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Digital Mining, Redefined by CSM Tech for Every Stakeholder

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As mineral-rich economies shift towards sustainability and data-driven governance, the mining sector stands at a critical inflection point. Efficiency, transparency, and environmental responsibility are no longer optional—they are essential. CSM Tech, a pioneer in digital transformation, is powering this shift with **mining governance solutions** that serve every layer of the ecosystem. From state departments managing regulatory compliance to PSUs striving for audit-ready productivity, and enterprises optimizing their operations, CSM's flagship mining solution, is unifying the entire mining value chain through intelligent, real-time digital infrastructure.

Despite contributing **nearly 2.5% to the national GDP** and supporting key industries like power, steel, and infrastructure, India's mining sector has historically grappled with digital inefficiencies, regulatory loopholes, and fragmented oversight. Challenges such as revenue leakage, environmental non-compliance, and manual processes have long hindered its full potential. As mineral demands surge, unlocking value from India's mineral wealth calls for more than extraction—it demands digital reinvention that keeps pace with global levels of productivity, regulations and compliance. This is where CSM Tech's IntegratORE steps in - bringing structure, speed, and sustainability to an otherwise complex and high-stakes domain.

Revolutionizing the Mining Ecosystem

Effective governance, operational efficiency, and regulatory compliance are not just necessities—they are the bedrock of success. As the industry faces increasing demands for transparency, sustainability, and productivity, technology emerges as the enabler of these transformations. IntegratORE is uniquely equipped to address the diverse needs of the **entire mining ecosystem**—from government bodies and public sector undertakings (PSUs) to private mining enterprises.



Designed to offer scalable, real-time solutions, IntegratORE empowers stakeholders at every level to optimize resources, enhance decision-making, and ensure seamless regulatory compliance. Whether it's streamlining mineral tracking for governments, improving productivity for PSUs, or enabling competitive advantage for enterprises, IntegratORE unifies the entire value chain. With a single platform capable of serving different sectors,

IntegratORE brings transparency, efficiency, and sustainability to mining operations.

Governments: From Fragmentation to Unified Oversight

State governments play a critical role in safeguarding mineral resources, ensuring regulatory compliance, and maximizing revenue from mining operations. Yet, fragmented systems, manual interventions, and limited real-time oversight have long hindered effective governance. For mineral-rich states like Odisha, Jharkhand, and Chhattisgarh—which together account for **nearly 80% of India's major mineral output**—the need for integrated, transparent, and scalable digital solutions became imperative.

CSM Tech addressed this need by delivering comprehensive platforms such as **i3MS for Odisha** launched in 2014, **JIMMS for Jharkhand** introduced in 2015, and **Khanij for Chhattisgarh** initiated in 2016. Each system enables full lifecycle management of minerals—from licensing and dispatch to logistics tracking and royalty collection. With over **1.68 lakh crore revenue** collected through i3MS, more than **1.65 crore e-Transit passes** issued via JIMMS, and seamless VTD and departmental integrations in Khanij Online 2.0, these platforms have redefined digital mining governance in India.

Today, these three states operate with near-total transparency and traceability, powered by **CSM Tech's mining solutions**. Every ton of mineral dispatched, every permit generated, and every compliance action is recorded and monitored in real time. With data-driven policymaking, reduced pilferage, and faster revenue realization, these digital systems have become the benchmark for mining governance—endorsed and recommended by the Government of India for nationwide adoption.

PSUs: Compliance, Audit, and the Pursuit of Productivity

Public Sector Undertakings (PSUs) in mining operate under intense scrutiny, where maintaining compliance, fulfilling audit requirements, and achieving productivity benchmarks across multiple sites is an ongoing challenge. The high expectations of government oversight, coupled with stringent ESG norms, demand a solution that is both robust and intelligent. For entities such as **Odisha Mining Corporation (OMC), Gujarat Mineral Development Corporation (GMDC), National Aluminium Company (NALCO), and NLC India Ltd.**, the stakes are high—and the need for streamlined governance is paramount.

CSM Tech's IntegratORE platform has emerged as a vital solution for these PSUs. With features like real-time compliance monitoring, automated audit-ready reports, integrated logistics and dispatch tracking, and configurable dashboards, IntegratORE minimizes manual

dependencies and ensures transparent, scalable governance. These tools not only help meet regulatory requirements but also improve operational outcomes, enabling PSUs to stay ahead of compliance needs while boosting efficiency and resource utilization.

Notable projects include OMC’s Digital Logistics Management System (DLMS) for Stock Yard implemented in 2020, NLC’s DLMS launched in 2019, GMDC’s DLMS focused on Lignite Allocation from 2021, and NALCO’s AMC and online tender portal operational since 2015.

Enterprises: From Compliance to Competitive Advantage

Private mining enterprises operate in an environment shaped by regulatory obligations and intense market pressures, where every inefficiency directly affects profitability. From managing massive dispatch volumes to ensuring ESG compliance across diverse locations, mining companies face a complex operational matrix that demands intelligent, scalable solutions. Enterprises such as JSW, which has implemented the DLMS solution since 2018, ArcelorMittal Nippon Steel, Tata Steel, for whom CSM Tech developed, tested, and trained teams on the Auto Mining Chalan Software starting September 2019, and Essel Mining, benefiting from a High Speed Wi-Max Network Connectivity Solution for issuing E-Pass since December 2011, have turned to CSM Tech to meet these demands with precision.

IntegratORE empowers these businesses with end-to-end visibility through unified dashboards, IoT-enabled monitoring of logistics and stockyards, and seamless integration with regulatory bodies including IBM, MoEFCC, and Pollution Control Boards. With built-in audit frameworks and intelligent visualizations, enterprises gain sharper decision-making capabilities and reduce compliance friction. More than a compliance solution, IntegratORE becomes a strategic asset that enhances productivity and fosters competitive resilience.



Conclusion: A New Era of Transparent and Responsible Mining

CSM Tech’s mining solutions are no longer just digital enablers—they are mission-critical infrastructures powering India's mining governance. From state governments driving transparency and revenue realization, to PSUs navigating audit trails and ESG mandates, and enterprises seeking operational edge through compliance and efficiency, the IntegratORE platform serves as a common digital thread uniting all stakeholders.

As the global demand for critical minerals accelerates and regulatory expectations grow more stringent, IntegratORE ensures that **every dispatch is monitored, every rule enforced, and every decision backed by real-time intelligence**. By empowering the entire mining value chain—from permit to port—CSM Tech is not only redefining how India manages its mineral resources but also setting a scalable model for responsible, transparent, and future-ready mining governance.



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