

AC2000 Enterprise

AC2000 Enterprise Server

AC2000 Local Enterprise Server

Features that make a difference:

- A central AC2000 Enterprise server holds all personnel, card information, card swipes and alarm information from all linked AC2000 Local Enterprise sites.
- AC2000 Enterprise server supports an unrestricted number of AC2000 Local Enterprise servers for scalability and intelligent load balancing (dependent on AC2000 Enterprise server specification)
- AC2000 Local Enterprise servers can work independently from the AC2000 Enterprise server providing zero downtime at remote sites
- Centralized Personnel and Card Management
- Multi-version support for ease of upgrading
- Global Security Hub - Centralized Alarm and Event Management
- Global time zone support
- Global Reporting - Report on all activities (e.g. card swipes) of a company or card holder across all sites
- Personnel/Card records can be exported from each local site to some or all of the connected enterprise sites
- Up to 1,000 enterprise access levels can be created and assigned to any card holder
- Issue 'oneshot' and individual device broadcast commands to any device or broadcast zones on enterprise system
- Highly resilient hot standby failover server for AC2000 Enterprise server (required) and AC2000 Local Enterprise server (recommended)
- Resilient Linux operating system with multiple layers of redundancy

Designed around a single AC2000 Enterprise server centrally connected to an unrestricted number of AC2000 Local Enterprise servers, the AC2000 Enterprise system provides centralised access control and monitoring capability where wide geographical distribution occurs, or where departmental or business unit separation is necessary.

AC2000 Enterprise solution allows a business or organisation to scale up its access control or monitoring system while at the same time unifying policy requirements. The system provides centralised global reporting, alarm processing and personnel management, while at the same time allowing for local operational independence where necessary.

At the local level, whether in the same geographical area or a remote location across the globe, the AC2000 Local Enterprise server can perform the roles of localised alarm management, reporting and monitoring. Each AC2000 Local Enterprise server synchronises data to the central AC2000 Enterprise server but it is also able to work independently when network connectivity is not available.

The AC2000 Enterprise server and AC2000 Local Enterprise servers runs on CEM Systems' own customised Linux-based operating system (OS) which is tailored for reliable Security Management application. The AC2000 servers provide a highly sophisticated level of power and system resilience. Linux is widely known for its reliability, robustness, resilience and system uptime.

AC2000 Enterprise also has a built-in web server (AC2000 WEB) allowing system administrators to perform server management, configuration, diagnostics and system backup operations without needing any prior Linux knowledge or extra resources.

Scalability

The capacity of an AC2000 Enterprise system can easily be increased by adding additional AC2000 Local Enterprise servers. An AC2000 Enterprise server can support an unrestricted number of AC2000 Local Enterprise servers (provided the AC2000 Enterprise server is of a sufficient specification).

System resilience

The AC2000 Enterprise system is designed to allow each local system to operate independently if the enterprise network is unavailable. The system also features manual and automatic redundancy methods to provide high availability of system services.

An AC2000 Failover server provides a hot standby duplicate of the AC2000 Enterprise. The failover server can take control of the system in the event of the primary AC2000 Enterprise server failing. AC2000 Failover is recommended for AC2000 Local Enterprise server to provide a hot standby, robust and resilient solution across the enterprise system.

Multi version support

AC2000 Enterprise can link AC2000 Local Enterprise sites running different versions of AC2000. The enterprise link will continue to function when upgrading one site to the latest release of AC2000 while other sites continue to run earlier version (supported from AC2000 v10.0 and higher). This simplifies the process of adding sites and significantly reduces downtime of the system during upgrades, by removing the need for all servers to be running the same version of AC2000.

Global Security Hub - Centralized alarm and event management

AC2000 Security Hub command and control application can be run from the AC2000 Enterprise server, providing access to all AC2000 Local Enterprise site maps, devices and alarms. Alarms can be acknowledged and cancelled at both the central and local sites and 'oneshots' can also be issued centrally from the AC2000 Enterprise server in the absence of the local operator. The consolidation of data across multiple sites also provides a holistic view of the deployment for enhanced decision making.

