

**SPONSORED BY** 













February 9, 2021

# How RFID Impact Sensors Can Reduce Supply Chain Damage

SPONSOREDBY



#### Today's Presenters



Jan van Niekerk, Vice President of Engineering and Innovation



Angela Kerr,
Vice President of Product and
Program Management



# Listening to this Webcast

The audio portion of this webcast is broadcast over the Internet.

- Make sure your computer/device's audio is available, unmuted and the volume is turned up to an acceptable level.
- If you are having trouble with receiving the audio, please select the "?" in the upper corner of the Webinar interface and select "Test My System Now." This will give you information on your connection and how to remedy any problems you may have.
- Often just simply disconnecting and rejoining the event will allow you to catch a better stream of the audio if you are experiencing audio problems.



It's easy to submit your questions for our presenters during the event.

- On the left side of your screen there is a box labeled "Ask a Question" where
  you can enter your questions.
- Questions related to the webcast topic will be held and answered during the Q&A session at the end of the event.
- Questions related to technical issues can also be entered in this box, and they will be answered immediately by our webcast producers.

#### Presentations

- You can review this presentation and previous virtual events and webinars by going to our video library: rfidjournal.com/rfid-journal-videos/
- You will need to be a registered user of rfidjournal.com (it's free)











February 9, 2021

# How RFID Impact Sensors Can Reduce Supply Chain Damage

SPONSOREDBY



## Global Shipping Damage





#### Why are Impact Indicators Important?

- Long supply chains create opportunities for damage but it's difficult to pinpoint the source
- Damage costs are absorbed by shippers, brand owners, retailers
- Damaged goods benefit NO ONE



















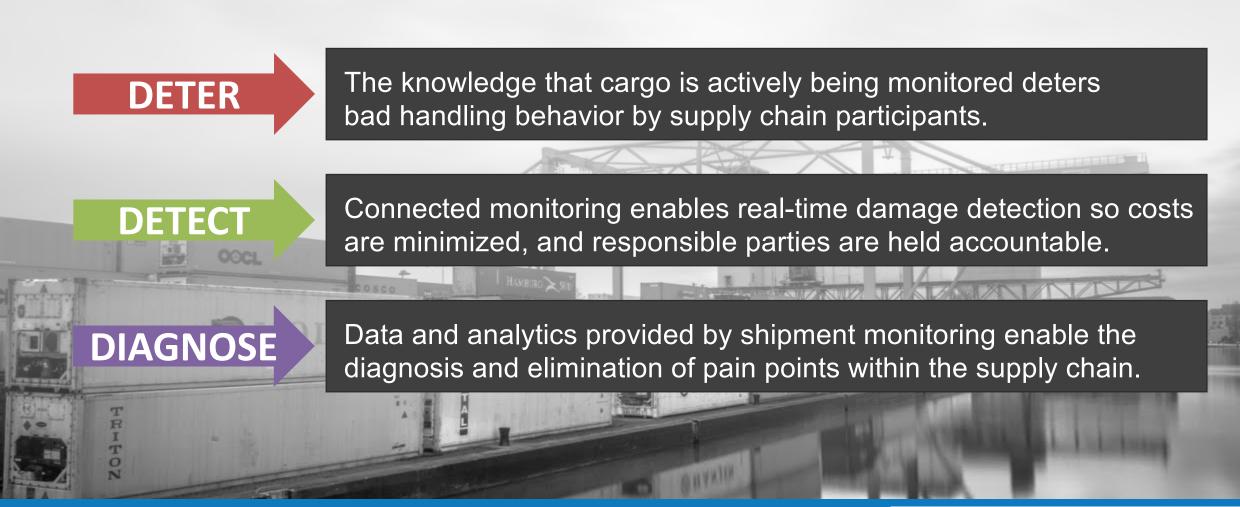














#### SpotSee Company & Product Evolution



#### **1974**

ShockWatch begins helping customers identify & reduce shipping damage.





#### **1995**

Launches
ShockLog
precision
shock
recording
instrument.





#### 2015-2016

Launches satellite connectivity





#### 2017-2018

ShockWatch
becomes
SpotSee &
expands
connected
portfolio with
cellular
connectivity.





#### 2019

SpotSee launches first RFID connected device.





