PERSONNEL DEPARTMENT CIRCULAR NO. 1 OF 2015

FROM: Chief Personnel Officer

TO: Permanent Secretaries, Heads of Department,
Chief Administrator, Tobago House of Assembly
and Heads of Statutory Authorities subject to the
Statutory Authorities Act, Chapter 24:01

DATE: October *16th*, 2015

SUBJECT: *Changes in administrative arrangements in respect of contract employment in the Public Service (Information and Communications Technology)*

You would recall that in Personnel Department Circular Memorandum dated January 18, 2013, on the subject "Changes in administrative arrangements in respect of contract employment in the Public Service", I had indicated at paragraph 17 that the standardisation of job descriptions and job designations in respect of the more common positions in the Clerical/Secretarial, Manipulative, Human Resource, Communications and Legal streams represented the first phase of the exercise to implement new procedures for the administration of contract employment. I had also indicated that standardised job descriptions, job designations and applicable salaries and other terms and conditions of service would be prepared, on a phased basis, in respect of other job categories/contract positions.

2.   In this regard, I now wish to inform you that following a review of the Information and Communications Technology (ICT) category, the undermentioned twenty-two (22) positions have been standardised and relevant salaries and other terms and conditions have been established:-

- Information and Communications Technology (ICT) Director
- Information and Communications Technology (ICT) Manager
- Manager, Solutions Development and Implementation
- Manager, Service Delivery and Support
- Manager, Networks and Infrastructure
- Senior Information Technology (IT) Specialist
- Senior Information Technology (IT) Infrastructure Specialist
- Senior Network Specialist
- Senior Information Systems Support Specialist
- Senior Database Specialist
- Senior Information Systems Specialist
- Network Specialist

- o Information and Communications Technology (ICT) Security Specialist
- o Information Technology (IT) Infrastructure Specialist
- o Web Content Specialist
- o Information Systems Support Specialist
- o Database Specialist
- o Information Systems Specialist
- o Information Technology (IT) Analyst/Programmer
- o Web Technology Specialist
- o Information and Communications Technology (ICT) Support Officer
- o Information and Communications Technology (ICT) Technical Officer

3.   As a consequence, where the approval of Cabinet is obtained for employment, on contract, in the ICT category and persons are employed on or after **November 1, 2015,** in any of the positions named at paragraph 2 above, the following new procedures shall apply:

   (i)   the use of the approved standardised Job Descriptions at **Appendix I** which outline the approved job titles, duties and responsibilities and the knowledge, skills and abilities required; and

   (ii)   the application of the salaries and other terms and conditions at **Appendix II** which have been approved for the various positions, to all persons employed, on contract, in the positions identified in the standardised Job Descriptions, for the periods specified.

Ministries/Departments (including the Tobago House of Assembly [THA]) and Statutory Authorities subject to the Statutory Authorities Act, Chap. 24:01 are reminded that they are responsible for the preparation and execution of contracts of employment of persons employed in their respective organizations. Samples of the relevant Contracts and Schedules to be utilised are attached to Personnel Department Circular Memorandum dated January 18, 2013 referred to at paragraph one (1) above. Kindly note carefully the differences between the various samples and ensure that the appropriate one is utilised in dealing with the particular case involved. Further, I wish to emphasize that no amendments are to be made to these sample Contracts and Schedules: Ministries/Departments/Statutory Authorities simply being required to insert the **relevant approved** salary, allowances/facilities and vacation leave eligibility applicable to specific individuals.   Similarly, no amendments are to be made either to the standardised Job Descriptions at **Appendix I** or to the salaries and other terms and conditions approved for the positions as reflected in **Appendix II.**

4.   In that regard, I draw your attention to the *Revised Guidelines for Contract Employment in Government Ministries, Departments and Statutory Authorities subject to the Statutory Authorities Act, Chap. 24:01,* issued by the Personnel Department on May 18, 2006. As specified at section B I 1(a) to (c) thereof, the relevant quantum of Vacation Leave is to be determined on the basis of an employee's salary and length of employment on a **continuous basis.** Where a break occurs between one contract period and another, the employee's service is **not** continuous. You should note, however, that where two periods of employment are separated by a weekend, public holiday or any combination thereof, the periods of employment shall be

considered to be continuous for the purpose of determining the quantum of vacation leave for which an employee would be eligible.

5.   You are also reminded that where **a contract is of less than one (1) year's duration, no provision for vacation leave or gratuity is to be included.** Further, that where public officers have been granted No Pay Leave on grounds of Public Policy to take up employment, on contract, they are not eligible for a Gratuity.

6.   The Personnel Department is aware that 'draft' standardised Job Descriptions had been provided previously by the Public Management Consulting Division (PMCD), Ministry of Public Administration to some Ministries and Departments in determining the ICT positions required by them. The approved standardised Job Descriptions set out at **Appendix I** contain certain revisions and are to be used in the employment of persons in the relevant ICT positions. **The approved Job Descriptions can be identified by the reference numbers at the top left corner of the documents which contain the letter (R),** for example, B001/IT/SM1 (R).

7.   With the establishment of salaries and other terms and conditions of employment applicable to standardised ICT positions, as set out in **Appendix II,** terms and conditions of employment of persons engaged on contract in such positions will not be subject to negotiation with the Chief Personnel Officer (CPO). **Consequently, in advertising any of the positions listed in Appendix I, no undertaking is to be given for terms and conditions of employment to be negotiated.**

8.   With regard to persons who were employed, on contract, in 2014 and prior to **November 1, 2015** in any of the positions set out at paragraph 2 above, utilising 'draft' standardised Job Descriptions provided by the PMCD, you are kindly requested to submit to the Personnel Department relevant details of the employment of such persons, including copies of the Cabinet Minute and Job Description under which they were employed, the period of their engagement and any previous service on contract in a similar position. This will enable the Personnel Department to confirm that the standardised terms and conditions of employment set out in **Appendix II** will also be applicable to the particular cases.

9.   Additionally, provision has been made for tiered salaries for certain ICT positions based on years of previous employment, **on contract, in the same or similar position** in a Ministry/Department (including the THA) or Statutory Authority and provided that the 'new' period of employment **immediately follows** the period of previous employment. Where, however, individuals who had been employed, previously, on contract, for three (3) or more continuous years, but whose subsequent period of employment, on contract, does/did not immediately follow the termination date of the earlier term of engagement, the intervening period shall **not** be regarded as a 'break' in service if:

   (a) the intervening period does not, for whatever reason, exceed one (1) year; or

   (b) the individual rendered continuous service, during the intervening period, in the same or similar capacity, **on a month to month short term basis or as a Service Provider.**

It is to be emphasized that the intervening periods referred to above shall not be regarded as constituting a break in service **for purposes only of determining the tier of salary at which affected individuals should be paid.** However, only the years **actually** served **on contract** are to be taken into account as **'years of service'** for such purposes.

10.   The approved salaries and other terms and conditions set out in **Appendix II** apply only to persons employed on contract, **on or after November 1, 2015,** who satisfy all the requirements set out in the relevant Job Descriptions. That is, individuals must possess the specified minimum experience and training as well as the stated knowledge, skills and abilities. It will therefore be the responsibility of each organisation to ensure that only qualified persons are selected for the positions.

11.   In the event that, immediately on completion of his/her current contract, an individual is employed in the same or similar position in the ICT category and under his/her previous contract, he/she was **in receipt of a salary approved by the Chief Personnel Officer** which is higher than that payable under the terms of this Circular, that individual shall retain the higher salary as personal to him/her for the duration of his/her contract. Should the salary of the contract position overtake his/her personal salary at any time during the period of his/her employment on contract, he/she shall be paid the salary applicable to the position.

12.   You are reminded that Ministries/Departments (including the THA) and Statutory Authorities are required to continue to seek the prior approval of Cabinet for the employment, on contract, of all categories of personnel, in accordance with established procedures.

13.   The Personnel Department will monitor the application of the new procedures by Ministries/Departments and Statutory Authorities and in this regard, in order to ensure that the procedures are adhered to, Permanent Secretaries/Heads of Department, the Chief Administrator, Tobago House of Assembly and Heads of Statutory Authorities are required to submit to the Department, **in PDF format**, copies of <u>all</u> contracts of employment in the ICT category executed on or after **November 1, 2015.**   These files should be submitted electronically to cpocontracts@gov.tt within one (1) month of the date of execution of the relevant contract.

14.   Permanent Secretaries/Heads of Departments, the Chief Administrator, Tobago House of Assembly and Heads of Statutory Authorities are requested to ensure compliance with the terms of this Circular since failure to follow these arrangements could result in undue delays in finalising the terms and conditions of employment of persons employed on contract and thus render the new administrative arrangements ineffective.

15.   Kindly bring this Circular to the attention of all officers engaged in the administration of contract employment.

Beresford Riley
Chief Personnel Officer *(Ag.)*

JOB DESCRIPTIONS FOR APPROVED POSITIONS IN THE

INFORMATION AND COMMUNICATION TECHNOLOGY CATEGORY (ICT)

CATEGORY

LIST OF APPROVED STANDARDIZED JOB DESCRIPTIONS FOR THE INFORMATION TECHNOLOGY CATEGORY

REF.	POSITION TITLE
B001/IT/SM1 (R)	Information and Communications Technology (ICT) Director
B002/IT/SM1 (R)	Information and Communications Technology (ICT) Manager
B003/IT/SM1 (R)	Manager, Solutions Development and Implementation
B004/IT/SM1 (R)	Manager, Service Delivery and Support
B005/IT/SM1 (R)	Manager, Networks and Infrastructure
B006/IT/SM1 (R)	Senior Information Technology (IT) Specialist
B007/IT/SM1 (R)	Senior Information Technology (IT) Infrastructure Specialist
B008/IT/SM1 (R)	Senior Network Specialist
B009/IT/SM1 (R)	Senior Information Systems Support Specialist
B010/IT/SM1 (R)	Senior Database Specialist
B011/IT/SM1 (R)	Senior Information Systems Specialist
B012/IT/SM1 (R)	Network Specialist
B013/IT/SM1 (R)	Information and Communications Technology (ICT) Security Specialist
B014/IT/SM1 (R)	Information Technology (IT) Infrastructure Specialist
B015/IT/SM1 (R)	Web Content Specialist
B016/IT/SM1 (R)	Information Systems Support Specialist
B017/IT/SM1 (R)	Database Specialist
B018/IT/SM1 (R)	Information Systems Specialist
B019/IT/SM1 (R)	Information Technology (IT) Analyst/Programmer
B020/IT/SM1 (R)	Web Technology Specialist
B021/IT/SM1 (R)	Information and Communications Technology (ICT) Support Officer
B022/IT/SM1 (R)	Information and Communications Technology (ICT) Technical Officer

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JOB DESCRIPTION

CONTRACTUAL POSITION

JOB TITLE: INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) DIRECTOR

JOB SUMMARY:

The incumbent is required to plan, direct and lead the development, operations and maintenance of the ICT resources and infrastructure of a large organisation and lead the delivery of its ICT programmes and projects. Duties include developing and implementing the Ministry/Department's ICT policies and ICT strategic plan; leading and directing the ICT Division; designing and executing the change management and stakeholder engagement necessary to support ICT-driven organisational change; developing and executing the portfolio of ICT projects; preparing and managing budgets for the Division; and managing and developing managerial, professional, technical and support staff.

