Sustainable Purchasing Guide
Servers

Use this Guide When Purchasing

- Servers - blade, multi-node, pedestal, or rack-mounted

Servers are the backbone of our networks and online applications. Data centers are also some of the most energy intensive buildings to operate, consuming 10 to 50 times the energy per floor space of a typical commercial office building. Data centers are also water intensive - among the top-ten water-consuming industrial or commercial industries in the U.S. While smart data center design is key to reducing impacts, the server equipment itself plays a significant role in reducing both energy and cooling loads within data centers.

How to Purchase

Check with your information technology (IT) and/or central procurement office to find out if you have any electronics standards (brand/model) and/or existing contracts that employees are required to use to purchase IT equipment. When you are seeking these products in a store or online, check the product details to confirm it meets the Minimum Requirements listed below.

Product Requirements - *specify or seek:*

MINIMUM REQUIREMENTS/SPECIFICATIONS

- Product currently has at least one of the following multi-attribute certifications:
  - EPEAT Bronze Registered
  - TCO Certified

LEADERSHIP OPPORTUNITIES

Minimum Requirements plus one or more of the following:

- EPEAT Silver or Gold Registered
- TCO Certified

Ecolabels to Look For

Related Tips

Recycling Electronics:

Check with your IT department regarding data security and related electronic disposition requirements. Otherwise, to ensure hazardous materials do not end up in the environment and to foster material reuse, electronics should be recycled by an electronics recycler certified to either the R2 or e-Stewards standard. You can find a nearby certified responsible electronics recycler by using the R2 or e-Stewards online directories.

Save Energy:

- Verify that the default processor power management setting is enabled in the BIOS and/or through a management controller, service processor, and/or the operating system.
- Optimize server utilization and turn off unused servers.
- Consolidate and virtualize applications.

Benefits

EPEAT-registered and TCO-certified servers:

- Use 22% less energy on average than non-certified servers. Energy reductions also equate to greenhouse gas (GHG) emission reductions.
- Are designed for repair, reuse, and recycling, thus supporting waste reduction practices.
- Utilize post-consumer recycled content in plastic components, thus supporting markets for recycled materials.

About the Ecolabels

EPEAT is well-known ecolabel for electronic products. The product standards associated with EPEAT involve multi-attribute, life-cycle criteria, including design for recycling and toxics reduction. Some criteria are required and some are optional, with products earning higher ratings for meeting more optional criteria. Thus, EPEAT products can be rated Bronze, Silver, or Gold, depending on the product's level of criteria achievement.

TCO is a well-regarded ecolabel for electronic products. TCO certifies products against multi-attribute, life-cycle criteria, including social criteria, such as factory working conditions.

Both EPEAT and TCO products also meet ENERGY STAR criteria for energy efficiency.

PRODUCT REGISTRIES

Find/verify certified servers by using the following online certified product registries:

- EPEAT Product Registry
- TCO Product Registry

BENEFITS CALCULATOR

Calculate the environmental benefits of purchasing EPEAT products, such as energy & GHG emission savings, toxics reductions, and more.

- EPEAT Benefits Calculator

IF YOU OPERATE A DATA CENTER...

Both the U.S. Environmental Protection Agency and Department of Energy have resources to help data center operators optimize their data centers to reduce energy and water use.

- Center of Expertise for Energy Efficiency in Data Centers
- ENERGY STAR resources for Data Centers