

Why PIAM makes Mining Operations Safer, more Secure and Compliant



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RIGHTCROWD
EVERYONE ON SITE IS RIGHT

Automating PIAM Processes for Mining Safety, Security and Workforce Access

Workforce operations and processes have changed dramatically over the last few years on a global scale. The mining industry is no exception. On top of all the stringent compliance mandates required for mining operations, new health safety mandates have since been added to the list of Mine Safety and Health Administration (MSHA) and United Mine Workers of America (UMWA) requirements already in effect.

As mining operations strive to achieve pre-pandemic production levels, there are longstanding challenges that mining companies face to ensure worker safety while maintaining physical security, health and safety, and fluid operations. Workforce management is another significant challenge given the scale and turnover frequency of personnel and contractors.

THE NEED FOR PIAM AUTOMATION

Since the inception of corporate mining, access control has played a critical role in helping organizations maintain physical security and time management. From early paper logs to time clocks and today's Physical Access Control Systems (PACS), the primary role of these solutions has been to keep track of who was on premise and for what duration of time. Unfortunately, that is no longer sufficient. The combination of health & safety regulations and related compliance requirements require mining companies to move from static access control based on manual processes to dynamic access control based on automating a myriad of security, safety, health and compliances rules and workflows.

That is where Physical Identity and Access Management (PIAM) comes into play. PIAM systems are a software layer that sits on top of the existing PACS system, and in turn communicates with relevant people and business systems. It automates physical access control policies and processes through rule sets and workflows. Based on information managed in the company's existing people and business systems, it dynamically sets and revokes access in the underlying PACS.

THE BENEFITS OF ACCESS AUTOMATION

By automating access control processes across their access life cycle, powerful solutions like RightCrowd Workforce Access ensure that identity and access level data are kept up to date at all times across employees, contractors and visitors. This PIAM solution developed by RightCrowd provides the missing link that seamlessly integrates their PACS with other enterprise systems, applying attribute-based access control (ABAC) rules to ensure all mining personnel and contractors on-site are in compliance with established security, safety and health protocols, and are accounted for in the event of an emergency.

This whitepaper explores critical use cases where automated PIAM is proving to improve physical security, health and operational safety, and workforce management at mining facilities.

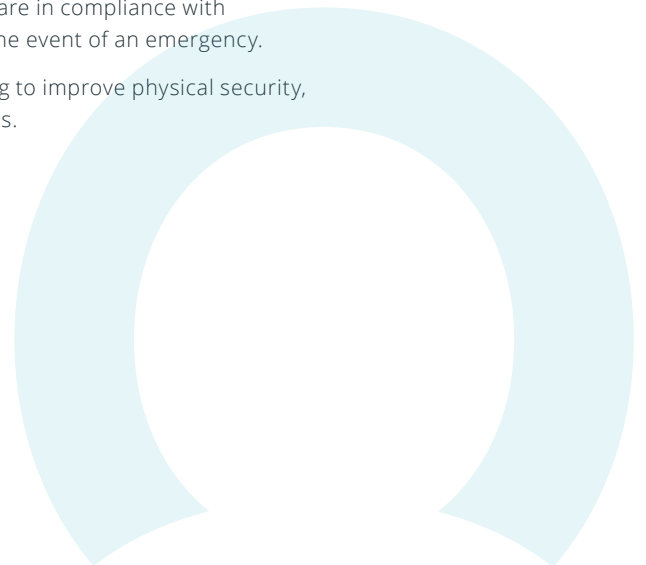
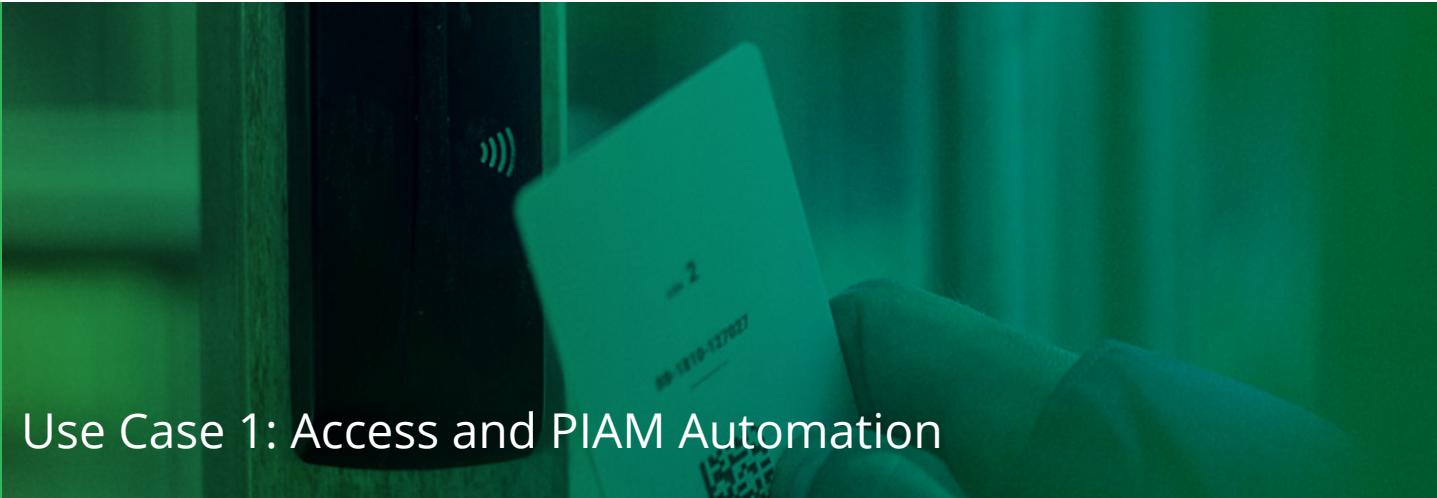


