM Appliance	6	NO COST	NO COST
Annual software cost for Reporting Servers.*	Included with WAM Appliance	4	NO COST	NO COST
Annual License for filtering of client computers on K-12 network.	Lightspeed WEB ACCESS MANAGER (WAM)	130,000	\$1.50	\$195,000 ⁰⁰
Annual License for mobile computers. (see note 1 below.)	Lightspeed WEB ACCESS MANAGER (WAM)	10,000	\$1.50	\$15,000 ⁰⁰
Technical support and upgrades/updates for filtering solution	Lightspeed Sales Engineer	1 year	NO COST	NO COST
One Day onsite training, 6 hours. Charleston WV (see note 2 below)	Lightspeed Sales Engineer	1 day		NO COST
Onsite installation, Charleston and Morgantown, WV (see note 2 below)	Lightspeed Sales Engineer	4 days		\$3,000 ⁰⁰
Filtering Servers (if required)*	WAM ROCKET SYS-G-LSS-WAM	6	\$5,000 ⁰⁰	\$30,000 ⁰⁰
Reporting Servers (if required)*	DELL PowerEdge R510 see Attachment III	4	\$7040.87	\$28,163.48
Other Hardware (if required)*	N/A		N/A	N/A
Hourly rate for custom system modifications	Lightspeed Phone Support	20 hours	NO COST	NO COST
Total Costs				\$271,163.48

Note 1: A mobile computer requires special client software that will force the computer to be filtered even when it is disconnected from the K-12 network and connected to any other network which provides Internet access. If there is no price difference for mobile computers, enter the same unit cost as for computers on the K-12 network.

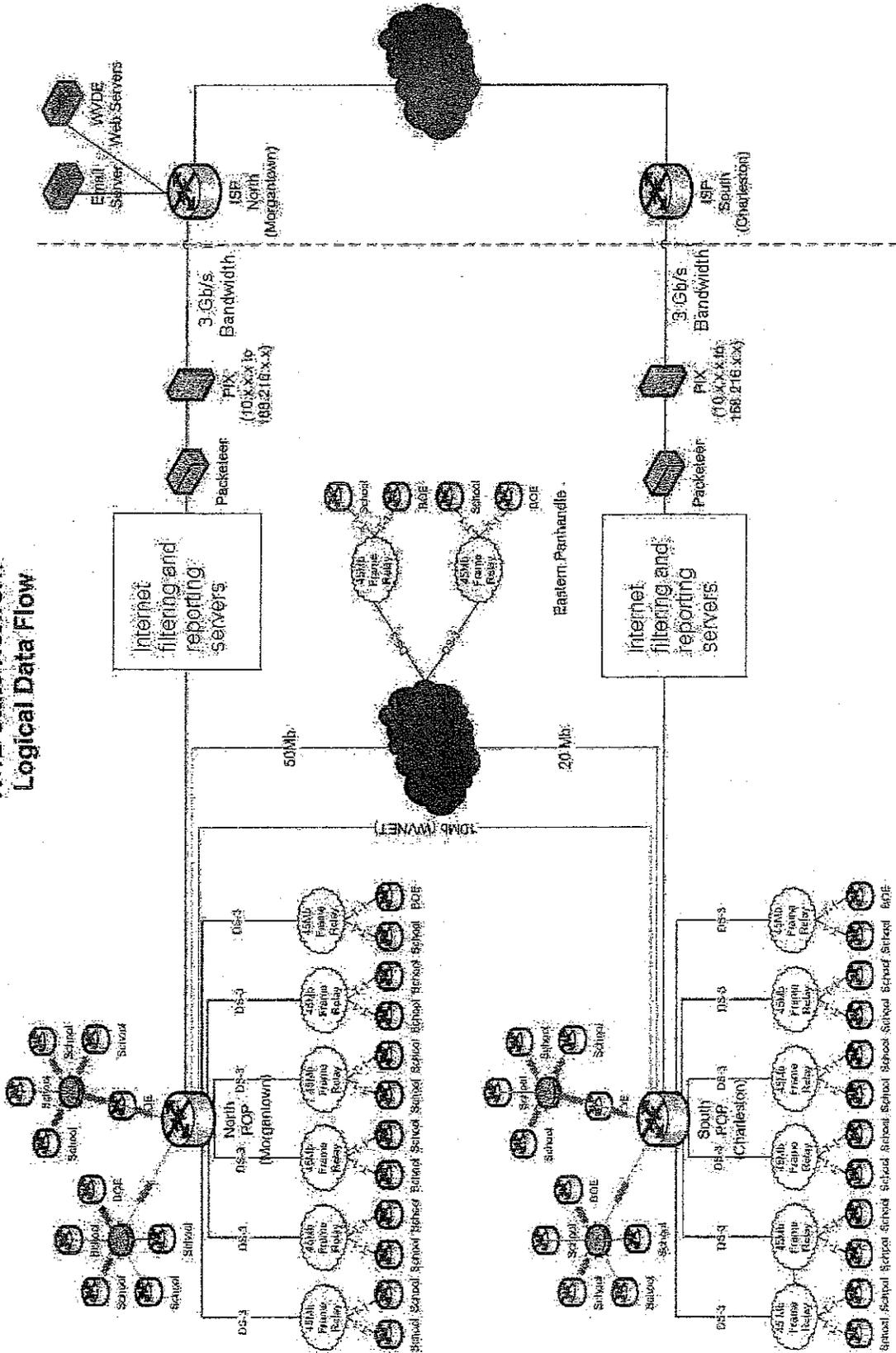
Note 2: Costs for training and installation, configuration and testing **must** inclusive of all incidental costs. Travel expenses, training materials and other reimbursable expenses will not be paid separately. The distance between Charleston and Morgantown WV is approximately 180 miles.

Item Pricing:

This worksheet is for vendors to identify items, quantities and provide prices. The vendor should indicate "No Cost" or "N/A" in the appropriate cells or blanks of the cost worksheet for which there are no separate or applicable costs. Any cost area that is left blank will be assumed to be "No Cost." The vendor may add notes to explain or clarify the bid.

* Vendor is encouraged to provide unit pricing for each of these items. However, it shall be the responsibility of the vendor to determine sufficient quantities needed for the scope of work outlined in the RFQ. For example, the quantity of servers needed to provide coverage for the WVDE's network may be set at one for vendor A, but be determined to be 5 by vendor B, due to design efficiencies.

West Virginia Department of Education K-12 State Network Logical Data Flow





ATTACHMENT-I

Advanced Technical Solutions Response to EDD327891

Section V-Vendor Response; Successful installation sites

1. San Diego Unified School District; 70,000+ PC's/ 600M+ of Internet traffic.
2. Henrico County School District; 50,000+ PC's/ 300M+ of Internet traffic.
3. State of Delaware; 60,000+ PC's/ 300M+ of Internet traffic.

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Advanced Technical Solutions RFP Response-EDD327891
Attachment-II

NETWORK & BANDWIDTH MANAGEMENT

- Granular traffic and bandwidth management
 - By source or destination IP, source or destination port number, application, username or group, time of day
 - Tiered Management / Administration
 - Extensive report with the ability to automatically generate and distribute key reports
 - Network reports shall include but is not limited to
 - HR Report
 - Logged in Users - Current
 - Logged in Users - History
 - Users by Internal IP Address
 - Real-time and Historic traffic & HTTP requests
 - Top Network Users
 - Busiest Protocols
 - Total Incoming/Outgoing Traffic
 - Logged in Users
 - Email Senders and Receivers
 - External URLs
 - External URLs Summary
 - File Downloads
 - File Uploads
 - Incoming Traffic by MAC
 - Internal URLs
 - Internal URL Summary
 - Logged in Users by IP
 - Outgoing Traffic by MAC
 - Search Engine Queries
 - Top Email Receivers
 - Top Email Senders
 - Top Search Engine Queries
 - Suspicious Search Engine Queries
 - Total Incoming
 - Total Outgoing
 - Traffic by External IP
 - Traffic by Internal IP
 - Traffic by Protocol and External IP
 - Traffic by Protocol and Int. IP
 - Customized Reports
 - Provide tools to manage traffic issues.
 - Ensure availability of critical services with network monitoring
 - Integrates with Student Information Systems (SIS).

CONTENT FILTERING

- Enforce CIPA compliance on laptop computers outside of the network
- Access and ability to share approved YouTube videos with students, providing access to valuable Web 2.0 learning resources without content risks. Video approval can be delegated to teachers or curricular leaders, and teachers can tag, search, and review approved videos.
- Safely provide access to Web 2.0 features and online content within a controlled, monitored, secure environment
- Ability to filter and report based on session not IP. This allows for multiple machines behind a single firewall to be filtered separately.
- netTrekker d.i. integration
- Filtering for thin-clients (including nComputing, Citrix, and Windows Terminal Server.)
- Filter all web traffic accurately and reliably
- Trust an education-specific database
- Filter all web traffic on workstations inside the network
- Filter web traffic on remote laptops outside the network
- Block Peer-to-Peer applications and file-type blocking
- Ensure safe collaborative learning in a Web 2.0 environment
- Detect and block proxies
 - Blocking Proxies at gateway
 - Search engine: Block by keyword
 - Non-http
 - Proxy category
 - Unknown URLs, domains
 - Automatic signature detection
 - URL Wild-Card
 - SSL
 - UltraSurf connections

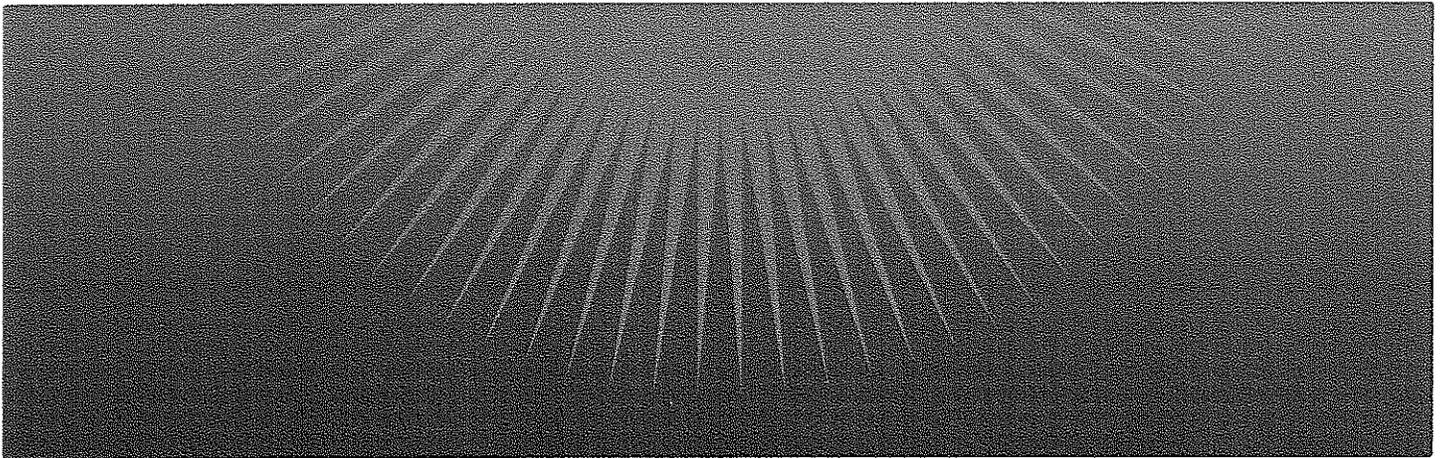
Advanced Technical Solutions RFP Response-EDD327891

Attachment-III

Reporting Servers

- Dell PowerEdge R510
- Windows Server 2008 Enterprise(Academic)
- Windows SQL Standard(Academic)
- 8 Hot Swap Chassis
- 12 GB (2X6) 1333MHz Memory
- Intel Zeon(x2)E5620 2.4Ghz 1066 MHz Max Mem
- SAS Raid controller for Raid-1 Configurations
- DVD ROM SATA Drive
- (2) 146GB 15k RPM Hotplug Hard Drives
- (2) 1TB 7.2k RPM Hotplug Hard Drives
- 3 Year ProSupport 4 Hour 7X24

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Partnering with schools to ensure safe online learning environments

Innovative, comprehensive solutions for network security, filtering, monitoring, management, and optimization

Your network provides the services and content users need to teach and learn. But with the power of the Internet come security risks, content concerns, liability and compliance issues, and management headaches.

