ARQUERO CORPORATE SYSTEM®

ARQUERO SISTEMA CORPORATIVO

Corporate Security Platform

Arquero Corporate System® is the integration solution for security and control systems perfect for every company, regardless of size or sector.

Arquero Corporate System® is a software platform of security systems integration through which each one of the security sub-systems of a facility can be operated and supervised, allowing them to work coordinately.

Arquero Corporate System® allows integrating in the same graphic environment: people and vehicles access control systems, intruder detection, fire detection, CCTV, intercom, PA, presence control and the automatizing of buildings.[1]

ACCESS CONTROL

FIRE

INTRUSION

VIDEO

INTERCOM

T&A

BUILDING

Security Systems Interoperation

Arquero leads the integration of systems beyond. Not only the operator can manage different security systems with a single tool but it is the system itself that carries out automatic actions on each one of the elements basing on the events and the security profiles.

This integration mode is what it is known as security system interoperation and it allows, among many other things, to implement security policies like:

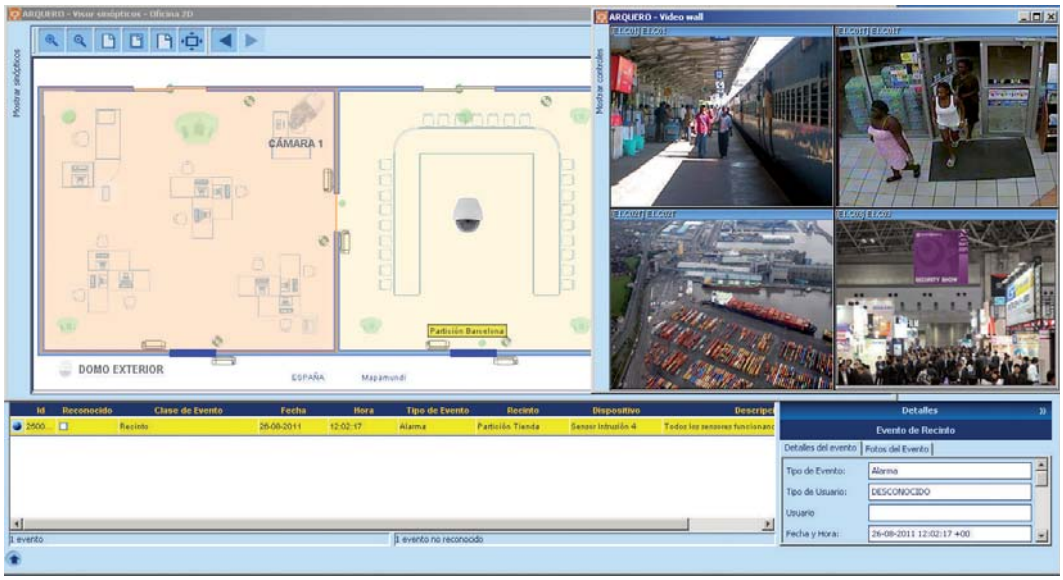
[1] For further information about the list of products check our catalog of Integrated Manufactures. In case you do not find the desired exemplar you can contact us at info@arquero.es

- Unlock every door within the evacuation route when the system detects a fire alarm.
- Automatically assemble the intrusion systems in the access control system when the last user is registered to go out.
- Work on the illumination and the temperature of a facility when the controlling partition is disassembled.
- All these interactions and many more are carried out without human intervention based on security policies previously defined by Arquero.

Bidirectional Graphic Management

The integration of the different security and control systems is bidirectional. And that is why from Arquero you can monitor in real time the status of all elements and if necessary operate on them.

