

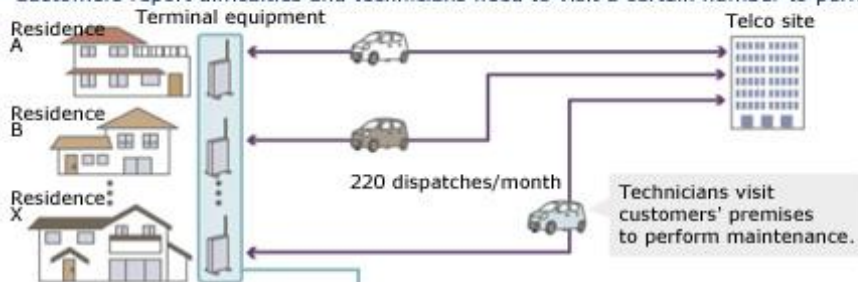
Virtualized Customer Premises Equipment (vCPE) System

vCPE: Environmental impact assessment model

Power consumption is reduced by unifying most of the functions of the equipment on the customer's premises and virtualizing these functions in the telco cloud. This allows remote diagnosis over the network, thereby reducing the need to dispatch maintenance technicians.

Before adopting the vCPE system

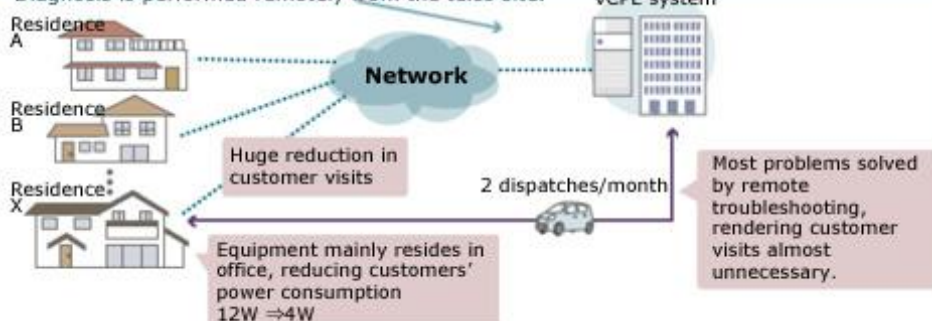
Customers report difficulties and technicians need to visit a certain number to perform maintenance.



- Conventional system: 3.8 kW (24/7 operation)
- Equipment installed on customers' premises: 12 W x 40,000 units (24/7 operation)
- Network usage: 25 MB/day
- Technician movement: 100 km return (220 dispatches/month)

After adopting the vCPE system

Diagnosis is performed remotely from the telco site.



- vCPE system: 2.9 kW (24/7 operations)
- Equipment installed on customers' premises: 4 W x 40,000 units (24/7 operations)
- Network usage: 25 MB/day
- Remote diagnosis equipment usage: 0.5 kWh/case (220 cases/month)
- Remote diagnosis: 0.5 MB x 220 cases/month
- Technician movement: 100 km return (2 dispatches/month)

vCPE: Environmental impact assessment model

CO₂ emissions through equipment usage can be reduced by 66.8%.

