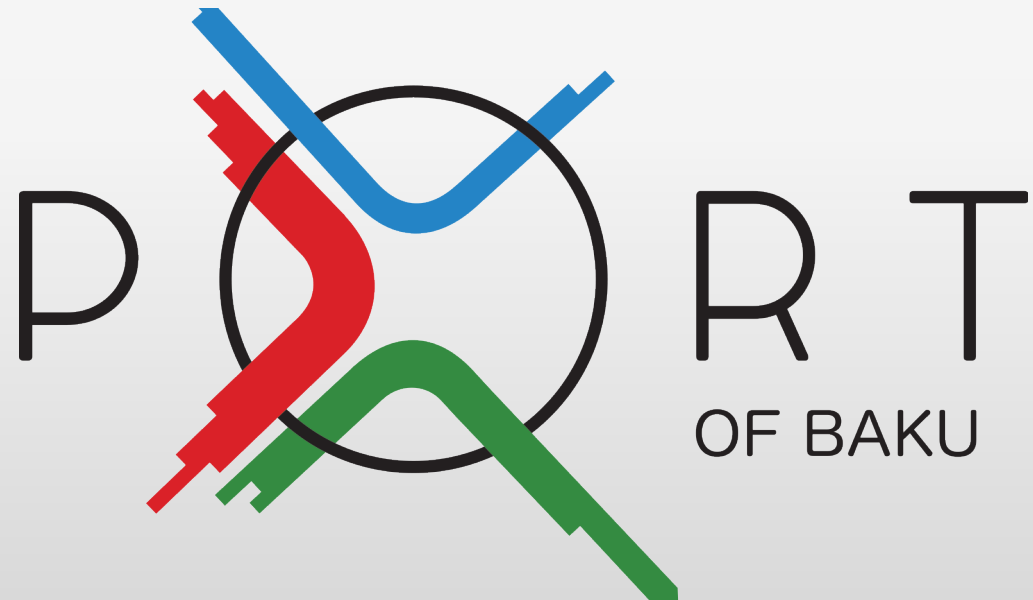


PORT MANAGEMENT INFORMATION SYSTEM - PMIS

PMIS is an electronic platform that connects the multiple systems operated by a variety of organizations that make up a seaport community. It is shared in the sense that it is set up, organized and used by firms in the same sector.

