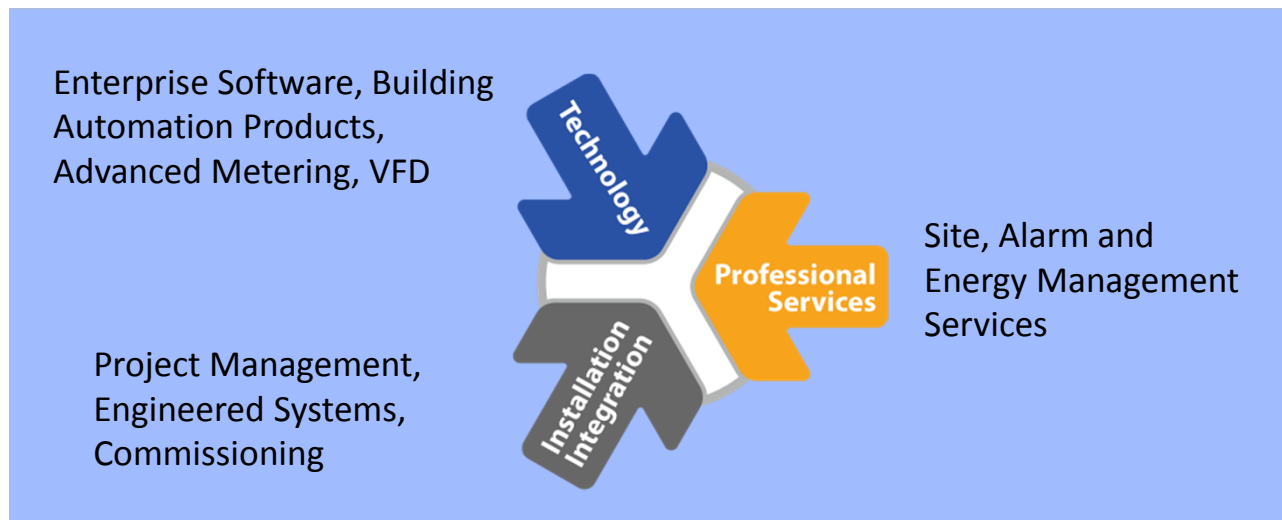


## A little about Novar...



- Honeywell business focused exclusively on providing comprehensive energy management and building automation solutions to centrally managed multi-site enterprises
- Founded in 1964, based in Independence, OH, acquired by Honeywell in 2004
- Direct-to-customer business model with vertically integrated technology, installation & service offerings
- Strong commitment to backward compatibility and continued support for legacy technology