#### 2021

SpotSee acquires
TMC Hallcrest
and LCR
Hallcrest to
expand
temperature
monitoring /
indicator
products



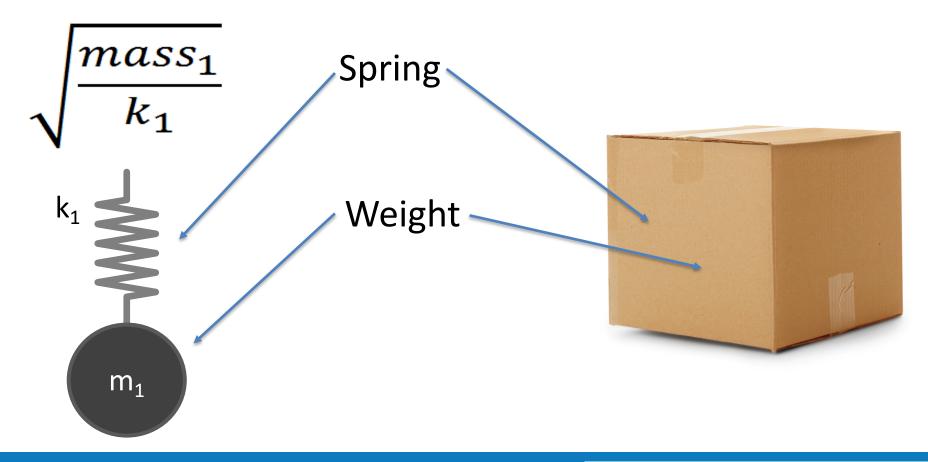




#### Connectivity: The Key to Real-Time Data

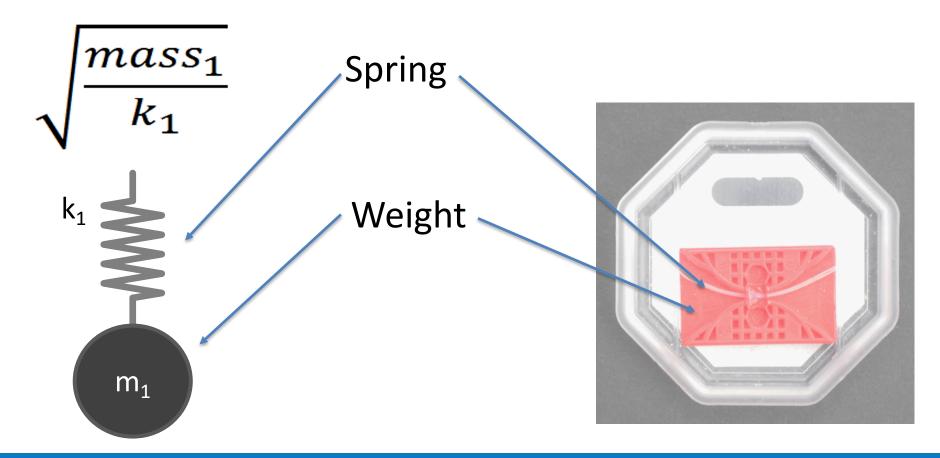


#### The Basic Theory





#### The Basic Theory

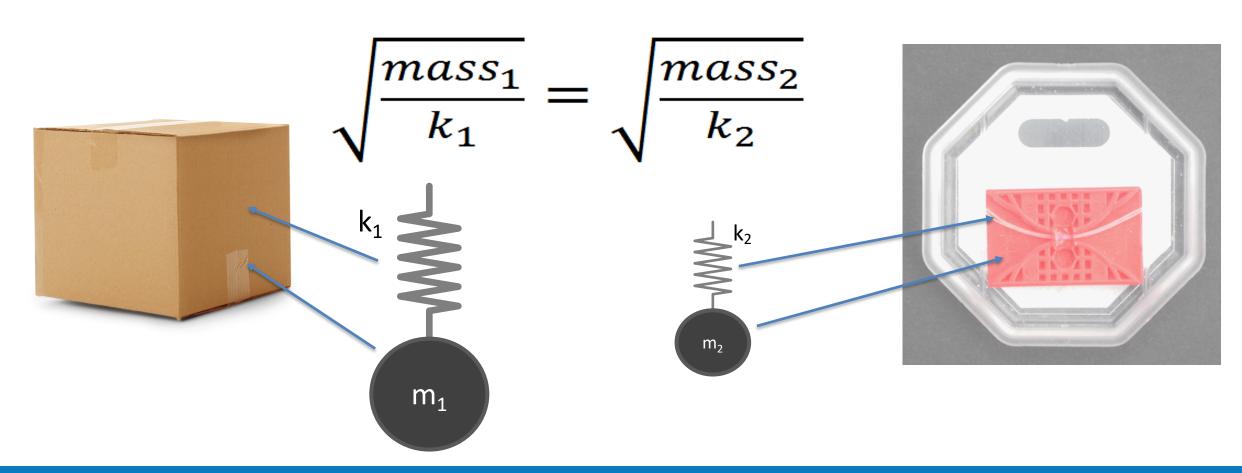




#### The Basic Theory

Package

Indicator





#### SpotSee's ShockWatch Indicator





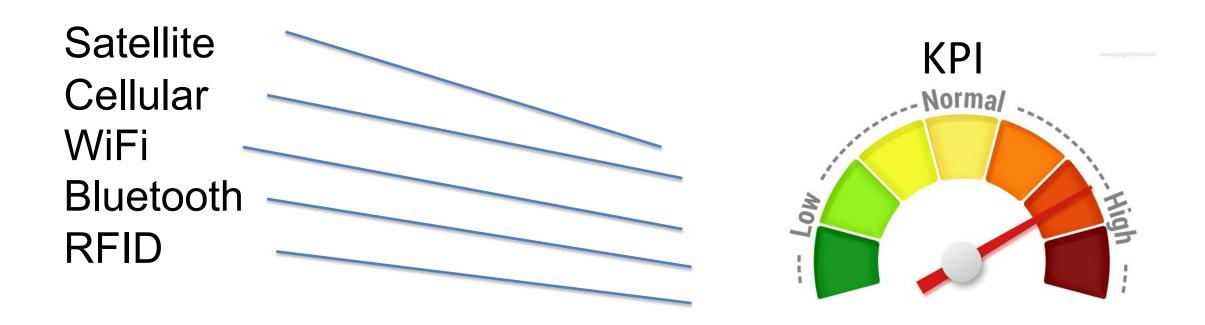


#### Selection Guide

ShockWatch RFID	5 - 15 ft³ .1442 m³	15 - 50 ft³ .42 - 1.42 m³	50 - 100 ft <sup>3</sup> 1.42 - 2.83 m <sup>3</sup>	100 - 250 ft <sup>3</sup> 2.83 - 7.08 m <sup>3</sup>	250 - 500 ft <sup>3</sup> 7.08 - 14.16 m <sup>3</sup>	500 - 1,000 ft <sup>3</sup> 14.16 - 304.8 m <sup>3</sup>	1,000+ ft <sup>3</sup> 304.8+ m <sup>3</sup>
