

Working Title System Analyst	Name Vacant		
Position Number	Reports to Position No., Class & Level	Division, Branch/Unit	Ministry
Present Class Systems Analyst 1		Requested Class	
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](#)).

This position provides applications development, maintenance and enhancement support to complex custom systems within the Client Service Management, Office of the Corporate Chief Information Officer and Telecommunications, both in a primary and backup role.

Working within government/departmental/divisional information technology guidelines, policies, procedures and practices, this position undertakes application maintenance and enhancement projects individually, and as a team member, under the guidance and direction of an experienced systems analyst or Application Delivery Manager. The systems supported are both foundational and critical systems supporting program delivery within GoA.

This position provides technical consulting with other team members and client staff as appropriate and customer support services (e.g. system design, development, testing and implementation of new systems as well as maintenance and enhancements of existing applications and client training as required).

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. System Analysis
 - Analyze existing systems to detail workflows and processes
 - Apply problem solving skills to clarify data flows and user interfaces
 - Participate in information gathering sessions to identify business area requirements
 - Identify how the tiers/layers of systems interact in order to respond to user questions and problems with effective solutions
 - Ensure that solutions efficiently address business requirements by minimizing any administrative burden using them
 - Develop solutions that are scalable and maintainable, with an emphasis on methods that can be supported by other system analysts
2. Application support and maintenance
 - Assist in the creation and enhance programs to meet client requirements within a development environment.
 - Provide regular operational support for legacy systems to ensure continued availability of systems/applications
 - Ensure integrity and optimal performance of applications and databases
 - Prepare appropriate documentation to support ongoing routine maintenance
 - Test upgrades to COTS and vendor products (such as operating systems, compilers and utilities, job scheduler, database management systems, etc.) to maintain continued application stability.
 - Maintain awareness of the application life cycle as it applies to systems being managed and support the enhancement/modernization of existing systems.
 - Identify areas for continuous improvement, based on support requests and feedback from business areas
 - Document analyses of alternatives in non-technical language to help client areas reach appropriate decisions about their systems
 - Maintain a strong understanding of how applications supported by the team interact and connect with other systems and environments within the Government of Alberta
 - Assist with the development of disaster recovery plans.

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3. Communication and Client Service

- Employ active listening to engage with clients and understand questions and concerns
- Effectively liaise and collaborate with other IT professionals and teams
 - DBAs for database changes and ongoing production issues
 - Infrastructure for server and network support
 - Acceptance Test and Operations for testing and supporting application
- Develop a solid understanding of the detailed and complex business functions of client areas that systems are intended to support
 - Identify rules or regulations that applications must operate within.
 - Develop solutions that focus on usability and the business needs of clients who use systems
- Provide written and verbal information to clients that is complete, accurate and professional
 - Provide dedicated consultation/assistance to the clients to aid them during major or critical production activities
 - Share information about new functions available when testing new releases of system tools and software.
 - Information to non-technical clients should be communicated in a manner that they can understand
- Effectively prioritize competing demands for time and resources

4. Apply accepted methods and standards when performing maintenance and development work

- Employ established processes, and demonstrate solid system thinking
 - Adhere to current industry standards and practices when updating existing applications or developing new components for systems
 - Ensure that updates are subjected to appropriate development rigour and testing review before deployment
 - Ensure that development methods maximize the security of applications and the broader Government IT environment
 - Leverage developing technologies to automate testing activities to better refine deliverables
- Work collaboratively with teammates to review each other's updates to minimize error and maximize effectiveness
- Employ appropriate source-control and deployment repositories (e.g. GitHub) to manage updates and deployments
 - Experience in Ops/DevOps environments, including CI/CD and automated deployments
- Ensure that client areas are supported sufficiently to empower them to do meaningful and complete testing of proposed solutions
- Coordinate activities, and manage competing priorities, to ensure that efforts best support the broader success of the Government and the business areas we support
 - Develop and deploy updates and user interfaces that reflect professionalism, and maximize usability

5. Demonstrate competence modifying and updating systems that were developed across a variety of platforms

- Supported platforms and technologies include
 - Visual Studio, C#, Visual Basic .NET, .NET/CORE, MVC, ASP.NET, Entity Framework, Classic ASP
 - HTML, CSS, AngularJS, Bootstrap, jQuery, JavaScript, React, Node.js, Vue.js
 - Cold Fusion 2023
 - MS SQL, SSIS, SSRS
 - Oracle Database, Oracle Fusion
 - Crystal Report, Power BI
 - PostgreSQL
 - Single Sign-On (SSO) solutions using protocols such as SAML and integration with identity providers (e.g. Azure AD)
 - Interface development such as Web API
 - Transport protocols such as JSON, REST, WCF services, and WebSocket communication
 - Azure cloud services and Microsoft Office/Office 365 integration
 - Other legacy platforms that may no longer be commonly in use
- Strong UI design skills
 - Deliver professional and effective web interface layouts
 - Promote Government of Alberta objectives of usability and accessibility