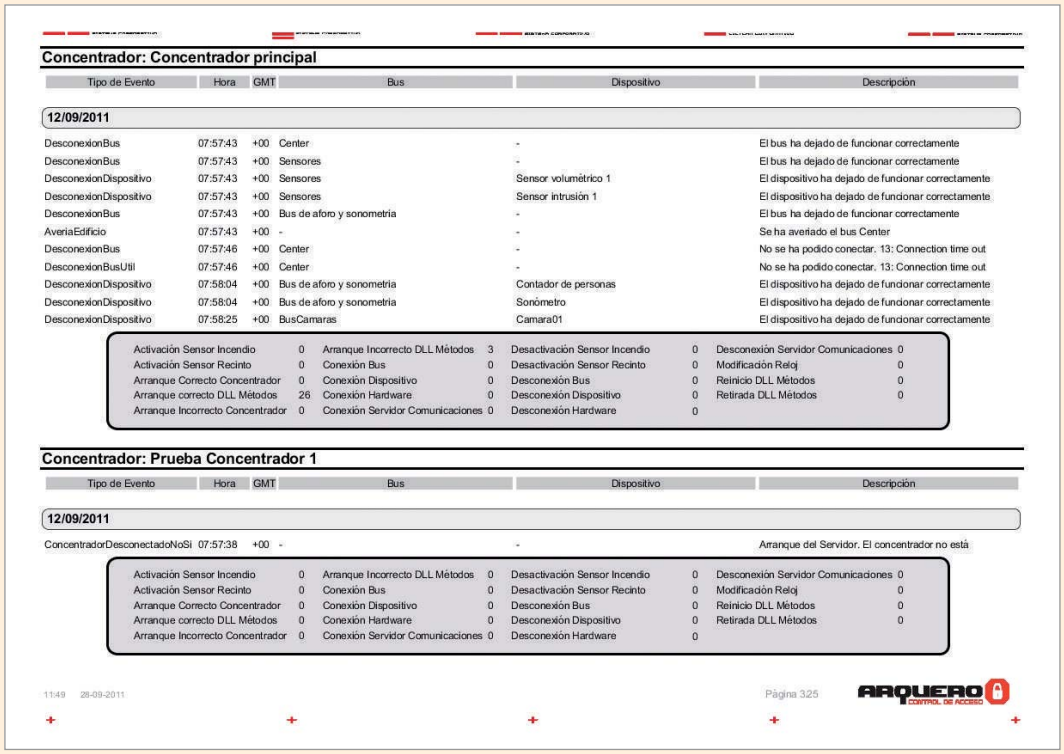
The supervision and operation of the different managed systems is completely graphic as the installation is represented through active layers allowing to operate on the different elements at the same time that representing in real time the status of each of them.



Advanced analysis of events and indicators

Arquero can supervise information related to security, to the corrective maintenance (a video camera has lost connection, a detector is broken or an intercom is disconnected) and to preventive maintenance (a fire detector is not clean, the energy of the station is low or the hard disk of a recorder is almost full).

All registered events are stored in the database, in historic tables, organized and classified depending on their source. Arquero has strong tools for information analysis that provide essential indicators to the responsible for security and that help to detect weaknesses in security.



Concentrador: Concentrador principal

Tipo de Evento	Hora	GMT	Bus	Dispositivo	Descripción
12/09/2011					
DesconexionBus	07:57:43	+00	Center	-	El bus ha dejado de funcionar correctamente
DesconexionBus	07:57:43	+00	Sensores	-	El bus ha dejado de funcionar correctamente
DesconexionDispositivo	07:57:43	+00	Sensores	Sensor volumétrico 1	El dispositivo ha dejado de funcionar correctamente
DesconexionDispositivo	07:57:43	+00	Sensores	Sensor intrusión 1	El dispositivo ha dejado de funcionar correctamente
DesconexionBus	07:57:43	+00	Bus de aforo y sonometria	-	El bus ha dejado de funcionar correctamente
AveriaEdificio	07:57:43	+00	-	-	Se ha averiado el bus Center
DesconexionBus	07:57:46	+00	Center	-	No se ha podido conectar. 13: Connection time out
DesconexionBusUtil	07:57:46	+00	Center	-	No se ha podido conectar. 13: Connection time out
DesconexionDispositivo	07:58:04	+00	Bus de aforo y sonometria	Contador de personas	El dispositivo ha dejado de funcionar correctamente
DesconexionDispositivo	07:58:04	+00	Bus de aforo y sonometria	Sonómetro	El dispositivo ha dejado de funcionar correctamente
DesconexionDispositivo	07:58:25	+00	BusCamaras	Camara01	El dispositivo ha dejado de funcionar correctamente

Activación Sensor Incendio	0	Arranque Incorrecto DLL Métodos	3	Desactivación Sensor Incendio	0	Desconexión Servidor Comunicaciones	0
Activación Sensor Recinto	0	Conexión Bus	0	Desactivación Sensor Recinto	0	Modificación Reloj	0
Arranque Correcto Concentrador	0	Conexión Dispositivo	0	Desconexión Bus	0	Reinicio DLL Métodos	0
Arranque correcto DLL Métodos	26	Conexión Hardware	0	Desconexión Dispositivo	0	Retirada DLL Métodos	0
Arranque Incorrecto Concentrador	0	Conexión Servidor Comunicaciones	0	Desconexión Hardware	0		

