Data Center Server Hosting

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Server Considerations

When considering the acquisition of servers, it is important to consider the following:

- **Size of servers:**
  - Are these desktop/workstation form-factor?
  - Are these rack-mounted servers?
  - For rack-mounted servers, how many Rack Units (RU) will the servers take up in a server rack?
- **Location of servers:** Where are the servers going to be placed?
- **Power consumption:**
  - Is there an adequate power source to run the servers?
  - What is the server's power supply wattage?
  - How many power supplies within the server?
- **Cooling:** Do you know if the heat the servers generated can be sustained in a lab?
- **Server Noise:** Will the server impact users in the lab or occupants in nearby rooms?

Please contact the ECE-IT group at help@ece.utexas.edu to discuss any acquisition of servers.

University Data Center (UDC)

**An Enterprise-Level Data Center**

**Location:** right off I-35 East, on Comal street (close to UT tennis center)

The University Data Center (UDC), completed in 2010, benefits campus by providing a secure, professionally managed data center to meet the growing information technology (IT) needs of researchers, colleges and schools, and administrative units at The University of Texas at Austin.

**UDC Benefits and Features**

- Enhanced physical and data security, redundant power and cooling systems.
- Access to UDC firewall security policies to restrict access to your devices and data. ECE-IT will facilitate any unique policies that may be implemented.
- Redundant data center class high-speed networking to ensure availability of critical research and administrative systems. Support for 1GB and 10GB Ethernet. Fiber connectivity option for an additional one-time cost.
- Professional, 24/7/365 technical support and management
- Server build room enables customers to install, configure, and test systems before moving into controlled operational space.

**Technical support**

For any issue requiring immediate attention (less than 4 hours), such as the reboot of a server or other troubleshooting activity, call 512-471-0007. The operators are on duty 24/7 to support you and will respond within 20 minutes. Customers must provide a contact method when they contact the UDC.

**Tier 1** - Typically simple tasks that can be performed in a short timeframe

**Availability:** 24/7/365

Services include:

- Power cycling equipment (rebooting)
- Swapping removable media (tapes, CDs, DVD, etc.)
- Visual verification of equipment state (indicators, displays, etc.)
- Console connections
- Reseating cables
- Equipment pickup and delivery
- Hard drive degaussing and destruction (for devices in the UDC)
- Inventory coordination and surplus of IT equipment
- Shipping and receiving as it relates to data center activities
- On-site assistance during customer visits – As requested/required

**Tier 2** - Tasks that require more advanced involvement such as installation or handling of hardware and components.
Availability: 7 a.m. to 7 p.m. M-F
After Hours: 7 a.m. to 10 a.m. First Saturday of the month

Services include:

- Hardware failure component replacements (NICs, hard drives, power supplies, etc.)
- Installation of new hardware components (memory, hard drives) involving advance scheduling of downtime
- OOBM/DRAC/ILOM configuration
- Installation / De-installation of equipment in the raised floor and server build room
- Relocation of equipment between data halls and/or server build room
- Vendor support activities – As requested/required
- Changes to Authorized Staff Lists

Pricing

Effective September 1, 2024, the prices have changed

Annual Recurring Cost: Rates are based on physical vertical size of the server. Rates are reviewed every 3 years and maintained by the campus IT Leadership Committee (ITLC)

UT Austin Campus Rate: **$282 per Rack Unit (RU) per year.** A Rack Unit is a unit of measure describing the space required to mount a server in the server rack.

Example: Dell PowerEdge R640 is 1RU. Cost would be **$282/year**

Example: Exxact TensorEX TS2 is 2RU. Cost would be **$564/year**

Example: Exxact TensorEX TS4 is 4RU. Cost would be **$1,128/year**

Server Requirements

**System Standards:** The UDC has established minimum standards for equipment that can be accommodated in the facility.

**Requirements:**

- **Rack-Mountable:** Server must compatible to be racked in a 19" rack similar to this one.
- **Server Rails:** Order rails without cable management
- **Dual Power Supply:** Server should have at least two 208/220 volt power supplies for redundant power
- **Power Cords:** C13 connections. Other types of connections may be accommodated, but an inquiry with the UDC would be needed prior server acquisition.

**Strongly recommended**

- **Dual Network Interface Cards (NICs):** Most rack-mounted servers are equipped with at least two, but it should be verified before purchasing. Two NICs should be configured for redundancy and prevent network loss due to an unexpected outage with only 1 NIC.
- **Remote Management (Out-of-Band Management):** Dedicated Ethernet-capable remote server management port. These type of ports are used to access the server at the hardware/console level for remote management. This dedicated port and service emulates an individual physically standing right in front of the server performing tasks. Examples of an OOBM port is iDRAC and IPMI

**Remote Management**

ECE-IT considers a Remote Management port/service to be a requirement, rather than a recommendation. For example, the ECE-IT group heavily relies on Remote Management (OOBM) services for managing departmental servers and hasn't had a need to visit the UDC in years.