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PIAM+
Make Exploration & Extraction Safe, Secure and Smart

Oil & Gas + Mining Sector

Executive Summary

The Oil and Gas (OG) and Mining – OGM industry is characterized by its complex and high-risk operations, operating in most hazardous environments. Robust system to manage safety, security, and regulatory compliance are paramount, hence Physical Identity and Access Management (PIAM) systems are becoming increasingly vital for managing these aspects effectively. By centralizing the management of identities, permissions, credentials, fatigue monitoring, contractors, incidents and access policies – Meron's PIAM+ system offers a comprehensive solution that enhances operational efficiency, safety, improved security, and ensures compliance with industry regulations, as well as providing seamless integration of physical and logical access controls.

By doing so, we help OGM companies maintain operational integrity, protect their workforce, and adhere to stringent regulatory standards.

Introduction

The OGM sector face numerous challenges, including security risks, regulatory compliance, operational inefficiencies, and safety concerns. In an environment where even the smallest oversight can lead to significant safety incidents, Meron's PIAM+ system provides real-time control and monitoring, ensuring that only authorized and qualified personnel have access to sensitive and high-risk areas as well as streamlining contractor management - a critical component in an industry reliant on a diverse workforce of permanent employees and contractors.

Physical Security Challenges faced by the sector:

- **Remote and Isolated Locations:** Many facilities are located in remote or offshore areas, making it difficult to provide immediate security response and support.
- **Vast & Diverse Infrastructure:** The extensive network of pipelines, drilling sites, and processing facilities, as well as diversity in access control systems deployed requires comprehensive security measures across a large geographic area, which can be challenging to manage and monitor effectively from a centralized platform.
- **Target for Theft and Sabotage:** assets are attractive targets for theft, vandalism, and sabotage due to their high value and potential impact on operations.
- **Cybersecurity Risks:** With increasing digitalization and convergence of IT/OT/Physical security, the sector faces significant blended risks, including threats to operational technology and safety systems.

- **Regulatory Compliance:** Ensuring compliance with various local, regional, and international regulations can be complex and resource-intensive.
- **Environmental Concerns:** Security measures must also consider environmental protection, as any security breach could lead to significant environmental damage.
- **Workforce Safety:** Protecting the safety of workers in high-risk environments is a constant challenge, requiring robust access control and emergency response protocols.
- **Supply Chain Disruptions:** Disruptions in the supply chain, whether due to natural disasters, geopolitical issues, or other factors, can pose significant security challenges.

How Meron PIAM+ Can Help:

Remote and Isolated Locations
- **Remote Monitoring:** Meron's PIAM+ system can integrate with remote surveillance technologies, such as drones and satellite imagery, to monitor activities at isolated locations in real-time.
- **Access Control:** Ensure that only authorized personnel have access to remote sites through secure, centralized access management.

Vast and Diverse Infrastructure
- **Centralized Management:** Meron's PIAM+ system can centralize the management of multiple and diverse access controls across multiple sites, pipelines, and facilities, providing a unified view of security status.
- **Automated Alerts:** Implement automated alerts and notifications for unauthorized access attempts or security breaches across the infrastructure

Target for Theft and Sabotage
- **Real-Time Surveillance Integration:** Integrate with surveillance cameras and motion detectors to provide real-time monitoring and immediate response to suspicious activities.
- **Access Logs:** Maintain detailed access logs to track who has entered and exited sensitive areas, which can be crucial in investigations of theft or sabotage. immediate revocation of access, enforcing security protocols, and managing visitor access, these systems provide a robust security framework.

Built in CoPilot to Assist and Guide

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How Meron Can Help *(contd.):*

Cyber Security Risks
- **Multi-Layered Security:** Combine physical and cyber security measures to protect operational technology and critical infrastructure from cyber threats.
- **Secure Access Protocols:** Implement strong authentication and encryption protocols on credentials to protect access credentials from cyber attacks.

