

Linux Administrator - accompanying information for role of Computer Technician



Summary:

We are seeking an experienced and detail-oriented Linux Administrator to manage and maintain our high-performance computing infrastructure.

The ideal candidate will have a strong background in Linux system administration, Workflow automation, HPC workload managers (e.g., Slurm, PBS, or LSF), parallel file systems, and networking.

You will work closely with researchers, data scientists, and IT teams to ensure optimal performance, reliability, and scalability of Linux systems.

Additionally you will work with other team members maintaining the Schools MS Windows PC labs with software and hardware installations.

Key Responsibilities:

- Administer, monitor, and optimize HPC clusters, including compute nodes, storage systems, and interconnects.
- Install, configure, and maintain cluster management tools, job schedulers (e.g., Slurm), and system software.
- Manage user accounts, access controls, and security policies.
- Monitor system performance and usage; identify and resolve issues to minimize downtime.
- Plan and implement HPC upgrades, expansions, and migrations.
- Support users with job submissions, software builds, and application performance tuning.
- Automate routine tasks using scripts (e.g., Bash, Python, Ansible).
- Ensure data integrity and backup/recovery processes.
- Document system configurations, procedures, and troubleshooting steps.
- Collaborate with researchers and technical teams to evaluate and deploy scientific and engineering applications.
- Assist with Linux installations throughout the School
- Assist with MS Windows based hardware and software installation and deployment

Role Criteria:

Required:

- Previous experience managing commercial Linux environments.
- Proficiency with Linux (e.g., RHEL, CentOS, Ubuntu) and Bash scripting.
- Experience with container technologies (e.g., Apptainer, Docker).
- Familiarity with infrastructure automation tools (e.g., Ansible, Puppet, SaltStack).
- Familiarity with monitoring tools (e.g., Prometheus, Grafana, Ganglia).
- Excellent troubleshooting and communication skills.
- Bachelor's degree in Computer Science, Engineering, or a related field (or equivalent experience).
- Knowledge of MS Windows and application installation and PC hardware

Preferred:

- Working knowledge of at least one of: C++, Python, Matlab
- Experience creating software utilising parallel programming paradigms such as MPI and OpenMP.
- Experience with workload managers (e.g., Slurm, PBS Pro, LSF).
- Familiarity with high-speed interconnects (e.g., InfiniBand, Omni-Path).
- Knowledge of parallel file systems (e.g., Lustre, BeeGFS, GPFS).
- Understanding of networking, firewalls, and system security best practices.
- Knowledge of scientific computing workloads and GPU-based computation (e.g., CUDA, NVIDIA GPUs).