New Product Announcement: AC2000 v7.1

CEM Systems is pleased to announce the latest release of the AC2000 suite of access control and security management software. **AC2000**, **AC2000 Airport** and **AC2000 Lite version 7.1** are now available with a range of new features that increase the performance, simplicity and scope of the system along with a number of additions that improve functionality.

- **Support for multiple cards per cardholder**
  AC2000 system now allows administrators to enrol and characterise more than one active card per Personnel record. This enables the site to use multiple technologies or migrate from one technology to another.

- **New Room Booking Interface**
  This new feature allows Microsoft Outlook meeting rooms to be linked to emerald Intelligent Touchscreen Terminal, which will be able to display current meetings as well as create and edit new meetings.

- **MorphoAccess - AC2000 Integrated Biometric Enrolment**
  The AC2000 system now supports fully integrated Biometric Enrolment using the MorphoSmart Finger VP Desktop terminal. This highly secure multimodal finger vein and fingerprint technology captures and processes 2 sets of complementary biometric data at the same time.

- **Enhanced AC2000 Application Programing Interface (API)**
  The API structure has been changed and also updated with new functions, which now allow full bi-directional communication.

- **Additional System Enhancements:**

  - **AC2000 Personnel, Visitors and Extended Reports**
    Redesigned and enhanced AC2000 software applications

  - **Enhanced Data Import Tool**
    Importing data to AC2000 now supports Visitor and Company records, as well as adding the ability to auto-validate Personnel records during importing process.

  - **AC2000 Web enhancements**
    This includes improvements to the Web interface in order to simplify configuration, navigation and usability of AC2000 through web browser

- **CEM Lift Control now supported in AC2000 Lite Server bundle**
  Smaller sites are now able to install fully integrated generic CEM Lift Control with AC2000 Lite Server system*
  * *Not available with AC2000 Lite Software-only Virtual Kit*

- **New Integration Interfaces:**

  - Zettler Profile MZX Fire Panels
  - Commend VirtuoSIS Intercom System
  - Otis Panorama Elevator Management System

Software Features

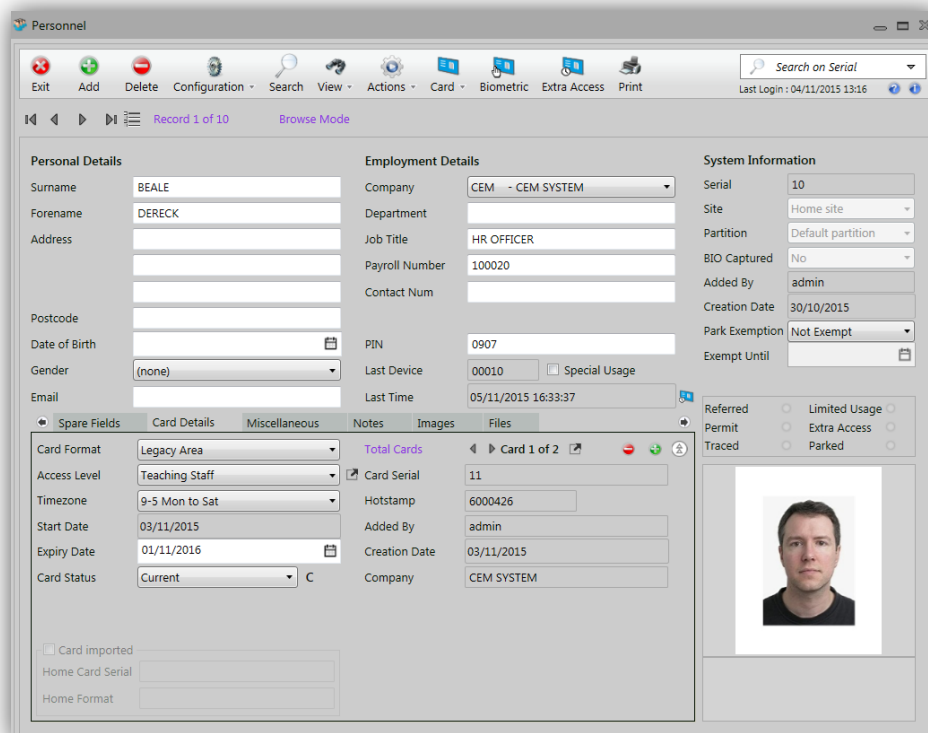### Support for multiple cards per cardholder