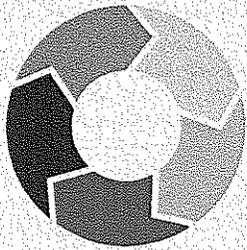
Lightspeed Systems provides best-of-breed solutions to help you take control of your school network from:

- Inadvertent or intentional policy breaches
- Numerous and complex regulations
- New and more sophisticated security threats
- Rapidly increasing desktop and mobile Internet usage
- Powerful, but potentially inappropriate, Web 2.0 technologies

Lightspeed Systems can help you balance safety and learning—so the security of your network doesn't limit the educational potential of the Internet, and the power of the Internet doesn't compromise the functions of your network.

LIGHTSPEED
SYSTEMS

Innovative Solutions for Your School Network



Lightspeed Total Traffic Control

Monitor, manage, filter, and secure your school's network with a single solution

Total Traffic Control is the complete solution for managing your school network's usage, health, and security. With this comprehensive solution you can monitor user activity, ensure Acceptable Use Policies are being followed (on email, the Web, or the desktop—both on the network and off), reduce dangerous and costly security threats, ensure school resources are utilized safely and effectively, and easily view and share critical information with custom reports.

Our comprehensive solution provides single-point network security and management. Our customizable components give you choice and control.



Lightspeed Email Manager

Archive, report on, and manage communications, while controlling spam and viruses

Email abuse can degrade network performance, leave your system vulnerable to threats, and expose users to time-wasting and offensive content. Lightspeed Email Manager lets you monitor, regulate, report on, and archive all messaging communications, ensuring that your Acceptable Use Policies on email usage are being enforced.



Lightspeed Network Traffic Manager

Maintain network availability and performance with traffic and bandwidth management

Network misuse, tight resources, and lack of information can make managing your network time-consuming and frustrating. Lightspeed Network Traffic Manager lets you keep an eye on your overall network health with advanced reporting, and keep critical applications running on your busy network with bandwidth management capabilities.



Lightspeed Web Access Manager

Ensure safe and appropriate web surfing for all users with customizable filtering

Regulations and policies require you to ensure that students and staff are using school resources for appropriate purposes. Lightspeed Web Access Manager keeps users' Web browsing in line with Acceptable Use Policies—while they are on the network or when utilizing school computers off the network. Our comprehensive database was created for schools, with education-specific categories.

NEW! The Educational Video Library allows teachers to give their students access to valuable Web 2.0 learning resources, without the content risks. With this feature, you can easily allow teachers and students to play approved YouTube videos. Teachers can tag, search, and review approved videos.



Lightspeed Security Manager

Eliminate threats from viruses, spyware, and malware with desktop and gateway security

Potential threats lurking inside and outside your network can compromise safety, expose systems to harm, and lead to costly and time-consuming problems. Lightspeed Security Manager allows you to easily maintain the health of computers across your network by stopping known and unknown threats to your servers and desktops with a comprehensive database and with an advanced, stateful inspection of network traffic.

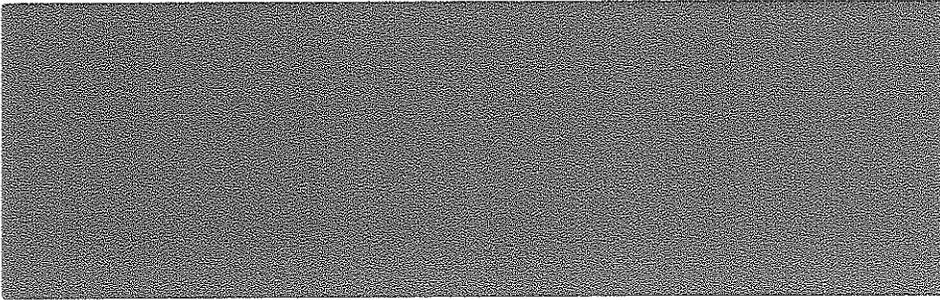


Lightspeed Power Manager

NEW!

Manage network energy costs with automated energy conservation

Energy consumed by unattended, unused computers across your network can drain your budget, as well as natural resources. An add-on to your Lightspeed implementation, Lightspeed Power Manager provides sustainable energy savings across your network by monitoring energy usage and directing low-power states and shutdown times, saving up to \$75 per PC annually. The quick return on investment and ongoing cost savings are documented with detailed reports.



Clear Benefits for IT, Administrators, Teachers, and Students

Set and enforce Acceptable Use Policies

Acceptable Use Policies governing use of school resources can be difficult to manage and enforce. Our solutions make it easy to create rules for use of network computers, mail servers, and Web browsing with policy-creation wizards. They also provide comprehensive reporting to alert you to potential breaches, and help you correct or amend rules.

Protect your network against security breaches

Potential threats lurking inside and outside your network can compromise safety, expose systems to harm, and lead to costly and time-consuming problems and outages. Our solutions allow you to block known threats, unknown threats, suspicious users, unverified programs, harmful spam, and more—so you can protect your network and maintain the health of computers across your system.

Conform to federal regulations

Federal regulations mandate that you follow, and retain documentation of, specific network security and usage requirements. Our solutions allow you to block offensive or harmful Web content, and archive all email and instant messaging communications, helping you effortlessly meet federal CIPA and e-discovery regulations.

Shield users from inappropriate content

The Internet offers students and staff valuable information and time-saving tools—but is also full of inappropriate and time-wasting content. With spam blocking, Internet content filtering, and virus protection, you can ensure that your users, and your network, aren't exposed to harmful or inappropriate content.

Balance collaborative learning and security

Sometimes the need to protect students from harmful content also limits the availability of valuable resources. Lightspeed understands the need to balance safety with learning. With innovative features like the Educational Video Library, our solutions let you give students access to Web 2.0 sites like YouTube in a safe, risk-free way.

Keep your network running smoothly

The performance of your network relies on access to network health and usage information. Our solutions allow you to ensure the availability of critical services by giving you an easy-to-understand overview of network usage—and by providing you with the tools to manage traffic issues and bandwidth allocation.

Powerful features. Easier management.

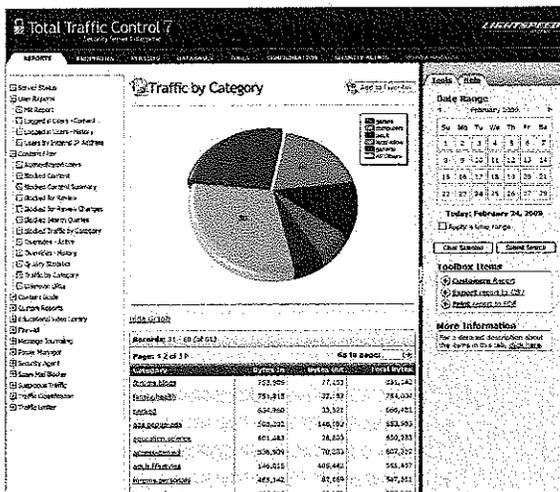
Our solutions provide powerful, easy-to-use features for managing and monitoring your network. We add innovative new features regularly, based on customer feedback and the latest developments in technology and learning.

- Tiered administration lets you delegate tasks and authority.
- Fourteen proven lines of defense for blocking spam, including application of your content rules, allow and block lists, adult subject-line scanning, Bayesian statistical analysis, and more.
- Compliant email archiving with controlled end-user access.
- Comprehensive and accurate, education-specific URL filtering database with more than one billion entries.
- Advanced proxy detection and blocking for better AUP enforcement.
- Ability to accommodate even the heaviest traffic loads, up to 1 GB of Internet bandwidth, without hindering performance.
- Guide Mobile Filter provides remote filtering and reporting on off-network activity.
- Comprehensive virus database with automatic updates.
- **NEW!** Educational Video Library allows teachers to share approved YouTube videos with students. Video approval can be delegated to teachers or curricular leaders.

Powerful reporting. Actionable information.

Our solutions give you access to detailed information about how your network is being utilized in easy-to-understand reports. View, investigate, and share information such as:

- Busiest Protocols
- Top Network Users
- Blocked Content
- Search Engine Queries
- Mail Traffic Chart
- Traffic by Category
- Computers: Hardware
- Computers: System Information
- Computers: Software Inventory
- Instant Messaging



With Total Traffic Control's detailed and customizable reports, administrators can quickly display network activity overviews, such as Traffic by Category, and drill down to more detail as needed to resolve network and bandwidth issues or violations of Acceptable Use Policies.

"I have worked with four enterprise-level Internet filtering systems, and I can say that the Lightspeed device is by far the best solution."

Lee Sleeper,
Director of Operations and Technology,
Bullard Independent School District

About Lightspeed Systems

Lightspeed Systems Inc., founded in 2000, develops comprehensive network security and management solutions for the education market. We are committed to helping schools operate their networks effectively and efficiently, so educators can provide safe online teaching and learning environments.

Our software is used in more than 1,000 school districts in the United States, the United Kingdom, and Australia to protect more than 5 million students. For the past two years, Lightspeed Systems has been recognized on the Inc. 5,000 list as one of the fastest-growing private companies.

