+91 9821038479

CASE STUDY
BY HARWINDER MATHAROO

BEAUTIFUL MINDS
BEAUTIFUL IDEAS

harwinder_matharoo@yahoo.com
HARWINDER
HC+
MATHAROO
+91 98210 38479
AUTOMATIONS | BUILDERS | EXHIBITIONS | INTERIORS
SMART HOME & G4 | FABRICATIONS | STALL & GRAPHICS | FURNITURES

WHERE HAS HOTEL AUTOMATION REACHED IN 2022!

A CASE STUDY BASED ON REAL LIVE EXAMPLE FROM MOST AGGRESSIVE BRANDS IN HOTEL G R M S A N D B U L I D I N G AUTOMATION INDUSTRY TODAY

IN THIS STUDY WE SHALL ANSWER ALL THE FOLLOWING QUESTIONS AND MORE

CAN AUTOMATION ADD VALUE TO HOTELS ?

HOW MANY ROOM NIGHT ITS TAKES TO COVER UP THE IVESTMENTS ?

WHAT ARE THE NEW REMARAKEBLE FEATURESEEN ?

CASE STUDY
BY HARWINDER MATHAROO
+919821038479
hmd.inn@gmail.com
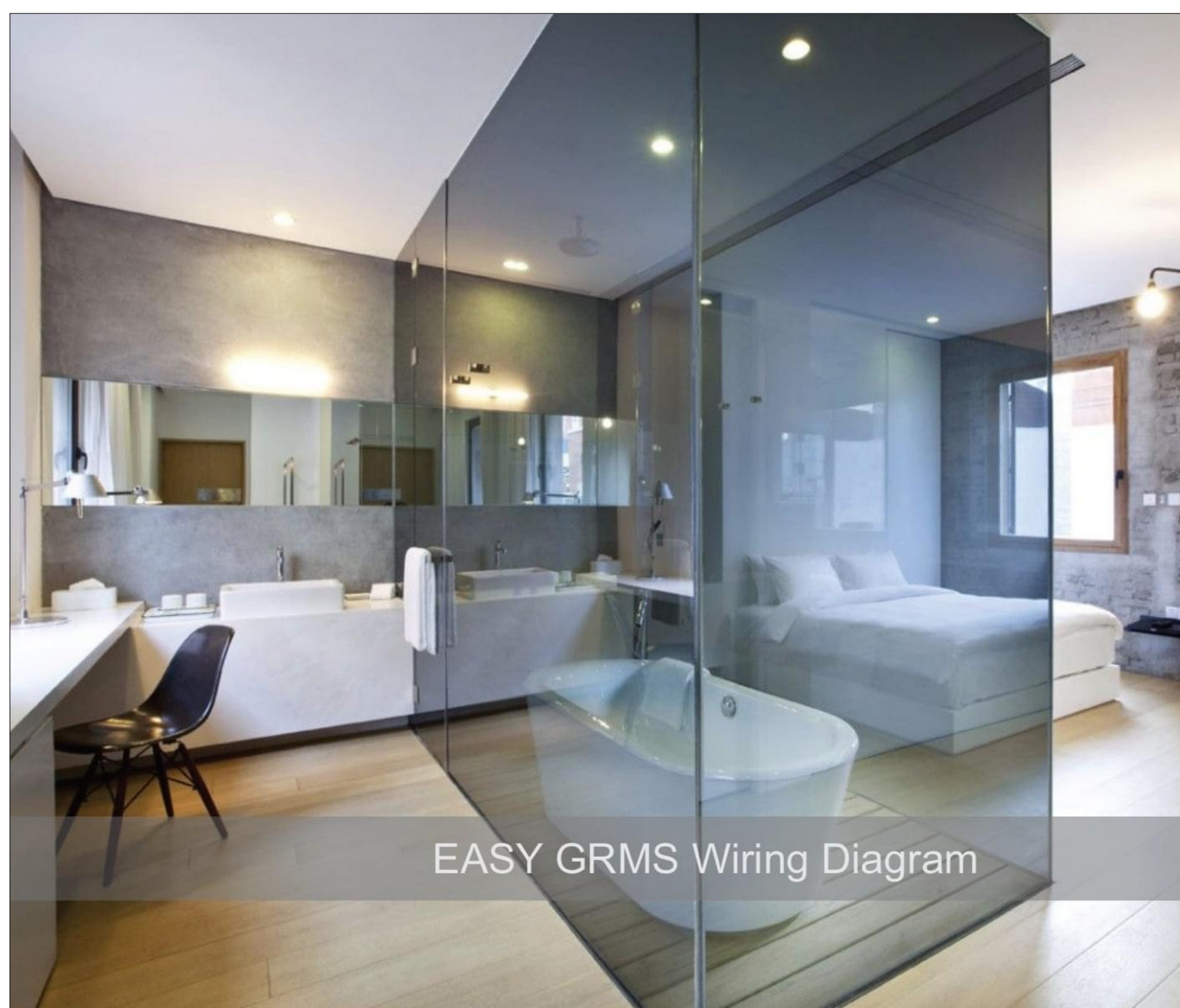

CAN WE ADD MORE STAR
DOES IT APPLY TO ALL HOTELS & MOTELS
WHICH BRANDS & TECNOLOGY AVAILABLE

SMART HOTEL
CASE STUDY

+ 91 93227 22557
www.hmdinn.com
hmd.inn@gmail.com
facebook.com/hmd.inn13
behance.net/hmdinn
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SMART HOTEL - 2022 # 01

7 Star Hotels, Bahrain Business Bay

EASY GRMS Wiring Diagram

CAN AUTOMATION ADD VALUE TO HOTELS?

MANY ARCHITECTS AND INTERIOR DESIGNERS HAVE BEEN
ASKING ME RECENTLY THIS VERY VITAL QUESTION!
I WAS ASKED BECAUSE I WORKED CLOSELY AND TOOK MANY
AUTOMATION TECHNOLOGY TRAININGS, AND IMPLEMENTED
IN MANY OF MY PROJECTS LATELY.

