Athabasca University
HUMAN RESOURCES

Professional Job Position Description

Effective Date Click or tap to enter a date.	☐ Update Only	☒ Classification Review

Position Title	Manager, Cloud Research Architecture
Position Number	Click or tap here to enter text.
Classification Level	D
Position Affiliation	☐ AUFA ☒ Excluded
Department	Cloud Business Office
Reports To	Director, Cloud Environment

Position Summary
Briefly describe the main purpose(s) of the position.

Reporting to the Director, Cloud Environment, the Manager, Cloud Research Architecture leads a team of Cloud Architects, Cloud Systems Administrators: Architecture, DevSecOps, Security and Cloud Systems Technicians in defining the research infrastructure solutions for the University's multi-cloud IT environment, ensuring it is reliable, secure, scalable, and universally available.

The Manager, Cloud Research Architecture, oversees cloud research architecture for both infrastructure and applications, designing, developing, and communicating processes, tools, and standards with the Cloud Architects, Cloud Systems Administrators: Architecture, DevSecOps, Security and Cloud Systems Technicians and helping to define and implement DevSecOps methods and practices.

The Manager, Cloud Research Architecture works closely with the Manager, Cloud Operations Architecture under the Director, Cloud Environment to lead the cloud-first operational strategy and security of AU's Research and high=performance computing technical operations in the AU cloud. Provides technical advice and guidance to Cloud Architects, Cloud Systems Administrators: Architecture, DevSecOps, Security and Cloud Systems Technician focuses with less technical experience.

Duties and Responsibilities
Organize by key responsibility area and include % of time spent where possible.

- Develop solutions, translating business requirements into scalable, flexible, and secure cloud architectures serving students, faculty, staff, and other stakeholders around the world.
- Manages implementation of Application architectural patterns including Re-architecting and re-platforming large/complex existing applications in cloud to cloud-optimized, and ingress and egress data to and from cloud
- Manages the design reference architecture and provides input to the DevSecOps team for implementation of codified stacks that meet the needs of the applications

- Key role in Platform Engineering Squad, defining Standard Operating Procedures (SOPs) in support of the Digital Governance Control Framework of IT Policy and Procedures
- Lead the creation and ongoing evolution of cloud architecture standards
- Manages IT staff and collaborates with stakeholders on creation of AU's cloud-first research infrastructure and high-performance computing needs for AU researchers
- Manages teams accountable for architecting, design, implementation, and maintaining continuous build and continuous deployment delivery mechanisms, leveraging innovative solutions and automation
- Architect, design, implement, and maintain continuous build and continuous deployment delivery mechanisms, leveraging innovative solutions and automation
- Create solutions for the optimal integration between various clouds and cloud services
- Constantly seek to improve, resolve, and streamline tools and processes to meet delivery challenges
- Ensures team develops and maintains documentation, diagrams, and code for a secure cloud environment
- Educates team to design and implement architectures based on best practices
- Provides technical coaching and mentoring to accelerate cloud learning across the organization
- Working with IT staff and managers to define and implement DevSecOps processes
- Keeping up to date with emerging technologies and best practices related to cloud and DevSecOps
- Accountable for ensuring all time spent on projects and ongoing steady-state activities and initiatives are entered in AU IT time entry system.
- Key member of Technical Subcommittee of Digital Governance
- Other duties as assigned.
- Develops and manages training and career plans for IT staff under his/her supervision.
- Creates a positive working environment that encourages and recognizes excellence in personal performance, technical competence, and teamwork.
- Ensures staff have clear objectives and that they receive periodic feedback regarding their performance.
- Responsible for all aspects of human resource management within the Cloud Research Architecture team, including hiring, promoting, performance management, coaching and discharging within University policy and regulatory compliance.
- Responsible for managing within and implementing the terms and conditions of the collective agreement(s), where applicable.

Occupational Health and Safety

Employees:
Responsible to participate in the AU OHS Program as required.

Supervisors:
Responsible for awareness of one's OHS Responsibilities as an AU employee and supervisor, for participating in the AU OHS Program as required, and for ensuring the participation of employees in the AU OHS Program as required.

See: https://ohs-pubstore.labour.alberta.ca/li008

Classification Factors

Communication

The Manager works closely with the Deputy CIO, IT Directors, IT Managers, decision makers in other departments to oversee the creation of cloud research infrastructure solutions to support AU's strategic and operational plans.

Supervision

Responsible for all aspects of human resource management within the Cloud Research Architecture team, including hiring, promoting, performance management, coaching and discharging within University policy and regulatory compliance. Responsible for managing within and implementing the terms and conditions of the collective agreement(s), where applicable.

This role participates and takes actions related to confidential investigations of employees. Investigation actions this role provides includes input into investigation procedures, review and assessment of investigations, and recommendations for discipline. The highest degree of confidentiality and no conflict of interest is required for the role.

Impact of Service or Product

The Manager provides leadership in designing, developing, maintaining, implementing, and continuously improving AU's systems. These systems are utilized by a broad range of user types including but not limited to students, alumni, staff, faculty, and strategic partners. The quality of solutions delivered has a direct impact on the quality of the end-user experience. Creating and maintaining reliable, secure, scalable, and highly available systems is essential to meetings AU's strategic goals.

Independence of Action

The Manager provides leadership in defining cloud research infrastructure solutions for the university and has a leadership role in the Platform Engineering squad and Technical Subcommittee of Digital Governance.

Supervision is provided at a strategic level and the incumbent is expected to work independently.

This role participates and takes actions related to confidential investigations of employees. Investigation actions this role provides includes input into investigation procedures, review and assessment of investigations, and recommendations for discipline. The highest degree of confidentiality and no conflict of interest is required for the role.

Complexity

This position requires a broad range of knowledge and skills including cloud architecture, operating systems, scripting languages, IT security, automation tools and processes. The incumbent must be an adept problem solver at a senior level 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.

Planning

Work involves the planning of design, implementation, and maintenance activities for cloud infrastructure components and overall architecture for development, test, and production environments. Impacts of the activities and coordination between systems, projects and staff resources must be considered.

Signatures for Section I

Incumbent Signature		Date Select a date.
Supervisor Signature		Date Select a date.

Section II: Qualifications

Qualifications

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

- Minimum of 7 years' progressive experience in Cloud Architecture, with an emphasis on cloud architecture implementation projects or related technology implementations.
- Minimum of 7 years work experience managing IT teams of cloud architects, cloud systems administrators, cloud technicians and other related IT roles required.
- AWS Professional-level Solutions Architect certification required.
- AWS Advanced Networking or Security specialty certification preferred
- 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.
- Experience with technical evaluation of built or bought technical architecture and advising of Cloud Architects, Cloud Systems Administrators: Architecture, DevSecOps, Security and Cloud Systems Technicians with less experience
- 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
- Additional AWS Certifications desired
- Experience in architecting cloud security rules, network security and secure architecture for web transactions, applications and forms

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Signatures for Sections I and II

Department Head Signature		Date	Select a date.
Executive Officer Signature		Date	Select a date.
Human Resources Review		Date	Select a date.