REPORTS TO:	Permanent Secretary or Deputy Permanent Secretary
SUPERVISION GIVEN TO:	Managers (Direct) Senior Professional, Professionals, Technical and Support Staff (Indirect)

KEY RESPONSIBILITIES:

- Manages the development of the strategy of the Ministry/Department for the governance of information and technology, and the development of its ICT vision, policies, strategic plan and standards in compliance with relevant legislation, best practices, and mission and business plan of the Ministry/Department.
- Coordinates the development of an overarching ICT strategy and policy wherever a common and coordinated approach to ICT deployment is beneficial to the Ministry/Department, its agencies and its key stakeholders.
- Plans, directs and coordinates the ICT programmes of the Ministry/Department and ensures that ICT programmes are managed to provide organisational benefits.
- Directs the development of the security policy, standards and procedures of the Ministry/Department and monitors application and compliance.
- Analyses the demand for ICT services of the Ministry/Department and ensures value for money in the delivery of such services, and makes recommendations to key stakeholders to make the required investments to deliver such services.
- Provides direction and guidance with respect to the information systems of the Ministry/Department on the selection, implementation and operation of security and controls.
- Provides direction and guidance with respect to the ICT strategies to maintain the confidentiality, integrity and availability of the Ministry/Department's information systems and when necessary, ensures the restoration of such information systems.
- Provides advice, guidance and recommendations to address the ICT needs of the Ministry/Department.
- Develops budgets, facilitates procurement, negotiations and contracting, monitors expenditure and ensures that all targets are met for the ICT projects and ICT operations of the Ministry/Department.
- Manages the available workforce and ICT resources to ensure that the planning, development and delivery of specified ICT services achieve agreed levels of service and data integrity.
- Keeps abreast of new methods and trends in ICT and products in order to advance and improve the ICT capability of the Ministry/Department
- Makes recommendations for the staffing of the Division to ensure that there are adequate skilled people to meet the planned and defined ICT service delivery.

	▪ Performs other related duties as assigned.

KNOWLEDGE, SKILLS AND ABILITIES	
KNOWLEDGE:	▪ Extensive knowledge of the principles, tools and techniques required for the management and control of ICT within a large government based or business organisation. ▪ Considerable knowledge of project management tools and techniques. ▪ Knowledge of business process reengineering. ▪ Knowledge of relevant financial and procurement processes, rules and regulations.
SKILLS AND ABILITIES:	▪ Ability to lead multi-disciplinary teams and large groups of technical and professional staff. ▪ Ability to manage ICT projects. ▪ Ability to think creatively and to implement leading-edge technology solutions. ▪ Ability to negotiate and manage complex technical ICT contracts. ▪ Ability to communicate effectively both orally and in writing. ▪ Ability to promote teamwork and to manage conflict. ▪ Ability to manage change in the public sector. ▪ Ability to establish and maintain effective working relationships with colleagues. ▪ Ability to interact positively with members of the public and external stakeholders.

MINIMUM EXPERIENCE AND TRAINING:

- ▪ Minimum of eight (8) years' experience at a management level in the area of ICT, including at least three (3) years' at the corporate or senior management level involving the development, implementation and operation of major ICT systems and in the management of a large ICT department.
- ▪ Training as evidenced by the possession of a recognised Bachelor's degree in Computer Science, Computer Information Systems, Information Systems Management, Computer Engineering, or a related area.
  OR
- ▪ Minimum of ten (10) years' experience at a management level in the area of ICT, including at least three (3) years at the corporate or senior management level involving the development, implementation and operation of major ICT systems and in the management of a large ICT department.
- ▪ Training as evidenced by the possession of a recognised Bachelor's Degree.
- ▪ Certification in the area of ICT from a recognised institution.
  OR
- ▪ Minimum of ten (10) years' experience at a management level in the area of ICT, including at least three (3) years at the corporate or senior management level involving the development, implementation and operation of major ICT systems and in the management of a large ICT department.
- ▪ Minimum of five (5) years' technical experience in the area of ICT.
- ▪ Training as evidenced by the possession of a two-year Diploma/Certificate in the area of ICT from a recognised institution.

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JOB DESCRIPTION
CONTRACTUAL POSITION

JOB TITLE: INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) MANAGER

JOB SUMMARY:

The incumbent is required to plan, organize and manage the development, operations and maintenance of the ICT resources and infrastructure of a Ministry/Department/Division, and to manage the delivery of its ICT projects, under the direction of the Permanent Secretary or designated officer. Duties include developing and implementing of the ICT policies and ICT strategic plan of the organisation; developing and delivering software applications and ICT services; managing ICT projects; preparing and managing the ICT budget; and developing and managing of professional, technical and support staff.

REPORTS TO:	Permanent Secretary or designated officer
SUPERVISION GIVEN TO:	Senior Professionals (Direct), Professional, Technical and Support Staff (Indirect)

DUTIES AND RESPONSIBILITIES:

- Develops the ICT vision, policy, strategic plan and standards of the Ministry/Department in alignment with its mission and business plan.
- Leads and manages ICT projects, including the identification and mitigation of project risk; ensures quality in delivery and timeliness and facilitates effective utilisation of resources.
- Manages strategies to maintain the confidentiality, integrity and availability of the information systems of the Ministry/Department and, to ensure, the restoration of such information systems
- Monitors the implementation of the, policy and strategic plan to ensure compliance with organisational policies, procedures and the overall information management strategy.
- Manages the selection, implementation, operations and evaluation of security controls
- Assesses the need of the organisation for ICT services and recommends the most appropriate and cost effective solutions in meeting those needs; engages stakeholders in the planning and implementation of change needed for effective use of the ICT services of the organisation.
- Provides technical management of the ICT operations, and ensures that the Ministry/Department's agreed service levels and data integrity requirements of the organisation are met, and that all relevant procedures are adhered to.
- Maintains the policy, standards and procedures for security, and monitors the application and compliance of security operations procedures.
- Develops budget, facilitates procurement, negotiations and contracting and monitors ICT expenditure on the organisation, all ICT projects and operations.
- Keeps abreast of new methods and trends in ICT and products in order to advance and improve the Ministry/Department's ICT capability.
- Makes recommendations for staffing to ensure that there are adequate skilled personnel to meet ICT service delivery plans.
- Performs other related duties as assigned.

KNOWLEDGE, SKILLS AND ABILITIES

KNOWLEDGE:	- Extensive knowledge of the principles, tools and techniques required for the management and control of ICT within an organisation - Considerable knowledge of project management tools and techniques. - Knowledge of business process reengineering.

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	▪ Some knowledge of relevant financial and procurement processes, rules and regulations.
SKILLS AND ABILITIES:	▪ Ability to manage multi-disciplinary teams and technical and professional staff. ▪ Ability to manage ICT projects. ▪ Ability to think creatively and to implement leading-edge technology solutions. ▪ Ability to negotiate and manage complex technical contracts. ▪ Ability to communicate effectively both orally and in writing. ▪ Ability to manage change in the public sector. ▪ Ability to promote teamwork and to manage conflict. ▪ Ability to establish and maintain effective working relationships with colleagues. ▪ Ability to interact positively with members of the public and external stakeholders.

MINIMUM EXPERIENCE AND TRAINING:

- Minimum of five (5) years' experience at a management level in the area of ICT, including at least two (2) years in the development, implementation and operation of enterprise-wide ICT systems.
- Training as evidenced by the possession of a recognised Bachelor's Degree in Computer Science, Computer Information Systems, Information Systems Management, Computer Engineering or a related area.

  OR

- Minimum of seven (7) years' experience at a management level in the area of ICT, including at least four (4) years in the development, implementation and operation of enterprise-wide ICT systems.
- Training as evidenced by the possession of a recognised Bachelor's degree
- Certification in the area of ICT from a recognised institution.

  OR

- Minimum of ten (10) years' experience at a management level in the area of ICT, in addition to at least five (5) years' experience in the development, implementation and operation of enterprise-wide ICT systems.
- Training as evidenced by the possession of a two-year Diploma/Certificate in ICT from a recognised institution.

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JOB DESCRIPTION
CONTRACTUAL POSITION

JOB TITLE: MANAGER, SOLUTIONS DEVELOPMENT AND IMPLEMENTATION

JOB SUMMARY:

The incumbent is required to manage the identification, specification, programming, development, testing, documentation, and implementation of the application and business software solutions required by a large Ministry/Department, under the direction of the ICT Director. Duties include: managing the needs identification and requirements development processes; managing the software development and implementation processes for application and business software; designing and implementing change management processes; developing programmes to encourage the optimal utilisation of all software solutions; maintaining stakeholder engagement; commissioning of maintainable, secure and efficient software solutions; and supervision of professional, technical and support employees.

REPORTS TO:	ICT Director or designated officer
SUPERVISION GIVEN TO:	Senior Professionals (Direct) Professional, Technical and Support Staff (Indirect)

DUTIES AND RESPONSIBILITIES:

- Manages the application software development and implementation projects of the Ministry/Department, identifies and mitigates project risk and takes action to ensure quality in delivery and effective utilisation of resources.
- Manages the analysis, planning and implementation stages of business and operational software releases, including risk assessment and stakeholder consultation and coordination in accordance with established processes and procedures.
- Manages business readiness planning, inclusive of IT deployment, data migration and transition support, necessary for facilitating the change arising from the deployment and integration of new information system capabilities into the operations of the Ministry/Department.
- Develops and maintains the policies, standards and procedures for information management in the Ministry/Department.
- Analyses and interprets the business goals, objectives and strategies of the Ministry/Department and develops appropriate business models, plans, and requirements; and specifies business processes which drive improvements in the information systems and data management within the Ministry/Department.
- Identifies new and alternative approaches to performing the business activities of the Ministry/Department, including the automation of processes, and implementation of the changes in the business processes.
- Develops specifications for information systems to meet the business and operational needs of the Ministry/Department, consistent with corporate standards and within the constraints of cost, security and efficiency.
- Provides close technical oversight for all stages of the application software development and enhancement processes with a view to ensuring compliance with agreed standards, specifications and best practices.
- Coordinates and manages the planning and execution of the system and acceptance testing of new, enhanced or amended information systems.
- Conducts security risk assessments and business impact analyses for all business applications within the Ministry/Department, and implements appropriate security strategies and controls.

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- Provides inputs in the service continuity planning process and implements the resulting plans for all application software.
- Manages the installation or decommissioning of application software in accordance with established quality standards.
- Plans the information storage, sharing and publishing within the Ministry/Department and implements document and record management systems.
- Reviews software development and implementation processes in accordance with established quality assurance standards.
- Keeps abreast of the ICT market to understand new and emerging software technologies and products, and assesses their relevance and potential value to the Ministry/Department.
- Keeps abreast of specific technical specialisation in the areas of software development and implementation processes and application software and provides advice regarding their application
- Performs other related duties as assigned.

KNOWLEDGE, SKILLS AND ABILITIES

KNOWLEDGE:	- Considerable knowledge of the principles, tools and techniques required for the management and control of ICT within an organisation. - Considerable knowledge of project management tools and techniques. - Some knowledge of relevant financial and procurement processes, rules and regulations.
SKILLS AND ABILITIES:	- Ability to manage multi-disciplinary teams and technical and professional staff. - Ability to think creatively and to implement leading-edge technology solutions. - Ability to negotiate and manage complex technical contracts. - Ability to communicate effectively both orally and in writing. - Ability to manage change in the public sector. - Ability to promote teamwork and to manage conflict. - Ability to establish and maintain effective working relationships with colleagues. - Ability to interact positively with members of the public and external stakeholders.

MINIMUM EXPERIENCE AND TRAINING:

- Minimum of five years' experience at a management level in the area of ICT, including at least two (2) years in the development, implementation and operation of business and application software systems.
- Training as evidenced by the possession of a recognised Bachelor's degree in Computer Science, Computer Information Systems, Information Systems Management, Computer Engineering or related area.
  OR
- Minimum of seven (7) years' experience at a management level in the area of ICT, including at least four (4) years in the development, implementation and operation of business and application software systems.
- Training as evidenced by the possession of a recognised Bachelor's degree.
- Certification in the area of ICT from a recognised institution.
  OR
- Minimum of ten (10) years' experience at a management level in the area of ICT, in addition to at least five (5) years' experience in the development, implementation and operation of business and application software systems.
- Training as evidenced by the possession of a two-year Diploma/Certificate in ICT from a recognised institution.

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JOB DESCRIPTION
CONTRACTUAL POSITION

JOB TITLE: MANAGER, SERVICE DELIVERY AND SUPPORT

JOB SUMMARY:

The incumbent is required to manage the delivery and support of information system services to a large Ministry/Department and to deliver high quality customer service to its internal and external stakeholders, under the direction of the ICT Director. Duties include: managing the operations and maintenance of the business and operational information systems; pro-actively managing systems availability and systems capacity; developing of and complying with service level agreements and targets; managing the service desk function; resolving ICT security breaches, problems, and incidents; and supervising professional, technical and support employees.

