

A low-angle, upward-looking photograph of several modern skyscrapers with glass facades, creating a sense of height and architectural scale. The buildings are arranged in a circular pattern around the center, with their lines converging towards the top of the frame. The sky is a pale, clear blue.

# ETHEOS

ROOM MANAGEMENT SYSTEM  
CLOUD-BASED

VDA

# ABOUT US

VDA Group is a leading international company specializing in the development and realisation of advanced solutions for integrated Room Management and Interactive Television systems, in the main for the international hospitality industry.

With more than 250,000 rooms active in some of the world's most prestigious hotels, for more than 40 years we have been working with leading international hotel brands, confirming our position as a technological partner for tailor-made solutions created to improve the guest experience.

The distinguishing features of the Group that contribute to consolidating its leading position in the market, are its technological expertise and system flexibility, coupled with its 100% Italian design, its originality, and its care.



# OUR NETWORK

## ITALY



**HOTELS:** 2,200+  
**ROOMS:** 98,900+  
**GUESTS:** 19,800,000+

## EUROPE



**HOTELS:** 250+  
**ROOMS:** 30,800+  
**GUESTS:** 6,200,000+

## ASIA PACIFIC



**HOTELS:** 110+  
**ROOMS:** 20,900+  
**GUESTS:** 4,200,000+

## AMERICA



**HOTELS:** 20+  
**ROOMS:** 1,700+  
**GUESTS:** 340,000+

## MIDDLE EAST AFRICA



**HOTELS:** 150+  
**ROOMS:** 38,000+  
**GUESTS:** 7,500,000+

# PRODUCT PORTFOLIO



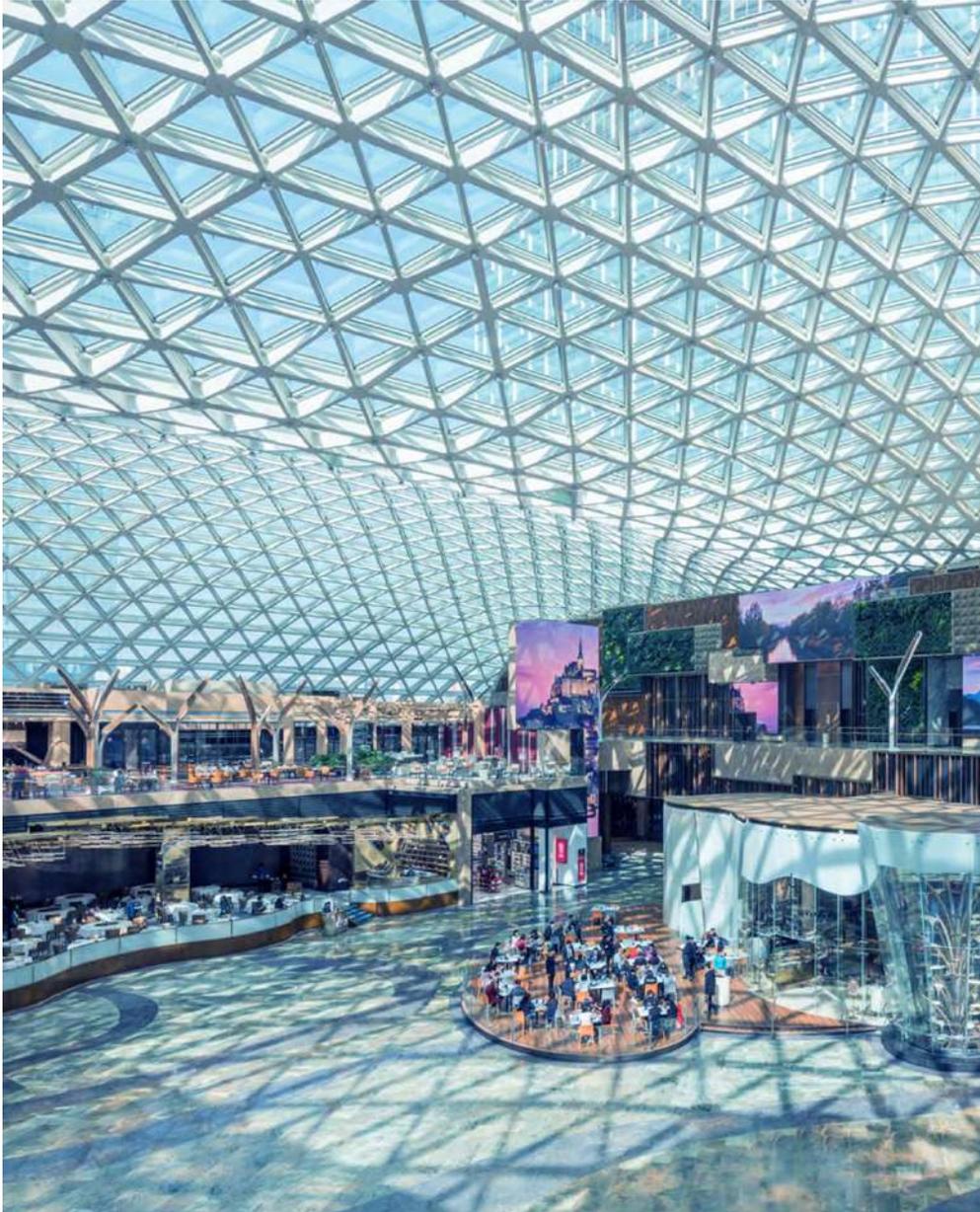
**ROOM MANAGEMENT  
SYSTEM**



**SMART DEVICES  
COLLECTIONS**

# **ETHERNET OPERATING SYSTEM**

**ETHEOS**



# Etheos

Etheos is the 5th generation of VDA's platform. Its cloud-based infrastructure simplifies Accessibility, Monitoring and Updating process of the Room Management System (RMS) allowing the supervision of the system from any device connected to the network.

Etheos encompasses a wide range of functions that enable full control of the property and ensures efficiency and optimization with a direct impact on the hotel's costs.

# A PLATFORM FOR THE FUTURE OF THE GRMS

Etheos is a Room Management System designed to win the technological challenges of the future, namely big-data, voice assistants, air quality sensors, house keeping robots, self checking, security, privacy etc...

State of the Art technologies are those that are open to changes and capable of evolving quickly and seamlessly.

