

THE PORT AUTHORITY OF NY & NJ

**PROCUREMENT DEPARTMENT
ATTN: BID/PROPOSAL CUSTODIAN
TWO MONTGOMERY STREET, 3RD FLOOR
JERSEY CITY, NEW JERSEY 07302**

REQUEST FOR PROPOSALS

ISSUE DATE: January 9, 2014

**TITLE: APPLICATION MANAGEMENT SERVICES FOR THE PORT AUTHORITY
OF NEW YORK AND NEW JERSEY'S BUDGET PREPARATION SYSTEM**

RFP NO.: 36081

**SUBMIT PROPOSALS NO LATER THAN THE DUE DATE AND TIME TO THE ABOVE
ADDRESS**

QUESTIONS DUE BY: January 17, 2014 TIME: 2:00 P.M.

PROPOSAL DUE DATE: February 11, 2014 TIME: 2:00 P.M.

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TABLE OF CONTENTS

1. INFORMATION FOR PROPOSERS ON THIS REQUEST FOR PROPOSALS	7
A. General Information: The Port Authority of New York and New Jersey	7
B. Summary of Scope of Work	7
C. Deadline for Receipt of Proposals	8
D. Vendor Profile	8
E. Submission of Proposals	9
F. Communications Regarding this RFP	9
G. Proposal Acceptance or Rejection	9
H. Union Jurisdiction	10
I. City Payroll Tax	10
J. Pre-Proposal Meeting(s)/Site Inspection(s)	10
K. Available Documents	10
L. Aid to Proposers	10
M. Additional Proposer Information	11
N. Contractor Staff Background Screening	11
2. SCOPE OF WORK	11
3. PROPOSER PREREQUISITES	11
4. FINANCIAL INFORMATION	12
5. EVALUATION CRITERIA AND RANKING	13
6. M/WBE SUBCONTRACTING PROVISIONS	13
7. CERTIFICATION OF RECYCLED MATERIALS PROVISION	15
8. PROPOSAL SUBMISSION REQUIREMENTS	16
A. Letter of Transmittal	16
B. Executive Summary	17
C. Agreement on Terms of Discussion	17

D.	Certifications With Respect to the Contractor's Integrity Provisions	17
E.	Documentation of Proposer Prerequisites	18
F.	Proposal	18
G.	Acknowledgment of Addenda	22
H.	Acceptance of Standard Contract Terms and Conditions	23
I.	M/WBE Plan	23
9. CONDITIONS FOR THE SUBMISSION OF A PROPOSAL		23
A.	Changes to this RFP	23
B.	Proposal Preparation Costs	23
C.	Disclosure of Proposal Contents / Use of Ideas and Materials	23
D.	Ownership of Submitted Materials	24
E.	Subcontractors	24
F.	Conflict of Interest	24
G.	Authorized Signature	24
H.	References	24
I.	Evaluation Procedures and Negotiation	24
J.	Taxes and Costs	25
K.	Most Advantageous Proposal/No Obligation to Award	25
L.	Multiple Contract Awards	25
M.	Right to Extend Contract	25
N.	Rights of the Port Authority	25
O.	No Personal Liability	26
ATTACHMENT A: AGREEMENT ON TERMS OF DISCUSSION		27
ATTACHMENT B: GENERAL CONTRACT PROVISIONS		28
1.	GENERAL AGREEMENT	28
2.	DEFINITIONS	28
3.	GENERAL PROVISIONS	30
4.	DURATION	30

5.	PRICE ADJUSTMENT	31
6.	EXTRA WORK	31
7.	COMPENSATION FOR EXTRA WORK	32
8.	EXTRA WORK PROCEDURES	32
9.	PERFORMANCE OF EXTRA WORK	33
10.	TIME	33
11.	REQUIRED SERVICE LEVELS AND LIQUIDATED DAMAGES FOR NON-PERFORMANCE	33
12.	PAYMENTS	35
13.	INTELLECTUAL PROPERTY	36
14.	PROPRIETARY RIGHTS IN SUBJECT MATTER NOT WITHIN THE INTELLECTUAL PROPERTY CLAUSE	37
15.	INDEMNITY IN REGARD TO INFRINGEMENT MATTER	37
16.	TIME IS OF THE ESSENCE	38
17.	FINAL PAYMENT	38
18.	DEFAULT, REVOCATION OR SUSPENSION OF CONTRACT	39
19.	CONTRACTOR PERSONNEL STANDARDS OF PERFORMANCE	43
20.	HIGH SECURITY AREAS	43
21.	NOTIFICATION OF SECURITY REQUIREMENTS	44
22.	INSURANCE PROCURED BY THE CONTRACTOR	45
23.	ASSIGNMENTS AND SUBCONTRACTS	47
24.	CERTAIN CONTRACTOR'S WARRANTIES	48
25.	RIGHTS AND REMEDIES OF THE CONTRACTOR	50
26.	TAX EXEMPTIONS	50
27.	TITLE TO EQUIPMENT	50
28.	NOTICE REQUIREMENTS	50
29.	SERVICE OF NOTICES ON THE CONTRACTOR	51
30.	NO THIRD PARTY RIGHTS	51
31.	INDEMNIFICATION AND RISKS ASSUMED BY THE CONTRACTOR	52
32.	SUBMISSION TO JURISDICTION	53
33.	AUTHORITY OF THE DIRECTOR	54

34. APPROVALS BY THE DIRECTOR	55
35. CONTRACT REVIEW AND COMPLIANCE AUDITS	55
36. STATEMENT ON STANDARDS FOR ATTESTATION ENGAGEMENTS (SSAE) NO. 16 Audit	55
37. AUTHORITY ACCESS TO RECORDS	55
38. CLAIMS OF THIRD PERSONS	56
39. NO DISCRIMINATION IN EMPLOYMENT, EQUAL EMPLOYMENT OPPORTUNITY	56
40. CONTRACTOR'S INTEGRITY PROVISIONS	56
41. CONFIDENTIAL INFORMATION/NON-PUBLICATION	63
42. PROVISIONS OF LAW DEEMED INSERTED	65
43. INVALID CLAUSES	65
44. NO ESTOPPEL OR WAIVER	65
45. NON-LIABILITY OF THE AUTHORITY REPRESENTATIVES	66
46. MODIFICATION OF CONTRACT	66
47. M/WBE GOOD FAITH PARTICIPATION	66
48. HARMONY	67
49. INCREASE AND DECREASE IN SERVICES, AREAS OR FREQUENCIES	68
ATTACHMENT C: DESCRIPTION OF BUDGET PRO AND THE AUTHORITY'S TECHNICAL INFRASTRUCTURE	70
ATTACHMENT D: SCOPE OF WORK	76
1. ROLES AND RESPONSIBILITIES	76
2. SERVICE REQUIREMENTS	77
4. CAPACITY MANAGEMENT AND PERFORMANCE MONITORING	83
5. CHANGE MANAGEMENT ADMINISTRATION	84
6. APPLICATION SYSTEM DOCUMENTATION	86
7. TRAINING AND USER ASSISTANCE	87
8. MANAGEMENT OF THE WORK	88
ATTACHMENT E: COST PROPOSAL	94
PRICE FORMS	95

ATTACHMENT F: PROPOSER REFERENCE FORM	99
ATTACHMENT G: CONTROLS REQUIREMENT CONTRACT CHECKLIST	100
ATTACHMENT H - CERTIFIED ENVIRONMENTALLY PREFERABLE PRODUCTS/PRACTICES	108
ATTACHMENT I: STANDARD & GUIDELINES FOR PORT AUTHORITY TECHNOLOGY	110

1. INFORMATION FOR PROPOSERS ON THIS REQUEST FOR PROPOSALS

A. General Information: The Port Authority of New York and New Jersey

The Port Authority of New York and New Jersey (the "Port Authority" or the "Authority") is an agency of the States of New York and New Jersey, created and existing by virtue of the Compact of April 30, 1921, made by and between the two States, and thereafter consented to by the Congress of the United States. It is charged with providing transportation, terminal and other facilities of trade and commerce within the Port District. The Port District comprises an area of about 1,500 square miles in both States, centering about New York Harbor. The Port District includes the Cities of New York and Yonkers in New York State, and the cities of Newark, Jersey City, Bayonne, Hoboken and Elizabeth in the State of New Jersey, and over 200 other municipalities, including all or part of seventeen counties, in the two States. The Port Authority manages and/or operates all of the region's major commercial airports (Newark Liberty International, John F. Kennedy International, Teterboro, LaGuardia and Stewart International Airports), marine terminals in both New Jersey and New York (Port Newark and Elizabeth, Howland Hook and Brooklyn Piers); and its interstate tunnels and bridges (the Lincoln and Holland Tunnels; the George Washington, Bayonne, and Goethals Bridges; and the Outerbridge Crossing), which are vital "Gateways to the Nation."

In addition, the Port Authority operates the Port Authority Bus Terminal in Manhattan, the largest facility of its kind in the world, and the George Washington Bridge and Journal Square Transportation Center bus stations. A key link in interstate commuter travel, the Port Authority also operates the Port Authority Trans-Hudson Corporation (PATH), a rapid rail transit system linking Newark, and the Jersey City and Hoboken waterfronts, with midtown and downtown Manhattan. A number of other key properties are managed by the agency including but not limited to a large satellite communications facility (the Teleport) in Staten Island, and a resource recovery co-generation plant in Newark. Prior to September 11, 2001, the Port Authority's headquarters were located in the World Trade Center, and that complex is still owned and being partially redeveloped by the Authority.

The Port Authority is hereby seeking proposals from qualified firms to provide Application Management Services ("AMS") for the Authority's Budget Preparation system, hereinafter called "Budget PRO" (Budget Preparation, Reporting, Optimization), as more fully described herein.

B. Summary of Scope of Work

As described in detail in the Scope of Work (Attachment D), the Contractor shall provide services to ensure a stable, secure, reliable and rapidly recoverable, corporate environment for the Oracle/Hyperion Enterprise Performance Management-based (EPM) Budget PRO System (System), including all of its applications, databases (ESSBASE and Oracle RDBMS) and related components.

The Contractor shall provide the following onsite AMS-related services on a daily basis:

- Operational support;

- Ongoing application technical maintenance and administration, including application production changes; developing and implementing fixes, enhancements, and releases; security administration; and maintaining adequate access controls and computer operations (data backups, sync processes, batch processing schedules and automation);
- Keeping current with the underlying Oracle/Hyperion EPM-based software upgrades, service packs, fixes, and new releases and proper software life cycle migration;
- Providing end-user support for testing implemented fixes, enhancements, releases, and small scale “quick-hit” end user support for query and report writing;
- Performing unit- and System-based testing to ensure compatibility of components;
- Troubleshooting and problem resolution;
- Disaster recovery coverage;
- Database administration (Oracle RDBMS and ESSBASE);
- Monitoring the operating environment for proper System cohesiveness and interaction (which would include troubleshooting; tuning and release patches/ upgrades; maintaining auditable trail documentation for System implementation and configuration; and application changes and testing).

The Contractor would not be responsible for installation, administration and maintenance of the hardware, operating system, network and LAN System comprising Budget PRO.

The Authority shall be responsible for:

- The overall management of the System and services;
- Interacting with the business units that use Budget PRO;
- Establishing and offering strategic direction setting for the budget and planning processes and procedures.

C. Deadline for Receipt of Proposals

The due date specified on the cover page is the Proposal Due Date. Closing of due date is 2:00 P.M., Eastern Standard Time (EST).

The Port Authority assumes no responsibility for delays caused by any delivery service.

D. Vendor Profile

To ensure maximum opportunities, it is vitally important that Proposers keep their vendor profiles up to date with an appropriate e-mail address, as this will enable their firm to receive

timely notice of advertisements, reminders, solicitations and addenda. Proposers may update their vendor profile or register as a Port Authority Vendor by accessing the online registration system at <https://panynjprocure.com/VenLogon.asp>.

E. Submission of Proposals

One reproducible original (containing original signatures and clearly designated as such) and ten double-sided copies of the proposal must be submitted on or before the due date and time in accordance with the information on the cover page of this RFP and sent or delivered to the RFP Custodian at the address specified on the cover page. Each copy of the proposal as well as the parcel(s) used for shipping must be conspicuously marked with the Proposer's name and address as well as the Proposer's Vendor Number, if available. In addition, the outside of the package must clearly state the title of this RFP, the number of this RFP and the Proposal Due Date. Failure to properly label proposal submissions may cause a delay in identification, misdirection or disqualification of proposal submissions.

It is necessary to carry valid photo identification when attempting to gain access into the building to hand deliver proposals.

Consistent with environmentally preferable procurement practices, the Port Authority requests all documents submitted to be in a form that can be easily recycled (i.e., no plastic covers or binding) and to provide only supporting literature which directly relates to the proposal being submitted.

PROPOSERS SHALL SUBMIT COST PROPOSALS (INCLUDING ALL PRICE FORMS) IN A SEPARATELY MARKED ENVELOPE AS DIRECTED IN SECTION 8.F.1, BELOW.

F. Communications Regarding this RFP

All communications concerning this RFP should be directed to the Contracts Specialist listed on the cover page. All questions regarding this RFP should be submitted in writing to the Contracts Specialist at the address or facsimile number listed on the cover page no later than 3:00 p.m. (EST)

The Contracts Specialist is authorized only to direct the attention of prospective Proposers to various portions of this RFP so that they may read and interpret such portions themselves.

Neither the Contracts Specialist nor any other employee of the Port Authority is authorized to interpret the provisions of this RFP or give additional information as to its requirements. If interpretation or other information is required, it will be communicated to Proposers by written addenda and such writing shall form a part of this RFP.

G. Proposal Acceptance or Rejection

Acceptance shall be only by mailing to or delivering at the office designated by the Proposer in its proposal, a notice in writing signed by an authorized representative on behalf of the Port Authority specifically stating that the proposal is accepted or by execution of an agreement

covering the subject matter of this RFP signed by authorized representatives of the Port Authority and the Proposer. No other act of the Port Authority, its Commissioners, officers, agents, representatives, or employees shall constitute acceptance of a proposal. Rejection of a proposal shall be only by either (a) a notice in writing specifically stating that the proposal is not accepted, signed by an authorized representative of the Port Authority and mailed to or delivered to the Proposer at the office designated in the Proposal, or (b) omission of the Port Authority to accept the proposal within 180 days after the Proposal Due Date. No other act of the Port Authority, its Commissioners, officers, agents, representatives or employees shall constitute rejection of a proposal.

H. Union Jurisdiction

Proposers are advised to ascertain whether any union now represented or not represented at the facility will claim jurisdiction over any aspect of the operations to be performed hereunder and their attention is directed to the Section of this RFP entitled "Harmony" included in the "Standard Contract Terms and Conditions" hereunder.

I. City Payroll Tax

Proposers should be aware of the payroll tax imposed by the:

- a. City of Newark, New Jersey for services performed in Newark, New Jersey;
- b. City of New York, New York for services performed in New York, New York; and
- c. City of Yonkers, New York for services performed in Yonkers, New York.

These taxes, if applicable, are the sole responsibility of the Contractor. Proposers should consult their tax advisors as to the effect, if any, of these taxes. The Port Authority provides this notice for informational purposes only and is not responsible for either the imposition or administration of such taxes. The Port Authority exemption set forth in the Paragraph entitled "Sales or Compensating Use Taxes", in the "Standard Contract Terms and Conditions" included herein, does not apply to these taxes.

J. Pre-Proposal Meeting(s)/Site Inspection(s)

Not applicable.

K. Available Documents

Not applicable.

L. Aid to Proposers

Not applicable.

M. Additional Proposer Information

Prospective Proposers are advised that additional vendor information, including, but not limited to forms, documents and other information, including M/WBE Participation Plan Submission Forms and protest procedures, may be found on the Port Authority website at: <http://www.panynj.gov/business-opportunities/become-vendor.html>

N. Contractor Staff Background Screening

The Contractor awarded this Contract will be required to have its staff, and any subcontractor's staff working under this Contract, authorize the Authority or its designee to perform background checks. Such authorization shall be in a form acceptable to the Authority. The Contractor (and any subcontractors) may also be required to use an organization designated by the Authority to perform the background checks. The cost for said background checks for staff that pass and are granted a credential shall be reimbursable to the Contractor (and its subcontractors) as an out-of-pocket expense as provided herein. The cost of background checks for any staff that are rejected for a credential for any reason are not reimbursable.

As of January 29, 2007, the Secure Worker Access Consortium (S.W.A.C.) is the only Port Authority approved provider to be used to conduct background screening, except as otherwise required by federal law and/or regulation. Information about S.W.A.C., instructions, corporate enrollment, online applications, and location of processing centers can be found at <http://www.secureworker.com>, or S.W.A.C. may be contacted directly at (877)522-7922.

2. SCOPE OF WORK

The full Scope of Work is set forth in detail in Attachment D.

3. PROPOSER PREREQUISITES

- A. The Proposer shall have had at least three (3) years of continuous experience immediately prior to the date of the submission of its proposal as a business actually engaged in providing application management services to commercial and industrial accounts under contract.

The Proposer may fulfill this prerequisite if it can demonstrate that the persons or entities owning and controlling the Proposer have had a cumulative total of at least the same number of years experience in the management and operation of such a business immediately prior to the submission of this proposal, or has owned and controlled other entities which meet the requirement.

- B. During the time period stated in (A) above, the Proposer or persons or entities owning or controlling the Proposer shall have performed satisfactorily on at least one (1) contract supporting an Oracle Hyperion EPM ESSBASE & Planning-based System of record.

If the Proposer intends to utilize a subcontractor, the Authority will consider the relevant experience of that subcontractor in determining whether the Proposer has met the prerequisites set forth herein. In the event that a Proposer satisfies the prerequisites in (A) above based on the experience of a subcontractor, the Port Authority will reevaluate if the proposed subcontractor arrangement is withdrawn by the Proposer. If the Proposer is a common law joint venture, the Authority will consider the experience of each of the joint venture partners in determining whether the Proposer has met the prerequisites set forth herein.

All references cited as documentation for Prerequisites A and B above, **must appear with complete information on Attachment F: Proposer Reference Form**. Client references used to satisfy requirements A and B do not need to be mutually exclusive. The Authority reserves the right to contact any or all of these client references.

4. FINANCIAL INFORMATION

The Proposer will be required to demonstrate that it is financially capable of performing the contract resulting from this RFP ("Contract"). The determination of the Proposer's financial qualifications and ability to perform this Contract will be in the sole discretion of the Port Authority. The Proposer shall submit, with its proposal, the following:

A. (1) Certified financial statements, including applicable notes, reflecting the Proposer's assets, liabilities, net worth, revenues, expenses, profit or loss and cash flow for the most recent year or the Proposer's most recent fiscal year.

(2) Where the certified financial statements in (1) above are not available, then financial statements reviewed by an independent accountant setting forth the aforementioned information shall be provided.

Where the statements submitted pursuant to subparagraphs (1) or (2) aforementioned do not cover a period which includes a date not more than forty-five days prior to the Proposal Due Date, then the Proposer shall also submit a statement in writing, signed by an executive officer or his/her designee, that the present financial condition of the Proposer has not changed materially since the time period covered by the statements submitted.

B. A statement of work which the Proposer has on hand, including any work on which a bid and/or proposal has been submitted, containing a description of the work, the annual dollar value, the location by City and State, the current percentage of completion, the expected date for completion, and the name of an individual most familiar with the Proposer's work on these jobs.

C. The name and address of the Proposer's banking institution, chief banking representative handling the Proposer's account, the Proposer's Federal Employer Identification Number (i.e., the number assigned to firms by the Federal Government for tax purposes), the Proposer's Dun and Bradstreet number, if any, the name of any

credit service to which the Proposer furnished information and the number, if any, assigned by such service to the Proposer's account.

5. EVALUATION CRITERIA AND RANKING

The Authority will review proposals to determine if they satisfy all the requirements of the RFP, including adherence to the RFP's specified format and the provision of all required documentation. Proposals will then be reviewed according to a multi-phase evaluation process. The **first phase** of the evaluation process includes a detailed review and evaluation of the following criteria, set forth in the order of importance:

A. Technical Plan; Work Approach:

The demonstrated ability to provide the required services described in the Scope of Work (Attachment D). This includes the completeness of the services proposed; the ability to satisfy or exceed the requirements of the Service Level Agreement; and the quality of management and the technical approach and resources to be used to assure consistently high-quality services; and the ability to provide the Port Authority with maximum flexibility in terms of services provided.

B. Management Approach and Experience

The Proposer's staffing capacity, financial stability, industry track record, and capability of managerial, technical and physical resources to deliver the required services over an extended period of time; the specific experience to provide application management services for complex and large corporate environment comparable in size and technical architecture to that of the Port Authority's, which includes the level of staff experience and knowledge of the technology needed to support the Authority's Budget PRO System; the Proposer's commitment to provide the requested services, to meet or exceed all requirements, and to develop and maintain a business alliance based on proposal and prior contract experience; the quality and effectiveness of the Proposer's M/WBE Plan and the extent to which it meets or exceeds Port Authority Standards; and the Proposer's ability to mitigate and eliminate business risk.

Only those proposals receiving the highest scores in the first phase of the evaluation process will be evaluated in **subsequent rounds of evaluation**, which will include oral presentations from the highest rated proposers and an evaluation of their cost proposals. Cost proposals are evaluated according to the degree and extent to which the Proposal is cost effective to the Port Authority and the overall cost of the services.

Proposers receiving the highest scores in subsequent rounds of evaluation may be asked to provide best and final offers before a final decision is made.

6. M/WBE SUBCONTRACTING PROVISIONS

The Port Authority has a long-standing practice of making its business opportunities available to Minority Business Enterprises (MBEs) and Women-Owned Businesses (WBEs) and has taken affirmative steps to encourage such firms to seek business opportunities with the Port Authority. The successful Proposer will use good faith efforts to provide for meaningful

participation by the Port Authority certified M/WBEs as defined in this document, in the purchasing and subcontracting opportunities associated with this Contract, including purchase of equipment, supplies and labor services.

Minority Business Enterprise (MBE) - shall mean a business entity which is at least 51% owned and controlled by one or more members of one or more minority groups, or, in the case of a publicly held corporation, at least 51% of the stock of which is owned by one or more minority groups, and whose management and daily business operations are controlled by one or more such individuals who are citizens or permanent resident aliens.

"Minority Group" means any of the following racial or ethnic groups:

- a. Black persons having origins in any of the Black African racial groups not of Hispanic origin;
- b. Hispanic persons of Mexican, Puerto Rican, Dominican, Cuban, Central or South American culture or origin, regardless of race;
- c. Asian and Pacific Islander persons having origins in any of the original peoples of the Far East, Southeast Asia, The Indian Subcontinent, or the Pacific Islands;
- d. Native American or Alaskan native persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification.

Women-Owned Business Enterprise (WBE) - shall mean a business enterprise which is at least 51% owned by one or more women, or, in the case of a publicly held corporation, at least 51% of the stock of which is owned by one or more women and whose management and daily business operations are controlled by one or more women who are citizens or permanent or resident aliens.

The Contractor shall use good faith efforts to achieve participation equivalent to 12% of the total Contract price for MBEs and 5% of the total Contract price for WBEs.

Good faith efforts to include participation by M/WBEs shall include, but not be limited to the following:

- 1) Dividing the services and materials to be procured into small portions where feasible;
- 2) Giving reasonable advance notice of specific subcontracting and purchasing opportunities to such firms as may be appropriate;
- 3) Soliciting services and materials from M/WBEs, which are certified by the Port Authority;
- 4) Ensuring that provision is made for timely progress payments to the M/WBEs and;
- 5) Observance of reasonable commercial standards of fair dealing in the respective trade or business.

Proposers are directed to use form PA3749B as the recording mechanism for the M/WBE participation Plan which may be downloaded at <http://www.panynj.gov/business-opportunities/become-vendor.html>

The M/WBE Plan submitted by the Contractor to the Port Authority shall contain, at a minimum, the following:

- Identification of M/WBE's: Provide the names and addresses of all M/WBEs included in the Plan. If none are identified, describe the process for selecting participant firms in order to achieve the good faith goals under this Contract.
- Level of Participation: Indicate the percentage of M/WBE participation expected to be achieved with the arrangement described in the Plan.
- Scope of Work: Describe the specific scope of work the M/WBE's will perform.
- Previous M/WBE Participation: Describe any previous or current M/WBE participation, which the Proposer has utilized in the performance of its contracts.

All M/WBE subcontractors listed on the M/WBE Participation Plan must be certified by the Port Authority in order for the Contractor to receive credit toward the M/WBE goals set forth in this Contract. Please go to <http://www.panynj.gov/business-opportunities/supplier-diversity.html> to search for M/WBEs by a particular commodity or service. The Port Authority makes no representation as to the financial responsibility of such firms or their ability to perform Work under this Contract.

Proposers shall include their M/WBE Participation Plan with their proposals, to be reviewed and approved by the Authority's Office of Business Diversity and Civil Rights (OBDCR).

Proposers may request a waiver of the M/WBE participation goals set forth in this Contract by providing with its proposal, information in accordance with this provision and the provision entitled "M/WBE Good Faith Participation" in the Standard Terms and Conditions of this Contract.

If the Contractor wishes to subcontract a portion of the Work through a firm not listed in the Directory, but which the Contractor believes should be eligible because it is (1) an M/WBE, as defined above and (2) competent to perform portions of the Work, the Contractor shall submit an M/WBE Uniform Certification Application to the Port Authority of New York and New Jersey, Office of Business Diversity and Civil Rights (OBDCR), 233 Park Avenue South, 4th Floor, New York, NY 10003. The application is available online at <http://www.panynj.gov/business-opportunities/sd-become-certified.html>. In addition, to update your certification file and to advise OBDCR of changes to any information, please email these changes to certhelp@panynj.gov. Credit toward applicable goals will be granted only to Port Authority certified vendors. For more information about M/WBE Programs, call (212) 435-7820.

7. CERTIFICATION OF RECYCLED MATERIALS PROVISION

Proposers shall submit, with their proposal, the Certified Environmentally Preferable Products /Practices Form (Attachment H) attesting that the products or items offered by the Proposer

contain the minimum percentage of post-consumer recovered material in accordance with the most recent guidelines issued by the United States Environmental Protection Agency (EPA), or, for commodities not so covered, the minimum percentage of post-consumer recovered materials established by other applicable regulatory agencies.

Recycling Definitions:

For purposes of this solicitation, the following definitions shall apply:

- a. "Recovered Material" shall be defined as any waste material or by-product that has been recovered or diverted from solid waste, excluding those materials and by-products generated from, and commonly reused within, an original manufacturing process.
- b. "Post-consumer Material" shall be defined as any material or finished product that has served its intended use and has been discarded for disposal or recovery having completed its life as a consumer item. "Post-consumer material" is included in the broader category of "Recovered Material".
- c. "Pre-consumer Material" shall be defined as any material or by-product generated after the manufacture of a product but before the product reaches the consumer, such as damaged or obsolete products. Pre-consumer Material does not include mill and manufacturing trim, scrap, or broken material that is generated at a manufacturing site and commonly reused on-site in the same or another manufacturing process.
- d. "Recycled Product" shall be defined as a product that contains the highest amount of post-consumer material practicable, or when post-consumer material is impracticable for a specific type of product, contains substantial amounts of Pre-consumer Material.
- e. "Recyclable Product" shall be defined as the ability of a product and its packaging to be reused, reconditioned for use, or recycled through existing recycling collection programs.
- f. "Waste Reducing Product" shall be defined as any product that will result in less waste generated due to its use rather than another product designed to serve the same function with an greater waste generation rate. This shall include, but not be limited to, those products that can be reused, refilled or have a longer life expectancy and contain a lesser amount of toxic constituents.

8. PROPOSAL SUBMISSION REQUIREMENTS

In order to expedite the evaluation of proposals, the Proposer's response to this RFP shall follow the format and order of items, using the same paragraph identifiers, as set forth below.

A. Letter of Transmittal

The Proposer shall submit a letter on its letterhead, signed by an authorized representative, stating its experience and qualifications in meeting the requirements of this RFP. This letter shall include a statement on whether the Proposer is submitting a proposal as a single entity, a joint venture, or is partnering with another firm in a prime/subcontracting relationship. In all cases, information required for a single entity is required for each participant in a joint venture.

The Letter of Transmittal shall contain:

- (1) Name and address of the Proposer and an original signature on the Letter of Transmittal by an authorized representative on behalf of the Proposer;
- (2) Name(s), title(s) and telephone number(s) of the individual(s) who are authorize to negotiate and execute the Contract;
- (3) Name, title and telephone number of a contact person to which the Port Authority can address questions or issues related to this RFP;
- (4) Name and address of proposed subcontractors, if any;
- (5) If a corporation: (a) a statement of the names and residences of its officers, and (b) a copy of its Certificate of Incorporation, with a written declaration signed by the secretary of the corporation, with the corporate seal affixed thereto, that the copy furnished is a true copy of the Certificate of Incorporation as of the date of the opening of the Proposals;

If a partnership: a statement of the names and residences of its principal officers, indicating which are general and which are special partners;

If an individual: a statement of residence;

If a joint venture: information on each of the parties consistent with the information requested above; if the Contract is awarded to a common law joint venture (a partnership of business entities) each member will be jointly and severally liable under the Contract.

B. Executive Summary

The Proposer shall submit a summary presenting the major features of its proposal and how the proposal satisfies the requirements contained in this RFP, as well as the special competencies and expertise of the Proposer to meet the requirements of this RFP.

C. Agreement on Terms of Discussion

The Proposer shall submit a copy of the "Agreement on Terms of Discussion," signed by an authorized representative of the Proposer. The Agreement format is included as Attachment A and shall be submitted by the Proposer without any alterations or deviations. Any Proposer who fails to sign the Port Authority's "Agreement on Terms of Discussion" will not have its proposal reviewed. If the Proposer is a joint venture, an authorized representative of each party must sign the Agreement.

D. Certifications With Respect to the Contractor's Integrity Provisions

The Proposer, by signing the Letter of Transmittal, makes the certifications in the "Contractor's Integrity Provisions," included in Attachment B (Standard Contract Terms and Conditions) of this

RFP. If the Proposer cannot make any such certifications, it shall enclose an explanation of that inability.

E. Documentation of Proposer Prerequisites

The Proposer shall submit documentation to demonstrate that it meets all prerequisites included herein.

F. Proposal

The Proposer must submit a proposal that details and clearly describes its experience and capability to perform the services described in this RFP, its approach to such work and the cost of such work to the Port Authority. At a minimum, the proposal shall address the following:

1. **Cost Proposal:** The Proposer shall submit a Cost Proposal indicating the compensation that it expects to receive. The Cost Proposal shall be complete and inclusive of all work required by this RFP and shall include but not be limited to material and labor costs, fuel costs, any salaries, health benefits and other benefits, overheads, profits, etc. The Cost Proposal should be submitted on Attachment E (Cost Proposal).

The Cost Proposal shall be provided ONLY in a separately marked envelope entitled Cost Proposal. The Cost Proposal shall appear only in such envelope and nowhere else in the proposal.

2. **Technical Plan; Work Approach:**

The Proposer shall describe in detail its approach to the Scope of Work (Attachment D). The Plan shall include, at minimum, the following:

- A detailed description of its ability to complete the services proposed, specifically the Proposer's ability to deliver high-quality, onsite application support services on a daily basis.
- A description of the Proposer's experience in maintaining, implementing, upgrading and using Oracle-Hyperion Enterprise Performance Management (Planning and Essbase and Financial Reports) products.
- Identification of the processes and/or tools that will be used to measure performance regarding the service levels stipulated in Section 10 of the General Contract Provisions (Attachment B);
- Identification of any tools, such as a "dashboard portal," that would enable the Port Authority to monitor service level requirements online or in real-time.
- A detailed description of its ability to provide the Port Authority with maximum flexibility in terms of the services provided;

- Documentation of the processes utilized in engagements similar to the Scope of Work described herein;
- A Transition Plan for beginning and ending the assignment described in the Scope of Work;
- A documented methodology for the activities described in the Scope of Work herein. The methodology shall include mechanisms for improving the performance of said activities. The Proposer shall also describe its upgrade methodology, and its team composition for an upgrade, and how, if at all, the upgrade would impact the application maintenance management services provided to maintain the overall integrity and operability of Budget PRO and System's production, secondary and development environments;
- A documented application maintenance management methodology for recording changes made, new programs, documenting fixes and updates made to the application or underlying software, managing the development/production environment, putting new applications or new software into production and keeping users of the application and/or software informed;
- A documented methodology for developing and issuing annual customer plans. These plans will be used to determine the viability of software and hardware use of Budget PRO. (The Authority will use such plans during its annual Budget process, for establishing both the Authority's corporate user expense budgets.);
- A description of the Proposer's quality assurance program to ensure that all work is performed in accordance with the Contract's requirements, including but not limited to the Control Requirements Contract Checklist (Attachment G), *Standards & Guidelines for Port Authority Technology* (Attachment I) and *The Port Authority of New York and New Jersey Information Security Handbook, October 15, 2008, Corrected as of February 9, 2009* (<http://www.panynj.gov/business-opportunities/pdf/Corporate-Information-Security-Handbook.pdf>);
- A statement of the Proposer's ability and prior experience in working with complex IT corporate environments;

NOTE: Company brochures alone shall not be submitted for the purpose of demonstrating experience and technical expertise. Submittals should be tailored to the specific requirements of this section.

3. Management Plan:

The Proposer shall describe in detail its experience, including relevant contracts performed during the last three years, its financial capability and management structure, and other supporting documentation demonstrating its ability to perform and manage the work.

The Proposer shall provide a Management Plan describing the anticipated roles and responsibilities of the Proposer as well as its expectations concerning the Authority's role. At minimum, the Management Plan shall:

- Describe the Proposer's overall organizational structure and how such structure will be employed to manage the work performed under the contract;
- Describe the support structure in place to administer application management services contracts and describe the management tools and techniques used to manage and control such contracts;
- Include organizational charts, descriptions of project management and quality assurance programs and other relevant material to demonstrate the Proposer's management and approach;
- Include the Proposer's M/WBE Participation Plan (see section 6, above, for further detail).

4. Staffing Plan:

The Proposer shall submit a Staffing Plan demonstrating a sufficient level of staffing experienced in the services needed to support the Scope of Work. At minimum, the Staffing Plan shall:

- a) Identify the minimum experience of the proposed staff in supporting a budget planning and reporting production system;
- b) Include a description of the Proposer's experience in the applications and products specified herein, specifically in Oracle Database administration and Hyperion EPM Planning, Essbase and FI Reporting. The Proposer shall indicate whether its proposed staff has the following certifications and provide proof thereof:
 - Oracle 11g DBA OCP;
 - Hyperion Planning 11.1.2 Applications Administrator Certified Expert;
 - Hyperion Essbase 11.1.2 Developer Certified Expert;

(By the commencement of the Contract, the assigned staff of the selected Proposer shall have obtained the foregoing certifications and provided the Authority with proof thereof.)

