#### Trent University LogoEXEMPT JOB DESCRIPTION

**Job Title:** Director, Infrastructure and Operations

**Job Number:** X-472 | VIP: 1982

**Band:** EXEMPT-9

**Department:** Information Technology

**Supervisor Title:** AVP, Information Technology

**Last Reviewed:**  April 22, 2024

#### **Job Purpose:**

The Director of Infrastructure and Operations at Trent University is a senior leadership position within the Information Technology department. This role is responsible for overseeing the design, implementation, and management of the university's IT infrastructure to ensure its reliability, security, and performance. The Director will lead a team of IT professionals, manage infrastructure projects, and collaborate with various university departments to support their technology needs.

#### Key Activities:

* Develop and implement IT infrastructure strategy aligned with Trent University's goals and industry best practices for long-term sustainability and security.
* Lead infrastructure projects, including data center upgrades and network expansion, ensuring smooth operation and alignment with IT goals.
* Apply change control and project management methodologies to major projects, including information security and client services.
* Implement and maintain security measures to protect the university's infrastructure from internal and external threats, compliant with industry standards.
* Develop disaster recovery and business continuity plans to minimize disruption during emergencies.
* Implement cloud strategy, selecting providers and optimizing cost management while ensuring security.
* Manage virtualization infrastructure to support academic research and administrative operations efficiently.
* Oversee IAM systems for secure access control and develop policies for user provisioning and data security.
* Ensure compliance with regulations and data protection laws, collaborating with the information security team.
* Manage voice and data networks for reliable communication services, adopting advanced technologies.
* Provide leadership to ensure information sharing and integration of university computing systems.
* Develop policies, standards, and controls for operational efficiency, compliance, and risk mitigation.
* Address functional challenges impacting the university community and develop relationships with stakeholders.
* Act as the university’s representative to regional and national agencies and organizations.
* Oversees and ensures that all human resource practices and processes are complied with and develops leadership strength in functional areas by coaching reporting leaders and staff in the development of critical competencies and by modelling valued leadership behaviours.
* Provides career planning advice to staff and creates development plans to help staff achieve their career goals including assigning work which leverages their skills and capabilities and provides them with opportunities for learning.
* Directs the preparation, control, and administration of budgets for reporting areas and approves major expenditures.
* Maintain professional designations and stay updated on current IT techniques.

#### Education Required:

* Master’s degree required.
* Honours Bachelor’s Degree in Business Administration, Engineering, Computer Science, or related area from a recognized University with Canadian accreditation.

#### Experience/Qualifications Required:

* Over eight (8) years of progressive IT leadership experience in higher education or similar complex organizations.
* Proven expertise in aligning IT infrastructure strategies with organizational goals and industry standards.
* Successful track record in leading infrastructure projects, including data center upgrades, network expansion, and cloud migrations.
* Strong background in cybersecurity, disaster recovery planning, virtualization, and telecommunications management.
* Effective engagement with diverse stakeholders, including university leadership, faculty, staff, and vendors.
* Excellent communication skills for conveying technical concepts and strategic alignment.
* Strategic thinking to align technology initiatives with institutional goals and anticipate future needs.
* Adaptability to evolving technological landscapes and changing priorities.
* Strong analytical and problem-solving skills, along with demonstrated leadership in team development.
* Efficient management of IT budgets and resources, with desirable certifications like CISSP, PMP, or ITIL.
* Some Equity, Diversity, and Inclusion training or background may be advantageous.

##### Technical:

* Proficiency in identity and access management, compliance, and negotiating service-level agreements.
* Strong background in cybersecurity, disaster recovery planning, virtualization, and telecommunications management.
* Effective stakeholder engagement with university leadership, faculty, staff, and vendors, ensuring adherence to university standards.
* Advanced analytical and problem-solving abilities, demonstrated in team development, budget management, and fiscal responsibility.
* Desirable certifications like CISSP, PMP, or ITIL, and awareness of market trends in enterprise applications and emerging technologies.
* Recognition of the importance of continuous learning and commitment to professional development, including principles of Equity, Diversity, and Inclusion.

