

Access Control

Granta – Security Management Systems you can count on

Answers for infrastructure.



Answers for infrastructure.

SIEMENS





Granta: tried, tested and true

In order to efficiently run any organisation today it is necessary to ensure the security of staff, property and assets. To achieve this, you need a security system that can meet your security and building management requirements both now and in the future. Granta has the flexibility required to change and grow with your business.

Since the first version of Granta was launched in 1992, it has been installed in a wide variety of environments that require both a high level of security and control as well as convenience and ease of access for system users. More than 50,000 controllers have been installed around the world securing more than 250,000 doors. Typical applications include hospitals, universities, airports, ports and government buildings.

Universities



Security & freedom in perfect harmony

■ Full protection 24/7

Granta can support up to 4,096 access points and 75,000 cardholders. Regardless of system size, it provides round-the-clock protection, enabling you to control personnel and vehicles, manage visitors, control and monitor CCTV systems, protect staff, assets and even remotely administer and secure sister sites around the world. Granta is designed for use by security staff, not IT specialists. Training staff to use the full range of features is a quick and easy process.

■ Flexible, powerful and secure

Based on Microsoft SQL databases, the Granta system structure is modular at all levels, which enables configurations for applications of all sizes and degrees of complexity. Software elements can be installed as required in different locations on a network to suit the needs of different operators. Software and hardware can support multiple levels of local systems and remote sites.

■ Convenient and cost-efficient

From simple systems for small buildings and remote sites to fully integrated networks in your headquarters, Granta will provide a cost effective solution. Single and multi-site operations provide up to 75,000 cardholders with our unique Cotag® Hands-Free technology and aid in ensuring compliance to the Disability Discrimination ACT (DDA). Granta also supports Proximity, Smart Card, Magnetic Stripe and Biometric technologies – Granta can also integrate with

3rd party Readers, making it possible for you to upgrade your system to utilize the features that Granta has to offer with little disruption to your day-to-day operation.

■ Integration

Your security is easier to control when managed from one source. Why struggle with separate systems from different manufacturers – each with their own training manuals, training sessions and technical helpdesks. Granta integrates Digital Video Management Systems, CCTV, intruder alarms and other systems all from the access control PC.

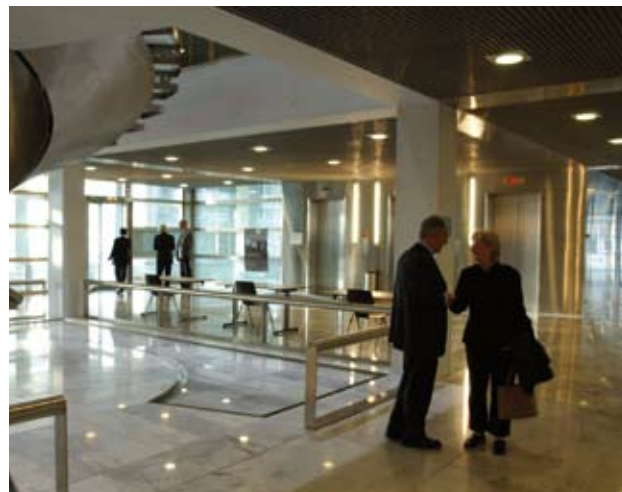
■ Scalable and easy to upgrade

The modular concept of Granta for both hardware and software makes it possible to tailor the system to current needs, but also allow for future expansion. As your business grows, additional modules and controllers can easily be added to meet new demands. A process of continual development has provided an upgrade path for Granta users since 1992. Systems installed then are still running smoothly today with upgraded modern features and performance enhancements provided by Microsoft SQL database.

