TIS
VIETNAM

TIS SMART DEVICE JOINT STOCK COMPANY

AUTOMATION MADE EASY

TIS SMART HOTEL
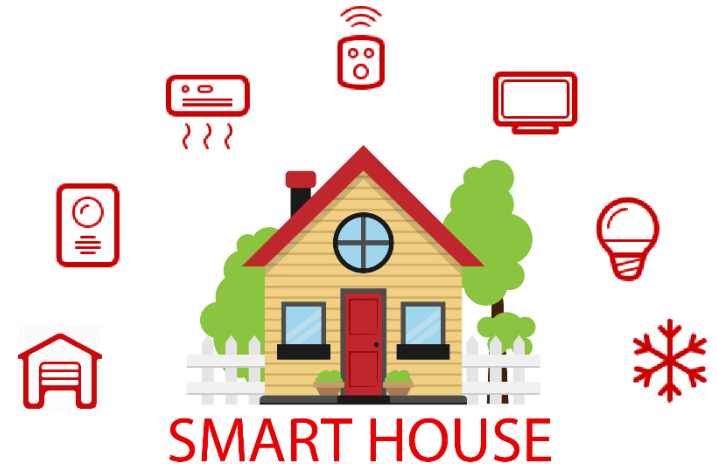# SOLUTION

TABLE OF CONTENT

1 INTRODUCTION ABOUT TIS VIETNAM

1.1 BUSINESS ACTIVITIES OVERVIEW

TIS VIETNAM is a leading company in Vietnam providing a full package of **smart home solutions including smart parking, light electric systems** for buildings, villas, houses, offices, hotels, etc.

Bussiness areas:

Consulting, Designing Solutions

Distributing, Supplying Equipment

Programming, Integrating System

System Warranty, Maintenance

SMART HOUSE

Our brands:

TIS   eisSOUND   Alcatel·Lucent

1.2 VISION & MISSION

VISION

Becoming the best smart home appliance and solutions provider

in Vietnam with business philosophy:

- Product quality is the focus
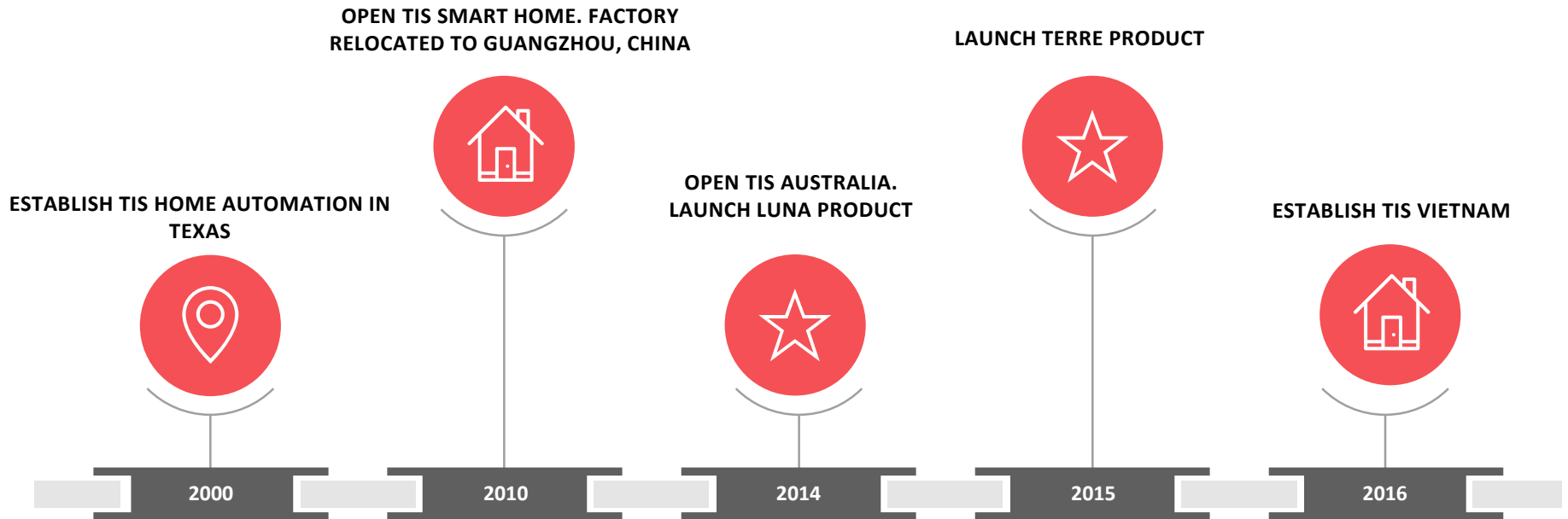- Client benefits are the key

MISSION

Bring to clients the smart home solution with the most advanced

technology, good quality and reasonable cost

Satisfy the need to experience a comfortable and classy life of

customers

1.3 DEVELOPMENT HISTORY

OPEN TIS SMART HOME. FACTORY
RELOCATED TO GUANGZHOU, CHINA

LAUNCH TERRE PRODUCT

ESTABLISH TIS HOME AUTOMATION IN
TEXAS

OPEN TIS AUSTRALIA.
LAUNCH LUNA PRODUCT

ESTABLISH TIS VIETNAM

| 2000 | 2010 | 2014 | 2015 | 2016 |

TIS SMARTHOME

- TIS SMARTHOME is a brand from the USA with more than 15 years' experience in the field of home automation and smart home

- Products are designed beautifully and exquisitely

- High quality products, friendly and safe for users

- TIS Smart Home Products:

    - Chipset and IC from Texas Instruments are durable and reliable

    - Product cover, mainboard, IC meet American UL fire safety standards and European ROHS safety standards

    - All TIS products meet the following certifications:

1.4 PRODUCT & SOLUTION

A. SMART LIGHT SYSTEM

- Lights only light in areas with people, automatically turn off when no people
- Automatically adjusts brightness according to the time and preference of the owner

B. CURTAIN CONTROL SYSTEM

- Curtain remote control, close/ open the curtain according to the script already established
- Control combined with lighting, sound, and multimedia entertainment

C. SMART CAMERA SYSTEM

- Supervise every area of the house anytime, anywhere
- Automatically record images when motion is detected
- Easy to access and observe from anywhere with Internet access

D. VIDEO DOORBELL SYSTEM

- Ring and display guests on tablet and smartphone screens when no one is home, allowing you to communicate with guests and open doors for guests to enter if needed

E. SMART SECURITY SYSTEM

- Protect House 24/7
- Controlling the risk of fire and explosion (gas leak, electric shock, etc.), illegal intrusion, etc....

F. ENVIRONMENTAL CONTROL SYSTEM

- Control temperature, humidity, oxygen concentration at appropriate level
- Automatically control air conditioners, dehumidifiers, and ventilation fans based on measured parameters

G. MULTI-AREA AUDIO SYSTEM

- Play music, movies according to preferences in different regions
- Automatically play music, show movies according to scenario and set time

H. SMART GARDEN SYSTEM

- Automatically water plants in the garden every day according to predetermined time
- Turn on and off lights automatically or according to predetermined scenarios

I. SMART GARA SYSTEM

- Automatic door control with smart controller without leaving the car
- Control combined with lighting, security system

J. SMART CLEANING SYSTEM

- Smart toilet set for bathroom with heat sensor faucet, automatic hand dryer and automatic water flushing device
- Control combined with lighting, sound, and multimedia entertainment.
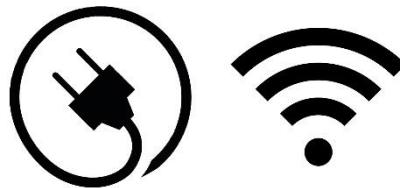
1.5 CONTROL CAPACITY OF TIS SMART HOME

Script control:
reception, dinner,
movie, relaxing,
going to bed ...

Control unlimited
space

Control by time:
morning, noon,
afternoon, evening

Control by smart watch,
smartphone or tablet

Options between a wired solution (with the advantage of
stable use, suitable for projects in the construction phase) or
wireless solution (suitable when upgrading old buildings)

