



# ENERGY STAR Resources for Data Centers

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Flash Memory Summit

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# 5 WAYS TO REDUCE IT ENERGY COSTS

1



## Power-manage computers

Save \$10-50 or more per computer annually and tap into free technical consultations from ENERGY STAR

2



## Choose energy-efficient IT equipment

Save with desktops, notebooks, servers, printers, copiers, and more

3



## Save energy in the data center

12 strategies that can substantially cut energy costs

4



## Benchmark your data center's energy efficiency

Receive an energy performance rating

5

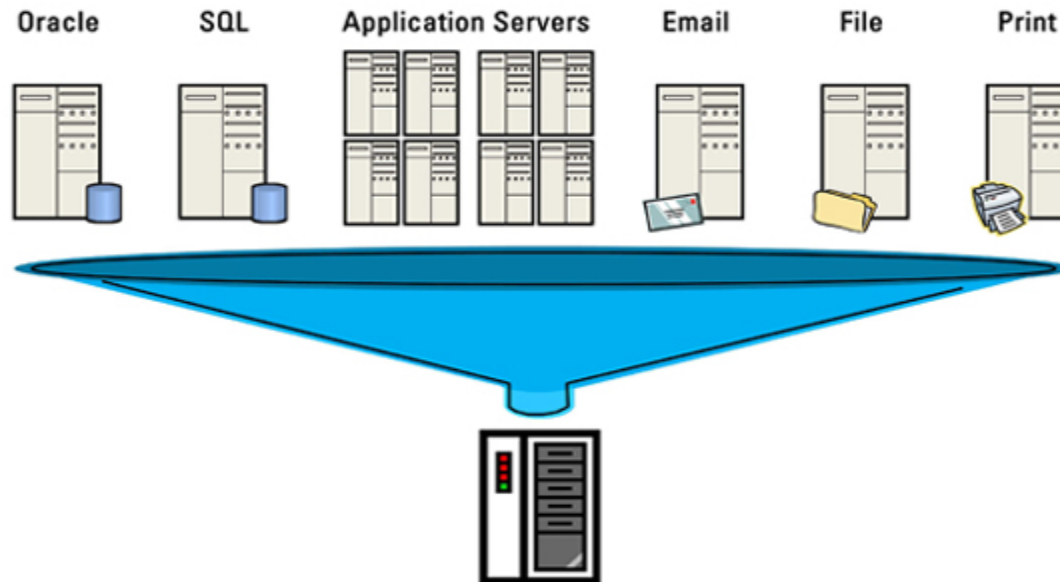


## Additional Tips

Printer consolidation, "smart" power strips, and more



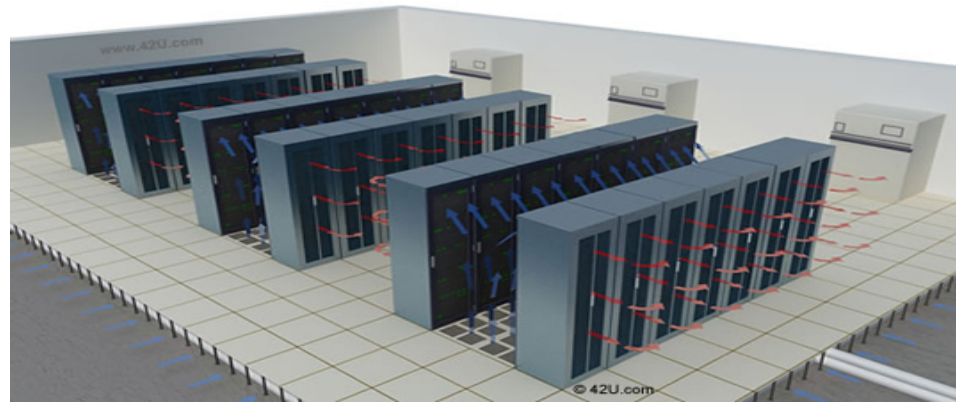
- Server Virtualization – run multiple independent servers on single physical server



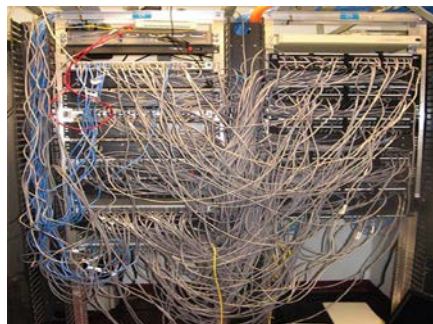
- Decommissioning of Unused Servers – shut down unused servers



- Hot Aisle/Cold Aisle Layout – fronts of server face each other



- Properly Deployed Airflow Management Devices – supply cooling air to equipment





## Benchmark your data center's energy efficiency

Receive an energy performance rating

### ENERGY STAR Portfolio Manager

- Measure, track, benchmark energy use intensity (PUE = total data center energy/IT energy consumption)
- Enter 12 consecutive months energy data
- Rating from 1-100
- Rating of 75
  - performs better than 75% of peers
  - eligible for ENERGY STAR certification
- Generate, P.E. validates Statement of Energy Performance , Data Checklist.
  - energy use accurate
  - characteristics properly reported
  - fully functional
  - indoor environment requirements



NetApp Global Dynamics Lab, RTP, NC

# Take Home Message

## Summary

- Tools, resources support data center EE improvements
- Data Centers eligible for ENERGY STAR rating & certification

## Benefits

- Save energy, money, reduce GHG
- Demonstrate environmental leadership



# Contacts, Websites

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## Uninterruptible Power Supplies:

- [ups@energystar.gov](mailto:ups@energystar.gov)