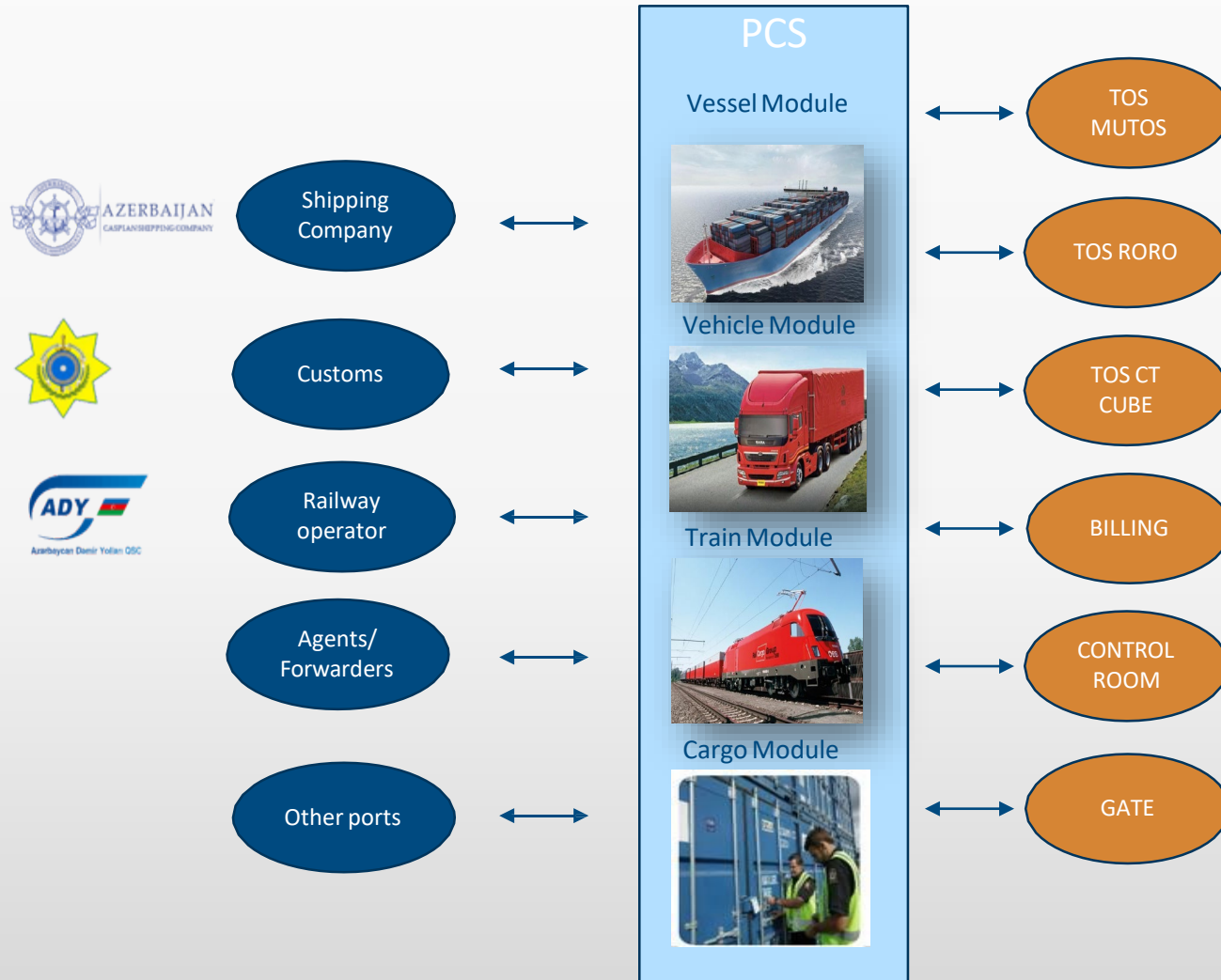




The goals of PMIS

- Develop and Implement standards and protocols for processes and messages with the port community.
- Systematically capture the relevant information from stakeholders. Avoiding the requirement to re-enter data limits errors and processing costs.
- Centralize and standardize community information.
- Provide transparency and real-time, or near real time, information to facilitate tracking and tracing of goods, and optimize transit times.

PORT COMMUNITY SYSTEM PMIS=PCS+TOS



PCS

The PoB PCS System is created in accordance with Single-Window paradigm. The basic principle is that all data is submitted into the system only once.

Data can be submitted by computer messages or directly from the web user interface.

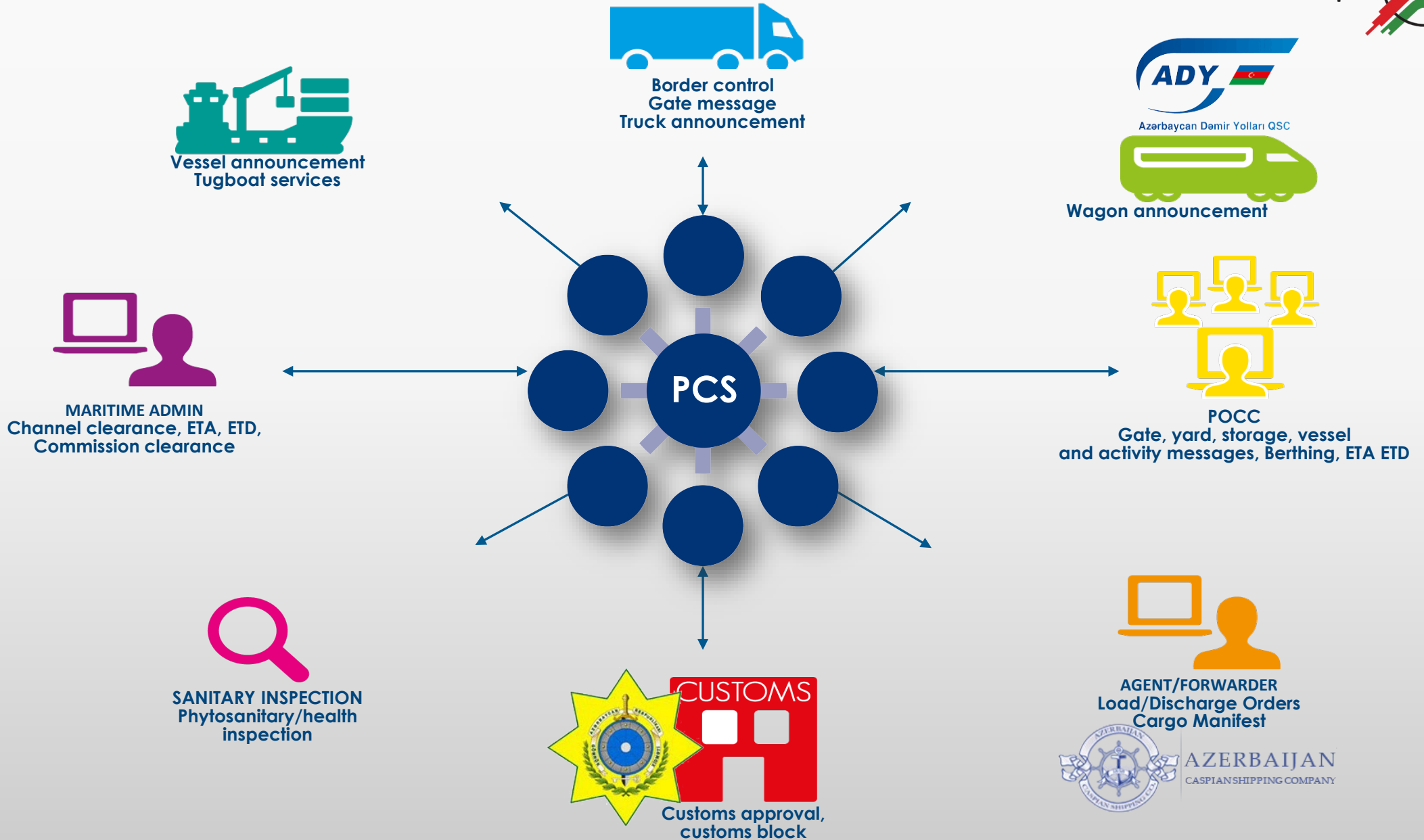
The submitted data can also be changed and corrected.