Table of Contents

1. PIAM Automation
2. Smart and Simplified Access On-Boarding
3. Automated Termination and Access Revocation
4. Competencies & Certifications Management
5. Enterprise Visitor Management
6. Evacuation and Mustering
7. Fatigue Management
8. Lost/Forgotten Access Card Processing
9. Time On-Site Monitoring
10. Random Drug and Alcohol Testing
11. Conclusion





Use Case 1: Access and PIAM Automation

THE CHALLENGE

The mining company's physical access control processes have traditionally been largely manual. While this was inefficient most of the time, it continues to be particularly problematic during annual maintenance shutdowns, when a large number of staff, many of them contractors, needed to get access to their sites efficiently, sometimes for relatively short periods of time. The challenge is compounded by the fact that the customer's PACS is comprised of two disparate systems, which significantly complicates efforts to implement automated process control across the entire enterprise. The scope of this project is quite significant, and includes:

- Biometric enrollment and encoding
- Visitor pre-registration workflow form to accommodate foreign visitors, including the capturing of passport and visa images
- Advanced employee and contractor management
- Contractor management using advanced rules that ensures no workers can access site who are working for an unrecognized company
- SAP Clock Time interface that sends event times to the customer's corporate SAP system
- A "profiler" solution, allowing gatehouse staff to assist employees and contractors to resolve non-compliances
- Data Warehouse integration allowing RightCrowd to feed data directly to the client



THE RIGHTCROWD WORKFORCE ACCESS SOLUTION

RightCrowd implemented this project working on site with the customer's project team and their security systems vendor.

Some PACS operate in an integrated manner, enabling multiple PACS to present as a single unit for monitoring, administration, and reporting purposes. The disparate PACS this customer was using did not support this type of functionality, with each PACS operating independently.

It would be difficult and cumbersome to implement the new advanced functionality required by the customer using the existing PACS. Yet it would be cost prohibitive to rip and replace the existing PACS infrastructure with a new fully integrated solution.

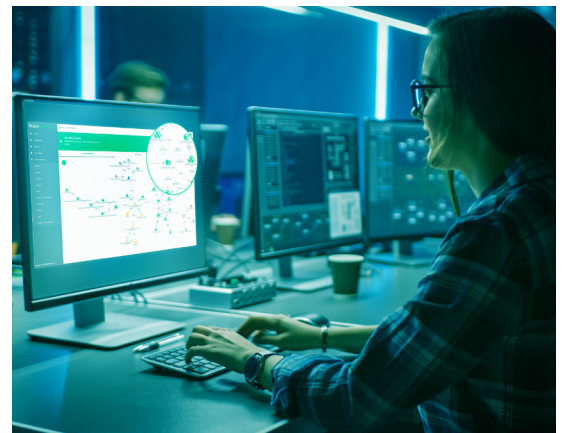
RightCrowd is designed to tightly integrate with a variety of PACS at an enterprise or regional level, integrating with a head-end PACS which may already be aggregating data and events from a variety of site-based systems. In this case, however, the customer had two disparate PACS.

The master RightCrowd dashboard appears as a virtual single integrated physical access control monitoring and control system, even though the underlying physical infrastructure consists of two disconnected PACS, each connected to their own RightCrowd systems. This enables the customer to perform all administration (such as record maintenance, event monitoring, etc.) from a single dashboard and utility. Importantly, this also enables RightCrowd's suite of process automation tools to run across the entire enterprise physical access control infrastructure.



VISITOR PRE-REGISTRATION WITH WORKFLOW

This customer receives a large volume of visitors annually. In order to make visitor management processing more efficient, as well as provide for improved vetting, a visitor pre-registration workflow form and process were added. This enabled the customer to vet and approve the arrival of visitors in advance prior to their visit. It also helped facilitate ensuring that all regular visitors had appropriate background checks and received required pre-visit medical checks and safety inductions.



BIOMETRIC ENROLLMENT AND CARD ENCODING

In order to ensure enhanced physical security, the employees' MIFARE access cards could also contain biometric (fingerprint) images from each individual, with one or more fingerprints being encoded directly to the MIFARE access card. Direct card encoding simplified and accelerated the card swipe process, as it did not require biometric matching to authenticate the user. RightCrowd provided an administration tool that helped facilitate the process of capturing the worker's fingerprint data during the card enrollment process and encoding this data directly onto the card.



ADVANCED WORKFORCE ACCESS MANAGEMENT

The RightCrowd Workforce Access enterprise-level solution offered the customer a wide range of process improvements to employee and contractor management, ranging from enrolling new cardholders into the system to look-ups and access privilege updates. The solution simplifies the process of capturing a new employee's photo, cropping it appropriately, and adding it to their record. Site access privileges can be added at the time of enrollment. Required medical and induction processes are also facilitated as part of the enrollment process. Biometric data can also be captured and enrolled onto the access card at this time as described in more detail above. Some access privileges can be based on competencies or inductions that the worker has attained or completed. A range of access card layouts can be created using a variety of relevant fields and stored by the solution, then later selected when new cards are issued.

Workers who transfer to a different mining or business unit will have their previous access rights associated automatically revoked when new rights are added. Any employee who is terminated will have all of their access rights revoked. Access cards can be recycled in bulk when workers no longer require them using the RightCrowd workflow engine and a USB card reader. By simply swiping an access card, the individual has the card and all access rights removed from their record, and external company assignment revoked. RightCrowd provided a form to authorize and control this activity.