1.6 APPLICATION (TIS SOLUTION)

SMART APARTMENT

SMART OFFICE

SMART HOTEL

SMART HOSPITAL/ CLINIC

SMART RESTAURANT

SMART RESORT

2 SMART HOTEL/ RESORT SYSTEM STRUCTURE

2.1 TYPICAL SYSTEM DIAGRAM 1

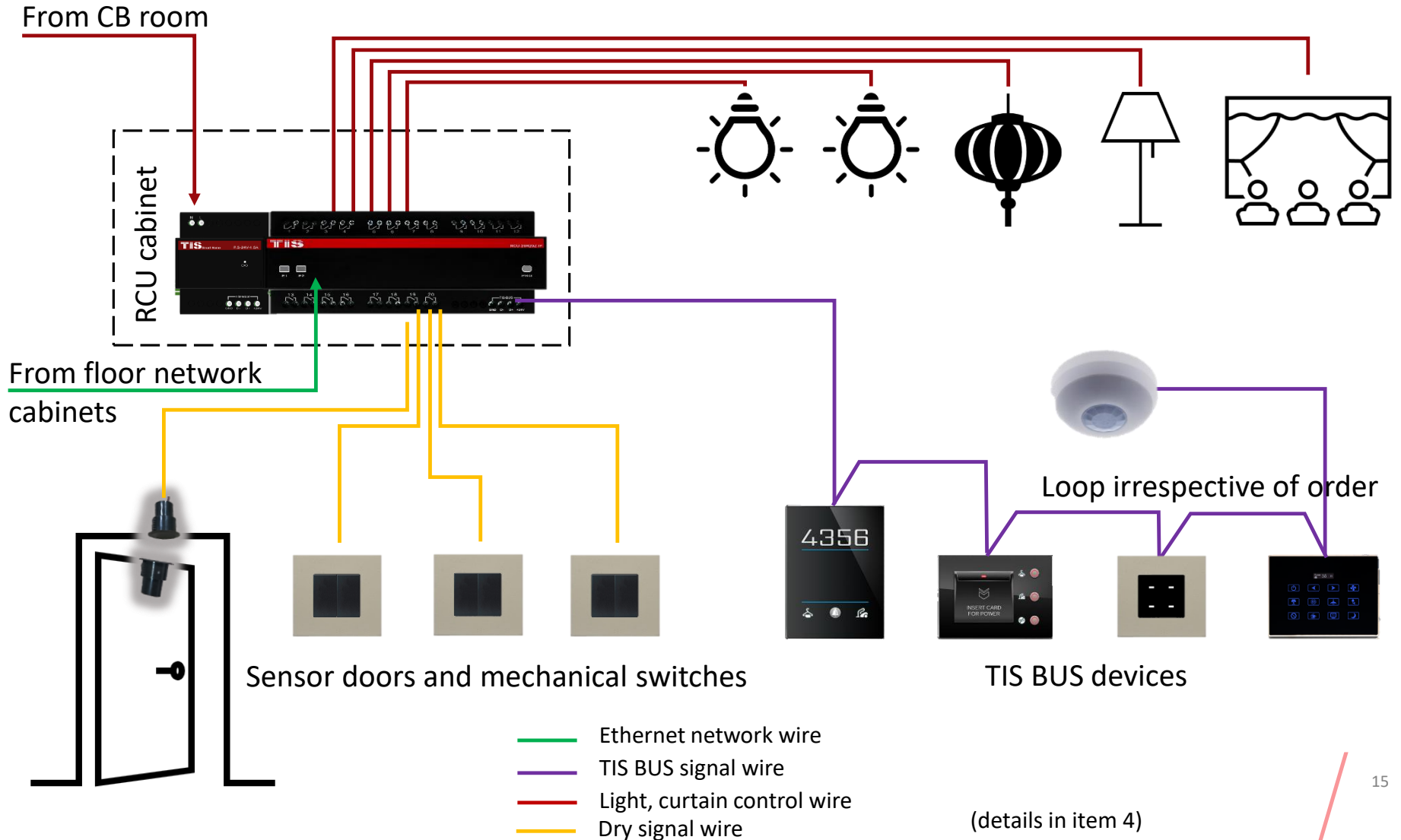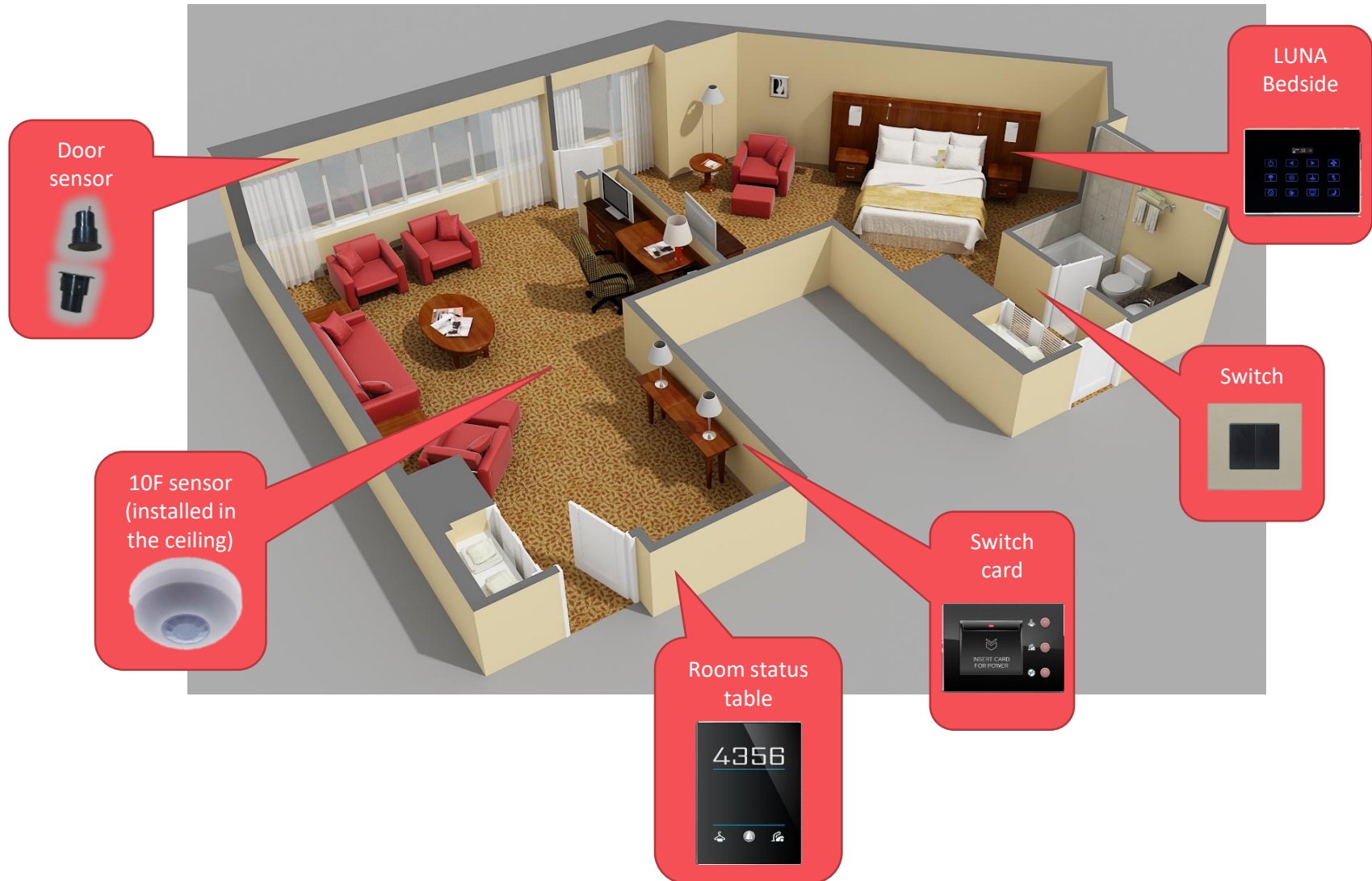Applying to all types of user interfaces, control the air conditioner by infrared, HVAC

Ethernet network wire

TIS BUS signal wire

Air-conditioner control wire
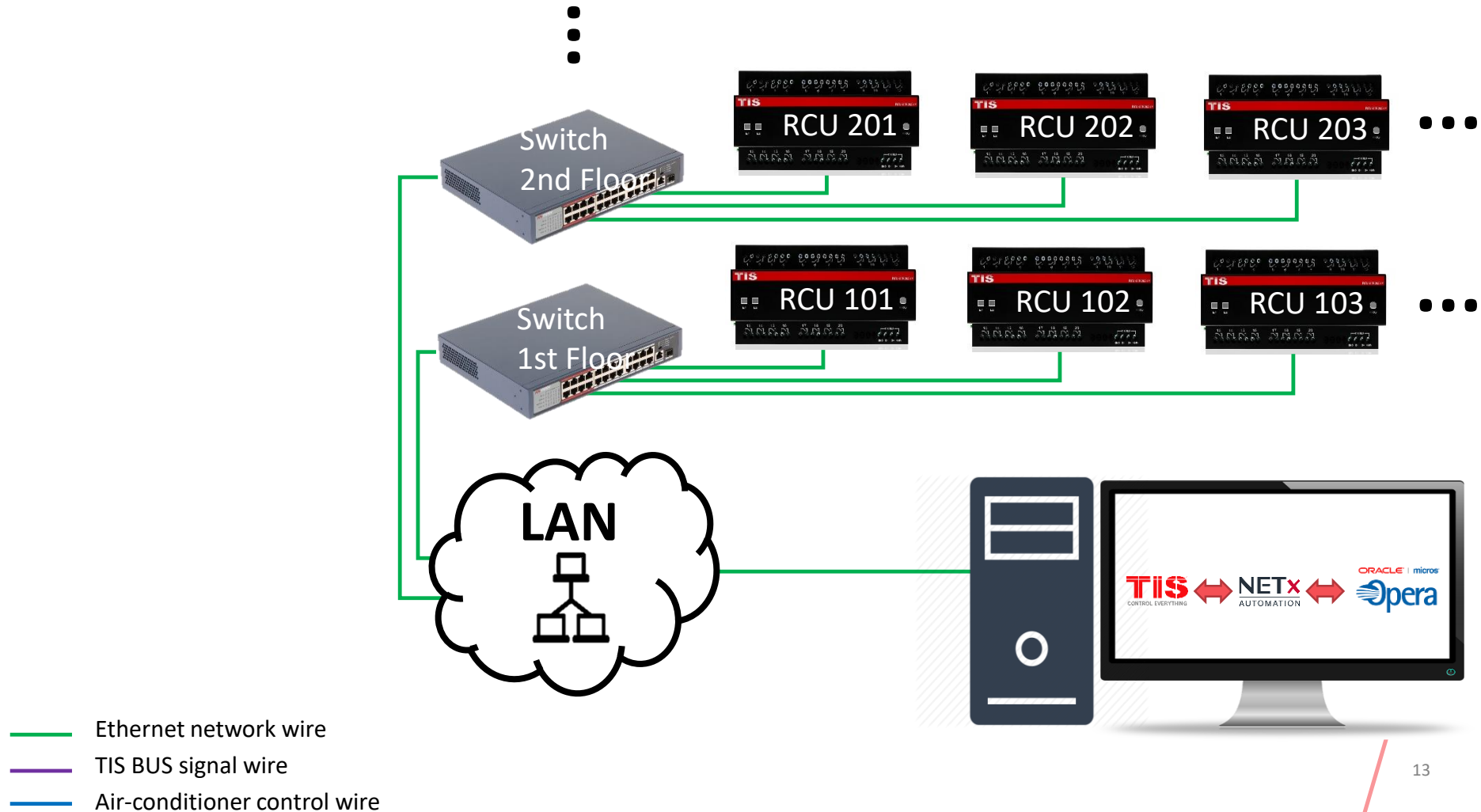
2.2 TYPICAL SYSTEM DIAGRAM 2

Applying to all types of user interfaces, using VRV air conditioning system.

Ethernet network wire

TIS BUS signal wire

Air-conditioner control wire
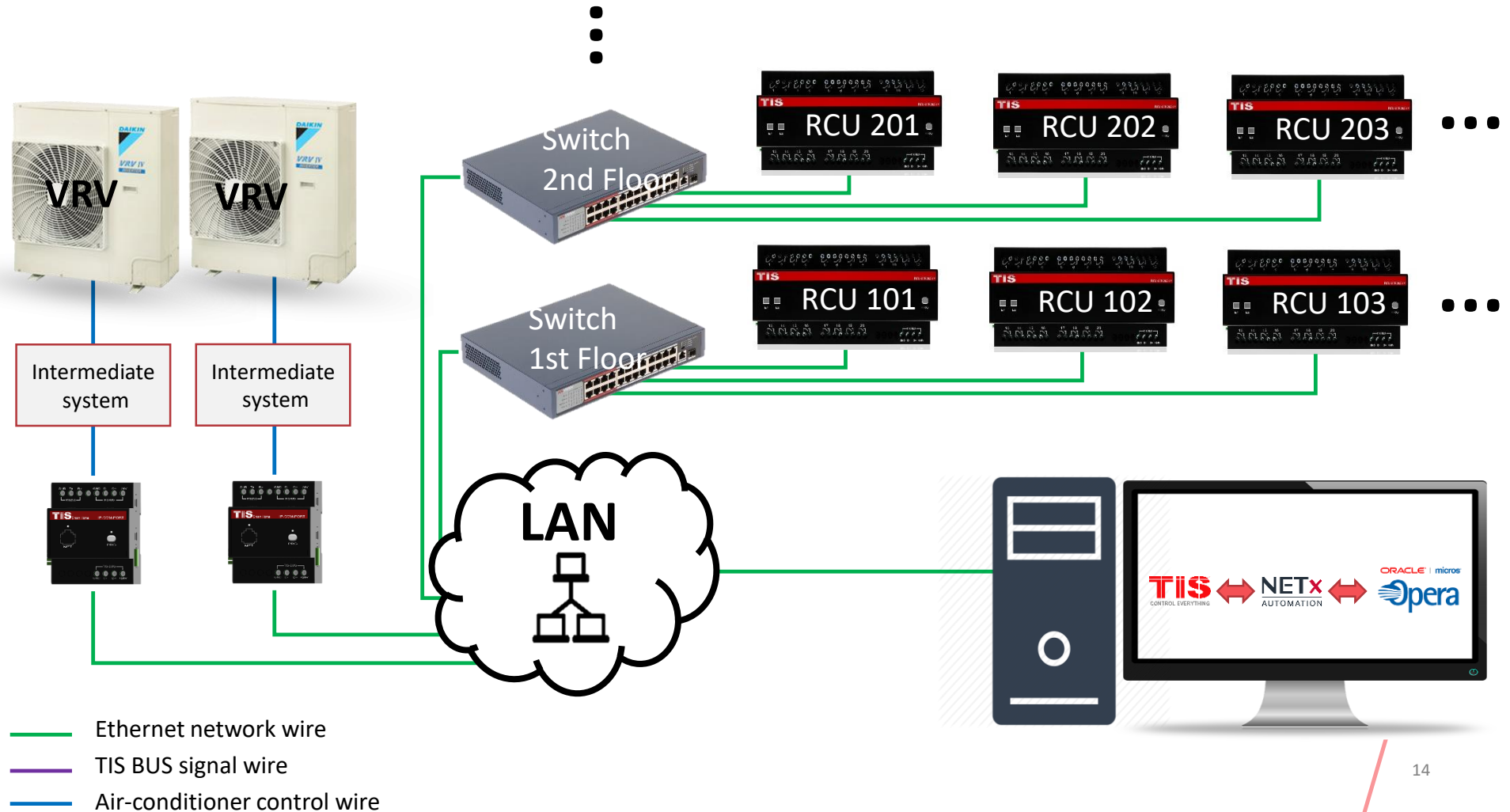
2.3 DIAGRAM OF EQUIPMENT CONNECTION IN A ROOM