Traditionally, Access Control Systems register a cardholder with a single card credential, therefore assigning one card number per cardholder record, which presents a number of limitations. CEM AC2000 system now features the ability to assign more than one active card per cardholder.

Although belonging to the same personnel record, each card has its own unique characteristics, such as:

- Primary Access Level
- Time-zone
- Start & Expiry Date
- Card Status

This solution is particularly useful when the site is migrating from one card technology to another. While cardholders continue to use their current card, system administrators are able to issue new cards that can be used simultaneously until the transition is complete.

It can also be useful when using multiple different technologies at the same time, for example smart card, key fob and long range UHF tag. All of these technologies will have a unique card number, however all can be assigned to the same Personnel record.

Room Booking Interface

The room booking system allows users to reserve predefined rooms for a period of time via high-level integration with Microsoft Outlook, as well as book rooms directly at the door through a dedicated emerald Room Booking interface.

The new AC2000 Room Booking consists of 3 components:

- Room Booking web application – used to configure Microsoft Exchange server definition, user accounts for authentication and configuring rooms.

- emerald Room Booking mode – while in this dedicated door mode, an emerald can display current meetings as well as create, extend and end a meeting.

- Microsoft Outlook – acts as a central Room Booking overview application with a calendar linked to a specific emerald terminal.

Dedicated emerald user interface allows the creation of Microsoft Outlook meetings directly from the screen by pressing 'Instant' button for an initial 15-minute meeting, or pressing 'Extend' to increment the meeting by 15 minutes. All operations are then finalized with a valid card swipe.
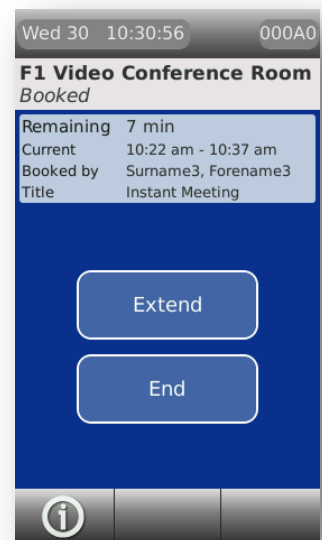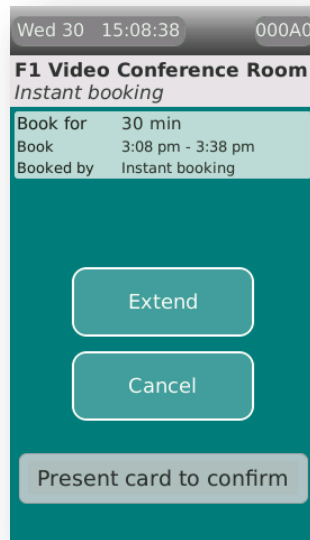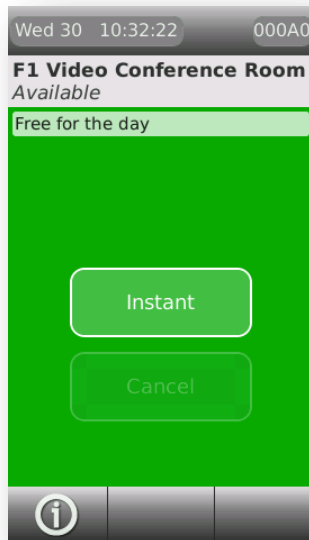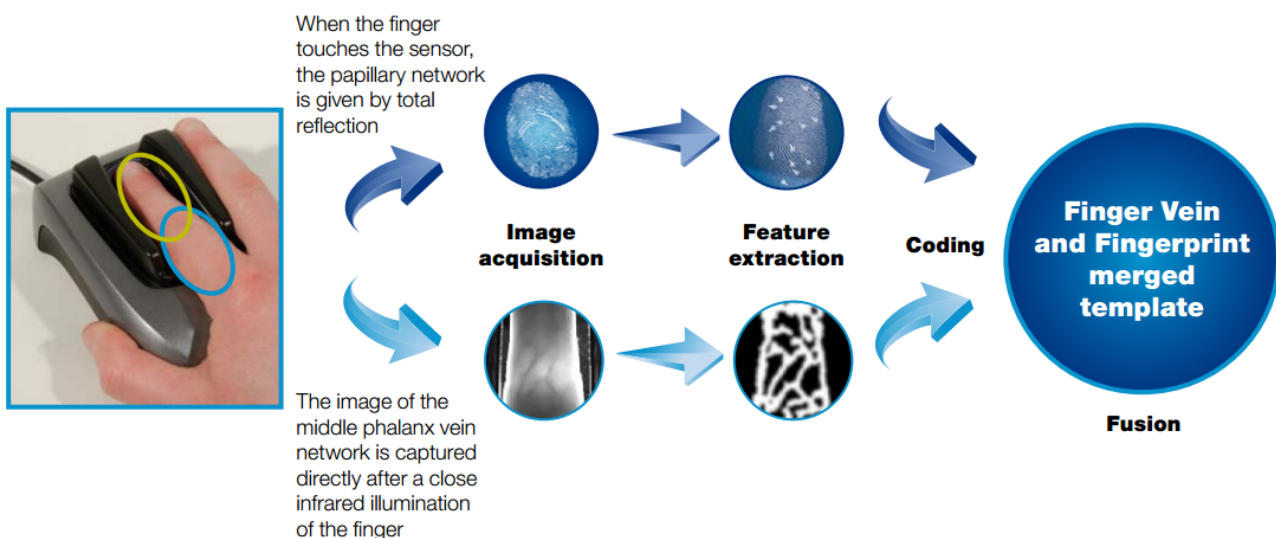
MorphoAccess - AC2000 Integrated Biometric Enrolment

