

THE NEW YORK CITY DEPARTMENT OF EDUCATION
JOEL I. KLEIN, *Chancellor*



REQUEST FOR PROPOSAL
RFP # R0571

Title: DWDM Monitoring, Maintenance & Problem Resolution

Sealed proposals will be received by the
Division of Contracts and Procurement, Department of Education,
City of New York, 65 Court Street, Room 1202, Brooklyn, New York 11201

Until: 11:30 AM On: Wednesday, April 02, 2008

PROPOSALS MUST BE RECEIVED NO LATER THAN THE ABOVE DUE DATE AND TIME

Visit <http://schools.nyc.gov/Offices/DCP/Vendor/RFP> to download the RFP.

FOR ADDITIONAL PROCUREMENT INFORMATION SEE OUR
WEBSITE: <http://schools.nyc.gov/DCP>

This Request for Proposals is issued by the
Division of Contracts and Purchasing
65 Court Street, Brooklyn, NY 11201
Telephone: (718) 935-2300 Fax: (718) 935-5117

**EACH ENVELOPE SUBMITTED MUST BE LABELED AND EVERY
LABEL MUST REFERENCE THE RFP NUMBER**



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FOR PURPOSES OF THIS RFP, “WE,” “US” OR “OUR” SHALL MEAN THE NEW YORK CITY DEPARTMENT OF EDUCATION (NYCDOE), AND “YOU” OR “YOUR” MEANS THE ENTITY SUBMITTING THE PROPOSAL TO NYCDOE.

ALTHOUGH THIS AGENCY IS BEING REFERRED TO AS NYCDOE, FOR CONTRACT AND INSURANCE PURPOSES, THE AGENCY IS STILL THE BOARD OF EDUCATION, AND THEREFORE, THE CONTRACTS AND INSURANCE CERTIFICATES STILL MUST REFERENCE THE BOARD OF EDUCATION OF THE CITY OF NEW YORK.



Request for Proposal

1. Background and Program Summary

1.1 Program Summary

The New York City Department of Education (NYCDOE) is seeking proposals from vendors that can provide a comprehensive management for one of the DOE's fiber-optic networks. The following sections provide the background for this project along with a detailed set of technical requirements.

It is anticipated services will begin July 1, 2008.

The NYCDOE anticipates entering into a requirements agreement with one (1) vendor resulting from this Request for Proposals (RFP).

1.2 Background

The New York City Department of Education (NYCDOE) has IT facilities at its Data Center at 2 Metrotech Center as well as at 11 Metrotech Center (MTC). The mainframe computer, supporting key DOE business applications such as Automate the Schools (ATS), Human Resource Systems (HRS) and Employees Information System (EIS), etc., is located at 11 Metrotech Center. Many other client server-based applications are maintained at 2 MTC.

A hybrid DWDM/SONET ring optical network is implemented to connect the 2 data centers from 11 Metrotech to 2 Metrotech. The intent of this RFP is to request monitoring and maintenance support for this fiber optic link and associated equipment.

The selected vendor will be responsible for providing maintenance and network monitoring services for four Cisco 15454 DWDM/SONET nodes, two Cisco 15530 ESCON aggregation nodes, two Cisco 3560, and two Cisco 3750 switches at 2 and 11 Metrotech, and the fiber optic cabling between them, as well as providing the project management necessary to support such services. A high-level view of this equipment and circuits is shown in Section 3 Scope of Services



2. Minimum Requirements

2.1 Overview

All proposals received on or before the Proposal Due Date and Time and at the location specified in the RFP, will be evaluated, to determine whether they meet the following Minimum Requirements:

- Vendor must have a minimum of three (3) years experience in providing the services proposed.
- Vendor must disclose all pending Litigations within the last three (3) years.
- Vendor must have a minimum Annual Revenue of \$3 Million.
- Vendor must attach their financial statements for the last three (3) years.

IF YOUR PROPOSAL DOES NOT CLEARLY EXHIBIT ALL OF THE ABOVE, THEN YOUR PROPOSAL WILL NOT BE FURTHER EVALUATED.

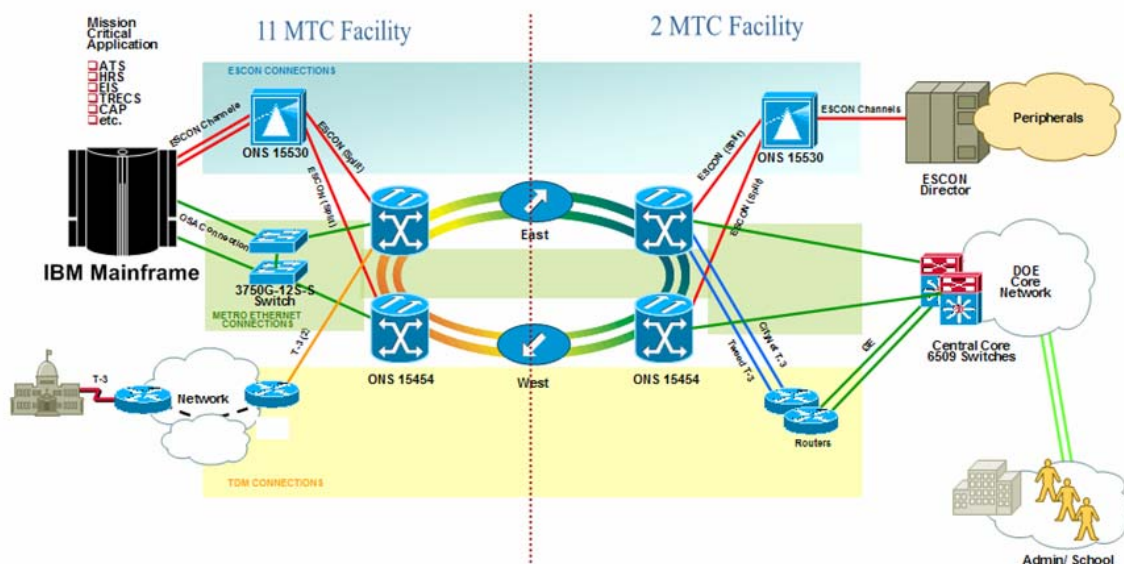


3. Scope of Services:

The Vendor shall provide maintenance and network monitoring services for four Cisco 15454 DWDM/SONET nodes, two Cisco 15530 ESCON aggregation nodes, and two Cisco 3560 and two Cisco 3750 switches at 2 and 11 Metrotech, and the fiber optic cabling between them, as well as providing the project management necessary to support such services.

The vendor handles optical network data management, i.e., it keeps track of the optical networking equipment that it manages including optical configuration management information. It needs this information to perform the monitoring and troubleshooting services that we require. It isn't responsible for any other DOE data management.

A high-level view of this equipment and circuits is shown in the following figure and table.



Current Circuits

Circuit Types	QTY
ESCON Channel Extension	Approximately 26
DS3	Approximately 3
OSA	Approximately 4
OC-3	1
OC-192	Approximately 4

This table describes DOE's current infrastructure, however in the future DOE might increase or decrease the circuits as needed.



3.1 Vendor NOC Requirements

- Vendor should possess, through ownership or contracting, a NOC (Network Operations Center) or Network Control Center (NCC), through which the services described in this RFP, can be provided. The NOC must operate on a 24x7x365 basis.
- Vendor must be able to provide the New York City Department of Education (NYCDOE) with the ability to view network status at any time, and for any reason, without having to rely solely on vendor communications. (This could include, for example, tracking the network using a vendor web portal, or access to a network management system).

3.2 Vendor Services

The Vendor must offer services grouped into the following five distinct functional areas:

Functional Area	Description
A) Monitoring and Intervention	Monitoring and Intervention identifies the function of detecting and correcting network operating faults.
B) Provisioning	Provisioning encompasses efficiently allocating and reallocating network resources to fulfill the NYCDOE's service order.
C) Analysis	The Analysis function is the ongoing analysis and profiling of the performance, reliability, and capacity of the NYCDOE network.
D) Data Management	The Data Management function is to confirm that the Service capabilities of the NOC are applied effectively and consistently to the NYCDOE specific Service requirements.
E) Project Management	The Project Management function is to establish a framework for project communications, reporting, procedural and contractual activity. The Project Manager will be responsible for this task.

A) Monitoring and Intervention

Monitoring and Intervention shall include:

- Continuous surveillance
- Case (trouble ticket) management
- Troubleshooting and diagnosis
- Escalation management
- Planned event notification



Severity Designation	Description
Critical	A critical case is an unexpected event that causes loss or degradation of service by preventing communication between sites on the NYCDOE network.
Major	A major case is any unexpected event that creates a single point of failure regardless of customer impact, or any event that creates a degradation of service but does not interrupt network transmissions.
Minor	A minor case is any other NYCDOE impacting event, including planned maintenance or upgrades.



The following table indicates the required notification for reporting problems:

Initial Problem Notification Problem Severity	Updates by telephone delivered to customers by NOC Engineers	
	Initial Problem Notification	
CRITICAL	15 Minutes	As events occur or at intervals of no more than 1 hour until resolved, plus escalation notification by management
MAJOR	15 Minutes	As events occur or at intervals of no more than 3 hours until resolved, plus escalation contact by the Vendor team
MINOR	15 Minutes	As events occur or at intervals of no more than 2 business days until resolved, plus escalation contact by the Vendor team

All service-affecting faults are to be designated by the Vendor with a critical severity and are to be treated aggressively by its NOC.

After the first 15-minute interval in which a critical service-affecting problem remains unresolved, the on-duty NOC engineer will automatically escalate a report of the problem to the next sequential vendor level according to the escalation plan in the table below:

Management Level Problem Severity	1 st Level	2 nd Level	3 rd Level	4 th Level
CRITICAL	15 minutes	1 hour 15 min	2 hours 15 min	3 hours 15 min
MAJOR	1 hour	3 hours	6 hours	10 hours
MINOR	1 business day	2 business days	5 business days	7 business days

The NOC will initiate remote troubleshooting activities immediately following the occurrence of any critical or major fault event that is detected and processed the NOC's system, or following the receipt of a DOE initiated report of network operating problems.

The NOC and NYCDOE are jointly responsible for seeing any issues through to resolution. The NOC will identify the problem and decide to open a TAC case when a problem cannot be resolved. The Cisco Account Manager Scope of Services assigned to DOE is responsible for handling Cisco Optical Equipment. NYCDOE has the ability to view network status at any time as indicated in the Vendor NOC Requirements section.

All Cisco equipment is currently covered by SmartNet maintenance service, 24X7X4hrs.



B) Provisioning

The provisioning functional area encompasses the following Vendor service features:

- Circuit data management
- Installation coordination
- Capacity assessment
- Device configuration management
- Integration Testing

The number of circuits is relatively stable, but could increase or decrease depending on the DOE bandwidth and service requirements between DOE network and Mainframe Applications at 11 Metrotech.

C) Analysis

The analysis functional area shall encompass the following service features:

- Tier II network issues – Senior-level engineers will be available 24x7 to participate in the analysis and investigation of complex, acute, network issues
- Case summary report -- the NOC will compile a report summarizing the case activity in the previous calendar month for the NYCDOE for active circuit facilities under the NOC's management.
- Chronic problem assessment – The NOC will survey for, identify, investigate and pursue to resolution chronic network operating problems that, while not generating acute malfunction of performance issues visible to the NYCDOE application, nonetheless reflect unexpected (and generally unwanted) system behavior.
- Device Integration – Senior-level NOC engineering staff members will contribute to any development and integration engineering project that is undertaken by the NOC to fully integrate a new device type into the NOC.
- Operations Process Development – Senior-level NOC engineering staff and management staff members will be continually engaged in the ongoing refinement of the entire range of processes and procedures utilized in the delivery of Network Control Services



D) Data Management

The Data Management functional area shall encompass the following service features:

- Database management – The extensive set of customer-specific data, regarding network infrastructure, contact information, special or unique procedural considerations, and other categories of data will be solicited, recorded, and maintained in a variety of specialized databases that are utilized by the NOC.
- As-Built Specifications Maintenance – The NYCDOE possesses a structured library of network and system documentation, created by members of the original project team at the time the new optical network was deployed, provisioned and tested by IBM, the original vendor, and prior to making circuit services available to the NYCDOE. They verified it for completeness and accuracy during the Integration Testing phase of the deployment. These documents are collectively identified as as-built specifications.
- Asset Data Management – The NOC will maintain and update a record of asset details of the active network element comprising the optical network infrastructures that are under its control domain.
- Customer Operations Data --The NOC will solicit, record, and maintain detailed information regarding relevant standard operating practices of the NYCDOE in order to establish and maintain effective operations practices between the NOC and the NYCDOE's operations center staff.

E) Project Management

The objective of this task is to establish a framework for project communications, reporting, procedural and contractual activity. The Project Manager will be responsible for this task. The following sub tasks will be performed:

- Review the requirements under the RFP and the contractual responsibilities of both parties with the NYCDOE Project Manager.
- Maintain project communications through the NYCDOE Project Manager.
- Establish documentation and procedural standards for the development of the project.
- Prepare an updated project plan for performance of the required services, which defines the detailed tasks, and schedule responsibilities.
- Measure and evaluate progress against the project plan.
- Resolve deviations from the project plan, with the NYCDOE Project Manager.
- Participate in monthly scheduled project status meetings during operations.
- Prepare and submit Monthly Status Reports to the NYCDOE Project Manager during operations.
- Review and administer Project Change Control Procedure with the NYCDOE Project Manager.
- Coordinate and manage the technical activities of Vendor project personnel.
- Work with NYCDOE program office to coordinate schedule and resources

Deliverables

- Monthly Status Report



3.3 Project Initiation Services

Task Description

The Vendor Project Manager will meet with the NYCDOE Project Manager, Division of Instructional and Information Technology (DIIT) Datacenter Consolidation Project Manager and the DoITT Project Manager to create and document the project plan and to clearly define the demarcation for specific monitoring tasks. The deliverable for this portion of the work will also include developing the contact list and escalation list for monitoring services.

Deliverables

- Project Schedule
- Task demarcation
- Contact List

Note: All deliverables shall be presented to the NYCDOE in a timely manner.



3.4 Equipment List

The below lists shows a sample of the equipment that will be monitored through this agreement:

Product Number	Product Description	Total Qty
CISCO15454	15454 ATO (Assemble to Order)	2
15454-SA-ANSI	15454 SA NEBS3 ANSI w/RCA and Ship Kit, EOS 05-2005(2480)	2
15454-FTA3-T	Shelf Fan Tray Assembly,ANSI,15454, HPCFM, I-Temp	2
15454-TCC2	Timing Communications Control Two, I-Temp	4
SF15454-R4.6.1	Rel. 4.6.1 SW, Pre-loaded on TCC	4
15454-XC-10G	Xconn, 1152 STS, 672 VT	4
15454-R4.6.1SW CD	Rel. 4.6.1 Feature Pkg., CD, Right To Use License currently running Rel 5.0.2	2
15454-DS3-12E	DS3, 12 Ckt, Enh Test, I-Temp	2
15454-G1K-4	Gigabit Ethernet, 4 Ckt., L1, GBIC, XC/XC-VT/XC-10G	4
15454-GBIC-SX	1000Base-SX, SC, MM, standardized for 15454/327	8
15454-192L-1-50.1	OC192 LR/STM64 LH, 1550.12, 100GHz, 1 Ckt., SC	2
15454-OSC-CSM=	ONS 15454 Combiner and Separator with OSC Module	4
15454-EIA-1BNC48	HD Elect I/F, 48 BNC, A Side	2
15540-ACPS-NE=	15540 NEBs ETSI AC Power Rectifier	2
15540-CAB-ACNA=	15540 Ty North American AC Power Cord	4
15454-OPT-BST=	ONS 15454 Optical Booster Amplifier Module	2
15454-DS3N-12E	DS3, 1:N, Enhanced PM, 12 Ckt, I-Temp	2
15454-GBIC-SX	1000Base-SX, SC, MM, standardized for 15454/327	4
15454-AD-4C-50.1=	ONS 15454 OADM - 4 Chs - 100GHz - 50.12-50.92-51.72-52.52	2
15454-192L-1-50.1=	OC192 LR, 1550.12, 100GHz, 1 Ckt., SC	2
15454-FBR-STRG=	Fiber Storage Shelf	2
15454-BLANK=	Empty slot Filler Panel	4
15454-OPT-BST=	ONS 15454 Optical Booster Amplifier Module	2
15454-AD-4C-50.1=	ONS 15454 OADM - 4 Chs - 100GHz - 50.12-50.92-51.72-52.52	2
15216-LC-SC-5=	Fiber patchcord - LC to SC - 4m	8
15454-AIC-I	Alarm Interface Card Enh Intl, I-Temp	2
15454-EIA-1BNC48	HD Elect I/F, 48 BNC, B Side	2
15216-LC-LC-5	Fiber patchcord - LC to LC - 4m	10
15216-ATT-LC-2=	Bulk Attenuator - LC Connector - 2dB	5
15216-ATT-LC-5=	Bulk Attenuator - LC Connector - 5dB	5
15216-ATT-LC-10=	Bulk Attenuator - LC Connector - 10dB	5
AT-10DB-SC=	10dB Fixed Attenuator (SC term.)	5
AT-15DB-SC=	15dB Fixed Attenuator (SC term.)	5



Product Number	Product Description	Total Qty
15530-CHASSIS	ONS 15530 Configurable Chassis	2
15530N-CMN-SKIT	ONS 15530 Common Equipment Starter Kit, NEBS Version	2
15500N-CAB-AC	ONS 15530 NEBS AC Power Cable North America	4
15530-LCMB-0200	ONS 15530 10-port ESCON Aggregation Card	2
15500-XVRA-01A1	15500 Low Band Variable Rate SFP MM w/ LC	20
15530-LCMB-0200	ONS 15530 10-port ESCON Aggregation Card	2
15500-XVRA-01A1	15500 Low Band Variable Rate SFP MM w/ LC	20
15530-LCMB-0200	ONS 15530 10-port ESCON Aggregation Card	2
15500-XVRA-01A1	15500 Low Band Variable Rate SFP MM w/ LC	20
15530-LCMB-0200	ONS 15530 10-port ESCON Aggregation Card	2
15500-XVRA-01A1	15500 Low Band Variable Rate SFP MM w/ LC	20
15530-LCMB-0200	ONS 15530 10-port ESCON Aggregation Card	2
15500-XVRA-01A1	15500 Low Band Variable Rate SFP MM w/ LC	20
15530-LCMB-0200	ONS 15530 10-port ESCON Aggregation Card	2
15500-XVRA-01A1	15500 Low Band Variable Rate SFP MM w/ LC	20
15530-LCMB-0200	ONS 15530 10-port ESCON Aggregation Card	2
15500-XVRA-01A1	15500 Low Band Variable Rate SFP MM w/ LC	20
15500-CSDK01	ONS Cable Storage Drawer Kit with ANSI-ETSI RM Ears	2
15530-CHAS-N	ONS 15530 Chassis, NEBS Version, 19 inch RM, 9U, 11 Slots	2
15530-CPU	ONS 15530 CPU/Switch Module	4
SO530C-12222S	Cisco ONS 15530 IOS IP	2
15530-PWR-AC	ONS 15530 120-240 VAC Power Supply	4
15530-ITU2-0910	ONS 15530 Ch 09 10Gbps ITU Trunk Card MU w/ Splitter	2
15500-CAB-MMU-07	2.0m (79 inch) Tuned Low Loss MU to MU SM OADM Patch Cable	4
15530-ITU2-1010	ONS 15530 Ch 10 10Gbps ITU Trunk Card MU w/ Splitter	2
15500-CAB-MMU-07	2.0m (79 inch) Tuned Low Loss MU to MU SM OADM Patch Cable	4
WS-C3560	Catalyst 3560 48 10/100	2



