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## Reusable Transport Racks

- Ubiquitous
- Mission Critical
- \$500-2,000 value
- Uncontrolled



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## Transport Racks: \$700 paper clips?



- Not tracked, accounted for or managed
- "A cost of doing business"

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- Estimated 3M in the U.S. glass industry

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## Challenge – Rack Loss

- Racks spend 80% of the time outside of your facility
- These racks are useful to others too!
- Even good citizens have a hard time keeping track of which racks belong to whom
- Net result: 10-20% loss per year is normal



*Do you have any of our 52 slot hi-backs?*

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## Challenge - Rack Hoarding

- Even within one company, plants tend to hoard them
- Stealing racks at night . . .



"IT USED TO BE THE 'LOST AND FOUND' DEPARTMENT."

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## Challenge - Expensive Backhaul

If you are short on racks,  
you do what you must to  
support the shipping  
schedule

- Expedited shipping
- Half full loads
- Price taker, not a price setter; mini-bar pricing



*25% of a float plant's total freight spend*

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## The Real Killer – Production Halt / Late Shipments

- Don't have a big enough rack for a shipment?
- Don't have the right rack available for a production run?
- Even a few partial shifts over the course of a year can have huge impact.

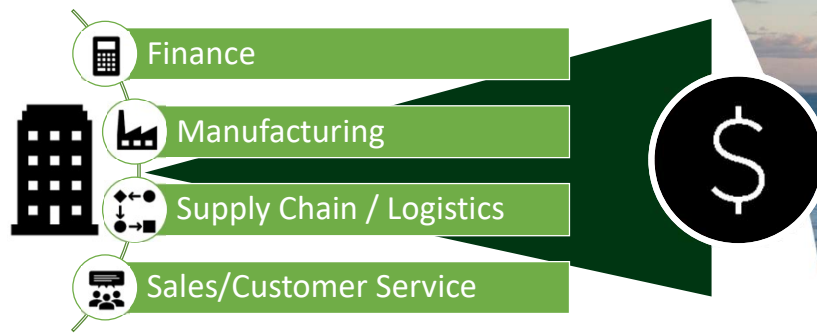


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## Rack Challenges Affect Multiple Business Functions



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## Illustration: Float Plant Rack Economics

8,000 racks used for shipping  
 \$700 average rack value  
10% annual loss rate

**\$560K** rack replacement cost

**\$750K** annual backhaul cost

**\$666K** sub-optimized production due to rack shortage

**\$1,976,000** Total Cost

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## Why Hasn't This Problem Been Solved?

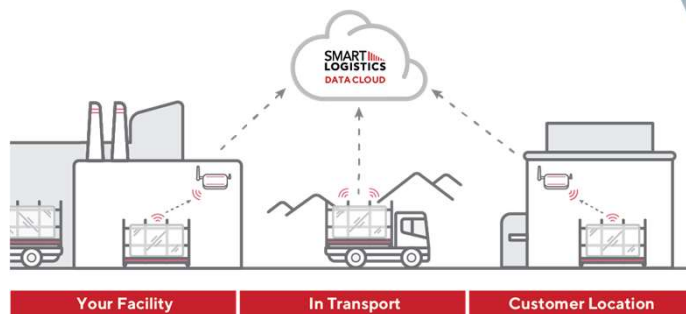
- Secondary responsibility
- Logistics executives aren't incented to see the big picture of how racks cost the whole company.
- No effective way to automate tracking with prior technology (RFID)
- The industry has been okay with "borrowing" other people's property

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## Wireless Technology is Changing Things



- Multi-mode processing – Cellular, wifi, bluetooth – enables continuous contact
- Data viewable through web portal
- Easy implementation

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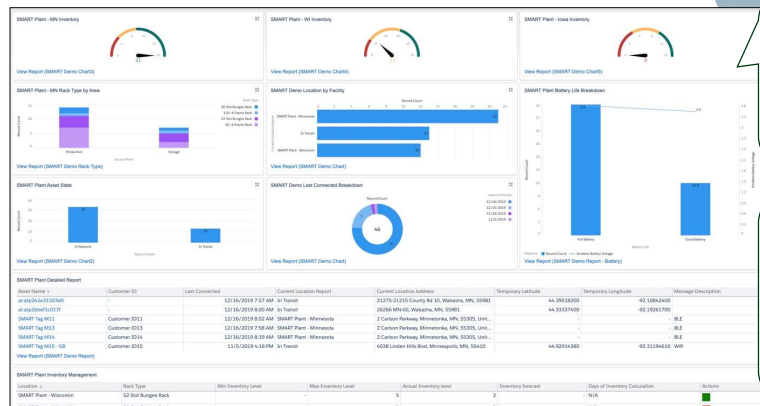
# Know Rack Location & Inventory



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## If You Can Measure It ...



Configurable dashboards summarizing key rack information

Rack inventory management through current and projected stock levels

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## Where This is Going

- Industry awareness
- Are “free racks” really free? They won’t be.
- NGA Survey – please fill out
- Potential NGA Work Group
- Standardization?



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We will be at BEC and GlassBuild

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