REPORTS TO:	ICT Director or designated officer
SUPERVISION GIVEN TO:	Senior Professionals (Direct) Professional, Technical and Support Staff (Indirect)

DUTIES AND RESPONSIBILITIES:

- Manages the development of policy, standards and procedures for ICT capacity management, and ensures that the capability, functionality and sustainability of the hardware and software of the Ministry/Department meet the current and forecast needs of the business.
- Leads the management and delivery of defined ICT projects such as application software enhancements, including mitigating project risk and ensuring quality management.
- Manages the provision of application software maintenance and support services to ensure that all requests for support are resolved in accordance with established standards and procedures.
- Plans and improves all aspects of the availability of IT user services, including the management of the development and testing of disaster recovery plans.
- Manages the ICT storage and backup systems to provide agreed service levels, and to satisfy the data protection and disaster recovery requirements of the Ministry/Department.
- Assesses the risks to the availability, integrity and confidentiality of the critical information systems of the Ministry/Department; designs and tests maintenance procedures and contingency plans to address exposure to such risks; and ensures that agreed levels of continuity are maintained.
- Develops and maintains policies, standards and procedures for the operations of the IT service desk and for managing incidents
- Obtains and acts on information pertaining to the vulnerability of information systems, investigates breaches of security for business and operational software applications and computer installations and implements appropriate control solutions and improvements.
- Assesses the risks to the integrity of the Ministry/Department arising from the use of ICT and initiates and manages the development of countermeasures and contingency plans.
- Provides technical management for the IT operations, and takes action to ensure that agreed service levels are met, operational problems are resolved and defined maintenance and support processes are adhered to.
- Liaises with and implements IT service level agreements with the business units of the Ministry/Department and monitors to ensure that service delivery meets the agreed service levels; and proactively seeks methods to improve the levels of service.
- Oversees the investigation and resolution of problems relating to ICT systems and services and coordinates the establishment of remedies and preventative measures.

- Monitors opportunities provided by new and emerging technologies and products, including application software products, to address current challenges or to enable new ways of working in the Ministry/Department.
- Maintains in-depth knowledge of specific technical specialisations including operational and business application software and service quality and provides expert advice regarding their application.
- Keeps abreast of new methods and trends in ICT capabilities and products to advance the organisation.
- Performs other related duties as assigned.

KNOWLEDGE, SKILLS AND ABILITIES

KNOWLEDGE:	- Considerable knowledge of the principles, tools and techniques required for the management and control of ICT within a large organisation. - Considerable knowledge of project management tools and techniques. - Some knowledge of relevant financial and procurement processes, rules and regulations.
SKILLS AND ABILITIES:	- Ability to manage multi-disciplinary teams and technical and professional staff. - Ability to think creatively and to implement leading-edge technology solutions. - Ability to negotiate and manage complex technical contracts. - Ability to communicate effectively both orally and in writing. - Ability to manage change in the public sector. - Ability to promote teamwork and to manage conflict. - Ability to establish and maintain effective working relationships with colleagues. - Ability to interact positively with members of the public and external stakeholders.

MINIMUM EXPERIENCE AND TRAINING:

- Minimum of five (5) years' experience at a management level in the area of ICT, including at least two (2) years' experience in the development, implementation and operation of enterprise-wide ICT systems.
- Training as evidenced by the possession of a recognised Bachelor's Degree in Computer Science, Computer Information Systems, Information Systems Management, Computer Engineering or a related area.
  OR
- Minimum of seven (7) years' experience at a management level in the area of ICT, including at least four (4) years in the development, implementation and operation of enterprise-wide ICT systems.
- Training as evidenced by the possession of a recognised Bachelor's degree.
- Certification in the area of ICT from a recognised institution.
  OR
- Minimum of ten (10) years' experience at a management level in the area of ICT, in addition to at least five (5) years' experience in the development, implementation and operation of enterprise-wide ICT systems.
- Training as evidenced by the possession of a two-year Diploma/Certificate in ICT from a recognised institution.

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JOB DESCRIPTION

CONTRACTUAL POSITION

JOB TITLE: MANAGER, NETWORKS AND INFRASTRUCTURE

JOB SUMMARY:

The incumbent is required to manage the operations, maintenance and development of the technology infrastructure and communications networks of a large Ministry/Department, under the direction of the ICT Director. Duties include: delivering secure IT operations; developing high availability technology infrastructure; providing network operations and network management; managing messaging services; managing and maintaining the data centre infrastructure; delivering ICT infrastructure projects; meeting and exceeding targeted service and availability levels; and supervising professional, technical and support employees.

REPORTS TO:	ICT Director or designated officer
SUPERVISION GIVEN TO:	Senior Professionals (Direct)
	Professional, Technical and Support Staff (Indirect)

DUTIES AND RESPONSIBILITIES:

- Produces network and system designs, policies, strategies, architecture and specifications for the networks and technologies required to support the business requirements and ICT strategy of the Ministry/Department.
- Creates the network and communications plans for the Ministry/Department, establishes related service level agreements, and plans the IT infrastructure to deliver network and communications services to meet these agreements.
- Manages the provision of network maintenance and support services, including the resolution of network problems and requests for support
- Manages the networking and infrastructure projects of the Ministry/Department, including the identification and mitigation of project risk; ensuring quality and timeliness in project delivery and facilitating effective utilisation of resources.
- Manages the installation, testing, commissioning/decommissioning of system software, hardware, communications and networking infrastructure in accordance with agreed quality and safety plans.
- Manages the operations, control, usage and maintenance of the ICT infrastructure of the Ministry/Department in accordance with agreed standards and procedures; and ensures that agreed service levels are met.
- Negotiates service level agreements for network and infrastructure components, diagnoses service delivery problems, and initiates action to maintain and continuously improve the levels of service delivery.
- Coordinates the planning, designing and testing of maintenance procedures and contingency plans to address the availability, integrity and confidentiality of the ICT which supports critical business processes of the Ministry/Department, and ensures that agreed levels of continuity are maintained
- Conducts security risk assessments and business impact analyses for all information systems and computer installations within the Ministry/Department, and implements appropriate security strategies and controls.
- Monitors information technology service component capacity and initiates action to resolve any shortfall in accordance with agreed policies and procedures.
- Implements disaster recovery plans for testing of recovery procedures and ensures that the network and

infrastructure meet all agreed performance targets and service levels.
- Monitors the application of, and compliance with, security operations procedures; and reviews information systems for breaches in security and takes appropriate action.
- Monitors the ICT marketplace to understand new and emerging hardware and software technologies and products such cloud computing, SaaS and data analytics; and assesses their relevance and potential value to the Ministry/Department.
- Oversees the administration of the acquisition, storage, distribution and movement of IT assets throughout the Ministry/Department.
- Keeps abreast of developments in IT network infrastructure, computer networks, messaging and communications infrastructure in order to provide advice regarding their application.
- Performs other related duties as assigned.

KNOWLEDGE, SKILLS AND ABILITIES

KNOWLEDGE:	- Considerable knowledge of the principles, tools and techniques required for the management and control of ICT within an organisation. - Considerable knowledge of project management tools and techniques. - Some knowledge of relevant financial and procurement processes, rules and regulations.
SKILLS AND ABILITIES:	- Ability to manage multi-disciplinary teams and technical staff. - Ability to think creatively and to implement leading-edge technology solutions. - Ability to negotiate and manage complex technical contracts. - Ability to communicate effectively both orally and in writing. - Ability to manage change in the public sector. - Ability to promote teamwork and to manage conflict. - Ability to establish and maintain effective working relationships with colleagues. - Ability to interact positively with members of the public and external stakeholders.

MINIMUM EXPERIENCE AND TRAINING:

- Minimum of five (5) years' experience at a management level in the area of ICT, including at least two (2) years in the development, implementation, management and operation of networks/communications infrastructure and data centre technology/infrastructure.
- Training as evidenced by the possession of a recognised Bachelor's degree in Computer Science, Computer Information Systems, Information Systems Management, Computer Engineering or a related area.
  OR
- Minimum of seven (7) years' experience at a management level in the area of ICT, including at least four (4) years in the development, implementation, management and operation of networks/communications infrastructure and data centre technology/infrastructure.
- Training as evidenced by the possession of a recognised Bachelor's degree.
- Certification in the area of ICT from a recognised institution.
  OR
- Minimum of ten (10) years' experience at a management level in the area of ICT, in addition to at least five (5) years' experience in the development, implementation, management and operation of networks/communications infrastructure and data centre technology/infrastructure.
- Training as evidenced by the possession of a two-year Diploma/Certificate in the area of ICT from a recognised institution.

Government of Trinidad and Tobago

JOB DESCRIPTION
CONTRACTUAL POSITION

JOB TITLE: SENIOR INFORMATION TECHNOLOGY (IT) SPECIALIST

JOB SUMMARY:

The incumbent is required to perform a broad range of technical duties in the administration, operations, maintenance and support of the information technology and connectivity infrastructure of the Ministry/Department. Duties include: operations, support and maintenance of the computer room hardware, operating software and related infrastructure; operating, monitoring and maintaining the computer network, communications and related infrastructure of the Ministry/Department; and supervision of other ICT professionals, technical and administrative staff.

REPORTS TO:	ICT Manager or designated officer
SUPERVISION GIVEN TO:	Professional (Direct)
	Technical and Support Staff (Indirect)

DUTIES AND RESPONSIBILITIES:

- Manages and operates the IT infrastructure of the Ministry/Department, in accordance with agreed standards and procedures, and contributes to the resolution of operational problems.
- Manages the storage and backup systems to provide agreed levels of service, security, storage optimisation, and recovery and growth capacity, in compliance with data retention and data protection requirements in the Public Service.
- Supports the ICT Manager in the production of network and connectivity designs, policies, strategies, architecture and specifications for the networks required to support the business requirements and strategy of the Ministry/Department.
- Documents and implements the arrangements for disaster recovery; and conducts regular testing of the recovery procedures.
- Operates, maintains and monitors the performance of the Ministry/Department's ICT Infrastructure of the Ministry/Department in accordance with agreed standards and procedures and service level agreements.
- Guides the installation, testing, commissioning/decommissioning of ICT infrastructure including hardware, software and connectivity in accordance with agreed quality, safety and security plans.
- Provides expertise in the review, evaluation, installation, testing, upgrade and maintenance of system software such as operating systems, and data management and utility software, and in resolution of any associated service delivery problems.
- Facilitates the management and completion of medium-scale ICT projects of the Ministry/Department, including the identification and mitigation of project risk and ensuring quality in delivery.
- Monitors service delivery of the ICT infrastructure components against service level agreements, diagnoses service delivery problems, and initiates action to maintain and improve the levels of service.
- Monitors the application of, and compliance with, security operations procedures, reviews the ICT infrastructure for breaches in security, and takes appropriate remedial actions.
- Initiates and monitors actions to investigate and resolve problems with the ICT infrastructure and implements agreed solutions and measures.
- Prepares and delivers learning activities, such as training, to a variety of audiences in areas of technical specialisation and responsibility.

	▪ Keeps abreast of specific technical specialisations in the area of information technology and connectivity, and utilises this knowledge in performing job duties. ▪ Performs other related duties as assigned.

KNOWLEDGE, SKILLS AND ABILITIES

KNOWLEDGE:	▪ Considerable knowledge of the defined components of ICT infrastructure. ▪ Knowledge of the principles, tools and techniques required for the management and control of ICT within an organisation. ▪ Knowledge of project management tools and techniques. ▪ Some knowledge of relevant Public Service processes and procedures.
SKILLS AND ABILITIES:	▪ Ability to supervise professional, technical and support staff. ▪ Ability to think creatively and to implement technology solutions. ▪ Ability to manage ICT projects. ▪ Ability to communicate effectively both orally and in writing. ▪ Ability to promote teamwork and manage conflict ▪ Ability to establish and maintain effective working relationships with colleagues. ▪ Ability to interact positively with members of the public and external stakeholders.

MINIMUM EXPERIENCE AND TRAINING:

▪ Minimum of five (5) years' experience at a supervisory level in the area of ICT, including at least two (2) years' experience in the development, implementation and operation of ICT systems.