Regulatory Compliance
- **Automated Compliance Tracking:** Automate the tracking and documentation of compliance with local, regional, and international regulations, ensuring timely updates and audits.
- **Training Verification:** Ensure that all personnel have the necessary training and certifications before granting access to sensitive areas.

Environmental Concerns
- **Environmental Monitoring:** Integrate with environmental sensors to monitor potential hazards such as gas leaks or spills and providing contextual awareness - ensuring immediate response and containment.
- **Access Controls for High-Risk Areas:** Restrict access to environmentally sensitive areas to only those with proper training and equipment.

Workforce Safety
- **Safety Protocol Enforcement:** Enforce safety protocols by ensuring that only trained and certified personnel can access high-risk areas.
- **Emergency Response Coordination:** Provide real-time data and communication tools to coordinate emergency responses effectively.

Supply Chain Disruptions
- **Supply Chain Monitoring:** Track the movement and access of supply chain partners and contractors, ensuring that only authorized individuals handle critical supplies.
- **Contingency Planning:** Use data stored in Meron to develop and implement contingency plans for supply chain disruptions.

Theft Reduction: Significantly reduce the risk of theft, by restricting access to sensitive areas and assets, integrating with surveillance technologies, maintaining comprehensive access logs, enabling immediate revocation of access, enforcing security protocols, and managing visitor access.

Helping with Regulatory Compliance

Occupational Safety and Health Administration (OSHA): Ensures workplace safety by setting and enforcing standards.
- **OSHA Compliance:** Implementing Meron's PIAM+ system can help ensure that only trained and authorized personnel have access to hazardous areas, reducing the risk of workplace accidents.

Bureau of Safety and Environmental Enforcement (BSEE): Focuses on offshore safety and environmental management.
- **BSEE Compliance:** For offshore operations, Meron's PIAM+ system can enforce safety protocols and environmental management systems, ensuring continuous improvement in safety and environmental records.

Environmental Protection Agency (EPA): Regulates air and water quality, protecting the environment from industrial impacts.
- **EPA Compliance:** By controlling access to areas with potential environmental impact, Meron's PIAM+ system helps to prevent unauthorized activities that could lead to pollution.

Key Capabilities:

Workforce Hire to Retire – Identity & Access Lifecycle Automation
- **Onboarding -** From the moment an employee is hired, the Meron PIAM+ system can automatically assign the appropriate access levels based on their role, department, and location. This eliminates the need for manual intervention, reducing the risk of human error and ensuring that employees have the access they need from day one
- **Access Changes -** As employees move within the organization, whether through promotions, transfers, or role changes, their access needs will evolve. The Meron PIAM+ solution will seamlessly manage these changes, automatically updating access permissions to reflect new responsibilities and locations. This dynamic approach ensures that employees always have the correct access while minimizing the administrative burden on the security team
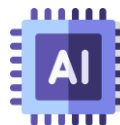
AI **Predictably Consistent Enablement**

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Key Capabilities *(contd.)*

- **Secure Terminations -** When an employee leaves the organization, timely and secure access termination is critical to maintaining security. Meron PIAM+ solution will automate the deactivation of access credentials, ensuring that former employees can no longer access facilities. This proactive approach helps prevent unauthorized access and protects sensitive information**.**
- **Operational Efficiency:** Streamline access management processes, reducing administrative burden and minimizing errors. Meron's PIAM+ system will automate routine tasks, such as shift changes and access provisioning, allowing staff to focus on more strategic initiatives, thereby improving overall productivity and efficiency.

Self-Service Access & Approvals

- **Self Service Portal -** Empower workforce and supply chain vendors to manage their own access requests. Meron PIAM+'s user-friendly platform allows users to request access to specific areas, update their credentials, and track the status of their requests, thereby reducing the workload on the security team and improving efficiency**.**
- **Secure, Flexible Access -** Streamlined access approval workflow, ensuring that all access requests are properly vetted and approved by the appropriate authorities. This workflow can be customized to reflect the organization's specific policies and procedures, ensuring that access is granted based on predefined criteria and minimizing the risk of unauthorized access.

