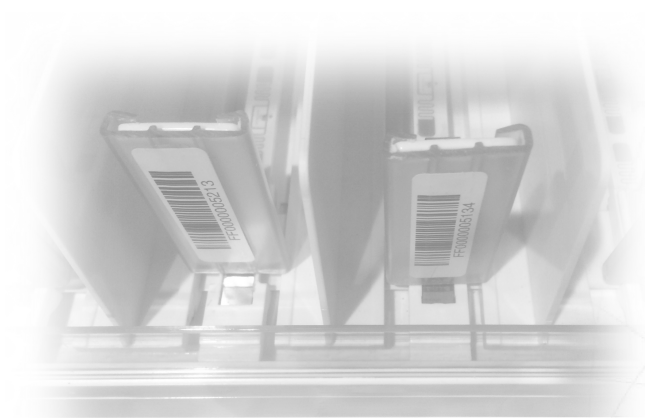




Product Overview



Out of Stocks Continue to Plague the Retail Industry

- “Out-of-stocks” (OOS) accounted for \$634.1 billion in lost retail sales 2018 — 39 percent higher than in 2012.”
- “Overstocks contributed \$471.9 billion in lost revenues, up 30 percent from three years prior”.
- 81% of adults have tried to purchase a product that was out-of-stock.
- 54% of shoppers blamed the retailer.¹



newave[®]
smartShelf

Is a “no item tags required” RFID solution to monitor shelf inventory in real-time

¹ GT Nexus Supply Chain Study

newave® smartShelf™

Award Winner



* The CES Innovation Awards are based upon descriptive materials submitted to the judges. CEA did not verify the accuracy of any submission or of any claims made and did not test the item to which the award was given.



The newave® smartShelf™ system shown here with retail products

Discovery Channel



Watch this clip highlighting the newave® smartShelf™ system on the Discovery Channel:
<http://www.discovery.com/changing-how-we-live/>
#cashier-free-retailers-elim

What is newave's patented smartShelf™?

**The only “no item tags required” RFID solution
for real-time, on shelf, item-level inventory.**

An IoT solution, proven to:

- Provide 99%+ accuracy of on shelf item-level inventory
- Reduce Out of Stock (OOS) over 60%
- Prevent OOS and theft via instant alerts
- Improve in-store productivity, positively affecting store personnel behavior
- Ensure planogram compliance and efficacy e.g. SKU rationalization
- Be highly secure

Real-World Testing

Testing in stores in a high volume CPG category Results:

- Category Out Of Stock (OOS) = 10%; Sales lost to OOS = 13.5%
- Once trained, OOS hours were reduced by 60%+
- Top 20% of SKUs = 64% of sales, 37% of facings & 41% of OOS occurrences
- 20% of facings required readjustment for planogram optimization
- Theft was instantly identified and deterred
- Positive impact on store personnel behavior = productivity gains
- The Return On Investment (ROI) was between 7 and 10 months depending upon the category

Planogram Compliance

Barcodes on Pushers



Unique Barcode for Each Item



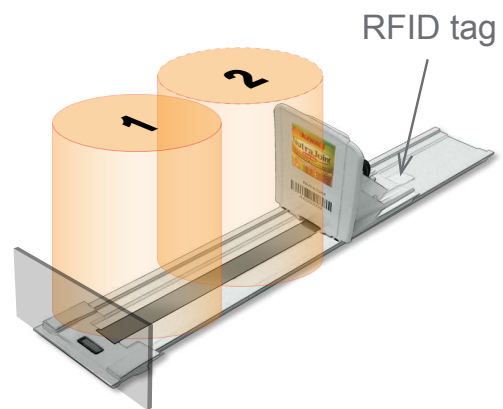
- Each pusher tray has a unique barcode defining each item's precise position. Each Pusher tray is numbered sequentially.
- Pusher #1 is top shelf left sequentially to the last item on the lowest shelf to the right, enabling precise item location and planogram compliance.

RFID Activated Dispenser Trays

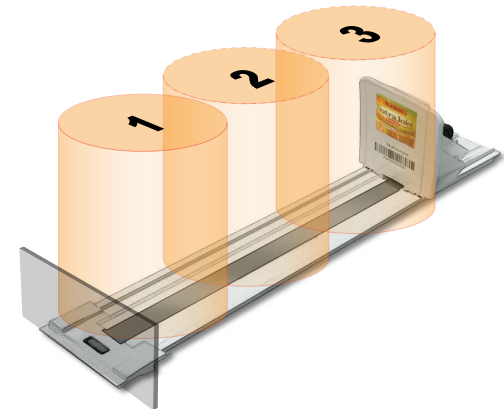
The dispenser tray's metal spring is used to cover the RFID tags, which defines the location of the pusher and ultimately the number of items in the dispenser tray.