If the Proposer's proposed staff has not achieved the foregoing certifications by the date of its proposal submission, indicate the names and levels of the certifications achieved by such date;

- c) Specify the minimum technical expertise of assigned staff in administration and support of multidimensional and relational databases, ESSBASE and Planning applications, and the Microsoft Windows operating system environment, etc.;
- d) Include a statement documenting the amount of staff that will be dedicated to performing the Contract;
- e) Describe how the Proposer intends to provide staffing coverage needed to satisfy the Port Authority's operational needs;
- f) Indicate the amount and exact location of sites that will be utilized in performing the Contract, including any sites located outside of the Continental United States;
- g) Indicate the tasks to be performed at each identified site, and the tasks to be performed at the Port Authority facility;
- h) Indicate the staffing, by specialty, at each site and their level of experience and length of employment.
- i) Describe the composition of the Proposer's regional offices.
- j) Describe in detail the Proposer's intended organizational and operational structure to be employed for Contract management. This section shall include or indicate:
 - The Proposer's principal personnel and their qualifications, experience and length of employment;
 - Resumes and any other information that will demonstrate the experience and qualifications of the Proposer's staff (and, if applicable, that of its subcontractors), including the qualifications, experience, and certifications of its technical management and key technical staff who will participate in fulfilling the requirements of the submitted proposal;
 - The qualifications and resume of the individual(s) who will function as the Proposer's Account Manager for the Contract;
 - A proposed Organizational Chart for the Contract, which shall indicate key supervisory personnel to be assigned for the duration of the Contract and their anticipated functions and relevant experience;
 - The Proposer's escalation procedure and all contact information;
- i) Specify any assumptions regarding Authority-provided offices, office equipment and other workspace requirements and equipment the Authority is expected to provide the Proposer's staff. The Proposer's Staffing Plan shall consider the geographic dispersion of facilities and the service levels required by the Contract.
- j) Include a statement of the total amount of full-time (minimum of forty [40] hours per week) employees currently employed by the Proposer and deployed in similar engagements, and the number employed in each of the preceding three (3) years. The statement shall also identify the amount and experience of its staff.

- k) Indicate the sources (e.g. subcontractors, etc.), if any, it will utilize to staff the functions required for this Contract. The Proposer shall state whether such sources have provided such services on similar projects for the Proposer or other firms, and include a list indicating specific contracts and describing the business relationship utilized to provide such services, the past experience of key personnel and their length of service with the firm, and their functions and responsibilities relative to a comparable contract.

5. Contractor Identity Check/Background Screening Plan

The Proposer shall submit a Contractor Identity Check/Background Screening Plan, which demonstrates how the Proposer will ensure that only employees who were successfully prescreened and properly credentialed perform the services herein. This Plan shall be applicable to all years of the Contract and shall include but not be limited to the following:

- The length of time researched for the identity check/background screening on new hires, which shall be at a minimum of 10 years of employment history or verification of what an employee documented they have done in the last 10 years preceding the date of the investigation, resources utilized to perform this, and the frequency at which it is performed on current employees.

6. Business Risk

The Proposer shall submit risk assessment and succession plans to the Contractor and the Port Authority, that assess the business risk in taking on the significant amount of new work that will be required under this Contract. The risk assessment plan should take into account all work currently under contract, as well as work that is under contract to companies which the Proposer owns, controls or has an interest.

The Proposer shall provide any other information that is related to the requirements in this Section (Section F), that the Proposer believes would be helpful to the Port Authority in the evaluation of its proposal.

G. Acknowledgment of Addenda

If any Addenda are posted or sent as part of this RFP, the Proposer shall complete, sign and include with its Proposal the addenda form(s). In the event any Proposer fails to conform to these instructions, its proposal will nevertheless be construed as though the Addenda had been acknowledged.

If the Proposer downloaded this RFP document, it is the responsibility of the Proposer to periodically check the Port Authority website at <http://www.panynj.gov/business-opportunities/bid-proposal-advertisements.html> and download any addenda that might have been issued in connection with this solicitation.

H. Acceptance of Standard Contract Terms and Conditions

The Port Authority has attached to this RFP as Attachment B, Standard Contract Terms and Conditions governing the Contract. The Proposer is expected to agree with these Standard Contract Terms and Conditions. However, if the Proposer has any specific exceptions, such exceptions should be set forth in a separate letter included with its response to this RFP. After the proposal due date, the Proposer will be precluded from raising any exceptions unless such exceptions are justified by and directly related to substantive changes in the business or technical requirements and are agreed to by the Proposer and the Port Authority.

I. M/WBE Plan

The Proposer shall submit an M/WBE Plan in accordance with the M/WBE Subcontracting Provisions hereunder.

9. CONDITIONS FOR THE SUBMISSION OF A PROPOSAL

In addition to all other requirements of this RFP, the Proposer agrees to the following conditions for the submission of its proposal.

A. Changes to this RFP

At any time, in its sole discretion, the Port Authority may by written addenda, modify, correct, amend, cancel and/or reissue this RFP. If an addendum is issued prior to the date proposals are due, it will be provided to all parties in the medium in which the parties obtained the RFP. If an addendum is issued after proposals have been received, the addendum will be provided only to those whose proposals remain under consideration at such time.

B. Proposal Preparation Costs

The Port Authority shall not be liable for any costs incurred by the Proposer in the preparation, submittal, presentation, or revision of its proposal, or in any other aspect of the Proposer's pre-contract activity. No Proposer is entitled to any compensation except under an agreement for performance of services signed by an authorized representative of the Port Authority and the Proposer.

C. Disclosure of Proposal Contents / Use of Ideas and Materials

Proposal information is not generally considered confidential or proprietary. All information contained in the proposal is subject to the "Agreement on Terms of Discussion" attached hereto as Attachment A.

D. Ownership of Submitted Materials

All materials submitted in response to or in connection with this RFP shall become the property of the Port Authority. Selection or rejection of a Proposal shall not affect this right.

E. Subcontractors

If a Proposer intends to use subcontractor(s), the Proposer must identify in its proposal the names of the subcontractor(s) and the portions of the work the subcontractor(s) will perform.

F. Conflict of Interest

If the Proposer or any employee, agent or subcontractor of the Proposer may have a possible conflict of interest, or may give the appearance of a possible conflict of interest, the Proposer shall include in its proposal a statement indicating the nature of the conflict. The Port Authority reserves the right to disqualify the Proposer if, in its sole discretion, any interest disclosed from any source could create a conflict of interest or give the appearance of a conflict of interest. The Port Authority's determination regarding any questions of conflict of interest shall be final.

G. Authorized Signature

Proposals must be signed by an authorized corporate officer (e.g., President or Vice President), General Partner, or such other individual authorized to bind the Proposer to the provisions of its proposal and this RFP.

H. References

The Port Authority may consult any reference familiar with the Proposer regarding its current or prior operations and projects, financial resources, reputation, performance, or other matters. Submission of a proposal shall constitute permission by the Proposer for the Port Authority to make such inquiries and authorization to third parties to respond thereto.

I. Evaluation Procedures and Negotiation

Only Proposers which meet the prerequisites may have their proposals evaluated based on the evaluation criteria set forth in this RFP. The Port Authority may use such procedures that it deems appropriate to evaluate such proposals. The Port Authority may elect to initiate contract negotiations with one or more Proposers including negotiation of costs/price(s) and any other term or condition, including modifying any requirement of this RFP. The option of whether or not to initiate contract negotiations rests solely with the Port Authority.

J. Taxes and Costs

Purchases of services and tangible personal property by the Port Authority in the States of New York and New Jersey are generally exempt from state and local sales and compensating use taxes, and from most federal excises (Taxes). All costs associated with the Contract must reflect this exemption and be stated in U.S currency.

K. Most Advantageous Proposal/No Obligation to Award

The Port Authority reserves the right to award the Contract to other than the Proposer proposing the lowest price. The Contract will be awarded to the Proposer whose proposal the Port Authority believes, in its sole discretion, will be the most advantageous to the Port Authority. Neither the release of this RFP nor the acceptance of any response thereto shall compel the Port Authority to accept any proposal. The Port Authority shall not be obligated in any manner whatsoever to any Proposer until a proposal is accepted by the Port Authority in the manner provided in the Section of this RFP entitled "Proposal Acceptance or Rejection."

L. Multiple Contract Awards

The Port Authority reserves the right to award multiple Contracts for the products, work and/or services that are the subject matter of this RFP and Proposers are hereby given notice that they may not be the Port Authority's only contractor for such products, work and/or services.

M. Right to Extend Contract

If this is a proposal for a contract for a term of years, including specified options for renewal, the Port Authority reserves the additional right to extend the contract term for an additional 120 days, upon the same terms and conditions of the original Contract negotiated between the Port Authority and the successful Proposer.

N. Rights of the Port Authority

(1) The Port Authority reserves all its rights at law and equity with respect to this RFP including, but not limited to, the unqualified right, at any time and in its sole discretion, to change or modify this RFP, to reject any and all proposals, to waive defects or irregularities in proposals received, to seek clarification of proposals, to request additional information, to request any or all Proposers to make a presentation, to undertake discussions and modifications with one or more Proposers, or to negotiate an agreement with any Proposer or third person who, at any time, subsequent to the deadline for submissions to this RFP, may express an interest in the subject matter hereof, to terminate further participation in the proposal process by a Proposer or to proceed with any proposal or modified proposal, which in its judgment will, under all circumstances, best serve the Port Authority's interest. The Port Authority may, but shall not be obliged to, consider incomplete proposals or to request or accept additional material or information. The holding of any discussions with any Proposer

shall not constitute acceptance of a proposal, and a proposal may be accepted with or without discussions.

- (2) No Proposer shall have any rights against the Port Authority arising from the contents of this RFP, the receipt of proposals, or the incorporation in or rejection of information contained in any proposal or in any other document. The Port Authority makes no representations, warranties, or guarantees that the information contained herein, or in any addenda hereto, is accurate, complete, or timely or that such information accurately represents the conditions that would be encountered during the performance of the contract. The furnishing of such information by the Port Authority shall not create or be deemed to create any obligation or liability upon it for any reason whatsoever and each Proposer, by submitting its proposal, expressly agrees that it has not relied upon the foregoing information, and that it shall not hold the Port Authority liable or responsible therefor in any manner whatsoever. Accordingly, nothing contained herein and no representation, statement or promise, of the Port Authority, its directors, officers, agents, representatives, or employees, oral or in writing, shall impair or limit the effect of the warranties of the Proposer required by this RFP or Contract and the Proposer agrees that it shall not hold the Port Authority liable or responsible therefor in any manner whatsoever.
- (3) At any time and from time to time after the opening of the proposals, the Port Authority may give oral or written notice to one or more Proposers to furnish additional information relating to its proposal and/or qualifications to perform the services contained in this RFP, or to meet with designated representatives of the Port Authority. The giving of such notice shall not be construed as an acceptance of a proposal. Information shall be submitted within three (3) calendar days after the Port Authority's request unless a shorter or longer time is specified therein.

O. No Personal Liability

Neither the Commissioners of the Port Authority, nor any of them, nor any officer, agent or employee thereof shall be charged personally with any liability by a Proposer or another or held liable to a Proposer or another under any term or provision of this RFP or any statements made herein or because of the submission or attempted submission of a proposal or other response hereto or otherwise.

ATTACHMENT A: AGREEMENT ON TERMS OF DISCUSSION

The Port Authority's receipt or discussion of any information (including information contained in any proposal, vendor qualification, ideas, models, drawings, or other material communicated or exhibited by us or on our behalf) shall not impose any obligations whatsoever on the Port Authority or entitle us to any compensation therefor (except to the extent specifically provided in such written agreement, if any, as may be entered into between the Port Authority and us). Any such information given to the Port Authority before, with or after this Agreement on Terms of Discussion ("Agreement"), either orally or in writing, is not given in confidence. Such information may be used, or disclosed to others, for any purpose at any time without obligation or compensation and without liability of any kind whatsoever. Any statement which is inconsistent with this Agreement, whether made as part of or in connection with this Agreement, shall be void and of no effect. This Agreement is not intended, however, to grant to the Port Authority rights to any matter, which is the subject of valid existing or potential letters patent. The foregoing applies to any information, whether or not given at the invitation of the Authority.

Notwithstanding the above, and without assuming any legal obligation, the Port Authority will employ reasonable efforts, subject to the provisions of the Port Authority Freedom of Information Code and Procedure (FOI Code) adopted by the Port Authority's Board of Commissioners on March 29, 2012, which may be found on the Port Authority website at: <http://www.panynj.gov/corporate-information/pdf/foi-code.pdf>, not to disclose to any competitor of the undersigned, information submitted which are trade secrets which, if disclosed, would cause injury to the competitive position of the enterprise, and which information is identified by the Proposer as proprietary, as more fully set forth in the FOI Code, which may be disclosed by the undersigned to the Port Authority as part of or in connection with the submission of a proposal.

(Company)

(Signature)

(Title)

(Date)

ORIGINAL AND PHOTOCOPIES OF THIS PAGE ONLY.
DO NOT RETYPE.

ATTACHMENT B: GENERAL CONTRACT PROVISIONS

1. GENERAL AGREEMENT

The undersigned (hereinafter referred to as the "Contractor" or "you") agrees to provide, and The Port Authority of New York and New Jersey (hereinafter referred to as the "Authority" or the "Port Authority") agrees to accept the Contractor's proposal to Application Maintenance Management and Administration Services for the Authority's Budget Preparation system, Budget PRO, as more fully described in the Scope of Work (Attachment D) attached hereto and made a part hereof. The Scope of Work requires the doing of all things necessary or proper for or incidental to the requirements as set forth in the Scope of Work. All things not expressly mentioned in the Scope of Work but involved in carrying out their intent are required by the Scope of Work and the Contractor shall perform the same as though they were specifically mentioned, described and delineated.

Subject only to the provisions of the clause herein entitled "Extra Work", the Contractor's sole compensation in full consideration for the performance of all the Contractor's obligations under this Contract is provided in the Cost proposal, as accepted by the Port Authority.

2. DEFINITIONS

As used herein, for all services related to the security systems supported under this Contract, "Director" shall mean the Chief Technology Officer acting either personally or through his duly authorized representatives acting within the scope of the particular authority vested in them unless specifically stated to mean acting personally.

For the purpose of administering this Contract, the Director has designated the Senior Systems Designer of the Technology Services Department to act as their duly authorized representative and as "Contract Manager."

For the purposes of this Contract, the Contract Manager (sometimes referred to herein as the "Manager") shall be the individual with day-to-day responsibility for managing the services on behalf of the Port Authority. The Director may modify this designation in a writing forwarded to the Contractor at the address designated for delivery of notice herein.

As used herein, the term "days" or "calendar days" in reference to a period of time shall mean consecutive calendar days, Saturdays, Sundays, and holidays included.

"Facility" shall mean Port Authority Facilities within the Port District.

"Services" or "Work" - shall mean all services, equipment and materials (including materials and equipment, if any, furnished by the Authority) and other facilities and all other things necessary or proper for, or incidental to the services to be performed or goods to be furnished in connection with the service to be provided hereunder, as set forth in the Scope of Work.

As used herein, the term "Work Day" shall mean a day between Monday and Friday with Monday and Friday included, and Holidays excluded.

As used herein the term "Specifications" shall mean all requirements of this RFP, technical and otherwise, for the performance of the Scope of Work and services hereunder.

Holidays: The following legal holidays will be observed at Port Authority offices and facilities:

New Year's Day
Martin Luther King, Jr. Day
Presidents' Day
Memorial Day
Independence Day
Labor Day

Columbus Day
Veterans Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

As used herein, the terms "Port Authority" or "Authority" shall mean The Port Authority of New York and New Jersey.

Minority Business Enterprise (MBE) - shall mean a business entity which is at least 51% owned and controlled by one or more members of one or more minority groups, or, in the case of a publicly held corporation, at least 51% of the stock of which is owned by one or more members of one or more minority groups, and whose management and daily business operations are controlled by one or more such individuals who are citizens or permanent resident aliens.

"Minority Group" means any of the following racial or ethnic groups:

- Black persons having origins in any of the Black African racial groups not of Hispanic origin;
- Hispanic persons of Mexican, Puerto Rican, Dominican, Cuban, Central or South American culture or origin, regardless of race;
- Asian and Pacific Islander persons having origins in any of the original peoples of the Far East, Southeast Asia, The Indian Subcontinent, or the Pacific Islands;
- Native American or Alaskan native persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification.

Small Business Enterprise (SBE) - The criteria for a Small Business Enterprise are:

- The principal place of business must be located in New York or New Jersey;
- The firm must have been in business for at least three years with activity; and
- Average gross income limitations by industry as established by the Port Authority.

Women-Owned Business Enterprise (WBE) - shall mean a business enterprise which is at least 51% owned by one or more women, or, in the case of a publicly held corporation, at least 51% of the stock of which is owned by one or more women and whose management and daily business operations are controlled by one or more women who are citizens or permanent resident aliens.

Subcontractor - shall mean anyone who performs work (other than or in addition to the furnishing of materials, plant or equipment) in connection with the services to be provided hereunder, directly or indirectly for or on behalf of the Contractor (and whether or not in privity of contract with the Contractor), but shall not include any person who furnished merely its own personal labor or its own personal services. "Subcontractor", however, shall exclude the Contractor or any subsidiary or parent of the Contractor or any person, firm or corporation which has a substantial interest in the Contractor or in which the Contractor or the parent or the subsidiary of the Contractor, or an officer or principal of the Contractor or of the parent of the subsidiary of the Contractor has a substantial interest, provided, however, that for the

purpose of the clause hereof entitled "Assignments and Subcontracts" the exclusion in this paragraph shall not apply to anyone but the Contractor itself.

3. GENERAL PROVISIONS

- A. Under no circumstances shall you or your subcontractors communicate in any way with any department, board, agency, commission, or other organization or any person whether governmental or private in connection with the services to be performed hereunder except upon prior written approval and instructions of the Director, provided, however, that data from manufacturers and suppliers of materials, devices and equipment shall be obtained by you when you find such data necessary unless otherwise instructed by the Authority.
- B. Any services performed for the benefit of the Authority at any time by you or on your behalf, even if expressly and duly authorized by the Authority, shall be deemed to be rendered under and subject to this Contract (unless referable to another expressly written, duly executed contract by the same parties), whether such additional services are performed prior to, during or subsequent to the services described herein, and no rights or obligations shall arise out of such additional services except as provided under this Contract.
- C. The Contractor shall observe and obey (and compel its officers, employees, guests, invitees, and those doing business with it, to observe and obey) the rules and regulations of the Port Authority now in effect, and such further rules and regulations which may from time to time during the effective period of this Contract, be promulgated by the Port Authority for reasons of safety, health, preservation of property, or maintenance of a good and orderly appearance of the Facilities, or for the safe and efficient operation of the Facilities. The Port Authority agrees that, except in cases of emergency, it shall give notice to the Contractor of every rule and regulation hereafter adopted by it.
- D. This Contract does not constitute the Contractor as an agent or representative of the Port Authority for any purpose whatsoever. The Contractor shall perform all services hereunder as an independent Contractor and the Contractor, its officers, and employees shall not be deemed to be agents, servants, or employees of the Port Authority.

4. DURATION

This Contract shall commence on or about May 1, 2014, and shall remain in effect for a period of three (3) years (hereinafter the "Base Term"), unless otherwise terminated in accordance with the provisions hereof. The Authority shall have the right to extend this Contract for up to one (1) additional two-year period by written notice to the Contractor at least thirty (30) days prior to the expiration of the Base Term.

The Authority shall also have the right to extend this Contract for an additional 120-day period, from the date originally fixed for expiration of the Base Term or any option period then in effect upon the same terms and conditions except as set forth elsewhere in this Contract, to be effected by written notice to the Contractor received no later than thirty (30) days prior to the expiration date of the Base Term or the expiration date of the option period, if applicable.

5. PRICE ADJUSTMENT

All Contract prices for services and for extra work labor shall be applicable through the end of the Base Term. The Contractor's compensation for the Option Period shall be adjusted as stated below, but shall not exceed three (3%) percent per year of the Option Periods:

- a. For the first year of the first two-year Option Period of the Contract, the quarterly United States Bureau of Labor Statistics Employment Cost Index for Wages and Salaries for Private Industry Workers Professional, Specialty and Technical (non seasonally adjusted data June 1989 = 100) (hereinafter the "Index") for the first Quarter of 2016 and first Quarter of 2017 shall be obtained. The compensation for services and Extra Work labor payable in the third year of the Base Term of the Contract shall be multiplied by a fraction, the numerator of which shall be said Index for the first Quarter of 2017 and the denominator of which shall be said Index for the first Quarter of 2016. The resulting product shall be the compensation payable for services and Extra Work labor in the first year of the first Option Period.
- b. For the second year of the first Option Period, the Index for the first Quarter of 2018 shall be obtained. The compensation for services and for Extra Work labor payable in the second year of the option period shall be the Prices payable in the first year of the option period multiplied by a fraction, the numerator of which shall be said Index for the first Quarter of 2018 and the denominator of which shall be the number of said Index for the first quarter of 2017. The resulting product shall be the compensation payable for services and Extra Work labor in the second year of the first Option Period.
- c. In the event of a change of the basis for the computation of the Said Index or the discontinuance of its publication, such other appropriate index shall be substituted as may be agreed upon by the Authority and the Contractor as properly reflecting changes in the value of the of the services and Extra Work labor similar to that established in the said Index. If the parties cannot agree, the Authority will select the substitute Index.
- d. The Contractor's compensation for Services and Extra Work labor for the 120-day extension option shall not be subject to adjustment. Labor and service costs for the 120-day extension period shall be the same as in effect during the year prior to the start of the 120-day option.

6. EXTRA WORK

Except as specifically hereinafter provided in this numbered clause, the Contractor shall immediately supply such modified or additional products and services as the Authority may direct ("Extra Work"). If such changes or additions are without fault on its part, or on the part of others performing on behalf of the Contractor whether or not in privity of contract with the Contractor, and if solely as a result thereof, the Contractor incurs additional costs in the performance of its obligations hereunder, the Contractor may request compensation for such changes or additions in addition to the compensation provided for elsewhere herein. Agreement by the Authority, if such is forthcoming, shall be in writing. The execution of the aforementioned written agreement shall be a condition precedent to payment of any additional compensation for changes or additions. Accordingly, if the Authority directs the

Contractor to make any change in or addition to products or services which entitle it to compensation in addition to that provided for elsewhere herein, the contractor shall not proceed with such changes or additions prior to execution of the aforementioned written agreement except as set forth in the clause hereof entitled "Compensation for Extra Work".

If, as a result of any changes in or additions to the products or services the Authority directs the Contractor to make, the costs of performance of its obligations hereunder are decreased, the parties agree to make such adjustments by way of reduction in the compensation provided for elsewhere herein as they may deem equitable and reasonable and, in making such adjustments, no allowance shall be made for anticipated profits.

The Director shall have the authority to order Extra Work up to an amount equal to six percent (6%) of the Total Estimated price for the base term plus 6% for any option years that have been exercised unless the Contractor is advised of a greater authorization in a letter signed by the Authority's Director of Procurement. Nothing herein shall be construed as a presentation that any changes or additions will be ordered.

7. COMPENSATION FOR EXTRA WORK

The Director and the Contractor may agree, in writing, on lump sum or other compensation for Extra Work. In the event that no such agreement is reached, compensation shall be increased by the sum of the following amounts and such amounts only:

- A. for labor, compensation equal to the applicable hourly rates set forth in Sections 5 and 6 of the Cost proposal, as accepted by the Authority;
- B. the actual net cost in money of the materials required for the work; and
- C. in addition to the foregoing, if the extra work is performed by a subcontractor, five percent (5%) of the amounts under (A) and (B). No extra work shall be performed by a subcontractor without the prior written approval of the Director.

8. EXTRA WORK PROCEDURES

Whenever any Extra Work is performed by the Contractor on a basis other than on a lump sum basis, the Contractor shall, as a condition precedent to payment for such work, furnish to the Director or his/her authorized representative at the end of each day daily time slips showing (a) the name and employee number of each person employed thereon, and the number of hours in each day during which they performed Extra Work; (b) a brief description of the nature of the work performed and a list of material and equipment used and the Port Authority authorized representative who approved the Extra Work. Item (b) shall be supplemented by the Contractor at a later date with a statement indicating from whom materials were purchased and the amount paid therefor. Such daily time slips are for the purpose of enabling the Director or his authorized representatives to determine the accuracy of the amounts claimed by the Contractor.

9. PERFORMANCE OF EXTRA WORK

The provisions of this Contract relating generally to the Work shall apply without exception to any Extra Work required and to the performance thereof, except to the extent that a written order in connection with any particular item of Extra Work may expressly provide otherwise.

10. TIME

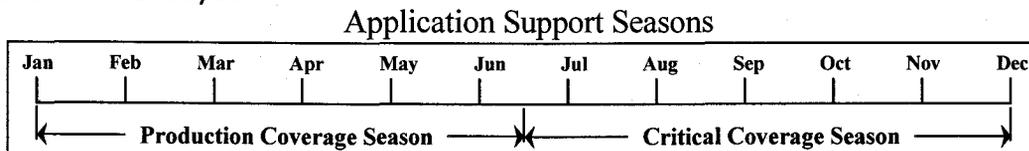
The Contractor shall not commence the performance of any work on Port Authority premises until the Contractor has received notice from the Port Authority that the insurance provided by the firm in accordance with Section 8 hereof (Insurance to be Procured by the Contractor) is satisfactory, as evidenced by the certificate to be furnished under said clause. The Agreement term shall not be extended on account of the time required to furnish the documents referred to above, but the Port Authority shall give notice to the Contractor within five (5) days after receipt of the Certificate of Insurance as to whether or not such insurance is satisfactory.

The Contractor’s obligations for the performance and completion of all work within the time or times provided for the Agreement is of the essence of this Contract. The Contractor guarantees that it can and will complete performance under this Contract within the times herein stipulated.

11. REQUIRED SERVICE LEVELS AND LIQUIDATED DAMAGES FOR NON-PERFORMANCE

The Contractor’s obligations for the performance of all work at the service levels specified in this Contract are of the essence. The Contractor guarantees that it can and shall complete performance under this Contract at the service levels stipulated below. The Authority may consider continued failure to meet performance under this Contract at the levels stipulated as a material breach of this Contract. Service level monitoring and damages assessed will begin immediately upon the provision of the services stated herein.

Support levels and System availability for the Budget PRO vary by budget “season”; see the seasonality chart below. In the first half of the year (“production season”) activities are focused on management reporting and inquiry for the current budget cycle and preparation for the new budget cycle. In the second half of the year (“critical season”) activities are focused on budget review and adjustment for the new budget cycle, as well as management reporting and inquiry for the current cycle.



The Contractor must respond to all reported problems associated with the Budget PRO System in a timely fashion.

Inasmuch as the damage and loss to the Authority which will result from the Contractor’s failure to perform at these levels shall include items of loss whose amount will be incapable or very difficult to accurately estimate, the damages to the Authority for non-performance will be liquidated as follows:

Problem Severity	Required Response Time* (Hours)	Required Resolution Time* (Hours)	Liquidated damages for non-performance
High Example: time-critical processing is prevented and/or a group of users is unable to function.	1	8	\$200 per hour or part thereof for each hour the problem is not resolved
Medium Example: the problem affects processing which is not time-critical and a workaround is not available; or the problem affects processing which is critical but a workaround is available.	4	48	\$200 per hour or part thereof for each hour the problem is not resolved
Low Example: the problem is non-critical and a workaround is available.	24	120	\$100 per hour or part thereof for each hour the problem is not resolved

<u>Service</u>	<u>Service Level</u>	LIQUIDATED DAMAGES FOR NON-PERFORMANCE
Patch/Version maintenance: Software version upgrades, applied within six months of general release	Software version upgrades: deployed within six months of general release and after approval by the Authority	10% of total monthly payment for affected system for each two-week period delayed per system, per upgrade
Compliance to the Authority's Standards and Guidelines for Technology and adherence to the IT Control Contract requirements	100% compliant	\$1,000 per each breach of compliance

* From notification by the Port Authority or its designee.

The above examples refer specifically to the work described hereunder, which is the Contractor's responsibility. The Authority shall actively monitor the Contractor's performance and enforce contracted non-compliance and non-performance clauses by assessing liquidated damages. However, the Authority shall not assess liquidated damages if non-compliance and non-performance results from events or activities for which the Contractor is not responsible.

The Contractor shall track, calculate, monitor and report on performance against the Service Levels above and shall adjust invoices accordingly.

Repeated failure to meet the above Service Level Standards on the part of the Contractor constitutes a material breach of the Contract and will be cause for the Contractor to be declared in breach of Contract regardless of the existence of liquidated damages provisions. In the event the Contractor is declared in breach of Contract, the Port Authority shall be entitled to collect liquidated damages up to the time of the declaration of breach, and actual damages arising from the breach suffered by the Port Authority after the declaration of breach.

12. PAYMENTS

Subject to the provisions of this Contract, the Port Authority agrees to pay to the Contractor and the Contractor agrees to accept from the Port Authority as full and complete consideration for the performance of all its obligations under this Contract and as sole compensation for the Services performed by the Contractor hereunder, a compensation calculated from the services performed and the respective unit prices inserted by the Contractor in the Cost Proposal Form in Attachment E (as accepted by the Authority), forming a part of this Contract.

The manner of submission of all bills for payment to the Contractor by the Authority for Services rendered under this Contract shall be subject to the approval of the Contract Manager in all respects, including, but not limited to, format, breakdown of items presented and verifying records. All computations made by the Contractor and all billing and billing procedures shall be done in conformance with the following procedures:

- A. Payment shall be made in accordance with the prices for the applicable service as they appear on Attachment E entitled "Cost Proposal," as accepted by the Authority, as same may have been adjusted hereunder minus any deductions for services not performed and/or any applicable liquidated damages. All Services must be completed within the time frames specified or as designated by the Contract Manager. Contractor shall submit to the Contract Manager by the fifth day of each month following the month of commencement of this Contract and on or by the fifth day of each month thereafter (including the month following the termination, revocation or expiration of this Contract) a complete and correct invoice for the Services performed during the preceding month accompanied by such information as may be required by the Contract Manager for verification. The invoice must show the Contractor's Federal Tax Identification Number. Payment will be made within thirty (30) days of Authority verification of the invoice. No certificate, payment, acceptance of any Services or any other act or omission of any representative of the Authority shall operate to release the Contractor from any obligation under or upon this Contract, or to stop the Authority from showing at any time that such certificate, payment, acceptance, act or omission was incorrect or to preclude the Authority from recovering any monies paid in excess of those lawfully due and any damage sustained by the Authority.
- B. In the event an audit of received invoices should indicate that the correct sum due the Contractor for the relevant billing period is less than the amount actually paid by the Authority, the Contractor shall pay to the Authority the difference promptly upon receipt of the Authority's statement thereof. The Authority may, however, in its discretion elect to

deduct said sum or sums from any subsequent payments payable to the Contractor hereunder.

“Final Payment”, as the term is used throughout this Contract, shall mean the final payment made for services rendered in the last month of the Contract Term. However should this Contract be terminated for any reason prior to the last month of the Contract Term, then Final Payment shall be the payment made for services rendered in the month during which such termination becomes effective. The Contractor’s acceptance of any payment, including Final Payment, shall act as a full and complete release to the Authority of all claims of and of all liability to the Contractor for all things done or furnished in connection with this Contract and for every act and neglect of the Authority and others relating to or arising out of this Contract, including claims arising out of breach of contract and claims based on claims of third persons. No payment, however, final or otherwise shall operate to release the Contractor from any obligations in connection with this Contract.

13. INTELLECTUAL PROPERTY

- A) Except as provided below: as between the Port Authority and the Contractor all process flows, codes including, but not limited to machine code, scripts, programs, routines, processes, procedures, documentation, estimates, reports, records, data, charts, documents, models, designs, renderings, drawings, specifications, photographs, computations, computer tapes or discs, and other documentation of any type whatsoever, whether electronic or in the form of writing, figures or delineations, which are prepared or compiled in connection with this Contract, shall become the exclusive property of the Authority, and the Authority shall have the exclusive right to use or permit the use of them and any ideas or methods represented by them for any purpose and at any time without other compensation than that specifically provided for herein. With regard to training manuals or any other knowledge transfer documentation, communication or presentation prepared under this Contract the Authority shall expressly have the right to use, alter and reproduce including electronically, said manuals for its internal business purposes. The Contractor hereby warrants and represents that the Authority will have at all times the ownership and rights provided for in the immediately preceding sentence free and clear of all claims of third persons whether presently existing or arising in the future and whether presently known to either of the parties to this Contract or not. Any information given to the Port Authority before, with or after submission of the Agreement on Terms of Discussion, either orally or in writing, is not given in confidence and may be used, or disclosed to others, for any purpose at any time without obligation or compensation and without liability of any kind whatsoever except as otherwise set forth in the Agreement On Terms Of Discussion.
- B) All preexisting information or documentation including computer programs or code including source code, of the Contractor, utilized by the Contractor hereunder in the performance of its services hereunder shall be deemed licensed to the Authority for the duration and purposes of this Contract, but shall remain the property of the Contractor.

- C) When in the performance of the Contract the Contractor utilizes passwords or codes for any purpose, the Contractor, upon written request by the Authority, made at any time during or after the performance of such services, shall promptly make available to the designated Authority representative all such passwords and codes.
- D) Third party software not specially prepared for the purpose of this contract but utilized by the Contractor hereunder in the performance of its services hereunder shall be licensed to the Contractor and the Authority for the duration and purposes of this contract but shall remain the property of said third party.
- E) The above-described software shall be furnished by the Contractor without additional compensation.