Access Governance & Policy Enforcement

- **Role Based Access Control -** Employees only have access to the areas and resources necessary for their job functions. This principle of least privilege reduces the risk of insider threats by limiting access to sensitive areas and information.
- **Continuous Proactive Policy & Rule Enforcement -** Support robust access governance by enforcing policies, rules and standardizing access controls across the organization. This ensures that access rights are consistently applied, and policies and rules monitored continuously , reducing the risk of policy violations and unauthorized access.
- **Access Attestations –** Set & Forget Access & Area Owner Attestations for scheduled (time based), and event based (Transfers, LOA, etc.)
- **Safety and Environmental Protection -** Limit access to hazardous areas like drilling platforms and mining shafts to authorized personnel only, reducing the potential for accidents and environmental damage. Meron's PIAM+ platform will contribute to creating a safer workplace by enforcing safety protocols and ensuring only qualified personnel can enter restricted areas.

- **Governance:** Enforce policies and procedures related to access control, ensuring consistent application across the organization. Meron's PIAM+ system supports governance by providing tools for policy management, and automated compliance checks.
- **Fatigue Management:** Incorporate systems to monitor work hours and ensure compliance with fatigue management policies. Meron's PIAM+ system can help prevent overworking and ensure employees have adequate rest, thereby reducing the risk of accidents and improving overall safety.
- **Drug Testing:** Manage and monitor compliance with drug testing policies, ensuring a safe and drug-free workplace. Meron's PIAM+ system can automate the scheduling and tracking of drug tests, ensuring only personnel who meet the organization's safety standards have access to critical areas.

Measuring What Matters

- **Advanced Reporting** - Detailed insights into access activities, security incidents, and compliance status. These reports can be customized & Scheduled to meet the specific needs of the organization, enabling security teams to make informed decisions and take proactive measures. Enabling organizations to monitor access patterns, identify anomalies, and ensure compliance with regulatory requirements. Detailed reports and audit trails support internal reviews and external audits, enhancing transparency and accountability.
- **Comprehensive Auditing** - Track and record all access events (Cradle to Grave), making it easier to identify and investigate suspicious activities. Regular audits help ensure that security protocols are being followed and provide a clear trail of evidence in the event of an incident.
- **Intelligent Dashboards -** Real-time, visual representation of key metrics, **risks**, and performance indicators. These dashboards provide an at-a-glance overview of access events, security incidents, and **compliance** status, enabling security teams to quickly identify trends, monitor performance, and address any issues.

Contractor and Visitor Management: Simplify the management of external personnel by ensuring proper vetting, tracking, and access control. Meron's PIAM+ system ensures that contractors and visitors have the appropriate access levels, reducing security risks associated with external parties. Streamline visitor management by automating the registration and credentialing process. Visitors are granted access only to authorized areas and for specified time periods providing a clear record of all visitors.
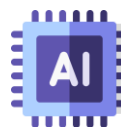
AI **Prioritizing with Self Healing**

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Key Capabilities *(contd.)*

Digital Transformation and End to End Integrations

- **System Integration:** Seamlessly integrate with existing HR, ERP, Travel, EHS, Training, billing and other organizational systems to ensure consistent and accurate policy and access control. This integration provides a unified platform for managing physical and digital identities, enhancing overall governance and access management.

- Support the digital transformation of the entire ecosystem by integrating with other digital systems and platforms. PIAM systems enable a more connected and efficient operation by providing real-time access control data, enhancing decision-making and operational agility.

Summary of Benefits

Implementing Meron's PIAM+ system in the OGM (oil & gas and mining) sectors not only enhances security and compliance but also drives operational efficiency and safety. Providing comprehensive access management and governance capabilities, to create safer workplaces, mitigate insider threats and theft, and automate routine tasks. The system also supports fatigue management and drug testing policies, prevention of contractor billing fraud, protection of assets, streamline supply chain management, safeguard against disgruntled employees, and enabling the digital transformation of the entire ecosystem. This strategic investment ensures a secure, compliant, and efficient operational environment, positioning the OGM sector for sustained success.

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