See the powerful reporting, policy creation, and customization features of Total Traffic Control, and our component solutions, for yourself. Schedule an online demonstration: www.lightspeedsystems.com/demo



Exceptional Service and Support

Our feature-rich solutions designed specifically for schools are the answer to your network management and security needs. But our unparalleled service and support mean our solutions will continue to deliver, long after their easy implementation. With any *Lightspeed Systems* solution, you can depend on:

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We Welcome Your Calls and Emails

Lightspeed Systems
1800 19th Street
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LIGHTSPEED
SYSTEMS

FEATURES

- **Comprehensive and accurate** URL database with more than one billion entries grouped into education-specific categories.
- **Multiple layers of anonymous proxy detection** and blocking to keep users from bypassing your filter and accessing blocked sites.
- **netTrekker d.i. integration** to ensure seamless access to approved netTrekker sites.
- **Protection for school computers outside the network**—without a VPN, from any location, with any type of Internet connection—via the Guide Mobile Filter.
- **Flexible filtering for thin clients**, including NComputing, Citrix, and Windows Terminal Server.
- **Ability to create different policies** based on user, IP, group, organizational unit, domain.
- **Peer-to-peer application** and file-type blocking.
- **Integration with Student Information Systems** for comprehensive, individualized user information and custom reporting.
- **Daily signature updates**, and immediate emergency updates, directly from Lightspeed Systems.
- **Ability to accommodate even the heaviest traffic loads**, up to 1 GB of Internet bandwidth, without hindering performance.
- **Hardened and secured** operating system.
- **Network threat protection.**
- **Educational Video Library** to share approved YouTube videos.
- **NEW! My Big Campus with a Resource Library and Collaboration site for safe Web 2.0 access.**

 **Lightspeed Web Access Manager**

Also available as Lightspeed Web Access Manager, a software-only solution for smaller networks.

Ensure safe web browsing on your high-capacity network with comprehensive, customizable filtering and features for safe Web 2.0 access

Regulations, policies, safety, and security all make an Internet filter essential in schools. But over-blocking limits the potential of the Web to promote participatory learning and acquisition of 21st-century skills. And on large networks with high bandwidth, other filtering solutions can create bottlenecks and slow down traffic. Web access management on high-capacity networks needs to balance educational Web 2.0 use with network security and student safety—while maintaining network performance.

The Lightspeed Rocket, Web Access Manager provides an integrated hardware-software solution for web filtering—offering intelligent features for customization, granular policy control, safe Web 2.0 access, and mobile filtering—to ensure safe web browsing for your users and speed and reliability for your network.

BENEFITS

Protects users from inappropriate material on the Internet. The Lightspeed Rocket, Web Access Manager detects and/or blocks access to inappropriate material on the Internet based on our extensive, education-specific URL database, as well as your own custom allow and block lists. For optimal effectiveness and efficiency, the web filtering appliance is placed inline in order to see, evaluate, and report on all network traffic.

Keeps searches safe. The Lightspeed Rocket, Web Access Manager ensures that search results on Google and other popular search engines do not include inappropriate sites or images, such as pornography and sexual content.

Provides safe Web 2.0 access. The Lightspeed Rocket, Web Access Manager promotes a balance between learning and security by offering safe, easily-managed ways to access Web 2.0 tools and resources, share online resources, and engage in participatory learning.

Ensures speed and power. The Lightspeed Rocket, Web Access Manger includes a high-speed appliance, operating on top of a hardened and secured operating system, preinstalled with our best-of-breed Internet filtering software. This integrated solution provides fast, reliable web filtering for your high-capacity network.

Comprehensive, Customizable Reporting

The Lightspeed Rocket, Web Access Manager gives you access to comprehensive information about who is viewing what over the Internet, so you can adjust Acceptable Use Policies, change allowed usages, review problems and troubleshoot issues, and plan for ongoing needs. You can see a high-level overview of content viewed and blocked, and then drill down for detailed information, with reports like:

- Blocked Content
- Search Engine Queries
- Blocked URLs
- URLs visited
- Traffic by Category
- Overrides (active and history)

	Standard	Redundant
CAPACITY		
Throughput (Mb/sec)	1Gb	1Gb
HARDWARE		
Rackmount chassis	1U	1U
Dimensions (WxHxD in.)	16.8 x 1.7 x 22.6	17 x 1.7 x 25.6
Failover NIC	1Gb	1Gb
Power supply	Single	Dual Hot Swap
Storage	Single Drive	4 Hot Swap RAID 10 Drives

Network Solutions for Safe Online Learning

Software solutions

Manage your school network with our all-in-one solution or its components:



Lightspeed Total Traffic Control

Filter, secure, manage, and monitor with a single solution.



Lightspeed Web Access Manager

Ensure safe web browsing with customizable filtering and features for safe Web 2.0 access.



Lightspeed Email Manager

Archive and report on communications, while blocking spam.



Lightspeed Security Manager

Block viruses, spyware, and malware with desktop and gateway security.



Lightspeed Network Traffic Manager

Control traffic with bandwidth management.



Lightspeed Power Manager

Manage energy use with automated power management.

High-capacity network solutions

High-performance, scalable appliance-based school network solutions:



Lightspeed Rocket Web Access Manager

Ensure safe web browsing on your high-capacity network with comprehensive, customizable filtering and features for safe Web 2.0 access.

Lightspeed Rocket Email Manager

Efficiently block spam on your high-capacity network, while archiving and reporting on communications.

Customize your high-capacity network solution with the addition of our other software products.

Get a comprehensive, cost-saving solution for your high-capacity network by combining the two Rocket appliances with Security Manager, Network Traffic Manager, and Power Manager.

About Lightspeed Systems

Lightspeed Systems Inc., founded in 2000, develops comprehensive network security and management solutions for the education market. We are committed to helping schools operate their networks effectively and efficiently, so educators can provide safe online teaching and learning environments.

Exceptional Service and Support

Our unparalleled service and support mean our solutions will continue to deliver, long after their easy implementation. With any Lightspeed Systems solution, you can depend on:

- 24/7 live-person phone technical support.
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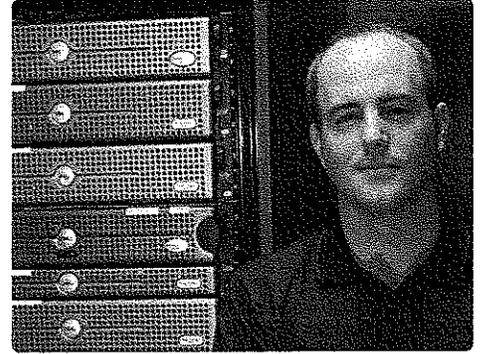
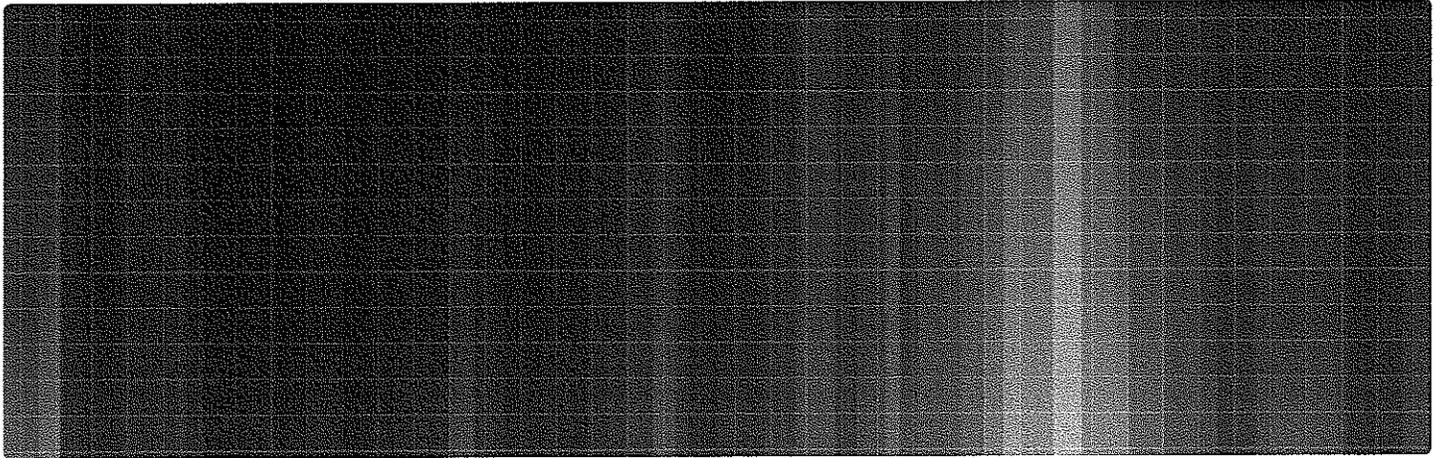
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Guide To Intelligent Filtering

How you can filter more effectively and efficiently



Network solutions for safe online learning

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Introduction

Filtering is a necessity in schools, for student safety, CIPA compliance, AUP adherence, and network security. But in order to filter effectively and efficiently, schools must do more than just install an Internet filter.

They have to stay ahead of the kids, ensuring that proxy tunnels don't allow users to bypass the filter and access inappropriate sites. They have to monitor and report on the effectiveness of the filtering, including reviewing blocked and visited sites. They have to ensure that over-blocking doesn't limit the educational potential of the Internet, and that under-blocking doesn't compromise student safety. And they have to do all these things in an under-staffed, budget-constrained environment.

In today's schools, a web filtering solution has to do more than block inappropriate sites. It needs to balance educational Web 2.0 use with student safety and network security.

Your school's Internet filter serves many important purposes that help make your school network a powerful resource for safe and secure learning. Effective, intelligent filtering requires that you meet the goals of filtering while addressing its inherent challenges.

Goals of Web filtering:

- Safety of students
- Security of network
- Identify cyberbullying
- CIPA compliance
- Enforcement of Acceptable Use Policies

Challenges to overcome:

- Balance between learning and education
- Meet needs of various groups and individuals
- Ensure over-blocking doesn't hinder learning
- Ensure under-blocking doesn't impede safety and security
- Enforce policies despite sophisticated new proxy technologies
- Provide safe access to Web 2.0 tools to encourage participatory learning

It is possible to filter effectively and efficiently, meeting these goals while overcoming the challenges. This Guide to Intelligent Filtering will provide information to help you most effectively utilize filtering technology on your school network.

This Guide includes:

- An overview of considerations when choosing an Internet filter
- Information about how you can seal up proxy tunnels
- Information on how mobile filtering can help make your 1:1 initiatives a success
- Information on incorporating safe Web 2.0 use in schools
- Information on using filtering to ensure CIPA compliance
- Information on using filtering to prevent Cyberbullying
- Real-world stories of schools that effectively utilize filtering
- Documentation on Lightspeed solutions that can help you filter more effectively

Considerations for Choosing a Filtering Solution

When choosing a filtering solution, you need to look at several factors that will ensure security, compliance, balance, flexibility, and innovation.

Database

Filtering databases should be public, allowing users to easily see what sites are blocked and why. Schools have different filtering needs than businesses. Filters designed for use by any organization often don't fit the specific needs of an educational institution. A comprehensive database that organizes sites into education-specific and grade-specific categories gives schools the ability to filter for their specific needs and adjust policies for different groups of students.

CIPA Compliance

The Children's Internet Protection Act (CIPA) is a federal law passed by Congress in 2000 to help ensure the safety of children accessing the Internet over school and library computers. The act requires schools and libraries to use filtering to block dangerous or offensive material from minor users. To meet the mandates of this law, you should choose a filtering solution designed for schools, with the specific requirements of CIPA in mind.

Proxy blocking

Proxies bypassing the Internet filter are a critical issue school IT administrators face. As proxies gain both new levels of sophistication and accessibility, filters must deliver equally sophisticated methods for blocking anonymous, unsecure, and secure proxies.

