

## Professional Position Description

<b>Section I</b>	<b>Position Information</b>	Update Only <input type="checkbox"/> Classification Review <input checked="" type="checkbox"/>
<b>Position Title</b>	Cloud Systems Administrator: DevSecOps	
<b>Position #</b>	998722, 998724, 998725, 998726	
<b>Department</b>	Cloud Business Office, Information Technology	
<b>Classification Level</b>	C	
<b>Reports to</b>	Manager, Cloud Operations Architecture	
<b>Effective Date</b>	March 12, 2021	
<b>Position Summary</b>	<p>Briefly describe the main purpose(s) of the position</p> <p>Under general direction of the Manager, Cloud Operations Architecture, this position is responsible for the system administration of AU's AWS cloud infrastructure for all its operations including the implementation, configuration and deployment of cloud systems administration for AU's applications and systems, along with problem resolution of infrastructure issues.</p> <p>This role provides technical administration capabilities in the analysis, design, development, implementation, security, testing of technical enhancements in AU cloud infrastructure in support of strategic, operational, or project-based objectives. The Cloud Systems Administrator ensures these activities are executed in accordance with the standard operating procedures of the IT Platform Engineering squad and in compliance with all IT policies and procedures to facilitate a secure DevSecOps approach and environment for all Athabasca University IT.</p> <p>This position is accountable for participating in Cloud Engineering monitoring and reporting capabilities to gauge the effectiveness of solutions and implements actions to address shortcomings with the guidance of the Manager, Cloud Operations Architecture or Manager, Cloud Research Architecture as needed in the technical squads in which the Cloud Systems Administrator participates.</p> <p>The Cloud Systems Administrator participates in optimizing the interdependencies between DevSecOps and Cloud Engineering functions through a collaborative approach to continuous improvement. The Cloud Systems Administrator participates to improve the Cloud Engineering team productivity and delivery speed by helping all team members be self-sufficient and automating processes</p> <p>This position also provides level 2 and 3 technical support of cloud infrastructure related to AU's DevSecOps applications and systems on an as needed basis.</p>	
<b>Duties and Responsibilities</b>	<p>Organize by key responsibility area and include % of time spent where possible</p> <ul style="list-style-type: none"> <li>Responsible for the design, development, testing and deployment of custom workflows and scripts within the AWS Cloud infrastructure that can be used for integration, deployment, monitoring, compliance or other routine tasks</li> </ul>	

- System administration including upgrades to cloud infrastructure or changes to AU's DevSecOps applications and systems, problem resolution and root cause analysis
- Maintain and support existing cloud-based web servers and cloud infrastructure
- Assist in the design and implementation of secure, scalable system architecture
- Serve as the subject matter expert for AWS and system architecture
- Assist Cloud Systems Administrators: Architecture and Cloud Systems Administrators: Security in the design of new solutions. Assists in supporting and evolving continuous build, test, integration and deployment platforms and pipelines
- Creates and manages repositories and registries for build/deployment artifacts and abides by and regularly updates Standard Operating Procedures (SOPs) in support of the Digital Governance Control Framework of IT Policy and Procedures
- Utilizes and implements automated testing frameworks for applications and infrastructure
- Assists in the analysis of AWS and Microsoft cloud infrastructure reports and alerts to facilitate operational health of stacks throughout their lifecycle including metrics collection, log collection, event management and routing, inventory, capacity and billing/tag management
- Ensures a focus on security, recoverability and scalability in all designs and solutions
- Creates and provides detailed process documents and standard operating procedure guidelines for all cloud environments and related processes
- Responsible for advising to Cloud Architects; Manager, Cloud Operations Architecture, and other members of the Cloud Business Office on capacity planning and cloud allocation. Develops technical and safety procedures on all cloud equipment and systems following AU IT security protocols
- Accountable for ensuring all time spent on projects and ongoing steady-state activities and initiatives are entered in AU IT time entry system.
- Understands the engineering design and operational aspects of AU's cloud critical infrastructure systems
- Plans, implements monitors and tests systems and procedures for business continuity regarding all cloud environments
- Follows preventative maintenance procedures for cloud infrastructure
- Ensures cloud environment reliability, performance and security of information
- Attends and participates in all team meetings

