Government of Alberta ■

NON-MANAGEMENT JOB DESCRIPTION
POINT RATING EVALUATION PLAN

Working Title	Name
Full Stack Developer	

Position Number	Reports to Position No., Class & Level	Division, Branch/Unit	Ministry
		OCCIO&T/Innovation and Digital Centre/ Innovation & Technology Solutions	Service Alberta

Present Class	Requested Class
Systems Analyst 2	Systems Analyst 2

Dept ID	Program Code	Project Code (if applicable)

PURPOSE: Give a brief summary of the job, covering the main responsibilities, the framework within which the job has to operate and the main contribution to the organization (see Non-Management Job Description Writing Guide **Pages 7-8**).

Reporting to the Solution Architect, Innovation & Technology Solutions, within the Innovation and Digital Centre (IDC) branch of Office of the Corporate Chief Information Officer and Telecommunications (OCCIO&T), Service Alberta. The purpose of this position is to provide expertise in the design and planning of corporate shared software-based services and solutions for the Government of Alberta (GoA) Ministries as well as citizens.

Responsibilities include identification and development of opportunities to leverage new software technologies in the enhancement and creation of services, as well as playing a role in the execution and delivery of related implementation projects.

The position will be brought in on technology selection and implementations to address current business priorities and opportunities, as determined by OCCIO&T executive leadership. When initiatives are approved, this position is responsible for implementing technical solutions to enable new corporate services or transform existing ones. Depending on the nature, scope and impact of a solution, this position will on some occasions act as a lead on architectural design and in other cases as a participant in design and implementation efforts.

In addition to technology planning and selection, the incumbent will provide guidance and technical advice throughout implementation, including stepping in to solve issues; working within project teams to provide prioritization of pending tasks; working with other technical teams to build, test and document integrations and APIs.

Incumbents will be required to maintain a current awareness of the industry, following current trends in software systems, online delivery, and other IT fields, and will be able to pragmatically weigh the cost and benefits. Dedicated research efforts will be largely directed by current OCCIO&T priorities and goals.

This role will often perform research activities and recommend solutions based on high-level goals and objectives with minimal supervision, with results and recommendations to be reviewed by peers and management prior to wider presentation. When undertaking and participating in projects, the specific processes and activities will vary based on the nature of scope of the project.

RESPONSIBILITIES AND ACTIVITIES: The purpose of the job can be broken down in different responsibilities and end results. Each end result shows what the job is accountable for, within what framework and what the added value is. Normally a job has 4-8 core end results. For each end result, approximately 3-6 activities should be described (see Writing Guide **Pages 9-10**).

1. Ensures that investments in software systems are aligned to the department priorities.
   - Provides recommendations on software alignment, dependencies and benefits of a solution.
   - Identifies cross-project dependencies, opportunities for delivering new corporate wide assets or reusing existing enterprise wide assets.
   - Maintains a current understanding of business and departmental goals and vision.

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2.   Develops and advances ideas, concepts and opportunities into high level business cases for new or improved shared services
- Maintain and contribute to a repository of open business problems and functional gaps.
- Assess current services, requested capabilities and known functional gaps for promising opportunities and produce a high-level outline, business case or concept demonstration for executive evaluation.
- Manage technical trial or proof of concept programs with business groups to evaluate and refine concepts and prototypes.

3.   Provide technical assistance to OCCIO&T projects
- Researches, reviews and evaluates related industry trends and technologies to determine the impact and help to set technical direction and guide the evolution of business practices.
- Suggest opportunities to better leverage emerging technologies, which would provide an impact to existing business processes.

4.   Ensures that IT solutions comply with applicable application standards, principles and guidelines.
- Ensures that projects identify, document and deliver key information and application requirements as well as the supporting architecture models.
- Plans, develops, updates and refines application architectures based on information gathering and analysis of business requirements, project deliverables and conducts independent research of related topic areas.
- Ensures that projects deliver corporate solutions that are architecturally compliant and adhere to principles by providing consulting services to specified projects.

SCOPE: List specific information that illustrates the challenges, problem solving and creativity requirements and decision making capacity of the position. Also identify the internal or external areas the job impacts (see Writing Guide **Pages 11-12**).

Impacts:
- The target audience of initiatives undertaken by this position will typically range from multiple users across multiple ministries, to the general public (all Albertans).
- In some cases, solutions will provide common services to numerous integrated government systems, which in turn may target the employees of a given ministry, or all Albertans.

Scope of work:
- Works with the other teams to ensure alignment of solutions as well as making contributions towards application architecture.
- Work with internal or contract support teams to transition solutions to operations including preparation of relevant documentation, processes, support scripts, etc.
- Applies emerging technologies to build novel solutions and services aligned with current business objectives.
- Identifies potential solutions to existing problem areas or that align to current business objectives.
- Assists client business areas in identifying and defining customer business needs and processes.
- Assists project teams in selecting application components and solution design.
- Consults extensively with management to present solutions and opportunities.
- Identifies and analyzes alternative courses of action, coordinates the resolution of issues, identifies changes, implements resolutions, and leads projects in some occasions.

