Nafith

Trade & Transport
Facilitation In Action

Digitalizing Port Access at the Hinterland

October 6th, 2021

Nafith International LLC

- Trade & Transport Facilitation infrastructure and Logistics Technology
- Port access business in USA since 2001
- IFC (World Bank Group), Foursan Fund investors, US and Jordanian partners
- National Projects to digitize national logistics of countries/ cities/ hubs
- Decongest logistics hubs/ ports/ borders, secure cargo corridors
- PPP BOT projects in Jordan, Iraq and Oman
- Process 6000 trucks / day in all operations
- Holds international patents in RFID and Weighing
- Applies in-house developed and manufactured IoT and Deep Vision in Logistics operations

Hinterland/Yard/Berth Cycles

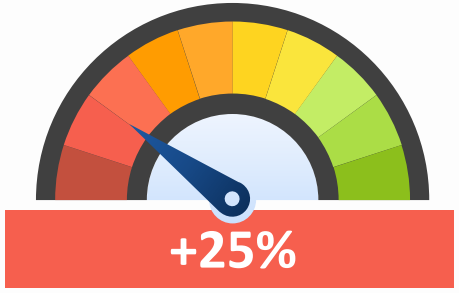
Hinterland Cycle

- Basics
  - *Assume "No Friction":*
  - Info before arrival of trucks
  - Booking/appointment system
  - Digitalize pre-gate and out-gate processes
  - Install eGates, auto-Weighing
  - **Capacity management of everything – MAXIMIZE**
  - Operate at max efficiency … all the time

- Friction is
  - Teamsters
  - Labor Unions
  - Trucking unions
  - Equipment shifting
  - Equipment maintenance
  - **Traffic outside the port**
  - **Capacity Management at adjacent ports**

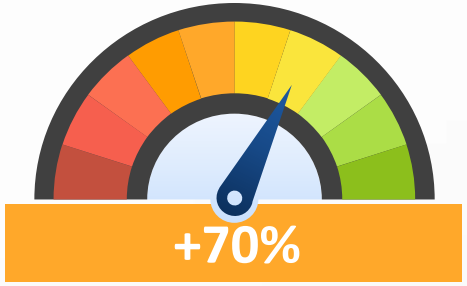
Hinterland Cycle Efficiency by Mode

Maximize Port/Hub Capacity



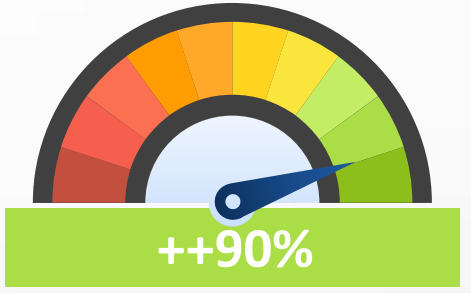
Standard Booking

- Operate at your own risk of congestion
- Deal with truck waiting times, outside the port
- High truck dwell times
- More delay at the gate
- Slow port gates
- Negative environmental effect
- Higher hinterland transport costs



Truck Appointment

- Digitalizes a wide part of the Hinterland cycle
- Very small Infrastructure investment
- Prone to port Friction
- Pre-determined capacity = max capacity
- Open slots are lost capacity
- Data analytics yield negligible enhancement
- Port specific, negative optimization of Logistics for multiple ports in one zone



Scheduling System

- Step up from the Appointment System
- Mutes Friction effects
- Operate at max capacity, or even higher
- Apply Data analytics **(Tinàmica)** to reach extreme optimization
- Close coupling with Yard and Berth cycles
- Requires minor infrastructure investment
- Can be a Port Authority project to add an extra layer of logistics optimization

Live Examples from Sept News

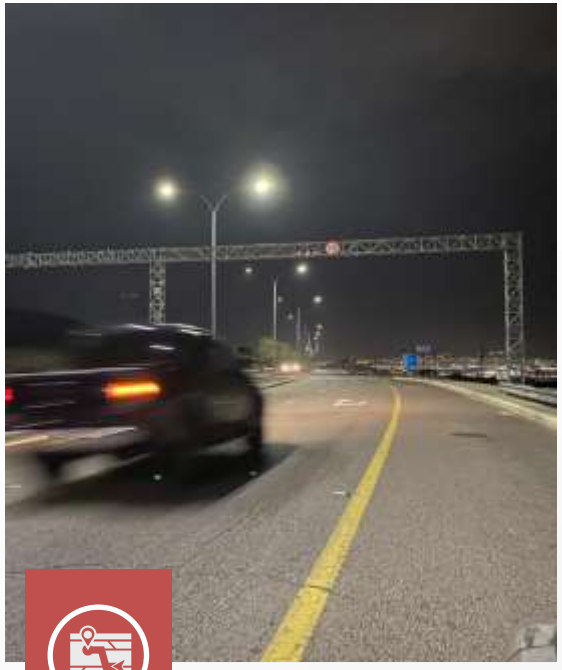
- **Sept. 22nd, 2021**
  Total Terminals International (TTI) container terminal on Pier T in the Port of Long Beach has started its overnight hours pilot programme to widen access amid the ongoing cargo surge.
- For truckers with appointments during the 11.00 pm and 1.30 am period, the terminal will allow access whenever they arrive during that time.