It is essential that such systems are simple to manage so to avoid time-waste and allowing the hotelier to devote his valuable time to his duties.



# WHY ETHEOS



It's cloud-based and enables full control of the hotel rooms.  
Thanks to cutting-edge technologies it ensures constant system updates.



It's scalable and fits to any size of hotel or hotel groups-  
It is ideal for managing hotel chains that require remote monitoring and control.



Provides a simple and intuitive web-based user Interface that ensures an easy  
to use solution when it comes to setting up and using the system.

# CLOUD BENEFITS

Cloud solutions today, are consolidated within the hospitality market. More and more hotels are everyday choosing SaaS (Software-as-a-Service) solutions that can evolve together with the technologies of the future.



**ACCESSIBILITY  
& MONITORING**



**FLEXIBILITY  
& SCALABILITY**



**DATA  
SECURITY**



**SYSTEM  
UPDATES**



**ENERGY  
EFFICIENCY**



**SYSTEM  
CONFIGURATION**



### ACCESSIBILITY & MONITORING

Hotel management has never been easier. By connecting to Etheos from a mobile or fixed device, it is possible to access the platform, and manage the hotel safely, even remotely. The possibility of creating different profiles allows you to partially, or entirely, implement the various functions.



### FLEXIBILITY & SCALABILITY

The new functions developed become a real common resource, and can be activated remotely for all clients that have chosen Etheos. Today, extending the control to other areas is more simple thanks to a flexible software service, totally configurable from remote through the use of web-based tools.



### DATA SECURITY

All the data collected is transmitted to the Etheos software hosted by Amazon Web Services through highly secure protocols (TLS and HTTPS). Regular checks, security/vulnerability updates, and data backups ensure the availability of the 24 hours per day service.



### SYSTEM UPDATES

The system guarantees 24-hour functionality and maintenance, automatic security and vulnerability updates, the absence of computer viruses, constant back-ups, data and privacy safety and protection through the use of encrypted protocols and industrial protocols for integrations with third parties.



### ENERGY EFFICIENCY AND COST CONTAINMENT

The system efficiency assists with controlling both direct and indirect costs for the hotelier. Energy costs are among the highest spend values in the tourism-hotel sector. Etheos guarantees energy efficiency, maintaining complete control of those said costs.