Product Number	Product Description	Total QTY
CISCO15454	15454 ATO (Assemble to Order).	1
15454-SA-HD	15454 SA HD NEBS3 ANSI w/ RCA and Ship Kit	1
15454-FTA3-T	Shelf Fan Tray Assembly,ANSI,15454, HPCFM, I-Temp	1
15454-EIA-BNC-A96	Elect I/F, 96 Mini-BNCs, Side, I-Temp	1
15454-AIC-I	Alarm Interface Card Enh Intl, I-Temp	1
15454-TCC2P-K9	Timing Communications Control Two Plus, I-Temp	2
SF15454-R8.0.0K9	Rel. 8.0.0 SW, Pre-loaded on TCC	2
15454-XC-VXC-10G	Cross-Connect Module, Hig Cap. Tributary	2
15454-R8.0.0SWK9	Rel. 8.0.0 Feature Pkg., CD, Right To Use License	1
15454-G1K-4	Gigabit Ethernet, 4 Ckt., L1, GBIC, XC/XC-VT/XC-10G	1
15454-OC192SR1310	OC192, SR, 1310, 1 Ckt., SC	1
15454-BLANK	Empty slot Filler Panel	7
15216-LC-SC-5=	Fiber patchcord - LC to S - 4m	4
AT-10DB-SC=	10dB Fixed Attenuator (SC term.)	2
AT-15DB-SC=	15dB Fixed Attenuator (SC term.)	2
CSCO-ACDC-SYS	CSCO AC/DC Small to Large System ATO (Assemble to Order)	1
CSCO-EXP-PANEL	CSCO Pwr Sys Exp Pnl for 30A Brk. with 2 CKT BRK i A1, B1	1
CSCO-SHP-KIT-1	CSCO 3 sets MNT Brkt, 8 Fuses, System Doc	1
CSCO-SHP-KIT-2	CSCO 3 sets MNT BRKT for Expansion Panel	1
CSCO-SM-PWR-SA	CSCO AC/DC Pwr Sys Shelf, includes Controller Modul and GMT	1
CSCO-PWR-RECT	CSCO 110 VAC/ 13.3A, 220VAC/32A Plug-in Rectifier Module	4
CSCO-CKT-BRK	CSCO 1ea 30A Circuit Breakers, Includes instal doc.	2
CSCO-PWR-CBL-NA1	CSCO AC cable for 110 North America, NEMA 5-15P style plug	4
WS-C3750G-12S-S	Catalyst 3750 12 SFP Standard Multilayer Image	1
CAB-STACK-50CM	Cisco StackWise 50CM Stacking Cable	1
CAB-AC	Power Cord,110V	1
GLC-SX-MM=	GE SFP, LC connector SX transceiver	12
CISCO15454	15454 ATO (Assemble to Order).	1
15454-SA-HD	15454 SA HD NEBS3 ANSI w/ RCA and Ship Kit	1
15454-FTA3-T	Shelf Fan Tray Assembly,ANSI,15454, HPCFM, I-Temp	1
15454-EIA-BNC-A96	Elect I/F, 96 Mini-BNCs, Side, I-Temp	1
15454-AIC-I	Alarm Interface Card Enh Intl, I-Temp	1
15454-TCC2P-	Timing Communications Control Two Plus, I-Temp	2



4. RFP Process Guidelines and General Information

This section outlines the RFP process timeline and provides general information on withdrawal of bids, overall terms and conditions, and the award of the contract.

The NYCDOE reserves the right to: (i) reject all proposals submitted; (ii) accept any proposal or alternate as submitted without negotiations; (iii) accept or negotiate with all proposals submitted which fall within a competitive range; (iv) require revisions to, corrections of, or other changes to any proposal submitted as a condition to its being given any further consideration; (v) select for negotiations only the overall best proposal or alternate submitted, as determined by the NYCDOE; (vi) negotiate with one or more Bidders in any manner it deems fit, (such negotiations may be concurrent or sequential as the NYCDOE determines); (vii) following the conclusion of any such negotiations solicit Best and Final Offers (BAFOs) utilizing an appropriate procedure; (viii) re-open negotiations after the BAFO procedure, if it is in the Department's best interest to do so. No Bidder shall have any rights against the NYCDOE arising at any stage of the solicitation from any negotiations that take place, or from the fact that the NYCDOE does not select a Bidder for negotiations.

4.1 Vendor Response Requirements

The NYCDOE requests that all proposals be typed on both sides of 8 ½" X 11" paper and that proposals be submitted on paper having at least 30% post-consumer material content, i.e., the minimum recovered fiber content level for reprographic papers recommended by the United States Environmental Protection Agency (for any changes to that standard please consult <http://www.epa.gov/cpg/products/printing.htm>). Pages should be paginated. The proposal will be evaluated on the basis of its content, not length*.

(*Failure to comply with any of the instructions in this paragraph will not be considered non-responsive.)

4.2 Requests for Clarifications and Addenda

Any inquiry regarding this solicitation must be made in writing. Telephone calls will **NOT** be accepted regarding this RFP. All written inquiries may be e-mailed to the following authorized contact person:

NYC Dept. of Education:

E-mail: DCPIT@schools.nyc.gov

The deadline for questions on this RFP is Wednesday, March 12, 2008 at 12:00 PM.

The Bidders should not rely on any representations, statements, or clarifications not made in either this RFP, or a formal addendum.

4.3 Proposal Submission

Proposals will be accepted until 11:30 AM on Wednesday, April 02, 2008. Proposals should be labeled as **"Response to RFP# R0571"** and should be directed to the address shown below:

Division of Contracts and Purchasing,
65 Court St, Room 1201
Brooklyn, NY 11201

Late proposals will not be accepted.

Submit two (2) written original copies, with original signatures and six (6) electronic copy using Microsoft Office formats on CD or USB flash stick. **Please note: the hard copy of the RFP must**



contain the proposal forms as well as the pricing form and if any discrepancy is found between the paper version and the electronic version the paper version will be the governing version.

Applicants are also required to submit current VENDEX questionnaires WITH THE PROPOSAL. The City is legally required to use this computerized data system to help it make well-informed decisions when selecting a vendor. Vendex provides the City with comprehensive management information so that it may better serve the needs of the citizens of New York City. These forms are located at <http://schools.nyc.gov/Offices/DCP/MostPopularClicks/OnLineVendor.htm>.

Please note: notwithstanding the instruction in the second bullet on page 3 of the Vendor's Guide to Vendex, you must include original Vendex forms WITH YOUR PROPOSAL.

4.4 NYCDOE evaluation of Bidder proposals

After the Proposal submission date, NYCDOE will conduct an initial screening followed by a detailed evaluation of Bidder proposals based on evaluation criteria as annotated in Proposal Evaluation Criteria.

4.5 Oral Presentations / Scripted Demonstrations

After the proposal evaluation phase has been completed, the NYCDOE may require select Bidders to give oral presentations regarding their proposals at no cost to the NYCDOE. During the oral presentations, Bidders may be required to demonstrate or exhibit functional aspects relating to their proposal as requested by the NYCDOE. Further, the proposed Bidder's Project Manager is required to attend and assume an active role in the presentation.

NYCDOE's goal is to have an accelerated Bidder selection cycle. To that end, Bidders should be prepared to provide on-site demonstrations upon NYCDOE's request during the Evaluation Period. NYCDOE will endeavor to give the Bidders ample notification, but due to the short time period, asks that Bidders be prepared to give on-site presentations given three (3) business day's notice.

4.6 Letters of References

Bidders are required to provide two (2) letters of references to include contact information from organizations similar in size where you had successfully completed such service implementations that came in on time and on budget. The NYCDOE reserves the right to check all references

Vendors can provide evidence of actual completed assignments (maximum of two samples) to include program plan, term of engagement and budget.

4.7 Negotiations / Statement of Work / Best and Final Offer

At the end of the negotiation period, the NYCDOE will ask remaining proposers to further enhance the proposal and create a Statement of Work document (SOW). The SOW will outline the vendor's responsibilities including Service Level Agreement (SLA),

4.8 Vendor Selected

After the successful completion of the aforementioned sections, NYCDOE will award the contract to the continuing Bidder and finalize terms and condition negotiations.

The NYCDOE reserves the right to award a contract(s) to a Bidder(s) other than the proposing Bidder offering the lowest overall cost. The contract(s) resulting from this solicitation shall be awarded to the qualified Bidder(s) whose proposal(s) the NYCDOE has determined to be the most advantageous, based on the evaluation criteria set forth in the Request for Proposals (RFP). All contracts resulting from this RFP shall be signed by the Bidder(s) within a reasonable time upon receipt, which period shall not exceed



thirty (30) days. Thereafter the Bidder(s) is (are) deemed delinquent, at the NYCDOE's option, the contract(s) may be voided.

Contract award (s) shall be subject to the following conditions, where applicable. They are not required to be part of your proposal submission.

- Completion and submission of an appropriate Office of Equal Opportunities form. (e.g., Workforce profile or Company's Equal Opportunities Work plan); does not apply to M/WBE certification
- Completion and submission of the Affirmation Sheet
- Submission of an appropriate Certificate of Insurance

4.9 Terms and Conditions

All contracts resulting from this RFP shall be subject to the attached General Terms and Conditions (Appendix E).

Important note:

The onus is upon the Bidder to offer competitive pricing and to keep exceptions to our standard terms and conditions to a minimum. NYCDOE prefers that the Bidder accept the NYCDOE Terms and Conditions without ANY exceptions. However, if there is anything where the Bidder feels that an exception is a must, please indicate that in the proposal. NYCDOE will negotiate commercial agreements with the Bidder and dispose of legal issues, insurance requirements, exceptions to Terms and Conditions if, and only if, the Bidder's proposal is considered competitive. Following these negotiations, NYCDOE will request a Best and Final Offer from the Bidders still considered being in the competitive range. Once the selection committee has recommended vendor for award the final Terms & Conditions will be negotiated.

4.10 Incurring of costs

The NYCDOE shall not be held liable for any pre-contract activity or costs incurred by Bidders in the preparation of their proposals, onsite presentations and demonstrations, user interaction mock ups or during any negotiations on proposed contracts, or for any work performed or materials provided in connection therewith.

4.11 Withdrawal of bids

After the opening of proposals, a request by a Bidder to the New York City Department of Education for consent to the withdrawal of their proposal, because of an error made by said Bidder, will be considered only under the following terms and conditions:

Request to withdraw a proposal, providing reasons for the request must be received in writing. This request is to be sent to the Chief Administrator, Division of Contracts and Purchasing, within three (3) business days following the date and time set for the opening of proposals.

Whenever a Bidder requests the consent of the NYCDOE to withdraw their proposal, the NYCDOE may grant or reject such a request in any case which it deems just and proper. This request shall be made and such consent to withdraw shall be accepted by the Bidder upon the express condition that said Bidder shall be excluded from proposing again for the re-advertisement of proposals for the same item or proposal should no award be made. Should any Bidder request the withdrawal of more than one proposal in any twelve (12) month period, they shall be disqualified from proposing for the NYCDOE work for a period of one (1) year from the date of the second request.

Any request for a Withdrawal of proposal within three (3) business days must be accompanied by a certified check made payable to The New York City Department of Education, Administrator of Business Affairs, to defray the cost of the processing. Such checks shall be in the amount of five hundred dollars



(\$500) for bids of fifty thousand dollars (\$50,000) or greater. Where the bid is less than fifty thousand dollars (\$50,000) a two hundred fifty dollar (\$250) check is required. Such fees are non-refundable.

Following the three (3) business days after the proposal opening, a Bidder may not withdraw their proposal before the expiration of ninety (90) calendar days from the date of proposal opening. A Bidder may withdraw their proposal after that date only if they state such intent in writing prior to the mailing by The New York City Department of Education of a Purchase Order, Notice of Award, or Acceptance of Bids.

The Chief Administrator of Regional and School Bases Procurements will make the determination with respect to a request for the withdrawal of proposals and that determination shall be final and binding. **Any withdrawal of a proposal must be in its entirety (no partial withdrawals will be permitted)**, whether the withdrawal is within three (3) business days after the proposal opening or after the expiration of ninety (90) days from the date of proposal opening.

4.12 Termination of Contract

Any contract(s) resulting from this RFP may be terminated at any time upon thirty days written notice, by the Chancellor, and/or his designee. No claim for damages will be made by, or allowed to, the Contractor because of such termination.

4.13 Solicited and Unsolicited Changes

The NYCDOE may, during the evaluation period, request information and/or meetings with Bidders to clarify points in the response. No changes by the Bidder will be permitted after initial receipt of said response.

Unsolicited revisions to proposals will not be accepted.

4.14 Modification of Timeline

Should the NYCDOE deem it necessary to adjust or revise the proposed requirements outlined herein, an opportunity will be extended to Bidders to revise their proposals accordingly. Any changes to the requirements will be posted on the NYCDOE's website at <http://schools.nyc.gov/Offices/DCP/Vendor/RequestsforProposals/Default.htm>.

Written acknowledgment of each revision shall be provided to the NYCDOE by all Bidders within 1 business day of revision receipt. Should any changes occur within five business days of the close of the proposal, the proposal closing date may be extended to allow sufficient time for Bidders to respond. The NYCDOE will determine the number of days which will be considered suitable time.

4.15 Non-Disclosure agreement

NYCDOE, subject to satisfactory review by legal counsel, will sign Bidder mutual Non-Disclosure Agreements.

4.16 Material Ownership

All materials received by the NYCDOE throughout this RFP process are to be considered the property of the NYCDOE.



4.17 Proposal Evaluation Criteria

Your proposal should be in the form of a narrative as outlined in forms in Appendix A and must address all tasks defined in this solicitation. All vendors must utilize the proposal and pricing forms included as a Word File (Appendix A).

All proposals received by the New York City Department of Education will be reviewed to determine if the proposal meets all of the submission and Minimum Requirements prescribed in this Request for Proposal. If a proposal meets these requirements, then an Evaluation Committee will evaluate and rate all such proposals, applying the evaluation criteria prescribed below. The New York City Department of Education reserves the right to conduct site visits to verify facility or other information contained in a proposal and may require a Bidder to demonstrate their services and/or make oral and additional written presentations in support of a proposal.



4.18 Evaluation Criteria

The scoring table below will be used to evaluate the quality of each submitted proposal. The extent to which your proposal achieves the Desired Characteristics will determine the number of points it will receive. The categories are listed in order of importance to NYCDOE.

<u>Response Category</u>	<u>Desired Characteristics</u>
Program Plan	<ul style="list-style-type: none"> ○ Program Plan for providing the required product / services is clear, professional, and highly rational. ○ Ability to fit within the current technology and architecture environment that the NYCDOE has described in this solicitation Program.
Price	<ul style="list-style-type: none"> ○ How competitively priced is the proposal.
Organizational Capacity	<ul style="list-style-type: none"> ○ Strong and unequivocal evidence that the organization’s human, organizational, technical, and professional resources and abilities can support the proposed services.
Demonstrated Effectiveness	<ul style="list-style-type: none"> ○ Demonstrated evidence of prior successful experience is detailed and directly related to the proposed services. ○ Two (2) letters of references provided.

4.19 Contract Term

The contract(s) resulting from this RFP may be for a term of five (5) years with two periods of two (2) year renewals.

4.20 Type of Contract

This RFP may result in the award of one system-wide requirements agreement.

Requirements agreements are not commitments to purchase. Only a purchase order issued by a school, district, or central office constitutes such a commitment. The estimated contract award for a requirements contract is based upon the NYCDOE’s estimated requirement for that service over the contract period. NYCDOE may purchase all, none, part, or more than the estimated quantity identified.

4.21 Liquidated Damages

The Department and the proposer will during the negotiation stage develop a mutually agreeable liquated damages schedule in the event awarded vendor fails to deliver the significant milestones and deliverables in a timely manner. The proposer is encouraged to submit as part of their proposal a liquated damages schedule for consideration by the Department.



4.22 Proposal Document Checklist

Please ensure that you have accessed each of the following documents for your response. The attachments include:

- Request for Proposals
- Proposal Checklist
- Proposal Form (Appendix A, Microsoft Word File)
- Vendex Form (<http://schools.nyc.gov/Offices/DCP/MostPopularClicks/OnLineVendor.htm>)

Also please be sure to:

- Review the entire Request for Proposal and ensure that you understand the scope of the questions asked and the role of each of the attached forms. Please review carefully the Scope of Services for this RFP before completing the response sections
- We respect the possibility that no one vendor may respond to all of the functional scope areas
- View the Terms and Conditions (Appendix E) in this document and outline any exceptions you take to the Terms and Conditions in your response.



Appendix A

The following template was created to facilitate the collection of information from Vendors. For each evaluation criteria, we have provided a format to submit relevant information for the Evaluation Committee to review. Please complete all sections of this template to the best of your abilities. **PLEASE NOTE: YOU MAY USE AS MUCH SPACE AS YOU NEED, THE BOXES SHOULD EXPAND, BUT YOU MAY USE SPACE OUTSIDE THE BOX IF NECESSARY WHEN WRITING YOUR PROPOSAL.** You must use the electronic Microsoft Word version of this file and a paper version with your authorized representative's signature and title on this AND THE LAST PAGE.

Is the response printed on recycled paper containing the minimum percentage of recovered fiber content as requested by NYCDOE in the instructions to this solicitation?

Yes No

Section 1.1 Vendor Profile

LEGAL NAME OF COMPANY	
STREET ADDRESS (MAIN OFFICE)	
ROOM NUMBER	
CITY	
STATE	
ZIP CODE	
FEDERAL TAX IDENTIFICATION NO.	
CONTACT PERSON FOR THIS PROPOSAL	
CONTACT PERSON'S TELEPHONE	
CONTACT PERSON'S FAX	
CONTACT PERSON'S E-MAIL	
AUTHORIZED SIGNATURE	
AUTHORIZED NAME AND TITLE	
DATE OF SIGNATURE	
ARE YOU A MINORITY OR WOMEN-OWNED ENTERPRISE?	



IF YOU ARE A MINORITY OR WOMEN-OWNED ENTERPRISE (M/WBE) AND CERTIFIED AS SUCH, PLEASE SUBMIT A COPY OF YOUR CERTIFICATION.	
--	--

PLEASE NOTE: The company information that you include in your proposal must match the company information reflected in your Vendex Forms and Insurance Forms.



Section 1.2 Proposal Checklist

Checklist		
Proposal Requirements	Included	How You Met Requirements (page #)
Cover Letter		
Table of Contents		
Minimum Requirements		
Program Plan		
Pricing		
Organizational Capacity		
Demonstrated Effectiveness		
Letters of Reference		
Vendex Questionnaire Form		
Exceptions and Deviations from RFP Form		
Signature Sheet		
No Bid Response Form, if applicable		
Insurance Form		



Section 2. Minimum Requirements

Type your responses in the boxes provided below indicating the Minimum Requirements, **Section 2** from the RFP. Use as much space as necessary, and/or attach any supporting documentation at the end of this form when submitting your response.

Minimum Requirements	Vendor's Response
- How many years experience does your organization have in providing the services proposed (three (3) years minimum)?	
- What is your total Annual Revenue (minimum \$3 Million)?	
- Have you included Annual Report for the past three (3) years? Yes/No	
- Within the past three (3) years has your Company had any pending Litigations? If yes, please disclose in a narrative below or in separate Word document.	