Concentrador: Prueba Concentrador 1

Tipo de Evento	Hora	GMT	Bus	Dispositivo	Descripción
12/09/2011					
ConcentradorDesconectadoNoSi	07:57:38	+00	-	-	Arranque del Servidor. El concentrador no está

Activación Sensor Incendio	0	Arranque Incorrecto DLL Métodos	0	Desactivación Sensor Incendio	0	Desconexión Servidor Comunicaciones	0
Activación Sensor Recinto	0	Conexión Bus	0	Desactivación Sensor Recinto	0	Modificación Reloj	0
Arranque Correcto Concentrador	0	Conexión Dispositivo	0	Desconexión Bus	0	Reinicio DLL Métodos	0
Arranque correcto DLL Métodos	0	Conexión Hardware	0	Desconexión Dispositivo	0	Retirada DLL Métodos	0
Arranque Incorrecto Concentrador	0	Conexión Servidor Comunicaciones	0	Desconexión Hardware	0		

11:49 28-09-2011 Página 325 ARQUERO CONTROL DE ACCESO

Any available report in Arquero can be stored in a pre-set mode to be automatized. The automatized reports are run basing on a temporary schedule and they are sent to the inbox mail of the selected receivers.

Automatizing of actions

A security system has to be proactive, that is to react in an appropriate way in response to given stimuli which can be damaging for the security policy implanted in the system.

This proactivity must be complementary to the management of the system and the supervision from the Control Centers. In a Control Center all activities that take place can be followed in real time, but a high amount of events increase the chance of an odd or wrong activity to go unnoticeable.

Each institution, from a financial one to a sanitary one, has its own peculiarities and that is why Arquero's design provides high flexibility for the setting of rules.

Arquero allows the establishment of automatizing patterns which will be activated by events or by timing and which will create internal notifications by SMS or email to the specified receiver. The patterns allow creating notifications as well as executing concrete actions on the system in answer to an event or in accordance to a temporal schedule.

System Architecture

Standard Architecture client server

The standard version of Arquero is based on a 3 layered architecture:

- The information (layer 1)
- The Logic or intelligence of the system (layer 2)
- The display of the information (layer 3)

Parameter configuration system, security policies configuration or logs exploitation.

Layer 1: Database management system that can be placed in the preexistent DBMS or in their own created one, LDAP server and email and SMS servers (if the client has them available).

Layer 2: Arquero Server which is in charge of interact with the DBMS, the LDAP server and the email and SMS servers. Moreover all the information of the different concentrator is received in real time; it is processed, sorted out and stored. Services for the applications management are also given.