### SYSTEM CONFIGURATION

The hotelier has access to his/her reserved area at any time, from anywhere he/she is. All the configuration tools of the Nucleus controllers installed within the room are web-based, thus simplifying maintenance operations, whilst significantly reducing any down time within a hotel room

# CLOUD BENEFITS SUMMARY

- 1.** USER RIGHTS BASED ACCESS TO FUNCTIONS AND FEATURES
- 2.** ACCESS FROM ANY DEVICE CONNECTED TO THE INTERNET
- 3.** FULL CLOUD-BASED SOLUTION
- 4.** ACCESS TO PLATFORM FROM ANYWHERE
- 5.** LOWER INFRASTRUCTURE COSTS
- 6.** KNOWN MAINTENANCE COSTS
- 7.** MAINTENANCE TOOLS ACCESSIBLE FROM ANY DEVICE
- 8.** BACKUPS AND DISASTER – RECOVERY GUARANTEED
- 9.** CONSTANT AUTOMATIC UPDATES
- 10.** HIGH DATA-PROTECTION GUARANTEED

# TRADITIONAL VS ETHEOS

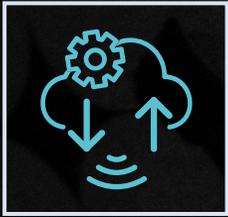
## TRADITIONAL SYSTEMS

## ETHEOS

- **REQUIRES QUALIFIED HOTEL PERSONNEL TO SUPPORT AND MAINTAIN SERVERS AND RELATED O.S.**
- **HIGH-END SERVER HARDWARE AND OPERATING COSTS**
- **FULL DEPENDENCY FROM AN ON PREMISE SERVER**
- **EXPOSURE TO FRAUDULENT ACCESS TO DATA**
- **HIGH MAINTENANCE COSTS FOR LOCAL SERVER (ANTIVIRUS, FIREWALLS, PATCHES, UPGRADES, ETC)**
- **CONFIGURATION / PROGRAMMING / ALGORITHM UPDATES / FAULTY RECOVERY REQUIRES PRESENCE ON FIELD.**
- **HIGH COSTS AND LOW RELIABILITY OF DATA STORAGE AND BACKUP**

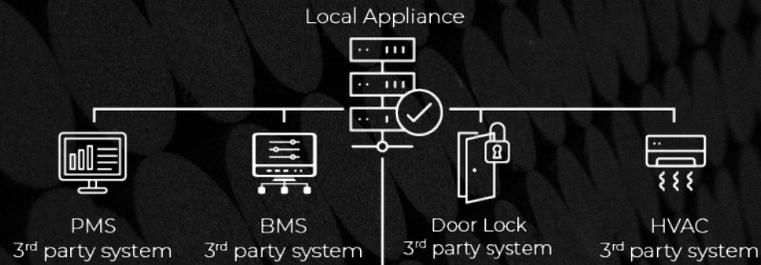
- **NO NEED TO HAVE QUALIFIED LOCAL SUPPORT. EVERYTHING IS MANAGED BY VDA.**
- **LOW COST FOR LOCAL EQUIPMENT WITH KNOWN OPERATING COSTS**
- **LIMITED LIABILITY FROM LOCAL SERVER. EVERYTHING IS MANAGED AT CLOUD LEVEL.**
- **ADVANCED AND UPDATED DATA ENCRYPTION PROTOCOLS (HTTPS, TLS PROTOCOLS)**
- **LINUX-BASED SERVER O.S. ENTIRELY MANAGED BY VDA**
- **CONFIGURATION / PROGRAMMING / LOGICS UPDATES REMOTELY PERFORMED BY VDA (OR BY AUTHORIZED ENGINEERS) FROM CLOUD TOOLING**
- **NATIVE BACKUP FEATURES**