Section 3. Program Plan

Type your responses in the box provided below or in a separate Word document indicating the Program Plan, Section 3 from the RFP, use as much space as necessary, and/or attach any supporting documentation at the end of this form when submitting your response.

Program Plan	Vendor's Response
- Describe in detail your program plan to include your product and services.	



Section 4. Price / Charges

Type your responses in the boxes provided below or in a separate Word document indicating the Price, Section 4 from the RFP, use as much space as necessary, and/or attach any supporting documentation at the end of this form when submitting your response.

Note:

- All prices should reflect a 5 year total cost.
- Use the Notes field to explain in detail around the pricing line (i.e. licensing model or other relevant information)
- Add as many Rows (not Columns) as necessary to properly itemize the individual components in your bid.

Pricing Form			
Non-Recurring Charges			
One-Time Cost (itemize all individual components below)	Quantity	Unit Price / Rate	Price Extension
1) i.e. Hardware Purchase (if applicable)			\$0.00
2) i.e. Software Licensing Fee (if applicable)			\$0.00
3) i.e. Non-Recurring Installation Cost (Labor Cost, if applicable)			\$0.00
4) i.e. Training (if applicable)			\$0.00
5)			\$0.00
Grand Total Non-Recurring Charges			\$0.00

Recurring Charges	Quantity (Total Units)	Monthly Unit Cost	Monthly Extension Cost (Quantity * Monthly Unit Cost)	Annual Extension (Monthly Extension * 12)	Contract Term Extension (Annual Extension * 5)
A: Total Hardware Cost (also itemize all individual components below)				\$0.00	\$0.00
1)				\$0.00	\$0.00
2)				\$0.00	\$0.00
3)				\$0.00	\$0.00
4)				\$0.00	\$0.00
5)				\$0.00	\$0.00



B: Total Software Cost (also itemize all individual components below)				\$0.00	\$0.00
1)				\$0.00	\$0.00
2)				\$0.00	\$0.00
3)				\$0.00	\$0.00
4)				\$0.00	\$0.00
C: Total Service / Support Cost (also itemize all individual components below)				\$0.00	\$0.00
1) Sites Under Monitoring	2			\$0.00	\$0.00
2) Circuits Under Monitoring (minimum 30 circuits)				\$0.00	\$0.00
3) Project Management Hours (estimated 35 hours/month for billing, deliverables, reporting and change control)				\$0.00	\$0.00
4)				\$0.00	\$0.00
D: Total Other Cost (i.e. Usage, Hosting, Network Infrastructure, etc. charges if applicable, also itemize all individual components below)				\$0.00	\$0.00
1)				\$0.00	\$0.00
2)				\$0.00	\$0.00
3)				\$0.00	\$0.00
4)				\$0.00	\$0.00
Grand Total Recurring Charges (A + B + C + D)				\$0.00	\$0.00

Grand Total Recurring and Non-Recurring Charges				\$0.00
--	--	--	--	---------------



Section 5. Organizational Capacity

Type your responses in the boxes provided below or in a separate Word document indicating the Organizational Capacity, Section 5 from the RFP, use as much space as necessary, and/or attach any supporting documentation at the end of this form when submitting your response.

Organizational Capacity	Vendor's Response
- What was your Company Cash Flow for 2007?	
- What was your Company's Growth Rate for 2007?	
- What was your Company's Annual Profits for 2007?	
- What was the total number of full-time employees during 2007? Please describe your Organizational structure in a narrative below or in separate Word document.	



Section 6. Demonstrated Effectiveness

Type your responses in the boxes provided below or in a separate Word document indicating the Demonstrated Effectiveness, Section 6 from the RFP, use as much space as necessary, and/or attach any supporting documentation at the end of this form when submitting your response.

Demonstrated Effectiveness	Vendor's Response
- Have you supplied two (2) letters of reference from organizations of similar in size where you had successfully completed assignments that came in on time and on budget? Yes/No	
- Describe in clear and concise narrative demonstrating your ability and competency to complete assignment, use space below or in separate Word document.	



Section 7. Exceptions and Deviations from RFP Form

Please sign only one of the sections below and return it with your proposal package.

Any exceptions or deviations from requirements, Terms and Conditions, or anything included in this RFP, or requirements that cannot be satisfied by the Bidder, must be clearly identified and noted below by referring to the Section # and Subsection # of the RFP and clearly stating the item that cannot be met. Significant material deviations to the terms and conditions set forth in this RFP (including additional, inconsistent, conflicting or alternative terms) may render the proposal non-responsive and may result in rejection.

1 - If No Deviations...

If there are no deviations from and exceptions to this RFP, please sign below:

Signed: _____

Title: _____

Date: _____

Company Name: _____

2 - If Deviations...

If there are any deviations or exceptions, please describe them in the box below and sign where indicated:

<p>Describe deviations or exceptions in this box (use as much space as necessary) Use numbers to separate items in the box.</p>
<p><Input here></p>

Listed in the above box are any and all deviations from and exceptions to the terms, conditions, requirements, and specifications furnished with RFP:

Signed: _____

Title: _____

Date: _____

Company Name: _____



Section 8. Signature Sheet

By signing this signature sheet, I am (we are) certifying that (i) I am (we are) authorized to submit this proposal on behalf of your company, (ii) I (we) understand and accept all requirements, and Terms and Conditions included in this RFP excluding the requirements, Terms and Conditions, or anything else noted in the Exceptions and Deviations.doc (if any), (iii) the information provided is true and accurate to the best of my (our) knowledge, (iv) failure to specifically answer the requirement(s) or question(s) may result in disqualification of our proposal, and (v) a materially false statement willfully or fraudulently made in connection with this RFP may result in being disqualified from this RFP process and future procurement opportunities with the New York City Department of Education.

Note that our subcontractors (or “partners” etc.) identified in our proposal also accept the above, to the extent that the proposal relates directly to the subcontractor. (If there are more subs than lines provided, please copy and paste in blank rows at the remainder of this document.)

Signed and accepted this _____ day of _____, _____.

Signed: _____

Title: _____

Date: _____

Company Name: _____

Signed: _____

Title: _____

Date: _____

Company Name: _____

Signed: _____

Title: _____

Date: _____

Company Name: _____



APPENDIX B - NO-PROPOSAL RESPONSE FORM

RFP Number and Title: _____

Proposal Opening Date: _____

NO-PROPOSAL RESPONSE FORM

PLEASE COMPLETE AND RETURN THIS FORM IF YOU WILL NOT BE SUBMITTING A PROPOSAL BUT WISH TO REMAIN ON THE NEW YORK CITY DEPARTMENT OF EDUCATION'S BIDDERS LIST.

The preparation and mailing of REQUEST FOR PROPOSALS is time consuming and expensive. In instances where proposers fail to respond or notify the New York City Department of Education of their future intentions, the preparation and mailing of the Request for Proposal Package represents an unnecessary expense to the New York City Department of Education. Feedback from proposers is also encouraged so that any reasons for not proposing may be evaluated with the intention of improving future solicitations for this commodity or service in the hopes of encouraging and expanding the field of competition.

All proposers who respond with a "No Response" response or choose not to propose are requested to provide the information requested below and return this form in time for the proposal opening.

REASONS FOR NOT PROPOSING AT THIS TIME:

DO YOU WISH TO RECEIVE REQUESTS FOR THIS PARTICULAR PRODUCT OR SERVICE IN THE FUTURE? YES NO

PROPOSER NAME AND ADDRESS:

SIGNED: _____ **TITLE:** _____ **DATE:** _____



APPENDIX C - Insurance

INSURANCE

The Contractor **shall** maintain during the period(s) of this contract, inclusive of guarantee periods when applicable, insurance(s) covering the personnel employed by the contractor, equipment (vehicles) used, public servants, and property of the Department of Education while the supplies, equipment, goods, products, etc. called for herein are being delivered or while the services/work outlined herein is being performed.

If a proposal is selected for potential contract negotiations, the proposer will be required to submit certifications(s) from acceptable insurers, licensed by the State of New York, or any other licensing authority thereon to the effect that said insurers, will furnish to the proposer the insurance coverage listed. In addition, certifications submitted must name the New York City Department of Education and the City of New York as additionally insured. Failure by the proposer to furnish the above certification(s) may result in rejection of the proposal.

The most common form used to transmit this information is entitled ACORD Certificate of Insurance (form ACORD 25-S (7/90)).

The policies mentioned herein shall insure the New York City Department of Education and the City of New York against claims outlined in the coverage's mentioned herein in the same amounts as are required in specifications for the Contractor or Subcontractor when applicable. Such coverage may be by separate policies or by endorsement to this effect on existing policies.

The policies mentioned herein, insuring the New York City Department of Education and the City of New York against claims arising out of negligence of the Contractor or Subcontractor when applicable, shall contain, by rider attached to such policies, the following provisions:

- a) Notice under this policy by the Insurance Company should be addressed to the Director of Purchase, Office of Purchasing Management, 65 Court Street 12th Floor Brooklyn NY 11201.
- b) Notice of accident should be given by the insured to Insurance Company within sixty (60) days after notice to the said Director of Purchase of such accidents.
- c) Notice of claim against the insured shall be given to the Insurance Company within sixty (60) days after such claims shall be filed with said Director of Purchase.
- d) The policy shall not be canceled, terminated, modified or changed by the Insurance Company unless thirty (30) days prior written notice is sent to the insured by registered mail and addressed to the Director of Purchase, Purchasing Management nor shall it be canceled, terminated, modified or changed by the Contractor securing such policy without the prior consent by the Department of Education of the City of New York.
- e) The policy shall not be invalidated by reason of any violation of any of the terms of any policy issued by the Insurance Company to the Contractor.

If a proposal is selected for potential contract negotiation, the proposer will be required to submit, the following insurance policies. Failure to do so may result in rejection of your proposal. Delivery of such insurance policies to the Department of Education shall be a condition precedent to the right of the Contractor to demand any payments hereunder.



In the event contract is to be extended, Contractor must submit proof of continuing compliance at least thirty (30) days prior to the ensuing contract period.

WORKERS' COMPENSATION INSURANCE

If this contract be of such character that the employees engaged thereon are required to be insured by the provisions of Chapter 6515 of the laws of 1922 known as the Workmen's Compensation Law, and with act amendatory thereof, the same shall be void and of no effect unless the person, firm or corporation making or performing the same shall secure compensation for the benefit of, and keep insured during the life of this contract, such employees in compliance with the provisions of said law.

Insurance must comply with Workmen's Compensation Law. The Contractor shall not begin work at, about, or upon, the property of the New York City Department of Education until filing with the Director of Purchase, Purchasing Management a certificate showing compliance with the provisions of said law. Such insurance shall be kept during the life of this contract (inclusive of guarantee periods when applicable) and until the completion of said deliveries or services-work to be performed is accepted by the New York City Department of Education contractor shall only engage subcontractors when contract permits who comply with the workman's compensation.

COMPREHENSIVE GENERAL LIABILITY INSURANCE **(INCLUDING PRODUCT (S) LIABILITY INSURANCE)**

Shall insure the vendor and the vendor's agents, the New York City Department of Education and the City of New York during the performance of work under this contract against all present and future claims for bodily injury, sickness, disease, death, and property damage as may arise because of any services/work performed or goods provided by the vendor or by anyone employed by the vendor, either directly or indirectly.

The limit of liability under this Comprehensive General Liability Insurance coverage (including Products Liability Insurance) for bodily injury, sickness, disease, or death shall be at least **\$1,000,000** per occurrence.

The limit of liability required for property damage shall be at least **\$100,000** for one claimant in any one occurrence but not more than **\$200,000** for two or more claimants in any one occurrence. Such damages shall include all injury to, or destruction of, property of such claimant as well as the loss of use occasioned by the occurrence.

MOTOR VEHICLE LIABILITY INSURANCE

Shall insure the vendor, the vendor's agents, the New York City Department of Education and the City of New York during the performance of work under this contract against all present and future claims for bodily injury, sickness, disease, death and property damages which may arise because of a motor vehicle accident.

The limit of liability shall be at least **\$1,000,000** for all injuries sustained in any one occurrence.

The limit of liability required for property damage shall be at least **\$100,000** for one claimant and at least **\$200,000** for two or more claimants in any one accident. Such damages shall include all injury to, or destruction of, property of such claimant as well as the loss of use occasioned by the accident.



PROPERTY LOSS INSURANCE

The limit of liability shall be at least **\$500,000** per occurrence protecting the supplies, equipment and property, etc. of the New York City Department of Education against "All Risks" of loss, which include, but are not limited to, fire, lightning, windstorm, hail, riot, civil commotion, vandalism, malicious mischief, burglary, theft, floods, earthquakes, hurricanes, tornadoes and other perils including mysterious disappearance while supplies, etc. are in the possession, control or responsibility of the contractor, sub-contractor or anyone directly or indirectly employed by either of them.

In the event there is a loss incurred as a result of any of the above, reimbursement for claims submitted shall be on a dollar for dollar basis for the cost incurred by the Department for either the loss of services, repair, restoration or replacement, whichever is applicable. This coverage may be a "Department Form" policy covering any/all possible contingencies.

SUB-CONTRACTORS' INSURANCE

Should the awarded Contractor retain a Subcontractor to perform any of the services mentioned herein, it is the Contractor's responsibility to insure that Subcontractor maintains the same types of insurance coverage in accordance with the requirements and amounts indicated herein.

SAVE HARMLESS CLAUSE

Contractor hereby agrees to indemnify and hold the New York City Department of Education and the City of New York harmless from all claims, damages, judgment, expenses, attorneys fees and compensation whether in contract or tort arising out of personal injury, including death, or property damage sustained or alleged to have been sustained in whole or in part by any or all persons whatsoever as a result of or arising out of any act or omission of the Contractor, its agents or employees, or caused or resulting from any deleterious substance in any of the products supplied or while the equipment, supplies, etc. are being delivered or the service-work is being performed under this contract, whichever instance is applicable.



This is a sample - an original certificate document should be obtained from the proposer's insurance company.

CUSTOMER * CERTIFICATE OF INSURANCE

ISSUE DATE:

PRODUCER

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW,

CERTIFICATE HOLDER THIS CERTIFICATE DOES

COMPANIES AFFORDING COVERAGE:

COMPANY LETTER B
INSURED

COMPANY LETTER A

COMPANY LETTER C

COMPANY LETTER E

COVERAGE'S:

THIS IS TO CERTIFY THAT POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS, AND CONDITIONS OF SUCH POLICIES, LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS

CO	POLICY	POLICY	LIMITS
LTR	TYPE OF INSURANCE	POLICY NUMBER	EFF. DATE EXP. DATE
	GENERAL LIABILITY		GENERAL AGGREGATE \$
A	() COMMERCIAL GENERAL LIABILITY	REQUIRED	PRODUCTS-COMP/OP AGG, \$
	() CLAIMS MADE () OCCUR,		PERSONAL & ADV, INJURY \$
	() OWNER'S & CONTRACTOR'S PROT.		EACH OCCURRENCE \$
	() B.F. VENDORS		FIRE DAMAGE (ANY ONE FIRE) \$
	()		MED. EXPENSE (ANY ONE PERS)
\$			
	EXCESS LIABILITY		
	() UMBRELLA FORM		EACH OCCURRENCE
\$			
	() OTHER THAN UMBRELLA FORM		AGGREGATE
\$			
B	WORKER'S COMPENSATION AND	REQUIRED	() STATUTORY LIMITS EACH ACCIDENT
\$			
	EMPLOYER'S LIABILITY		DISEASE-POLICY LIMIT
\$			
			DISEASE-EACH EMPLOYEE
\$			
	OTHER		

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

NEW YORK CITY BOARD OF EDUCATION AND THE CITY OF NEW YORK ARE ADDITIONAL INSURED

CERTIFICATE HOLDER

CANCELLATION

NEW YORK CITY BOARD OF EDUCATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES,

AUTHORIZED REPRESENTATIVE:



APPENDIX D1 – Price Certification Clause

PRICE CERTIFICATION CLAUSE (REVISED 11/13/1978)

The proposer certifies that the prices, warranties, conditions, benefits and terms quoted herein are at least equal or more favorable to the Department of Education of the City School District of the City of New York than the prices, warranties, conditions, benefits and terms currently quoted by the proposer to any customers for the same or a substantially similar quantity and type of item(s) or services as described herein. This certification shall not apply to prices, warranties, conditions, benefits and terms under contracts in effect between the proposer and other customers at the date of submission of the proposal within, except as provided herein.

The successful proposer (hereinafter called the “Contractor”) further certifies that during the period between the proposal submission date and the completion of the term of this contract, should subcontractor offer prices, warranties, conditions, benefits, and terms more favorable than those quoted herein, or provide changed prices, warranties, conditions, benefits and terms more favorable than those quoted herein under a contract in effect at the proposal submission date with any customer, for the same or a substantially similar quantity and type of item(s) or services, then the contractor shall immediately thereafter notify the New York City Department of Education, Purchasing Management. Regardless of whether such notice is sent by the contractor or received by the New York City Department of Education, this contract shall be deemed amended retroactively to the effective date of more favorable treatment, to provide the more favorable prices, warranties, conditions, benefits, and terms. The Department of Education shall have the right and option to decline any such amendment.

If the contractor is of the opinion that an apparently more favorable price, warranty, benefit, condition, and term quoted, offered or provided to a customer is not more favorable treatment, the contractor shall immediately notify the Director of Purchase, Purchasing Management, of the Department of Education in writing setting forth in detail the reasons why the contractor believes the apparently more favorable treatment is not in fact more favorable treatment. The Director of Purchase, Purchasing Management, after consideration of the written explanation may, in their sole discretion, decline to accept the explanation and thereupon the terms will be at least equal to or more favorable to the Department of Education of the City of New York than the prices, warranties, conditions, benefits and terms offered by the contractor to any customer for the same or substantially similar quantity and type of item(s) and/or services as of the effective date of the revision.

The contractor hereby authorizes the inspection, review and copying of contracts and documents that pertain or relate to the performance of this clause of the contract. The contractor shall be obligated to keep the contracts and documents referred to in the above paragraph during the effective period(s) of this contract and for a period of three years after the final payment of this contract.



APPENDIX D2 – Minority and Women Owned Business Entities Participation

The New York City Department of Education (NYCDOE) strongly encourages the substantive participation of minority and women owned business enterprises (M/WBE) in this engagement. The proposal will be deemed to be M/WBE participation if the Prime contractor is identified by a governmental agency as a certified M/WBE. No rating points are assigned for M/WBE status.

We strongly advocate participation of Prime contractors who demonstrate a clear and strong commitment to, and support of equal employment opportunity and employee civil rights, as well as, Prime or subcontractors showing a high level of commitment to the principles incorporated in Title VI and Title VII of the Civil Rights Act of 1964, and with all applicable Federal, State and City Laws and for clear demonstration of implementation thereof.

Demonstration of commitment and implementation may consist of, but not be limited to, the following, as documented by supporting data and materials, to be provided by the proposed with its response to this RFP:

- Submit a copy of your M/WBE certification letter from a governmental agency.
- A record of hiring, placement, training and promotional practices which permit access to all levels within the firm's organization by women, minority, and disabled and other employee groups covered by the Civil Rights Act of 1964.
- Policies, initiatives and programs that discourage discrimination against individuals on the basis of age, color, sex, national origin, citizen status, religion, sexual orientation, pregnancy or pregnancy-related conditions, and/or promotes the welfare of people with disabilities, including mentally and physically disabled employees and disabled veterans.

