BioGuard

Product Information

Contents

Overview

BIOGUARD is a world class biometric management system specifically designed for the demanding needs and exact requirements of the correctional facility environment.   BIOGUARD has been shaped and customized to meet the changing Justice environment. Significant and long- term investment has been made to the breadth of functionality and deep integration of key 3rd party components resulting in a world leading biometric management system tailored to the correctional facility environment.

Installed systems include Iris and/or Fingerprint biometric technology. The systems range in size from small systems with 1 server and 2 or 3 clients to large systems with dual redundant servers networked to all correctional facilities and 20 points of identification within the facility. BIOGUARD integrates and manages electronic key cabinets, secure airlock entry\exit portals (mantraps), inmate property storage systems, offender visitor appointments, criminal record checks managements, key access policies, contractor approved items and permission for contractor site access.

Supplier Contact Details

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Demonstration System Refresher
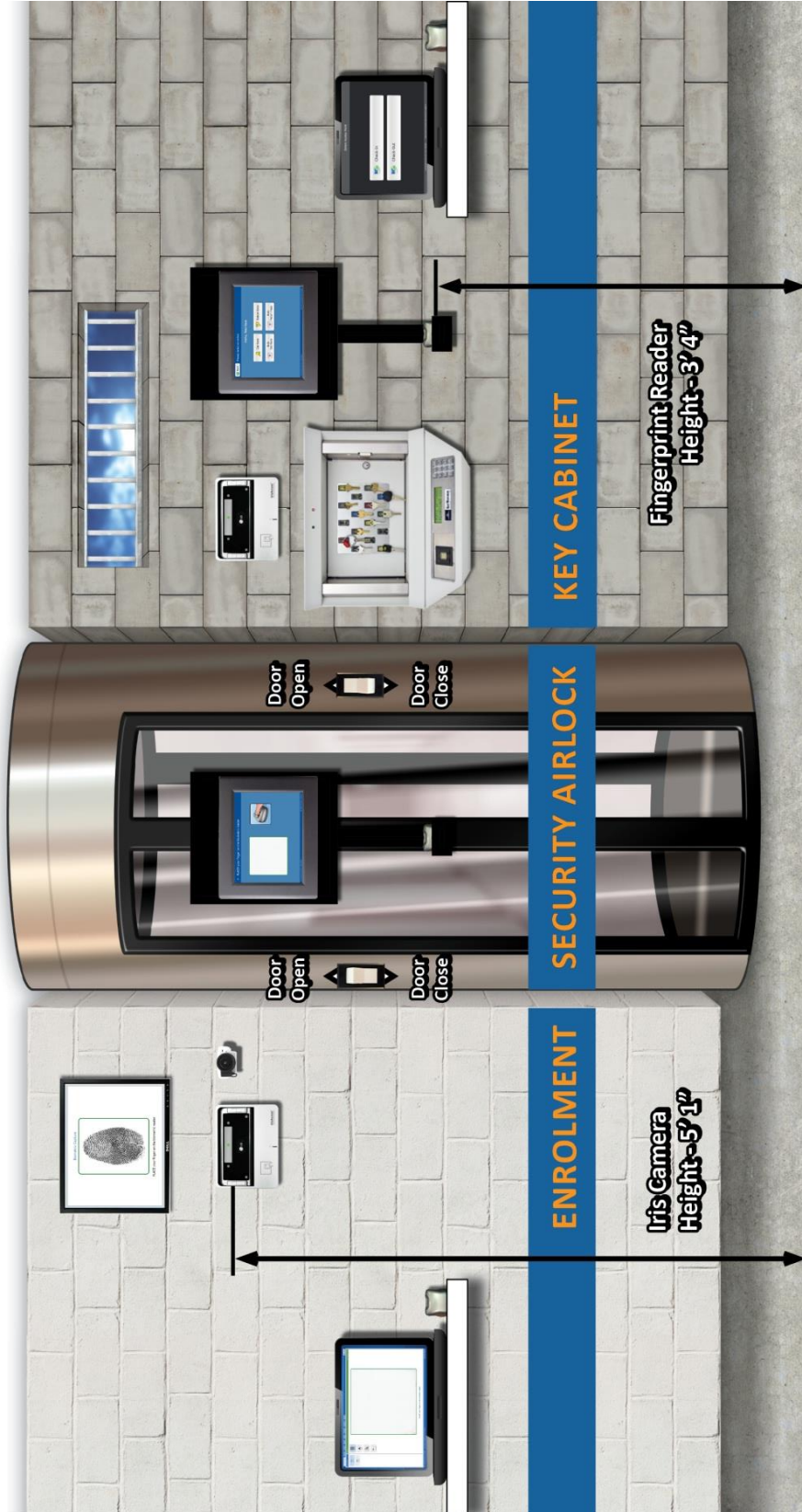
Access Point and Zone plan of Demonstration System

Correctional Centre
(Protections)

Correctional Centre
(Mainstream)

Touchscreen
Computer

Fingerprint
Reader

Morse
KeyWatcher

Fingerprint
Reader

Panel PC

Iris Camera

Correctional Centre
(Mainstream)