▪ Training as evidenced by the possession of a recognised Bachelor's Degree in Computer Science, Computer Information Systems, Information Systems Management, Computer Engineering or a related area.
OR

▪ Minimum of seven (7) years' experience at a supervisory level including four (4) years in the development, implementation and operation of ICT systems

▪ Training as evidenced by the possession of a recognised Bachelor's Degree.

▪ Certification in the area of ICT from a recognised institution.
OR

▪ Minimum of ten (10) years' experience at a supervisory level in the area of ICT, in addition to at least five (5) years' experience in the development, implementation and operation of ICT systems.

▪ Training as evidenced by the possession of a two-year Diploma/Certificate in the area of ICT from a recognised institution.

Government of Trinidad and Tobago

JOB DESCRIPTION

CONTRACTUAL POSITION

JOB TITLE: SENIOR INFORMATION TECHNOLOGY (IT) INFRASTRUCTURE SPECIALIST

JOB SUMMARY:

The incumbent is required to perform specialized technical duties in the administration, operations, maintenance and support of the computer centre's hardware, software, systems and related infrastructure of a large Ministry/Department. Duties include: operations and support of servers, SANs, printers and associated IT peripherals; support for email, domain management and related systems; administration and management of operating systems and other system software; administration of support and maintenance of PCs, laptops, PC software and related equipment; and supervision of professional, technical and support staff.

REPORTS TO:	Manager, Networks and Infrastructure or designated officer
SUPERVISION GIVEN TO:	Professional, Technical and Support Staff

KEY RESPONSIBILITIES:

- Operates and maintains the IT infrastructure of the Ministry/Department, monitors its performance, adheres to defined maintenance and support procedures, and ensures that established service levels of IT operations are achieved.
- Contributes to the management of the Ministry/Department's IT infrastructure of the Ministry /Department in accordance with agreed standards and procedures.
- Initiates and monitors actions to investigate and resolve problems with the IT infrastructure and implements agreed solutions and measures.
- Conducts security risk and vulnerability assessments for the IT systems of the Ministry/Department; and develops and applies appropriate technical security controls.
- Monitors the application of and compliance with, security operations procedures for areas of responsibility, reviews the IT infrastructure for breaches in security, and takes appropriate remedial actions.
- Conducts research into and explores ways to use emerging technologies and products to further the ICT goals of the Ministry/Department.
- Provides inputs to the service continuity planning process, and implements approved plans in order to ensure that defined levels of continuity for the IT infrastructure are achieved.
- Provides specialist expertise in the review, evaluation, installation, testing, upgrade and maintenance of system software such as operating systems and related utility software, and in the resolution of any associated service delivery problems.
- Monitors the IT infrastructure of the Ministry/Department for achievement of agreed performance targets and service levels and contributes to the availability management process;
- Documents and implements the arrangements for disaster recovery; and conducts regular testing of the recovery procedures.
- Monitors service delivery of the IT infrastructure components against established service level agreements, diagnoses service delivery problems, and initiates action to maintain and continuously improve the levels of service.
- Monitors IT component capacity, and follows agreed policies and procedures to proactively resolve any projected shortfalls.
- Provides project management services for the ICT infrastructure projects of the Ministry/Department,

including identifying and mitigating project risk, ensuring quality in project delivery and managing resources.

- Manages the storage and backup systems of the Ministry/Department to provide agreed levels of service, security, storage optimisation, and recovery and growth capacity, in compliance with data retention and data protection requirements of the Public service.
- Manages the installation, testing, commissioning/decommissioning of computer hardware and system software in accordance with agreed standards, quality and safety plans.
- Prepares and delivers learning activities, such as training, to a variety of audiences in areas of technical specialisation and responsibility.
- Keeps abreast of technical developments in respect of IT networks and infrastructure including computer hardware, operating systems and related products provides advice regarding their application, and utilises this knowledge in performing job duties.
- Performs other related duties as assigned

KNOWLEDGE, SKILLS AND ABILITIES

KNOWLEDGE:	- Considerable knowledge of the defined components of IT infrastructure. - Knowledge of the principles, tools and techniques required for the management and control of ICT within an organisation. - Knowledge of project management tools and techniques. - Some knowledge of Public Service processes and procedures.
SKILLS AND ABILITIES:	- Ability to supervise professional, technical and support staff. - Ability to think creatively and to implement technology solutions. - Ability to manage ICT projects. - Ability to communicate effectively both orally and in writing. - Ability to promote teamwork and manage conflict. - Ability to establish and maintain effective working relationships with colleagues. - Ability to interact positively with members of the public and external stakeholders.

MINIMUM EXPERIENCE AND TRAINING:

- Minimum of five (5) years' experience at a supervisory level in the area of ICT, including at least two (2) years' experience in the operations and maintenance of ICT systems
- Training as evidenced by the possession of a recognised Bachelor's Degree in Computer Science, Computer Information Systems, Information Systems Management, Computer Engineering or a related area.
  OR
- Minimum of seven (7) years' experience at a supervisory level in the area of ICT, including at least four (4) years in the operations and maintenance of ICT systems.
- Training as evidenced by the possession of a recognised Bachelor's degree.
- Certification in the area of ICT from a recognised institution.
  OR
- Minimum of ten (10) years' experience at a supervisory level in the area of ICT, in addition to at least five (5) years' experience in the operations and maintenance of ICT systems.
- Training as evidenced by the possession of a two-year Diploma/Certificate in the area of ICT from a recognised institution.

Government of Trinidad and Tobago

JOB DESCRIPTION

CONTRACTUAL POSITION

JOB TITLE: SENIOR NETWORK SPECIALIST

JOB SUMMARY:

The incumbent is required to perform specialized technical duties in the administration, operations, maintenance and support of the computer network hardware, software, intranet, internet, portal, communications, LANs, WANs and related infrastructure of a large Ministry/Department. Duties include: ensuring secure network and communications operations, including the intranet, portal and internet-related services; providing network management and network maintenance; delivering successful network, messaging and communications projects; achieving targeted service and availability levels; and supervising other network professionals, technical and support staff.

REPORTS TO:	Manager, Networks and Infrastructure or designated officer
SUPERVISION GIVEN TO:	Professional, Technical and Support Staff

DUTIES AND RESPONSIBILITIES:

- Manages the operations and maintenance of the networking and connectivity infrastructure of the Ministry/Department in accordance with agreed standards and procedures, and ensures that agreed service levels are met.
- Supports the Manager in the production of network and connectivity designs, policies, strategies, architectures and specifications for the networks required to support the business requirements and strategy of the Ministry/Department.
- Negotiates service level agreements for network and infrastructure components, diagnoses service delivery problems, and initiates action to maintain and improve the levels of service delivery.
- Delivers network management and support, and provides network maintenance services, including network support, the resolution of network problems and the implementation of preventative measures.
- Conducts security risk and vulnerability assessments for computer networks (intranet and internet), communications and related infrastructure, and develops and applies appropriate technical security controls.
- Investigates security breaches with networks and connectivity infrastructure in accordance with established procedures, and takes the necessary corrective action.
- Reviews and maintains the networking plans for the Ministry/Department, and assists with planning of the technology infrastructure to deliver connectivity and network services to meet service level agreements.
- Monitors network and connectivity service component capacity and initiates actions to resolve any shortfall in accordance with agreed policies and procedures.
- Contributes to ensuring that the network and connectivity infrastructure meets all agreed performance targets and service levels, and assists with disaster recovery arrangements and testing of the recovery procedures.
- Provides inputs to the service continuity planning process, and implements the approved plans in order to achieve defined levels of continuity of the networks and related infrastructure of the Ministry/Department.
- Coordinates the installation, testing, commissioning/decommissioning of networking and connectivity infrastructure in accordance with agreed quality and safety plans.
- Conducts research into and explores ways to use emerging technologies and products to further the networking and connectivity goals of the Ministry/Department.

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- Participates as a member of the project management team for defined networking and connectivity projects of the Ministry/Department by undertaking activities such as the identification and mitigation of project risk and ensuring quality in project delivery.
- Prepares and delivers learning activities, such as training, to a variety of audiences in areas of technical specialisation and responsibility.
- Assists with facilitating the administration of the acquisition, storage, distribution and movement of network and connectivity assets across the Ministry/Department.
- Keeps abreast of developments in computer networking and communications infrastructure, and provides advice regarding their application, and utilises this knowledge in performing job duties.
- Performs other related duties as assigned.

KNOWLEDGE, SKILLS AND ABILITIES

KNOWLEDGE:	- Considerable knowledge of the defined components of networking and connectivity infrastructure. - Knowledge of the principles, tools and techniques required for the management and control of ICT within an organisation. - Knowledge of project management tools and techniques. - Some knowledge of Public Service processes and procedures.
SKILLS AND ABILITIES:	- Ability to supervise professional, technical and support staff. - Ability to think creatively and to implement technology solutions. - Ability to manage ICT projects. - Ability to communicate effectively both orally and in writing. - Ability to promote teamwork and manage conflict. - Ability to establish and maintain effective working relationships with colleagues. - Ability to interact positively with members of the public and external stakeholders.

MINIMUM EXPERIENCE AND TRAINING:

- Minimum five (5) years' experience at a supervisory level in the area of ICT, including at least two (2) years' experience in the development, implementation, management and operation of networks, messaging and communications infrastructure.
- Training as evidenced by the possession of a recognised Bachelor's Degree in Computer Science, Computer Information Systems, Information Systems Management, Computer Engineering or a related area.
   OR
- Minimum of seven (7) years' experience at a supervisory level in the area of ICT, including at least four (4) years in the development, implementation, management and operation of networks, messaging and communications infrastructure
- Training as evidenced by the possession of a recognised Bachelor's degree.
- Certification in the area of ICT from a recognised institution.
   OR
- Minimum of ten (10) years' experience at a supervisory level in the area of ICT, in addition to at least five (5) years' experience in the development, implementation, management and operation of networks, messaging and communications infrastructure
- Training as evidenced by the possession of a two-year Diploma/Certificate in the area of ICT from a recognised institution.

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JOB DESCRIPTION
CONTRACTUAL POSITION

JOB TITLE: SENIOR INFORMATION SYSTEMS SUPPORT SPECIALIST

JOB SUMMARY:

The incumbent is required to perform software maintenance and support duties for the specified information systems software of the Ministry/Department. Duties include: monitoring the evolving needs of the Ministry/Department for information; reviewing the capabilities of existing software applications and specifying changes needed; modifying the software application in accordance with agreed standards and procedures; performing maintenance on specified software application to resolve errors and failures and to address approved change requests; ensuring the integrity and availability of specific software applications; and supervision of other ICT professional, technical and support staff. Depending on work assignment, the incumbent will be required to perform these duties in a specified category of software application solutions such as a) the business information systems of the Ministry/Department such as finance, payroll and human resource management; b) the Ministry/Department-specific information systems; c) any defined combination of business and Ministry/Department-specific information systems.

REPORTS TO:	ICT Manager, Manager, Service Delivery and Support or designated officer
SUPERVISION GIVEN TO:	Professionals (Direct), Technical and Support Staff (Indirect)

KEY RESPONSIBILITIES:

- Manages the software enhancement and maintenance projects of the Ministry/Department, including the identification and mitigation of project risk and takes steps to ensure quality in delivery.
- Guides the scoping and analysis of on-going change initiatives and enhancements, and defines the related requirements to enable the support and maintenance of the software applications of the Ministry/Department.
- Contributes to the design of information systems of the Ministry/Department, and provides inputs based on the support and maintenance experience and information.
- Develops, tests, corrects and documents fixes, modifications and enhancements to the Ministry/Department's systems as part of the application software maintenance process, and in accordance with agreed standards and specifications.
- Monitors, applies and strengthens the physical, procedural and technical controls in place to ensure continued confidentiality, integrity and availability of the Ministry/Department's information; and investigates suspected attacks and manages security incidents related to information usage.
- Assesses, analyses, develops, documents and implements changes to the Ministry/Department-specific software applications through requests for change.
- Validates and analyses information from internal and external sources, to meet the on-going information needs of the Ministry/Department and its users.
- Monitors, investigates and reports on potential hazards and risk events arising from the on-going use of the information systems of the Ministry/Department.
- Initiates and monitors on-going actions to investigate and resolve problems with specific information systems of the Ministry/Department, and assists with the implementation of the required solutions and remedies.
- Investigates and documents the internal controls of specified software applications, and assesses compliance with relevant standards.
- Drafts and maintains procedures and documentation for support of specific software applications; manages enhancements to software applications to ensure business performance improvements; and ensures that all

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requests for support are dealt with in accordance with agreed procedures.
- Prepares, customises and delivers learning activities, including training on the application software systems of the Ministry/Department to a variety of users and stakeholders, on a routine and on-going basis.
- Takes steps to enable the on-going compliance with Government's policies and procedures and established best practices around the use of Ministry/Department-specific information; and mitigates the risks involved in the use of such information by internal and external stakeholders.
- Provides input into the continuity planning process for software applications of the Ministry/Department and implements the resulting plans.
- Contributes to the planning and execution of system and acceptance testing of new or modified information systems, particularly in areas of technical specialisation.
- Contributes to the planning and implementation of software releases, particularly in areas of technical specialisation, by undertaking activities such as risk assessment and stakeholder coordination.
- Keeps abreast of the operations, management and maintenance of specified Ministry/Department's software applications and products and provides advice regarding their deployment
- Performs other related duties as assigned.