IN SHORT I CAN LIST SOME OF THE FEATURES THAT CAN REALLY
ADD VALUE TO THE HOTEL PROPERTY. SOME ARE DIRECT
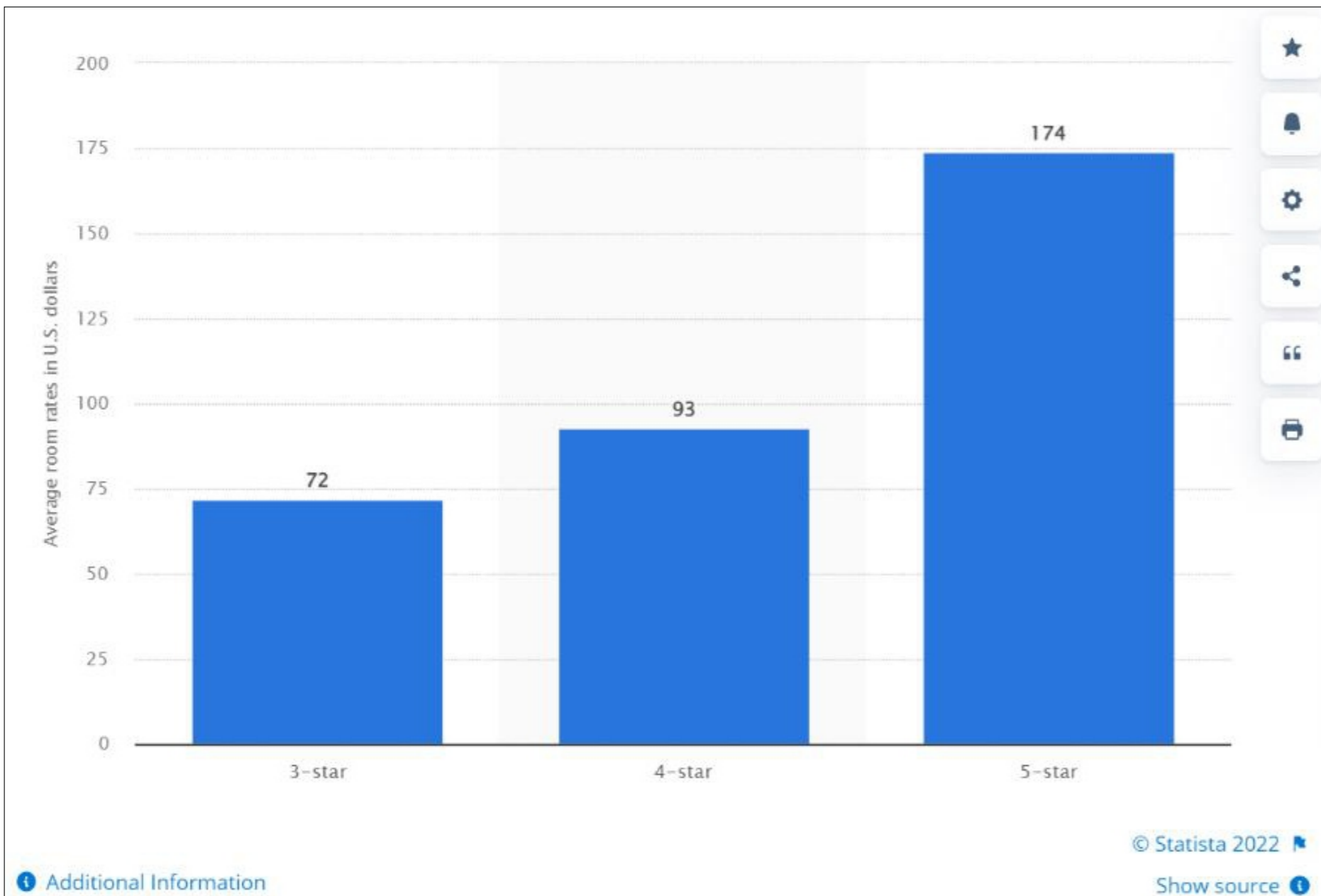AND TANGIBLE, OTHERS ARE INDIRECT AND CAN BE SENSED OVER TIME.
I SHALL START WITH THE TANGIBLE VALUE ADDED FEATUR
AS WHEN USING SMART HOTEL GRMS
(GUEST ROOM MANAGEMENT SYSTEM):

1- HOTEL CAN SAVE ENERGY

2- GRMS ADDS ELEGANCE AND APPEAL

3- GRMS ADDS TO THE COMFORT

4- GRMS HELP HOTEL OWNER TO ADD ONE MORE STAR TO ITS RATING

5- GRMS ADDS TO HOTEL SECURITY

6- GRMS ADDS TO SERVICE
   A. SPEED
   B. QUALITY

7- HOTEL CAN MONITOR AND ANALYZE OTHER INDIRECT OR INTANGIBLE FEATURES:

8- DECREASES EQUIPMENT & FIXTURES MAINTENANCE NEED

9- ADDS TO NAME FAME AND LOYALTY

10- PREVENTS MOONLIGHTING

11- PROTECTS FURNITURE

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harwinder_matharoo@yahoo.com
HARWINDER
HC+
MATHAROO
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HOW MANY ROOM NIGHTS IT TAKES TO COVER UP THE INVESTMENT?

ROOM NIGHT COST VARIES BASED ON SEASON, CITY, AND NUMBER OF STAR RATING OF THE HOTEL.
IF WE TAKE AVERAGE BASED ON THE CHART ON LEFT SIDE AS A GUIDE TO HELP US ANSWER THIS QUESTION WITH A BASE, THEN WE CAN SAY THAT ROI CAN BE ACHIEVED WITHIN:
* 2-3 NIGHTS FOR 5-STAR HOTELS,
* 4-5 NIGHTS FOR 5-STAR HOTELS,
* 5-7 NIGHTS FOR 3-STAR HOTELS
IF APPLYING THE SAME GRMS SYSTEM EXAMPLE.

I HAVE WORKED WITH DIFFERENT HOTEL GRMS PACKAGES THAT COST AS LOW AS

68 USD FOR THE PACKAGE D

92 USD FOR THE PACKAGE A

188 USD FOR PACKAGE B

225 USD FOR PACKAGE C

THESE PRICES ARE FACTORY COSTS THAT WE USED TO WORK WITH AS X-WORKS BASED ON DIFFERENT HOTEL NEEDS AS AVERAGE.

I HAVE SEEN MOST OF THE 2-4 STAR HOTELS GO FOR PACKAGE B THAT HAS ALMOST EVERYTHING. AND THEY USE SEPARATE TYPE OF LOCKS SYSTEM THAT IS BATTERY BASED. ONLY 5-7 STAR MOSTLY GO FOR PACKAGE C THAT REQUIRES MORE ELEGANCE AND HIGHER COMFORT AS FULLY INTEGRATED ONLINE SYSTEM.

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+ 91 93227 22557
www.hmdinn.com
hmd.inn@gmail.com
facebook.com/hmd.inn13
behance.net/hmdinn
youtube.com/hmdinn

SMART HOTEL - 2022 # 03

+91 9821038479

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WHAT ARE THE NEW REMARKABLE FEATURES SEEN?

GRMS GENERALLY COVERS THE FOLLOWING

FEATURES CONTROL:
1- LIGHTING
2- MOODS
3- ROOM TEMPERATURE
4- DND, MUR
5- ENERGY SAVING
6- INTEGRATED IPTV
7- MEDIA HUBS
8- DOOR ACCESS
9- DOOR BELL CHIME
10- MOTORIZED CURTAINS

MOST OF THE ONLINE SYSTEMS CAN REPORT

IF ROOM-DOOR FORGOTTEN OPEN, AND

HAS ALSO PRESETS FOR ROOM WELCOME,

AND CHECKOUT. SOME OF THE HOTEL I

WORKED WITH ALSO ADDED PANIC BUTTONS

AT BATHROOMS PER GOVERNMENT

REGULATIONS NEEDS.