From CB room

RCU cabinet

From floor network cabinets

Loop irrespective of order

4356

Sensor doors and mechanical switches

TIS BUS devices

Ethernet network wire
TIS BUS signal wire
Light, curtain control wire
Dry signal wire

(details in item 4)

2.4 PLACEMENT OF DEVICES IN 1 ROOM

Door sensor

LUNA Bedside

Switch

10F sensor (installed in the ceiling)

Switch card

Room status table

4356

INSERT CARD FOR POWER

3 DEVICES

3.1 RCU CABINET

RCU equipment cabinets can be wall cabinets or industrial cabinets

A basic RCU cabinet includes 1 power module and 1 RCU module
Additional modules will be installed according to customer requirements

3.1.1 POWER SUPPLY MODULE
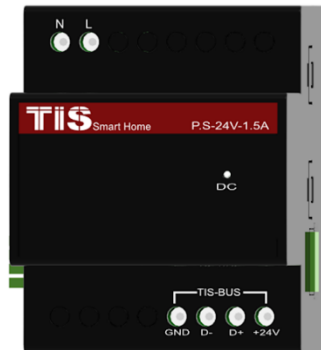
Code: P.S-24V-1.5A

Installation: install RCI cabinet

Function: supply power for cabinets and TIS devices

Input: 110-240VAC 50/60Hz

Output: 24VDC 1.5A

3.1.2 RCU MODULE

Code: RCU-20R20Z-IP

Installation: install RCU

Function: Receive signals from the switch
Turn on and off lights, curtains
Communicate with the server

Signal: TIS-BUS
20 dry signal output

Maximum load: 20 relay channels
Maximum per channel: 440VAC / 125VDC 10A (AC)

3.2 USER INTERFACE

Could use one of the following 4 product lines, or combine them

Luna Hotel Series   IO Hotel Series   Terre Hotel Series   Mechanical switch
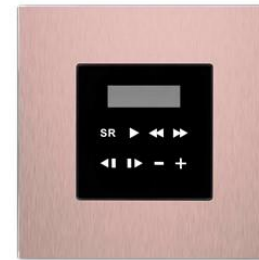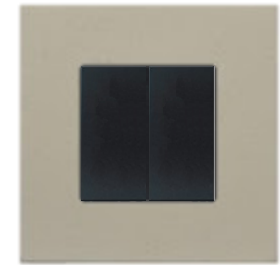
3.2.1 LUNA PRODUCT LINE

L U N A
SERIES

a Luna Bedside

Code: LUNA-BEDSIDE

Installation: install on the wall or in a box (as shown)

Interface: 0.9 "OLED screen, 12 touch keys (4 keys for air-conditioner, 8 keys for lights/ curtains)

Functions: control air conditioning, lights, and curtains in the room

Connect: TIS BUS (Included Addition)

b Luna Bell 3S
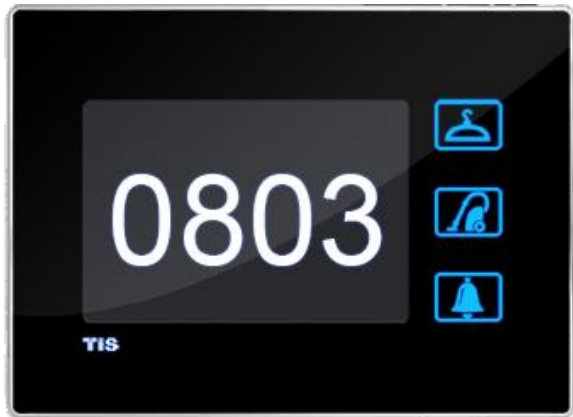
Code: LUNA-BELL-3S

Installation: on the wall

Interface: Backlight shows the room number,
3 room states,
Touch tone key

Functions: show room status, press bell

Connect: TIS BUS

c Luna Bell 3S RF

Code: LUNA-BELL-3S-RF

Installation: on the wall

Interface: Backlight shows the
                   room number,
                   3 room states,
                   Touch tone key

Functions: show room status, press
                   bell, open the door by
                   swiping the card

Connect: TIS BUS

c Switch Card

Code: CARD-SW-SRV3

Installation: on the wall

Interface: RF-Temic card slot

Function: Turn on the power in the room

Connect: TIS BUS

3.2.2 IO PRODUCT LINE

a IO AC with 4G

Code: IO-AC-4G

Installation: on the wall

Interface: 2.3 "OLED screen,
1 knob for air conditioner,
4 mechanical keys for lights

Function: control air-conditioner, lights, curtains in a room

Connect: TIS BUS

b IO outdoor bell without RF

Code: IO-OUT-HOTEL

Installation: on the wall

Interface: Backlight shows the room number
2 room service lights,
1 mechanical chime key
(simultaneously shows DND)

Function: show room status, press bell

Connect: TIS BUS

c IO outdoor bell with RF

Code: IO-OUT-HOTEL-RF

Installation: on the wall

Interface: Backlight shows the room number
2 room service lights, 1 mechanical chime key (simultaneously shows DND)

Function: show room status, press bell, open the door by swiping the card

Connect: TIS BUS

c IO Switch Card

Code: IO-CARD-3SRV

Installation: on the wall

Interface: RF Temic card slot,
3 keys for room service
(Room cleaning,
laundry, DND)

Function: Turn on the power in the
room

Connect: TIS BUS

d 8-key IO board

Code: IO-8G

Installation: on the wall

Interface: 8 mechanical buttons

Function: control lights, curtains in a room

Connect: TIS BUS

3.2.2 TERRE PRODUCT LINE
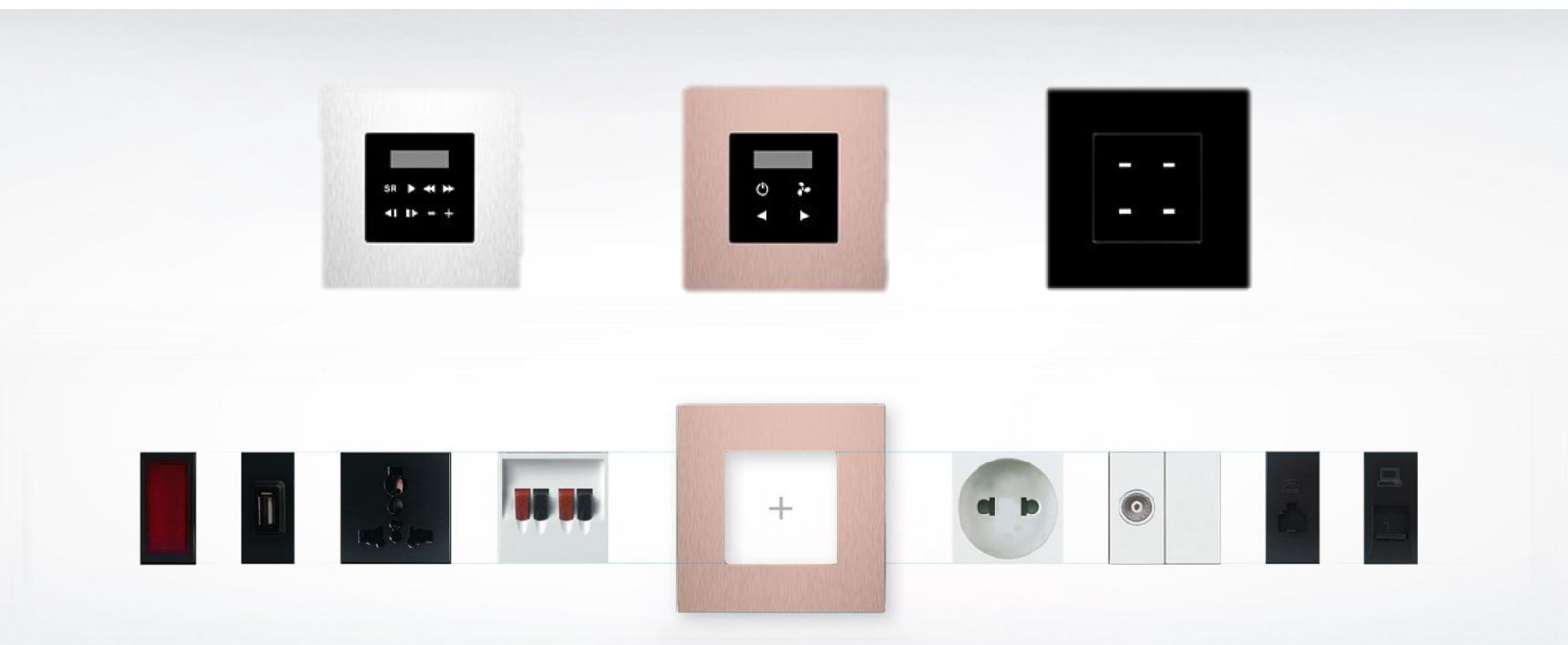
a TERRE 4 keys
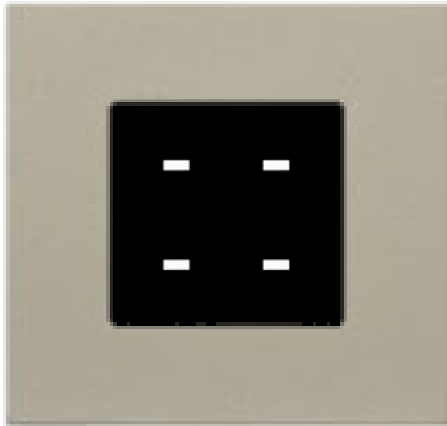
Code: TER-4G

