

Top Energy-Saving Tips for Setting up your Co-Location Data Center



Buy ENERGY STAR IT Hardware

Data center products that earn the ENERGY STAR label are designed to do more with less. An ENERGY STAR certified server, with power management enabled, uses on average almost **40% less energy** than a non-certified product. With increases in productivity this could result in savings of over **\$8500 per unneeded server**. [ENERGY STAR](#) certification is also available for data storage and uninterruptible power supplies (UPS) to further extend your savings.

Maximize Temperature and Humidity Set Points

Did you know there is an optimum temperature and humidity set point for efficiency? Going below that level requires more energy from the HVAC equipment, while exceeding that point puts more onus on your IT equipment, likely reducing its longevity. Work with your equipment manufacturer to determine the [optimum temperature set point](#) so that your HVAC and IT Equipment are working optimally. ASHRAE and IT equipment manufacturers have updated their recommendation to allow safely running your IT equipment up to **80- 81°F and 50% humidity** without product longevity or uptime concerns.

Keep Things Free and Clear

Just as with adding blanking panels, etc. to manage airflow, it is important to ensure that your **network cables** and rack layout are set up correctly to allow the correct airflow. Setting up your cables correctly will reduce the stress on IT equipment and ensure that debris and inhibited air flow does not reduce the lifespan of your hardware, while also helping with the efficiency of the data center.

Separate Hot and Cold

Hot aisle/cold aisle data center layouts are one of the most proven ways to save energy in the data center. Visit energystar.gov to find out more on how to best set up your data center in a hot aisle/cold aisle alignment.

Mind the Gaps!

When installing your equipment, pay attention to airflow management. This is critical for colocation energy efficiency. Proper airflow management can save up to **15% in energy use** alone. Look to get blanking panels, floor tiles, gap fillers, and server ducting to help you reduce the cooling needs of the facility and your equipment. If you have questions, contact your data center manager to help you improve your airflow management.



Above: (Left) Example of bad cabling in a data center, (Right) an example of good cabling.