14. PROPRIETARY RIGHTS IN SUBJECT MATTER NOT WITHIN THE INTELLECTUAL PROPERTY CLAUSE

If in accordance with this Contract the Contractor furnishes research, development or consultative services in connection with the performance of the Work and if in the course of such research, development, or consultation patentable or copyrightable subject matter or trade secrets or other proprietary matter is produced by the Contractor, its officers, agents, employees, subcontractors, or suppliers, not custom software, and not covered under the clause hereof entitled "Intellectual Property", the Authority shall have, without cost or expense to it, an irrevocable, non-exclusive, royalty-free license to make, have made, and use, either itself or by anyone on its behalf, such subject matter in connection with any activity now or hereafter engaged in or permitted by the Authority. Promptly upon request by the Authority, the Contractor shall furnish or obtain from the appropriate person a form of license satisfactory to the Authority, but it is expressly understood and agreed that as between the Contractor and the Authority the license herein provided for shall nevertheless arise for the benefit of the Authority immediately upon the production of said subject matter and shall not await formal exemplification in a written license agreement as provided for above. Such license may be transferred by the Authority to its successors, immediate or otherwise, in the operations of or ownership of any facility now or hereafter operated by the Authority but such license shall not be otherwise transferable.

The right of the Authority as well as the Contractor to use all patented material, compositions of matter, manufactures, apparatus, appliances, processes of manufacture or types of construction as well as any copyrightable matter, trade secrets or other proprietary matters, shall be obtained by the Contractor without separate or additional compensation whether the same is patented or copyrighted before, during or after the performance of the Work.

15. INDEMNITY IN REGARD TO INFRINGEMENT MATTER

The Contractor shall indemnify the Authority against and save it harmless from all loss and expense incurred in the defense, settlement or satisfaction of any claims in the nature of patent, copyright, or other proprietary rights infringement arising out of or in connection with the Authority's use, in accordance with the two immediately preceding clauses of any matter protected as intellectual property. If requested by the Authority and if notified promptly in writing of any such claims, the Contractor shall conduct all negotiations with respect to and

defend such claim without expense to the Authority. If the Authority be enjoined from using any of the components of the System which form the subject matter of this Contract, and as to which the Contractor is to indemnify the Authority against proprietary rights claims, the Authority may, at its option and without thereby limiting any other right it may have hereunder or at law or in equity, require the Contractor to supply, temporarily or permanently, components of the System not subject to such injunction and not infringing any proprietary rights and if the Contractor shall fail to do so, the Contractor shall, at its expense, remove all such facilities and refund the cost thereof to the Authority and otherwise equitably adjust compensation and take such steps as may be necessary to ensure compliance by the Authority with such injunction, to the satisfaction of the Authority.

The Contractor shall promptly and fully inform the Director of any claims or disputes for infringement or otherwise, whether existing or potential, of which it has knowledge relating to any Intellectual Property used, developed or licensed in connection with the performance of the Work or otherwise in connection with this Contract.

If so directed, the Contractor shall at its own expense defend any suit based upon any claim or demand, even if such suit, claim or demand is groundless, false or fraudulent, and in handling such shall not, without obtaining express advance permission from the General Counsel of the Port Authority, raise any defense involving in any way the jurisdiction of the tribunal over the person of the Port Authority, the immunity of the Port Authority, its Commissioners, officers, agents or employees, the governmental nature of the Port Authority or the provision of any statutes respecting suits against the Port Authority.

16. TIME IS OF THE ESSENCE

The Contractor's obligations for the performance and completion of all work within the time or times provided for in this Contract, and as directed by the Director or Manager, are of the essence of this Contract.

17. FINAL PAYMENT

After satisfactory completion of all services required hereunder, and upon receipt from the Contractor of such information as may be required, the Director shall certify in writing to the Contractor the total compensation earned by the Contractor. If so required, the Contractor shall thereupon furnish to the Authority a detailed sworn statement of all claims, just and unjust, of subcontractors, materialmen and other third persons then outstanding which he has reason to believe may thereafter be made on account of the services provided under this Contract. Within thirty (30) days after issuance of such certificate of total compensation earned (or within thirty days after receipt of the documents provided for in the immediately preceding paragraph, if required and if such date is later), the Port Authority shall pay to the Contractor by check the amount stated in said certificate, less all other payments and advances whatsoever to or for the account of the Contractor. All prior estimates and payments shall be subject to correction in this payment, which is throughout this Contract called the Final Payment. The acceptance by the Contractor, or by anyone claiming by or through it, of the Final Payment shall be and shall operate as a release to the Authority of all claims and of all liability to the Contractor for all things done or furnished in connection with this contract and for every act and neglect of the Authority and others relating to or arising out of this contract,

including claims arising out of breach of the contract and claims based on claims of third persons.

The Contractor's agreement as provided in the immediately preceding paragraph shall be deemed to be based upon the consideration forming part of this Contract as a whole and not to be gratuitous; but in any event even if deemed gratuitous and without consideration, such agreement as provided in the immediately preceding paragraph shall nevertheless be effective. Such release shall include all claims, whether or not in litigation and even though still under consideration by the Authority. Such release shall be effective notwithstanding any purported reservation of right by the Contractor to preserve such claim. The acceptance of any check designated as "Final Payment" or bearing any similar designation shall be conclusively presumed to demonstrate the intent of the Contractor that such payment was intended to be accepted as final, with the consequences provided in this numbered clause, notwithstanding any purported reservation of rights.

The Contractor agrees that it shall not be entitled to, and hereby waives any right it might otherwise have to, and shall not seek any judgment whether under this Contract or otherwise for any such Final Payment or for an amount equivalent thereto or based thereon, or for any part thereof, if such judgment would have the effect of varying, setting aside, disregarding or making inapplicable the terms of this numbered clause or have the effect in any way of entitling the Contractor to accept such Final Payment or an amount equivalent thereto or based thereon or any part thereof other than in the same fashion as a voluntary acceptance of a Final Payment subject to all the terms of this Contract including this numbered clause, unless and until the Contractor should obtain a judgment on any claim arising out of or in connection with this Contract (including a claim based on breach of contract) for an amount not included in said Final Payment.

18. DEFAULT, REVOCATION OR SUSPENSION OF CONTRACT

A. If one or more of the following events shall occur:

1. Fire or other event which destroys all or a substantial part of the Facility, asset or infrastructure necessary to perform the Scope of Work;
2. Any governmental agency shall condemn or take a temporary or permanent interest in all or a substantial part of the Facility, or all of a part of the Port Authority's interest herein;

then upon the occurrence of such event or at any time thereafter during the continuance thereof, the Port Authority shall have the right on twenty-four (24) hours written notice to the Contractor to revoke this Contract, such revocation to be effective upon the date and time specified in such notice.

In such event, this Contract shall cease and expire on the effective date of revocation as if said date were the date of the expiration of this Contract. Such revocation shall not, however, relieve the Contractor of any liabilities or obligations hereunder which shall have accrued on or prior to the effective date of revocation.

B. If one or more of the following events shall occur:

1. The Contractor shall become insolvent, or shall take the benefit of any present or future insolvency statute, or shall make a general assignment for the benefit of creditors, or file a voluntary petition in bankruptcy or a petition or answer seeking an arrangement or its reorganization or the readjustment of its indebtedness under the federal bankruptcy laws or under any other law or statute of the United States or of any State thereof, or consent to the appointment of a receiver, trustee, or liquidator of all or substantially all its property; or
2. By order or decree of a court the Contractor shall be adjudged bankrupt or an order shall be made approving a petition filed by any of the creditors, or, if the Contractor is a corporation, by any of the stockholders of the Contractor, seeking its reorganization or the readjustment of its indebtedness under the federal bankruptcy laws or under any law or statute of the United States or of any State thereof; or
3. A petition under any part of the federal bankruptcy laws or an action under any present or future insolvency law or statute shall be filed against the Contractor and shall not be dismissed within thirty (30) days after the filing thereof; or
4. The interest of the Contractor under this Contract shall be transferred to, passed to or devolve upon, by operation of law or otherwise, any other person, firm or corporation; or
5. The Contractor, if a corporation, shall, without the prior written approval of the Port Authority, become a surviving or merged corporation in a merger, a constituent corporation in a consolidation, or a corporation in dissolution; or
6. If the Contractor is a partnership, joint-venture, or similar arrangement (referred to herein for convenience as the "partnership"), and the said partnership shall be dissolved as the result of any act or omission of its copartners or any of them, or by operation of law or the order or decree of any court having jurisdiction, or for any other reason whatsoever; or
7. By or pursuant to, or under authority of any legislative act, resolution or rule, or any order or decree of any court or governmental board, agency or officer having jurisdiction, a receiver, trustee, or liquidator shall take possession or control of all or substantially all of the property of the Contractor and such possession or control of all or substantially all of the property of the Contractor and shall continue in effect for a period of fifteen (15) days;

then upon the occurrence of any such event or at any time thereafter during the continuance thereof, the Port Authority shall have the right upon five (5) days notice to the Contractor to terminate this Contract and the rights of the Contractor hereunder; termination to be effective upon the date and time specified in such notice as if said date were the date of the expiration of this Contract. Termination shall not relieve the Contractor of any liabilities or obligations hereunder which have accrued on or prior to the effective date of termination.

C. If any of the following shall occur:

1. The Contractor shall cease, abandon any part of the service, desert, stop or discontinue its services in the premises for any reason whatsoever and regardless of the fault of the Contractor; or
2. The Contractor shall fail to keep, perform and observe each and every other promise, covenant and agreement set forth in this Contract on its part to be kept, performed or observed, within five (5) days after receipt of notice of default thereunder from the Port Authority (except where fulfillment of its obligations requires activity over a greater period of time, and the Contractor shall have commenced to perform whatever may be required for fulfillment within five (5) days after receipt of notice and continues such performance without interruption except for causes beyond its control);

then upon the occurrence of any such event or during the continuance thereof, the Port Authority shall have the right on twenty four (24) hours notice to the Contractor to terminate this Contract and the rights of the Contractor hereunder, termination to be effective upon the date and time specified in such notice. Termination shall not relieve the Contractor of any liabilities, which shall have accrued on or prior to the effective date of termination.

- D. If any of the events enumerated in this Section shall occur prior to the commencement date of this Contract, the Port Authority upon the occurrence of any such event or any time thereafter during the continuance thereof by twenty-four (24) hours notice may terminate or suspend this Contract and the rights of the Contractor hereunder, such termination or suspension to be effective upon the date specified in such notice.
- E. No payment by the Port Authority of any monies to the Contractor for any period or periods after default of any of the terms, covenants or conditions hereof to be performed, kept and observed by the Contractor and no act or thing done or omitted to be done by the Port Authority shall be deemed to be a waiver of the right of the Port Authority to terminate this Contract or of any other right or remedies to which the Port Authority may be entitled because of any breach thereof. No waiver by the Port Authority of any default on the part of the Contractor in the performance of any of the terms, covenants and conditions hereof to be performed, kept or observed by the Contractor shall be or be construed to be a waiver by the Port Authority of any other subsequent default in the performance of any of the said terms, covenants and conditions.
- F. In addition to all other rights of revocation or termination hereunder and notwithstanding any other provision of this Contract the Port Authority may terminate this Contract and the rights of the Contractor hereunder without cause at any time upon five (5) days written notice to the Contractor and in such event this Contract shall cease and expire on the date set forth in the notice of termination as fully and completely as though such dates were the original expiration date hereof and if such effective date of termination is other than the last day of the month, the amount of the compensation due to the Contractor from the Port Authority shall be prorated when applicable on a daily basis. Such cancellation shall

be without prejudice to the rights and obligations of the parties arising out of portions already performed but no allowance shall be made for anticipated profits.

- G. Any right of termination contained in this paragraph, shall be in addition to and not in lieu of any and all rights and remedies that the Port Authority shall have at law or in equity consequent upon the Contractor's breach of this Contract and shall be without prejudice to any and all such other rights and remedies. It is hereby specifically agreed and understood that the exercise by the Port Authority of any right of termination set forth in this paragraph shall not be or be deemed to be an exercise by the Port Authority of an election of remedies so as to preclude the Port Authority from any right to money damages it may have for the period prior to the effective date of termination to the original expiration date of the Contract, and this provision shall be deemed to survive the termination of this Contract as aforesaid.
- H. If (1) the Contractor fails to perform any of its obligations under this Contract or any other contract between the Port Authority and the Contractor (including its obligation to the Port Authority to pay any claim lawfully made against it by any supplier, subcontractor or worker or other person which arises out of or in connection with the performance of this Contract or any other contract with the Port Authority) or (2) any claim (just or unjust) which arises out of or in connection with this Contract or any other contract between the Port Authority and the Contractor is made against the Port Authority or (3) any subcontractor under this Contract or any other contract between the Port Authority and the Contractor fails to pay any claims lawfully made against it by any supplier, subcontractor, worker or other third person which arises out of or in connection with this Contract or any other contract between the Port Authority and the Contractor or if in the opinion of the Port Authority any of the aforesaid contingencies is likely to arise, then the Port Authority shall have the right, in its discretion, to withhold out of any payment (final or otherwise) such sums as the Port Authority may deem ample to protect it against delay or loss or to assure the payment of just claims of third persons, and to apply such sums in such manner as the Port Authority may deem proper to secure such protection or satisfy such claims. All sums so applied shall be deducted from the Contractor's compensation. Omission by the Port Authority to withhold out of any payment, final or otherwise, a sum for any of the above contingencies, even though such contingency has occurred at the time of such payment, shall not be deemed to indicate that the Port Authority does not intend to exercise its right with respect to such contingency. Neither the above provisions for rights of the Port Authority to withhold and apply monies nor any exercise or attempted exercise of, or omission to exercise, such rights by the Port Authority shall create any obligation of any kind to such supplier, subcontractors, worker or other third persons. If, however, the payment of any amount due the Contractor shall be improperly delayed, as a result of or with respect to anything contained in this subsection, the Port Authority shall pay the Contractor interest thereon at the rate of 6% per annum for the period of the delay, it being agreed that such interest shall be in lieu of and in liquidation of any damages to the Contractor because of such delay.
- I. If the Port Authority has paid any sum or has incurred any obligation or expense which the Contractor has agreed to pay or reimburse the Port Authority, or if the Port Authority is required or elects to pay any sum or sums or incurs any obligations or expense by reason

of the failure, neglect or refusal of the Contractor to perform or fulfill any one or more of the conditions, covenants, or agreements contained in this Contract, or as a result of an act of omission of the Contractor contrary to the said conditions, covenants and agreements, the Contractor shall pay to the Port Authority the sum or sums so paid or expense so incurred, including all interests, costs and damages, promptly upon the receipt of the Port Authority's statement therefore. The Port Authority may, however, in its discretion, elect to deduct said sum or sums from any payment payable by it to the Contractor.

- J. If the Port Authority pays any installment to the Contractor without reducing said installment as provided in this Contract, it may reduce any succeeding installment by the proper amount, or it may bill the Contractor for the amount by which the installment paid should have been reduced and the Contractor shall pay to the Port Authority any such amount promptly upon receipt of the Port Authority's statement therefore.
- K. Until actual payment to the Contractor, its right to any amount to be paid under this Contract (even though such amount has already been certified as due) shall be subordinate to the rights of the Authority under this clause.
- L. The Port Authority shall also have the rights set forth above in the event the Contractor shall become insolvent or bankrupt or if its affairs are placed in the hands of a receiver, trustee or assignee for the benefit of creditors.

19. CONTRACTOR PERSONNEL STANDARDS OF PERFORMANCE

The Contractor shall furnish sufficiently trained management, supervisory, technical and operating personnel to perform the services required of the Contractor under this Contract. If, in the opinion of the Director, any of the Contractor's personnel are not satisfactory in the performance of services to be furnished hereunder, the Contractor shall remove such personnel and replace them with personnel satisfactory to the Director.

At the time the Contractor is carrying out its operations there may be other persons working physically in the vicinity or in the same logical or technical infrastructure. The Contractor shall so conduct its operations as to work in harmony and not endanger, interfere with or delay the operations of others, all to the best interests of The Authority and others and as may be directed by the Director.

20. HIGH SECURITY AREAS

- A. Services under the Contract may be required in high security areas, as the same may be designated by the Manager from time to time. The Port Authority shall require the observance of certain security procedures with respect to the high security areas, which may include the escort to, at, and/or from said high security areas by security personnel designated by the Contractor or any subcontractor's personnel required to work therein.
- B. Twenty-four hours prior to the proposed performance of any work in a high security area, the Contractor shall notify the Manager. The Contractor shall conform to the procedures as may be established by the Manager from time to time and at any time for access to high security areas and the escorting of personnel hereunder. Prior to the start of work, the Contractor shall request a description from the Manager of the high security areas which

will be in effect on the commencement date. The description of high security areas may be changed from time to time and at any time by the Manager during the term of the Contract.

21. NOTIFICATION OF SECURITY REQUIREMENTS

The Authority has the responsibility of ensuring safe, reliable and secure transportation facilities, systems, and projects to maintain the well-being and economic competitiveness of the region. Therefore, the Authority reserves the right to deny access to certain documents, sensitive security construction sites and facilities (including rental spaces) to any person that declines to abide by Port Authority security procedures and protocols, any person with a criminal record with respect to certain crimes or who may otherwise poses a threat to the construction site or facility security. The Authority reserves the right to impose multiple layers of security requirements on the Contractor, its staff and subcontractors and their staffs depending upon the level of security required, or may make any amendments with respect to such requirements as determined by the Authority.

These security requirements may include but are not limited to the following:

- Execution of Non-Disclosure and Confidentiality Agreements and Acknowledgements
- Contractor/ Subcontractor identity checks and background screening

The Port Authority's designated background screening provider may require inspection of not less than two forms of valid/current government issued identification (at least one having an official photograph) to verify staff's name and residence; screening federal, state, and/or local criminal justice agency information databases and files; screening of any terrorist identification files; access identification to include some form of biometric security methodology such as fingerprint, facial or iris scanning, or the like.

The Contractor may be required to have its staff, and any subcontractor's staff, materialmen, visitors or others over whom the Contractor/subcontractor has control, authorize the Authority or its designee to perform background checks, and a personal identity verification check. Such authorization shall be in a form acceptable to the Authority. The Contractor and subcontractors may also be required to use an organization designated by the Authority to perform the background checks.

As of January 29, 2007, the Secure Worker Access Consortium (S.W.A.C.) is the only Port Authority approved provider to be used to conduct background screening and personal identity verification, except as otherwise required by federal law and/or regulation (such as the Transportation Worker Identification Credential for personnel performing in secure areas at Maritime facilities). Information about S.W.A.C., instructions, corporate enrollment, online applications, and location of processing centers can be found at <http://www.secureworker.com>, or S.W.A.C. may be contacted directly at (877) 522-7922 for more information and the latest pricing. The cost for said background checks for staff that pass and are granted a credential shall be reimbursable to the Contractor (and its subcontractors) as an out-of-pocket expense as provided herein. Staff that are rejected for a credential for any reason are not reimbursable.

- Issuance of Photo Identification Credential

No person will be permitted on or about the Authority construction site or facility (including rental spaces) without a facility-specific photo identification credential approved by the Authority. If the authority requires facility-specific identification credential for the Contractor's and the subcontractor's staff, the Authority will supply such identification at no cost to the Contractor or its subcontractors. Such facility-specific identification credential shall remain the property of the Authority and shall be returned to the Authority at the completion or upon request prior to completion of the individual's assignment at the specific facility. It is the responsibility of the appropriate Contractor or subcontractor to immediately report to the Authority the loss of any staff member's individual facility-specific identification credential. The Contractor or subcontractor shall be billed for the cost of the replacement identification credential. Contractor's and subcontractor's staff shall display Identification badges in a conspicuous and clearly visible manner, when entering, working or leaving an Authority construction site or facility.

Employees may be required to produce not less than two forms of valid/current government issued identification having an official photograph and an original, unlaminated social security card for identify and SSN verification. Where applicable, for sensitive security construction sites or facilities, successful completion of the application, screening and identity verification for all employees of the Contractor and subcontractors shall be completed prior to being provided a S.W.A.C. ID Photo Identification credential.

- Access control, inspection, and monitoring by security guards

The Authority may provide for Authority construction site or facility (including rental spaces) access control, inspection and monitoring by Port Authority Police or Authority retained contractor security guards. However, this provision shall not relieve the Contractor of its responsibility to secure its equipment and work and that of its subconsultant/subcontractor's and service suppliers at the Authority construction site or facility (including rental spaces). In addition, the Contractor, subcontractor or service provider is not permitted to take photographs, digital images, electronic copying and/or electronic transmission or video recordings or make sketches on any other medium at the Authority construction sites or facilities (including rental spaces), except when necessary to perform the Work under this Contract, without prior written permission from the Authority. Upon request, any photograph, digital images, video recording or sketches made of the Authority construction site or facility shall be submitted to the Authority to determine compliance with this paragraph, which submission shall be conclusive and binding on the submitting entity.

22. INSURANCE PROCURED BY THE CONTRACTOR

The Contractor shall take out, maintain, and pay the premiums on Commercial General Liability Insurance, including but not limited to premises-operations, products-completed operations, and independent contractors coverage, with contractual liability language covering the obligations assumed by the Contractor under this Contract and, if vehicles are to be used to carry out the performance of this Contract, then the Contractor shall also take out, maintain, and pay the premiums on Automobile Liability Insurance covering owned, non-owned, and hired autos in the following minimum limits:

Commercial General Liability Insurance - \$ 2 million combined single limit per occurrence for bodily injury and property damage liability.

Automobile Liability Insurance - \$ 2 million combined single limit per accident for bodily injury and property damage liability.

In addition, the liability policy(ies) shall name "The Port Authority of New York and New Jersey and its related entities, their commissioners, directors, officers, partners, employees and agents as additional insureds", including but not limited to premise-operations, products-completed operations on the Commercial General Liability Policy. Moreover, the Commercial General Liability Policy shall not contain any provisions for exclusions from liability other than provisions for exclusion from liability forming part of the most up to date ISO form or its equivalent unendorsed Commercial General Liability Policy. The liability policy(ies) and certificate of insurance shall contain separation of insured condition and severability of interests clause for all policies so that coverage will respond as if separate policies were in force for each insured. An act or omission of one of the insureds shall not reduce or void coverage to the other insureds. Furthermore, the Contractor's insurance shall be primary insurance as respects to the above additional insureds. Any insurance or self-insurance maintained by the above additional insureds shall not contribute to any loss or claim. These insurance requirements shall be in effect for the duration of the contract to include any maintenance/warranty/guarantee period.

The certificate of insurance and liability policy(ies) must contain the following endorsement for the above liability coverages:

"The insurer(s) shall not, without obtaining the express advance written permission from the General Counsel of the Port Authority, raise any defense involving in any way the jurisdiction of the Tribunal over the person of the Port Authority, the immunity of the Port Authority, its Commissioners, officers, agents or employees, the governmental nature of the Port Authority, or the provisions of any statutes respecting suits against the Port Authority."

The Contractor shall also take out, maintain, and pay premiums on Workers' Compensation Insurance in accordance with the requirements of law in the state(s) where work will take place, and Employer's Liability Insurance with limits of not less than \$1 million each accident.

Each policy above shall contain an endorsement that the policy may not be canceled, terminated, or modified without thirty (30) days' prior written notice to the Port Authority of NY and NJ, Att: Facility Contract Administrator, at the location where the work will take place and to the General Manager, Risk Management.

The Port Authority may at any time during the term of this agreement change or modify the limits and coverages of insurance. Should the modification or change results in an additional premium, The General Manager, Risk Management for the Port Authority may consider such cost as an out-of-pocket expense.

Within five (5) days after the award of this agreement or contract and prior to the start of work, the Contractor must submit an original certificate of insurance, to the Port Authority of NY and

NJ, Facility Contract Administrator, at the location where the work will take place. This certificate of insurance MUST show evidence of the above insurance policy (ies), including but not limited to the cancellation notice endorsement and stating the agreement/contract number prior to the start of work. The General Manager, Risk Management must approve the certificate(s) of insurance before any work can begin. Upon request by the Port Authority, the Contractor shall furnish to the General Manager, Risk Management, a certified copy of each policy, including the premiums.

If at any time the above liability insurance should be canceled, terminated, or modified so that the insurance is not in effect as above required, then, if the Manager shall so direct, the Contractor shall suspend performance of the contract at the premises. If the contract is so suspended, no extension of time shall be due on account thereof. If the contract is not suspended (whether or not because of omission of the Manager to order suspension), then the Authority may, at its option, obtain insurance affording coverage equal to the above required, the cost of such insurance to be payable by the Contractor to the Port Authority.

Renewal certificates of insurance or policies shall be delivered to the Facility Contractor Administrator, Port Authority at least fifteen (15) days prior to the expiration date of each expiring policy. The General Manager, Risk Management must approve the renewal certificate(s) of insurance before work can resume on the facility. If at any time any of the certificates or policies shall become unsatisfactory to the Port Authority, the Contractor shall promptly obtain a new and satisfactory certificate and policy.

The requirements for insurance procured by the Contractor shall not in any way be construed as a limitation on the nature or extent of the contractual obligations assumed by the Contractor under this contract. The insurance requirements are not a representation by the Authority as to the adequacy of the insurance to protect the Contractor against the obligations imposed on them by law or by this or any other Contract. CITS#4418N

23. ASSIGNMENTS AND SUBCONTRACTS

Any assignment or other transfer by the Contractor of this Contract or any part hereof or of any of its rights hereunder or of any monies due or to become due hereunder and any delegation of any of its duties hereunder without the express written consent of the Director shall be void and of no effect as to the Authority, provided, however, that the Contractor may subcontract portions of the Work to such persons as the Director, may, from time to time, expressly approve in writing. For each individual, partnership or corporation proposed by the Contractor as a subcontractor, the Contractor shall submit to the Authority a certification or, if a certification cannot be made, a statement by such person, partnership or corporation to the same effect as the certification or statement required from the Contractor pursuant to the clauses of the "Integrity" Section entitled "Certification of No Investigation Indictment, Conviction, Debarment Suspension, Disqualification and Disclosure of Other Information and "Non-Collusive Bidding and Code of Ethics Certification; Certification of No Solicitation Based on Commission, Percentage, Brokerage Contingent or Other Fee". All further subcontracting by any subcontractor shall also be subject to such approval of the Director.

No consent to any assignment or other transfer, and no approval of any subcontractor, shall under any circumstances operate to relieve the Contractor of any of its obligations; no subcontract, no approval of any subcontractor and no act or omission of the Authority or the Director shall create any rights in favor of such subcontractor and against the Authority; and as between the Authority and the Contractor, all assignees, subcontractors, and other transferees shall for all purposes be deemed to be agents of the Contractor. Moreover, all subcontractors and all approvals of subcontractors, regardless of their form, shall be deemed to be conditioned upon performance by the subcontractor in accordance with this Contract; and if any subcontractor shall fail to perform the Contract to the satisfaction of the Director, the Director shall have the absolute right to rescind his approval forthwith and to require the performance of the Contract by the Contractor personally or through other approved subcontractors.

24. CERTAIN CONTRACTOR'S WARRANTIES

The Contractor represents and warrants:

- a. That it is financially responsible and experienced in, and competent to perform this Contract; that no representation, promise or statement, oral or in writing, has induced it to submit its Response, saving only those contained in the papers expressly made part of this Contract; that the facts stated or shown in any papers submitted or referred to in connection with its Response are true; and, if the Contractor be a corporation, that it is authorized to perform this Contract;
- b. That it has carefully examined and analyzed the provisions and requirements of this Contract, that from its own investigations it has satisfied itself as to the nature of all things needed for the performance of this Contract, the general and local conditions and all other matters which in any way affect this Contract or its performance, and that the time available to it for such examination, analysis, inspection and investigations was adequate;
- c. That the Contract is feasible of performance in accordance with all its provisions and requirements and that it can and will perform it in strict accordance with such provisions and requirements;
- d. That no Commissioner, officer, agent or employee of the Authority is personally interested directly or indirectly in this Contract or the compensation to be paid hereunder;
- e. That, except only for those representations, statements or promises expressly contained in this Contract, no representation, statement or promise, oral or in writing, of any kind whatsoever by the Authority, its Commissioners, officers, agents, employees or consultants has induced the Contractor to enter into this Contract or has been relied upon by the Contractor, including any with reference to: (1) the meaning, correctness, suitability or completeness of any provisions or requirements of this Contract; (2) the nature, existence or location of materials, structures, obstructions, utilities or conditions, which may be encountered at the installation sites; (3) the nature, quantity, quality or size of the materials, equipment, labor and other facilities needed for the performance of this Contract; (4) the general or local conditions which may in any way affect this Contract or its performance; (5) the price of the Contract; or (6) any other matters, whether similar to or different from those referred to in (1) through (5) immediately above, affecting or having

any connection with this Contract, the bidding thereon, any discussions thereof, the performance thereof or those employed therein or connected or concerned therewith.

- f. That, notwithstanding any requirements of this Contract, any inspection or approval of the Contractor's services by the Authority, or the existence of any patent or trade name, the Contractor nevertheless warrants and represents that the services and any intellectual property supplied to the Authority hereunder shall be of the best quality and shall be fully fit for the purpose for which they are to be used. The Contractor unconditionally guarantees against defects or failures of any kind, including defects or failures in design, workmanship and materials, excepting solely defects or failures which the Contractor demonstrates to the satisfaction of the Authority have arisen solely from accident, abuse or fault of the Authority occurring after issuance of Final Payment hereunder and not due to fault on the Contractor's part. In the event of defects or failures in said services, or any part thereof, then upon receipt of notice thereof from the Authority, the Contractor shall correct such defects or failures as may be necessary or desirable, in the sole opinion of the Authority, to comply with the above guaranty.
- g. Moreover, the Contractor accepts the conditions at the sites of work as they may eventually be found to exist and warrants and represents that it can and will perform the Contract under such conditions and that all materials, equipment, labor and other facilities required because of any unforeseen conditions (physical or otherwise) shall be wholly at its own cost and expense, anything in this Contract to the contrary notwithstanding. The Authority is responsible for all facility power.
- h. Nothing in the Scope of Work or any other part of the Contract is intended as or shall constitute a representation by the Authority as to the feasibility of performance of this Contract or any part thereof. Moreover, the Authority does not warrant or represent either by issuance of the Scope of Work or by any provision of this Contract as to time for performance or completion or otherwise that the Contract may be performed or completed by the times required herein or by any other times.
- i. The Contractor further represents and warrants that it was given ample opportunity and time and by means of this paragraph was requested by the Authority to review thoroughly all documents forming this Contract prior to execution of this Contract in order that it might request inclusion in this Contract of any statement, representation, promise or provision which it desired or on which it wished to place reliance; that it did so review said documents; that either every such statement, representation, promise or provision has been included in this Contract or else, if omitted, that it expressly relinquishes the benefit of any such omitted statement, representation, promise or provision and is willing to perform this Contract without claiming reliance thereon or making any other claim on account of such omission.
- j. The Contractor further recognizes that the provisions of this clause (though not only such provisions) are essential to the Authority's consent to enter into this Contract and that without such provisions; the Authority would not have entered into this Contract.

25. RIGHTS AND REMEDIES OF THE CONTRACTOR

Inasmuch as the Contractor can be adequately compensated by money damages for any breach of this Contract which may be committed by the Authority, the Contractor expressly agrees that no default, act or omission of the Authority shall constitute a material breach of this Contract, entitling it to cancel or rescind it or (unless the Director shall so direct) to suspend or abandon performance.

26. TAX EXEMPTIONS

Purchases of services and tangible personal property by the Port Authority are exempt from New York and New Jersey state and local sales and compensating use taxes (Sales Taxes). Therefore, the Port Authority's purchase of the Contractor's services under this Contract is exempt from Sales Taxes. Accordingly, the Contractor must not include Sales Taxes in the price charged to the Port Authority for the Contractor's services under this Contract.

27. TITLE TO EQUIPMENT

Title to all equipment to be furnished hereunder by the Contractor shall be transferred to the Authority upon its delivery to the installation site.

The Contractor shall furnish such bills of sale and affidavits of title as the Authority shall reasonably request.

28. NOTICE REQUIREMENTS

No claim against the Authority shall be made or asserted in any action or proceeding at law or in equity, and the Contractor shall not be entitled to allowance of such claim, unless the Contractor shall have complied with all requirements relating to the giving of written notice and of information with respect to such claim as provided in this clause. The failure of the Contractor to give such written notice and information as to any claim shall be conclusively deemed to be a waiver by the Contractor of such claim, such written notice and information being conditions precedent to such claim. As used herein "claim" shall include any claim arising out of this Contract (including claims in the nature of breach of contract or fraud or misrepresentation before or subsequent to execution of this Contract and claims of a type which are barred by the provisions of this Contract) for damages, payment or compensation of any nature or for performance of any part of this Contract.

The requirements as to the giving of written notice and information with respect to claims shall be as follows:

- A. In the case of any claims for which requirements are set forth elsewhere in this Contract as to notice and information, such requirements shall apply.
- B. In the case of all other types of claims, notice shall have been given to the Director, as soon as practicable, and in any case within forty eight (48) hours after occurrence of the act, omission, or other circumstances upon which the claim is or will be based, stating as fully as practicable at the time all information relating thereto. Such information shall be supplemented with any further information as soon as practicable after it becomes or should become known to the Contractor, including daily records showing all costs which

the Contractor may be incurring or all other circumstances which will affect any claim to be made which records shall be submitted to the Authority.

- C. The above requirements for notices and information are for the purpose of enabling the Authority to avoid waste of public funds by affording it promptly the opportunity to cancel or revise any order, change its plans, mitigate or remedy the effects of circumstances giving rise to a claim or take such other action as may seem desirable and to verify any claimed expense or circumstance as they occur and the requirements herein for such notice and information are essential to this Contract and are in addition to any notice required by statute with respect to suits against the Authority.

The above referred to notices and information are required whether or not the Authority is aware of the existence of any circumstances which might constitute a basis for a claim and whether or not the Authority has indicated it will consider a claim.

No, act, omission or statement of any kind shall be regarded as a waiver of any of the provisions of this clause or may be relied upon as such waiver except only either a written statement signed by the Executive Director of the Authority or a resolution of the Commissioners of the Authority expressly stating that a waiver is intended as to any particular provision of this clause, and more particularly, no discussion, negotiation, consideration, correspondence or requests for information with respect to a claim by any Commissioner, officer, employees or agent of the Authority shall be construed as a waiver of any provision of this clause or as authority or apparent authority to effect such a waiver.

Since merely oral notice or information may cause disputes as to the existence or substance thereof, and since notice, even if written, to other than the Authority representative above designated to receive it may not be sufficient to come to the attention of the representative of the Authority with the knowledge and responsibility of dealing with the situation, only notice and information complying with the express provisions of this clause shall be deemed to fulfill the Contractor's obligation under this Contract.