CONTRACTOR MANAGEMENT UTILITY

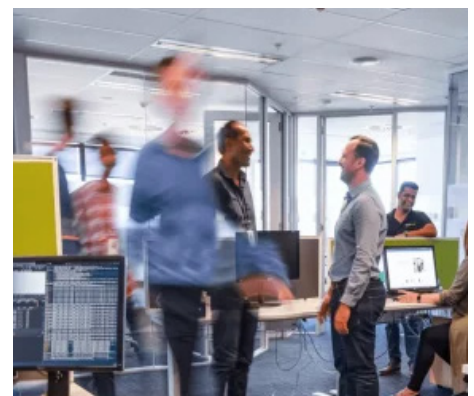
Many of the same capabilities described above for visitors and regular staff also apply to contractors, including enrollment, revocation, competencies, inductions, and transfers. Expiration of contractors' access rights are tied to their contract expiry dates. If a contract is extended, the contractors' access rights are extended correspondingly. The system will also ensure that contractors must be associated with a recognized contracting company.

The solution also makes provision for a limited duration "Urgent Pass," enabling authorized security staff to provide specific contractors uninterrupted access to a specific mining site or offices for a very limited duration.



SAP CLOCK/TIME INTERFACE

Time on site is monitored for contractors and sent to the SAP system for payment verification by reading access card swipe data from specific Time and Attendance readers. The solution uses information from SAP and the PACS to determine which workers to send clock information for from which readers.



RIGHTCROWD PROFILER

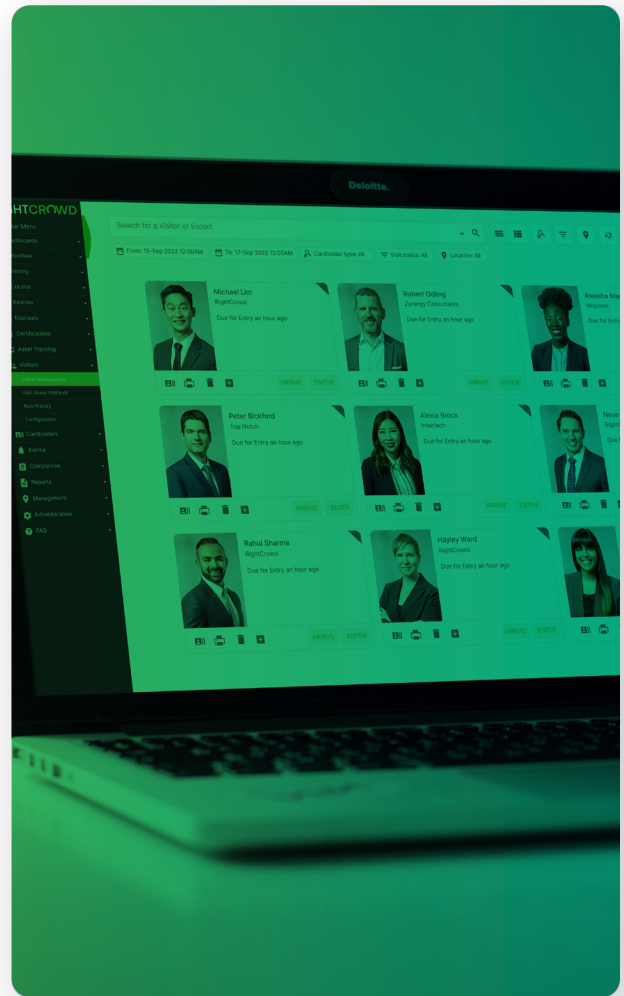
There are many reasons why a worker's access card might fail to open a specific door or gate. RightCrowd's Profiler assists security guards trying to assist workers. All failed access events are listed on the guard's screen beginning with the most recent events. So when a worker reports a failed access swipe, the guard can quickly find this particular failed access event and drill down to determine the reason for its failure.

DATA WAREHOUSE AND REPORTING

The RightCrowd system monitors and controls a large number of access activity for this mining customer. To help the customer better report on and analyze activity, RightCrowd also included a rich suite of over 25 reports based on a data warehouse.

IMPLEMENTATION PROJECT

This customer's customized solution was the result of a series of workshops and extensive consultation with a variety of stakeholders. A comprehensive test plan was also developed and implemented, first remotely by RightCrowd and then onsite with the customer, followed by user acceptance testing prior to final system rollout.



CUSTOMER BENEFITS

- ✓ An aggregated environment enabling overall monitoring, control, and administration of all activity across multiple PACS.
- ✓ Simplified PACS upgrade path (removed customizations).
- ✓ Significant performance improvements, in particular around SAP interfaces and the 'time for access cards to be operational' once changes were made in the system, to being effective at the gates.
- ✓ Enhanced security, monitoring, and control of workers and associated activity with reduced effort and expense via advanced workflow and process automation.
- ✓ More streamlined and secure processing of visitors.
- ✓ Significantly enhanced security and control of contractors by integration with the customer's SAP business system.
- ✓ Enhanced security for all workers via biometric enrolment and encoding of access cards.
- ✓ Automated monitoring of time on site for contractors with direct links to the customer's SAP business system.
- ✓ Complete reporting, analysis, and auditing of system activity data.
- ✓ Empowering security guards to offer more efficient and timely support to workers with access problems using the RightCrowd Profiler.



Use Case 2: Smart and Simplified Access On-Boarding

THE CHALLENGE

A mining company was looking to reduce security personnel's administration workload through automation and re-engage them as owners of security and policy compliance.

When a new worker joins the mining company, there are a number of security and access approval tasks required to facilitate their smooth induction. This client used role-based access privileges to help process access requests for new hires, but found that their manual on-boarding process was inconsistent causing operational delays, complaints and compliance breaches.