Access to data is only for those users, who have appropriate user rights.

Integration with:

- Customs
- National Railway Operator
- Caspian Shipping Company
- Other ports

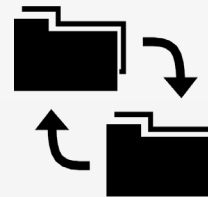
PCS CONNECTS PMIS WITH THE COMMUNITY



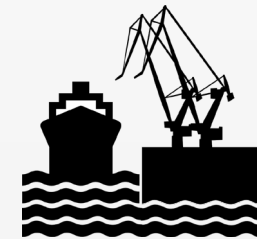
Integration with Azerbaijan Customs Committee



Azerbaijan Customs Committee



Port of Baku

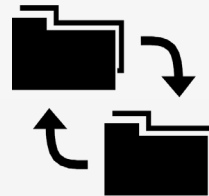
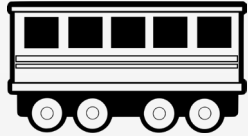
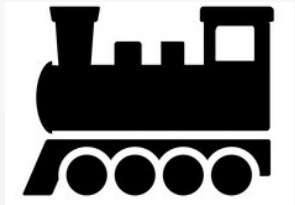


- Production version of PMIS Baku is currently receiving real-time operational Vehicle data from Customs Committee.
- The transmitted data covers real trucks coming to RoRo and General Cargo terminals for handling operations.
- Received messages end up as Vehicle Announcements in the PMIS Baku.