Recognition of the efforts above by government agencies nationally recognized civil rights organizations, or other appropriate groups.



APPENDIX E – Terms and Conditions

TERMS AND CONDITIONS

1. Definitions

- A. Words used in this Agreement shall have their ordinary meanings in the English language, except that scientific, technical, specialized or foreign words shall be given their appropriate scientific, specialized or foreign meanings, and definitions specifically provided elsewhere in the Agreement shall apply.
- B. The following words, names and titles shall have the following meanings:
- (1) "The Board" means the Board of Education of the City School District of the City of New York.
 - (2) "The City" means the City of New York.
 - (3) "Contract Budget Detail" means the document attached to and incorporated into the Agreement explaining and limiting how funds paid hereunder are to be expended by the Contractor.
 - (4) "The Comptroller" and "The Commissioner of Finance" mean the Comptroller and the Commissioner of Finance of the City, respectively.
 - (5) "The Chancellor" means the Chancellor of the Board.
 - (6) "Approved," "Required," "Directed," "Specified," "Designated" or "Deemed Necessary," unless otherwise expressed, mean approved, required, directed, specified, designated, or deemed necessary, as the case may be by the Chancellor or his designee.
 - (7) "Completion" means full and complete compliance with every requirement of the Agreement by the Contractor as certified by the Chancellor or his designee.
 - (8) "Final Payment" means (i) the payment or refund by the Board or City of any moneys that exhausts the amount of money made available under the Agreement or (ii) any payment marked "Final Payment."

2. Captions

The headings of this Agreement, the paragraphs, and subparagraphs of the Agreement, and of any attachments, are included solely for convenience and reference, and they shall not be used in any way to interpret this Agreement.



3. Conditions Precedent

This Agreement shall not become effective or binding upon the Board until: (1) it shall have been approved as to legal sufficiency by the Board's Office of Legal Services; (2) it shall have been executed by the Chancellor or his/her designee; (3) it shall have been approved as to legal authority by the New York City Law Department; and, (4) it shall have been approved by the New York State Education Department, if applicable. A Requirement Agreement for an extended period will require an endorsement upon the Agreement from time to time as services and/or items and materials are ordered, of the sufficiency of the appropriation applicable towards the payment for said services and/or materials as and when ordered.

4. Compliance with Laws

In connection with the performance of this Agreement, the Contractor shall comply with all applicable laws, rules and regulations. The parties hereto agree that every provision of law required to be inserted herein be deemed a part hereof. It is further agreed that if any such provision is not inserted or is incorrectly inserted, through mistake or otherwise, this Agreement shall be deemed amended so as to comply strictly with the Law.

5. Unlawful Provisions Void

If this Agreement contains any unlawful provisions or portions thereof, they shall be deemed deleted from the Agreement and the remainder of the Agreement shall remain in full force and effect. If the deletion of such provision frustrates the purpose of this Agreement, either party may make application to the Chancellor's designee for relief. (Rev. 10/4/02)

6. Religious Activity Prohibited

There shall be no religious worship, instruction, proselytizing, or other religious activity in connection with the performance of this Agreement.

7. Political Activity Prohibited

No Board property provided to the Contractor hereunder for the purposes of this Agreement shall be used for any political activity or to further the election or defeat of any candidate for public office. As used herein the term "Board property" shall include, but not be limited to, supplies, work sites, funds advanced and services.

8. Publication and Publicity

The Contractor or anyone employed by the Contractor may not publish the results of its participation or findings in the performance of this Agreement without the prior written approval of the Chancellor or his designee. All approved publications shall acknowledge that the program is supported by funds from the Board. Five true copies of each approved publication shall be furnished to the Board without charge. (8/29/88)

9. Copyright

If the Contractor or anyone employed by the Contractor shall write, record or otherwise produce copyrightable material within the scope or in furtherance of this Agreement, the Board shall be considered the author for purposes of copyright, renewal of copyright, and termination of



copyright and, unless expressly waived in a written instrument signed by the Chancellor or his designee, the owner of all of the rights comprised in the copyright. (6/88)

10. Patents

Any invention or discovery arising out of or developed in furtherance of this Agreement shall be promptly and fully reported to the Board. The Board shall have the exclusive right to apply for patent protection on such invention or discovery and to determine how the rights in said invention or discovery, including rights under any patent issued thereon, shall be disposed of and administered.

11. Accounting for Property

If any property is acquired by the Contractor with funds provided by the Board under this Agreement, the property shall be deemed purchased by the Board for the use of the Contractor during the term of the Agreement shall be permanently embossed "Property of New York City Board of Education" and shall be returned to the Board, at the Contractor's expense, within thirty (30) days after the end of said term, unless the Contractor is otherwise notified in writing by the Chancellor or his designee. (6/21/88)

12. Non-Reimbursable Expenses

The following items may not be claimed as a direct or indirect cost of the Services provided under this Agreement:

- a. rental expense of apartments;
- b. interest on loans;
- c. penalties for delinquent filing of tax returns;
- d. political or charitable contributions;
- e. advertising and promotions;
- f. legal expenses;
- g. key-man life insurance premiums;
- h. federal, state and city income taxes, state and city franchise taxes, and any costs for the preparation of such tax returns;
- i. expenses incurred in preparing for operations;
- j. cost of employee meals and lodging except when traveling outside the City and pursuant to the Contract Budget Detail of this Agreement;
- k. entertainment, gratuities, and any other items of a personal nature;
- l. long distance telephone calls unless directly related to the services provided under the terms of this Agreement;
- m. any expense not ordinary, necessary or reasonable in the performance of the Agreement.

13. Limitation on Overhead

Notwithstanding any provision of this Agreement to the contrary, the Contractor shall be reimbursed for overhead costs equal to the lesser of either (1) the amount specified in the Contract Budget Detail of this Agreement or (2) the amount calculated by multiplying the total direct labor cost plus fringe benefits stated in the Contract Budget Detail of this Agreement by a fraction, the numerator of which shall be the total of all the Contractor's overhead costs during the term of this Agreement for all operations, and the denominator of which shall be the total of all of the



Contractor's direct labor costs plus fringe benefits during the Term of this Agreement for all operations.

14. No Extra Compensation

The Contractor shall not seek, ask for, demand, sue for or recover, as extra compensation or otherwise, any sum for labor, materials or Services other than the compensation agreed upon and fixed.

15. Invoices and Payments

The Contractor shall furnish proof of performance with each invoice, and shall comply with all Board requirements concerning the manner in which invoices are to be submitted. The Contractor shall not be entitled to demand or receive full or partial payment, until each and every one of the provisions of this Agreement is complied with, and the Chancellor or his designee shall have given written certification to that effect. Nothing contained herein shall be construed to affect the right hereby reserved by the Board to reject the whole or any portion of the performance, should said certification be inconsistent with the terms of this Agreement, or otherwise erroneously given.

16. Cancellation of Grant Funding

If the goods or Services to be provided hereunder are to be paid for, in whole or in part, by means of grant funding received by the Board from federal, state, city or private sources, the obligation to pay the Contractor shall be subject to the continuing availability of said funding. The Board shall notify the Contractor within five (5) business days from the date the Board receives written notice of the cancellation of grant funding, in whole or in part, whereupon the Contractor may cease further performance of this Agreement to the extent said performance would not be supported by grant funding. However, the Board may, at its option, require completion of performance of this Agreement by the Contractor upon giving written assurance, signed by the Chancellor or his designee, within fifteen (15) business days of the date the Board receives written notice of such cancellation, that the completed performance of this Agreement shall be supported by other available funds.

17. No Estoppel

The Board, City, and their respective departments, divisions and offices, shall not be precluded or estopped by a statement or document issued by or on behalf of the Board or the City, from indicating the true value of Services performed and supplies furnished by the Contractor or by any other person pursuant to or as a result of this Agreement, or from indicating that any such return or certificate is untrue or incorrect in any particular, or that the Services performed and supplies furnished or any part thereof do not in fact conform to the provisions of the Agreement. Notwithstanding any such statement or document, or payment in accordance therewith, the Board and the City shall not be precluded or estopped from demanding and recovering from the Contractor such damages as may be sustained by reason of the Contractor's failure to comply with the provisions of this Agreement.

18. Acceptance of Final Payment

Receipt and negotiation by the Contractor, or by any person claiming under this Agreement, of the Final Payment hereunder, notwithstanding whether such payment be made pursuant to any



judgment or order of any court, shall constitute a general release of the Board from any and all claims and liability for anything done, furnished, or relating to the labor, materials, or services provided, or for any act of omission or commission of the Board or its agents and employees. Said release shall be effective against the Contractor and the Contractor's representatives, heirs, executors, administrators, successors, and assigns.

19. Claims - Limitation of Action

No action at law or equity shall be maintained by the Contractor, its successors or assigns, against the Board on any claim based upon or arising out of this Agreement, or out of anything done in connection with this Agreement, unless such action shall be commenced within six (6) months after the date of filing of the voucher for final payment hereunder or within six (6) months of the required completion date for the services performed hereunder, whichever is sooner. None of the provisions of Article 2 of the Civil Practice Law and Rules shall apply to any action against the Board arising out of this Agreement.

20. Notices

The Contractor's address stated on page 1 of this Agreement is hereby designated as the place where all notices, letters or other communications directed to the Contractor shall be served, mailed or delivered. Any notice, letter or other communication directed to the Contractor and delivered to such address, or sealed in a post-paid wrapper and deposited in any post office box regularly maintained by the United States Postal Service, shall be deemed sufficient service thereof upon the Contractor. Said address may be changed at any time by an instrument in writing, executed and acknowledged by the Contractor and delivered to the Chancellor's designee. Nothing herein contained shall be deemed to preclude or render inoperative personal delivery of any notice, letter or other communication, written or oral, to the Contractor. Whenever it shall be necessary or required to prove the delivery of any notice, an affidavit describing such delivery shall be conclusive evidence of such delivery.

21. Amendments and Waivers

- A. This Agreement may be amended by a written instrument signed by an authorized officer for the Contractor, and by the Chancellor or his designee. No amendment materially affecting the substance hereof shall be effective unless authorized by the Chancellor, and a copy of said authorization is attached to the amendment and incorporated therein. (Rev. 11/27/02)
- B. No waiver by the Board of any term or condition hereof shall be effective unless in writing and signed by the Chancellor or his designee. Any waiver shall be specifically limited to its terms, and shall not be deemed applicable to subsequent like circumstances.
- C. Any purported oral amendment or waiver shall be void.

22. Suspension of Deliveries

The Chancellor or his designee, may postpone, delay, or suspend the delivery of the goods or Services, or any part thereof, without additional compensation to the Contractor. In such event, (A) the time established for performance by the Contractor of any duty during the Term of this Agreement may, at the Contractor's option, be extended for the number of days the Contractor



was delayed by said suspension, postponement, or delay provided the Term is not thereby extended; however, (B) the Term may, at the Board's option, be extended for the number of days the Contractor was delayed by said suspension, postponement, or delay.

23. Cancellation

- A. If the Contractor violates any provision of this Agreement, the Chancellor or his designee may pursue any legal or equitable remedies available to the Board. In addition, the Chancellor or his designee may seek to have the Contractor declared in default by a panel to be designated by the Chancellor. In the event that the Chancellor's designee shall determine the Contractor to be in default, the Board may cancel this Agreement and shall thereafter be relieved of all liability hereunder. Upon a finding of default in violation of this contract, the Contractor shall be deemed not responsible and disqualified from bidding for a period of four years, unless in such finding of default, a lesser penalty is imposed by reason of mitigating circumstances. (Rev. 10/4/02)
- B. In the event of breach of this Agreement by the Contractor, the Board shall have the right to cancel and terminate said Agreement, and the Contractor shall be liable to the Board for any additional cost of completion of the within services, the Board's other costs in connection with the termination, reletting and completion of the services. All such costs, along with any liquidated damages for delay provided herein, may be assessed by the Board against the Contractor and deducted by the Board from payment to be made to the Contractor under this or any other Agreement at any time between the Contractor and the Board or City. In the event that said costs exceed all sums owed at the termination date of this Agreement, the Contractor shall pay the amount of such excess to the Board upon notice from the Board of said amount, and in the event that said costs and liquidated damages are less than the sum payable under this Agreement as if same had been completed by the Contractor, the Contractor shall forfeit all claims to the difference to the Board. If the Board undertakes to secure the services or any part thereof under this section of the Agreement, the certificate of the Chancellor or his designee indicating the amount of services secured, the cost and excess cost, if any, of completing this Agreement, and the amount of liquidated damages hereunder, shall be conclusive and binding upon the Contractor, its assigns and all other claimants.

24. Board Determination

The Chancellor or his designee shall in all cases determine the acceptability of the labor, materials, or Services which are delivered pursuant to this Agreement, including but not limited to their quality, delivery, and condition, and shall in all cases decide every question which may arise relative to the performance of this Agreement. The Contractor may not rely upon, and the Board shall not be bound by, any explanations, determinations or other statements by or from the Board which are not in writing and signed by the Chancellor or his designee.

25. Investigations

- 25.1 The Contractor agrees to cooperate fully and faithfully with any investigation, audit or inquiry conducted by a State of New York (State) or City of New York (City) governmental agency or authority that is empowered directly or by designation to compel the attendance of witnesses and to examine witnesses under oath, or conducted by the governmental agency that is a party in interest to the transaction, submitted bid, submitted proposal, contract, lease, permit, or license that is the subject of the investigation, audit or inquiry.



- 25.2(a) If any person who has been advised that his or her statement, and any information from such statement, will not be used against him or her in any subsequent criminal proceeding refuses to testify before a grand jury or governmental agency or authority empowered directly or by designation to compel the attendance of witnesses and to examine witnesses under oath concerning the award of, or performance under, any transaction, agreement, lease, permit, contract, or license entered into with the City, the State, or any political subdivision or public authority thereof, or the Port Authority of New York and New Jersey, or any local development corporation within the City, or any public benefit corporation organized under the laws of the State of New York; or,
- 25.2(b) If any person refuses to testify for a reason other than the assertion of his or her privilege against self-incrimination in an investigation, audit or inquiry conducted by a City or State governmental agency or authority empowered directly or by designation to compel the attendance of witnesses and to take testimony under oath, or by the governmental agency that is a party in interest in, and is seeking testimony concerning the award of, or performance under, any transaction, agreement, lease, permit, contract, or license entered into with the City, the State, or any political subdivision thereof or any local development corporation within the City, then:
- 25.3(a) The commissioner or agency head whose agency is a party in interest to the transaction, submitted bid, submitted proposal, contract, lease, permit, or license may convene a hearing, upon not less than (5) days written notice to the parties involved to determine if any penalties should attach for the failure of a person to testify.
- 25.3(b) If any non-governmental party to the hearing requests an adjournment, the commissioner or agency head who convened the hearing may, upon granting the adjournment, suspend any contract, lease, permit, or license pending the final determination pursuant to paragraph 25.5 below without the City and Board incurring any penalty or damages for delay or otherwise.
- 25.4 The penalties which may attach after a final determination by the commissioner or agency head may include but shall not exceed:
- (a) The disqualification for a period not to exceed five (5) years from the date of an adverse determination for any person, or any entity of which such person was a member at the time the testimony was sought, from submitting bids for, or transacting business with, or entering into or obtaining any contract, lease, permit or license with or from the City and Board; and/or
 - (b) The cancellation or termination of any and all such existing City and Board contracts, leases, permits or licenses that the refusal to testify concerns and that have not been assigned as permitted under this agreement, nor the proceeds of which pledged, to an unaffiliated and unrelated institutional lender for fair value prior to the issuance of the notice scheduling the hearing, without the City and Board incurring any penalty or damages on account of such cancellation or termination; monies lawfully due for goods delivered, work done, rentals, or fees accrued prior to the cancellation or termination shall be paid by the Board.



- 25.5 The Commissioner or agency head shall consider and address in reaching his or her determination and in assessing an appropriate penalty the factors in paragraphs (a) and (b) below. He or she may also consider, if relevant and appropriate, the criteria established in paragraphs (c) and (d) below in addition to any other information which may be relevant and appropriate:
- (a) The party's good faith endeavors or lack thereof to cooperate fully and faithfully with any governmental investigation or audit, including but not limited to the discipline, discharge, or disassociation of any person failing to testify, the production of accurate and complete books and records, and the forthcoming testimony of all other members, agents, assignees or fiduciaries whose testimony is sought.
 - (b) The relationship of the person who refused to testify to any entity that is a party to the hearing, including but not limited to, whether the person whose testimony is sought has an ownership interest in the entity and/or the degree of authority and responsibility the person has within the entity.
 - (c) The nexus of the testimony sought to the subject entity and its contracts, leases, permits or licenses with the City and the Board.
 - (d) The effect a penalty may have on an unaffiliated and unrelated party or entity that has a significant interest in an entity subject to penalties under 25.4 above, provided that the party or entity has given actual notice to the commissioner or agency head upon the acquisition of the interest, or at the hearing called for in 25.3(a) above gives notice and proves that such interest was previously acquired. Under either circumstance the party or entity must present evidence at the hearing demonstrating the potential adverse impact a penalty will have on such person or entity.
- 25.6
- (a) The term "license" or "permit" as used herein shall be defined as a license, permit, franchise or concession not granted as a matter of right.
 - (b) The term "person" as used herein shall be defined as any natural person doing business alone or associated with another person or entity as a partner, director, officer, principal or employee.
 - (c) The term "entity" as used herein shall be defined as any firm, partnership, corporation, association, or person that receives monies, licenses, leases, or permits from or through the City or Board or otherwise transacts business with the City or Board.
 - (d) The term "member" as used herein shall be defined as any person associated with another person or entity as a partner, director, officer, principal or employee.
- 25.7 In addition to and notwithstanding any other provisions of this agreement, the commissioner or agency head may in his or her sole discretion terminate this agreement upon not less than three (3) days written notice in the event the Contractor fails to promptly report in writing to the Commissioner of Investigation of the City of New York any solicitation of money, goods, requests for future employment or other benefit or thing of value, by or on behalf of any employee of the City or Board, or other person, firm, corporation or entity for any purpose which may be related to the procurement or obtaining of this agreement by the Contractor or affecting the performance of this agreement.



26. Reports, Inspection and Records

- A. The Contractor shall promptly provide all reports required by the Board, including without limitation, financial, program, statistical, analytical, narrative and progress reports. Unless otherwise provided herein, the final payment hereunder shall not be made until all reports have been submitted and approved by the Board.
- B. The Contractor shall, until six (6) years after completion of its services hereunder or six years after date of termination of this Agreement, whichever is later, maintain and retain complete and correct books and records relating to all aspects of the Contractor's obligations hereunder. Records must be maintained separately, so as to identify clearly the hours charged to this Agreement and be distinguishable from all other hours charged which are not related to this Agreement.
- C. The Contractor shall make its staff, and premises, books, records, operations, and Services provided under this Agreement, and those of its subcontractors, available to the Board and to any person, agency or entity designated by the Board, at any time, for program, audit, fiscal audit, inspection, observation, sampling, visitation and evaluation, and shall render all assistance and cooperation for said purposes. The Contractor agrees to attend, upon demand, any investigation conducted by the Board to produce any records and other documents required by the Board at that investigation, to cooperate with the Board, and to give sworn testimony pertaining to those documents or the subject of the investigation; provided only that the investigation, testimony, records and documents relate to the subject of the Contractor's relationship with the Board of Education. If a corporation, partnership or government agency, the Contractor agrees to require its officers, employees and partners to comply with the foregoing.
- D. In its record keeping the Contractor shall also comply with all federal, state and local laws and regulations pertaining to such records, including, without limitation, the regulations of the Comptroller, and shall require its subcontractors to do likewise.
- E. In the event that any federal, state or local government agency, or other public or private agency conducts an audit of any of the Contractor's operations which pertains directly or indirectly to the goods and services provided pursuant to this Agreement, within five (5) working days after receipt by the Contractor of notice of the commencement of such audit the Contractor shall give notice of such commencement to the Board; and within five (5) working days after receipt by the Contractor of a copy of any resulting interim or final audit report, the Contractor shall supply one copy thereof to the Board. (6/24/88)

27. Non-Assignment of Contract

The Contractor shall give its personal attention to the faithful performance of this Agreement. The Contractor covenants that it will not assign, transfer, convey, sublet or otherwise dispose of this Agreement or its right, title or interest therein or its power to execute such Agreement, to any other person or corporation without the previous written consent of the Chancellor or his designee. Request for permission to assign a contract shall be submitted in writing to the Chancellor's designee, Executive Director of the Division of Financial Operations, 65 Court Street, Brooklyn, New York 11201.