Cyberbullying

Cyberbullying is a problem that can't be ignored. Research indicates that almost half of all teens have experienced cyberbullying. To prevent, identify, and address cyberbullying issues in your school, you need a filter that can limit access to sites known for cyberbullying; block keywords related to cyberbullying; report on suspicious behavior; and deliver a detailed record of online activities.

Flexibility

Every school is different, and within each school are different users with different web browsing needs. A one-size-fits-all filter cannot deliver the flexibility to allow for these differences. Beyond a comprehensive database, an effective filtering solution should allow for customized allow and block lists, as well as the ability to set different filtering profiles for different users or groups.

Searching

Web content filtering prevents access to inappropriate sites, but cannot prevent inappropriate search results from populating in a search request. An effective filtering solution needs to incorporate "Safe Search" mechanisms to ensure that search results don't contain dangerous or offensive content and images.

Balance

While under-blocking can limit the safety and security a filter provides, over-blocking can keep users from accessing valuable educational content on the Web. Technology learning and the integration of technology into the curriculum are vital to developing students' 21-st century skills. Innovative features with the educational market in mind, and customizability to individual needs, can help create a balance between learning and safety.

Web 2.0

Web 2.0 makes technology an active and collaborative rather than a passive medium. However, to ensure security and safety of the ever-changing content on Web 2.0 sites, filtering solutions often block all Web 2.0 content. An effective filtering solution should deliver innovative solutions to make Web 2.0 content safe for student use, promoting participatory learning and collaboration within safe environments.

Mobile Users

Internet filters often block access to inappropriate sites when the computers on which they are installed are on the network. But when mobile users use school computers off the network, they can be exposed to inappropriate content, and the computers to damaging viruses and spyware. An effective filtering solution needs to work for both desktop and mobile users.

Reporting

To understand the effectiveness of your filter, you need information about how well it is working. Comprehensive reporting about blocked sites, accessed sites, search phrases, and more can give you the information you need to adjust policies, confront breaches in acceptable use policies, and fine-tune your filtering criteria.

CIPA Compliance

The Children's Internet Protection Act (CIPA) is a federal law passed by Congress in 2000, and updated and clarified since, to help ensure the safety of children accessing the Internet over school and library computers. The act requires schools and libraries to use filtering to block dangerous or offensive material from minor users.

Any organizations that receive funding through E-Rate or the Universal Service Fund must certify that they are meeting the requirements of CIPA.

What CIPA Requires

Any organization included under the CIPA guidelines must meet the following four criteria: A Technology Protection Measure, An Internet Safety Policy, an education program, and a policy to monitor the online activities of minors.¹

1. Utilize a Technology Protection Measure.

A Technology Protection Measure is defined as: "a specific technology that blocks or filters Internet access to visual depictions that are – (A) obscene (B) child pornography; or (C) harmful to minors."²

The term "harmful to minors" is further defined as:

"Any picture, image, graphic image file, or other visual depiction that-- (A) taken as a whole and with respect to minors, appeals to a prurient interest in nudity, sex, or excretion; (B) depicts, describes, or represents, in a patently offensive way with respect to what is suitable for minors, an actual or simulated sexual act or sexual contact, actual or simulated normal or perverted sexual acts, or a lewd exhibition of the genitals; and (C) taken as a whole, lacks serious literary, artistic, political, or scientific value as to minors."³

Filtering is required on all computers, whether used by adults or minors. However, the filtering may be disabled for adult users when requested.

2. Create and enforce an Internet Safety Policy.

This required policy must address:

- a) Access by minors to inappropriate matter on the Internet
- b) The safety and security of minors when using electronic mail, chat rooms, and other forms of direct electronic communications
- c) Unauthorized access, including so-called "hacking," and other unlawful activities by minors online
- d) Unauthorized disclosure, use, and dissemination of personal information regarding minors
- e) Restricting minors' access to materials harmful to them⁴

3. Monitor online activities of minors

Schools must also adopt and enforce a policy to monitor the online activities of minors.

4. Education program

Schools and libraries must also certify that minors are being educated about appropriate online behavior. This should include information about cyberbullying, the sharing of personal information, and online communication.

CIPA Compliance with Lightspeed

Content filtering is a primary feature of CIPA, as well as most school Acceptable Use Policies outlining web browsing behavior. Content filtering allows schools to block content that is dangerous or inappropriate for minors.

Lightspeed Web Access Manager ensures that users' web browsing is in line with CIPA mandates as well as Acceptable Use Policies – while they are on the network or when utilizing school computers off the network. Our education-specific database is comprehensive and accurate, ensuring that inappropriate sites are no longer a click away, but that valuable content remains available to users.

Web Access Manager detects and/or blocks access to inappropriate material on the Internet based on our extensive, education-specific URL database with more than one billion entries, as well as your own custom allow and block lists. Our content filter groups sites into about 120 school-specific categories based on subject matter and age-appropriateness, providing easy review and administration.

Sealing Up Pesky Proxy Problems

Students bypassing a school's Internet filter is a great concern, for maintaining student safety as well as CIPA compliance. As proxy technology becomes more complex in attempts to anonymously tunnel users through content filters, Lightspeed Systems continues to develop new proxy-blocking methods. By blocking secure, unsecure, and anonymous proxies, you can ensure that Acceptable Use Policies are enforced and CIPA compliance is maintained.

Two thirds of respondents to Lightspeed Systems' survey, 2007's Top IT Headaches for K-12 Schools, indicated that proxies bypassing the Internet filter was a somewhat critical or critical issue. Clearly, over the past two years proxies have gained both new levels of sophistication and accessibility.

Consider the very popular proxy UltraSurf. Its website, UltraReach.com, boasts, "[T]he most prominent features of UltraSurf 8 are that it has implemented a complex proxy with complete transparency and a high level of encryption on the Microsoft Internet Explorer (IE) platform. ... UltraSurf 8 implements almost all browser functions based on HTTP and user needs, such as browsing websites, login and posting on web forums, using Web mail, uploading and downloading data files, real time audio, video and other multimedia programs, etc."

Since you can only enforce acceptable use policies on traffic you can see, recognizing and blocking such "anonymizers" is essential – and requires some very sophisticated software.

Proxy Blocking with Lightspeed

As proxy technology becomes more complex in attempts to anonymously tunnel users through content filters, Lightspeed Systems continues to develop new proxy-blocking methods. These methods fall into five categories.

Block unknown URLs

When a newly created site hits the Internet, no content filter has it categorized. It is "unknown." Not knowing if it's "safe to allow" is why many choose to block all unknown URLs, that is, block access to all URLs that are not in the database. Further, Lightspeed can be automatically notified of the new URL, which triggers an immediate review to categorize and add it to the content database. In turn, database updates are pushed out daily. This option to block unknown URLs can be enforced for all users, students only, or any group you define with separate policies.

Block categorized domains and IP addresses of known proxies

Proxy sites cannot hide from Lightspeed for long. Through Lightspeed's constant downloading of the entire Internet, proxy sites are easily detected and categorized accordingly. Further, Lightspeed customers submit new proxies every day. A scheduled task automatically forwards previously unknown websites that users attempted accessing, and these are analyzed and categorized accordingly. The content database now includes more than 25 million categorized addresses and is open for review.⁵

Block unknown URLs matching proxy patterns

A more direct, real-time approach to block proxies is to block all unknown URLs with matching proxy patterns. When a user attempts to access a site that is not in Lightspeed's content database, Total Traffic Control will search for signs of proxy activity using on-the-fly, deep-packet inspection. When a request matches one of the hard-coded patterns, Lightspeed blocks the request and logs the attempt. As proxy methods evolve, Lightspeed will continue to add patterns.

Block all proxied requests

By choosing to block all proxied requests, you can prevent access to the Internet if a web request is using any proxy server. For instance, if a user configures his browser to use either a local or external proxy server, all web requests will be immediately blocked, regardless of destination. Any third-party browser plug-ins designed to utilize the browser's proxy settings will also be blocked.

Block proxies at the desktop

Finally, desktops with Security Agent installed can stop proxies in two additional ways – through Lightspeed-distributed signatures that identify the proxy service application as a virus and by disabling read/write access to removable media.

With these defenses in place, you can win the proxy battle. And rest assured, Lightspeed will continue to add lines of defense as necessary.

Mobile Learning

Handhelds, laptops, netbooks and tablet PCs are being handed out to students in districts across the country. Students can take the computers home to continue their learning and their technology interaction even after school hours.

- 1:1 initiatives offer many benefits to students and teachers:
- Provide regular, consistent interaction with technology
- Encourage learning after school hours
- Provide consistent, fair access to technology for all students
- Allow students to utilize technology in a location/time of their choice
- Give students greater access to learning resources
- Increase teacher-student communication

In fact, research has shown that learning is enhanced when students use computers at home to continue work initiated at school. The results of a three-year study showed that:

“Extensive use of laptop computers, in conjunction with teacher development in technology integration, results in increased time working away from the school, enhanced competency and confidence in computer use, and improved performance on measures of writing ability.”⁶

Project RED: Revolutionizing Education, which is an Apple-sponsored research project aimed at measuring how technology can help schools save money and improve instruction, revealed through recent research that the national average of schools with 1:1 (or ubiquitous) technology programs is about 5.4 percent.

The Need for Mobile Filtering

A successful 1:1 initiative must also recognize the inherent risks that come with allowing students to utilize school resources away from the school network. When school computers leave the network, both the computers and the users can be exposed to harmful content and safety and security risks.

Blocking access to the Internet when the mobile device is off the school network may seem like a viable option, but it stifles the learning process and severely limits the purpose of the initiative: to encourage learning any place, any time.

Instead, schools need a solution that extends their on-network policies and protection to users who take their mobile devices off the network.

Mobile filtering offers many benefits:

- Ensures students are protected from harmful content when they use school resources off the network
- Maintains CIPA compliance for users off the network
- Protects mobile computers from damaging viruses and spyware
- Protects districts from liability for issues on school-owned resources

Mobile Filtering with Lightspeed

To provide districts with the protection they, and their students need, as they launch 1:1 initiatives, Lightspeed offers The Guide Mobile Filter.⁷ The Guide Mobile Filter extends your policies and protection with flexible filtering when computers are off the network. Whether your mobile users are part of a 1:1 initiative or just staff bringing laptops on and off the network, the Guide Mobile Filter will protect them and enforce your Acceptable Use Policies.

Benefits of the Guide Mobile Filter

Extends policies and protection to off-network computers. Your Acceptable Use Policies protect both your users and your equipment. Laptops taken off the network are often free from the content filtering used within the network, opening users up to inappropriate content and equipment to dangerous web sites. The Guide Mobile Filter delivers flexible filtering for off-network computers, ensuring that blocked sites remain blocked – no matter where the computer is being used.

Keeps users safe with comprehensive filtering. The Guide Mobile Filter detects and/or blocks access to inappropriate material on the Internet based on our extensive, education-specific content database, as well as your own custom allow and block lists, helping to ensure user safety and CIPA compliance.

