COMMISSION AGENDA	**Item No.**	4e
ACTION ITEM	**Date of Meeting**	January 12, 2016

DATE: January 5, 2016

TO: Ted Fick, Chief Executive Officer

FROM: Peter Garlock, Chief Information Officer

SUBJECT: Business/Operations Continuity (CIP #C800748)

Amount of This Request:	$1,200,000	**Source of Funds:**	83.1% Aviation Development Fund; 16.9% General Fund
Est. Total Project Cost:	$1,200,000		
Est. State and Local Taxes:	$67,450	**Est. Jobs Created:**	0

ACTION REQUESTED

Request Commission authorization for the Chief Executive Officer to (1) proceed with the Remote Data Center Business/operations continuity project; (2) authorize the procurement of required hardware, software, and vendor services; (3) authorize the use of Port staff for implementation; and (4) authorize the procurement of hardware and software maintenance, for a total project cost not to exceed $1,200,000 and on-going maintenance costs estimated at $250,000 over five years.

SYNOPSIS

The purpose of this project is to prepare our backup datacenter with the proper equipment and infrastructure to enable us to failover to the backup datacenter from the primary datacenter within minutes of a catastrophic failure. Without this project, a failover could take as long as 30 days to restore critical systems to full operation.

Information Communication Technology (ICT) resources will complete the project. Total project estimated costs are $1,200,000. Funding for this project was included in the 2016 – 2020 capital budget and plan of finance. Recurring hardware license and maintenance costs will be budgeted within the ICT department's operating budget.

Port of Seattle business functions and operations are heavily dependent upon a vast array of [electronic?] information systems. The majority of these systems and supporting infrastructure (servers, storage systems, and networks), are located in our primary data center at Sea-Tac Airport. To protect us in the event of a catastrophic failure of this data center, all data is currently backed up every 24 hours to a remote data center in Liberty Lake, WA, which is outside of our seismic zone. In the event that our data center at Sea-Tac becomes disabled, it

could take as long as 30 days to acquire, and install servers and networked storage at the backup data center in Eastern WA.

A recent external audit report to the Commission Audit Committee recommended that we configure our backup datacenter with the equipment and software necessary to rapidly restore critical systems in the event our primary datacenter becomes disabled.

BACKGROUND

In early 2014, ICT completed a project to open a backup data center in Liberty Lake, Washington, to establish a geographically redundant backup of system data outside of our current seismic zone. While this protects us against a loss of data in the event of a catastrophic failure in our Sea-Tac data center, it does not provide a failover solution needed to allow immediate recovery of all critical Port applications and services at a secondary location.

PROJECT JUSTIFICATION AND DETAILS

All critical applications and systems such as PeopleSoft Financials and HCM, Maximo Maintenance Management, Police Computer Aided Dispatch, PropWorks Property Management, email, and document storage are currently served from our primary data center. In the event of a catastrophic outage affecting our Primary Data Center at Sea-Tac, storage systems and servers would have to be purchased and installed at our secondary data center and data backups would have to be manually restored and reconfigured. This process could take as long as 30 days to complete, crippling Port operations.

Project Objectives

- Ensure the environment at our secondary data center in Liberty Lake, WA has capacity and capability to immediately assume production operations in the event of a catastrophic loss of the Sea-Tac data center.
- Deploy new components at the backup datacenter with no impact to critical operational systems.

Scope of Work

This project will deploy a new storage array and virtual server environment at the Port's backup data center in Liberty Lake, Washington. The storage array and servers will form the foundation of the Port's virtualized environment at Liberty Lake and enable Pre-production and site-to-site failover between our primary and secondary data centers within minutes.

Schedule

Commission Approval	January 2016
System Design Complete	April 2016
Procurement Complete	June 2016
Installation Complete	October 2016

FINANCIAL IMPLICATIONS

Budget/Authorization Summary	Capital	Expense	Total Project
Original Budget	$1,200,000	$0	$1,200,000
Previous Authorizations	$0	$0	$0
Current request for authorization	$1,200,000	$0	$1,200,000
Total Authorizations, including this request	$1,200,000	$0	$1,200,000
Remaining budget to be authorized	$0	$0	$0
Total Estimated Project Cost	$1,200,000	$0	$1,200,000

Project Cost Breakdown	This Request	Total Project
Hardware	$600,000	$600,000
Software License	$110,000	$110,000
ICT Labor	$105,000	$105,000
Vendor Services	$50,000	$50,000
State & Local Taxes (estimated)	$67,450	$67,450
Contingency ~20%	$267,550	$267,550
Total	$1,200,000	$1,200,000

Budget Status and Source of Funds

This project was included in the 2016-2020 capital budget and plan of finance as a $1,200,000 business plan prospective project within CIP #C800748, Data Center Failover. The source of funds is 83.1% Airport Development Fund and 16.9% General Fund.

Financial Analysis and Summary

CIP Category	Renewal/Enhancement
Project Type	Technology
Risk adjusted discount rate	N/A
Key risk factors	N/A
Project cost for analysis	$1,200,000
Business Unit (BU)	Information and Communication Technology
Effect on business performance	N/A
IRR/NPV	N/A
CPE Impact	$.01 in 2017; no change from business plan forecast as this project as included in the plan of finance

Lifecycle Cost and Savings

An estimated $50,000 increase in annual hardware and software maintenance costs are expected as a result of this project. This will be budgeted in the ICT Operating Budget.

STRATEGIES AND OBJECTIVES

This project supports the following Century Agenda strategies:
- *Meet the region's air transportation needs at Sea-Tac Airport for the next 25 years*
- *Position the Puget Sound region as a premier international logistics hub*

Over 200 systems, critical to Port of Seattle communications and operations, depend on the data center infrastructure. This project ensures the availability of the infrastructure required to run these systems.

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1) Contract services for a vendor provided disaster recovery data center. Current service offerings do not support our native storage area network (SAN) replication coupled with our standardized Virtual Machine server infrastructure platform (VMWare). Our analysis has also shown that these types of services do not keep current with technology, and they would have difficulty supporting our unique requirements over time. In addition, the total cost of ownership ($750K per year and $250K to implement) would be significantly higher than leveraging our existing backup data center.
This is not the recommended alternative.

Alternative 2) Build out our backup data center to support a near real-time catastrophic failover. In addition to providing a failover solution, the backup datacenter will also provide us with a continuously available environment for testing of day-to-day operations, procedures, and changes prior to implementation into our production environment.
This is the recommended alternative.

ATTACHMENTS TO THIS REQUEST

- None

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

- October 2, 2013 – Authorization to execute a contract with Tierpoint for a backup data center in Liberty Lake, WA