



5G Private Network for the Tideflats

City of Tacoma | Community & Economic
Development

Economic Development Committee

January 25, 2022

ITEM # 2



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Tacoma Tideflats 5G Network Feasibility Study

Leveraging Tacoma's marine and maritime assets for a thriving community

Supporting Partners

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• Project Overview



Key goals of the study:

- Engage core stakeholders
- Identify near-term priorities
- Create a relevant use case roadmap
- Create a Private 5G infrastructure strategy
- Explore potential community impact



- 1:1 Interviews: **19 individual stakeholders**
- Public Workshops: **160 ideas**, including Husky Terminal workshop – ideas prioritized and vetted with Key Technical Providers
- Partner with **5G Open Innovation Lab** and leverage deep connections around the globe
- **Avanade** utilized Design Thinking and our expertise to focus on Human Factors and Innovation
- Maintain the commitment of **Washington Maritime Blue** toward an equitable and sustainable future for thriving communities in the Blue Economy
- **Amdocs/TTS Wireless** completed network capacity planning using a visual topography of the Tideflats to model the 160 use cases

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Partners



Tacoma Tideflats Private 5G Network Use case & feasibility study

Core Partners:

Produced by:



Participating Partners:



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To realize the value of the network requires business outcomes that support the Tideflats economic development



Dustin Stoker
President, Husky Terminal and
Stevedoring, LLC

Husky Terminal and Stevedoring has been a committed partner throughout the feasibility study

Husky has planned to make investments for building out key business use cases that reside on top of a private network recommended in the feasibility study

The innovation comes on top of the network once the foundation is put in place

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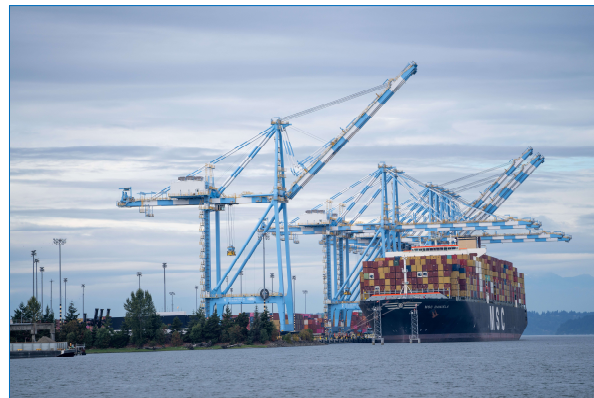
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Findings

Four key themes with 22 high value scenarios for port infrastructure, freight movement, supply chain:

- **Orchestration and Efficiency:** create efficiency and transparency offering an end-to-end view of the supply chain.
- **Infrastructure Modernization:** physically and virtually improve where equipment is moved and stored, traffic, connectivity dead zones, siloed data, manual processes and cybersecurity.
- **Improving Safety Across the Tacoma Tideflats:**
- **Enabling a Sustainable Future:** put ecological and community health at the forefront.

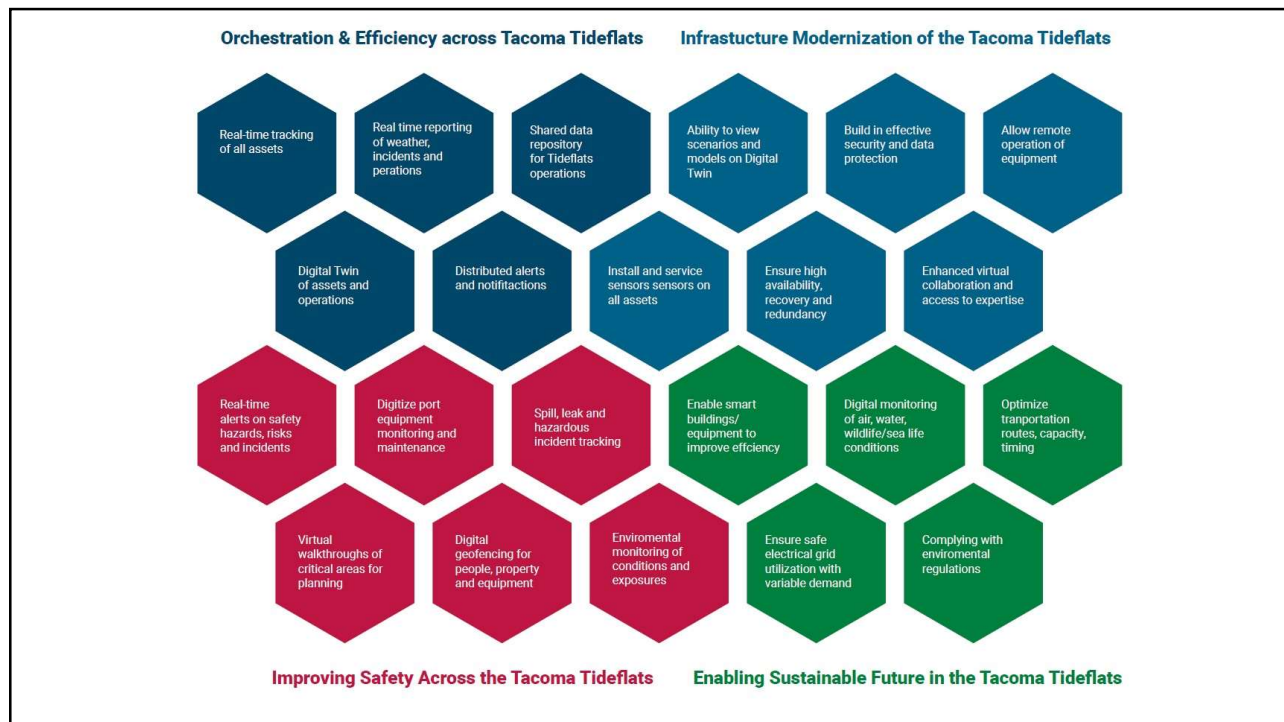
Desire for ecosystem data sharing across trucking, rails, ships, and the environment.
Data silos is a roadblock.



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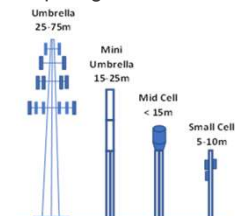
Private 5G Wireless Network

Tideflats Design Zones

- 1 UW CFUW & Maritime Blue
- 2 Shippers/Transporters
- 3 SSA Marine Terminal
- 4 Husky & E Siltum Terminals
- 5 IOIE Maritime & EBC
- 6 Rail, Manufacturing, Services
- 7 Industrial Services
- 8 WUT & US Oil
- 9 Services & Packaging
- 10 US Oil & Auto Facilities
- 11 Pierce County Terminal
- 12 West Hylobos & WWII



Iterative design process collecting use case information from stakeholders and a field survey to map the use cases. 5G allows network design based on the targeted use cases and covers primary voice and data services and a wide range of other services such as IoT, automation, and edge computing.



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Next Steps

Pilot a private 5G network for Proof of Concept

1. Center for Urban Waters & 5G Open Innovation Lab for Ports
2. Husky Terminal
3. Other interested port operator or manufacturer

Through knowledge sharing, collaborative project development, and enabling an ecosystem for innovation, the Tacoma Tideflats will collectively realize a shared vision for a sustainable and equitable economy and port community.

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Thank You

Supporting Partners













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