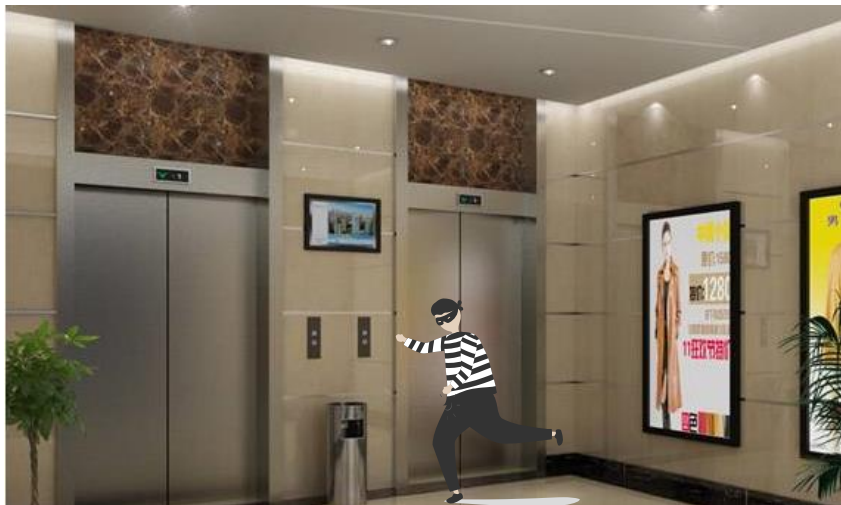# Elevator Control Solution Introduction

Overseas Building Solution
202009
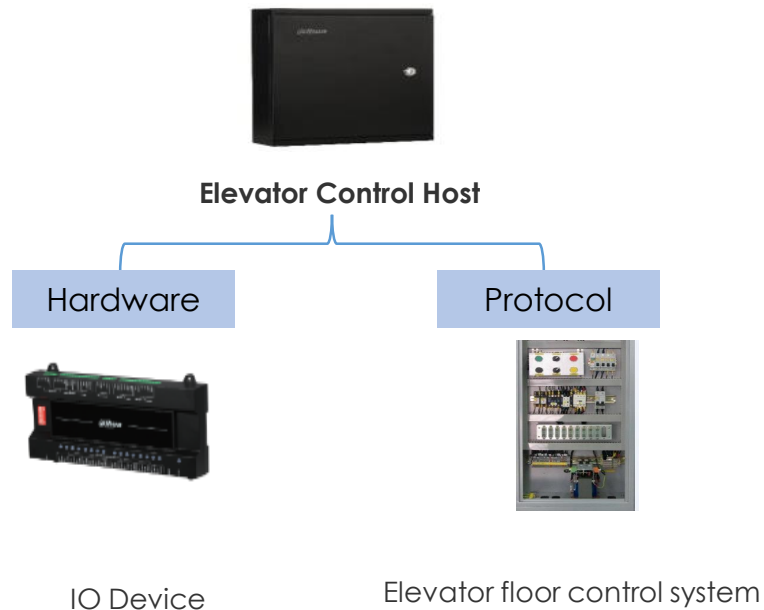
创新实现超越 品质打动世界
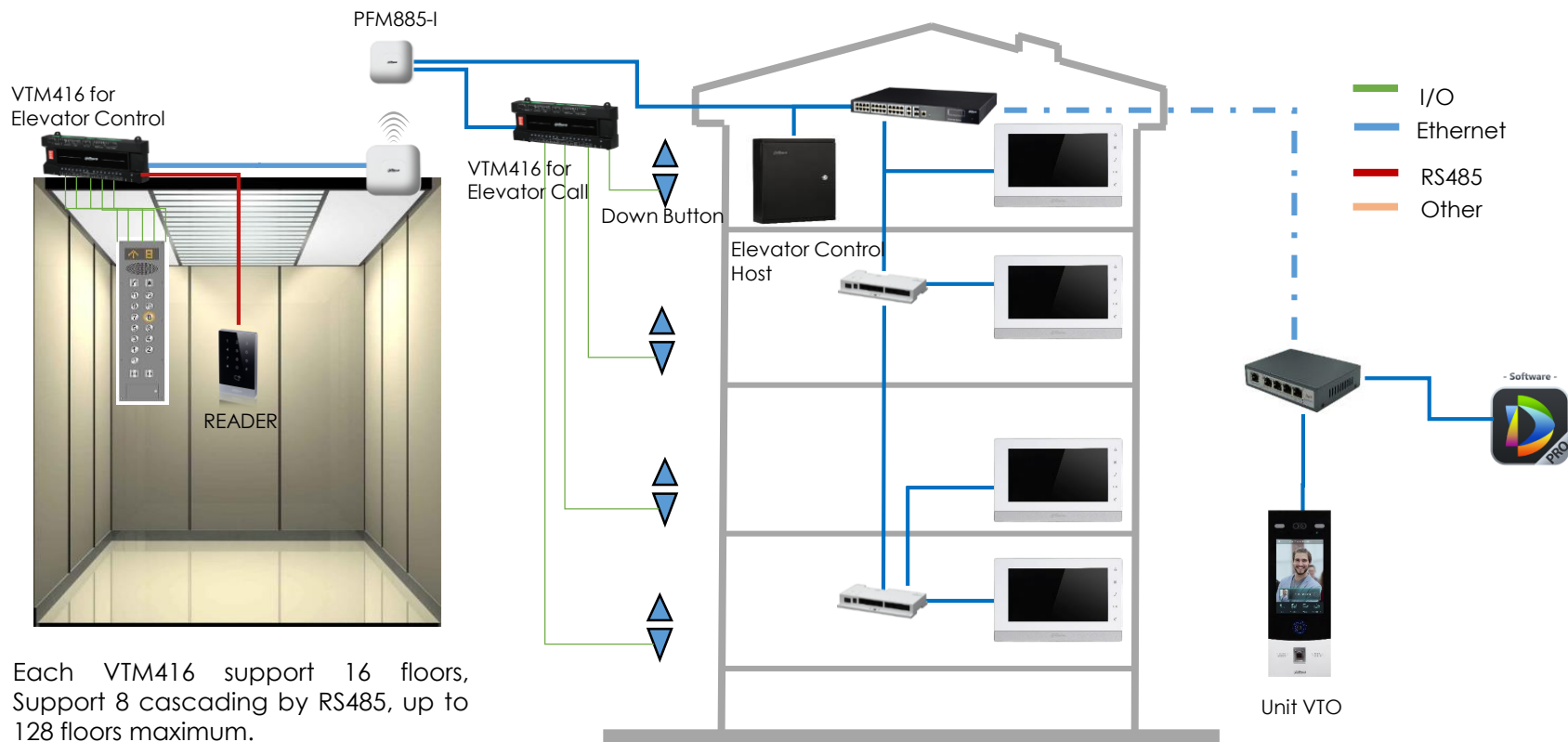
Elevator Control Solution Overview

Elevator control is widely used in residential, commercial building and hotel. It able to improve the security, also enhance the privacy space for end-user.

Dahua provide the solution based on two methods

Elevator Control Host

Hardware	Protocol

IO Device

Elevator floor control system

Residential Scenario

Hardware Connection Topology

PFM885-I

VTM416 for
Elevator Control

VTM416 for
Elevator Call

Down Button

READER

Elevator Control
Host

I/O

Ethernet

RS485

Other

- Software -

Unit VTO

Each VTM416 support 16 floors,
Support 8 cascading by RS485, up to
128 floors maximum.

Hardware Connection Topology(optional)

