## Ensuring Security and Safety of Enterprise



## Multimodal

The solution supports Multimodal Biometrics ( Face, Fingerprints and Iris), Smartcard and RFID technologies

## Modular

The solution is modular such that the customer can select applications, technologies and devices that suit their requirement

## 4 G 0

Authentic People, Unique IDs.

## Scalable

The solution is scalable to multiple locations and millions of people without affecting the performance

## Field proven

The solution has been operational for one of the world's largest petrochemical refineries since 2007


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## Enterprise Identity and Access Management Solution (EIAMS ${ }^{\text {TM }}$ )

Every enterprise needs to identify its employees, contractors, visitors, and vendors etc who enter the physical or virtual premises of the enterprise. Some of the enterprises like port authorities, public sector enterprises in coal, gas and mining sectors, defence establishments has statutory obligations to identify the people entering its premises to ensure safety and security of enterprise. There is also increasing pressure on Governments, Public and Private Sector Enterprises to protect their employees, members of the public and business assets from terrorist attacks, criminal activities and thefts. 4Gid provides an end to end Enterprise Identity and Access Management Solution that is robust, foolproof, cost effective and field proven. The solution ensures that right access is provided to right people at right time and protects the enterprise from unsolicited people.


## Features

- The EIAMS is built in a modular fashion that comprise of several modular applications that can be easily customized to the needs of an enterprise
- Web based Solution with Multi Layered Service Oriented Architecture (SOA)
- Supports Multimodal Biometrics, Smart cards, RFID Technologies
- Adheres to Open standards: ISO
- ISO/IEC 19794-6 - Iris Image.
- ISO/IEC 19794-4 - Fingerprint.
- ISO/IEC 19794-5 - Face (Photo)
- Scalable to multiple locations and millions of people
- Field Proven: Working for one of the world's largest petrochemical refineries for 520,000 people working in 9 sites with no downtime since inception (2007)


## Enrolment Module

- Multi biometric (Face, Fingerprint, Iris) enrolment along with capture of demographics, identity and address proofs.
- Flexibility to choose biometric modalities: Face, Fingerprint, Iris
- Inbuilt biometric quality check
- Integration of certified biometric devices
- Encryption of enrolment data to ensure privacy and security of data
- Creation of biometric data in compliance with the International Biometric Open Standards


## Identification Module



- Ensures that a person is not registered more than once across the enterprise and ensures "One Person - One ID"
- The solution supports both online and offline identification
- Supports fusion of multimodal biometrics
- High Performance: Response time of less than a second with unbelievable accuracy
- Scalable to millions of people without affecting performance of the system


## Credential and Authentication Module

- Enables an individual access to a given physical or virtual facilities in the enterprise
- Multifactor authentication through smart cards (contact/contactless), RFID tags, barcode and biometric
- Match on Cards: Matching of biometrics inside the secure environment of smart card
- Customizable printing and personalization of ID card including storing biometric data
- Customizable access to facilities for individuals and user groups

- Supports online and offline verification using biometrics


## Employee Identity Management Module



- Manages the identity of an employee throughout the life cycle of an employee in the organization from the time of recruitment
- Biometric enrolment of the employee during the first stage of recruitment, de-duplication against the existing employees biometric database to ensure one application per applicant and authentication of the employee at all subsequent stages of the recruitment process to avoid impersonation
- Time and Attendance system with biometric authentication to eliminate sharing, swapping, stealing and loss of PINs, passwords and ID cards and integration with payroll
- Flexible to define holidays, shifts, fixed and flexible timings, overtimes, leaves and exceptions
- Disbursement of employee benefits like coupons, insurance, pension and health care services through biometric identification

- Enables selective restriction of access to a place or system to authorized persons only
- Can be integrated to a door, turnstile, parking gate, elevator, fire alarm systems or other physical barriers where granting access can be electronically controlled
- Flexibility to assign access permissions based on individuals, groups, doors, shifts, date, time and holidays
- Dual person access: Two persons authentication to access very high secure facilities like bank lockers, data centers, currency \& jewelery chests, intelligence bureau etc.


