

# MVE Condition Monitoring Solutions

## Confidence Without Compromise - Smart, Connected Cryogenic Storage

For over six decades, MVE has set the standard in cryogenic storage, and with Condition Monitoring Solutions, our dewars now evolve into intelligent, connected assets that safeguard research and patient materials, ensure compliance with regulatory standards, and optimize operations with actionable insights—empowering users with greater confidence and control than ever before.

MVE's new condition monitoring solution continuously tracks critical environmental factors, including temperature, humidity, shock, orientation, acceleration, light, and location, that can impact the integrity of cryogenically stored materials. For researchers, clinicians, and logistics teams, this visibility is vital, as a single unnoticed temperature excursion or handling incident can compromise years of work or irreplaceable biological samples.



## Features & Benefits

### Features:

- Dashboard & reporting tools
- Shipment & site manager
- Multi-channel alerts

### Key Features:

- Near real-time or On-Demand Monitoring: SmartTag (5G LTE) or CryoBeacon (BLE)
- Multi-Sensor Capability: Temp (-200°C), humidity, shock, acceleration, light, orientation, geo-location
- Near real-time alerts: Email, app, browser
- Centralized Visibility: Secure MVECloud platform (FDA 21 CFR Part 11 compliant)
- Transportation Ready: Built for global supply chains, airline approved

### Benefits:

- Mitigate sample loss with proactive alerts
- Compliance and digital record-keeping
- Improves efficiency with automated data capture
- Optimizes supply chain and logistics

## Product Comparison

Device	Monitoring Type	Connectivity	Sensors	Battery Life	Ideal Use Case
CryoBeacon	On-Demand	BLE/QR Scan	Temp, humidity	1 year	Long-term storage, global shipments, periodic checks
SmartTag	Near Real-Time	5G LTE CAT M1	Temp, orientation, shock, light, acceleration, GPS	Up to 120 days; Rechargeable with Micro-USB	Global shipments, near real-time oversight

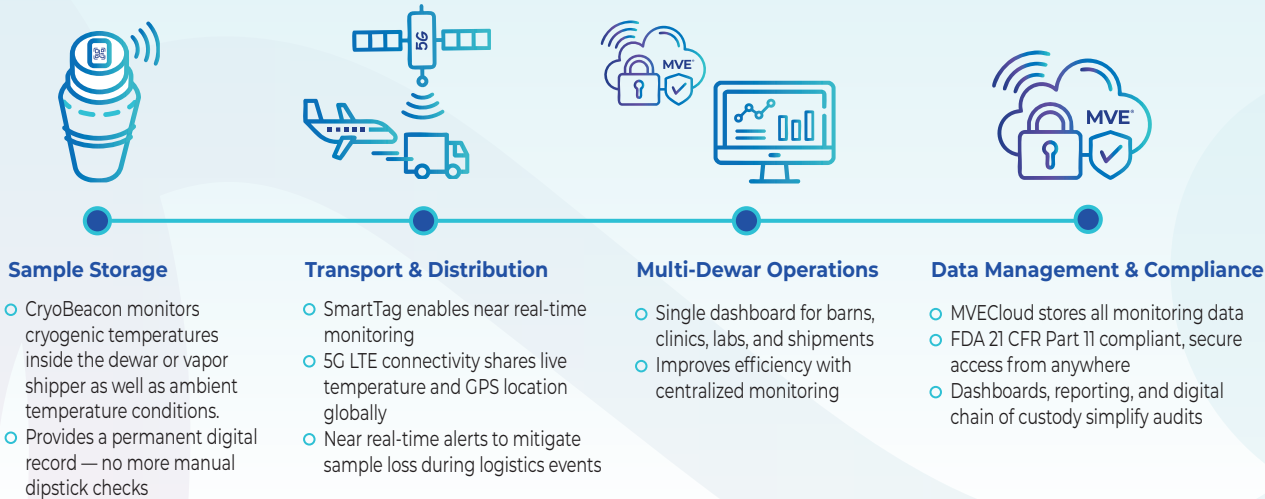
## Introducing the MVECloud

MVECloud offers a secure, centralized platform for accessing all condition monitoring data at any time, from everywhere. Whether samples are in storage or in transit, users can log in through a browser-based portal or mobile app to view near real-time status, historical trends, and complete digital records. The system delivers multi-channel alerts via email, app, text or web notifications, ensuring that critical updates are never missed. Fully FDA 21 CFR Part 11 compliant, MVECloud not only safeguards data integrity but also streamlines compliance with audit-ready reporting tools, ensuring seamless adherence to regulations.

By putting information at your fingertips, MVECloud empowers teams to make faster, more informed decisions and maintain complete confidence in the chain of custody across global operations.

## The Ecosystem in Action

End-to-End Visibility. Every Step, Every Sample.



**With MVE's integrated ecosystem, every stage of your cryogenic workflow is connected, and compliant — ensuring confidence without compromise.**