







































Benefits of Central and Distributed System Designs

Central

- Large equipment has higher quality, efficiency, and durability
- Maintenance is concentrated
- Noise is removed from zone
- Diversity allows lower installed capacity
- Can use thermal storage

Distributed

- Easy to provide zoning
- Direct control by occupants
- Easier independent scheduling for energy savings
- Generally lower capital costs and shorter lead time for equipment
- Don't need dedicated maintenance staff, use service contract
- Can often install on roof, less useable space for equipment















Cooling Tower Types

Open tower

- Use tower water in condenser
- Water treatment
- □ Closest approach
- Closed tower
 - Closed condenser water loop with heat exchanger
 - Less maintenance