29. SERVICE OF NOTICES ON THE CONTRACTOR

Whenever provision is made in this Contract for the giving of any notice to the Contractor, its deposit in any post office box, enclosed in a postpaid wrapper addressed to the Contractor at its office, or its delivery to its office, shall be sufficient service thereof as of the date of such deposit or delivery, except to the extent, if any, otherwise provided in the clause entitled "Submission to Jurisdiction". Until further notice to the Authority the Contractor's office will be that stated in its Response. Notices may also be served personally upon the Contractor; or if a corporation, upon any officer, director or managing or general agent; or if a partnership upon any partner.

30. NO THIRD PARTY RIGHTS

Nothing contained in this Contract is intended for the benefit of third persons, except to the extent that the Contract specifically provides otherwise by use of the words "benefit" or "direct right of action".

31. INDEMNIFICATION AND RISKS ASSUMED BY THE CONTRACTOR

To the extent permitted by law, the Contractor shall indemnify and hold harmless the Port Authority, its Commissioners, officers, representatives and employees from and against all claims and demands, just or unjust, of third persons (including employees, officers, and agents of the Port Authority) arising out of or in any way connected or alleged to arise out of or alleged to be in any way connected with the Contract and all other services and activities of the Contractor under this Contract and for all expenses incurred by it and by them in the defense, settlement or satisfaction thereof, including without limitation thereto, claims and demands for death, for personal injury or for property damage, direct or consequential, whether they arise from the acts or omissions of the Contractor, of the Port Authority, of third persons, or from the acts of God or the public enemy, or otherwise, including claims and demands of any local jurisdiction against the Port Authority in connection with this Contract.

The Contractor assumes the following risks, whether such risks arise from acts or omissions (negligent or not) of the Contractor, the Port Authority or third persons or from any other cause, excepting only risks occasioned solely by affirmative willful acts of the Port Authority done subsequent to the opening of responses on this Contract, and shall to the extent permitted by law indemnify the Port Authority for all loss or damage incurred in connection with such risks:

- The risk of any and all loss or damage to Port Authority property, equipment (including but not limited to automotive and/or mobile equipment), materials and possessions, on or off the premises, the loss or damage of which shall arise out of the Contractor's operations hereunder. The Contractor shall if so directed by the Port Authority, repair, replace or rebuild to the satisfaction of the Port Authority, any and all parts of the premises or the Facility which may be damaged or destroyed by the acts or omissions of the Contractor, its officers, agents, or employees and if the Contractor shall fail so to repair, replace, or rebuild with due diligence the Port Authority may, at its option, perform any of the foregoing work and the Contractor shall pay to the Port Authority the cost thereof.
- The risk of any and all loss or damage of the Contractor's property, equipment (including but not limited to automotive and/or mobile equipment) materials and possessions on the Facility.
- The risk of claim, whether made against the Contractor or the Port Authority, for any and all loss or damages occurring to any property, equipment (including but not limited to automotive and/or mobile equipment), materials and possessions of the Contractor's agents, employees, materialmen and others performing work hereunder.
- The risk of claims for injuries, damage or loss of any kind just or unjust of third persons arising or alleged to arise out of the performance of work hereunder, whether such claims are made against the Contractor or the Port Authority.

If so directed, the Contractor shall at its own expense defend any suit based upon any such claim or demand, even if such suit, claim or demand is groundless, false or fraudulent, and in

handling such shall not, without obtaining express advance permission from the General Counsel of the Port Authority, raise any defense involving in any way the jurisdiction of the tribunal over the person of the Port Authority, the immunity of the Port Authority, its Commissioners, officers, agents or employees, the governmental nature of the Port Authority or the provision of any statutes respecting suits against the Port Authority.

Neither the requirements of the Port Authority under this Contract, nor the approval by the Port Authority of the methods of performance hereunder nor the failure of the Port Authority to call attention to improper or inadequate methods or to require a change in the method of performance hereunder nor the failure of the Port Authority to direct the Contractor to take any particular precaution or other action or to refrain from doing any particular thing shall relieve the Contractor of its liability for injuries to persons or damage to property or environmental impairment arising out of its operations.

The provisions of this numbered clause shall also be for the benefit of the Commissioners, officers, agents, and employees of the Authority, so that they shall have all the rights which they would have under this numbered clause if they were named at each place above at which the Authority is named, including a direct right of action against the Contractor to enforce the foregoing indemnity, except, however, that the Authority acting through its Commissioners may at any time in its sole discretion and without liability on its part cancel the benefit conferred on any of them by this numbered clause, whether or not the occasion for invoking such benefit has already arisen at the time of such cancellation.

Neither the Authority's acceptance of the performance by the Contractor in part or in whole, nor the making of a payment shall release the Contractor from its obligations under this numbered clause.

Moreover, neither the enumeration in this numbered clause nor the enumeration elsewhere in this Contract of particular risks assumed by the Contractor or of particular claims for which it is responsible shall be deemed (a) to limit the effect of the provisions of this numbered clause or of any other clause of this Contract relating to such risks or claims, (b) to imply that it assumes or is responsible for risks or claims only of the type enumerated in this numbered clause or in any other clause of this Contract, or (c) to limit the risks which it would assume or the claims for which it would be responsible in the absence of such enumerations.

32. SUBMISSION TO JURISDICTION

This Contract shall be construed in accordance with the laws of the State of New York. The Contractor hereby consents to the exercise by the courts of the States of New York and New Jersey of jurisdiction *in personam* over it with respect to any matter arising out of or in connection with this Contract and waives any objection to such jurisdiction which it might otherwise have; and the Contractor agrees that mailing of process by registered mail addressed to it at the address of the Contractor set forth in the Response, shall have the same effect as personal service within the States of New York or New Jersey upon a domestic corporation of said State.

33. AUTHORITY OF THE DIRECTOR

Inasmuch as the public interest requires that the project to which this Contract relates shall be performed in the manner which the Authority, acting through the Director deems best, the Director shall have absolute authority to determine what is or is not necessary or proper for or incidental thereto and the Specifications shall be deemed merely the Director's present determination on this point. In the exercise of this authority, the Director shall have power to alter the Specifications, to require the performance of Work not required by them in their present form, even though of a totally different character from that required, and to vary, increase and diminish the character, quantity and quality of, or to countermand any Work now or hereafter required. If at any time it shall be, from the viewpoint of the Authority, impracticable or undesirable in the judgment of the Director to proceed with or continue the performance of the Contract or any part thereof, whether or not for reasons beyond the control of the Authority, the Director shall have authority to suspend performance of any part or all of the Contract until such time as the Director may deem it practicable or desirable to proceed. Moreover, if at any time it shall be, from the viewpoint of the Authority impracticable or undesirable in the judgment of the Director to proceed with or continue the performance of the Contract or any part thereof for reasons within or beyond the control of the Authority, the Director shall have authority to cancel this Contract as to any or all portions not yet performed and as to any materials not yet installed even though delivered. Such cancellation shall be without prejudice to the rights and obligations of the parties arising out of portions already satisfactorily performed, but no allowance shall be made for anticipated profits. To resolve all disputes and to prevent litigation, the parties to this Contract authorize the Director to decide all questions of any nature whatsoever arising out of, under, or in connection with, or in any way related to or on account of, this Contract (including claims in the nature of breach of contract or fraud or misrepresentation before or subsequent to acceptance of the Contractor's Response and claims of a type which are barred by the provisions of this Contract) and such decision shall be conclusive, final and binding on the parties. The Director's decision may be based on such assistance as he may find desirable. The effect of the decision shall not be impaired or waived by any negotiation or settlement offers in connection with the question decided, whether or not he participated therein, or by any prior decision of him or others, which prior decisions shall be deemed subject to review, or by any termination or cancellation of this Contract.

All such questions shall be submitted in writing by the Contractor to the Director for a decision together with all evidence and other pertinent information in regard to such questions, in order that a fair and impartial decision may be made. In any action against the Authority relating to any such question the Contractor must allege in the complaint and prove such submission, which shall be a condition precedent to any such action. No evidence or information shall be introduced or relied upon in such an action that has not been so presented to the Director.

In the performance of the Contract, the Contractor shall conform to all orders, directions and requirements of the Director and shall perform the Contract to his satisfaction at such times and places, by such methods and such manner and sequence as he may require, and the Contract shall at all stages be subject to his inspection. The Contractor shall employ no equipment, materials, methods or men to which he objects, and shall remove no materials,

equipment or other facilities from the Authority site without permission. Upon request, he shall confirm in writing any oral order, direction, requirements or determination.

The enumeration herein or elsewhere of particular instances in which the opinion, judgment, discretion or determination of the Director shall control or in which the Contract shall be performed to his satisfaction or subject to his inspection, shall not imply that only the matters of a nature similar to those enumerated shall be so governed and performed, but without exception the entire Contract shall be so governed and performed.

This provision shall be construed in accordance with the laws of the State of New York excluding its conflict of law provisions.

34. APPROVALS BY THE DIRECTOR

The approval by the Director of any service required hereunder, shall be construed merely to mean that at that time the Director knows of no good reason for objecting thereto and no such approval shall release the Contractor from its full responsibility for the satisfactory performance of the services to be supplied. "Approved equal" shall mean approved by the Director.

35. CONTRACT REVIEW AND COMPLIANCE AUDITS

The Contractor, and any subcontractors, shall provide prompt system access and reasonable assistance to the Authority's External and Internal Audit staff or its consultants in their performance of work under the contract, including producing specific requested information, extraction of data and reports. The Contractor, and any subcontractors, shall promptly support requests related to audits of the contract and administration tasks and functions covered by this Contract. The Authority will require access to the Contractor's Network Monitoring data center on a periodic basis; the hours to be determined, at the convenience of the authority.

The Authority reserves the right to use and load security and system software to evaluate the level of security and vulnerabilities in all systems which control, collect, dispense, contain, manage, administer, or monitor revenue "owned" by the Port Authority.

36. STATEMENT ON STANDARDS FOR ATTESTATION ENGAGEMENTS (SSAE) NO. 16 Audit

The Contractor shall conduct SSAE 16 or its successor on an annual basis and provide such report to the Authority. The Authority reserves the right to conduct or have agents conduct any additional audits they deem necessary.

37. AUTHORITY ACCESS TO RECORDS

The Authority shall have access during normal business hours to all records and documents of the Contractor relating to any service provided under this Contract, amounts for which it has been compensated, or claims the Contractor should be compensated, by the Authority above those included in the compensation set forth elsewhere herein. All Contractor records shall be kept in the Port District (as defined in McKinney's Unconsolidated Laws §6403). The Contractor shall obtain for the Authority similar access to similar records and documents of subcontractors. Such access shall be given or obtained both before and within a period of

three (3) years after Final Payment to the Contractor, provided, however, that if within the aforesaid one year period the Authority has notified the Contractor in writing of a pending claim by the Authority under or in connection with this Contract to which any of the aforesaid records and documents of the Contractor or of its subcontractors relate either directly or indirectly, then the period of such right of access shall be extended to the expiration of six (6) years from the date of Final Payment with respect to the records and documents involved.

The Contractor shall provide, at no cost to the Authority, access for and reasonable assistance to such auditors from the Authority or the Authority's external auditors that may, from time to time, be designated to audit detail records which support Contractor charges to the Authority. The Authority shall have access to the detail records that support Contractor charges to the Authority for up to three (3) years following the termination of the Contract.

No provision in this Contract giving the Authority a right of access to records and documents is intended to impair or affect any right of access to records and documents that the Authority would have in the absence of such provision.

38. CLAIMS OF THIRD PERSONS

The Contractor undertakes to pay all claims lawfully made against it by subcontractors, materialmen and workmen, and all claims lawfully made against it by other third persons arising out of or in connection with or because of the performance of this Contract and to cause all subcontractors to pay all such claims lawfully made against them.

39. NO DISCRIMINATION IN EMPLOYMENT, EQUAL EMPLOYMENT OPPORTUNITY

During the performance of this Contract, the Contractor agrees as follows:

- A. The Contractor is advised to ascertain and comply with all applicable federal, state and local statutes, ordinances, rules and regulations and Federal Executive Orders pertaining to equal employment opportunity, affirmative action and non-discrimination in employment.
- B. Without limiting the generality of any other term or provision of this Contract, in the event of the Contractor's non-compliance with any such statutes, ordinances, rules, regulations or orders, this Contract may be canceled, terminated, or suspended in whole or in part.

40. CONTRACTOR'S INTEGRITY PROVISIONS

1. Certification of No Investigation (criminal or civil anti-trust), Indictment, Conviction, Debarment, Suspension, Disqualification and Disclosure of Other Information

By bidding on this Contract, each Bidder and each person signing on behalf of any Bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, that the Bidder and each parent and/or affiliate of the Bidder has not

- a. been indicted or convicted in any jurisdiction;

- b. been suspended, debarred, found not responsible or otherwise disqualified from entering into any contract with any governmental agency or been denied a government contract for failure to meet standards related to the integrity of the Bidder;
 - c. had a contract terminated by any governmental agency for breach of contract or for any cause based in whole or in part on an indictment or conviction;
 - d. ever used a name, trade name or abbreviated name, or an Employer Identification Number different from those inserted in the Bid;
 - e. had any business or professional license suspended or revoked or, within the five years prior to bid opening, had any sanction imposed in excess of fifty thousand dollars (\$50,000) as a result of any judicial or administrative proceeding with respect to any license held or with respect to any violation of a federal, state or local environmental law, rule or regulation;
 - f. had any sanction imposed as a result of a judicial or administrative proceeding related to fraud, extortion, bribery, bid rigging, embezzlement, misrepresentation or anti-trust regardless of the dollar amount of the sanctions or the date of their imposition; and
 - g. been, and is not currently, the subject of a criminal investigation by any federal, state or local prosecuting or investigative agency and/or a civil anti-trust investigation by any federal, state or local prosecuting or investigative agency.
2. Non-Collusive Bidding, and Code of Ethics Certification, Certification of No Solicitation Based On Commission, Percentage, Brokerage, Contingent or Other Fees

By bidding on this Contract, each Bidder and each person signing on behalf of any Bidder certifies, and in the case of a joint bid, each party thereto certifies as to its own organization, that

- a. the prices in its bid have been arrived at independently without collusion, consultation, communication or agreement for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;
- b. the prices quoted in its bid have not been and will not be knowingly disclosed directly or indirectly by the Bidder prior to the official opening of such bid to any other bidder or to any competitor;
- c. no attempt has been made and none will be made by the Bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition;
- d. this organization has not made any offers or agreements or taken any other action with respect to any Authority employee or former employee or immediate family member of either which would constitute a breach of ethical standards under the Code of Ethics

dated April 11, 1996, (a copy of which is available upon request) nor does this organization have any knowledge of any act on the part of an Authority employee or former Authority employee relating either directly or indirectly to this organization which constitutes a breach of the ethical standards set forth in said Code;

- e. no person or selling agency other than a bona fide employee or bona fide established commercial or selling agency maintained by the Bidder for the purpose of securing business, has been employed or retained by the Bidder to solicit or secure this Contract on the understanding that a commission, percentage, brokerage, contingent, or other fee would be paid to such person or selling agency;
- f. the bidder has not offered, promised or given, demanded or accepted, any undue advantage, directly or indirectly, to or from a public official or employee, political candidate, party or party official, or any private sector employee (including a person who directs or works for a private sector enterprise in any capacity), in order to obtain, retain, or direct business or to secure any other improper advantage in connection with this Contract;
- g. no person or organization has been retained, employed or designated on behalf of the Bidder to impact any Port Authority determination, where the solicitation is a Request for Proposals, with respect to (i) the solicitation, evaluation or award of this Contract, or (ii) the preparation of specifications or request for submissions in connection with this Contract.

The foregoing certifications shall be deemed to be made by the Bidder as follows:

- if the Bidder is a corporation, such certification shall be deemed to have been made not only with respect to the Bidder itself, but also with respect to each parent, affiliate, director, and officer of the Bidder, as well as, to the best of the certifier's knowledge and belief, each stockholder of the Bidder with an ownership interest in excess of 10%;
- if the Bidder is a partnership, such certification shall be deemed to have been made not only with respect to the Bidder itself, but also with respect to each partner.

Moreover, the foregoing certifications, if made by a corporate Bidder, shall be deemed to have been authorized by the Board of Directors of the Bidder, and such authorization shall be deemed to include the signing and submission of the bid and the inclusion therein of such certification as the act and deed of the corporation.

In any case where the Bidder cannot make the foregoing certifications, the Bidder shall so state and shall furnish with the signed bid a signed statement which sets forth in detail the reasons therefor. If the Bidder is uncertain as to whether it can make the foregoing certifications, it shall so indicate in a signed statement furnished with its bid, setting forth in such statement the reasons for its uncertainty. With respect to the foregoing certification in paragraph "2g", if the Bidder cannot make the certification, it shall provide, in writing, with the signed bid: (i) a list of the name(s), address(es), telephone number(s), and place(s) of principal employment of each such individual or organization; and (ii) a statement as to whether such individual or organization has a "financial interest" in this

Contract, as described in the Procurement Disclosure policy of the Authority (a copy of which is available upon request to the Director of the Procurement Department of the Authority). Such disclosure is to be updated, as necessary, up to the time of award of this Contract. As a result of such disclosure, the Port Authority shall take appropriate action up to and including a finding of non-responsibility.

Failure to make the required disclosures shall lead to administrative actions up to and including a finding of non-responsibility.

Notwithstanding that the Bidder may be able to make the foregoing certifications at the time the bid is submitted, the Bidder shall immediately notify the Authority in writing during the period of irrevocability of bids and the term of the Contract, if Bidder is awarded the Contract, of any change of circumstances which might under this clause make it unable to make the foregoing certifications, might render any portion of the certifications previously made invalid, or require disclosure. The foregoing certifications or signed statement shall be deemed to have been made by the Bidder with full knowledge that they would become a part of the records of the Authority and that the Authority will rely on their truth and accuracy in awarding and continuing this Contract. In the event that the Authority should determine at any time prior or subsequent to the award of this Contract that the Bidder has falsely certified as to any material item in the foregoing certifications, has failed to immediately notify the Port Authority of any change in circumstances which might make it unable to make the foregoing certifications, might render any portion of the certifications previously made invalid, or require disclosure, or has willfully or fraudulently furnished a signed statement which is false in any material respect, or has not fully and accurately represented any circumstance with respect to any item in the foregoing certifications required to be disclosed, the Authority may determine that the Bidder is not a responsible Bidder with respect to its bid on the Contract or with respect to future bids on Authority contracts and may exercise such other remedies as are provided to it by the Contract with respect to these matters. In addition, Bidders are advised that knowingly providing a false certification or statement pursuant hereto may be the basis for prosecution for offering a false instrument for filing (see e.g. New York Penal Law, Section 175.30 et seq.). Bidders are also advised that the inability to make such certification will not in and of itself disqualify a Bidder, and that in each instance the Authority will evaluate the reasons therefor provided by the Bidder. Under certain circumstances the Bidder may be required as a condition of Contract award to enter into a Monitoring Agreement under which it will be required to take certain specified actions, including compensating an independent Monitor to be selected by the Port Authority, said Monitor to be charged with, among other things, auditing the actions of the Bidder to determine whether its business practices and relationships indicate a level of integrity sufficient to permit it to continue business with the Port Authority.

3. Bidder Eligibility for Award of Contracts - Determination by an Agency of the State of New York or New Jersey Concerning Eligibility to Receive Public Contracts

Bidders are advised that the Authority has adopted a policy to the effect that in awarding its contracts it will honor any determination by an agency of the State of New York or New Jersey that a Bidder is not eligible to bid on or be awarded public contracts because the

Bidder has been determined to have engaged in illegal or dishonest conduct or to have violated prevailing rate of wage legislation.

The policy permits a Bidder whose ineligibility has been so determined by an agency of the State of New York or New Jersey to submit a bid on a Port Authority contract and then to establish that it is eligible to be awarded a contract on which it has bid because (i) the state agency determination relied upon does not apply to the Bidder, or (ii) the state agency determination relied upon was made without affording the Bidder the notice and hearing to which the Bidder was entitled by the requirements of due process of law, or (iii) the state agency determination was clearly erroneous or (iv) the state determination relied upon was not based on a finding of conduct demonstrating a lack of integrity or violation of a prevailing rate of wage law.

The full text of the resolution adopting the policy may be found in the Minutes of the Authority's Board of Commissioners meeting of September 9, 1993.

4. Contractor Responsibility, Suspension of Work and Termination

During the term of this Contract, the Contractor shall at all times during the Contract term remain responsible. The Contractor agrees, if requested by the Port Authority to present evidence of its continuing legal authority to do business in the States of New Jersey or New York, integrity, experience, ability, prior performance, and organizational and financial capacity.

The Port Authority, in its sole discretion, reserves the right to suspend any or all activities under this Contract, at any time, when it discovers information that calls into question the responsibility of the Contractor. In the event of such suspension, the Contractor will be given written notice outlining the particulars of such suspension. Upon issuance of such notice, the Contractor must comply with the terms of the suspension order. Contract activity may resume at such time as the Port Authority issues a written notice authorizing a resumption of performance under the Contract.

Upon written notice to the Contractor, and an opportunity to be heard with appropriate Port Authority officials or staff, the Contract may be terminated by Port Authority at the Contractor's expense where the Contractor is determined by the Port Authority to be non-responsible. In such event, the Port Authority or its designee may complete the contractual requirements in any manner he or she may deem advisable and pursue available legal or equitable remedies for breach, including recovery of costs from Contractor associated with such termination.

5. No Gifts, Gratuities, Offers of Employment, Etc.

At all times, the Contractor shall not offer, give or agree to give anything of value either to a Port Authority employee, agent, job shopper, consultant, construction manager or other person or firm representing the Port Authority, or to a member of the immediate family (i.e., a spouse, child, parent, brother or sister) of any of the foregoing, in connection with the performance by such employee, agent, job shopper, consultant, construction manager

or other person or firm representing the Port Authority of duties involving transactions with the Contractor on behalf of the Port Authority, whether or not such duties are related to this Contract or any other Port Authority contract or matter. Any such conduct shall be deemed a material breach of this Contract.

As used herein "anything of value" shall include but not be limited to any (a) favors, such as meals, entertainment, transportation (other than that contemplated by the Contract or any other Port Authority contract), etc. which might tend to obligate the Port Authority employee to the Contractor, and (b) gift, gratuity, money, goods, equipment, services, lodging, discounts not available to the general public, offers or promises of employment, loans or the cancellation thereof, preferential treatment or business opportunity. Such term shall not include compensation contemplated by this Contract or any other Port Authority contract. Where used herein, the term "Port Authority" shall be deemed to include all subsidiaries of the Port Authority.

The Contractor shall insure that no gratuities of any kind or nature whatsoever shall be solicited or accepted by it and by its personnel for any reason whatsoever from the passengers, tenants, customers or other persons using the Facility and shall so instruct its personnel.

In the event that the Contractor becomes aware of the occurrence of any conduct that is prohibited by this clause, it shall report such occurrence to the Port Authority's Office of Inspector General within three (3) business days of obtaining such knowledge. (See "<http://www.panynj.gov/inspector-general>" for information about to report information to the Office of Inspector General). Failing to report such conduct shall be grounds for a finding of non-responsibility.

In addition, during the term of this Contract, the Contractor shall not make an offer of employment or use confidential information in a manner proscribed by the Code of Ethics and Financial Disclosure dated April 11, 1996, (a copy of which is available upon request to the Office of the Secretary of the Port Authority).

The Contractor shall include the provisions of this clause in each subcontract entered into under this Contract.

6. Conflict of Interest

During the term of this Contract, the Contractor shall not participate in any way in the preparation, negotiation or award of any contract (other than a contract for its own services to the Authority) to which it is contemplated the Port Authority may become a party, or participate in any way in the review or resolution of a claim in connection with such a contract if the Contractor has a substantial financial interest in the contractor or potential contractor of the Port Authority or if the Contractor has an arrangement for future employment or for any other business relationship with said contractor or potential contractor, nor shall the Contractor at any time take any other action which might be viewed as or give the appearance of conflict of interest on its part. If the possibility of such an arrangement for future employment or for another business arrangement has been or

is the subject of a previous or current discussion, or if the Contractor has reason to believe such an arrangement may be the subject of future discussion, or if the Contractor has any financial interest, substantial or not, in a contractor or potential contractor of the Authority, and the Contractor's participation in the preparation, negotiation or award of any contract with such a contractor or the review or resolution of a claim in connection with such a contract is contemplated or if the Contractor has reason to believe that any other situation exists which might be viewed as or give the appearance of a conflict of interest, the Contractor shall immediately inform the Director in writing of such situation giving the full details thereof. Unless the Contractor receives the specific written approval of the Director, the Contractor shall not take the contemplated action which might be viewed as or give the appearance of a conflict of interest. The Director may require the Contractor to submit a mitigation plan addressing and mitigating any disclosed or undisclosed conflict, which is subject to the approval of the Director and shall become a requirement, as though fully set forth in this Contract. In the event the Director shall determine that the performance by the Contractor of a portion of its Services under this Agreement is precluded by the provisions of this numbered paragraph, or a portion of the Contractor's said Services is determined by the Director to be no longer appropriate because of such preclusion, then the Director shall have full authority on behalf of both parties to order that such portion of the Contractor's Services not be performed by the Contractor, reserving the right, however, to have the Services performed by others and any lump sum compensation payable hereunder which is applicable to the deleted work shall be equitably adjusted by the parties. The Contractor's execution of this document shall constitute a representation by the Contractor that at the time of such execution the Contractor knows of no circumstances, present or anticipated, which come within the provisions of this paragraph or which might otherwise be viewed as or give the appearance of a conflict of interest on the Contractor's part. The Contractor acknowledges that the Authority may preclude it from involvement in certain disposition/privatization initiatives or transactions that result from the findings of its evaluations hereunder or from participation in any contract, which results, directly or indirectly, from the Services provided by the Contractor hereunder. The Port Authority's determination regarding any questions of conflict of interest shall be final.

7. Definitions

As used in this section, the following terms shall mean:

Affiliate - Two or more firms are affiliates if a parent owns more than fifty percent of the voting stock of each of the firms, or a common shareholder or group of shareholders owns more than fifty percent of the voting stock of each of the firms, or if the firms have a common proprietor or general partner.

Agency or Governmental Agency - Any federal, state, city or other local agency, including departments, offices, public authorities and corporations, boards of education and higher education, public development corporations, local development corporations and others.

Investigation - Any inquiries made by any federal, state or local criminal prosecuting agency and any inquiries concerning civil anti-trust investigations made by any federal,

state or local governmental agency. Except for inquiries concerning civil anti-trust investigations, the term does not include inquiries made by any civil government agency concerning compliance with any regulation, the nature of which does not carry criminal penalties, nor does it include any background investigations for employment, or Federal, State, and local inquiries into tax returns.

Officer - Any individual who serves as chief executive officer, chief financial officer, or chief operating officer of the Bidder by whatever titles known.

Parent - An individual, partnership, joint venture or corporation which owns more than 50% of the voting stock of the Bidder.

If the solicitation is a Request for Proposal:

Bid - shall mean Proposal;

Bidder - shall mean Proposer;

Bidding - shall mean submitting a Proposal.

In a Contract resulting from the taking of bids:

Bid - shall mean bid;

Bidder - shall mean Bidder; except and until the Contract has been awarded, then it shall mean Contractor

Bidding - shall mean executing this Contract.

In a Contract resulting from the taking of Proposals:

Bid - shall mean Proposal;

Bidder - shall mean Proposer;

Bidding - shall mean executing this Contract.

41. CONFIDENTIAL INFORMATION/NON-PUBLICATION

- A. As used herein, confidential information ("CI") shall mean all information disclosed to the Contractor or the personnel provided by the Contractor hereunder which relates to the Authority's and/or PATH's past, present, and future research, development and business activities including, but not limited to, software and documentation licensed to the Authority or proprietary to the Authority and/or PATH and all associated software, source code procedures and documentation. CI shall also mean any other tangible or intangible information or materials including but not limited to computer identification numbers, access codes, passwords, and reports obtained and/or used during the performance of the Contractor's Services under this Contract.
- B. CI shall also mean and include collectively, as per The Port Authority of New York & New Jersey Information Security Handbook (October 15, 2008, corrected as of February, 9 2009), Confidential Proprietary Information, Confidential Privileged Information and information that is labeled, marked or otherwise identified by or on behalf of the Authority so as to reasonably connote that such information is confidential, privileged, sensitive or proprietary in nature. CI shall also include all work product that contains or is derived from

any of the foregoing, whether in whole or in part, regardless of whether prepared by the Authority or a third-party or when the Authority receives such information from others and agrees to treat such information as Confidential.

The Handbook and its requirements are hereby incorporated into this agreement and will govern the possession, distribution and use of CI if at any point during the lifecycle of the project or solicitation it becomes necessary for the Contractor to have access to CI. Protecting sensitive information requires the application of uniform safeguarding measures to prevent unauthorized disclosure and to control any authorized disclosure of this information within the Port Authority or when released by the Port Authority to outside entities. The following is an outline of some of the procedures, obligations and directives contained in the Handbook:

- (1) require that the Contractor and subcontractors, when appropriate, sign Non-Disclosure Agreements (NDAs), or an Acknowledgment of an existing NDA, provided by the Authority as a condition of being granted access to CI categorized and protected as per the Handbook;
- (2) require that individuals needing access to CI be required to undergo a background check, pursuant to the process and requirements noted in § 3.2 of the Information Security Handbook.
- (3) require Contractors and commercial enterprises to attend training to ensure security awareness regarding Port Authority information;
- (4) specific guidelines and requirements for the handling of CI to ensure that the storage and protection of CI;
- (5) restrictions on the transfer, shipping, and mailing of CI information;
- (6) prohibitions on the publication, posting, modifying, copying, reproducing, republishing, uploading, transmitting, or distributing CI on websites or web pages. This may also include restricting persons, who either have not passed a pre-screening background check, or who have not been granted access to CI, from viewing such information;
- (7) require that CI be destroyed using certain methods, measures or technology pursuant to the requirements set forth in the Handbook;
- (8) require the Contractor to mandate that each of its subcontractors maintain the same levels of security required of the Contractor under any Port Authority awarded contract.
- (9) prohibit the publication, exchange or dissemination of CI developed from the project or contained in reports, except between Contractors and subcontractors, without prior approval of the Port Authority;
- (10) require that CI only be reproduced or copied pursuant to the requirements set forth in the Handbook.

- C. The Contractor shall hold all such CI in trust and confidence for the Authority, and agrees that the Contractor and the personnel provided by the Contractor hereunder shall not, during or after the termination or expiration of this Contract, disclose to any person, firm or corporation, nor use for its own business or benefit, any information obtained by it under or in connection with the supplying of services contemplated by this Contract. The Contractor and the personnel provided by the Contractor hereunder shall not violate in any manner any patent, copyright, trade secret or other proprietary right of the Authority or third persons in connection with their services hereunder, either before or after

termination or expiration of this Contract. The Contractor and the personnel provided by the Contractor hereunder shall not willfully or otherwise perform any dishonest or fraudulent acts, breach any security procedures, or damage or destroy any hardware, software or documentation, proprietary or otherwise, in connection with their services hereunder.

- D. **Audits for Compliance with Security Requirements:** The Port Authority may conduct random or scheduled examinations of business practices under this section entitled "CONFIDENTIAL INFORMATION/NON-PUBLICATION" and the Handbook in order to assess the extent of compliance with security requirements, Confidential Information procedures, protocols and practices, which may include, but not be limited to, verification of background check status, confirmation of completion of specified training, and/or a site visit to view material storage locations and protocols.
- E. The Contractor shall not issue nor permit to be issued any press release, advertisement, or literature of any kind, which refers to the Port Authority or to the fact that goods have been, are being or will be provided to it and/or that services have been, are being or will be performed for it in connection with this Contract, unless the vendor first obtains the written approval of the Port Authority. Such approval may be withheld if for any reason the Port Authority believes that the publication of such information would be harmful to the public interest or is in any way undesirable.

42. PROVISIONS OF LAW DEEMED INSERTED

Each and every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted herein and the Contract shall be read and enforced as though it were included therein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party, the Contract shall forthwith be physically amended to make such insertion.

43. INVALID CLAUSES

If any provision of this Contract shall be such as to destroy its mutuality or to render it invalid or illegal, then if it shall not appear to have been so material that without it the Contract would not have been made by the parties, it shall not be deemed to form part thereof but the balance of the Contract shall remain in full force and effect.

44. NO ESTOPPEL OR WAIVER

The Authority shall not be precluded or estopped by any acceptance, certificate or payment, final or otherwise, issued or made under this Contract or otherwise issued or made by it, the Director or any officer, agent or employee of The Authority, from showing at any time the true amount and character of Work performed, or from showing that any such acceptance, certificate or payment is incorrect or was improperly issued or made; and The Authority shall not be precluded or estopped, notwithstanding any such acceptance, certificate or payment, from recovering from the Contractor any damages which it may sustain by reason of any failure on its part to comply strictly with this Contract, and any monies which may be paid to it or for its account in excess of those to which it is lawfully entitled.

45. NON-LIABILITY OF THE AUTHORITY REPRESENTATIVES

Neither the Commissioners of the Authority, nor any officer, agent, or employee thereof shall be charged personally by the Contractor with any liability or held liable under any term or provision of this Contract, or because of its execution or attempted execution, or because of any breach hereof.

46. MODIFICATION OF CONTRACT

No change in or modification, termination or discharge of this Contract, in any form whatsoever, shall be valid or enforceable unless it is in writing and signed by the party to be charged therewith or his duly authorized representative, provided, however, that any change in or modification, termination or discharge of this Contract expressly provided for in this Contract shall be effective as so provided.

47. M/WBE GOOD FAITH PARTICIPATION

The Contractor shall use every good-faith effort to meet the goals set forth in the clause of the Selection Process Document entitled "M/WBE Subcontracting Provisions" for participation by Port Authority certified M/WBEs as defined in this document, in the purchasing and subcontracting opportunities associated with this contract, including purchase of equipment, supplies and labor services.

Good Faith efforts to include participation by MBEs/WBEs shall include the following:

- 1) Dividing the services and materials to be procured into small portions where feasible;
- 2) Giving reasonable advance notice of specific subcontracting and purchasing opportunities to such firms as may be appropriate;
- 3) Soliciting services and materials from M/WBEs, which are certified by the Port Authority;
- 4) Ensuring that provision is made for timely progress payments to the M/WBEs and;
- 5) Observance of reasonable commercial standards of fair dealing in the respective trade or business.