## Contractual Labor Management Module

- Biometric registration of contractual labor and de-duplication against existing database of labor to avoid duplicate registrations of same person
- Background check verification through scanning of ID and address proof documents
- Controls the proxy worker issue effectively by identifying the worker during all visits
(-) Prevents access of labor debarred on account of misbehaviour, vandalism, attempt of theft etc. into enterprise premises across all sites
- Provide smart identity card with biometrics stored on it along with demographics and safety details like blood group, emergency contact details etc
- Workorder integration to monitor total number of workers
- Monitoring time and attendance of labor and seamless integration with payroll system


## Blacklist and Watchlist Management Module

(1) Create black list of unsolicited people in the system
(ostricting llacklisted people trying to enter and deny access to the enterprise by
(iometric identification

- Creation of watchlist/suspect list of people and discreet monitoring of the movement of
watchlisted people
- | Sending alerts to concerned authorities whenever blacklist/watchlist/suspect list of |
| :--- |
| people try to access the enterprise |


## Mobile ID Module

- Mobile ID provides an important security measure for enterprises that extends the functionality of static EIAMS to portable EIAMS.
- Handheld biometric devices enables on the spot capture of biometrics, identification and verification of live biometrics against biometric data stored in the handheld or central

- Security personnel can be able to instantly verify the identity of an individual and confirm access privileges.
- Transfer of data of selected groups of people to handhelds


## Visitor Management Module

- Enrolment and biometric identification of visitors
- Facility for authorized officers/employees to enter visitors details online before they enter the organization
- Issuance of customizable visitor pass/card after enrolment and identification
- Provide escort to visitors where required and authentication of escort and visitor to provide access.
- Custom defined user groups of visitors: VIP visitors, frequent visitors, customers, vendors, maintenance staff etc and define exceptions for VIP group visitors
- Tracking of visitor movement within the enterprise and alerts (SMS \& email) on attempts to gain unauthorized access through a door for which the visitor has no permission


## Central Administration Module



- Provides centralized management capabilities to operators, officers and administrators of the enterprise
- Multi user support system with role based access to the applications of the EIAMS
- Privileges to the authorized personnel to view and modify data of enrolled people at any time from any of the sites
- Assigning /revoking / debarring of access permissions
- Linking of the logins of users to their biometric profiles and login authentication using biometrics


## Alert Management Module

- When EIAMS detects a situation that is a problem or might require attention, customized alert is produced.
- Configure alert settings so that notifications can be sent to the appropriate alert recipient
- Alerts can be sent in the form of emails, SMS or message at the Access control systems
- Configurable door/gates operation upon receiving an alarm
- Integration of alerts to external sirens and alarms


## MIS Reporting Module



- Customizable reports to the needs of end users of the system
- Multiple search criteria based reports that allow drill-up and drill-down actions to review the data at different levels
- Saving and re-use of frequently used search criteria
- Exportable to PDF/Excel format reports
- Location wise number of people inside and outside of enterprise at any point of time and location wise number of enrolments for the day


## 4Gid Multi-Modal Enterprise Identity Platform

4Gid Multi-modal Enterprise Identity Platform is a robust, scalable, interoperable identification engine that interfaces and manages biometric enrolment and authentication devices, smartcards and backend search algorithms from world's leading biometric and smart card vendors. The platform provides an XML based interface to the custom-built application for identification and access management within the enterprise


## Features of the EIAMS Platform

Interoperability: Capable of integrating not only multiple biometric devices and authentication devices but also search engine algorithms for iris, finger, face and biographic data. The platform also supports match on card technologies

Scalability: Can easily scale up as the size of the deployment increases in terms of the number of subjects enrolled in the database and number of locations and seamlessly integrate with additional servers

Extensible: The modular software design approach ensures that modules can be added in a plug and play manner and can be integrated to suit the customer requirements. Components can be configured for centralized or de-centralized deployments.

Flexibility with Open Architecture: Flexible web service enterprise architecture that enables integration of legacy ERP systems existing in the organization.

Open Standards: The Platform supports open standards that enable creation and use of biometric data which is compliant with International Biometric standards. i.e. CBEFF (Common Biometric Exchange File Format), NIST (National Institute of Standards and Technology), ANSI (American National Standards Institute), and ICAO (International Civil Aviation Organization).