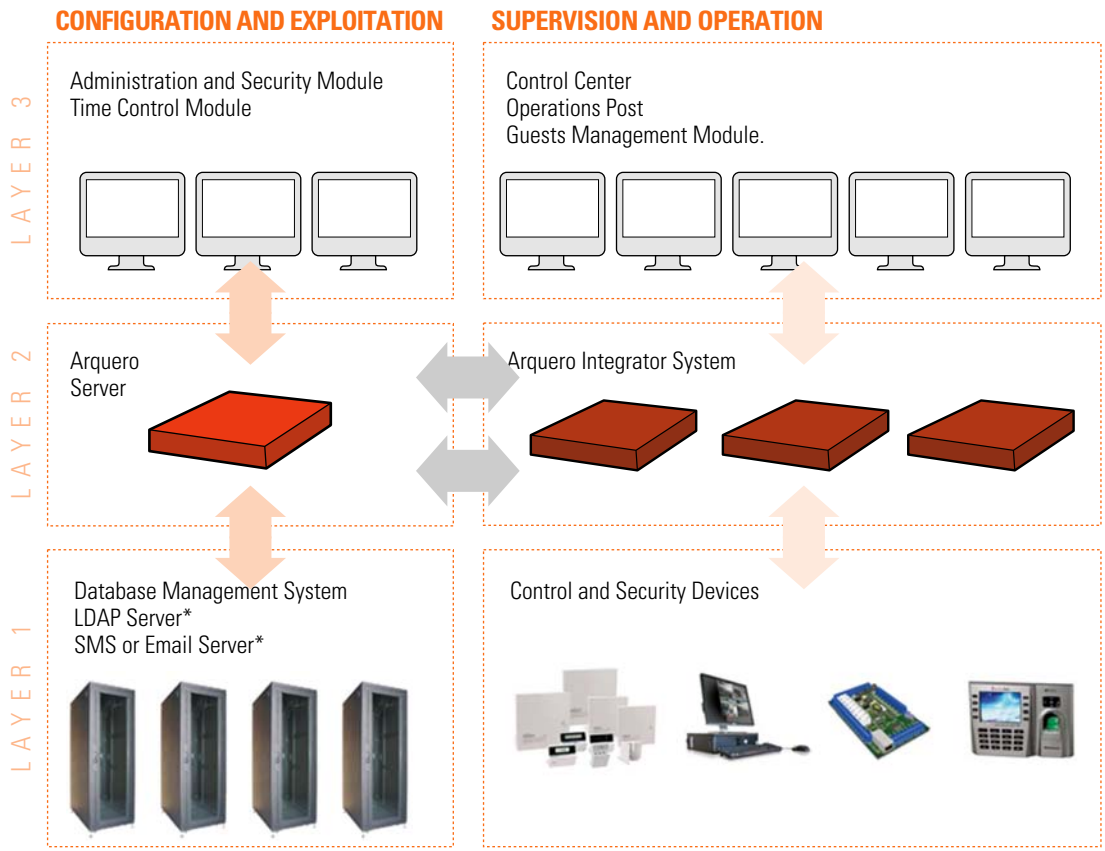
Layer 3: Administration and security module which enables the setting of the whole configuration system and access to the event logs. Time control module enables the design of the working hours, the solving of staff incidences and access to the activity lists and activity logs.

Supervision and operation of the security systems in real time and management of the life cycle of the alarms.

Layer 1: Here there are all the security and control devices integrated in Arquero. Each of them communicates with the system through an integrator using a specific protocol provided by the manufacturer.

Layer 2: Arquero Integrator which is in charge of standardize communications with the different devices. It receives and sends information to each security device. It performs automatic actions based on the system configuration. The integrator is an Arquero module that provides the facility with intelligence.

Layer 3: Control Center is the application that enables the visualizing of the status of each element in real time, the access to the recorded video or live signal of any camera and the operation on any element. The elements management from the control center is completely graphic; the user is able to supervise the facility by means of maps.



Operation Post (ARC). This module enables the management of the life cycle of any incidence showing the operator guided information for the solving of the incidence as well as relational information about it.

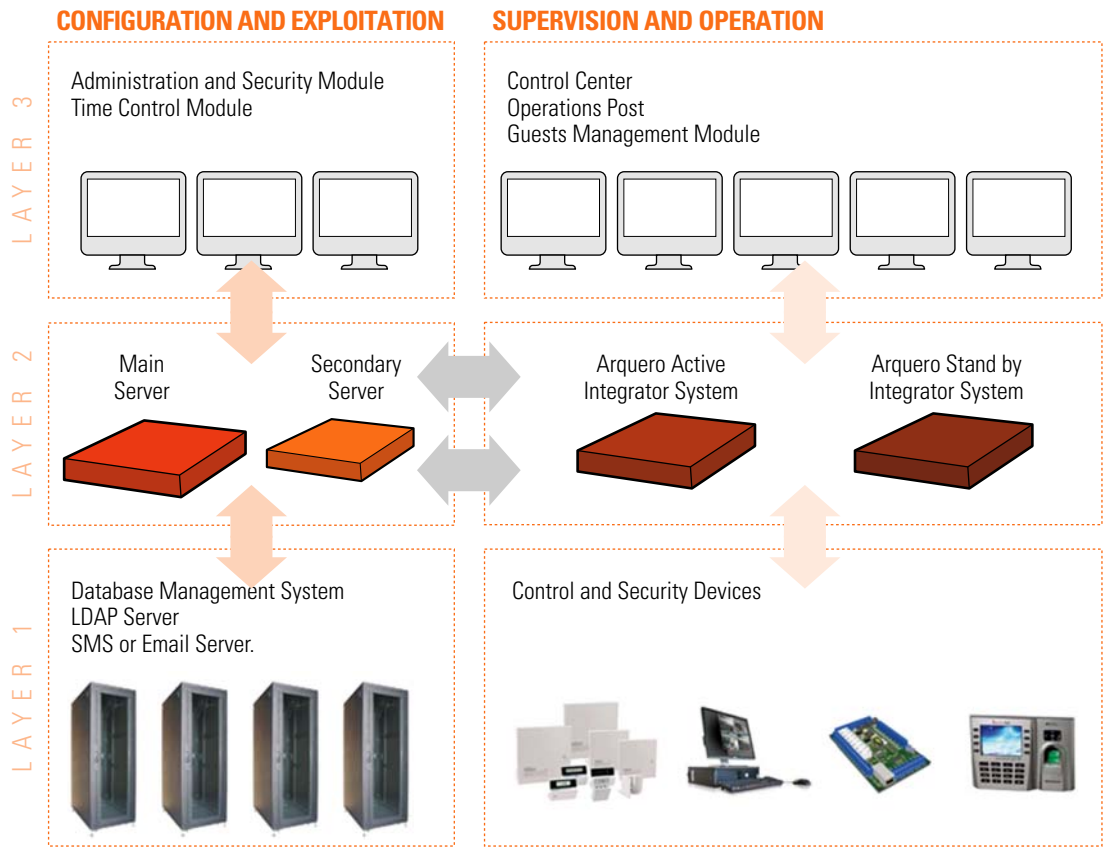
For further information check the document 'Datos Vs Información: La problemática de la información en una CRA corporativa'.