Installation: on the wall

Interface: 4 touch keys

Function: control lights, curtains in
a room

Connect: TIS BUS

b TERRE controls the air conditioner

Code: TER-ACT

Installation: on the wall

Interface: 0.9 "OLED screen, 4 keys on / off, fan speed, temperature

Function: control air - conditioner

Connect: TIS BUS

c TERRE requires service

Code: TER-4SRV-B

Installation: on the wall

Interface: 4 touch keys (DND, Room Cleaning, Laundry, Exit)

Function: Control panel out-of-room status

Connect: TIS BUS

d Socket, network socket, TERRE mechanical switch
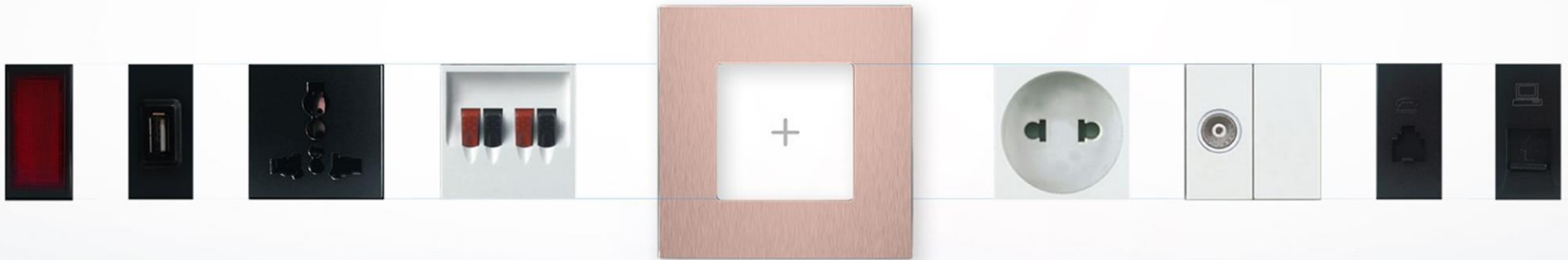
In addition to touch switches, the TERRE series also has sockets, network sockets, …
➡ Help synchronize the electrical system inside the room

e TERRE Frame
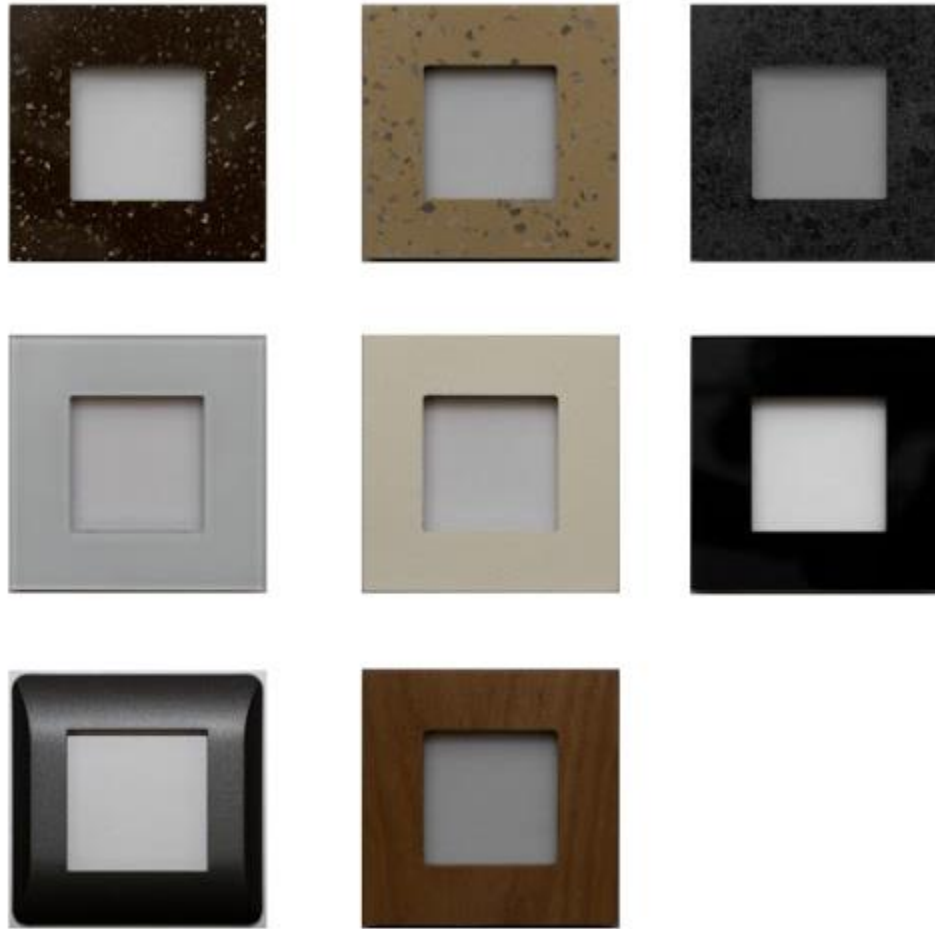
Frame: glass, aluminum, plastic with a variety of colors.

3.2.2 MECHANICAL SWITCH

Code: TE0810/TE0801, etc.

Installation: on the wall

Interface: Mechanical keys (in accordance with the TERRE frame)

Function: control lights, curtains in a room

Connect: RCU

In addition to the TIS mechanical switch, the TIS RCU can connect to any other type of mechanical switch.

➡ Wiring from the switch to the RCU cabinet

3.3 CONTROL REFRIGERATOR AND SENSOR

3.3.1 INFRARED TRANSMITTER 10F-ES

infrared

move

Code: ES-10F-CM

Installation: on the wall

Function: Air conditioner control, Motion sensor, Logic

Connect: TIS BUS

3.3.2 REFRIGERATION CONTROLLER VRV

Code: IP-COM-PORT

Installation: in a cabinet

Function: Communicate with VRV air conditioners through Intesis, CoolMaster, DT116A51 (Daikin), TCB-IFMB641T (Toshiba), etc.

Connect: TIS BUS
RS232, RS485
Ethernet

(In addition to the VRV air conditioner control function, IP-COM-PORT can be used as a switching gateway between Ethernet and TIS BUS)

3.3.3 DOOR SENSORS

Installation: The wired part attached to the door frame, The wireless part attached to the door

Function: Door status sensor

Connect: RCU

4 DEVICE CONNECTION

4.1 LIGHTS CONTROL CONNECTION

Đến N tổng

Đến L tổng

MCB

O-OFF
I-ON

TIS RCU-20R20Z   ⚠ WARNING! HIGH VOLTAGE!

1 2 3 4   5 6 7 8   9 10 11 12

E1 E2   PRG

13 14 15 16   17 18 19 20   TIS-BUS
                                          GND D- D+ +24V

KếtnốiTIS BUS

PVC 2.5 mm
PVC 1.5 mm
PVC 1.5 mm
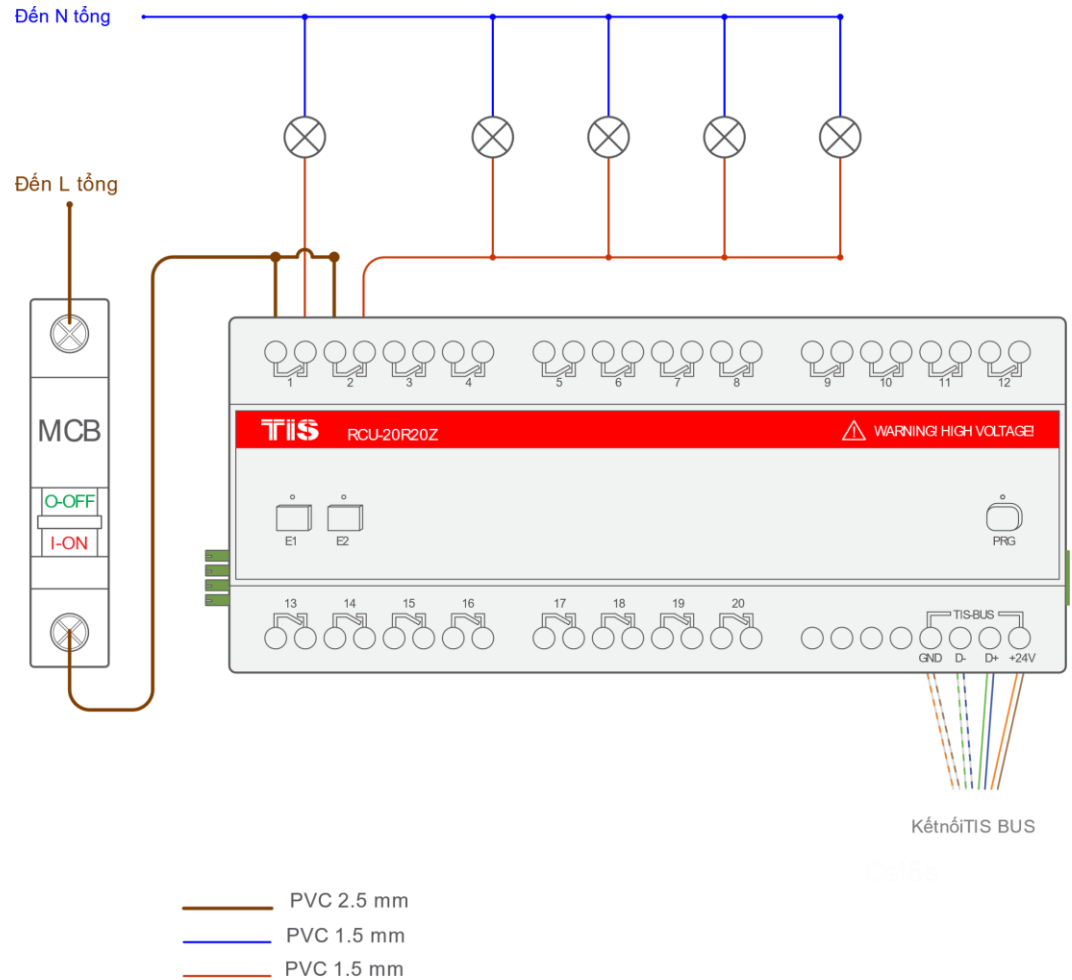
4.2 CURTAINS CONTROL CONNECTION

Đèn N

Đóng

Mở

220 ~ 110 Volt

Đèn L tổng

MCB

0-OFF

I-ON

TIS RCU-20R20Z ⚠ WARNING! HIGH VOLTAGE!

