



**Intelligent Hinterland Integration into
Ports and Logistics Hubs**

Oct 23rd - 24th, 2024

What **Ports/Hubs** Want from the Hinterland



More transactions



Flattening of the curve



Min. truck turn-around time



Less incoming trucks



Less Carbon Footprint



Better Yard Capacity

What the **Hinterland** Wants from the Ports/Hubs



High Visibility



Flexible arrival



Synchronization



Less Carbon Footprint



Min. truck turn-around time



No Waiting

What Ports/Hubs Want from the Hinterland



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 Appt System

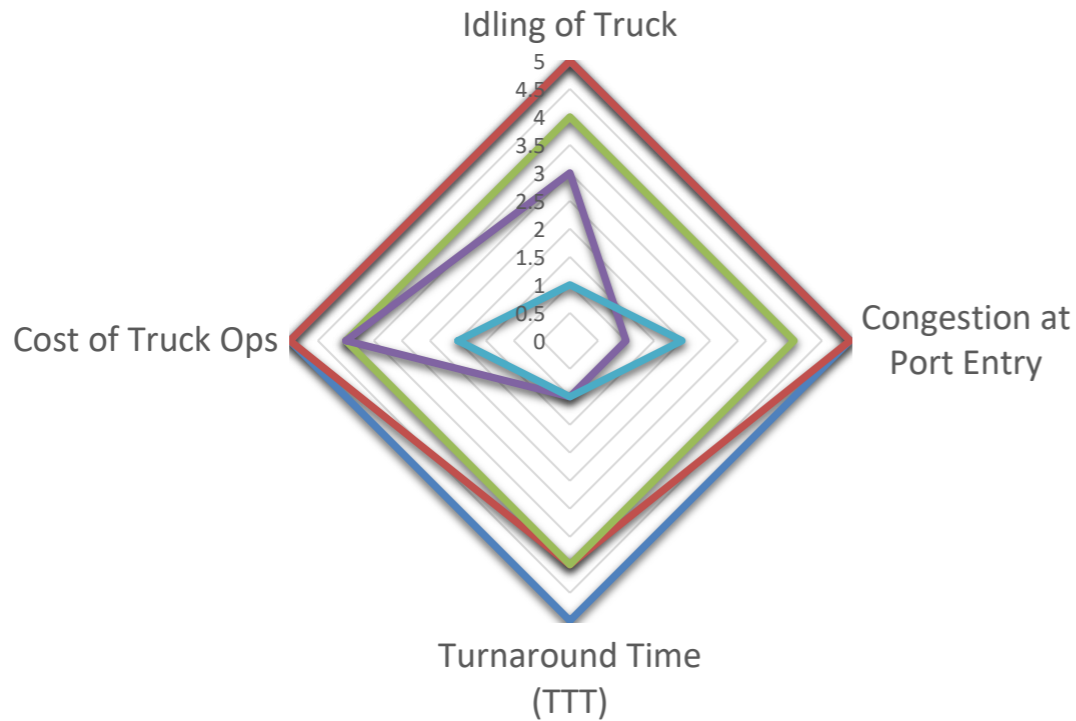
- Step up from the Appointment System
- Mutes Friction effects
- Operate at max capacity, or even higher
- Apply Data analytics to reach extreme optimization
- Close coupling with Yard and Berth cycles
- Requires minor infrastructure investment
- Can be a Port Authority project to add an extra layer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

