

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA

ACTION ITEM

Item No.

6c

Date of Meeting

October 22, 2013

DATE: October 2, 2013

TO: Tay Yoshitani, Chief Executive Officer

FROM: Matt Breed, Senior Manager, ICT Infrastructure
Peter Garlock, Chief Information Officer

SUBJECT: Agreement to Relocate Fisher Plaza Data Center to Spokane, WA

Amount of This Request: \$900,000 **Source of Funds:** ICT Expense Budget

Est. 2013 Cost: \$150,000 **Est. Jobs Created:** N/A

ACTION REQUESTED

Request Commission authorization for the Chief Executive Officer to execute an agreement with TierPoint to allow the Information and Communication Technology (ICT) Department to relocate Port of Seattle secondary datacenter systems into TierPoint's Spokane, Washington, data center to provide geographic redundancy. The agreement is for three years, with an option to renew for an additional three years at a cost of \$150,000 per year, for a total amount of \$900,000. Actual 2013 costs will be pro-rated at the time of contract execution.

SYNOPSIS

The requested action will provide geographic redundancy and reduce our risk of systems failures in the event of a catastrophic seismic event in the Puget Sound area. It will also reduce ICT's operating costs by approximately \$200,000 per year, beginning in 2014.

BACKGROUND

The Port of Seattle currently has its enterprise information systems infrastructure located in two physically separated datacenter locations. The primary datacenter is located inside the airport, and a secondary datacenter facility, hosted by Internap Network Services Corp, is located at Fisher Plaza a few blocks from Pier 69. Because these two locations are 15 miles apart from each other, they provide physical redundancy for most catastrophes and failure scenarios including fire and power outages. However, a major regional seismic or weather event could disrupt both facilities. Information technology systems and infrastructure have become increasingly critical to most Port operations. A catastrophic simultaneous failure of both datacenters would therefore seriously impair the ability of the Port to operate. For this reason, keeping both data centers in the same seismic geographic region has become too great a risk. This risk was specifically called out in a FEMA risk exercise conducted in the spring of 2011, and again by the recent performance and risk assessment conducted by Protiviti, an independent IT performance assessment group. Both assessments strongly recommended locating a data center outside of the seismic region. After considerable research, the Spokane, Washington, area

COMMISSION AGENDA

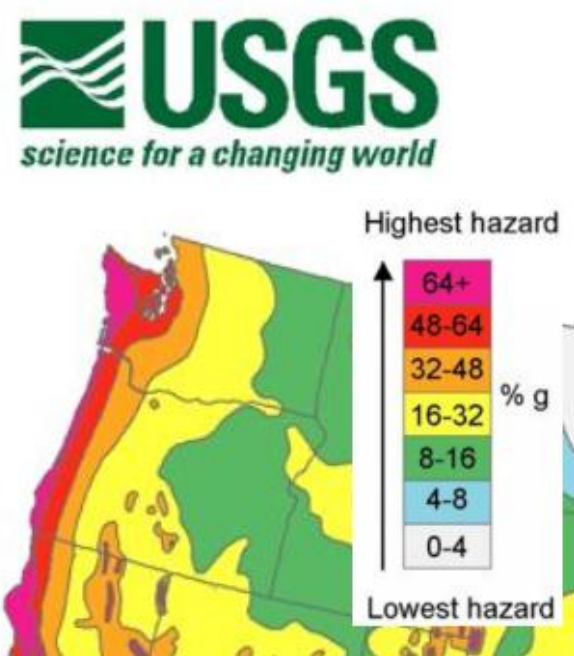
Tay Yoshitani, Chief Executive Officer

October 2, 2013

Page 2 of 4

was identified as an ideal alternative location due to its greatly reduced seismic risk, and its relatively close proximity and accessibility. Further analysis revealed that by redesigning and relocating our secondary datacenter to Spokane, we could also lower our annual operating expenses by over \$200,000.

This project will phase out the Internap data center at Fisher Plaza, and establish a new failover data center at an existing TierPoint 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 TierPoint facility located in Spokane, Washington. TierPoint is the preferred choice for several reasons:

1. The facility is located in Eastern Washington, 30 minutes from the Spokane airport.
2. The facility is Zone 4 Earthquake rated.
3. The facility includes fully redundant power feeds and access to many different types of network services for redundant connectivity.
4. The costs for the TierPoint location are significantly less than our current secondary datacenter costs, which will reduce ICT costs by about \$200,000 per year.
5. The facility is outside of a 1,000 year flood plain.
6. The facility utilizes environmentally friendly technology, including geo-thermal cooling and constantly spinning flywheel generators to provide continuous power vs. lead acid batteries.

COMMISSION AGENDA

Tay Yoshitani, Chief Executive Officer

October 2, 2013

Page 3 of 4

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 agreement costs are estimated at \$150,000 per year. Total costs for the initial three-year period plus the three additional one-year options are estimated at \$900,000.

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

Alternative 2) – Relocate our Fisher Plaza data center to the TierPoint center located 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 by redesigning and relocating our secondary datacenter to TierPoint. **This is the recommended alternative.**

ATTACHMENTS TO THIS REQUEST

- Proposed Agreement with TierPoint

COMMISSION AGENDA

Tay Yoshitani, Chief Executive Officer

October 2, 2013

Page 4 of 4

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

- None.