Port of New Bedford Truck Appointment System

IBI GROUP

KCUS

Moving Massachusetts Forward. massDOT Highway

Developed by Kanaan Consulting US, Inc. under the guidance of IBI Group for MassDOT and the Harbor Development Commission of the City of New Bedford

Port of New Bedford
Truck Appointment System

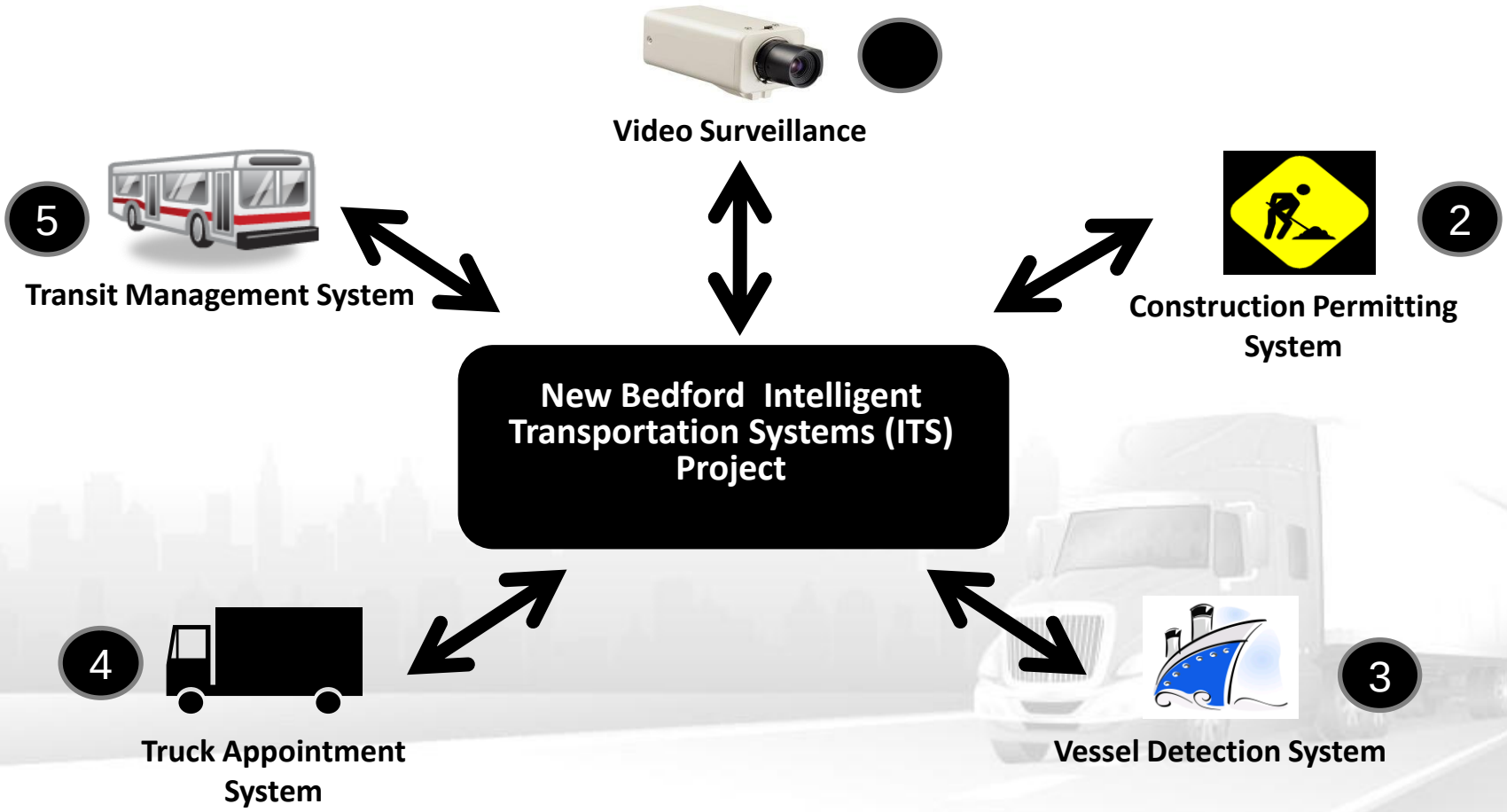
- The Port of New Bedford
- Background
- Purpose
- Concept
- Benefits
- Next Steps

The Port of New Bedford

The Port of New Bedford is located approximately 50 miles south of Boston and serves as a break-bulk handler of perishable items, especially fresh fruit and seafood. During the 19th century, New Bedford was one of the most important whaling ports in the world. Today new Bedford is the Nation's top fishing port with facilities for cold storage that serve the perishable food industry.
http://www.portofnewbedford.org/

Background

The Port of New Bedford Truck Appointment System (TAS) was funded by MassDOT as part of an ITS Congressional earmark for the City of New Bedford. The overall project consisted of five complementary information systems (illustrated below) that would be operated by the City but provide real time information to other government agencies or the public through a single web portal.