KNOWLEDGE, SKILLS AND ABILITIES

KNOWLEDGE:	- Considerable knowledge in operations and maintenance of software applications. - Knowledge of the principles, tools and techniques required for the management and control of ICT within an organisation. - Knowledge of project management tools and techniques. - Some knowledge of Public Service processes and procedures
SKILLS AND ABILITIES:	- Ability to supervise professional, technical and support staff. - Ability to think creatively and to maintain software applications. - Ability to manage software maintenance projects. - Ability to communicate effectively both orally and in writing. - Ability to promote teamwork and manage conflict. - Ability to establish and maintain effective working relationships with colleagues and internal stakeholders. - Ability to interact positively with members of the public and external stakeholders.

MINIMUM EXPERIENCE AND TRAINING:

- Minimum of five (5) years' experience at a supervisory level, in the area of ICT including at least two (2) years' experience in the operation, enhancement and maintenance of software applications, preferably within the public sector.
- Training as evidenced by the possession of a recognised Bachelor's Degree in Computer Science, Computer Information Systems, Information Systems Management, Computer Engineering or a related area.
  OR
- Minimum of seven (7) years' experience at a supervisory level in the area of ICT, including at least four (4) years in the operation, enhancement and maintenance of software applications.
- Training as evidenced by the possession of a recognised Bachelor's degree.
- Certification in the area of ICT from a recognised institution.
  OR
- Minimum of ten (10) years' experience at a supervisory level in the area of ICT, in addition to at least five (5) years' experience in the operation, enhancement and maintenance of software applications.
- Training as evidenced by the possession of a two-year Diploma/Certificate in the area of ICT from a recognised institution.

Government of Trinidad and Tobago

JOB DESCRIPTION

CONTRACTUAL POSITION

JOB TITLE: SENIOR DATABASE SPECIALIST

JOB SUMMARY:

The incumbent is required to perform specialized database design, development, implementation, maintenance and support duties for the information systems of a large Ministry/Department. Duties include: ensuring the security, confidentiality, integrity and availability of the databases of the Ministry/Department; providing advice on database technology and products; managing database design and development activities; developing, administering, maintaining and supporting database solutions; and supervision of professional, technical and support staff.

REPORTS TO:	Manager, Solutions Development and Implementation, Manager, Service Delivery and Support or designated officer
SUPERVISION GIVEN TO:	Professional (Direct) Technical and Support Staff as required (Indirect)

KEY RESPONSIBILITIES:

- Designs, develops, tests, corrects and documents database management systems as part of the overall application development and maintenance process in accordance with agreed standards and specifications.
- Designs and applies physical, procedural and technical controls to the databases of the Ministry/Department to ensure confidentiality, integrity and availability; and investigates and remedies related security incidents.
- Trains relevant staff to ensure their comprehension of and compliance with government's policies and procedures and established best practices around the use of information; and identifies the risks involved in the use of information.
- Manages the accessibility, retrievability and security of defined databases.
- Contributes to the design of information systems to meet the business needs of the Ministry/Department, consistent with database standards and best practices, and within the constraints of cost, security and efficiency.
- Manages the on-going installation, configuration, upgrade, administration, monitoring and maintenance of the databases of the Ministry/Department, including developing and maintaining related procedures and documentation, and optimising database performance and availability.
- Facilitates the management of the database development and implementation projects, of the Ministry/Department including the identification and mitigation of project risk, ensuring quality in project delivery and managing resources.
- Prepares and delivers learning activities, such as training, to a variety of audiences in areas of technical specialisation and responsibility.
- Contributes to the planning and execution of system and acceptance testing of new or modified information systems, particularly in areas of technical specialisation.
- Contributes to the planning for and implementation of software releases, particularly in areas of technical specialisation by undertaking activities such as risk assessment and stakeholder coordination.
- Reviews database development and implementation processes in accordance with agreed quality standards.
- Provides inputs to the service continuity planning process and implements the resulting plans.
- Applies specialist knowledge of database architectures, design, techniques and software to the specification, design and maintenance of databases and repositories which support the information needs of the

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Ministry/Department.
- Keeps abreast of developments in database technology, tools and techniques and advises on their relevance and potential value to the Ministry/Department and their application.
- Performs other related duties as assigned

KNOWLEDGE, SKILLS AND ABILITIES

KNOWLEDGE:	- Considerable knowledge of database technology, and database development, administration and maintenance. - Knowledge of the principles, tools and techniques required for the management and control of ICT within an organisation. - Knowledge of project management tools and techniques. - Some knowledge of Public Service processes and procedures.
SKILLS AND ABILITIES:	- Ability to supervise professional, technical and support staff. - Ability to think creatively and to implement database solutions. - Ability to manage ICT projects. - Ability to communicate effectively both orally and in writing. - Ability to promote teamwork and manage conflict. - Ability to establish and maintain effective working relationships with colleagues. - Ability to interact positively with members of the public and external stakeholders.

MINIMUM EXPERIENCE AND TRAINING:

- Minimum five (5) years' experience at a supervisory level in the area of ICT, including at least two (2) years' experience in the design, development, operation and maintenance of large database management systems.
- Training as evidenced by the possession of a recognised Bachelor's Degree in Computer Science, Computer Information Systems, Information Systems Management, Computer Engineering or a related area.
- Relevant certification in database management such as the Certified Data Management Professional, Oracle Database 12c Administrator Certified Professional etc.
  OR
- Minimum of seven (7) years' experience at a supervisory level in the area of ICT including at least four (4) years in the design, development, operation and maintenance of large database management systems.
- Training as evidenced by the possession of a recognised Bachelor's degree from a recognised institution
- Certification in the area of ICT from a recognised institution
  OR
- Minimum of ten (10) years' experience at a supervisory level in the area of ICT, in addition to at least five (5) years' experience in the design, development operation and maintenance of large database management systems.
- Training as evidenced by the possession of a two-year Diploma/Certificate in the area of ICT from a recognised institution.

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JOB DESCRIPTION

CONTRACTUAL POSITION

JOB TITLE: SENIOR INFORMATION SYSTEMS SPECIALIST

JOB SUMMARY:

The incumbent is required to perform specialized technical design, development, testing and implementation duties for the information systems software of the Ministry/Department. Duties include: identification of the information needs of the Ministry/Department; facilitation of the requirements development process; selection and configuration or design and development of software and related solutions to meet these needs; testing and commissioning of the software solutions; and supervising ICT professional, technical and support staff. Depending on work assignment, the incumbent will be required to perform these duties in a specified category of software application solutions, such as: a) the business information systems of the Ministry/Department such as finance, payroll and human resource management; b) the Ministry/Department-specific information systems; c) any defined combination of business and Ministry/Department-specific information systems.

REPORTS TO:	ICT Manager, Manager, Solutions Development and Implementation or designated officer
SUPERVISION GIVEN TO:	Professional, Technical and Support Staff

DUTIES AND RESPONSIBILITIES:

- Manages projects for the development and implementation or the selection and configuration of the information systems of the Ministry/Department; also manages the identification and mitigation of project risk and takes action to ensure quality in delivery.
- Guides the scoping, analysis and prioritisation of change initiatives and the definition of the related business requirements to enable the development or selection of the required software solutions of the Ministry/Department.
- Develops business models, plans, and requirements to meet the needs of the Ministry/Department; and specifies business processes which drive improvements in the information systems and related data management within the Ministry/Department.
- Designs, develops, tests, corrects and documents information systems as part of the overall application development, configuration and maintenance process in accordance with agreed standards and specifications.
- Contributes to the design of information systems of the Ministry/Department, in accordance with defined standards and best practices, and within the constraints of cost, security and efficiency.
- Analyses business processes and identifies alternative approaches to performing business activities, such as automation; assesses feasibility of these approaches, and identifies the required changes to the business processes of the Ministry/Department.
- Assesses, analyses, develops, documents and implements changes to the information systems of the Ministry/Department based on requests for change from users and other internal or external stakeholders.
- Investigates, analyses and specifies the requirements for improving the business processes and systems of the Ministry/Department, including the preparation of feasibility studies and business cases.
- Validates and analyses data and information from internal and external sources, to meet the reporting needs of the Ministry/Department and its information users.
- Conducts security risk and vulnerability assessments for the Ministry/Department's application software; applies the required physical, procedural and technical controls to ensure confidentiality, integrity and availability; and investigates and remedies related security incidents.
- Investigates and reports on hazards and potential risk events arising from the use of the information systems of the Ministry/Department.

- Provides inputs to the service continuity planning process for the Ministry/Department's information systems and implements the resulting plans.
- Contributes to the planning and execution of system and acceptance testing of new or modified information systems, particularly in areas of technical specialisation.
- Contributes to the planning and implementation of software, particularly in areas of technical specialisation, by undertaking activities such as risk assessment and stakeholder coordination.
- Takes steps to enable and promote compliance with Government's policies and procedures, and established best practices around the use of information; and identifies the risks involved in the use of such information
- Prepares, customises and delivers learning activities including training and sensitisation, on the information systems of the Ministry/Department to a variety of users and stakeholders.
- Keeps abreast of the opportunities provided by new information systems technology, tools and techniques and advises on their relevance, applicability and potential value to the Ministry/Department.
- Utilises agreed quality standards to review information systems development and implementation processes.
- Keeps abreast of the design, development, operations and management of information systems and products and provides advice regarding their selection and application.
- Performs other related duties as assigned.

KNOWLEDGE, SKILLS AND ABILITIES

KNOWLEDGE:	- Considerable knowledge in the specification, selection, development, testing and commissioning of information systems. - Knowledge of the principles, tools and techniques required for the management and control of ICT within an organisation. - Knowledge of project management tools and techniques. - Some knowledge of Public Service processes and procedures.
SKILLS AND ABILITIES:	- Ability to supervise professional, technical and support staff. - Ability to think creatively and to implement information system solutions. - Ability to manage information systems development projects. - Ability to communicate effectively both orally and in writing. - Ability to promote teamwork and manage conflict. - Ability to establish and maintain effective working relationships with colleagues and internal stakeholders. - Ability to interact positively with members of the public and external stakeholders.

MINIMUM EXPERIENCE AND TRAINING:

- Minimum of five (5) years' experience at a supervisory level, including at least two (2) years' experience in the design and development of information systems.
- Training as evidenced by the possession of a recognised Bachelor's Degree in Computer Science, Computer Information Systems, Information Systems Management, Computer Engineering or a related area.
  OR
- Minimum of seven (7) years' experience at a supervisory level including at least four (4) years in the design and development of information systems
- Training as evidenced by the possession of a recognised Bachelor's degree.
- Certification in the area of ICT from a recognised institution.
  OR
- Minimum of ten (10) years' experience at a supervisory level including at least five (5) years' in the design and development of information systems.
- Training as evidenced by the possession of a two-year Diploma/Certificate in the area of ICT from a recognised institution.

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JOB DESCRIPTION
CONTRACTUAL POSITION

JOB TITLE: NETWORK SPECIALIST

JOB SUMMARY:

The incumbent is required to provide technical services in the management, operations and maintenance of the computer network hardware and software, intranet, internet, portal, communications, LANs, WANs and related connectivity infrastructure of the Ministry/Department. Duties include: operating and maintaining network and connectivity components; monitoring network security; resolving network problems and service incidents; and supervision of technical and support staff as required.