On-boarding for this client typically required a chain of email approvals, periodic reminders and weeks to process. For physical access, the security director and line managers needed to approve access requested via email. Physical access to some areas required special approvals due to access to personally identifiable information and other sensitive data, which require specific training and authorization. Too often, the pressure was on the security team to ensure that all required approvals have been received and access was not delayed. In this environment, the administrative load on security personnel continues to grow exponentially, triggering low service satisfaction and adherence to compliance mandates as managers sought to by-pass the process.

THE RIGHTCROWD WORKFORCE ACCESS SOLUTION

RightCrowd Workforce Access automates and controls the process of provisioning site access for employees and contractors directly into the enterprise's access control system. The addition of a new worker into the identity management system triggers a workflow which will provision that same new worker into the enterprise's physical security system.

A RightCrowd workflow request for access for a new worker is automatically routed to the appropriate approvers, which may also include the new employee's manager, the security director, and appropriate area managers for specific areas. The workflow approval process is pre-configured for each site area, helping to speed and automate the process. The approval process can be performed from a link contained in a system-created email or by accessing a portal where all outstanding approval requests are listed.

If an approver does not respond within a specified period (due perhaps to the approver being out of the office) the request is automatically routed to an alternate approver. If one or more of the areas for which access is being requested requires specific training or competencies, through integration with the Learning Management System, the RightCrowd system checks that the worker possesses the requisite training, license or competencies. When all required approvals have been received and required competencies verified, RightCrowd automatically provisions the requested access into the company's physical security system.

With RightCrowd Workforce Access, identity details for new workers don't need to be entered separately into IT business systems and PACS. The process of adding the new worker to the company's HR or identity management system will automatically provision the new worker into the RightCrowd system, which will synchronize to the access control system without the requirement for manual intervention. This helps to eliminate the possibility of human error or company policies not being properly adhered to. All results are completely auditable.

CUSTOMER BENEFITS

- ✓ Automation of processes to provision access to the enterprise's physical access control system with workflows automatically triggered by company events or individual requests.
- ✓ Streamlined and accelerated site access provisioning process for new workers
- ✓ Ensures area owners are automatically forwarded requests to approve access to sensitive areas.
- ✓ Ensures that required employee competencies and training credentials are checked for individuals prior to granting access to areas requiring these.
- ✓ Helps maintain compliance with company and regulatory requirements for site access.
- ✓ Provides seamless integration across the enterprise with PIAM, LDAP, HR, training and competencies, as well as the physical access control system.
- ✓ Delivers comprehensive reporting and audit capabilities



Use Case 3: Automated Termination and Access Revocation

THE CHALLENGE

This mining client wants to eliminate instances where a former worker's access rights were terminated on some systems but not all, creating potential security holes.

Terminating employees and contractors at this mining company was controlled through an IT single sign-on with facility access managed through a PACS, which was disconnected from the client's enterprise IT landscape. This meant that two different processes needed to occur on two different systems when a worker or contractor was terminated. All of these access terminations also needed to be coordinated with the worker's status change in their HR system as well.

The client reported multiple instances where a former worker's access rights were terminated on some systems but not all, creating potential security threats. There were no checks to ensure that all requests for terminated access were properly approved and that they were properly completed by security staff. Furthermore, there was no audit trail to ensure all procedures were properly followed in the event of a security breach due to manual error or malfeasance.

THE RIGHTCROWD WORKFORCE ACCESS SOLUTION

RightCrowd provided a workflow system, which is used to automate and coordinate the termination of a worker's access rights in both IT business systems and the PACS, along with status changes in the enterprise's HR system. A workflow form is triggered based on a status change event in the HR system to trigger the processes to remove physical and IT business system access rights, or this workflow can be initiated manually by HR staff. In either scenario, the workflow process ensures that the appropriate people approve the termination and its associated details, such as the termination date.

When the workflow has been approved, RightCrowd automatically schedules the individual's physical site access to be terminated in the physical access control system at the appropriate date and time, and also trigger events in other IT business systems, including single sign-on systems, to terminate access to IT business systems. A single workflow process controls and guides the entire termination process across the enterprise. Any changes which need to be made can also be initiated via an associated workflow which, when approved, will automatically change the termination processes or discontinue them. Thorough termination of relevant access privileges throughout the enterprise are assured and fully auditable.

CUSTOMER BENEFITS

- ✓ Automated system-wide termination of access rights for terminated workers in both IT business systems and physical access control systems.
- ✓ Automation of manual processes that trigger termination processes based on company events and/or individual requests.
- ✓ Automation of termination approval requests.
- ✓ Enforced Compliance with company and regulatory requirements for site access.
- ✓ Workflow processes configured to the enterprise's specific requirements.
- ✓ Configures workflow processes to the company's specific requirements.
- ✓ Comprehensive reporting and audit capabilities



Use Case 4: Competencies & Certifications Management

THE CHALLENGE

Operating in the highly regulated mining industry, this client had stringent training and certifications requirements. The client required a system that would prevent uncertified workers from gaining access to hazardous areas and continuously ensure regulatory compliance. This includes HAZMAT training for areas with dangerous chemicals, Cisco network certification for server rooms with networking equipment and operations, and safety training for operating production heavy machinery. The client had a PACS that could restrict access to various areas of the site by assigning access privileges to workers. However, the system was unable to continuously monitor competencies and ensure the company was in compliance with its regulatory obligations. If an accident occurred, audit information was critical in the identification of operator competency, regulatory policy compliance and potential liabilities.

THE RIGHTCROWD WORKFORCE ACCESS SOLUTION

RightCrowd provides a workflow system that automatically checks employees and contracted workers' competencies and certifications prior to accessing specified areas. The solution is configured to check HR, training, and learning management systems (LMS), and enforce compliance through the client's access control system.

At onboarding, a workflow request is created for an operator to be granted access. If the area requested requires a specific competency or certification, RightCrowd Workforce Access automatically checks to ensure that the worker meets the requirement as part of the approval process. If the competency doesn't exist, the access request is rejected and the originator of the request is notified. The worker can then receive the required training to earn the additional certification, and the workflow request can be re-submitted.

