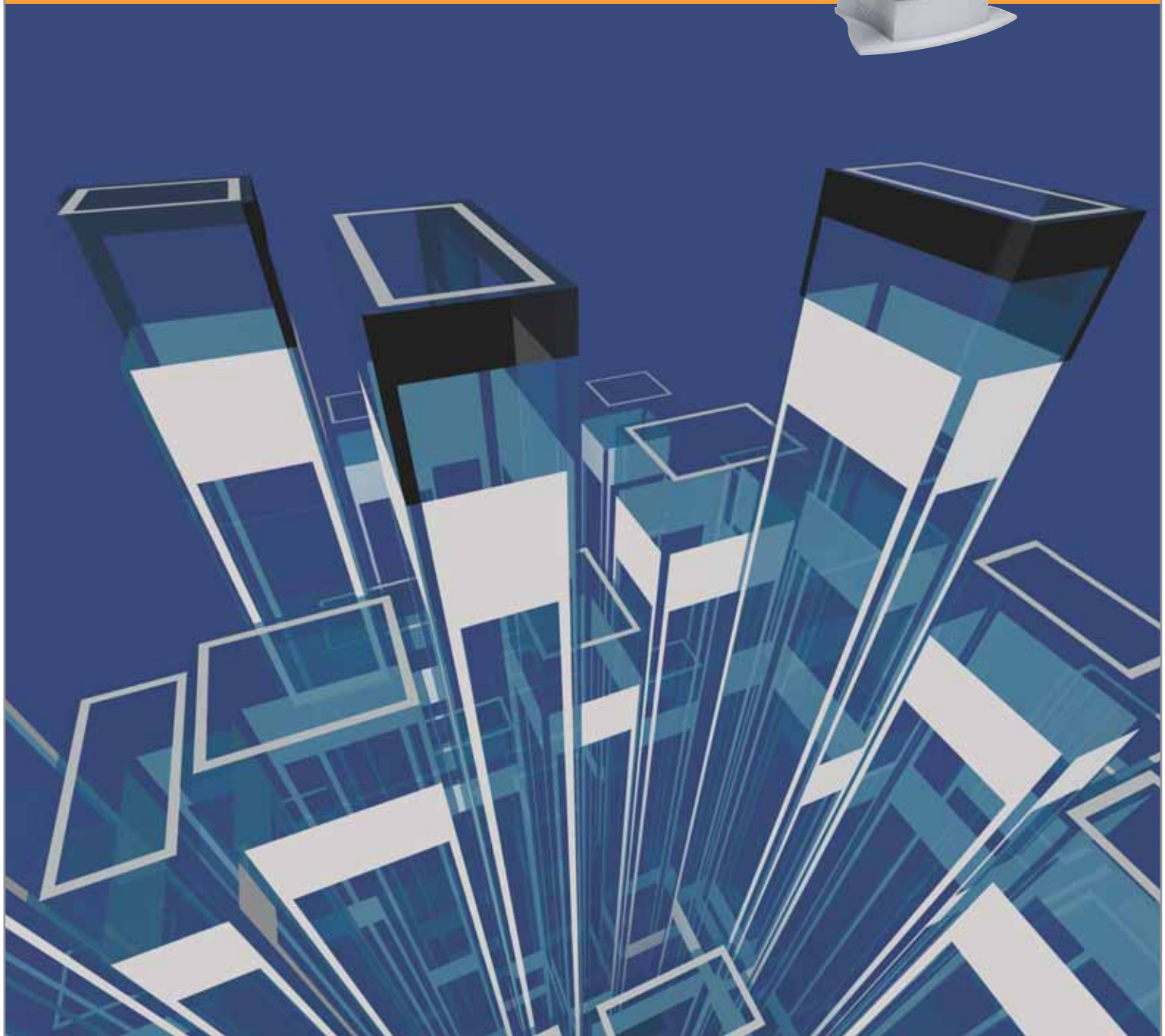


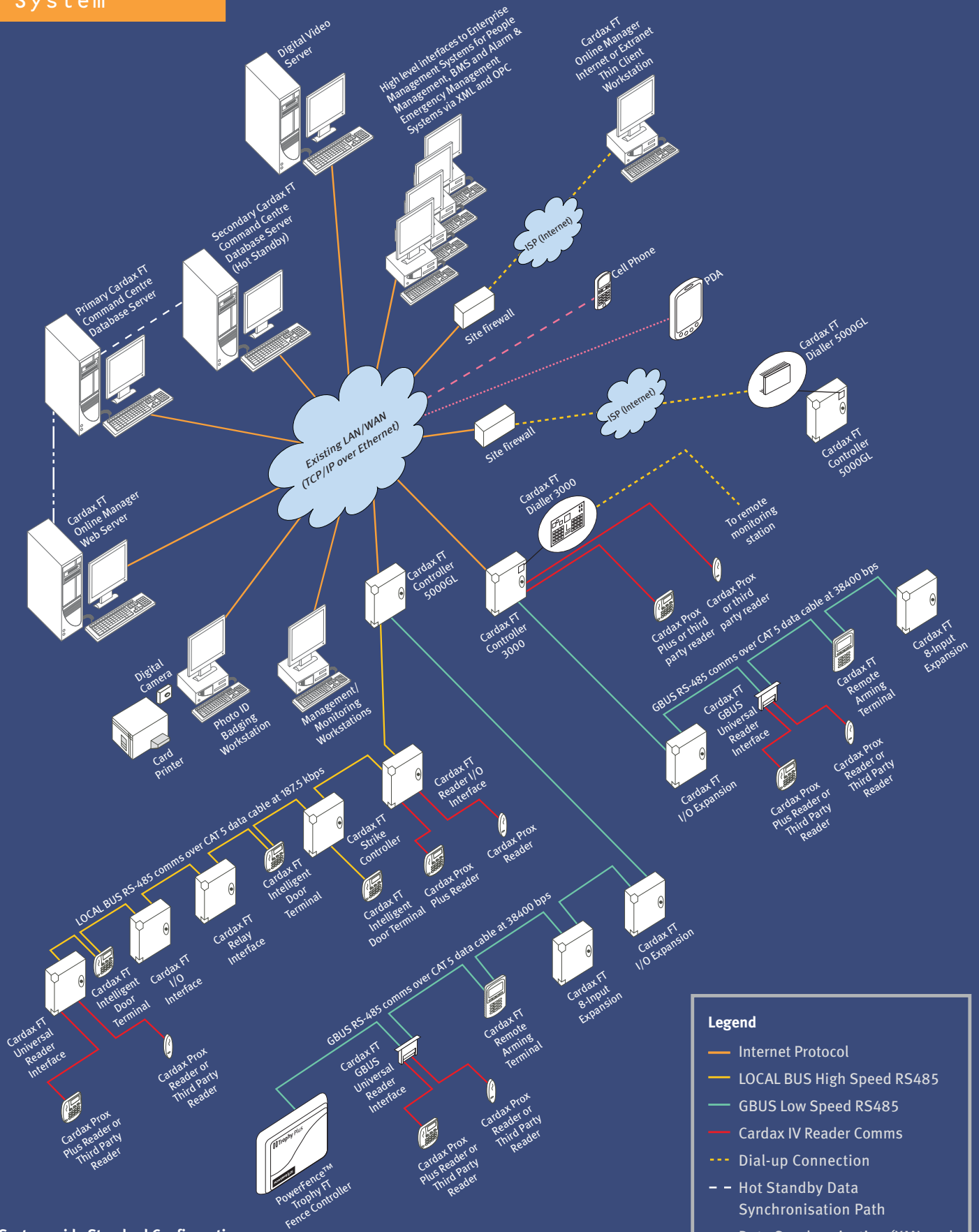
cardax

Cardax FT Command Centre

Cardax FT Command Centre is the central management tool for the Cardax FT system. The software is powerful, and caters for a versatile feature set.



Cardax FT System



System-wide Standard Configuration

- Up to 500 Cardax FT Controllers
- Up to 5000 Field Devices
- Unlimited Operator Workstations
- Up to 4000 Cardax Readers

Legend

- Internet Protocol
- LOCAL BUS High Speed RS485
- GBUS Low Speed RS485
- Cardax IV Reader Comms
- - - Dial-up Connection
- . - . - Hot Standby Data Synchronisation Path
- . - . - Data Synchronisation (XML and Direct Database Connection)
- . - . - Wireless TCP/IP Comms
- - - SMS Comms

Cardax FT Command Centre

Cardax FT Command Centre is the central control server for the Cardax FT security system.