# Enterprise Software Application

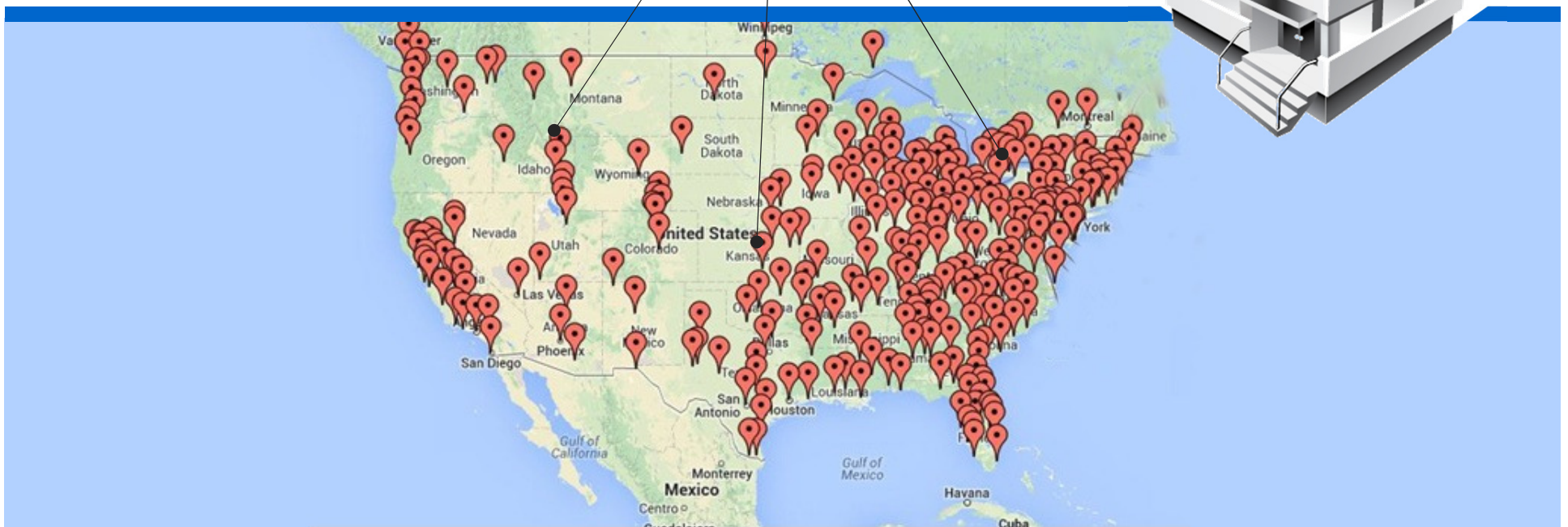
Honeywell

novar

## HQ Level

### Enterprise Management

- Remote Monitoring
- Global Parameter Management
- System Programming
- Alarm Management
- Reporting
- Analytics