Reduces the cost, time, and frustration of compromised computers. By blocking sites known as threats for spyware, malware, and viruses, the Guide Mobile Filter helps keep your school computers secure and safe when they are off the network, helping to keep computers clean and functioning properly.

Key Features of the Guide Mobile Filter:

- CIPA-compliant Internet filtering for mobile computers
- Comprehensive and accurate education-friendly content database with more than one billion entries

- Reporting of off-network activity, including Blocked URLs, Blocked URLs by Category, Unknown URLs, URLs Visited
- Ability to block all forms of proxy servers (anonymous and secure)
- Forced SafeSearch for Google and Yahoo search engines
- Local policy control (Active Directory and LDAP)
- Password-protected uninstall
- Full support for PCs and Macs
- Works from any location, with any type of Internet connection – without the need for a VPN

Cyberbullying

The National Crime Prevention Council defines cyberbullying as: “When the Internet, cell phones or other devices are used to send or post text or images intended to hurt or embarrass another person.”⁸ The increasing use of these technologies by children has led to an increase in the occurrence of cyberbullying, with often devastating and violent consequences.

Cyberbullying is a problem that can't be ignored. Research indicates that almost half of all teens have experienced cyberbullying. One in four have had it happen more than once. And 35% of kids have been threatened online.⁹

In many cases, cyberbullying can be more extreme and damaging than other types of bullying because of the anonymity on online personas and the prevalence of the Internet in children's lives. Bullies can feel protected by the Internet, and may therefore be more vicious. The bullied students may not know the attacker, and may feel powerless to fight it. In addition, cyberbullying can occur 24 hours a day, anywhere, without the protection of home or school walls.

Types of cyberbullying

Cyberbullying can take many forms. Properly identifying and preventing cyberbullying requires an understanding of the different ways technology can be used to hurt others.

In “An Educator's Guide to Cyberbullying and Cyberthreats,”¹⁰ Nancy Willard breaks down cyberbullying into these categories:

- **Flaming.** Online fights using electronic messages with angry or vulgar language.
- **Harassment.** Repeatedly sending nasty, mean, and insulting messages.
- **Denigration.** “Dissing” someone online. Sending or posting gossip or rumors about a person to damage his or her reputation or friendships.
- **Impersonation.** Pretending to be someone else and sending or posting material to get that person in trouble or damage their reputation.
- **Outing.** Sharing someone's secrets or embarrassing information or images online.
- **Trickery.** Tricking someone into revealing secrets or embarrassing information and then sharing it online.
- **Exclusion.** Intentionally and cruelly excluding someone.
- **Cyberstalking.** Repeated, intense harassment and denigration that includes threats or creates significant fear.

Best Practices for Preventing Cyberbullying

1. Create policies and educate users. As part of their policies for acceptable use of the Internet and other technologies, schools should address cyberbullying. In addition to educating students and faculty on what cyberbullying is and why it will not be tolerated, specific guidelines for acceptable communication and clear consequences for cyberbullying behavior should be laid out.

2. Prevent the use of inappropriate sites or the sending of inappropriate messages. Some sites, such as unmoderated chat rooms, have been shown to be particularly prone to cyberbullying. By blocking, or limiting access to such sites, cyberbullying from the school network can be prevented. Also, blocking access to sites with inappropriate content and blocking messages that contain inappropriate words can help prevent cyberbullying. Because students are often adept users of technology, it is also important that Internet filters employ sophisticated means to prevent users from bypassing Internet filters with proxy tunnels.

3. Monitor adherence to policies and adjust as necessary. To ensure that policies are being adhered to, it is important that suspicious browsing, emailing, attachments, and instant messaging be regularly reviewed. When inappropriate behavior is identified, policies and filters should be adjusted to stop that behavior.

4. Preserve the evidence. In order to investigate instances of cyberbullying, schools should keep records of inappropriate behavior and archive email messages. This information can help school officials talk with students, as well as inform legal authorities, should they need to be involved in serious cases.¹¹

Preventing Cyberbullying with Lightspeed

Lightspeed Systems is committed to helping schools maintain the safety and security of their networks, in order to create an effective 21st-century learning environment. Our solutions help schools address the issues that impact the use of the network and the Internet while ensuring a balance between safety and learning.

To prevent, identify, and address cyberbullying issues in your school, Lightspeed offers best-of-breed solutions with essential features for filtering, monitoring, and reporting on user behavior.

Prevent

Preventing certain communications and browsing behaviors can reduce the possibility of cyberbullying on your school network.

With Lightspeed you can prevent behavior that could lead to cyberbullying:

- Keep users from bypassing your filter and accessing blocked sites with multiple layers of secure, unsecure, and anonymous proxy detection and blocking
- Block web sites categorized as containing adult and pornographic subject matter, and web sites categorized as promoting violence, hate, and weapons
- Block web sites categorized as containing unmoderated forums, instant messaging services, web mail services, chat and dating services, as well as personal and social networking services.
- Block web sites promoting and/or supporting illicit and illegal network intrusion and infiltration
- Filter mobile users of school computers with the Guide Mobile Filter, which provides filtering protection – without a VPN, from any location with any type of Internet connection
- Filter email content to ensure that communications do not contain offensive material or keywords

Identify

Early identification of cyberbullying can minimize the impact and consequences of the behavior.

With Lightspeed, you can monitor user behavior and identify possible cyberbullying with:

- Comprehensive and customizable reporting and alerts for suspicious activity on the network
- The ability to drill-down to investigate the browsing and messaging behavior of individual users
- Searching on specific keywords related to hate, violence, or other inappropriate content

Address

Should cases of cyberbullying be identified, documentation and adjustment of policies can allow school officials to effectively address the situation.

With Lightspeed, you can be equipped to address cases of cyberbullying with:

- Archival of inbound and/or outbound SMTP traffic, AOL Instant Messaging (AIM) and MSN Messenger, and attachments (including documents, programs, and multimedia files)
- Message file storage with indexing parameters for: From, To, Subject, Date, Keywords, and Body Text
- The ability to modify policies for specific users
- The ability to integrate your Lightspeed solution with your Student Information System (SIS) for a complete view of individual student activity and progress

Web 2.0 in Schools

From social networking to video sharing and blogging, Web 2.0 has transformed the Internet, and has the power to transform education.

On his web site Tim O'Reilly defines Web 2.0 as:

Web 2.0 is the business revolution in the computer industry caused by the move to the internet as platform, and an attempt to understand the rules for success on that new platform. Chief among those rules is this: Build applications that harness network effects to get better the more people use them.¹²

By definition, Web 2.0 technologies are collaborative and social. They encourage discussion and sharing. All of these things make them well-suited to an active, rather than passive, learning environment. But while the use of Web 2.0 technologies in schools can enhance learning and help students develop essential 21st-century skills, concerns about safety, security, bandwidth, and more prevent many schools from utilizing these resources.

Web 2.0 offers many advantages for collaborative, engaging, active learning. But it also opens up some risks to safety and security. Lightspeed Systems and netTrekker recently sponsored a survey to determine which Ed 2.0 tools schools are using and why.¹³

The most often cited reasons for adopting Web 2.0 technologies were:

1. Learning needs
2. Engaging student interest
3. Increasing students' options for access to teaching and learning

Districts are at different stages of use and adoption of different Web 2.0 technologies. Several examples follow.

Online communication with parents and students and multimedia resources are used by many teachers, and most districts have plans/policies that promote their use.

Teacher-generated online content is used by a significant number of teachers. District technology leaders value sharing of teacher-generated online content as a way of sharing expertise and not having to constantly “reinvent the wheel.”

Student use of virtual learning environments (including online courses) was uncommon on the part of teachers in most districts. However, more than one-third of the districts have plans/policies that promote the use of this technology, and more districts are considering their plans/policies related to it.

Online social networking as part of instruction, on the other hand, is used by very few teachers, and many districts' policies don't allow use of this technology. Key barriers to adoption appear to be:

- Lack of teacher knowledge/professional development
- Concerns about student safety and security
- Lack of time
- Insufficient access to technology

YouTube is the third most popular site on the Web, with more than 100 million US viewers (more than 20% under age 18) watching nearly 15 billion videos a month. Though many districts block access to YouTube because of risks to network security and student safety, access to YouTube videos is one of the primary requests school network administrators receive. After all, YouTube is rife with educationally-rich videos; and research shows that kids learn well through engaging multimedia presentations, including videos.

Research continues to show that students learn better when they are active participants in their education, rather than just passive recipients of information. We also know that students feel disengaged from technology and communication when they “power down” in schools and leave their usual methods of communication and information-access behind.

Participatory learning allows students to use the technology that is an integral part of their lives to collaborate and communicate – making education an active, enriching, long-lasting process.

From Wikipedia to individual blogs, it is clear that we can learn better together than we can alone. Unfortunately, because of the safety risks of Web 2.0 sites and the challenges of filtering their ever-changing content, students often don't get to engage in the participatory learning that the Internet offers.

In today's schools, with today's digital learners, web filtering needs to be about more than blocking inappropriate content. It must be about creating a safe online experience that gives students the educational benefits of the Web – without the content and security risks.

Integrating Web 2.0 safely with Lightspeed

Lightspeed Web Access Manager has an innovative new feature, My Big Campus, to give you the intelligent filtering solution you need – safely providing access to Web 2.0 features and online content within a controlled, monitored, secure environment.

My Big Campus includes a Resource Library, where you can share and access videos, web sites, documents, PDFs, and more. It also includes a Collaboration Site, where teachers and students can communicate and collaborate within a safe environment.

What could your district do with My Big Campus?

- Access thousands of educational videos, web sites, and other resources
- Implement collaborative student projects
- Report on activity and comply with policies
- Teach students about online communication
- Get feedback on teaching ideas and lesson plans
- Manage class assignments and assist with homework
- Connect with students and classes for long-distance collaborative lessons
- Extend Professional Learning Community efforts
- Allow students to write and publish within a closed community
- Start an online pen pal project
- Create online study groups

The possibilities are endless.

About Lightspeed Web Access Manager

Lightspeed Web Access Manager provides flexible filtering for school networks, ensuring that users' web browsing is in line with Acceptable Use Policies – while they are on the network or when utilizing school computers off the network. Our education-specific database is comprehensive and accurate, ensuring that inappropriate sites are no longer a click away, but that valuable content remains available to users.

Lightspeed Web Access Manager provides powerful, easy-to-use features for filtering and monitoring web browsing.

- Comprehensive and accurate education-friendly URL database with more than one billion entries grouped into more than 130 school-specific categories based on subject matter and age-appropriateness, providing easy review and administration.
- Multiple layers of anonymous proxy detection and blocking to keep users from bypassing your filter and accessing blocked sites.
- **Educational Video Library** allows teachers to share approved YouTube videos with students. Video approval can be delegated to teachers or curricular leaders.
- **NEW! My Big Campus** offers safe access to Web 2.0 tools, including a Resource Library to post, view, and share online resources as well as a Collaboration site.
- netTrekker d.i. integration to ensure seamless access to approved netTrekker sites.
- Integration with Google and Yahoo! "SafeSearch" to screen for sites that contain explicit sexual content and delete them from search results.
- Cross-platform protection for school computers outside the network – without a VPN, from any location, with any type of Internet connection – via the **Guide Mobile Filter**.
- Flexible filtering for thin clients, including nComputing, Citrix, and Windows Terminal Server.
- Ability to create different policies based on user, IP, group, organizational unit, domain.
- Peer-to-peer application and file-type blocking.
- Integrates with Student Information Systems for comprehensive, individualized user information and custom reporting.
- Daily signature updates, and immediate emergency updates, directly from Lightspeed Systems.
- Ability to accommodate even the heaviest traffic loads, up to 1 GB of Internet Bandwidth, without hindering performance.

