Freight Advanced Traveler Information System (FRATIS)

Marine Terminal Notification

Website Screenshots

Tuesday, July 20, 2016

Table of Contents

Website Transactions

The notification website for the Marine Terminal covers the four main transaction types, from the LMC perspective. These transactions are:

1. Pick up a Loaded container for an Import
2. Drop off an Empty container after an Import
3. Pick up an Empty container for an Export
4. Drop off a Loaded container for an Export

There are also Dual Transactions, which include two different types of transactions done by the same vehicle during the same visit to a marine terminal. For example, Drop-off an empty container and Pick up a loaded container. The details for each scenario are discussed in the following section.

Messaging Scenarios

Scenario 1: Pick up a loaded container for an Import

Assumption: Information regarding: equipment, sender, receiver, dray company, reference numbers, vehicle, etc. is sent in every message.

Message	Considerations	Key Data
Advance Notification *From FRATIS to MTO*	− Order is entered in the FRATIS Tool − Haven't run algorithm	• Container # • Pickup Date • Shift (Peak/Off-Peak) • Is Dual Transaction*
Load Availability *From MTO to FRATIS*	− From MTO	• Load Status (Available/Not Available) • *Do not consider PierPass*
Previous day Notification for loaded transaction	− Have run algorithm	• Container # • Pickup Date • Estimated time for Pickup

From FRATIS to MTO		• Driver/truck Assigned • Is Dual Transaction*
Same Day Notification for loaded transaction *From FRATIS to MTO*	− Driver has already accepted order. − Driver En Route	• Container # • Pickup Actual ETA • Driver/truck Assigned • Is Dual Transaction*

*If Necessary

Scenario 2: Pickup an Empty container for an Export

Assumption: Information regarding: equipment, sender, receiver, dray company, reference numbers, vehicle, etc. is sent in every message

Message	Considerations	Key Data
Advance Notification *From FRATIS to MTO*	− Order is entered in the FRATIS Tool − Haven't run algorithm	• Booking # • Equip Size • Equip Type (reefer, dry, etc.) • Pickup Date • Pickup Shift (Peak/Off-Peak) • Is Dual Transaction*
Booking Status *From MTO to FRATIS*	− From MTO	• Booking Exist on MTO System • Cut off Time for delivering load • Do not consider PierPass
Previous day Notification for Empty transaction *From FRATIS to MTO*	− Have run algorithm	• Booking # • Pickup Date • Estimated time for Pickup • Driver/truck Assigned • Is Dual Transaction*

Same Day Notification for Empty transaction *From FRATIS to MTO*	− Driver has already accepted order − Driver En Route	• Booking# / ref#? • Drop Off Load Actual ETA • Driver Assigned • Is Dual Transaction*

*If Necessary

Scenario 3: Drop-off an Empty container after an Import

Assumption: Information regarding: equipment, sender, receiver, dray company, reference numbers, vehicle, etc. is sent in every message

Message	Considerations	Key Data
Previous day Notification for Empty transaction *From FRATIS to MTO*	− Have run algorithm	• Container # • Drop-off Date • Estimated time for Drop-off • Driver/truck Assigned • Is Dual Transaction*
Same Day Notification for Empty transaction *From FRATIS to MTO*	− Driver has already accepted order. − Driver En Route	• Container # • Drop-off Actual ETA • Driver/truck Assigned • Is Dual Transaction*

*If Necessary

Scenario 4: Drop-off a Loaded container for an Export

Assumption: Information regarding: equipment, sender, receiver, dray company, reference numbers, vehicle, etc. is sent in every message

Message	Considerations	Key Data
Previous day Notification for loaded transaction *From FRATIS to MTO*	− Have run algorithm	• Container # • Drop-off Date • Estimated time for Drop-off • Driver/truck Assigned • Is Dual Transaction*
Same Day Notification for loaded transaction *From FRATIS to MTO*	− Driver has already accepted order. − Driver En Route	• Container # • Drop-off Actual ETA • Driver/truck Assigned • Is Dual Transaction*

*If Necessary

Presented above was the FRATIS team understanding and it may be customized or altered based on the specifics of MTOs and/or LMCs.

MTO Tracking Website

FRATIS project enables MTOs to view scheduled transactions and real-time truck arrival information through a secured website. Also, the tracking website includes access to an open API. The API can be used by the MTO to integrate with FRATIS and retrieve the tracking information directly.

