

THE NORTHWEST SEAPORT ALLIANCE
MEMORANDUM

MANAGING MEMBERS
ACTION ITEM

Item No.	<u>8F</u>
Date of Meeting	<u>September 8, 2021</u>

DATE: August 27, 2021

TO: Managing Members

FROM: John Wolfe, CEO

Sponsor: Tom Bellerud, Chief Operations Officer

Business Steward: Zack Thomas, Director, Operations Service Center

SUBJECT: Authorization to expand Port Community System (PCS) to include Appointment Capacity Dashboard: Proof of Concept (Phase I)

A. ACTION REQUESTED

As referenced in NWSA Resolution No. 2020-02, Exhibit A, Delegation of Authority Master Policy, Paragraph 8.c.iii., states project costs exceeding \$300,000 require approval from Managing Members.

Request project authorization in the amount of up to \$265,000 for design and development, plus subscription fees, for the Proof of Concept (Phase I) to expand the Port Community System (PCS) to include appointment system data.

B. SYNOPSIS

To support the NWSA Strategic Initiative “develop a roadmap to enhance visibility in a sustainable and fiscally responsible manner”, staff plans to expand the existing Port Community System (PCS), on the NWSA website, through the addition of an Appointment Capacity Dashboard and link to Advent eModal’s website. The value that this tool will provide has been validated with our trucking community. The enhancement will be done in phases to test viability and measure value: Proof of Concept (Phase I), Pilot (Phase II), and Data Set Expansion (Phase III).

This request is to authorize funds needed for the development, implementation, support, and ongoing subscription fees for the Proof of Concept (Phase I). The technical solution will be developed within a test environment, not viewable by the public, with one terminal partner. We anticipate spending a maximum of \$235,000 for design and development, with \$10,000

per month, for a minimum of three months, in subscription fees for continued access to appointment system data during the Proof of Concept.

C. BACKGROUND

An organizational goal for the NWSA is to implement a Port Community System (PCS) – development of secure infrastructure, systems, and interfaces necessary to compile data, that in turn allows private and public sector groups to make informed decisions.

The most recent PCS evaluation and outreach was completed 2018-2019, wherein a PCS Concept of Operations (ConOps) was developed with cross-department participation. As a result of the PCS ConOps, the NWSA also conducted an RFI through which 17 responses were received. These full suite solutions were multimillion dollar investments, that proposed a high risk and a lack of defined steps.

Rather than choosing to implement a separate system for a PCS, the NWSA utilized the knowledge gained through the PCS ConOps and began to build a more robust website. This included further development of the RFID system, by leveraging already in-place Clean Truck Program infrastructure, as well as updating the website itself to be a more user-friendly and intuitive platform.

Today, the NWSA website hosts components of a PCS in a variety of ways: vessel schedules & calendars, near real-time truck turn times & cameras, and historical terminal data. The most popular page on the NWSA website with about 60% of total unique views is the Operations page, in which the PCS data is hosted. The second most popular page, the NWSA Home Page, falls just under 10%. We learned, by taking a more measured approach, that we can develop a PCS in smaller steps on the NWSA website. It requires us to assure that the data we seek is accessible, and the information we hope to share with our stakeholders is defined.

For the Proof of Concept, we would like to test the expansion of the PCS on the NWSA website through the development of an Appointment Capacity Dashboard in an environment not viewable by the public. The resulting dashboard, a display of appointment capacity by day and by hour for a terminal, can be used by the NWSA and our stakeholders to predict points of congestion and to measure our service delivery levels, ultimately enabling better gateway fluidity.

The value of this proposed tool has been reinforced upon review of previous community outreach during the PCS ConOps, as well as in recent discussions with terminal operators and the Washington Truckers Association. It will take advantage of terminal and local information assembled today, to leverage short-term opportunities for health views of terminal appointments, congestion & related communications.