Fingerprint
Reader

Panel PC

Secure
Airlock

Secure
Airlock

Outside

Fingerprint
Reader

Iris Camera

Second
Monitor

IP Camera
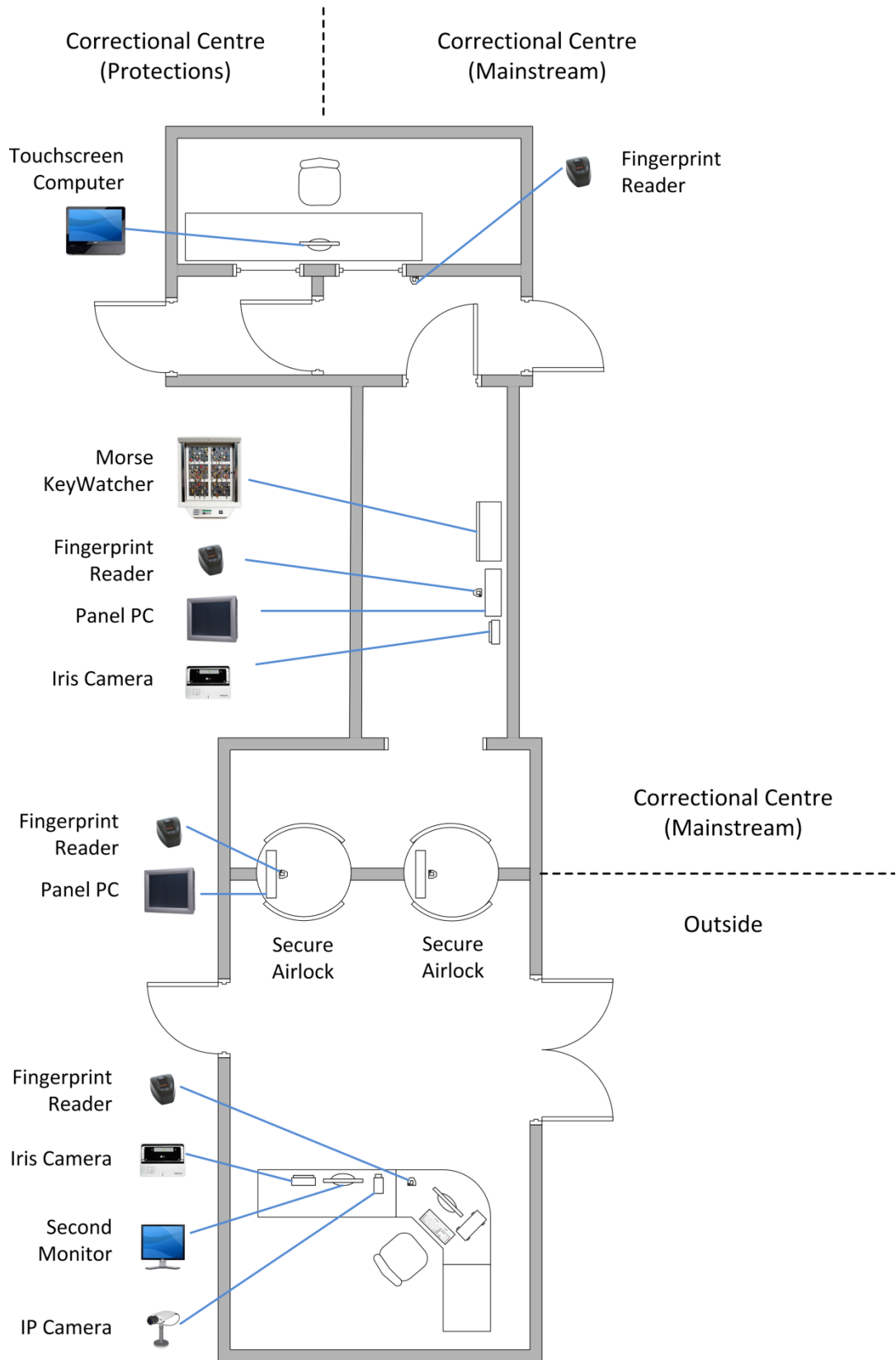
Staffed\Manual & Enrolment Station

The BIOGUARD Staffed Client provides the following functionality:

- Personnel Management
  - Staff
  - Offender Visitors
  - Contractors
  - Offenders
- Offender Visit Appointment Management
- Real-time location tracking
- E-Log (Electronic Log Book)
- Location activity reporting
- Intelligence/supervisor Reporting
- Real-time key in possession tracking
- Key release\return reporting
- Alerts and alarms

BIOGUARD Staffed Client functionality is controlled by privileges of the operator logged into the system and configured functionality for the station.
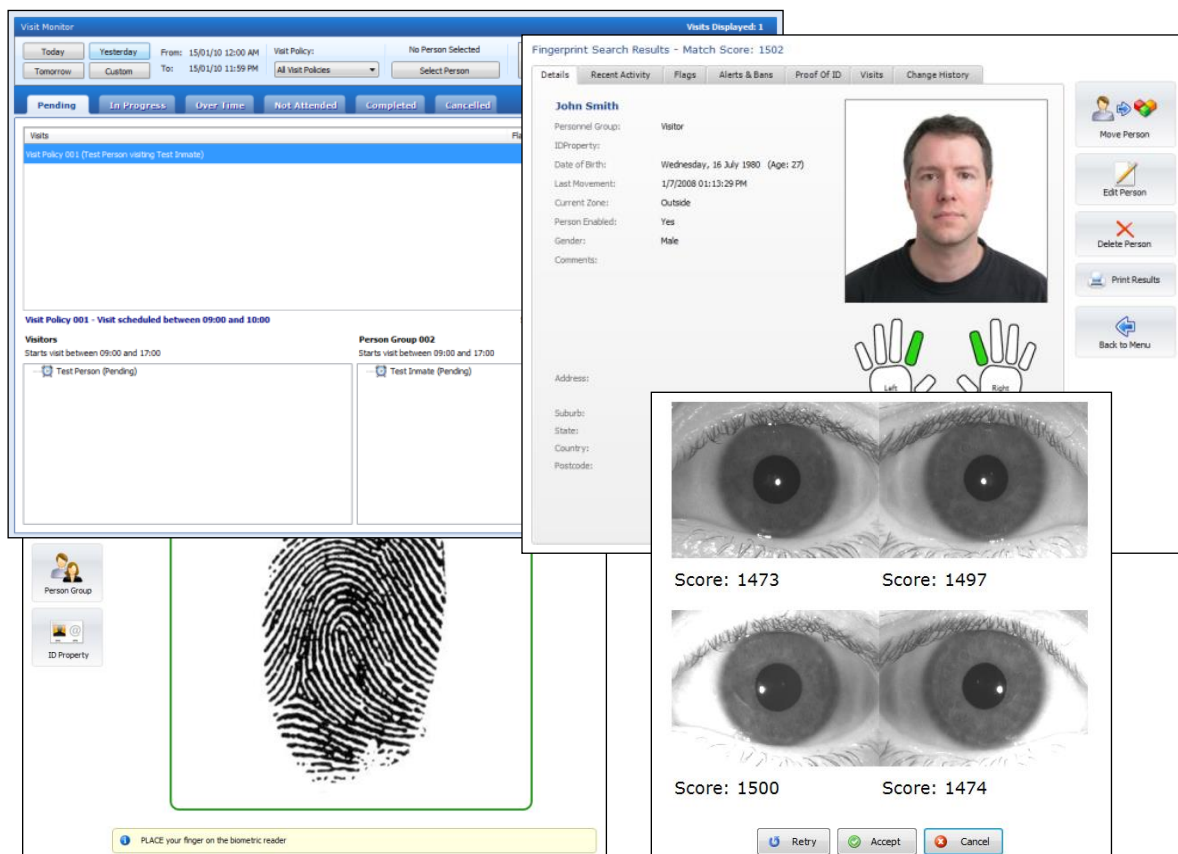
Secure Entry\Exit Airlock Station & Turnstile Integration