High Availability Architecture

Arquero has high availability[2] architecture with redundancy in the main modules of the system. This architecture provides a very much higher MTBF[3] and reduces to the minimum the period of no availability of the service before incidences in computing, communications or energy supply of the elements not belonging to Arquero.

This kind of installations requires all integrated devices in Arquero to communicate using TCP/IP protocol. Redundancy is achieved mainly by introducing the following improvements to the standard architecture.

- **Redundancy in management:** there are a main server and a secondary server. The secondary one just goes into operation when the main one stops working.
- **Redundancy in control:** each integrator has in place a mirror integrator (installed in another computer).



[2] This architecture is just available in the corporate version of the product.
[3] MTBF, Mean Time Between Failure.

Integration within the corporate IT ecosystem

An integrative security system is not only an element of the security system but also an element within the company's set of computing solutions. That is why it has to be perfectly in alignment not only with the requirements of the security department but also with the requirements of the IT department.

Arquero is integrated in a natural way within the company's ecosystem of IT solutions and to achieve that, Arquero has modules and mechanisms available that allow to:

- Generate information in SNMP format (Simple Network Management Protocol) that can be received by any supervision tool of computing systems.
- Deploy the database of the own integration system on any of the main commercial DBMS (Database Management System) among which we can find Oracle, MS SQL Server, Postgre SQL and MySQL.
- Connect to LDAP systems (Lightweight Directory Access Protocol) for the authentication of the administrators and operators using the same credentials than in the rest of the corporate applications.
- Access to the event logs through web service with the aim of allowing the preexistent applications of Business Intelligence to analyze the activity of the system in search of relevant patterns.
- Secure the privacy and authenticity of the transmitted data among the different modules that compound the system through the use of end to end robust enciphered algorithms such as SSL.
- Connect in an easy way to external databases for the synchronization of master tables as the tables of employees, centers, providers or work timetables.
- Access in an easy way to a detailed register of the whole system's own activity that includes all the authentications of the administrators, the restart of any of the services and any modification on the system configuration. This register provides all the necessary information to verify the correct behaviour of the system.

Type of Installations

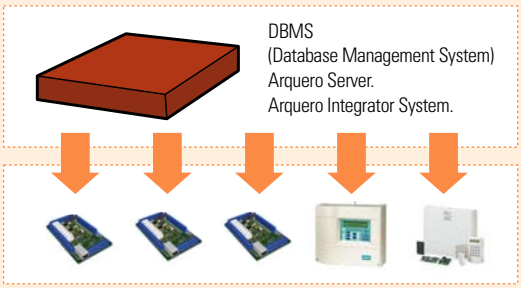
Arquero is an integration platform suitable for every type of installations regardless their size. There are versions of the product adapted to the requirements of each project.

As an example they are herewith described some kinds of typical installations of the Arquero system.

Unattended installations

They are installations in which the software is configured but there is no operator supervising the system in real time. Generally speaking they are access control installations though they also can be integrations with intrusion systems, fire systems or buildings automatizing.