Port of New Bedford Truck Appointment System

Justification for the project:

Government – to reduce truck related congestion and pollution.
Terminal operators and brokers - to reduce travel delays and improve supply chain reliability.
Harbor Development/Port Operator – to manage inflow and outflow and ensure security/safety.

Purpose

Problem Statement

When a cargo vessel arrives at the seaport, trucking companies send their trucks to pick-up the cargo. However, given the capacity limitations at the loading docks and the resource limitations for unloading cargo from the vessel, most trucks must wait before they are able to pick up the cargo. Truckers often park in areas or on the surrounding streets within the Port creating congestion and safety problems. This becomes more of an issue in the summer months when there is an increase in general traffic related to the ferry service and to cruise ships.

Solution

Create a web based truck information sharing system that has SMS and email notification capabilities that will allow truckers to subscribe to receive traffic event messages and Port announcements. In return trucking companies, owner operators and brokers provide estimates of their likely arrival times.

Scenario

To: Hamburg Reefer Pool c/o Seatrade USA
> To: Navimar SA
> Cc: Barimex International
> Cc: Fresh Taste
> Cc: Slingshot Transportation
> Cc: Maritime Terminal
> Cc: Master, M/V Uranus
> Fm: New England Shipping
> Re: M/V Uranus / New Bedford / Arrival

Trucks waiting at the Ferry Parking Lot

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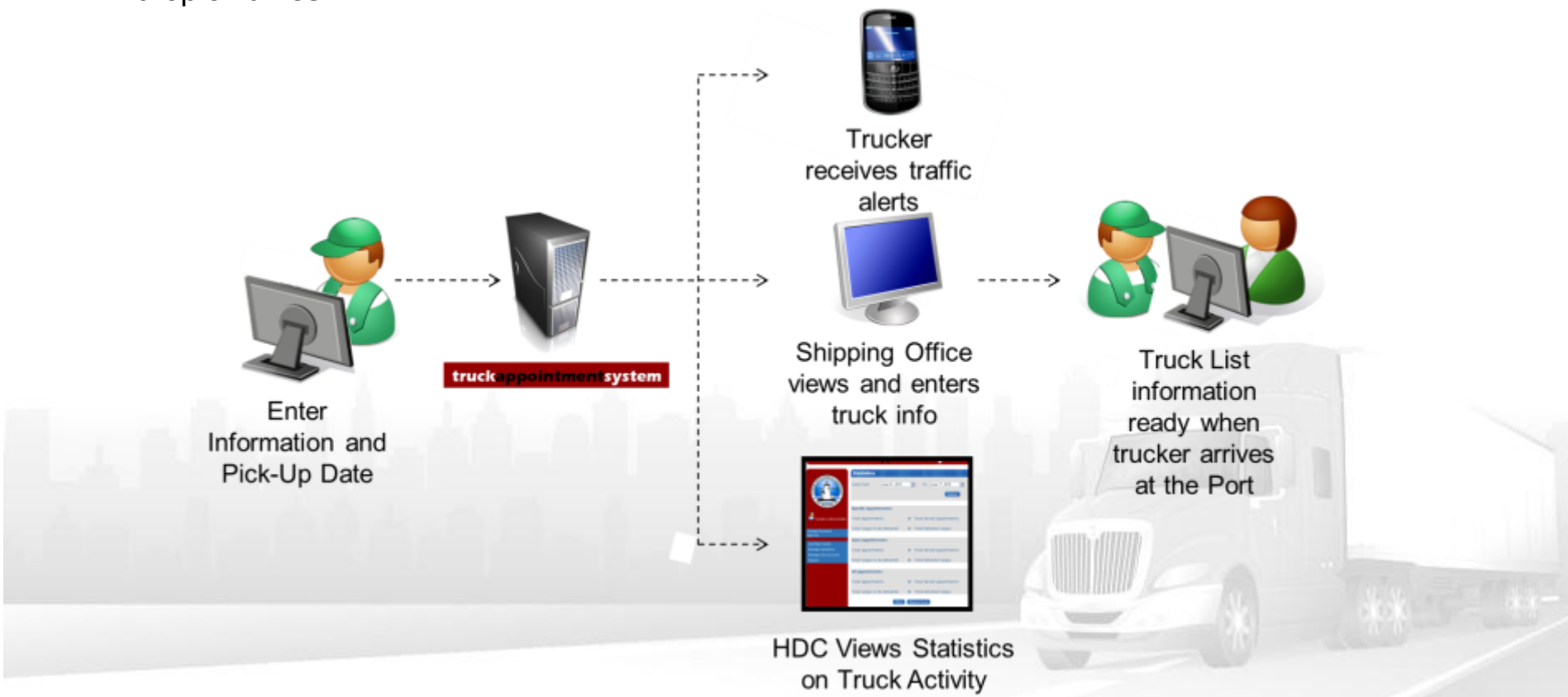
> Cc: Maritime Terminal
> Cc: Master, M/V Uranus
> Fm: New England Shipping
> Re: M/V Uranus / New Bedford / Arrival