Prior to design of the Appointment Capacity Dashboard, a technical foundation for sharing aggregated and anonymized data will need to be developed by Advent eModal. This is the bulk of the work to be completed during the Proof of Concept. The technical foundation, a solution that can be likened to a data repository, will be owned by Advent eModal. They will provide majority of the initial development costs, with supported funding for design and

development from the NWSA in the total of \$220,000. Due to this investment, dataset development and access will be built based upon NWSA requirements.

Upon completion, the NWSA will have access to data that can be turned into business intelligence tools. This model offers a pathway whereby visibility is provided to the public, while simultaneously protecting PII components and other commercially sensitive information. If the NWSA chooses to end their subscription to the dataset, the respective data will no longer be available for use by the NWSA.

Depending on success of the initial phase, we will update the Managing Members prior to moving to the Pilot, or phase two of the project. During this phase, the technical solution will be transitioned to a production environment, viewable by the public, with appointment system data from all terminal partners.

The objective is to continue iterative development of the PCS on the NWSA website with other datasets. Each year, before renewing any subscription for data access and/or adding new datasets to the subscription, we will evaluate the benefits provided to our stakeholders. If the costs of data visibility in our gateway match the provided value, then the appropriate steps will be taken to continue and/or expand the PCS at that time. With continued success, we hope to use the PCS as an example to encourage data exchange from parties who are reluctant to share information today.

D. PROJECT DESCRIPTION AND DETAILS

A PCS is not a singular technological solution, rather the gathering of several data components from different stakeholders over long periods of time. It will occur in phases. The first phase, Proof of Concept, is to prove out viability with a singular dataset and one terminal partner. If successful, the second phase, Pilot, will expand the appointment system dataset and resulting dashboard to the gateway. The purpose of this memo and authorization request is to address the Proof of Concept (Phase I).

Project Objectives

Build out a technical solution for aggregated and anonymized appointment system data from Advent eModal to prove out business intelligence / dashboard tools on the NWSA Website.

Scope of Work

The Scope of Work for this request is **only the Proof of Concept (Phase I)**. The graphic below shows the details of the project in its entirety. Before proceeding to Phase II or Phase III, the team will update the Managing Members.

Proof of Concept (Phase I) <i>Current Request</i>	Pilot (Phase II) <i>Future Request</i>	Data Set Expansion (Phase III) <i>Future Request</i>
<ul style="list-style-type: none"> • Create a technical solution providing access to appointment system dataset • Create an aggregated dataset to provide visibility into marine terminal appointment capacity and metrics for <u>one terminal</u> in <u>test environment</u> • Develop Appointment Capacity Dashboard (business intelligence tool) for one terminal in a test environment • Provide a link to Advent eModal website for one terminal via NWSA website in a test environment 	<ul style="list-style-type: none"> • Expand aggregated dataset to provide visibility into marine terminal appointment capacity and metrics for <u>all applicable terminals</u> in our <u>production environment</u> • Expand Appointment Capacity Dashboard (business intelligence tool) to all terminals in our production environment • Provide a link to Advent eModal websites for all applicable terminals via NWSA website in our production environment • Investigate additional dataset for future implementation 	<ul style="list-style-type: none"> • Create a technical solution providing access to an additional aggregated and anonymized dataset • Develop a business intelligence tool for data visibility for the gateway • Evaluate benefits to NWSA stakeholders every year to determine feasibility for the cost of continued dataset subscriptions

Schedule

Upon Managing Member authorization:

Appointment Capacity Dashboard Proof of Concept statement of work and charter finalized	September 2021
Appointment Capacity Dashboard Proof of Concept Implementation	October 2021 – January 2022
Evaluation of Appointment Capacity Dashboard Proof of Concept	January 2022 – February 2022
Present findings from Proof of Concept and recommendations for Phase II to Managing Members	March 2022

