

Lab of the Future proposition

A COVID-19 Imperative
Connected Experiences and Remote Operations





About The Solution

The COVID-19 crisis and the subsequent restrictions due to lockdowns and social-distancing norms, have forced organizations to reimagine their **R&D labs and customer experience center** operations. While most organizations adopt teleworking, a minimum number of critical lab personnel are still required to ensure efficient management and monitoring of processes and environments in labs and customer experience centers. On the other hand, as new smart technologies are developed, delivering a complete experience to end customers sans physical visits to experience centers becomes critical to ensuring business continuity and new opportunities.

Lab of the Future by IoT WoRKS™ utilizes ReServ platform and AR/VR (Augmented/Virtual Reality) technology to enable remote operations and device management, allow training of teams to be done more effectively and delivering engaging customer experiences. ReServ enables a single pane of vision for live monitoring and management of devices, operations and lab environments - generating real-time insights to optimize asset health, inventory and operational efficiency - minimizing human intervention and maximizing automation. AR/VR bridges the gap between minimal field workforce requirements and remote experts and technicians, and enables virtual walkthroughs of customer experience labs - offering first-hand experience of demos, technologies and services being offered.

Challenges addressed:

Operations Management:

With 90% of staff teleworking, monitoring asset usage, live insights, inventory management, and lab operations can become challenging

Remote Workforce:

Ensuring continuity and workforce enhancement amidst limited staff availability and addressing new ways of working in Post-COVID-19 world

Connected Experience:

New and interactive ways of customer engagement in customer experience centers

Ecosystem management:

Lack of unified view of device management, data platform and monitoring of controlled lab environment



Features



Single Pane of Vision: ReServ enables real-time monitoring of lab assets, equipment, data platform and control of lab environment, including live insights on asset usage and inventory from the lab or customer experience centers



Guided, Zero-contact Operations: AR/VR enables step by step instruction to lab personnel to resolve any technical issue at asset location through hands-free device with intuitive and voice-enabled app navigation



Digitized Content: Access to digital documentation and information on lab assets for timely fixing of problems, access to repository of training videos to enhance lab personnel prior to visiting the site



Secure, Connected Ecosystem: Securely IoTized assets and data platforms - extendable to multiple labs, help remotely conduct experiments, gather insights and upload to cloud for collaborative and advanced analytics



Automated Operations: Enables prediction of asset health, downtimes and creation of service requests for rapid troubleshooting and resolution



Immersive Engagement: AR/VR technology enables immersive engagement with lab entities and demos, delivering a virtual, interactive walkthrough of the lab for the end customer

Benefits



Ensure Minimal Contact: Minimal, critical deployment of workforce enabling compliance with social distancing norms, while ensuring that productivity and operations are not hampered - improve workforce productivity by 20-30%



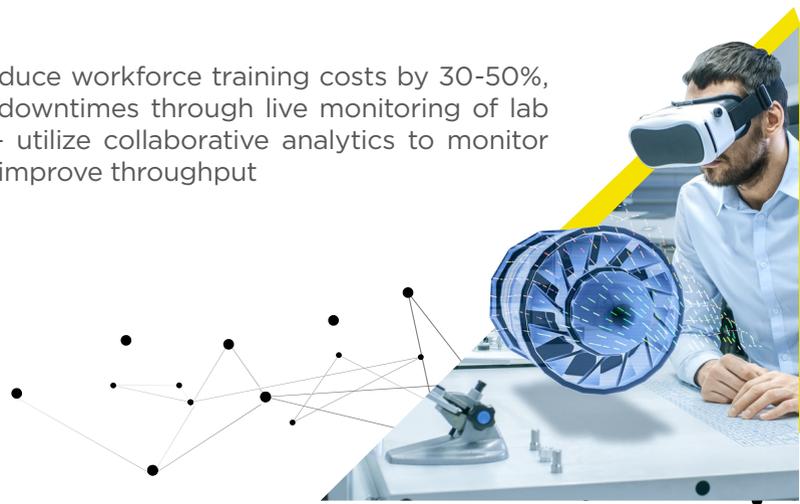
Enhance Customer Experience: Through use of VR content, the customer can experience the lab and its demonstrated solutions via remote attendance. And, this will bring an immersive experience to the customer further allowing an effective lab visit done virtually



Secure Operations: Introduce high first time success rate and improved efficiency of secure and smart service operations - including remote usage and inventory management of assets and lab environment



Improve Productivity: Reduce workforce training costs by 30-50%, minimize error rates and downtimes through live monitoring of lab assets and environment - utilize collaborative analytics to monitor enterprise lab ecosystem, improve throughput





Deliver Business Continuity: Enhance customer experience and engagement, restore business continuity in R&D workflow processes, quickly set up assets and reduce equipment search times



Automate Incident Resolution: Predict equipment failures, improve diagnosis of problems, automate creation of service requests to reduce unplanned maintenance and repair downtimes



Scale and Deploy: Rapidly scale up remote workforce and lab monitoring capabilities through IoTized assets, platforms and cloud environment, generating live insights to optimize operations and improve end customer experience

Offering Differentiators:



Can be implemented across multiple customers, strong partner ecosystem can quickly integrate the solutions



Rapidly scalable solution leveraging COTS devices and SaaS tools. Utilizes quick content creation tools that helps in scaling content digitization



Capability across all the technologies required to build and implement end-to-end AR and VR solutions



Deploy minimal critical resources - lab managers Architects, SMEs enabling remote collaboration with customers through AR/VR sessions

Use Cases :



Remote Expert Support



Remote Maintenance & Device Management



Track and trace to monitor high value lab equipment



Training on the Fly



Virtual Lab Experience



Instrumentation, Inventory Management & Digital Media



Feature Collaboration



Security, Threat Models & Vulnerability Assessment

