

Business Challenge

Chongqing Yokogawa Sichuan Instrument Co., Ltd., founded in 1995 as a Sino–Japanese joint venture, follows the philosophy "quality first, pioneering spirit, social contribution." It is a leading manufacturer of intelligent differential-pressure and pressure transmitters. The EJA intelligent transmitter uses single-crystal silicon resonant sensor technology; shipments exceeded 6 million units by August 2024.

The company's IT environment is built on a VMware virtualization platform that consolidates production-line control, calibration testing, quality inspection, R&D, MES, ERP, and CRM. This centralized architecture improves management and resource flexibility but imposes strict continuity and consistency requirements.

Operational challenges stem from virtualization operations intersecting with quality management. VM downtime from disk, storage, or network failures can halt production testing and product release. ISO 9000 mandates long-term, auditable retention of databases and test records, yet traditional backups struggle with growing virtual disks and databases—long backup windows, high storage consumption, and slow recovery. Conventional backups also lack application awareness and transactional consistency, risking inconsistency for point-in-time restores such as batch records and calibration histories. VM issues—migration failures, snapshot performance degradation, backup conflicts, and replication lag—widen the gap between required RTO/RPOs and current capabilities. The company urgently needs a virtualization-aware modern backup solution.

Vinchin Solution

Based on the backup challenges Chongqing Yokogawa Sichuan Instrument Co., Ltd. faced in its VMware virtualized environment, Vinchin provided a mature and reliable disaster-recovery solution. At the core of the solution is deep integration and an agentless architecture that directly leverages the vSphere APIs to perform fine-grained, agentless backups of all virtual machines. This not only simplifies deployment and management but—through technologies such as forever-incremental backups and CBT (changed-block tracking)—dramatically shortens backup windows, effectively addressing the storage pressure and performance bottlenecks caused by continuously growing virtual disks and databases. The solution also supports automatic archive of backup data to tape or the cloud, offering a compliant and efficient means to meet ISO 9000 requirements for long-term, auditable archiving of calibration records, test data, and similar items.

For critical business systems (such as MES, ERP, and databases) that demand consistency and rapid recovery, the Vinchin solution provides strong application awareness. It ensures transactional consistency during backups, thereby guaranteeing the completeness and usability of point-in-time restores for batch records, calibration histories, and the like—resolving the inherent risks of traditional backup methods in these scenarios. On the recovery side, its built-in Instant Recovery capability can start a backed-up virtual machine in seconds, minimizing production and testing downtime caused by disk, storage, or network failures, and strongly supporting the company's pursuit of stringent RTO/RPO targets to ensure continuity of production and quality-inspection processes.

>>>> Result

Vinchin's solution transforms the company's data protection from a potential operational liability into a strategic asset. By guaranteeing rapid, application-consistent recovery, it directly safeguards production and testing continuity, ensuring that quality management processes remain uninterrupted and fully compliant with ISO 9000 standards. This ultimately upholds their commitment to product quality and reliable delivery to customers.

Question? Need support?
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