REPORTS TO:	Senior Network Specialist, Senior IT Specialist or designated officer
SUPERVISION GIVEN TO:	Technical and Support Staff

DUTIES AND RESPONSIBILITIES:

- Identifies and resolves network problems in accordance with agreed procedures and assists with monitoring and reporting on performance, using network management software and tools.
- Installs, tests, corrects, commissions/decommissions networking and connectivity infrastructure in accordance with defined procedures and instructions, and maintains accurate service and support records.
- Investigates minor security breaches with networks and connectivity infrastructure in accordance with established procedures, takes necessary corrective action, updates and maintains relevant security records and documentation.
- Applies and maintains specific security controls to the network and connectivity infrastructure, as defined by the policy and standards of the Ministry/Department, to enhance resilience to unauthorised access.
- Monitors service level delivery metrics to ensure that service level agreements for the networks and related infrastructure are not breached.
- Carries out agreed operational procedures and maintenance and installation work on the network and connectivity infrastructure of the Ministry/Department.
- Participates in the investigation and resolution of problems with networking infrastructure and services, and assists with the implementation of preventative measures to address future issues.
- Receives and responds to service desk and incident management requests for network and connectivity infrastructure support in accordance with agreed procedures, and maintains relevant records.
- Delivers learning activities, such as training, to a variety of audiences in areas of technical specialisation and for assigned projects.
- Participates as a member of a project team in the management of defined networking and connectivity projects of the Ministry/Department by undertaking activities such as identifying and mitigating project risk, ensuring quality in project delivery and managing assigned resources.
- Keeps abreast of developments in   computer networking and communications infrastructure, provides advice regarding their application, and utilises this knowledge in performing job duties.
- Performs other related duties as assigned.

KNOWLEDGE, SKILLS AND ABILITIES

KNOWLEDGE:	• Knowledge of defined components of networking and connectivity infrastructure. • Knowledge of project management tools and techniques.

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	▪ Some knowledge of the principles, tools and techniques required for the management and control of ICT within an organisation.
SKILLS AND ABILITIES:	▪ Ability to supervise technical and support staff. ▪ Ability to think creatively and to implement IT connectivity solutions. ▪ Ability to communicate effectively both orally and in writing. ▪ Ability to promote teamwork and manage conflict. ▪ Ability to establish and maintain effective working relationships with colleagues. ▪ Ability to interact positively with members of the public and external stakeholders.

MINIMUM EXPERIENCE AND TRAINING:

▪ Minimum of three (3) years' experience in the area of ICT, including at least eighteen (18) months' experience in the operation and maintenance of network, messaging and communications infrastructure.

▪ Training as evidenced by the possession of a recognised Bachelor's Degree in Computer Science, Computer Information Systems, Information Systems Management, Computer Engineering or a related area.

Government of Trinidad and Tobago

JOB DESCRIPTION
CONTRACTUAL POSITION

JOB TITLE: INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) SECURITY SPECIALIST

JOB SUMMARY:

The incumbent is required to provide specialized technical services in the administration and maintenance of the security of all ICT infrastructure of the Ministry/Department. Duties include: providing specialist ICT security advice to the Ministry/Department; developing ICT policy and procedures; monitoring and enabling secure operations for all technology infrastructure of the Ministry/Department; assisting with security implementations; performing ICT security audits and reviews; and supervising other ICT technical and support staff.

REPORTS TO:	Director, Information and Communications Technology or Manager, Networks and Infrastructure or Manager, Information and Communications Technology or Senior IT Infrastructure Specialist or Senior IT Specialist or designated officer
SUPERVISION GIVEN TO:	Technical and Support Staff

DUTIES AND RESPONSIBILITIES:

- Conducts security risk and vulnerability assessments for all business and operational software applications, and all ICT installations within the Ministry/Department and recommends appropriate security strategies and controls; and investigates suspected attacks and manages security incidents.
- Plans and executes programmes to review IT security activities, processes and services within the ICT function to ensure compliance with established security policy and procedures, reports on conformance and makes recommendations for fixes and improvements.
- Investigates security breaches in accordance with established procedures and recommends the required corrective actions; and assists users with the management of their security access and controls, implements agreed user security and maintains security records and documentation.
- Provides inputs to the service continuity planning process of the Ministry/Department and assists with the implementation of the resulting plan.
- Keeps abreast of technical developments in IT networks and infrastructure, including intrusion detection and protection, security management, vulnerability assessment and identity management to provide advice to improve security.
- Performs other related duties as assigned.

KNOWLEDGE, SKILLS AND ABILITIES

KNOWLEDGE:	- Considerable knowledge of security for software applications, computer networks and IT infrastructure. - Knowledge of relevant IT security solutions such as CheckPoint. - Knowledge of project management tools and techniques. - Some knowledge of the tools and techniques required for the management and control of ICT within an organisation.

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SKILLS AND ABILITIES:	- Ability to supervise technical and support staff - Ability to think creatively and to analyse IT security problems and incidents. - Ability to communicate effectively both orally and in writing. - Ability to promote teamwork and management conflict. - Ability to establish and maintain effective working relationships with colleagues. - Ability to interact positively with members of the public and external stakeholders.

MINIMUM EXPERIENCE AND TRAINING:

- Minimum of three (3) years' experience in the area of ICT, including at least two (2) years' experience in securing ICT systems.
- Training as evidenced by the possession of a recognised Bachelor's Degree in Computer Science, Computer Information Systems, Information Systems Management, Computer Engineering or a related area.
- Certification in information technology security management, such as the CCNA Security or Certified Information Systems Security Professional (CISSP).

Government of Trinidad and Tobago

JOB DESCRIPTION
CONTRACTUAL POSITION

JOB TITLE: INFORMATION TECHNOLOGY (IT) INFRASTRUCTURE SPECIALIST

JOB SUMMARY:

The incumbent is required to provide technical services in the management, operations and maintenance of the computer centre hardware, software, systems and related infrastructure of a l Ministry/Department. Duties include: provision of assistance with the operations and support of computer hardware, operating system software and related support applications; support for email, domain management, and related systems; provision of support and maintenance for PCs, laptops and related equipment; and supervision of other ICT technical and support staff.

REPORTS TO:	Senior IT Specialist/Senior IT Infrastructure Specialist or designated officer
SUPERVISION GIVEN TO:	Technical and Support Staff

DUTIES AND RESPONSIBILITIES:

- Installs, tests, corrects, commissions/decommissions IT infrastructure in accordance with defined procedures and instructions, and maintains accurate service and support records.
- Applies and maintains specific security controls to the IT infrastructure, as defined by the policy and standards of the Ministry/Department, to enhance resilience to unauthorised access.
- Investigates minor security breaches within the IT infrastructure in accordance with established procedures, takes necessary corrective action, and maintains relevant security records and documentation.
- Utilises systems management software and tools to collect performance statistics and to carry out agreed system software maintenance tasks.
- Reviews and monitors service level delivery metrics and liaises with supervisors to ensure that service level agreements for the IT infrastructure are adhered to.
- Carries out agreed operational procedures, and maintenance and installation work, on the IT infrastructure of the Ministry/Department.
- Receives and handles service desk and incident management requests for IT infrastructure support following agreed procedures, and maintains relevant records.
- Contributes to the project management of defined IT infrastructure projects by undertaking activities such as the identification and mitigation of project risk, ensuring quality in project delivery and managing assigned resources.
- Assists with the performance of regular backups and restores and tracks offsite storage, in accordance with agreed operational procedures.
- Assists with the investigation and resolution of problems with IT infrastructure and services and assists with the implementation of preventative measures to address future issues.
- Delivers learning activities, such as training, to a variety of audiences in areas of technical specialisation and for assigned projects.
- Keeps abreast of developments in the area of IT infrastructure and utilises this knowledge in performing job duties.
- Performs other related duties as assigned

KNOWLEDGE, SKILLS AND ABILITIES

KNOWLEDGE:	• Knowledge of defined components of IT infrastructure.

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	▪ Knowledge of project management tools and techniques. ▪ Some knowledge of the tools and techniques required for the management and control of ICT within an organisation.
SKILLS AND ABILITIES:	▪ Ability to supervise technical and support staff. ▪ Ability to think creatively and to implement technology solutions. ▪ Ability to manage IT infrastructure projects. ▪ Ability to communicate effectively both orally and in writing. ▪ Ability to promote teamwork and manage conflict. ▪ Ability to establish and maintain effective working relationships with colleagues. ▪ Ability to interact positively with members of the public and external stakeholders.

MINIMUM EXPERIENCE AND TRAINING:

▪ Minimum of three (3) years' experience in the area of ICT, including at least eighteen (18) months' experience in the operation and maintenance of ICT systems.
▪ Training as evidenced by the possession of a recognised Bachelor's Degree in Computer Science, Computer Information Systems, Information Systems Management, Computer Engineering or a related area.

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JOB DESCRIPTION
CONTRACTUAL POSITION

JOB TITLE: WEB CONTENT SPECIALIST

JOB SUMMARY:

The incumbent is required to enable, manage and support the on-line communications processes of the Ministry/Department through the content on its website and intranet. Duties include: identifying and obtaining appropriate content through effective stakeholder engagement; standardising and organising the content using appropriate multimedia tools and techniques; presenting the content on the website and intranet of the Ministry/Department using content management systems; securing, managing, supporting and updating the content and providing training to key stakeholders on content presentation and management.

REPORTS TO:	Senior Information Systems Support Specialist or designated officer
SUPERVISION GIVEN TO:	Technical and Support staff

DUTIES AND RESPONSIBILITIES:

- Defines, manages and updates the content management processes and interfaces of the website and intranet of the Ministry/Department to meet the information needs of the public, employees and other stakeholders.
- Identifies the information content required by the Ministry/Department and its stakeholders; and plans, designs, authors and produces the required content, in form and appearance, to satisfy these needs.
- Develops and implements appropriate data structuring and handling procedures to ensure the accessibility, retrievability and security of data on the website and intranet of the Ministry/Department, in order to meet the specific needs of internal and external stakeholders.
- Advises, guides and provides support to the content providers of website and intranet of the Ministry/Department.
- Acts as the point of contact for all website and intranet content related issues with all stakeholders and assists with the resolution of problems or issues identified.
- Supports the project management activities involved in the development, maintenance and growth of the website and intranet of the Ministry/Department; and utilises agreed project controls in relation to content preparation and presentation.
- Monitors the service delivery metrics of the content of the website and intranet of the Ministry/Department and liaises with users to resolve content-related performance issues.
- Assists with the development and maintenance of appropriate quality standards and leading practices in the preparation and presentation of the information content of the Ministry/Department.
- Keeps abreast of developments in specific technical specialisations in the preparation and presentation of internet content including content management systems; multimedia (including text, graphics, pictures and video) design and organisation tools; applicable web and content standards; and utilises this knowledge in performing job duties as required.
- Performs other related duties as required.

KNOWLEDGE, SKILLS AND ABILITIES

KNOWLEDGE:	- Considerable knowledge of web content identification, collection, standardisation, organisation, presentation, security and management using content management systems and associated tools.

	- Knowledge of the management of the content on websites and intranets within an organisation. - Knowledge of project management tools and techniques.
SKILLS AND ABILITIES:	- Ability to think creatively and to organise web content creatively and effectively. - Ability to communicate effectively orally, via visual content, and in writing. - Ability to supervise technical and support staff. - Ability to promote teamwork and manage conflict. - Ability to establish and maintain effective working relationships with colleagues. - Ability to interact positively with members of the public and external stakeholders.

MINIMUM EXPERIENCE AND TRAINING:

- Minimum of three (3) years' experience in an area of ICT, including at least two (2) years' experience in the creation, management and support of website and intranet content.
- Training as evidenced by the possession of a recognised Bachelor's Degree in Computer Information Systems, Information Systems Management, Marketing, Communications, Information Management or a related area.
- Certification in web content administration, such as the CIW Web Foundations Associate, CIW Web Design, Microsoft Certified Technology Specialist (MCTS) etc.