Cardax FT Command Centre leverages client server architecture, enabling system operators to:

- Configure the site and all system components
- Manage cardholders, including their access using access groups
- Produce and print photo identification to cards
- Monitor alarms and interact with the system from site plans or other windows
- Retrieve and report on stored system information
- Communicate with people via Intercom enabled readers
- Interface to other third party systems.

The Cardax FT system is scalable, with Cardax FT Command Centre server options available based on the number of doors, from less than 16 doors to an unlimited number.

It is a powerful, yet operator friendly security system. Installed on a Pentium PC server, Cardax FT Command Centre resides on Microsoft® Windows® operating platforms.

It can be incorporated into a company's existing Local Area Network or Wide Area Network, or reside on its own dedicated network.

Cardax FT Command Centre links to Cardax FT Controllers (3000 and 5000GL) and to operator workstations over Ethernet using TCP/IP, a world standard network and Internet transmission

protocol. Using this protocol means the system communications are Internet compatible.

Operating Platforms

The Cardax FT Command Centre server and workstation software reside on the Microsoft® Windows® operating system.

The database options are Microsoft® SQL 2000 Desktop Engine or Microsoft® SQL Server 2000 or 2005, depending on the system requirements.

Renowned for its data integrity and performance, Microsoft® SQL is a commonly specified database used globally in a range of applications. It is easy to integrate and share selected data held in Cardax FT Command Centre with other systems using the SQL Server database.

Please contact Gallagher Security Management Systems or your Cardax office for information relating to current operating platforms supported.

Distributed Processing

Distributed processing is a significant feature of the Cardax FT system architecture.

The relevant fields of the cardholder database, alarm configuration and security parameters are downloaded to the Cardax FT Controllers allowing for local access and alarm control decisions.

All Cardax FT field devices connecting to Cardax FT Controllers can operate independently of the Cardax FT Command Centre server. This ensures that if the site experiences network communications problems, full operation of access control and alarms management is maintained.

Peer-to-peer communications can be configured to set up relationships between Controllers for flexible and efficient system configuration. Cardax FT Controllers (3000 and 5000GL) can also be configured for dial-up for the support of remote sites, and for off-site alarm monitoring.

Cardax has a range of industrial switches to provide a solution for redundant Ethernet network communications.

Data Security

All data over the network between the Cardax FT Command Centre and Cardax FT Controllers uses 40-bit encrypted Secure Sockets Layer (SSL) technology. This standard is similar to the technology used to secure Internet banking transactions. Cardax FT XtraSec provides high-level (168-bit) encryption.

Ease of Configuration

Cardax FT Command Centre features Configuration Wizards and Templates, tools to support the ease of new system installation. Configuration Wizards enable access controlled doors and new hardware to be quickly and easily configured in Cardax FT Command Centre

while Database Template functionality allows a standard configuration to be applied to sites with common requirements.

System Division

System Division enables a site to be divided into divisions and sub-divisions.

It is especially suitable for:

- Multi-tenanted buildings where each tenant wishes to manage and monitor their own security
- Very large enterprise-wide systems where it is more practical to divide the site for ongoing management and monitoring, for example, dividing the site into geographic zones.

An operator can create site plans by importing map images of the site. Cardax FT Command Centre supports standard Microsoft® Windows® and CAD package graphics files such as BMP, DXF (via conversion utility) and WMF/EMF.

Each site item is represented by an icon. The icons representing site items can be placed on these images. The icons placed on the map image show the real time status of the site item represented.

Alarm priorities are represented by different background colours for each icon. Clicking on an icon displays the properties for that item.

The alarm configuration routine in Cardax FT Command Centre enables system administrators to define those site events to be set up as alarms.

There are three items to be configured for each alarm:

- The event priority – Up to 10 event priorities can be defined; 8 of these can be assigned to alarms. Alarms can be escalated to higher priorities until they are processed.
- Alarm action plans – To specify the actions that are triggered by the alarm condition.
- Alarm instructions – To provide information and instructions to the operator when the alarm occurs.

