Freedom Access Control

IT-Based Physical Access Control

Our feature-rich, server-based PACS software application communicates over IP on an existing or dedicated IT network.

IT-centric, cyber-secure Freedom Access Control system uses encryption bridges at the network edge to communicate with onsite and geo-distributed software. Freedom Encryption Bridge enables a powerful new way to deploy an access control system. The bridge connects the door hardware to the IT network and provides encrypted communication to servers. All system configuration, administration, and monitoring are performed using a common web browser.

Freedom is typically installed on an existing network. Fault tolerance and resiliency strategies that ensure network security and reliability automatically apply to Freedom and the architecture offers risk mitigation for every scenario. Application and database servers operate virtually or on dedicated hardware with redundant power supplies, network connections, and hard drive storage. Synchronized redundant servers can be implemented across the network to mitigate both server and network failure. Every Freedom Bridge can establish and maintain communication with up to three different servers, automatically switching to another available server, if required.

Software-Defined

- Eliminates complex control panel configurations and replaces them with technology that communicates over encrypted IP-network protocols
- Simplified architecture reduces system complexity and lowers the TOC
- Centralized databases can operate independently or be connected to an IDMS, such as Active Directory, unifying physical access control and logical security management within the IT infrastructure

Highly Secure and Reliable

- Uses advanced encryption technology to eradicate security vulnerabilities

Open-Platform Design

- Enables rapid, cost-efficient integration to any relevant infrastructure

Accessible Anytime, Anywhere

- Monitor and grant access 24/7 via any web browser

An IT Approach to Access Control

Less Cost Per Door
Very little labor or third-party hardware needed since the system can run on any server environment (conventional servers, virtual servers, private/public cloud, or Freedom CUBE) and the entire client architecture is 100% web-based, reducing installation, expansion, and annual maintenance costs, resulting in a substantially lower TOC

Cyber-Secure
Cardholder records, configuration parameters, and card reader event history reside within the software, protected behind IT-managed servers and not exposed through proprietary networks

Software-Centricity
Works with applications that run on virtual machines, in a cloud environment, or on physical servers, while also integrating with hardware solutions that conduct authentication, authorization, and portal control

Net-Centricity
Engineered for networking beyond internal communication among core PACS components and utilizes realtime data to obtain situational awareness relating to asset protection; apply policy-based control measures in response to threat and operations conditions and share information with subscribed stakeholders (people, systems, or devices), supporting planned organizational responses for maintaining personnel safety and asset security

Server-Based Real-Time Access Decisions
A high-speed, server-based decision engine makes access decisions on role, policy, and attribute information, gathered in real-time and providing immediate status information such as threat levels, personnel presence/location data, access zone compromises, and environmental safety conditions

Simply Scalable
Allows scalability for additional server applications, running on a single server, on a virtual machine in a data center, or the cloud, and provides high availability and tiered redundancy in the same way that Amazon, eBay, Facebook, Twitter, and YouTube deploy their massively scaled high-performance systems

IT-Friendly
Easily conforms to an IT department's technology roadmap, policies, and practices, minimizing risk with redundancy policies, auto-failover, and network path outage solutions

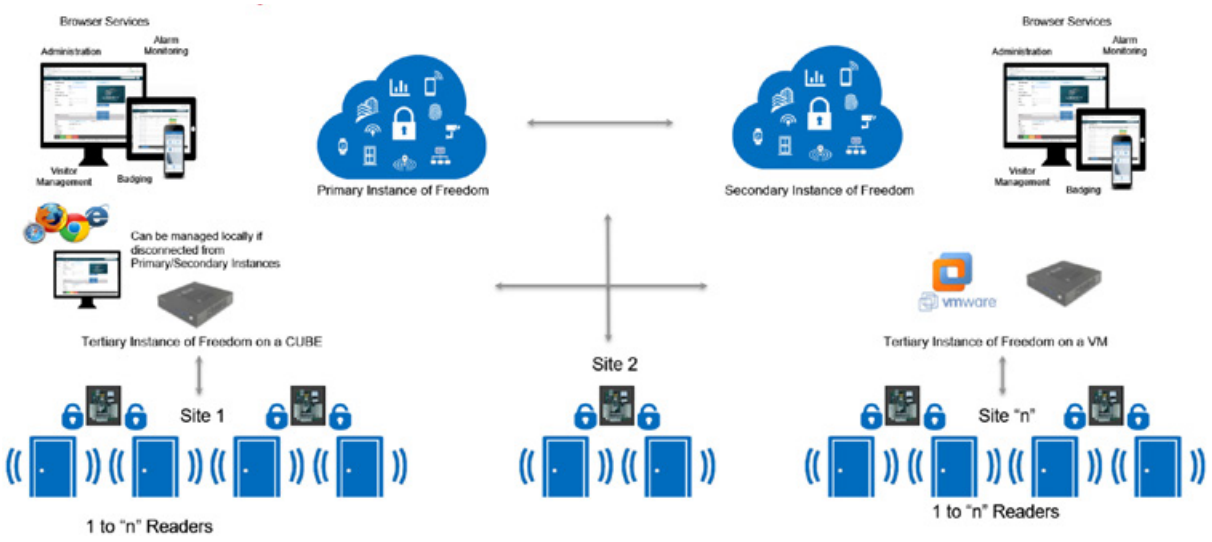
Unified Security
Enables unified physical and logical identity and access management and common credentialing through native support for corporate directory and IDMS integration and for online authentication systems