HOWEVER, IT WAS NOTEWORTHY TO SEE AMAZING NEW FEATURES IMPLEMENTED SUCCESSFULLY THAT TAKES GRMS TO TOTALLY DIFFERENT LEVEL. SOME OF THESE FEATURES ARE

1- THE ABILITY BY THE HOUSEKEEPER TO REPORT ROOM READY STATUS, LAUNDRY PICKED, AND TO REPORT TO ENGINEERING THAT MAINTENANCE IS NEEDED AT THE PARTICULAR ROOM DIRECTLY FROM WALL PANEL HARDWARE IN SECONDS.

INSERT CARD FOR POWER

Housekeeper staff can report that :

Room is ready directly online by simply long press on for 4 seconds MUR Button

Room Require Maintenance by Long Press on DND button

Laundry has been collected By long press on Laundry button.

+ 91 93227 22557
www.hmdinn.com
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SMART HOTEL
CASE STUDY

SMART HOTEL - 2022 # 04

2- MOON LIGHTING PREVENTION AND ALERT:

THIS UNIQUE FEATURE HAS ATTRACTED MY ATTENTION AND MADE IT REMARKABLE FOR MANY HOTELS INCLUDING MOTELS. THE NEW SMART HOTEL SYSTEM THAT WE SELECTED HAS THE UNIQUE ABILITY TO REPORT ANY UNAUTHORIZED USAGE OF THE HOTEL ROOM IN CASE IT WAS NOT OFFICIALLY REGISTERED WITH CHECK IN FLAG IN THE HOTEL ACCOUNTING SYSTEM.

THIS IS ACHIEVED AND REPORTED AUTOMATICALLY IF ANY PANEL IS TOUCHED, ANY MOTION IS DETECTED, IF WATER WAS RUNNING, IF DOOR IS OPENED AND MANY MORE.

IN SUCH CASE (MOONLIGHTING) THE MANAGER AND OWNER AS WELL AS SECURITY ARE ALERTED DIRECTLY AND THE CARD THAT HAS OPENED THE DOOR LAST WILL BE FLAGGED.

THIS DETECTION METHOD IS ALSO USED TO ENHANCE THE ACCURACY OF OCCUPANCY REPORTING WHEN ROOM IS OFFICIALLY CHECKED IN THE HOTEL ACCOUNTING SYSTEM

3- ENERGY AND OCCUPANCY ANALYSIS:
THIS FEATURE HELPS IN CALCULATING ROOM ENERGY USAGE BASED ON WATTAGE AND HOUR OF OPERATION

4- PREDICTIVE MAINTENANCE:
THIS FEATURE HELPS IN ALERTING FOR FILTERS CLEANING AND LIGHT BULB REPLACEMENT FORECAST BASED ON USAGE HOURS

5- LOCKING OF PANELS TO SAVE ENERGY AND TO ENFORCE PAYMENT OR CHECKOUT:
THIS FEATURE HELPS IN FORCING THE GUEST TO APPROACH RECEPTION FOR PAYMENT/EXTENSION ONCE CHECKOUT TIME HAS ELAPSED. ADDITIONALLY, CAN LOCK TEMPERATURE MAX OR MIN BASED ON HOURS LIKE AFTER 3:00 AM ALL ROOMS TEMPERATURE TO BE CHANGED TO 24 DEGREES IF OCCUPIED AND SET IN OPERATION BY GUEST (AS EXAMPLE)

SMART HOTEL
CASE STUDY

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BEAUTIFUL MINDS
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6- HOTEL VIP SERVICE PANEL AND APP CONTROL ABILITY:
THIS AMAZING THINKING HAS TAKEN ME TO TOTALLY DIFFERENT LEVEL IN HOTEL SERVICE ANALYSIS AND PUNCTUALITY.
GIVING THE GUEST FULL AND DIRECT ABILITY TO REQUEST HIS NEED EXACTLY AND SWIFTLY WITHOUT WASTING MANY EMPLOYEES TIME IN CONVEYING THE NEEDS.
THIS FEATURED PANEL IS A MUST IN ALL NEW AND UNDER RENOVATION HOTELS IN MY OPINION.

Smart Tablet GRMS App (Total Room Control)
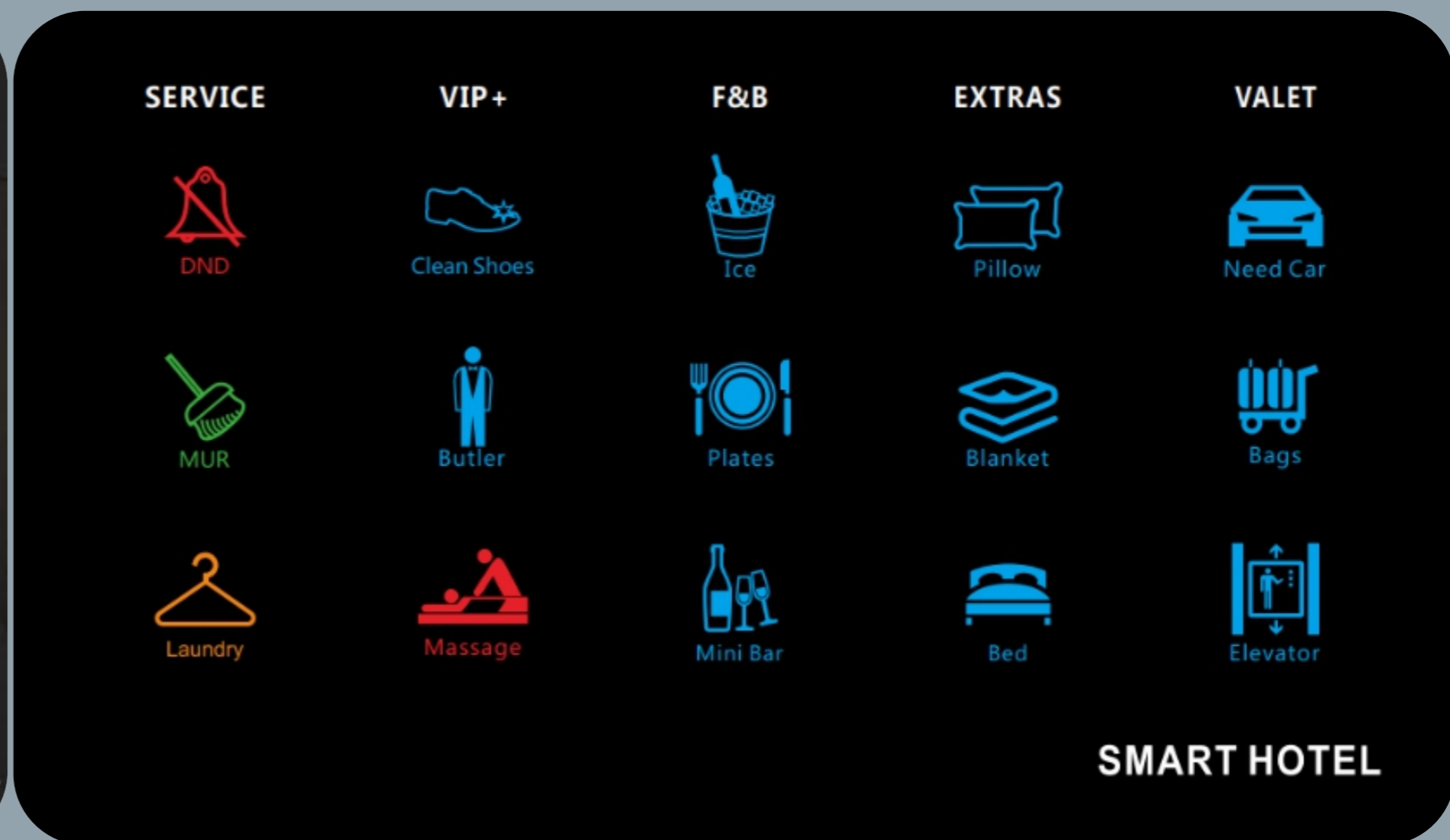
VIP Service Panel for Hotel GRMS

