



UNITED STATES
POSTAL SERVICE

US POSTAL SERVICE CASE STUDY

INTERNET COMMUNICATING THERMOSTATS

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United States Postal Service*





Internet Communicating Thermostats

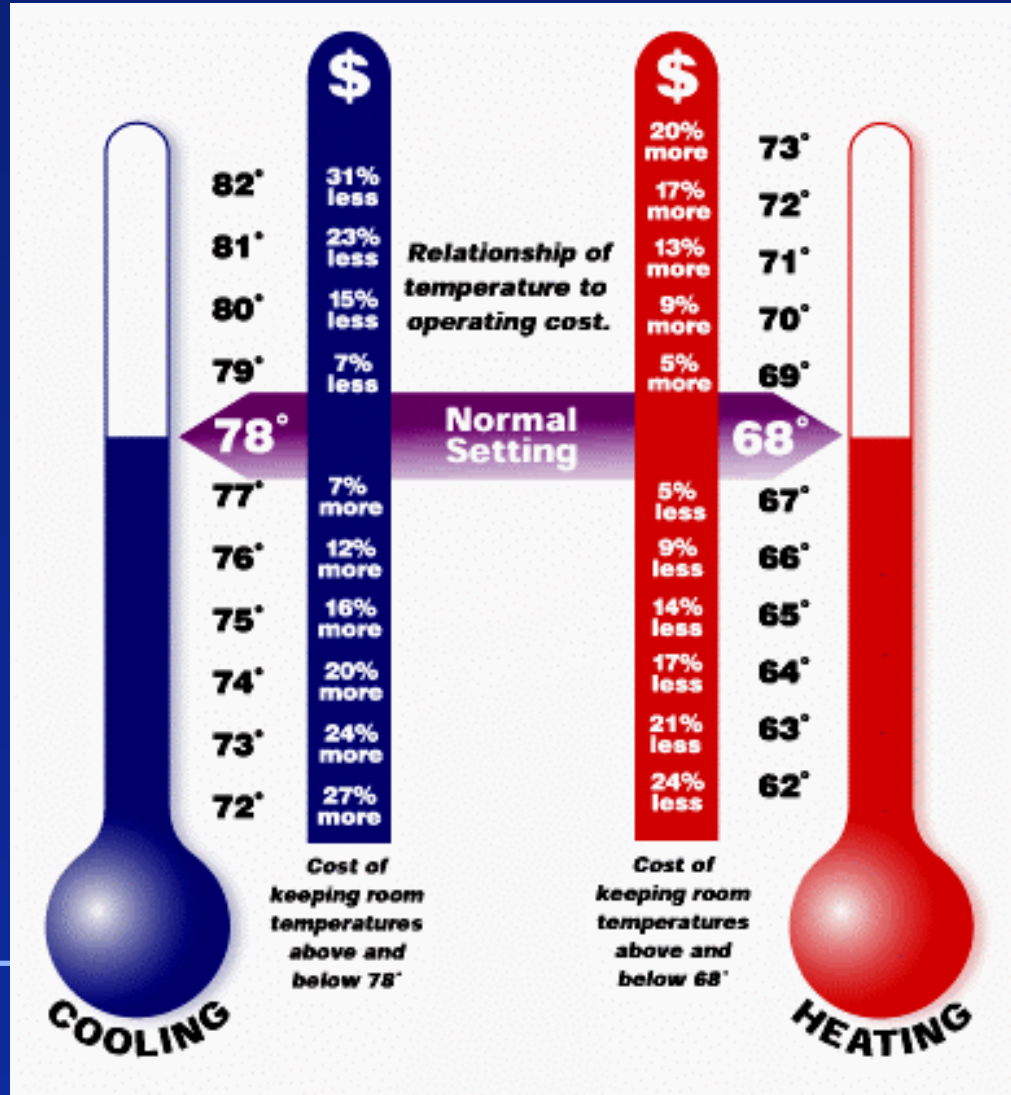
Overview

- ***Thermostat that can send and receive settings / status over the Internet***
 - ***Wired & installed like conventional thermostats***
 - ***Operates with or without communication***
 - ***Remote access to thermostats via Internet connections, open system protocols***
 - ***Easy access for local user override***