E. FINANCIAL IMPLICATIONS

Project Cost Details

	Proof of Concept (this request)	Pilot (estimated)	Data Set Expansion* (estimated)
Design & Development	\$235,000	\$30,000	\$45,000
Dataset(s) Subscription Fee	\$30,000 (1 at \$10k/mo. for 3 mo.)	\$120,000 (1 at \$10k/mo. for 12 mo.)	\$240,000 (2 at \$20k/mo. for 12 mo.)
TOTAL	\$265,000	\$150,000	\$285,000

**The NWSA has negotiated pricing for future datasets at discounted rates for subscription fees. Beginning with the third dataset, the price will be discounted by 20%, the fourth dataset by 30%, the fifth dataset by 40%, etc. At ten or more datasets, the discount rate is capped by 90%.*

Source of Funds

The current Capital Investment Plan (CIP) will be updated to include the design and development for the Proof of Concept (Phase I) and the Pilot (Phase II) projects as part of the 2021 forecast and 2022 budget processes. The subscription fees will be added as part of the IT department budget update for 2022.

Financial Impact

Project costs will be expensed as incurred.

The expansion of the Port Community System through the appointment capacity dashboard is an investment in our digital infrastructure to improve operational efficiency and reduce congestion. It will not show a direct return-on-investment but may result in additional cargo if terminal efficiency is improved.

F. ALTERNATIVES CONSIDERED AND THEIR IMPLICATIONS

Alternative 1) Do Nothing. Continue to maintain NWSA Website and associated data as it is today. Most of the processes to share information are through manual efforts each day. Declining to move forward in this project will slow progression of digitization and the goal to provide more information transparency through the development of a Port Community System.

Alternative 2) Identify an alternative vendor that may have different datasets for Port Community System continued development. It is unlikely that these datasets will provide the

local insight that Advent eModal datasets provide, given that all terminals are currently operating using Advent eModal's appointment system data.

Alternative 3) Proceed with the authorization of enhancing the NWSA's Port Community System through inclusion of appointment system data. This offers short-term benefits to stakeholders with more informed decision-making, and can be used as an example for parties who are reluctant to share data today (i.e. railroads, steamship lines, etc.) by showcasing a successful tool and a secure location in which to exchange data.

Alternative 3 is the recommended course.

G. ENVIRONMENTAL IMPACTS/REVIEW

N/A – IT project

H. ATTACHMENTS TO THIS REQUEST

- Computer slide presentation
- Sole Source Memo with Advent Intermodal Solutions, LLC ("Advent eModal") for Access to Appointment System Data

I. PREVIOUS ACTIONS OR BRIEFINGS

N/A

THE NORTHWEST SEAPORT ALLIANCE

MEMORANDUM

MANAGING MEMBERS

STAFF BRIEFING

DATE: July 23, 2021

TO: Managing Members, The Northwest Seaport Alliance

CC: John Wolfe, Chief Executive Officer, NWSA
Don Esterbrook, Deputy Executive/Chief Operating Officer, NWSA
Tom Bellerud, Chief Operations Officer, NWSA

FROM: Mark Moore, Manager, IT Project Management, Port of Tacoma
Zack Thomas, Director, Operations Service Center, NWSA

SUBJECT: Waiver of Competition for a Sole Source Contract with Advent Intermodal Solutions, LLC ("Advent eModal") for Access to Appointment System Data

A. SYNOPSIS

Staff intends to enter a sole source contract with Advent eModal to procure a technical solution necessary for access to appointment system data currently hosted on Advent eModal's software platform. This system is utilized by our international terminal operators in both the Seattle and Tacoma harbors. We anticipate spending \$250,000-\$300,000 for design and development, with an estimated \$10,000-\$35,000/month in subscription fees for continued access to appointment system data as well as other datasets for inclusion in the Port Community System (PCS) on the NWSA website.

B. BACKGROUND

An organizational goal for the NWSA is to implement a Port Community System (PCS) – development of secure infrastructure, systems, and interfaces necessary to compile data, that in turn allows private and public sector groups to make informed decisions. The NWSA website hosts components of a PCS in a variety of ways: vessel schedules & calendars, near real-time truck turn times & cameras, and historical terminal data. The most popular page on the NWSA website with about 60% of total unique views is the Operations page, in which the PCS data is hosted. The second most popular page, the NWSA Home Page, falls just under 10%.