Name	Description	Ops	Last
Advanced User	Full division & System adm...	4/9/04...	9/02
PEC Cardholder Admin		9/9/12...	1/3/07
PEC Monitor Full access		7/9/02...	1/3/07
Site Admin	Adding cardholders/assign...	2/8/02...	21/06
Site Monitoring	Website Security	24/02...	21/06
Tech Support - All Divisions		1/10...	1/10
Tech Support - Building 1		1/10...	1/10
Tech Support - Building 2		1/10...	6/03
Tech Support - Building 3		1/10...	1/10
Tech Support - Building 4		1/10...	1/10
Tech Support - Franklin		1/10...	1/10
Tech Support - Gallagher	All privileges - Gallagher	20/02...	1/10
View Events	GPC logon	1/11...	9/02
View Only - Hamilton	View only - Gallagher team	21/02...	21/02

Operator Group



Site Plans



Management of Alarms supported with DVR Integration

Operators and Workstations

Cardax FT Command Centre places no limits on the number of workstations or operators that may be set up.

Performance may be limited by the hardware used on the system.

As well as being subject to system division, operators are assigned privileges and can only perform authorised functions.

Site Plans

Site plans show a graphical representation of the site and the real time status of remote field devices and logical entities. Up to 2,000 site plans can be stored in the system.

Many functions are carried out directly from site plans, for example, temporarily overriding the operation of a door.

It is critical that while operators are viewing site plans they are aware of alarms occurring elsewhere in the system. The Alarm Window can be configured to always be in the foreground of the operator workstation.

Management of Alarms

An alarm is a special event that requires urgent operator intervention, for example, when a door is open longer than it should be, a device has been tampered with, or an intruder alarm has been activated.

Intruder Alarm Monitoring and Control

The Cardax FT system integrates full intruder alarm functionality eliminating the need for a separate intruder alarm system.

Intruder detection zones can be configured to report four different states: arm (set), disarm (unset), and two further states with user definable names. Entry and exit delays can be defined for each zone. This gives cardholders time to enter and leave the site when changing the state of the alarm zone.

Alarm zone state changes can be:

- Automated via schedules set up in Cardax FT Command Centre
- Initiated from workstations via operator overrides
- Initiated via Cardax FT Remote Arming Terminals
- Initiated via Cardax readers
- Initiated via Key-Switch control.

Authorised operators monitor alarms at Command Centre workstations. This can be complemented with:

- Cardax FT Remote Arming Terminals for alarms management in the field
- Offsite alarm monitoring utilising Contact ID transmitted via Cardax FT Controllers.

Universal Card Formats enable multiple third party Wiegand formats of up to 360 bit to be supported concurrently in the Cardax FT system.

Subject to System Division and operator privileges, an operator can create, delete and change cardholder records in the system. Any changes made are recorded as events.

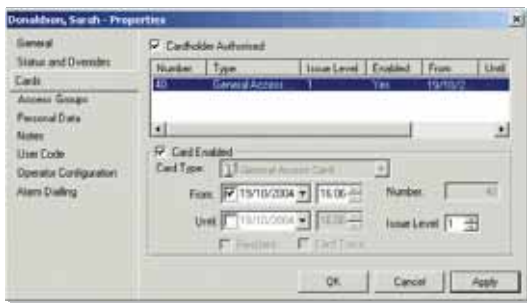
The system automatically down-loads any changes made to the cardholder record to the relevant field devices.

Cardholder data can be shared with third party applications via the XML Interface.

specified in the access group(s) the cardholder belongs to. Personal data fields can be configured to be unique, mandatory, numeric or alphanumeric.

A personal data field can also contain an image which can then be used for PhotoID and cardholder Challenge. Cardax FT Command Centre has a fully integrated access control photo identification system (Cardax FT PhotoID).

Each cardholder record can have up to 64 personal data field definitions. It is possible to restrict the Personal Data Fields an operator can see and change through their operator privileges. Bulk cardholder changes enable an operator



Cardholder Management



Personal Data Fields

Cardholder Management

Cardax FT Command Centre provides an extensive cardholder database.

Each cardholder record includes personal cardholder information and access information:

- Up to 64 personal data fields where personal data can be entered
- The access groups to which the cardholder belongs
- Detailed information about the card(s) held by the cardholder, for example, card number, facility code, technology type, issue level, and expiry date and time.

An XML Software Developers' Kit is supplied on the Cardax FT Command Centre software CD.

Personal Data Fields

Personal data fields hold the relevant personal data required for a cardholder, for example, the department in which they work and who they report to.

Personal data fields are created as separate entities and are attached to access groups. Cardholders inherit the personal data fields from the access groups to which they belong.

When viewing a cardholder's record, it will contain all the personal data fields

to make changes to multiple cards simultaneously.

Card Encoding

Cardax Magstripe and Mifare cards can be encoded from within Cardax FT Command Centre. The Card Encoding Wizard is designed for card enrolment, printing, and encoding.