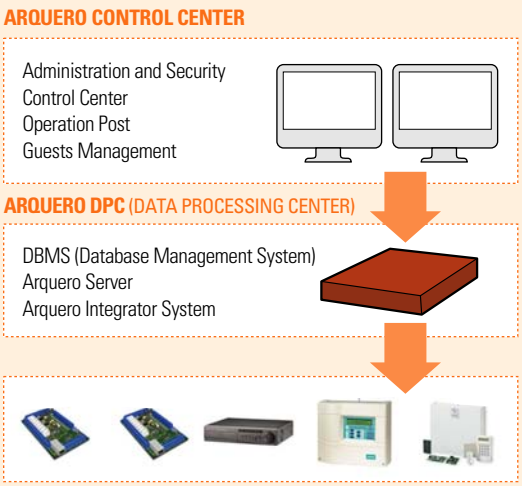
In this case the whole software of Arquero is installed in the same computer which needs no monitor keyboard or mouse.



Compact Installations

Unlike the previous case this kind of installations is usually attended by a guard. In this case the integration is composed of elements of different systems (intrusion, video, accesses, intercom, fire...)

It is usual that all the integration software is installed in the same computer; generally in the guard's cabin, though the applications of the Arquero server may be separated (this last configuration is the most advisable)



Multi-location Installations

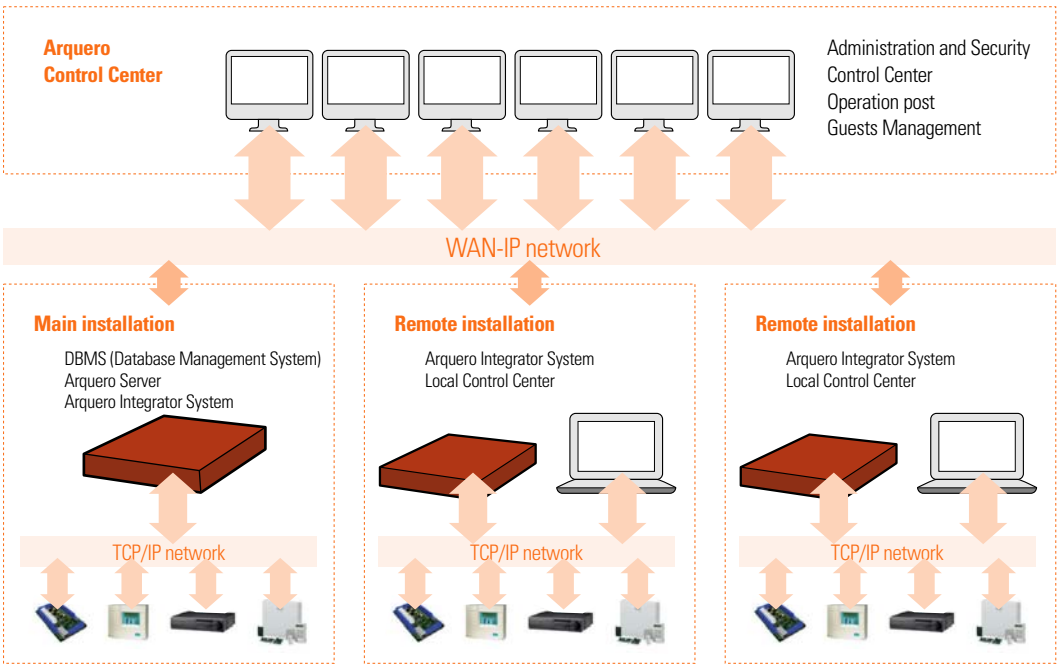
When the installations to manage are geographically disperse or communicated by data links with low bandwidth or low availability it is recommended the use of a series of Arquero Integrator Systems.

The Arquero Integrator System is the element within the architecture of the system that set up direct communication with the different devices that manage and apply the security policies previously configured. The Arquero Integrator System is essentially the integrating element that gives intelligence to whichever security installation.

This type of installations is characterized by:

- Having a main control center from where all installations are supervised and managed.
- Having a main installation in which it is installed the central database, the Arquero server and the Arquero integrator system that manage that installation.
- Being connected to a given number of remote installations and each of them with an installed Arquero Integrator system which locally manages that installation.

Each Arquero Integrator System allows the simultaneous connection of up to 10 control centers. That is why, concerning this type of installations, Arquero allows centralizing all the information in one main control center, at the same time that each remote installation can have its own local control center or backup center.



