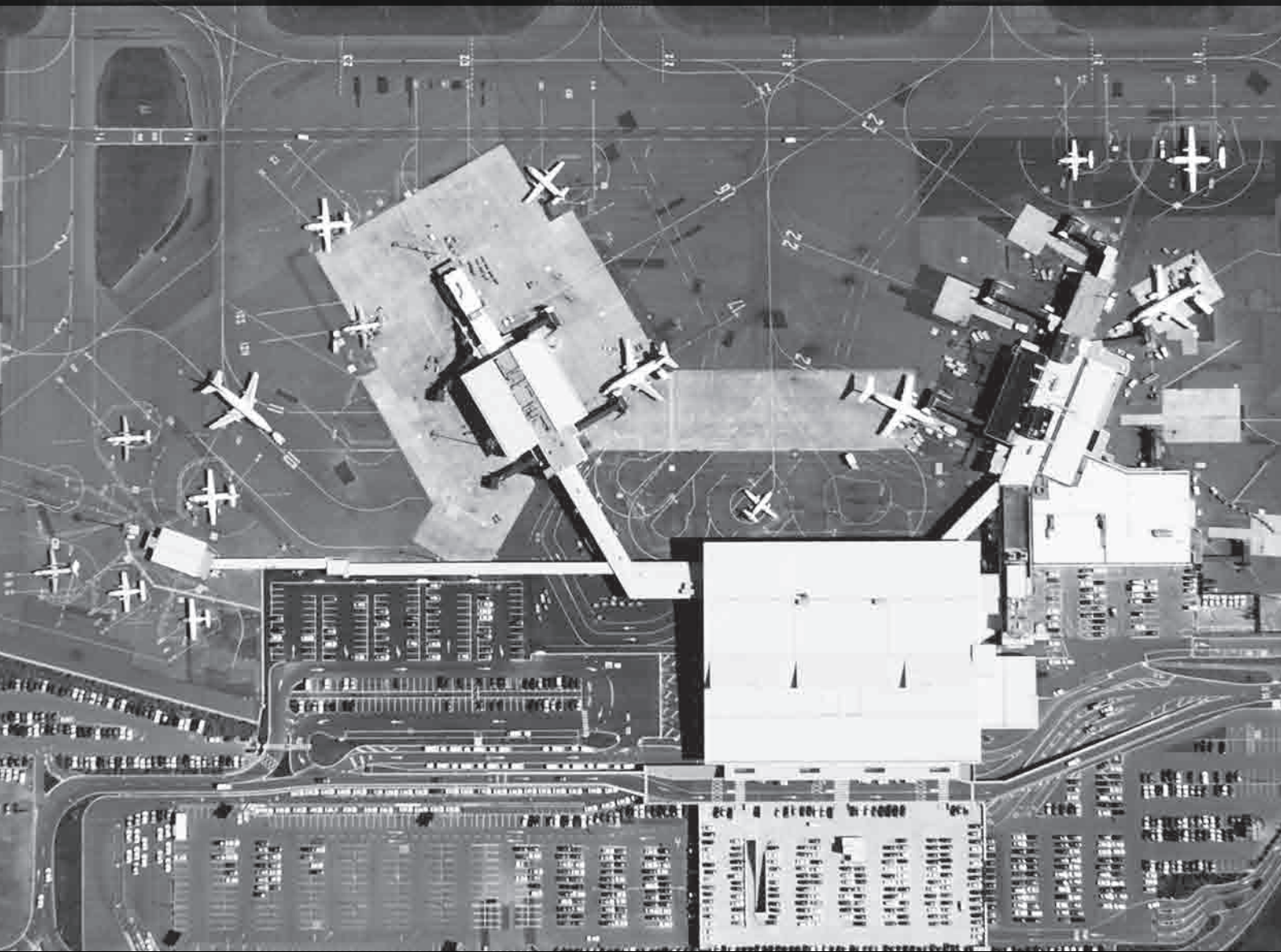# Gallagher
Airport Security Solutions

AVIATION SITES AROUND THE WORLD TRUST SECURITY MANAGEMENT SOLUTIONS FROM GALLAGHER

www.gallaghersms.com

GALLAGHER

Airport Security and Access Management Solutions

Single management platform for:

> Access control
> Intruder alarms
> Perimeter protection
> Biometrics

> DVR/CCTV
> Emergency management
> Traffic management

> Visitor management
> Building & facilities management

INTEGRATED SITE-WIDE SECURITY

The Gallagher security integration platform is a software package giving Airport Security Managers total control over security and access control from the core of their site to the perimeter, via a single user interface. The Gallagher system resides on an organization's IT network and stores information about cardholders, the site and system activity.

A Microsoft® Windows® based security system, Gallagher access system integrates access control and alarms management, intruder alarms, intercom, and photo identification. Complemented with a range of integrations and interfaces with security systems such as DVR / CCTV, SAGEM biometrics, digital intercom systems, as well as HR, time and attendance systems,

building management, vehicle and driver identification and airport automation systems (flight display systems) and perimeter security systems, Gallagher is the platform for comprehensive landside and airside security.