Tuesday, 01 November 2011
> ----------
> 1555 hrs Vessel arrived Brenton
>Reef Pilot Station
> 1555 hrs Vessel tendered notice
>of readiness
> 1555 hrs Pilot on board
> 1900 hrs First line ashore
> 1930 hrs All fast starboard side
>alongside New Bedford State Pier
> 1930 hrs Notice of readiness
>received by hand
>
> On Arrival:
> ----------
> FO: 55.50 MT
> DO: 17.00 MT
> FW: 135.00 MT
>
> Drafts: Fwd: 4.60 M
> Aft: 5.55 M

Concept

The goals of the Truck Appointment System (TAS) are to

1. Allow HDC to monitor and plan for truck congestion;
2. Serve as a port operations management tool for the private terminal operator; and
3. Provide valuable traffic and port information to freight operators to optimize routes and pick up and drop off times



Benefits

Harbor Development Commission

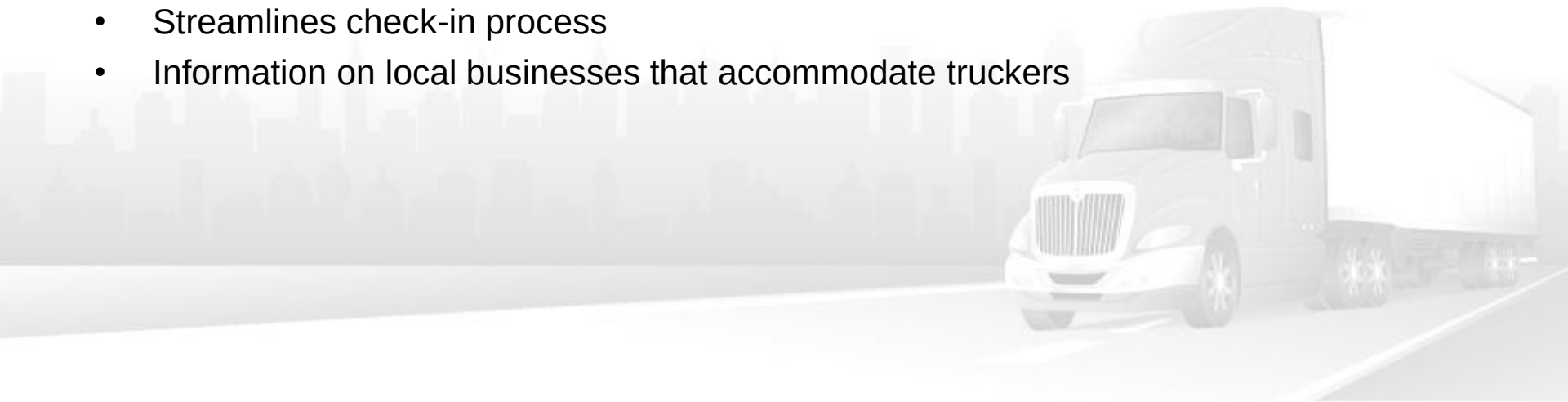
- Better knowledge of past, present and future truck traffic