When the tray is empty, RFID tags are visible and read by the system.



With two items, only the last RFID tag is visible and read by the system.



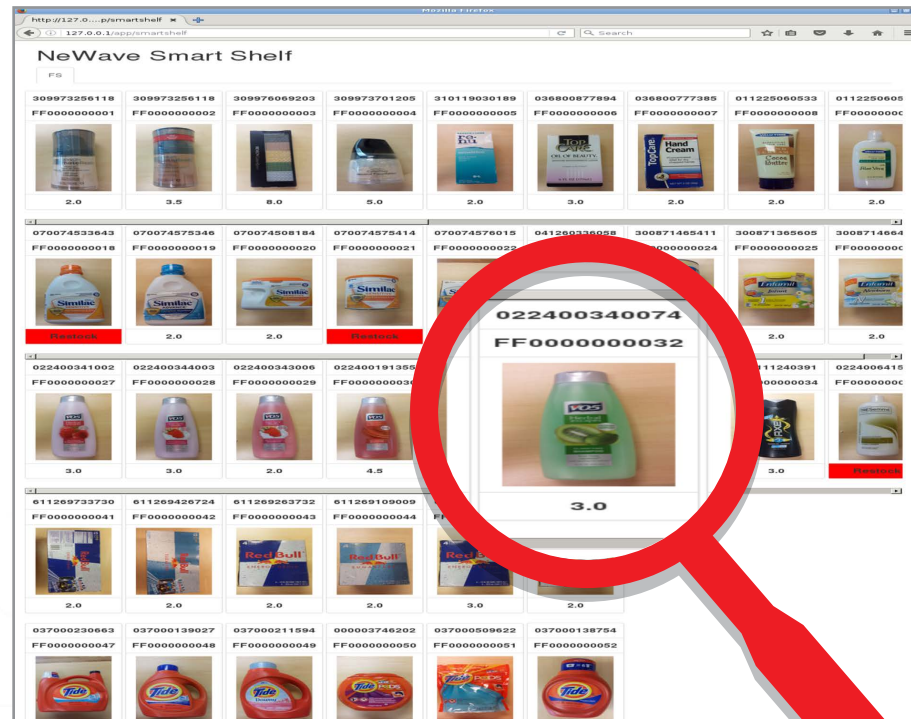
When full, no RFID tags are visible nor read by the system.

Immediate Location of Any SKU/Brand

Instant Item Location Info and Stock Availability

Benefits:

- Improve customer service
- Increase store productivity
- Determine item availability
- Restock efficiently



Out of Stock Prevention

1

smartShelves™ with wave® antennas

- wave® antennas communicate wirelessly with the tags mounted on the pusher trays
- wave® antennas connects to the patented nobel™ smartReader™ hidden on the floor.

2

nobel™ smartReaders™

- The nobel™ smartReader™ monitors all item inventory changes based upon the movement of the pusher.
- The embedded small-board computer collects, processes, compresses and sends the resulting data to the Server.

3

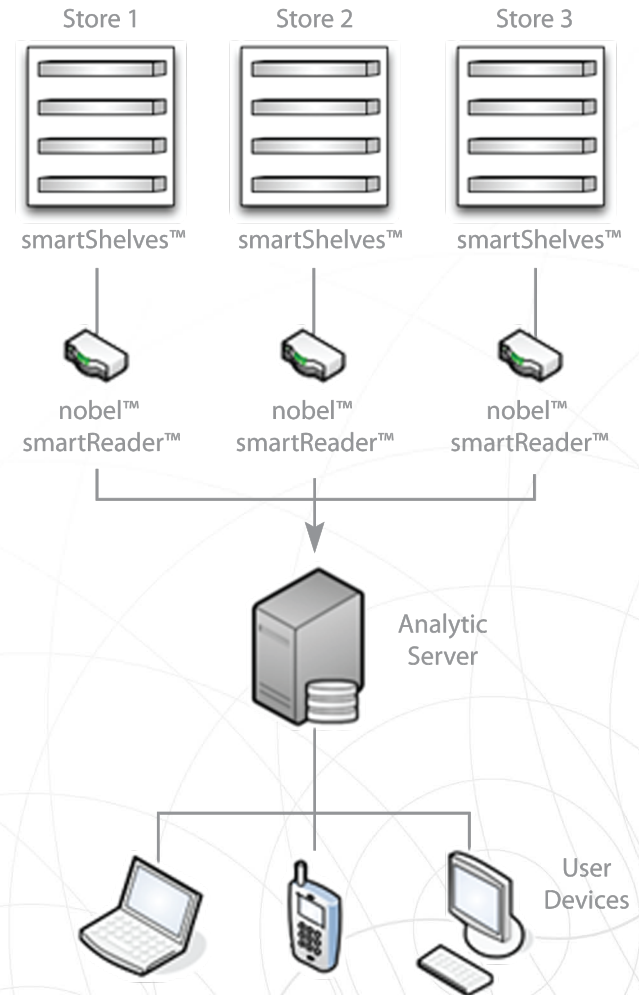
Analytic Server

- The server receives the data from the nobel™ smartReader™ and distributes the information to user devices.

