

As Bernie has discussed in his speech, trade volumes are predicted to continue to increase significantly. As with other Port's, the Port of Tacoma faces the challenge of increasing the throughput of greater volumes of cargo, with rail velocity being a key component to our operations.

The Port of Tacoma has long recognized that in order to increase the capacity of the transportation network and expedite the movement of that increased volume, the implementation of technology is absolutely vital. Advanced technologies enable us to expand capacity in our constrained intermodal terminals as well as our regional freight infrastructure. Implementing automated technologies improves facility productivity; reduces transaction delays and clearance times by increasing lift productivity and reducing gate delays, terminal dwell times, and clearance times for inspections.

There are a wide array of technologies available to meet these challenges, all of whom rely on reliable, efficient data communications systems. Technologies such as Radio Frequency Identification (RFID), Automated Equipment Identification (AEI) tags; bar code and reader systems used for remote identification of equipment and control of containers, railcar and chassis inventory; systems for electronic data interchange (EDI) automate the collection of data and provide visibility of cargo and equipment. Shipment data transmission and cargo monitoring, asset management and dispatching, and optimizing loads and managing container backhaul loads are also among those relying on computerized data communications. GPS and DGPS are technologies that can be used to determine the location of vehicles, vessels, trains and equipment.

These technologies can provide real-time information, in-transit visibility, vehicle and cargo identification and location, and shipment tracking.

The power of these technologies can be leveraged through shared information systems - the sharing of data by the Integration of data contained in disparate applications. For example the Port of Tacoma's and BNSF's joint application development of a web based tool, The Business Exchange Application where data is shared between the Port of Tacoma's systems, the short line rail provider, our customers and the mainline rail systems.

Efficiency gains can be realized by utilizing technology in the efficient planning of equipment, yard design and modes of operation through the use of modeling and simulation software. Intermodal yard capacity modeling and simulation software aids in the determination of the most efficient cargo handling equipment and intermodal yard layouts that facilitate densification of facilities. You will hear more about this during the panel discussion on Wednesday afternoon.

Efficient facility security systems speed the movement of transportation providers on and off the terminals while ensuring the safety and security of the facility. These systems rely on technologies such as CCTV for surveillance; Radiation Portal Monitors support radiation detection, soon the TWIC systems will identify who gains access to secured terminal facilities, and enhanced communication systems enable greater access to information through integration with other law enforcement agencies.

Finally, concepts that combine processes and technology such as Agile Ports and Virtual container yards enable greater throughput from existing facilities. You can hear more about these concepts as they will **also** be discussed during the panel on Wednesday afternoon.

These are just a sample of the technologies that expand the fluidity and velocity of the entire transportation network, combining with information systems that provide real-time visibility of cargo moving through the system and in turn enable more efficient management of the transportation infrastructure.

The efficient use of all of these technologies depends on a complex, robust, reliable, flexible and scalable data communications infrastructure. Fiber networks, wireless communications, hardware and software are all components of this infrastructure. While the benefits are evident, the high cost of implementation and support of this infrastructure requires that all partners explore opportunities to share the costs as well as the benefits. The challenge is to keep pace with emerging technology developments, continue to explore ways to leverage investments in the equipment, systems and technical infrastructure. The innovative use of these technologies combined with efficient processes provide many opportunities to safely and securely increase capacity to meet the future trade volumes coming our way.