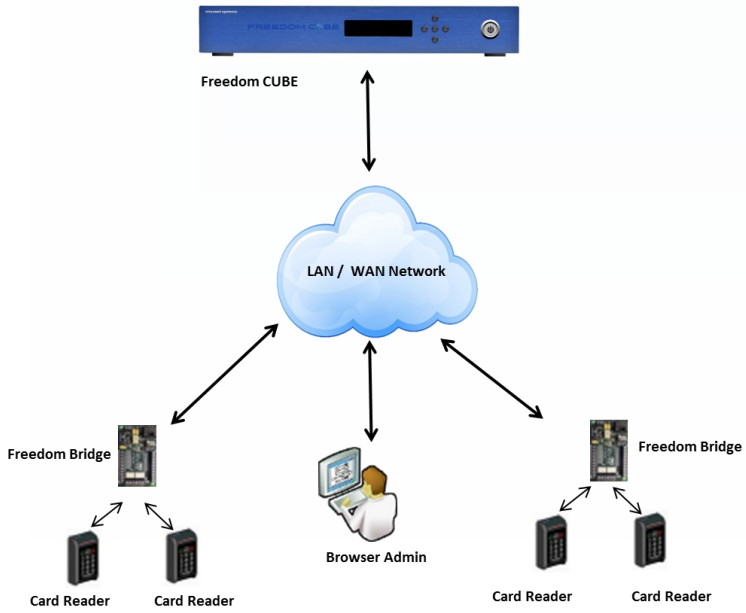
# FREEDOM CUBE

## Simple. Secure. Scalable.

The Freedom CUBE is a powerful, low cost, easy to install access control solution for small to medium size installations. Freedom CUBE is a bundled appliance that includes all of the features one would find in an enterprise class product such as emergency mustering, elevator control and robust I/O configuration. The CUBE runs the powerful Freedom software application which runs on existing IT infrastructure and resources, making it more cost-effective and easier to deploy and support. Freedom CUBE is a true IP solution – there are no proprietary control panels within the system. Each card reader becomes an IP device on the network and is operated through a compact web appliance.

Customers can now benefit from Freedom's powerful software for smaller applications while ensuring a seamless migration to our enterprise-class solutions.

- Freedom Bridges connect to the door hardware and communicate with the Freedom CUBE using encrypted IP network protocols.
- Simplified system architecture ensures rapid deployment with minimal training requirements.
- System configuration, administration and monitoring are all performed using a web-based user interface.

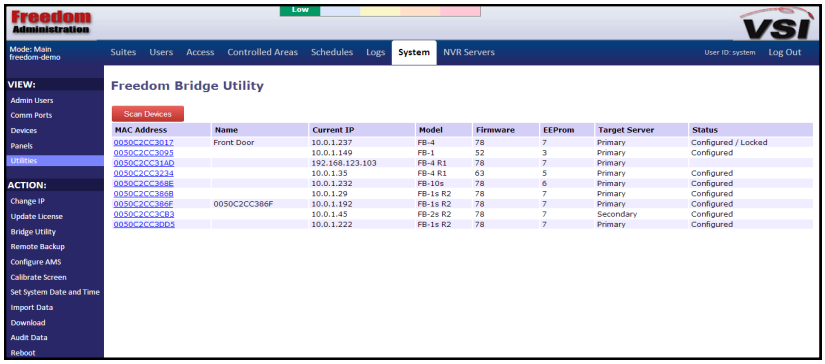



### Key Points

- 16, 32 and 64 door models
- Robust logical I/O configuration
- Lower total cost of ownership by leveraging existing IT and security infrastructure & resources
- Optional integration with Microsoft Active Directory
- Access control as an IT software solution—no proprietary access control panels
- Alarm management
- Cyber secure
- Database updates are performed in real-time
- Native IT software resides in the Freedom CUBE
- Supports OmniCUBE/ NetCUBE and back-up

## Easy to Install and Configure

Freedom is easy to install and configure. Simply connect the Freedom CUBE and Freedom Bridges to the IP network switch, log in, and click on the “Scan Devices” button in the System Utilities tab. The software will automatically populate the database with the Freedom Bridges, which can be configured to the customer’s specific access control requirements. Manage access control through doors, gates, and elevators.

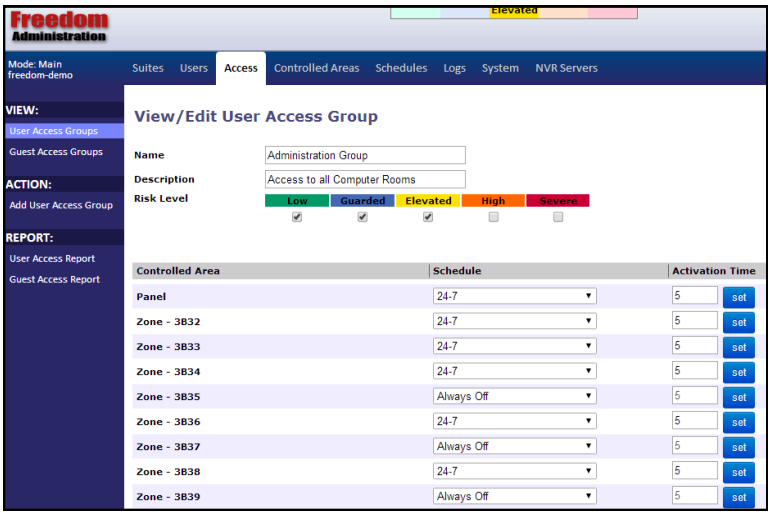



## Retro-fit Without Disruption

When retrofitting a legacy access control system to Freedom, disruption is kept to a minimum and the implementation can be done in stages. Customers can often keep their existing readers, cards, wiring, power supplies and cabinets. Supported card formats can be selected and enabled. Freedom ensures exceptional value as a customer can utilize much of previous capital investment.

