

# Lead Test Engineer – Improvement Systems and Technology

## About MSD

### Our purpose

Manaaki tangata, Manaaki whānau

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

### Our commitment to Māori

As a Te Tiriti o Waitangi partner we are committed to supporting and enabling Māori, whānau, hapū, Iwi and communities to realise their own potential and aspirations.

### Our strategic direction

|  |  |  |
| --- | --- | --- |
| Mana manaaki  A positive experience every time | Kotahitanga  Partnering for greater impact | Kia takatū tatou  Supporting long-term social and economic development |

### Our Values

|  |  |  |  |
| --- | --- | --- | --- |
| Manaaki  We care about the wellbeing of people | Whānau  We are inclusive and build belonging | Mahi tahi  We work together, making a difference for communities | Tika me te pono  We do the right thing, with integrity |
|  |  |  |  |

### Working in public service

Ka mahitahi mātou o te ratonga tūmatanui kia hei painga mō ngā tāngata o Aotearoa i āianei, ā, hei ngā rā ki tua hoki. He kawenga tino whaitake tā mātou hei tautoko i te Karauna i runga i āna hononga ki a ngāi Māori i raro i te Tiriti o Waitangi. Ka tautoko mātou i te kāwanatanga manapori. Ka whakakotahingia mātou e te wairua whakarato ki ō mātou hapori, ā, e arahina ana mātou e ngā mātāpono me ngā tikanga matua o te ratonga tūmatanui i roto i ā mātou mahi.

In the public service we work collectively to make a meaningful difference for New Zealanders now and in the future. We have an important role in supporting the Crown in its relationships with Māori under the Treaty of Waitangi.  We support democratic government. We are unified by a spirit of service to our communities and guided by the core principles and values of the public service in our work potential and aspirations.

### The outcomes we want to achieve

* New Zealanders get the support they require
* New Zealanders are resilient and live in inclusive and supportive communities
* New Zealanders participate positively in society and reach their potential

### We carry out a range of responsibilities and functions including

* Employment, income support and superannuation
* Community partnerships, programmes, and campaigns
* Advocacy for seniors, disabled people, and youth
* Public housing assistance and emergency housing
* Resolving claims of abuse and neglect in state care
* Student allowances and loans

### He Whakataukī\*

|  |  |
| --- | --- |
| Unuhia te rito o te harakeke | If you remove the central shoot of the flaxbush |
| Kei hea te kōmako e kō? | Where will the bellbird find rest? |
| Whakatairangitia, rere ki uta, rere ki tai; | Will it fly inland, fly out to sea, or fly aimlessly; |
| Ui mai ki ahau, | If you were to ask me, |
| He aha te mea nui o te ao? | What is the most important thing in the world? |
| Māku e kī atu, | I will tell you, |
| He tangata, he tangata, he tangata\* | It is people, it is people, it is people |

\*We would like to acknowledge Te Rūnanga Nui o Te Aupōuri Trust for their permission to use this whakataukī.

## Position Detail

### Overview of position

Lead Test Engineer takes ownership and responsibility for establishing robust, scalable, efficient and effective test automation approach and framework on a work programme, large project or a delivery platform. Lead Test Engineers are responsible for ensuring the practical applications of organisational test automation policies, methodologies and good practices in their delivery area. In close collaboration with QA Practice Leaders, Senior and Lead actors from other IST practices, vendors and external suppliers, they design, implement and continuously improve test automation processes, frameworks and approaches, ensuring reliability, high coverage and high return of investment of test automation.

Lead Test Analysts coach, mentor and train the members of QA and Software Engineering practices, enabling stable and continuous grow of test automation capability.

#### As a Lead Test Engineer, you will play a crucial role in ensuring that our systems and processes align with our purpose of "Manaaki Tangata, Manaaki Whānau," by contributing to the safety, strength, and independence of New Zealanders.

#### The role is responsible for:

* Owning and leading the implementation of test automation frameworks and approaches for large delivery areas, such as Delivery Platforms or Programmes of work.
* Ensuring testing processes and methodologies in your delivery area sufficiently mitigate risks and meet the audit requirements. Working with the QA Practice Leadership to adjust them as necessary.
* Ensuring adherence to MSD IST processes, methodologies, strategies and documentation standards.
* Establishing metrics and reports necessary to monitor the application and service quality as well as the efficiency and effectiveness of testing efforts.
* Collaborating with Senior and Lead actors from other IST practices ensuring a shared vision, consistent implementation and continuous improvement of the delivery process, quality gates, pipeline stages, and quality of delivery artefacts and documentation.
* Actively participating in and/or facilitating post-mortem reviews for production incidents and defects identified in later stages of SDLC, providing accurate and actionable insights, enabling the implementation of preventive measures and continuous improvement of QA practices.
* Providing strategic guidance and expert advice on the adoption and effective use of methods and tools in your area of responsibility. Collaborating with the IST Practice Leaders on tailoring processes and tools to meet organisational and practice goals.
* Acting as a key influencer, engaging with delivery leadership, business representatives, suppliers, and partners at an account level, making decisions that influence project success, and contributing to cross-functional teams to ensure customer and organizational needs are met.
* Providing coaching and mentoring to other QA practice members and members of other practices.