BIOGUARD integrates Gunnebo Round 900 secure airlocks and turnstiles for automation of person entry and exit from secure locations to outside or other secure locations. The security airlock removes tailgating as weight detection is used to detect the number of people. BIOGUARD provides the certainty of a person's identity and ensures all access rules are validated prior to permitting transit.

Features include:

- Automatically preventing deviation from a specified path on a per person or person category basis
- Anti-pass back
- Date\time a person can enter and exit
- Assets\Keys in possession
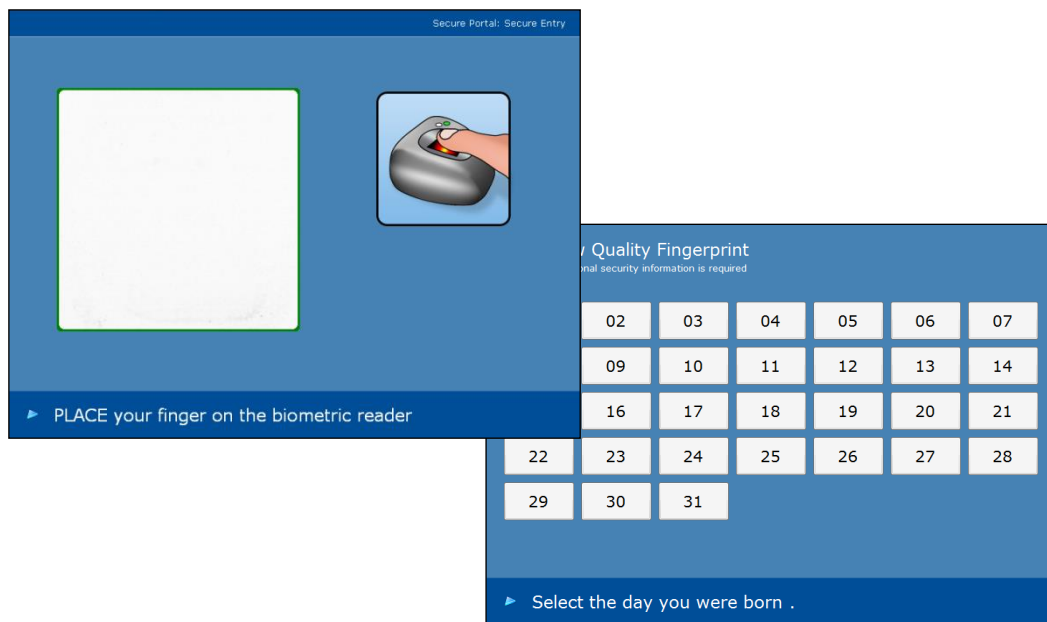
This integration provides the following benefits:

- A reduced cost of operation due to reduced staff requirements
- Increased staff morale due to staff no longer performing menial tasks
- Increased security because the human factor of rule validation is removed
- Guaranteed logging of all successful and failed transit that can be later reviewed
- Reduction of time taken by a visitor in making his/her identity known to facility staff

Gunnebo Round 900 Security Airlock



Gunnebo Full Height Turnstile

Pass Printing

BIOGUARD can be used to print visitor passes. Visitor passes can be customized for specific locations and personnel categories. Visitor passes are customizable and can be tailored to your exact requirements. Visitor passes can either be printed onto special paper or via a standard laser printer to reduce costs.

Touch Screen Entry\Exit Station

The touch screen entry\exit station is purposefully designed to be operationally simple for personnel identification and personnel location movement. The touchscreen secure entry\exit station requires very little training or experience to successfully operate. It is specifically designed for the following purposes:

- very high security locations, where the use of automated systems for movement control are not permitted
- facilities or areas where the use of automated movement control is not suitable or practical - such as vehicle ports
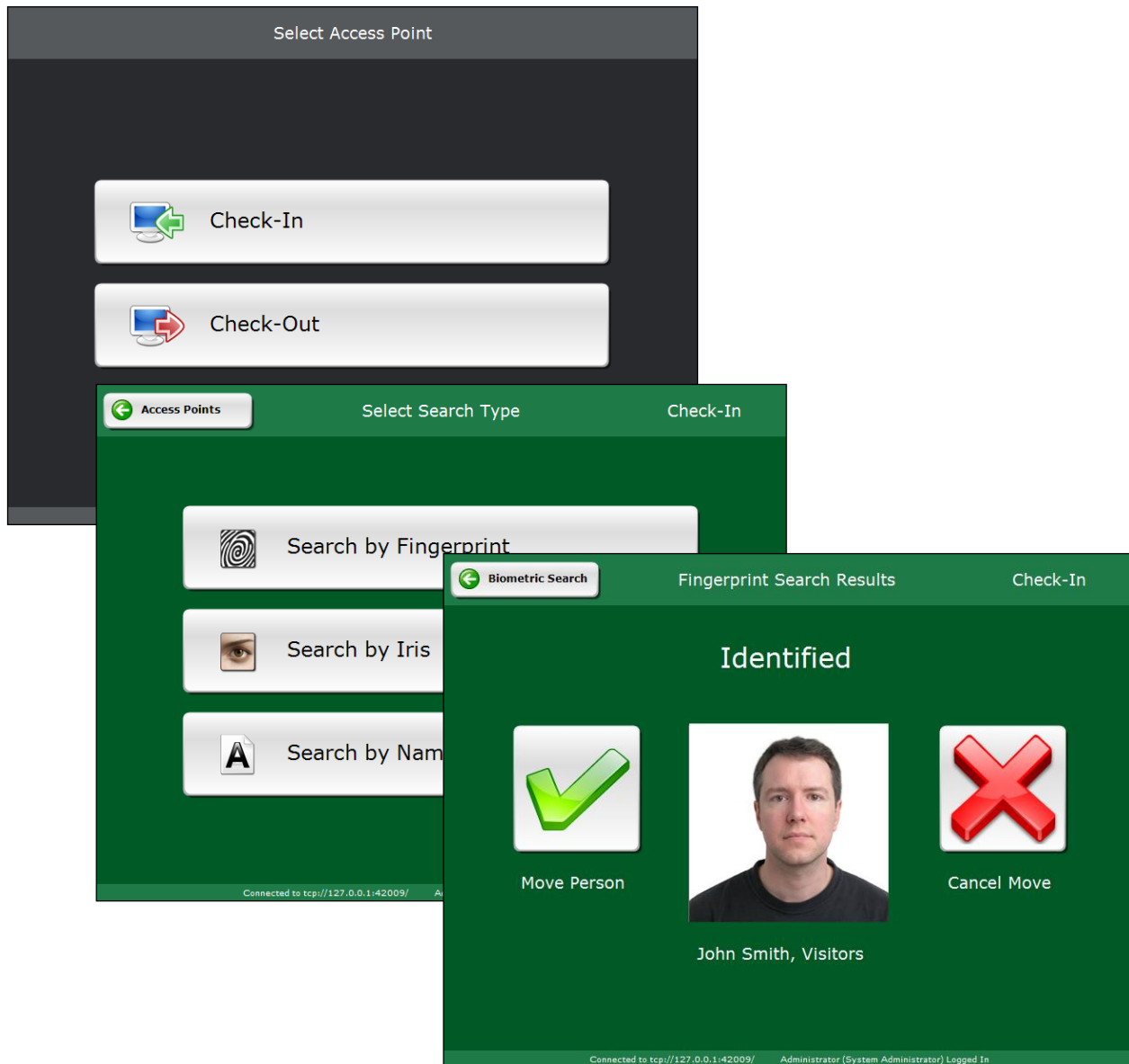
Electronic Key Cabinet Station & Integration

BIOGUARD and Morse KeyWatcher III provide a totally integrated and ready to use correctional facility key management solution. Adding BIOGUARD to traditional key systems means the identity of the person drawing and returning keys is always known and by default a person will not be permitted to leave the correctional facility while they have a key in possession.

BIOGUARD Access rules control:

- Which keys a person is able to withdraw
- The number of keys that can be drawn in one instance
- The times of day the key can be drawn
- The locations a person can move into with that key in possession (i.e. the person can't leave the facility with a key)
- And all access rules can be configured uniquely for each person or applied to a group of people based on the category based on person category.

Other features include:

- One single database for the biometric system and key management
- Touch screen map or drill down menu navigation
- Real-time key in possession tracking
- Full audit history

This integration provides the following benefits:

- Reduced risk because each key can be accounted for in real-time
- Reduced risk and cost (in case of re-keying) because people are not allowed to exit if they have keys in possession
- Reduced system complexity, maintenance cost and staff training cost because there is only one system
- Increased staff acceptance because the system is a simple to use touchscreen menu or map of the facility and they don't have to remember numbers to draw keys

Morse KeyWatcher III Electronic Key Cabinets

Criminal Records Check\Clearance

BIOGUARD has built in management tools and enforcement of Criminal Record Check\Clearance. Supervisors and other authorized operators enter criminal record check\clearance details. Each time a person enters the correctional facility, either via an automatic station or a manual station, validity of the criminal record check\clearance for the person entering is verified. Criminal Record Checks\Clearances will typically have an expiry date. BIOGUARD uses this expiry date to provide notification to the person moving through locations and drawing and returning keys that their Criminal Record Check\Clearance will soon expire.

Offender Visitor Appointments and Policies

BIOGUARD provides an Offender Visitor Appointment system to control and manage the entry and exit of offender visitors. Offender visitors must arrive in the specified period of time they have booked, such as 10am to 11am and follow a specific path through the correctional centre. The creation of an appointment is based on predefined policies. These policies cover:

- Number of offender visitors per appointment
- Number of offenders per appointment
- Number of concurrent appointments per session
- Personnel categories allowed to visit
- Personnel category allowed to be visited
- Specific path of identity validation that must be followed

Supervisors and other authorized operators can review historical data and, in real-time, see upcoming, in progress, completed, cancelled and overtime appointments. BIOGUARD Offender Visitor Appointments use your current Offender Visitor policies and thoroughly enforces them.