We would like to expand the PCS and the information we are providing to stakeholders through the development of an Appointment Capacity Dashboard. The resulting dashboard, a display of appointment capacity by day by hour for a terminal, will be used by the NWSA and our stakeholders to predict points of congestion and to measure our service delivery levels, ultimately enabling better gateway fluidity. The value of this proposed tool has been reinforced upon review of previous community outreach, as well as in recent discussions with terminal operators and the Washington Truckers Association.

THE NORTHWEST SEAPORT ALLIANCE

MEMORANDUM

C. JUSTIFICATION

The NWSA will need to engage Advent eModal to build a technical solution that provides access to data in their system. All NWSA terminal operators independently chose to use Advent eModal as the vendor for appointment bookings, therefore Advent eModal is the sole owner of the appointment system where the data resides that is required to produce the Appointment Capacity Dashboard. They are the only vendor with whom the NWSA can work to configure, support, and modify the solution for data access.

To develop the same dashboard with a different vendor requires that vendor to first procure the appointment system data from Advent eModal. This increases the number of steps needed to access the data as well as cost needed to maintain the technical solution. Therefore, direct access to the source data via Advent eModal, rather than through a third party, allows for the most cost effective and streamlined process.

D. SCOPE OF WORK

- Proof of Concept
 - Create an aggregated dataset to provide visibility into marine terminal appointment capacity and metrics for one terminal.
 - Create a technical solution providing access to appointment system dataset.
- Pilot
 - Monthly subscription costs for access to appointment system dataset.
 - Expansion of the appointment system dataset to all participating NWSA marine terminal operators.
 - Potential expansion to include additional dataset from Advent eModal system.
- Ongoing Costs, assuming successful Pilot
 - Monthly subscription costs for access to additional datasets.
 - Support services for solution implemented.

E. CURRENT STATUS

If there are no objections to issuing a sole source contract, next steps will be:

- Present the project to Managing Members on September 7, 2021 for authorization.
- Negotiate respective agreements for design & development, ongoing subscription fees, and support.



THE NORTHWEST
SEAPORT ALLIANCE
Gateway to Solutions

Authorization to expand Port Community System (PCS) to include **Appointment Capacity Dashboard: Proof of Concept (Phase I)**

Presenter: Zack Thomas
Director, Operations Service Center

Project Authorization

PCS Expansion: Appointment Capacity Data

As referenced in NWSA Resolution No. 2016-04, Exhibit A, Delegation of Authority Master Policy, Paragraph 8.c.iii., states project costs exceeding \$300,000 require approval from Managing Members.

Request project authorization in the amount of up to \$265,000 for the Proof of Concept (Phase I) to expand the Port Community System (PCS) to include appointment system data.