7- HOTEL GLOBAL BMS

ANOTHER AMAZING FEATURE FOR HOTEL CHAINS IS THE GBMS
SYSTEM THAT HELPS CENTRALLY TO MONITOR DIFFERENT BUILDINGS
AT DIFFERENT CITIES AND COUNTRIES SIMULTANEOUSLY. IT ENABLES
CHECKING OF ENERGY STATUS SERVICES, TEMPERATURE, LIGHTING,
ALARMS, ALERTS AND OTHER IN SIMPLICITY AND EASE.
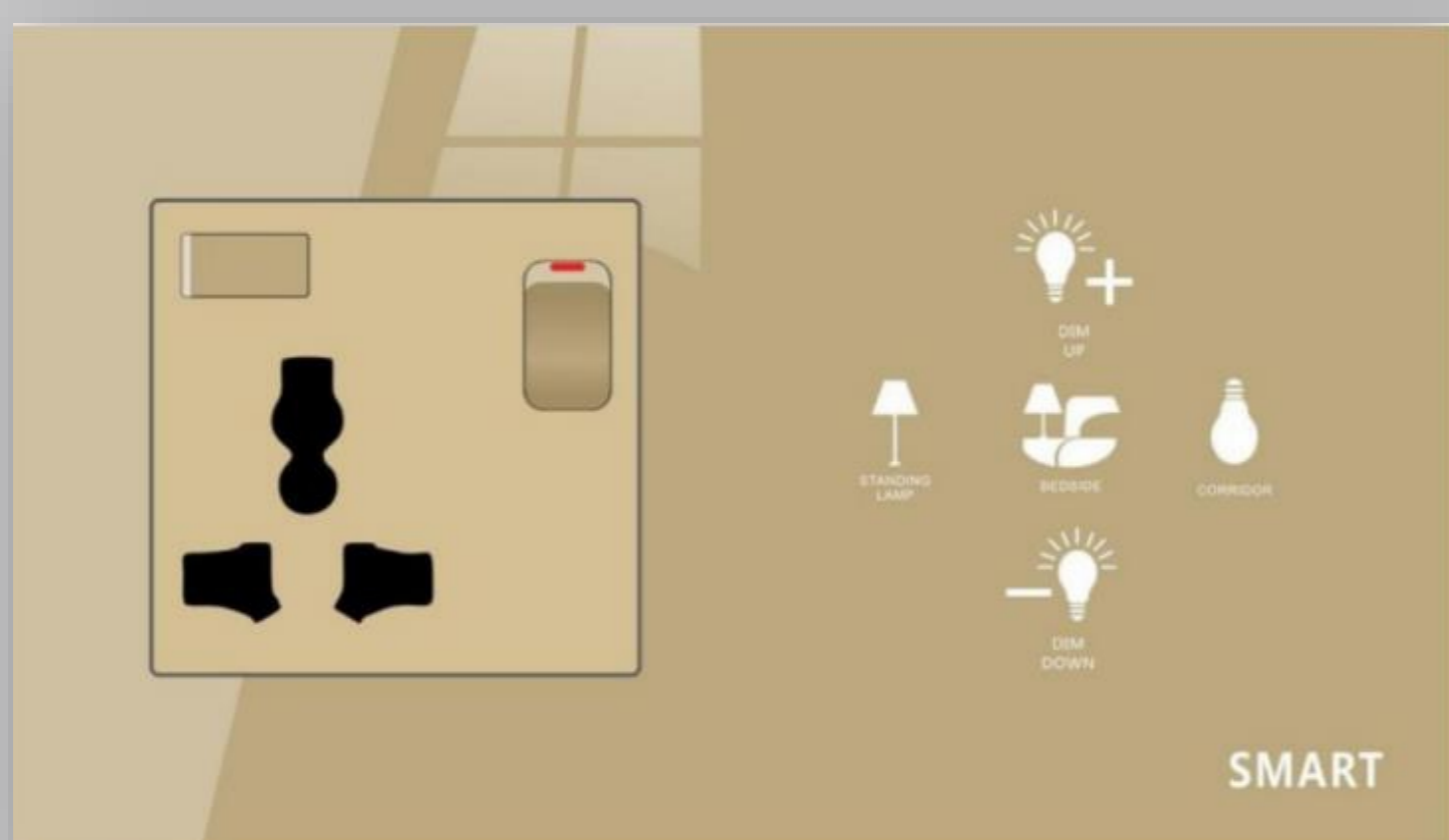
Integrated USB, Universal Socket, and Bedside

8- INTEGRATED BEDSIDE USB CHARGER WITH UNIVERSAL SOCKET:
IT IS AN ELEGANT ATTRACT AND JUST PERFECT
FUNCTIONALITY FOR TODAY'S TRAVEL NEEDS Of2022
A-   NO NEED TO CALL ENGINEERING FOR ADAPTER
B-   DIRECT FAST CHARGING OF SMART DEVICES
C-   FULLY PROTECTED WITH CHILD SAFETY
D-   ELEGANT AND DISCRETE

SMART HOTEL
CASE STUDY

9- LOGICAL ROOM ENERGY SAVING WITH ALERTS:
THE NEW HOTEL GRMS FOR 2022 HAS THE ADDED LOGICAL FEATURES OF ENERGY SAVING WITH OR WITHOUT THE USE OF KEY CARD HOLDER. IT HAS BEEN NOTICED THAT GUESTS USUALLY LEAVE THE VALID SECOND HOTEL CARD IN THE KEY HOLDER SLOT LEAVING ALL ROOM SYSTEMS ON LIKE LIGHTS, AIR CON, TV...
WHILE THEY ARE
NOT AT THE ROOM.
THE SMART GRMS TODAY CAN ALSO CHANGE AIRCON SETTING IF BALCONY DOOR HAS BEEN OPENED FOR MORE THAN FEW SECONDS. AND CAN ALERT HOUSEKEEPING TO CLOSE WINDOWS AND BALCONY DOORS THAT WERE LEFT OPEN WHILE ROOM IS NOT OCCUPIED TO HELP IN 2 THINGS:

A- SAVE FURNITURE FROM BEING DAMAGED BY HIGH HUMIDITY OR DUST
B- DECREES INFILTRATION AND BUILDING ENERGY LOSS
SYSTEM CAN ALSO CLOSE MOTORIZED CURTAINS AUTOMATICALLY BASED ON OCCUPANCY AND TIME OF THE DAY

Energy Aux2

10- ADVANCED ENERGY AND WATER SAVING:

WHILE DOING A HOTEL RESORT IN EGYPT, AND DURING MY VISIT, I HAVE LEARNED BY MERE COINCIDENCE FROM A MECHANICAL ENGINEER THAT THE HOTEL BMS WAS EQUIPPED WITH ADVANCED MULTI DOOR PEOPLE COUNTER FOR ITS LARGE BALL AND BANQUET HALLS. HE EXPLAINED TO ME THE FUNCTIONALITY OF SUCH ADVANCED SYSTEM WHERE FRESH AIR MUST BE INJECTED INTO THAT HALL PROPORTIONAL TO THE NUMBER OF PEOPLE THAT ENTER/EXIT THE HALL AND WITHOUT WASTAGE THAT CAN CAUSE SUDDEN DIVERSION OF HOTEL'S CHILLED OR BOILED WATER TO THE HALL UN-NECESSARILY. WATER USAGE METERING AND BUDGETARY ALLOCATION PER ROOM WAS ALSO IMPLEMENTED AS THAT AREA HAD SCARCE WATER SUPPLY. WITH AUTOMATIC WATER SHUTOFF SOLENOID IF ROOM NOT OCCUPIED TO AVOID WATER LEAKAGE LOSSES.
I HAVE FOUND THESE FEATURES NOTE-WORTHY TO AS ADDED FEATURES TO THE NEW HOTEL AUTOMATION OF 2022.

11- FIRE MARSHALL RELEASE:

THIS FEATURE IS IMPORTANT IN CASE OF FIRE, THE NEW SMART HOTEL SYSTEMS CAN GIVE OCCUPANCY REPORT, AND FIRE MARSHAL CAN RELEASE THE DOORS USING BREAK GLASS KEY THAT UNLOCKS ALL ROOM DOORS FOR EASY AND FAST ENTRY BY FIRE MEN WITH EASY ADDRESSING.

Fire Marshal

SMART HOTEL
CASE STUDY

CAN HOTEL GET EXTRA STAR IF AUTOMATED?

YES, THAT HELP IN GETTING BETTER RATING.
COMFORT AND CONVENIENCE WHERE GUESTS
ARE ABLE TO CONTROL THE ROOM LIGHTS
FROM COMFORT OF BED IS ONE OF THE MUST
HAVE TO ADD 1 EXTRA STAR TO HOTELS
AS EXAMPLE.

WHICH HOTEL CATEGORY CAN AUTOMATION APPLY TO?

-ENERGY SAVING AND SERVICE REQUESTS
APPLIES TO ALL HOTELS,
-LIGHTING CONTROL MAY APPLY TO 3 STARS
HOTELS, MOTELS AND ABOVE.
-HVAC, VIP SERVICES AND MOTORIZATION
APPLIES TO 4 STAR AND ABOVE MOSTLY
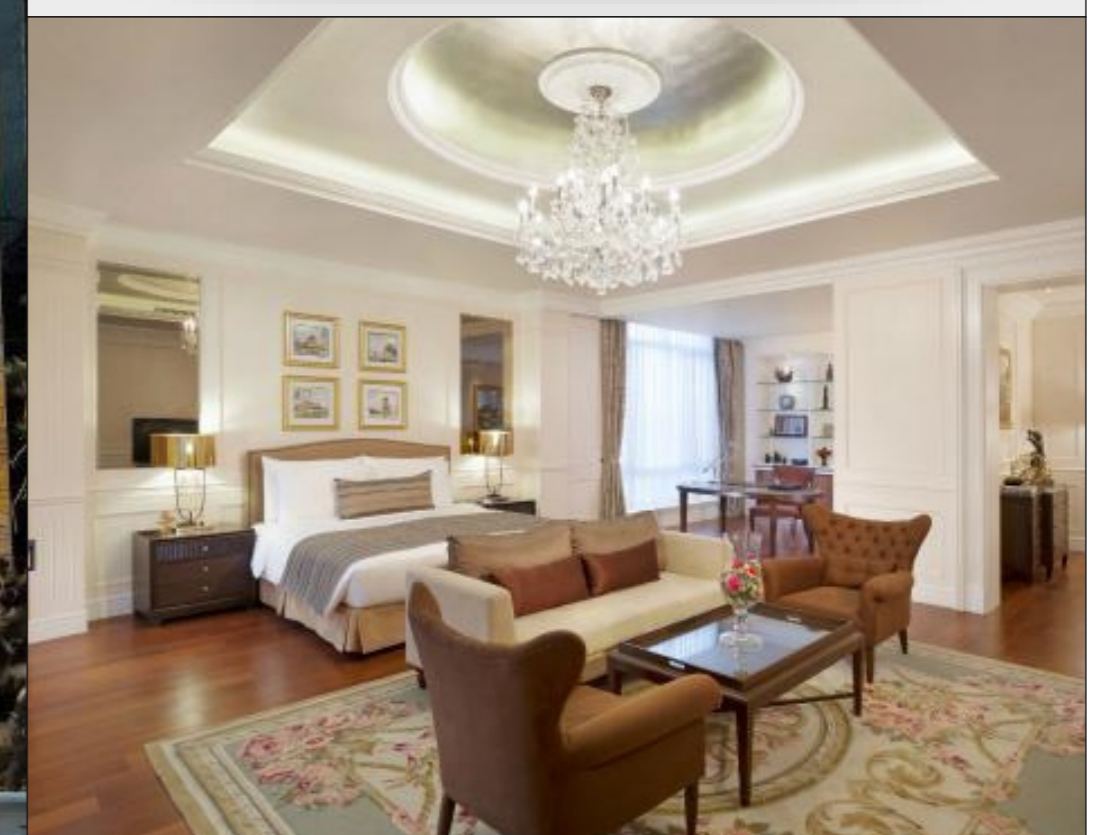
WHICH TECHNOLOGY HAS THE BEST GRMS SOLUTION TODAY?