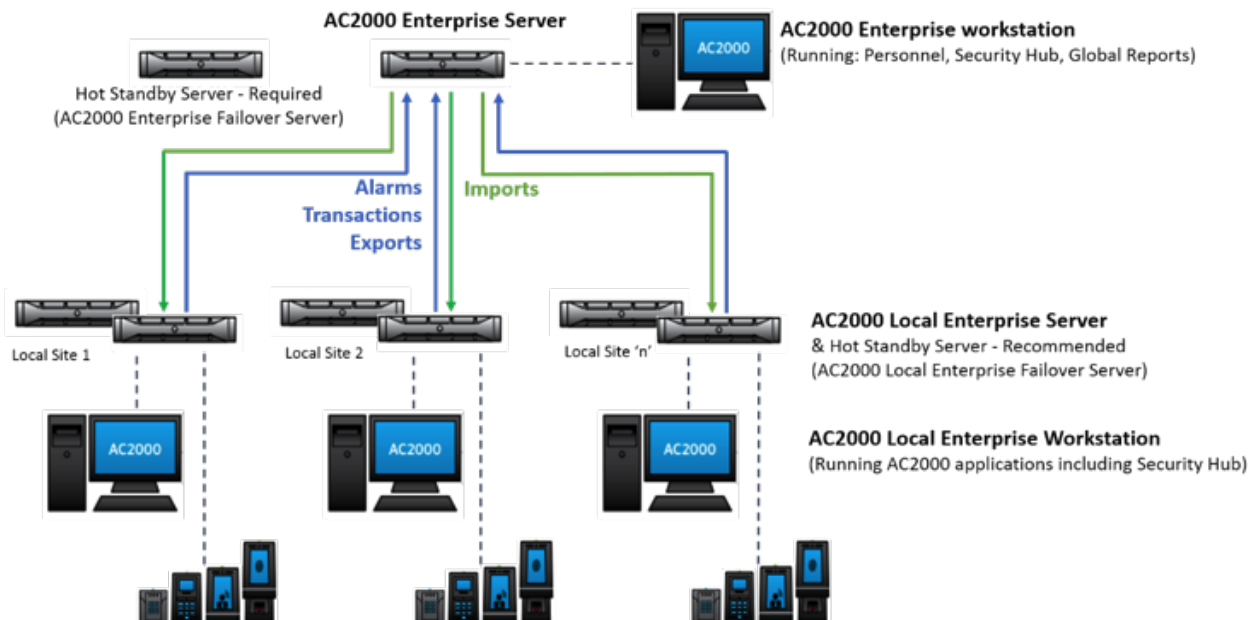
Global time zone support

This global enterprise solution is not tied to a single world time zone. The central AC2000 Enterprise server and each AC2000 Local Enterprise server can be in different world time zones. Each server can be located and operate in different world time zone with each server set to its local time and still able to connect to the central AC2000 Enterprise. This allows operators to manage their site alarms in local time and provides more efficient alarm prioritisation.

Independent alarm management at regional AC2000 Local Enterprise servers

Each AC2000 Local Enterprise server communicates directly with the AC2000 Enterprise server but is not reliant on this for controlling local field devices and for viewing local system alarms. This gives regional system administrators control over alarm management at their individual regions independent of the AC2000 Enterprise server and over the reliance on availability of a wide area network (WAN).

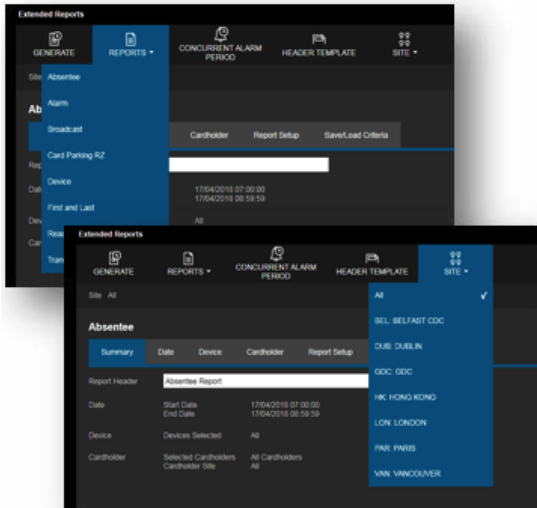
AC2000 Enterprise Topology



Please note: AC2000 workstation software, optional module and integration licenses are licensed per server.

Global centralised reporting

With AC2000 Enterprise it is possible to report on all activities (e.g. card swipes) of a company or card holder across all sites, providing a holistic view of the system deployment for enhanced decision making.



Global Reports available on the AC2000 Enterprise server include:

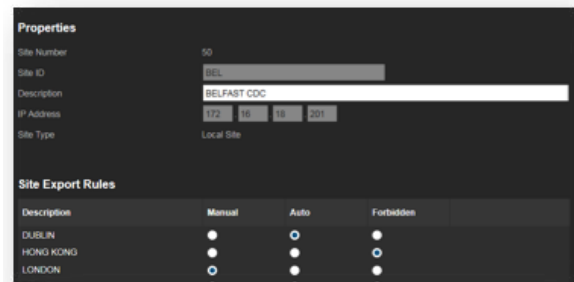
- Absentee
- Alarm
- Card Parking
- Device (Alarm & Transaction)
- First and Last
- Reader Activity
- Transaction
- Broadcast (Only shows the broadcasts issued from the central Enterprise)

System administration

Card Management can be handled at the AC2000 Enterprise for the whole system or locally at each of AC2000 Local Enterprise. Information is distributed intelligently to each connecting AC2000 Local Enterprise with information only inherent to it. This ensures each AC2000 Local Enterprise only receives the appropriate data relevant to it and helps in load balancing across the infrastructure.

Personnel/Card Exports

Records can be exported from each AC2000 Local Enterprise site to some or all of the other connected enterprise sites reducing the need for the user to enrol at every site they visit which saves operators and card holders time.