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JOB DESCRIPTION
CONTRACTUAL POSITION

JOB TITLE: INFORMATION SYSTEMS SUPPORT SPECIALIST

JOB SUMMARY:

The incumbent is required to provide maintenance and support services for information systems software of the Ministry/Department. Duties include: ensuring the security of the application data; supporting and maintaining the software applications; assisting with the enhancement of these software applications; providing training to key stakeholders on these systems; and supervising Technical and Support Staff as required. Depending on work assignment, the incumbent will be required to perform these duties in a specified category of software application solutions, such as: a) the business information systems of the Ministry/Department; b) the Ministry/Department-specific information systems; c) any defined combination of business and Ministry/Department-specific information systems.

REPORTS TO:	Senior Information Systems Support Specialist or designated officer
SUPERVISION GIVEN TO:	Technical and Support Staff

DUTIES AND RESPONSIBILITIES:

- Assists with the development of software tests, and with the execution of the system and acceptance testing of modified or enhanced information systems, particularly for those areas of technical specialisation.
- Determines the information systems requirements from management and stakeholders of the Ministry/Department and confirms their alignment with defined business objectives; and specifies, documents and prioritises these requirements in accordance with defined standards and practices
- Assesses, analyses, develops, documents and implements changes to the Ministry/Department-specific applications in accordance with defined change control procedures.
- Investigates and resolves related security incidents according to defined procedures and maintains the specified security controls required to maintain confidentiality, integrity and availability of the information systems of the Ministry/Department.
- Investigates operational support requirements and problems, and identifies opportunities for improvements in the Ministry/Department-specific business functions and processes; and assists users in defining acceptance tests.
- Assists with the support and maintenance of information systems, including the identification and mitigation of project risk, and the monitoring of projects.
- Investigates problems with the application software; and assists with the implementation of agreed solutions and preventative measures.
- Maintains software application support processes, and oversees support requests to ensure that all support requests are addressed in accordance with agreed procedures.
- Delivers learning activities, such as training, on the information systems of the Ministry/Department to a variety of audiences.
- Keeps abreast of specific technical specialisations in the software operations, maintenance and support area; and utilises this knowledge in performing job duties.
- Performs other related duties as assigned.

KNOWLEDGE, SKILLS AND ABILITIES

KNOWLEDGE:	- Knowledge of software maintenance and enhancement processes and procedures. - Knowledge of project management tools and techniques. - Some knowledge of the principles, tools and techniques required for the management and control of ICT within an organisation.
SKILLS AND ABILITIES:	- Ability to supervise technical and support staff. - Ability to think creatively and to enhance and maintain application software solutions. - Ability to communicate effectively both orally and in writing. - Ability to promote teamwork and manage conflict. - Ability to establish and maintain effective working relationships with colleagues. - Ability to interact positively with members of the public and external stakeholders.

MINIMUM EXPERIENCE AND TRAINING:

- Minimum of three (3) years' experience in an area of ICT, including at least eighteen (18) months' experience in the maintenance, support and enhancement of software applications.

- Training as evidenced by the possession of a recognised Bachelor's Degree in Computer Science, Computer Information Systems, Information Systems Management, Computer Engineering or a related area.

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JOB DESCRIPTION
CONTRACTUAL POSITION

JOB TITLE: DATABASE SPECIALIST

JOB SUMMARY:

The incumbent is required to provide general database management, maintenance and support services for the database systems of the Ministry/Department. Duties include: assisting with the monitoring and management of the security, integrity and availability of the databases of the Ministry/Department; supporting the design and development of databases; and maintaining and enhancing the database solutions of the Ministry/Department; and supervising Technical and Support Staff as required.

REPORTS TO:	Senior Database Specialist or Senior Information Systems Specialist or designated officer
SUPERVISION GIVEN TO:	Technical and Support Staff

DUTIES AND RESPONSIBILITIES:

- Designs, develops, tests, corrects, documents and maintains database management systems using agreed standards, methods and tools.
- Applies and maintains specified security controls as required to maintain confidentiality, integrity and availability of the database management systems of the Ministry/Department; and investigates and remedies related security incidents according to defined procedures.
- Applies appropriate analytical techniques to the databases of the Ministry/Department to support the reporting and operational information needs of all users.
- Keeps abreast of database concepts, object and data modelling techniques and design principles, and database architectures.
- Installs and commissions selected database products.
- Assists with the development and implementation of database management systems, including the identification and mitigation of project risk, and the monitoring projects.
- Assists with the development of software tests and with the execution of the system and acceptance testing of new or modified database management systems, particularly for those areas of technical specialisation.
- Carries out routine configuration, installation and reconfiguration of database management systems and products, and agreed database maintenance and administration tasks.
- Undertakes specific areas of database release and deployment activities and documents technical activities.
- Keeps abreast of developments in technical specialisations in the database operations and management areas; and utilises this knowledge in performing job duties.
- Performs other related duties as assigned.

KNOWLEDGE, SKILLS AND ABILITIES

KNOWLEDGE:	- Knowledge of database development and maintenance methodologies. - Knowledge of project management tools and techniques. - Some knowledge of the principles, tools and techniques required for the management and control of ICT within an organisation.

SKILLS AND ABILITIES:	- Ability to supervise technical and support staff. - Ability to think creatively and to implement database solutions. - Ability to communicate effectively both orally and in writing. - Ability to operate as part of a team. - Ability to establish and maintain effective working relationships with colleagues. - Ability to interact positively with members of the public and external stakeholders.

MINIMUM EXPERIENCE AND TRAINING:

- Minimum of three (3) years' experience in the area of ICT, including at least eighteen (18) months' experience in the design, operation and maintenance of database management systems.

- Training as evidenced by the possession of a recognised Bachelor's Degree in Computer Science, Computer Information Systems, Information Systems Management, Computer Engineering or a related area.

- Relevant certification in database management such as the IBM Certified Database Associate, Oracle Database 12c Administrator Certified Associate etc.

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JOB DESCRIPTION
CONTRACTUAL POSITION

JOB TITLE: INFORMATION SYSTEMS SPECIALIST

JOB SUMMARY:

The incumbent is required to provide technical services for software application systems of the Ministry/Department. Duties include: analysis of operational data to meet the information needs of stakeholders; assisting with the selection, design, programming and testing of software applications; supporting the enhancement of software applications; providing training to key stakeholders on specified information systems; and supervision of Technical and Support Staff as required. Depending on work assignment, the incumbent will be required to perform these duties in a specified category of software application solutions, such as: a) the business information systems of the Ministry/Department such as finance, payroll and human resource management; b) the Ministry/Department-specific information systems; c) any defined combination of business and Ministry/Department-specific information systems.

REPORTS TO:	Senior Information Systems Specialist or designated officer
SUPERVISION GIVEN TO:	Technical and Support Staff

DUTIES AND RESPONSIBILITIES:

- Develops, documents and implements changes to the operational systems based on requests for change, in accordance with change control procedures.
- Investigates operational requirements and problems and identifies opportunities for improvements in the business functions and processes of the Ministry/Department.
- Assists with the design of the information systems of the Ministry/Department, and documents the required outputs of the software using defined standards, methods and tools.
- Determines information systems requirements from users, management and stakeholders of the Ministry/Department and confirms their alignment with defined business objectives; and specifies, documents and prioritises these requirements in accordance with defined standards and practices.
- Investigates and resolves related security incidents according to defined procedures and applies and maintains specified security controls as required to maintain confidentiality, integrity and availability of the software applications of the Ministry/Department
- Analyses application data to support the reporting and operational information needs of users and other stakeholders in the Ministry/Department.
- Assists with project managing the selection, development and implementation of information systems, by undertaking activities such as the identification and mitigation of project risk, and the monitoring of costs, timescale, and resources utilised.
- Assists with the development of software tests, and with the execution of the system and acceptance testing of new or modified information systems, particularly for those areas of technical specialisation.
- Contributes to the implementation of application software releases, particularly for areas of technical specialisation, by undertaking activities such as stakeholder coordination and activity documentation.
- Identifies and resolves issues with software applications using agreed processes and procedures; supports scheduled software maintenance tasks and assists with the implementation of accepted solutions and preventative measures.
- Delivers learning activities, such as training, on the software applications of the Ministry/Department to a variety of users and audiences.
- Keeps abreast of technical specialisations in software application selection and development, and relevant

	operational software products; and utilises this knowledge in performing job duties.
▪	Performs other related duties as assigned.

KNOWLEDGE, SKILLS AND ABILITIES

KNOWLEDGE:	▪ Knowledge of software development tools, processes and techniques. ▪ Knowledge of project management tools and techniques. ▪ Some knowledge of the principles, tools and techniques required for the management and control of ICT within an organisation.
SKILLS AND ABILITIES:	▪ Ability to supervise technical and support staff. ▪ Ability to think creatively and to implement software application solutions. ▪ Ability to communicate effectively both orally and in writing. ▪ Ability to operate as part of a team. ▪ Ability to establish and maintain effective working relationships with colleagues and internal stakeholders. ▪ Ability to interact positively with members of the public and external stakeholders.

MINIMUM EXPERIENCE AND TRAINING:

▪ Minimum of three (3) years' experience in an area of ICT, including at least eighteen (18) months' experience in the design and development of application software. ▪ Training as evidenced by the possession of a recognised Bachelor's Degree in Computer Science, Computer Information Systems, Information Systems Management, Computer Engineering or a related area.

Government of Trinidad and Tobago

JOB DESCRIPTION
CONTRACTUAL POSITION

JOB TITLE: INFORMATION TECHNOLOGY (IT) ANALYST/PROGRAMMER

JOB SUMMARY:

The incumbent is required to provide general business analysis and programming support services to the Ministry/Department. Duties include: analysis of the required data to meet the information needs of stakeholders; assisting with the analysis and design of all software applications; providing programming support for the development of software applications; and supporting the maintenance of all software applications; and supervision of Technical and Support Staff as required.

REPORTS TO:	Senior Information Systems Specialist or designated officer
SUPERVISION GIVEN TO:	Technical and Support Staff

DUTIES AND RESPONSIBILITIES:

- Supports the development and implementation of software applications of the Ministry/Department, in particular the analysis and development process and the monitoring of projects.
- Investigates operational requirements and problems, and identifies opportunities for improvements in the functions and processes of the Ministry/Department; and assists users in defining acceptance tests.
- Obtains requirements from key stakeholders of the Ministry/Department, and confirms alignment with defined business objectives; and documents and prioritises these requirements in accordance with defined standards and practices.
- Reviews requirements and specification; develops software tests, including test cases and test scripts; and assists with the execution of the complete testing of new or modified information systems, for all areas of the Ministry/Department.
- Assists with the design of information systems of the Ministry/Department, and documents all outputs using defined standards, methods and tools.
- Assists with the development, programming, testing, and correction of the software applications of the Ministry/Department using agreed standards and tools.
- Assists with the implementation of software releases, including stakeholder coordination and activity documentation, for all application software.
- Identifies and resolves issues with software applications, in accordance with agreed procedures and carries out agreed applications maintenance tasks.
- Analyses electronic data to support the reporting and operational information needs of the users in the Ministry/Department.
- Performs other related duties as assigned.

KNOWLEDGE, SKILLS AND ABILITIES

KNOWLEDGE:	- Knowledge of software development and maintenance processes. - Knowledge of project management tools and techniques. - Some knowledge of the principles, tools and techniques required for the management and control of ICT within an organisation.

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SKILLS AND ABILITIES:	▪ Ability to think creatively and to develop and maintain software applications. ▪ Ability to communicate effectively both orally and in writing. ▪ Ability to operate as part of a team. ▪ Ability to establish and maintain effective working relationships with colleagues. ▪ Ability to interact positively with members of the public and external stakeholders.

MINIMUM EXPERIENCE AND TRAINING:

▪ Minimum of three (3) years' experience in an area of ICT, including at least eighteen (18) months' experience in the analysis, programming, development and maintenance of software applications.

▪ Training as evidenced by the possession of a recognised Bachelor's Degree in Computer Science, Computer Information Systems, Information Systems Management, Computer Engineering or a related area.