PFM885-I

Elevator Control Host

Reader

VTM416 for Elevator Call

VTM416 for Elevator Control
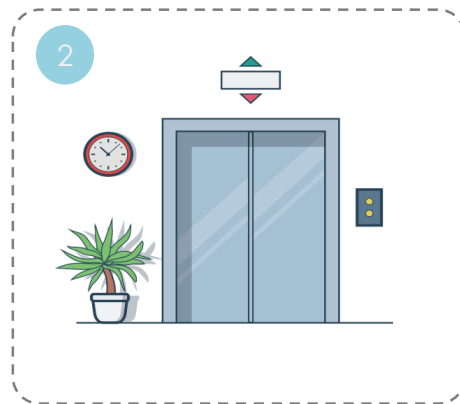
I/O
Ethernet
RS485
Other
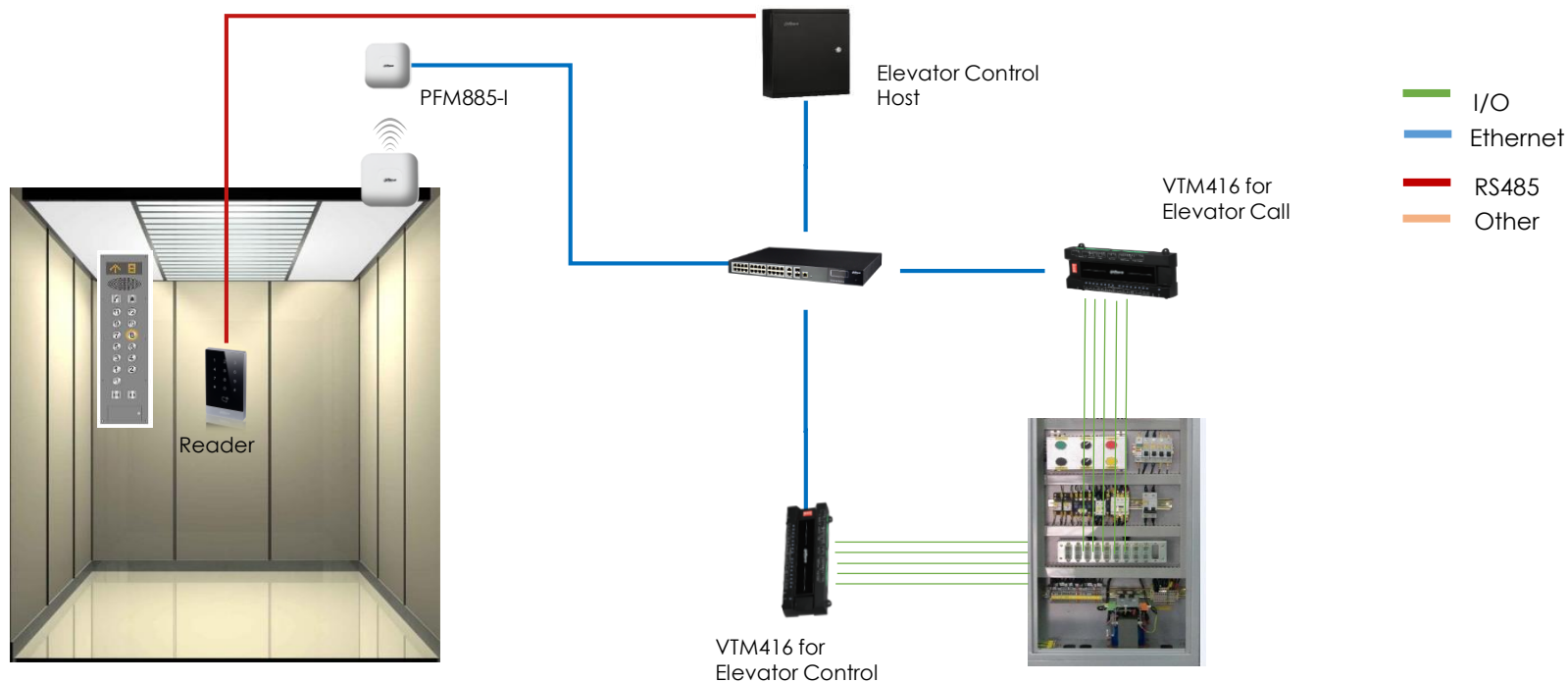
Each VTM416 support 16 floors, Support 8 cascading by RS485, up to 128 floors maximum.