##### Competency:

* Customer Service: Leads customer-centric IT strategies, excels in stakeholder engagement and communication, exceeds service benchmarks, minimizes disruptions, and fosters innovation.
* Collaboration: Improves communication, shares credit, monitors and enhances team effectiveness, influences team strategy positively, and demonstrates commitment under challenging situations.
* Communicating for Results: Engages with leaders, seeks consensus, debates opinions, resolves conflicts, explains complex situations, and solicits expert perspectives for decision-making.
* Problem-Solving: Anticipates risks, forecasts trends, defines innovative solutions, and gains senior leadership approval for critical issues.
* Leading Self: Manages emotions, reflects on setbacks, seeks feedback, adapts to change, and positively influences others.
* Leading Others: Supports learning and development, mentors talent, ensures equitable opportunities, fosters diversity, and promotes effective conflict resolution.
* Leading the Organization: Understands technology trends, champions alliances, provides support for strategic direction, and fosters a culture of continuous transformation.
* Strategic Technology Planning: Develop plans aligning with organizational needs, incorporating emerging technologies and economic viability.

#### Supervision:

##### Direct Responsibility for the Work of Others:

* Assistant Director Enterprise Architecture
* Network and Telecommunications Analyst
* Network and Telephone Systems Specialist
* Two (2) roles Network Systems Specialist
* Network and Systems Integration Specialist

**Job Evaluation Factors:**

##### Analytical Reasoning

*Description:*

The Director of Infrastructure and Operations must engage in sophisticated analytical reasoning to address multifaceted challenges inherent in managing a diverse IT infrastructure within a university setting. An example of such analytical reasoning would involve the development and execution of a comprehensive cloud strategy:

*Degree of Complexity or Difficulty of Thinking and Reasoning Required:* High

The Director of Infrastructure and Operations role at Trent University demands a high level of analytical reasoning, reflecting the complexity of managing the university's IT infrastructure within an ever-evolving technological landscape. This position requires the ability to analyze intricate systems, anticipate potential challenges, and devise strategic solutions to ensure the reliability, security, and performance of the university's IT environment.

*Example Work Scenario:*

As the Director of Infrastructure and Operations, you are tasked with developing a cloud strategy to enhance the university's IT infrastructure while optimizing costs and ensuring security. This requires a high degree of analytical reasoning:

1. Assessment of Current Infrastructure: Conduct a thorough analysis of the university's existing IT infrastructure, including on-premises servers, storage systems, and networking equipment. Evaluate performance metrics, scalability, and security vulnerabilities.
2. Cost-Benefit Analysis: Utilize analytical reasoning to assess the financial implications of migrating to the cloud. Consider factors such as upfront costs, operational expenses, and potential cost savings from resource optimization and scalability.
3. Security Evaluation: Analyze the security implications of migrating sensitive data and critical workloads to the cloud. Assess the security measures provided by cloud service providers and identify potential risks. Develop strategies to mitigate security threats and ensure compliance with data protection regulations.
4. Vendor Selection: Engage in a rigorous vendor selection process, leveraging analytical reasoning to evaluate the capabilities, reliability, and reputation of cloud service providers. Consider factors such as data residency, compliance certifications, and service-level agreements.
5. Implementation Planning: Develop a detailed implementation plan based on analytical insights, outlining the phased migration of workloads to the cloud. Consider dependencies, resource allocation, and potential impact on ongoing operations. Anticipate challenges and devise contingency plans to ensure a smooth transition.

By applying analytical reasoning skills to develop and execute the cloud strategy, the Director of Infrastructure Services can effectively address complex challenges and drive innovation within the university's IT infrastructure. This example illustrates the high degree of analytical thinking required to navigate the intricate dynamics of infrastructure management in a university environment.

##### Decision Making

*Description:*

Decision making stands as a cornerstone responsibility for the Director of Infrastructure and Operations within the university's IT domain. This role entails navigating intricate scenarios, from strategic planning to operational execution, ensuring that choices uphold the reliability, security, and efficiency of the institution's IT infrastructure. Decisions made by the Director significantly influence the university's technological capabilities, resource allocation, and ability to adapt to emerging challenges and opportunities.

*Degree of Freedom to Exercise Initiative*:

The Director of Infrastructure and Operation operates with a notable degree of freedom to exercise initiative in daily decision-making. While adhering to institutional guidelines, strategic directives, and budgetary constraints, the Director possesses substantial autonomy to assess situations, devise solutions, and implement decisions congruent with the university's IT objectives and evolving needs. This autonomy underscores the confidence in the Director's expertise and leadership capacity.

*Work Example:*

Amidst a surge in remote learning requirements due to external factors, the Director of Infrastructure and Operations is tasked with determining the most suitable collaboration platform for the university community.