The tracking website will provide each MTO with information including summary of LMC transactions and the details of each transaction. A simplified workflow is shown in Figure 1.
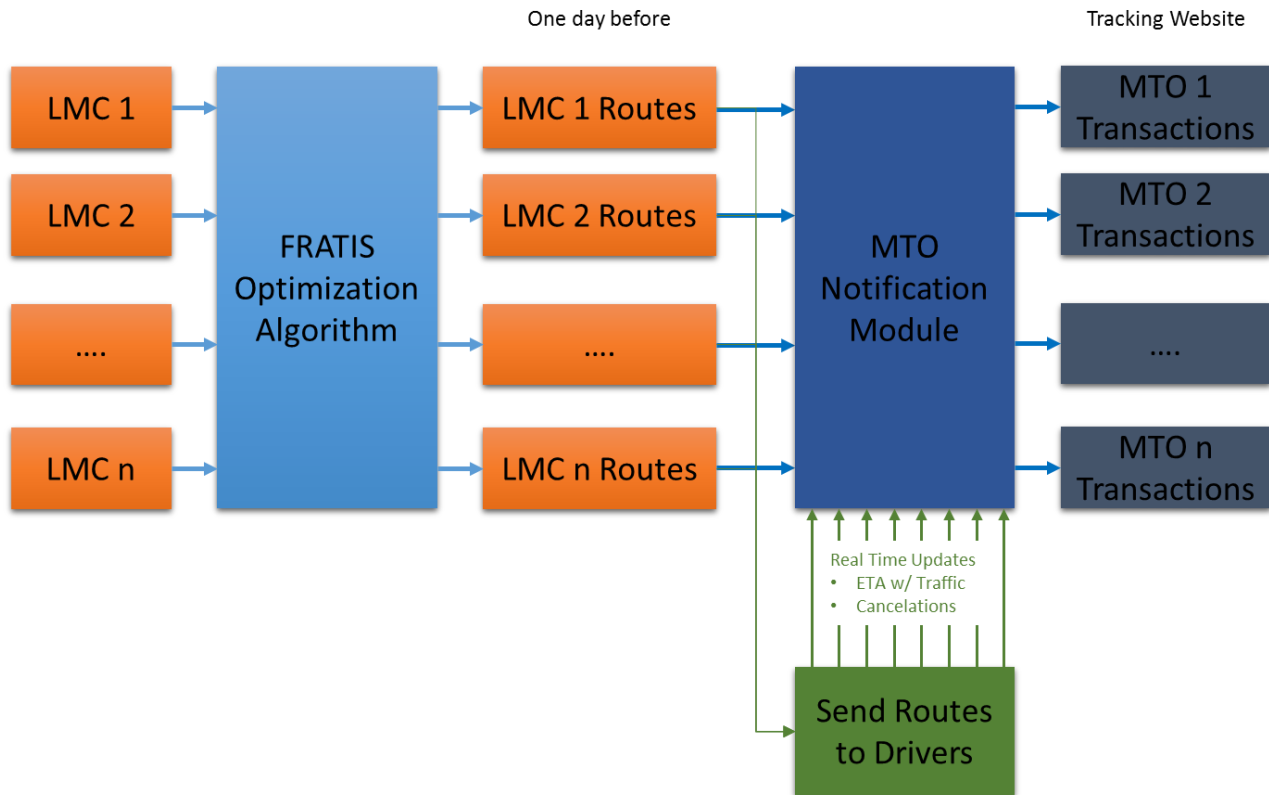

Figure 1: Notification Workflow

As shown in Figure 1, the participating LMCs will use their FRATIS account to run the optimization and generate their daily optimum routes. When the LMC dispatchers accept the optimized routes, the drivers will receive the routes on their FRATIS mobile application and the MTO transactions status will be changed to scheduled transaction. At this point when the MTOs access the notification website, they will see the scheduled transactions. The scheduled transactions can be viewed at any time, usually the most up to date information will be available one day before. On the day of the transactions, the scheduled transactions will be updated as soon as the drivers update the transaction status. For example, if a driver navigates to a marine terminal to execute a particular transaction. The driver's mobile application will update the status of the particular transaction and will publish the ETA to FRATIS. Each MTO will be able to view in Real-time their transactions status and ETA updates on the tracking

website. Another example, if a driver/dispatcher cancels a transaction. The FRATIS application will update the status of the transaction and the MTOs will be able to get real-time updates on cancelations and no-shows.