0 - 10 lbs 0 - 5 kg	75G	75G	50G	37G	N/A	N/A	N/A
10 - 25 lbs 5 - 11 kg	75G	50G	50G	Rectang 37 G ip	25G	N/A	N/A
25 - 50 lbs 11 - 23 kg	50G	50G	37G	25G	25G	15G	N/A
50 - 100 lbs 23 - 45 kg	50G	37G	37G	25G	15G	15G	10G
100 - 250 lbs 45 - 113 kg	37G	37G	25G	25G	15G	15G	10G
250 - 1,000 lbs 113 - 454 kg	37G	25G	25G	15G	15G	10G	10G
1,000 - 2,000 lbs 454 - 907 kg	25G	25G	25G	15G	15G	10G	5G
2,000 - 5,000 lbs 907 - 2,268 kg	25G	25G	15G	15G	10G	10G	5G
5,000 - 10,000 lbs 2,268 - 4,536 kg	25G	15G	15G	15G	10G	10G	5G
10,000 - 15,000 lbs 4,536 - 6,804 kg	N/A	15G	15G	10G	10G	5G	5G
15,000 - 20,000 lbs 6,804 - 9,072 kg	N/A	N/A	10G	10G	5G	5G	5G
20,000 - 30,000 lbs 9,702 - 13,608 kg	N/A	N/A	N/A	5G	5G	5G	5G
30,000+ lbs 13,608+ kg	N/A	N/A	N/A	N/A	5G	5G	5G



