

## **THE ARCHITECTURAL CONCEPT BONWIN "SMART ROOM"**

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### **Архітектурна концепція BONWIN "SMART ROOM"**

У статті наводиться використання та структура архітектурної концепції Bonwin "Smart Room" для Розумних Будівель.

We are used to thinking that the smart home automation system is installed only in a home or apartment, but this is not the case. Now this system is installed in public places like hospitals, hotels, schools, etc.

I want to give you one example like Bonwin's "SMART ROOM". It is a smart hotel what not only designed to provide room for comfort but also to save energy and intended to prevent accidents.

When hotel is larger, then its management is bigger too. In recent years, the smart hotel room management system is popular. It has provided managers with comfortable and humanized controls. No matter how larger the hotel, it can still achieve effective management.

The main functions of this system are:

- providing comfort in the room;
- control and significant energy savings.

#### **Main equipment**

Through the rooms management host (RCU), let the main electrical equipment be centralized control and managed, and through the local area network and computer real-time communication the states.

By this method, management computer can control all of the equipment very convenient.

At the same time, electric equipment running status information will also be real-time sent to the management computer.

Hotel management service staff can omni-directional, all-weather master room state, control room equipment operation mode and parameters, and change the passive control into active control, let the experience management into science management.

The climate controller will allow to keep the room temperature always in a comfortable state, even when the visitor is absent.

The staff communication buttons will help you understand when to leave the room and not to be disturbed. You can easily forget about the inconvenient nameplates, now staff messages will be displayed in the panel of each room's e-number, and a signal will be sent to the host computer.

This system gives you the unique ability to remotely control the electricity in

each room.

A smart management system can manage all aspects of a hotel, which not only facilitates hotel management but also enhances hotel efficiency and service levels.

### TCP/IP communications protocol

This system with international standard TCP/IP and Ethernet technology, can have operate on the hotel current network directly, also can be made as the separate special LAN.

Each RCU box have independent IP network address, which can comprehensive compatible with IEEE802.3 Ethernet standard.

TCP/IP communication protocol method: RCU equipment cost is not low, but it has many strong advantages in the system stability, reliability, advancement, data transmission capacity, convenient maintenance, low maintenance costs, etc.

So that the TCP/IP is the best communications protocol for the hotel guest control system.

### Main Features:

- Guest can enter into his room without check in at the front desk.

Guest can use the booking, or Self-help registration machine to check in, not need go to the front desk. With Bonwin Networking lock system, the guest can use his member card to enter into the room, protect guest privacy, avoid the waiting at the front desk, help guest save time, help hotel to Attract more guests.

- Advanced stable TCP/IP communications protocol.
- Innovative, unique visual cat's eye, very convenient.
- Humanized design of 4 modes of lighting.

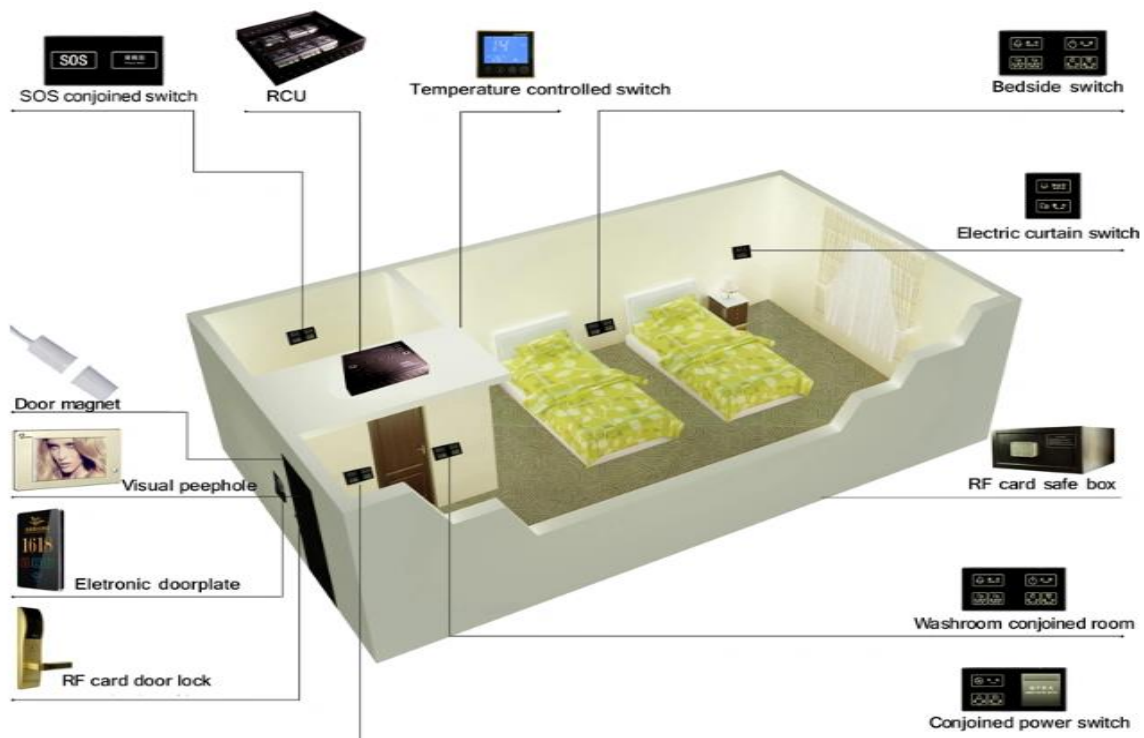


Fig. 1. Hotel room management system.

Light mode like visitor, reading, TV and sleep, let a guest feel more convenient and thoughtful.

- More convenient for guest, more efficient management for the hotels

Using one set software and the same database to unified management, hotel bring great convenience for the guest and hotel.

The system consists of:

- Management host (RCU) - makes it possible to remotely control and monitor all electrical appliances in the facility.

- Air condition temperature controller - monitors and controls room temperature.

- Personnel communication panel - allows you to call staff, include a sign "Do Not Disturb", "It's time to clean" and more.

- Energy saving switch - connects to the control unit. Allows you to turn off / on all the electricity in the room. Works from a room card or from any hotel card

- Visible cat's eye - is automatically activated when a doorbell rings or when a button is pressed on the display.

- Smart switches - special switches with engraving on keys: bed switches, for a bathroom, corridors and others. Connects to the control unit.

- Electronic room - allows you to specify a room number as well as other additional information.

- Doorbell rings.

- Electronic safe - connects to the control unit and opens with a key card from the number.

- Management software.

Saying all above, we can confidently say that IoT can be used not only private places but also in public. Such as hotel, hospital, school and etc. It will help to staff in work, to provide comfort, save energy, water and intended to prevent accidents. IoT opens up many possibilities for us, and it is necessary to wisely use it.

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