

Item No.: 7D  
Meeting: 10/21/21

# Information Technology Data Center Disaster Recovery Presentation

October 21, 2021  
Mark Miller, Director, IT



# Data Center Disaster Recovery



## Action Requested:

Request authorization to proceed with a Data Center Disaster Recovery Warm Site Implementation including a 5-year contract with TierPoint at a total 5-year cost of \$925,000.



# Background: Data Center Disaster Recovery

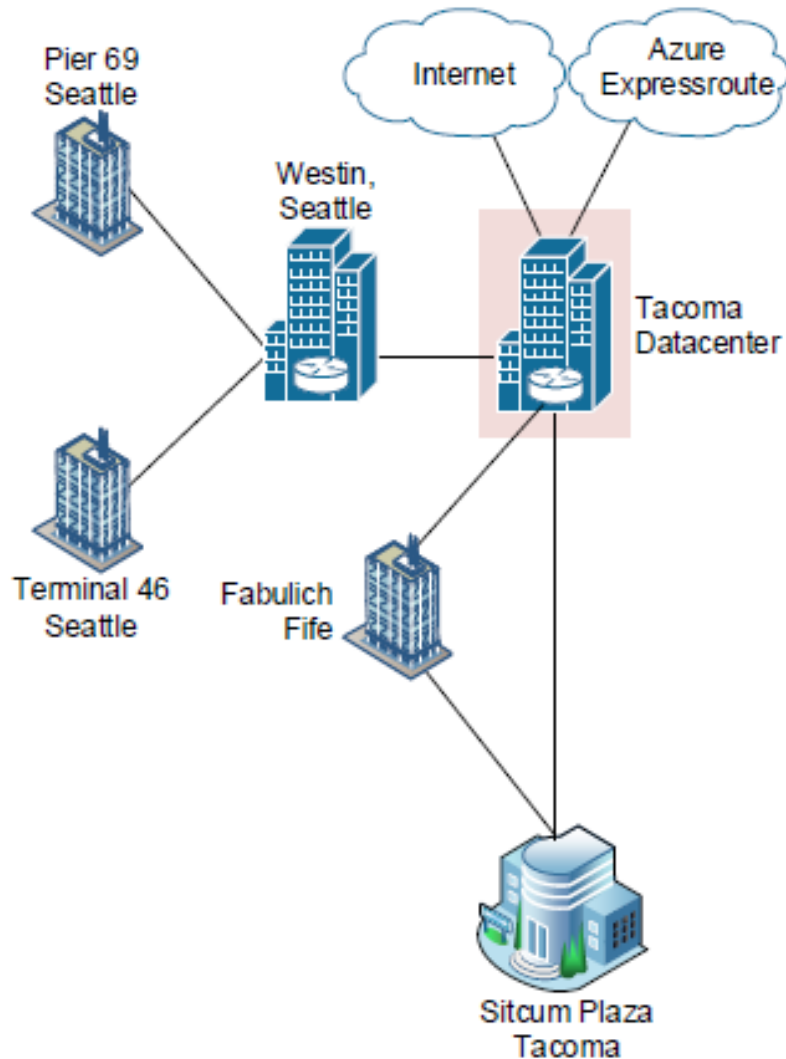


- During the IT Disaster Recovery Plan review, it was identified the Port does not have a Data Center disaster recovery alternative site.
  - Worst case scenario: the Tacoma data center is destroyed due to earthquake or terror event – Cascadia Subduction Zone has been identified as an increased risk
  - Many critical IT services are in the data center (Dynamics GP, Maximo, Bellerophon, GIS, gate controls, RFID, security video)
  - While 50% of IT applications are in the Cloud – there is no alternative internet access
- Can the Port afford to be down for approximately 5-7 months following a data center disaster trying to procure an alternative data center, internet access and hardware and then build out the new data center?

## Research:

- Port of Seattle's data center disaster recovery journey
  - Started with data center "Warm" site
  - Now have data center "Hot" site

# Current Status



## The Current Scenario

- In the event of a total loss of the Tacoma data center the Port does not have a recovery solution
- No alternate recovery site - estimated recovery time is 5 – 7 months
  - Regional competition for resources

## Actions Taken

- The IT Management team researched alternatives and presented those alternatives to the Port of Tacoma and NWSA IT Steering Committee in February, 2021

# Data Center Disaster Recovery Alternatives Summary



	Current State	Option 1 Cold Site	Option 2 Warm Site	Option 3 Hot Site
<b>Description</b>	No alternative	Leased space with power, rack and Internet connectivity	Leased space with power, rack, servers, storage and Internet connectivity	Leased space with power, rack, servers, storage and Internet connectivity with full duplication of critical applications and data
<b>Recovery Time</b>	5-7 Months	2-4 Months	10-20 Days	8-16 Hours
<b>One-time Cost</b>	\$0	\$5-10k	\$300-\$500k	\$600-\$800k
<b>Ongoing Annual Cost</b>	\$0	\$120k-\$180k	\$180k-\$300k	\$300k-\$480k

- IT Management recommended Option 2 – similar approach to Port of Seattle
- In Feb 2021, the Port of Tacoma and NWSA IT Steering Committee approved additional planning for Option 2
- The IT Team issued an RFI for a Data Center Disaster Recovery Warm Site and received 8 responses
- Refined the Data Center Disaster Recovery Warm Site cost estimates based on the 3 Top RFI responses
- In July 2021, IT Management presented the Data Center Disaster Recovery Warm Site need to the Port of Tacoma Commission and received approval for a competitive RFP Process