**ARCHITECTURE  
AND  
SYSTEM COMPONENTS**

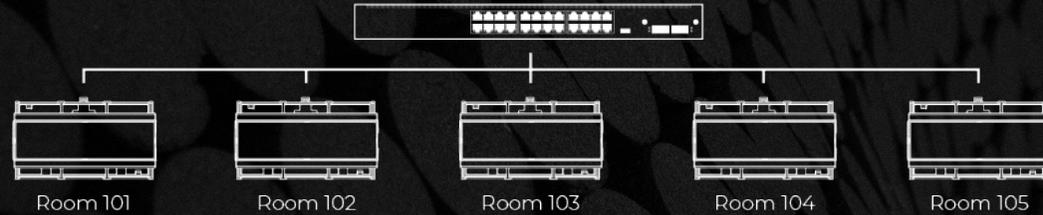


# ARCHITECTURE

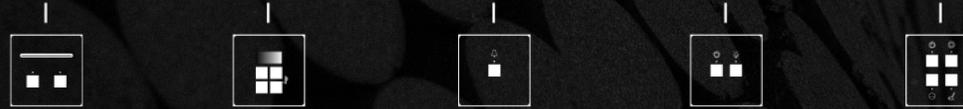
LOCAL APPLIANCE



NUCLEUS IN ROOM CONTROLLER



MODBUS DEVICE COLLECTION



IN ROOM ACTUATORS



WIRELESS PROTOCOLS FOR 3<sup>rd</sup> PARTY INTERFACE



# THE CLOUD



# USER INTERFACE

The Etheos user interface is available from PC, tablet and smartphone via browser by typing user credentials.

Unlike traditional automation systems, Etheos allows access to accommodation facilities from anywhere in the world.

All updates, improvements and new functions can be activated directly from VDA and customers can always benefit from a new and perfectly efficient system.



# SOFTWARE CAPABILITIES

- OCCUPANCY MONITORING AND REPORTING
- MANAGEMENT AND MONITORING OF TEMPERATURES
- MONITORING AND REPORTING OF THE ROOM FUNCTIONS (DND, MUR calls, ALARMS)
- MANAGEMENT OF VDA ACCESS CONTROL (RFID, PIN CODE AND MOBILE KEY)
- DISPLAY OF OUT OF SERVICE ROOMS
- USER ACTIVITIES TRACKING AND REPORT
- 3<sup>RD</sup> PARTY INTEGRATION (PMS, HVAC SYSTEMS, BMS, DOOR LOCKS ...)



# THE GUEST APP



An API is available for those who want to implement smart room control in their mobile App.



## **SETUP AND CONFIGURATION TOOLS**

All the configuration tools of Etheos and Nucleus controllers are accessible from a web interface and are cloud-based therefore configurations are possible even without being present within the hotel and without having the system installed.

This allows installers to make the most of the time available and significantly limit the hours spent on site.

**NUCLEUS**

# NUCLEUS IN ROOM CONTROLLER

All inputs and outputs are fully configurable from cloud-based tools which can be accessed with a browser from any personal computer or mobile device.

The controller is equipped with TV8 relays for light control so to allow the installer to contain wiring costs derived from the use of auxiliary power contactors, increasing the reliability and duration of the system.

The RJ45 port connects the device to the ethernet network and to a local appliance, enabling the most secure data protocols.

Controller are equipped with 4 independent Modbus ports to manage multiple devices with no data latency.

The built-in USB port is designed for easy programming and quick maintenance operations.

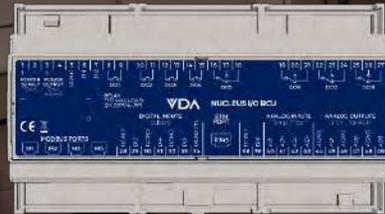


**NUCLEUS I/O RCU – ETHERNET**

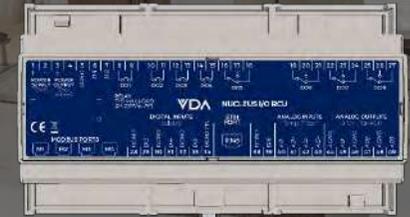
# NUCLEUS CONTROLLERS



**SUITABLE FOR NEW PROJECTS  
AND LARGE-SCALE  
BUILDINGS**



**FOR THE RENEWAL  
OR EXTENSION OF EXISTING  
PROJECTS**



**FOR PROJECT REVAMPING  
AND NEW MEDIUM  
SIZE BUILDINGS**

# NUCLEUS CAPABILITIES



LIGHTING / DIMMING



HVAC APPLICATIONS



MOTION DETECTION



DOOR/WINDOWS CONTACT



CURTAINS AND BLIND CONTROL



PROPERTY ACCESS CONTROL

ETHEOS



AWS CLOUD SERVICE

WIRELESS PROTOCOL FOR 3<sup>RD</sup> PARTY INTERFACES







TCP / IP



VDA SERVER



WWW



BMS / PMS SERVER (3<sup>RD</sup> PARTY INTERFACE)

CAT6 CABLING (MODBUS)

