CAYMAN ISLANDS GOVERNMENT

JOB DESCRIPTION

Job Title: **Programmer/Analyst (GIS)**   Jobholder: **Vacant**

Reports to: **GIS Manager**   Portfolio/Dept: **EYSA&L**

                                Lands & Survey

1. JOB PURPOSE

To work in a team environment developing and supporting software solutions which improve the use of the National Geographical Information System (GIS). This will include allowing efficient and detailed query, analysis and presentation of information, stored within a Geographical Information System (GIS) and associated Relational Database Management Systems (RDBMS).

To implement new alternatives for service delivery as the technology evolves utilising a database-modelling environment that promotes efficiency and ensures data integrity in terms of accuracy and currency.

To implement automated procedures in respect to repetitive functions within Government, to ensure efficiency, consistency and accuracy in all areas of data management, verification and output.

2.   DIMENSIONS

As the central repository for geospatial data, the National GIS is fundamental in supporting multiple initiatives of national importance. These include the maintenance of land-related data including a comprehensive cadastral database of over 30,000 land parcels, creation of Boundary Plans and Prescribed Composite Maps, the creation and management of https://my.caymanlandinfo.ky, supply of GIS data to numerous public and private customers, a National Street Atlas, and an annual tourist map. The need for accurate and current information is critical to their success and therefore places a significant responsibility on the post-holder.

GIS technology is systematically being introduced across government departments and is currently deployed in such diverse areas as Agriculture, Department of Environment and Economics and Statistics. This post holder's responsibility extends to public safety through the support of Police, 911, HMCI, and Hurricane Committee activities. GIS systems are also being used to significant advantage in Planning to manage and solve many national issues. The strategic importance of GIS technology throughout many areas of government is highly significant.
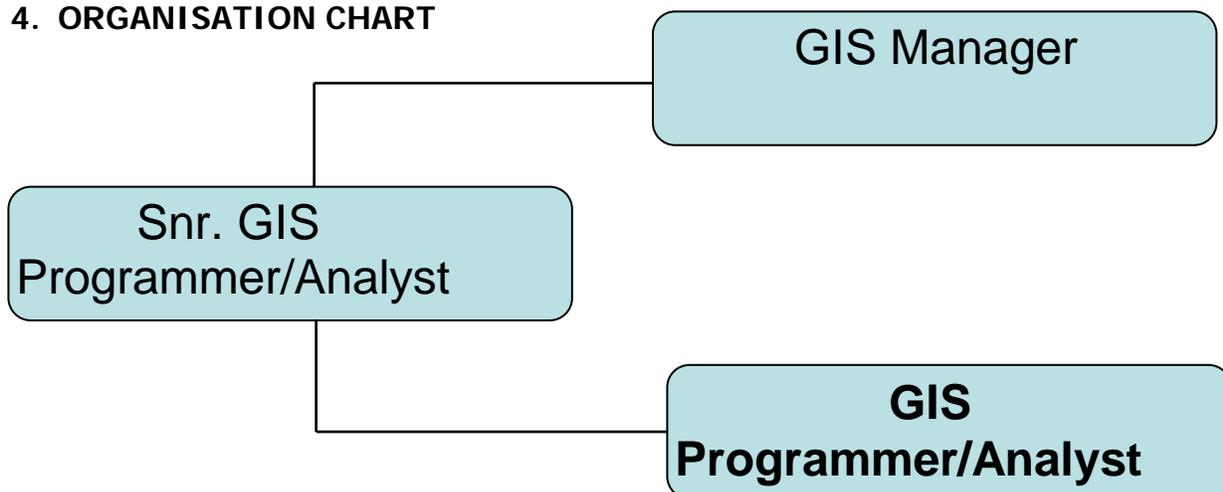
Through implementation of standalone systems and sales of data to the private sector, the National GIS has become a significant and increasing revenue earner for Government. This is further exemplified through the management and development of the department's e-business website (https://my.caymanlandinfo.ky).

This post, although having no direct management responsibility, provides support to hundreds of government and private users. As part of government's Financial Management Initiative (FMI), the GIS team is responsible for leveraging existing and new revenue streams and works within an output framework for service and product delivery.