Standards-Based
Allows users to configure system integration via established standards rather than vendor-specific APIs and SDKs

Mobile-Device Friendly
All functionality, including the attributes of presence and location, is available on a mobile device and users can perform real-time device authentication and acceptance

Broad Authentication Technology Support
Accommodates a full spectrum of card-readers, cards, and electronic credentials, including native support for credential technologies with high-security features, like challenge/response protocols and biometrics

How It Works — Freedom Fully Distributed and Resilient



Innovative Software Features

Freedom's software-defined perimeter aligns with migration from hardware-driven to software-driven architecture embraced by IT infrastructure providers

- There are no limits to schedules, access groups, controlled areas, business partitions, or number of users
- Privileges can be instantly changed based on threat levels
- Presentation of a card to a card reader, or simply an activation of an emergency push button, can affect as many output relays as necessary
- Multiple inputs, such as door sensors or emergency buttons, can be programmed to automatically create outputs, such as alarms, or activate third-party devices
- Email notifications can be generated via door held open, door forced open, and user-defined port triggered actions.
- Detailed mustering functions provide muster reports for forced evacuation event and user accountability
- Freedom Bridge can establish and maintain communication with up to three different servers, automatically switching to another server when needed, allowing continual functionality during server failure
- Integrates seamlessly with Identiv's Enterphone Telephone Entry
- When retrofitting a legacy access control system, disruption is kept to a minimum and the implementation can be done in stages
- Designed for organizations that have migrated their IT infrastructure to a secure, private cloud environment, allowing them to maintain enterprise-grade physical security without the risk of storing sensitive information on a shared server hosted in a public cloud
- Architecture allows each database instance to perform both read and write operations; multi-master replication provides the ability to administer the system in a failover event, offering a seamless transition between master and secondary replication nodes

