



Engage. Explore. Empower.
Connecting Visionaries in Radiation Safety, Science and Industry

MIRION
Connect **24**
Annual Users' Conference

July 29 - August 2 | Omni Dallas Hotel, Dallas, TX



MIRION
TECHNOLOGIES

MC24 – Breakout Session

Orion RTLs

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HP team - Dosimetry & Telemetry
PLM & ASG

Mirion Connect | Annual Users' Conference 2024

Dallas, Texas

Where we are ?

- **Telemetry is essential at Nuclear Power sector**
- Improves job coverage
- Reduces dose exposure
- Improves Safety
- Provides pulse of work evolutions



The screenshot shows the TeleView 3000 web interface. At the top, there's a navigation bar with 'Log out Admin', 'Views', 'Config', and 'About'. Below this is a table with columns: UserID, SN, RWMP, Task, Dose, DoseAlarm, Rate, RateAlarm, TStamp, TX Batt, and Status. The table lists data for five users: CARRASCO, LINDSAY; QUIROZ, ALTA; MATHAIWAY, ISAAC; ALSTON, LILY; and CLIFTON, BETH. To the right of the table, there are buttons for 'Acknowledge All' and 'Acknowledge', and a section for 'Rate Limit Alarm'.

UserID	SN	RWMP	Task	Dose	DoseAlarm	Rate	RateAlarm	TStamp	TX Batt	Status
CARRASCO, LINDSAY	816623	198	2608	3 μ Sv \checkmark 1000		16.3 μ Sv/h \checkmark 100		02-51-25	1.2V/Good	
QUIROZ, ALTA	994724	198	2608	2 μ Sv \checkmark 1000		7 μ Sv/h \checkmark 100		02-51-24	1.3V/Good	
MATHAIWAY, ISAAC	807557	198	2608	1 μ Sv \checkmark 1000		1.8 μ Sv/h \checkmark 100		02-51-28	1.2V/Good	
ALSTON, LILY	524604	198	2608	1 μ Sv \checkmark 1000		3.9 μ Sv/h \checkmark 100		02-51-25	1.2V/Good	
CLIFTON, BETH	998379	198	2608	1 μ Sv \checkmark 1000		2.4 μ Sv/h \checkmark 100		02-51-27	1.3V/Good	



Where We Are Going ?