Access Groups

Access groups make it possible to define access for groups of cardholders who share the same requirements. Each access group is named and includes the following information:

- Access – where and when members of the group have access

- Members – a list of cardholders who belong to the access group
- Personal Data Fields – a collection of personal data field definitions attached to individual members
- Escort – whether the members are allowed to act as escorts for visitors
- Arm/Disarm alarm zones (areas) – member authorisation to arm and disarm certain alarms
- Whether members can change the state of the access zones.

Access groups are displayed as a tree with branches having more specific access. A cardholder may belong to one

enable bulk changes to be easily applied to members of the group. Any changes to Access or Personal Data Field properties will automatically apply to all members of the group.

Integration with Third Party Imaging Systems

Cardax FT Command Centre supports the integration of third party DVR and CCTV systems. Contact Cardax Technical Support for details on supported systems.

Cardax FT Challenge

Cardax FT Challenge provides the ability for operators at workstations to confirm

device, logical entity or cardholder in the system.

Examples of typical searches include:

- Identifying the cardholder of a lost card that has been handed in
- Creating a list of cards which have been created, activated or expired before, during and after a defined period
- Identifying cardholders who have access to a particular access zone at a particular time.

Reports

A comprehensive range of report templates is available to view and print information held in the system, including:



Cardax FT Challenge Window
- used to compare with live image.



Find Window



Time and Attendance Report

or more access groups to get their full access privileges.

For example, there may be an “All Cardholders” group to which all cardholders belong for commonly required access through the entrance and cafeteria. A cardholder acquires more specific access by joining other groups, for example, “Head Office Managers’ Group”.

Access is defined through access zones and time schedules. Up to 4,000 access zones and up to 100 access control time schedules can be defined in the system. Access groups are an efficient cardholder management tool. Access groups also

the identity of cardholders passing through a nominated door by comparing a cardholder Personal Data Field image against a live image from a third party system.

Digital Intercom

When a person at the Cardax FT Intelligent Door Terminal presses the F3 button on the reader, the operator can use the Integrated Digital Intercom functionality to speak / listen to the person.

The Find Window

The Find Window is an efficient, powerful tool that makes it easy to search for information. It can be used to find any

- Activity Report
- Cardholder Report
- Time and Attendance Report
- Access Report
- Access Group Report
- Exception Report
- Evacuation Report
- Site Configuration Report
- Contact ID Assignment Report

Interfacing Systems

Cardax FT has been designed to readily interface to third party applications.

Because this is an ever-changing environment, please contact Cardax Technical Support for the latest information.

TCP/IP Intercom Interface

Using Cardax FT Command Centre, the operator can control call connectivity for the TCP/IP Intercom system. Events are logged into the Cardax FT database.

Elevator Interface

Access to floors from elevator cars can be configured and controlled by Cardax FT Command Centre via a High Level Elevator Interface.

OLE For Process Control (OPC) Interface

Cardax FT Command Centre is OPC enabled, allowing alarms and event data to be shared with other OPC enabled applications such as building management systems.

to be imported from external sources to Cardax FT Command Centre using standard software functionality known as XML Interface. Typical sources of data include a student enrolment database, or a company's HR database from a system such as SAP.

Schedules for resource bookings, such as Syllabus Plus™ can also be imported to Cardax FT Command Centre using XML Interface to be reflected in security schedules.

An XML Software Developers' Kit is supplied on the Cardax FT Command Centre software CD.



Elevator Interface

OPC eliminates the need for costly custom software integration. It gives customers the freedom to choose a solution based on an open industry standard. OPC is used globally and is fully backed by Microsoft®. Further information can be found at www.opcfoundation.org.

Cardax FT OPC interfaces have been developed for CCTV, Remote Alarms Management (Contact ID), and log printing. An OPC Software Developers' Kit is supplied on the Cardax FT Command Centre software CD.

XML Interface

Cardax FT Cardholder Import and export provides the ability for cardholder data

Software Maintenance Agreements

Gallagher Security Management Systems has a programme of continuing development and will make upgrade versions available through periodic version releases. The Cardax Software Maintenance Agreement programme provides a cost effective means of obtaining future upgrades and ensures sites keep pace with developments.

Cardax FT Command Centre Feature Information

Cardax FT Command Centre is a feature rich, flexible system - the security platform for integration.