Background

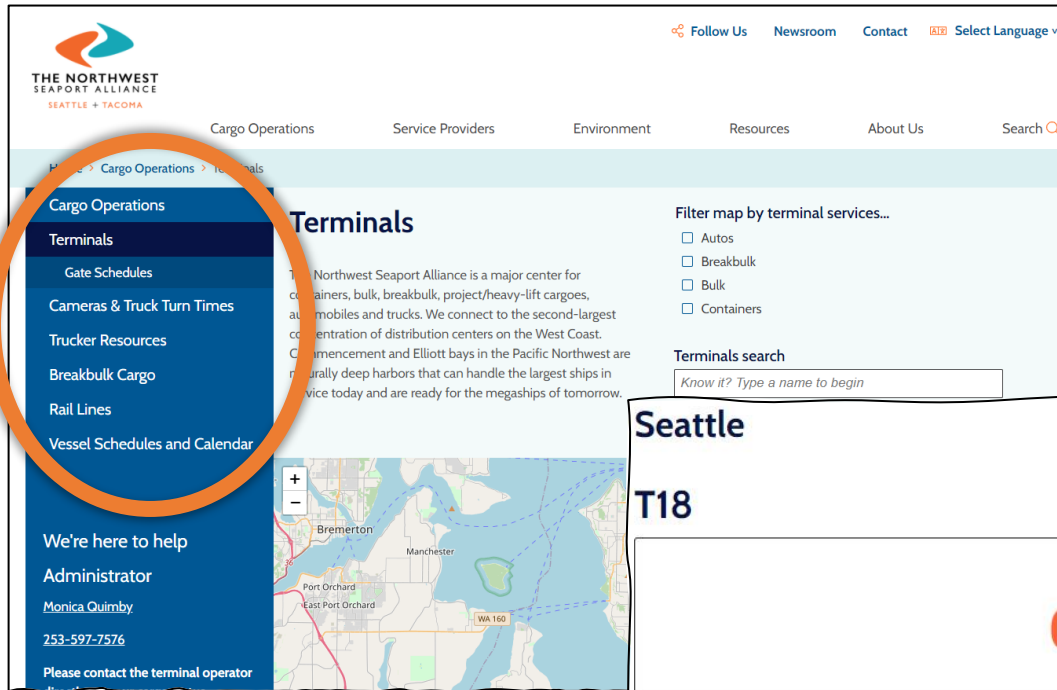
PCS Expansion: Appointment Capacity Data

- Long-time organizational goal for the NWSA is to **implement a Port Community System**
 - 2018-2019 PCS Concept of Operations (ConOps) was developed and the NWSA conducted an RFI that received 17 responses
 - The proposed full suite solutions were multimillion dollar investments, with high risks and a lack of defined steps
- NWSA utilized knowledge gained from this process and **developed a more robust website** that now acts as our PCS
 - More user-friendly and intuitive platform
 - Truck turn times, vessel schedules & calendars, historical terminal data
 - Hyperlinks for appropriate redirection and inquiries
- We learned by taking a more measured approach, that we can **develop a PCS in smaller steps on the NWSA Website**
 - Data we seek must be accessible
 - Terminal operators and other stakeholders must agree to sharing and using resulting information



Background

PCS Expansion: Appointment Capacity Data



The screenshot shows the website of The Northwest Seaport Alliance. The header includes the logo, navigation links (Follow Us, Newsroom, Contact, Select Language), and a search bar. The main navigation menu is on the left, with 'Terminals' highlighted. The 'Terminals' section is active, showing a map of the seaport area with labels for Bremerton, Manchester, Port Orchard, and East Port Orchard. A sidebar on the right allows filtering the map by terminal services (Autos, Breakbulk, Bulk, Containers) and includes a 'Terminals search' box. The bottom of the page features contact information for Monica Quimby, including a phone number and a note to contact the terminal operator.

Seattle

T18

Total Experience
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Updated @ 11:24:26 AM