At the central AC2000 Enterprise server it is possible to specify which sites each site can export to and whether the exports are:

- Auto** – all records are immediately exported to this site
- Manual** – the operator selects which records are exported
- Forbidden** – meaning no exports are allowed

Enterprise Access Levels

A powerful feature which enables centralised access level assignments and reduces operator intervention. On the central AC2000 Enterprise server up to 1,000 enterprise access levels can be created and assigned to any card holders on the enterprise system as extra access. Each AC2000 Local Enterprise site specifies which of their devices (if any) are included in each Enterprise access level. Card holders assigned to an Enterprise access level can then access all devices in that access level across the enterprise deployment without the need to request access at each individual site.

Global 'Oneshots' and Broadcasts

Workstations connected to the central AC2000 Enterprise server can issue 'oneshot' and individual device broadcast commands to any device on the enterprise system. This allows centralized operators the ability to provide support to local sites in the absence of the local operator or provide out of hours coverage. The broadcast zones created at the AC2000 Local Enterprise sites are also replicated to the central AC2000 Enterprise server, allowing its users to open/close broadcast zones at the remote sites.

AC2000 Local Enterprise server logical capacities

Description	Maximum Capacity	Notes
Clients		
Concurrent Clients	64	AC2000 clients can include Alarm handling, VIPPS (Visual Imaging and Pass Production System) and general usage AC2000 clients. Recommended maximum 32 Alarm handling clients / 32 VIPPS and general usage clients
Cardholders / Cards		
Cardholder Records	500,000	Figure assumes not all records have active cards
Cards per Cardholder	Unrestricted	There is no limitation on the AC2000 software however, note it is important to confirm the maximum number of cards supported by the reader's off-line database – please refer to specific readers datasheet for offline database capabilities
Integrations		
Video / CCTV	4,096 Cameras	AC2000 Local Enterprise systems can have local integrations
Intruder	4,096 Alarm Panels	AC2000 Local Enterprise systems can have local integrations
Devices		
Field Devices Offline Wireless Locks Online Wireless Locks	57,088	256 Devices Per RTC
Portable Readers	256	
Online Inputs	900,000+	Via CEM I/O controllers
Online Outputs	450,000+	Via CEM I/O controllers
RTC Servers		
RTC (Reader Ethernet Controllers)	223	There can be 223 RTCs system-wide. (This excludes RTCs dedicated for S3040 Portable readers, cameras and alarm inputs)

AC2000 Enterprise server logical capacities

Description	Maximum Capacity	Notes
Clients		
Concurrent Clients	64	AC2000 clients can include Alarm handling, VIPPS (Visual Imaging and Pass Production System) and general usage AC2000 clients. Recommended maximum 32 Alarm handling clients / 32 VIPPS and general usage clients
Cardholders / Cards		
Cardholder Records	1 million	Figure assumes not all records have active cards
Cards per Cardholder	Unrestricted	There is no limitation on the AC2000 software however, note it is important to confirm the maximum number of cards supported by the reader's off-line database – please refer to specific readers datasheet for offline database capabilities
AC2000 Local Enterprise Servers		
AC2000 Local Enterprise Servers	Unrestricted	There is no limitation on the number of AC2000 Local Enterprise servers supported by a single AC2000 Enterprise server, note that the number will be dependent on the AC2000 Enterprise server specification

Please note: For large scale deployments please contact CEM Systems for guidance on AC2000 Enterprise server specifications.

Recommended AC2000 Enterprise Server Specification

Processor Type 2x Intel® Xeon® E5-2603 v4
 Processor Speed 1.7GHz
 Standard Memory 16 GB RAM
 Storage 600GB RAID 5 with Hot spare – i.e. 4 x 300GB
 15K RPM Hot-plug Hard Drive
 Optical Drive Type DVD +/- RW
 Backup Device LTO-5 tape drive or RD1000 removable
 disk storage
 PSU Dual Redundant power supply - Hot-plug

(AC2000 Enterprise server specification supports up to 500,000 card holders and 3500 devices system wide. Please contact CEM Systems for advice on the server specification if higher capacity is required.)

Recommended AC2000 Local Enterprise Server Specification

Processor Type Intel® Xeon® E5-2603 v4
 Processor Speed 1.7GHz
 Standard Memory 8 GB RAM
 Storage 600GB RAID 5 with Hot spare – i.e. 4 x 300GB
 10K RPM Hot-plug Hard Drive
 Optical Drive Type DVD +/- RW
 Backup Device LTO-5 tape drive or RD1000 removable
 disk storage
 PSU Dual Redundant power supply - Hot-plug

Requirements

- AC2000 v10 and higher
- AC2000 Airport v10 and higher
- AC2000 Lite v10 and higher

Please note:

- AC2000 workstation software, optional module and integration licenses are licensed per server in the AC2000 Enterprise Topology.
- AC2000 Failover server required for central AC2000 Enterprise server and recommended for AC2000 Local Enterprise server.

Ordering Information

Product Code	Description
SYS/205/000	Dell Rack-mount RAID-5 Server Hardware with Enterprise Server License SWAC2ENT-E
SWAC2ENT-E	Enterprise Server License
SWAC2ENT-L	Enterprise Local Server License Requires CDC Server Licenses (Bundled Systems or Software Only)

To order contact cem.sales@tycoint.com or call +44(0) 2890 456 767

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