Maritime International

- Fits in existing business process
- Option to enter Truck List information prior to truck arrival
- Ability to notify truckers of updates or changes to port operations (e.g. loading, emergencies, vessel arrival, etc)

Truckers

- Receive traffic updates via SMS
- Streamlines check-in process
- Information on local businesses that accommodate truckers



Key Issues and Features

Key Issues

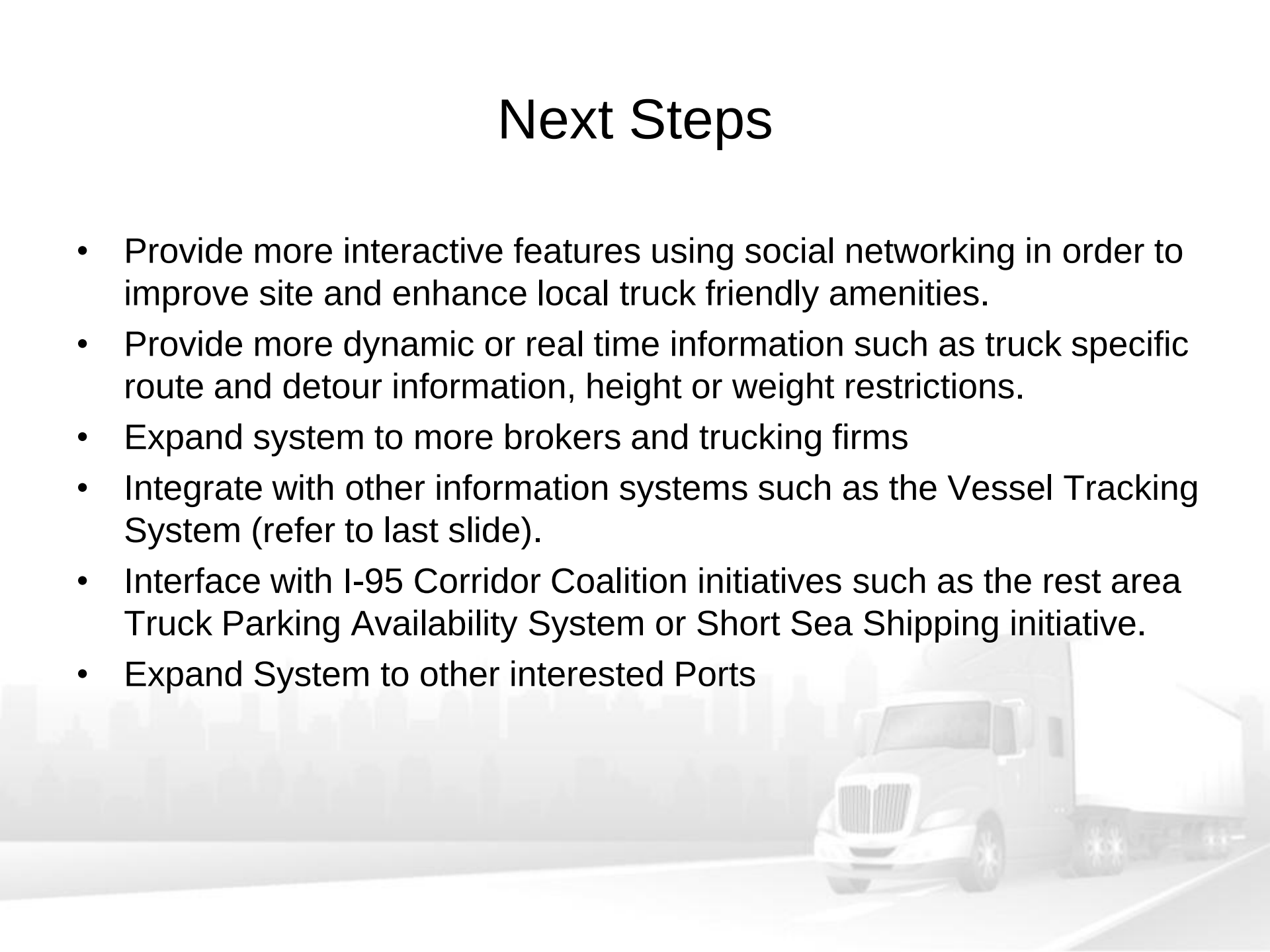
- Needs to be voluntary, not mandatory.
- Needs to ensure that proprietary information is protected.
- Needs to be reliable and available to users all the time.
- Needs to have quick response time using the Internet.
- Needs to collect and report performance and usage metrics.
- Needs to be easily modified or expanded as warranted.
- Needs active technical support.