When a required certification is about to lapse, the RightCrowd solution sends an email in advance to the affected individual, their manager and other authorized officers as required notifying them that the certification will expire in a pre-configured number of days. This gives the individual and their manager time to renew the certification prior to expiry. Periodic reminders have been configured that the certification is about to expire. If the certification expires, RightCrowd has been configured to automatically disable access to the affected area(s) for this operator.

RightCrowd ensures that sensitive areas of this client's site can only be accessed by workers with the required competencies and certifications, protecting the site from unauthorized site area access which could result in worker safety incidents, material losses and liabilities for the client.

CUSTOMER BENEFITS

- ✓ Certification and training compliance.
- ✓ Restricted workplace access based on training, certification or licenses.
- ✓ Compliance enforcement.
- ✓ Leverages existing PACS to enforce certifications compliance.
- ✓ Configurable to work zone requirements.
- ✓ Ensures only trained and approved workers have access to hazardous areas.
- ✓ Automates access approval processes.
- ✓ Configures access approval processes and competency checks according to regulatory or policy requirements.
- ✓ Enhances training and certifications management using a single system.
- ✓ Provides proactive notification of training/compliance expirations.
- ✓ Comprehensive reporting and audit capabilities.



Use Case 5: Enterprise Visitor Management

THE CHALLENGE

This mining customer was looking for a visitor management solution that could match the scale of their mining operations and deliver the feature set that would allow them to proactively manage a huge number of visitors annually. In order to make their logistics and security operations more efficient, this required automating the company's reception processes to free-up their high-value staff, performing low-value tasks. The customer had a vision of an automated, cost-efficient solution that managed visitors, trucks entering their sites, along with the ability to on-board new employees into their PACS.

With many busy entry points across a large mining operation, the client needed advanced features and a proactive view of the visitor and worker population. Visitors to various locations within the campus also had to sign non-disclosure agreements, read and agree to visit guidelines, and surrender specified equipment to the receptionist to avoid potential security breaches. Previous solutions had been unable to answer critical security management questions such as how many visitors were presently on site, where they were, if they are overdue to exit, and the number of individuals that checked-in but never checked out.

THE RIGHTCROWD WORKFORCE ACCESS SOLUTION

RightCrowd began with a discovery workshop, during which detailed requirements were gathered from various business stakeholders across IT, security, production, operations, and HS&E. The process identified the current processes, critical functions and required feature set to fulfill the client's objectives

The RightCrowd platform manages visitor access across the enterprise via a set of powerful integrated tools. To simplify the visitor arrival process, visits can be pre-registered in advance by the visit host, or visitors can pre-register themselves via a cloud-based portal, with approval by the host. When the visitor arrives, they simply present a visit QR code on their phones or printed visit pre-registration email, and the pre-registered visitor's details are matched requiring no manual data entry to significantly streamline the entry process.

If non-disclosure agreements, safety procedures, or other documents must be read and acknowledged by the visitor prior to their gaining site access, these can be reviewed and approved by the visitor online prior to the visit, or upon their arrival via a tablet-based app. If a safety video is required to be viewed by all visitors, for example, this can be viewed on this same tablet and certified by the visitor at its completion.

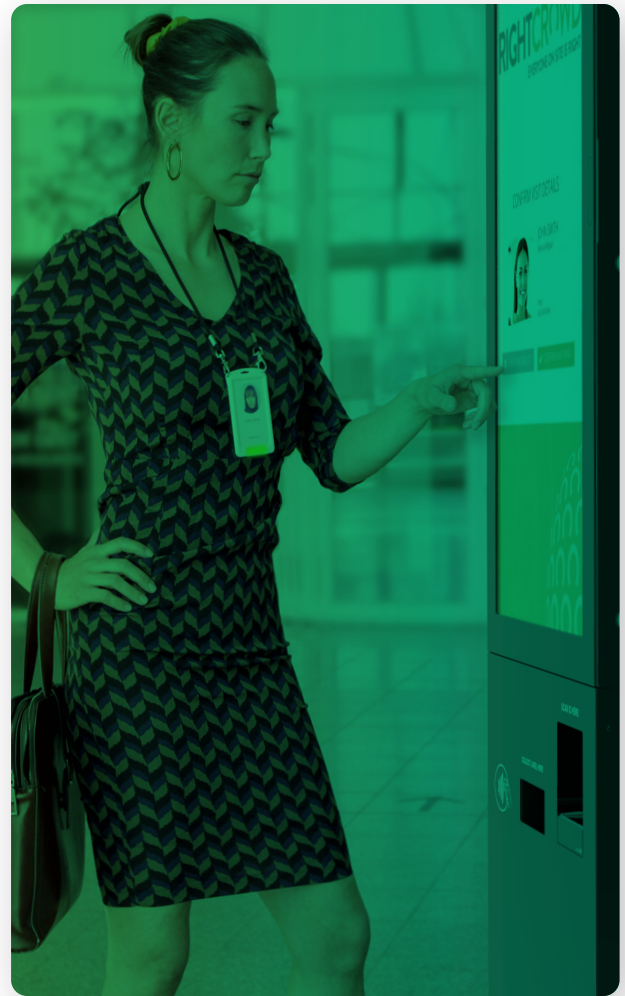
CUSTOMER BENEFITS

- ✓ Automation of visitor arrival process including the use of visitor tablets minimizes visitor processing time by reception staff.
- ✓ Cloud-based visitor pre-registration further streamlines visitor arrival processes.
- ✓ Enterprise-wide visibility and management of visitors.
- ✓ Certified visitor awareness of, and agreement to, site security and safety procedures.
- ✓ Seamless integration with enterprise's PACS for centralized viewing of everyone on your site, including evacuation of visitors in the event of an emergency.
- ✓ Further automation enabled by integration with Microsoft Outlook/Exchange enabling visits to be triggered by meeting invitations.
- ✓ Enterprise reporting of process exceptions (e.g., visitors not returning badges/cards on exit) and general visit volume reporting for planning and analysis.