Government of Trinidad and Tobago

JOB DESCRIPTION
CONTRACTUAL POSITION

JOB TITLE: WEB TECHNOLOGY SPECIALIST

JOB SUMMARY:

The incumbent is required to design, develop, implement, manage, maintain and provide support services under appropriate direction and guidance for the internet technology based applications of the Ministry/Department. Duties include: providing key services related to the website and intranet solutions of the Ministry/Department such as - assisting with the development of enabling policy and standards; assisting with needs assessment, and the design and development of the solutions; providing technical services in the coding and testing of these applications; monitoring, and providing assistance with the management of, the security, integrity and availability of the applications; promoting, maintaining and enhancing the solutions; assisting with related training and documentation; and supervising support staff as required.

REPORTS TO:	Senior Information Systems Specialist or designated officer
SUPERVISION GIVEN TO:	Technical and Support staff

DUTIES AND RESPONSIBILITIES:

- Assists with the design of web-based applications of the Ministry/Department, by, for example, configuring packaged applications, and documents such designs in accordance with defined standards, methods and tools.
- Develops, interfaces, tests, corrects, and documents web-based applications including the website as part of the Ministry's overall application development, configuration and maintenance process in accordance with agreed standards and specifications.
- Assists with the development and execution of software tests, including user acceptance testing, for all new or updated web applications.
- Commissions and decommissions internet-based applications in accordance with the defined procedures and instructions of the Ministry/Department or accepted leading practice, and maintains the related service and support records.
- Monitors the performance of the website and intranet applications of the Ministry/Department, and resolves any technical and performance issues identified using standard processes and procedures, and performs assigned software maintenance and performance improvement tasks.
- Monitors the levels of service delivered by the website and intranet solutions of the Ministry/Department against documented service level agreements or other approved standards of the Ministry/Department, diagnoses identified service delivery problems, and initiates action to maintain and improve the current levels of service.
- Assists with the project management of assigned internet technology projects, by identifying and mitigating project risk, ensuring quality in project delivery, and managing any assigned resources.
- Delivers learning activities, including end-user training, to a variety of audiences in areas of technical specialisation and for any assigned projects.
- Keeps abreast of developments in specific technical specialisations in internet technology based applications including website and intranet technologies; programming procedure and languages; web design, authoring, development, administration and security tools; and utilises this knowledge in performing job duties as required.
- Keeps abreast of opportunities provided by new and emerging internet technology-based, tools and

techniques and advises on their relevance and potential value to the Ministry/Department.
- Performs other related duties as required.

KNOWLEDGE, SKILLS AND ABILITIES

KNOWLEDGE:	- Considerable knowledge of web technology including websites and intranets, web authoring languages and tools, web design and architecture, and web development and implementation. - Knowledge of the management and operation of websites and intranets within an organisation. - Knowledge of project management tools and techniques - Some knowledge of relevant web technology solutions e.g. SharePoint, WebSphere.
SKILLS AND ABILITIES:	- Ability to think creatively and to implement website and intranet solutions. - Ability to supervise technical and support staff. - Ability to communicate effectively both orally and in writing. - Ability to operate as part of a team. - Ability to establish and maintain effective working relationships with colleagues. - Ability to interact positively with members of the public and external stakeholders.

MINIMUM EXPERIENCE AND TRAINING:

- Minimum of three (3) years' experience in an area of ICT including at least two (2) years' experience in the development, operations and maintenance of web-based systems.
- Training as evidenced by the possession of a recognised Bachelor's Degree in Computer Science, Computer Information Systems, Information Systems Management, Computer Engineering or a related area.
- Certification in web technology management, such as Microsoft Certified Technology Specialist (MCTS) or CIW Web Design Professional.

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JOB DESCRIPTION
CONTRACTUAL POSITION

JOB TITLE: INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) SUPPORT OFFICER

JOB SUMMARY:

The incumbent is required to provide operational support functions for the ICT infrastructure of a Ministry/Department/Division under the guidance and direction of supervisors. Duties include: assisting with software development and testing under supervision; performing defined operational procedures including documentation on the ICT systems; resolving defined requests for support and routine incidents; and monitoring levels of service provided.

REPORTS TO:	Information Systems Support Specialist or designated officer
SUPERVISION GIVEN TO:	N/A

DUTIES AND RESPONSIBILITIES:

- Designs, codes, tests, corrects and documents simple programs and assists with the implementation and testing of software under the supervision and guidance of professional staff.
- Supports the information content and publication development process, including creating draft documentation and illustrations, printing and publishing, and creating sections of technical and operational documentation.
- Interprets, executes and records test cases in accordance with project test plans and under the supervision of professional staff.
- Monitors and logs the actual service provided to users against that required by service level agreements.
- Carries out agreed operational procedures of a routine nature; and contributes to maintenance, installation and problem resolution.
- Receives and handles requests for support following agreed procedures; and responds to requests for support by providing information to enable incident resolution and allocates unresolved calls as appropriate; and maintains relevant records.
- Performs other related duties as assigned.

KNOWLEDGE, SKILLS AND ABILITIES

KNOWLEDGE:	- Knowledge of computer operations functions. - Some knowledge of the tools and techniques required for the management and control of ICT within an organisation. - Some knowledge of project management tools and techniques.
SKILLS AND ABILITIES:	- Ability to communicate effectively both orally and in writing. - Ability to operate as part of a team. - Ability to establish and maintain effective working relationships with colleagues. - Ability to interact with members of the public and external stakeholders.

MINIMUM EXPERIENCE AND TRAINING:

- Minimum of three (3) years of relevant technical experience.
- Training as evidenced by the possession of a recognised Associate Degree or Diploma in Computer Science, Computer Information Systems, Information Systems Management, Computer Engineering or a related area.

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Government of Trinidad and Tobago

JOB DESCRIPTION
CONTRACTUAL POSITION

JOB TITLE: INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) TECHNICAL OFFICER

JOB SUMMARY:

The incumbent is required to provide technical support in the operations and maintenance of the ICT infrastructure of the Ministry/Department under the guidance and direction of a supervisor. Duties include: installation and support of personal computers and related software; monitoring the operations of the Ministry/Department's IT and networking infrastructure; assisting with the installation of computer and networking infrastructure; and responding to and addressing IT incident reports and requests for help.

REPORTS TO:	Designated Specialist
SUPERVISION GIVEN TO:	N/A

DUTIES AND RESPONSIBILITIES:

- Installs or removes hardware and/or software, using defined installation instructions and tools; tests and corrects malfunctions, and documents results in accordance with procedure; provides assistance to users in accordance with agreed procedures; and updates related maintenance and configuration records.
- Treats with security breaches of or security attacks on IT system/network/personal computer to limit damage in accordance with the Ministry/Department's security policy; and applies defined security controls to personal computers and related components
- Monitors and logs the actual ICT services provided to users, against that required by service level agreements, and liaises with supervisors in the resolution of any breaches.
- Assists professional staff with the release and deployment of changes and updates to the live IT environment, records activities and results; and assists with early support activities such as providing support advice to users.
- Investigates and acts on minor security breaches with the IT infrastructure, takes defined corrective action, and updates relevant security records and documentation in accordance with established procedures.
- Receives and handles service desk and incident management requests for IT and networking infrastructure support following agreed procedures, and maintains relevant records.
- Carries out agreed operational procedures of a routine nature; and contributes to maintenance, installation and problem resolution for the IT and networking infrastructure of the organisation.
- Assists with the performance of regular backups and restores, and tracks offsite storage, according to agreed operational procedures.
- Performs other related duties as assigned.

KNOWLEDGE, SKILLS AND ABILITIES

KNOWLEDGE:	- Knowledge of defined components of IT and networking infrastructure. - Some knowledge of the principles, tools and techniques required for the management and control of ICT within a government based or business organisation. - Some knowledge of project management tools and techniques.

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SKILLS AND ABILITIES:	- Ability to install/remove hardware and software. - Ability to recognise and correct IT security breaches. - Ability to communicate effectively both orally and in writing. - Ability to operate as part of a team. - Ability to establish and maintain effective working relationships with colleagues. - Ability to interact positively with members of the public and external stakeholders.

MINIMUM EXPERIENCE AND TRAINING:

- Minimum of three (3) years' relevant technical experience.

- Training as evidenced by the possession of a recognised Associate Degree or Diploma in Computer Science, Computer Information Systems, Information Systems Management, Computer Engineering or a related area.

SALARIES AND OTHER TERMS AND CONDITIONS, WHERE APPLICABLE, FOR APPROVED POSITIONS IN THE INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) CATEGORY

REVISED SALARIES AND OTHER TERMS AND CONDITIONS FOR APPROVED POSITIONS IN THE INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) CATEGORY

Name of Position	Salary		Allowances
	November 1, 2015 to December 31, 2016	January 1, 2017 to December 31, 2017	Transport Allowance (per month)
*Information and Communications Technology (ICT) Director	$27,500	$28,900	$2,200
Information and Communications Technology (ICT) Manager	$20,600	$21,600	$2,200
Manager, Solutions Development and Implementation	$20,600	$21,600	$2,200
Manager, Service Delivery and Support	$20,600	$21,600	$2,200
Manager, Network and Infrastructure	$20,600	$21,600	$2,200
Senior Information Technology (IT) Specialist	$16,700	$17,500	$1,800
Senior Information Technology (IT) Infrastructure Specialist	$16,700	$17,500	$1,800

* Motor Vehicle Loan of $140,000 is applicable to the position of
   Information Communications Technology (ICT) Director

REVISED SALARIES AND OTHER TERMS AND CONDITIONS FOR APPROVED POSITIONS IN THE INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) CATEGORY

Name of Position	Salary		Allowances
	November 1, 2015 to December 31, 2016	January 1, 2017 to December 31, 2017	Transport Allowance (per month)
Senior Network Specialist	$16,700	$17,500	$1,800
Senior Information Systems Support Specialist	$16,700	$17,500	$1,800
Senior Database Specialist	$16,700	$17,500	$1,800
Senior Information Systems Specialist	$16,700	$17,500	$1,800
*Information and Communications Technology (ICT) Security Specialist	$15,900	$16,700	$1,800
Web Content Specialist	$13,500	$14,200	N/A
Web Technology Specialist	$13,500	$14,200	N/A

* Motor Vehicle Loan of $140,000 is applicable to the position of
  Information Communications Technology (ICT) Director

REVISED SALARIES AND OTHER TERMS AND CONDITIONS FOR APPROVED POSITIONS IN THE INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) CATEGORY

Name of Position	Salary		Allowances
	November 1, 2015 to December 31, 2016	January 1, 2017 to December 31, 2017	Transport Allowance (per month)
Network Specialist	$12,800	$13,400	$1,200
Information Technology (IT) Infrastructure Specialist	$12,800	$13,400	$1,200
Information Systems Support Specialist	$12,800	$13,400	$1,200
Database Specialist	$12,800	$13,400	$1,200
Information Systems Specialist	$12,800	$13,400	$1,200
Information Technolgy (IT) Analyst/Programmer	$12,800	$13,400	$1,200

* Motor Vehicle Loan of $140,000 is applicable to the position of
Information Communications Technology (ICT) Director

REVISED SALARIES AND OTHER TERMS AND CONDITIONS FOR APPROVED POSITIONS IN THE INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) CATEGORY

Name of Position	Salary		Allowances
	November 1, 2015 to December 31, 2016	January 1, 2017 to December 31, 2017	Transport Allowance (per month)
Information and Communications Technology (ICT) Support Officer *with less than 3 years service*	**$8,100**	**$8,500**	**$1,200**
Information and Communications Technology (ICT) Support Officer *with 3 years and more but less than 6 years service*	**$8,900**	**$9,300**	**$1,200**
Information and Communications Technology (ICT) Support Officer *with 6 years and more service*	**$9,800**	**$10,300**	**$1,200**
Information and Communications Technology (ICT) Technical Officer *with less than 3 years service*	**$8,100**	**$8,500**	**$1,200**
Information and Communications Technology (ICT) Technical Officer *with 3 years and more but less than 6 years service*	**$8,900**	**$9,300**	**$1,200**
Information and Communications Technology (ICT) Technical Officer *with 6 years and more service*	**$9,800**	**$10,300**	**$1,200**

* Motor Vehicle Loan of $140,000 is applicable to the position of
  Information Communications Technology (ICT) Director