System Administrator

Who We Are

CRKN advances interconnected, sustainable access to the world's research and to Canada's documentary heritage content. For our member organizations and the diverse communities they serve, CRKN empowers researchers, educators, and society with greater access to the world's research and Canada's preserved documentary heritage, now and for future generations. CRKN members represent 76 academic libraries across Canada that include world-class research institutions, innovative teaching-focused institutions, as well as two national libraries, and Canada's largest public library system.

CRKN operates the Canadiana Trustworthy Digital Repository (TDR). The Canadiana TDR, one of six in the world, provides a permanent preservation solution for Canada's digital documentary heritage in which deposited content can be identified, collected, managed, and kept secure over time. The Canadiana TDR is an essential component of CRKN's heritage and preservation services portfolio that serves its member community, researchers, memory institutions, and other stakeholders.

The Role

The System Administrator supports and manages the network and hardware layers of the Canadiana TDR platform and associated services, and contributes to the design and implementation of new services and applications.

Reporting to the Manager, Canadiana Platform or designate and working closely with the Lead Systems Engineer, the System Administrator configures, monitors and maintains the TDR network infrastructure, Linux servers, monitoring systems, Swift clusters, systems configuration and Docker container deployment, and other infrastructure elements. The System Administrator coordinates with staff at partner data centres to manage the installation and maintenance of hardware and network infrastructure, and with vendors to purchase and configure new and replacement hardware. The System Administrator also participates as a member of the Canadiana Platform projects team to design and implement new services and capabilities using agile processes.

Duties and Responsibilities

1. **System and Network Administration (70%)**
   - Configure, deploy, upgrade and manage servers and network hardware
   - Manage server configurations and deployment using Puppet and Docker
   - Configure and manage the Swift object store cluster across multiple physical and virtual locations
   - Develop recommendations for new hardware, operating system and server configurations and deployment practices
   - Develop and implement monitoring strategies for system resource usage, performance and security
   - Manage the migration of legacy ZFS object stores and servers to Swift clusters
   - Other system administration activities as required

2. **System Development (20%)**
   - As a member of the Canadiana Platform project team, participate in the design and implementation of new services and enhanced capabilities through an ongoing process of agile development

3. **Security Policy Development (5%)**
   - Provide support and guidance to the Director of Operations relating to the development and implementation of information security controls, policies and best practices

4. **Other (5%)**
   - Coordinate the purchase, delivery and installation of hardware with vendors and data centre staff
   - Provide input and reports to the Preservation and Access Committee and Platform Technical Task Group
   - Other duties as required

In a small team environment, everyone is expected to work towards overall CRKN goals and at times a team effort is required that may involve taking on tasks outside the normal or expected scope of their role. Other duties may be assigned as required.

Qualifications

The ideal candidate will have a degree in computer science and at least five years' experience in a systems role, or an equivalent combination of education and experience. Extensive knowledge of and experience with server and networking hardware is essential. The candidate should possess or be eligible for Reliability Status from PWGSC. Other relevant and desirable education, skills and experience include:

- Extensive Unix/Linux administration and networking
- Ability to master complex and evolving technologies, frameworks and service architectures
- Strong written and oral communication skills
- Supermicro server hardware and IPMIs
- Using and administering OpenStack Swift
- Experience with other OpenStack components would be an asset
- Linux containers and orchestration, especially Docker and Kubernetes
- Puppet or similar configuration management
- Working in an agile team environment
- Scripting and programming experience using a variety of languages and frameworks

Benefits

CRKN offers a generous benefits package including vacation, health and dental benefits, and pension match.

Term

This is a full-time, continuing position.

Location

Preference will be given to candidates located in, or willing to relocate to Ottawa, Ontario. Remote work may be considered for this role

To Apply

Please send a letter of application and resume via email to:

Canadian Research Knowledge Network

Attn: William Wueppelmann, Manager, Canadiana Platform

Email: hr@crkn-rcdr.ca

(Please reference **System Administrator** in the email subject)

Closing date: January 6, 2020

We thank all applicants for their interest in CRKN, however only those candidates selected for an interview will be contacted.

CRKN is an equal opportunity employer, with policies and practices intended to build an inclusive and accessible work environment. If you require accommodation during the recruitment process, please include in your cover letter when applying for the position and all efforts to provide the appropriate accommodation will be put into place.