Highlights

- Modular access control for up to 4,096 access points and 75,000 cardholders
- Supports Cotag® Hands-Free technology as well as a broad range of other reading technologies
- Cost efficient and easy to use
- Multi-site management capability
- Easy to integrate with CCTV, Intrusion and other systems
- Flexible, powerful and secure

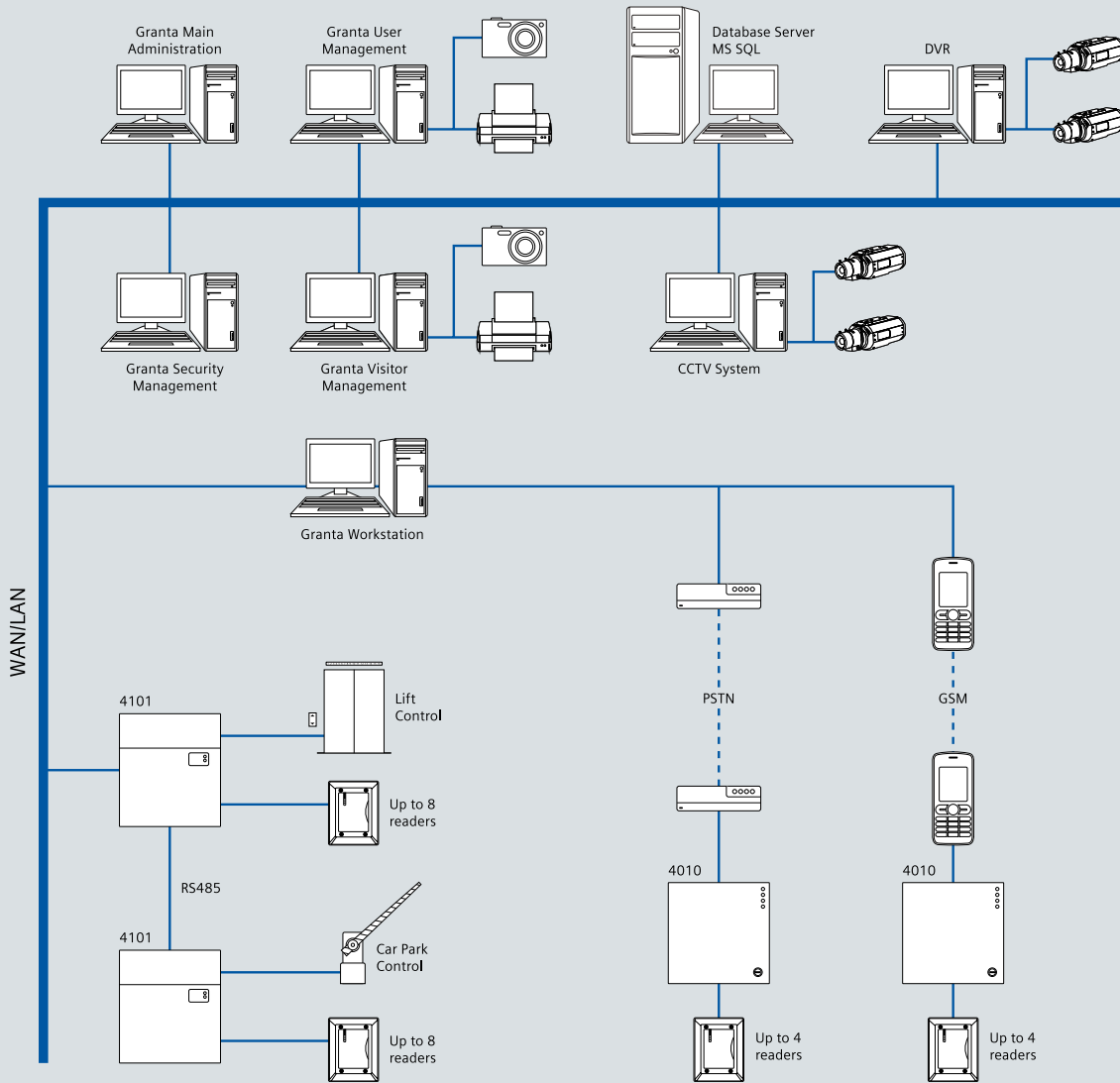
Government buildings



Transportation authorities



Granta system architecture



Core software

Granta core software provides a full suite of security management tools based on the industry standard Microsoft SQL database. It can be complemented with separately licensable application software to meet specific user needs. The software is available in multiple languages and is fully password protected to allow the system to be used by operators with many different privilege levels, set according to their function and seniority. With Granta core software you can connect multiple PC workstations via your network, to enable distributed monitoring and control of the system across thousands of remote sites. Granta software also provides comprehensive reports to facilitate full management control and informed decision-making.



Controllers

Granta offers a choice of two Reader and eight Reader Modular Controllers. Specific application Modules allow Cotag® cards, tags and Reading Heads or any industry-standard cards and Readers to be used. The system's shared RF design integrates the Reading Head technology into the Controller itself. The integrated Cotag® technology provides the most cost-effective Hands-Free solution on the market, with a Proximity reading range of up to 30cm and a Hands-Free reading range of to 100cm or even greater with a Loop Reader.

Granta also provides a powerful, integrated input/output functionality called CLIC (Configurable, Logical, Input/Output Control). CLIC enables intelligent monitoring and control of third-party systems and goes far beyond the simple alarm handling features of many other systems.