E1 E2 PRG

GND D- D+ +24V

Kết nối TIS BUS

PVC 2.5 mm

PVC 1.5 mm

PVC 1.5 mm
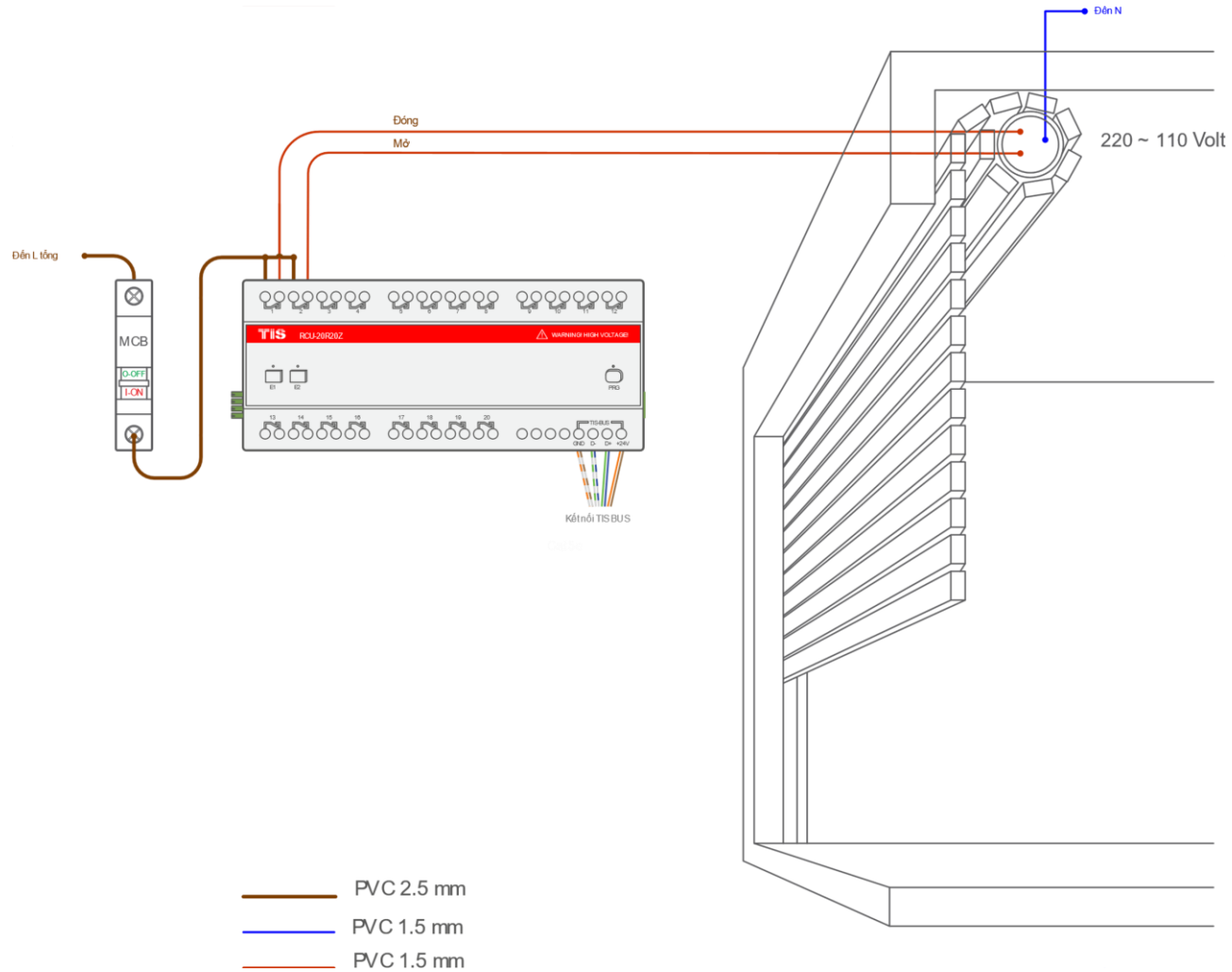
4.3 CONNECT DOOR LOCK CONTROLLER (MAGNETIC LOCK)

TIS RCU-20R20Z   ⚠ WARNING! HIGH VOLTAGE!

E1 E2   PRG

TIS-BUS
GND D- D+ +24V

Kết nối TIS BUS

AC/DC ADAPTER
Input 110~220V AC
Output 12V DC

Đến N   Đến L

Dây điện áp thấp
Dây điện áp thấp
PVC 1.5 mm
PVC 1.5 mm

Khóa từ
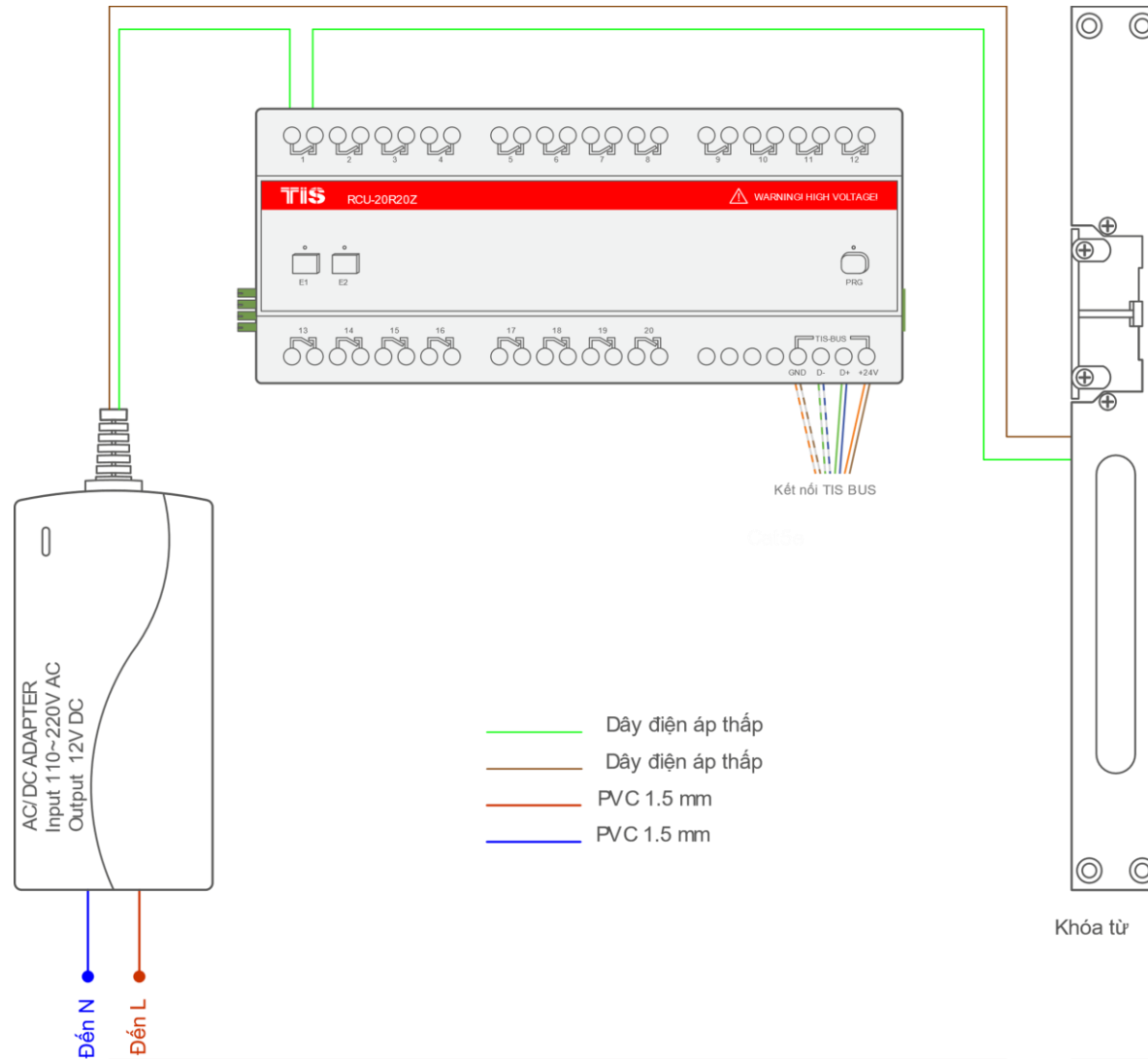
4.4 CONNECT DOOR SENSOR SIGNALS

Công tắc từ gắn cửa

Dây điện áp thấp
Dây điện áp thấp
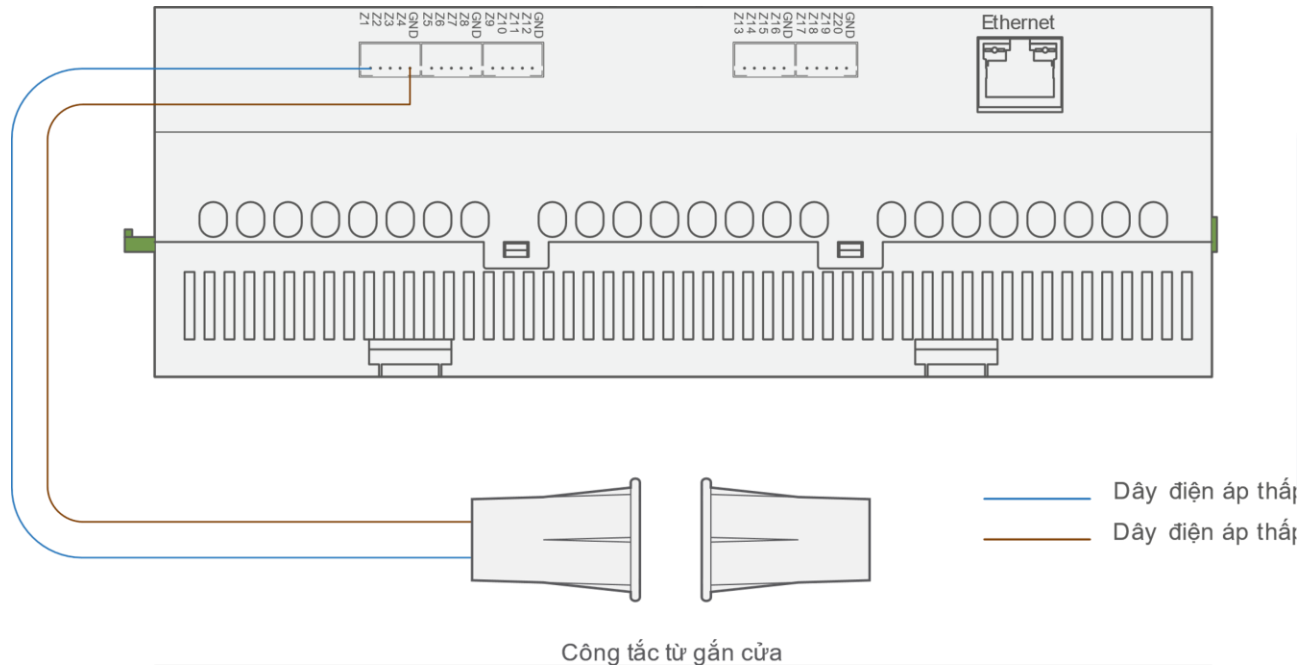
4.5 CONNECT MECHANICAL SWITCH