For large, distributed, or high-bandwidth networks, Lightspeed Web Access Manager is also offered as the Lightspeed Rocket, Web Access Manager – a high-performance appliance-based solution for high-capacity networks.

Lightspeed Systems Solutions

Lightspeed Systems is committed to helping schools of all sizes operate their networks effectively and efficiently, so educators can provide a safe online teaching and learning environment. Our solutions allow you to more effectively and efficiently filter, secure, monitor, manage, and optimize your school network.

SOFTWARE SOLUTIONS

Manage your school network with our all-in-one solution or its components:



Lightspeed

Total Traffic Control

Total Traffic Control – Total Traffic Control is the complete solution for managing your school network's usage, health, and security. With this comprehensive solution you can monitor user activity, ensure Acceptable Use Policies are being followed (on email, the Web, or the desktop – both on the network and off), reduce dangerous and costly security threats, ensure school resources are utilized safely and effectively, and easily view and share critical information with custom reports.



Lightspeed

Email Manager

Lightspeed Email Manager – Email abuse can degrade network performance, leave your system vulnerable to threats, and expose users to time-wasting and offensive content. Lightspeed Email Manager lets you monitor, regulate, report on, and archive all messaging communications, ensuring that your Acceptable Use Policies on email usage are being enforced.



Lightspeed

Web Access Manager

Lightspeed Web Access Manager – Regulations, policies, safety, and security all make an Internet filter essential in schools. But over-blocking limits the potential of the Web to promote participatory learning and acquisition of 21st-century skills. Web access management needs to do more than filter inappropriate content—it needs to balance educational Web 2.0 use with network security and student safety. Lightspeed Web Access Manager provides an intelligent solution for web filtering—offering features for customization, granular policy control, safe Web 2.0 access, and mobile filtering—to ensure that inappropriate sites are no longer a click away, but that valuable content remains available to users.



Lightspeed

Educational Video Library

Educational Video Library –teachers to give their students access to valuable Web 2.0 learning resources, without the content risks. With this feature, you can easily allow teachers and students to play approved YouTube videos. Teachers can tag, search, and review approved videos.

 **Guide Mobile Filter**

Guide Mobile Filter – When school computers leave the network, both the computers and the users can be exposed to harmful content and safety and security risks. Mobile Internet filtering reduces the cost, downtime, and frustration associated with computers that have a tendency to be compromised while off the network. Whether your mobile users are part of a 1:1 initiative or just staff bringing laptops on and off the network, the Guide Mobile Filter will protect them and enforce your Acceptable Use Policies.

 **Big Campus**

NEW! My Big Campus – Teachers want access to educational content on the Web; students clamor for more technology and collaboration; IT staff needs to maintain network security, CIPA compliance, user safety, and Acceptable Use Policy enforcement. Web access management needs to do more than block inappropriate content – it needs to balance educational Web 2.0 use with network security and student safety. Lightspeed Web Access Manager has an innovative new feature, My Big Campus, to give you the intelligent filtering solution you need – safely providing access to Web 2.0 features and online content within a controlled, monitored, secure environment.

 **Network Traffic Manager**

Lightspeed Network Traffic Manager – Network misuse, tight resources, and lack of information can make managing your network time-consuming and frustrating. Lightspeed Network Traffic Manager lets you keep an eye on your overall network health with advanced reporting, and keep critical applications running on your busy network with bandwidth management capabilities.

 **Security Manager**

Lightspeed Security Manager - Potential threats lurking inside and outside your network can compromise safety, expose systems to harm, and lead to costly and time-consuming problems. Lightspeed Security Manager allows you to easily maintain the health of computers across your network by stopping known and unknown threats to your servers and desktops with a comprehensive database and with an advanced, stateful inspection of network traffic.

 **Power Manager**

Lightspeed Power Manager – Energy consumed by unattended, unused computers across your network can drain your budget, as well as natural resources. An add-on to your Lightspeed implementation, Lightspeed Power Manager provides sustainable energy savings across your network by monitoring energy usage and directing low-power states and shutdown times, saving up to \$75 per PC annually. The quick return on investment and ongoing cost savings are documented with detailed reports.

HIGH-CAPACITY NETWORK SOLUTIONS

High-performance, scalable appliance-based school network solutions



Lightspeed Rocket, Web Access Manager – Ensure safe web browsing on your high-capacity network with comprehensive, customizable filtering and features for safe Web 2.0 access.



Lightspeed Rocket, Email Manager – Efficiently block spam on your high-capacity network, while archiving and reporting on communications.

Learn more about these solutions at www.lightspeedsystems.com/products

Conclusion

The Internet offers valuable benefits – but is also full of content that can be harmful to minors. To comply with CIPA regulations and Acceptable Use Policies, you have to ensure that students are protected from potentially dangerous and inappropriate content.

But effective and efficient filtering requires that schools balance learning and security; stay ahead of filter-bypassing technologies; utilize features for customization and flexibility; and monitor the effectiveness of the filtering solution with actionable reports.

Lightspeed is committed to helping schools create safe online learning environments, with a viable balance between learning and safety. That's why our Internet filter has a comprehensive, education-specific database; flexibility and customizability for your needs; innovative features to make collaborative Web 2.0 learning safe in schools; and a team of friendly, responsive live people to support you.

For More Information

Lightspeed Systems Inc., founded in 2000, develops comprehensive network security and management solutions for the education market. We are committed to helping schools operate their networks effectively and efficiently, so educators can provide safe online teaching and learning environments.

Our software is used in more than 1,000 school districts in the United States, the United Kingdom, and Australia to protect more than 5 million students. For the past two years, Lightspeed Systems has been recognized on the Inc. 5,000 list as one of the fastest-growing private companies.

www.lightspeedsystems.com

- Watch a 5-minute overview of our solutions:
http://www.lightspeedsystems.com/resources/Lightspeed_TTC_Demo.html
- Register for a live web demo: <http://www.lightspeedsystems.com/demo/>
- Get our Information Papers and valuable information in your Resource Center:
<http://www.lightspeedsystems.com/resources/Default.aspx>

¹ http://www.e-ratecentral.com/CIPA/Childrens_Internet_Protection_Act.pdf

² http://www.e-ratecentral.com/CIPA/Childrens_Internet_Protection_Act.pdf

³ http://www.e-ratecentral.com/CIPA/Childrens_Internet_Protection_Act.pdf

⁴ <http://www.fcc.gov/cgb/consumerfacts/cipa.html>

⁵ Review the database at <http://www.lightspeedsystems.com/Search>

⁶ <http://caret.iste.org/index.cfm?fuseaction=evidence&answerID=27>

⁷ The Guide Mobile Filter is a built-in feature of Lightspeed Web Access Manager. For more information on Web Access Manager, visit www.lightspeedsystems.com/products/WebAccessManager.aspx

⁸ <http://www.ncpc.org/cyberbullying>

⁹ http://www.isafe.org/channels/sub.php?ch=op&sub_id=media_cyber_bullying

¹⁰ <http://www.cyberbully.org/cyberbully/docs/cbcteducator.pdf>

¹¹ <http://www.teachernet.gov.uk/wholeschool/behaviour/tacklingbullying/cyberbullying/respondingtocyberbullying/investigation/>

"Schools should advise pupils and staff to try to keep a record of the abuse, particularly the date and time, the content of the message(s), and where possible a sender's ID (e.g. username, email, mobile phone number) or the web address of the profile/content. For example, taking an accurate copy or recording of the whole web-page address will help the service provider to locate the relevant content.... Keeping the evidence will help in any investigation into the cyberbullying by the service provider, but it can also be useful in showing what has happened to those who may need to know, including parents, teachers, pastoral-care staff and the police."

¹² <http://radar.oreilly.com/archives/2006/12/web-20-compact-definition-tryi.html>

¹³ Get the complete report, Safe Schools in a Web 2.0 World: <http://www.lightspeedsystems.com/resources/Information-Paper-Request-Form.aspx?Requested=SafeSchools>



CASE STUDY

School: Willows Unified School District

District Size: 1,700 Students

Solution: Total Traffic Control

Focus: Filtering



"With the dismal budget for education in California, consolidating with a single solution gives me more features, like antivirus protection and bandwidth management, without additional costs."

Bob Lillie

Director of Technology Services
Willows Unified School District

Lightspeed Customer Success

Willows Tackles Tight School Budgets with a Single Solution

Overview

In the small town of Willows, north of Sacramento, the challenges of managing a school network are multiplied by the limited resources: only two people manage the network that serves the approximately 1,700 students spread across four physical campuses and seven school sites. From supporting teachers to troubleshooting printer problems, day-to-day activities can consume a lot of time. But larger issues of security, filtering, and network management are critical—to student and teacher safety and productivity, as well as network security and availability.

Challenge

As Bob Lillie, Director of Technology Services, explains: "Within a school, teachers and administrators are responsible for ensuring student safety. Technology is always changing—and we need to constantly stay on top of it."

When Lillie joined the Willows district in December 2006, he realized quickly that the solution in place, Lightspeed Total Traffic Control, hadn't been implemented correctly. "I had to be able to stay ahead of the students, and quickly react to issues," shares Lillie. "We had a solution in place to do that, but it wasn't being used effectively."

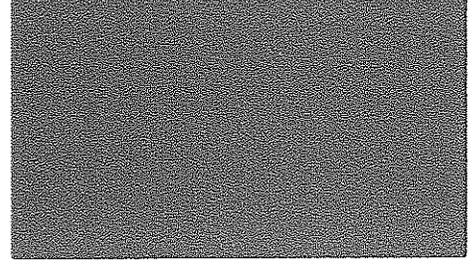
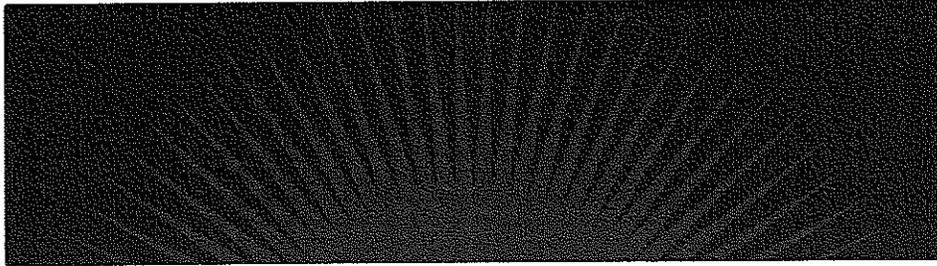
Lillie's first business trip: to Lightspeed Systems for user training. "The class helped me learn what the product was capable of doing, what its role was, and how to configure it correctly. Once you know that, it is an effective solution for many of the issues we face."