The AC2000 system now supports fully integrated Biometric Enrolment using the MorphoSmart Finger VP Desktop terminal. This highly secure multimodal finger vein and fingerprint technology captures and processes 2 sets of complementary biometric data at the same time. This allows the user to capture a cardholder's finger vein template onto the AC2000 server in addition to enrolling a card and other details such as personal information and photographic image.

- Fully integrated AC2000 biometric enrolment – single software platform to capture and manage biometric templates

- Highly-secure multimodal finger vein and fingerprint technology captures and processes 2 sets of complementary biometric data at the same time

- Secure distribution and storage of fingerprints on the central AC2000 server and on the Morpho VP internal database via encrypted TCP/IP

- High-resolution scan meeting FBI PIV IQS quality with FIPS201 and MINEX compliant algorithm

- Simple door installation - MorphoAccess® VP-Dual readers connect to CEM DCM300 Intelligent 2-door Controller using Wiegand interface

When the finger touches the sensor, the papillary network is given by total reflection

Image acquisition

Feature extraction

Coding

Finger Vein and Fingerprint merged template

Fusion

The image of the middle phalanx vein network is captured directly after a close infrared illumination of the finger

System Enhancements

Updated AC2000 API

The AC2000 v7.1 API has been changed to support new system features and also updated with new stored procedures which are typically used by 3rd party programmers to create data exchange interface with systems such as HR, T&A and others.

Updated API now supports 2-way communication interface, which allows developers to not only control user information, but also to query and poll system information such as alarms and transaction.