Either prior or subsequent to Contract award, the Contractor may request a full or partial waiver of the M/WBE participation goals set forth in this Contract by providing documentation demonstrating to the Manager, for approval by the Port Authority's Office of Business Diversity and Civil Rights, that its good faith efforts did not result in compliance with the goals set forth above because participation by eligible M/WBEs could not be obtained at a reasonable price or that such M/WBEs were not available to adequately perform as subcontractors. The Contractor shall provide written documentation in support of its request to the Manager. The documentation shall include, but not be limited to, documentation demonstrating good faith efforts as described above, which may include, proof that the Authority's directory does not contain M/WBEs in this specific field of work, a list of organizations contacted to obtain M/WBEs, and/or a list of M/WBEs contacted and their price quotes. If approved by the Authority's Office of Business Diversity and Civil Rights, the Manager will provide written approval of the modified or waived M/WBE Participation Plan.

Subsequent to Contract award, all changes to the M/WBE Participation Plan must be submitted via a modified M/WBE Participation Plan to the Manager for review and approval by the Authority's Office of Business Diversity and Civil Rights. For submittal of modifications to the M/WBE Plan, Contractors are directed to use form PA3749C, which may be downloaded at <http://www.panynj.gov/business-opportunities/become-vendor.html>. The Contractor shall not make changes to its approved M/WBE Participation Plan or substitute M/WBE subcontractors or suppliers for those named in their approved plan without the Manager's prior written approval. Unauthorized changes or substitutions, including performing the work designated for a subcontractor with the Contractor's own forces, shall be a violation of this section. Progress toward attainment of M/WBE participation goals set forth herein will be monitored throughout the duration of this Contract.

The Contractor shall also submit to the Manager, along with invoices, the Statement of Subcontractor Payments as the M/WBE Participation Report, form PA3968, which may be downloaded at <http://www.panynj.gov/business-opportunities/become-vendor.html>. The Statement must include the name and business address of each M/WBE subcontractor and supplier actually involved in the Contract, a description of the work performed and/or product or service supplied by each such subcontractor or supplier, the date and amount of each expenditure, and such other information that may assist the Manager in determining the Contractor's compliance with the foregoing provisions.

If, during the performance of this Contract, the Contractor fails to demonstrate good faith efforts in carrying out its M/WBE Participation Plan and the Contractor has not requested and been granted a full or partial waiver of the M/WBE participation goals set forth in this Contract, the Authority will take into consideration the Contractor's failure to carry out its M/WBE Participation Plan in its evaluation for award of future Authority contracts.

48. HARMONY

- A. The Contractor shall not employ any persons or use any labor, or use or have any equipment, or permit any condition to exist which shall or may cause or be conducive to any labor complaints, troubles, disputes or controversies at the Facility which interfere or are likely to interfere with the operation of the Port Authority or with the operations of lessees, licensees or other users of the Facility or with the operations of the Contractor under this Contract.

The Contractor shall immediately give notice to the Port Authority (to be followed by written notices and reports) of any and all impending or existing labor complaints, troubles, disputes or controversies and the progress thereof. The Contractor shall use its best efforts to resolve any such complaint, trouble, dispute or controversy. If any type of strike, boycott, picketing, work stoppage, slowdown or other labor activity is directed against the Contractor at the Facility or against any operations of the Contractor under this Contract, whether or not caused by the employees of the Contractor, and if any of the foregoing, in the opinion of the Port Authority, results or is likely to result in any curtailment or diminution of the services to be performed hereunder or to interfere with or affect the operations of the Port Authority, or to interfere with or affect the operations of lessees, licensees, or other users of the Facility or in the event of any other cessation or

stoppage of operations by the Contractor hereunder for any reason whatsoever, the Port Authority shall have the right at any time during the continuance thereof to suspend the operations of the Contractor under this Contract, and during the period of the suspension the Contractor shall not perform its services hereunder and the Port Authority shall have the right during said period to itself or by any third person or persons selected by it to perform said services of the Contractor using the equipment which is used by the Contractor in its operations hereunder as the Port Authority deems necessary and without cost to the Port Authority. During such time of suspension, the Contractor shall not be entitled to any compensation. Any flat fees, including management fees, shall be prorated. Prior to the exercise of such right by the Port Authority, it shall give the Contractor notice thereof, which notice may be oral. No exercise by the Port Authority of the rights granted to it in the above subparagraph shall be or be deemed to be a waiver of any rights of termination or revocation contained in this Contract or a waiver of any rights or remedies which may be available to the Port Authority under this Contract or otherwise.

- B. During the time that the Contractor is performing the Contract, other persons may be engaged in other operations on or about the worksite including Facility operations, pedestrian, bus and vehicular traffic and other Contractors performing at the worksite, all of which shall remain uninterrupted.

The Contractor shall so plan and conduct its operations as to work in harmony with others engaged at the site and not to delay, endanger or interfere with the operation of others (whether or not specifically mentioned above), all to the best interests of the Port Authority and the public as may be directed by the Port Authority.

49. INCREASE AND DECREASE IN SERVICES, AREAS OR FREQUENCIES

The Director shall have the right, at any time and from time to time in his sole discretion, to increase and/or decrease the services required hereunder, frequencies of all or any part of the services required hereunder or to add areas not described herein in the Specifications or remove areas or parts of areas which are hereunder so described. In the event the Superintendent/Manager decides to change any frequencies or areas such change shall be by written notice not less than 24 hours, said changes to be effective upon the date specified in said notice.

In the event of an increase or decrease in services, areas or frequencies, the Contractor's compensation will be adjusted to reflect such change in areas or frequencies utilizing the applicable hourly rates for such services (for the applicable Contract year) as set forth on the Authority-accepted Pricing Sheet(s).

Where no specific Unit Price has been quoted for the type of services to be increased or decreased, the Manager shall have the right to negotiate the compensation to reflect such change, whether an increase or decrease in areas or frequencies, which, in the opinion of the Manager, are necessary to complete the work, by multiplying the increased or decreased amount by the negotiated rate.

In the event of a decrease in services, the Contractor shall not be entitled to compensation for Work not performed.

No such changes in areas or frequencies will be implemented which results in a total increase or decrease in compensation that is greater than 50% of the Total Estimated Contract Price for the Base Term or, if changes are to be implemented during an Option Period, 50% for that Option Period.

Any increases in frequencies or areas shall not constitute Extra Work and, as such, shall not be limited by the Extra Work provisions of this Contract.

ATTACHMENT C: DESCRIPTION OF BUDGET PRO AND THE AUTHORITY'S TECHNICAL INFRASTRUCTURE

1. Budget PRO System – General Composition

The Budget PRO System (hereinafter, sometimes referred to as the "System" or "Budget PRO" or "Oracle-Hyperion EPM System") is a customized, web-based, intranet-enabled application supporting the Port Authority's planning, budgeting, forecasting and reporting functions. The System provides users with the capability to perform multi-year budget preparation, on-line and high-level reporting functions, financial analysis and long term (i.e., 15 years) financial forecasting.

Note: Budget PRO works in conjunction with the Port Authority's SAP & PeopleSoft ERP systems. SAP is used for the Agency's financial, accounting and procurement needs; PeopleSoft is used for the Authority's human resource and payroll needs, including position management and overtime reporting.

1.1 System Based Software Products/Tools

Budget PRO is based on an Oracle-Hyperion proprietary suite of tools. The current Budget PRO environments (production, secondary and development) are running under Oracle Hyperion Enterprise Performance Management System 11 (version 11.1.2.1). The following Hyperion products are the foundation for Budget PRO:

- Hyperion Planning: Web-based budgeting and planning product;
- Hyperion Essbase: Multi-dimensional platform, open, scalable Online Analytical Processing (OLAP) server (for business/data modeling, enterprise reporting, analysis, and planning applications);
- Hyperion Financial Reports: reporting tool application to design and manage end-user reports;
- Hyperion WebAnalysis: OLAP-centric presentation, analysis, and reporting tool suite;
- Hyperion Essbase MS Excel Add-in – Query tool – Od-hoc reporting capabilities;
- Support Detail Reporting (SDR): In-house-developed customized reporting tool for information entered onto the supporting detail data entry screens; and
- Weblogic: Web Application Software (for support of all web services).

1.2 Budget PRO – Users

Budget PRO supports approximately 250 concurrent users during the heaviest periods of the budget cycle. Budget PRO users are located throughout Port Authority facilities and they gain access to the System through the Authority's wide area network utilizing standard version of an Internet Explorer browser deployed on workstations. The primary users of the System are budget preparers, staff from the Authority's Management and Budget Department, senior management and executive staff.

1.3 Budget PRO System – Current Support Team

The current support team consists of representatives from the Authority's Technology Services and Management & Budget departments, and an external service provider responsible for providing technical support for Budget Pro.

1.4 Main Functional Components

Budget PRO includes the following functional components:

A) Applications based on Hyperion Planning:

- PABudget – Data input for operating and capital planning for annual estimates and multiyear budgets;
- PAREV – Data input for operating revenue planning for annual estimates & multiyear budgets;
- OMWP – Data input for operating Major Work Program planning annual estimates & multiyear budgets;
- PerfRep – Performance Reporting;
- WFM – Data input for Labor force position Plan for annual budgeting;
- PBM Check – Reporting database to reconcile labor force position planning and distribution of labor charges;
- OverTime – Data input for Overtime Plan for annual budgeting;
- Settle - To track the Port Authority's portfolio when capital projects are completed and the associated depreciation;
- NDEM – Natural Disaster and Emergency Events Module to plan and budget for significant events impacting Port Authority facilities.

B) Applications based on native Hyperion Essbase:

- Forecast – To support the 15-year forecasting planning efforts;
- Report – To support web-reporting function (on-line, books, batches, snapshots).

C) Custom applications:

- SDR – Support Details Reporting (Oracle/JAVA Web – In house developed component)

D) Interfaces: Budget PRO works in conjunction with the Port Authority's SAP & PeopleSoft ERP systems:

- SAP (ERP) – SAP is used for the Authority's accounting and procurement needs. Through Inbound/Outbound interfaces, Budget PRO and SAP exchange financial-related data;
- PeopleSoft (ERP) – PeopleSoft is used for the Authority's human resource and payroll needs, including position management. Through Inbound/Outbound interfaces, BudgetPRO and PeopleSoft exchange labor- and overtime-related data.

1.5 Budget PRO Technical Environment

Hardware:

Budget PRO's landscape consists of three environments (Primary, Secondary and Development) running on IBM INTEL X series servers distributed on the Authority's network as follows: production and development environments located at Authority's main data center and a secondary environment located at Authority's alternate data center.

- a) **Production Environment:** Windows-based LAN solution with IBM Intel X series systems and three (3) Intel servers dedicated as follows: One hosting Hyperion Essbase Database and Oracle database; one hosting Hyperion Planning; and one hosting Hyperion Report as an application / web-based server. Servers are running Windows 2008 server in 64 bit-mode (with up-to-date MS patches). Production servers are allocated at the Authority's primary production data center.
- b) **Secondary environment:** Windows-based LAN solution with IBM Intel X series systems and three (3) Intel servers used as a switchover backup system, and for training and testing. Servers are running Windows 2008 server in 64 bit-mode (with up-to-date MS patches). The secondary environment is running on "servers symmetrical to primary," which provides a switchover capability in case of the unavailability of the primary production system. Secondary servers are allocated at the Authority's alternate data center.
- c) **Development environment:** Windows based LAN solution with IBM Intel X series systems and two (2) Intel servers used for development and testing. Servers are running Windows 2008 server in 64 BIT-Mode (with up-to-date MS patches). Development servers are allocated at the Authority's primary data center.

d) Software distribution on current System/ Environment

Product	Version	Production Environment			Secondary Environment			Development Environment	
		DBServer (ESSBASE)	APPServer (Planning)	APPServer (FIReport)	DBServer (ESSBASE)	APPServer (Planning)	APPServer (FIReport)	DBServer (ESSBASE)	APPServer (Pln&Rpt)
HW: IBM Intel servers X Series connected to PAWANET		X	X	X	X	X	X	X	X
OS: Windows 2008 (R) 64BIT-Mode		X	X	X	X	X	X	X	X
Infrastructure SW:									
McAfee VirusScan	8.0i	X	X	X	X	X	X	X	X
IBM Director Console	5.10.3	X	X	X	X	X	X	X	X
ServRAID Manager	8.00.19	X	X	X	X	X	X	X	X
Real Secure Server Sensor(HIDS)	7.0	X	X	X	X	X	X	X	X
FDR Upstream Reservoir	3.5.0c	X	X	X	X	X	X	X	X
Windows Services for Unix	3.5	X			X			X	
Adobe Acrobat Standard	8.1			X			X		
Underlying SW:									
Oracle Database Server	11G/R2	X			X			X	
Weblogic	11.1		X	X		X	X		X
Hyperion Essbase Server	11.1.2.1	X			X			X	
Hyperion EAS	11.1.2.1	X			X			X	
Hyperion EPS	11.1.2.1	X			X			X	
Hyperion ESS	11.1.2.1		X			X		X	
Hyperion Workspace	11.1.2.1		X			X			X
Hyperion Planning	11.1.2.1		X			X			X
Hyperion Financial Reports	11.1.2.1			X			X		X
Hyperion Web Analysis	11.1.2.1		X			X			X
Hyperion Business Rules	11.1.2.1		X			X			X
Supporting Details Report (SDR)	1.3			X			X		X

Overall Port Authority Technical Infrastructure

2.1 Network

The Port Authority utilizes Microsoft Windows Netware as its primary Network Operating System for its file and print Local Area Networks, Active Directory as the primary enterprise directory service and IP as the primary transport protocol. The Port Authority employs Microsoft Windows consolidated file and print server environment to several Storage Area Network (SAN) clusters at strategic geographic locations. The primary network environment for applications is Windows server 2003/2008 within an Active Directory domain structure. Server consolidation is also taking place in the application space and all new and existing applications and databases are being consolidated in a SAN/cluster environment where feasible.

The infrastructure consists of 100Mbps and 1000Mbps Ethernet, executed across Cisco Routers and Switches Wide Area Network connectivity between Port Authority sites is via a meshed ATM network, with multiple DS-3's and some T-1's in place for redundancy between locations. The Internet is currently isolated by firewalls and incorporates IDS scanning. The Port Authority maintains a Class B TCP/IP address range, which it subnets for local LANs. IP address allocation is handled by DHCP for desktop hosts and static addresses are assigned to servers, printers and network devices. Reported response times indicate that the WAN's carrying capacity is many times its current utilized bandwidth.

2.2 Remote Access

The Remote Access System utilizes an Internet-based Virtual Private Network (Blue Ridge VPN) linking remote users to the Port Authority WAN (client-to-site). Access to applications and resources is obtained through the use of a farm of Citrix Servers capable of supporting up to 100 simultaneous users each. The Port Authority also supports site-to-site VPN connections and utilizes Cisco equipment for these connections.

The Port Authority is currently utilizing SSL acceleration appliances, within the firewall DMZ, to provide identity-based Web security services that control access to application and network resources across technical and organizational boundaries by providing secure authentication and access to portals, Web-based content and Web applications within the Port Authority network.

2.3 Intranet Environment

Accessible to all Port Authority desktops on the wide area network with components including IIS Web Servers, Windows 2003 and 2008 Operating System, IBM x-series servers and SAN, Oracle 10G and 11g, Cold Fusion, O'Reilly Web Board and Verity Search Engine.

2.4 Desktop Environment

The desktop environment consists of approximately 6000 devices running a mix of Windows XP and Windows7 , and the Microsoft Office suite. The Windows XP/Win7 desktop application mix features Microsoft Office 2007, Microsoft Exchange (Outlook) as the email client, Internet Explorer as the preferred browser, Adobe 9, the Windows client and McAfee v7 virus client. Desktop management and automated software installation and upgrades are handled by Novell's ZENworks for desktops product.

2.5 E-mail Environment

The Port Authority currently uses Exchange / Outlook 2007 as its E-mail environment. The Port Authority uses an outsourced services provider for the messaging infrastructure linked to the Port Authority WAN by two high-speed leased lines utilizing Cisco routers set to automatic fail-over. The environment consists of several IBM servers running Exchange 2007, Outlook Web Access, and Blackberry services.

2.6 Application Environment

The Authority's portfolio is a mix of in-house developed and vendor secured applications. Oracle is the standard database at the Port Authority and support is provided through either outsourced vendor and/or Authority staff.

2.7 Platforms

UNIX, IBM Enterprise Server, Windows 2003 and 2008 Server

2.8 Databases

A majority of applications are based on Oracle, with some MS SQL Server, My SQL, MS Access, Sybase, Ingress, Foxpro and Essbase (Multi dimensional DB) also represented.

ATTACHMENT D: SCOPE OF WORK

1. ROLES AND RESPONSIBILITIES

The approach that the Authority is pursuing for the ongoing Application Management Services for the Budget PRO consists of a Port Authority role and a Contractor role, as outlined below:

1.1 *The Port Authority Responsibilities*

The Authority shall be responsible for the overall management of Budget PRO, including:

- Interaction among business units;
- Strategic direction setting;
- Hardware procurement, implementation and break\fix maintenance, etc.;
- Operating System maintenance, security, updates, etc.; and
- Network and OS System security.

Furthermore, the Authority will establish an on-going process to coordinate the management and operation of Budget PRO. The Contractor will be encouraged to suggest improvements to existing processes on an on-going basis.

1.2 *Contractor Responsibilities*

The Contractor shall be responsible for providing Application Management Services ("AMS") for Budget PRO in the following areas:

- 1) Operational Support;
- 2) Application Technical Maintenance and Support; and
- 3) Database Administration.

1.3 *Levels of Support*

The Port Authority will be responsible for first level of support (Level 1). The Contractor shall be responsible for second tier support (Level 2).

A) Level 1 Support: includes the immediate triage of end user calls, questions and problems. Business process questions and basic 'how-to' problems are resolved as part of Level I support. Application password resets, initial recreation and troubleshooting of problems and process instruction are all included as part of Level I support (break fix problems and complex concerns are researched and detailed for turnover to Contractor's staff, which will provide resolution under Level 2 Support.). Level 1 Support is to be the primary resource for the Authority's budget community at large. The Authority's budget community will only be provided with contact numbers for Level 1 support.

B) Level 2 support: includes the documentation, tracking, investigation, troubleshooting and resolution of all problems and inquiries triaged and referred by the Level 1 responders to the

Contractor, pursuant to the service levels specified herein. By definition, all technical problems involving, for example, the base software, applications, databases (Oracle and Essbase), and requiring assistance and follow-ups for server hardware and/or operating system issues, etc., are immediately categorized as Level 2 problems. The Contractor is responsible for providing all technical and Level 2 support. Level 2 support requests should be addressed through a standard problem tracking system used to identify, classify and manage each question, problem or request received.

The Contractor shall provide the appropriate means (tracking system) to track activities related with problems, issues or service requests.

2. SERVICE REQUIREMENTS

Working under the general direction of Authority's Contract Manager, the Contractor shall be perform all work set forth herein. The Contractor shall also manage the work in accordance with the provisions defined in the *Management of the Work* section below. The Contractor shall ensure that Budget PRO operates as was intended and is maintained in accordance with a structured maintenance management methodology acceptable to the Authority. The following sections detail the work to be performed by the Contractor and the manner in which it is to be managed.

2.1 Contractor Services

The Contractor shall provide AMS for Budget PRO in the areas of:

- a. Operational Support;
- b. Application Technical Maintenance and Support; and
- c. Database Administration.

2.2 Operational Support

The Contractor shall maintain the availability and operability of all components of Budget PRO (which will include interacting with third party vendors in the areas of support of third party software products), ensure needed functionality and configuration of individual components is properly maintained, and always ensure the integrity of the system. The day-to-day operation support shall include but not be limited to:

Production Support

- Performing adjustments to hierarchical structures and reports due to reorganizations;
- Performing modifications and updates to dimensions and outlines (addition of new accounts, removal of inactive accounts, changes to members, attributes, structures, etc.);
- Performing data loads from external sources and/or internal data transfers;
- Preparing outbound data transfers to external systems;
- Performing synchronization and refresh of databases;
- Scheduling and monitoring batch processing;
- Report generation - books, batch and snapshot reports;

- Report maintenance & creation – based on changes in reporting needs;
- Preparing the system for opening of the PA's annual budget cycle.

Security

- Administering and managing Users and Groups maintaining authentication method for Planning, Essbase, Reports, Analyzer;
- Granting and/or revoking end-user access to applications, views and reports;
- Setting global read-only/write privileges to user and/or groups based on application, reports, Hierarchical structures, dimensions, scenarios and versions;
- Performing all tasks in accordance with the requirements conveyed in the Authority's Controls Requirement Contract Checklist (Attachment G hereof).

Computer Operations

- Monitoring online and batch processes;
- Monitoring authentication, security (Active Directory);
- Monitoring System performance;
- Monitoring the Windows operating system;
- Monitoring behavior and performance of Hardware;
- Monitoring Backup processing.

End User Support

- Testing of implemented fixes, enhancements and releases, and small scale "quick hit" query and report writing.

2.3 Application Technical Maintenance and Support

The Contractor shall maintain and support all environments (primary, secondary and development) of Budget PRO , and all application modules, related components, application fixes, system application upgrades, including maintenance, upgrades and fixes of customized modules (e.g.Support Detail Reporting or "SDR").

AMS covers online and batch processing. Such services shall cover the entire Budget PRO System's landscape and platform, and include but not be limited to the following:

- Production - Correction and changes to Budget PRO system applications derived from all functional and technical production problems affecting the normal operation of the System. Production problems could originate from applications, modules, databases, underlying software, third party software, operating system, hardware crashes and failures, etc.;
- Identification, evaluation and resolution of the operational problem;
- Fixes to application code and/or operational modifications to the online and/or batch processes;

- Fixes or modifications to applications and associated components such as structures, hierarchies, dimensions, outlines, calculation scripts, report definitions, report scripts, business rules, load rules, Essbase commands, MAXL, etc.;
- Fixes or modifications to data entry forms, processes, queries, procedures, reports, views; and
- Evaluation and application of a program fix or patch, supplied by the vendor of the underlying or third party software, to resolve a production problem.

The Contractor shall ensure System integrity, which necessarily includes maintaining and synchronizing production, secondary and development environments for all applications and components of the System. Services will include but not be limited to:

- Exercising preventive operational modifications on processes or procedures to improve performance of the System;
- Providing necessary services to proceed with enhancements for expanding System functionality, upgrades due to new releases;
- Providing necessary services to participate in Disaster Recovery Support;
- Providing recommendation for System/application/security improvements and best practices, etc.;
- Providing assistance to third party service provider staff for problem resolution;
- Providing services to assist in evaluating external environmental changes (IE, JRE, MS office changes);
- Providing a twenty-four (24) hour on-call availability for resolution of operational problems as may be required at certain times, in accordance with the Contract's service levels stipulated in Section 10 of Attachment B (General Contract Provisions) hereof;

2.4 Database Administration

The Contractor shall be responsible for the general maintenance and administration of all instances of application databases (Oracle and Essbase databases). Responsibilities include but are not limited to:

- Correcting all production problems related to the System's Essbase and Oracle databases. The Contractor shall investigate and diagnose System problems resulting in unsatisfactory application System performance and take steps to remedy the problem.
- Performing all functions related to the monitoring and tuning of the Essbase and Oracle databases, standard queries, etc., to ensure an efficient, effective and optimal System performance for both the online user population and batch operating environment.
- Evaluating, installing, configuring and implementing new releases of Essbase and/or Oracle DB System software.
- Monitoring, evaluating and applying all security or other related patches in a manner consistent with the service levels conveyed in Section 10 (Required Service Levels and Damages for Non-Performance) of the General Contract Provisions (Attachment B); the

Control Requirements Contract Checklist (Attachment G), and the *Standards and Guidelines for Port Authority Technology* (Attachment I),

3. CONTRACTOR RESPONSIBILITIES

3.1 Troubleshooting and Problem Resolution

The Contractor shall correct all production problems affecting the normal operation of Budget PRO. This could require application code and/or operational modifications, fixes to outlines, dimensions, calculation scripts, business rules, load rules, etc. It could also require providing assistance to Authority staff for problem resolution, or application of a program fix supplied by the vendor of the underlying software to resolve a production problem. Production problems are considered of high priority. Twenty-four (24) hour on call availability for resolution of operational problems may be required at certain times in the Budget Cycle. See Section 10 of Attachment B (General Contract Provisions) hereof for the specific service levels.

3.2 Application Management Methodology

The Contractor shall put an application management methodology in place, subject to the review and approval of the Authority. This will include a methodology for recording changes made, new programs, documenting fixes and updates made to the application or underlying software, managing the development, testing and production environments, putting new applications or new software into production and keeping users informed.

Reporting is a key component of the application management methodology. The Authority will identify a set of performance, utilization and status reports the Contractor shall be required to provide on a periodic basis. The Contractor shall deliver suggested formats to the Authority, within the first ninety (90)-days of the Contract, for Authority approval. The Authority will determine the frequency of reporting, typically weekly, and the Contractor shall provide reports accordingly.

3.3 Application Enhancements

Application enhancements are defined as any change or modification in System and/or application functionality, implying significant effort, and requiring detail analysis, evaluation, planning, scheduling and prioritization for its execution. All operational support items stated under Section 2.2, above, may require a modification. Accordingly, they are not considered application enhancements as these efforts are considered production problems of critical nature requiring immediate attention.

The Contractor shall be responsible for all enhancements to Budget PRO. Enhancements could derive from changes in requirements of the System, and incorporation of new features functionality. Enhancements include modifications needed on any component of the System to maintain compliance with Port Authority policy (due to regulatory, procedural or business processing changes); and/or modifications to applications and components directly or indirectly associated with Budget PRO, which would affect its operability or functionality or processing due to environmental changes.

Requests for enhancements and changes to the System and its applications, databases and components should occur in a controlled manner. All requests for enhancing or changing the System should occur only after authorization by the Authority, and be evaluated, developed, tested and documented prior to implementation in the production environment. All work related to enhancements and changes shall occur according to a structured change management and maintenance methodology acceptable to the Authority.

For all application enhancements, the Contractor must provide estimates and project plan/schedules and obtain Authority approval prior to initiating.

Note: Requirements and scope generation for and estimate preparation activities for contemplated application enhancements are considered part of scope of services set forth herein.

Upgrades and Fixes –The Contractor shall be responsible for the regular application of underlying software fixes and updates supplied by Oracle-Hyperion, which are necessary to maintain the application at its current performance level. Such services include full impact analysis of applying the fix to Budget PRO, the application and testing of the fixes, and submission for migration to production. In addition, the Contractor shall upgrade the underlying software to the next release of the software issued by the software vendor to retain product currency. If this upgrade is a major release, the Contractor should treat it as a full upgrade project, and provide the services described in Section 3.4, below.

3.4 Specific Task Order Modifications

Based on changes in business requirements and reporting needs, additional changes and database modifications may be required. Specific Task Order modifications may require additional resources beyond the base contract requirements, payable according to the rates provided in the Contractor's Cost Proposal, under Section 1.B (Miscellaneous Tasks). It is anticipated that one task order modification may be requested on an annual basis. An example of a specific task order modification would be: Rebuilding the existing Forecast application to be consistent with the current PABud database reporting structure. The "PABud" module database provides a greater level of budgeted detail, which is currently summarized in the forecast application. The Forecast application can also be enhanced to include additional budgeting items and calculations that are currently handled outside of the application.

3.5 Release Control

The Contractor shall perform all functions required to maintain the current System environments. Unless otherwise directed by the Authority, the Contractor shall maintain the underlying software (Oracle-Hyperion based software products) supporting Budget PRO within one generation of application currency, such that it is fully supported by Oracle-Hyperion without any fee other than that required for standard software maintenance paid by the Authority directly to Oracle-Hyperion. Note that new version of the underlying software supporting "Budget PRO environment" shall include and be integrated (as appropriate) with all products listed in the description of Budget PRO System's based software Products and Tools in Attachment C, above (which should include custom components).

The Contractor shall perform upgrades or apply releases of underlying software into test and quality assurance areas, and perform application acceptance testing prior to implementation into production.

3.6 Expanded Functionality

The Contractor shall be responsible for services associated with maintaining functionality of the Budget PRO, as deployed by the Authority. However, the Contractor shall make recommendations on optimizing Budget PRO, enhancing or extending the functionality of any of its applications, components, and processes. This may include incorporation and integration of additional modules, decommissioning existing modules, third party products complementary to the System's software, as well as adding functionality on reports, calculations, workflow and web-enabled transaction processing.

3.7 Best Practices

The Contractor shall be responsible for providing System monitoring, security and reporting in accordance with industry best practices of application software interfaces.

Budget PRO security Administration: The Contractor shall be responsible for establishing and maintaining security profiles, controlling access to Budget PRO servers, databases, applications, reports, and developing and maintaining administration policies and procedures.

Access Authorization and Administration: The Contractor shall be responsible for creating, controlling, and maintaining user accounts as well as the periodic reporting of user account statistics.

3.8 Tuning

The Contractor shall be responsible for all functions related to the tuning of the Oracle RDBMS and Essbase Multi-dimensional Databases, standard queries and the applications of Budget PRO to ensure an efficient and effective System for both the online user population and batch-operating environment.

3.9 Disaster Recovery Support

The Contractor shall be responsible for assisting the Authority in any disaster recovery test or in the enactment of a real disaster recovery operation including fail over / switch over to the secondary server in the event of a primary production server failure, which could include establishing the System and related software components on the Authority-selected alternate Disaster recovery site.. The Contractor is expected to work with the Authority's Contract Manager to define the scope of quarterly disaster recovery tests, coordinate with other Authority staff and third parties to ensure all required tasks are covered and to conduct and evaluate the components of these Disaster Recovery tests. The Contractor is responsible for maintaining up-to-date Disaster Recovery plans, including projected and actual (based on Disaster Recovery tests) timelines for the

various recovery steps. The Contractor is expected to do basic validation and ongoing tuning to ensure the resulting processes are always kept up-to-date and well documented.

3.10 Business Resumption Planning

The Contractor shall work with the Authority's Contract Manager and the user departments to participate in activities associated with the Authority's Business Resumption Plan. The Contractor shall be primarily responsible for the portion of the plan concerned with providing continuing application management services for Budget PRO. The Contractor shall participate in any test of the Business Resumption Plan scheduled by the Authority, typically quarterly.

3.11 System Availability and Operating Environment

The Contractor shall perform all services to ensure that Budget PRO is fully operational 24 hours per day and 7 days per week. The System must also be available for data entry for budgets, report production, database inquiries, and for backups, interfaces with other jobs, batch runs, system maintenance, etc.

The Contractor must correct problems with interfaces to Budget PRO within 48 hours of scheduled production for internal feeds and within 24 hours for external feeds.

3.12 Interaction with third-party service providers

The Contractor shall work in coordination with Authority's Contract Manager and in harmony with the Authority's third party Contractors and service providers. These services include but are not limited to:

- Working with Authority staff in contacting third-party contractors and service providers (e.g. software vendors for application support);
- Working with Authority staff in contracting with third-party Contractors and service providers to coordinate activities related to infrastructure (hardware/OS software) upgrades/changes, system integration, implementation of new infrastructure software releases (I.E. Upstream, Netvision, HIDS), assisting in validation activities to ensure compatibility of the System for upgrades of the desktop computing platform, or other associated maintenance fixes, or releases.

4. CAPACITY MANAGEMENT AND PERFORMANCE MONITORING

The Contractor shall monitor Budget PRO performance to ensure that performance meets the operational needs of the users. The Contractor shall take measures to ensure the continued effective operation of the application systems comprising Budget PRO, through accepted industry capacity management and performance monitoring procedures, including recommending corrective actions to correct capacity and performance inadequacies.

4.1 *Capacity Management*

4.1.1 Maintaining records

The Contractor shall maintain records on application performance and resource usage, user response time, etc., adequate to predict needed upgrades to hardware and software based on current performance and expected growth.

4.1.2 Forecasting upgrade needs

The Contractor shall maintain communication with the Authority's Contract Manager regarding plans for System expansion or modification, which shall affect System capacity or performance.

4.1.3 Tracking resource usage

The Contractor shall track such items as database and file sizes, and concurrent licensed users, to ensure that adequate resources shall be available for the near future and to take preventative action to minimize application failure due to insufficient resource levels.

4.2 *Performance Monitoring*

4.2.1 Maintaining proper allocation of resources

The Contractor shall monitor CPU, memory, application and database servers, file distribution on direct access storage devices and, as warranted, make recommendations and, after securing the Authority's concurrence, implement these recommendations to maintain adequate application System performance.

4.2.2 Troubleshooting

The Contractor shall investigate and diagnose System problems resulting in unsatisfactory application System performance and shall take steps to remedy the problems.

4.2.3 Maintaining data structures

The Contractor shall de-fragment files, purge and/or reorganize databases on a scheduled and as needed basis.

5. **CHANGE MANAGEMENT ADMINISTRATION**

The Contractor shall ensure that all changes to Budget Pro occur in a controlled manner. The Contractor shall determine that all application system changes are properly authorized, tested and documented prior to implementation in the production environment, in accordance with a structured change management and maintenance methodology acceptable to the Authority, and for maintaining a general awareness of changes to the Authority's information infrastructure, with appropriate back-out and/or reversal procedures.

The scope of the change management portion of the services furnished shall include but not be limited to the activities identified below. The Authority's automated tools for change control should be used, as dictated by the *Standards and Guidelines for Port Authority Technology*.

5.1 Verification and Control of Software

The Contractor shall verify that no unauthorized software has been introduced to the System. Upon verification of the introduction of unauthorized software into the System, the Contractor shall comply with the Authority's procedures, as specified herein. The versions of authorized software shall be checked to verify that no unauthorized changes have been made, and authorized changes shall be stored the version control for Client/Server, PC, etc., software and applications is stored under CCC/Harvest.

5.2 Informing Management of New Software

The Contractor shall maintain contact with the System-based software providers to stay aware of software upgrades and fixes, and deliver to the Authority a plan and schedule for recommended implementation of these upgrades and fixes. The Contractor's structured change management maintenance methodology should include the Authority's preference for applying these fixes in scheduled application fix "bundles".

5.3 Establishing A Segregated Test And Quality Assurance Environment

The Contractor shall maintain segregated test and quality assurance environment insulated from the production environment for testing of all changes to software or custom applications prior to introduction to the production environment. The Contractor shall ensure that all updates to the production environment are simultaneously reflected in this environment.

5.4 Controlling Software Migrations

The Contractor shall establish procedures to ensure only approved changes are implemented. The Contractor shall ensure that:

- Properly authorized modification request forms have been received for all changes to be made to software or applications ;
- Access controls have been established to prevent more than one retrieval of a module for modification;
- Multiple changes to the same module are coordinated;
- There is synchronization of changes so that all modules affected by a modification to a data element or other factor are changed simultaneously;
- Migration of modules is controlled through the test and implementation cycle;
- New application versions are thoroughly tested prior to use on the production system;
- New application versions are thoroughly documented, in accordance with, at a minimum, Authority standards; and
- All changes affecting external systems/areas such SAP and Peoplesoft are coordinated with supporting teams.

