CITY OF NANAIMO
THE HARBOUR CITY

JOB DESCRIPTION

TITLE: **SENIOR APPLICATIONS ANALYST**

DEPARTMENT: **Information Technology**

LEVEL: **14**

Position Last Evaluated: Dec 2014
Job Desc. Last Updated: Feb 2021

JOB SUMMARY

Under the direction of the Manager, IT Application Services or a work group supervisor, the Senior Applications Analyst plays a leadership role in developing, designing, implementing, and supporting the City's mission critical business applications. In addition to providing project leadership in one or more areas of specialization, the incumbent participates as a member of development teams in other specialty areas.

The City of Nanaimo business applications encompass traditional information management as well as spatial projects. This position has the following areas of specialization:

➢ Programming - enterprise application development and sustainment;
➢ Geospatial - implementation and sustainment of enterprise geospatial infrastructure;
➢ Database - analysis, administration, and sustainment of enterprise databases;
➢ Application Sustainment - sustainment and administration of municipal software systems.

TYPICAL DUTIES AND RESPONSIBILITIES

1. Performs business analysis. Determines user needs and makes recommendations regarding development, implementation, alterations, or refinement of business applications to meet City requirements. Investigates and evaluates options for developing applications initiatives and prepares a plan that defines the scope, schedule, consulting costs, and product delivery. Consults with users about information requirements, and provides advice and solutions. Identifies software and hardware solutions in order to create, manage, and share data to reduce costs, increase efficiencies, and address e-government demands and public expectations.

TYPICAL DUTIES AND RESPONSIBILITIES cont.

2.   Performs project management. Develops, coordinates, and performs work on a variety of projects. Develops project specifications, develops/obtains pricing estimates, provides accurate project task completion estimates, assesses and monitors project tasks and deliverables, provides technical guidance, and coordinates the work of project staff, including external consultants, Client Support and Technical Support staff.

3.   Performs business system sustainment. Implements, sustains, and upgrades business applications. Notifies and maintains liaison with the system vendor and equipment service companies. Carries out test procedures on systems modifications, documents systems changes, procedures, and problems. Provides guidance to City staff as required on product functions and features to meet customers and business objectives with emphasis on implementation and maintenance.

4.   Performs enterprise application troubleshooting. Provides support to clients and systems staff by identifying problems with system software components, primarily as they relate to application programming and business application upgrades and enhancements, and secondly, to general operational needs. Refines issue priorities and implements timely remedial and long-term solutions to resolve day-to-day operational production problems.

5.   Performs application configuration, development, and reporting. Depending on the area of specialization, this may include application design, database model development, report development, application configuration, development, and testing.

6.   Provides consultant supervision. Makes recommendations with respect to the need for consultants and prepares Terms of Reference, assigns the work of consulting resources, and ensures quality control by monitoring and reporting on progress to ensure that the work objectives are met.

7.   Provides specialist documentation and guidance. Writes presentation-quality system documentation and user instructions for business applications. Writes departmental systems policies and procedures for management of corporate data and business applications. Develops documents and maintains corporate standards for the storage, retrieval, and interoperability of tabular and spatial data. Maintains and improves staff productivity through development of training materials and training delivery for established applications and new applications, as a function of project delivery.

8.   Provides orientation and training to new and temporary staff.

9.   Performs other related duties as required.

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES

Thorough knowledge of all aspects of the project life cycle and business applications delivery.

Thorough knowledge of problem definition and solution escalation techniques.

Sound knowledge of supporting a production environment.

Some knowledge of the functions of the City departments and their requirements.

Ability to communicate with tact and diplomacy to handle communications and contacts of a difficult or specialized nature.

Ability to learn and adapt to new and changing technology to meet the goals and objectives of clients and the organization.

Ability to plan and prioritize operational project tasks, perform under pressure, and meet deadlines.

Ability to analyse and evaluate data and information required for applications, and develop logical solutions for assigned projects.

Good verbal and written communication skills. Ability to effectively document systems and prepare client documentation.

FOR PROGRAMMING SPECIALIZATION

Thorough knowledge of structured, event driven, and object oriented programming.

Thorough knowledge of web-based application development.

Thorough knowledge of client and server side scripting, including proficiency in JavaScript.

Thorough knowledge of the protocols and techniques used to deliver spatial and tabular data over the web (e.g. HTTP, SOAP, REST, WMS, XML, KML, JSON)

Sound knowledge of standards-based semantic HTML and CSS.

Sound knowledge of web server installation and configuration (e.g. IIS, Apache, NGINX).

FOR GEOSPATIAL SPECIALIZATION

Thorough knowledge of advanced geographic information concepts, systems, and applications.

Thorough knowledge of spatial database development, functionality, and applications (e.g. *ArcSDE*).

Thorough knowledge of web-based geospatial delivery software (e.g. ArcGIS Server, ArcGIS Portal, Geocortex Essentials).

Thorough knowledge in the use of GIS analytical software (e.g. Esri ArcMap).

Some knowledge of software and computer techniques used for the maintenance of spatial data as related to departmental applications (e.g. Safe Software FME, *Autodesk Map 3D*, MapInfo).

FOR DATABASE SPECIALIZATION

Thorough knowledge of relational database design.

Thorough knowledge of database development, including structured queries (SQL), database analysis/modeling, data migration, and reporting.

Thorough knowledge of database administration, including configuration, maintenance, and performance tuning.

FOR APPLICATION SUSTAINMENT SPECIALIZATION

Considerable knowledge of administration and support of municipal software systems such as Microsoft Power Platform/Azure/M365 Apps Suite, Asset Management Systems, cloud integrations, ERP systems, Tempest Land Management, EDRMS systems such as Laserfiche and SharePoint/SharePoint Online.

Thorough knowledge of business analysis and reporting.

Thorough knowledge of municipal departmental business processes.

Understanding of servers, operating systems, backups, and disaster recovery principles

MINIMUM TRAINING AND EXPERIENCE REQUIRED

University degree in Computer Science or GIS directly related area of study.

MINIMUM TRAINING AND EXPERIENCE REQUIRED cont.

Minimum of 5 years of related experience in the required area of specialization, as follows:

- Programming: designing, developing, implementing, and maintaining enterprise web-based or desktop applications, and maintaining enterprise web application servers
- Geospatial: designing, developing, implementing, maintaining, and supporting enterprise spatial database systems or web-based or mobile geospatial delivery systems
- Database: designing, developing, implementing, and maintaining enterprise database systems and custom queries and reporting.
- Application Sustainment: evaluating and implementing municipal software systems or components thereof, providing reporting and analysis services, and providing business analysis and project management services.

Or an equivalent combination of education and experience.

Possession of a valid Class 5 BC Driver's Licence.

Satisfactory Criminal Record Check.

GENERAL STANDARDS

All employees shall take reasonable care to protect their health and safety, and the health and safety of other persons by becoming familiar with the Occupational Health & Safety (OH&S) Program, following established safe work procedures, using protective equipment, and asking for training if unfamiliar with work requested to perform.

Contributes in maintaining a respectful, safe, and supportive work environment that embraces diversity and where everyone is treated with courtesy, dignity, and fairness.

Adheres to City policies and objectives.