## Flexible and Easy to Operate

Assigning cardholder access privileges with start and expiry dates is simple to implement with Freedom’s web-based interface.




## Cyber Secure

Freedom maintains the integrity and transparency of the credential authentication and authorization process. When the card holder’s card or credential is presented at the door, the entire card number is encrypted and transmitted to the server. In contrast, legacy systems have databases loaded on control panels or smart card readers, which obscure the visibility of multiple databases. With Freedom, IT professionals have the peace-of-mind that card data is secure at the edge of the network.

## Freedom Bridge

Bridges for card readers communicate with Freedom software residing on Freedom servers. Data is received from card readers, encrypted and sent via IP to a Freedom server for processing.

Relays on the Freedom Bridge are activated by commands from a Freedom server. Optionally, a Freedom Bridge can act autonomously, based on a contact closure. The Freedom Bridge also has supervised inputs for monitoring door contacts and “request to exit” (REX) devices.

| Part Number | Description |
|---|---|
| 50-40-1 | • 1 Wiegand card reader, 2 supervised inputs, 1 dry contact relay<br>• PoE, providing power to devices to a maximum of 300 mA |
| 50-40-2 | • 2 Wiegand card readers, 4 supervised inputs, 2 dry contact relays<br>• 12VDC or PoE, providing power to devices to a maximum of 300 mA |
| 50-40-485 | • 1 RS-485 card reader, 6 supervised inputs, 2 dry contact relays<br>• 12VDC or PoE, providing power to devices to a maximum of 300 mA |

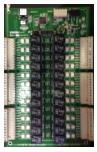
## Input / Output (I/O) Bridge

The I/O bridge provides 12 input points (4 supervised) and two outputs. These outputs are under the control of Freedom’s logic software engine. The inputs and outputs are controlled by Freedom’s logical software engine.

| Part Number | Description |
|---|---|
| 50-40-I/O | • 12 inputs, 4 supervised, 2 dry contact relays |

## Elevator Control Bridge

The Freedom 24 relay bridge can be configured to limit elevator access within a facility and only activate specific floor buttons based on the user, group, schedule, etc. It also supports two elevator cab readers over, RS-485, using a Wiegand to RS-485 converter located at the reader.



| Part Number | Description |
|---|---|
| 50-40-E | • 2 Wiegand card readers via a Wiegand to RS-485 convertor*<br>• 24 Dry contact relay outputs |

** Alternative, a 50-40-1, 50-40-2 or 50-40-1HA support card readers*

**Configuration**

Intel® Dual-core Atom™ D2550 (1.86GHz) processor
4G DDR3 memory
128G Solid State Drive (SSD)
1 6x 2 characters LCD Display with 5 control buttons
Dual Broadcom Gigabit Ethernet
1 x RS-232 console port
1 x RS-232 dialer interface port
1 x Rear USB 3.0 ports
Small form factor chassis 1.75”H x 12”W x 8”D
Convertible to 1U with rack mount ear kit (included)
Wall mountable with wall mount kit (included)
DC12V 5A 60W AC adapter with C8 (included)
Operating system: Linux


## Specifications

| | | | |
|---|---|---|---|
| **Environment** | Operating temperature: 0 to +55 °C<br>Non-operating temperature: -20 to +70 °C<br>Vibration-operating: 9.8 $m/s^2$(1.0G)<br>Shock-operating: 3,920 $m/s^2$ (400G)<br>Shock-non-operating: 8,820 $m/s^2$ (900G) | **Certification** | FCC, CE, UL, RoHS certification |

## Application

| | | | |
|---|---|---|---|
| **Application** | Network appliance; security | **Bridge Communication Support** | Primary, Secondary, Tertiary |
| **Software installation** | Factory | **Back-up Device** | USB 3.0 external hard drive, network share device and server DB replication |
| **Intended use** | Primary server, bridge load balancing, starter site | **Local daily back-up routines** | Yes |
| **Number of users** | 100,000 | **Alarm Management System (AMS) monitoring integration** | No |
| **Number of user groups** | 50,000 | **Need for control panels** | No |
| **Number of time schedules** | 1,000 | **LCD display** | Yes |
| **Number of controlled areas** | 200 | **Logical “if / then” statements** | Yes |
| **Number of administrative domains** | 25 | **Telephone entry support** | Yes |
| **Web administration interface** | Yes | **Multiple bit formats for cards** | Yes |
| **Concurrent Administrators** | 10 | **Enrollment reader** | Yes |
| **Reader licenses included** | Yes, bundled appliance | **Anti-pass back** | Yes |
| **Reader license bundles** | Upgrade to 32 or Power CUBE license | **Advanced emergency mustering** | Yes |
| **Number of readers** | 16, 32 or 64 | **Elevator control** | 16, 32 or 64 readers max |
| **Number of bridges** | 64 max | **Freedom Active Directory** | Yes |
| **API for integration** | Yes | **AES 256 bit encryption** | Yes |
| **Estimated data retention (activity based)** | 90 days | **Multiple time zones** | Yes |
| **Freedom CUBE16** | 50-40-CB16 | **Freedom CUBE32** | 50-40-CB32 |
| **Freedom CUBE64** | 50-40-CB64 | | |