Intelligence Reporting & Data Mining

BIOGUARD offers a reporting engine for in-depth analysis, reporting and data mining by intelligence staff and other authorized operators. A significant amount of data is collected within the BIOGUARD system. The intelligence and reporting module will consume this data to produce meaningful information. A good example is that BIOGUARD reports when an offender visitor is visiting more than one offender at more than one correctional facility within a 48- hour period. The intelligence and reporting module is readily extended to mine your data and provide the information your intelligence staff desire in order to make decisions.

Offender Property Storage System Integration

BIOGUARD integrates with automatic inmate property storage conveyor systems. Briefly, the feature set includes:

- Officer and Inmate biometric authentication to access property
- Officer only biometric authentication to access property
- Bag seal management and verification
- Full audit history
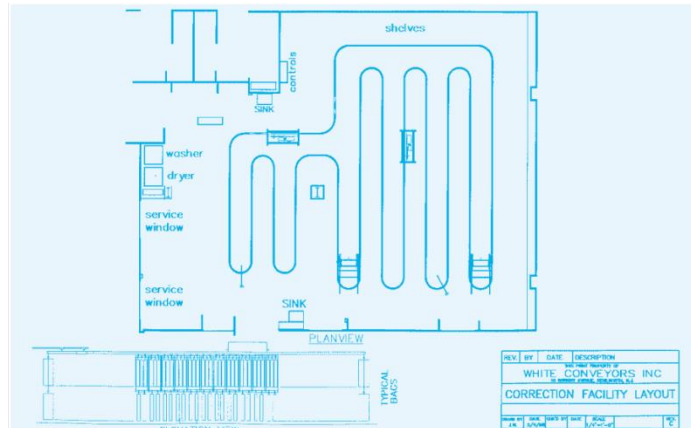
Contractor Policy Enforcement

BIOGUARD has comprehensive and flexible contractor policy access rules. These rules are designed to meet the security and operational needs of correctional facilities while minimizing the complexity for contractor, maintenance and trades personnel.

Features include:

- Supervisors enter permissions, and staff and the system enforce the rules
- Record and optionally enforce the date and times contractors have permission to access the site
- Supervisors record permitted tools or other typically contraband items that contractor, maintenance and trades people are permitted to bring into the centre
- Paper based log book replacement with an electronic log book

Offender Mustering and Location Tracking

BIOGUARD Offender Muster allows for easy and accountable mustering of offenders at fixed and mobile locations. The system is based on a portable touch screen handheld PDA with built in fingerprint reader, fixed location synchronization and charging docking stations and utilizes fixed location touch screen computers for identification and reporting. The MRe1 handheld also supports Mobile Synchronization using GPRS and/or WiFi for use by offender transport services.

BIOGUARD MRe1 Handheld Reader   ***BIOGUARD MRe1 Docking Station***
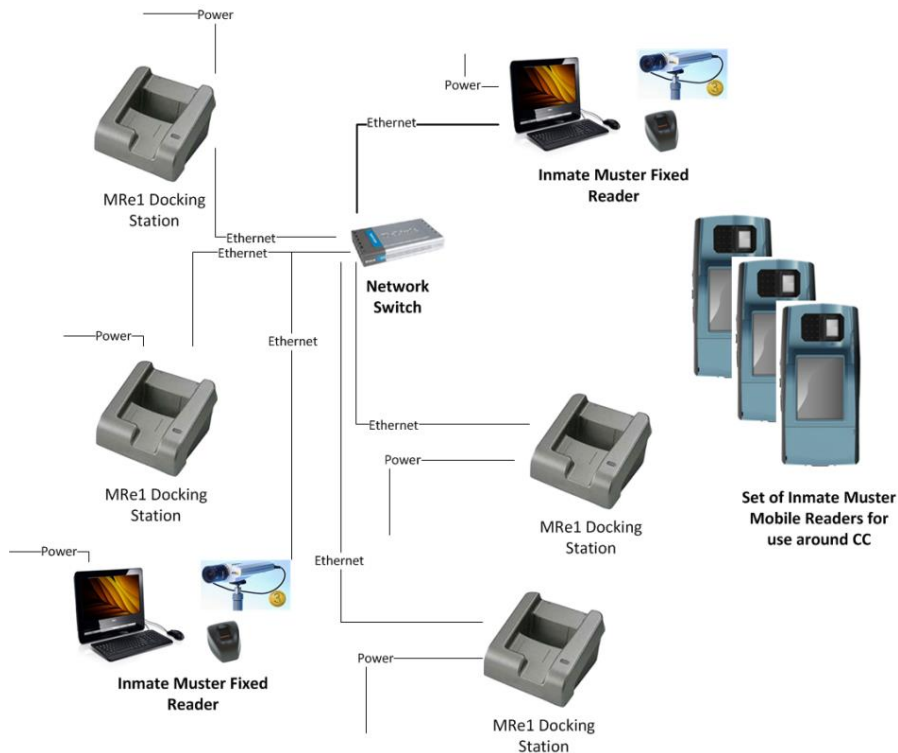
BIOGUARD Offender Mustering System Diagram

Staff & Authorized Operators Fingerprint Login

Optionally, the use of fingerprint login within BIOGUARD provides certainty for audit logging of changes to data by staff & other authorized operators. A small compact fingerprint reader is located beside the operators' keyboard. BIOGUARD can also be configured to automatically close the current session after one minute of inactivity.

If fingerprint login is not preferred, BIOGUARD can be configured so operators use standard username and password login. Additionally, BIOGUARD can be configured to automatically login with a preconfigured username and password.

Morpho MSO1300 Compact Fingerprint Reader

OCR License & Document Identity Scanning

OCR driver's license scanning is used to automatically populate, First name, Middle name, Last name, License number, DOB and Address details. Additionally the scanned image is also stored and can be later retrieved for evaluation by intelligence and supervisory staff. BIOGUARD also supports standard flatbed scanners that may be used to scan documents as supplementary or additional proof of identity.