6. Leverage opportunities to enhance applications and system development/maintenance using new and evolving

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technologies
<ul style="list-style-type: none">• Pursue opportunities to increase knowledge and competence using AI tools<ul style="list-style-type: none">◦ Leverage AI to enhance the efficiency and effectiveness of development and maintenance activities• Collaborate with teammates to share knowledge and techniques of AI and other evolving technologies• Identify opportunities and proactively make recommendations and suggestions to improve efficiency and effectiveness of maintenance and development activities.
7. Maintenance and support activities on servers
<ul style="list-style-type: none">• Patching of applications as required• Configuration of IIS and other server activities to support delivery of applications• Management of server and application permissions<ul style="list-style-type: none">◦ Service accounts◦ Members of AMS team• Ensuring that server configurations align with requirements for the hosting/deployment of applications<ul style="list-style-type: none">◦ Routine testing of applications after server patching• Adjusting/updating applications to support the upgrade of server environments.
8. Database configuration and operations
<ul style="list-style-type: none">• Demonstrate solid competence with routine SQL functions to perform system enhancements that address client needs<ul style="list-style-type: none">◦ Modify and create database records/tables◦ Maintain database objects◦ Development and maintenance of stored procedures, triggers, views◦ Apply principles of sound database normalization• Development, maintenance and monitoring SSIS programs• Query optimization, performance tuning<ul style="list-style-type: none">◦ Examination of database structures, relationships and contents to support analyses of application data flows in support of upgrades and regular maintenance
9.

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](#)).

The majority of systems supported by this position are complex and highly integrated. These systems may be custom 'in-house' developed applications or purchased software packages.

Assignments vary from moderate enhancements of existing applications to new development of software applications and technology upgrade(s) within specified timeframes. The system analyst is also responsible for day-to-day support activities of these applications.

The Applications Analyst has ongoing contact with:

- Division and client area staff, while responding to varied application maintenance and enhancement needs, including the definition of business requirements.
- Other systems and application support staff, in relation to specific projects and assignments.
- Other functional units such as: DBAs for database changes and ongoing production issues, Infrastructure for server and network support, Acceptance Test and Operations for testing and supporting application.

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](#)).

1. Competency profile:

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](#)).

- Creative problem solving. The systems analyst requires problem solving abilities to analyze complex technical systems requirements and implement optimized solutions that address client needs and system requirements.
 - Agility: a high level of organizational skills is required to simultaneously coordinate multiple projects or tasks with tight timelines.
 - Driving for results: the systems analyst understands the goals and priorities of the departments and maximizes resources to achieve those goals and priorities.
 - Systems thinking with integration of systems and business, the systems analyst must consider the impacts a solution may have on other applications, IMTS teams and business.
 - Analytical problem-solving abilities: to analyze technical, complex systems requirements and implement optimized solutions to address client needs and system requirements.
2. Technical systems knowledge/skill requirements are referenced below:
- Application design and change management procedures.
 - Programming principles, techniques, practices, logic and database design.
 - Formal application lifecycle development methodology knowledge
 - Software, tools and technologies may include
 - Visual Studio, C#, Visual Basic .NET, .NET/CORE, MVC, ASP.NET, Entity Framework, Classic ASP
 - HTML, CSS, AngularJS, Bootstrap, jQuery, JavaScript, React, Node.js, Vue.js
 - Cold Fusion 2023
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 - Single Sign-On (SSO) solutions using protocols such as SAML and integration with identity providers (e.g. Azure AD)
 - Interface development such as Web API
 - Transport protocols such as JSON, REST, WCF services, and WebSocket communication
 - Azure cloud services and Microsoft Office/Office 365 integration
 - Other legacy platforms that may no longer be commonly in use
3. Knowledge of relevant business information, including
- Detailed and complex business functions
 - Processes and rules associated with supported applications
 - Overall organizational structure and lines of authority
 - An understanding of general business processes within the Department
4. Interpersonal skills coupled with the ability to communicate effectively with staff possessing varying degrees of technical expertise, to allow one to
- Clarify and address program/system requirements
 - Effectively work in a team environment
5. Effective time management and priority setting skills to ensure that critical work is accomplished to meet deadlines.
6. Detailed knowledge of the data and its relationships so that appropriate database scans and customized reports can be generated for senior management.
7. Experience in working with customers in a support capacity.
8. Familiarity with artificial intelligence technologies

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

There is no formal supervision responsibilities associated with this position.

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).

Not Applicable.

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.

Signatures

The signatures below indicate that the incumbent, manager and division director/ADM have read, discussed and agreed that the information accurately reflects the work assigned (see Writing Guide Page 16)

Incumbent

_____ Name _____ Signature _____ Date

Manager

_____ Name _____ Signature _____ Date

Division Director/ADM

_____ Name _____ Signature _____ Date