New API procedures:

- **Device information**
  Provides full initial snapshot of all devices configured on the AC2000 system

- **Alarm information**
  Provides full initial snapshot of all alarm types

- **Alarms configured on inputs to devices**
  Provides full initial snapshot of the alarms configured on inputs on the system

- **Card Swipe information**
  Provides the ability to periodically poll AC2000 system for the latest card swipe information

- **Personnel query for alarm**
  Provides the details of 1 personnel record in the AC2000 database for use with alarms like Wrong Door and Passback Failure

- **Personnel query for image**
  Provides the cardholder image for display

- **Initial alarms**
  Used to obtain an initial snapshot of the current set of all active alarms

For any requirement to upgrade the system v7.0 and below, which is using API interface – please contact CEM for details.

Redesigned AC2000 Personnel, Visitors and Extended Reports applications

These core administration modules have been redesigned to unify the look and feel across AC2000 suite of applications and to enhance the functionality and operation.
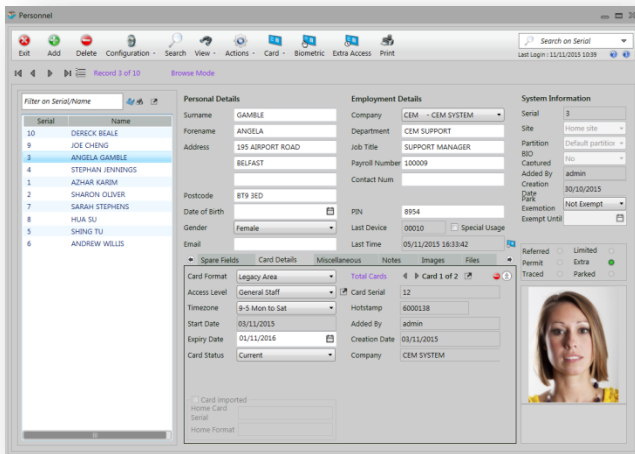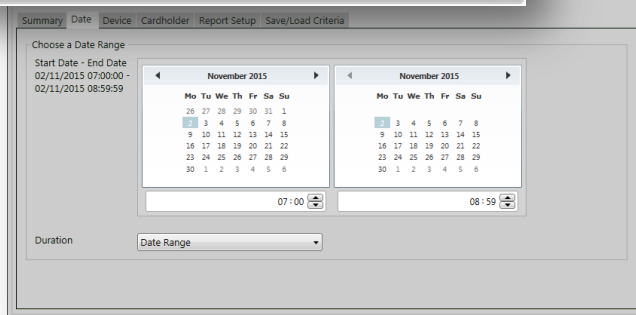
AC2000 Personnel
- More than 1 active card per card holder
- Query Results screen – separate dock-able window
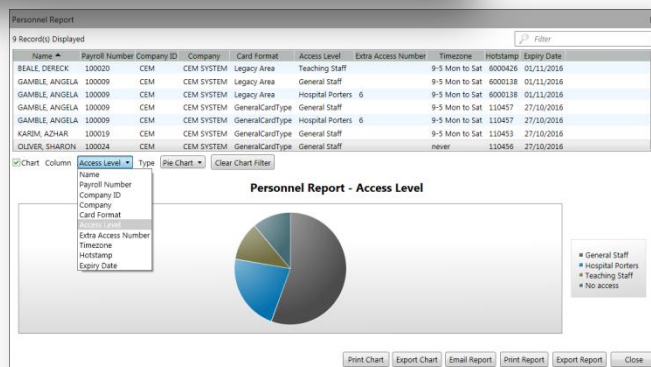- Improved Search on Batch Update
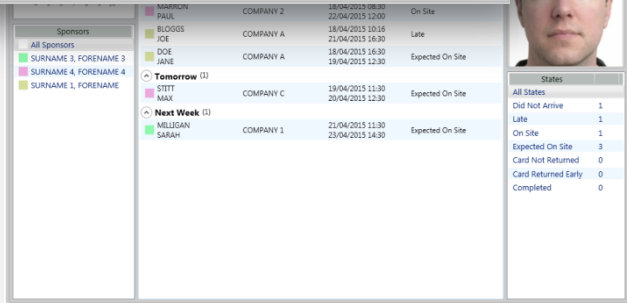
AC2000 Visitors
- Summary View of 'Expected Visits'
- New 'Quick Entry' for unexpected Visitors
- Biometric capture for Visitors

AC2000 Extended Reports
- Ability to reorganize and add additional report fields
- Review output data in chart formats
- Save reports and email as PDF

Improved AC2000 Data Import Tool

- <u>Importing Visitors</u>
  Using this option, system administrators can easily import Visitor records, by mapping personal details and company, along with Visitor photograph if available.