The Gallagher system has been designed to accommodate the demands of multi-tenanted and multi-site scenarios with system division (partitioning) and operator privileges restricting who can view information and perform functions within the system. High levels of system data encryption and monitored communications provide superior system security.

PERIMETER PROTECTION - DETECTION AND DETERRENCE THROUGH GALLAGHER PERIMETER SECURITY SYSTEMS

High level integration of the Gallagher perimeter security system to Gallagher Command Centre software provides airports with comprehensive perimeter protection - ideal for fuel farm protection. Alarms and events are logged in the Gallagher Command Centre for immediate response. Gallagher Trophy FT identifies the specific perimeter fence zone where the attack occurs; interfaces to other systems such as outdoor lighting control means lights can be configured to automatically turn on in the area where an intrusion occurs. DVR interface enables remote viewing and a visual record of perimeter attacks to be created.
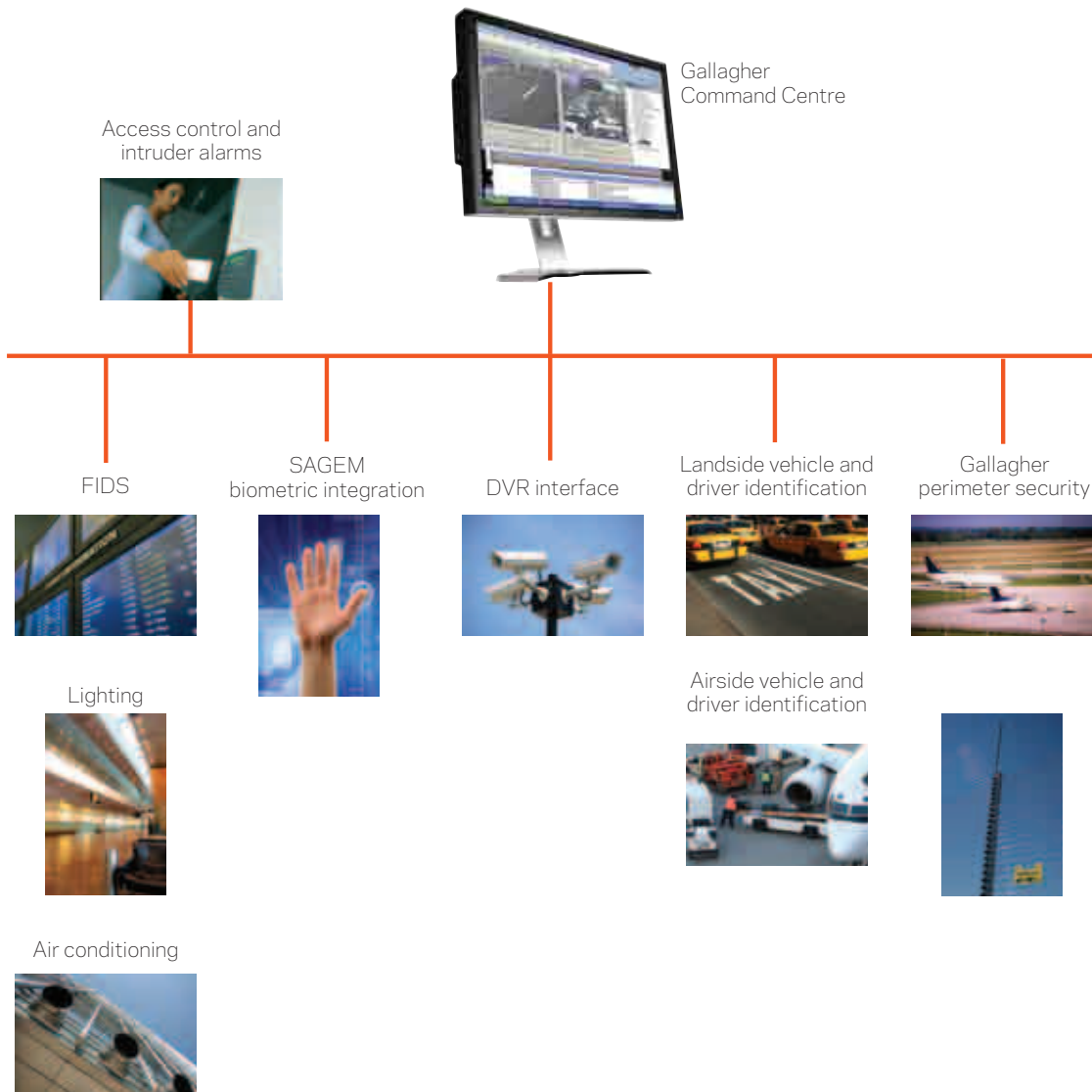
EMERGENCY RESPONSE AND DISASTER RECOVERY

Either partial or full site lockdown functionality can be applied during threat or emergency situations. The reporting ability of the Gallagher Command Centre software provides a full audit trail of events.

THE SECURITY PLATFORM FOR THE FUTURE

Gallagher Security is committed to the ongoing development of access control technology. The Gallagher system is scalable and flexible, allowing customers to purchase only what they need today, and add as much functionality as required in the future. Software maintenance agreements enable organizations to keep pace with technology developments including Microsoft® operating platforms.