Project Strategy

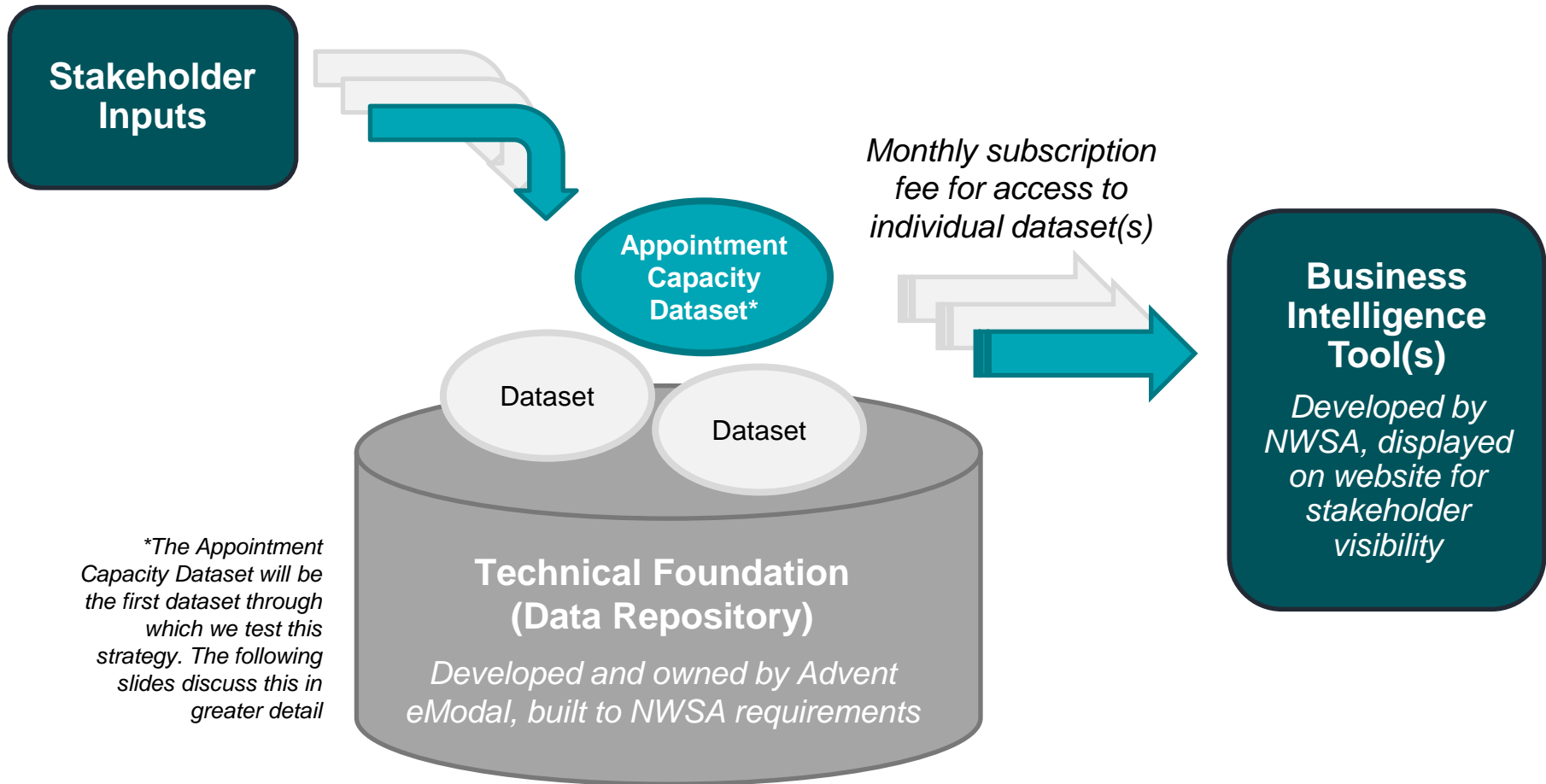
PCS Expansion: Appointment Capacity Data

- Bulk of work for is the development of a **technical foundation, or “data repository”, for sharing aggregated and anonymized data, owned by Advent eModal**
 - Majority of the project is funded by Advent eModal, with additional funds provided by NWSA
 - Dataset development and access will be built based upon NWSA requirements
- Upon completion of the data repository, the NWSA will have access to data that can be turned into business intelligence tools, **adding value for gateway stakeholders, while protecting proprietary data supplied by the terminals**
- For continued access to the data, the **NWSA will be paying a monthly subscription fee**. Similar to a SaaS model, if we choose to no longer continue this service for our gateway, the data will no longer be available for NWSA use
- Depending on success and the value-added to our stakeholders, **additional authorization from Managing Members may be requested** in the future to include additional datasets and respective business-intelligence tools



