







## Abstract

## **Customer Profile**



Company Gree Electric Appliances,

INC. of Zhuhai

**Industry** Manufacturing

**Country** China

Website www.gree.com.cn

#### **Solution**

Centerm C10 + D610

CCCM

Huawei VDI

## **Deployment**

Scenario: Offices & Production Line

Scale: 200 \* C10 + 1100 \* D610

Time: 2014.06

# Case Study

## **Gree Electric Appliances, INC. of Zhuhai**

Centerm cloud clients have helped Gree Electric Appliances highly improve management and maintenance efficiency.



## Customer Comments

"In the past when we used PCs, we encountered with many problems like low deployment and maintenance efficiency, risks of information security and high TCO; now with Centerm thin clients, all the problems are solved."

-- Wen Zhou
Operation and Maintenance Engineer of Gree



Established in 1991, Gree Appliances, INC. of Zhuhai (herein after referred to as "Gree") is an international home appliance enterprise with integration of research & development, production, sales and service. It owns three major brands of Gree, TOSOT and Jinghong with main products of household air conditioner, central air conditioner, air-source water heater, mobile phone, household appliances and refrigerators. In 2015, Gree ranks No. 385 in "Forbes global 2000" and No.1 in global household electrical appliance class. With headquarter located in Zhuhai city of China, Gree totally owns 9 production bases worldwide, five renewable resources bases, five subsidiaries, more than 70000 employees, and the whole industry chain covering from the production upstream components to the recycle of downstream wasted products. Gree has established 2 state-level technology research centers, 7 research institutes, 52 research libraries and 570 more advanced laboratories; and it has applied for totally 19000 patents and nearly 7000 invention patents. Its products of 20 categories, 400 series and 12700 kinds of specifications are exported to more than 160 countries and regions with over 300 million users.

## Challenges:

Gree used to adopt PCs in its offices and production workshops before deploying cloud client solution. And they had suffered from many inconveniences from PCs:

## • Low Deployment Efficiency

IT stuffs needed to install operation system, configure the system and install application software for the PCs one by one on site, which took averagely 2 hours for each PC. The work burden was heavy while the efficiency was very low.

### Low maintenance efficiency

When there was breakdown of PCs, the average defect recovery time needed was usually more than 30 minutes. Such PC breakdown had caused data loss, business interruption and production break, resulting in certain financial loss of the company.

## Risks of Information security

When they used PC, all the business and production data was stored in local hard disks. The security of company information cannot be guaranteed, and they used USB disks and other peripherals frequently which would cause viruses and Trojans, threating the security of the information system.

#### High TCO

PCs are much more expensive than cloud clients, and the power consumption of PCs is over 10 times more than the cloud clients, which resulted in a big device investment and high electricity charge. What's more, PCs require more space for its big size and generate big amount of heat and CO2, which is not environment friendly.



## Solution & Benefits

To improve the deployment maintenance efficiency as well as information security of the offices and production workshops, Gree decided to turn to virtualization solution instead of traditional PCs. deployed Huawei VDI and after a series of evaluating and testing, finally they chose Centerm thin clients as the accessing devices. After the whole deployment, they have found that they've entered a brand new office mode with highly improved efficiency and security. Firstly, the deployment efficiency was greatly improved. Originally the IT stuffs needed to install the operation system for each PC one by one, install the software on each PC one by one, and configure the system one by one, which totally took averagely 2 hours on each PC. Now with Centerm thin clients, the IT admins only need to distribute the thin clients to the employees, who only need to power on the thin client with no configuration needed login to their own virtual desktop or applications to start their work. For the maintenance, with Centerm CCCM system, management the defect restoration time was greatly reduced to 5~20 minutes from over 30 minutes before. The maintenance efficiency was also highly improved, which effectively guaranteed the business continuity.

Meanwhile, after adopting Centerm desktop management system, the peripherals like USB disks were under strict control and the problem of the quick spreading of virus & Trojans brought by the unlimited use of peripherals was solved. The main resource and transmission route of computer virus are effectively blocked and the security risks are greatly reduced, which has highly improved the security level of their information system.