Cardax FT Schedule Import (XML)

The Cardax FT Schedule Import feature provides for schedules to be imported from external sources using standard software functionality known as XML Interface.

Cardax FT Cardholder Import

The Cardax FT Cardholder Import feature provides the ability for cardholder data to be imported from external sources using standard software functionality known as XML Interface.

Cardax FT Enrolment Wizard

The Cardax FT Cardholder Enrolment Wizard feature facilitates a routine process to minimise time for cardholder enrolment. It allows an operator to cycle repeatedly through the following steps -

searching for a cardholder, updating cardholder details (if required) and then optionally printing and encoding a Mifare or magstripe card.

Cardax FT Challenge

The Cardax FT Challenge feature provides the ability to double-check the identity of cardholders passing through a nominated door via visual comparison of a cardholder image against a live image from a third party system.

Cardax FT DVR Interface

The Cardax FT DVR Interface feature provides the ability to connect to third party DVR (or NVR) systems and provides integration of the key operations for an integrated colour DVR and alarms management solution.

Cardax FT Intercom High Level Interface

The Cardax FT Intercom High Level Interface (HLI) feature enables digital intercom systems such as the Jacques TCP/IP Intercom System to be integrated into the Cardax FT system.

Cardax FT Elevator High Level Interface

The Cardax FT Elevator High Level Interface (HLI) feature provides the ability for Cardax FT to control access to floors from elevator cars. Systems supported:

- Kone
- Otis

For more information about each of these features please refer to the Cardax FT Feature Information datasheets available from www.cardax.com.



Cardax FT Cardholder Enrolment Window



Cardax FT DVR Interface Window

March 2006

TECHNICAL SPECIFICATIONS

Cardax FT Command Centre

Command Centre Server Options

Per door licence (Base 16 doors)

Recommended Computer Specifications

A number of variables e.g. event rate, will affect the recommended computer hardware specifications. Please discuss your requirements with Cardax Technical Support.

Operating System**

Server
Workstation

Microsoft® Windows® 2000 or 2003, or XP Professional
Microsoft® Windows® 2000 or 2003, or XP Professional

Database Platform

MSDE, SQL 2000, SQL 2005

Printer

Any Microsoft® Windows® compatible printer

Configured workstations

Maximum Number

Unlimited

Operator Authorisation Level

Fully configurable for each operator

Configured Operators

Max. number of configured operators

Unlimited

Simultaneous Logons

Max. number of operators simultaneously logged on

Unlimited

Cardax FT Hardware

Cardax FT Controllers (3000 & 5000GL)
Field Devices

500*
See Controller datasheets

Number of Cardholders

Command Centre

100,000*

Event Database

Command Centre

Unlimited

Card Issue Levels

15

Maximum Access Controlled Doors

4,000*

Access Control Zones

Max. number of access controlled zones

4,000*

Controlled Outputs

Max. number of relays

20,000*

Alarm Inputs

Max. number of inputs

30,000*

Elevator Control - low level

Maximum of 50 elevator cars each with up to 75 levels
1 or 2 elevator shafts per Cardax FT Controller
Cardax Technical Support recommends using the Cardax FT Controller 5000GL architecture for low level elevator control

* Indicative numbers only. System configuration, network capacities and the volume of system activity affect performance. Please contact Gallagher Security Management Systems for advice.

** Version requirement is dependant on site application.

*** Maximum number of cardholders and events is determined by the cardholder/event ratio and Controller type.

March 2006

TECHNICAL SPECIFICATIONS

Cardax FT Command Centre

INTERFACING SYSTEMS

Elevator Control - high level

Kone System
Otis System
8 Elevator shafts per module.
Refer to Cardax Technical Support to determine the number of Cardax FT Controllers required for the system.

Intercom

Jacques TCP/IP networked intercom system

Other

OPC For alarms and event data
XML For cardholder data and schedules

Alarms and events API for event data from external systems

Please contact Cardax Technical Support for a list of the interfaces that have been developed on these industry standard platforms.

Further Information

Cardax FT is a sophisticated security system. This data sheet summarises some of the key features provided through the system software. For more information about Cardax or the Cardax FT security system, please contact your Gallagher Security Management Systems Office or channel partner, or refer to:

- www.cardax.com
- The complete set of data sheets for the Cardax FT system
- Your Cardax dealer for a demonstration of the system and to discuss site specific requirements.

We welcome your enquiries.



www.gallaghersms.com

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