A non-refundable processing fee of \$250.00 for contract amounts less than \$100,000.00 and \$500.00 for contract amounts \$100,000.00 or greater shall be submitted with the request. Said



fee shall be by check or money order and made payable to the New York City Board of Education, Division of Financial Operations. The Chancellor's designee shall grant or deny such requests after consultation with the appropriate Division or Office, the decision is final and binding. If the Contractor in any way violates the terms of this provision, the Board shall have the right to cancel and terminate this Agreement, and the Board shall thereupon be relieved from all liability hereunder. Nothing contained herein shall be construed to affect an assignment by the Contractor for the benefit of its creditors made pursuant to the statutes of the State of New York. No right under this Agreement, or to any monies due or to become due hereunder, shall be asserted against the Board or the City in law or in equity by reason of a purported assignment of this Agreement, or any part thereof, or of any monies due or to become due hereunder, unless authorized as aforesaid. (Rev.11/27/02)

28. Contractor's Staff

The Contractor shall employ or contract for the services of only competent workmen, consultants, independent contractors and other employees as are, or reasonably may be, necessary for the performance of the Services hereunder.

The Contractor warrants that it shall be solely responsible for its employees' work, direction, safety and compensation. (6/84)

The Contractor agrees to replace immediately any employee, and not engage such employee in the performance of this Agreement, if the Contractor is notified in writing that, in the opinion of either the Chancellor, a Community Superintendent, or their designees, such employee is incompetent or otherwise impedes the performance of the services hereunder.

29. Confidentiality of Records

All personally identifiable student and staff information obtained by or furnished to the Contractor by the Board, and all reports and studies containing such information prepared or assembled by the Contractor, are to be kept strictly confidential by the Contractor and shall not be provided or disclosed to any third party without the express written permission of the Chancellor or his designee. The Contractor shall limit access to such material in its control to those of its employees performing services pursuant to this Agreement strictly on a need to know basis. The Contractor shall restrict its use of the information to its performance under this Agreement and shall return all such material to the Board upon the completion of the services herein.

30. Testimony

If the project which is the subject matter of this Agreement at any time becomes involved in a proceeding, to which the Board or the City is a party, before any court, board, tribunal, panel, arbitrator, referee or agency, the Contractor shall provide such knowledgeable witnesses as the Board shall require, free of additional compensation of any kind. Nothing herein shall require the Contractor to provide testimony in any proceeding in which it is a party with interests opposed to those of the Board.

31. No Personal Liability

Neither the Chancellor, nor any board members, nor any officer, employee, agent or representative of the Board or of the City shall be personally liable, based upon any theory of law or equity, to the Contractor or to any party claiming on behalf of or through the Contractor, under this Agreement, or by reason of any individual's actions or failure to act in any way connected



with this Agreement, whether or not the action shall have been within or without an individual's scope of authority. The scope of this provision includes personal injury to any personal interest (commercial or otherwise), physical injury (including death), property damages, and any pecuniary damages where such injuries or damages result from or arise out of negligence. The Contractor further waives any and all rights to make a claim or commence an action or special proceeding, in law or equity, against any of the aforementioned individuals, and the Contractor hereby assigns its complete right, title, and interest in any such claim, action, or special proceeding to the Board. (Rev. 12/12/02)

32. Indemnification

The Contractor shall protect, indemnify and hold harmless the Board and the City from any and all claims, suits, actions, costs and damages to which the Board and the City may be subjected by reason of injury to person or property, or wrongful death, as may result of any act, omission, carelessness, malpractice or incompetence of the Contractor, or anyone employed or engaged by the Contractor, in connection with the performance of this Agreement. (12/19/02)

33. Conflicts of Interest

- A. Except as stated in paragraph B, no non-governmental Contractor may have on its Board of Directors (or comparable body), employ or have under contract for services (1) any present full-time officer or employee of the City of New York or the Board of Education or any part-time officer or employee of the Board, or (2) any present full-time officer or employee of the City on leave from the City or the Board or any part-time officer or employee of the Board currently on leave from the Board. Generally, the Conflicts of Interest Board may grant waivers of this provision, if an employee or officer is not involved in the Contractor's business with the City or the Board. Said waivers are discretionary and must be approved prior to the commencement of services by that individual. The Board of Education's Ethics Officer must be contacted if an officer or employee wishes to request a waiver. (Rev. 12/12/02)
- B. No Board of Education officer or employee may serve as an unpaid member of a Board of Directors (or comparable body) of a non-governmental not-for-profit Contractor without the permission of the Chancellor. To obtain this permission, the officer or employee must contact the Board of Education's Ethics Officer. All other City officers or employees may serve as unpaid members of Boards of Directors (or comparable body) of a non-governmental not-for-profit Contractor, if the officer or employee has no involvement with the Contractor's business with the City or the Board. (Rev. 11/27/02)
- C. No officer or employee of the Board of Education, or the officer or employee's spouse/domestic partner or unemancipated child(ren) can have an ownership interest in the contractor, defined as an interest which exceeds five percent of the firm or an investment of \$32,000 in cash or other form of commitment, whichever is less, and any lesser interest when the officer or employee or spouse, unemancipated child(ren), or domestic partner exercises managerial control or responsibility regarding any such firm. For Contractors with stock that is publicly traded, compliance with this subparagraph C is the obligation of Board of Education employees and officers. (1/16/03)
- D. No former officer or employee of the Board may appear before the Board on behalf of a non-governmental Contractor within one year of the former officer or employee's



termination of service with the Board. An appearance before the Board includes all communications with the Board. However, a former employee of the Board is not prohibited from serving on a non-governmental Contractor's Board of Directors (or comparable body), or from employment or contracting for services with the Contractor, provided that the former employee does not appear before the Board within one year of the termination of service with the Board.

- E. No former officer or employee of the City (including the Board) may have any involvement on behalf of a non-governmental Contractor with any aspect of a contract, including services under that contract, if that former officer or employee was involved substantially and personally with any aspect of that contract while employed by the City. Any former City employee whose duties for the City or the Board involved a contract shall contact the New York City Conflicts of Interest Board for clarification before having any involvement with the contract on behalf of a non-governmental Contractor or any other private interest.
- F. The Contractor warrants that, other than a bona fide employee or contractor regularly working as a sales representative for the Contractor, no person, selling agency, or other entity has solicited or secured this Agreement, or has been employed or retained to do so, for a commission, percentage, brokerage fee or contingent fee.
- G. The Contractor shall not give, and warrants that it has not given or promised to give, any gift to a community school board member, school leadership team member or to any officer, employee or other person whose salary is payable in whole or part from Board or City funds, or other funds under this Agreement. The word "gift" shall include, without limitation, money, tangible goods, services, loans, promises or negotiable instruments. (2/13/01)
- H. If the Contractor violates any provision of this paragraph, the Board may, at its option: (1) cancel and terminate this Agreement and be relieved of all liability hereunder; (2) deduct all amounts paid by the Contractor or other value given by the Contractor in violation of this paragraph from payments made or to be made to the Contractor under this or any other Agreement at any time; (3) require the refund of any funds paid hereunder; (4) any combination of the foregoing; or (5) any other action the Board deems necessary and appropriate as permitted by law. Any breach of the warranties or violation of the provisions of this paragraph shall be grounds to find the Contractor or its principals as not a responsible bidder on other Board or City contracts.
- I. Provider shall adhere to the Central Board of Education policy on Conflicts of Interest, the Chancellor's Regulations on Conflicts of Interest C-110, and the New York City Charter provisions on Conflicts of Interest which are hereby incorporated by reference as if fully attached hereto.

34. Antitrust

The Contractor assigns to the Board its right, title and interest in and to any claim or cause of action arising under the antitrust laws of New York State or the United States relating to the goods or Services purchased or procured by the Board pursuant to this Agreement.



35. Merger and Choice of Law

This written Agreement constitutes the entire agreement of the parties, and no other prior or contemporaneous agreement, oral or otherwise, regarding the subject matter of this Agreement shall be deemed to exist or bind any of the parties hereto, or to vary any of the terms contained herein. This Agreement shall be governed and construed in accordance with the laws of the State of New York without regard to its conflict of law rules.

36. Participation in an International Boycott

- A. The Contractor agrees that neither it nor any substantially-owned affiliated company is participating or shall participate in an international boycott in violation of the provisions of the Export Administration Act of 1979, as amended, or the regulations of the United States Department of Commerce promulgated thereunder.
- B. Upon the final determination by the Commerce Department or any other agency of the United States that the Contractor or a substantially-owned affiliated company thereof, participated, or is participating, in an international boycott in violation of the provisions of the Export Administration Act of 1979, as amended, or the regulations promulgated thereunder, the Chancellor or his designee may, at his option, render forfeit and void this contract. (1/12/89)

37. No Discrimination

- A. The Contractor will strictly comply with all applicable Federal, State and Local laws pertaining to the subject of discrimination on any ground, as they may now read or as they may hereafter be amended.
- B. The Contractor is, and will remain, an Equal Opportunity Employer. In addition to the other requirements of this paragraph 37, the Contractor shall provide equal opportunity for all qualified persons, and shall not discriminate in employment because of race, creed, gender, color, age, sexual orientation, national origin, handicapping condition, marital status, or religion and shall promote the full realization of equal opportunity. (Rev. 9/20/88)
- C. Pursuant to the provisions of the New York State Labor Law, the Contractor agrees, in its operations performed within the State of New York:
 - (1) That in the hiring of employees for the performance of work under this contract or any subcontract hereunder, neither the contractor, subcontractor, nor any person acting on behalf of such contractor or subcontractor, shall by reason of race, creed, color, sex or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the work to which the employment relates;
 - (2) That no contractor, subcontractor, nor any person on his behalf shall, in any manner, discriminate against or intimidate any employee hired for the performance of work under this contract on account of race, creed, color, sex or national origin;



- (3) That there may be deducted from the amount payable to the contractor by the state or municipality under this contract a penalty of five dollars for each person for each calendar day during which such person was discriminated against or intimidated by the contractor or subcontractor, or anyone acting on behalf of the contractor in violation of the provisions of the contract;
- (4) That this contract may be cancelled or terminated by the state or municipality, and all moneys due or to become due hereunder may be forfeited, for a second or any subsequent violation of the terms or conditions of this section of the contract;
- (5) The aforesaid provisions of this section covering every contract for or on behalf of the state or a municipality for the manufacture, sale or distribution of materials, equipment or supplies shall be limited to operations performed within the territorial limits of the State of New York; and
- (6) That the Board is, for purposes of this subparagraph C., a "state or municipality." (Rev. 11/25/96)

38. Equal Employment Opportunity Requirements for Professional Contractors

A. Definition of Terms for the Implementation of a Program of Affirmative Action.

The following terms, when used in this paragraph, shall have the meanings given for them.

- (1) "Employee": Any person employed full or part-time in any capacity by the Contractor or sub-contractor.
- (2) "Minority Groups and Affected Classes": Blacks, Hispanics (Non-European), Asian Americans, American Indians, females and individuals with handicapping conditions.
- (3) "Program of Affirmative Action": A detailed, result-oriented set of written procedures submitted by a Contractor or sub-contractor which when implemented with conscious effort results in compliance with the Equal Opportunity Policy herein, through full utilization and equal treatment of minorities, women and individuals with handicapping conditions at all levels and in all segments of the Contractor's or sub-contractor's work force. An effective Program of Affirmative Action shall include but not necessarily be limited to, the following elements: (Rev. 9/20/88)
 - (a) Development or reaffirmation of the Contractor's or sub-contractor's Equal Opportunity Policy;
 - (b) Dissemination of the Policy;
 - (c) Responsibility for implementation;
 - (d) A survey and analysis of employment at all levels and in all categories and aspects of the Contractor's or sub-contractor's work force, which



determines if and at which levels, categories, and aspects there is an underutilization of minority and female employees;

- (e) An analysis of employment policies and practices, including but not limited to seniority systems, recruitment, training, promotion, insurance and job benefits and their effects upon minorities, women and individuals with handicapping conditions;
 - (f) Corrective actions taken, or to be taken, toward the elimination of any employment policy or practice having a discriminatory effect on minority group members and women; and
 - (g) Description of the Contractor's efforts to engage, as sub-contractors, bona fide minority business enterprises and female enterprises.
- (4) "Goals and Timetables": Projected levels of achievement resulting from an analysis by the Contractor or sub-contractor of its deficiencies, and of what it can reasonably do to remedy them within a specified time period.
- (5) "Underutilization": Having fewer minorities, women and individuals with handicapping conditions in a particular job classification than would reasonably be expected by their availability in the appropriate labor force.
- (6) "The Office": The Office of Equal Opportunity of the Board.

B. Required Program of Affirmative Action

- (1) The Contractor is required to identify and eliminate overt and covert discriminatory practices and implement the Program of Affirmative Action. Upon demand of the Office the Contractor shall submit to the Office a detailed written Program of Affirmative Action (hereinafter referred to as a "P.A.A."). In the event the Contractor submits a P.A.A. not acceptable to the Office, the Office will require the correction or revision of the P.A.A. to its satisfaction.
- (2) In the event the Contractor fails to submit such an acceptable P.A.A. within the time specified in the demand, the Contractor may be declared in default. The Director shall be the sole judge of the P.A.A.'s acceptability. The P.A.A. shall:
 - (a) Apply to all Board of Education professional services contracts with the Contractor;
 - (b) Encompass all phases of the employment process, including evaluation of job classification to ensure job relatedness, recruitment, selection, validity of examinations, retention, layoffs, seniority, assignments, training, promotion, salary and benefits;
 - (c) Fulfill the following requirements:



- (i) Include measurable goals, reasonable timetables and specific programs to be implemented by the contractor to identify and eliminate deficiencies in employment practices with respect to the underutilization of members of minority groups and members of affected classes;
- (ii) Include a statement of the present utilization of minority group members and women in the Contractor's work force and a projection of the minority utilization in the Contractor's work force for the life of the Contract and for at least a one-year period succeeding its completion. This statement and projection shall include present and projected (1) rates of hiring and promotion of minority group members and women in specific job categories at each wage rate within each level of employment and according to major organizational unit, and (2) percentages of minority group and women utilization in specific job categories at each wage rate within each level of employment, and according to major organizational work force;
- (iii) Include all of the Contractor's facilities within New York City as well as those facilities located elsewhere within the continental limits of the United States;
- (iv) Specify the union(s) or other employee organizations to which the Contractor's employees belong, and shall include commitments to good faith efforts to effect Equal Opportunity changes directly or indirectly, in programs by such unions or organizations to recruit, train, qualify or otherwise select members, if such changes are deemed necessary. The P.A.A. shall also include a copy of any agreement with an employee association which affects employment policies and practices;
- (v) Be submitted in such format as shall be specified by the Director of the Office;
- (vi) Include a commitment to submit to the Director a separate P.A.A., of the form (i) to (v) hereof, for each subcontractor prior to approval of the subcontractor by the Board of Education;
- (vii) Include a written evidence or proof which shows that minority entrepreneurs have been solicited and given an equal opportunity to submit proposals and that such proposals have been given equal consideration for award;
- (viii) Contain commitments as to goals for minority and affected classes employment and adoption of equal employment practices not less strict than the commitments contained in the Contractor's most recent P.A.A. which was approved by the Office.



C. Compliance Inspection Report

Upon demand of the Office the Contractor shall, within the specified time, submit to the Office a Compliance Inspection Report. The completed Compliance Inspection Report must be returned to the Office within such time as is specified in the requisition for information accompanying the report form.

D. Conferences

The Contractor shall attend such conferences as shall be required by the Office for the purpose of acquainting it with the statutory and contractual requirements and what specific measures shall constitute an acceptable P.A.A.

E. Implementation of P.A.A.

During the Term of the Contract, the Contractor shall successfully implement the P.A.A. approved by the Office.

F. Default

If, in the opinion of the Office, the Contractor has breached any of the requirements of paragraphs 36 or 37 hereof it may seek to have the Contractor declared in default by the Chancellor's designee as provided elsewhere herein. (Rev. 10/10/02)

For further information concerning these rules, regulations or procedures, contractors may consult with the Office of Equal Opportunity of the Board.

39. MacBride Principles Provisions for Board of Education Contractors

ARTICLE I. MACBRIDE PRINCIPLES

PART A

In accordance with section 6-115.1 of the Administrative Code of the City of New York, the Contractor stipulates that such Contractor and any individual or legal entity in which the Contractor holds a ten percent or greater ownership interest and any individual or legal entity that holds a ten percent or greater ownership interest in the Contract either (a) have no business operations in Northern Ireland, or (b) shall take lawful steps in good faith to conduct any business operations they have in Northern Ireland in accordance with the MacBride Principles, and shall permit independent monitoring of their compliance with such principles.

PART B

For purposes of this section, the following terms shall have the following meanings:

"MacBride Principles" shall mean those principles relating to nondiscrimination in employment and freedom of workplace opportunity which require employers doing business in Northern Ireland to:



- (1) increase the representation of individuals from underrepresented religious groups in the work force, including managerial, supervisory, administrative, clerical and technical jobs;
- (2) take steps to promote adequate security for the protection of employees from underrepresented religious groups both at the workplace and while traveling to and from work;
- (3) ban provocative religious or political emblems from the workplace;
- (4) publicly advertise all job openings and make special recruitment efforts to attract applicants from underrepresented religious groups;
- (5) establish layoff, recall and termination procedures which do not in practice favor a particular religious group;
- (6) abolish all job reservations, apprenticeship restrictions and different employment criteria which discriminate on the basis of religion;
- (7) develop training programs that will prepare substantial numbers of current employees from underrepresented religious groups for skilled jobs, including the expansion of existing programs and the creation of new programs to train, upgrade and improve the skills of workers from underrepresented religious groups;
- (8) establish procedures to assess, identify and actively recruit employees from underrepresented religious groups with potential for further advancement; and
- (9) appoint a senior management staff member to oversee affirmative action efforts and develop a timetable to ensure their full implementation.

ARTICLE II. ENFORCEMENT OF ARTICLE I.