Granta hardware employs a robust RS485 communication protocol to ensure the integrity of data to ensure accurate commands and transaction reporting. Alternatively, Granta systems can be built using a TCP/IP network, dial-up modems (including GSM) or via a combination of all three communication methods within the same system for complete flexibility.





Optional software modules

■ Alarm Graphics

The Alarm Graphics module provides graphical control and representation of alarm events. It's easy to design graphical site plans that are then used to identify and process system alarm events. In the case of an alarm, the software provide both an audible warning and a visual indication of where the alarm is occurring so that the operator can immediately take action. System control functions are also available, which make it possible to manually override doors, turn on security lights, and so on.

■ Image Monitor

When a card is read at a specific access point, this software module will display the stored image of its registered owner. This gives the system operator the opportunity to verify the identity of the person using the card directly or via a CCTV camera.

■ Video Badging

The Video Badging module makes it possible to produce integrated photo ID badges. Cardholder photos can either come directly from a connected digital camera or from a database of electronically stored images.

The badge design software enables you to combine the cardholder photo with the company logo, as well as text and database fields. This data can then be added to ISO standard cards or adhesive labels via a dye sublimation printer. The Video Badging Module is also available in packages with Camera and Video Badging printer equipment.

■ X-Link

X-Link is an event-processing tool for integrating third-party systems. It can transfer events from the Granta system to other applications in real time via various communications media such as e-mail, SMS or paging, for example.

■ CCTV Manager

The CCTV Manager module provides CCTV system control directly from within Granta via a virtual keyboard. Further, as Granta monitors events within the access control system it can send commands via RS232 directly to the CCTV system without operator intervention, which is very useful for alarm events.