Solution

With his training completed, Lillie was able to use Total Traffic Control to monitor Internet usage, stay on top of issues, and respond quickly to policy changes. "Soon after I returned from the training, administrators decided to ban instant messaging within the network. Because of the knowledge and experience I gained during my training, I was able to make the changes to my Total Traffic Control policy settings and instant messaging was gone with just a couple of mouse-clicks," recalls Lillie.

The Internet filter provided by the Web Access Manager component of Total Traffic Control is one of the tools Lillie relies on most, reviewing reports such as Suspicious Searches several times a day. The information in these reports serves as a critical measure of individual student activity, and helps ensure student safety. "I pass along information from this report to a vice principal," Lillie says, "who then meets with students who are searching for inappropriate things."

While Web Access Manager relies on a comprehensive database of categorized web sites, Lillie appreciates the collaboration and flexibility it offers as well. "When I visited the Lightspeed offices during my training, I saw the army of computers scouring the Web for sites, and I was impressed," he remembers. But Lillie is even more impressed with the human element: "When I think a site should be either blocked or unblocked, I submit a request through the program. Lightspeed clearly values its customers: I usually get a response within a day." If Lightspeed doesn't agree with Lillie's assessment of the site, he can override it with a local decision to block or unblock on his network. "The system works, and provides good protection along with the flexibility for our specific needs," states Lillie.



With many different types of users using the network for many different reasons, Lillie relies on the ability to set policies by group or individual to ensure appropriate access based on needs. For example, teachers are given greater freedom of access than students. But if a particular student has a special need, Lillie can customize their individual access privileges. Likewise, a student who has repeatedly broken (or attempted to break) policies can be locked down even more tightly.

Conclusion

Total Traffic Control gives Willows a comprehensive solution for its network. Despite solicitation from many vendors with different point solutions, Lillie has renewed with Total Traffic Control twice. "The other solutions aren't offering me anything I don't already have. And with the dismal budget for education in California, consolidating with a single solution gives me more features, like content filtering and antivirus protection and bandwidth management, without additional costs".

Exceptional Service and Support

Our feature-rich solutions designed specifically for schools are the answer to your network management and security needs. But our unparalleled service and support mean our solutions will continue to deliver, long after their easy implementation. With any *Lightspeed Systems* solution, you can depend on:

- 24/7 live-person phone technical support.
- Comprehensive online knowledge bases.
- The Lightspeed Wiki, rife with user collaboration and product expertise.

Professional Development and Training

Professional Services:

We provide customized, collaborative professional development services to address your specific needs. For more information, please contact: ps@lightspeedsystems.com

Training:

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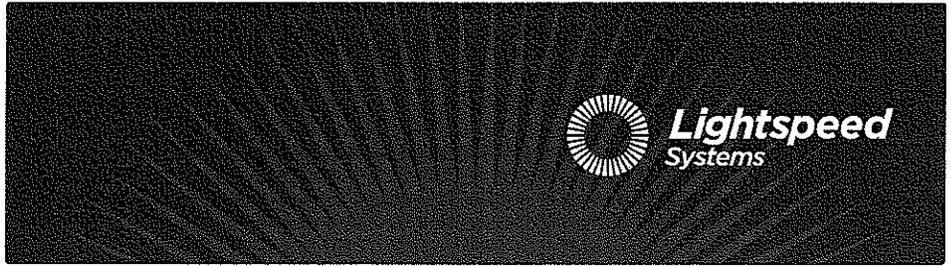
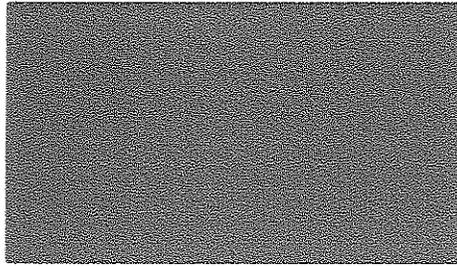
Support: 800.444.9267

Sales: sales@lightspeedsystems.com

Support: support@lightspeedsystems.com



See the powerful reporting, policy creation, and customization features of Total Traffic Control, and our component solutions, for yourself. Schedule an online demonstration: www.lightspeedsystems.com/demo



CASE STUDY

School: Sierra Sands School District
State: California
District Size: 5,400 Students
Solution: Web Access Manager
Focus: Filtering, Reports,
Educational Video Library (EVL)



"The Educational Video Library allows us to easily review and approve a video and put it out there for access, and everyone benefits from that."

Donnie Morrison
Director of Technology
Sierra Sands School District

Lightspeed Customer Success

Sierra Sands Keeps Students Safe—on the Web and on YouTube—with Lightspeed

Overview

As technology becomes an increasingly important part of students' lives, the role of technology in schools will continue to grow as well. The Sierra Sands School District in southern California recognizes this, and its forward-thinking technology department knows that its job is about more than keeping the computers working—it's about making the network a valuable tool for education.

"The students are used to technology; it's what they relate to. If we want to keep them engaged, we have to match the things they do at home, and the things they enjoy. That is technology," shares Donnie Morrison, Director of Technology for the Sierra Sands School District.

Smartboards, web access, online videos and 1:1 initiatives all play into the district's vision for technology—but it is critical that it is done with safety in mind. And Donnie and his technology team are working with administrators and teachers to find the right balance: "We have to make sure we're protecting the kids, but also giving them access to valuable resources," Donnie recognizes.

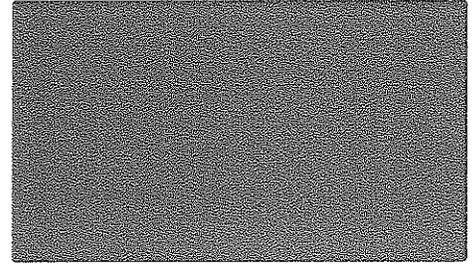
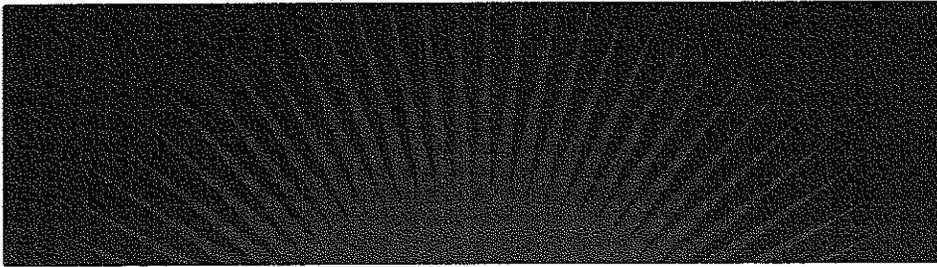
Challenge

Realizing that information is key to ensuring student safety, enforcing Acceptable Use Policies, and adhering to regulations, Donnie began searching for a replacement to his previous content filter, which offered very little reporting. With eleven schools in the district, one of the main goals Donnie had as he began his search was the ability to send administrators reports about what was happening at their individual schools.

Like every other California school, the other challenge Donnie faces is budget. With Lightspeed, Donnie has the powerful web filter and reporting engine he needs—and a lower price tag. "Lightspeed gives us comprehensive reports, and lets us create custom reports. In my opinion, it has more features, and is still more cost-effective, than other options."

Solution

The Sierra Sands Acceptable Use Policy prohibits users from activities like harassing other students and accessing inappropriate sites. Lightspeed Web Access Manager provides the filtering, monitoring, and reporting to ensure that those policies are enforced. "I review reports like blocked content, search engine queries, and suspicious search engine queries every morning," Donnie says. "I'm able to look at everything and see if there are any issues I need to look into further. And I pass along reports to the principals so they can see what's happening at their individual sites as well as the entire district." Among the things Donnie is on the look-out for are students searching for words like 'suicide' or 'bomb' or a user searching for proxies that might allow him to bypass the content filter. "I feel like with this information, I might be able to mitigate something that may otherwise have turned into something disastrous," Donnie shares.



"The reports are just awesome," Donnie compliments. "We can see everything that's going on on the network and determine if there are any areas of concern, with what the kids are doing or just with network traffic in general."

A new feature Donnie is excited about is the Educational Video Library, which allows teachers to share approved YouTube videos with students—without the concerns of inappropriate content, peripheral links, or comments. "We get a lot of requests for teachers to be able to share good educational videos from YouTube, but allowing that in the past has really been quite a hassle," Donnie recalls. "The Educational Video Library allows us to easily review and approve a video and put it out there for access, and everyone benefits from that."

Conclusion

As Sierra Sands prepares its students for success in the 21st century by increasing the role technology plays in education, it relies on Lightspeed Web Access Manager to help ensure that those endeavors don't compromise student safety, regulatory compliance, or Acceptable Use Policy adherence. "If I have a question about anything, I can go in and run a report and see what's going on. Having access to that information ties to acceptable use as well as student safety and legal issues," Donnie concludes.

Exceptional Service and Support

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- The Lightspeed Wiki, rife with user collaboration and product expertise.

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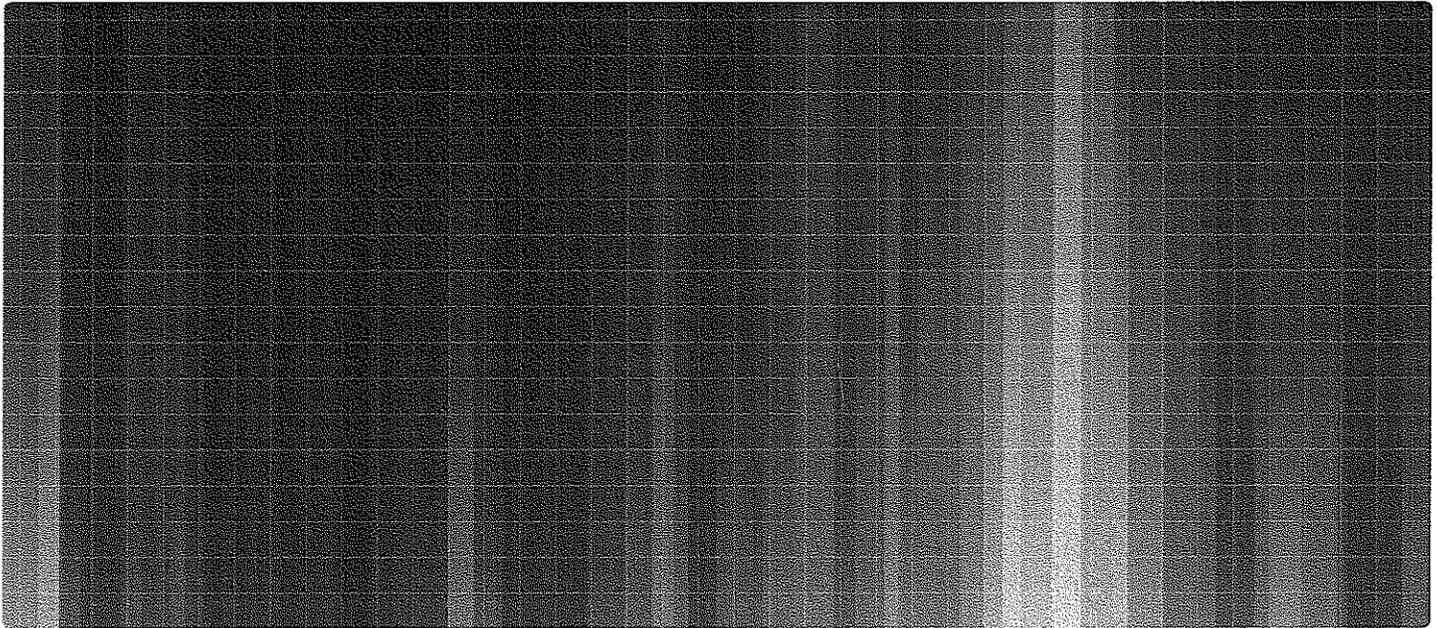
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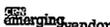
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 Charleston, WV 25305-0130