The Contractor agrees that the covenants and representations in Article I above are material conditions to this contract. In the event the contracting entity receives information that the Contractor who made the stipulation required by this section is in violation thereof, the contracting entity shall review such information and give the Contractor an opportunity to respond. If the contracting entity finds that a violation has occurred, the entity shall have the right to declare the Contractor in default and/or terminate this contract for cause and procure the supplies, services or work from another source in any manner the entity deems proper. In the event of such termination, the Contractor shall pay to the entity, or the entity in its sole discretion may withhold from any amounts otherwise payable to the Contractor, the difference between the contract price for the uncompleted portion of this contract and the cost to the contracting entity of completing performance of this contract either itself or by engaging another contractor or contractors. In the case of a requirements contract, the Contractor shall be liable for such difference in price for the entire amount of supplies required by the contracting entity for the uncompleted term of its contract. In the case of a construction contract, the contracting entity shall also have the right to hold the Contractor in partial or total default in accordance with the default provisions of this contract, and/or may seek debarment or suspension of the Contractor. The rights and remedies of the entity hereunder shall be in addition to, and not in lieu of, any rights and remedies the entity has pursuant to this contract or by operation of law. (8/92)



40. Set-Off Rights

The Board shall have all of its common law, equitable and statutory rights of set-off. These rights shall include, but not be limited to, the Board's option to withhold for the purposes of set-off any moneys due and owing to the Board with regard to this Agreement, any other agreement with the Board, including any agreement for a term commencing prior to the term of this Agreement, plus any amounts due and owing to the Board for any other reason. The Board shall exercise its set-off rights in accordance with normal Board practices including, in cases of set-off pursuant to an audit, the finalization of such audit by the Board, its representatives, or the State or City Comptroller. (1/95)

41. Non-Collusive Bidding

If this Agreement was awarded by the Board based upon the submission of bids or proposals, Contractor warrants under penalty of perjury, that its bid or price quotation was arrived at independently and without collusion aimed at restricting competition. (10/92)

42. Intentionally Left Blank (Burma Provision Deleted 9/6/01)

43. Intentionally Left Blank (Year 2000 Compliance Required Deleted 11/27/02)

44. Fair and Ethical Business Practices

A. Fair and Ethical Business Practices shall be strictly adhered to during the term of this Agreement. During the term of this Agreement, Contractor shall not:

- (1) File with a government office or employee, a written instrument which intentionally contains a false statement or false information;
- (2) Intentionally falsify business records;
- (3) Give, or offer to give, money, gifts or anything of value or any other benefit to a labor official or public servant with intent to influence that labor official or public servant with respect to any of his or her official acts, duties or decisions as a labor official or public servant;
- (4) Give or offer to give, money, gifts or anything of value or any other benefit to a labor official or public servant for any reason;
- (5) Give, or offer to give, money, gifts or other benefit(s) to an official or employee of a private business with intent to induce that official or employee to engage in unethical or illegal business practices;
- (6) Knowingly participate in the criminal activities of any organized crime group, syndicate or "family," nor shall any person employed by or associated with any such organized crime "family," syndicate or group participate through criminal means in any of the business affairs of Contractor.

B. Contractor certifies throughout the term of this Agreement, that there have been no changes in circumstances, conditions or status of Contractor's qualification(s) as reflected in Contractor



Questionnaire or other such documents submitted to the Board. Any change in the information provided by Contractor in its questionnaire currently on file with the Board must be immediately reported to the Board. In addition, Contractor shall immediately notify the Board of any of the following events if it becomes known that any director, partner, officer, member or employee of Contractor, or any shareholder owning 5% or more of Contractor's membership interests:

- (1) is the subject of investigation involving any violation of criminal law or other federal, state or local law or regulation by any governmental agency; or
- (2) is arrested, indicted or named as an unindicted co-conspirator in any indictment or other accusatory instrument; or
- (3) is convicted of any felony under state or federal law and/or any misdemeanor involving a business-related crime. (10/8/98)

45. Indemnification Language

The Contractor shall defend, indemnify and hold the Department and the City harmless from and against any and all claims, suits, damages, judgments, liabilities, costs, and expenses, including reasonable attorneys' fees, to which they may be subject because of or related to any claim that the Copyrightable Materials or their use constitutes an infringement by the Contractor or a violation by the Contractor of the copyright, patent, trademark, or any other property or personal right of any third party. For the purposes of this provision, "Copyrightable Materials" shall include any reports, documents, data, photographs, software, and/or other materials provided pursuant to this agreement, regardless of whether the copyright in such materials is or shall be owned by the Department, the Contractor, or third parties. This indemnification shall survive the termination or expiration of this Agreement. This indemnification provision shall not be limited in any way by the Contractor's obligations to obtain insurance as provided under this Agreement. Furthermore, Contractor shall defend and settle at its sole expense all suits or proceedings brought against Contractor arising out of the foregoing. However, in cases involving software, no such settlement shall be made that prevents the Department from continuing to use the software without the Department's prior written consent, which consent shall not be withheld unreasonably. 1/15/03



APPENDIX F – Infrastructure Overview

1. Overview

The current NYCDOE network is large and complex, with a central downtown Brooklyn campus consisting of five buildings, one Data Center, six Integrated Support Centers (ISC) and more than 1200 school sites. The NYCDOE network comprises multiple major building blocks including an IP network, Mainframe and client server application environment and is governed by security restrictions needed to protect student information.

2. IP Network

The current IP network consists of a main data center at 2 Metrotech Center that provides application and network services to a number of remote sites, including the downtown Brooklyn campus, central headquarters at the Tweed Courthouse, and 1200 remote school sites. Current network hardware consists primarily of Cisco routers, switches, PIX firewalls, VPN concentrators, CSS and CSM load balancers. School Local Area Networks (LANs) operate at 100 Mbps.

WAN

School Wide Area Network (WAN) operate with a mix of high speed ATM and EVPL fiber links at 5 – 10 Mbps, primarily for high schools and junior high schools, and T1 Frame-Relay and T1 point-to-point circuits, operating at 1.544 Mbps, primarily for elementary and middle schools. Downtown Central Administrative Offices' WAN operates via DS-3 circuits integrated into the central core network at 2 Metro Tech Center.

The school WAN network is supported by a high speed SONET DWDM ring operating at 10 Gbps. School traffic is sent to six ISCs acting as nodes on the ring. Each of the six ISCs support approximately 200 schools. Three diversified ISP POPs have been established in three ISCs to provide robust Internet access to students, teachers and administrative users.

The School WAN is based on a high speed Wavelength Division Multiplexed (WDM) Synchronous Optical Network (SONET) ring. SONET is an international standard for optical transmission. Access lines from schools and administrative offices are directed toward one of six Regional Operations Centers (ROCs) for termination on SONET multiplexing equipment. Riding over the ONET ring, traffic can be dropped at any of the other ROCs or 2 Metrotech. This allows the DOE to distribute its computer resources as well as provide diverse nodes for Internet access. The ring itself is initially configured at 10 Gbps. Upgrades to 40 Gbps are possible by adding cards to existing equipment racks. Upgrades up to 320 Gbps are possible by adding additional hardware.

LANs

Local Area Networks (LANs) are provided at each school and administrative site to support intra-location communication and provide access to necessary peripherals, servers and WANs. LANs support the entire DOE population of more than 1,100,000 students and 80,000 teachers and administrators.

At each school, LAN communication is partitioned into two virtual LANS (VLANs), an administrative VLAN and an instructional VLAN. Users working on the administrative LAN have access, via their LAN and WAN connection, to sensitive student data stored on systems such as Automate the Schools (ATS). Students and teachers use the instructional LAN to connect through the WAN to Internet access. The DOE strictly enforces this partition in order to maintain the security of student records.



Hardware supporting school LANs includes domain controllers, switches, firewalls and routers. This equipment is deployed in a series of Intermediate Distribution Frames (IDFs) throughout the school and a single Main Distribution Frame (MDF) that connects the IDFs and provides access to the WAN.

DOE LANs work with a variety of Windows and Mac computers, and many versions of Windows and Mac operating systems are currently in use at DOE schools. In the last few years, schools have greatly increased the use of wireless laptop computers in their classrooms. To accommodate these devices, wireless access points have been installed in schools, connecting users, wirelessly, with the school's instructional LAN.

Remote Network Access

Remote network access to internal DOE network applications is often required by DOE staff working away from their base locations, by vendors working with the DOE who need access to specific data, and by non-DOE NYC governmental agencies. This remote access is established through secure communications over the Internet via Virtual Private Networks, LAN to LAN VPN, secure socket layer protocols, and terminal services.

Authorized staff members working at remote locations are able to access secure, encrypted data resources and applications from NYC Department of Education's internal network called the Intranet, by means of a broadband connection to the public Internet. DOE/DIIT conforms and acts in accordance with NYC agency security directives.

The process of securing VPN accounts is usually coordinated by ROC staff working with staff at 2 Metrotech, where the VPN accounts are approved and created. Limited remote access may be provided for vendors managing equipment co-located in the DoE's facilities, subject to certain restrictions as specified by DoE security policy.

Network Security

A security policy exists for both the school/district and the central administration network. Vendors planning on-line testing should note that schools are configured for outbound session only, and sessions can be initiated only on ports that are restricted for this purpose. Furthermore, all web access from school networks must pass through a filtering proxy server; no direct access to the internet (port 80) is permitted. Central administration is configured for any outbound session, however only specific incoming ports are allowed for Department of Education's (DoE) enterprise services. Well known ports are open for ingress traffic to specific servers, located in the DoE's perimeter network, for WWW, SSL, SMTP and other applications. No ports are open for ingress traffic to servers housed in the DoE's private internal network.

The collection of all pages made public over the official DoE website by any district/school/office must adhere to the Internet Acceptable Use Policy approved by the Department of Education, February 2001 and revised February 2006. It can be viewed at:

<http://www.nycenet.edu/Administration/Offices/FinanceandAdministration/DIIT/Departments/WebServices/iaup/default.htm>

A department has been recently created to review all security processes and policies. At this time a process exists for providing VPN services, and other processes are being developed.

A Cisco Secure PIX firewall is used to safeguard each network. Security parameters are changed by the Network Administrators (4 total). The changes are approved by the architecture committee and are subject to signature approval at the weekly Quality Assurance Change Control meeting. Currently DoE is in the process of fully deploying an Intrusion Detection and Prevention system to all parts of the network. Malicious and abnormal network activity is being detected and reviewed by our security operational staff. A host-based intrusion prevention system (Cisco Security Agent or CSA) is installed on most school



workstations. Adjustment of CSA settings may be required for certain client applications to function properly, and is performed centrally by the security operational staff.

The DOE currently utilizes a multi-tiered proxy infrastructure, including a filtering proxy (Symantec Web Security or SWS) and several caching proxies (Cisco Content Engines and Microsoft ISA 2004). All web traffic passes through these proxies on a non-standard port. Web browsers on school computers are configured to locate these proxies using a Proxy Autoconfiguration (PAC) file.

Allot Communications NetEnforcer have been providing us visibility and dynamic control over internet bandwidth utilization by different applications and users. NetEnforcer's ability to identify, classify, prioritize, and shape network traffic has allowed us to reduce the undesirable traffic such as P2P traffic to acceptable limits. The appropriate packet shaping policies are established by the Architecture Committee. "Top Talker and Application" reports resulting from this analysis has enabled DoE to pinpoint problematic applications and users. Procedures are currently being developed to keep Superintendents and principals aware of any abuse that occurs under their jurisdiction.

3. Mainframe and Client/Server Application Environment

DIIT developed and managed applications are supported by two major organizations – Productions Systems and Major Systems Development. The Production Systems organization is responsible for business and student applications that are hosted on the mainframe. The Major Systems Development organization develops "new" web-based and client-server applications that typically enhance and/or extend the production mainframe-based business (personnel and payroll) and student (general and special education).

The NYCDOE has developed a hardware standard to support the increasing demands for application services. Oracle and SQL databases, Web services and Crystal reporting systems typically run on IBM 3XXX servers. QA and development environments are typically standardized on IBM Blade Centers using VMware. Database and application are backed up nightly to a Client Disc Library (CDL).



Appendix G – NYCDOE Security Policies and Standards

Note: This appendix includes sections 5.6-5.8 from the NYCDOE Security Standards document

Communications and Operations Management

The New York City Department of Education shall produce and maintain formal documented information processing procedures for all information systems including the management and operation of their communications and operations.

- All key **operating procedures** shall be documented for all systems and devices to the detail required of a person with working knowledge of the machine or device.
- **Operating procedures shall include:**
 - The processing and handling of information in the Administrative and Instructional network environments;
 - Scheduling requirements, including interdependencies with other systems, earliest job start and latest job completion times, if applicable;
 - Documentation for instructions on handling errors or other exceptional conditions;
 - The required access to system utilities as well as the restrictions required for these powerful tools;
 - The support contact(s) names and phone numbers in the event of unexpected operational or technical difficulties;
 - How to manage special output handling instructions, such as the use of special stationery or the management of confidential output, including procedures for secure disposal of output from failed jobs; and
 - System restart and recovery procedures for use in the event of system failure.
- Key documentation shall be kept current when changes are made or when systems are added, removed, upgraded or modified.
- Documented operating procedures shall be linked to the change management process and not closed until the documentation has been updated.
- Information systems administration shall develop and implement procedures to prevent programs running in the wrong order, or running after a failure of prior processing.
- Information systems administration shall ensure the use of correct programs and utilities to recover from failures, in order to guarantee the accuracy of the subsequent processing of data.

Segregation of Security Duties

Adequate separation of critical functions shall be implemented to reduce the risk of collusion or accidental system misuse.

- Whenever separation of duties is difficult to achieve, other compensatory controls such as monitoring of activities, audit trails reviews and management supervision shall be implemented.
- The audit of security activities shall remain independent of the security function.



- Organizational and procedural controls shall be implemented to ensure no single person can commit fraud without detection.
- The initiation of transactions or events shall be separate from their approval.

Separation of Development, Test and Production Environments

Development, testing, and operational activities shall be performed in separate environments.

- Development, test and production environments shall be separate environments. Where sensitive information is involved, this includes different network segments and separate physical or logical machines;
- Data used in the test and development environment shall be anonymous or unspecified for confidentiality and privacy reasons;
- Different procedures and passwords shall be used for logging into the production and test systems. To further prevent errors, the login banner or identification messages should specify the type of environment a user may be accessing.
- System utilities such as compilers and editors shall not be accessible from production systems, when not required.
- Emergency change procedures shall be defined to ensure that emergency changes are consistently documented and reviewed.

Sharing Information with External Parties

The New York City Department of Education shall require all facilities that are managed by third parties to maintain an appropriate level of security.

- External contractors that provide services shall provide a level of assurance that is acceptable to the New York City Department of Education.
- Security requirements for third party service providers shall be based on risk assessments and detailed in the contracts with the third party service providers.
- Implications for the New York City Department of Education's business continuity plans shall be considered when requiring services from external parties
- External contractors or parties shall be provided with security standards and the process by which they shall measure compliance to these standards.
- Contracts between third parties and the New York City Department of Education shall include requirements for maintaining privacy of information and address confidentiality, integrity and availability requirements.
- Communications of sensitive information shall be encrypted between parties when using a public network.

Network Management

The New York City Department of Education shall implement a range of network controls to maintain security in its Administrative and Instructional networks.

- Measures shall be implemented to limit traffic flow between the Administrative and Instructional networks, except for network management purposes.
- Controls shall be in place to ensure the protection of both the Administrative and Instructional networks from connected outside services and networks.



- Operational responsibility for networks shall be separate from computer operations, when possible.
- Responsibilities and procedures for the management of remote equipment, including equipment in user areas, shall be established.
- All sensitive data passing over public networks shall be encrypted according to its classification requirements.
- Built in alerts and/or alarms shall be configured and activated to notify the Network Administrator if unauthorized attempts are made to access or probe network services.
- Network devices shall be reviewed on an annual basis to validate that the equipment in place agrees with the documented inventory, and a report shall be provided to management documenting the findings.

Vulnerability Scanning

All the New York City Department of Education owned systems shall be scanned for vulnerabilities and weaknesses.

- For hosts that are accessible from outside the New York City Department of Education network, vulnerability scanning shall be performed on an annual basis and after software, operating system or configuration changes are made.
- For internal systems, scans shall be performed, at least annually.
- Where the New York City Department of Education has outsourced a server, application or network services, responsibility for scanning shall be coordinated by the New York City department of Education CSO.
- A process to perform the scanning shall be defined by the New York City Department of Education, tested and followed at all times to minimize the possibility of disruption.
- Reports from vulnerabilities scans shall be forwarded to the New York City Department of Education CSO.
- Vulnerability scanning shall be conducted exclusively by CSO authorized New York City Department of Education staff or 3rd party.

Penetration & Intrusion Testing

Penetration testing shall be performed periodically to identify vulnerabilities that could allow unauthorized network access from the Internet.

- All New York City Department of Education computing systems that provide information through a public network, shall be subjected to New York City Department of Education penetration analysis and intrusion testing
- The penetration testing and analysis shall be designed to determine if:
 - an individual can make an unauthorized change to an application;
 - a user may access an application and cause it to perform unauthorized tasks;
 - an unauthorized individual may access, destroy or change any data; or
 - an unauthorized individual may access an application and cause it to take actions unintended by the application designer(s)



- Only New York City Department of Education staff or 3rd parties authorized by the CSO shall perform penetration testing.

Internet and Electronic Mail Acceptable Use

Please see The New York City Department of Education Acceptable Use Policy

External Connections

A secure environment shall be provided to ensure that transactions, data and infrastructure are protected against threats from the Internet.

- A router shall be established and secured with firewalls to prevent internet users from having direct access to the New York City Department of Education's internal, trusted network.
- Confidential or sensitive data shall not be stored on any device in the DMZ.
- All web-pages containing personal information or financial transaction information shall be encrypted using 256 bit or higher encryption.
- Individuals accessing a New York City Department of Education's website to view personal information shall be identified and authenticated prior to access being granted.
- Users shall only be able to view their own data.
- All web transactions shall be logged with user ID, date, time, and transaction details.
- Confidentiality shall be maintained using encryption techniques, where appropriate.
- All New York City Department of Education's web applications and web pages shall be backed up, and restoration procedures shall be developed and tested to ensure timely recovery of the website.

Security of Electronic Mail

The New York City Department of Education shall implement security measures to reduce the risks associated with electronic mail.

- Email users shall not share their User IDs and passwords with anyone.
- Staff members should be notified of the existence of the New York City Department of Education's Email Acceptable Use Policy, and that their transmissions may be monitored, thus eliminating any expectation of privacy.
- All E-Mail shall go over approved organization gateways.
- E-Mail systems shall be used primarily for business related purposes.
- Users shall not archive, store, distribute, transmit, edit, record, create, or receive E-Mails containing:
 - intimidating, offensive, or hostile material
 - discriminatory information regarding age, race, color, religion, sex, or national origin
 - sexually explicit, obscene, threatening, or otherwise offensive images, documents or messages
- No users shall send E-Mail originating from another user unless authorized to do so.
- All messages composed, sent, or received on the E-Mail system are considered to be the property of the New York City of Education.



- Deleting E-Mail messages or files do not completely remove them from the system and the New York City Department of Education may still recover them for viewing.
- E-Mails produced by any New York City Department of Education user belong to the New York City Department of Education.
- Each individual using E-Mail at work shall identify him/herself honestly, accurately and completely.
- Users shall not retrieve or read any E-Mail messages that are not addressed to them without permission.
- Users shall be educated in the personal use of E-Mail:
 - Occasional personal use of E-Mail and Internet systems is permitted, as long as such use does not adversely impact the Users productivity or the New York City Department of Education's business processes.
 - Personal use shall not use excessive amounts of system resources (e.g. processing power, data storage space).
 - Personal use shall not involve solicitation or be related to outside business activities.
- E-Mail files containing sensitive New York City Department of Education information shall be encrypted using approved New York City Department of Education encryption software.
- E-Mails shall be monitored for violations and those identified shall be brought to management's attention.
- New York City Department of Education reserves the right to review, audit, interpret, access and disclose all messages created, received, sent or stored over the E-Mail system for any purpose.
- Users shall not use E-Mail to deliberately propagate malicious code (e.g. viruses, worms, Trojan horses).
- Users shall not knowingly use New York City Department of Education's Internet equipment or software to disable or overload any computer system or network or to circumvent any system intended to protect the privacy or security of another user.
- Files downloaded from E-Mail shall be scanned by anti-virus software before being loaded on to any New York City Department of Education system.
- Non-standard applications, executables and other files that are received via E-Mail shall not be executed or loaded onto a user's machine.
- Individuals shall not release confidential New York City Department of Education information via E-Mail.