The Contractor's implementation of application changes, enhancements, or software release upgrades must be scheduled to minimize downtime and avoid the Monday to Friday time period, utilizing scheduled weekend maintenance windows. See the Standards and Guidelines for Port Authority Technology (Attachment I) for further information.

5.5 Maintaining Prior Versions of Software

The Contractor shall exercise control over application and software versions, ensuring the proper version of application and software is migrated and that any prior versions are available for roll back in the event of an emergency.

5.6 Testing New Software

The Contractor shall maintain a test bed of transactions and known results to verify the integrity of fixes, changes, enhancements, and new software releases. The test bed shall be updated to include test data for all new conditions arising out of maintenance or enhancement of the system.

6. APPLICATION SYSTEM DOCUMENTATION

The Contractor shall establish and maintain a documentation library containing all hardcopy and computer readable documentation for software developed during ongoing maintenance. The Contractor shall be responsible for ensuring that all documentation needed for the continued operation and management of the System is accurate, current and available and is in compliance with, at a minimum, a structured maintenance methodology acceptable to the Authority. All application software documentation remains the property of the Authority, and all physical documentation must be maintained on site at the Authority, and not removed from its premises.

The scope of the system documentation portion of the application support services furnished shall include but not be limited to the activities identified below in this section:

6.1 Establishing a Documentation Library

The Contractor shall maintain a documentation library containing all documentation material for software, standards manuals and procedure manuals, and shall act as the Authority's agent in obtaining or producing any needed documentation not in the Authority's possession. All material in or obtained for the documentation library shall be the property of the Authority. Where documentation does exist, the Contractor shall ensure that, at a minimum, it meets documentation standards as set in the Contractor's structured maintenance methodology, as accepted by the Authority. The Contractor shall work with the Authority to ensure that controlled access to documentation materials is maintained, signing out manuals to authorized individuals when appropriate and tracking the location of signed out materials. In a similar manner, access to electronic versions of documentation shall also be controlled at the user ID level. In addition, the Contractor will provide an annual review/assessment of the document library.

6.2 Maintaining Application System Documentation

The Contractor shall maintain a run book for Computer Operations as well as a functional specifications document describing the business purpose of the System and a high-level description of the processes and reports; a design specifications document detailing the technical solution to the business function described in the functional design document described above; and maintain program documentation including narrative descriptions, specifications, configuration, code listings, data layouts, IPO (Input, Processing, Output) charts, flow charts, etc.

6.3 Maintaining Test Plans

The Contractor shall maintain test plans and procedures, acceptable to the Authority, for retesting the System after modifications to base software, applications, and/or databases. The Contractor shall also maintain a file of all test results in accordance with the documentation standards referenced herein and evaluations of results along with any recommendations resulting from testing. All test plans and related files and data shall be the property of the Authority. Test plan documentation shall include but not be limited to:

- Unit Testing - Create and maintain unit test plans to verify the functioning of the new and/or modified System component, and that it satisfies the business user's requirements.
- System and Integration Testing - Create and maintain test plans to test the entire System with the new and/or modified component installed to verify the integrity of the System as a whole and to determine that the intended purpose of the new and/or modified component is achieved.
- Acceptance and User Testing - Create and maintain test plans to verify the functionality of the new and/or modified component in the production environment for a specified period, prior to final acceptance.

7. TRAINING AND USER ASSISTANCE

The Contractor shall provide technical and Level 2 end-user support to the System users, act as the focal point for troubleshooting maintenance problems, provide technical support to user department staff at internal and/or external meetings and providing training to selected Authority staff, anticipated to be no more than twelve personnel, Budget PRO. Such Authority staff shall be responsible for training other staff employed by the Port Authority.

The scope of the training portion of the application support services furnished shall include but not be limited to the activities below in this section:

7.1 Conducting Enhancement Training

The Contractor shall provide training to the Authority's budget training staff when application System enhancements warrant such training to ensure that they are trained in the proper procedures associated with the System and can function effectively after training. It is estimated that the Contractor will have to provide such on-site training annually (to approximately ten people), highlighting system changes and functionality. All training shall be provided at the

Authority's premises. All training materials shall be provided by the Contractor and shall be owned by the Authority.

7.2 Providing User Assistance

The Contractor shall serve as a resource for Authority staff as related to application System functionality. This includes but not to be limited to the following tasks:

- Provide technical support to Authority staff and/or Authority Contractors relative to the applications functionality and business support;
- Research and take corrective action on reported software malfunctions;
- Participate in internal and external audits as directed by the Authority's Contract Manager; and,
- Perform other support activities as may be assigned by the Authority's Contract Manager (e.g., visit/review similar systems, interview potential service providers, etc.).

8. MANAGEMENT OF THE WORK

The Contractor shall be responsible for the effective management of the work described herein and of the staff assigned to the work. The Contractor shall implementing sufficient management controls and utilize tools necessary to ensure that the work is accomplished in an effective, efficient manner.

8.1 Organization

The Contractor shall be responsible for establishing and maintaining an organizational and operational structure appropriate to the work to be performed under this Contract. This shall include but not be limited to:

- Assigning an appropriate number of staff with requisite skills, acceptable to the Authority, for the tasks to be performed.
- Supplying direct supervision of the staff assigned to carry out the work as defined herein.
- Providing qualified persons, acceptable to the Authority, for relief of the assigned staff in the event of vacation, illness, personal business or any other absence of the assigned staff.
- Providing the staff assigned with procedures for escalating issues that cannot be solved on-site and providing for the support of these individuals where such support is required to ensure prompt resolution.

8.2 Labor Force

The Contractor shall furnish sufficiently trained management, supervisory, and technical personnel to perform the services required under this Contract, with all such personnel subject to review and approval by the Authority. Specifically, the Contractor's staff assigned to the Authority under the Contract shall have achieved the following certifications by the commencement of the Contract:

- Oracle 11g DBA OCP;
- Hyperion Planning 11.1.2 Applications Administrator Certified Expert;
- Hyperion Essbase 11.1.2 Developer Certified Expert;

Furthermore, such assigned staff shall maintain their certifications throughout the duration of the Contract in the application versions utilized by the Authority. To the extent that the Port Authority discovers that assigned staff lack any of the required certifications detailed herein during any period of performance under this Contract, the Port Authority shall be entitled to a reasonable adjustment in the cost of the services so performed. If payment has already been made to the Contractor for the relevant period, the Port Authority shall be entitled, at its sole discretion, to either (i) a refund from the Contractor; or (ii) a credit against future charges.

If any such personnel is deemed unsatisfactory or does not perform the services to be furnished hereunder in a proper manner and satisfactory to the Authority, or in the determination of the Director may have taken any action which constitutes a conflict of interest or which is inconsistent with the highest level of honesty, ethical conduct or public trust or which the Director determines is adverse to the public interest or to the best interest of the Authority, the Contractor shall remove any such personnel immediately, and replace them by personnel satisfactory to the Authority within two weeks, upon notice from the Authority.

8.3 Program Management - Appointment of Staff

The Contractor shall appoint member(s) of its organization to oversee the management of the Contract. Assigning and reassigning staff shall be subject to pre-approval by the Authority's Contract Manager.

The Contractor shall assign a full-time, technically proficient, English-speaking, experienced and fully qualified account manager ("Account Manager"). The Account Manager shall be that person proposed, in that capacity, in the Contractor's proposal.

The Contractor shall consult with the Authority on any changes to assigned personnel during the duration of the Contract, before such changes are made.

Furthermore, removal or reassignment of the Account Manager shall be subject to the Authority's preapproval.

8.4 Customer Status Meetings

The Contractor shall schedule and conduct regular status meetings with the Authority, at an Authority selected site, no less once per week. At the sole discretion of the Authority, the frequency of meetings may be adjusted, especially during the critical season (June through December). The purpose of these meetings would include but not limited to:

- Reporting on the operational status of the Budget PRO;
- Tracking the progress of application management activities;

- Reviewing the Contractor's performance to the contracted service level metrics;
- Reviewing Contractor's invoices for services provided; and
- Tracking the progress of projects.

The Contractor shall produce and deliver to the Authority, at least 24 hours prior to each status meeting, a project status report. At minimum, the report shall:

- provide a complete statement of the System's status;
- include performance measure reporting;
- indicate progress made during the reporting period;
- indicate progress made on work to correct deficiencies, activities to be undertaken in the next reporting period, activities and/or tasks behind schedule;
- identify problems and concerns related to Budget PRO;
- provide statistics on problems encountered and resolved in the reporting period and year-to-date.

8.5 Security

8.5.1 Physical Access,

Maintaining lists of authorized personnel: The Contractor shall maintain a list of its employees authorized to enter secured areas and shall maintain communication with the Authority's Contract Manager or as to changes in its employees' employment status, which may require updating of said list. The Contractor shall ensure that the System files of any automated entry system in operation is reconciled to the authorized list on a scheduled basis.

8.5.2 System Access:

Maintaining lists of authorized users: The Contractor shall maintain a list of Contractor employees authorized by the Authority's Contract Manager to access the Budget PRO System and any ancillary software supporting Budget PRO only to the minimum extent necessary to perform the job function. The Contractor shall also provide a means for immediate communication with the Authority's Contract Manager when changes in employment status or assignments occur, which may require updating the list.

Limiting access to the system: The Authority shall issue logon IDs for only those persons authorized by the Authority's Contract Manager to have access to the System and periodically reconcile the list of logon IDs to the authorized list. The Contractor shall institute controls over super passwords, other special passwords, or highly privileged access so that their use is documented and approved in advance by the Authority's Contract Manager. Any request by the Contractor to increase access authority must be documented in writing, with full backup information to document the need for the increased access; the request must be approved by the Authority. Access to the production environment by Contractor staff is subject to the written advance approval of the Authority's Contract Manager.

8.5.3 Data Security

Safeguarding Data: All information concerning the business of the Authority which becomes accessible, or known, to the Contractor, their employees or subcontractors including, but not limited to, financial information, customers, customer lists, business plans, operational plans, data and computer programs, documentation, engineering/technical data, design process, pricing, research and development, strategic plans, and operating data resident on magnetic media, or other media processed, stored, archived or maintained, shall be protected from loss, erroneous alteration, and shall be held in strict confidence and protected from unauthorized access. Data security shall be provided in accordance with the provisions of the Port Authority of New York and New Jersey's Information Security Handbook, October 15, 2008, Corrected as of February 9, 2009 (<http://www.panynj.gov/business-opportunities/pdf/Corporate-Information-Security-Handbook.pdf>), as the same may be modified or supplemented from time to time without the approval of the Contractor. In the event of any non-authorized access, modification, disclosure, loss, or inability to account for any Authority data, the Contractor shall provide immediate notification to the Authority's Contract Manager.

8.6 Quality Assurance

The Contractor shall establish and maintain a quality assurance program to ensure that all work is performed in accordance with the terms of this Contract. The Contractor shall employ procedures to assure the timely and effective execution of all tasks required by this Contractor. The quality assurance program is expected to include a measurement plan that tracks the quality and productivity of services provided by the Contractor. The Contractor shall issue reports regarding this Quality Assurance activity each quarter.

8.7 Training

The Contractor shall be responsible for maintaining the appropriate knowledge, skills and abilities of its staff assigned to support the Authority by providing a regular ongoing training program appropriate to the needs of the staff assigned.

8.8 Right of First Refusal

The Authority has the right to approve or disapprove, at the Authority's sole discretion, with or without cause, any potential Contractor Employee who would directly service the Authority account.

8.9 Right of Replacement

The Authority has the right to require the Contractor to replace any Contractor Employee, assigned to the Authority Account.

8.10 Technologies Supported

The Contractor shall support all of the technologies currently employed by the Authority while identifying opportunities to implement new technologies that will improve service and support at a reduced cost.

8.11 Incentives to Reduce Costs

The Authority is continually seeking ways to reduce and minimize its expenses. Accordingly, the Authority encourages the Contractor to explore and identify opportunities to improve the services and reduce the cost of services being provided under an agreement.

The Contractor is expected to advise the Authority's Contract Manager of each opportunity that is identified and to estimate potential savings.

8.12 Customer Budget Planning and Billing

The Contractor shall develop and issue semi-annual customer plans, established in consultation with the Authority, in accordance with deadlines established by the Authority. These plans are to be used to establish the level of anticipated support (in estimated and actual dollars) for the application. The customer plans are used during the Authority's annual Budget process, for establishing both the Authority's corporate application support budget and the user expense budgets. The Contractor shall also provide monthly accounting of services.

8.13 Location Where Services Will Be Provided From

The Authority requires that team members, including the Account Manager, shall perform all their work on Authority premises [Monday through Friday, 8:00AM to 5:00PM], at the location designated by the Authority except where specifically noted herein or in the Contractor's proposal, as accepted by the Authority. These key team members are full time staff requiring direct interaction with Authority personnel to perform their duties. This location for onsite services is anticipated to be 233 Park Avenue South in New York City, but it may be changed at the Authority's sole discretion.

The Contractor should propose which services can be provided off site to reduce cost or gain some other potential advantage. The Authority does not anticipate moving any people, hardware, application or network components off-site. The Contractor may propose various alternatives with associated costs for consideration.

The Authority shall not charge the Contractor for the Authority-provided workspace for application management services personnel, which includes space, utilities, current workstation equipment, telephone access and reasonable usage and site services. If the Contractor requires additional site resources and/or relocation to an alternate site, and/or workstation equipment upgrades, the Authority will not assume any costs for space, workstation equipment or related networking and telecommunications equipment, software and/or expense. All expenses for off-site services must have been specified in the Contractor's proposal, as accepted by the Authority

The Contractor shall provide its own data processing equipment and reimburse the Authority for its usage of telephone and fax services for personal reasons.

The final determination of which services are to be provided off-site will be made by the Authority to assure an appropriate level of system responsiveness and support.

8.14 Transition Planning from Current Contractors

The Contractor shall support an orderly transition from the existing vendor providing the services to the proposed contract. The maximum transition period shall be 60 days, or less as determined feasible by the Authority. The selected Contractor shall actively participate in discussions and agree to written plans that clearly specify the transition period and responsibilities.

8.15 Transition Planning to Future Contractors

The Contractor shall support an orderly transition to future vendors that will provide the services described herein. The maximum transition period shall be 60 days, or less as determined feasible by the Authority. The Contractor shall actively participate in discussions and agree to written plans that clearly specify the transition period and responsibilities.

8.16 Return of Data

Upon the termination or expiration of the contract, all Authority data stored on electronic media or otherwise, must be returned to the Authority without cost. Any copies held by the Contractor must be purged from their files.

8.17 Right to Use Contractor Tools

Upon termination of the Contract, the Contractor may have implemented specific Contractor owned or proprietary tools for the management, operation or reporting on the application maintenance environment within the Authority. To avoid disruption of operations, the Authority or its designee will require use of, or access to, any and all Contractor specific tools or services until such time as they can be replaced. Additionally, maintenance, training, support and documentation may be required.

8.18 Right to Acquire Contractor Tools

Upon expiration or termination of the Contract, the Contractor shall provide the Authority or its designee with the right to license or purchase, at the price currently in effect for its most favored customers, those materials, tools and equipment owned by the Contractor that allowed for the support and operation of the Authority application maintenance infrastructure. However, if termination is due to the Contractor's failure to perform, this will be at no cost to the Authority.

It should be noted that if Contractor-owned or proprietary tools are necessary for the continued operation and maintenance of the applications, the Contractor is required to use tools which can be transferred to the Authority such that the ongoing support of the application is not in jeopardy at the termination of the contract.

ATTACHMENT E: COST PROPOSAL

Entry of Prices

The prices quoted shall be written in figures, in ink, preferably in black ink where required in the spaces provided on the Pricing Sheet(s) below.

- b. All Proposers are asked to ensure that all charges quoted for similar operations in the Contract are consistent.
- c. Prices must be submitted for each Item required on the Pricing Sheet(s).
- d. All Proposers are asked to ensure that all figures are inserted as required, and that all computations made have been verified for accuracy. The Proposer is advised that the Port Authority may verify only that proposal or those proposals that it deems appropriate and may not check each and every proposal submitted for computational errors. In the event that errors in computation are made by the Proposer, the Port Authority reserves the right to correct any error and to recompute the Total Estimated Contract Price, as required, based upon the applicable Unit Price inserted by the Proposer, which amount shall govern in all cases.
- e. In the event the Proposer quotes an amount in the Total Estimated column but omits to quote a Unit Price for that amount in the space provided, the Port Authority reserves the right to compute and insert the appropriate Unit Price.
- f. The Total Estimated Contract Price is solely for the purpose of facilitating comparisons of proposals. Compensation shall be in accordance with the section of this Contract entitled "Payment."

PRICE FORMS

1. THREE-YEAR BASE PERIOD

1.A Three –year base period; Fixed Price (Lump Sum)

Description	Year 1	Year 2	Year 3
(1) Operational Support	\$____/mo x 12 months = \$____/yr	\$____/mo x 12 months = \$____/yr	\$____/mo x 12 months = \$____/yr
(2) Application Technical Maintenance and Support	\$____/mo x 12 months = \$____/yr	\$____/mo x 12 months = \$____/yr	\$____/mo x 12 months = \$____/yr
(3) Database Administration	\$____/mo x 12 months = \$____/yr	\$____/mo x 12 months = \$____/yr	\$____/mo x 12 months = \$____/yr
TOTAL	\$	\$	\$

Total 3-year base period: \$_____

1B. Miscellaneous Tasks (see note 3):

Year 1

Category of Personnel	Total Estimated Hours		Hourly Rate		Total
Trainer	40	x	\$	=	\$
Application Specialist	500	x	\$	=	\$
Project Manager	60	x	\$	=	\$
Total					\$

Year 2

Category of Personnel	Total Estimated Hours		Hourly Rate	=	Total
Trainer	40	x	\$	=	\$
Application Specialist	500	x	\$	=	\$
Project Manager	60	x	\$	=	\$
Total					\$

Year 3

Category of Personnel	Total Estimated Hours		Hourly Rate	=	Total
Trainer	40	x	\$	=	\$
Application Specialist	500	x	\$	=	\$
Project Manager	60	x	\$	=	\$
Total					\$

Total for three-year period: \$ _____

1C. Disaster Recovery Tests; Fixed Price (Lump Sum): Cost to participate, as needed, in disaster recovery tests. Assume no more than three (3) tests per year

Year	Price per test		Amount of Tests	=	Total
One	\$	x	3	=	\$
Two	\$	x	3	=	\$
Three	\$	x	3	=	\$

Total for three-year period: \$ _____

1D. Transition Costs; Fixed Price (Lump Sum):

Total one-time cost for an orderly transition from the existing vendor: \$ _____

Timeframe: _____ weeks

1E. Total cost for the Base Period

Sections 1A + 1B + 1C + 1D = \$ _____

2. ASSUMPTIONS & NOTES

Provide assumptions or notes to clarify or explain the cost structure submitted. Use additional sheets/pages if necessary.

	Contractor's Assumptions/Notes/Clarifications
Base Period	
Transition	
Disaster Recovery	
Miscellaneous Tasks	
Other (including tasks to be compensation that are not specified herein)	

NOTES:

1. All prices and rates quoted in the Cost Response are inclusive of travel & related expenses, which will not be compensated for separately.

2. In accordance with Section 11 of Attachment B (General Contract Provisions), payment for all services provided hereunder shall be made monthly.
3. The Authority makes no representations as to what the actual hours will be and shall not be held responsible even though the annual estimated quantities are not even approximately correct. The firm's compensation will be based solely on actual services ordered and performed.

ATTACHMENT F: PROPOSER REFERENCE FORM

Name of Proposer: _____

Please provide a list of references on the firm's performance of similar work within the last five years, including all current contracts. Use additional sheets as necessary.

Include the following information for each reference:

Customer Name: _____

Address: _____

Contact Name and Title: _____

Email Address: _____

Phone and Fax Numbers of Contact: _____

Contract date(s): _____

Contract cost: _____

Description of work: _____

Customer Name: _____

Address: _____

Contact Name and Title: _____

Email Address: _____

Phone and Fax Numbers of Contact: _____

Contract date(s): _____

Contract cost: _____

Description of Work: _____

Customer Name: _____

Address: _____

Contact Name and Title: _____

Email Address: _____

Phone and Fax Numbers of Contact: _____

Contract date (s): _____

Contract cost: _____

Description of work: _____

ATTACHMENT G: CONTROLS REQUIREMENT CONTRACT CHECKLIST

General

- Documented procedures, flowcharts and process maps for the application.
- Conduct regular audits, vulnerability testing, security scanners.
- SSAE 16 SOC 2 (previously known as SAS 70 Level 2)
- ISO27001 Certification
- Physical access to the application hardware should be appropriately restricted.
- The application should have a warning banner, terms of use, and/or privacy statement that was approved by the PA Law Department on the login screen.
- Remote access should be restricted and documented in accordance with PA policy.
- Background check should be performed on all personnel.

System/Security Administration

- Administrative personnel should receive adequate training.
- System and security administration procedures should be documented and distributed.
- Administrator(s) roles and responsibilities should be documented.
- Developers and/or programmers should not have access to the production server.
- Operating system administrators should not have access to the production database and application.

Hardening of operating system/database that supports the application:

- Disable and/or remove unnecessary ports/services.
- Remove all sample from the box.
- Default, public, and guest accounts should be secured/locked/removed.
- Change all passwords; delete all default content and login scripts.
- Limit administrative and user account privilege and access.
- Document system accounts like administrator, root, oracle, and sys.
- Document user/group access rights
 - Users/groups should be setup with least access required to perform job responsibilities.
- Follow PA password standards or better (90-day expiration, lockout after 3 incorrect password attempts, no concurrent logins, 6 alphanumeric characters)
- Set "automatic session timeout" to 15 minutes of inactivity and require user to log back in with valid ID and password.
- Implement access control at the database level (i.e. user roles and permissions, passwords, secure links)
- Use secure encrypted remote access methods.
- If the application is a web application, log (and monitor) web traffic and trend the activity looking for abnormal activity.
- Ensure that appropriate security and vulnerability assessment tools are running.
- At login, last user login should not display.
- Inventory listing of hardware and software should be current and maintained.

License Management

- Ensure that application licensing requirements are documented, reviewed and maintained.

- Application licenses should be current/valid and individuals/groups with application access should have completed the necessary access request forms and adhere to licensing requirements.

Logical Access Controls

- Procedures to grant/modify/delete access should be documented.
 - Access request forms for adding/modifying/deleting users should be used.
 - Account expiration for contractors and consultants.
 - Accounts adequately identify the user – no generic accounts
- Ensure that security administrator procedures exist to:
 - Create/remove application access in a timely manner
 - Review user roles/permissions
- Validate that all users have accessed the application within the past 90 days.
 - Review dormant accounts
 - Inactive accounts should be removed.
- Each user has a unique user ID as described in the Port Authority Standard and Guidelines.
 - All user accounts profile should include Employee ID# and full user name.
- Roles should have a segregation of duties/roles.
 - Roles are setup with least access required to perform job responsibilities.
- Access Control List (ACL) should include:
 - Current list of ACL
 - Creation and updates to ACL
 - Testing and approvals of ACL
- The application should have the PA's warning banner on the login screen.
- Remote access should be approved, secured, and documented in accordance with PA policy.
- Encryptions level at a minimum should be AES 256bit when encryption is used.

Password Controls

- Ensure that password controls for the application are consistent with PA requirements
 - Passwords must be at least 6 alphanumeric characters long
 - Passwords must be changed every 90 days
 - Passwords must not be shared
 - Accounts should be locked after a three logon failures
 - Passwords should not be the same account name
 - No concurrent login capabilities
- Password file should be securely stored with limited access and encrypted.
- Application forces initial passwords to be changed and the initial passwords should not be easily guessable.
- Maintain a password dictionary and password history should be set to 5.

Application Controls

Data Validation & Input Controls

- The application should have input controls to verify the validity of the data entered.

Data Retention and Management

- All data should be classified according to its sensitivity (confidential, etc) and protected accordingly.
- Data archive strategy should be documented and in place.
 - Should specify how long active data is kept.

Data Integrity and Security

- Sensitive data, such as credit card #s and social security #s, should be encrypted.
- Data should be restricted and audit trails should be available to identify all user activity include view access to sensitive data.
- Data should be stored in the database encrypted and blocked from user views in the application unless it is authorized.

Application Interfaces

- Interface file should be secured and archived.
- Reconciliation of data should be done on a batch record and totals. Detail data reconciliations should be completed on periodic basis.

Processing Controls

- Application databases/interfaces should have the necessary controls to prevent processing of inaccurate, duplicate, or unauthorized transactions and producing inaccurate outputs.
- Controls to ensure that all data is processed and accounted for should be in place.
- Rejected items should be logged, tracked and resolved in a timely manner.

Change Management

- Processes and tools should be used to report, track, approve, fix, and monitor changes on the application.
- The application and all changes to the application should be tested before being put into production.
 - Documentation of approval for change and evidence of testing should be in place.
 - Specific timetable/schedule should be documented.
- Emergency procedures should be documented and distributed.

Application Logging, Audit Trails and Record Retention

- Audit trails for operating, application, and database systems should exist and reviewed.
- Users and roles should be tracked and reviewed
 - Maintain documentation
- All failed logon attempts should be logged.
- All sensitive transactions and changes should be logged and an audit trail created.
- Audit trails should contain who made the change, when it was made, and what was changed.

- Only the security administrator should have access to change or delete these logs or audit trails.
- Audit trails should be reviewed by the business owner(s) and security administrator.

Management Reporting

- Management reporting should be produced through the application.
- Transaction logs should be maintained and reviewed periodically.
- Access reports by user and privilege should be produced and reviewed periodically including access violation reports and exception transaction reporting.

Contingency Planning, Disaster Recovery and Backup Management

- A business contingency plan and a disaster recovery plan for the application should be documented and stored off-site, including escalation plan and current call tree.
- Plans should be tested and the outcomes of the tests (success/failure) should be documented.
- Regular backups of the application and the application data should be stored off-site.
- Application executables should be stored off-site or in escrow.
- Application configurations should be documented and backed-up.
- Full system backup should be encrypted.
- Backup procedures should be documented.
- Tape maintenance should include:
 - Periodically testing integrity of tape
 - Procedures for tape destruction due to faulty or scratched hardware.

Performance Monitoring

- Incident monitoring procedures should be documented and incidents logs should be reviewed to ensure that appropriate action is taken.
- Performance statistics should be examined and reviewed periodically by system administrators/business owner(s).
 - If vendor(s) support the application, a vendor contract and service level agreement should be in place. The SLA should have provisions for uptime, performance monitoring, updates, etc.
- Baseline tools or security products should be used and checked on a quarterly basis.

Patch Management

- Patch management procedures and documentation
 - Procedures should include testing, approvals, and distribution.
 - Documentation should include emergency procedures.
- Apply all new patches and fixes to operating system and application software for security.

Physical Protection

- Physical access to the application hardware should be appropriately restricted.
 - Physical access secured by single authentication mechanism i.e. swipe card.
 - Physical security adequate for equipment (locked cabinets).
- Appropriate fire suppression systems should be in place.
- Environmental condition adequately controlled (no water, dirt, clutter) and monitored.

- Temperature and humidity monitoring should be implemented.
- Security cameras installed in sensitive areas
- Power surge protection and emergency power backup are in place.

Anti-virus Management

- Virus patch management procedures should be documented, including emergency update procedures.
- Virus software should be implemented and up-to-date.
- An engine and definition management should be in place.
- A remote distribution server should be implemented
 - Documentation on remote distribution should be current and maintained.
- Intrusion detection system should be in place, including incident response procedures.
- Firewalls should be implemented
 - Firewall rules documentation should be up-to-date.

Wireless Device

- Devices should be using WPA/WPA2 and AES encryption or better.
- Devices should disallow broadcasting of the SSID.
- All default parameters should be changed.
- Devices should have MAC address filtering enable or some type of authentication mechanism in place.

Web Application Vulnerabilities and Controls

- Best Practice and Standards:
 - The Open Web Application Security Project (OWASP) - www.owasp.org
 - www.webappsec.org (a consortium of web application security professionals)
 - Center for Internet Security (CIS) – www.cisecurity.org
- Perform data validation & integrity checks for field values and ensure the HTML special characters are stripped for all HTML request.
- Do not allow site pages to be cached by user browsers.
- All sensitive, personal or confidential data (including SSN, passwords, session IDs for sensitive applications, confidential or sensitive business transactions, etc.) should be transmitted between browser and server within an SSL-encrypted session (or other encrypted transmission) and are encrypted in the database at rest.
- All sensitive and personal data should be masked and encrypted where possible.
- Legal Issues:
 - The site should have a privacy statement and term of usage.
 - American Disability Act – Section 508 should be considered during the development process due to the requirement that federal agencies' electronic and information technology is accessible to people with disabilities.
- Web Authentication: To prevent passwords from being passed in the clear, have authentication occur within an SSL encrypted tunnel. Use SSL (certificate) to protect the password.
- Password Reset:
 - For internal applications, reset passwords via the helpdesk or security administrator of the site

- For external applications, send temporary password to known e-mail address, that must be changed upon login and/or
- Have customer service reset after the user has been validated.
- If possible, use two factor authentication like Secure ID fobs.

Disaster Recovery Plan Checklist

Disaster recovery is a plan which could be executed in the event of a total disaster in order to bring the computer systems back to a functioning whole. Typically, the disaster in question is one, which destroys a complete site that requires restoration of support, particularly Information Technology support. Most commonly considered causes of disasters are fire, explosion, flooding, hurricanes and tornados. Disaster recovery planning normally involves alternate locations for major systems as well as the planning and testing of switch over measures, emergency transportation and so on.

The Disaster Recovery plan should include at a minimum the following areas.

1. Disaster Recovery
 - Manager Responsibilities
 - Plan Administration
 - Distribution of the Disaster Recovery Plan – All team members, LAN and an offsite location should have a copy of the current plan and its attachments.
 - Maintenance of the Business Impact Analysis
 - Training of the Disaster Recovery Team
 - Testing of the Disaster Recovery Plan
 - Evaluation/Review of the Disaster Recovery Plan and Tests – the DR Plan should be reviewed and the DR Test should be performed at a minimum twice a year. Update the plan to reflect changes in activities, procedures, performance, staff, and etc. Set a regular time for the review.
 - Maintenance of the Disaster Recovery Test Results – Maintain copies of the test results and what scenarios and areas of the plan were tested.

2. Business Impact Analysis - Minimize the impact on the business with respect to dollar losses and operational interference
 - Critical Time Frame - Recover the system and/or component of the system within the critical time frames established and accepted by the user community. This should include the time estimate of how long it would take to recover the whole system or any sub components.
 - Application System Impact Statements - This area is where a business owner decision of what areas of the system has a priority in how it is brought back into normal operation. How long could these operations be performed without computer support?
 - Essential – Are systems or components of the System that are very critical and need to be back in operation immediately because the business cannot function without them.
 - Delayed – Are systems that are needed but could be delayed and could not adversely affect the business process.

- Suspended – Are systems or components that are not critical and can wait until the full System is back to normal operation.
- Recovery Strategy & Approach
- 3. Disaster Definition – All possible interruptions should be defined, and then the steps to minimize their impact need to be documented. This includes disk array failure, power loss, loss of network, loss of wireless network, loss remote access, equipment, computer processor failures, etc.
 - Detailed Recovery Steps for each Disaster Definition - This should be the technical steps to recover the different areas of the system like the Operating system, database, application, routers, firewall, and etc.
 - Escalation Plans and Decision Points
- 4. Data Center Systems – Dependencies should be notated.
 - System Components- A copy of all essential office equipment and records should be stored off-site. Specify any special computer hardware, software, databases, networks or other technology.
 - Backup Strategy
 - Storage Rotation
 - Back-up Files
 - Off Site Storage of Back-up Files
 - Back-up Files Retrieval Process, Vendor information and Forms for Off Site Storage
 - Hardware -
 - Hardware inventory for system in operation
 - Desktop Workstations (In Office)
 - Desktop Workstation location
 - Desktop Workstations (Offsite including at home users)
 - Laptops
 - Software -
 - Software inventory of the system in operation
 - Systems, Applications and Network Software
 - Communications
 - Operations
 - Off-Site Inventory
 - Supplemental Hardware/Software Inventory
- 5. Escalation Plans and Decision Points
- 6. Disaster Recovery Emergency Procedures

- Plan Procedure Checklist - should have a checklist of the plan procedures and area for documenting exceptions where the plan was not adhere to and what was done in its place. Disaster Recovery Procedures in a check list with approval format.
- Disaster Recovery Organization – should have the full disaster recovery team listed by position or individual and what are their responsibilities. This section of the plan should include Port Authority and PATH personnel, PA/PATH management, and all vendors that work or have responsibilities during a disaster. This area should be reviewed semi-annually for updates and changes.
 - Recovery Organization Chart
 - Disaster Recovery Team & Recovery Team Responsibilities
 - Recovery Management & Senior Manager Responsibilities
 - Damage Assessment and Salvage Team & Team Responsibilities

Problems and Changes - Need to be documented and what was done to rectify them.

Essential Position – Require back-up personnel to be assigned.

7. Pre-Disaster - What steps need to be in place prior to a disaster for this plan to work? If there are any assumptions, they should be notated here.
 - Recovery Management
 - Damage Assessment and Salvage
 - Hardware Installation

8. Contacts information - This area should be reviewed semi-annually for updates and changes.
 - Disaster Recovery Team - This should include primary and secondary phone numbers, home address, emergency contact information, and their backups information.
 - Vendor Phone/Address List – Include account information and account representative information.
 - Command Center – Primary and Alternative site locations, hot spots, phone numbers, time scheduling

9. Post-Disaster – Detail what steps need to be taken to move from disaster mode back to normal operations.

**ATTACHMENT H - CERTIFIED ENVIRONMENTALLY PREFERABLE
PRODUCTS/PRACTICES**

Proposer Name: _____ **Date:** _____

In line with the Port Authority's efforts to promote products and practices which reduce our impact on the environment and human health, Proposers are encouraged to provide information regarding their environmentally preferable/sustainable business practices as they relate to this contract wherever possible. Proposers **must** complete this form and submit it with their response, if appropriate. Proposers **must** submit appropriate documentation to support the items for which the Proposer indicates a "Yes" and present this documentation in the proper sequence of this Attachment.