Gallagher is a world leader in the design, development and manufacture of state-of-the-art flexible, reliable, multi-layered security solutions for Government, Military and Aviation applications.

Gallagher Access Management Platform for Integration

Gallagher
Command Centre

Access control and
intruder alarms

FIDS

SAGEM
biometric integration

DVR interface

Landside vehicle and
driver identification

Gallagher
perimeter security

Lighting

Airside vehicle and
driver identification

Air conditioning

Case Study:
Guangzhou Baiyun International Airport

Scalability for vast expansion is a crucial pre-requisite for one of China's largest airports.

GUANGZHOU BAIYUN INTERNATIONAL AIRPORT

Guangzhou Baiyun International Airport, formerly known as Canton Airport, is one of the major gateways to China. It is the largest airport in the southern part of the country, and serves as the operational base for China Southern Airlines. The airport is currently the second busiest in China based on passenger flow, and the third largest based on cargo movement. The new airport, which demanded the relocation of 20,000 people to make way for the new buildings, will handle more than 75 million passengers and 2.17 million tons of cargo annually.

The schedule for this ambitious project began in early 2000 with the first phase completed in 2002 when the new airport was up and running. The total project, however, may not be completed until 2010. The first phase encompassed design of a 3,500,000ft² central passenger terminal complex, two runways and associated roadways and parking facilities. The second phase includes designs for an additional runway and expansion of the terminal, and the third phase will include another central ticketing terminal and 50 additional gates. The project is also likely to involve a railway to and from the city. Given

the volatile international environment, security at airports is critical, with access control being a key factor. Access points to air traffic control operations, maintenance, crew lounges, baggage handling, concessions, and catering require strong control.

An airport is a logistical environment,

Guangzhou Baiyun International Airport is the first airport in China to be designed and built on the hub concept.

and the system needs to be monitored to allow airport security to respond to priorities immediately with detailed, real time visual and factual information, particularly for key areas and gates.

Requirements of the site included access control and alarm functionality, with a record of events and movements for full traceability. Gallagher access system was selected as the central management system for access control and intruder alarms, and is extended with

integration involving CCTV, alarms, fire, and elevator control. For example, an automatic response is required for fire alerts, to unlock certain exits. For energy efficiency, the Gallagher access system is interfaced to Building Management Systems to control lighting and air-conditioning. Such flexible integration is achieved using the data available via the

OPC alarms and events interface. Residing on the existing Wide Area Network, using TCP/IP, Gallagher access features peer-to-peer communications so if communications with the head end need to be taken down, those on the airport using the system are not affected. This means should the airport experience network communications problems, security and access control of the site won't be compromised.

Multiple workstations access the

database to manage cardholders, events, check on the status of doors, override doors, and trace activity. System division is used to enable the airport to be divided for management and monitoring purposes.

With over 20,000 cardholders, cardholder management had to be efficient and allow for changes to be applied easily to groups of cardholders. Gallagher access manages cardholders by groups for cardholders who share the same access requirements. A cardholder may belong to one or more access group to get their full access privileges.

The Gallagher access system controls over 320 doors, and includes 108 boarding gates to aircrafts, 130 gates for employees, 12 doors to aircraft hangars, and elevator control.

A Gallagher Intelligent Door Terminal (IDT), using Philips® Semiconductors contactless Mifare Standard technology is on each door. The IDT is card plus PIN reader, and has a back-lit dot-matrix LCD, enabling prompts, time and date, and feedback to be displayed on the screen. Intruder alarms can be set and unset by authorised cardholders using the IDT.

Superior data protection is provided by the Gallagher proprietary format through data encryption and unique encoding on the card. Encoding issue levels and region codes in the Gallagher format ensures that even across global card databases, the card data is unique. Mifare technology allows for multiple applications to reside on a single card.

Layers of security are achieved and extend from card, PIN, and PhotoID. In certain areas voice recognition is required, which is achieved with the digital intercom integrated into the IDT. There are 13 'Gallagher Challenge' workstations, used 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.

Exit readers have also been installed to facilitate anti-passback. The anti-passback feature prevents a cardholder from re-entering an Access Zone if they have not made a valid exit from that zone. In addition to the extensive features within the Gallagher access system, other attributes were scrutinized, which involved mainly the technology behind the system, and the life and credibility of the system. For the life of the system to be inline with expectations, it had to

be proven in other large sites of market leaders, and scalable for anticipated growth of the airport. Future expansion could see the system grow to be in the vicinity of 200,000 cardholders, and 2,000 doors. Gallagher access has been designed as a premium system for large sites as they grow to multinational enterprises spanning the globe. It is capable of supporting an unlimited number of cardholders and access controlled doors*. An unlimited number of workstations can be established for operators to access the system according to their privileges and system division.

With the scalability, technology, encryption, and credibility demanded by airports, Gallagher access is a system that has been duly applied to this dynamic industry, with Guanghzou Baiyun International Airport being a key example.

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