SEPTEMBER 30 - OCTOBER 1, 2020



#### Transforming the Vaccine Supply Chain with IoT

Tom Weir

Chief Operating Officer, CSafe Global

#### Vaccine Supply Chain History

- 1970s-1980s
  - A box and ice
- 1990s-2000s
  - Vacuum Insulated Panels (VIP)
  - Active temperature control container
- 2010s
  - Active container size expansion







#### Transformation Catalysts

- Industry maturity
- Pandemic has highlighted need to diversify complexities
- Technology and trends
  - Artificial intelligence
  - Edge computing
  - Sensor innovation
  - New wireless technologies
  - Governance and blockchain





## Driving Transformation & COVID Vaccine Preparedness

- Best-in-class VIP insulation
  - High-performance microfiber VIP
    - Insulation R-Value of 50-60 compared to 25-35 for other VIP material
    - 50% longer shipment duration compared to competing solution
    - Hibernation capabilities
  - Frozen temperature protection for 10+ days







## Driving Transformation & COVID Vaccine Preparedness

- Artificial Intelligence
  - Lease forecasting
  - Inventory management

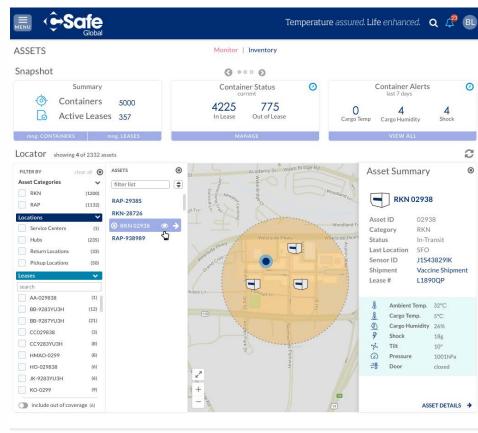






## Driving Transformation & COVID Vaccine Preparedness

- Shipment Visibility
  - Integrated telemetry device
  - 24/7 real-time visibility for status and condition
  - Real-time alerts for intervention
  - Neatly packaged REST API
  - Chain of custody confidence







# THANKYOU