- **Sept. 17th, 2021**
- **Following consultation with multiple supply chain stakeholders and the US Department of Transportation, the ports of Long Beach and Los Angeles have announced new measures to improve freight movement and reduce delays through the ports as they continue to experience record volumes.**
- These measures will enhance the ports' landside operations to help meet the unprecedented growth in cargo volume moving through the San Pedro Bay

Tools & Technology

iGates
Centrally controlled

iGates are manufactured and delivered by NFIDENT, a wholly owned factory/subsidiary of Nafith



iPortals
Sense everything

iPortals Categorize vehicles, streamlined monitoring, using Deep Learning/Vision

CC Centers
Control & Monitor

Command and Controls Center that covers all logistics events and interventions

Logistics Systems
NFlow, NCheck, NStar

Platforms are web, mobile, GIS, Data Analytics, Dashboards, accessible within a centralized entry point

Tools & Technology

IoT, D/L, Edge Tech

eSeals
Secure Cargo on the Move

eID Cards
Long RangeFor Truck drivers and Access Mgmt

Truck eID
Secure RFID tags, Trailer/Chassis eSeals

Deep Vision
Deep Learning Edge Technology for Traffic Sensing

Weigh In Motion / One-Step Weighing
Axle Load Mgmt, Advanced Vehicle Sensing

Internet of Things
Continuous Development into the Future

iGates

Collaboration in Technology

Serving Spain

NAFITH

- Investments / PPP's
- Smart Cities / Infrastructure
- 4PL, Command & Control Centers
- Manufacture iGates, iPortals, eSeals
- IoT, Edge Computing, Deep Vision, Secure RFID, AutoID

tinámica

- Data Life Cycle
- Data Analytics, AI, Machine Learning
- Advanced Process Discovery
- Business Intelligence
- Data Governance, Data Quality

Nafith

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Thank You

Contact

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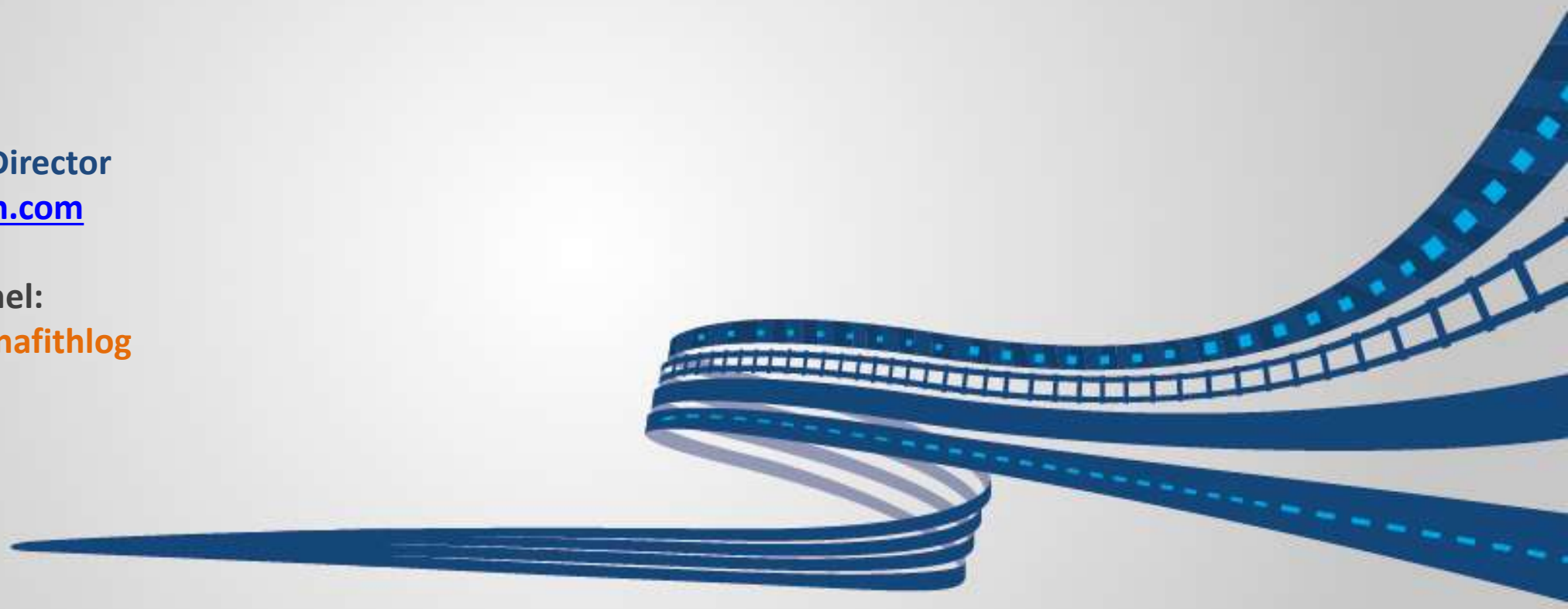
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