ScanShell A5 Driver's License Scanner   **Flatbed Scanner**

Intra-Site Server Redundancy and High Availability

Due to the significant responsibility BIOGUARD assumes and the critical nature of its operation within correctional facilities, BIOGUARD has built in server redundancy with automatic client failover. BIOGUARD servers operating at the same site continually communicate changes amongst each other to provide ongoing system operation in case of component failure. If a server goes offline because of hardware or software failure, then all clients connected to the faulting server automatically fail-over to the server still operating.
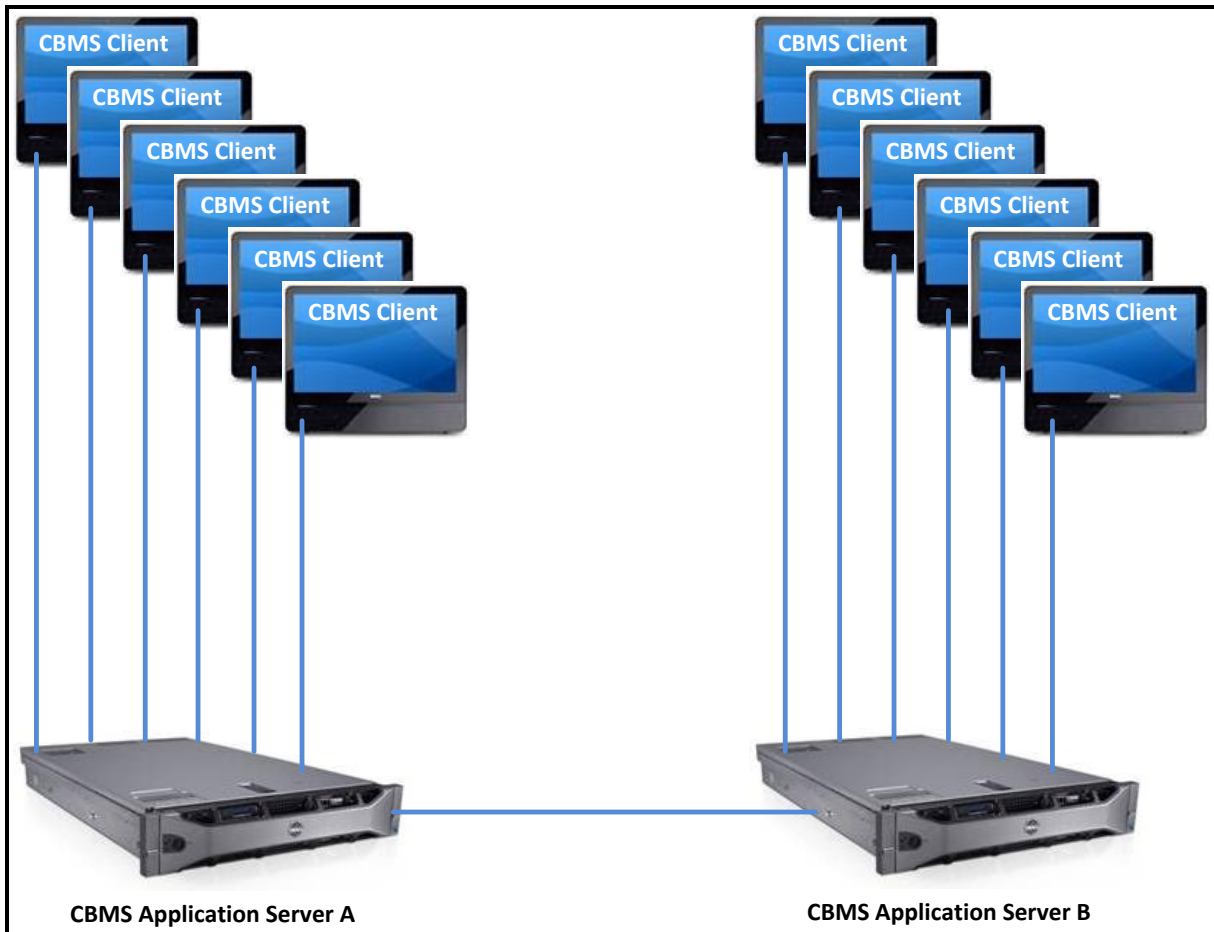