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3. PRINCIPAL ACCOUNTABILITIES

	Percentage Time Spent
1. To provide programming expertise in the execution of project development as per the Agile team development process.	55%
2. To have a comprehensive understanding of departmental procedures, data structures, data management and business processes and the effort needed to support them.	15%
3. To support the departmental website in the programming of mapping and data access solutions.	10%
4. Work with users to develop their needs and operational requirements in finalising an appropriate solution to their application.	10%
5. To provide emergency support to solving minor hardware, software and network problems that may arise and which can be dealt with expeditiously without necessitating technical support from Computer Services.	5%
6. Play an active role in the development of other departmental staff.	5%

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4. ORGANISATION CHART

GIS Manager

Snr. GIS Programmer/Analyst

GIS Programmer/Analyst

5. BACKGROUND INFORMATION

The National GIS is one of five sections within the Lands & Survey Department. It provides the technology and expertise to enable integrated e-delivery of all digital information for the department and enables the delivery of spatial information for Government as a whole.

Users not on the government network can access the information via an internally developed website (https://my.caymanlandinfo.ky). Private sector users are encouraged to take out an annual website subscription where they can perform many services from their own offices that would normally require a trip to the Lands & Survey front counter. The products the National GIS has created have enabled Government to increase its revenue base. This has included the sales of data, services, custom software and publication ventures.

GIS technology, particularly the leading edge ESRI software suite used by the department, is subject to continual re-engineering, not only to the data-model but also the development environment. The post-holder is required to keep abreast of all such changes on behalf of all government users in the identification and purchase of appropriate GIS software and hardware products.

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6. KNOWLEDGE, EXPERIENCE AND SKILLS

The post-holder should possess a degree in Computer Science, Geographic Information Systems or related programming discipline, plus 5 years relative industry experience, ideally within an environment that has given significant exposure to spatial concepts. The ability to apply programming concepts to Geospatial information is a fundamental requirement. The post-holder should be able to work as an integral part of a project team dedicated to providing integrated solutions to a wide range of users utilising the ESRI suite of products, and encompassing a variety of supporting technologies and solutions providers. Formal training in application development and/or database administration.

As the GIS team is small, experience with system administration in a Microsoft Windows networked client-server environment would be highly beneficial.

The post holder should have proven knowledge and experience in a number of the following areas of specialisation:
- .NET Programming (C#)
- Agile Development Methodologies
- Source Control Systems such as GIT
- Experience in a Continuous Development Environment
- ESRI ArcGIS Server 10.x
- Web Development (ASP.NET, JavaScript, HTML5)
- REST/SOAP
- Microsoft Silverlight
- Python
- ArcObjects
- ArcGIS 10.x and extensions
- Geodatabase Design and Management
- Structured Query Language (SQL), PL/SQL, T-SQL

Proficiency in the following would be a distinct advantage:
- Latitude Geographics Geocotex Product Line
- Adobe Creative Suite
- Open Source Technologies & Solutions

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7. ASSIGNMENT AND PLANNING OF WORK

Once projects are identified and prioritised, the post-holder will carry out their task in accordance with the detailed specification and testing procedures provided. They will report on status of the project to an agreed schedule and document his work in the manner conforming to the department's project management & quality assurance procedures.

It is incumbent on the post-holder to complete their work assignment details into the government Time Recording System (TRS) in a timely manner and in accordance with Ministry guidelines.

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8. SUPERVISION OF OTHERS

The post holder does not have any staff management responsibilities however they should provide technical guidance to other staff members as needed.

9. OTHER WORKING RELATIONSHIPS

Liaison with Computer Services department will be required from time to time in order to ensure compliance with appropriate protocols, and to facilitate integration with databases not managed by Lands and Survey.

Direct and regular interface with users of GIS data and applications throughout government, whilst assisting in developing their own applications.

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10. DECISION MAKING AUTHORITY AND CONTROLS

The post holder's decision making will primarily be technical input and opinion at project development checkpoint meetings. However, the post holder would be expected and encouraged to contribute at any time to the development process as part of the team.

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11. PROBLEM/KEY FEATURES

The post-holder needs to keep abreast of advances in GIS technology and technology in general to ensure that the National GIS remains technologically innovative.

Statutory data maintained by the National GIS must be error free and completed on schedule.

Cartographic products should be well presented and technically correct.

During interactions with customers, either inside or outside of government, care should be given to ensure that the customer has a positive experience with the National GIS.

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12. WORKING CONDITIONS

Normal Office working environment.

Occasionally required to do maintenance work on GIS systems outside of normal working hours.

Occasionally required to provide GIS consultancy to other government departments, outside agencies or miscellaneous government projects, outside of normal working hours.