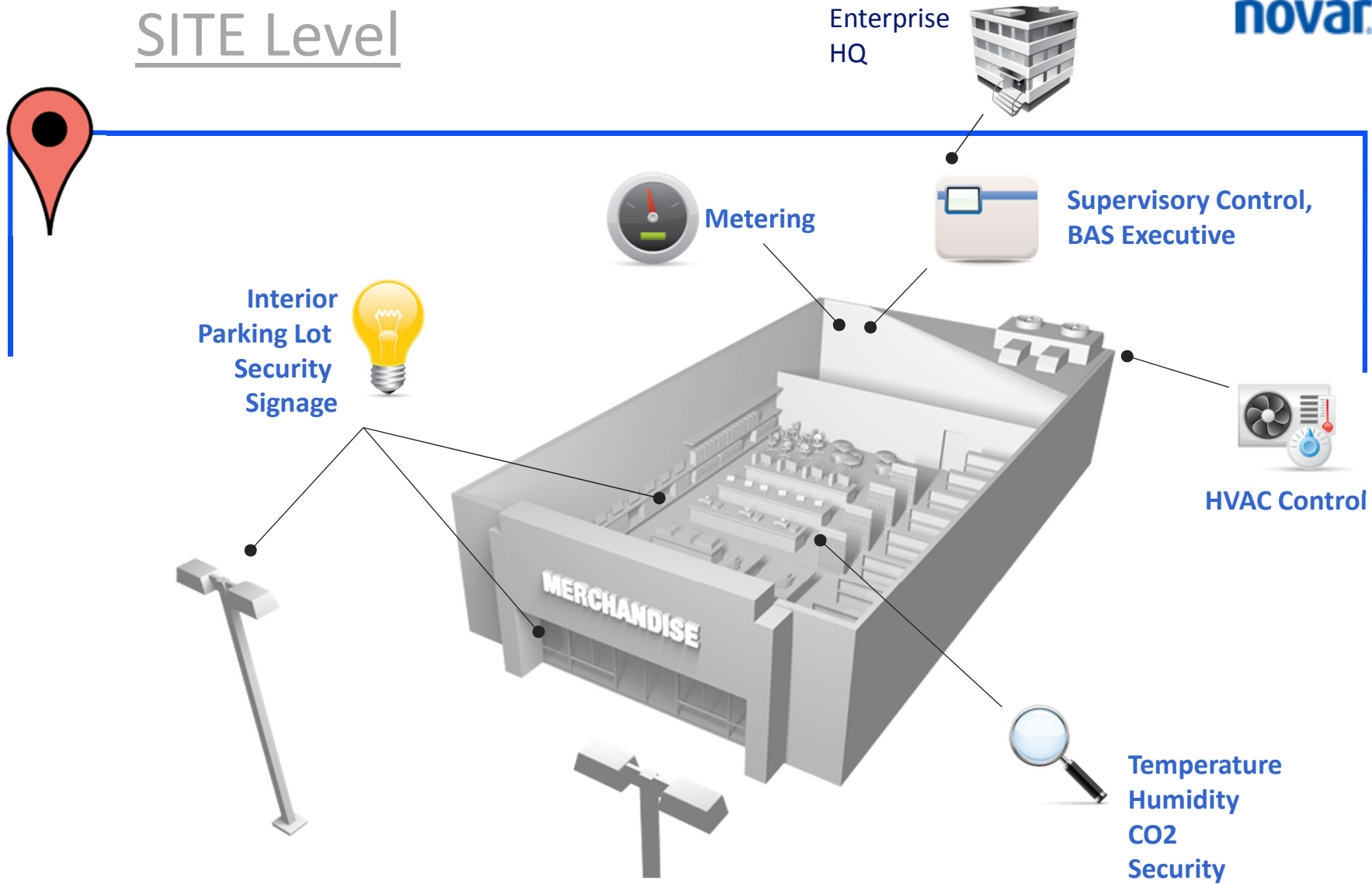


# Site Level Building Automation Application

Honeywell

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## SITE Level



# Automated Demand Response Application Example

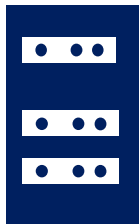
Honeywell

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Grid Operator



Demand Response Automation Server (DRAS)

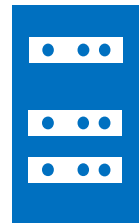


Grid operator (ISO/Utility) broadcasts ADR event notification based on market conditions

Enterprise HQ

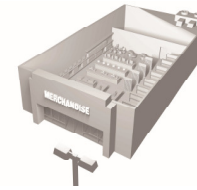


Enterprise Building Automation Server



Receives and dispatches event notification to remote sites

Site



Opus BAS

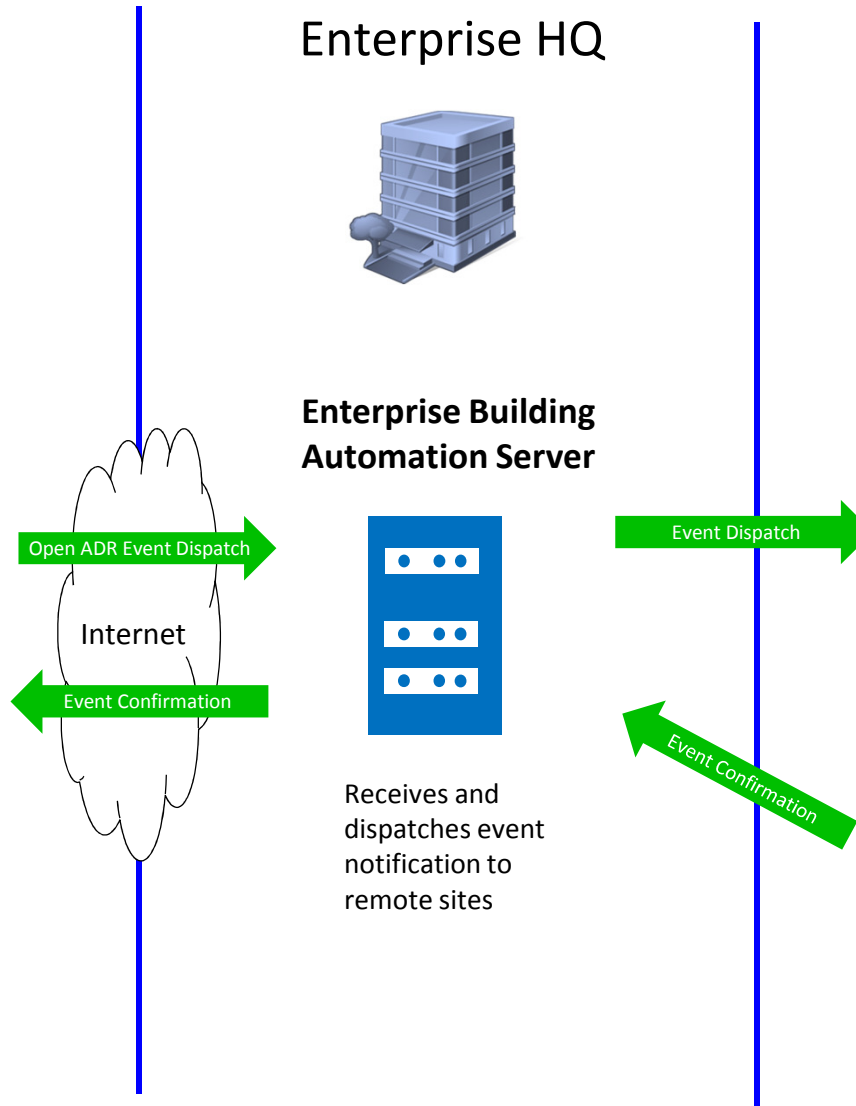


Receives ADR notification and initiates load reduction strategies

Demand Meter



Records site energy usage



# Automated Demand Response Application Example

Honeywell

novar

Grid Operator



Demand Response Automation Server (DRAS)