THERE ARE MANY TECHNOLOGIES WORLDWIDE, BUT
AMONG THE BEST THAT HAS MAJOR MARKET SHARES
AND FAST PROGRESS UP TO DATE ARE:

SMART-BUS, KNX, C-BUS

C-Bus® KNX
SMART-BUS G4

SMART HOTEL
CASE STUDY

Back Bone

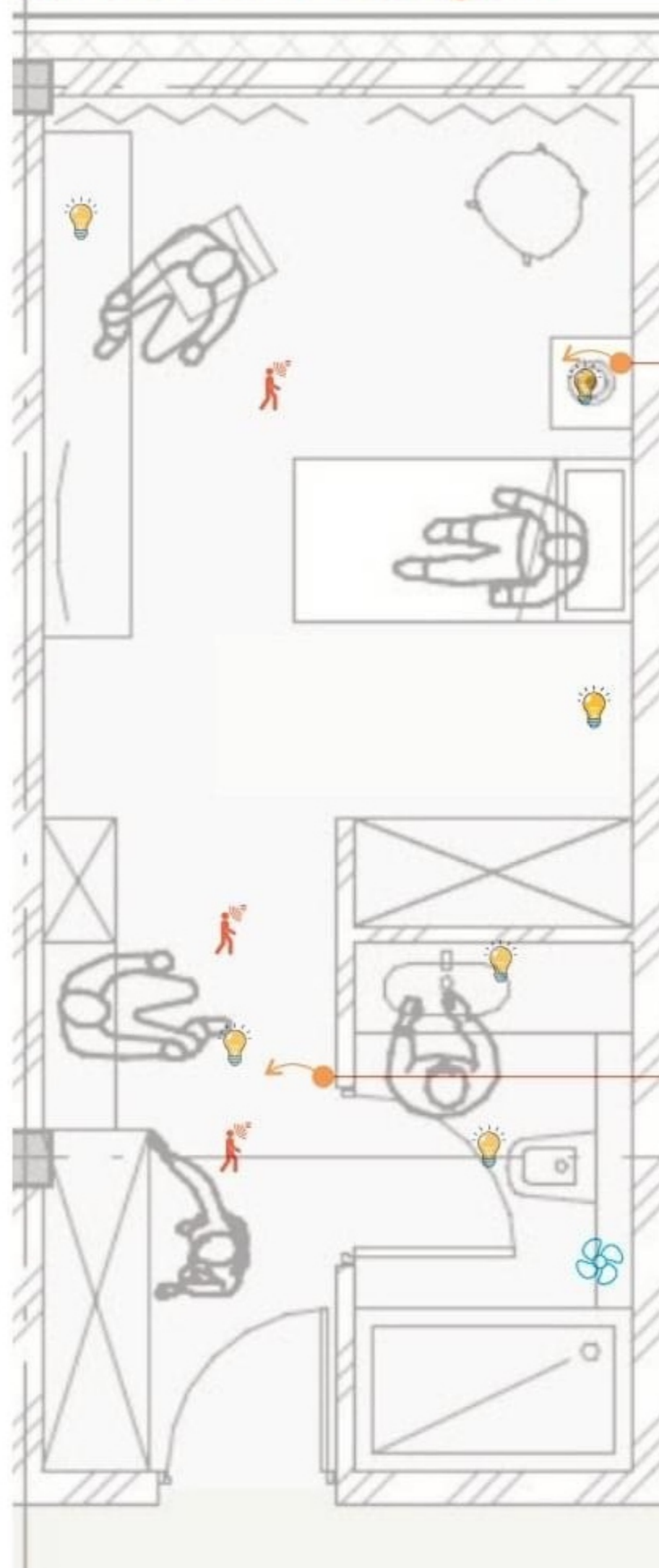RSIP3 Good for 50 Rooms to communicate 2-way with main server system (PC SQL Server by Client)

Cable Manager++
To Organise S-BUS wires coming from Rooms in Backbone structure of Hotel

1 Power Supply for Every 20 Rooms
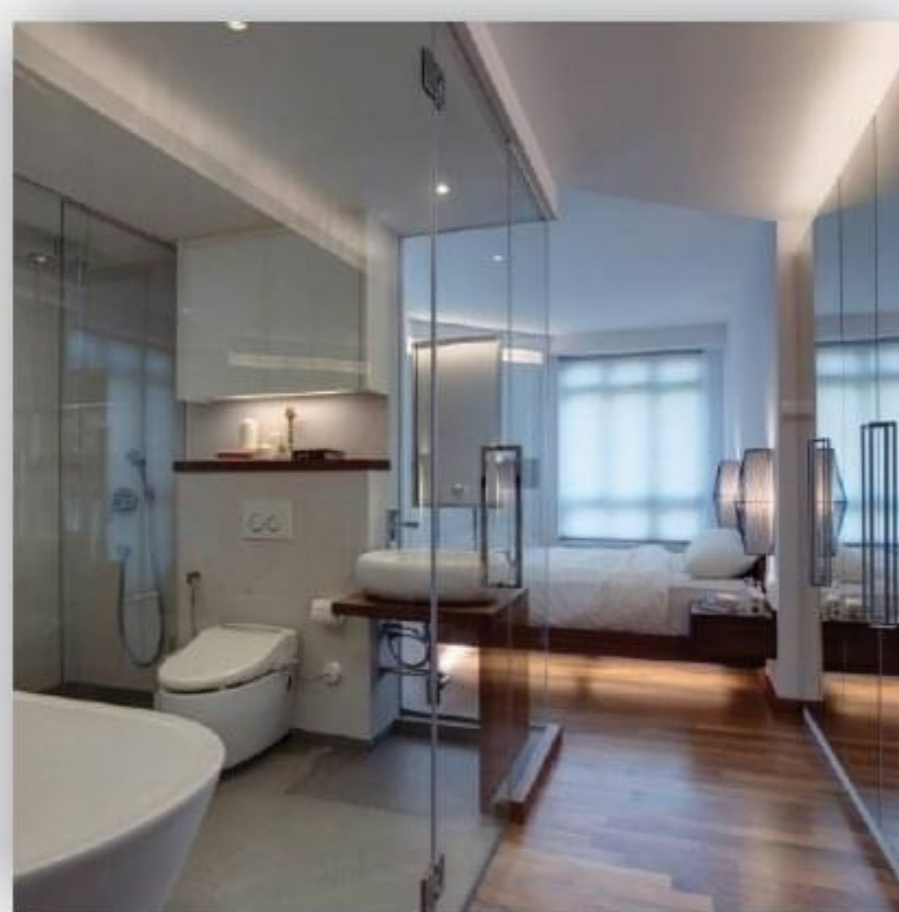
G4 GRMS Package A

Online/ Offline System

Easy Touch Panel
Lights
Motion
Temperature
Service:
MUR, DND, Other
Moods +
LED Night Light Surround
IR for TV Or Split AC Control

Can Add Curtain Control and Motor as Option*

Easy Touch Panel
Temperature
Lights
Motion
Service:
MUR, DND, Other
Moods +
LED Night Light Surround
(Night Light can activate on Motion)