1. Packaging

Has the Proposer implemented any of the following environmental initiatives? (A checkmark indicates "Yes")

- Use of corrugated materials that exceed the EPA recommended post-consumer recycled content
- Use of other packaging materials that contain recycled content and are recyclable in most local programs
- Promotes waste prevention and source reduction by reducing the extent of the packaging and/or offering packaging take-back services, or shipping carton return
- Reduces or eliminates materials which have been bleached with chlorine or chlorine derivatives
- Eliminates any packaging that may contain polyvinyl chloride (PVC), or polystyrene or heavy metals

If yes, a description of the practices being followed must be included with the submission.

2. Business Practices / Operations / Manufacturing

Does the Proposer engage in practices that serve to reduce or minimize an impact to the environment, including, but not necessarily limited to, the following items? (A checkmark indicates "Yes")

- Recycles materials in the warehouse or other operations
- Use of alternative fuel vehicles or vehicles equipped with diesel emission control devices for delivery or transportation purposes
- Use of energy efficient office equipment or signage or the incorporation of green building design elements
- Use of recycled paper (that meets federal specifications) in their marketing and/or resource materials
- Other sustainable initiative

If yes, a description of the practices being followed must be included with the submission.

3. Training and Education

Does the Proposer conduct/offer a program to train or inform customers and employees of the environmental benefits of the products to be offered under this contract, and/or does the Proposer conduct environmental training of its own staff?

Yes No If yes, Proposer must attach a description of the training offered and the specific criteria targeted by the training.

4. Certifications

Has the Proposer or any of its manufacturers and/or subcontractors obtained any of the following product / industry certifications?(A checkmark indicates "Yes")

- ____ ISO 14000 or adopted some other equivalent environmental management system
- ____ Other industry environmental standards (where applicable), such as the CERES principles, LEED Certification, C2C Protocol, Responsible Care Codes of Practice or other similar standards
- ____ Third Party product certifications such as Green Seal, Scientific Certification Systems, Smartwood, etc.

If yes, Proposers must attach copies of the certificates obtained.

5. Other Environmental Criteria

Proposers are encouraged to respond to criteria specifically indicated in this RFP as "Management Approach" (and attach the appropriate documentation) to receive consideration in the evaluation.

I hereby certify, under penalty of the law that the above statements are true and correct.

_____ Name _____ Date

**ATTACHMENT I: STANDARD & GUIDELINES FOR PORT AUTHORITY
TECHNOLOGY**

See following pages



THE PORT AUTHORITY OF NY & NJ

Standards & Guidelines

for Port Authority Technology

(for distribution in RFP's)

Technology Services Department

Version 7.2
March 25, 2010

Introduction	5
1.0 The Port Authority Wide Area Network (PAWANET)	5
1.1 PAWANET Overview	5
1.2 PAWANET Circuit Diagram (Note: IGXs are no longer in the network)	6
1.3 Inter-site Services Providers	7
1.4 PAWANET Functions	7
1.5 Features of PAWANET	7
1.6 Supported Protocols	7
1.7 PAWANET Switches and Routers.....	8
1.8 Approved Servers.....	8
1.9 Enterprise Addressing Scheme (including IP addressing)	8
1.10 Enterprise Network Monitoring Software.....	8
2.0 Network Resources	9
2.1 Network Overview	9
2.2 Enterprise Network Architecture	9
2.2.1 Operating System and Software.....	10
2.2.2 Configuration.....	10
2.2.3 Network Resources Security	12
2.2.4 Network Access and User Account Security	13
2.2.5 Remote Access System	15
2.2.6 Network Resources Hardware Standards.....	16
2.3 Network Naming Conventions.....	16
2.3.1 Server Names	16
2.4 Directory Services and Structure	16
2.5 System Backup and Recovery	16
2.5.1 Backup Logs	17
2.5.2 Backup Scheduling	17
2.6 Business Resumption Plan.....	17
2.7 Telecommunications Standards for Enterprise Network Resources	18
2.7.1 Closet and Telecommunications Room Access.....	18
2.7.2 Telecommunications Installation Contractor's Responsibilities	18
2.7.3 Electrical Requirements	19
2.7.4 Telephone Company Interface.....	20
2.8 Documentation.....	20
3.0 Virus Scanning & Management	21
3.1 Overview	21
3.2 Standards.....	21
3.3 Acquisition and Installation	21
4.0 Electronic Mail	22
4.1 E-Mail Overview	22
4.2 E-Mail System Architecture	22
4.3 E-Mail Environment: Design Considerations and Infrastructure....	22

4.4	Integrating Applications Server with Port Authority Email System	23
4.4.1	Requesting SMTP Services	23
4.4.2	Email Restrictions	23
6.0	Workstation and Workstation Operating System	24
6.1	Overview	24
6.2	Workstation Operating System Standard	24
6.3	Workstation Configuration	24
6.3.1	Workstation Naming Conventions	24
6.3.2	Workstation User Accounts	24
6.3.3	Remote Workstation Management	24
6.3.4	Drive Mappings	24
6.3.5	Standard Workstation Hardware Configurations	25
6.4	Physical Security	25
6.5	Logical Security	25
6.6	Printers	26
7.0	Distributed Systems Environment	26
7.1	Overview	26
7.2	Microsoft Windows Servers	26
7.2.1	Virtual Environment	26
7.2.2	Windows Data Encryption	26
7.3	Unix	27
7.3.1	Unix Security	27
7.3.2	Backup	27
7.4	Databases	27
7.5	Application Security	27
7.6	Server Physical Security	27
7.7	Load Balancing – Failover Architecture	28
8.0	Vendor Provided Dedicated Systems	28
Overview		28
Appendices		29
Appendix 1	-- Business Resumption Plan Document Format	29
Appendix 2	-- Communication Rooms/Closets Standards	31
Appendix 3	-- Cabling	32
Appendix 4	-- Port Authority Unified Wiring Plan	32
Appendix 5	-- Telephone Closet / IDF Termination Blocks	34
Appendix 6	-- Workstation Jacks	34
Appendix 7	-- Standard Switches Inside the Department	34
Appendix 8	-- Desktop and Lateral Cable Identification Management	34
Appendix 9	-- PA Telephone Network 5/08	36
Appendix 10	-- Fiber Optic Specification for Network Services - PAWANET	37
Appendix 11	-- Public Telephone Ordering Guidelines	38
Appendix 12	-- Standard Printers	39
Appendix 13	-- Load Balancing/Failover Diagram	40

Introduction

The purpose of this document is to communicate the standards established by the Technology Services Department (TSD) and provide guidance in proposing IT solutions for the Port Authority of New York & New Jersey (PANYNJ), the Agency.

To that end, these guidelines are intended to help RFP Submitters do the following:

- Implement computing and networking solutions that ensure the utmost reliability, availability and security.
- Procure hardware and software that advances current and mandated business needs and enables departments to work with other departments/offices more effectively.
- Easily and efficiently communicate and exchange information throughout the agency.
- Achieve greater systems integration through leveraging and building upon standardized infrastructure and facilitating systems management.
- Adherence to these standards ensures that IT investments achieve Enterprise connectivity, interoperability, consistency, and will enhance performance in a cost-effective way.

1.0 The Port Authority Wide Area Network (PAWANET)

1.1 PAWANET Overview

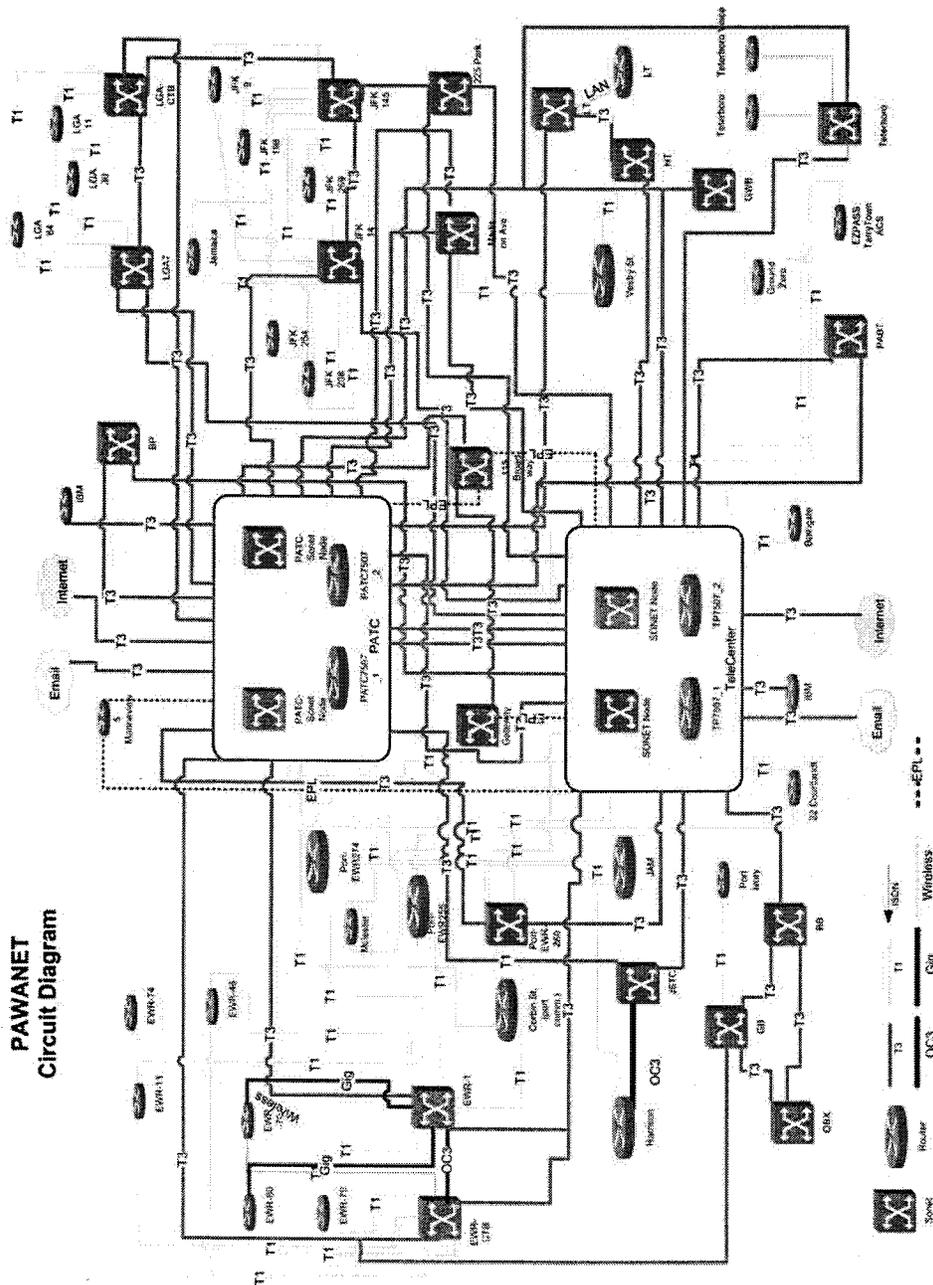
The Port Authority has a modern distributed computing network, called the Port Authority Wide Area Network (PAWANET), which is managed as an Enterprise resource. It connects all the various Port Authority facilities and transportation systems using high-speed voice, data, and video lines or links.

This network is crucial to all Port Authority businesses because it provides the connections for applications such as e-Mail, Internet and Intranet access, SAP, PeopleSoft, Electronic Toll Collection, CADD, Lease Image, Closed Circuit Television (CCTV) surveillance systems, and in the future, videoconferencing, and more.

PAWANET consist of a Managed Fiber Optic SONET network, provided by Verizon Select Services. This network consists of two dual OC48 SONET Rings that connects key Port Authority facilities, and intersects the Port Authority's two Data Centers. High-speed DS1, DS3, and Resilience Packet Ring (RPR) links are allocated on this network to form PAWANET's Wide Area Network (WAN) topology. Additional high-speed Ethernet Private Lines (EPL) has been deployed to support Key Port Authority's off-ring facilities. Remote nodes are linked using high-speed dedicated communication lines. Alternate high speed dedicated communications lines and high-speed dial up communication links (ISDN Lines), provide back up paths should the primary links fail.

The network consists of state-of-the-art Cisco Systems equipment and services, such as, high performance Cisco Catalyst switches and routers. The Port Authority use Cisco Systems SMARTnet hardware/software maintenance services, and Cisco's Technical Assistance Center (TAC) to support and maintain the network.

1.2 PAWANET Circuit Diagram (Note: IGXs are no longer in the network)



Remote nodes are linked using high-speed dedicated communication lines. Alternate high speed dedicated communications lines and high-speed dial up communication links (ISDN Lines), provide back up paths should the primary links fail.

1.3 Inter-site Services Providers

The Technology Services Department (TSD) has contracted with a variety of companies to provide inter-site services. Companies providing communications services for the Wide Area Network are listed below.

- AT&T Local Services
- Verizon

1.4 PAWANET Functions

Currently PAWANET provides the following functions:

Data	Supports the low and high volume transfer of data used for applications, such as SAP and PeopleSoft, and for network communications, such as e-Mail. Provides a data path for off-site, data backup of file, print and application servers. Enables the use of Storage Attached Network (SAN) for network storage of user files and routing jobs to shared network printers.
CCTV	The transfer of Closed Circuit TV (CCTV) data is supported across the entire network to provide security for the Port Authority's key facilities.
Voice	The network provides the hardware capabilities for voice transmission for future implementation.
Videoconferencing	The network switches and transmission lines are capable of handling videoconferencing to support the agency's future needs.

1.5 Features of PAWANET

PAWANET provides a high performance and reliable fail-safe communications network. These are its key features:

- Alternate paths of communication
- Support of high volume traffic such as CADD, CCTV and others
- Catalyst 3000, 4000 and 6500 switches at all the major sites, and at the Teleport.
- Cisco high performance 2000, 7200 and 7507 router family products with redundant power supplies.

1.6 Supported Protocols

The network supports the following network protocols, allowing dissimilar platforms to communicate within PAWANET:

TCP/IP:	TCP/IP is the universal protocol that allows communications between all systems within the Port Authority's network, as well as other networks.
IPX/SPX:	This protocol allows communications between all Novell platforms.

SNA/SDLC: This protocol allows communications between all IBM systems and other systems that support SNA.

1.7 PAWANET Switches and Routers

The current standard switches and routers used on PAWANET are:

- Dual SONET OC48 Rings that connects key Port Authority facilities and data centers.
- Cisco 7200 high performance routers
Provide high-speed connectivity and routing capabilities across the ATM network in support of TCP/IP, IPX/SPX and bridging functions and provides routing capabilities for Port Authority Internet access.
- Cisco 7500 series high-capacity redundant routers
Serve as the -network backbone core router that provides high speed routing functions between the, Teleport, Port Authority Technical Center and all PAWANET connected facilities as well as the IBM mainframe. Also provide high-speed connection and routing capabilities to the disaster site for data recovery in the event of a catastrophe.
- Cisco 2000 series medium capacity routers
Provide high-speed connectivity and routing capabilities to the Port Authority's remote locations.

1.8 Approved Servers

IBM File/ Print/Application and NEC Express 5800 series servers may be connected to PAWANET. The use of VMware's ESXi virtual infrastructure is also an approved configuration, Specialized servers (e.g., appliances) to support a specific line department application will be reviewed on a 'case-by-case' basis.

Replacement server must conform to the category listed above. Deviation from this policy will not be allowed without prior approval of the Chief Technology Officer or her/his designee.

1.9 Enterprise Addressing Scheme (including IP addressing)

The Port Authority's Enterprise network is a TCP/IP Class B network allowing for a maximum of 255 subnet assignments. Subnets are assigned on a geographical basis according to the number of resources required. Workstations are configured for dynamic assignment of IP addresses via Dynamic Host Configuration Protocol (DHCP).

1.10 Enterprise Network Monitoring Software

The Port Authority continually monitors its WAN and the availability of its links. To provide for real time monitoring, the following software utilities are used:

- HP Open View Network Management software
- Cisco Works for Switched Internetworks

2.0 Network Resources

2.1 Network Overview

The Port Authority has a modern distributed computing network, which is managed as an Enterprise resource. The network connects all individual PCs, servers, printers, and other devices in a unified computing infrastructure that makes it possible for the Port Authority to conduct its business.

The Enterprise Network consists of the PAWANET (see Section 1.1) and connected Local Area Networks (LAN's). The line of demarcation between the cable and wiring which is the responsibility of the carrier and the Port Authority's area of responsibility is usually a wiring closet. The Port Authority's Enterprise Network consists of the following components on the Port Authority side of demarcation:

- Enterprise Devices
 - Cabling
 - Routers
 - Switches
 - Wiring Closets
 - Communications Equipment Racks
 - Server Racks
 - File and Print Servers
 - Application Servers
 - Storage Area Networks (SAN)
 - Network Printers
- LAN Devices
 - Desktop PCs
 - Workstations
 - Laptops
 - Local Printers
 - Scanners
 - Copiers
 - PC Peripherals

2.2 Enterprise Network Architecture

The Port Authority operates an extensive network of Enterprise file, print and application servers. These devices are linked to an Enterprise Wide Area Network. The

flexibility provided by the use of multiple servers, server clusters and Storage Area Networks (SAN) offers users improved network response, greater reliability, increased data security and reduced operating cost. Adherence to the standards outlined in this section allows the Port Authority to manage their systems, applications and data in a way that best meets our business needs while maintaining interoperability and safeguarding Port Authority's information assets.

2.2.1 Operating System and Software

All Enterprise File & Print services in the Port Authority are currently based on the Novell Netware 6.5 operating system (the agency will be migrating to Microsoft networking services during Y2010). Microsoft Windows 2003 and 2008 servers (Standard and Enterprise) are the primary operating system in use. Sun Solaris is also supported as application servers and only when required for functionality. In addition to the base operating system, all servers must include the following components:

- Virus Protection (minimum: McAfee Engine 8.5.0i, with current DAT files)
- Network Security
- Remote Monitoring and Management
- Intrusion Detection
- Systems Backup (minimum: Upstream 3.5.0c)
- Uninterrupted Power Supply (If central UPS is not installed at the location)
- Current Service Packs and security patches (minimum: SP1)

Note: All operating system and server software will be provided by the Technology Services Department.

2.2.2 Configuration

All network devices--including servers, workstations, network printers, and network faxes--must use IP addresses which conform to the standards outlined in sections, 1.9 *Enterprise Addressing Scheme*, and 2.3.1, *Server Names*. All servers will be configured using the following parameters:

Base Configuration:

- C: (OS Drive) Minimum 25 GB
- D: (Application Drive) Minimum Based on Application's space requirements
- IP Protocol

2.2.2.1 Drive Mapping Conventions and Organization

Mapping of workstation drive pointers to SAN or server disk volumes or folders is currently accomplished through a Novell NetWare Login Script or the Microsoft equivalent. The following drive letters are reserved for Novell installations:

Pointer	Volume or Folder
---------	------------------

H:	Novell login (first network drive)
M:	Reserved
P:	Public Applications
Q:	Installation and Upgrade Utilities
S:	Departmental shared directories and files
T:	Reserved
U:	Users Private Home Directory
Z:	Novell system files (Search mapping)

- Public (Shared) application software installed on file and print servers, or server cluster must reside on a separate volume named "APPS".
Example: P:\APPS
- Each software application installed on file and print servers, or server cluster, must have its own sub-folder.
Examples: P:\APPS\EXCEL
P:\APPS\LOTUS
- SYS volume must be used for operating system and support software only.
- Shared Data stored on file and print servers, or server cluster, shall reside in a volume named Data, and shall be mapped to the "S:" drive pointer.
Example <Server_name>:\DATA\SHARE on a single server
<Cluster_name>:\DATA\<Department_NAME>\SHARE on a server cluster
- Each Department's SHARE folder will contain at least three sub-folders titled Org, Everyone and Projects.
- The Projects folder is provided for storage of project related files. All departmental projects will be kept in a sub-folder under the Projects folder and the folder will be named using the same name as the project. User rights will be assigned by a group having the same name as the project folder. Only colleagues requiring access to the project files should be granted rights to that project folder.
- Under the Projects folder will be two additional folders, one called "Active" and one called "Completed". Active projects reside in the "Active" folder.
- When staff identify a project as being completed, the project folder will be moved to the "Completed" folder and all rights, except for "Read" and "FileScan" will be removed from the folder. This will ensure that the final project documents remain unchanged, while still allowing authorized staff to review the old documents and use them as templates for new documents if desired. The "Completed" folder will be set to archive its data.
- Under the "ORG" folder will be subfolders with names corresponding to the various divisions within the department. By default, only staff within a division will have access to a division's folder. These folders are intended to hold data for a specific division that would not normally be shared departmentally. Staff from other divisions would not have access to these folders unless the division manager of the

owning division gives their approval. Having folders setup by divisions will simplify the process of identifying who is responsible for the contents of a folder.

- The “S” and “U” drives should only be used to store business related files.
- The Systems Administrator, at the direction of the Director, may from time to time remove any data deemed to be non-business related.
- A folder called “Everyone” will be created in the Share folder. All staff in the department will have full access to this folder to store and retrieve files that are not related to a project or a division’s day-to-day operations.
- Additional shared folders, with access restricted to only specific users, if required, will be created in the Share folder. Access will be restricted through the use of Inherited Rights and access will be granted through the use of groups. These groups will be named using the same name as the folder name.
- In general, rights to any folder will be granted through the use of a group having the same name as the folder. The group would have trustee rights to the folder, and users would be added to or removed from the group as needed. All rights would be granted or revoked through an internal workflow approval process.
- A user “U” drive will be assigned to each standard network account for use by each individual user to store business related data on the network. Access to the “U” drive is restricted to the account owner only. Users receive all rights to this folder except for “Access Control” and “Supervisory”. Users cannot share data on their “U” drive. Files should be shared only by using the Share, (“S”) drive.
- Access to a user’s home directory, by anyone other than the owning user is prohibited and will be removed after notifying the end-user.
- Installation files used in the installation of desktop software must reside in a sub-folder under the “APPS” volume

Example P:\APPS\Psoft

2.2.2.2 Connecting LAN Devices to the Enterprise Network

The Technology Services Department (TSD) is responsible for connecting all LAN devices to the Enterprise Network (PAWANET) provided they meet the Port Authority’s standards.

2.2.3 Network Resources Security

2.2.3.1 Server Physical Security

All network equipment must be physically secured in a locked room.

2.2.3.2 Server Logical Security

To safeguard the Port Authority’s Information Technology (IT) systems and data, TSD has implemented a number of processes and procedures, including the requirement that all users accessing the Port Authority’s networks authenticate to a Directory Service

(using either Novell Netware e-Directory or Microsoft Active Directory (AD). Both Directory Services contain descriptions of all network devices including servers, printers, shared drives and user accounts.

TSD is responsible for providing all Enterprise servers with the following protection of their logical resources:

- Guard against unauthorized access by making sure that servers cannot be booted from a floppy.
- Scan all workstations for viruses daily.
- Scan all laptops for viruses at log-in.
- Scan all incoming data from users, server peripherals, diskette, CD-ROM, tape drives, other servers, and the Internet for viruses
- Perform regularly (daily and/or weekly) backups as defined by the Technology Services Department. (see section 2.5 - System Backup and Recovery)
- Test recovery procedures annually.
- Use system and application passwords that conform to the Technology Services Department standards.
- Configurations must conform to security parameters identified by NetVision Suite software.
- Perform deleted file purges immediately or no later than 6 days after file deletion.
- Control all remote access using the Port Authority's Remote Access System.

2.2.4 Network Access and User Account Security

2.2.4.1 Account Creation

User and Application accounts are unique and provisioned and managed in our Directory Service for both the Novell and Windows network resources. Documentation for the creation of user accounts and authority for access is maintained by the System Administrator.

2.2.4.2 Time Restrictions

Due to the fact that The Port Authority serves its clients 24 hours a day, we do not have Login Time Restrictions on network resources. All staff may access their Novell account 24 X 7.

2.2.4.3 Concurrent Logins

Login sessions will be limited to one connection per user. User accounts should not have the ability to login to multiple workstations after establishing one active connection to the network.

2.2.4.4 Intruder Detection

These system-monitoring features must be active:

- Restrict the count of incorrect login attempts to three before the account is locked out.
- The time for which unsuccessful login attempts are retained to determine a possible intruder attack should be a minimum of 30 minutes before the counter is reset to zero.
- The time for which a user account remains disabled before the account can be used again should be a minimum of 30 minutes.

2.2.4.5 Passwords

All user accounts must have passwords conforming to the following standards:

- Minimum length is six (6) characters.
- Should not be easily guessed. It should not be related to one's job and should not be a word in the dictionary or a proper name.
- Should be set to expire at least every 90 days and 30 days for accounts with system or application administrator access.
- Grace Logins should be activated and limited to three.
- Users should be notified several days in advance of password expiration.
- Users should be forced to change their password on initial login and once it expires.
- Unique passwords should be required when changed. Users should be prevented from reusing a previous password for a minimum of one-year.
- Users should not be permitted to change their passwords more than once a day.
- Passwords should be encrypted in storage.
- Passwords must be entered in a non-display field with a re-enter verify function for new passwords.
- Passwords must not be available on hard copy.
- Passwords used in system startup files and login scripts must be encrypted.
- If an application uses a default password, change it on installation.
- Do not use cyclical passwords, such as the word, February, during the month of February.
- Do not reveal your password to anyone except authorized persons.
- Use both upper and lower case characters and special characters where possible.
- Change password if it has been disclosed or compromised.
- Protect by using a screen saver password with a recommended 15-minute time-out period.
- Passwords should not be the same as the user ID

Passwords are considered confidential data. They protect the Port Authority's network resources and grant system privileges and access. Disclosure may result in unauthorized access to data, system files and transactions. Passwords are also your signature and identify you as the individual who is responsible for the system activity.

2.2.4.6 Modems

Staff are prohibited from connecting dial-up modems to workstations that are simultaneously connected to PAWANET or another internal communication network unless approved by the Technology Services Department (TSD).

Where modems have been approved, users must not leave modems connected to personal computers in autoanswer mode, such that they are able to receive in-coming dial-up calls.

2.2.5 Remote Access System

The use of local modems to establish direct dial connections to devices on the Port Authority's network is prohibited. Exceptions to this policy require the approval of the Technology Services Department (TSD).

The approved mechanism for remote access to the Port Authority network is through the Remote Access System (RAS). The Remote Access System utilizes an Internet-based Virtual Private Network (VPN) tunnel established over the Internet linking remote users to the Port Authority Wide Area Network (PAWANET) (remote client to PA site). It is designed to provide authorized Port Authority users with secure access to corporate applications and to files available on their departmental file servers. This access to applications and resources is delivered through a thin-client environment consisting of a farm of Citrix MetaFrame/Microsoft Terminal Services servers capable of supporting 200 or more simultaneous users each. There is no provided access to the user's office PC desktop. The system also provides access to IBM enterprise server ("mainframe") applications. Port Authority offices without direct connection to the Port Authority Wide Area Network (PAWANET) can use this system to establish remote access to corporate applications located on PAWANET.

RAS provides multiple security mechanisms to ensure that only authorized users gain access to the Port Authority's computing resources and systems. Through multiple security steps, the user must respond to security challenges. After successful authentication verification, authorized users are provided with access to corporate applications and their departmental network resources through the thin-client environment.

The Port Authority also supports corporate site-to-site VPN connections and utilizes Cisco equipment for these connections.

2.2.6 Network Resources Hardware Standards

2.2.6.1 Standard Servers

A representative sample of standard servers is as follows:

PORT AUTHORITY SERVER STANDARDS

Server Description	IBM Model
WEB Server, Small applications server	xSeries 3550M2
Medium applications server	xSeries 3650M2
Database Server, Multiple and Large application server	xSeries 3850M2

Each server shall have at least 3 network interface ports to support a production, management and backup network, and redundant power supplies.

The Port Authority manages servers models via a lifecycle process with a minimum 'in service' life of three (3) years.

2.3 Network Naming Conventions

2.3.1 Server Names

The Port Authority employs a naming convention for all servers within PAWANET. That convention will be discussed during a solution implementation phase, Static IP addresses for servers, printers and faxes will be assigned by Technology Services Department (TSD).

2.4 Directory Services and Structure

The Port Authority uses Novell e-Directory and Microsoft Active Directory to manage network resources and user access. Port Authority departments are designated as organizational units (OU) and servers are network objects contained within the OU. All network printers should be created as e-Directory objects. NDPS should be utilized. Applications are distributed using Novell's ZENworks. Applications are distributed based on the type of workstation and user definitions. Scheduling of distributions is done in conjunction with client departments.

2.5 System Backup and Recovery

The Port Authority, for distributed servers, has standardized on FDR Upstream software for data backups.

- The System Administrator is responsible for verifying that system backups, both local and remote can be used to restore the data. Tests of the ability to successfully restore from the backup system will be performed annually. It is recommended that the test data restore be performed on a single non-critical directory only, not the entire server. Tests of the ability to restore system and application files will be

performed on a non-production server in a controlled environment. When incremental or differential backups are routinely used, the test restore procedure should incorporate both.

- Immediately prior to performing the test restore procedure, do a special full backup on the directories being tested.
- Testing a full restore should only be performed on a non-production server.

Depending on the criticality of the data and the redundancy needs, other products are in use within the Port Authority. Double-Take software is used for 'file-level' copies across distributed servers. IBM's SAN-to-SAN replication (block level copy) for database protection. All backup media and records must be treated with the same level of security and confidentiality as the original data.

2.5.1 Backup Logs

The System Administrator will maintain the following logs for a period of two years:

- Back-up activity
- Rotation of back-ups,
- Usage/rotation of back-up media
- Off-site data storage.

2.5.2 Backup Scheduling

The System Administrator is responsible for performing back ups of data, application and system files. This must be as follows:

- Weekly full back up of each server. A full back up is a back up of all files on the server.
- Daily differential, incremental or full back up of each server or server cluster. The type of back up performed is dependent on time constraints and the amount of data to be backed up. Incremental back ups are back ups of all files changed since the last back up. Differential back ups are back ups of all files changed since the last full back up.
- A Grandfather, Father, Son (GFS) scheme based on a 33 tape rotation should be used to ensure complete back up and recovery.
- Store daily and weekly back-up media in a locked fire proof cabinet outside of the server room. Monthly media must be stored outside the immediate building at a location defined by the Port Authority.

2.6 Business Resumption Plan

The Vendors will work with the Technology Services Department (TSD) to develop a disaster recovery and contingency plan. The System Administrator will participate in the planning, design, implementation, testing, updating and documentation of the plan.

Appendix 1 shows a recommended outline for such a plan. The Business Resumption Plan will be reviewed quarterly and tested at least annually.

2.7 Telecommunications Standards for Enterprise Network Resources

To see the standards and guidelines for the following telecommunications components, please see the Appendix.

Appendix 2 -- Standards for Setting up Closets & Communication Rooms

Appendix 3 -- Standard Cabling Schemes

Appendix 4 -- Unified Wiring Specifications

Appendix 5 -- Telephone Closet / IDF Termination Blocks

Appendix 6 -- Workstation Jacks

Appendix 7 -- Standard Switches

Appendix 8 -- Workstation and Lateral Cable Identification Management

Appendix 9 -- Fiber Optics Specifications for Network Services - PAWANET

2.7.1 Closet and Telecommunications Room Access

The following standards must be followed regarding access to closets and communication rooms.

- All telecommunications rooms must be physically secured. Remote locations which are not secured by a guard or within line of sight of personnel must be secured by a card access system and/or video cameras.
- The Network Connections (NC) group is responsible for installing routers, switches (along with Cisco Staff when applied) and station drops. They also patch connections and troubleshoot LAN cabling.

System Administrators requiring routine maintenance of data communications equipment should call the Customer Support Desk when new devices or reconfigurations are required.

2.7.2 Telecommunications Installation Contractor's Responsibilities

1. Adherence to all of the above specifications.
2. Assurance of labor harmony by providing installation technicians whom currently maintains appropriate union membership.

3. The contractor must supply all cable, blocks, brackets, connectors, jacks, housings, face plates, special tools, etc., as necessary to perform an installation which is satisfactory to the Port Authority.
4. The contractor must label every workstation (jack faceplate) and the corresponding cross connect point (punch down block or patch panel) in accordance with the cable identification management plan, as previously described.
5. Install all Category 5e cabling in the proper manner, with the appropriate number of twists, so as to maintain Category 5e integrity and capabilities, as outlined in the TIA/EIA 568-B.2 standard.
6. The contractor must ensure that cable connections are in accordance with standard telecommunications practices and that all cabling maintains normal connectivity and continuity.
7. All materials must be agreed upon by PA Network Services prior to the start of installation.
8. All computer or network communication rooms and closets are to be isolated, locked, and secured. No other equipment, storage area, or smoking area are to be located in this room. This room must provide appropriate cooling and ventilation. Access to this room will be reserved to TSD staff and an agreed upon member of the site where the PAWANET equipment is located. This procedure is to ensure the security and the integrity of the Port Authority's computer network and its users.

2.7.3 Electrical Requirements

The following power and receptacles should be installed to support different equipment requirements such as:

- Standard 110/120 volt power receptacles
- Standard and/or NEMA L6-30P 208/220 volt power receptacles
- Dedicated circuit breaker per AC feed, with alternate power source.
- Server rack electrical requirements are specified in the appropriate design document.

Currently, services obtained through the PA's contract are required to have the APC (American Power Conversion) UPS included in the delivered service if central UPS is not installed at the equipment location.

2.7.4 Telephone Company Interface

The following items are needed for the telephone company interface, if needed for a specific vendor solution::

- a) Install a dedicated wallboard for Telco demarcs (if none available for implementation)
- b) Standard Telco Demarcs:
 - P66 Block
 - Network Termination Unit (Rj48 interface) Smartjacks
 - Network Termination Unit (DB15-pin female interface)
 - Network Termination Unit (V.35/V.36 female interface)
 - Digital Signal X-connect (DSX)
 - Basic T1 CSU/DSU
 - Basic DS3 handoff coax/HSSI unit
 - High-speed dialup modems for network trouble-shooting when needed

2.8 Documentation

It is the responsibility of the System Administrator to establish and maintain a library of all documentation designated as standard by the Port Authority. These include archived system files and system backups. Vendors will be provided our "Guide to Systems Administration" during the implementation phase of a project. The "Guide to Systems Administration" covers the provisioning and setup of computing & networking resources to successfully implement a project within the Port Authority.

3.0 Virus Scanning & Management

3.1 Overview

This section describes the standards and guidelines for the prevention, detection and removal of computer viruses, (malware). Its purpose is to minimize the risk and negative impact of computer virus infections in the work environment by establishing clearly defined roles, responsibilities and procedures for the effective management of computer viruses.