Given the latitude to exercise initiative:

1. Platform Evaluation: The Director conducts an in-depth assessment of various collaboration platforms available, considering factors such as usability, security features, scalability, integration capabilities, and cost-effectiveness. This evaluation involves consulting with IT staff, faculty, and student representatives to gather diverse perspectives and requirements.
2. Strategic Decision Making: After thorough analysis and consideration, the Director makes a strategic decision to adopt a specific collaboration platform that aligns with the university's objectives. This decision considers factors like user experience, data privacy compliance, compatibility with existing systems, and potential for future expansion.
3. Implementation Strategy: With the chosen platform identified, the Director devises a comprehensive implementation strategy outlining the steps necessary for seamless integration into existing IT infrastructure. This strategy includes migration planning, training initiatives, communication strategies, and risk mitigation measures to ensure a smooth transition and minimal disruption to academic activities.
4. Stakeholder Engagement: Throughout the decision-making process, the Director engages stakeholders at various levels, including university leadership, faculty members, administrative staff, and student representatives. Transparent communication and collaboration foster alignment, solicit feedback, and build consensus, ensuring buy-in and support for the selected platform.

By leveraging initiative and informed decision-making, the Director of Infrastructure Services plays a pivotal role in enhancing the university's technological capabilities and facilitating seamless collaboration within the academic community. This example underscores the Director's autonomy in driving strategic initiatives while ensuring alignment with institutional objectives and stakeholder needs.

##### Impact

*Description:*

The impact factor assesses the significance of the Director of Infrastructure and Operations actions and decisions within the university environment. This role holds considerable influence over the technological landscape, directly shaping the department's operations and the university's overall efficiency, security, and effectiveness. Decisions made by the Director can have far-reaching consequences, impacting the department, university community, and institutional objectives.

*Impact or Consequence:*

The actions and decisions taken by the Director of Infrastructure and Operations can have profound implications for the department and the university as a whole. These impacts include:

1. Operational Efficiency: Effective management of IT infrastructure enhances operational efficiency across the university, facilitating seamless access to resources, streamlined workflows, and improved productivity for faculty, staff, and students.
2. Security and Compliance: Decisions regarding cybersecurity measures, data protection strategies, and compliance with regulations safeguard the university's sensitive information, intellectual property, and reputation, mitigating the risk of data breaches or regulatory penalties.
3. Innovation and Technology Adoption: Strategic initiatives led by the Director drive innovation and technology adoption within the university, fostering a culture of digital transformation, research advancement, and academic excellence.
4. Cost Management: Sound financial decisions related to infrastructure investments, vendor contracts, and resource allocation optimize costs and ensure fiscal responsibility, maximizing the value of IT investments and minimizing unnecessary expenditures.
5. Academic and Administrative Support: The availability, reliability, and performance of IT infrastructure directly impact academic research, teaching, and administrative operations, enabling the university to fulfill its mission and deliver high-quality education and services to students, faculty, and staff.

*Work Example:*

The Director of Infrastructure and Operations is tasked with migrating the university's email system to a cloud-based platform to enhance reliability, scalability, and collaboration capabilities.

1. Operational Efficiency: By transitioning to a cloud-based email system, the Director improves access to email services, reduces downtime, and enhances communication and collaboration among faculty, staff, and students, thereby enhancing operational efficiency across the university.
2. Security and Compliance: The Director ensures that the selected cloud provider adheres to rigorous security standards and compliance regulations, implementing robust encryption, access controls, and data protection measures to safeguard sensitive university information and maintain compliance with applicable laws and regulations.
3. Innovation and Technology Adoption: The adoption of cloud-based email represents a strategic move towards embracing innovative technologies and modernizing the university's IT infrastructure, positioning the institution as a leader in digital transformation and technological innovation within the higher education sector.
4. Cost Management: The Director carefully evaluates the cost implications of migrating to a cloud-based email system, comparing upfront costs, ongoing maintenance expenses, and potential cost savings from reduced hardware investments and operational efficiencies, thereby ensuring cost-effective IT solutions aligned with the university's budgetary constraints.
5. Academic and Administrative Support: The successful migration to a cloud-based email system enhances academic and administrative workflows, improves communication and collaboration, and supports the university's mission of providing a seamless and reliable technology experience for students, faculty, and staff, thereby bolstering academic and administrative support services.

##### Responsibility for the Work of Others

The Director of Infrastructure and Operations plays a crucial role in supervising and leading a diverse team of professionals, ensuring that the hiring, performance evaluations, coaching, and disciplinary actions are aligned with the department's objectives and the university's overall mission. This factor underscores the director's responsibility for fostering a collaborative and high-performing team that contributes to the success of the Infrastructure Services Team.