Corporate Projects

Some projects need to be studied in an individualized way and they may not be adapted to the product standard distributions. There are installations that cannot be covered by the standard version of Arquero whether because of their size or because of their complexity (work flows, IT environment, communications architecture…)

For this kind of projects it is provided an individualized study of the customer requirements and it is offered the possibility of developing customized modules basing on its specific requirements. The corporate version of the product is specially designed to be easily customized and scalable.

On the other hand this type of projects is usually characterized by its highly demanding availability. That is why the Arquero corporate version also has a high availability architecture previously explained with redundancy in each of the main modules.

Product Versions

CHARACTERISTICS / FEATURES	ARQUERO ONE	ARQUERO PROFESSIONAL	ARQUERO UNLIMITED
Maximum number of managed systems	1	N	N
Allow remote clients installation	✗	✓	✓
Support notifications servers (SMS, email)	✗	✓	✓
Support report automatization	✗	✓	✓
Support distributed architecture	✗	✓	✓
Support high availability architecture	✗	✗	✓
Allow customized developments	✗	✗	✓
Allow connection to LDAP server	✗	✗	✓
Allow generation of SNMP notifications	✗	✗	✓
Support SSL communications	✗	✗	✓
Database storage limit	4 Gb	4 Gb	-

✗ Not available ✓ Available ✓ Optional

Technical specifications

	Module	S.O.[i]	DISTRIB.	MINIM. RAM	RECOM. RAM	MINIM. HDD	RECOM. HDD	VIDEO	DEVICE
Management Applications	Administration and Security Module	**Windows XP** - Professional (32bit) (ESP – ENG)	win32 web jar [ii]	512 Mb 1 Gb[ii]	1 Gb 2 Gb[ii]	256 Mb	1 Gb	REC	Joystick
	Time & Attendance	**Windows 7** - Professional (64 bits) (ESP) - Ultimate (32 bits 64 bits) (ESP) - Enterprise (32 bits) (ESP)	win32 web jar[ii]	512 Mb 1 Gb[iii]	1 Gb 2 Gb[iii]	256 Mb	1 Gb	REC	Joystick
	Control Center		win32 web jar[ii]	1 Gb 2 Gb[iii]	2 Gb 4 Gb[iii]	256 Mb	1 Gb	REC RT	Joystick
	Operations Post		win32 web jar[ii]	1 Gb 2 Gb[iii]	2 Gb 4 Gb[iii]	256 Mb	1 Gb	REC RT	Joystick
	Registration Module	**Windows 2000** - Professional (ESP) - Server (ESP) **Windows 2003** - Server (ESP)	win32	512 Mb	1 Gb	1 Gb	2 Gb	-	Reader Camera Printer
	Guests Management Module		win32	512 Mb	1 Gb	1 Gb	2 Gb	-	Reader Camera Printer
Services	Arquero Server	**Windows 2008** -Server (ESP) Windows XP - Professional (32bit) (ESP – ENG) **Windows 7** - Professional (64 bits) (ESP) - Ultimate (32 bits - 64 bits) (ESP) - Enterprise (32 bits) (ESP)	win32	256 Mb	512 Mb	20 Gb	40 Gb	-	Modem GSM
	Arquero Integrator System		win32	256 Mb	1 Gb	5 Gb	10 Gb	-	Integrated device[iv]
	Reports Integrator		win32	512 Mb	1 Gb	1 Gb	2 Gb	-	Reader Camera Printer
	SQL Server Express[v]	www.microsoft.com[v]	win32	512 Mb	1 Gb	5 Gb	5 Gb	-	-

i Operative systems and operative systems versions supported by each module. ESP: Spanish, ENG: English. **ii** "Web jar" version consists on a distributable JAR file from a web server through Java Web Start technology. If the integration includes video recorders, the integration with the video recorders binary files must have been previously installed in each computer. **iii** Recommended memory in the case of integrating video recorders or having a large number of maps within the installation. **iv** For any device integrated in Arquero, check the list of "Integrated Manufacturers". **v** On those installations on which the customer do not have a database management system license for any of the supported servers by Arquero (MSSQL Server 2000, MS SQL Server 2005, MS SQL Server 2008, Oracle 10g, Oracle 11g y Postgre SQL 8.3 o superior) the software is installed on the SQL Server Express database (further information on http://www.microsoft.com/sqlserver/en/us/editions/express.aspx)

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SISTEMA CORPORATIVO

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