**Position:** Junior Test Engineer/Test Engineer/ Senior Test Engineer

**Location:** National Office

**Children’s Worker:** No

**Business Unit:** Information Technology

**Group:** Corporate Solutions

**Reporting to:** Resource and Capability Manager

**Issue Date:** May 2018

**Delegated Authority:** No

**Staff Responsibility:** No

**Our Role**

The Ministry of Social Development (MSD) is the lead agency for the social sector. We help the Government to set priorities across the sector, co-ordinate the actions of other social sector agencies and track changes in the social wellbeing of New Zealanders.

The Ministry provides policy advice, and delivers social services and assistance to young people, working age people, older people, and families, whānau and communities. We work directly with New Zealanders of all ages to improve their social wellbeing.

We serve over a million people, working out of more than 160 centres around the country. It is likely that every New Zealander will come into contact with the Ministry at some point in their life.

Our work, together with our social sector partners, is essential to achieving a sustainable and prosperous future, where all New Zealanders are able to take responsibility for themselves, be successful in their lives and participate in their communities.

**Our Purpose**

We help New Zealanders to help themselves to be safe, strong and independent.

Ko ta mātou he whakamana tangata kia tū haumaru, kia tū kaha, kia tū motuhake.

**Our Principles**

MSD people: All own what we all do | Take responsibility for what we do | Understand our role in the big picture, who can help us and who we can help | Navigate through ambiguity and the opportunity it brings to create better ways of doing things | Act with integrity, courage and transparency | Celebrate our achievements and those of our clients.

**Position Description Approved By:**

Deputy Chief Executive, Corporate Solutions

**Group:**

The Corporate Solutions group consists of functions in the areas of human resources, finance, information technology, property and facilities, health, safety and security, legal advice, information security, privacy, risk management and assurance. The group also accredits social service providers and resolves historical claims.

The group provide advice and services to MSD, Oranga Tamariki and the Social Investment Agency.

**Business Unit:**

MSD uses a variety of channels to provide services to the public and to frontline staff, including physical sites, contact centres, and limited services using the Internet. It is envisioned that Internet-based services will expand rapidly in the near future.

MSD staff use a large number of IT applications. Many are business critical systems.

The IT Unit’s contribution is through:

* Leadership in the development and delivery of business application solutions.
* The provision of robust and reliable systems to support the business and external clients.
* Total focus on serving internal customers.

**Purpose of the Position:**

Junior Test Engineers plan, develop, execute, and report on testing as directed. This is a technical position that utilises best-of-breed test tools and industry-standard test practices:

* Performance testing software
* Automated testing software
* Test management software

Test Engineers plan, develop, execute, and report on testing as directed for applications assigned to them to varying degrees depending on the experience of the Test Engineer.

**Working Relationships**

* Other Junior, Test and Senior Test Engineers and members of the test team
* Other IT MSD staff
* Other Ministry staff

**External:**

* Application Software Vendors

**Key Accountabilities:**

This position description contains information from the Skills Framework for the Information Age with the permission of the SFIA Foundation.

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| SFIA Skills | Descriptor |
| **Testing****TEST****Junior Test Engineer****Level 2****Test Engineer****Level 3****Senior Test Engineer****Level 4** | **Level 2**Defines test conditions for given requirements. Designs test cases and creates test scripts and supporting data, working to the specifications provided. Interprets, executes and records test cases in accordance with project test plans. Analyses and reports test activities and results. Identifies and reports issues and risks.**Level 3**Reviews requirements and specifications, and defines test conditions. Designs test cases and test scripts under own direction, mapping back to pre-determined criteria, recording and reporting outcomes. Analyses and reports test activities and results. Identifies and reports issues and risks associated with own work.**Level 4** Accepts responsibility for creation of test cases using own in-depth technical analysis of both functional and non-functional specifications (such as reliability, efficiency, usability, maintainability and portability). Creates traceability records, from test cases back to requirements. Produces test scripts, materials and regression test packs to test new and amended software or services. Specifies requirements for environment, data, resources and tools. Interprets, executes and documents complex test scripts using agreed methods and standards. Records and analyses actions and results, and maintains a defect register. Reviews test results and modifies tests if necessary. Provides reports on progress, anomalies, risks and issues associated with the overall project. Reports on system quality and collects metrics on test cases. Provides specialist advice to support others. |

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| **Relationship Management****RLMT****Level 4** | Implements stakeholder engagement/ communications plans, including, for example; handling of complaints; problems and issues; managing resolutions; corrective actions and lessons learned; collection and dissemination of relevant information. Uses feedback from customers and stakeholders to help measure effectiveness of stakeholder management. Helps develop and enhance customer and stakeholder relationships. |
| **Business Process Improvement****BPRE****Level 5** | Analyses business processes; identifies alternative solutions, assesses feasibility, and recommends new approaches. Contributes to evaluating the factors which must be addressed in the change programme.Helps establish requirements for the implementation of changes in the business process. |