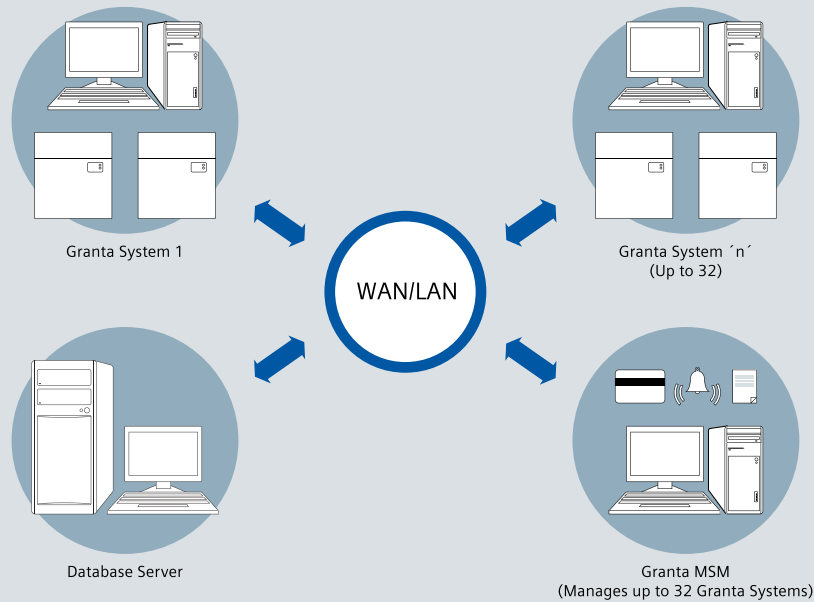
■ Visitor Manager

The Visitor Manager module makes it possible to log visitors into the system in advance and then simply print their badges upon arrival. Access levels within the system can be restricted as required and validated to hourly intervals. A monitor screen shows who is due to arrive, who is on site, the name of each visitor's host and who has logged out. This option can also deliver a complete range of management reports.

■ Database Partitioning Basic

The Database Partitioning module controls the separation of data for use by different companies on the same system, which makes it ideal for multi-tenanted buildings. Partitions can be grouped together to provide higher levels of administrative control.

Granta MSM architecture



Granta Multi System Manager – centralised control and reporting for multiple Granta systems

Granta Multi System Manager (MSM) has been designed with the needs of modern, multi-site organisations in mind. It offers a centralised database for easy IT support, centralised services including monitoring and reporting, as well as management for alarms, users and visitors. Granta MSM connects as a central control workstation to each of the client systems simultaneously, which minimises workload across the whole system.

Granta MSM can connect and manage up to 32 client Granta systems. It is very easy to upload each site's complete database to the fully partitioned central SQL database in Granta MSM. Each of the client systems operates completely independently of each other, which provides administrators with all the independence and regional

security that was previously ensured by having their own local database. Each client system retains its full suite of system capabilities, including the rights to set access levels, holidays, and so on.

Transactions from all the client systems can be monitored in Granta MSM as a group or on individual on-screen monitors. It is also possible to monitor, acknowledge and clear alarms from all client systems in Granta MSM, with the same functionality as at the client system. Regardless of where these actions are performed, they are fully visible both in Granta MSM and in the individual client system. Similar functionality is also available for Card Image Monitor and Alarm Graphics on the MSM station. The user management functionality in

Granta MSM provides full visibility and creates a common, centralised card population of up to 75,000 cardholders. Granta MSM can be used to administer users' access levels and validation for any of the client systems. The functionality in Granta MSM is extended beyond what it is at the client systems in that Granta MSM can display and administer a user's data for all client systems at the same time.

Granta MSM includes reporting functionality that includes a suite of comprehensive global and local reports for all of the client systems. It also includes visitor management functionality to manage visitors for individual client systems using their own local visitor cards.



Reading Technologies

Granta offers the broadest range of Reading Technology on the market and can therefore satisfy the requirements of most environments. It is also possible to integrate existing Readers and cards into a new Granta system, which makes it very economical to upgrade to Granta from third-party systems.

■ Proximity

Simply hold your card or tag in front of the Reading Head (typical ranges 5-30cm), to unlock the door. Benefit from simplicity, reduced risk of manual interference and less wear and tear on the cards (compared with Magnetic Stripe Readers) and choose from a wide option of Reading Heads and cards.

■ Hands-Free

The main advantage of using Cotag® Hands-Free Reading Heads is the unrivalled reading range of 100cm or over if using a Loop Reader. You can also mix and match Proximity and Hands-Free Reading Heads to provide a truly flexible and advanced Access Control system.

Hands-Free Access Control is also ideal for environments such as hospitals or offices and aid in ensuring compliance to the Disability Discrimination ACT (DDA) When Cotag hands-free reading heads are used in combination with Cotag Hands-Free Reading Heads can be installed inside a wall or behind a glass partition to reduce the risk of interference and vandalism.