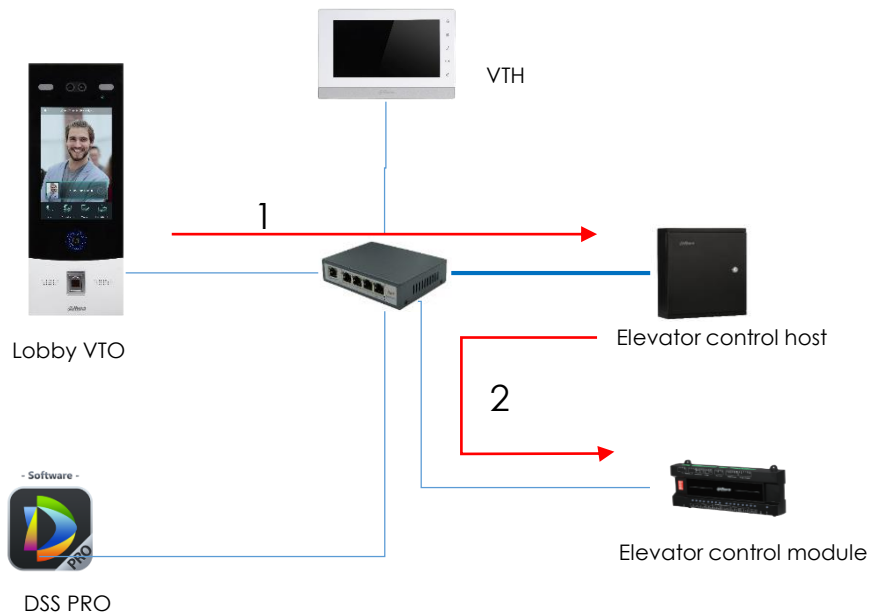# Residents goback home

① Authenticate at VTO;

② VTO gate open and light up the up
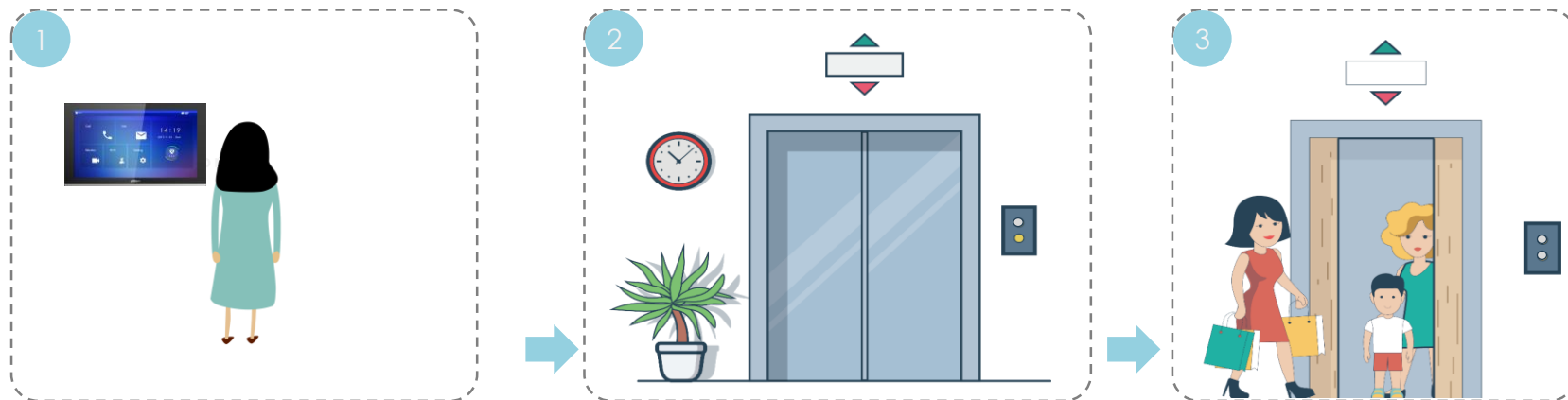
button automatically.

③ Light up the floor, if exceed the authenticated time, authenticate inside car again.