Instant Messaging, Teamrooms and Conferencing

The New York City Department of Education shall provide security protection of its network when Instant Messaging, Teamrooming and Conferencing technologies are deployed.

- Instant Messaging, Teamrooming and Conferencing systems shall not be connected to external parties or networks without the written approval of the New York City Department of Education Chief Security Officer.
- Connection by a 3rd party to a New York City Department of Education Instant Messaging system requires an appropriate non-disclosure agreement together with authentication, access control, data protection and logging mechanisms.



- External, public Instant Messaging, Teamrooms and Conferencing services shall not be used to conduct the New York City Department of Education business unless authorized in writing by the New York City Department of Education senior management and the New York City Department of Education CSO.
- Non-public New York City Department of Education information shall not be exchanged over an Instant Messaging or conferencing system unless authorized by the New York City Department of Education senior management.

Portable Devices

All portable computing resources and information media shall be secured to prevent loss resulting in compromise of confidentiality or integrity of the information it contains.

- When using mobile computing facilities, such as notebooks, palmtops, laptops and mobile phones, controls include physical protection, access controls, cryptographic techniques, back-ups, virus protection, shall be implemented to ensure that information is not compromised.
- Controls shall be in place to avoid the risk of unauthorized persons viewing information on-screen when portable devices are used in public places.
- Procedures to protect against malicious software shall be developed and implemented and be kept up to date.
- Equipment shall be available to enable the quick and easy back up of information.
- Equipment carrying important, sensitive and/or critical business information shall not be left unattended and, where possible, shall be physically locked away, or special locks shall be used to secure the equipment.
- Employees in the possession of portable, laptop, notebook, palmtop, and other transportable computers shall not check these computers in airline luggage systems.

Telephone and Fax Equipment

The use of telephones outside the New York City Department of Education for business reasons is sometimes necessary, but can create security exposures. Employees should:

- take care that they are not overheard when discussing sensitive or confidential matters;
- avoid the use of wireless or cellular phones when discussing sensitive or confidential information;
- avoid leaving sensitive or confidential messages on voicemail systems;
- verify the destination phone number for sensitive or confidential fax, and contact the recipient to ensure protection of the fax, either by having it picked up quickly or by ensuring that the fax output is in a secure area;
- avoid using Internet fax services to send or receive sensitive or confidential information;
- not use third party fax services to send or receive sensitive or confidential information;
- not send sensitive or confidential documents via wireless fax devices;
- not send teleconference call-in numbers and passcodes to a pager, if sensitive or confidential information shall be discussed during the conference;
- confirm that all participants are authorized to participate before starting any discussion, when chairing a sensitive or confidential teleconference.



Wireless Networks

No wireless network or wireless access point shall be installed without a risk assessment being performed and the written approval of the New York City Department of Education CSO.

- Media Access Control (MAC) address restriction, authentication and encryption shall be implemented to protect wireless network or access points.
- When selecting wireless technologies, 802.11x wireless network security features on the equipment shall be available and implemented from the beginning of the deployment.
- Access to systems that hold non-public information or the transmission of non-public or sensitive information via a wireless network is not permitted unless appropriate and adequate measures have been implemented and approved by the New York City Department of Education CSO.

Modem Usage

Connecting dial-up modems to computer systems on to the New York City Department of Education network is prohibited, unless a business case is justified and approved by the New York City Department of Education IT department and the New York City Department of Education CSO. If approved, the following conditions shall apply:

- For Outbound service (Configured for outgoing calls only):
 - modems shall not be left connected to computers in auto-answer mode, such that they are able to receive in-coming dial-up calls;
 - communications systems shall not be established that accept incoming dial-up calls;
- For Inbound service (Configured for modem to accept incoming calls only):
 - all dial-up modem phone numbers shall be kept confidential;
 - dial-up modem shall be configured not to answer calls before the fourth ring;
 - system configuration shall be set up to disconnect after three unsuccessful password attempts.

Public Website Content Approval Process

The New York City Department of Education shall protect the integrity of electronically published information.

- The content of each public site shall be reviewed according to a process that is defined and approved by the New York City Department of Education.
- Sensitive or confidential New York City Department of Education information shall not be made available through a server that is available to a public network without appropriate safeguards approved by the New York City Department of Education CSO.
- The New York City Department of Education CSO shall implement safeguards to ensure user authentication, data confidentiality and integrity, access control, data protection and logging mechanisms.
- The design of a hosting service shall be reviewed and approved in writing by the New York City Department of Education IT management and the New York City Department of Education CSO.
- The implementation of any web site or software is subject to all requirements set forth in the Systems Development and Maintenance Policy.



Electronic Signature

See Cryptographic Controls – Information Systems Acquisition, Development and Maintenance.

Public Key Infrastructure

See Cryptographic Controls – Information Systems Acquisition, Development and Maintenance.

System Planning and Acceptance

The New York City Department of Education shall perform advance planning and preparation to ensure the availability of adequate capacity and resources.

- Storage and memory capacity demands shall be monitored and future capacity requirements projected to ensure adequate processing and storage capability is available when needed.
- Acceptance criteria shall be developed and documented for new information systems, upgrades and new versions of existing systems.
 - A set of criteria shall be created to evaluate information systems prior to being approved and implemented.
- Upgrades shall not be performed until tested and approved using the change management process.
- New installations shall not be installed in the production environment until tested and approved using the change management process.
- All information systems, new or upgraded, shall be assessed to identify limitations of security controls.
 - Limitations shall be documented and be available for review when making the decision to implement.
 - All limitations and security weaknesses shall be addressed prior to the system being implemented. Compensatory controls shall be developed when a fix can not be determined.
- All documentation relating to an upgrade and/or new software shall be updated, including security related areas and user manuals.
- The final sign-off for new or upgrades systems shall be done by the information asset owner(s), prior to loading.
- Users shall be educated in the use of new or upgraded system, and computer staff trained to operate and maintain the system correctly.

Protection Against Malicious Code

New York City Department of Education shall implement protection against malicious code across all computer systems, laptops and servers.

- Anti-virus software shall be used to protect all workstations and servers.
- All files received via external networks, CDROMS, or diskettes shall be checked for viruses.
- All electronic mail containing attachments shall be checked for viruses and unauthorized software.
- A set of formalized procedures and responsibilities shall be in place to deal with installation of virus protection on systems, providing user training, and reporting and recovering from virus attacks.



- Business continuity plans shall be developed for recovering from virus attacks, including data and software backup and recovery arrangements.
- All externally received virus warnings shall be forwarded to the information security organization for verification and action.

Software Maintenance

All system software shall be maintained at a vendor-supported level to ensure software accuracy and integrity, unless the New York City Department of Education CSO approves otherwise in writing.

- Accurate records shall be maintained for all software, indicating vendor, version, patches installed, etc.
- Records shall be maintained to ensure changes are authorized, tested and accepted by the New York City Department of Education management.
- All known security patches shall be reviewed, evaluated and appropriately applied, in a timely manner.

Information Backup

The New York City Department of Education Information Owners shall ensure that procedures are in place for backing-up and restoring their information assets. These procedures shall be tested periodically to ensure they meet the business requirements.

- Backup information, together with accurate and complete records of the backup copies and documented restoration procedures, should be stored in a remote location, at a sufficient distance to escape any damage from a disaster at the main site.
 - At least three generations or cycles of backup information should be retained for important business applications
- Backup media shall be given an appropriate level of physical and environmental protection consistent with the standards applied to the main site.
 - The controls applied to media at the main site should be extended to cover the back-up site.
- Backup media shall be regularly tested, where practicable, to ensure that they can be relied upon for emergency use when necessary.
- Restoration procedures shall be regularly checked and tested to ensure that they are effective, and that they can be completed within the time allotted in the operational procedures for recovery.

Security Systems Checking

Systems and services that process or store sensitive or confidential information or provide support for critical processes shall undergo technical security reviews to ensure compliance with implementation standards.

- Reviews of systems and services that are essential to supporting a critical New York City Department of Education function shall be conducted at least once every year
- Reviews of a representative sample of all other systems and services shall be conducted at least once every 24 months



Access Control

The New York City Department of Education's information assets shall be protected by logical and physical access control mechanisms commensurate with the value, sensitivity, consequences of loss or compromise, legal requirements and ease of recovery defined for these assets.

User Registration and Management

Formal user registration and de-registration procedures for granting and removing access to all information systems services shall be established. In addition, users who move within the environment shall also be managed. These Standards apply to all individuals with access to the New York City department of Education resources

The formal documented User ID request process standards shall provide that:

- All users shall be provided with a unique user ID.
- A user's manager shall sign off on all user access requests.
- Privileged user access shall include the approval of the system owner.
- The manager's signature or E-Mail details shall be validated against an existing list of authorized users able to sign-off on access.
- Business requirements for the access request shall be provided.
- Access to data and IT services shall only be authorized based on job function.
- Access rights should not compromise segregation of duty roles and responsibilities.
- Where possible, access rights outside of personal directories shall be assigned via groups and not to individual user IDs.
- Standard sample profiles for user IDs should be created but cannot be copied from one user to another.
- Users are not allowed to sign off on their own access requests.
- New user IDs shall have the password set to expire and require resetting on first login.
- All users shall be familiar with the New York Department of Education's Security Policy and Standards.
- An auditable record shall be maintained for all users who have access to the system.
- Third party rights and permissions for access shall be limited to only the activities, applications or sub-systems required. This access shall always be logged.
- All security violations shall be logged for all user IDs.

The formal user transfer process shall provide that:

- Managers shall inform security administrators of the transfer of an individual to ensure the timely removal of all access rights for the user's current function. The receiving manager shall notify security administrator of the new access requirements.
- New access shall be added as outlined in the registration process above.
- Information Owners shall periodically review the access lists of the resources they own to ensure their accuracy.



- Managers shall inform Security Administrators when a person is going on long term leave, such as maternity leave or sick leave, so their user ID can be de-activated.

The formal user deletion process shall provide that:

- Managers shall inform security administrators of the termination of an employee to ensure the user ID is disabled on the day the user leaves.
- Advance notice shall be provided to security administrators of staff members' dismissal so that the user ID can be blocked at the appropriate time.
- When notified that a user is leaving voluntarily, all systems shall be checked to ensure that access from all systems is removed.
 - Devices dedicated to providing access shall be retrieved. Authentication devices (e.g. tokens), shall be disabled.
- Files owned by a disabled user ID shall be reviewed within 90 days of being disabled and moved to other staff to ensure continuity of ownership.
- Human Resources shall provide security Administrators with a list of users who have left within the previous six months to ensure all removals have been performed.
- User IDs that have been deleted or blocked shall not be assigned to other users.
- Inactive groups shall be removed in a timely manner.

Audit of User IDs:

- Information Owners shall review user access rights and privileges on a periodic basis not to exceed one year to verify access and to ensure that job functions align with the access rights.

Logon Banner

Logon banners shall be implemented on all systems, where that feature exists, to inform all users that the system is for the New York City Department of Education business or other approved use consistent with the New York City Department of Education policy

- The banner shall also indicate that user activities may be monitored and that the user should have no expectation of privacy. Logon banners shall be presented during the authentication process.

Privileged Accounts Management

The allocation and use of privileges (any feature or facility of a multi-user information system that enables the user to override system or application controls) shall be restricted and controlled. Normally, access privileges should not be assigned collectively (i.e. to a group of users). In the rare case where they need to be assigned to a group, the business justification should be documented, approved by the Information Owner and subject to additional controls, such as restricted access privileges and contractual conditions. Additional controls should be applied to special access privileges, including high-level privileges (such as 'Root' in UNIX or 'Administrator' in Windows NT), powerful utilities and privileges that provide access to sensitive application capabilities.

The privilege management process shall provide that:

- Privileges shall be assigned to a different user identity than those used for normal business use.



- Users shall only use their privileged user ID when required. At all other times their regular user ID shall be used.
- Privileges shall be allocated to individuals on a “need-to-use basis” or on an event-by-event basis.
- Privileged user access shall be limited to only those individuals that have a valid business need.
- Individuals who have been granted privileged access shall be documented for each system to which they have access.
- Activity of privileged user IDs shall be logged.
- Overriding systems to gain privileged access shall be prevented.
- Backdoors in applications shall be removed from all software (e.g. this includes all trap doors and other short cuts that could be used to compromise security. In addition, all system privileges needed for development efforts but not required for normal production activities shall be removed).
- All system passwords shall be changed when an individual who had a system user ID leaves the organization.
- When possible privileged access shall be limited to two users, a primary person and back-up (i.e. administrator access, QSECOFR, root).
- The Chief security Officer, or a delegate, shall perform periodic review of privileged user operations. The review shall be performed at least annually.
- Default system administration user ID passwords shall be changed as soon as the system is installed, or as deemed necessary by the System Administrator.
- Privileged users working directly on the systems shall log-off before leaving the vicinity of the server.
- Privileged access (e.g. root in UNIX) shall be restricted for accessed directly only when at the console or when dual authentication is used over a secure channel.
- Third party administration access (vendor) shall be supervised at all times with the access changed immediately upon the completion of the task.
- The privileged user ID and password for critical systems shall be written down and sealed in an envelope and stored in a secure location for emergency purposes, or other controls shall be enacted to ensure that there is no single point of failure if the privileged User ID and password are lost.

User Password Management

Passwords shall be used throughout the New York City department of Education as a single level authentication to provide access to information systems and services. It is essential to control the allocation of passwords with a formal management process. Additional levels of authentication may be required for information classified as Confidential.

- A User ID shall be unique to an individual. A User ID shall not be re-assigned to another person when the first owner leaves.
- All electronic data shall be protected using at least a password.
- All New York City Department of Education staff members and other authorized users shall be trained to protect passwords from unauthorized disclosure and/or use.



- Upon receipt of any secure temporary password, the user shall be forced to change the password immediately.
- Before resetting or providing a password, the Help Desk shall ensure that the user has been positively identified.
- Passwords shall never be stored on a computer system in an unprotected form (e.g. embedded in code or stored in a file in clear text).
- All systems that handle passwords shall prohibit their display on any input, reports, or other media.
- The following password rules shall apply on all New York City Department of Education systems where technically possible:
 - User passwords on all New York City Department of Education systems shall expire every 90 days. Privileged passwords shall expire every 30 days.
 - Passwords shall contain both alphabetic and non-alphabetic characters (special characters and numbers).
 - Passwords shall be a minimum of eight characters.
 - Passwords shall not include the same character next to each other.
 - Users shall not be able re-use any of the previous 12 passwords.
 - Six consecutive invalid log-on attempts shall disable the user ID.
 - Password lockout duration – forever, or until reset by authorized person
 - All unsuccessful log-on attempts shall be logged.
 - Temporary passwords shall be changed at first log-on (new user ID and reset).
 - Users shall select non-dictionary words for passwords (not easy to guess).
 - Users shall be prohibited from changing their passwords within 7 days of any previous change.
 - Password shall not be the same as user-id;

Network Access Control

The New York City Department of Education shall control local and wide area network access to ensure that the network traffic is secure. This shall include implementing devices that monitor and control the network environment, provide authentication mechanisms and control user access to information services.

Use of Network Services

The New York City Department of education shall limit network services to prevent risk to the organization.

- All network services shall be validated to ensure that vulnerabilities are not introduced into the New York City Department of Education networks.
- All network services shall be approved based on a business case and a risk assessment.
- Only authorized users shall be allowed access to the network and network services.
- Services that are not required shall be removed, not just disabled.



- The New York City Department of Education trusted internal networks shall be segregated from external networks by means of firewalls and routers.
- The New York City Department of education Administrative and Instructional networks shall be segregated from each other by means of firewalls and routers.
- Any New York City Department of Education hosts that support incoming service requests from the Internet shall sit within a secure zone isolated from the production machines. (DMZ).

Enforced Path

New York City Department of Education shall control the access to resources available on the network.

- All external networks connecting to the New York City Department of Education networks shall be protected by firewalls.
- Services shall only be available to those who have a legitimate business need.
- Unnecessary services shall be removed.
- Remote access telephone lines shall be used only by those who have a legitimate business need.
- Standard ports shall be used for application systems and security gateways.
- Network devices shall be prevented from unauthorized scanning of the network environment.
- The firewall shall be a standalone machines, not shared with any other application or service.
- The firewall shall be structured so that there are no back doors into the environment (everything has to pass through the firewall).
- The firewall shall block both incoming and outgoing traffic relating to unnecessary services.
- The firewall shall not switch any IP packets between the protected and unprotected network.
- The firewall shall be configured to not accept any session initiation from the public Internet for business transactions unless over a secure channel with appropriate authentication.
- The New York City Department of Education networks shall have non-routable addresses which are translated (Network Address Translated NAT) when going to the Internet.
- Firewalls shall log all network traffic and have a process of archiving the logs.
- The firewall shall generate alarms when suspicious activity is detected.
- The machine that the firewall runs on shall be hardened to minimize the possibility that an attack could penetrate the system or allow a hostile takeover.
- Firewall logs shall be reviewed on a daily basis and violations or issues identified and reported to management.
- Access to the firewall management and rules shall be restricted to two authorized, trained individuals.
- A second party (familiar with the implications) shall review all modification of the rules base prior to their being implemented. Changes to the firewall rule shall be approved through the New York City Department of Education change management process.
- Business requirements for access control shall be defined and documented before access is permitted to any component within the firewall.
- The firewall shall be physically protected from unauthorized access.



- The firewall shall be patched with the latest security release patch within one week of the patch being made available.
- Firewall administrators shall monitor vendor news on security problems, new releases, patches and other relevant information on the firewall product installed.

User Authentication for External Connections (Remote Access Control)

External connections require user authentication.

- External network connections and access via phone lines shall have strong authentication in place to validate the users.
- Users shall not connect public or third party computer equipment to the New York City Department of Education network

Node Authentication

Node authentication can be performed to provide a low level of assurance that the users are who they say they are. This however should not be the sole means of authentication.

- The New York City Department of Education shall not rely on node authentication as the sole means of authentication

Remote Diagnostic Port Protection

Maintenance access to remote support devices shall be securely controlled.

- Remote access devices shall be removed from equipment when the equipment no longer requires remote access maintenance.
- All remote maintenance devices shall have access control standards (see passwords).
- Passwords shall adhere to the password standards.

Segregation of Networks

The New York City Department of Education shall effectively segregate its networks internally and from business partners.

- Networks between business partners and the New York City Department of Education shall be restricted using firewalls or similar functioning devices.
- Traffic between the New York City Department of Education's Administrative and Instructional networks shall be restricted using firewalls or similar functioning devices.
- Network connection shall be monitored for access violations or attempted accesses.

Network Connection Control

The New York City Department of Education shall use network connection controls to prevent unauthorized access to networks.

- All shared network connections shall be evaluated for necessary restrictions.
- Networks housing confidential information shall be secured from other networks using firewalls or similar functioning devices.