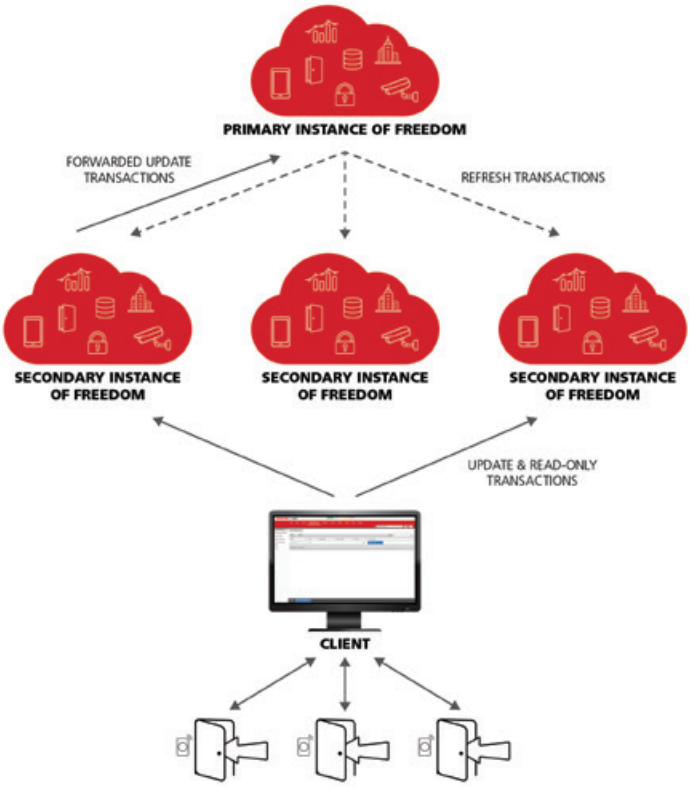


Figure 1: Multi-master replication setup

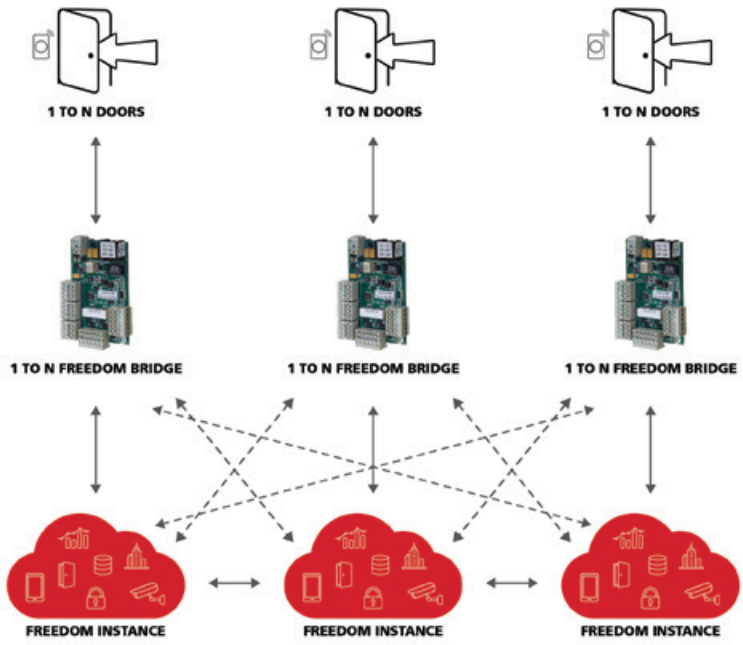
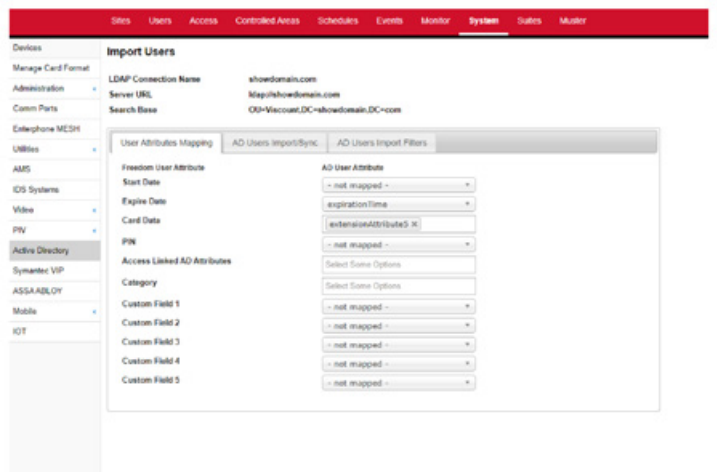


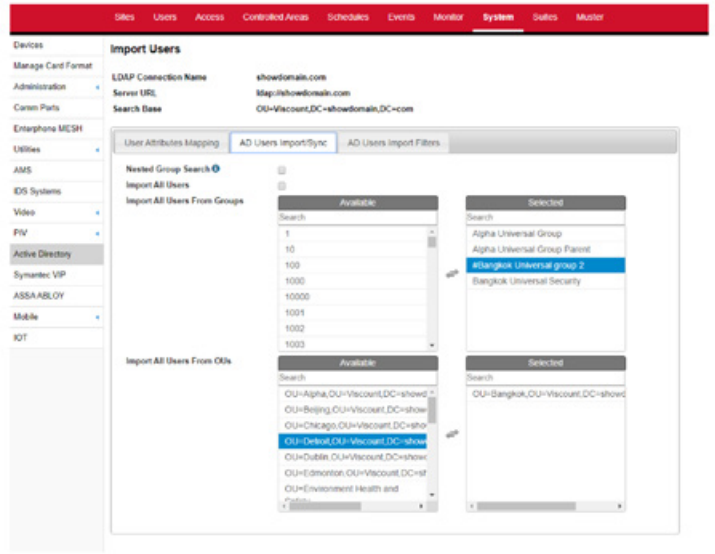
Figure 2: Freedom bridge server connectivity during instance failover

Innovative Software Features

An Active Directory (AD) structure is a hierarchical framework of objects. Each object represents a single entity — whether a user, a computer, a printer, or a group — and its attributes. In general, there is no difference between an AD object and a physical security object. In physical security, typical entities would be users and devices (door readers, elevators, and locking hardware). The advantage of a unified platform is the elimination of a separate user database of physical security.

- The Freedom software integrates with the LDAP database within AD
- When a change is made to a user in AD, the change is replicated to the Freedom software via this integration
- The Freedom system can authenticate each card swipe live against the AD database, or a schedule can be set for syncing
- The system will use this information to grant or deny access, based on the permissions established in AD





Figures 3 and 4: Read existing users from Active Directory

FREEDOM by IDENTIV
LIBERTY by IDENTIV
ENTERPHONE by IDENTIV

On January 3, 2019, Identiv announced the acquisition of substantially all assets of the **Freedom, Liberty,** and **Enterphone™ MESH** products and services of **Viscount Systems, Inc.** The Freedom, Liberty, and Enterphone product portfolio provides next-generation, IT-centric access control and telephone entry solutions.

TECHNICAL DATA IS SUBJECT TO CHANGE WITHOUT NOTICE.
REVISION DATE: 2022-02-03

Identiv (NASDAQ: INVE) is a global provider of physical security and secure identification. Identiv's products, software, systems, and services address the markets for physical and logical access control, video analytics and a wide range of RFID-enabled applications.
For more information, visit identiv.com or email sales@identiv.com.