- <u>Importing Companies</u>
  Using this option, system administrators can easily import Company records along with Company logo, if available.

- <u>Auto-Validation for personnel records</u>
  When importing Personnel records, it is now also possible to auto-validate the cards during the import process, either through card load to use their existing card, or auto generated card numbers. This will significantly improve the cardholder importing process with simplified data processing.

- <u>Input Data Validation</u>
  Enhanced Data Import Tool now features a number of validation checkpoints to ensure, that the data being imported is in correct format and within allowed range. This will help administrators to reduce data processing time.

AC2000 Web interface enhancements

With the introduction of AC2000 v7.1, CEM has also expanded the range and functionality of web applications, which give the system user the ability to access core AC2000 applications using a web browser from any location, without the need of installing workstation software.

- ○ **Web Access Permissions**
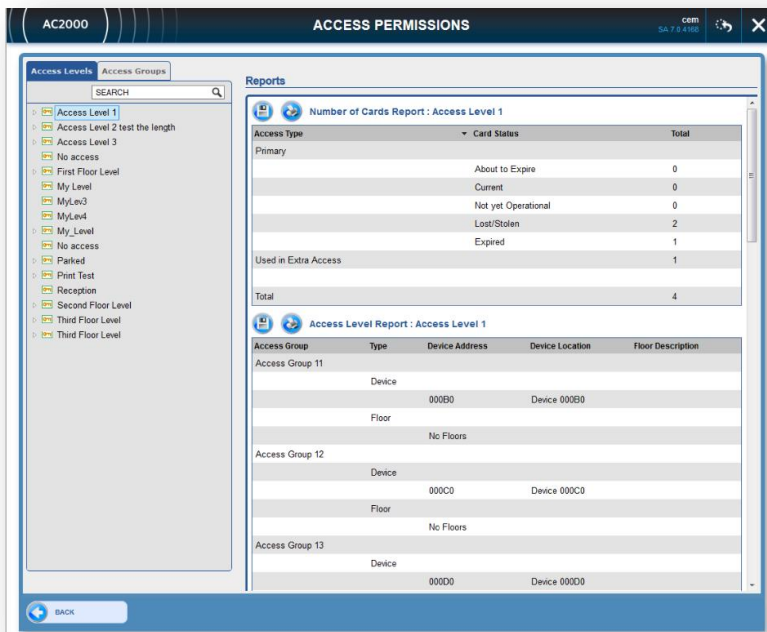
New Web application to allow the user to manage and create Access Levels and Groups

- ○ **Web Card Setup**
New Web application that provides a system user with the ability to add, edit and delete settings for card types, card formats and card definitions as well as batch load cards and batch validate cards for future use.
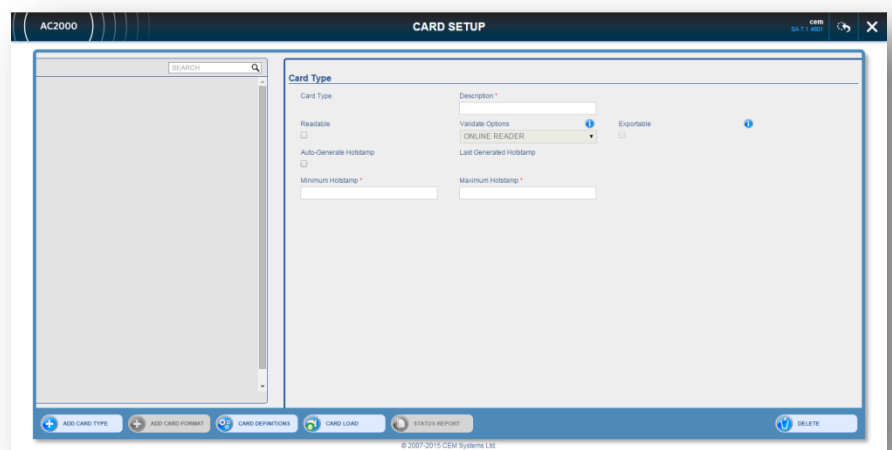
o **Web Visitors**