Residents goback home

VTH

Lobby VTO

Elevator control host

1

2

Elevator control module

- Software -

DSS PRO

1. Resident authenticated at VTO, send the person ID to Elevator control host;
2. Elevator control host get the permissioned floor information based on the person ID, send IO relay signal to Elevator control module;
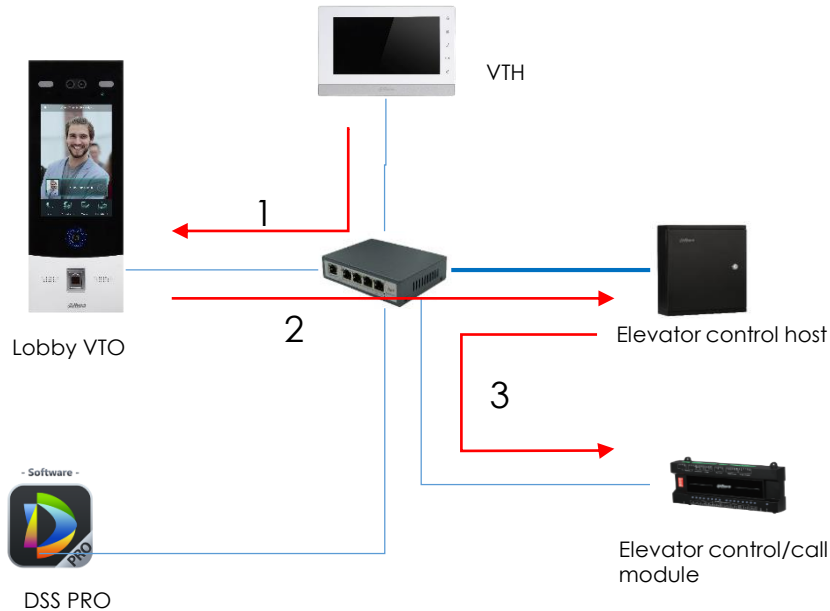
Residents go downstairs

1 Press "Elevator call" on VTH.

2 Light the floor down button automatically.

3 Elevator arriving.

Residents go outside

VTH

Lobby VTO

1

2

3

Elevator control host

DSS PRO
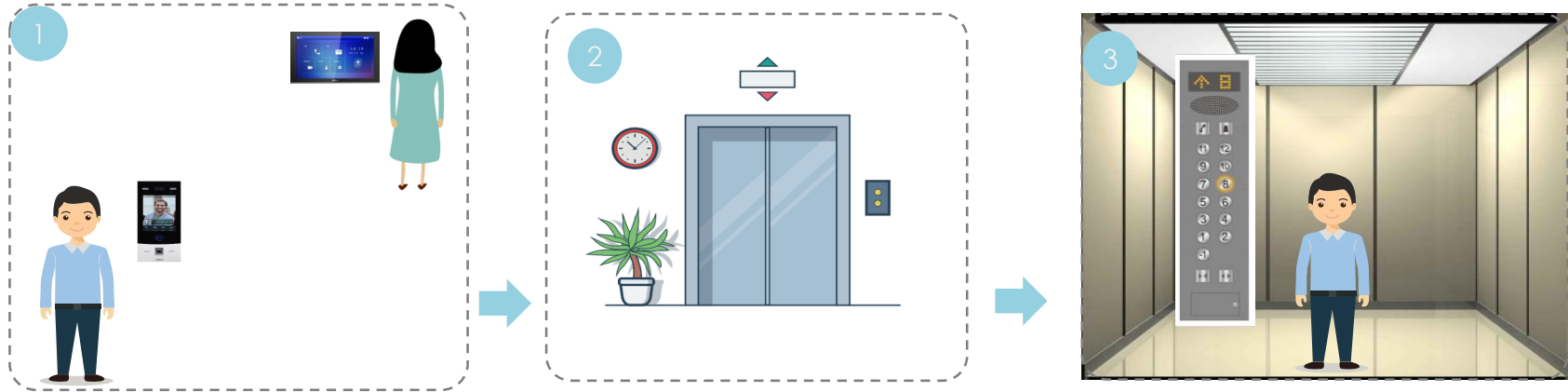
Elevator control/call module

1. Resident press the 'Elevator call' function at VTH; VTH send the person information to VTO;
2. VTO send the person ID to Elevator control host;
3. Elevator control host send relay out signal to Elevator call/control module.

Visitor mode

① Visitor communicate with resident by VDP

② Resident open the gate via VTH and elevator go to floor 1;

③ Elevator arriving, visitor only allow to light up the owner's floor.