Công tắc truyền thống

	Dây điện áp thấp
	Dây điện áp thấp
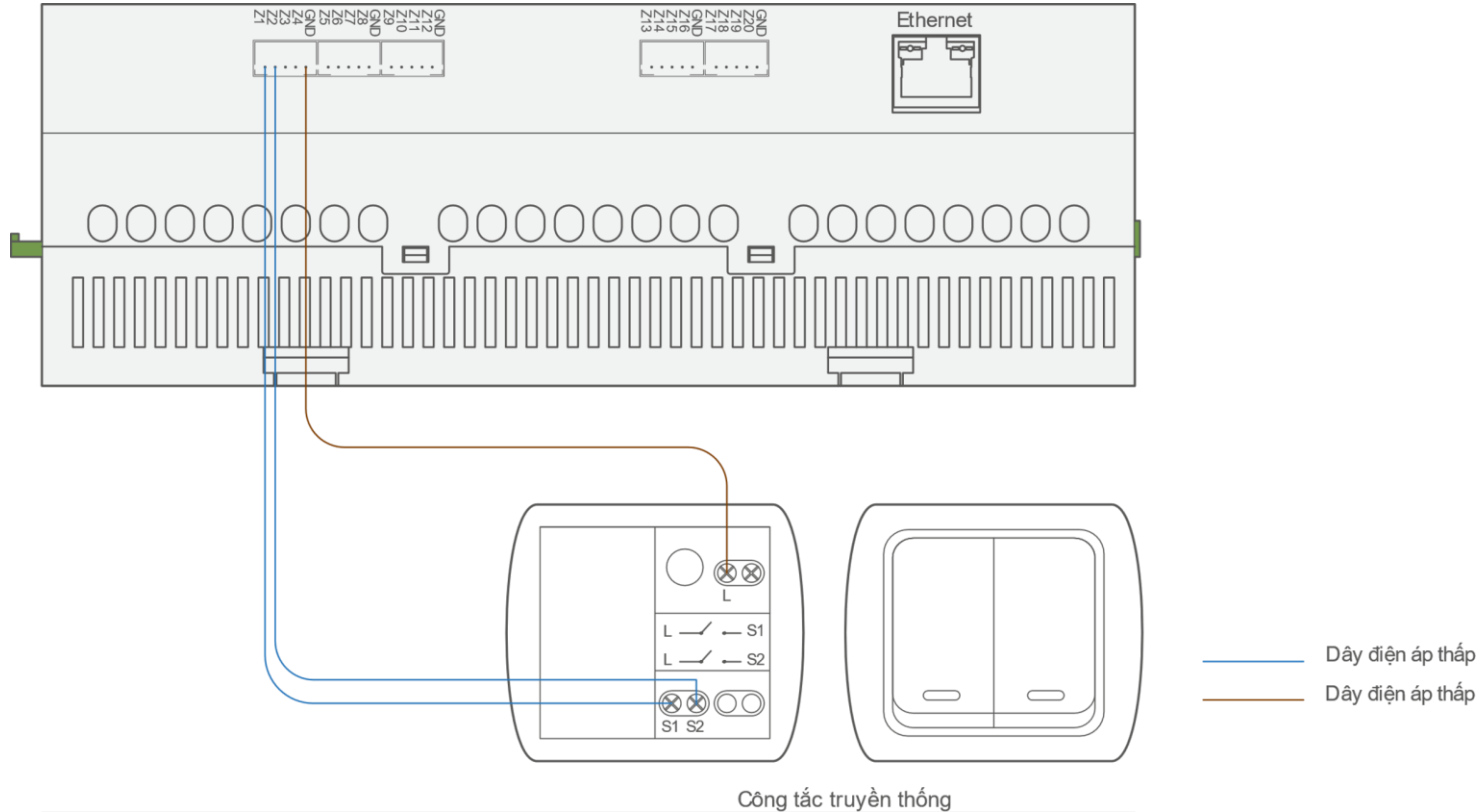
4.6 CONNECT THE SOURCE MODULE

N   L

TIS   P.S-24V-1.5A

DC

TIS-BUS

GND   D-   D+   +24V

PVC 1.5 mm
PVC 1.5 mm

Kết nối TIS BUS

Đến L
Đến N

MCB

O-OFF
I-ON
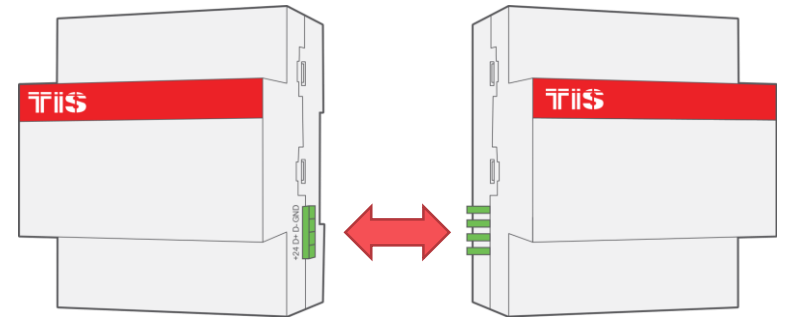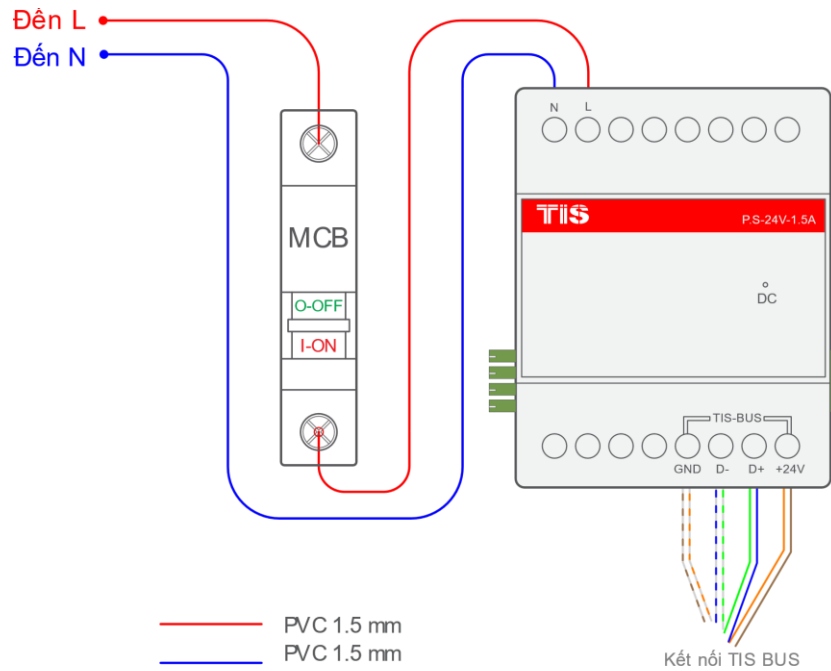
The devices in the RCU are assembled on the din rail

4.7 CONNECT VRV REFRIGERATOR CONTROL
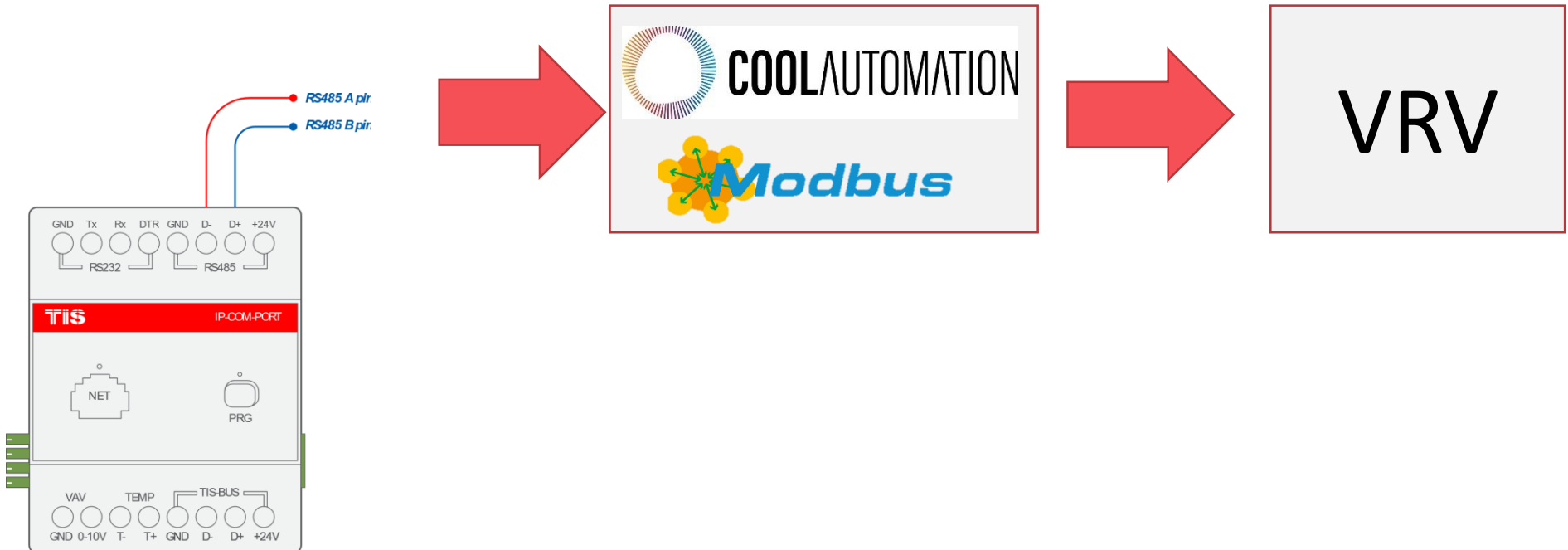
The IP-COM-PORT module connects to 3rd party
devices via RS232 and RS485

