



# GUARDIAN

## The Intelligent Terminal for Access Control

For several years now, Zucchetti, the main Italian player on the IT market, focuses its particular attention on studying and solving problems related to access control and the security of sports facilities.



Its enhanced experience measured in years of activity has turned Zucchetti into a leader in Italy in the area of stadium security management, with more than 100 sports facilities for professional sports leagues, helping these facilities to comply with the strict legislation in force. Furthermore, this attitude towards security has been exported to several European and extra continental stadiums, as proof of the quality of the activities deployed in Italy.

The new **GUARDIAN**, the intelligent access control terminal for facilities with high traffic flow as for example stadiums, indoor sports arenas, arenas and exhibitions, is the result of this *field experience*.

**GUARDIAN** represents a firm step forward, towards an optimization for sports facilities management during high audience events.

**GUARDIAN is provided with:**

- **an open PC-based system**, fitted with cutting edge expandable memory and an INTEL ATOM processor;
- **absolute reliability**: external components, including display, entirely infiltration-proof and with weatherability properties;
- **reading capacity of all types of tickets and subscription badges** available on the market: barcode, proximity and magnetic badges;
- **colour graphics display**, both on the user side and on the steward side, which improves the system communication with the employees in charge with security and with the fans as well.



## FUNCTIONING

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Each **GUARDIAN terminal** is managed remotely through the access control software installed on the central server of the facility: in fact, thanks to the identification IP address assigned to each **GUARDIAN**, it is able to manage all entrances. The centre-network communication is performed online, therefore the same software will check the validity of the pass (ticket, badge) in real time.

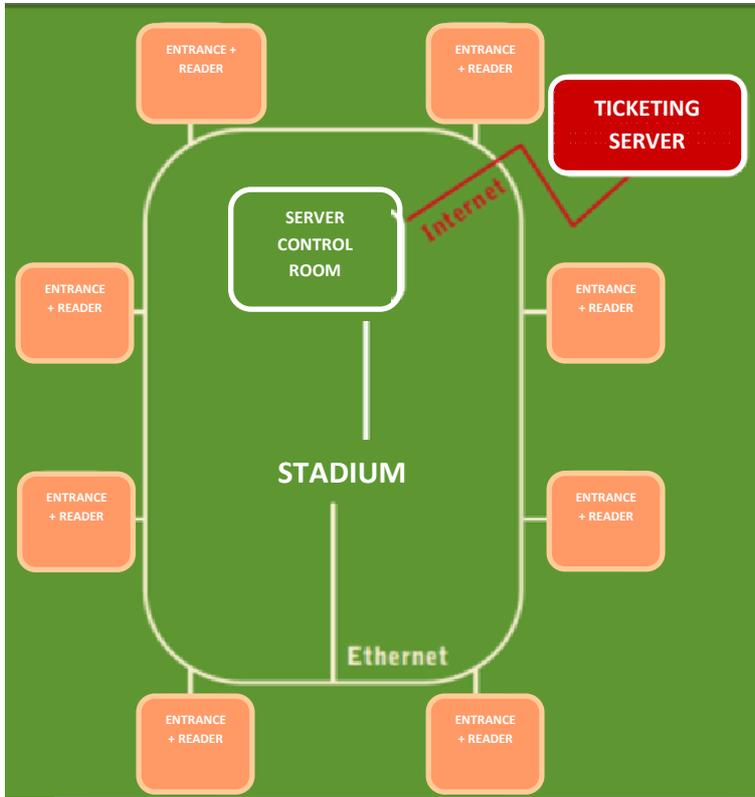
**GUARDIAN**, the intelligent and PC-based device, can store the lists of the users allowed to access a certain sector (white list) or the list of individuals that are not allowed to access a certain sector (black list). Consequently, also in case of failed connection between the central system and **GUARDIAN**, the latter can distinguish whether the pass is valid or not querying the stored white list/black list. In this case, **GUARDIAN** operates automatically in offline mode, until the reconnection with the central system is established.

**When the system is in offline mode, GUARDIAN terminals within the same sector of affiliation (e.g. Visitors Sector) automatically continue their information exchange activity, in order to maintain for all purposes the complete and absolute functionality of the system.**

**Therefore, even in offline mode, the ANTI-PASSBACK feature will be ensured and the access within the same sector will not be granted using the same pass again, even if from different entrances.**

Once the connection with the central software is resumed, the online general decision-making activity is restored and the data collected by each **GUARDIAN** will be automatically sent to the server, allowing a complete update of the system.

If necessary it is possible to manage only one or several entrances in offline mode: in this case as well, when the connection with the central system is restored, the server is updated with the data collected by the **GUARDIAN**.