Visitor mode

VTH

Lobby VTO

1

2

3

Elevator control host

DSS PRO

Elevator control/call module

1. Resident open VTO gate via VTH, at same time send person ID to VTO;
2. VTO send the person ID to Elevator control host;
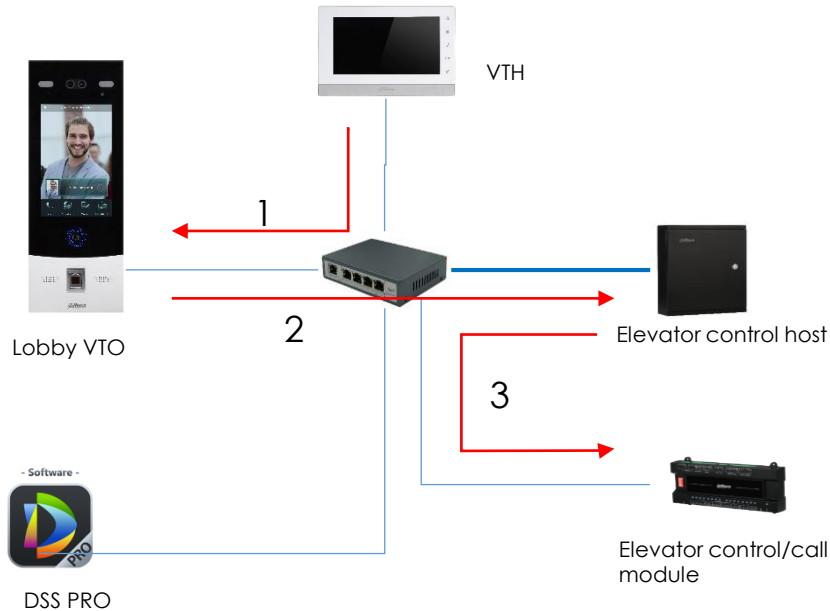3. Elevator control host send the relay out signal to Elevator control/call module;

Device List

Platform	DSS Pro	定制程序，已完成
Elevator Control Host	DHI-ELC	定制程序，已完成，目前硬件还需要下单ASC2204C-H
Elevator Control Module	DHI-VTM416	定制程序，已完成
Transmission	PFM885-I	
Reader	DHI-ASR1100B	
VTO	VTO65XX,VTO7541G	定制程序，已完成
VTH	VTH2421,VTH5341G-W	定制程序，已完成

Commercial Building Scenario(under developing)

