IRAQ PROJECT OVERVIEW: NAFITH INTERNATIONAL
October 2015

Overview

Nafith International ("Nafith") has entered into a concession agreement with the General Company for the Ports of Iraq ("GCPI") to design, build, operate, manage, and maintain a system that will organize truck entry and movement into Iraq's seaports and all border crossings that handle commercial traffic (the "Project"). Construction began during October 2014, is largely complete, and commercial operations are targeted to start before year-end 2015 at Umm Qasr.

Nafith will deploy an integrated, Internet-based information technology platform for system users, construct truck marshalling yards, and reorganize routes within the ports. The system will boost efficiency and productivity for Iraq's port and trucking sectors.

Nafith will manage access to Umm Qasr (both the North and South Ports), Khor al Zubair, Abu Floos, and Ma'qal ports, and any ports added during the concession term, including Grand Faw. The concession agreement also calls for Nafith to manage access to all border crossings that allow commercial traffic.

To finance the required capital investment, Nafith has received an equity investment from the International Finance Corporation ("IFC"), a member of the World Bank Group and the largest global development institution focused exclusively on the private sector, and Foursan Capital Partners, a private equity fund targeting investments in accelerated growth companies in the Levant and North Africa.

Objectives

The Project is designed to improve the performance of Iraq's ports, the controlled border crossings, and the trucking sector. The Project also should act to modernize the sector and provide meaningful second-order impacts.

Port Operations: Speed ship discharge; decrease congestion at terminals and berths to increase thru-put; enforce capacity controls; and decrease the number of trucks in the ports by ensuring trucks are present only to conduct authorized operations.

Truck Operations: Streamline operations at the ports and controlled border crossings to reduce truck queues and delays; provide trucking companies advance notification of anticipated vessel discharge times; keep trucks away from Basra when they do not have a job to reduce truck idle time and thereby improve national fleet efficiency.

Foundation System: Provide the Ministry of Transport with a registrar system linking trucks, drivers and trucking companies; implement an Internet-based application to upgrade the technical sophistication of the sector; generate reliable and detailed statistics on performance for the transport sector and government.

Second-order impacts: Reduce pollution and fuel consumption; establish transparent and fair practices.

Design

The Project is based on the build-own-operate-transfer ("BOOT") concession agreement model. Nafith will build truck marshalling yards, deploy an integrated, Internet-based information technology platform, and construct RFID[1] and communications networks.   Regulations to be issued by GCPI will require every truck utilizing the Project's services to obtain a permit issued by Nafith. For each permit issued Nafith will collect a mandatory, pre-paid fee.   The permit fee is fixed for the term of the agreement at US$10.30. At the end of the term the Project will be transferred to the Iraqi government, unless extended.

The system will organize the activities of multiple, independent stakeholders (including the port and terminals, the truckers and trucking companies, government entities, etc.) into an integrated solution that follows known rules, treats all participants in the same way, and is designed to promote efficiency, productivity, and transparency.   The Project will utilize technologies and processes developed and currently deployed by Nafith.

Nafith-Iraq also will provide two complementary services:

- A system for Iraq's Ministry of Transport to build a database linking trucking companies, trucks, and drivers.
- An electronic waybill system to generate, process, and share waybills.

The system includes three primary elements:

1. Physical Infrastructure. Up to three truck marshalling yards, checkpoints at critical locations, an RFID system, and a communications network to monitor and control the movement of permitted trucks.
2. Technology Platform. An information technology application that allows authorized users to apply for permits, and then organizes and controls the movements of all trucks controlled by the system.
3. Operations. A series of re-engineered processes (i.e., work flows), capacity control measures, and checkpoints (both staffed and automated) at key locations (the marshalling yards; port, terminal and border crossing gates; governate borders) where permits are issued and validated and truck movements are monitored and controlled.

Operations

The Project's operations will link the physical infrastructure and technology platform with a new work flow design for accessing the ports and border crossings. Tying the system together are the permits required for every truck using the Project.

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[1] Radio frequency identification (RFID) systems identify an object using radio waves. An RFID system consists of three basic components: i) a tag containing unique information encoded on an integrated circuit, ii) a stationary antenna that emits radio signals to activate the tag and read and write data to it, which is coupled with iii) a reader that decodes the data encoded in the tag. This data is then passed to the operating system.

For a truck to be able to enter a port or controlled border crossing it will first need to obtain a Nafith permit. In addition to providing access, the permit contains instructions that govern the truck's movements and activities while it is under the jurisdiction of the system.

Permits are requested by registered system users, who apply for a permit through a secure, Internet-accessible application, which is part of the technology platform. Permits are issued for a specific driver, truck, load, and arrival time. Permits are issued after all required information (including information about the vehicle, driver, cargo, operation to be performed, required customs and other approvals, consignee, etc.) have been entered and validated, the goods are cleared and ready for pick-up, and the required permit fee has been paid in advance.

In this design the permit is the principal control object. By incorporating the appropriate rules logic, permits ensure that trucks enter a port or border crossing only if the trucks have been pre-cleared, the goods to be picked up have cleared customs (in the case of imports), all fees have been paid, and the terminal or other destination point is ready.

At entrance gates, the driver's identity and truck registration will be matched against the permit fields, permits will be validated, and trucks without valid permits will be turned away or diverted into a problem resolution holding area.

Trucks with valid permits will be directed to their destination following pre-set routes. Trucks will be allowed to move only when capacity is available at the downstream destination, with capacities at these destinations monitored in near real-time. The system will control and monitor each truck as it moves to its final destination; loads or discharges cargo, or performs another specified operation; and then exits the port.

System control will be maintained by a mix of staffed checkpoints and RFID-enabled checkpoints. Physical control is maintained at critical nodes, including the marshalling yards, destination points (which are primarily the various port terminals), and port exit gates. At less-critical points, the Project will utilize RFID readers to maintain control.

All activities will be coordinated through the use of the technology platform. Each truck has an expected time to pass the checkpoints on its assigned route, and the system flags trucks that are deviating from their plan. At the same time, the system's algorithms monitor capacity of the Umm Qasr Port main yard and various destinations, hold trucks if trucks are developing a long queue at a terminal's entrance, detect trucks congregating on a port's internal road network, and ensure that the terminals have sufficient trucks waiting to be maximally efficient.

Nafith RFID tags will be permanently affixed to truck windshields during their first trip through the system. The tags will be "read" as the truck passes any RFID checkpoint.