### Location

National Office, Wellington, or Auckland

### Reports to

Practice Lead

## Key responsibilities

MSD uses the current version of Skills Framework for the Information Age (SFIA) to describe the skills required for roles. Each skill description is made up of an overall definition of the skill and a description of the skill at each of up to seven levels. 

The skill level descriptions provide a detailed definition of what it means to practice the skill at each level of competency. The skill level descriptions are aligned to the seven levels of responsibility that ensure consistency throughout the SFIA framework making it solid and robust across professional disciplines.

#### Required skills

**Functional Testing (TEST) Level 5**

Assessing specified or unspecified functional requirements and characteristics of products, systems and services through investigation and testing

* Leads functional testing efforts across all development stages, ensuring alignment with functional requirements and focusing on risk-based prioritisation.
* Provides authoritative advice on testing methods, tools and frameworks.
* Monitors and improves test coverage, collaborates with teams to address challenges and ensures compliance with standards.
* Leads efforts to improve the efficiency and reliability of functional testing.
* Identifies improvements and contributes to organisational policies, standards and guidelines for functional testing.

**Non-Functional Testing (NFTS) Level 5**

Assessing systems and services to evaluate performance, security, scalability and other non-functional qualities against requirements or expected standards.

* Plans and drives non-functional testing across all stages, ensuring alignment with requirements and prioritising risk-based strategies.
* Provides expert advice on non-functional methods, tools and frameworks.
* Leads the setup and maintenance of advanced test environments.
* Monitors the application of testing standards, ensuring they reflect real-world conditions.
* Troubleshoots and resolves complex issues, working closely with stakeholders.
* Leads efforts to improve the efficiency and reliability of non-functional testing.
* Identifies improvements and contributes to organisational policies, standards and guidelines for non-functional testing.

**Process Testing (PRTS) Level 5**

Assessing documented and undocumented process flows within a product, system or service against business needs through investigation and testing.

* Leads process testing activities across all stages of development, ensuring alignment with business objectives and prioritising key workflows based on risk.
* Ensures test environments are robust and reflective of actual business operations.
* Provides expert advice on process testing, ensuring tests are effective and align with business needs.
* Leads efforts to improve the efficiency and reliability of process testing.
* Identifies gaps and risks and contributes to the development of policies and standards that support comprehensive and risk-based process testing.

**Risk Management (BURM) Level 4**

Planning and implementing processes for managing risk across the enterprise, aligned with organisational strategy and governance frameworks.

* Carries out risk management activities within a specific function, technical area or project of medium complexity.
* Identifies risks and vulnerabilities, assesses their impact and probability, develops mitigation strategies and reports to the business.
* Involves specialists and domain experts as necessary.

**Systems and Software Lifecycle Engineering (SLEN) Level 4**

Establishing and deploying an environment for developing, continually improving and securely operating software and systems products and services.

* Elicits requirements for systems and software lifecycle working practices and automation.
* Prepares design options for the working environment of methods, procedures, techniques, tools and people.
* Selects systems and software lifecycle working practices for software components and micro-services.
* Deploys automation to achieve well-engineered and secure outcomes.

**Programming/Software Development (PROG) Level 4**

Developing software components to deliver value to stakeholders.

* Designs, codes, verifies, tests, documents, amends and refactors complex programs/scripts and integration software services.
* Contributes to the selection of the software development methods, tools, techniques, and security practices.
* Applies agreed standards, tools, and security measures to achieve well-engineered outcomes.
* Participates in reviews of own work and leads reviews of colleagues' work.

**Methods and Tools (METL) Level 4**

Leads the adoption, management and optimisation of methods and tools, ensuring effective use and alignment with organisational objectives.

* Engages with stakeholders to understand requirements and recommends appropriate solutions.
* Provides advice and guidance to support the adoption of methods and tools and adherence to policies and standards.
* Tailors processes to meet specific needs while ensuring they align with established standards and are informed by evaluations of methods and tools.
* Reviews and improves usage and application of methods and tools.

Desirable skills

**Stakeholder Relationship Management (RLMT) Level 4**

Systematically analysing, managing and influencing stakeholder relationships to achieve mutually beneficial outcomes through structured engagement.

* Deals with problems and issues, managing resolutions, corrective actions, lessons learned and the collection and dissemination of relevant information.
* Implements stakeholder engagement/communications plans.
* Collects and uses feedback from customers and stakeholders to help measure the effectiveness of stakeholder management.
* Helps develop and enhance customer and stakeholder relationships.