KNOWLEDGE, SKILLS & ABILITIES: Include information on required diplomas and degrees along with identifying the most important knowledge factors, including knowledge about practical procedures, administrative, technical or professional techniques, technical, scientific or program related processes, etc. Detail specific training if there is an occupational certification/registration requirement for the position. Specify the type of experience required for the position (see Writing Guide **Pages 12-14**).

- Overall business knowledge and knowledge of the strategies, guidelines, policies and processes of the organization (at a high level) is required.
- Position requires analytical, problem solving, organizational and evaluation skills and the ability to make and

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- influence decisions that impact the organization. A good sense of judgment is required. Excellent communication and presentation skills are required.
- Job requires a university degree in Computing Science or equivalency. Experience is required in developing and/or maintaining complex web based distributed applications, and experience in working with a variety of technologies, platforms and languages.
- Must have knowledge of process modeling, data modeling, and object oriented design techniques, as well as knowledge of best-practice application architecture and design. Technical knowledge of a variety of software is required, including knowledge of industry wide standards and standards organizations.
- Strong knowledge of the tools and systems required to configure, build, test, host, deploy and update distributed applications in an automated fashion.
- Must be a critical thinker with the ability to abstract and see patterns, and possess the ability to generate and evaluate multiple alternatives. Strong business acumen with ability to work across a large organization with multiple departments and projects concurrently is needed.

Position Requirements:
- A related University Degree or Technical Diploma, preferably in Computing Science or Software Engineering, supplemented by related IT experience (directly related, recent experience within an application development environment is preferred).
- Communication and interpersonal skills. The ability to interact effectively with staff at all levels from support personnel to senior management.
- Excellent analytical and problem-solving skills, in planning and designing creative solutions.
- Be able to understand business goals, and translate them into effective IT solutions.
- Experience building, delivering, testing, and operating web applications.
- Experience with dimensional and normalized data modeling techniques.
- Planning and organizational skills in scheduling and monitoring concurrent projects.
- General knowledge of current and emerging technology products and services.

- Experience within Ops or DevOps environment
- Developing applications with Python, Java, C#, Node.js
- Knowledge of Relational Databases and specifically PostgreSQL, MySQL
- Experience with Django Framework, Ansible, XML, JSON
- Experience with transport protocols like JSON RPC, REST, HTTPS, WebSockets, SOAP and TLS
- Solid understanding and use of git, branching, pull requests and code review process via GitLab/GitHub.

CONTACTS: Identify the main contacts the position communicates with and the purpose of the communication (See Writing Guide **Pages 14-15**).

Internal

Innovation and Digital Centre • Director, Innovation & Technology Solutions	• Frequent (daily)	• Receive work assignments • Receive feedback, assistance and guidance • Report on progress or issues
Innovation and Digital Centre • Executive Director • Directors and members of Business Development & Program Delivery, Secure Digital and Identity Program	• Frequent	• Review of work assignments and recommendations • Collaborate with co-workers in other teams on projects and initiatives as required. • Present on findings and solutions

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Ministry Clients • IT and business stakeholders	• Frequent	• Reach out to technical ministry contacts for feedback on potential corporate solutions. • Present upcoming initiatives to potential stakeholders
OCCIO&T Executive Leadership • Corporate CIO • Executive Directors	• As Required	• Discuss initiatives and request decisions. • Present research outcomes
Enterprise Technology Infrastructure Services • Operational Duty Teams • Operations management	• Frequent	• Work with operations teams to present findings or work through implementation of new projects • Two-way communication of ongoing and upcoming initiatives.
External		
• Other Government Organizations – GoA Extended, Federal, Province, Municipal • Alberta Citizens, Organizations, Businesses • Vendors – of IT Products, Systems Development, Consulting	• As Required	• Connect across jurisdictions to research solutions and systems. • Share and discover best practices and other learnings. • Collect information about commercial and open source IT products and services.

SUPERVISION EXERCISED: List position numbers, class titles, and working titles of positions directly supervised (see Writing Guide **Page 15**)

This position will not supervise permanent direct reports. This position will coordinate and manage project work completed by seconded project resources and contractors to ensure GoA standards are maintained and deadlines are met.

CHANGES SINCE LAST CLASSIFICATION REVIEW: Identify significant changes, that have impacted the responsibilities assigned to your position since the last review (see Writing Guide **Pages 15-16**).

This will a new position that will transferred to IDC after a re-organization and approval by the OCCIO&T. This position has been are tailored to IDC; this means we have updated the knowledge, skills, and abilities required for this position to ensure it supports this government's priority initiatives, including IDC's signature projects and the GoA's workforce transformation. As well we have outlined the roles and responsibilities to match what will be needed for this position within the IDC branch.

ORGANIZATION CHART: An organization chart that includes supervisor, peers and staff **MUST** be attached (see Writing Guide **Page 17**).

This information is being collected under the authority of Section 10 of the Public Service Act and will be used to allocate positions within a classification plan and to manage the Alberta government human resources program. If you have any questions about the collection of this information, contact the Job Evaluation Unit, 6th Floor, Peace Hills Trust Tower, 10011 - 109 Street, Edmonton, Alberta, T5J 3S8, phone 780/408-8400 or contact your Ministry Human Resource Office.