4.8 CONNECT TIS BUS SIGNALS

TIS-BUS

GND   D-   D+   +24V

Kết nối TIS BUS

Cat5e

Cat5e

Cat5e

Kết nối TIS BUS

4356

INSERT CARD
FOR POWER
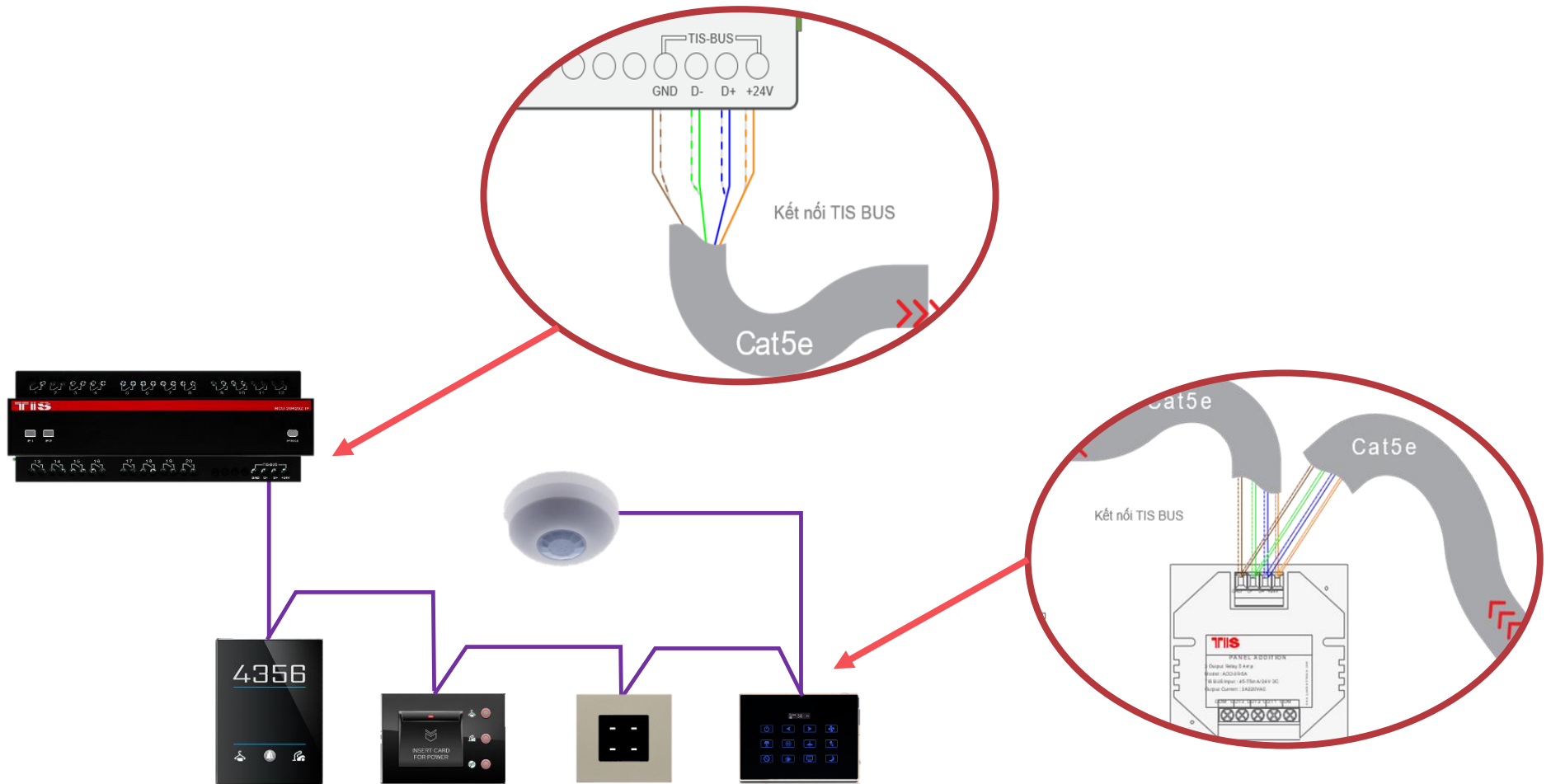
4.9 CONNECT RCU WITH SERVER

Code RCU-20R-20Z-IP or IP-COM-PORT both have Ethernet connection to the Server
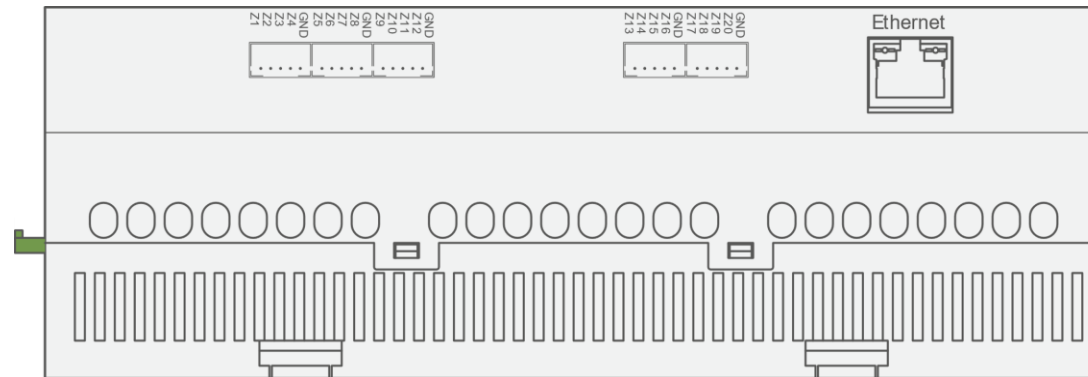
The connection between RCUs and the server is shown in Section 2

5 WORK OF THE SYSTEM

5.1 CHECK-IN

RECEPTION

- Guests check in
- Receptionist entered the software, activated the card.
- Guests receive cards, go to the room

- Recognition software

5.2 CUSTOMERS OPEN DOOR

- Recognition software

- Guests use the card to unlock the door
-> If the card is available, the door will be opened

5.3 PASSENGER ENTER THE ROOM

- Software recognizes, shows room status is on
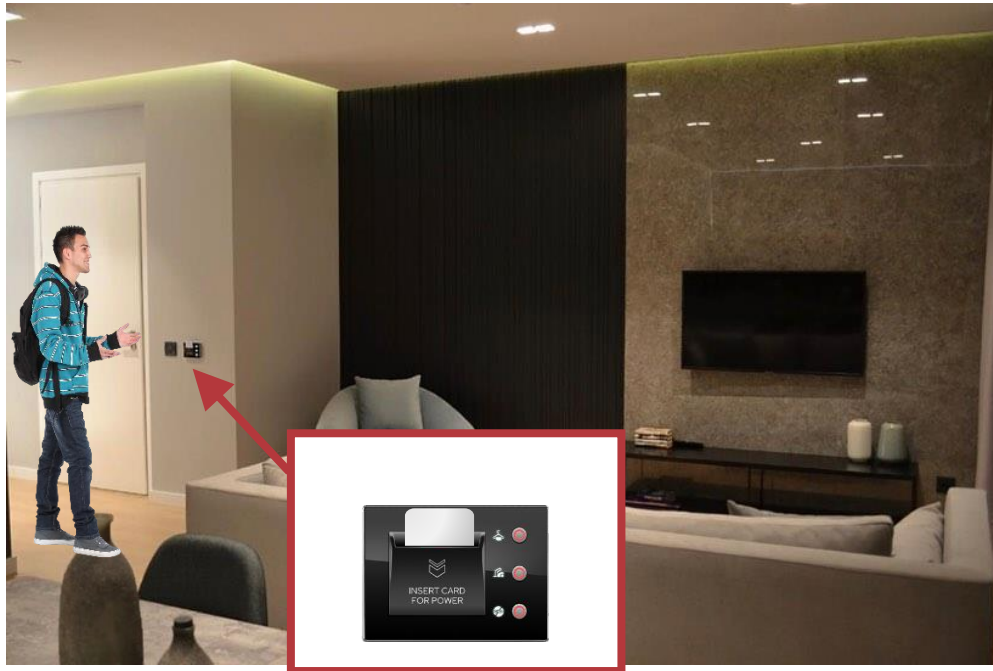
- Guests put the card in the Switch card
-> Turn on electricity, enable script "enter room"

5.4 CUSTOMERS USE THE ELECTRICAL SYSTEM

- Guests can quickly learn how to use the electrical system in the room
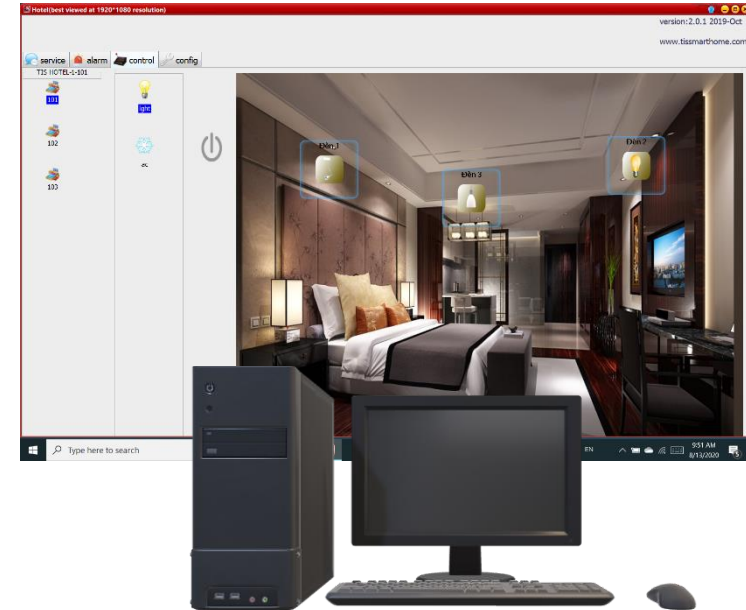
- The software shows the status of specific devices on

5.5 CUSTOMERS REQUEST ROOM SERVICES

Guests press the **laundry** or **cleaning** button to request service

Room status table outside the door changes status

- The software notifies after 30 seconds, avoiding the case of customers changing their mind or mistakenly clicking

5.6 CUSTOMERS DON'T WANT TO BE INTERRUPTED

Room 402 turns on DND

- The software is notified and shows DND enabled room status

Guest press the DND button

Room status table change status
Can't ring the bell

5.7 GUESTS NEED URGENT ASSISTANCE

Room 303 SOS!

Lên cơn đau tim!

- When the guest needs help, they press the SOS button

- The software will be alerted with sound immediately

5.8 GUESTS OPEN THE DOOR BUT STILL TURN ON THE AIR CONDITIONING

Turn off the air conditioner

- Sensor detects windows/ doors opening

- After 5 minutes of not closing, send infrared (or send command to VRV) to turn off the air conditioner

5.9 THE GUESTS LEAVE THE ROOM

- The software will recognize the room status is off
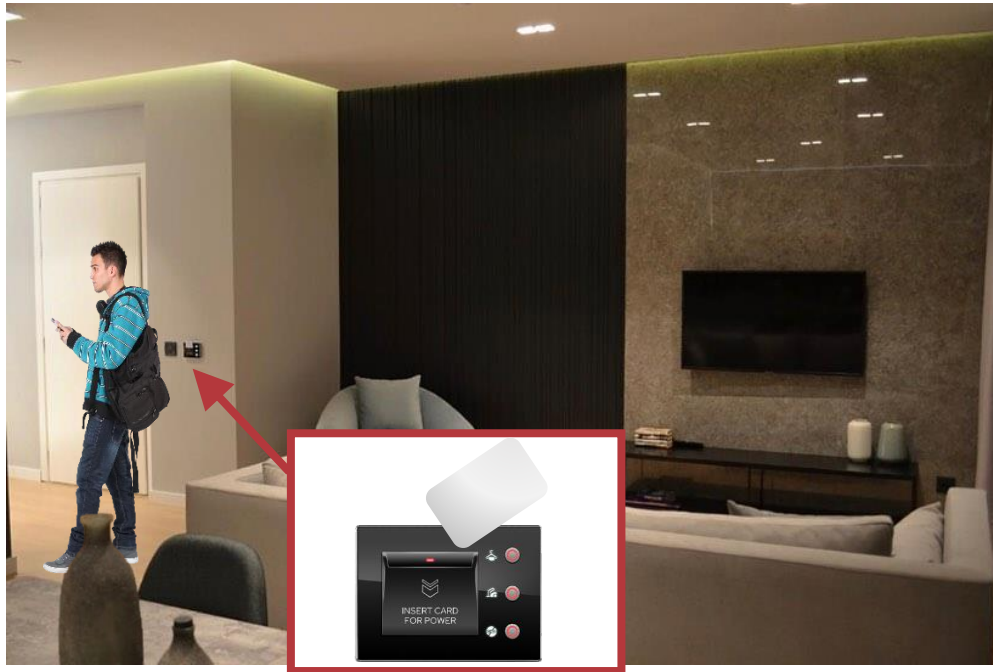
- The visitor withdraws the card from the Switch card
-> The power turns off after 30 seconds

