

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA

Item No. 6f

Date of Meeting June 23, 2009

DATE: June 17, 2009

TO: Tay Yoshitani, Chief Executive Officer

FROM: Peter Garlock, Chief Information Officer

SUBJECT: Funding to purchase and deploy an online data archive system.

REQUESTED ACTION: Request for authorization for the Chief Executive Officer to approve all work, purchases and contracts including: advertise, award, administer, prepare, execute and amend any and all necessary service agreements for the Data Archive Project in an amount not to exceed \$560,000.

SYNOPSIS: Acquire new software and hardware to implement an online data archival system that is separate from the backup data storage infrastructure and process.

BACKGROUND

The Information and Communications Technology (ICT) Department operates and maintains nearly 180 application systems that are needed to conduct Port business and operations. These systems vary in size and complexity, and the Port would have great difficulty operating without them. Some of these systems are used to improve staff productivity, while others manage financial transactions, inventory, maintenance, labor hours, flight information, etc.

The information and transactional data generated and used by these systems must be regularly backed up and stored in order to recover from a massive system failure event or natural disaster such as fire, earthquake, etc. In addition to backup and recovery processes, public records statutes require that certain types of information be archived and retrievable on demand.

Until now, backup data and archive data has been collected, combined, and stored on magnetic tape using the same process and storage infrastructure. Because of rapid growth in data storage and archived records, it is no longer possible to continue this approach. Over the past 3 years, the amount of data backed up on a regular basis has increased more than 30% per year, more than doubling since the end of 2005. The amount of time it takes to perform our data backups has increased to the extent that the process often fails to finish in time to begin the next backup interval. Tape has also proven unreliable as an archival medium. Tapes requested for retrieval are often unreadable, resulting in a loss of archival data. In addition, it is becoming increasingly difficult to search for and retrieve archived records that are stored on backup tapes, which can take up to several weeks.

To resolve these issues, ICT needs to acquire new software and hardware to implement an online data archiving system that is separate from the tape storage infrastructure used for our backup data.

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PROJECT DESCRIPTION AND SCOPE OF WORK

Project Statement

Deploy an online hardware and software based data archive system for storing the Port's archive data. This system will be redundant to ensure the data archive environment is completely fault tolerant and is not vulnerable to a single point of failure.

Project Objectives

Separate archive data from disaster recovery processes to:

- Shorten backup windows.
- Decrease data restoration times.
- Apply appropriate retention periods to disaster recovery and archive data.
- Reduce disaster recovery costs.
- Maintain archive data on an accessible and searchable platform.
- Improve responsiveness to data discovery and information requests.

Scope of Work

- Deploy data archive storage appliances at the SeaTac International Airport and Fisher Plaza data centers to host archived data.
- Deploy hardware and software to manage and apply retention policies on the Port's archive data.
- Utilize contract (vendor) resources for the implementation and integration of hardware and software system components.
- Provide technical training for ICT support staff.

STRATEGIC OBJECTIVES

This project aligns with the following Port strategies:

Strategy	Alignment
Exhibit environmental stewardship through our actions	Reduction of tape storage media supports the Port's environmental goals.
Be a high performance organization	Improves access to archive information increasing productivity and the Port's ability to respond to data discovery and information requests.

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ALTERNATIVES CONSIDERED/RECOMMENDED ACTION

1. **Recommended:** Create a data archive system to host data as well as apply and manage retention policies. This solution will provide the Port with an online data archive system that is sufficiently redundant to remove from the tape backup process; significantly lowering costs by reducing the amount of data stored on the Port's high-speed primary storage disks.
2. **Not Recommended:** Continue the current data archive process by expanding the existing backup platform. While this would meet some project objectives in the near-term, this platform is designed for disaster recovery processes, is less fault tolerant and impractical.

FINANCIAL IMPLICATIONS

Budget/Authorization Summary

Original Budget	\$560,000
Budget Transfers	\$0
Revised Budget	\$560,000
Previous Authorizations	\$0
Current request for authorization	\$560,000
Total Authorizations, including this request	\$560,000
Remaining budget to be authorized	\$0

Project Cost Breakdown

Hardware and Software	\$388,000
Outside Professional Development Services	\$20,500
Port of Seattle Labor	\$64,500
Tax (9.5%)	\$36,000
Contingency (10%)	\$51,000
Total	\$560,000

Source of Funds

This project was included in the 2009 capital budget and plan of finance within business plan prospective CIP C800326 Business Continuity. The project's budget will fit within ICT's 2009 approved capital budget due to deferred spending on other projects. The source of funds is 64% Airport Development Fund and 36% General Fund.

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Financial Analysis Summary:

CIP Category	Renewal/Enhancement
Project Type	Technology
Risk adjusted Discount rate	7.0%
Key risk factors	NA
Project cost for analysis	\$560,000
Business Unit (BU)	ICT
Effect on business performance	Records Retention Compliance and Reduction of Operating Costs
IRR/NPV	N/A
CPE Impact	NA

ECONOMIC IMPACTS

This project provides no immediate economic advantage but does improve the security and management of the Port's key information assets as well as the Port's responsiveness to both internal and external information requests.

PROJECT SCHEDULE

Commission Approval	June 2009
Order hardware/software	July 2009
Install and configure hardware and software	November 2009
Pilot SharePoint Records Center Archiving	March 2010
Complete Deployment	April 2010