

# Empowering Singapore's Water Workforce with Real-Time Remote Supervision

How the Public Utilities Board (PUB) enhanced field visibility, safety, and compliance through Telepresenz® Smart Ops™ across distributed water operations.



## 60%

Reduction in supervisor travel  
— from 4–5 site visits to just  
1–2 per day



## 75%

Faster remote assistance —  
experts connect instantly  
without travel delays



## 100%

Safety and compliance  
visibility — every task  
traceable through live video

**Client:** Public Utilities Board (PUB), Government of Singapore

**Industry:** Utilities / Water Supply and Infrastructure

**Scale:** 150 Mobile Field Technicians, 50 Supervisors and Expert Engineers

**Worker Environment:** Technicians working across treatment plants, pumping stations, and confined spaces

**IT Environment:** Dedicated private cloud deployment ensuring full data sovereignty

**Devices:** RealWear HMT-1 wearables for technicians; iPads for supervisors and experts

As Singapore's national water agency, PUB oversees the island's entire water supply network — from treatment and distribution to sustainability programs. With hundreds of mobile technicians deployed daily across multiple sites, ensuring safety, consistency, and real-time visibility was a growing challenge.

Supervisors often managed multiple projects simultaneously, traveling between locations to conduct safety checks, provide guidance, or verify work quality. This reliance on in-person supervision limited scalability, delayed inspections, and introduced risks when technicians operated without direct oversight in high-risk environments such as confined spaces or underground pumping stations.

*"We wanted to empower our field technicians to perform safely and confidently while giving our supervisors the visibility they need — from anywhere, at any time."*

### Solution: Telepresenz® Smart Ops™ for Digital Inventory Management and Remote Inspections

To solve these challenges, PUB deployed Telepresenz® Smart Ops™ as an integrated solution for remote supervision, live mentoring, and compliance oversight.

Technicians were equipped with RealWear HMT-1 hands-free devices that allowed them to stream live HD video from the field. Supervisors, using iPads, could view these sessions in real time, guide technicians through complex procedures, and share annotated visuals, technical documents, and schematics directly into the worker's field of view.

All sessions were silently recorded and automatically archived within PUB's private cloud infrastructure, ensuring complete traceability for audit and compliance. Smart Ops™ dashboards provided supervisors with a consolidated view of field activity — enabling them to allocate tasks, monitor progress, and validate completion remotely.

This new system gave PUB's experts the ability to see, guide, and verify field work without ever leaving the office, transforming how field operations were managed.

*"With Telepresenz our supervisors can see, guide, and audit work without being on-site. It's transformed how we ensure safety and compliance."*

The introduction of Smart Ops™ drastically reduced the need for in-person supervision. Supervisors now manage multiple sites remotely with complete visibility into field operations. Safety inspections are conducted live and recorded automatically, ensuring that no step is missed and that all work is verified in real time. Response time for troubleshooting was reduced by 75%, as experts could instantly connect to assist technicians without waiting for travel or scheduling delays. Supervisors also reported significant reductions in fatigue and workload, while technicians gained confidence knowing expert support was always available.

#### Key Outcomes:

- 60% fewer supervisor site visits
- 75% faster response time for technical assistance
- 100% traceable safety and quality records
- Improved workforce efficiency through centralized oversight
- Enhanced technician confidence and operational safety

*"Our teams no longer wait for supervisors to arrive on-site. The guidance happens instantly, and every session is recorded for audits — it's accountability made simple."*



#### About Telepresenz®

Telepresenz® — AI-Powered. Frontline-Focused. Future-Ready. Telepresenz connects inspectors, engineers, and administrators through real-time collaboration and AI-powered operational workflows. With Smart Ops™, aerospace teams gain digital control over inspections, inventory, and compliance — turning complex maintenance programs into seamless, transparent, and efficient operations.