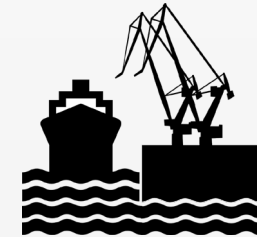
Integration with Azerbaijan Railways



ADY - Azerbaijan Railways Operator



Port of Baku



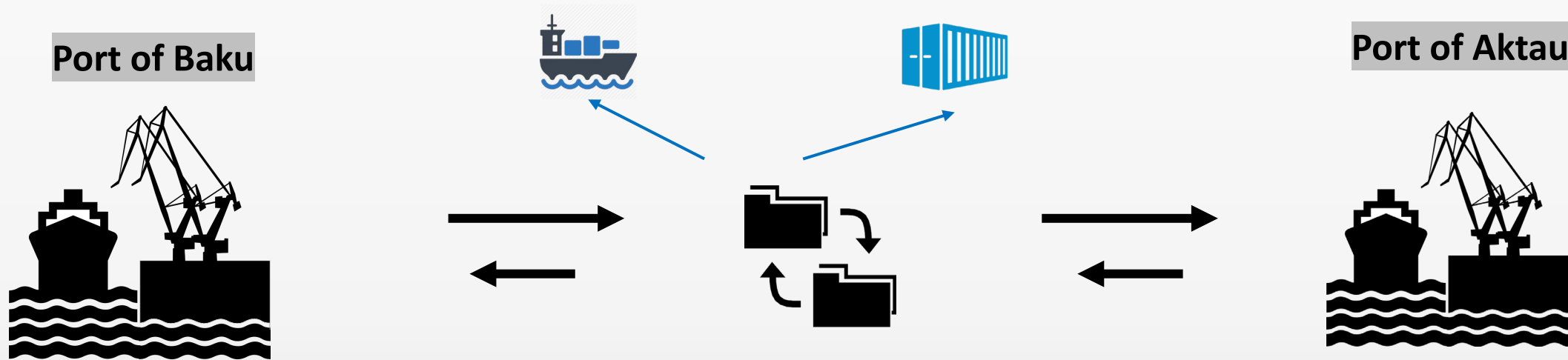
Integration with Azerbaijan Railways (ADY):

Production version of PMIS Baku is currently receiving real-time operational Wagon data from ADY Smart.

The data currently transmitted includes: Wagon Announcements and associated Cargo Announcements:

- Containerized Cargo
- Breakbulk Cargo
- RoRo Cargo

Integration with Port of Aktau – 1st Phase



Types of Electronic Data Exchanged -> Vessel Announcements (VAN) + Container Announcements (CNT)

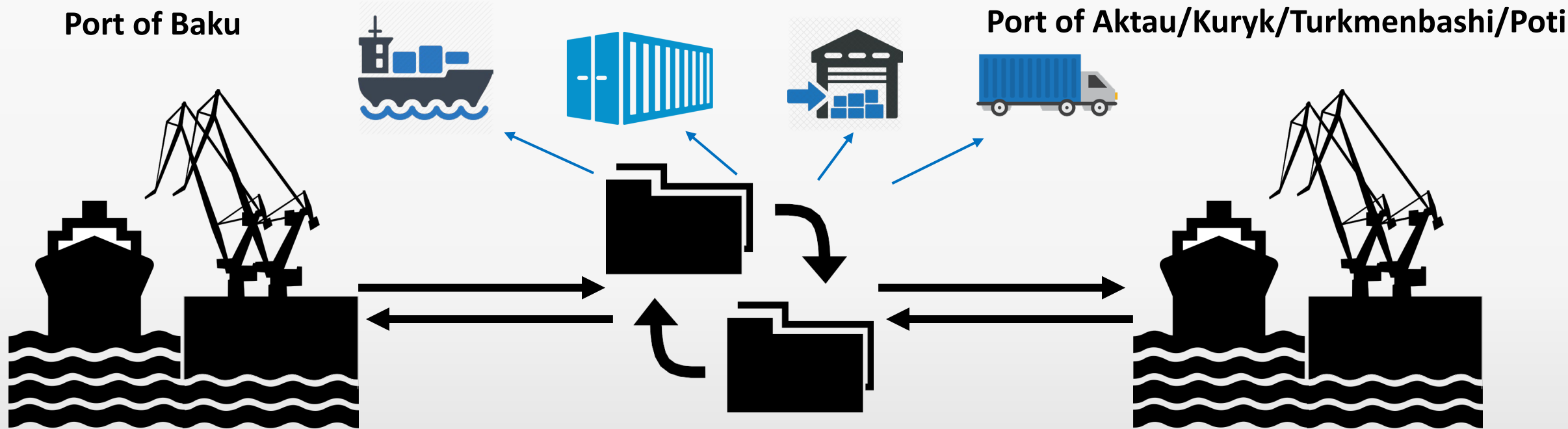
Port of Baku side ->

- Receiving VAN and CNT messages (empty and full containers) sent from Port of Aktau.
- Transmitting VAN and CNT messages (empty and full containers) to Port of Aktau.

Port of Aktau side ->

- Receiving VAN and CNT messages (empty and full containers) sent from Port of Baku.
- Transmitting VAN and CNT messages (empty and full containers) to Port of Baku.