■ Smart Card

Smart Card Readers are a cost effective option for installations that require a Smart Card to be used for other applications in addition to Access Control, while using the unique chip serial number on the card or data from a sector in the cards chip for identification.

■ Other Technologies

Granta can also utilise other Reading Technologies such as Magnetic Stripe or Biometric Readers. It is also possible to utilise third party Readers, thus enabling economic upgrades.

Granta Reading Heads, Cards & Tags

	<p>968</p> <p>Passive encoded clamshell card</p>	<p>PR100</p> <p>Proximity Reading Head, mullion mount Designed to suit door architraves and complement all working environments.</p>	
	<p>961</p> <p>Passive encoded keyring tag</p>	<p>SP100</p> <p>Switch Plate Proximity Reading Head Designed to fit most single gang back-boxes</p>	
	<p>958</p> <p>Passive ISO laminated card, also available with Magstripe (958-101)</p>	<p>HD100</p> <p>Heavy Duty Proximity Reading Head Designed for both modern office environments and vulnerable locations.</p>	
	<p>928</p> <p>Active encoded clamshell card</p>	<p>PM100</p> <p>Panel Mount Proximity Reading Head Designed to fit most remote 3rd party panels, such as Door Entry Phones.</p>	
	<p>911</p> <p>Active encoded keyring tag</p>	<p>HF100</p> <p>Hands-Free Reading Head Offering unrivalled reading range using Cotag® Active Technology.</p>	
	<p>970</p> <p>Active encoded vehicle tag</p>	<p>5516</p> <p>Automatic Vehicle Identification (AVI) Controller Provides, by a buried loop in the ground prior to a car park barrier, a means to validate parking access. Has a read range of up to 2 metres.</p>	
	<p>940/942</p> <p>Dual Discriminating Wrist tag For use with 5470 Multi Function Controller. Used for accompanied Healthcare applications. Up to 2 metres read range.</p>	<p>SC500</p> <p>Smart Card Reader Suitable for use with from Mifare® Smart Cards. Reads CHIP serial number and a sector of the MAD.</p>	
	<p>SC558</p> <p>Smart Card, Mifare® ,1K</p>		



Granta applications

Thanks to its flexibility and scalability, Granta is favoured by organisations in both the public and private sectors including manufacturing and distribution companies, educational facilities, hospitals, banks and airports. Granta is as good at protecting one door as it is at protecting 4,096 and when a small organisation gets bigger and/or spreads to multiple sites, Granta's modular structure makes it easy for the system to grow to meet the new needs.

■ Airports

For airports, striking the right balance between security and accessibility is truly business critical. But it's no simple task – an average sized international airport might have more than 1,000 access points and tens of thousands of cardholders ranging from temporary contractors to baggage handlers to the chief executive. Granta can make the job much easier because it offers top-of-the-line Access Control functionality plus easy integration to CCTV systems and other airport infrastructure, as well as the advantages provided by Cotag® Hands-Free technology.

■ Distribution centres

Distribution centres are often large and busy places with lots of goods, vehicles and people on the move day and night. They tend to be quite large facilities with a lot of different access points, and at least a few dozen employees working on site every day. These facilities must function as a secure place to store goods and protect them from theft. Granta is a sophisticated security system that can control vast volumes of products being shifted on a daily basis. It can easily maintain and control security in a multi-user environment, while allowing operations to run smoothly and quickly.

■ Hospitals

The large traffic flow typically associated with a hospital and the combination of low-security and high-security areas makes a flexible and user-friendly access control system like Granta the obvious choice in health-care environments. Cotag® Hands-Free technology is also very useful in environments like these, where staff often have their hands full.

■ Educational facilities

Granta can store and process large amounts of cardholder data, which is a key requirement in a university or college campus environment.