Marine Terminal Notification website production

The notification website will be made available to all the MTOs in southern California. The notification website will require an MTO representative to Sign up as a new user in the website, as shown in figure 2. The MTO representative will be entering the required information for creating an account for their terminal including a username and password for accessing the account. After submitting the request, the information will be verified by the FRATIS team and the account will be activated for immediate use. The website will provide the summary and details of the daily transactions at each marine terminal from the participating LMCs.
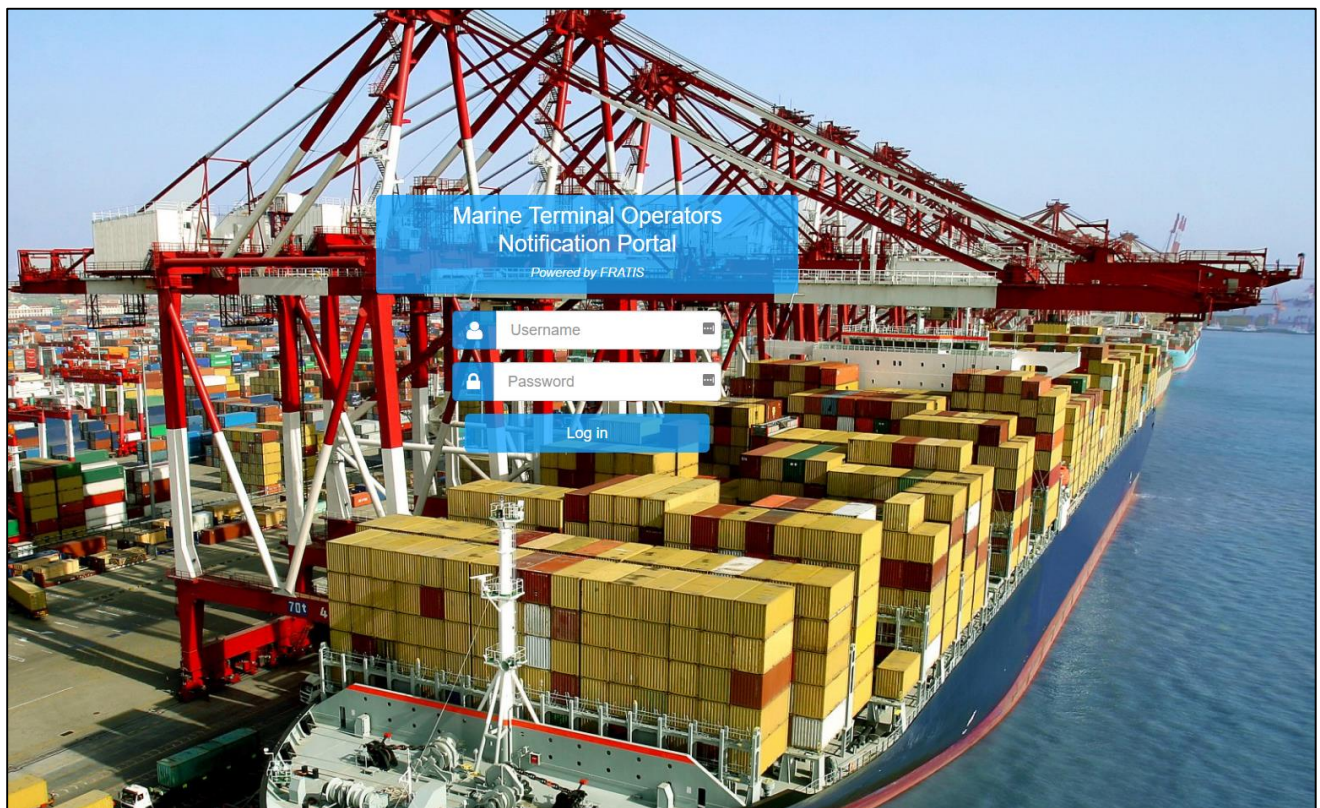

Figure 2: User Sign-in Page

When the MTO representative signs in to the system, they will be able to get information specific to their terminal. The website will allow them to run queries to get specific transactions filtered by date, shift, LMC, transaction type, and steamship line. The results will be summarized to provide the MTO management with a summary statistic that can be used for planning purposes (e.g. ordering labor, gate

resources). The query results will be displayed in the same page as shown in Figure 4 and will display the count of each type of transaction. The website will also display the details of the transactions such as Container #, Booking #, Transaction Type, Status, and Estimated Time of Arrival (ETA).