## World's largest Enterprise ID

- One of the world's largest petrochemical enterprise
- Hundreds of thousands of staff and contract labor working in the central site and other sites
- Failure of existing identification system in identifying duplicate registrations
- Losing productivity as money paid to nonexistent labor and projects not completing on time
- Iris based enrolment, real-time identification, blacklist check and mobile identification
- Initially implemented in central site and expanded to 8 other sites across India

- Operational for 520,000 employees and contract workers
- Clustered model, multiple sites on WAN, central server
- High availability of system: No single point of failure and no down time since inception (2007)
- Preventing blacklisted unwanted people from entering any of the sites across India


## World's largest Recruitment ID

- In 2011 Andhra Pradesh Criminal Investigation Department (CID) unearthed a recruitment racket involving sub-inspectors (SIs), allegedly indulged in impersonation to get selected
- 4Gid implemented the biometric based recruitment solution for the Andhra Pradesh State Level Police Recruitment Board(APSLPRB)
- Biometric enrolment to capture the biometrics of candidates and identification to ensure there are no multiple registrations from same applicant

- Biometric verification of candidates at every subsequent stages of recruitment till joining of department to avoid impersonation
- Watch list management that ensures debarred applicants are prevented from entering system
- The system has so far been implemented for close to 1.5 million candidates


## Enterprise Identity management for one of the world's largest providers of business outsourcing solutions

- Multimodal biometrics of face, fingerprint and iris
- Visitor identity management to enroll and identify visitors
- Blacklist management to prevent persons who committed misdeeds in the past from entering the organization
- Recruitment identity management to enroll during the first stage of recruitment and to verify the identity at subsequent stage of selection process till the person joins organization.

- Central administration of all the sites with comprehensive MIS system


## India's first iris based access control system

- In 2003, Andhra Pradesh Government wanted to upgrade the security system at the secretariat premises in Hyderabad through a robust foolproof secure system
- Identify and provide access based on type of users visiting the secretariat: Employees, Visitors, VIPs etc
- Highly accurate, non-invasive, scalable and robust iris recognition system
- Integration with the turnstile gates of the secretariat

- Integration with time and attendance of employees


## About 4Gid

4G Identity Solutions (4Gid) is a Pioneer (since 2001) \& Global leader in providing large scale identity management solutions leveraging smart card and biometric technologies. 4Gid specializes as an end-to-end identity management solutions provider \& system integrator in Civil ID, Homeland Security \& Law Enforcement for Governments, Public and Private Sector Enterprises, Corporates, Banking and Defence sectors. 4Gid has re-defined ID management business space by providing thought leadership and proof of concepts that led to the world's largest ID programmes. 4Gid has executed many of the world's first large scale identity management solutions for federal governments, multilateral agencies and top notch enterprises, and is currently delivering the world's largest civil ID project-India's Unique ID/Aadhaar.

4Gid strives to contribute in bringing today, best of the breed technologies of tomorrow and has set new benchmarks in the identity management industry. In terms of innovation and solution readiness, 4Gid has consistently been ahead of the pack. 4Gid believes and practices a proactive approach by building most of the common workflows of the customers into our solutions thereby reducing the time to implement drastically. 4Gid experts are consistently helping in understanding client requirements and providing solutions that exactly meet the customer requirements. 4Gid has pioneering solutions catering to the needs of Public Service Delivery Infrastructure, Public Distribution System, Pensions, Social Welfare schemes, e-Visa, e-Passport, Immigration \& Border Control, Voter ID, National ID and Enterprise ID. 4Gid strong delivery capabilities in handling large scale identity management projects has resulted in phenomenal savings to the customer with some of them running into hundreds of millions of dollars thereby bringing immense value to customers.

## Our Trail Blazers:

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- World's Largest Biometric Identification - India's UID/Aadhaar 1.2 Billion Residents
- World's First Multi-Modal Biometric Civil ID
10 fingers (4-4-2), 2 Iris \& Face
- World's Largest Supply of 4-4-2 Slap Fingerprint Live Scanners 15,000 devices
- World's Largest Coastal ID 7,517 kms, 12 Million Citizens
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- World's Fastest De-duplication 6.2 Quadrillion matches in 2 months record time
- World's Largest Corporate ID 520,000 Employees
- World's Largest 1:N Realtime Identification 90 Million Citizens
- India's First Automated Realtime Criminal ID Connecting 148 Police Stations


## Awards

(1) Ranked 4th in Inc. 500 fastest-growing companies 2012

- Ranked 23rd in Deloitte Technology Fast 50 fastest growing companies 2012
- ETNOW Leaders of Tomorrow Award 2011
- Aadhaar Excellence Award 2011
- ID World Outstanding Achievement Award 2010
(0) Channel World Premier 100 Award 2012 \& 2013

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[^0]:    Enterprise Identity and Access Management Solution (EIAMS ${ }^{\mathrm{TM}}$ )