**Request for
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RFQ NUMBER
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PAGE
1

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SHELLY MURRAY
304-558-8801

VENDOR

*323141320 304-757-6542
 ADVANCED TECHNICAL SOLUTIONS
 PO BOX 149
 SCOTT DEPOT WV 25560-0149

SHIP TO

DEPARTMENT OF EDUCATION
 BUILDING 6
 1900 KANAWHA BOULEVARD, EAST
 CHARLESTON, WV
 25305-0330

DATE PRINTED 05/04/2010	TERMS OF SALE	SHIP VIA	FOR	FREIGHT TERMS
BID OPENING DATE 05/19/2010	BID OPENING TIME 01:30PM			

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
ADDENDUM NO. 1						
THIS ADDENDUM IS ISSUED TO ADDRESS THE QUESTIONS RECEIVED PRIOR TO THE QUESTION SUBMISSION DEADLINE OF 04/27/2010.						
THE BID OPENING DATE IS EXTENDED:						
FROM: 05/13/2010						
TO : 05/19/2010						
0001	1	LS		920-45		
INTERNET FILTERING AND REPORTING SOLUTION						
EXHIBIT 10						
REQUISITION NO.: EDD327891						
ADDENDUM ACKNOWLEDGEMENT						
I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY PROPOSAL, PLANS AND/OR SPECIFICATION, ETC.						
ADDENDUM NO 'S:						
NO. 1 <i>[Signature]</i>						
NO. 2 <i>[Signature]</i>						
NO. 3 <i>[Signature]</i>						

Al Rossi

SIGNATURE		SEE REVERSE SIDE FOR TERMS AND CONDITIONS	
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 SHELLY MURRAY
 104-558-8801

RFQ# 323141320

*323141320 304-757-6542
 ADVANCED TECHNICAL SOLUTIONS
 PO BOX 149

SCOTT DEPOT WV 25560-0149

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NO. 4						
NO. 5						

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Lightspeed Systems

COMPANY

5/10/10

DATE

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EDD327891

Addendum No. 1

Question #1: On average or ballpark, considering 140,000 machines, about how many are truly online on a given day?

Response: The solution must be designed to accommodate peaks of 70,000 computers at each one of the two POPs.

Question #2: What is the average bandwidth used of the 3.0 Gigs internet connection?

Response: The solution must be designed to accommodate peak bandwidth use of 3.0 Gb/s at each one of the two POPs.

Question #3: While understanding 12 servers at each location is ideal, would it be possible to have 13 servers at one location and 11 servers at the other?

Response: The WVDE is amenable to changing this specification to the following:

Specification now reads: The filtering solution must not exceed a total of 12 servers or appliances at each POP.

Specification is changed to: The filtering solution must not exceed a total of 24 servers or appliances configured between or amongst the two POPs.

Question #4: Is the ideal situation to have all the reporting in one log database or one at each site? Considering a consolidated approach would provide a single interface for all logging but the log traffic would need to be sent through the network to that single site.

Response: The solution must provide a web-based reporting application and a minimum of one TB of log file storage at each POP. This may be in the form of identical reporting and storage capabilities at each location for redundancy or it may be independent reporting and storage capabilities at each POP with no transfer of log files between the two POPs.

Questions #5: Does WV have available SPAN or Mirrored ports? Or would WV consider the use of an in-line trap?

Response: We can configure SPAN ports. We currently have our filters in-line to prevent unfiltered Internet access in the event of failure of a filtering server.

Questions #6: Can you provide hardware specs (processors, etc) of your Dell 2850's?

Response: The specifications of the existing Dell 2850 servers is included in **Section I – Current Environment.**

Question #7: Is WVDOE willing to consider a multi-year agreement up-front or is a 12 month agreement the only option at present time?

Response: Generally, the term of RFQs such as this one are one year upon award, with renewal clauses for two additional one year periods, yielding a total term of three years.

Question #8: Can you verify whether the end user for this RFQ will be solely the schools of West Virginia, or if there will be other agencies included as an end user?

Response: The contract that results from the RFQ will provide Internet filtering for any device connected to the K-12 private network and those which are "off network" but have a mobile client installed that enforces Internet filtering. This includes computers owned by the public school districts and related administrative and support entities/organizations such as the WVDE and RESAs (Regional Education Service Agencies).

Question #9: Each POP is drawn with one PIX firewall. Are there two firewalls at each POP or just one? If there is more than one firewall, are they active/passive or active/active?

Response: There are two PIX firewall switch blades at each POP that run in active/passive mode.

Question #10: Section 1, first paragraph says that the PIX firewalls are modules in the 6513. However, your diagram shows the Packeteer in-line between the 6513 and the PIX. Are there additional PIX firewalls? Or how is this done? If they are modules in the 6513, are there two 6513s at each POP?

Response: The PIX firewalls are modules in the 6513 chassis. VLANs force the data to leave the 6513 chassis and then return to the chassis after it is checked by the packeteer.

Question #11: How is traffic load balanced from your network across the two POPs?

Response: There is no load balancing between POPs. The network is split roughly in two halves. All traffic in one half is routed to the ISP via one POP and traffic in the other half is routed to the other ISP location via the other POP.

Question #12: Are there 3x 1Gb/s circuits at each POP?

Response: A channelized Ethernet connection exists between the WVDE and the ISP which functions as a single 3 Gb/s connection.

Question #13: How are the circuits load balanced at each POP out to the Internet?

Response: The WVDE traffic is passed to the ISP via a 3Gb/s Etherchannel connection. It is the responsibility of the ISP to manage load balancing to its telecommunications providers.

Question #14: Where and how are those circuits terminated?

Response: The WVDE statewide private network is located in same facilities as our ISP. We connect to the ISP via Etherchannel using multiple Category-6 copper.

Question #15: Which LDAP systems are in use other than Windows AD?

Response: Currently, the WVDE is using only LDAP and Windows Active Directory.

Question #16: What OS will be required support by the mobile client software?

Response: Microsoft Windows XP and newer version of the Microsoft Windows operating systems. In your response, please include any other operating systems your mobile client can support.

Question #17: How many mobile users will be supported?

Response: As the Cost Worksheet indicates, 10,000 mobile users are anticipated initially. The actual number of mobile users in subsequent years will be determined by the various school districts.

Question #18: Does the customer utilize Cisco products in the POP networking infrastructure? If so, what are these products?

Response: We use Cisco 6513 chassis at each POP.

Question #19: What filtering products perform similar functions in the DOE network today?

Response: The WVDE uses only one product to perform filtering functions. Some schools or districts may have installed other filtering at the local level; however, the WVDE is neither involved with those decisions, nor necessarily

aware of those solutions. Currently the WVDE's filtering solution is provided by Netsweeper.

Question #20: Please define the needs for the 'informational page' as per page 6. (When is this page to be accessible, how is it accessed, what needs to be displayed, etc)

Response: In the **Internet Filtering** section, the intention of an "informational page" is to provide warnings or reminders to users as they access particular categories of web sites, even though the web site is not blocked. Another use is to periodically provide all users of one or more client groups with custom reminders about Internet safety tailored to the group.

Question #21: What methodology will be used by WVDE networking staff to load balance traffic to the filtering appliances?

Response: EIGRP protocol is currently used to round-robin load balance traffic across the Internet filtering servers.

Question #22: I see the vendor preference certificate. Can you supply the breakdown percentage of other factors totaling 100% on how the RFQ will be judged? I.e. cost, vendor pref, services, etc...

Response: RFQ's are awarded to the lowest responsible bidder. If a vendor utilized the resident vendor preference, the percentage that vendor is utilizing is added to the out of state vendor's cost.

Question #23: Regarding the following requirement: "The filtering solution **must** provide for customizable, granular permissions so that additional administrator/user accounts can be tailored on a user by user basis to match the rights of a user to the tasks that a user needs to perform." How granular must delegation be?

Response: Granularity of rights for those that can login to the filtering management and reporting system should be similar to those consistent with typical network servers. For example, the system admin can create accounts, change all system settings, define roles, client groups, reports, schedules, create custom categories, assign filtering rules etc. An assistant admin may have most of those rights, but not permission to change system setting or set client groups. Other users may be considered group level admins and may only be able to set schedules, create reports, assign filtering rules, etc for the client groups of which they are a member. Others, at their group level, may only view the filtering rules, view reports, and be limited to only add or delete URLs to a group ALLOW or DENY list and not have rights to change the assignment of categories that are denied to the group. Others may only have rights to view reports for activity of clients in their group. This is not a comprehensive list of the possible degree of

granularity. There will be a wide range of desired levels of involvement by regional or district admins and access should be limited to functions they need to use and what they are trained to use.

Question #24: Regarding the following requirement: "The filtering solution must provide for customizable, granular permissions so that additional administrator/user accounts can be tailored on a user by user basis to match the rights of a user to the tasks that a user needs to perform." Is delegated administration per custom category sufficient?

Response: Please see the response to question 23.

Question #25: What is the FTE. For WV. ?

Response: The current number of students enrolled in the public schools in West Virginia is 282,977.

Question #26: If one of the two major POP's was to ever fail, would the other POP designed to handle the full load of the entire state and if so, should the designed content filtering solution do so as well ? Basically, should the proposed solution be able to handle the full 140,000 workstation work load in case of a failure?

Response: No. The network is not designed to route all network traffic to the Internet via one POP.

Question #27: Would WV like a reporting server at just one POP or one at each POP?

Response: Please see the response to question #4.

Question #28: Will anyone be available from WV in order to transfer knowledge about your existing architecture and how the wining solution will integrate into WV. ?

Response: The network engineers at the POPs and the Internet filtering manager will be available during the planning and implementation phases of the winning solution.

Question #29: How many delegated Administrators will WV want to give access to on the entire network?

Response: 128 delegated managers

Question #30: How long of a time frame will WV be looking to hold onto log files?

Response: Ninety days of log files will be stored on the system in order to query for reports. The WVDE also requires that the solution provide a method to download log files for archival storage.

Question #31: Our solution will utilize the WCCP protocol on your existing Cisco routers. How many physical ports are available on your core routers today?

Response: We anticipate that 12 copper ports will be available on the core routers, but very few fiber ports.

