

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA
ACTION ITEM

Item No. 6b
Date of Meeting September 24, 2013

DATE: September 13, 2013
TO: Tay Yoshitani, Chief Executive Officer
FROM: Matt Breed, Senior Manager, ICT Infrastructure
Peter Garlock, Chief Information Officer
SUBJECT: Interlocal Agreement to Relocate Fisher Plaza Data Center to Spokane Valley

Amount of This Request:	\$960,000	Source of Funds:	ICT Expense Budget
Est. 2013 Cost:	\$160,000	Est. Jobs Created:	N/A

ACTION REQUESTED

Request Commission authorization for the Chief Executive Officer to execute an interlocal agreement, substantially as drafted in the attached exhibit, with the University of Washington (UW) to allow the Information and Communication Technology (ICT) Department to utilize data center infrastructure services in UW's Eastern Washington Remote Geographic Redundancy Center for three years, with an option to renew for an additional three years at a cost of \$160,000 per year for a total amount of \$960,000. Actual 2013 costs will be pro-rated at the time of contract execution.

SYNOPSIS

The Port of Seattle houses its enterprise servers and data inside of one of two locations. The interlocal agreement with the University of Washington will allow ICT to relocate its secondary data center out of this region and into an existing UW facility located in Eastern Washington. The move will provide geographic redundancy, reduced risk of systems failures in the event of a catastrophic seismic event in the Puget Sound area, and it will also reduce ICT's operating costs by approximately \$200,000 per year. Funds for 2013 costs are already included in the 2013 operating budget.

BACKGROUND

For more than eight years, the Port has operated with two data centers. A primary site located at the Seattle-Tacoma International Airport, and a secondary site co-located at Internap in Fisher Plaza. These two locations are roughly 20 miles apart from each other, and provide physical redundancy for most catastrophes and failure scenarios, except a major regional seismic event. As information technology, systems, and infrastructure have become increasingly essential and highly critical to Port operations, the overall risk has become too great to keep both data centers in the same seismic geographic region, and was therefore called out in the FEMA exercise in the

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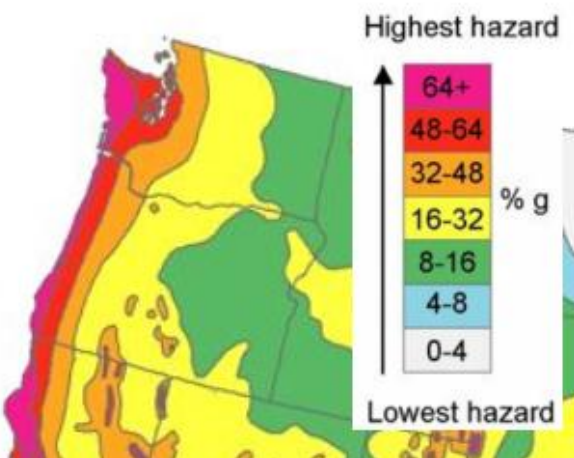
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spring of 2011, an internal risk assessment in 2011, and the recent Protiviti risk assessment, all recommending relocating one of the data centers outside of the region. The Spokane area was considered ideal due to its accessibility (frequent daily flights are available), its seismic footprint, and its proximity.

This project will phase out the Internap data center at Fisher Plaza, and establish a new failover data center at an existing UW location in Eastern Washington with a significantly lower seismic risk (see USGS seismic event hazard map below).



PROJECT JUSTIFICATION AND DETAILS

This project will reduce the risk of a catastrophic failure of ICT systems, and will reduce operating costs. This will be accomplished by moving our current data center at Fisher Plaza to the University of Washington's Tierpoint facility located in Liberty Lake, Washington. Tierpoint is the preferred choice for several reasons:

1. The facility is located in Eastern Washington, 15 minutes from the Spokane airport.
2. The facility is Zone 4 Earthquake rated.
3. We have access to many different types of transport mechanisms for connectivity.
4. The costs for the UW/Tierpoint are significantly less than our current costs with Internap and will reduce ICT costs by about \$200,000 per year.
5. The University of Washington co-location space uses metered power instead of allocated power circuits, so we would pay only for what we use, rather than a fixed fee. We estimate our overall power costs to be about 20% lower using this billing method.
6. The facility is outside of a 1,000 year flood plain.

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7. The facility includes fully redundant power feeds.
8. The facility is geo-thermally cooled.
9. The facility utilizes fly wheel technology instead of lead acid batteries for continuous power, which is much more environmentally friendly than the waste created through lead acid battery disposal.

Other facilities reviewed did not stack up as favorably as the UW/Tierpoint location.

Project Objectives

- Reduce the risk of catastrophic failure of ICT systems and services due to a major seismic event.
- Reduce annual operating costs.

Scope of Work

The data center move will take place in four main phases:

- Phase 1 – Establish Network Connectivity and Backup Replication.
- Phase 2 – Establish Internet Connectivity.
- Phase 3 – Move preproduction environment to Tierpoint.
- Phase 4 – Establish Data Center to Data Center Failover.

At the completion of the project we will have regionally redundant data centers, located in separate seismic zones, and able to provide failover for each other.

FINANCIAL IMPLICATIONS

The interlocal agreement costs are estimated at \$160,000 per year. Total costs for the initial three-year period plus the three additional one-year options are estimated at \$960,000. Costs for 2013 would be pro-rated based on the months remaining at the time of the contract execution.

Budget Status and Source of Funds

This is not a request for funding. The 2013 expense is included in the ICT annual budget. Future years will also be budgeted in ICT.

Financial Analysis and Summary

This agreement will save ICT approximately \$200,000 per year compared to our operating costs at Internap in Fisher Plaza. This results in approximately \$1.2 million in savings extrapolated over a six-year period.

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1) – Do nothing. Both Port data centers would be vulnerable to a massive seismic or other region-wide event. If such an event occurs, the Port would lose all access to its computer

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systems and networks and may not be able to fully restore data. This is not the recommended alternative.

| Alternative 2) – Relocate to another location. The UW/Tierpoint location is ideal due to its location, its accessibility, connectivity options, environmentally friendly footprint, and metered power options. No other facilities reviewed met those needs as well as UW/Tierpoint.

Alternative 3) – Relocate the Fisher Plaza data center to the UW Tierpoint center in Eastern Washington. This reduces the vulnerability of the Port's computer systems and networks to a major outage. In addition, the Port will save approximately \$200,000 per year as compared with continuing in Fisher Plaza. **This is the recommended alternative.**

ATTACHMENTS TO THIS REQUEST

- Proposed Interlocal Agreement with University of Washington.

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

- None.