# Connectivity: The key to automated real-time data ("Glass Pipe")





#### Connectivity – RFID is the low-cost enabler

Cost ✓

Size ✓

Battery ✓

Shelf Life ✓

Temperature ✓

Safety **✓** 

Certifications <

Infrastructure <

Standards <



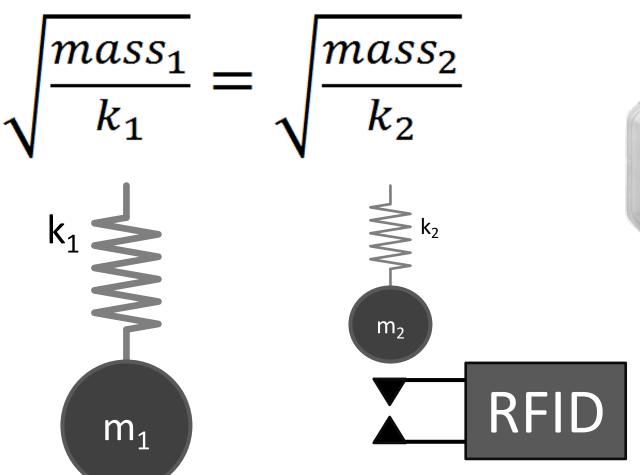








#### Adding RFID to ShockWatch

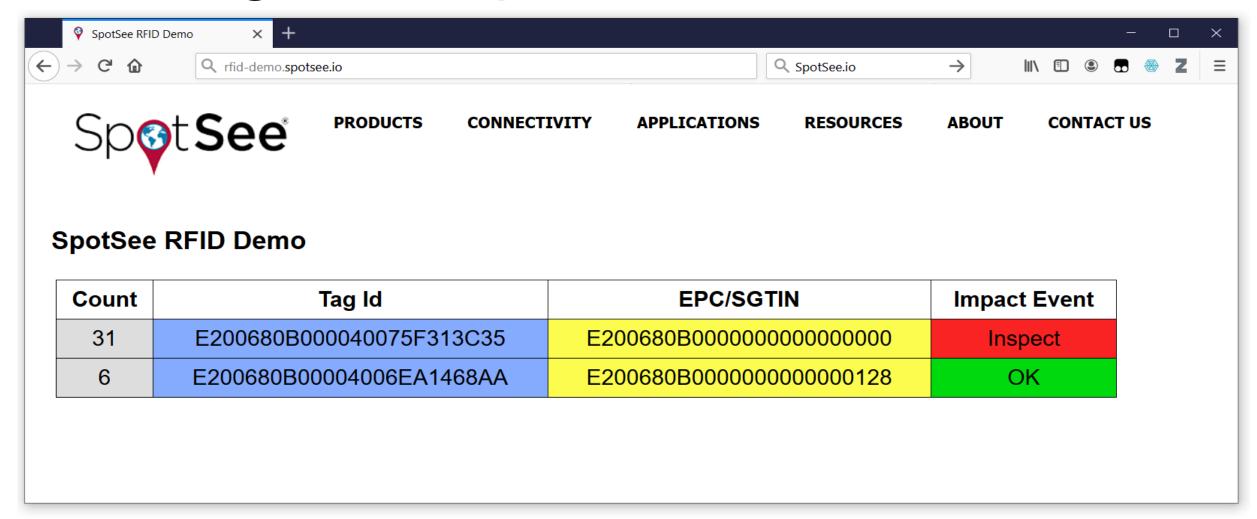








#### Reading the Impact Status





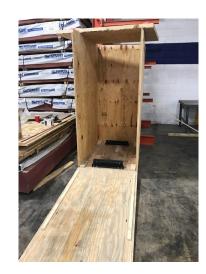
#### Use Case – Cloud Computing Servers

Industry: IT

**Application**: Cloud Computing – Servers

**Problem**: Shipping damage exceeded \$1.2 million/year. Supply chain damage was impacting credibility and eroding customer relationships.

**Solution**: Monitoring program multiple SW RFID Labels reduced damage by 70%, saving \$800,000 per year!













#### Use Case – Office Furniture

**Industry:** Commercial Office Furniture

**Application :** Conference Tables & Case

Goods

**Problem:** Shipping issues with office furniture being damaged in the supply chain. Source of the damage was unknown. Cost of damage nearly \$1 million/year.

**Solution:** Conduct a drop test study to determine level of impacts that caused damage, implement SW RFID indicators to identify the supply chain segments where damage was occurring.







#### Use Case – White Goods

**Industry:** White Goods / Appliances

**Application:** Air conditioners

**Problem:** 700k air conditioner units shipped

annually. Products imported through a single port

with 350+ distributors and stores. Product is

damaged but no supply chain insights are available.

