Understanding WEB Comfort™ Communications

The Jackson Systems WEB Comfort™ Communicating Thermostat System is designed to allow multiple thermostats to be wirelessly networked together throughout a building or home.

Each WEB Comfort™ thermostat is web enabled for internet connectivity and can be accessed from anywhere in the world via a standard web browser. The WEB Comfort™ system wirelessly connects with each thermostat through a secure ZigBee mesh network that allows each thermostat to act as a repeater within the network as well as extending the signal range.
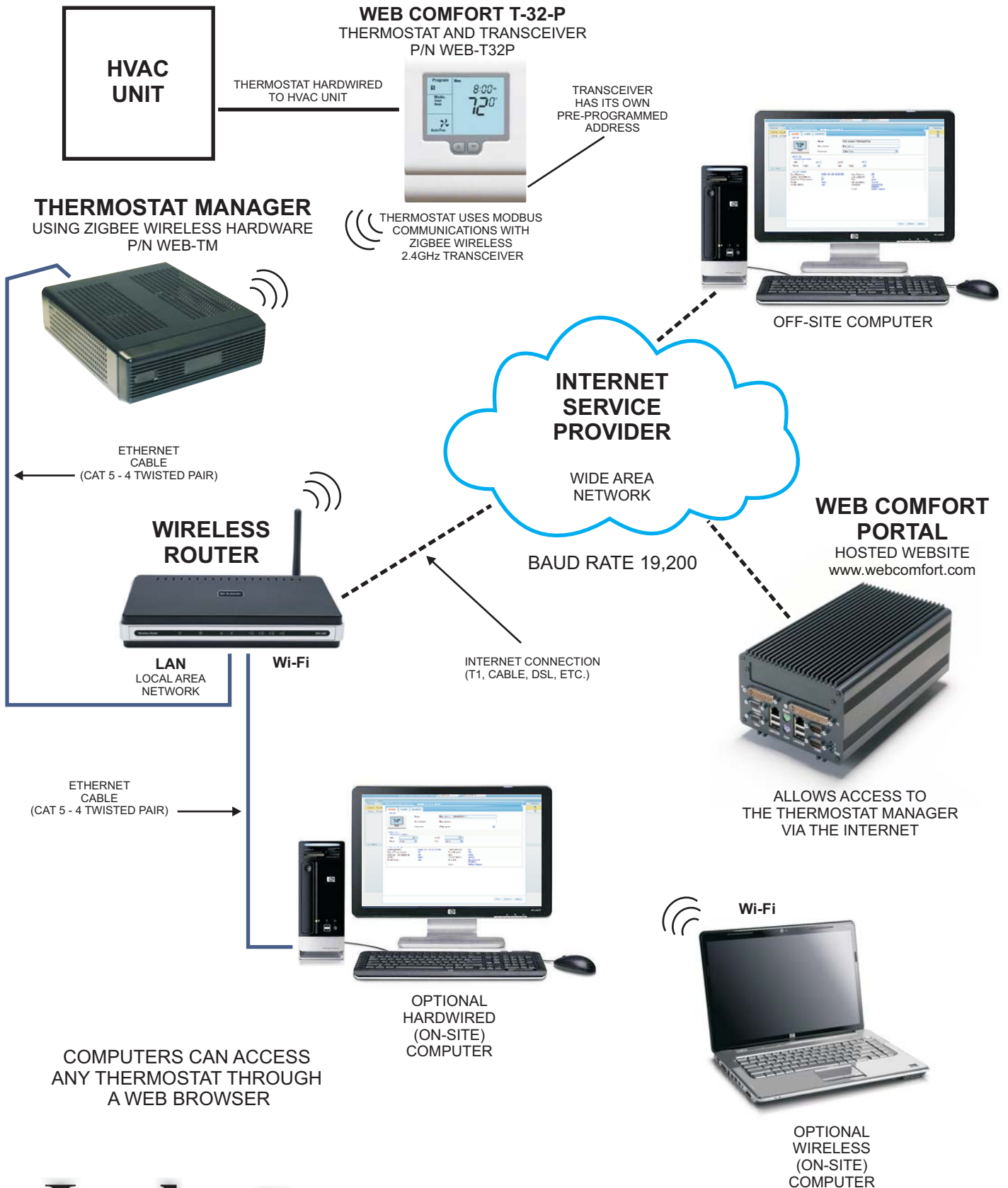
ZigBee is a specification for a suite of high level communication protocols using small, low-power digital radios based on the IEEE 802.15.4-2003 standard for Low-Rate Wireless Personal Area Networks (LR-WPANs), for wireless devices needing low rates of data transfer. The technology defined by the ZigBee specification is intended to be simpler and less expensive than other WPANs, such as Bluetooth. ZigBee is targeted at radio-frequency (RF) applications that require a low data rate, long battery life, and secure networking.

Programming, monitoring and control of all WEB Comfort™ thermostats is made simple by an intuitive web-based dashboard. Three levels of secure access privileges are available to support the occupant, owner and contractor. Advanced group functions allow rapid programming and organization of multiple thermostats.

A WEB Comfort™ Thermostat Manager can support up to 1,000 wirelessly networked thermostats.

WEB Comfort™ System Configuration

HVAC UNIT

THERMOSTAT HARDWIRED TO HVAC UNIT

WEB COMFORT T-32-P
THERMOSTAT AND TRANSCEIVER
P/N WEB-T32P

TRANSCEIVER HAS ITS OWN PRE-PROGRAMMED ADDRESS

THERMOSTAT MANAGER
USING ZIGBEE WIRELESS HARDWARE
P/N WEB-TM

THERMOSTAT USES MODBUS COMMUNICATIONS WITH ZIGBEE WIRELESS 2.4GHz TRANSCEIVER

OFF-SITE COMPUTER

ETHERNET CABLE
(CAT 5 - 4 TWISTED PAIR)

INTERNET SERVICE PROVIDER

WIDE AREA NETWORK

WIRELESS ROUTER

BAUD RATE 19,200

WEB COMFORT PORTAL
HOSTED WEBSITE
www.webcomfort.com

LAN
LOCAL AREA NETWORK

Wi-Fi

INTERNET CONNECTION
(T1, CABLE, DSL, ETC.)

ALLOWS ACCESS TO THE THERMOSTAT MANAGER VIA THE INTERNET

ETHERNET CABLE
(CAT 5 - 4 TWISTED PAIR)

Wi-Fi

OPTIONAL HARDWIRED (ON-SITE) COMPUTER

COMPUTERS CAN ACCESS ANY THERMOSTAT THROUGH A WEB BROWSER

OPTIONAL WIRELESS (ON-SITE) COMPUTER

Jackson SYSTEMS