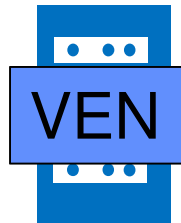


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Enterprise HQ

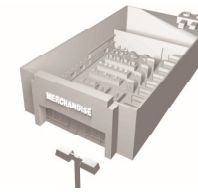


Enterprise Building Automation Server



Receives and dispatches event notification to remote sites

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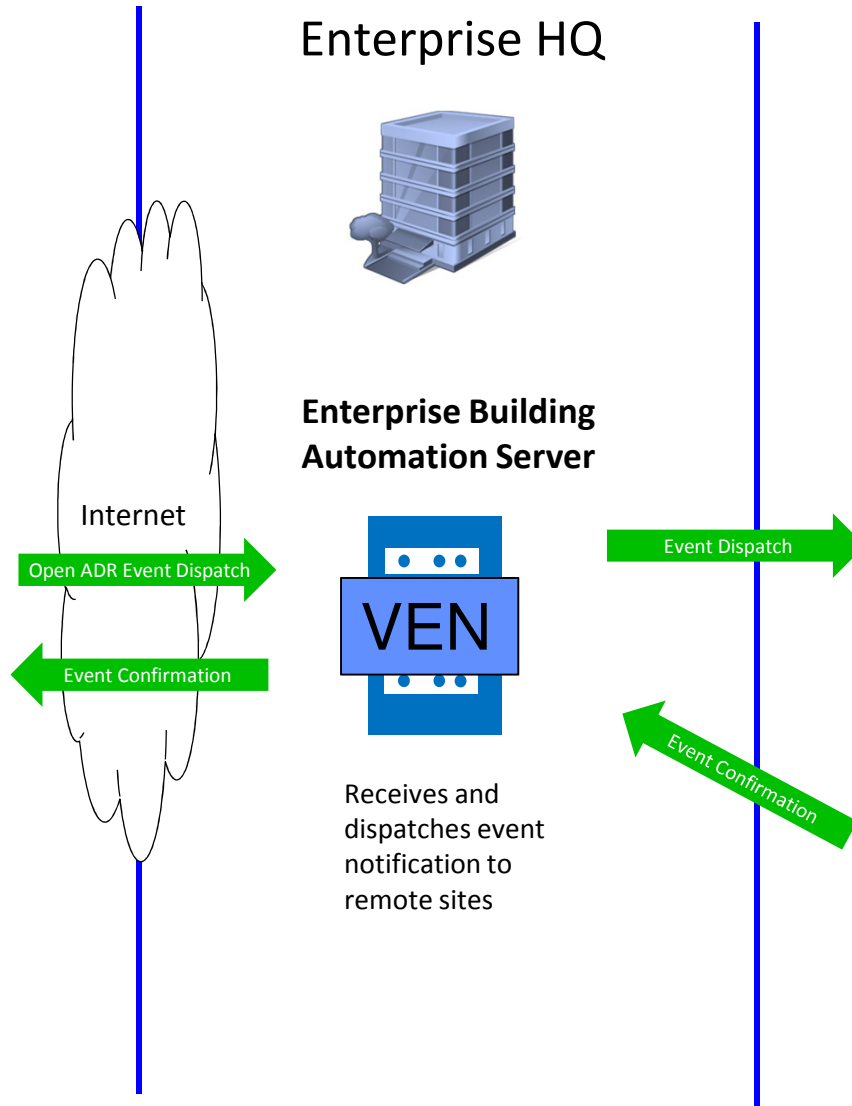


Receives ADR notification and initiates load reduction strategies

Demand Meter



Records site energy usage



# Site Load Reduction Strategies

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Honeywell

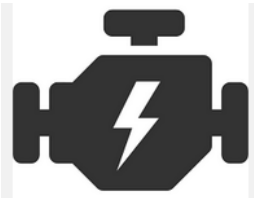
novar.



- Cooling or heating setpoint reset
- HVAC unit load rotation
- Cooling or heating stage limit for multistage package HVAC units



- Turn off non-essential lighting
- Dim lighting



- Switch in back-up generation

## Technology

- Event propagation latency
- Customer security requirements
- Site control strategy effectiveness (maximum load drop with minimum impact to occupant comfort and safety)
- Reliability of site resources
- Meter accuracy

## Market

- Legacy technology
- Concern about occupant comfort, business impact
- Reluctance to accept automated demand response