**Quality Assurance (QUAS) Level 4**

Assuring, through ongoing and periodic assessments and reviews, that the organisation's quality objectives are being met.

* Plans, organises and conducts assessment activity and determines whether appropriate quality control has been applied.
* Conducts formal assessments or reviews for given domain areas, suppliers or parts of the supply chain.
* Collates, collects and examines records, analyses the evidence and drafts all or part of formal compliance reports.
* Determines the risks associated with findings and non-compliance and proposes corrective actions.
* Provides advice and guidance in the use of organisational standards.

**Software Configuration (PORT) Level 4**

Designing and deploying software product configurations into software environments or platforms.

* Designs, verifies, documents, amends and refactors complex software configurations for deployment.
* Contributes to the selection of the software configuration methods, tools and techniques.
* Applies agreed standards and tools, to achieve well-engineered outcomes.
* Participates in reviews of own work and leads reviews of colleagues' work.

### Levels of responsibility

**Autonomy – Level 5**

* Works under broad direction.
* Work is self-initiated, consistent with agreed operational and budgetary requirements for meeting allocated technical and/or group objectives.
* Defines tasks and delegates work to teams and individuals within area of responsibility.

Influence – Level 4

* Influences projects and team objectives.
* Has a tactical level of contact with people outside their team, including internal colleagues and external contacts.

Complexity – Level 5

Performs an extensive range of complex technical and/or professional work activities, requiring the application of fundamental principles in a range of unpredictable contexts.

Business skills – Level 4

* Uses judgment and substantial discretion in identifying and responding to complex issues and assignments related to projects and team objectives. Escalates when scope is impacted.
* Plans, schedules and monitors work to meet given personal and/or team objectives and processes, demonstrating an analytical approach to meet time and quality targets.
* Facilitates collaboration between stakeholders who share common objectives. Engages with and contributes to the work of cross-functional teams to ensure that user/customer needs are being met throughout the deliverable/scope of work.
* Investigates the cause and impact, evaluates options and resolves a broad range of complex issues.
* Encourages and supports team discussions on improvement initiatives. Implements procedural changes within a defined scope of work.
* Applies, facilitates and develops creative thinking concepts and finds alternative ways to approach team outcomes.
* Communicates with both technical and non-technical audiences including team and stakeholders inside and outside the organisation. As required, takes the lead in explaining complex concepts to support decision making. Listens and asks insightful questions to identify different perspectives to clarify and confirm understanding.
* Leads, supports or guides team members. Develops solutions for complex work activities related to assignments. Demonstrates an understanding of risk factors in their work. Contributes specialist expertise to requirements definition in support of proposals.
* Enables others to adapt and change in response to challenges and changes in the work environment.
* Rapidly absorbs and critically assesses new information and applies it effectively. Maintains an understanding of emerging practices and their application and takes responsibility for driving own and team members' development opportunities.
* Maximises the capabilities of applications for their role and evaluates and supports the use of new technologies and digital tools. Selects appropriately from, and assesses the impact of change to applicable standards, methods, tools, applications and processes relevant to own specialism.
* Adapts and applies applicable standards, recognising their importance in achieving team outcomes.

Knowledge – Level 5

* Applies knowledge to interpret complex situations and offer authoritative advice.
* Applies in-depth expertise in specific fields, with a broader understanding across industry/business.

### Embedding Te Ao Māori

* Embedding Te Ao Māori (te reo Māori, tikanga, kawa, Te Tiriti o Waitangi) into the way we do things at MSD.
* Building more experience, knowledge, skills and capabilities to confidently engage with whānau, hapū and iwi.

### Health, Safety and Security

* Understand and implement your Health, Safety and Security (HSS) accountabilities as outlined in the HSS Accountability Framework.
* Ensure you understand, follow and implement all Health, Safety and Security and wellbeing policies and procedures.

### Emergency Management and Business Continuity

* Remain familiar with the relevant provisions of the Emergency Management and Business Continuity Plans that impact your business group/team.
* Participate in periodic training, reviews and tests of the established Business Continuity Plans and operating procedures.

### Know-how

* Relevant tertiary qualification or equivalent professional experience.
* Understanding of the various types of testing and ability to 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.
* Understanding of the various techniques used to analyse, prepare for, and execute tests.
* Sound practical knowledge of Microsoft Office products.
* Extensive knowledge of defect and release management.
* Extensive knowledge of the System Development Life Cycle.
* Ability to coach and supervise the work of other testing colleagues.
* Ability to use specialist testing such as:
* Message layer testing
* Data warehousing
* Data migration testing
* Integration testing

### Key relationships

Internal

* Product Owners
* Delivery Leads
* Developers and Business Analysts
* Other IST and Ministry staff

External

* Third Party Vendors
* Non-government organisations

### Other

Delegations

* Financial – No
* Human Resources – No

Direct reports

* No

Security clearance

* No

Children’s worker

* Not a children’s worker

Travel

* Limited adhoc travel may be required