Key Features

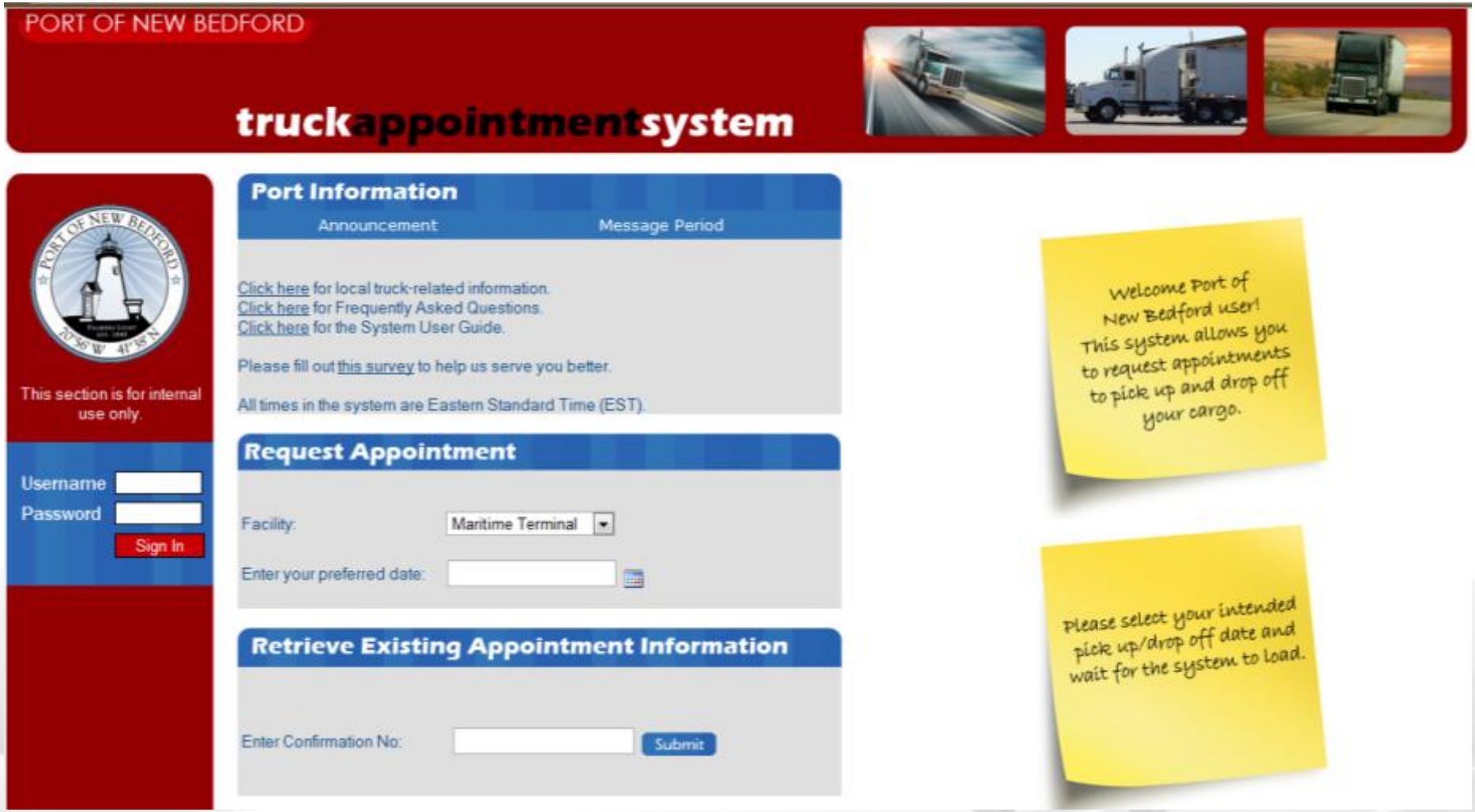
- Third Party hosting provided by GODaddy
- System is secure secured under Go Daddy as a licensee of the TRUSTe Privacy Program. TRUSTe operates the world's largest privacy seal program, certifying more than 3,500 websites, including Yahoo, Facebook, Microsoft, Apple Inc., IBM, Oracle Corporation, Intuit and eBay.
- System performance measures include availability of data, number of appointments scheduled, delivery data enter and page requests. SurveyMonkey is also available on the website to collect user feedback.