* Assistant Director Enterprise Architecture
* Network and Telecommunications Analyst
* Network and Telephone Systems Specialist
* Two (2) roles Network Systems Specialist
* Network and Systems Integration Specialist

##### Communication

*Description:*

Communication is a vital aspect of the Director of Infrastructure and Operations role within the university environment. Effective communication enables the Director to convey strategic initiatives, gather requirements, address concerns, and foster collaboration both internally within the university and externally with relevant stakeholders. Clear and transparent communication enhances the department's effectiveness, supports decision-making processes, and ensures alignment with institutional goals and objectives.

*Key Internal and External Communication Partners:*

*Internal Communication Partners:*

1. University Leadership The Director communicates with university leadership to align infrastructure initiatives with institutional goals, provide updates on IT projects and initiatives, and seek support for resource allocation and strategic priorities.
2. IT Department Staff Regular communication with IT department staff involves delegating tasks, providing guidance on projects, coordinating workflow, and fostering collaboration to ensure effective operation and maintenance of IT infrastructure.
3. Faculty Members: The Director collaborates with faculty members to understand their technological needs, gather feedback on IT services, and provide support for academic research, teaching, and learning activities.
4. Administrative Staff: Communication with administrative staff involves providing guidance on IT policies and procedures, addressing technical issues, and ensuring that administrative systems and applications meet operational requirements.
5. Cross-Functional Teams (e.g., Information Security Team, Project Management Office): The Director communicates with cross-functional teams to coordinate efforts, address interdepartmental dependencies, and ensure alignment of infrastructure projects with organizational objectives.

External Communication Partners:

1. Technology Vendors and Partners: The Director communicates with technology vendors and partners to evaluate products and services, negotiate contracts, and ensure compliance with university standards and requirements.
2. Regulatory Agencies and Compliance Bodies: External communication with regulatory agencies and compliance bodies involves providing updates on IT security measures, reporting data breaches, and ensuring adherence to industry regulations and standards.
3. Professional Associations and Industry Groups: The Director may engage with professional associations and industry groups to stay abreast of emerging trends and best practices in IT infrastructure management, networking with peers, and sharing knowledge and experiences.
4. Government Agencies and Funding Bodies: Communication with government agencies and funding bodies may occur regarding grant applications, compliance with funding requirements, and reporting on IT infrastructure projects and initiatives supported by external funding sources.

##### Community Partners and Stakeholders: The Director may engage with community partners and stakeholders to support collaborative initiatives, such as joint research projects, technology transfer activities, and outreach programs aimed at benefiting the local community and broader society.

##### Motor/ Sensory Skills

While the Director of Infrastructure and Operations role does not require extensive physical movement or hands-on manipulation of objects, it demands a high level of proficiency in sensory skills, particularly visual acuity, auditory skills, and tactile sensitivity. These skills are integral for processing complex information, making strategic decisions, and effectively communicating with diverse stakeholders. The emphasis on cognitive and managerial skills in a technology-driven environment underscores the importance of sensory skills in achieving success in this role.

*Key Motor/Sensory Skill Requirements:*

1. Visual Acuity:
	* Tasks:
		+ Analyzing complex data sets and reports.
		+ Reviewing and evaluating user interfaces for network systems
		+ Ensuring the visual consistency and accessibility of software interfaces.
2. Auditory Skills:
	* Tasks:
		+ Participating in meetings and discussions with various stakeholders.
		+ Listening to user feedback and concerns related to Infrastructure Services
		+ Staying informed about industry trends through webinars, podcasts, and conferences.
3. Tactile Sensitivity:
	* Tasks:
		+ Engaging with touch-based interfaces and technology devices.
		+ Handling physical documents and materials related to Infrastructure Services
		+ Assessing the tactile aspects of user experience in software design.
4. Cognitive Processing:
	* Tasks:
		+ Processing and synthesizing complex technical information.
		+ Making strategic decisions based on data analysis and interpretation.
		+ Evaluating the efficiency and effectiveness of infrastructure services functions.
5. Communication Skills:
	* Tasks:
		+ Articulating complex technical concepts to diverse audiences.
		+ Facilitating discussions and meetings with internal and external stakeholders.
		+ Composing clear and concise written communications for reports, documentation, and emails.
6. Coordination and Multitasking:
	* Tasks:
		+ Coordinating multiple client services projects simultaneously.
		+ Managing teams and resources to ensure efficient project execution.
		+ Balancing short-term tasks with long-term strategic planning.
7. Analytical Skills:
	* Tasks:
		+ Conducting in-depth analysis of technology solutions and their impact.
		+ Identifying trends and patterns in data for informed decision-making.
		+ Troubleshooting and solving complex problems related to client service functions.