If a photo of the visitor is required, this can also be captured by the same tablet-based app. Visitor acceptance to the various steps in this process can be easily captured including the ability to record signatures captured on the tablet if required. The visitor arrival process is significantly shortened, and there is an audit trail confirming that all required visitor processes are in compliance.

If access cards are required for visitors, they can be easily provisioned on demand based on information provided during the registration or pre-registration process. RightCrowd's integration with the physical access control system enables the visitor card to be provisioned in that system in near real-time. If sticky labels are used for visitors, the RightCrowd system can print these on demand based on the visitor information provided, and even include a captured photo image if required, based on a tailored visitor badge template.

Visitors' identity details as well as compliance records indicating their previous agreement to non-disclosure agreements and safety procedures are retained (depending on company or local legislative policy), simplifying repeat visits even further. If visits have a pre-defined duration, a report or screen view of visitors who have not departed by the end of their planned visit can easily be created by security or reception staff. At the end of the day, a report displaying visitors who had not returned their badges or access cards can easily be created so corrective action can be taken. Visit reports illustrating the frequency of visitors from given organizations can easily be created as well.





Use Case 6: Evacuation and Mustering

THE CHALLENGE

This mining client was looking for an automated solution to account for everyone on site involved in emergency response planning, emergency management, and operational recovery. They were also looking for a solution that would improve the organizational benefits from drills and reduce the overall operational down time.

Emergencies at mining facilities that require evacuation are uncommon, but when they occur, lives can be at stake. This mining client recognized that the first minutes of an emergency are most critical, and that semi-automated systems are inadequate to execute and manage an effective emergency plan, response and recovery. Like many organizations, this client had an overriding commitment to the health and safety of their people, and the need to adhere to strict regulatory and insurance requirements.

Previous attempts at automating this process relied on access to IT infrastructure, and they recognized this infrastructure could be rendered inaccessible as a result of any incident.

THE RIGHTCROWD WORKFORCE ACCESS SOLUTION

RightCrowd streamlines, automates and secures the process of evacuations and mustering for both drills and real emergencies. By seamlessly integrating with enterprise level PACS, RightCrowd knows where every employee, contractor and visitor is on site at any given time, and their specific location when the evacuation was initiated.

Wardens at muster points can check-in individuals using mobile devices using RightCrowd's mobile application, leveraging the data from RightCrowd's database of who was on site and where they were at the time of the incident. Individuals can be checked into a muster point in just a few seconds. People who did not bring their access card can quickly be searched for and checked in manually on the device.

When all check-ins have been completed, the safety warden will have the list of all people who had badged into the site who have not yet checked into the muster point(s), as well as their last known location based on card swipe data. These lists, together with the lists from each muster point, can be aggregated onto a central mobile device to assist emergency response teams in searching for and rescuing these people.

CUSTOMER BENEFITS

- ✓ Evacuation drills take a small fraction of the time, getting people back to work much faster, saving companies considerable lost productivity from these all-important drills.
- ✓ Automated evacuation lists for muster point check-ins are based on people actually on site at the time of the incident and not some roster.
- ✓ Evacuation lists include everyone on-site at the time of the incident, including all employees, contractors, and visitors.
- ✓ An aggregated list of everyone who did not check into any muster point is automatically made available to a central safety warden as well as search and rescue personnel.
- ✓ Every individual's last known location is recorded based on card swipe data for search and rescue personnel to assist in finding and rescuing people who did not safely evacuate.



Use Case 7: Fatigue Management

THE CHALLENGE

A mining client was looking for an automated method to enforce fatigue management policies. The solution needed to ensure workers who had insufficient breaks would not be allowed on site until they had completed their mandatory rest period.

Working excessively long hours without adequate breaks has been proven to result in diminished worker productivity and increase the likelihood of serious errors or mining accidents. Operating in a highly regulated mining environment, this client had strict policies relating to fatigue, and a strong cultural focus on its impact on workers' ability to perform their jobs safely. In this industry, there are often strong demands on workers to work longer than desirable hours due to tight deadlines, unplanned staff shortages, or production problems. The perception is often that these extra hours must be tolerated in the interest of successfully running the operation, even though they run counter to the regulatory framework which governs the operation.

CUSTOMER BENEFITS

- ✓ Minimize the incidence of fatigue induced workplace errors, accidents, and lost productivity.
- ✓ Automate preventive actions such as access card disablement on reaching time on site limits, or issue alerts to managers for remediation of violations.
- ✓ Enforce customized time on-site rule sets.
- ✓ Comprehensive reporting and audit capability of results to aid in management and statutory reporting requirements.
- ✓ Enforce and demonstrate compliance to labor organizations, insurers, and governmental agencies.