Thermostat setpoint affects energy savings

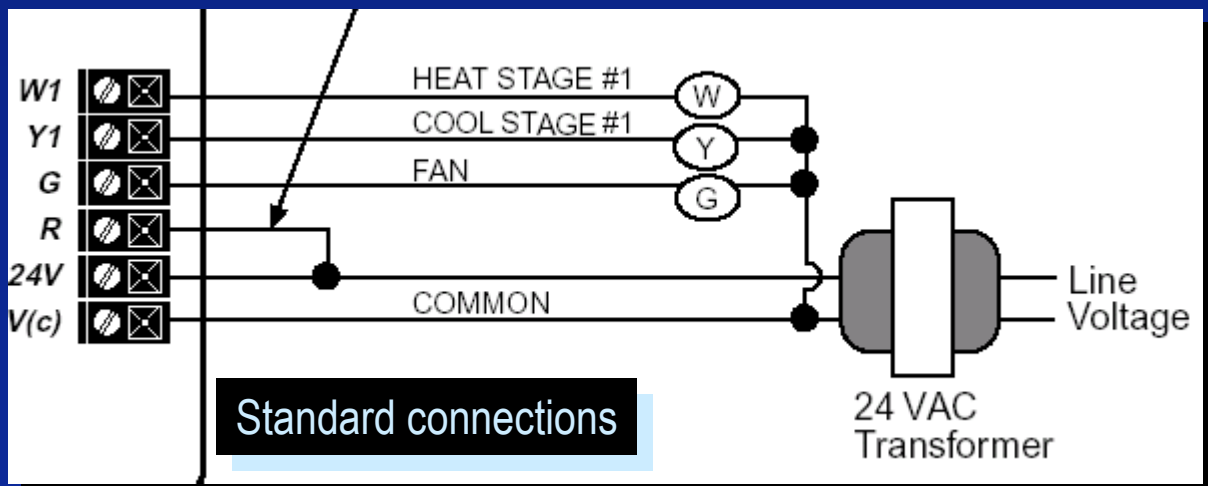
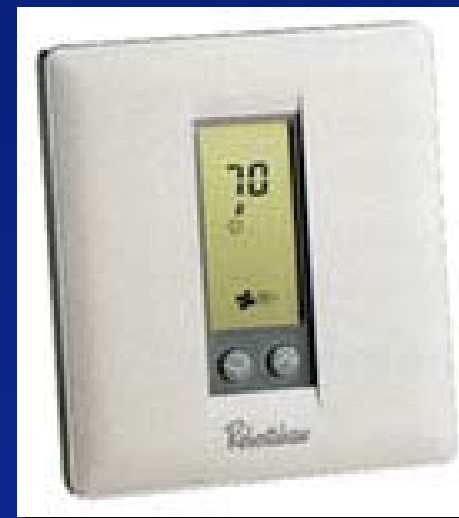




Internet Communicating Thermostat

Installs and works like a conventional thermostat

- no “learning curve”*
- intuitive without training*





Internet Communicating Thermostats

Internet Connections

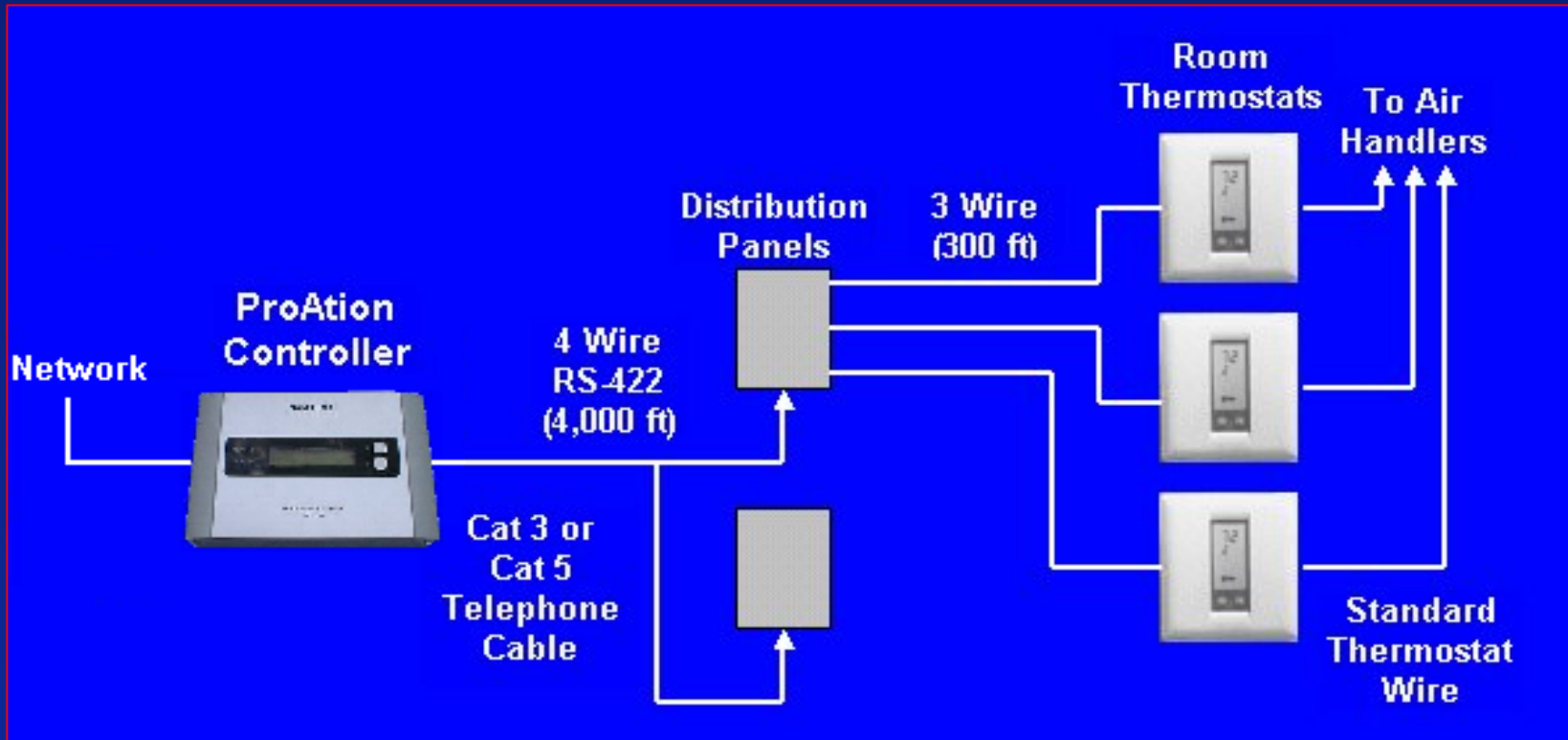
- Controller communicates using CAT-3 or CAT-5 via standard interface*
- Distribution panels connected to computer interface*
- Each distribution panel connects up to 8 thermostats*
- Each controller unit can connect up to 32 thermostats*
- Could also control lighting relays and other equipment on same schedule*