Project Strategy

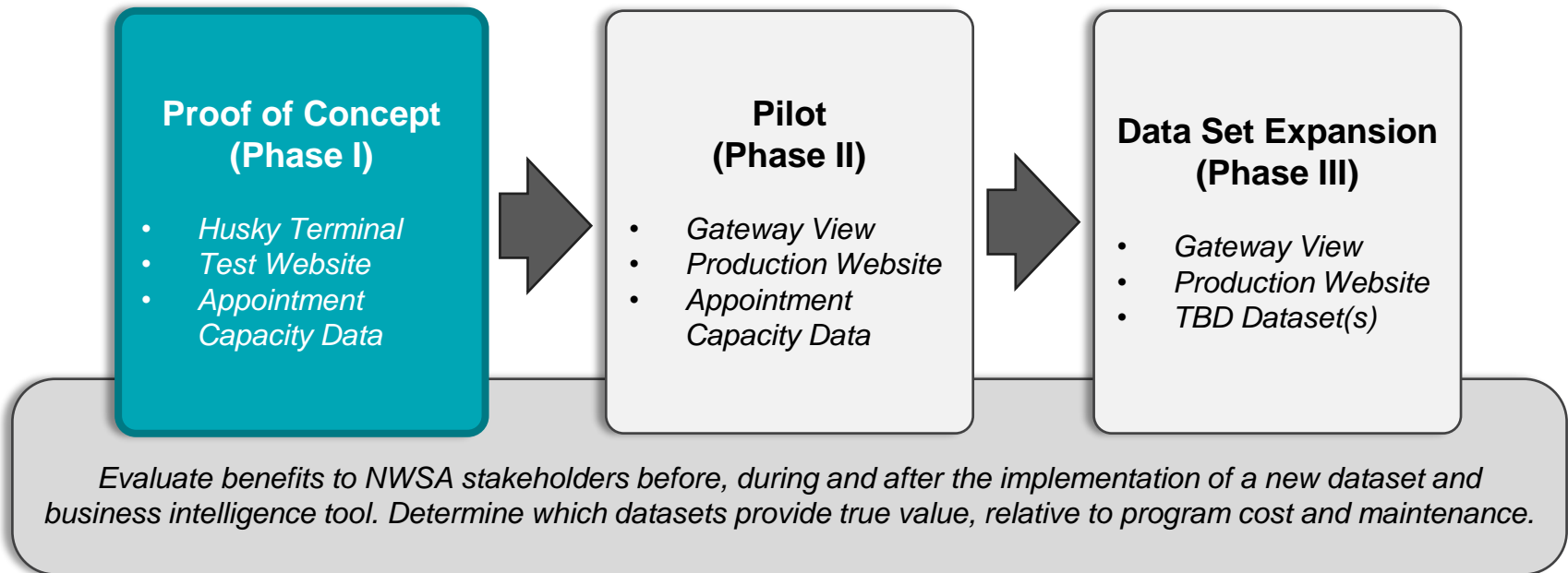
PCS Expansion: Appointment Capacity Data