The Visitor Management applications have been updated with the ability to attach *.ics* calendar files to emails that enable the Visit Sponsor to save details of the visit to their calendar
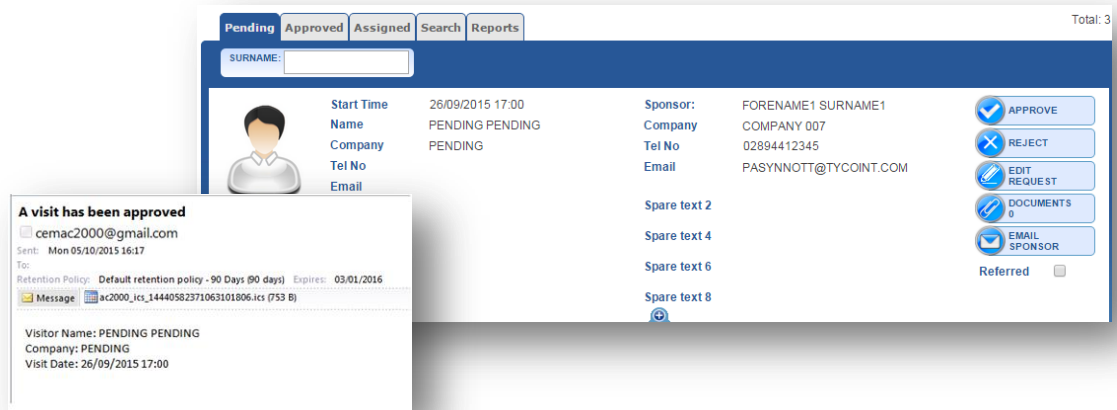
o **Web Video Configuration**

A new Web page is now available for Video Configuration. It allows system administrators to import and manage Video servers and cameras, as well as create Video Actions associated with AC2000 alarms.
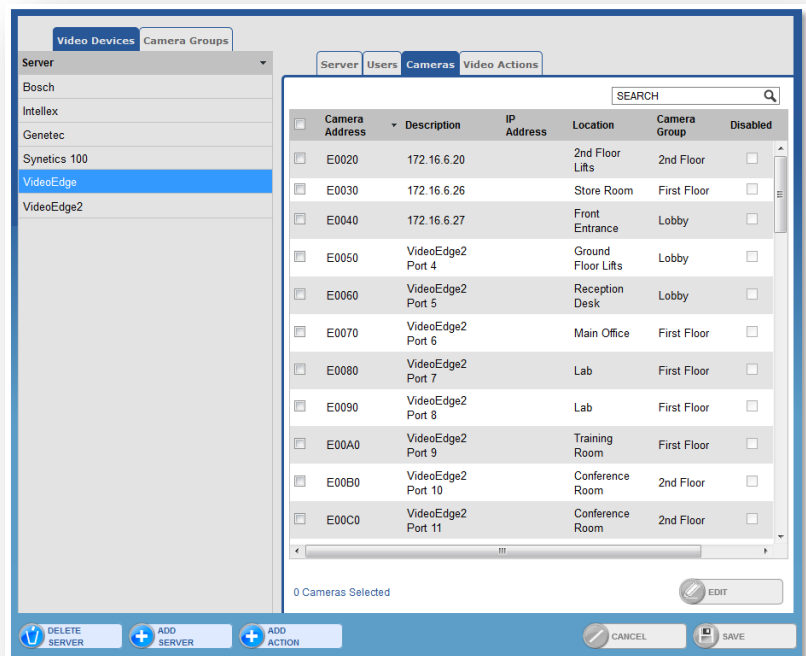
CEM Lift Control is now supported in AC2000 Lite Server bundle

CEM Lift Control is based on the S9032 Lift Controller is designed to be an integral component of the AC2000 integrated security management system. It is designed to offer the ability to control the floor access of either one or two lift cabs, each of which can support access to up to 128 floors. Using the S9032 Lift Controller and constituent devices the AC2000 Lite Server system can provide access control to specific lift floors within a building.