WBCT Notification Portal

	Query Parameters					Results Summary				
From	To	LMC	Transaction Type		Steam Ship Line	Transactions	Export	Import	Drop-off Empty	Pickup Empty
-	-	All	All		All	34	10	9	9	6

LMC	Appointment	Booking Number	Container Number	Container Size	Due Date			ETA	Status	Steam Ship Line	Transaction Type
All ▾	All ▾	filter Booking Number	filter Container Number	All ▾	Between	📅 And	📅	filter ETA	All ▾	All ▾	All ▾
TTSI	19:00-20:00		7240238658	15	07/22/2016			19:59	Pending	Cosco	Export
TTSI	15:00-16:00		4922538757	45	07/23/2016			15:34	Pending	Hanjin	Export
Damco	9:00-10:00		8025402958	15	07/24/2016			9:42	Pending	Hanjin	Drop-Off Empty
TTSI	9:00-10:00		7303089510	40	07/25/2016			9:40	Pending	Cosco	Drop-Off Empty
Damco	22:00-23:00		5711102514	40	07/29/2016			22:32	Pending	Maersk	Export
Damco	12:00-13:00		6251983383	40	07/29/2016			12:27	Pending	Cosco	Export
Damco	19:00-20:00		5208498245	15	07/30/2016			19:42	Pending	Hyundai	Import
Damco	18:00-19:00		4961273610	15	07/31/2016			18:19	Pending	Hyundai	Drop-Off Empty
Damco	18:00-19:00		4357320303	20	08/03/2016			18:16	Pending	Cosco	Export
TTSI	6:00-7:00	OAI8606332858		20	08/03/2016			6:30	Pending	Hyundai	Drop-Off Empty

📄 Export   1 2 3 4   10 25 50 100 All

Figure 3: Transactions summary and details

The website will include access and documentation of a secured web API which can be accessed by any registered MTOs. The API will provide the MTOs with detailed information regarding the scheduled services at the marine terminal by the licensed motor carriers including exports, imports, pick up empty, or drop off empty containers for a specific day or a date range according to the user's preference. The user will be able to access the MTO notification API service through HTTPS interface, with a request constructed as a URL string containing the API input parameters along with a unique user API key for securing service accessibility.

The API input parameters are the following:

- Date range (from/to)

- Shift (day/night)

- LMC name

- Transaction type (export, import, drop off empty, pick up empty)

- Steamship line name

In case any of these parameters are not specified, the API will return the results with <u>all</u> of the different alternatives of the unspecified parameters.

The output of the API request will be in jason format including the following:

9

-      Container number

-      Booking number (if applicable)

-      Container size

-      LMC name

-      Steamship line

-      Transaction type

-      Due date

-      Appointment time (if applicable)

-      Estimated Time of Arrival (ETA)

-      Status (pending, in-progress, en-route, completed)

Figure 4: Filtering by Date

Figure 5: Filtering by Date Results

Figure 6: Filtering by Transaction Type

WBCT Notification Portal

Query Parameters

From	To	LMC	Transaction Type	Steam Ship Line
-	-	All	Export	All

Results Summary

Transactions	Export	Import	Drop-off Empty	Pickup Empty
10	10	-	-	-

LMC	Appointment	Booking Number	Container Number	Container Size	Due Date		ETA	Status	Steam Ship Line	Transaction Type
All ▾	All ▾	filter Booking Number	filter Container Number	All ▾	Between ___ And ___		filter ETA	All ▾	All ▾	Export ▾
TTSI	19:00-20:00		7240238658	15	07/22/2016		19:59	Pending	Cosco	Export
TTSI	15:00-16:00		4922538757	45	07/23/2016		15:34	Pending	Hanjin	Export
Damco	22:00-23:00		5711102514	40	07/29/2016		22:32	Pending	Maersk	Export
Damco	12:00-13:00		6251983383	40	07/29/2016		12:27	Pending	Cosco	Export
Damco	18:00-19:00		4357320303	20	08/03/2016		18:16	Pending	Cosco	Export
TTSI	20:00-21:00		2679105375	45	08/05/2016		20:48	Pending	Hanjin	Export
Damco	11:00-12:00		8376396618	40	08/05/2016		11:40	Pending	Hyundai	Export
TTSI	15:00-16:00		7283540250	20	08/08/2016		15:41	Pending	Hanjin	Export
TTSI	15:00-16:00		8534486344	20	08/16/2016		15:19	Pending	Hyundai	Export
TTSI	12:00-13:00		4114385658	45	08/25/2016		12:60	Pending	Hyundai	Export

📄 Export   10 25 50 100 All

Figure 7: Filtering by Transaction Results

WBCT Notifi

Query Parameters

From	To	LMC	Transaction Type	Steam Ship Line
07/29/2016	09/10/2016	All	All	All

Figure 8: Query Parameters

cation Portal

Results Summary

Transactions	Export	Import	Drop-off Empty	Pickup Empty
30	8	9	7	6

Figure 9: Query Result Summary