Next Steps

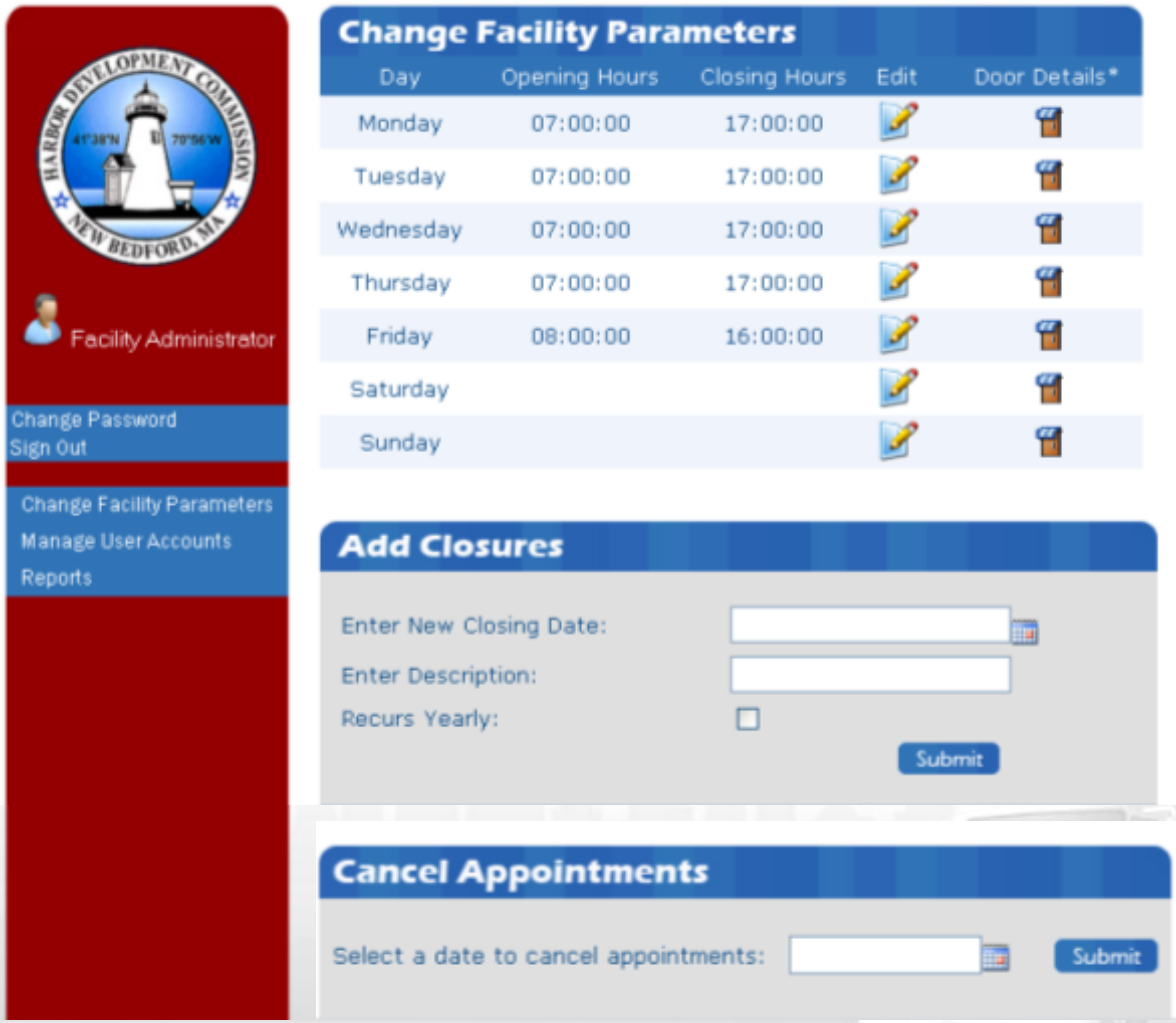
- Provide more interactive features using social networking in order to improve site and enhance local truck friendly amenities.
- Provide more dynamic or real time information such as truck specific route and detour information, height or weight restrictions.
- Expand system to more brokers and trucking firms
- Integrate with other information systems such as the Vessel Tracking System (refer to last slide).
- Interface with I-95 Corridor Coalition initiatives such as the rest area Truck Parking Availability System or Short Sea Shipping initiative.
- Expand System to other interested Ports