EXPANSION MODULES INCLUDING ON-OFF / DIMMING / PWV / DALI / DMX

SMART DEVICES TRADITIONAL SWITCHES

# ABOUT NUCLEUS



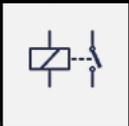
**ETHEOS PLATFORM  
MANAGEMENT**



**CLOUD BASED CONFIGURATION TOOLS  
(FROM MOST COMMON BROWSER APPLICATION)**



**MODBUS  
PLUG AND PLAY EXPANSION**



**NO NEED OF AUXILIARY  
LIGHTING CONTACTORS**



**ONSITE MAINTENANCE  
NOT REQUIRED**



**CE / UL / ROHS / LVD / EMCD  
CERTIFICATION**



**CONFIGURABLE  
WITH MOBILE DEVICE**



**NATIVE  
IP PROTOCOL**



**NATIVE  
MODBUS SERIAL PROTOCOL**



**CAN BE CONNECTED TO  
WI-FI INFRASTRUCTURE**



**PROPERTY ACCESS CONTROL  
MANAGEMENT**



**PROPERTY MOBILE KEY AND  
PIN CODE (EKM) MANAGEMENT**

# NUCLEUS & VDA COLLECTIONS

Etheos and Nucleus are fully compatible with all VDA Modbus device portfolio.



VITRUM



AXIA



DUETTO



CLASSIC

# **USER CASES**

# **GENERAL MANAGER**

**MONITORING SOLUTION FOR HOTEL CHAIN AND GROUPS**

- **GM CAN KNOW OCCUPANCY RATE FROM A SINGLE PLATFORM**
- **IT IS POSSIBLE TO TRACK GUESTS ACCESS LOG FOR SECURITY CHECKS**
- **ENABLE REPORTS RELATING TO UNDER MAINTENANCE / OUT OF SERVICE GUESTS ROOMS**

# **HOTELIER**

**SINGOL PLATFORM FOR PROPERTY MANAGEMENT**

- **HOTELIER HAS VISIBILITY OF THE PROPERTY IN HIS HANDS USING THE SMARTPHONE**
- **HOTELIER CAN PROVIDES ACCESS TO THE PROPERTY BY CHANGING ACCESS RIGHTS EVEN WHEN NOT AT THE HOTEL ENABLING MOBILE KEYS**
- **ENABLE REPORTS PERTAINING SYSTEM USE AND ALARMS ANYTIME, ANYWHERE**

# HOUSEKEEPER

DEDICATED PAGE FOR HOUSEKEEPING SERVICE CONTROL

- GUEST REQUESTS CAN BE EASILY MONITORED AND MANAGED IN REAL TIME CONSULTING A DEDICATED PAGE
- THE SYSTEM HIGHLIGHTS ROOM STATUS (CHECK OUT, VACANT OR OUT OF SERVICE) AND FORWARD THE DATA - IF REQUIRED - TO PMS
- WHEN ROOM IS IN PRIVACY MODE (DND) ROOM CAN BE VISITED LATER

# MAINTENANCE MANAGER

SOLUTION TO SHRINK DOWNTIMES

- VIEW AND REPORTS ABOUT OUT OF ORDER GUEST ROOMS
- QUICK REPROGRAMMING OF ROOM DEVICES THANKS TO A DEDICATED APP ALIGNED WITH THE SETTINGS RETRIEVED FROM THE CLOUD
- MOBILE SERVICE APPLICATION FOR CONTROLLER CONFIGURATION AND CONNECTION DIAGNOSTICS

# IT MANAGER

CLOUD PLATFORM FOR REGULAR UPDATED AND UPGRADES

- NO NEED TO WORRY ABOUT SECURITY UPDATES AS VDA CARES
- MAINTAINS CONTROL OF IT INFRASTRUCTURE (GRMS DEDICATED VLAN)
- OPTIMIZATION OF IT INFRASTRUCTURE FOR MULTI-UNIT PROPERTIES BY USING THE WIFI CONNECTION

# **FOOD & BEVERAGE MANAGER**

**TO ACHIEVE BETTER F&B PERFORMANCE (SERVICE REQUESTS)**

- **F&B MANAGER CAN MONITOR ROOM STATUS AND DELIVER WHEN THE GUEST IS WITHIN THE ROOM**
- **PROVIDES LOG OF THE F&B CALLS FROM THE SYSTEM**
- **F&B TEAM IS ABLE TO OPTIMIZE DELIVERY TIME AND PROVIDE HIGH QUALITY ROOM SERVICE**

**Thank You!**

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- Release dates mentioned are estimates and may change.
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