BIOGUARD network topology <u>BEFORE</u> server failure
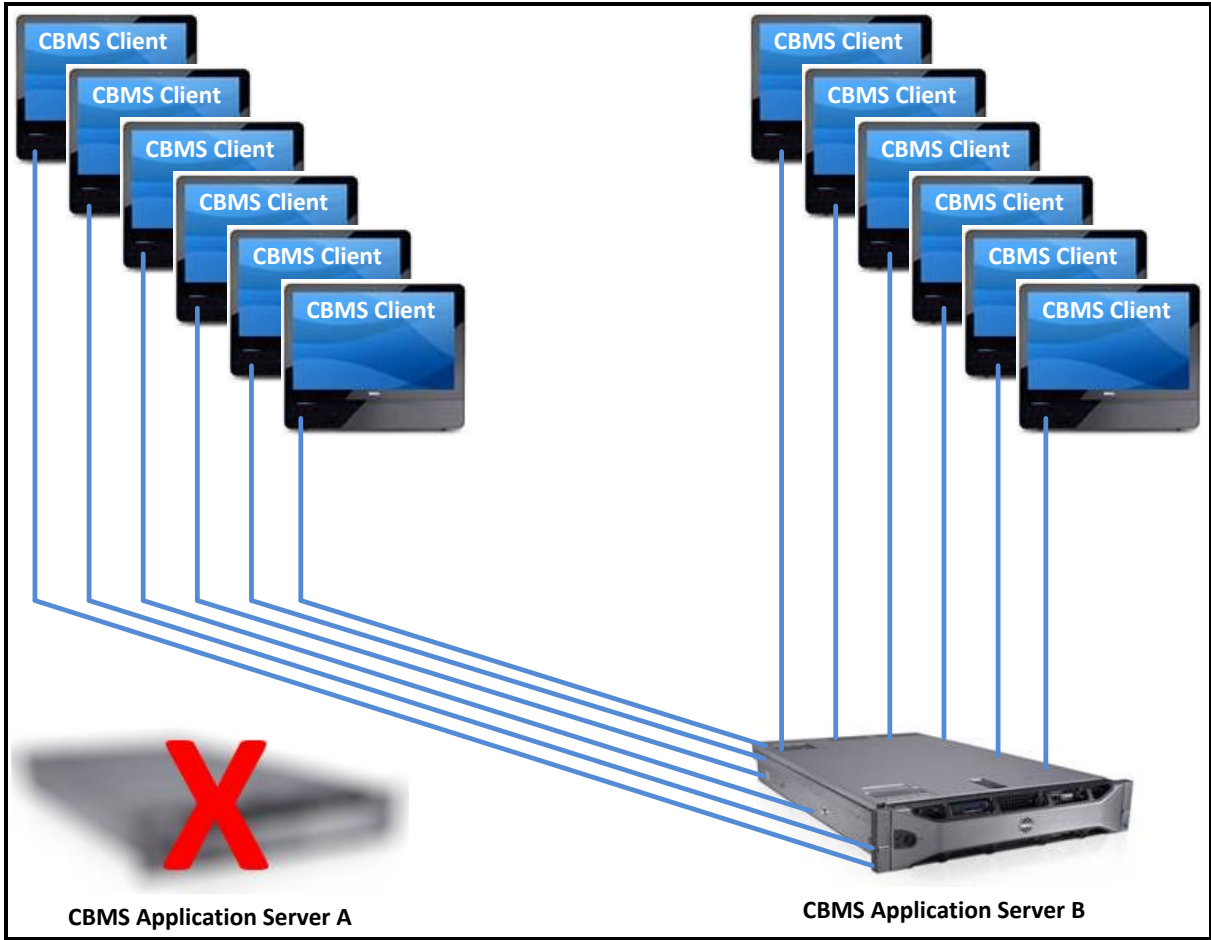
*BIOGUARD network topology __AFTER__ Server Failure*

Inter-Correctional Facility Networking

BIOGUARD has built in inter-site replication to support a multi-correctional facility topology. Each correctional facility shares information via a secure network to other correctional facilities. A person enrolled at any correctional facility will have that data available for identification at all other Correctional Centers within a few seconds. BIOGUARD inter-site networking is designed to only require the most basic network capabilities and will even run over dialup PSTN. BIOGUARD can use existing network infrastructure with minimal impact or can run on a dedicated security network. Typical network utilization is less than 1KBs.
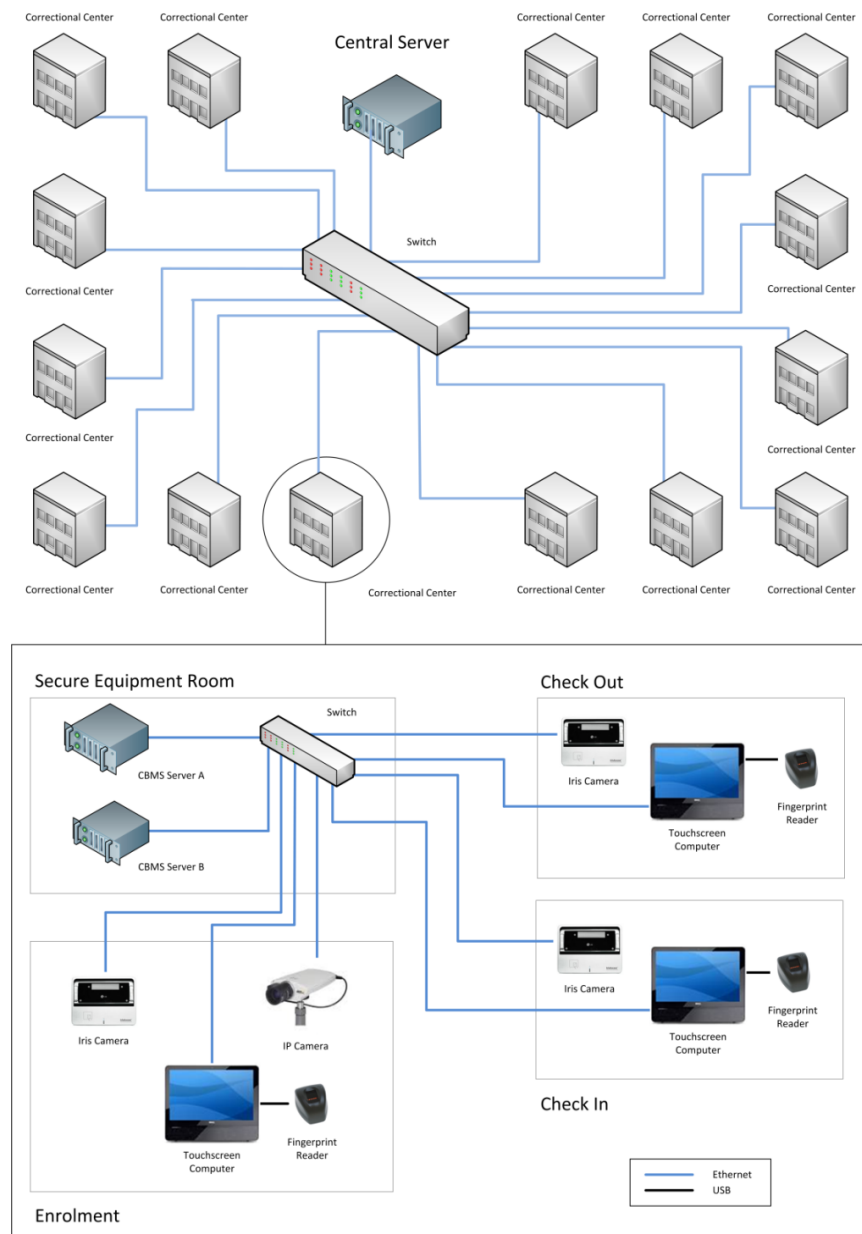
Technology Platform