**Solution:** Conduct shipping study to determine where supply chain damage is happening. Combination of recorders and SW RFID indicators to map the supply chain and run test shipments. Test starts in early February























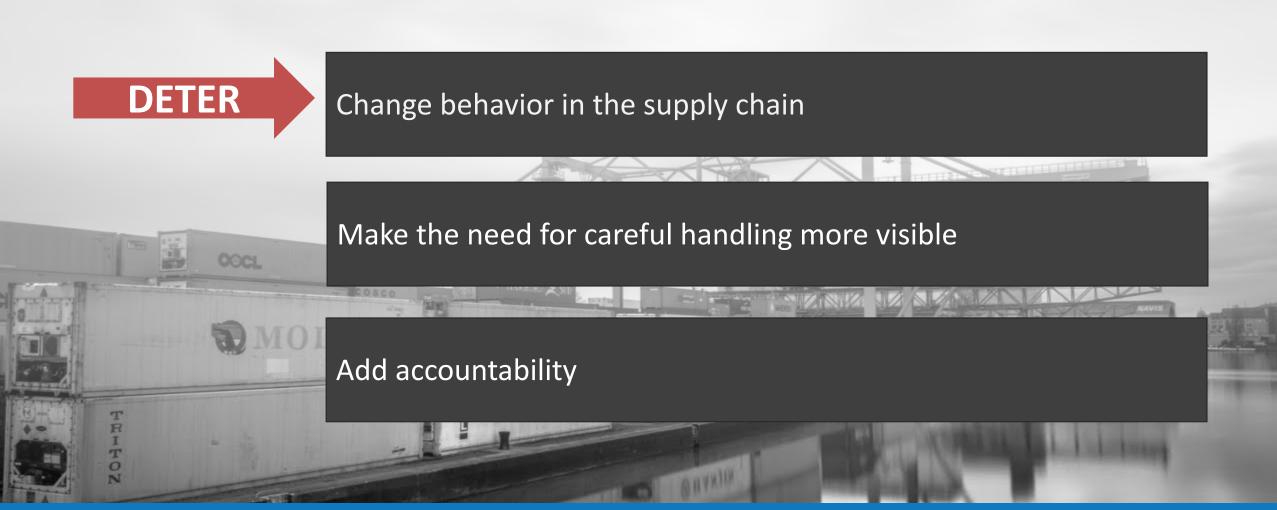




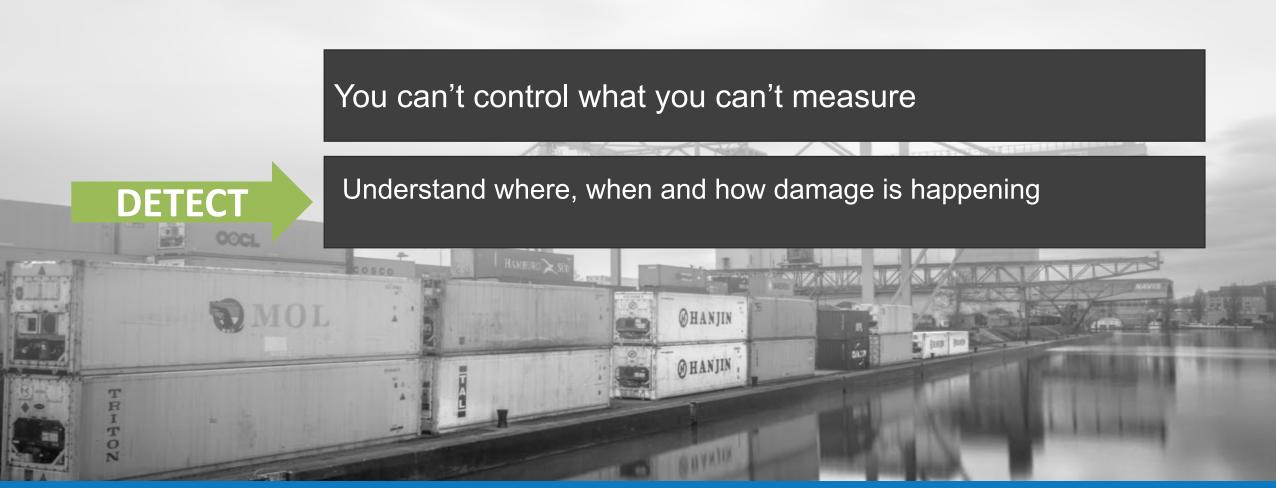


















#### Conclusion

- Supply chain damage is trillions of dollars
- Reduce through Deter, Detect Diagnose
- Indicators emulate the effect of an impact
- RFID connectivity enables near-real-time information
- RFID is the only technology that meets cost targets for box level monitoring











**Shock**Log

## THANKYOU

SPONSOREDBY



#### Presentations

- You can review this presentation and previous virtual events and webinars by going to our video library: rfidjournal.com/rfid-journal-videos/
- You will need to be a registered user of rfidjournal.com (it's free)