Using AC2000 v7.1 Lite Server option, Customers will now be able to take the full advantage of this cost-effective solution, by adding fully integrated Lift Control to the system.

Integration Interfaces

Zettler Profile MZX Control Panels

AC2000 now supports a high level interface with the Tyco Zettler Profile MZX Fire Panel, enabling alarms or events generated for Zettler Profile MZX Panels, Sensors and Zones to be fully integrated with the AC2000 system and Monitored using the AC2000 AED (Alarm Event Display).

The AC2000 Zettler Profile Fire Interface enables AC2000 to act as the central Security Management System (SMS) and provides a fully integrated interface for monitoring and reporting building security events.

Through the AC2000 Zettler Profile Fire Interface these alarms and events can be displayed in a single alarm screen in the central AC2000 Alarm Event Display (AED) application.

AC2000 Zettler Profile Interface enables unidirectional communication allowing the AC2000 system to receive alarms from the Zettler Profile Range Fire Detection System consisting of a network of up to 99 Fire Panels – each one controlling sets of Points and Zones.

Commend VirtuoSIS Intercom System

The AC2000 Commend interface provides a seamless bi-directional communication between AC2000 and Commend intercom workstations, as well as their respective intercom devices.

The AC2000 Commend interface uses the 'Session Initiation Protocol (SIP) Voice over Internet Protocol (VoIP)' method for communication between both systems. AC2000 intercom devices and applications (i.e. intercom stations) can speak and receive calls from any connected Commend station and similarly, any Commend station can make and receive call from any AC2000 intercom device or workstation.

Through the AC2000 interface it is also possible for the AC2000 server to receive Input alarms and trigger Outputs to and from the Commend stations, which can be used as part of the AC2000 Security Management System for 'Command and Control and 'Cause and Effect' functions i.e. Guard or Operator notifications, Video Recording, Video Pop-up functions and PTZ preset-on-call. (Note: Assuming a CEM supported video interface has been provided)

Otis Panorama Elevator Management System

EMS Panorama is an advanced Elevator Management System (EMS) that enables building management and staff to monitor the status, performance, traffic patterns, security and operating conditions of individual and groups of elevators, escalators and moving walk systems.

Thanks to intuitive AC2000 Lift Control application, administrators can easily create and manage Lift structure, such as lifts per building, lift banks and floors. AC2000 Access Permissions will then allow assignment of lift readers and floors to access levels.

The AC2000 integration interface to Otis Panorama EMS supports many different lift configuration scenarios, including lifts with front or front and rear call buttons, lifts with mixed free access floors or lifts required to park and shutdown in high threat situations.

Frequently Asked Questions

What versions of AC2000 are being released as version 7.1?
AC2000 version 7.1 is being released for the core AC2000 product, AC2000 Airport and AC2000 Lite editions.

Is there an upgrade path for previous AC2000 installations?
Yes, the upgrade process can be deployed by running upgrade scripts on the AC2000 Server/Lite System Server and reinstalling the AC2000 Workstation client software. Please note that when upgrading to AC2000 v7.1 badge designs (pss files) may need updated.

Is there any limitation of the card technologies that can be used for Multiple Cards per Cardholder?
No. From the AC2000 perspective all cards are enrolled as separate card numbers, regardless of format or technology.

Does support for Multiple Cards per Cardholder means, that Personnel can now have cards belonging to different Companies?
No, current Company is stored in Personnel and all operational cards must belong to this company.

Can the emerald Room Booking also control the door?
Yes, there are two operating modes for Room Booking: one where it does control the door, and one where the emerald only acts as a room booking interface and is not required to control the door.