Project Description and Details

PCS Expansion: Appointment Capacity Data

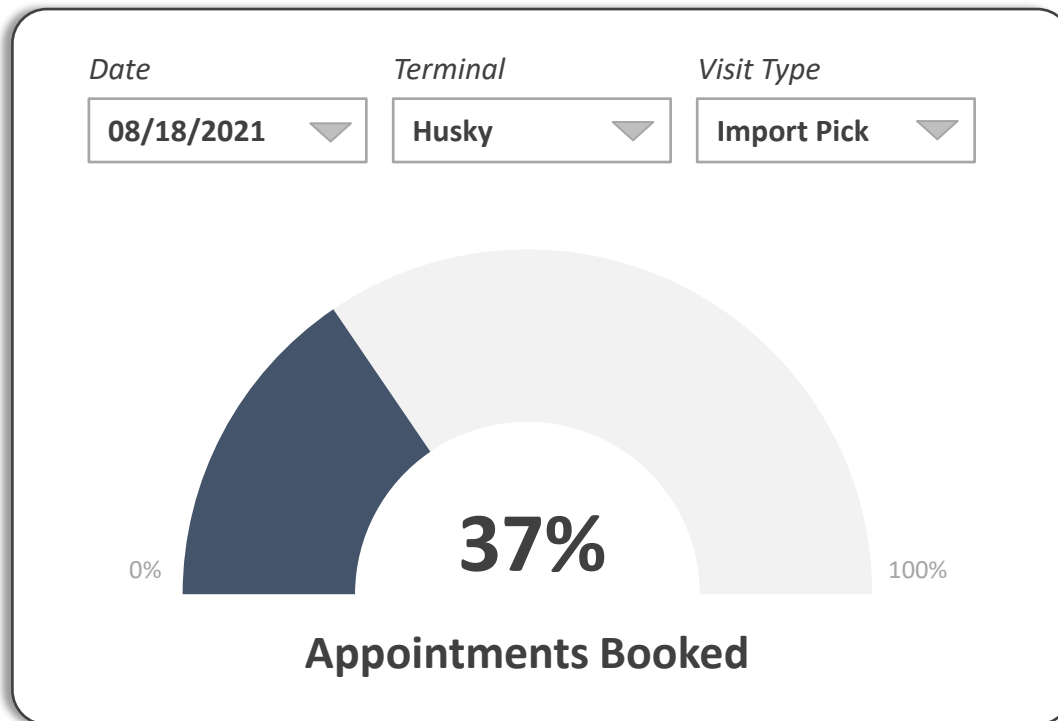
A successful path to a PCS expansion starts with a Proof of Concept. Following is the Pilot phase, wherein functionality transitions to the entire Gateway for public view. With continued success, new datasets and visibility will increase overtime.



Project Description and Details

PCS Expansion: Appointment Capacity Data

A visual on the NWSA website might look like the example below. A simple tool that allows truckers and/or dispatchers to choose the date, terminal, and visit type to understand current availability. Dependent upon user feedback, the visual below may be duplicated per terminal, similar to the turn-time page today.



Project Schedule

PCS Expansion: Appointment Capacity Data

Upon Managing Member authorization:

Activity	Timeframe
Appointment Capacity Dashboard Proof of Concept statement of work and charter finalized	September 2021
Appointment Capacity Dashboard Proof of Concept implementation	October 2021 – January 2022
Evaluation of Appointment Capacity Dashboard Proof of Concept	January 2022 – February 2022
Provide update to Managing Members for recommendations regarding Phase II (Pilot)	March 2022



Financial Summary

PCS Expansion: Appointment Capacity Data

	Proof of Concept <i>One terminal, test website (this request)</i>	Pilot <i>Gateway, production website (estimated)</i>	Data Set Expansion* <i>Gateway, augmentation (estimated)</i>
Design & Development	\$235,000	\$30,000	\$45,000
Dataset(s) Subscription Fee	\$30,000 (1 at \$10k/mo. for 3 mo.)	\$120,000 (1 at \$10k/mo. for 12 mo.)	\$240,000 (2 at \$20k/mo. for 12 mo.)
TOTAL	\$265,000	\$150,000	\$285,000

*The NWSA has negotiated pricing for future datasets at discounted rates for subscription fees, only when Advent eModal has direct access to the respective dataset. Beginning with the third dataset, the price will be discounted by 20%, the fourth dataset by 30%, the fifth dataset by 40%, etc. With ten or more datasets, the discount rate is capped at 90%.



Source of Funds

PCS Expansion: Appointment Capacity Data

- The estimated cost of the Proof of Concept (Phase I) for this project is \$265,000
- The current Capital Investment Plan (CIP) will be updated to include the design and development for the Proof of Concept (Phase I) and the Pilot (Phase II) projects as part of the 2021 forecast and 2022 budget processes
- The subscription fees will be added as part of the IT department budget update for 2022



Conclusion

PCS Expansion: Appointment Capacity Data

Request project authorization in the amount of up to \$265,000 for the Proof of Concept (Phase I) to expand the Port Community System (PCS) to include appointment system data.

