GVD Strengthens Security Across the Global Semiconductor Supply Chain with Enterprise VMS

Supporting Advanced Fab Management in Mission-Critical Semiconductor Environments

JAPAN, SOUTH KOREA, TAIWAN – Genius Vision Digital (GVD), a premier provider of enterprise-grade video management systems, is proud to announce its continued dominance in the semiconductor manufacturing sector. GVD's high-performance VMS platform has now been deployed across multiple top-tier semiconductor fabrication plants (FABs) in South Korea, Japan, and Taiwan's Hsinchu Hi-Tech Science Parks, totaling more than **25,000 IP camera installations** globally.

Innovating FAB Logistics: Seamless AGV Integration

As semiconductor manufacturing moves toward full automation, GVD has pioneered a specialized video management architecture for **Automated Guided Vehicles (AGVs)**. Every AGV within these high-tech facilities is equipped with IP cameras that connect via high-speed Wi-Fi to centralized GVD VMS Servers.

This allows for:

- **Real-Time AGV Monitoring:** Mission-critical live video feeds from mobile units to ensure smooth logistics and safety on the FAB floor.

- **Edge-to-Server Playback:** Advanced synchronization that allows security and operational teams to retrieve video playback directly from the AGV's onboard SD cards, ensuring no data loss even during Wi-Fi roaming transitions.

Large-Scale Infrastructure for Industry Leaders

Each individual FAB typically hosts between **800 to 1,500 IP cameras**, requiring a VMS that can handle massive bandwidth and strict IT security protocols. GVD's architecture is specifically designed to manage these high-density environments, providing a "single pane of glass" view for facility managers.

To meet the rigorous standards of the world's leading IT and semiconductor companies, GVD VMS includes a suite of specialized functions:

- **AI Metadata Search**: Accelerates operational audits by allowing managers to search for specific events or objects across thousands of cameras in seconds.

- **CaseBuilder**: Streamlines the documentation of cleanroom incidents or equipment anomalies by bundling video evidence and SOP notes into secure, exportable forensic reports.

- **Interactive eMap**: Provides a comprehensive visual layout of the FAB, allowing operators to instantly locate mobile AGVs and fixed cameras across multi-level facilities.The combined solution significantly improves **yield management** and **overall equipment effectiveness (OEE)** for semiconductor fabs and packaging plants.

"Semiconductor FABs are among the most complex environments in the world," said a GVD spokesperson. "Our success in managing over 25,000 cameras for the world's top chipmakers proves that GVD VMS offers the reliability, scalability, and mobile integration required for Industry 4.0."

Through its robust partnerships in Hsinchu, Seoul, and Tokyo, GVD continues to set the standard for video management in mission-critical industrial applications.

About GVD (Genius Vision Digital) GVD is a leading developer of professional, enterprise-level VMS solutions. Specializing in high-end projects, GVD provides the technological backbone for the world's most advanced semiconductor FABs, Smart Cities, and transportation hubs.