Hinterland Cycle Efficiency by Mode

Maximize Port/Hub Capacity

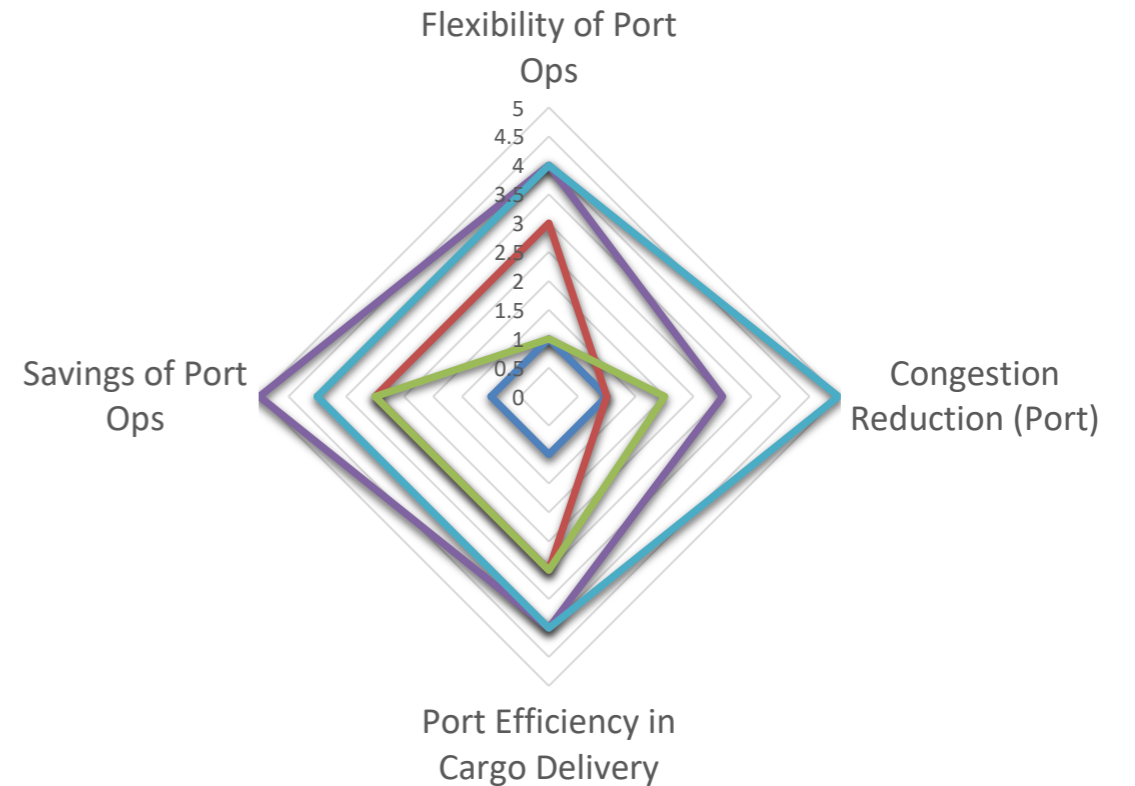
From Perspective of Transporters

— Ad-hoc — Call-up — Booking — Appointment — Scheduling



From the Perspective of Ports/Hubs

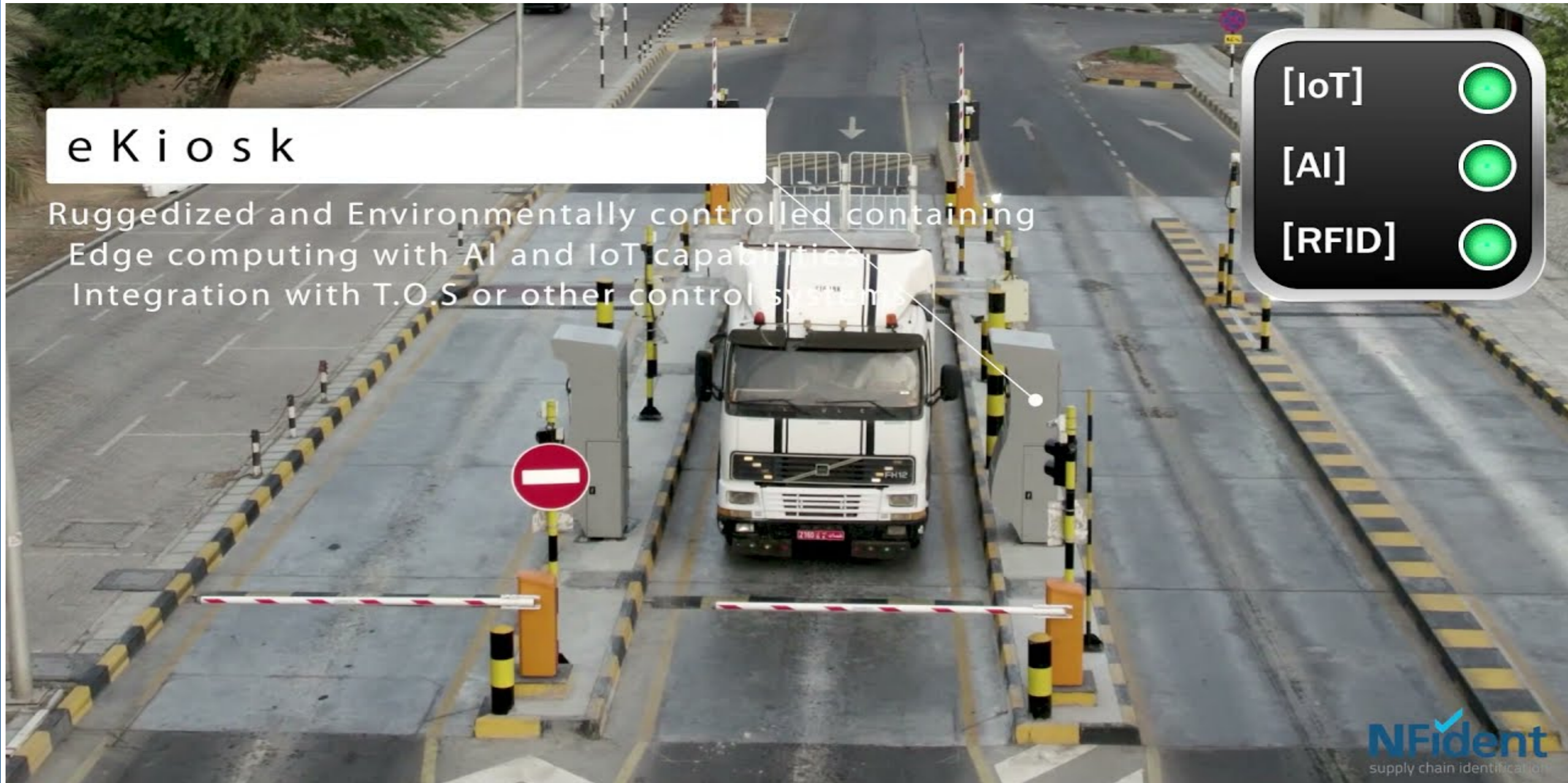
— Ad-hoc — Call-up — Booking — Appointment — Scheduling



eKiosk

Ruggedized and Environmentally controlled containing
 Edge computing with AI and IoT capabilities
 Integration with T.O.S or other control systems

- [IoT]
- [AI]
- [RFID]



Tools & Technology

IoT, D/L, Edge Tech



eSeals
Secure Cargo on the Move



eID Cards
Long Range For 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
Axle Load Mgmt, Advanced Vehicle Sensing



Internet of Things
Continuous Development into the Future

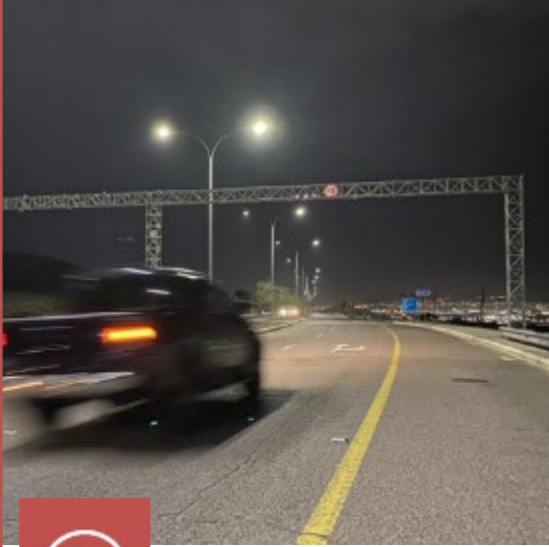
Tools & Technology

IoT, D/L, Edge Tech




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

What's in it for Ports/Hubs

SaaS Cost / Benefit

- Supports ports, marshalling yards, free zones, special economic zones
- Containers, General Cargo, RoRo, Chemicals
- Deep Integration of hinterland with your operations, TOS, other systems, up to the iGate
- Trucks, trains and all other vehicles
- Seamless weighing of cargo (LSWIM, Weighbridge)
- Hazmat detection and management
- Cut down truck turn-around time
- Optimized hinterland access

- One Vendor
- No licensing costs
- No hidden costs
- No changes costs
- SaaS Model
- High availability
- Max redundancy
- Grows with you
- Changes with you

Thank You
Please visit our Booth!

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Virtual Reality Tour of
NFident iGates