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| Levels of Responsibility |
| **Autonomy****Junior Test Engineer****Level 2****Test Engineer****Level 3****Senior Test Engineer****Level 4** | Works under routine direction. Uses limited discretion in resolving issues or enquiries. Works without frequent reference to others.Works under general direction. Uses discretion in identifying and responding to complex issues and assignments. Usually receives specific instructions and has work reviewed at frequent milestones. Determines when issues should be escalated to a higher level.Works under general direction within a clear framework of accountability. Exercises substantial personal responsibility and autonomy. Plans own work to meet given objectives and processes. |
| **Influence****Junior Test Engineer****Level 2****Test Engineer****Level 3****Senior Test Engineer****Level 4** | **Level 2**Interacts with and may influence immediate colleagues. May have some external contact with customers, suppliers and partners. May have more influence in own domain.**Level 3**Interacts with and influences colleagues. Has working level contact with customers, suppliers and partners. May supervise others or make decisions which impact the work assigned to individuals or phases of projects.**Level 4**Influences customers, suppliers and partners at account level. May have some responsibility for the work of others and for the allocation of resources. Participates in external activities related to own specialism.Makes decisions which influence the success of projects and team objectives. |

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| **Complexity****Junior Test Engineer****Level****Test Engineer****Level 3****Senior Test Engineer****Level 5** | **Level 2**Performs a range of work activities in varied environments. May contribute to routine issue resolution.**Level 3**Performs a range of work, sometimes complex and non-routine, in a variety of environments. Applies methodical approach to issue definition and resolution.**Level 5**Performs an extensive range and variety of complex technical and/or professional work activities. Undertakes work which requires the application of fundamental principles in a wide and often unpredictable range of contexts. Understands the relationship between own specialism and wider customer/organisational requirements. |
| **Business Skills****Junior Test Engineer****Level 2****Test Engineer****Level 3****Senior Test Engineer****Level 5** | **Level 2**Understands and uses appropriate methods, tools and applications. Demonstrates a rational and organised approach to work. Identifies and negotiates own development opportunities. Has sufficient communication skills for effective dialogue with customers, suppliers and partners. Is able to work in a team. Is able to plan, schedule and monitor own work within short time horizons. Absorbs new information when it is presented systematically and applies it effectively.**Level 3**Demonstrates an analytical and systematic approach to issue resolution. Takes the initiative in identifying and negotiating appropriate personal development opportunities. Demonstrates effective communication skills. Contributes fully to the work of teams. Plans, schedules and monitors own work (and that of others where applicable) competently within limited deadlines and according to relevant legislation, standards and procedures. Appreciates the wider business context, and how own role relates to other roles and to the business of the employer or client.**Level 5**Advises on the available standards, methods, tools and applications relevant to own specialism and can make appropriate choices from alternatives. Analyses, designs, plans, executes and evaluates work to time, cost and quality targets. Assesses and evaluates risk. Communicates effectively, both formally and informally. Demonstrates leadership. Facilitates collaboration between stakeholders who have diverse objectives. Takes all requirements into account when making proposals. Takes initiative to keep skills up to date. Mentors colleagues. Maintains an awareness of developments in the industry. Analyses requirements and advises on scope and options for continuous operational improvement. Demonstrates creativity, innovation and ethical thinking in applying solutions for the benefit of the customer/stakeholder. |
| Technical/Professional Knowledge and Experience**Junior Test Engineers will have:*** An appropriate computer science degree
* Exposure to client/server and database technologies
* Exposure to programming languages
* Understanding and appreciation of the Systems Development Life Cycle, including testing
* Understanding of information analysis methods and modelling techniques

**Test Engineers will also have:*** In depth exposure to various types of testing and can determine when each is suitable for use on various architectures
* Ability to effectively utilise tools for the development and maintenance of test deliverables including automation/scripting tools, defect management systems Extensive knowledge of Defect and Release Management
* Working knowledge of the system development lifecycle principles and methodologies
* Sound practical knowledge of Microsoft Office products

**Senior Test Engineers will also have:*** Demonstrated knowledge and experience with most of the following: Functional Testing, Systems/Integration/Usability/Sociability/End-to-End/Regression Testing, Non-Functional Testing, Performance Testing, Security Testing, Compliance Testing, Sociability Testing, Installation Testing, Fail-Over Testing, and experience with multiple test / development methodologies
* Ability to effectively utilise specialised tools to increase the capabilities of the test team - may include: C, query language.
* Experience in coaching and supervising staff

**Attributes/Success Factors****Junior and Test Engineers will have:*** Excellent communication skills – able to clearly and concisely communicate information (both in oral and written format) appropriate to the target audience.
* Excellent relationship management skills – able to establish, build and maintain effective working relationships.
* Strong analytical skills – seeks information from a variety of sources, identifies possible cause-effect relationships, draws correct conclusions based on sound information.
* Strong problem solving skills – able to clearly identify problems, seek alternative solutions, identify risks and benefits before making decisions, seek input from others.
* Sound interpersonal skills – able to influence others to accept ideas, adapts style to meet the needs of the audience.
* Highly detailed and focussed – able to pick up errors or omissions, keeps track of small details/changes, anticipates consequences of actions.
* Strong planning and organisational skills
* Strong work ethic – shows drive and determination in all situations
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| **Senior Test Engineers will also have:*** Strong leadership skills – able to supervise, lead, mentor and motivate individuals towards goal completion
* Strong people skills – able to mentor, coach and assist in the development of others in relation to both technical and work standards
* Ability to see the ‘big picture’ and understand the strategic context of projects
* Strong project planning skills – able to prioritise work demands, develop schedules, identify risks/opportunities, identify resources required

**Other Requirements****Junior Test Engineers will:*** Willing to travel to fulfil job requirement

**Test and Senior Engineers will also:*** Be willing to work after hours and/or weekends, if required
* Hold a current drivers licence and be prepared to drive Ministry’s vehicles if required
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