Hardware Connection Topology

PFM885-I

VTM416 for
Elevator Control

READER

Elevator Control Host

- Software -

I/O
Ethernet
RS485
Other

Each VTM416 support 16 floors,
Support 8 cascading by RS485, up to
128 floors maximum.
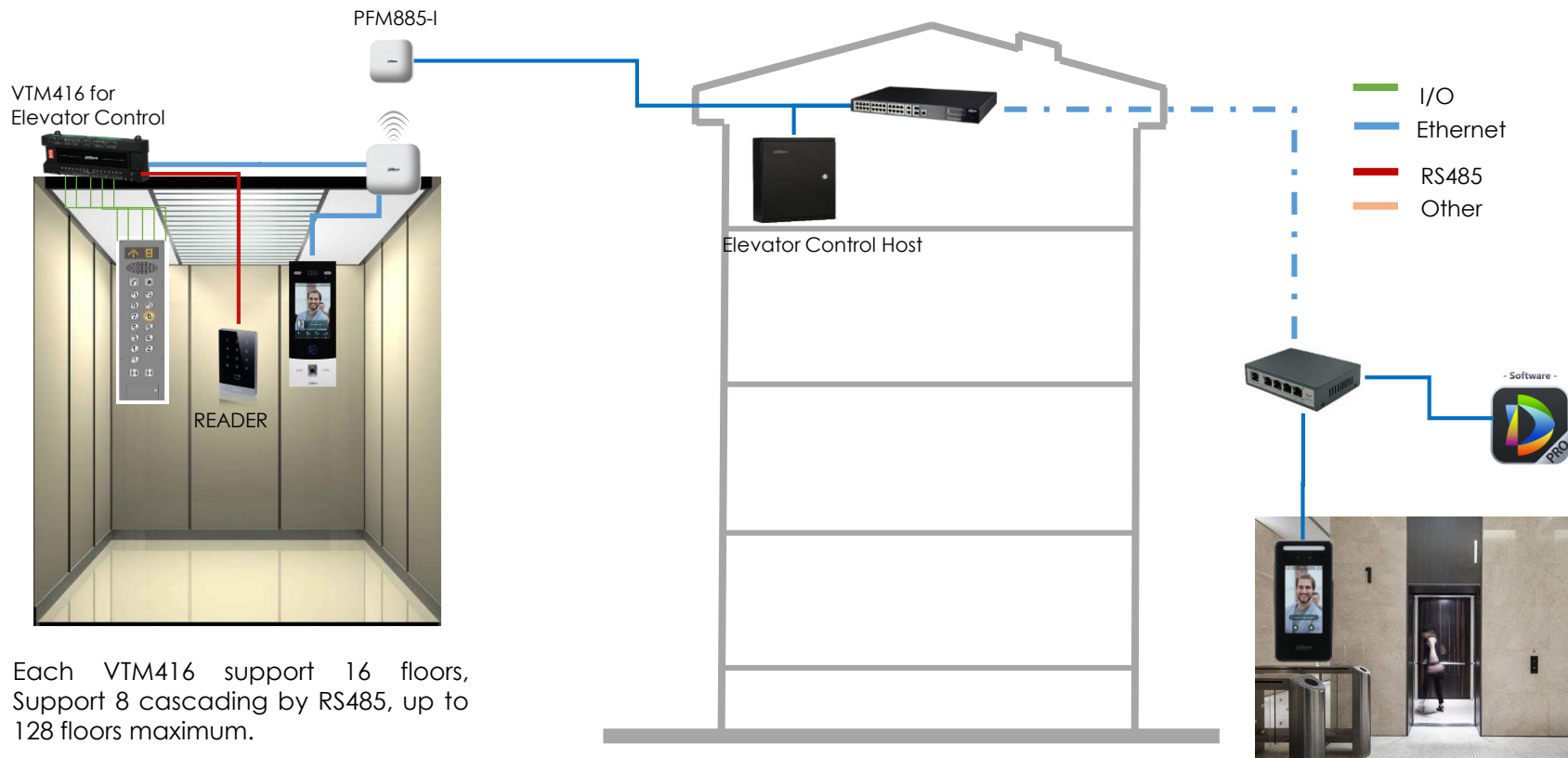
Employee Upstairs

① Authenticate at access terminal;

② Only able to light up the authenticated floor, if exceed the time, authenticate inside the car again;

Employee go to another floor

① Employee authenticate inside car

Device List

Platform	DSS Pro	定制程序，已完成
Elevator Control Host	DHI-ELC	需定制
Elevator Control Module	DHI-VTM416	
Transmission	PFM885-I	
Reader	DHI-ASR1100B	
Access terminal	DHI-ASI6213J-MW	需定制

Device List---Standalone Elevator Control

Module	Elevator Control Device List
Management Platform	DSS PRO
Elevator Control	VTM416 (one module can control one Elevator 16 floor button)
Elevator Controller Host	ELC(ASC2204H)
VTO	No need Call Elevator function by VTO or VTH
VTH	

E.g.
  One building have 4 Elevators, each Elevator have 32 floors, request Elevator control function.
  Device list:
  Controller: ELC（ASC2204H) *4
  Reader: ASR*4
  Elevator control: VTM416*8

Device List---Residential Building

Module	Elevator Control Device List
Management Platform	DSS PRO
Elevator Control	VTM416 (one module can control one Elevator 16 floor button)
Call Elevator	VTM416(One module can control 16 floor)
Elevator Controller Host	ELC(ASC2204H)
VTO	Customization support
VTH	Customization support

E.g.
   One building have 4 Elevator, each Elevator have 32 floor, need Elevator control and call Elevator function;
   Device:
   Controller: ELC(ASC2204H) *2
   Elevator Control: 32/16=2, 2*4Elevator =8 pcs;
   Call Elevator: 32/16=2 pcs (Attention: one up/down button in the Elevator gate can call all four Elevator, if not, need 12 pcs)

Integration By Protocol

Module	Elevator Control Device List
Management Platform	DSS PRO
Elevator Control	
Elevator Controller Host	ASC2204H (request integration)
VTO	
VTH	

Need Elevator Brand provide protocol for development.

「 让社会更安全 让生活更智能 」

ENABLING A SAFER SOCIETY AND SMARTER LIVING