Improving Inbound Logistics at Fuels Terminals in the Age of Covid

Jay Tchakarov, VP Velostics, ChaiOne
Loading Process at Fuels Terminals

**Workflow**

**CUSTOMER**
- Provides tank inventory levels and forecast

**CARRIER DISPATCHES**
- Reviews inventory levels and expected demand
- Creates orders
- Dispatches orders to available drivers

**DRIVER LOADS AT TERMINAL**
- Enters order data - including carrier, customer and account number, ship-to, vehicle/trailer, products, quantities, compartments
- Load
- Pull over to get BOL

**Challenges**

- No visibility into allocation data causes delays on site
- No visibility into wait times at terminals
- Takes time to enter order
- Manual entry is error prone
- Requires staff assistance
- "Trailer surfing" to avoid invalid certifications
- "Allocation stealing" if no allocation available
- Paper BOL further delays trucks from leaving
- Long lines outside on city streets during peak hours
Impact on Terminals

15-18 MINS
Gate-to-gate time

1+ HRS
Waiting outside of facility at peak hour

6.7 ERRORS
Driver data entry errors per 10,000 loads

1-3+ MINS
Order entry time under canopy

5.5%+
Throughput lost to driver order entry time

1+ FTE’s
Handling issues, rejections, BOLs, paperwork

$230K+
Net profit lost for 150 loads/day terminal

$60K +
Admin/FTE cost of paper BOLs, cancelled orders, re-bills, invoice corrections per terminal
## Impact on Carriers

<table>
<thead>
<tr>
<th><strong>15-18 MINS</strong></th>
<th>Gate-to-gate time</th>
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</thead>
<tbody>
<tr>
<td><strong>3-5+ MINS</strong></td>
<td>Delays at terminal for data entry and BOL collection</td>
</tr>
<tr>
<td><strong>1+ HRS</strong></td>
<td>Waiting outside of facility at peak hour</td>
</tr>
<tr>
<td><strong>NO</strong></td>
<td>Visibility into customer allocations</td>
</tr>
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<td><strong>6.7</strong></td>
<td>Driver data entry errors per 10,000 loads</td>
</tr>
<tr>
<td><strong>4+%</strong></td>
<td>Reduced fleet utilization</td>
</tr>
<tr>
<td><strong>5+ LOADS</strong></td>
<td>Turned away due to allocation, equipment, driver authorizations</td>
</tr>
<tr>
<td><strong>3-7 DAYS</strong></td>
<td>Delays to invoice with paper-based BOL and delivery ticket</td>
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</tbody>
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Trends

Closer, contactless integration among business partners starting to catch up to the consumer world
Trucks arriving for loading and unloading at terminals can get loaded faster with QR codes. The same experience when boarding flights, now at a facility near you.

Velostics Pass QR code contains all information to create order instantaneously and contactlessly.
**Scheduling and Executing Loads - Data Entry**

- Monitor Tank Levels and Demand
- Create Order with Carrier
- Dispatch Driver (equipment)
- Badge-in
- Confirm Driver Identity
- Confirm Carrier
- Select Equipment
- Enter Customer Info
- Enter Product Info
- Load

* Under Rack

* Handled by TMS - (ex. DTN, TopTech)

* Wizard interface with steps and entry to select and enter up to **14 header elements and 6 per line item**:
  - Driver info and passcode
  - Carrier, including carrier, truck, trailer numbers
  - Customer info, including BillTo, ShipTo, destination, PO, order number, contract
  - Line items, including product codes, volumes, compartments
# PIDX for Terminal Orders

**Covers:**
- Business partners
- Products

**Does not cover:**
- Equipment
- Does not include IDs and numbers that terminal understands
How do we support PIDX?

Receive PIDX order
- Carrier TMS

Merge order with data from terminal management system (TMS) - terminal
- Tie order and shipment data to QR generator based on location and supported format
- Enrich with additional fields - end customer, ship-to, channel, etc.

Generate QR code with simplified code to save space
- Share with drivers via text or app

Scan QR code at gate
- Identify driver
- Create order

Push order to TMS
- Driver confirms order under rack
- Load and go!
Velostics: Loading Flow for Terminals

**Benefits**

- Throughput increase (1+ minutes per truck)
- Error reduction
- Contactless check-in
- Driver and equipment certification checks at dispatch
- Supports existing flow for incremental adoption
CHAIONE REPRESENTATIVE CUSTOMERS
Trucks arriving for loading and unloading at warehouses and terminals can get processed faster with QR codes. The same experience when boarding flights, now at a facility near you.
Customer Terminal View

Easy to view terminal wait times, allocation status and product availability.
**Impact on Terminals**

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  - Gate-to-gate time

- **1+ HRS**
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