BIOGUARD is engineered using Microsoft C# .net 3.5. The architecture of the application is N-Tier and supports workflow and business process integration with third party systems.
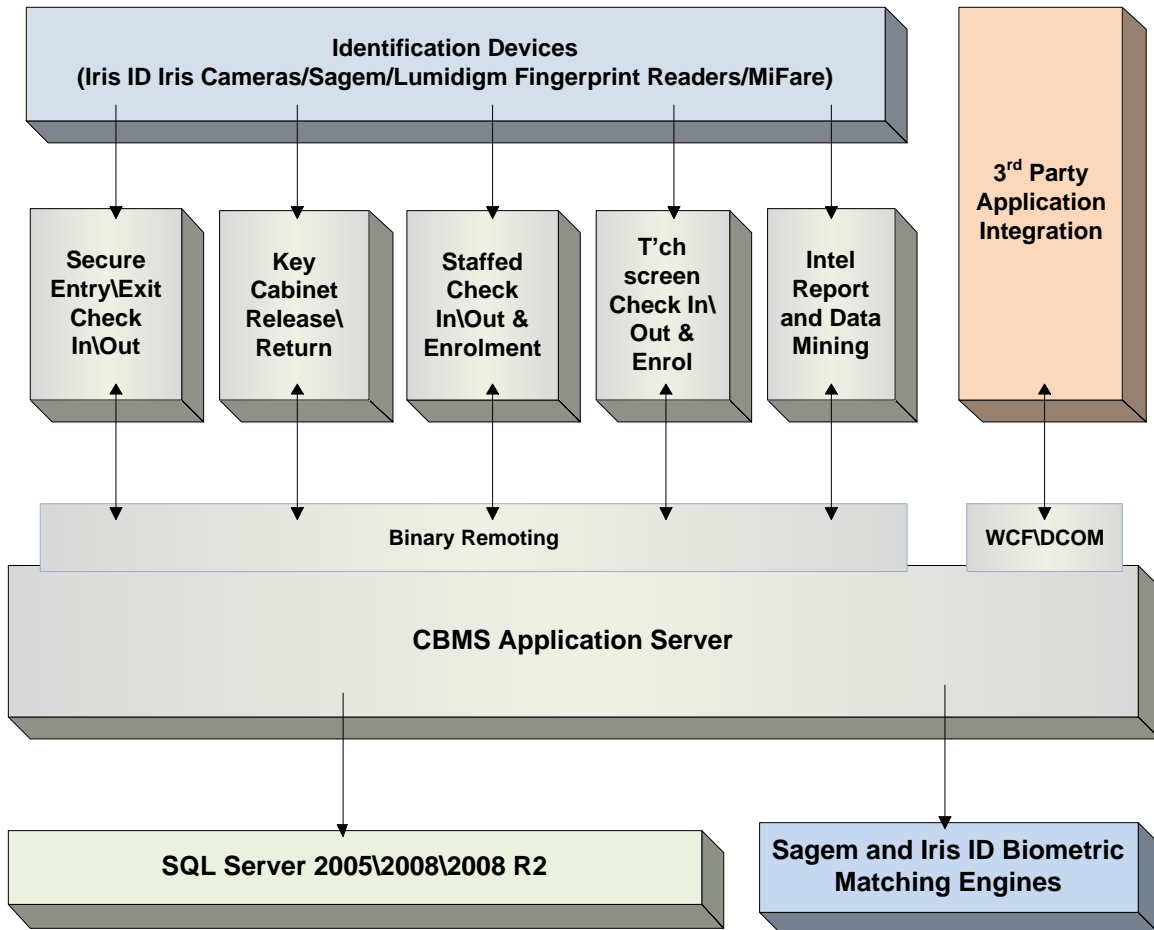
Product Customization

The specialized and demanding correctional facility environment means that products need to fit the process and that the process should not need to be changed to fit the product. BIOGUARD is a modular system that is designed and ready for customization to meet your specific requirements. BIOGUARD is backed by a world class biometric applications engineering team that are ready to evaluate your specific needs and make the product changes that are required to streamline the application to your process.

Supported Operating Systems

- Windows 8 / 8.1 (32bit and 64bit)
- Windows 10 (32bit and 64bit)
- Windows Server 2012 R2
- Windows Server 2016

Supported Database Systems

- Microsoft SQL Server 2012 R2
- Microsoft SQL Server 2016
- Microsoft SQL Server 2019 (

Recommended Client Specification

- Windows 10 Professional
- Dual Core 2Ghz Processor
- 4GB RAM
- Gigabit Network
- Dual Monitor Video Card
- 4 x USB Ports

Recommended Server Specification (50,000 persons or less)

- Windows Server 2019 Standard Edition
- SQL Server 2019 Standard Edition
- 4 x Quad Core 2Ghz Processors
- 16GB RAM
- 4 x 150GB SSD RAID 6

- Gigabit Network
- 4 x USB Ports

Recommended Server Specification (50,000 to 100,000)

- Windows Server 2019 Standard Edition
- SQL Server 2019 Standard Edition
- 6 x Quad Core 2Ghz Processors
- 24GB RAM
- 4 x 150GB SSD RAID 6
- Gigabit Network
- 4 x USB Ports

Recommended Server Specification (100,000 to 250,000)

- Windows Server 2019 Standard Edition
- SQL Server 2019 Standard Edition
- 8 x Quad Core 2Ghz Processors
- 32GB RAM
- 4 x 300GB SSD RAID 6
- Gigabit Network
- 4 x USB Ports