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Ops Console - ProAction ECT

File Edit View Help

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1:28:46 PM

I/O
OK

Thermostat 1: 72, 69, 71

Thermostat 2: 74, 69, 71

Thermostat 3: 73, 72, 76

Thermostat 4: 75, 74, 76

Admin - ProAction ECT

1:28:45 PM

I/O Status
A OK

Site Location, Holidays, View Log, I/O Settings, Passwords, Lock Buttons

Configure Thermostats

Thermostat type: All other thermostats

of zones: 2

Zone 1 | Zone 2

Stat type: RCS TX10-B

House code: J

Setback temp: Heat 65, Cool 85

Automatic status reading: Enable automatic reading, Rate (minutes): 1

OK **Cancel**

Ready

Start | Ops Console - Pr... | Admin - ProA... | Log | untitled - Paint | 1:26 AM



Adjustments that can be made remotely

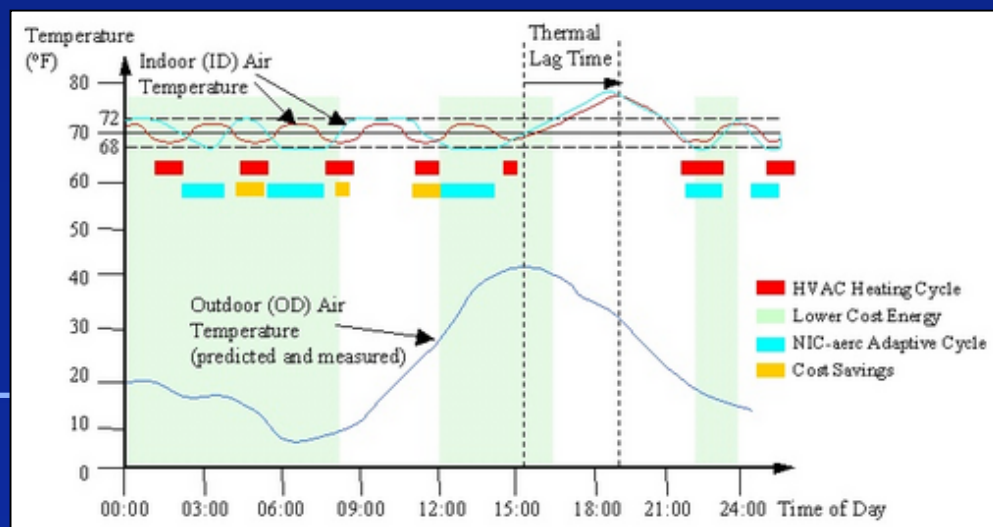
- **Temperature set points**
- **Schedule times, days, holiday/weekend**
- **Local set point adjustment limits**
- **Heating, Cooling, or Auto**
- **Fan cycle or continuous**





Information that can be collected remotely

- Operating time of each unit
- Out of comfort-range alert and time
- Daily, weekly, monthly run hours
 - During occupied and unoccupied hours
- Local over-ride times & temperatures





Internet Communicating Thermostats

Case Study

Five facilities

Installed cost per facility average \$2000

- Estimated savings: \$5,800 ~ \$8,400 per year***
 - Payback period: 1.5 to 2 years***
 - Installed by in-house technicians***
 - System is fairly simple and user friendly***
-



Internet Communicating Thermostats

Evaluations-Pros/Cons

- Power outages*
knocking out system & clock settings
- Several far away sites can be controlled very easily from one location*
- Less costly to install than a full DDC* system*
- Only 2 out of 5 sites actually saved energy*
✓ US Postal service unique

* DDC – Direct Digital Control



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Thank You!