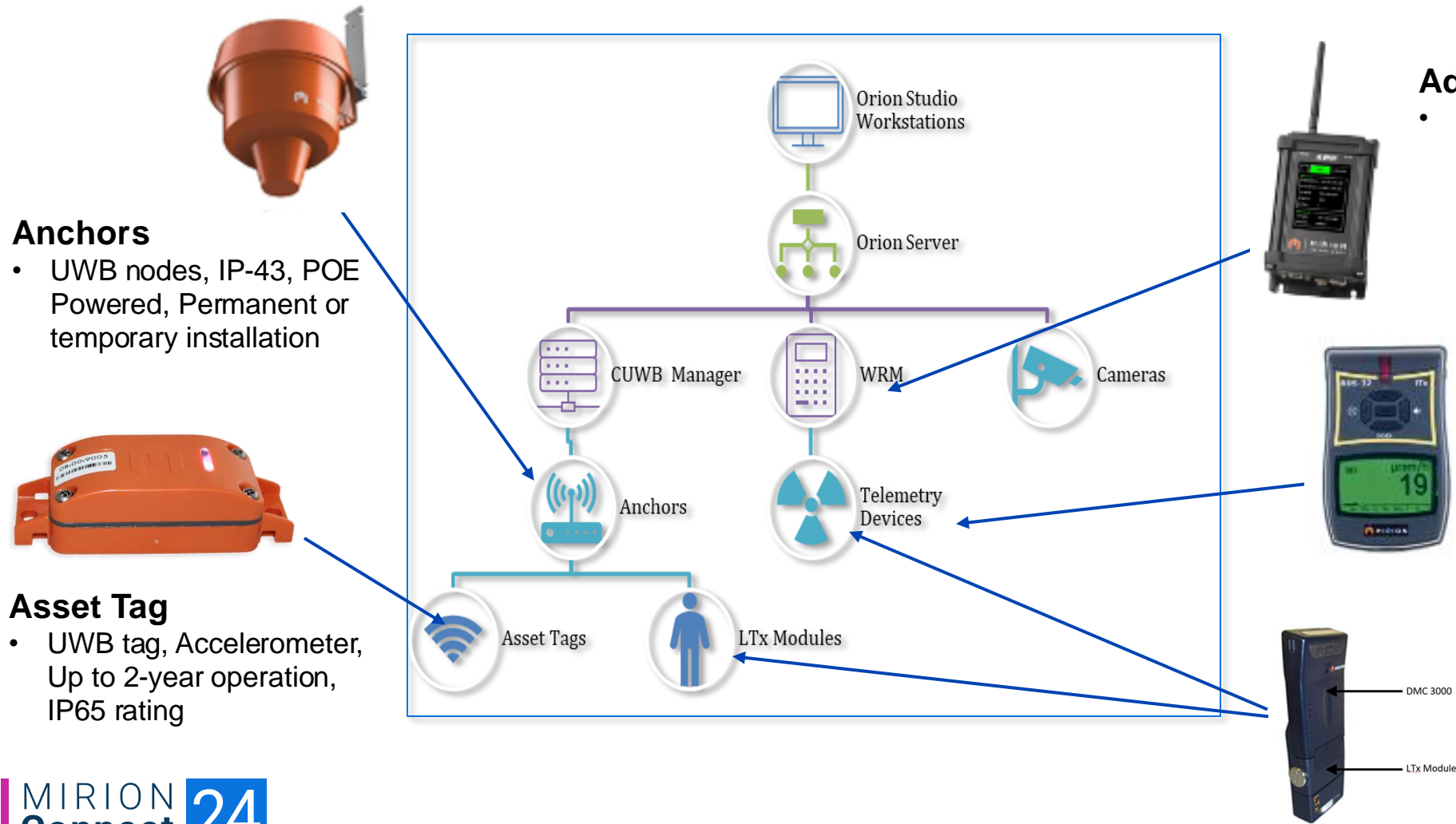


- Orion Real-Time Location system (RTLS) is the next generation in Telemetry
- Modern visually oriented UI
- Ultra-Wide Band positioning combined with traditional telemetry
- Provides visualization of work evolutions
- Data Driven Decision for procedure enhancement

Key Features

- Merges radiological data with Geo-spatial data
- Geofencing capabilities for personnel or items
- Heat mapping of radiological conditions
- Asset management for critical path improvements
- Personnel accountability for reduced dose
- Provides an ecosystem to leverage positioning data

HW Architecture



Anchors

- UWB nodes, IP-43, POE Powered, Permanent or temporary installation

Asset Tag

- UWB tag, Accelerometer, Up to 2-year operation, IP65 rating

Adaptive Wireless Monitor

- 900 MHz telemetry for WRM, POE powered, Ethernet connectivity, Provides mesh telemetry network