***GUARDIAN** terminals, placed at the entrances, are interlinked via Ethernet. The data collected by the terminals will be transmitted to the central server. This receives in real-time the list of tickets/subscription badges from the issuing company (white list). Thus, **GUARDIAN** terminals placed at the entrances can immediately check data authenticity.*

**GUARDIAN** is an autonomous device that can be installed on turnstiles of any type. Moreover, thanks to the various available USB serial ports, together with the capacity of the used operating system, it can be easily and quickly connected to other devices (e.g.: printers, keyboards).

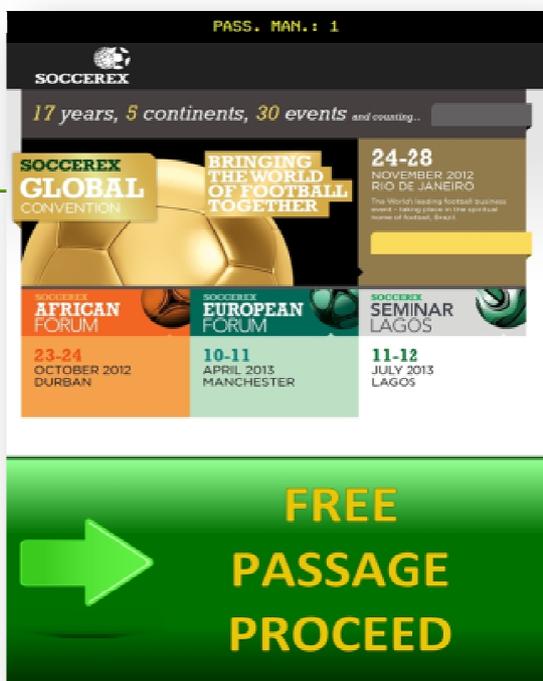
## DISPLAY and COMMUNICATION

**GUARDIAN** is provided with two 32 bit colour displays, one for the user and a smaller one for the steward.

The user display informs the supporter, clearly and immediately, on the entrance status (active/inactive) and on the validity the pass, granting or not the entrance.

*Display – operational messaging*

**GUARDIAN** informs the supporter on the validity of the pass, thus allowing the entrance.



*Display – operational and promotional messaging*

**GUARDIAN** offers the possibility to put together operational messages and promotional messages, as for example, to inform the supporter on the forthcoming games.

Furthermore, the user display can provide additional information as welcome messages, commercial messages, personal messages, blocking warnings with details, etc. The sizes of the display also ensure the possibility to manage several pieces of information at the same time (e.g. commercials on top of the display and user info at the bottom), everything with a **high customization level!**

In fact, the entire communication of **GUARDIAN** includes graphic messages, images and videos that the end user can set and modify according to his requirements. This allows the use of **GUARDIAN** also as a **promotional tool**, thus products of own sponsors or information on forthcoming events, which will take place at the facility, shall be further viewed.

If the customization of commercial or other messages is not immediately necessary, **GUARDIAN**

already provides default images and videos as its basic settings.

Obviously the steward side, studied for a more operational type of communication, also provides a high customization level.



#### *Access Control for Events*

**GUARDIAN** allows managing entrances to stadiums and arenas not only during the sports events, but also during any other type of events, as for example concerts that would take place within the facility.

## TECHNICAL FEATURES

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The main technical features of **GUARDIAN** are the following:

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**XP Professional Embedded O.S. (also compatible with LINUX O.S.)**

**FTP Server**

**WEB Server I.E.6**

**Internet Browser**

**Remote desktop Client**

**INTEL ATOM Processor 1.2 GHz - 32 bit**

**HD on compact FLASH of 2 GB (expandable)**

**512 MB 667 MHz DDR2 memory, expandable up to 4 GB**

**512 MB FLASH Memory, expandable up to 4 GB**

**Integrated SD Card Reader**

**2 USB 2.0 ports (ultra quick)**

**4 USB 1.1 ports**

**VGA video output**

**AC3 audio output**

**Mono channel speaker**

**Microphone input**

**2 serial ports RS232 (COM1 and COM2)**

**1 serial port RS485 (COM3)**

**1 Ethernet port 10/100/1000 Mb**

**2 TTL ports (magnetic tape emulation)**

**4 digital inputs (opto-isolated inputs)**

**4 digital outputs (relay output, 1A – 24 Vdc max)**

**10.8 Vdc Li-Ion battery**

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**User side equipment:**

**10.4" TFT graphics display protected by a transparent structure made of reinforced LYX Polycarbonate**

**Multi-standard integrated RFID reader, NFC Ready and compatible with all supporter passes available on the market**

**2D barcode reader for linear and bidimensional codes and with palmtop displays, cell phones, etc.; positioned so that it reads from any support, even the Print @ Home on A4**

**OPTIONAL: Icon for basic visual warnings**

**Steward side equipment:**

**6" TFT graphics display**

**Emergency button or selector**

**Key button or selector for manual unblock**

**Mode selector:**

**Access Control**

**entrance counter**

**"sense" reversal**

**GUARDIAN turned off**

**OPTIONAL – Alphanumeric keyboard for inserting ticket code/special features.**