# Datacenter DR Warm Site Competitive RFP Update



- In August 2021, the IT Team issued an RFP for a Data Center Disaster Recovery Warm Site and received 5 responses
- 3 Semi-Finalists selected
  - Digital Realty – Phoenix
  - Flexential – Las Vegas
  - TierPoint – Spokane

### RFP Scoring

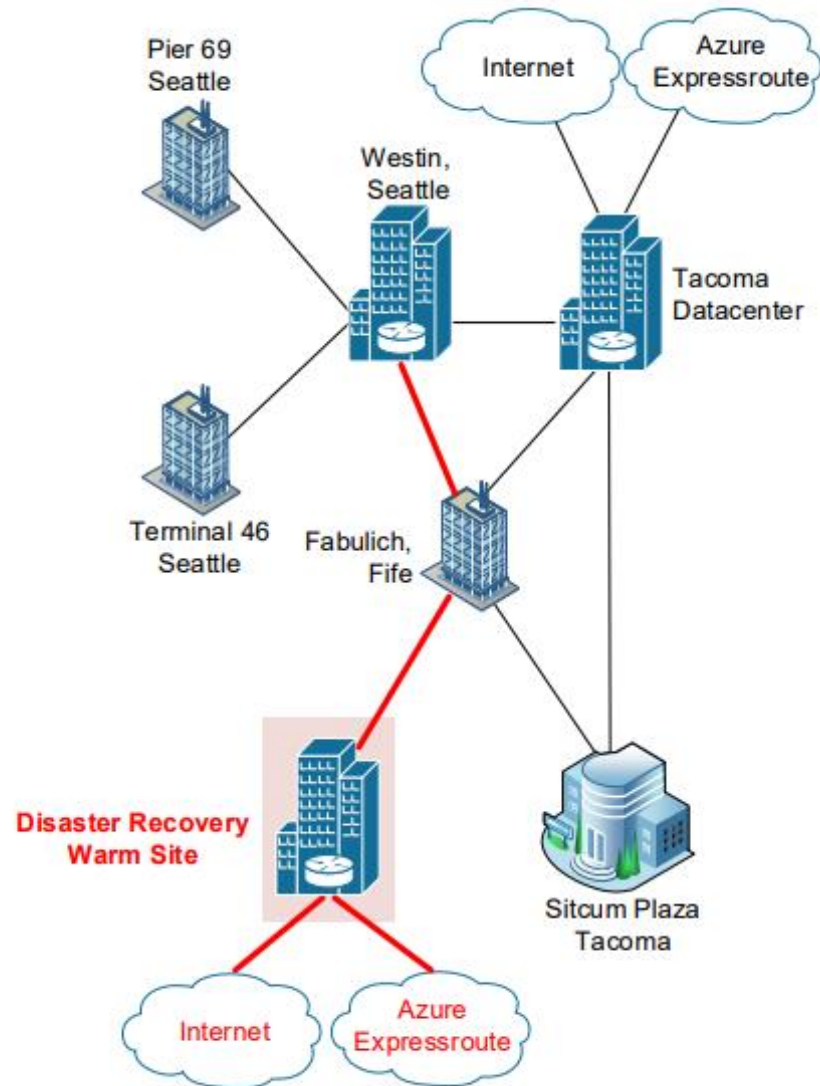
Vendor	RFP Score*	Semi-Finalist Presentation Score*	Annual Service Cost**
Digital Realty	54	70	\$126,463
Flexential	52	30	\$132,784
TierPoint	66	85	\$107,119

- The Project Team and Procurement unanimously recommends selecting TierPoint

\* Average scoring based on a perfect score of 100

\*\* Includes 15% Contingency

# Recommended Solution



## Solution Benefits

- Provide the Port/NWSA with a redundant out of Puget Sound region data center
- Provide the Port/NWSA with a redundant internet and Azure access
- Warm Site Data Center provides critical IT infrastructure and business applications to enable Port operations within 1 - 6 business days of loss of the Tacoma Data Center

# Refined Investment and Recommendation



- Investment to establish the DR Warm Site racks, build network connectivity and install applications along with annual operating costs.
- Costs would be shared between the Port of Tacoma and NWSA per the annual IT cost share service agreement

	Updated RFP Cost Estimate (including 15% contingency)	Updated RFI Cost Estimate Presented 7/15/21	Initial 2/17/21 Estimate
One-time Costs	\$319,000	\$250,000 (+/- 20%)	\$300,000-\$500,000
Ongoing Annual Costs	\$107,000	\$220,000 (+/- 20%)	\$180,000-\$300,000
Year 1 Investment	\$426,000	\$470,000 (+/- 20%)	
5-Year Investment	\$925,000	\$1,350,000 (+/- 20%)	

## Recommendation

- IT Management and Port of Tacoma and NWSA IT Steering Committee supports this contract and implementing a Data Center Disaster Recovery Warm Site to reduce Port Operational Risk
- The 2022-2026 Capital Investment Plan includes the cost for the hardware and software. These costs will be capitalized and depreciated over an estimated useful life of 5 years resulting in annual depreciation expense of \$63,800.
- Does the Port of Tacoma Commission approve moving forward with this TierPoint contract and initiating the purchase orders for required hardware?
- If approved, the goal is to have the Warm Site operating in early Q2 2022