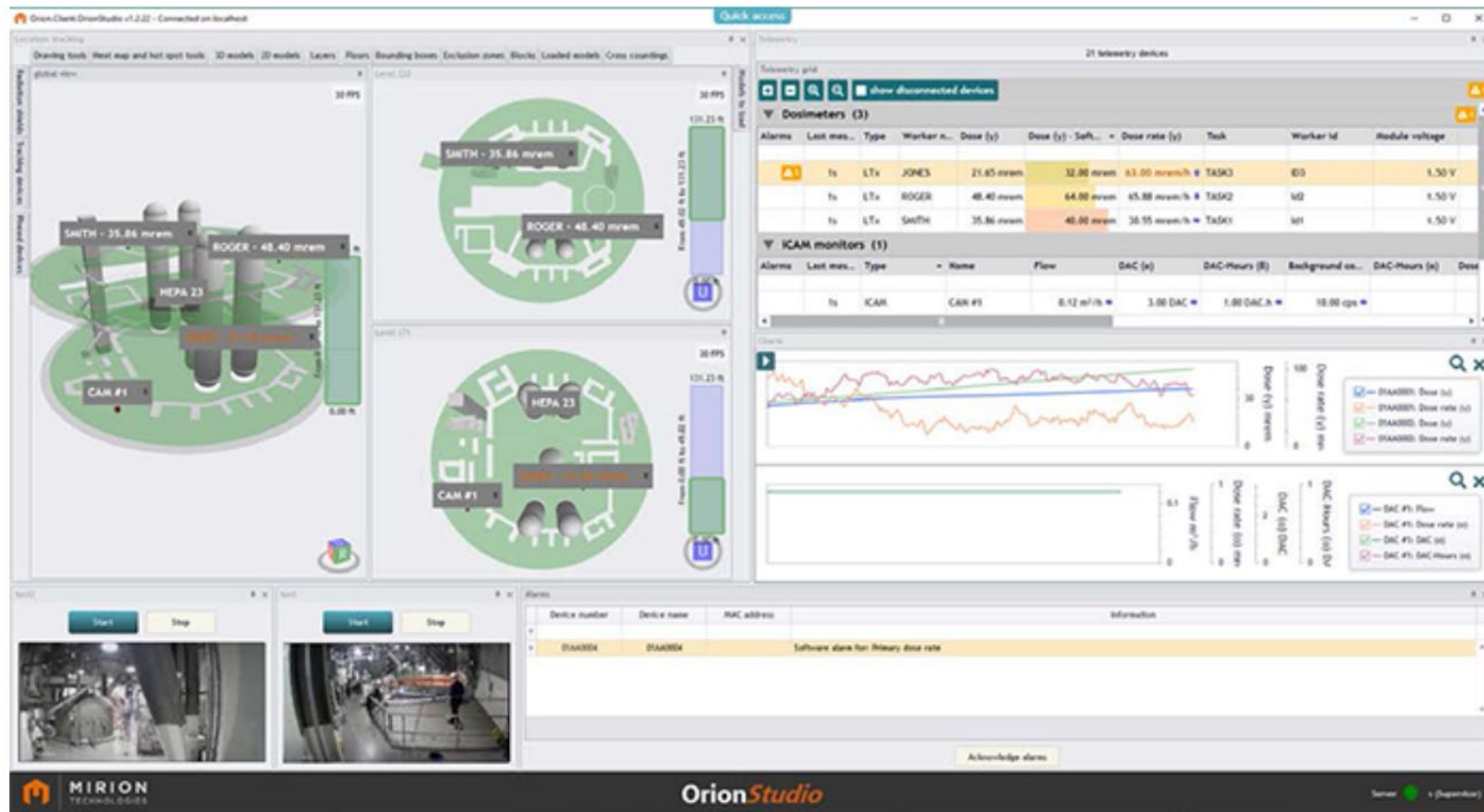
Instrumentation

- RDS-32iTx w/probes, Alarm Box Area Monitors, iCAM w/WRM, Oxygen Sensors, Drones. Robotics

LTx Module

- Connects to existing DMC3000s (or simulated), Provides UWB capability, Can function as WRM3 standalone transmitting module, Push notification alerts

Orion Studio



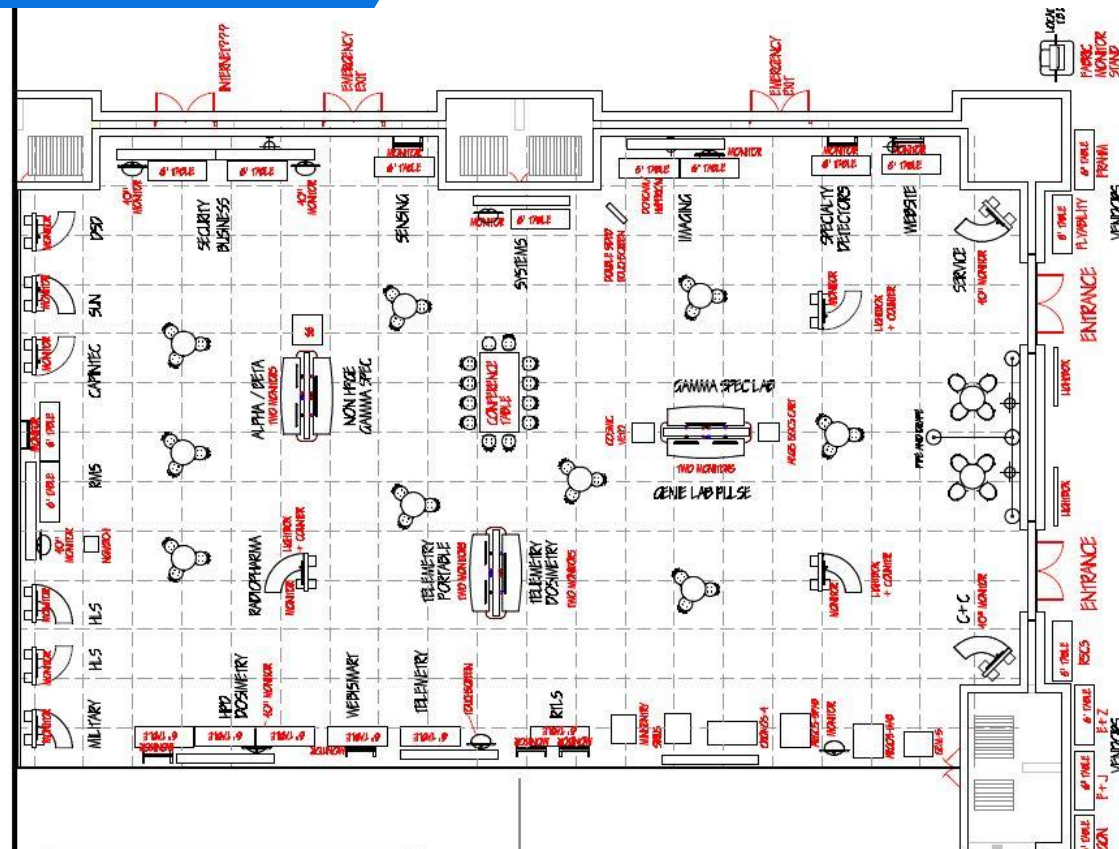
- Provides visualization of positioning and radiological data on 2D/3D maps
- Customizable tiles over multiple displays
- Client/server deployment
- Create boundaries
- Monitor Cameras

Orion Studio: Supervision RT

- **Good quality survey data**
 - Lots of measurements
 - Up to date
- **Asset Control/Monitoring**
 - Location whether transportable or not
 - Process control radiological information
 - Critical path components
- **Communication/Observation**
 - Pre-job briefing
 - Emergent Alerts
 - Video feeds
- **Work Evolution Review**
 - Lessons learned
 - Root Cause investigation
- **Training**
 - Learning from previous experiences
 - Training scenarios

DEMO

- Asset Monitoring // People monitoring
- Exclusion zone
- Smart Exclusion zone (RWP case)
- Smart Exclusion zone (Dose Rate)
- Heat Map





Thank you
&
We look forward to
seeing you at
the HP booth