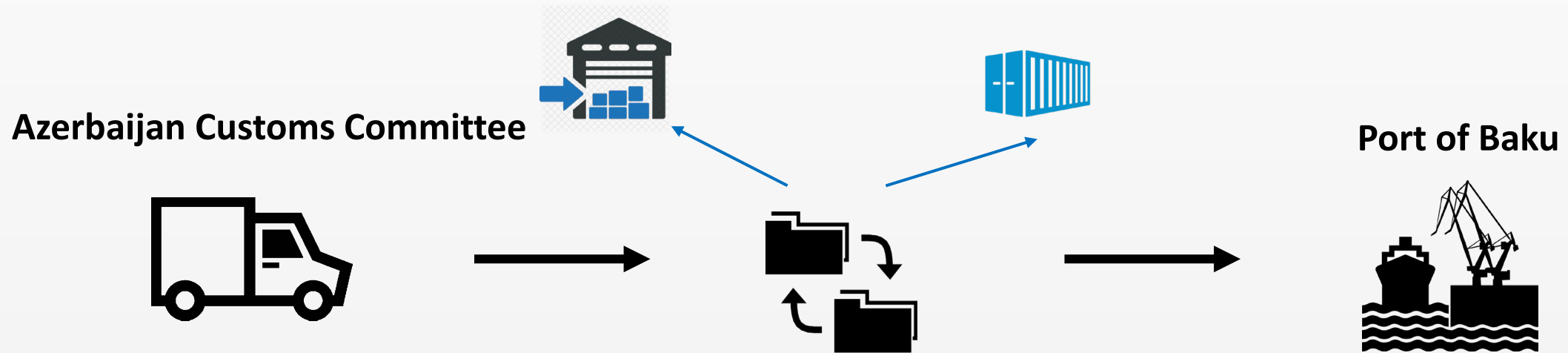
Planned Integration with Other Ports



Type of Electronic Data to be Exchanged

- Vessel Announcements
- Containerized Cargo Announcements
- General Cargo Announcements (Breakbulk and Dry Cargo)
- RoRo Cargo Announcements (RoRo Vehicles and Railway Wagons)
- Passengers
- Crew Members

Planned Additions to Integration with Azerbaijan Customs Committee



❖ Enriching the data transmitted from Customs to PoB:

- Additional vehicle details (*ex. Length, Model*)
- Additional cargo details (*ex. NHM Code, Quantity, Importer/Exporter data*)
- Container data -> container details + associated cargo details

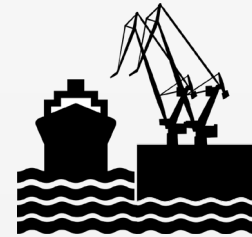
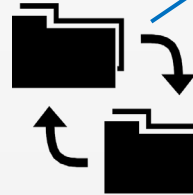
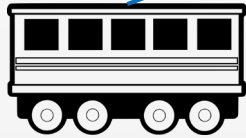
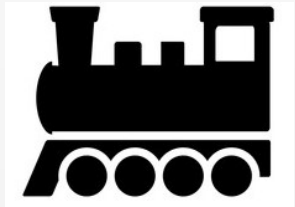
Planned Additions to Integration with Azerbaijan Railways