3.2 Standards

Standard virus protection software must be installed on all network servers and personal computers, and updated on a regular basis. To that end, the Technology Services Department (TSD) has designated McAfee VirusScan Enterprise + AntiSpyware Enterprise 8.5.0i (at the time of this writing) as the standard for virus management on both Windows desktops and servers.

3.3 Acquisition and Installation

The Technology Services Department (TSD) maintains current versions of standard virus protection software and virus detection files, (DATs), including configuration-specific instructions for downloading and installing the software on network servers and desktops.

4.0 Electronic Mail

4.1 E-Mail Overview

The Port Authority's Electronic Mail System (E-Mail) is designed to facilitate business communication among employees, job shoppers, contractors, consultants, and outside business associates. This E-Mail system is comprised of Microsoft Outlook desktop software accessing e-mail stored on Microsoft Exchange servers. This solution also includes group calendaring and workgroup collaboration.

4.2 E-Mail System Architecture

The Port Authority's E-Mail system is hosted by AT&T Corp. who acquired USinternetworking, a managed application service provider, and consists of Microsoft Exchange servers connected to the Port Authority's enterprise network. Authorized Port Authority staff access their corporate e-mail through Microsoft Outlook desktop software on the network. The system has multiple Exchange servers containing mailboxes and Public Folders. Additional servers host Outlook Web Access, Blackberry services, and perform Internet-based e-mail services including anti-spam and anti-virus e-mail checking.

The hosted Exchange site is on a Windows resource domain with a one-way trust to the Port Authority's corporate user account Windows domain located on the Port Authority network. This Port Authority Windows domain is used for Windows authentication services when the Outlook client is opened. In addition, the Port Authority hosts DNS servers to satisfy requests from the Outlook client as needed.

High-speed, secure, and redundant network connections connect the AT&T's data center and network to the Port Authority network.

4.3 E-Mail Environment: Design Considerations and Infrastructure

The E-mail environment is further described below:

- The E-Mail system is comprised of Microsoft Outlook 2007 desktop software accessing e-mail (via MAPI mail protocol) stored on several Microsoft Exchange 2007 servers
- The servers are currently configured for the following messaging protocols:
 - MAPI (Microsoft's Messaging Mail protocol)
 - Internally for X.400 mail protocol (which Exchange servers use)
- IMAP4 and POP3 mail protocols, NNTP news protocol, and LDAP directory protocol are disabled.
- RIM's Blackberry Enterprise Server software for Exchange provides wireless e-mail and calendar access to Blackberry wireless handheld device users.
- The two supported forms of SMTP addresses are:

- Primary form: Flastname@panynj.gov
 FLastname where F is the first initial of the user's first name and Lastname is the last name, and FLastname conforms to the corporate standards for a unique Novell user's username (also known as Novell ID). Flastname is also used as the Alias for a user in the Global Address List. Note that an earlier format with truncating the above to a maximum of eight characters is still in use for accounts created prior to Sept. 2001 (example: Flastnam@panynj.gov).
- Secondary form: Firstname.Lastname@panynj.gov
- Exceptions are governed by Novell directory structure and user account requirements.

4.4 Integrating Applications Server with Port Authority Email System

4.4.1 Requesting SMTP Services

The vendor will request SMTP services from and coordinate its work with the Technology Services Department

If the server is Windows-based and has an antivirus program installed, its settings will need to be changed if port 25 is blocked.

4.4.2 Email Restrictions

The following restrictions are in place to protect the SMTP system and the "credibility" of Agency mail servers on the Net:

- Forged email headers are **STRONGLY discouraged**, but applications for circumvention will be entertained, and valid business justifications must be included. The "From" and "Reply-to" fields should be valid users on the system sending email.
- Settings: The maximum number of recipients per email is currently 30. This includes "To", "cc", and "bcc"; maximum size with attachments is 5MB. Emails that do not conform to these restrictions will be rejected by the SMTP servers.
- Mail will be relayed only if your server has an entry in the SMTP access database.

Note: SMTP logs are checked periodically for policy violations. Repeated violations and failure to correct them will result in SMTP services being disabled for the offending system.

6.0 Workstation and Workstation Operating System

6.1 Overview

The Port Authority makes extensive use of workstations networked into an Enterprise Wide Area Network to accomplish its business objectives. In order to ensure compatibility with the agency's Enterprise network and to make optimal use of its resources, this section defines the standards governing workstations and their configuration and use.

6.2 Workstation Operating System Standard

The Port Authority's standard operating systems for workstations is Microsoft's Windows XP Professional (32-bit), Service Pack 2.

In limited circumstances, where business objectives warrant, alternative operating systems may be deployed with the approval of the department director and concurrence with the Chief Technology Officer.

6.3 Workstation Configuration

6.3.1 Workstation Naming Conventions

All departmental workstations must contain a unique computer name which is the machine's serial number.

Example: Workstation name: 23AAH86

System Administrators are responsible for naming workstations and maintaining an up-to-date inventory of equipment and names used.

6.3.2 Workstation User Accounts

Windows workstations must have user accounts that correspond to the user's network user identification.

6.3.3 Remote Workstation Management

The Port Authority also distributes software applications and upgrades via Novell's ZENworks. Each workstation should have Novell's Workstation Management module installed as part of the NetWare workstation client. This will enable remote distribution and updates of software, hardware inventory and workstation troubleshooting.

6.3.4 Drive Mappings

Drive mappings for workstations should be accomplished only through a Novell login script and should conform to the standard outlined.

6.3.5 Standard Workstation Hardware Configurations

There are standard configurations established for workstations and laptops. The current configurations are managed via a 'lifecycle' process within the Technology Services Department (TSD).

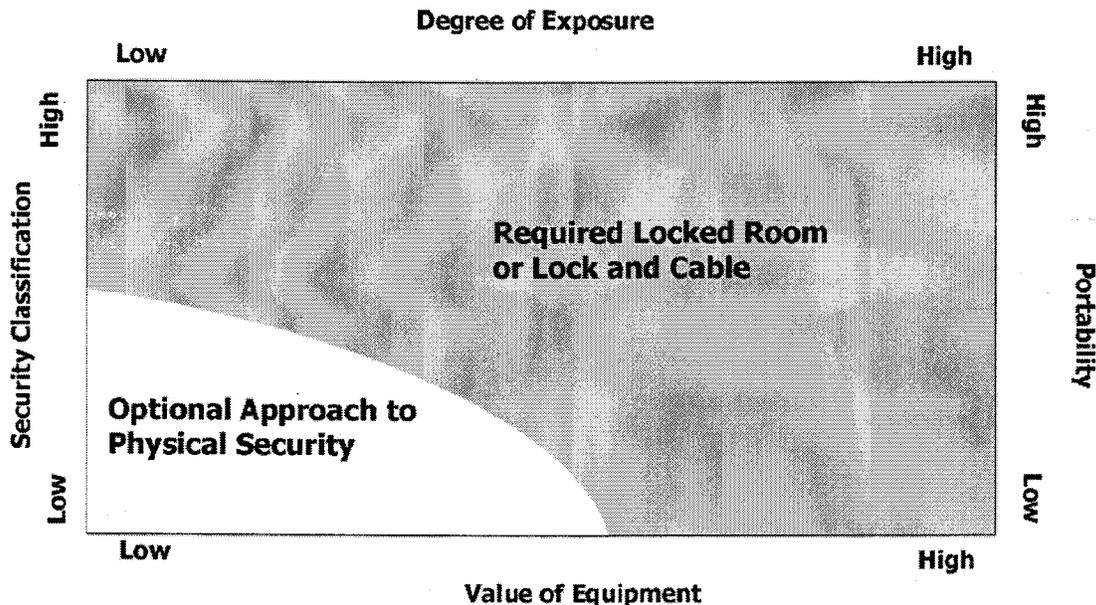
The standard for Workstations include the following Lenovo models (Computer models are subject to change):

- Lenovo ThinkCentre M57 or M58 for a desktop personal computer
- Lenovo Thinkstation D10 for CAD workstations
- Lenovo ThinkPad T400, ThinkPad X200 for laptop computers

6.4 Physical Security

The method of control should be based on the value of the equipment, the sensitivity of the data, its portability and the degree of exposure to theft. The department's Business Manager should make the appropriate determination of physical security required based on their best business judgment.

The graph below provides general guidance to Business Managers in determining the level of physical security required.



In all cases, laptops must be secured with a Lock/Cable product (e.g., Kensington).

6.5 Logical Security

The Technology Services Department (TSD) is responsible for providing for the security of computer resources and devices:

- Workstations are protected with Novell and Microsoft directory security mechanisms..
- Screen saver passwords are implemented with a maximum of a fifteen (15) minute time-out.
- All critical data are backed up nightly onto either external media or a network drive.

6.6 Printers

The Port Authority's Standard for printers is Hewlett Packard, and the following models are currently available. Contact the Procurement Department for acquisition.

7.0 Distributed Systems Environment

7.1 Overview

A number of department and enterprise servers provide critical application and system services. This section provides information on the standards and guidelines for supported systems within the Port Authority. Solutions requiring different operating system environments must have approval from the Chief Technology Officer.

7.2 Microsoft Windows Servers

The standard for general purpose application servers and File and Print Computing is IBM servers. Microsoft Windows 2003 & 2008 Server (Standard and Enterprise) are supported Operating Systems for application servers.

7.2.1 Virtual Environment

The standard for Virtualization Computing is both IBM and NEC FT host servers. The Port Authority will provide a VMware ESX-based Guest Virtual Machine (VM) to operate all Contractor-provided applications software on one of the above host computing platforms depending on the critical nature of the application.

All applications software shall be capable of operating in a virtual environment under VMware ESX server and shall operate in a VMware ESX-based Guest Virtual Machine (VM) on a 'shared' host computing platform for Contractor application, unless performance requirements mandate a dedicated server as described in Section 7.2 above.

7.2.2 Windows Data Encryption

For those applications that require additional data security measures, TSD offers additional tools that provide encryption services to protect "data at rest" (e.g. file

system storage and database). Prior to implementation, the Business System Manager should consult with the Technology Services Department to implement the Encrypting File System feature on Windows XP, 2003 and 2008 Servers (See <http://technet.microsoft.com/en-us/library/cc700811.aspx>).

7.3 *Unix*

Sun's Solaris is a supported UNIX operating system for infrastructure (e.g., SMTP services) and corporate servers (e.g., SAP, Peoplesoft).

7.3.1 *Unix Security*

Unix servers must be physically and logically secured from unauthorized access. Operating system logical security is defined by the Technology Services Department (TSD).

7.3.2 *Backup*

Critical system backup must be performed regularly (daily and/or weekly) utilizing our centralized backup strategy and associated tools as defined by the Technology Services Department. (see prior section on backup software standards)

7.4 *Databases*

Oracle 10.2.0.4 or higher and MS/SQL 2005 Server or higher are the supported database platforms for Port Authority systems. Auditing trail shall be enabled for all database accounts with administrator privileges.

7.5 *Application Security*

Depending on the application, security may be administered at the application, database, module, screen, data field, and/or transaction level in addition to network authentication. Prior to implementation, the Business System Manager should review the capabilities of the application and consult with Technology Services Department (TSD) staff to ensure implementation of the appropriate security levels. When in production, the administrator responsible for day-to-day administration of the application (Application Administrator) is responsible for maintaining the selected security profiles. At a minimum, all applications must require authentication to Microsoft Active Directory by way of a network login.

7.6 *Server Physical Security*

All servers and communication equipment must be located in the Port Authority's centralized data centers. On occasion, and with Chief Technology Officer approval, local (e.g., in facility) computing resources may be required. For those occasions, servers must be located in an environmentally controlled and locked rooms or secured with a cable and lock with the keyboard secured to prevent tampering and unauthorized usage. Technology Services Department (TSD) staff must be consulted during the implementation phase of a project.

7.7 Load Balancing – Failover Architecture

Depending on the requirements of the application, load balancing and failover architectures are supported. Appendix 13 contains a typical diagram of the load balancing/failover architecture.

8.0 Vendor Provided Dedicated Systems

Overview

Vendor provided dedicated systems refers to the Information Technology software, hardware and infrastructure furnished and installed through a contract with an external provider. Generally, this refers to systems that are designed to support a large Capital Project, multi-year engagements, requiring specialized technical and management staff, as well as, Systems Integration support. These projects normally have significant construction components and require the coordination, design and support from many diverse Engineering and Technology disciplines

A representative from the Technology Services Department (TSD) provides a single point of contact for technology oversight, accountability, adhering to Standards and systems integration, which is required under the Roles and Responsibilities of the Chief Technology Officer (CTO) and is expected by our client departments.

To ensure a successful project, and honor our responsibility to our customers and the Port Authority, one of the steps undertaken by TSD, is to provide guidance with, and focus attention on, adherence to and compliance with our Technology Standards and Guidelines (as described in this document). Deployment, integration and testing will be monitored by TSD to ensure that equipment or infrastructure is not duplicated, that the integration and migration plan will not adversely impact existing systems, and to integrate new systems under existing maintenance contracts where applicable.

In cases where a specific vendor or system is so specialized that it normally does not adhere to the hardware, software, infrastructure and operations guidelines of this document, the vendor will be directed to work with TSD in exploring all options, and if an exception is deemed required, the vendor will work with TSD to prepare the necessary Business Case to receive written concurrence from the Chief Technology Officer for this deviation from the Port Authority Technology standards.

Appendices

Appendix 1 -- Business Resumption Plan Document Format

I. PURPOSE

Goals and objectives of plan

Benefits obtained if plan properly implemented

II. SCOPE OF PLAN

Planning assumptions

Facilities and resources included in plan

III. NOMENCLATURE

Recovery terms

Definitions and acronyms

IV. DISASTER SEVERITY DEFINITION

Define level of potential disaster based on impact to critical functions. Explain what degree of operational disruption would constitute each level of disaster:

catastrophic

serious

major

limited

V. OPERATIONS RECOVERY PROCEDURES

(Procedures for recovering services)

1. Indicate time frames in which essential operational/business functions must be resumed.
2. Specify sequence of operations recovery events and individuals responsible for activity. Note any specific activities required for particular levels of disaster severity. For example:

Notifications

Preliminary evaluation

Activate operations recovery personnel

Coordinate with emergency personnel

Evaluate recovery options and issue directive which details:

Assigned tasks

Project schedule/time frame

Coordination required

Identify relocation activities, if required

External/internal status updates

3. Identify items required for backup of critical functions. For example:

alternate work site

hardware/software

Personal computers

Necessary software packages

Documentation

Peripherals (printers, modems, etc.)

Databases

Emergency equipment

Communications

Transportation

Supplies

Security

Operations and procedures manuals

VI. OFFICE/FACILITY BUSINESS SITE RESTORATION PROCEDURES

(Procedures for restoring physical facilities)

identify restoration responsibilities

assess damage

develop restoration plan/time frames

VII. BRP UPDATE PROCEDURES

responsibility for updating and communicating BRP changes

frequency of review/update

Appendix 2 -- Communication Rooms/Closets Standards

SPACE

All data communication rooms must be designed with required and estimated space to meet immediate requirements, as well as, future growth..

ENVIRONMENTAL

The following conditions must be met:

- a) Doorways/Entrances must be designed to support at least the minimum space requirements of 90"Hx72" Wx60" D.
- b) The room's cooling capabilities must be sufficient to support the heat dissipation requirements for the equipment. This requirement will be measured in minimum and maximum BTUs powered by AC-powered systems. Equipment specs will be supplied by TSD upon request.
- c) Backup UPS systems are necessary to avoid equipment damage in case of site power failure. Vendors must consult with the Technology Services Department (TSD) for the approved UPS systems.
- d) Telco demarcs must be located in a central location with sufficient space to house Telco termination equipment.
- e) The room should be designed with the appropriate fire safety regulations such as a FM200.
- f) Cables trays must also be installed in the communications room ceiling where appropriate, to support the routing of data communications and Telco cables.
- g) Basic 19" W/72" H cabinets or racks must be installed to house communications equipment such as: routers, switches, hubs, DSUs/CSUs and monitors.
- h) To create more wall space the use of wall mount racks can be installed. Appropriate sized plywood must be installed prior to mounting racks.
- i) Category 5e cable must be terminated in wall/rack mounted patch panel.
- j) Fiber patch panel must be installed in fiber IDF panel with SC female interface.
- k) The fiber must be neatly tie wrapped and enclosed in flexible inner-duct.
- l) Telephone access must be installed in the appropriate location to provide for basic trouble-shooting and vendor support.
- m) All communications equipment and cabinets must have ample room for easy access and proper ventilation.

Appendix 3 -- Cabling

- a) Teflon-coated cables will be installed per fire code regulations.
- b) Overhead cable trays and drop post must be installed for cable routing.
- c) Cabling scheme must be used to label and identify all cables. All cables must be neatly tie-wrapped.

Appendix 4 -- Port Authority Unified Wiring Plan

Original: 01/90
8th Revision: 03/02

To satisfy existing and future voice and data communications requirements, while minimizing the need for wiring changes and additions, the Port Authority has adopted the following lateral wiring specifications for all workstations being constructed. This plan is applicable to all PA locations, except when specifically noted.

LATERAL CABLE:

Voice and data telecommunications requirements for each workstation will be provided by a combination of three individual cables, installed between the workstation and the serving telephone closet / intermediate distribution frame (IDF), in a "home run" configuration. All cabling installed will be of plenum type, fire retardant (FEP) rated.

Cable specifications:

(3) Cables capable of supporting Category 5e capabilities as outlined in the TIA/EIA-568-B.2 standard. Specifically:

Gauge: 24 AWG

Pair Size: 4

Insulation: Plenum, fire code rating (FEP)

Cable allocations will be as following:

- Cable #1: Voice**
- Cable #2: Data
- Cable #3: Data

- *100.0MHz is the speed the PA wants to deliver to the desktop.
- **Cable #1 is to be split in the workstation to support 2 telephones.

Technical specs for the Cat 5e cable is as follows.

TECHNICAL DATA--ELECTRICAL				
	Horizontal		Patch	
Frequency MHz	Attenuation dB/100 m max.	Next dB min.	Attenuation dB/100 m max.	Next dB min.

1	2	62.3	2.4	62.3
4	4.1	53.2	4.9	53.2
10	6.5	47.3	7.8	47.3
16	8.2	44.2	9.8	44.2
20	9.3	42.7	11.1	42.7
31.25	11.7	39.8	14.1	39.8
62.5	17	34.3	20.4	34.3
100	22	32.3	26.4	32.3

TECHNICAL DATA--PHYSICAL			
	CMR	CMP	CM (Patch)*
Conductor diameter-in. (mm)	.020 (0.52)	020 (0.52)	024 (0.61)
Cable diameter-in. (mm)	.195 (5.0)	165 (4.2)	215 (5.5)
Nominal cable weight-lb./kft. (kg/km)	21 (31)	21 (31)	23 (34.2)
Max. installation tension-lb. (N)	25 (110)	25 (110)	25 (110)
Min. bend radius-in. (mm)	1.0 (25.4)	1.0 (25.4)	1.0 (25.4)

* Patch cables utilize stranded tinned copper conductors

PARAMETRIC MEASUREMENTS		
	Horizontal	Patch
Mutual Capacitance	4.6 nF/100 m nom.	5.6 nF/100 m nom.
DC resistance	9.38 Ohms/100 m Max.	9.09 Ohms/100 m max.
Skew	45 ns/100 m max.	45 ns/100 m max.
Velocity of Propagation	72% nom. Non Plenum	72% nom.
	72% nom. Plenum	
Input Impedance	100 + 15% 0.7772-100 MHz	100 + 15% 0.772-100MHz
	ISO/IEC 11801	

COLOR CODE			TEMPERATURE RATING	
Pair 1	White/Blue	Blue	Installation	0 degrees C to +50 degrees C
Pair 2	White/Orange	Orange	Operation	-10 degrees C to +60 degrees C
Pair 3	White/Green	Green		
Pair 4	White/Brown	Brown		

Appendix 5 -- Telephone Closet / IDF Termination Blocks

Lateral Data cabling serving each workstation will be terminated on a CAT5e patch panel (RJ45 face, 110 punch rear) in the telephone closet. For phone service, termination is to be on 110 blocks in telephone closet, allowing access to the telephone riser. For data, a patch cord is installed between patch panel and IT device. The patch panel can be mounted on the wall with a wall mount kit or in a rack if one is needed and should be appropriately numbered with the workstation number. The patch panel must be capable of supporting Category 5e the TIA/EIA-568-B.2 standard. The patch panel shall have a swing away faceplate or rack mountable.

NOTE: The Category 5e patch panel should be equivalent to the AMP SL series 110Connect Category 5e patch panel. The number of ports may vary.

Each workstation will be assigned a unique station identification number.

Appendix 6 -- Workstation Jacks

Workstations will be equipped with various components of the AMP Communications Outlet system (AMP equivalent can be used with TSD approval). Each workstation will be installed with (1) double-gang jack housing box and matching face plate, capable of securely mounting three Category 5e cables and four modular data connectors, maintaining the integrity of category 5e capabilities as outlined in the the TIA/EIA-568-B.2 standard. All workstation jacks will be wired in accordance with the the TIA/EIA-568-B.2 standard. All modular jacks are to be appropriately labeled.

Appendix 7 -- Standard Switches Inside the Department

Any switches in the following Cisco series are acceptable (Vendors will consult with the Technology Services Department (TSD) to determine the appropriate switch configuration at the time of proposal submission):

Cisco 5500

Cisco 3500 series – low capacity

Cisco 4000 series – medium capacity

Cisco 6000 series – high capacity

Cisco 4507 series – high capacity – New

Appendix 8 -- Desktop and Lateral Cable Identification Management

WORKSTATION AND LATERAL CABLE IDENTIFICATION/MANAGEMENT (Facility)

All lateral cabling installed to workstations at the Port Authority Facilities must be designated in accordance with the Port Authority's workstation and lateral cable identification code: This code consists of two elements, as follows:

1 - Room number or department name (acronyms are acceptable).

2 - Workstations (3 numeric digits)

The cable identification code for Workstation 10 in room 3801 at LGA CTB is 3801-010.

The cable identification code for Workstation 15 in PA Automotive shop is Auto-015

Appendix 10 – Fiber Optic Specification for Network Services - PAWANET

General Scope of Work

1. Conduct a walk thru based on the specific Scope of Work for the job in question.
2. Note that all diagrams and or sketches that may be provided are approximates and not to scale.
3. All fiber optic cable is to be installed in rigid conduit or, where applicable, in plenum rated flexible inner duct.
4. Contractor shall furnish and install fiber optic cable as designated in the specific Scope of Work.
5. Fiber optic cable type will be loose tube, gel filled, with aramid yarn water block:
 - a. Multimode Fiber – **50/125*** micron diameter. Manufacturer of cable TBD
6. Fiber optic cable attenuation from the factory, before installation, shall not exceed:
 - a. For multimode – 3.5 db per km @ 850nm / 1.0 db per km @ 1300nm
7. All fiber optic cable is to be labeled on each end and at any junction or patch panel with, 28 gauge, 2" wide embossed with ¼" high letters. The labels are to be fastened to the fiber optic cable using sealed wrap around labels or pliable Velcro ties.
8. Fiber optic cable shall be installed in accordance with the manufacturer's specifications. Any portion of the cable damaged during installation will be repaired or replace by the contractor without any additional cost to the Port Authority of New York New Jersey.

Fiber Optic Terminations

1. Fiber optic terminations will use **SC**** connectors unless otherwise specified in the Scope of Work.
2. Fiber optic terminations shall not yield more than 1db per mated (at the bulkhead) connector.

Fiber Optic Testing

1. Fiber optic testing shall be performed by the contractor and certified fiber optic technicians.

Fiber optic technicians will be prepared to complete test procedures with the following equipment:

- Source and power meter testing to provide optical loss measurements.

- Reference test cables and mating adapters that match the cables to be tested.
 - Cleaning materials – lint free cleaning wipes and pure alcohol.
 - OTDR test set with the proper launch cables and adapter types.
2. Fiber optic technicians will perform OTDR test on all terminated fibers unless otherwise noted in the Scope of Work.
 3. Fiber optic test results shall be recorded, and reports provided to the PA in hardcopy and via a readable txt file (PDF or RTF is acceptable).
- *50/125 micron fiber has been chosen over 62.5/125 micron fiber by Network Services:
1. Greater speeds achieved. 62.5/125 fiber will deliver 1 gigabit per second (Gbps). 50/125 fiber will deliver up to 10 Gbps. This allows for equipment upgradeability.
 2. Greater distances. 62.5/125 fiber will go up to 275 meters from source. 50/125 will achieve up to 550 meters from source. We can cover greater distances in an installation without having to go to the more expensive single mode fiber installation.

****SC** connectors have been chosen over **ST** connectors by Network Services due to the fact that we utilize Cisco equipment, which come furnished with **SC** connectors on their fiber interface blades. It is more cost effective to use the standard **SC-SC** patch cable with Cisco equipment than to add the additional cost of having hybrid **SC-ST** cables made. **SC** connectors are also easier to work with and use less space in an installation.

Appendix 11 -- Public Telephone Ordering Guidelines

Technology Services (TSD) staff is responsible for the management of the permit for public telephone service are available to answer any questions and provide direction for any matter relating to public telephones. The names and contact numbers are listed below

General Guidelines

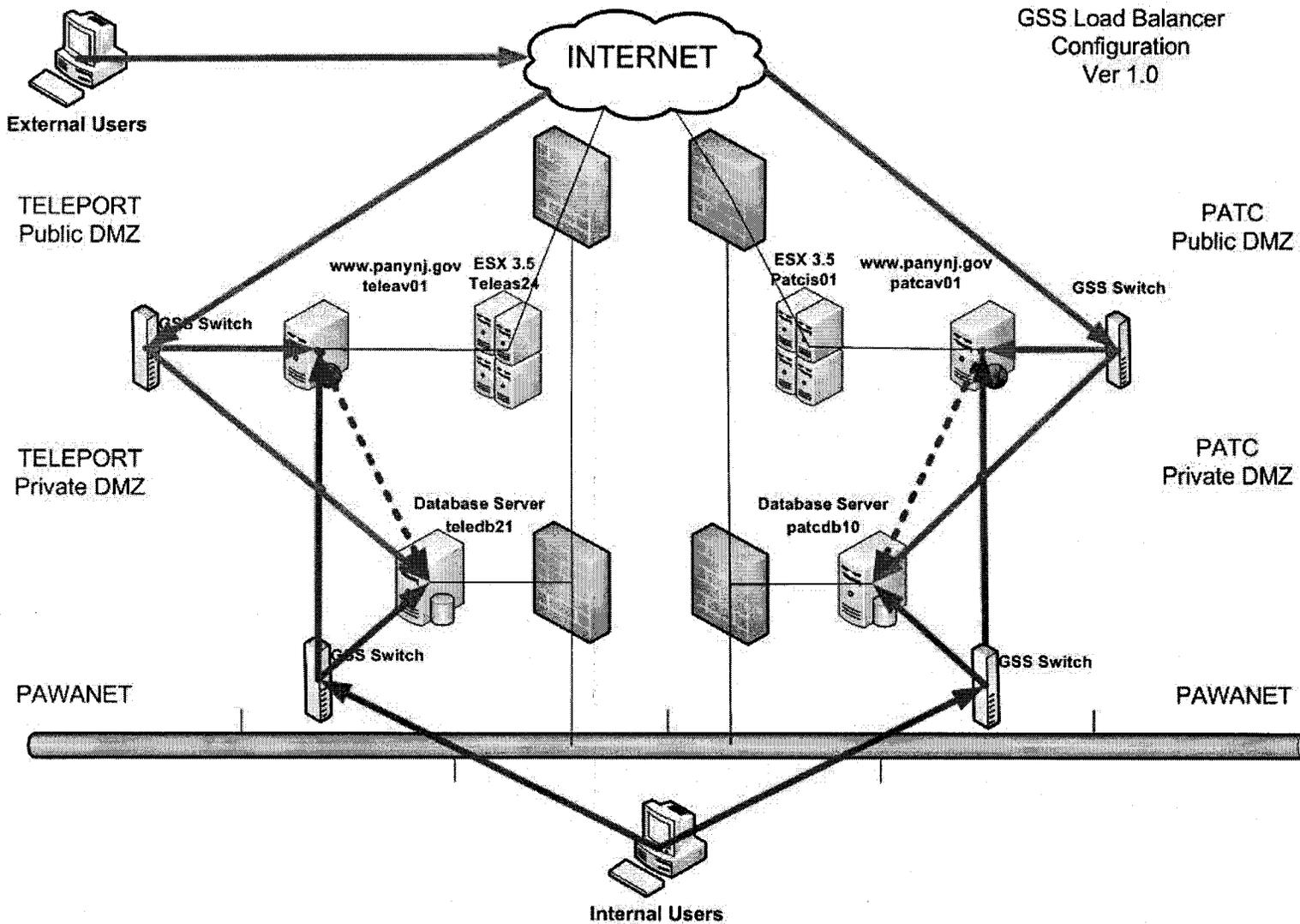
All public telephone requests – that is both coin and non coin in any Port Authority space or any area of the tenant space – both “public” and “club” locations will be coordinated by the Port Authority to cover both New York and New Jersey.

Process

When the Facility, Property Manager, tenant or their representative (e.g. designer, architect, general contractor) has a public telephone requirement, they will contact the Technology Services Department (TSD) whom will review the request and provide coordination with the appropriate service provider.

Appendix 12 – Standard Printers

HP LaserJet P1006 Stand Alone Laser Printer	17 ppm Black resolution 1200 dpi/Memory 8Mb	CB411A#ABA
HP LaserJet 5200dtn - Network Printer	35 ppm Black resolution - 1200 x 1200 dpi Memory - 128Mb Duplex	Q7546A
HP Color LaserJet 4700dn Network Printer	31ppm black, 31ppm color Black/Color Resolution 600X600 dpi Memory 288 Mb Auto Duplex	Q7493A
HP LaserJet P4014n - Org Unit Network Printer	45 ppm Black resolution - 1200 x 1200 dpi/Memory - 128 Mb	CB507A#ABA
HP Automatic two-sided printing module	Optional for LaserJet 4014n printer	CB519A
HP LaserJet 5550dtn Color Printer	27 ppm black/color Processor speed 533 Mhz Media 11x17	Q3716A
HP OfficeJet Pro K5400 Stand Alone Color Printer	36 ppm black, 35 ppm color Color resolution 4800 x 1200 dpi Memory 32 Mb	C8184A
HP Automatic two-sided printing accessory	Optional for HP OfficeJet Pro K5400	C9278A



There are a total of four load balancers, two are used for internal users and the other two are used for external users. Cisco GSS devices support load balancing or failover configuration.

General Index

Administrator, 19
Administrator, 15, 16
Administrator, 19
Administrator, 19
Administrator, 20
Administrator, 23
Administrator, 31
AT&T, 5, 8
ATMs, 5, 9
Business Resumption Plan, 20, 33
 Document Format, 33
Cabling, 10, 20, 36
Cisco, 5, 8, 9, 10, 18, 38, 39
Cisco Works, 10
Closed Circuit TV, 5, 8
Communication Room, 20, 35
Databases, 30, 34
Drive Mappings, 12, 28
Electrical Requirements
 Telecommunications, 22
Email, 25
 Public Folders, 25
 Remote Access, 15, 17
Hardware Configuration
 Workstations, 28
HP Open View Network Management, 10
IDF Termination Blocks, 20, 38
Intranet, 5
Intruder Detection, 12, 16
IP Addresses, 9, 10, 12
IPX/SPX, 9
Jacks, 20, 38
LAN Devices, 11, 14
Laptops, 11
Local Service, 8
Logins, 12, 16
 Concurrent, 16
MAPI, 25
Modems, 17
MS/SQL, 30
Naming Conventions, 18, 27
Networkware, 11
Networks, 5, 6, 8, 10, 11, 12, 14, 15, 17, 18, 20, 21, 22, 27
 Access, 15
 Connecting LAN Devices, 14
 Enterprise Network, 10, 11, 14, 20
 Intruder Detection, 16
 Logins, 16
 Monitoring Software, 10
 Naming Conventions, 18
 Security, 12
Nortel SL100, 40
Operating Systems, 11, 27
Oracle, 30
Passwords, 16, 17
PeopleSoft, 5, 8
Port Authority Wide Area Network (PAWANET), 5, 6, 8, 9, 10, 14, 17, 22
 ATM Node Assignments, 5, 9
 Diagram, 6
 Functions, 8
 Network Monitoring Software, 10
 Protocols, 9
 Supported Protocols, 8
 Switches and Routers, 9, 11, 20, 38
Printers, 11
Protocols, 8, 10
Public Folder, 25
Public Folders, 25
Remote Access, 27
Routers, 9, 11
SANs, 8, 11, 12
SAP, 5, 8
Scanners, 11
Security, 12, 14, 15, 28, 29, 30, 31, 34
 Applications, 30
 Physical Security, 14, 28, 31
Servers, 11, 12, 13, 14, 18, 22, 25, 30, 31
 Application, 11
 Logical Security, 14
 Names, 12, 18

- Physical Security, 14, 31
- Racks, 11
- Standard Hardware, 18
- SNA/SDLC, 9
- Sun Solaris, 11, 30
- Support Desk, 21
- Switches, 9, 11, 20, 38
- System Backup and Recovery, 19, 33
 - Logs, 19
 - Scheduling, 19
- System Management, 15, 16, 19, 21, 23, 27, 30
- TCP/IP, 9, 10
- Telecommunications
 - Electrical Requirements, 22
 - Standards, 20
- Telecommunications Room, 21
- Telephone Closets, 20, 38
- Telephone Company Interface, 22
- Telephone Network
 - Cabling, 10, 20, 36
- Time Restrictions, 15
- Unified Wiring Plan, 36
- Uninterrupted Power Supply, 12, 22, 35
- Unix, 30

- Logical Security, 30**
- User Accounts, 15, 27
 - Creation, 15
 - Security, 15
- Verizon, 8
- Videoconferencing, 8
- Virus
 - Protection, 12
 - Scanning, 24
- Wide Area Network, 5, 10, 11, 17, 27
- Windows NT, 15, 25
- Windows Server, 30
- Wiring Closets, 11
- Workstation
 - User Accounts, 27
- Workstations, 10, 11, 20, 21, 27, 28, 38, 39
 - Drive Mapping, 12, 28
 - Hardware Configuration, 28
 - Jacks, 20, 38
 - Naming Conventions, 27
 - Remote Access, 27
 - Security, 14, 28, 31
 - User Accounts, 27