My current system has a 3rd party interface using AC2000 API. Will it still work after I upgrade to AC2000 v7.1?
Certain API procedures have changes therefore it may be necessary to update the 3rd party interface. Please contact CEM for details.

My current AC2000 system predates version 7.1 and already supports emerald readers. Can I add room booking feature to my system?
Whilst the emerald reader is supported from AC2000 v6.6, the Room Booking feature requires AC2000 v7.1 software to interface with Microsoft Outlook and updated emerald firmware.

How are AC2000 WEB applications accessed and are there any security measures used?
Access to AC2000 WEB is support on web browser Internet Explorer. Users are required to login using their AC2000 username and password. Users can be restricted to what parts of AC2000 WEB they are allowed to access. The login session is protected by SSL (HTTPS) secure connection.

Which AC2000 Lite options support CEM Lift Control?
CEM Lift Control is only available with AC2000 Lite Server bundle option.

What firmware must my emerald readers be on to work with AC2000 v7.1?
When upgrading to AC2000 v7.1, you must ensure any emerald readers are running firmware version 1.05 or later.

Feature	Function	Benefit
Multiple Cards Per Cardholder	Ability to assign more than one active card per cardholder	Allows system administrators to transition to newer technology by issuing second card and gradually phasing out old technology. Can also be used with multiple different technologies deployed throughout the site simultaneously.
Room Booking Interface	High-level interface with Microsoft Outlook calendar	Ability to create and book meeting rooms using Microsoft Outlook or directly at the door via dedicated emerald Room Booking mode
Enhanced API	New stored procedures to be used by 3rd party system programmers to create an interface with AC2000	Full bi-directional data exchange interface to allow control of users and monitoring of alarms and transaction
Morpho Integrated biometric enrolment	MorphoAccess VP-Dual fingerprint/fingervein enrolment integrated into AC2000	Seamless biometric enrolment using single software platform with encrypted templates stored in common system database
Enhanced AC2000 Personnel	Improved cardholder data management	Enhanced Personnel with new look & feel with support for Multiple Cards per Cardholder to improve data processing and simplify operation
Enhanced AC2000 Visitors	Better handling of unexpected visits	Quick entry of unexpected visits and improved visualization of scheduled visits
Enhanced AC2000 Extended Reports	Report templates as well as custom reports	Ability to create more customized reports
Improved Data Import Tool	Integration tool to import data from 3rd party systems	More unified process for importing complete personnel data that includes card validation
Enhanced Web Interface	Access AC2000 through the web browser without the need to install workstation software	New application to manage Card Types and Access Permissions, as well as create and control Video Configuration
Improved Web Visitors	Manage Visitor Request and approve or reject visits	Ability to attach ICS calendar files to approved visits confirmations to better manage visit scheduling
AC2000 Lite Server – Lift Control	Generic, high-level lift control interface	Add fully integrated Lift Control to low-cost AC2000 Lite Server for small to medium sites
AC2000 Zettler Interface	Integration to Zettler fire panels using MZX technology	Single user interface acting as a command and control centre/security management system and removes the need for using multiple separate systems. Provides instant access to Fire system statuses and alarms/events
AC2000 Commend Interface	Integration to Commend VirtuoSIS intercom system	Seamless integration allows bi-directional communication between AC2000 emerald Intercom and Commend VirtuoSIS Intercom devices via VoIP
AC2000 Otis Interface	Integration to Otis Panorama EMS system	Ability to control lifts and floor access permissions from a unified AC2000 platform

Product Code	Description
HDS/084/007	Morpho Access VP Dual fingervein and fingerprint terminal (Mifare/DESfire CSN only)
HDS/084/000	Morpho Finger vein enrolment unit with pre-installed licensing software
SWINT-COMM	Commend Intercom Interface
SWFIRE-ZETT	Zettler Profile MZX Fire Interface
SWLIFT-OTIS	Otis Panorama EMS (Elevator Management System) Interface

For more information email cem.info@tycoint.com or contact your account manager.