4

Excel Reports sent to User Devices

- When a defined Low Stock level is reached, the nobel™ smartReader™ alerts any device with notifications to restock.
- Instant alerts can be provided to deter theft.



Communicate to any authorized smart device

- Access to Real-time inventory by item
- Instant alerts for Low Stock or Theft condition

Manufacturer	# pushers per SKU	Total Items Sold in 7 days	Total Restock time(hr) for 7 days	Total# Times in Restock for 7 days	Total 7 days. Average restock time (hr)	Total 7 days OOS Time (hr)	Total 7 days Sell Rate (ctn/hr)
#1		4	217.2	1.81	1	1.81	0.75
#1		4	185.5	0	0	0	1
#3		3	166.5	6.32	3	2.11	1.61
#1		3	140.2	0	0	0	0.8
#1		4	139	0	0	0	0.8
#1		4	131	6.94	1	6.94	5.44
#1		4	118	0	0	0	0
#2		4	98	0	0	0	0.9
#3		3	85	12.08	1	12.08	8.95
#1		4	70	0	0	0	0.4
#3		1	52.5	34.03	7	4.86	27.62
#1		3	48.5	0	0	0	0.2
#1		1	37.5	31.59	5	6.32	19.08
#1		2	36.5	0	0	0	0.2
#1		1	36	7.29	2	3.65	1.10
#3		3	32.2	0	0	0	0.1
#3		3	32	0	0	0	0.1
#1		2	28	0	0	0	0.1
#1		3	27.5	0	0	0	0.1
#3		1	27	0	0	0	0.1
#1		1	23.5	31.39	2	15.7	25.35
#3		2	22	10.42	1	10.42	6.42

Customizable Information and Real-time data at your fingertips

Low Stock, OOS and Theft:

- Real-time alerts.
- Out of Stock (OOS) Occurrences by Size and SKU and lost sales due to OOS.
- Item OOS and duration by location, district, region, national, etc.

Productivity:

- In-store productivity, rate of restocking and impact on sales.
- Planogram compliance and optimization.

Business Insight:

- Assessment of sales by time, time of day, day of the week, week of the month, seasonal impact, etc.
- Assessment of promotional effectiveness and new product impact.

Improves service to your customers!

Reports: Standard formats or Customizable

Highly Versatile Reporting Plans

- Link into existing IT systems or operate independently.
- Customizable analytic formats.
Examples: Sales/Marketing; Operations; Finance; Executive; Etc.
- You control frequency of data distribution.
(Adjustable by minute).
- Nobel readers allow data format embedding.
- Nobel is highly secure (Much greater protection than is available “in the Cloud”).

Impact on Store Theft*

★★★★★ Shrinkage reduced by 65%

★★★★★ On-shelf Availability improved 68%

★★★★★ Sales increased 8%

Real-world impact of the smartShelf™ system on store theft:

- Thief abandoned 10 cases of product after PA asked for customer assistance.
- Thief filled cart with Red Bull, manager alerted, approached to help, customer/ thief: “left my wallet in my car”, never returned.
- Thief concealed 10 Red Bull in a back pack, PA requested customer assistance, 8 cans abandoned, 2 purchased.
- ORC consistent theft pattern was determined and resulted in a “bust”.

*Results of a limited store test

Summary of Retail Benefits

- Reducing out of stocks increases sales
- Customer satisfaction greatly increases by maintaining on-shelf inventory
- Theft is deterred
- Shelf space and planogram compliance is optimized
- Store personnel are more ethical and far more productive

Summary

The only “no item-tags required” RFID solution that provides real-time item-level on-shelf inventory:

Precisely Accurate:

99%+ item-level accuracy

Highly Versatile:

- All movement data by SKU, time & location
- Data provided in any format desired by the end-user

Very Efficient:

- Ease of installation, operational by location Day 1
- ROI: CapEx circa 9 mos; SaaS cash flow positive Month 1*
- Choose a CapEx or SaaS payment option

Highly secure

*Post Store personnel training on the alert system

Thank You

Any Questions?

www.newaverfid.com

888-677-7343

newave[®]
superior
rfid accuracy