■ Multi-tenanted buildings

Granta's optional software module called Database Partitioning makes Granta the ideal choice for multi-tenanted buildings. When it is used, it's possible for a number of companies in the same building to use the Granta Access Control system completely independently of one another. Granta ensures that the data for each company is stored separately and cannot be accessed by anyone other than the authorised individuals within each separate company. Partitions can be grouped together to provide higher levels of administrative control.

System	
Number of access points	Up to 4,096
Number of cardholders	Up to 75,000
Number of access levels	Up to 1,023
Number of time frames	64 (including 10 time zones per time frame)
Multiple-site code management	8 per system
Personal 24-hour access points	16 per cardholder
Reading technologies	Mix and match any of the following: Cotag®, Mifare®, Smart Card, Proximity, Magnetic Stripe or Biometric
Multi-tenant application support	32 partitions per system
Multiple workstations	Typically 5
PIN functions	4-6 digit configurable including duress PIN function
Software features	
Operators and security levels	Virtually unlimited no. of operators with individual comprehensive configurable rights and languages
Remote sites	Via dial-up, direct line or TCP/IP connection
Operator interface	Simple intuitive Windows graphical user interface
Onscreen help function	Multiple language, supported by comprehensive online manuals
Languages	English, French, German and Spanish supplied as standard. Translation tool for other languages. Multiple language operation on same system per operator.
Reports	More than 60 including automatic roll-call reports
Automatic system configuration	Configurable installation wizard
I/O configuration	Comprehensive dedicated module (CLIC - fully programmable interlinked events)
Time and Attendance	48-hour basic time on site (individual time plans)
Optional software modules	Alarm Graphics, Video Badging, Multiple Hardware Systems, X-Link, Card Image Monitor, Database Partitioning Basic, Visitor Manager, CCTV Manager
MSM (Multi System Manager)	(available soon)
Number of systems	Up to 32 connected systems (as above) via LAN/WAN
Centralised functions	Cardholder management, fully partitioned SQL database, global reporting, real-time bi-directional alarm management

Welcome to the world of innovative thinking

■ Innovation

For the last 160 years, Siemens has been investing a great deal in both manpower and research and development. This has ensured a constant stream of new insights, technologies and inventions that enable us to continuously improve the reliability of our products and systems to make them easier to install and operate.

Advances in digital technologies are creating a whole new world of possibilities. Siemens has been at the leading edge of progress in this field and continues to redefine both current and future technologies.

■ Interoperability

Interoperable systems are now supplied alongside such basic requirements as lighting, heating and water in a building. As a company, we know that integration supports the business environment through the interaction of products and systems. We break down the barriers between our access control, intrusion detection and video surveillance product lines in our security portfolio and listen to what the market actually wants. We then develop to deliver both fully integrated and interoperable security systems, based on our 30 years of know-how in security.



Siemens Switzerland Ltd
Building Technologies Division
International Headquarters
Gubelstrasse 22
6301 Zug
Switzerland
Tel +41 41 724 24 24
Fax +41 41 724 35 22

Siemens Building Technologies
A Division of Siemens Ltd (Australia)
885 Mountain Hwy
Bayswater, VIC, 3153
Australia
Tel +61 (0)3 9721 2000
Fax +61 (0)3 9720 9966

Siemens Limited
Building Technologies
Units 1006-10
10/F, China Resources Building
26 Harbour Road
Wanchai
Hong Kong
Tel +852 2870 7888
Fax +852 2407 4457

Siemens Pte Limited
Building Technologies
The Siemens Center
60 MacPherson Road
348615
Singapore
Tel +65 6490 6000
Fax +65 6490 6001

Siemens PLC
Industry Sector
Building Technologies Division
Brecon House
Llantarnam Park
Cwmbran
NP44 3AB
United Kingdom
Tel +44 871 386 0800
Fax +44 871 386 0888

The information in this document contains general descriptions of technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.

Subject to change