5.10 GUESTS CHECK OUT

RECEPTION

- Guests check out.
- Reception enters the software, deactivates the card

- The software charges fee according to length of stay and room price

6 TYPICAL PROJECTS

TYPICAL PROJECTS

Raffles Hotel, Udaipur, India

Heritage Hotel, Yangon, Myanmar

Hilton Garden Inn, Tanger, Marroco
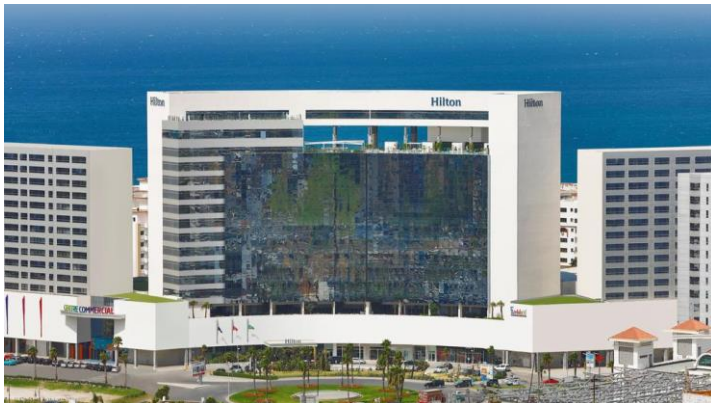
Fairmont Resort & Spa Blue Mountains, Australia

TYPICAL PROJECTS

Address Marina Hotel, Dubai, UAE

Grand Hotel, Shiraz, Iran

Radisson Blu Hotel, Marrakech Carre Eden, Marroco

Hyatt Shargh Hotel, Mashhad, Iran

TYPICAL PROJECTS

ArtNest Luxury Hotel & Suites, Sarandë, Albania

Kempinski Hotel, Nay Pyi Taw, Myanmar

Asi Rooftop Hotel, Sarandë, Albania

Hotel Club Val d'Anfa Casablanca, Marroco

SOME REAL PROJECT PHOTOS
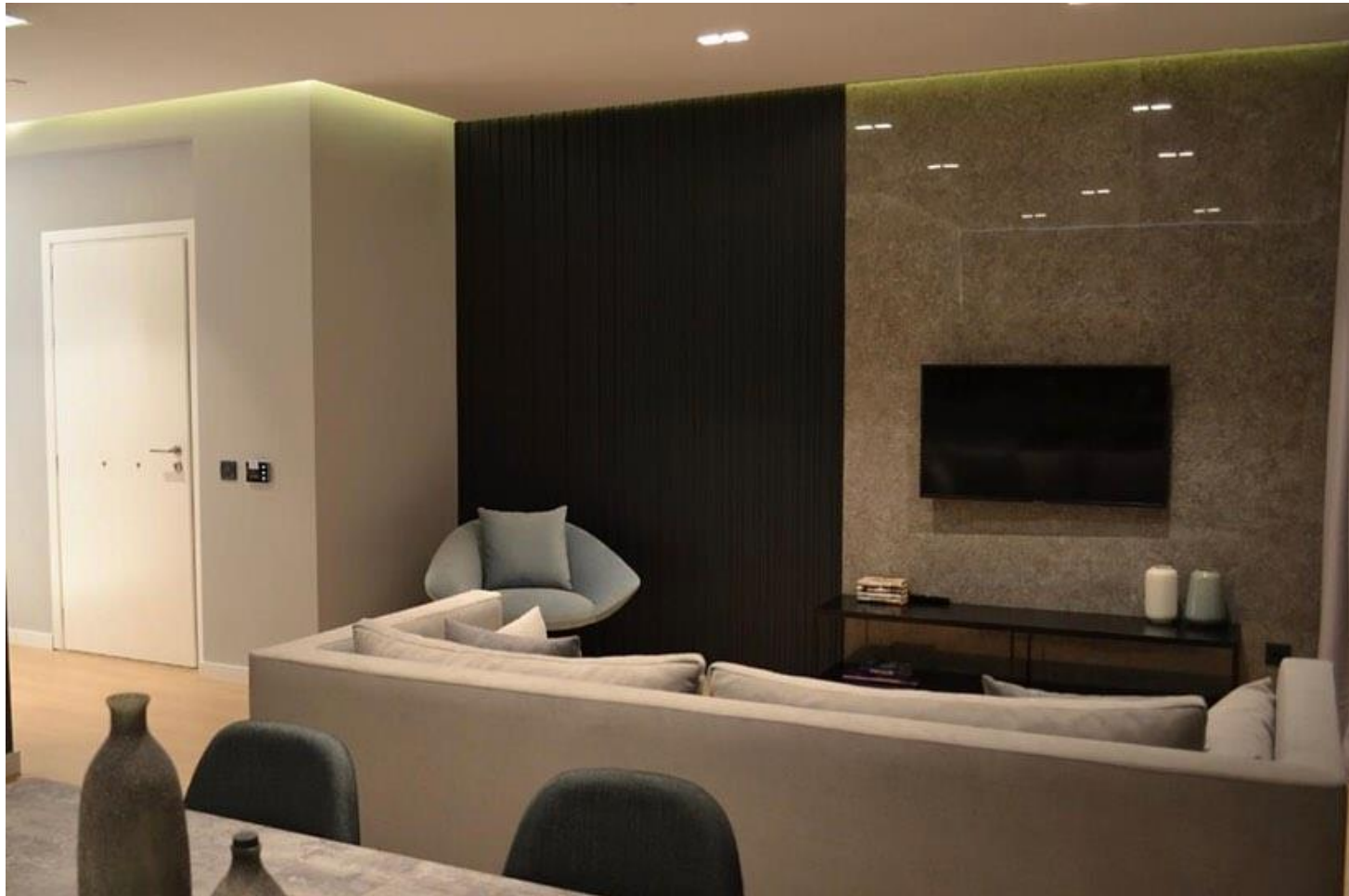
A room at ArtNest Luxury Hotel & Suites, Sarandë, Albania
With Switchcard located at the door

SOME REAL PROJECT PHOTOS

Another room at ArtNest Luxury Hotel & Suites, Sarandë, Albanian

SOME REAL PROJECT PHOTOS

Status panel is installed outside the room, LUNA BELL

SOME REAL PROJECT PHOTOS

IO Switchcard has 3 mechanical keys installed inside the room

SOME REAL PROJECT PHOTOS

LUNA BEDSIDE is installed at the bedside

SOME REAL PROJECT PHOTOS

TERRE series touch switches at the head of the bed

SOME REAL PROJECT PHOTOS

Notice when the room 303 alarms

SOME REAL PROJECT PHOTOS

Do not disturb (DND) status and services requirement of room 303

SOME REAL PROJECT PHOTOS
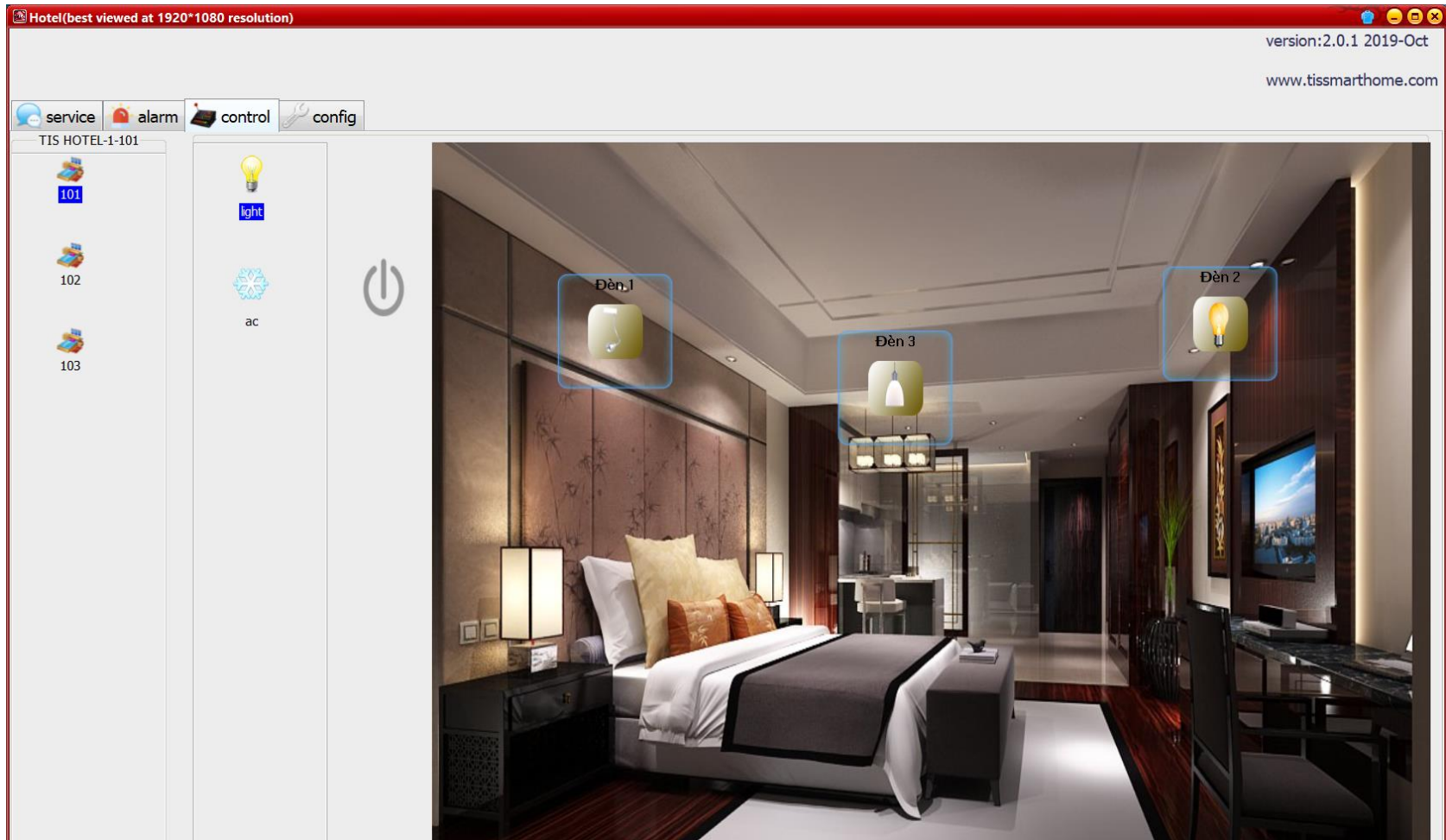
Interface of devices control in room 101

THE REASON FOR CHOOSING HOTEL SOLUTIONS OF TIS VIETNAM

✔ Brand from America

✔ Simple for guests using

✔ Many interfaces, being suitable for many types of room furniture

✔ Easy Management

✔ Cost savings

STAY WITH US

Tel: (+84) (28) 6681 9941 – Email: info@tisvietnam.com

Facebook: www.facebook.com/tissmarthomevietnam

Website: www.tisvietnam.com

Add: 1st Floor, Packsimex Tower, 52 Dong Du Street, Dictrict 1, HCMC, VN

Showroom: 4th Floor, 361 Pham Van Bach Street, Tan Binh Dictrict, HCMC, VN

Nhà mẫu: 563 To Ngoc Van, Thang Long Home Residential Area, Thu Duc District, HCMC, VN

……………………………………………