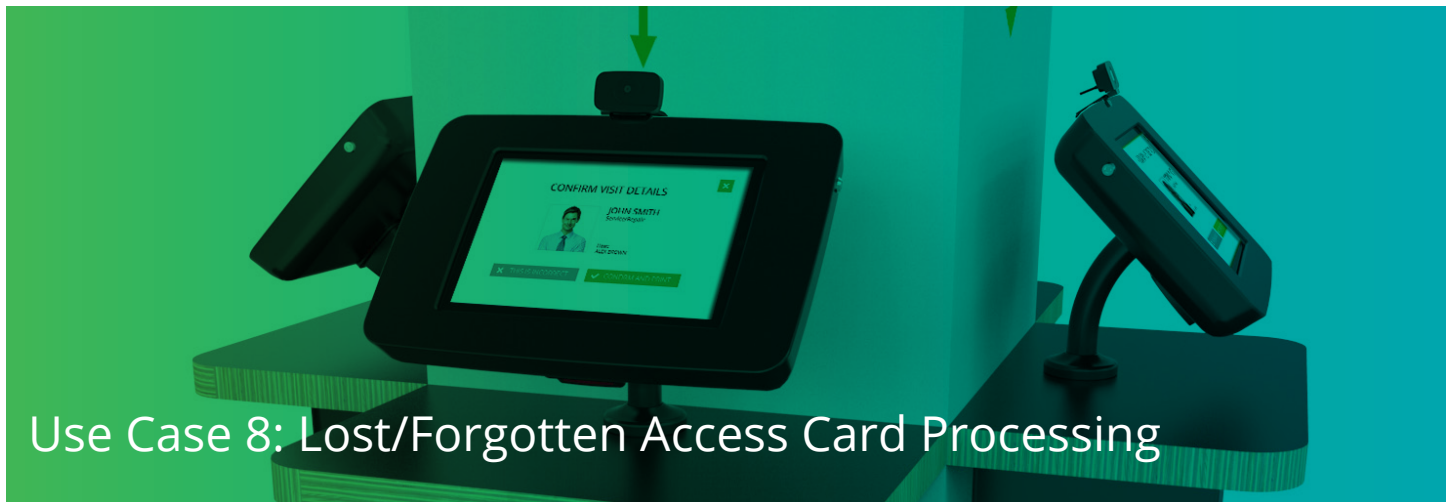
THE RIGHTCROWD WORKFORCE ACCESS SOLUTION

As a result of its deep integration with leading PACS suppliers, RightCrowd can automatically monitor each employee's or contractor's actual time on site based on card swipe times. RightCrowd's Rules Engine constantly compares this data with this company's fatigue management policies, regarding time on site and mandatory breaks.

If a worker tries to enter site after an insufficient period of time off, RightCrowd can be configured to temporarily disable access for this worker until the minimum break period has been reached, requiring an explicit override by a designated person or group. If the worker is already on site and their maximum working period has been reached or exceeded, RightCrowd sends alerts to designated staff notifying them that this individual's maximum time on site has been reached and that they should leave site immediately.

The RightCrowd Rules Engine is highly configurable, and complex rules involving the total number of hours on site within a 24-hour period or 7-day period can be configured, enabling flexibility with a wide variety of workplace policies and constraints. Reports highlighting fatigue incidents based on thresholds established by the client can easily be run to assist management in better examining and analyzing incidents to develop plans to reduce their future frequency. This data is also helpful in dealing with employee labor representatives or government officials investigating incidents or complaints.

Using RightCrowd, mining companies can ensure that their fatigue policies are being adequately enforced, reducing the incidence of one of the most common causes of workplace errors and accidents. In addition, worker fatigue data can easily be reported on and analyzed from the system to assist with a wide variety of management optimization and compliance activities.



Use Case 8: Lost/Forgotten Access Card Processing

THE CHALLENGE

A mining company was looking for a more effective way to process lost/missing access cards to reduce operational costs. Workers often misplace or forget their access cards, which creates a major administrative headache for enterprise security teams. For this mining client, the staffing required to manage lost/forgotten access cards efficiently was difficult to predict and highly irregular. This problem was further aggravated when there were large numbers of contractors or seasonal workers not used to always carrying their access cards. The client had tried to speed up this process by issuing standard “general access” temporary access cards to workers who had forgotten their regular cards, but found they made workers less efficient as they couldn’t readily access all of the areas of the site they needed to perform their duties.

THE RIGHTCROWD WORKFORCE ACCESS SOLUTION

RightCrowd offers a self-service capability for lost and misplaced access cards. Leveraging existing self-service kiosks, the process is simple, intuitive, and secure. Workers can log in using their corporate domain credentials to identify themselves, and once authenticated, the kiosk dispenses a site access card with access privileges matching those of their regular card. The worker’s regular card is automatically deactivated at this time to ensure the lost/forgotten card is not used by someone else.

If the worker indicates their card was forgotten, the newly issued card is only activated for 24 hours, or until the end of that day, depending on configuration, and their original card is only temporarily deactivated. Should the worker find the lost card, the temporary card can be returned, and their original card will be reactivated.

As a result of its deep integration with leading PACS solutions, RightCrowd can replicate an employee’s or contractor’s access card privileges in near real-time. The RightCrowd solution authenticates an employee or contractor via their system access credentials through an integration with the organization’s LDAP system. RightCrowd’s bridging of the physical access control and IT business system domains makes this automated functionality possible.

By using the RightCrowd self-service kiosk, security staffing at reception can be significantly reduced, particularly during peak periods, and workers can be provisioned with new cards much faster. These same kiosks can be used to automatically process visitors using RightCrowd’s Self-Service Visitor Management kiosk software.

CUSTOMER BENEFITS

- ✓ Automates all processes related to lost or forgotten access cards for employees and contractors, reducing the need for additional administrative staff to manage this process.
- ✓ Existing access kiosks can be scaled to reduce queues during busy periods, allowing its use for staff who forget or lose their access cards.
- ✓ Ensures secure authentication of employees and contractors using their regular domain login credentials.
- ✓ Issues replacement access cards for employees and contractors with the same access privileges as their original cards.
- ✓ Seamlessly integrates with existing PACS to ensure records about temporary or replacement cards are properly synchronized, tracked and audited.
- ✓ Comprehensive reporting is provided regarding use of temporary access cards to replace lost/forgotten cards can be generated for billing purposes.