ADY - Azerbaijan Railways Operator

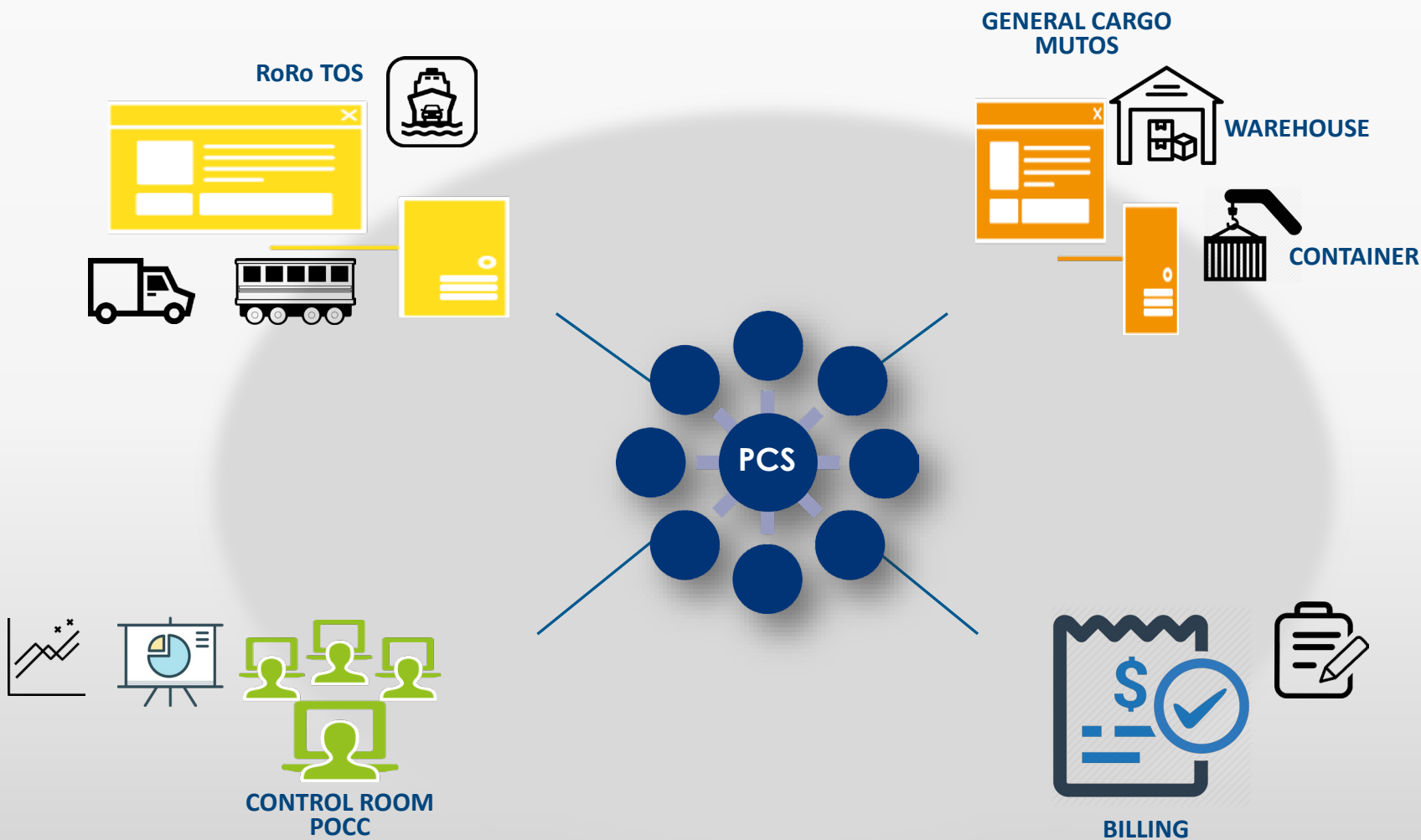


Port of Baku



- ❖ Developing the opposite side of integration: transmitting electronic messages from PoB to ADY
- ❖ Adding wagon tracking functionality to receive real-time wagon locations from ADY to PoB.

A comprehensive web-based solution comprising various modules



Modules:

- **PCS**
Port Community System
- **RoRo TOS**
- Terminal Operating System for RoRo
(Trucks and Rail Wagons)
- **General Cargo TOS - MUTOS**
Terminal Operating System for Multiuser Terminal with
 - ✓ **WAREHOUSE** Management System
- **General Cargo- CUBE**
 - ✓ **CONTAINER** Management
 - ✓ **CONTAINER YARD**
- **BILL**
Billing Module
- **CONTROL ROOM POCC**
Port operational Control room

Master and Business Data Exchange Structures

PMIS Baku utilizes standardized structure for the following pieces of information:

Passenger related data;

Crew members related data;

ITU (Vehicle and Railway Wagons)

Containerized Data

General Cargo Data (Breakbulk and Dry cargo)



Relationships between semantic data models

The main module of PMIS Baku – Port Community System (PCS) is built in accordance with a Single Window Paradigm -> single point of entry for data which is then shared across relevant stakeholders for all import, export, and transit-related regulatory requirements while eliminating redundant data, and duplications in the process of recording and exchanging information

Supports subsetting of international recommended code lists

PMIS Baku utilizes international code lists in accordance with the UN standards:

Country Origin and Destination – Based on UN/Locodes

Port of Loading and Port of Discharge – Based on UN/Locodes

Container ISO (Container Dimensions: Size, Height and Type codes) – *Based on ISO6346*

Cargo Packaging Type – *Based on UN Recommendation 21*

NHM Codes – *Based on International NHM Standards*

Cargo Damages (IMDG class, IMDG UN) – *Based on codes used by IMO*

Syntax neutral

PMIS Baku engages in electronic data exchanges using EXtensible Mark-up Language (XML) and JSON format.



THANK YOU FOR YOUR ATTENTION!