

**Educational Communications Board  
Broadcast Systems Administrator  
IS Technical Services - Specialist**

**Position Summary**

ECB's Broadcast Systems Administrator serves as system administrator for all of ECB's broadcast-related IT systems and infrastructure. They provide troubleshooting and maintenance for these systems, to ensure system performance and high reliability. They provide technical support for broadcast operations, troubleshooting issues that impact the on-air broadcast environment and coordinating with other teams for timely resolution.

This position reports to the Director of Core Engineering. Work is performed under general review with objectives and priorities established by overall work unit directives.

**Goals and Worker Activities**

- 40% A. System administration: Manage and maintain servers, virtual machines, network-attached storage systems, and all IT systems, including operating systems like Windows, Linux, and macOS, and specific broadcast software and applications.
1. Perform regular maintenance, apply operating system and application updates, and manage hardware life cycles.
  2. Ensure systems comply with internal IT policies and external regulations.
  3. Monitor system performance, analyze logs, and tune systems to ensure efficient operation and high availability.
  4. Implement and manage data backup and disaster recovery plans to protect against data loss.
  5. Lead and participate in exercises to test backup and disaster recovery plans.
  6. Maintain storage (SAN or NAS) hardware and software, including protocols like NFS, iSCSI and SMB.
  7. Use scripting languages to automate routine tasks, improving efficiency.
  8. Maintain current awareness of, and recommend adoption of, community software projects, commercially available products, product and service offerings of State of Wisconsin, Division of Enterprise Technology (DET) and University of Wisconsin-Madison Division of Information Technology (DoIT).
  9. Serve as peer reviewer of suggested system changes, internal script and software development, and technology procurements.
- 20% B. Troubleshooting and maintenance: Proactively monitor, maintain, and repair audio, video, and computer network equipment to ensure system performance and reliability.
1. Troubleshoot hardware and software related system issues or failures for broadcast infrastructure networks, equipment, applications, and services.

2. Troubleshoot and repair broadcast automation related system issues or failures.
3. Identify and resolve performance bottlenecks and other issues that impact system reliability.
4. Diagnose and resolving issues related to virtual machines and their performance.
5. Participate in or lead root cause and pattern analysis with the goal of improving the reliability and quality of internal and external services including system uptime, broadcast reliability, effectiveness of staff.
6. Implement and continuously improve automatic systems to detect and respond to system faults, misconfigurations, performance and security issues.

15% C. Installation and upgrades: Install, configure, and upgrade new hardware and software, including managing system updates, patching, and ensuring systems meet operational needs.

1. Perform upgrades of servers, systems, applications, and software to align with security best practices.
2. Suggest strategies to ensure high availability and data durability in case of a component failure.
3. Install, configure, and upgrade virtual machines and the underlying systems.
4. Assist with planning and budgeting for IT infrastructure and equipment and manage procurement and asset replacement schedules.

10% D. Technical support: Provide technical support for broadcast operations, troubleshooting issues that impact the on-air environment and coordinating with other teams for timely resolution.

1. Provide technical support to end-users for hardware, software, and network connectivity issues.
2. Provide real-time, on demand support for on-air and production staff to ensure the quality, reliability, and consistency of delivered broadcast products.
3. Provide after-hours emergency telephone consultation and infrequent physical response to facilities for critical on-air operations.
4. Train staff on media production and management systems.
5. Translate complex technical information for audiences of varying backgrounds, skill, and needs.
6. Align work to work unit, division, agency, and partnership strategic goals and priorities.

7. Participate in or lead requirement solicitation with internal and external stakeholders. Clearly document and suggest products, technologies and methods to meet requirements.
8. Maintain comprehensive documentation of system configurations, policies, and procedures in accordance with ECB standards.
9. Develop documentation to aid in knowledge-sharing and process improvement.

10% E. Infrastructure management: Design, implement, and manage the IT infrastructure, which may include network security, cloud-based systems, storage, and media production systems.

1. Plan and execute the migration of data and systems to or between virtual environments.
2. Implement and maintain security measures within virtualized and non-virtualized server environments.
3. Implement and maintain security measures such as firewalls, enforce strong password policies, manage endpoint solutions, and conduct security audits.
4. Monitor system performance and performing capacity planning by analyzing storage usage trends.

5% F. Other duties and activities as required and assigned.

### **Required Knowledge, Skills and Abilities**

1. Comprehensive knowledge of Windows and Linux server administrator operations and privileges.
2. Comprehensive knowledge of platforms such as VMware, Nutanix, Horizon, Microsoft Hyper-V, Proxmox, Docker, and KVM.
3. Comprehensive knowledge of broadcast engineering and production workflows and technologies (multicast AoIP).
4. Comprehensive knowledge of current LAN/WAN architectures, client/server technology, distributed database and data communications technology, and network security best practices.
5. Knowledge of broadcast radio automation systems.
6. Proficiency in scripting languages like PowerShell or Python to automate tasks.
7. Knowledge of endpoint security solutions and scanners such as CrowdStrike, Ninja One, Cisco Secure Endpoint, Microsoft Intune, and Tenable.
8. Knowledge of project management best practices.
9. Knowledge of Industry standard safety and security procedures and practices as applied to broadcast facilities (OSHA, FCC, FAA, etc.).

10. Ability to communicate clearly, effectively, and accurately in both written and verbal communications.
11. Ability to provide clear, concise, and effective technical training.
12. Ability to maintain effective working relationships with other professionals internal and external to the organization.
13. Work on multiple tasks simultaneously and independently.
14. Ability to complete complicated tasks under time constraints.
15. Ability to lift and carry equipment weighing at least 40 pounds.
16. Ability to climb, reach, bend, and kneel to move, install, and maintain equipment.

### **Special Requirements**

- This position requires a variable, non-traditional work schedule including some nights and weekends.
- This position may require regular standby or on-call status.
- This position requires frequent in-state travel.