Operating System Access Control

Access to operating system code, services and commands shall be restricted to only those individuals who require this access in the normal performance of their job responsibilities.

- The user logon process shall require the use of the user name and password to prevent unauthorized access to a system (Refer to User Access Management section)

User Identification and Authentication

All New York City department of Education users (including technical support staff, such as operators, network administrators, system programmers and database administrators) shall have a unique identifier (user ID).

- All Users shall have a unique user ID.
- Security Administrators shall be assigned a general user ID that is different from their 'Administrator' user ID.
- A naming convention shall identify administrator accounts.
- A standard naming convention shall be developed for all user IDs, servers and workstations.
- Vendor or third party contractor user IDs shall be identified with the vendor/third party name attached.
- All default system accesses to the system shall be changed, especially the default user passwords.
- User IDs which are inactive for 45 days shall be disabled. After an additional 20 days the ID shall be removed or placed in a holding account for an investigation by Information Security and the manager of the person whose user ID was suspended has been completed. This investigation should determine whether the user ID is to be deleted or reinstated.
- All system guest user IDs shall be deleted or disabled.
- Third party and vendor user IDs shall be deleted from the associated system or workstations upon termination of contractual agreements.
- All third party and contractor user IDs shall have an expiration that is reflective of the time required for the work to be performed.

Use of System Utilities

Access to system utilities requires identification, authentication and proper authorization.

- System utilities access shall be restricted to those trusted individuals with a business need for access.
- Logging shall be enabled on all system utilities.
- Logs shall be monitored by individuals not involved in the execution of the utility.
- All accesses to system utilities shall be documented and maintained.
- All unnecessary utilities shall be removed from the system

Application Access Control

The New York City Department of Education shall implement application access control measures to meet business requirements.

- Users shall only have the level of access required to perform their job function.
- User training shall be functional and role specific.



- Access to the system prompt shall be restricted.
- The root directory of a drive (e.g., C:\) shall not be shared on any individual workstation or laptop. Any drive designation or directory containing system files or data classified as Confidential or higher should also not be shared.
- Applications deemed high risk shall be isolated into a specific computing environment.
 - Access to this environment shall be highly restricted and limited to only authorized users.
 - Access to this environment shall be documented and maintained.
 - Access to this environment shall be logged, monitored and reported if violations occur.

Monitoring System Access and Use

The New York City Department of Education shall enable event logging to track exceptions and other security related events.

Monitoring System Access

The following is the minimum log requirement that shall be captured: User ID, date, time, transactions performed, status, files accessed, program/utilities used, location or IP address.

- For operating systems the following shall be logged:
 - Dates and times for log-on and log-off;
 - Records of successful and rejected system access attempts;
 - Records of successful and rejected data and other resource access attempts;
 - Console alerts or messages.
- For all privileged operations the following shall be logged:
 - Use of supervisor account;
 - System start-up and stop;
 - Security changes;
 - Input/Output device attachment/detachment.
- For all network devices the following shall be logged:
 - Access policy violations and notifications for network gateways and firewalls;
 - Alerts from proprietary intrusion detection systems;
 - Network management alarms;
- Security Log history shall be maintained for 1 year, financial information shall be maintained for 7 years;
- Logs shall be protected to prevent tampering or deletion.

Monitoring System Use

Systems shall be monitored based on the level of risk.

- Systems, applications and devices shall be evaluated to understand the level of risk and the level of monitoring required.



- Exception monitoring shall be performed on systems and devices to identify the threats, patterns and violations from the normal activity.
- Devices and systems designed to monitor high-risk environments shall be set up in such a way so that they can perform monitoring independent of the environment (i.e., intrusion detection Systems).
- Network monitoring equipment shall not be utilized without consent of the security team.
- For critical systems real time alarming shall be set for significant security related events.
- Log reporting shall be centrally managed and exceptions reported to management.

Maintaining and Reviewing Logs

Secure and tamper proof logging facilities shall enable adequate review and interrogation.

- Controls shall protect against unauthorized changes and operational problems including:
 - The person reviewing the logs shall not be the person working on the machine (separation of duties).
 - Privileged users shall not be allowed to de-activate logging functions.
 - Log files shall be protected from tampering.
 - Log files shall not overwrite themselves.
 - Logging system shall not impact the machine in the event the logs fill up.
 - Logs shall be reviewed daily.

Information Systems Acquisition, Development and Maintenance

New York City Department of Education shall ensure that security is planned, designed and built into systems from their outset, including infrastructure, business software, and user-developed software. Security countermeasures are substantially cheaper and more effective if incorporated into systems and applications at the requirement specification and design stages. Secure design and implementation of business processes involving the application or service is critical. Security requirements, including privacy requirements, shall be identified and agreed prior to the development of any information system. Additional security measures may be required for systems that process or impact confidential or critical organizational assets. Such measures should be determined on the basis of a specialist's security advice, taking into account identified security threats and their possible business impact. All security requirements, including the need for fallback processing and privacy controls, shall be identified at the requirements phase of a project and justified, agreed, and documented as part of the application development project plan for an information system.

Security Requirements of Systems

All security requirements, including the need for business continuity arrangements and privacy controls, shall be identified and included in the application development requirements.

- A process shall be put in place to assess and mitigate the information security risk in all development, procurement, update, upgrade, modification, or system enhancement projects. All of these types of projects are collectively referred to as information systems projects in this Standard.
- Information systems shall be designed in such a way that the security of any one New York City Department of Education information system shall never be entirely dependent on the security of another computer system. Single-point-of-failure analysis shall be performed and resolved to Information Security's satisfaction for all New York City Department of Education confidential,



valuable, and critical information systems. Single points of failure shall be minimized in all other New York City Department of Education information systems.

- Generally accepted programming standards and procedures shall be adopted that contribute to stable and correct programs, including data checking standards and procedures.
- All New York City Department of Education in-house software development projects shall use mature development tools and techniques.
- Naming conventions shall be used for New York City Department of Education software to clearly distinguish between development, test, and production files.
- The version number of all production New York City Department of Education software files shall be indicated in a manner that is readily available to system maintainers, either through naming conventions, file property segments, or internal comments that are displayable to the maintainer at individual computers.
- The Project Manager of any information systems project shall officially inform the Chief Security Officer of the existence of the project and its information security implications.
- The Chief Security Officer shall independently assess the information security implications of all information systems projects through a threat and risk assessment process, and provide security and risk mitigation recommendations back to the project.
- The Project Manager shall respond to each of the Chief Security Officer's risk mitigation recommendation to the Chief Security Officer's satisfaction.
- The Project Manager shall obtain the Chief Security Officer's approval prior to commencing each project phase in the process after the initial business case has been made, the project is approved-in-principle, and a budget has been allocated. Minimally, the Chief Security Officer's approval is required prior to commencing requirements development, design specification, testing, and installation or release-to-production.
- The Chief Security Officer and the New York City Department of Education Information Security department shall ensure that the stability of any new network-based application is monitored and further stabilized as necessary.
- The Chief Security Officer shall educate, and refresh as necessary, all information systems project team members on security considerations in projects.
- The Project Manager shall ensure that existing New York City Department of Education security controls are utilized in their project, unless they obtain the Chief Security Officer's approval to incorporate new, additional, or modified controls. System developers shall rely on system services for security functions rather than incorporating them into applications. Examples of system services include operating systems, network operating systems, database management systems, access control packages, front-end processors, firewalls, gateways, and routers.

Security in Application Systems

The New York City Department of Education shall ensure suitable security controls and audit trails are designed into application systems, including user-written applications, to prevent loss, modification or misuse of organization data in those systems. High standards of modern software engineering techniques shall be maintained, including:

- ensuring that default, initial values, and permitted range and type of values are specified for all variables in programs;
- bounds checking is performed, especially to avoid register, array, stack and buffer overflow and underflow conditions; and



- reasonableness or other validation checks are performed on all input data, internal processing and intermediate values, and output data.

Additional verification and security controls may be required in information systems that handle confidential or critical corporate assets.

Input Validation

All data input to the New York City Department of Education application systems shall be verified to ensure that it is correct and within allowable limits. These checks shall be made, either by data entry operators, the program, or both, on the initial input of all data to the New York City Department of Education information systems.

- Wherever possible, the originator of New York City Department of Education information shall input new or modified data directly into the New York City Department of Education applications using automated data entry techniques, either directly (e.g. workstation, authenticated secure Internet sessions, etc.) or indirectly (mark sense forms, punch cards, etc.).
- The complete communications path from the originator to the data repository shall be secure at all times during data gathering, collation, and input sessions, to prevent unauthorized modification of the data.
- Positive feedback to the originator or data entry operator shall be used to confirm the entry of data into an information system's data repository, preferably by displaying the data as recorded in the repository on the input monitor.
- Data collected from secondary sources that shall be manually input by New York City Department of Education data entry operators, shall be verified for correctness (e.g. accuracy, precision, value, range, data type, units, etc.) prior to entry into New York City Department of Education data repositories. This includes inspecting hard-copy input documents for any unauthorized changes to the input data.
- All changes to input documents shall be authorized by the originator or, if unavailable or not cost-effective, by the Information Owner.
- The Information Owner is ultimately responsible for the integrity, including correctness, of New York City Department of Education data from which information is derived. The Information Owner is responsible to ensure that a periodic review of the content of key fields or data files is performed, to confirm their validity and integrity.
- Programmed input checks shall be incorporated into all New York City Department of Education applications to detect, notify, and correctly resolve, as a minimum, the following input errors:
 - Out-of-range values;
 - Invalid characters in data fields;
 - Missing or incomplete data;
 - Incorrect type data (e.g. Alpha character data in a numeric field);
 - Exceeding upper and lower database size limits; and
 - Unauthorized or inconsistent control data.
- Application developers shall implement procedures to respond to validation errors on input of data, both at the originator interfaces and when being entered by New York City Department of Education data entry operators.
- Responsibilities of all people involved in the data input process, including non-employee originators shall be clearly defined and communicated.



Control of Internal Processing

Data processed by application systems shall be validated at each step in its processing. Data that has been correctly entered can be corrupted by processing errors, human error, or deliberate acts. Applications shall be designed with controls incorporated that minimize the risk and consequences of data corruption, both malicious and accidental.

- Programming procedures shall control the use and location in programs of ADD, APPEND, DELETE, and similar data modification functions to implement changes to data.
- Programs shall implement program checks that perform the following where appropriate:
 - Ensuring that default, initial values, and permitted range and type of values are specified for all variables in programs;
 - Bounds checking is performed, especially to avoid register, array, stack and buffer overflow and underflow conditions;
 - Full use is made of hardware and operating system functions, and other boundary controls, and
 - Reasonableness and other validation checks are performed on all internal processing and intermediate values.

Information systems that process confidential, valuable or critical data assets shall incorporate strict controls over access to the data and, in particular, WRITE privileges within those data repositories. Control elements such as individual authentication and logging of WRITE-privileged users shall be used in such systems.

Output Validation Controls

New York City department of Education shall ensure that all data output from application systems are validated as correct and appropriate for output in the circumstances.

- Information systems shall incorporate reasonableness checks on all output data.
- Information systems shall reconcile control counts to ensure that all data intended for processing is processed.
- Information systems shall provide sufficient information for a reader or subsequent processing system to determine the accuracy, completeness, precision and classification of all information provided.
- Procedures shall be developed and implemented for all users to apply output validation tests and respond appropriately to resolve discrepancies.
- Information systems shall incorporate user identification and authentication techniques to ensure that all output information is provided on a need-to-know basis, appropriate to the classification of the information, and the status and privileges of the user.
- Responsibilities shall be clearly defined for all personnel involved in the data output process.

Message Integrity

Message authentication shall be considered for applications where there is a security requirement to protect the integrity of the message content, e.g. electronic funds transfers or other similar electronic data exchanges. An assessment of security risks shall be carried out to determine if message authentication is required and to identify the most appropriate method of implementation.

- Message Authentication Codes (MAC) shall be used as appropriate.



- If Message Authentication is required, then New York City Department of Education information systems shall use one of the following approved message authentication systems, such as:
 - U.S. FIPS 113-certified Data Authentication Code (DAC), better known as Message Authentication Code (MAC) products, until the U.S. NIST updates or replaces FIPS 113, at which time this Standard's use in New York City Department of Education shall be reviewed and amended as appropriate;
 - U.S. FIPS 198-certified Keyed-Hash Message Authentication Code (HMAC) products;
 - ISO 8731-2: 1992-certified Banking -- Approved algorithms for message authentication - - Part 2: Message authenticator algorithm products;
 - ISO 15408 Common Criteria-certified implementations of common commercial message authentication algorithms, such as SHA-1 MAC and MD5; and
- All certified message authentication products used by the New York City Department of Education shall be installed and utilized according to manufacturer/vendor and certification authority recommendations. The Chief Security Officer shall certify correct installation and use of such products upon installation and at regular intervals, at least annually.
- Message authentication is being superseded in many transactional environments by cryptographic techniques, including digital signatures. New York City Department of Education information systems shall use encryption as the preferred message authentication technique. The Chief Security Officer's approval is required to implement a message-authentication-only data transmission communications path.

Cryptographic Controls

New York City Department of Education shall use cryptographic systems and techniques where a risk assessment and risk management determination have indicated that the information to be protected is considered at risk, and other controls do not provide adequate protection.

- Information systems shall utilize New York City Department of Education-authorized cryptographic controls to protect New York City Department of Education confidential information when a risk assessment determines that such protection is necessary.
- No in-house development of cryptographic or other algorithmic encoding intended to protect the confidentiality of information is authorized by New York City Department of Education, unless authorized as an official security project.
- When cryptographic control is indicated, only algorithms such as those contained in ISO TC68/ SC2/ WG11 developed standards should be used by New York City Department of Education. New York City Department of Education information systems shall be protected by cryptographic products that are currently certified under the Cryptographic Module Validation Program (CMVP), a joint U.S. NIST/ CA CSE program.
- Encryption products shall be implemented strictly according to manufacturer/vendor recommendations and the certification authority guidelines. Where these are in conflict, guidance shall be sought from the certification authority.
- A detailed and robust general cryptographic control implementation management program shall be implemented. Both the U.S. NIST and Canada's CSE have publicly available documents that shall be used as resources in developing the New York City Department of Education cryptographic management program. Among issues that shall be described in detail are:
 - strict procedures for key issue, control, and management;



- limits on administration of encryption services to only the most trustworthy individuals and verification oversight of their performance (e.g. two-person rules, etc.);
 - procedures for handling the failure of any cryptographic control;
 - methods to deal with cryptography during business interruption, disaster recovery or in the event of compromised keys;
 - the recovery methods for encrypted information in the case of lost or damaged keys; and
 - roles and responsibilities within the cryptographic management program (e.g. who is responsible for implementing the program and who is responsible for effective key management).
- User ID and passwords, and any other identification and authentication information, that provide access to New York City Department of Education information protected by cryptographic controls shall be protected on the Internet and internal New York City Department of Education networks by encryption using the same strength as that used to protect the information (e.g. secure session shall be established prior to presenting request for user ID and password to the user).
 - Note that access control identification or authentication tokens shall meet the requirements of the “Access Control” section of this Standard where they are only being used for that purpose and their use conflicts with standards contained here; otherwise, they shall meet the requirements of these Standards.
 - Information systems shall use the following cryptographic algorithms to protect New York City Department of Education information:

NYC Dept. of Education Data	Cryptographic Algorithm	Comments
Confidential	AES, Triple DES, Skipjack	<ul style="list-style-type: none"> - implementation of AES, 3DES, and DES shall be in accordance with recognized standards (e.g. U.S. FIPS 197, FIPS 46-3); - Internet data transmission shall use an authorized New York City Department of Education secure VPN or SSL, using DES or better, and SHA-1 MAC or digital signature, or a New York City Department of Education authorized Public Key Infrastructure (PKI) using the public key of an authorized recipient or group of recipients.
Operational	AES, Triple DES, Skipjack	<ul style="list-style-type: none"> - Internet data transmission shall use an authorized New York City Department of Education secure VPN or SSL, using DES or better.
Public	No Requirement	N/A

Key Management

The New York City Department of Education shall use a cryptographic key management system to support and protect the organization’s use of cryptographic techniques and their associated keys.



Two types of cryptographic keys exist:

- Secret keys, also known as *symmetric* keys, where two or more parties share the same key. The common key is used by all to encrypt and decrypt information. This key shall be kept secret since anyone having access to it would be able to decrypt all information being encrypted, or introduce unauthorized information, with that key, possibly without being noticed.
- Public keys, also known as *asymmetric* keys, where each user has a unique key pair assigned to them, a public key (which can be revealed to anyone and is available through a trusted site, the CA) and a private key (which shall be kept secret by them). In use, the two keys are combined to encrypt or digitally sign documents in a manner that can only be attributed mathematically to the holder of both keys.

New York City Department of Education shall protect its cryptographic keys and their production systems at the highest possible standards, because the loss, unauthorized modification or destruction of keys, or the unauthorized disclosure of secret and private keys, could lead to loss of confidentiality and integrity of information.

- A culture shall be created and an environment developed that recognizes the value of cryptographic keys and the necessity for their strict protection.
- Assigned New York City Department of Education public keys shall be protected within the CA sufficiently to assure their protection against modification or unauthorized destruction.
- New York City Department of Education cryptographic keys shall not be generated until they are needed, just prior to issue.
- Physical and other protections, to at least the same standards as for Confidential information, shall be used to protect any equipment used to generate, process, store or archive keys. Additional security controls may be required as determined by a key management risk assessment process.

Protection of System Test Data

Formal documented procedures shall be created for the production and control of test data. Test data shall be developed according to test plans, protected from unauthorized modification, and controlled. The controls shall include access control procedures and appropriate authorization for changes. Test environments shall be catalogued and archived once testing has been completed until they are obsolete. Development and acceptance testing usually requires realistic amounts and ranges of test data that are as close as possible to operational data. True operational data, particularly any containing personal or private data, shall never be used as test data in New York City Department of Education test systems. Operational data may be sampled, depersonalized, and modified as necessary to meet the needs of the test plans. The authorized copying and subsequent modification of operational information to be used for test data shall be logged.

- The access control procedures that apply to New York City Department of Education's operational information systems shall also be applied to New York City Department of Education's test information systems.
- There shall be a separate authorization each time New York City Department of Education operational information is copied for use in a New York City Department of Education test information system.
- Operational information that is an authorized copy shall be completely depersonalized and randomly modified prior to use as test data.



- True New York City Department of Education operational information shall never be used in a New York City Department of Education test information system.
- Authorized copying, depersonalization, modification, and use of New York City Department of Education operational information shall be logged to provide an audit trail.
- New York City Department of Education test environments shall be catalogued and archived in a test software library once testing is complete, until they are obsolete and authorized for destruction.
- To preclude New York City Department of Education records being improperly updated by non-production transactions, transactions used for auditing, testing, training and other non-production purposes shall be clearly labeled, with redundant coding (e.g. special color media cases, etc.), and otherwise separated from transactions used for production processing.

Change Control Procedures

The New York City Department of Education shall document and utilize change management procedures for all changes within the environment.

- The defined change control procedures shall include requirements for security review and approval of changes.
- A member of the security organization shall be assigned the responsibility of reviewing changes to ensure that security of the environment is not compromised.
- An assessment of all changes shall be performed to identify the potential impact to security in the environment.
- Formal approval shall be provided by a member of the security organization prior to implementation of changes.
- All changes shall be authorized in writing.
- Change shall have documented back-out plans in the event the change fails.



END OF DOCUMENT



THE DIVISION OF CONTRACTS AND PURCHASING