Service Module at H.Keeping
Check in/Out Mood Control

Back Bone

Cool Master Bridge to connect to client's cool master for VRF VRV Air con System (good for 32-64 FCU)

RSIP3 Good for 50 Rooms to communicate 2-way with main server system (PC SQL Server by Client)

Cable Manager++
To Organise S-BUS wires coming from Rooms in Backbone structure of Hotel

1 Power Supply for Backbone

*Chime option (Ding Dong) Can be locally purchased

Energy Saving Master Panel
Cuts Room Power if no occupancy based on sensors after door is closed last.
Built in 32A Heavy relay
5A relay for other use
24VDC S-Bus Power
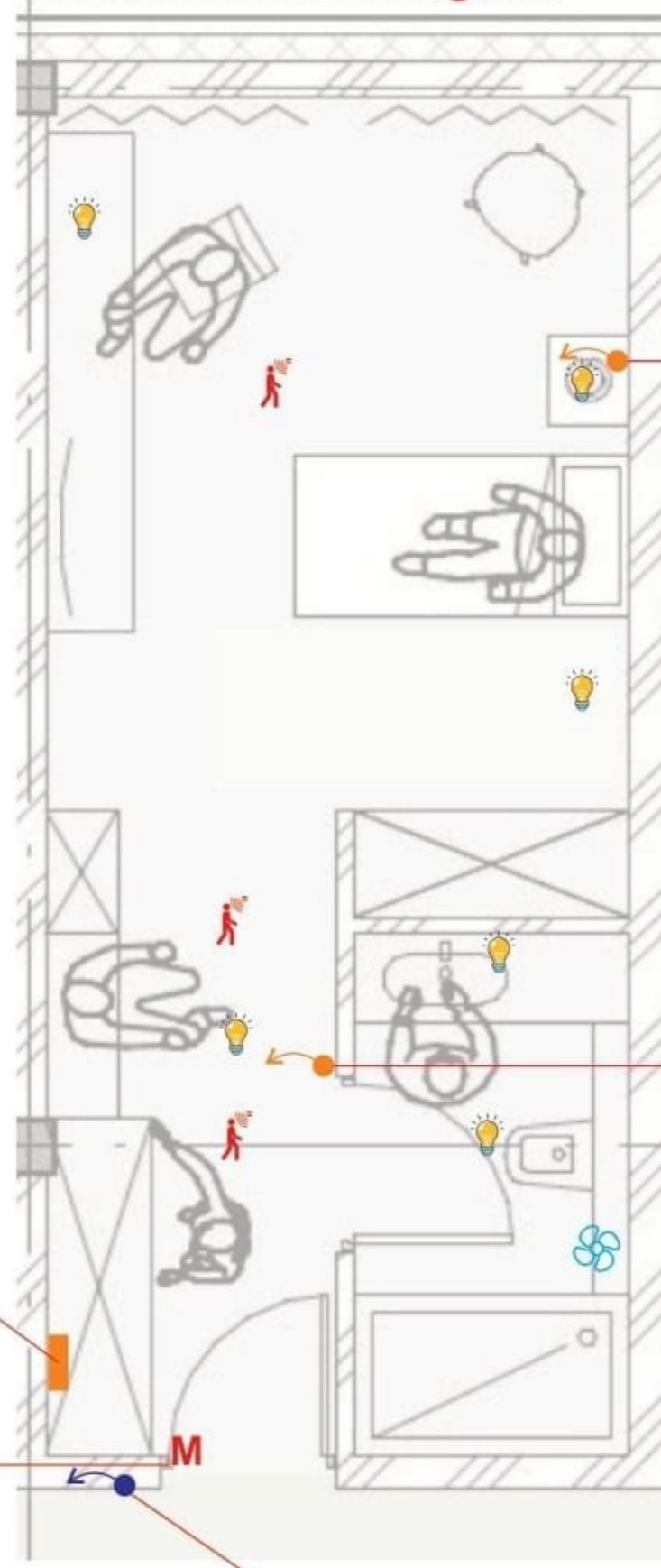12VDC Power supply for lock, PIR, and Chime.
Built in Energy Logic

Magnetic Door window Contact
For occupancy check trigger and energy saving + Alert if door forgotten open

Service Module at H.Keeping
Check in/Out Mood Control
Energy and Security Module

G4 GRMS Package B

Online/ Offline System

Easy Touch Panel
Temperature
Lights
Motion
Service:
MUR, DND, Other
Moods +
LED Night Light Surround
IR for TV Or Split AC Control

Can Add Curtain Control and Motor as Option*

Easy Touch Panel
Temperature
Lights
Motion
Service:
MUR, DND, Other
Moods +
LED Night Light Surround
(Night Light can activate on Motion)

Door Bell with room Number
Services:
MUR
DND
Other
Alarm if Door Forgotten Open

Can Come with Access card Reader as Option*

SMART HOTEL
CASE STUDY

harwinder_matharoo@yahoo.com
HARWINDER
MATHAROO
+ 91 98210 38479

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Back Bone

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Magnetic Door window Contact For occupancy check trigger and energy saving + Alert if door forgotten open