	<ul style="list-style-type: none"> <li>• Participates in squads focused on AU’s DevSecOps applications and systems, such as the Integrated Learning Environment, the Digital Experience Platform and future implementation of Artificial Intelligence and Machine Learning tools in the AU cloud infrastructure</li> <li>• Participates in squad focused on platform engineering of AU cloud architecture for operations and for research infrastructure needs</li> <li>• Participates in squads as assigned by the Manager, Cloud Operations Architecture or the Manager, Cloud Research Architecture and share accountability with squad members in implementation, improvements, decommissions, upgrades and maintenance of cloud-based applications and systems</li> <li>• Ensures security practices are implemented in all cloud infrastructure configurations and testing cloud infrastructure workflows and applications.</li> <li>• Maintains currency in best practices and processes related to DevSecOps with a particular focus on the cloud infrastructure aspects of DevSecOps</li> <li>• Maintains currency and assessing security and DevSecOps related standards, protocols, and emergent technologies related to Cloud Systems Administration</li> </ul>
<b>Occupational Health and Safety</b>	Responsible for awareness of one's OHS related responsibilities as an AU employee and for participating in the AU OHS Program as required.
<b>Classification Factors</b>	
<b>Communication</b>	<p>The incumbent must interact with a wide variety of technical staff within the Information Technology Services department, AU staff and vendor’s support services.</p> <p>The nature of this position, and the related duties and responsibilities performed, require the incumbent of this position to uphold the utmost degree of confidentiality.</p>
<b>Supervision</b>	<p>May assist with supervision of other related cloud administrator positions, as assigned by the Manager, Cloud Operations Architecture.</p> <p>May assist with supervision of summer students and interns</p>
<b>Impact of Service or Product</b>	<p>The activities associated with this position are critical for the delivery and availability of many of the core services offered by the university.</p> <p>It is a shared responsibility of this position to ensure high availability levels as defined by AU and immediate, professional response if unanticipated outages occur.</p> <p>This position participates directly in AU’s development, test, and production environments in the AU cloud and partner clouds</p>

	ecosystem. Impact and issues related to this access include the potential of disruption of access for all students and staff.
<b>Independence of Action</b>	This position works on assigned work in squads, projects and initiatives under the general guidance of the Manager, Cloud Operations Architecture. In addition, the incumbent works from a prioritized list of tasks as well as tickets generated by the Technical Service Call Centre. They are expected to respond immediately to major events which interrupt the delivery of IT services to the AU user community.
<b>Complexity</b>	<p>This position requires a wide set of skills to support AU's cloud architecture as applied to AU's DevSecOps applications and systems, including full lifecycle deployment of solutions, security rules, multiple cloud vendor solutions, cross-university integrated solutions with multiple dependencies and support of large audiences in terms of usage of systems.</p> <p>The incumbent must be an adept problem solver in order to develop effective solutions. The incumbent must be comfortable with root cause analysis; identifying or narrowing down the underlying source of an error</p>
<b>Planning</b>	<p>The incumbent will work from a prioritized list of tasks as determined with the Manager, Cloud Operations Architecture. In addition, they must be able to anticipate areas of improvement and offer input of ways to realize these improvements.</p> <p>Work involves the participation in squad assignments and Technical Service Desk Level 2 and 3 tickets as assigned by the Manager, Cloud Operations Architecture or Manager, Cloud Research Architecture. Impacts of the activities and coordination between systems, projects and staff resources on meeting budget and timeline constraints of key AU programs and initiatives must be considered</p>

**Signatures for Section I**

Incumbent's Signature \_\_\_\_\_

Date \_\_\_\_\_

Supervisor's Signature \_\_\_\_\_

Date \_\_\_\_\_

**Section II  
Qualifications**

Includes education, experience, skills, abilities and any other special qualifications required. The qualifications relate to the position not the incumbent

- Minimum of 5 years' progressive experience in Cloud Systems Administration, with an emphasis on cloud architecture implementation projects or related technology implementations.
- AWS Associate-level Solutions Architect or SysOps Administrator certification required.
- Diploma or degree in computer science, management, or engineering, recognized in Canada. In lieu of a degree or diploma, additional experience over and above the minimum requirement may be considered.
- AWS Machine Learning specialty certification preferred.
- Understanding of current cloud best practices, design principles, market trends and emerging technologies
- Solid understanding of networking/distributed computing environment concepts and understands principles of routing, client/server programming and managing network services
- Experience in applying cloud security rules, network security and securing web transactions, applications and forms
- Additional AWS certifications desired

**Signatures for Sections I and II**

Department Head Signature \_\_\_\_\_ Date \_\_\_\_\_

Executive Officer Signature \_\_\_\_\_ Date \_\_\_\_\_

Human Resources Review \_\_\_\_\_ Date \_\_\_\_\_