##### Effort

*Description:*

Effort evaluates the physical and mental demands inherent in the Director of Infrastructure and Operations role within the university environment. This factor encompasses the exertion required to fulfill job responsibilities effectively, including both physical tasks and mental exertion associated with strategic planning, problem-solving, and decision-making.

*Physical and Mental Demands:*

1. Sustained Concentration and Focus: The role demands sustained periods of concentration and focus to analyze complex technical issues, develop infrastructure strategies, and make critical decisions that impact the university's IT operations and services.
2. Strategic Planning and Decision Making: Engaging in strategic planning and decision-making processes requires intense mental effort to assess options, anticipate future trends, and devise innovative solutions to address evolving technological challenges and opportunities.
3. Project Management: Overseeing infrastructure projects entails managing multiple tasks and deadlines concurrently, necessitating mental agility to prioritize activities, allocate resources effectively, and ensure successful project delivery within established timelines and budgets.
4. Problem Solving: The Director must demonstrate strong problem-solving skills to troubleshoot IT issues, resolve technical challenges, and mitigate risks effectively, requiring mental flexibility and adaptability to address unforeseen obstacles and emergencies.
5. Interpersonal Communication: Effective communication with internal stakeholders, external vendors, and regulatory bodies demands emotional intelligence and mental effort to build relationships, convey information clearly, and negotiate agreements while navigating diverse perspectives and priorities.
6. Adaptability to Change: The dynamic nature of technology and higher education necessitates mental resilience and adaptability to embrace change, innovate new approaches, and respond promptly to emerging trends, disruptions, and organizational shifts.
7. Team Leadership: Providing leadership to the IT team involves motivating and inspiring staff, fostering a collaborative work environment, and addressing personnel issues, requiring emotional intelligence and mental stamina to navigate interpersonal dynamics and promote professional growth and development.
8. Vendor Management: Interacting with technology vendors and partners involves evaluating products and services, negotiating contracts, and resolving conflicts, demanding mental acuity to assess vendor capabilities, anticipate potential risks, and ensure alignment with university objectives and standards.

##### Working Conditions

The working conditions factor for the Director Infrastructure Services role considers a combination of sedentary work, high cognitive demands, ambiguity, collaboration pressures, technology implementation challenges, institutional responsibilities, work-life balance considerations, and data security stressors.

*Working Conditions:*

1. Sedentary Work Environment:
	* Nature: A predominantly sedentary role requiring prolonged periods of desk work and computer usage.
	* Frequency and Duration: Daily exposure to desk-based tasks, with occasional breaks.
2. High Cognitive Load:
	* Nature: The need for sustained mental concentration and focus on complex technical and strategic matters.
	* Frequency and Duration: Daily exposure to intricate problem-solving, decision-making, and strategic planning.
3. Ambiguity and Uncertainty:
	* Nature: Inherent uncertainty in technology projects, with unforeseen challenges and evolving academic needs.
	* Frequency and Duration: Regular exposure to ambiguity, necessitating adaptability and flexibility.
4. Meeting and Collaboration Demands:
	* Nature: Engaging in frequent meetings, discussions, and collaborations with various stakeholders.
	* Frequency and Duration: Regular exposure to team interactions, requiring effective communication and collaboration skills.
5. Technology Implementation Pressures:
	* Nature: Pressure associated with the successful implementation of enterprise applications within specified timelines.
	* Frequency and Duration: Occasional exposure to critical project phases, demanding focused efforts.
6. Responsibility for Institutional Impact:
	* Nature: Decision-making with broad institutional implications, adding a high level of responsibility.
	* Frequency and Duration: Ongoing exposure to decisions that directly impact the university's operations and academic functions.
7. Work-Life Balance Challenges:
	* Nature: The potential for extended working hours and occasional challenges in maintaining work-life balance.
	* Frequency and Duration: Occasional exposure during critical project phases or issue resolution.
8. Data Security and Compliance Stressors:
	* Nature: The responsibility for data security and compliance introduces stressors related to safeguarding sensitive information.
	* Frequency and Duration: Regular exposure to addressing and mitigating potential security risks to protect the university's data.