

ADRES Automated Demand Response and Energy Savings
**BUILDING AUTOMATION SYSTEM
INFORMATION RESPONSE**

**INFORMATION TECHNOLOGY
ADVANTAGES AND CONSIDERATIONS**

Prepared by:

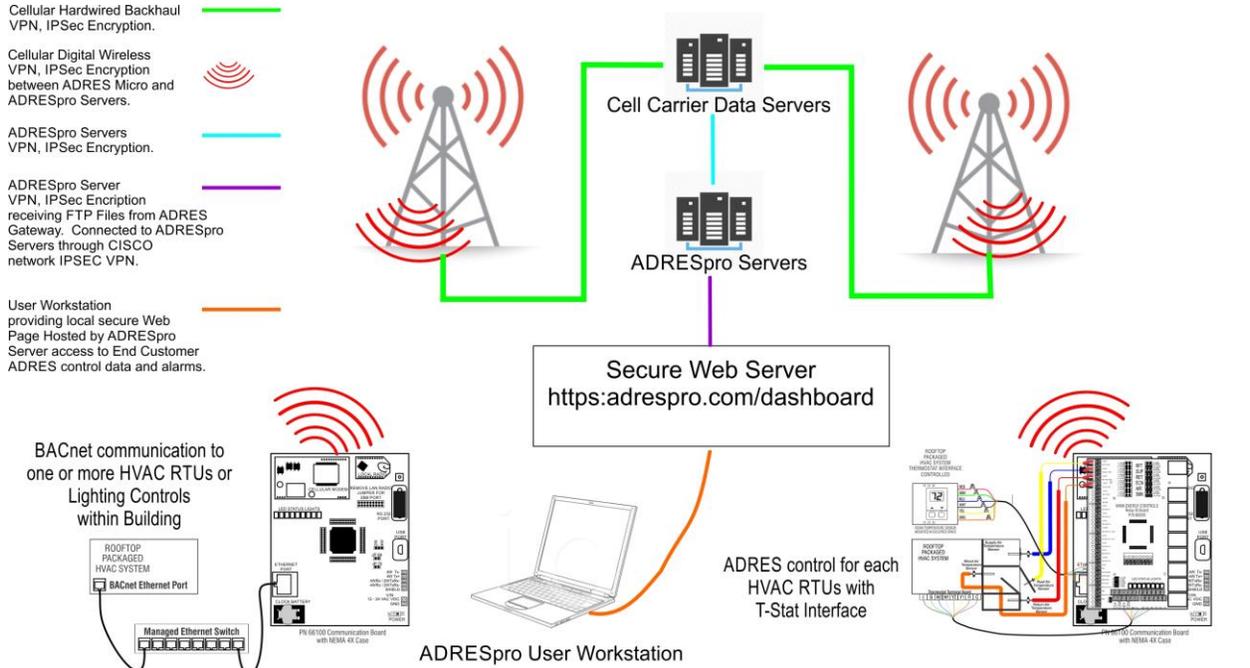


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ADRES Control Series

Control System Solution

ADRES Cyber Secure Installation Overview



1. ADRES BACnet Gateway / Ethernet or RS 485 Serial
2. ADRES with Cellular WAN Modem (Private IP and VPN from WEC Server to Carrier to ADRES).
3. ADRES Communication Board with Ethernet or RS 485 connected to Managed Switch. ADRES to Poll each BACnet capable RTU for performance data and Alarms. ADRES will push this data to ADRESpro Server to post as secure web page. ADRES will store data in local memory.
4. ADRES will not allow remote access from Cell Modem to public internet.
5. ADRES has over-the-air firmware update capability.

1. ADRES with Relay IO board installed on each HVAC RTU.
2. ADRES with Cellular WAN Modem (Private IP and VPN from WEC Server to Carrier to ADRES).
3. ADRES Relay IO board connected to T-Stat HVAC interface with room, supply, return, mixed and roof temp and humidity sensors.
4. ADRES controls real-time with advanced energy saving logic. ADRES controls VFD indoor fan directly.
5. ADRES modulates economizer directly with advanced digital economizer logic.
6. Eliminates all ethernet and power wiring.
7. Eliminates single point failure.
8. Removes all communication from end customer network.