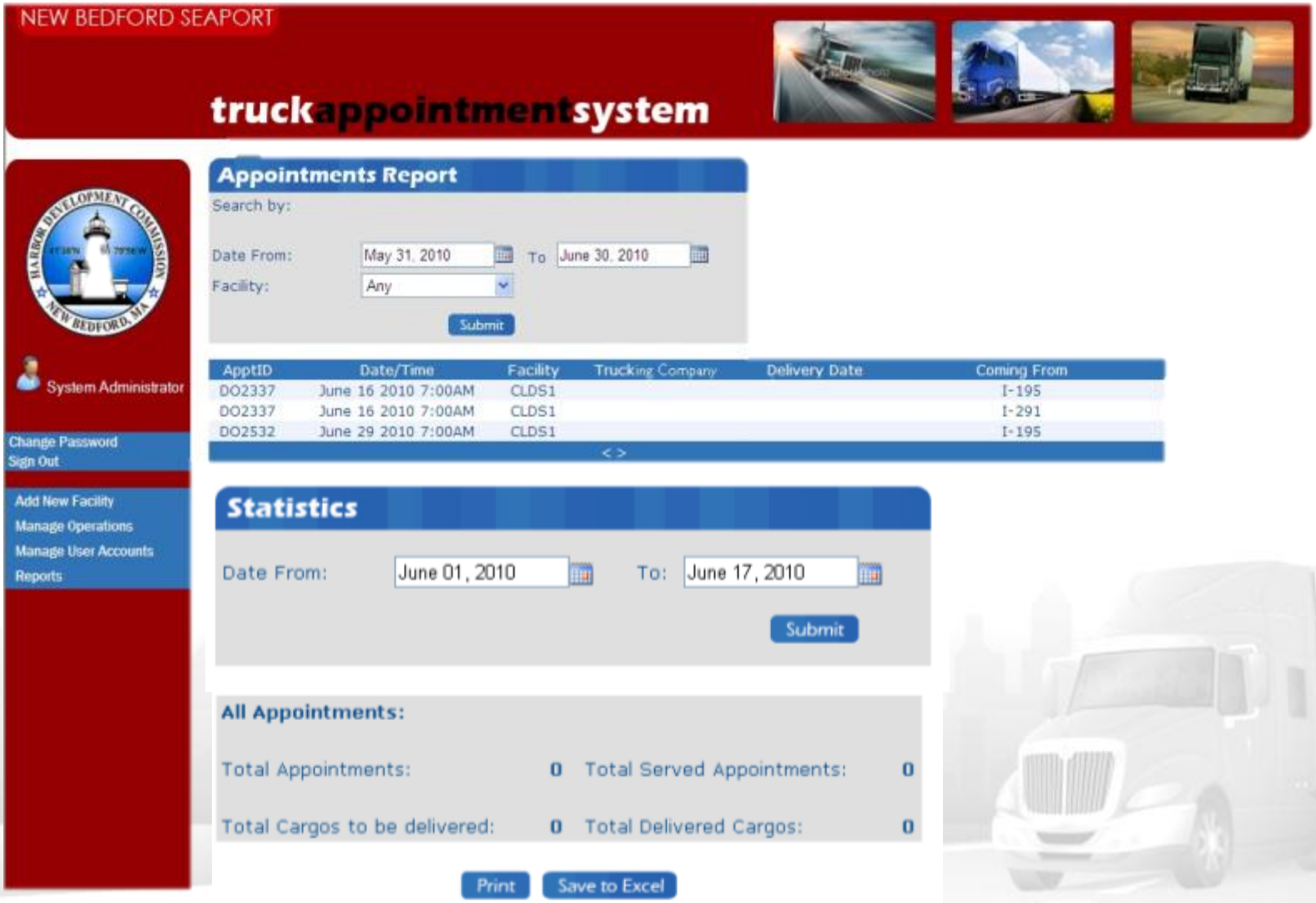
Trucker General Information



Port Operator Management Tools



Port Operator Reports & Statistics



Complementary Vessel Tracking System

Prototype a vessel detection system that could be tied into existing surveillance and billing systems.
Detection should involve both the presence of the vessel as well as vessel id. Detect vessel IDs based on a vision-based OCR system.
Provide an archive of detected vessels for up to 60 days.
Provide a web-based user application through which the user can access/modify the vessel information.
Future interface to truck appointment system.

System Architecture