Use Case 9: Time On-Site Monitoring

THE CHALLENGE

A mining client was looking for an automated solution that integrated HR, finance, payroll and contractor management to ensure that everyone on site was in compliance with the regulations, was being billed for accurately, and could be evacuated in an emergency. Accurately tracking the actual hours that employees and contractors spent in mining areas was a regulatory requirement and error prone. The client had previously tried numerous time tracking systems, but these systems typically only indicated that the employee or contractor physically appeared to clock-in, not that they were actually in their work area.

Additionally, there were many instances where previous systems had inaccurately recorded a person's time on-site and the organization was unable to effectively control hazardous substance exposure, billing or regulated fatigue management.

THE RIGHTCROWD WORKFORCE ACCESS SOLUTION

As a result of its tight integration with leading PACS solutions, RightCrowd is aware of all swipe in and out events for each area on site. A designated work area can be assigned to each worker, where access to each area is controlled by access card readers regulating entry to and exit from this area. The solution can then be configured to track and report on how much time each worker physically spent at their work area, reconciling data from other time tracking data sources or being the primary source itself.

When errors occur, typically due to employees or contractors not swiping out correctly, RightCrowd can be configured to make assumptions about swipe out times, and enable manual override of data by authorized management staff to ensure completeness and accuracy of data. Any such overrides can be easily audited to prevent abuse.

The RightCrowd solution can be used in lieu of, or in addition to, other tracking systems that may be used to determine how many hours employees, and especially contractors who are paid by the hour, are physically in their area of work. This approach not only accurately records when workers physically arrive and leave their work site, but also can monitor break periods, using this same entry and exit swipe data.

Using RightCrowd to reconcile time on site data with other time tracking systems can save an enterprise a significant amount of money on payments to workers each year and help ensure workers are actually working the hours they are supposed to be, taking into account break periods.

Time on-site reporting can be scheduled to run at specified periods or on demand. A variety of formats can be configured to facilitate use by different business users, from supervisors to payroll clerks. Filtering and/or sorting of data by region, department, and other criteria can also be easily configured.

CUSTOMER BENEFITS

- ✓ Automatic recording of actual time spent in work areas by employees and contractors.
- ✓ Accurate time tracking using actual swipe data from your enterprise's PACS, making the data difficult to manipulate.
- ✓ Work areas specifically configured for each employee and contractor.
- ✓ Monitors time spent in work area, not just on site, which often includes break areas; breaks can be monitored using the same data, if supported by the enterprise's physical access control system.
- ✓ Reconciles data from different time tracking systems or as the primary data source for payroll for hourly employees and contractors.
- ✓ Data supplemented or overwritten by authorized managers with full auditing to accommodate missed events.
- ✓ Provides accurate and powerful reporting capabilities.



Use Case 10: Random Drug & Alcohol Testing

THE CHALLENGE

With highly regulated mining policies, this client was looking for an automated drug and alcohol testing solution. In order for such a testing policy to be completely effective, workers must have no indication prior to entry that a random test might be required, and once notified, they would be compelled to immediately report for testing.

Drug or alcohol impairment are a major issue at mining facilities with industry reports estimating up to 30% of workers are under the influence during work time. Operating in a highly regulated mining environment, this client had strict policies relating to drugs and alcohol, and a strong cultural focus on its impact on workers' ability to perform their jobs safely. Singling out individuals for testing based on observation, history, or other discretionary factors is discriminatory, making random testing prior to site entry the best approach.

THE RIGHTCROWD WORKFORCE ACCESS SOLUTION

RightCrowd addresses these problems with an automated system for randomly selecting a prescribed number of workers on a regular basis for drug and alcohol testing prior to site entry. With this solution, a worker is randomly selected for drug and alcohol testing prior to site entry on a particular day. If they have been randomly selected, their access card will be temporarily disabled in the PACS, and when the individual tries to use their access card to swipe into the work site, security staff will be immediately alerted. The worker can then be escorted to the testing center.

The number, frequency and randomness of workers selected for testing can be configured and clearly demonstrated by the RightCrowd solution to workers, union officials, and government regulators. Upon successful completion of the testing, a workers card will be automatically re-enabled and they will be credited with appropriate time on-site for their time spent complying with this process. If they fail the test, their access card will remain disabled and appropriate disciplinary action can be taken.

RightCrowd's random identification of personnel required to undertake drug and alcohol testing can contribute to significant reductions in apparent cases of drug and alcohol impairment, a reduction in workplace accidents, as well as evidence of increased productivity. With the relative degree of automation of the process, direct intervention and oversight by security and safety personnel is minimized. Reports are available which can provide detail on which employees and contractors have been randomly selected during specific periods of time for audit purposes.

CUSTOMER BENEFITS

- ✓ Significant reduction in workplace mistakes, accidents, workplace injuries, and lost productivity due to drug and/or alcohol impairment.
- ✓ Demonstrable random selection of workers for testing removes any semblance of discrimination or discretion by security personnel or supervisors.
- ✓ Automated processes require less manual intervention by security personnel to monitor the processes.
- ✓ Demonstrated compliance to insurers, unions and governmental agencies.
- ✓ Comprehensive reporting and audit capabilities.

CONCLUSION

RightCrowd Workforce Access effectively mines data from existing PACS and enterprise systems to deliver new insights on all access activities across mining operations. This provides users with new sources of business intelligence across the enterprise, effectively improving physical security, health and occupational safety, and workforce management.

By automating PIAM across every user's lifecycle, RightCrowd Workforce Access ensures that critical data on all employees, contractors and visitors is always kept up to date across the enterprise. The solution seamlessly integrates with PACS and other enterprise systems, applying attribute-based access control (ABAC) rules to ensure that all personnel are in compliance with established security, safety and health protocols, and are accounted for in the event of an emergency.