Service Module at H.Keeping Check in/Out Mood Control and Encoding Energy and Security Module & Moonlighting
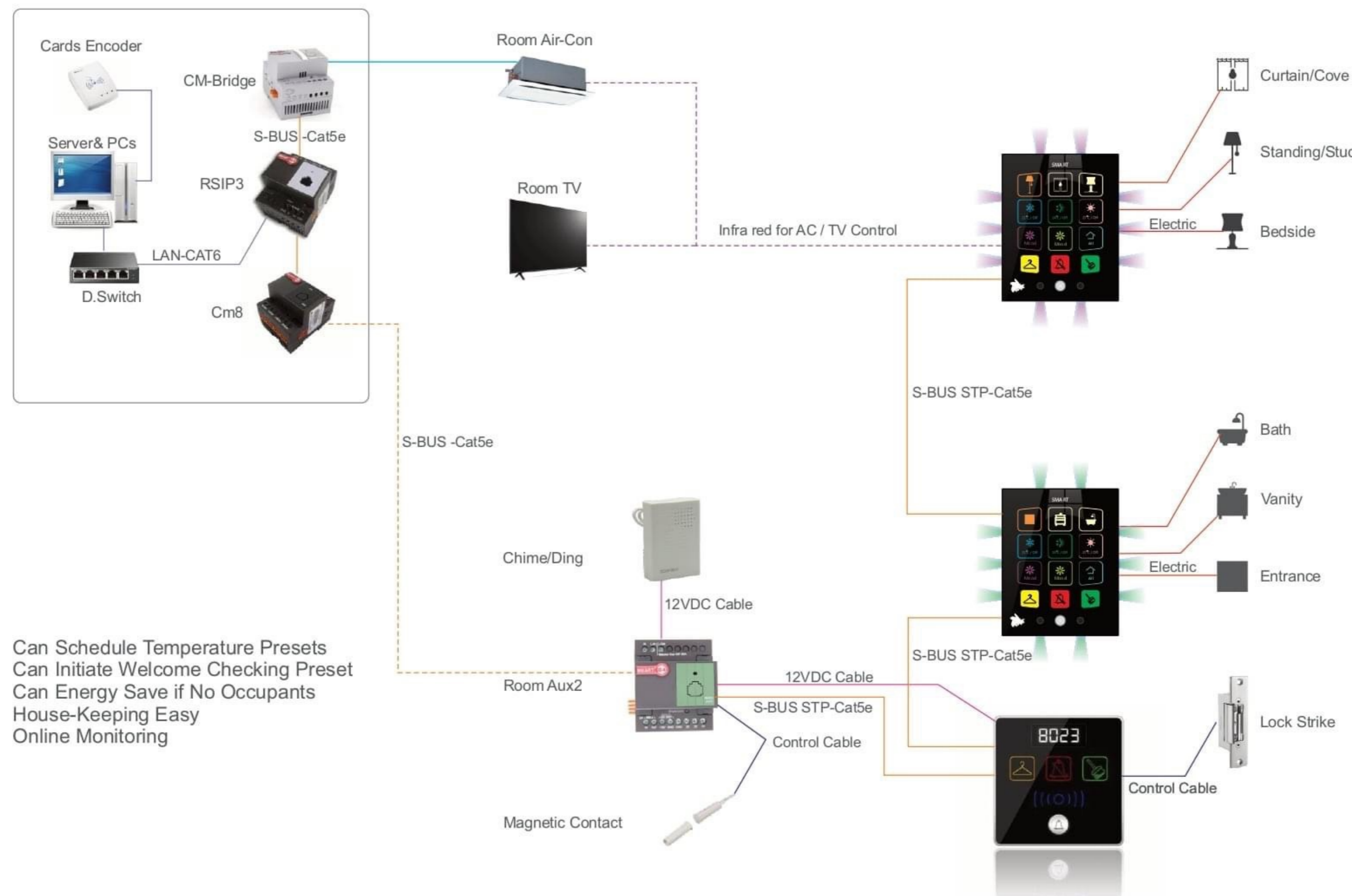
G4 GRMS Package C
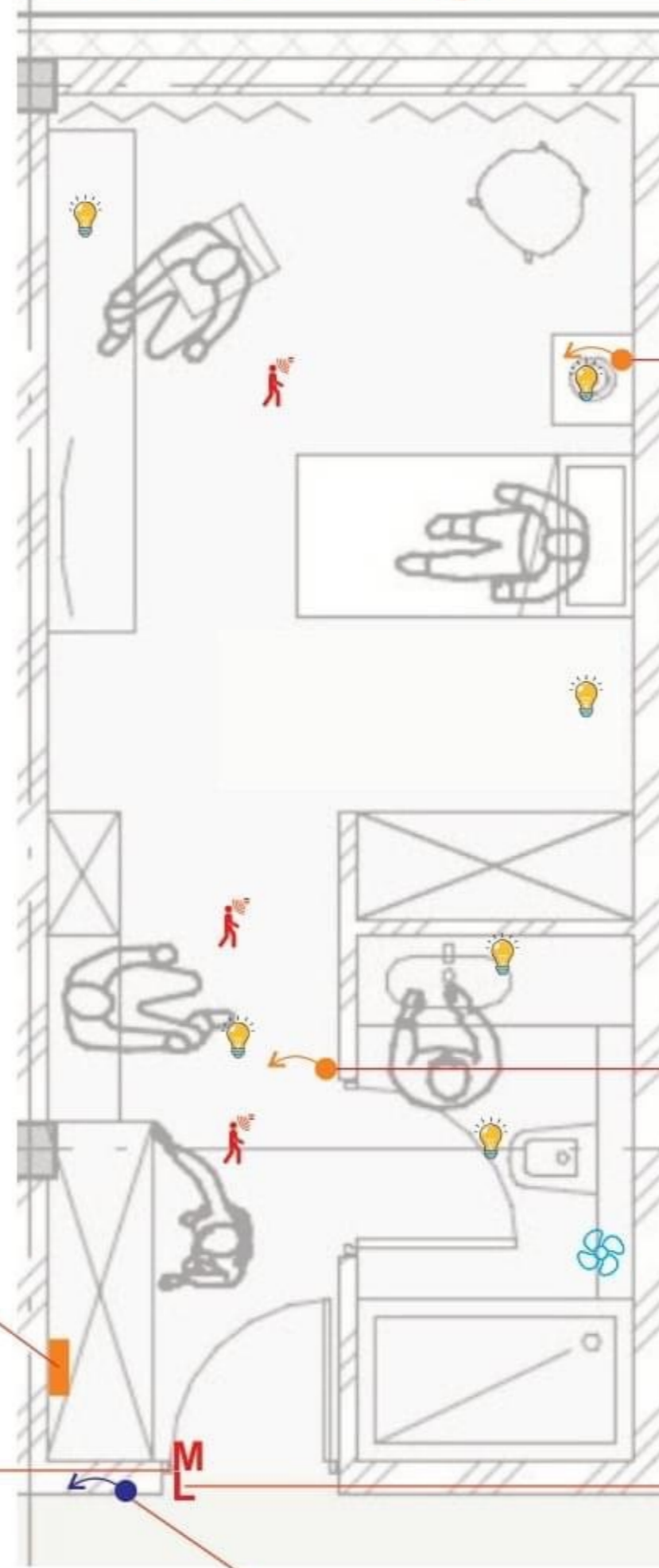
Online/ Offline System

Easy Touch Panel
Temperature
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Can Add Curtain Control and Motor as Option*

Easy Touch Panel
Temperature
Lights
Motion
Service:
MUR, DND, Other
Moods +
LED Night Light Surround
(Night Light can activate on Motion)

8023

Door Bell with room Number
Services:
MUR
DND
Other
Alarm if Door Forgotten Open
Access card Reader

Lock Strike Option*

G4 EASY GRMS Wiring Diagram

Cards Encoder

CM-Bridge

Server& PCs

S-BUS -Cat5e

RSIP3

LAN-CAT6

D.Switch

Cm8

Room Air-Con

Room TV

Infra red for AC / TV Control

S-BUS -Cat5e

Chime/Ding

12VDC Cable

Room Aux2

12VDC Cable

S-BUS STP-Cat5e

Control Cable

Magnetic Contact

Curtain/Cove

Standing/Study

Electric   Bedside

S-BUS STP-Cat5e

Bath

Vanity

Electric   Entrance

S-BUS STP-Cat5e

8023

Lock Strike

Control Cable

Can Schedule Temperature Presets
Can Initiate Welcome Checking Preset
Can Energy Save if No Occupants
House-Keeping Easy
Online Monitoring

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