



New Zealand Intelligence Community
Te Rōpū Pārongo Tārehu o Aotearoa
 nzic.govt.nz



Position Description

GCSB: Technical Analyst

Business unit: Intelligence Directorate
 Exploitation Branch

Position purpose: The role of Technical Analyst is a multi-level position within the Technical Analysis sub family. The job holder will undertake detailed analysis of various types of data and technical information to support intelligence efforts, applying data science, computer science and/or network analysis techniques, as defined in the Analysis Job Family Competency Framework, and as relevant to their team's function.

Job Specific: A Technical Analyst is responsible for the discovery and analysis of communications, behaviours and networks of interest, and the development of tradecraft, tools and analytic techniques to interpret data. The purpose of this analysis is to discover new intelligence leads, opportunities, and enhance coverage and maximise value from available data. A Technical Analyst will regularly extend their expertise into unfamiliar, and technically complex, areas of communications of interest, apply high-end analytic expertise to the development of new tools or techniques for the analysis of communications and data, and educate the broader analytic workforce in the use of those tools and techniques.

Direct reports: Nil

Financial delegation: Nil

Directorate overview: The Intelligence Directorate is responsible, within the provisions of the Intelligence and Security Act, to access, analyse and report intelligence of value in accordance with New Zealand's intelligence priorities.

Business Unit overview:

Core activities of GCSB's Technical Analysis business units are:

- Providing a centre of excellence for data science, network and technical analysis
- Identifying and evaluating potential intelligence opportunities through technical analysis of network data and communications
- Conducting research into and providing advice on networks of intelligence value, communications methods and systems, and developments in the telecommunications environment
- Leading the GCSB response on hard or novel technical and network analysis tasks
- Delivering and introducing network data analysis, analytic tradecraft and data science techniques for the purposes of interpreting data and solving hard intelligence problems;
- Developing solutions to maximise the use of new intelligence and data sources, including policy and training
- Experimenting and exploring new analytic capabilities for the purposes of solving intelligence challenges
- Conducting technical exchanges with other GCSB units and customers on matters relating to telecommunications research and tradecraft
- Working with Capability Directorate and partner agencies to modernise tools, tradecraft and data repositories at GCSB.

Remuneration indicator:

Band F, H, I

Date evaluated:

May 2017

GCSB Mission and Values

Our Mission

Protecting and Enhancing New Zealand's Security and Wellbeing

Our Values

Respect, Commitment, Integrity, Courage

Exploitation Branch Mission

Revealing the unknown, through research and analysis, to enable the production of intelligence

Objectives

The position of Technical Analyst encompasses the following major functions or objectives:

- Technical analysis and technology research
- Tradecraft Advancement and Network Analysis Capability Development
- Cross-unit Engagement and Knowledge Sharing
- Liaison and Collaboration

The requirements in the above objectives are broadly identified below:

Jobholder is accountable for:	Jobholder is successful when:
<p><u>Technical analysis and technology research</u></p> <ul style="list-style-type: none"> ▪ Conducting analysis of communications networks ▪ Conducting technical analysis where data and/or analytical questions are difficult or novel ▪ Conducting research into communications technologies ▪ Conducting research into the current status and trends in the communications environment impacting those projects. ▪ Drawing conclusions from partial, bulk or complex data using technical analysis tools or analysis methods ▪ Providing a highly-skilled surge analysis capability to support GCSB crisis response ▪ Conducting all tasks in accordance with GCSB policy requirements. 	<ul style="list-style-type: none"> ▪ Difficult intelligence problems are solved by using advanced technical analysis techniques using a wide range of data sources ▪ Technologies of interest are understood and documented ▪ Outputs reveal information not otherwise accessible to mission teams or customers ▪ Analysis decisions are supported by comprehensive information. ▪ The analyst has demonstrated consistent adherence to GCSB Legal and Compliance requirements
<p><u>Tradecraft Advancement and Network Analysis Capability Development</u></p> <ul style="list-style-type: none"> ▪ Following standard procedures and existing practices, documenting research and tradecraft in appropriate repositories such that it is accessible to and reusable by future analysts. ▪ Working with relevant stakeholders to acquire data needed to support technical analysis. ▪ Using tools to maximise and enhance the use and utility of the data available. ▪ Contributing ideas to enhancing the utility and functionality of existing tools for analysts across GCSB. ▪ Contributing to the introduction into GCSB service of new technical analytic tools, technologies and tradecraft. ▪ Pursuing self-development in support to assigned tasks; and reflecting acquired 	<ul style="list-style-type: none"> ▪ Research is freely available to the appropriate set of analysts, and reusable for other tasks. ▪ Analytic processes are documented in a way that makes them comprehensible to an outside observer and repeatable by future analysts. ▪ The analyst participates in acquisition of tools and data required to solve current and upcoming problems. ▪ The analyst is able to conduct technical and network analysis using a range of tools and applications ▪ The analyst is proactive in the development of their knowledge and expertise, through the acceptance of guidance from more senior analysts,

knowledge back to the team, through informal training and documentation.

the use of open source information, and internal training opportunities.

- The analyst engages with their team leader and senior analyst(s) to highlight gaps in their expertise which cannot be filled without additional resources.
- The analyst feeds the result of their training back into team knowledge, through the documentation of tradecraft and/or the delivery of informal training.

Cross Unit Engagement and Knowledge Sharing

- Engaging with team leaders and other Intelligence directorate analysts on a regular basis to communicate tradecraft developments, and clarify, amend and refine requirements, such that it meets their needs.
- Ensuring the team has an awareness of relevant general Intelligence Development and communications technology trends likely to impact on analysis.
- Producing formal and informal reporting findings of technical analysis to customers and stakeholders, to ensure they are fully informed of these results in a timely manner.
- Support introduction into service of new capabilities, analytic tools and platforms through training and coaching.
- Engaging with partner teams to elicit feedback and requirements, and discussing them with Technical Leader to ensure appropriate improvements are made to team business processes.
- The analyst acts on a clear and comprehensive understanding of how their work relates to organisational need.
- Tasks undertaken by the analyst are effectively aligned to operational requirements
- Mission teams are informed and engaged in the analytic process, and use outputs to shape intelligence outcomes.
- The results of technical analysis are documented in a compliant manner, which is useful to the intended customer and meets the underlying organisational need.
- Feedback is obtained as to the usefulness of technical analysis tasks.
- The analyst shares knowledge of tools, tradecraft and techniques with Production and other GCSB units.
- Analysis and output exhibits continuous improvement, based on comprehensive customer feedback.

Liaison and Collaboration

- Representing Exploitation Branch in relevant external forums in a mature and professional manner.
- Representing Exploitation Branch in Intelligence Directorate meetings and forums, and reporting relevant information from those meetings back to Exploitation.
- The analyst's representation on external forums is sincere and transparent, and engenders confidence in the organisation and its employees.
- GCSB forums can easily engage with Exploitation Branch, through the representing analyst.

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- Participating in relevant Cryptologic community and New Zealand Government agencies work groups on discovery-related matters, particularly in relation to the development of target analysis tradecraft and shared data repositories and tools.
 - Collaborating with teams, both within GCSB and across the Cryptologic community, on tasks and topics of mutual interest.
 - Relevant information from GCSB forums is reported back to Exploitation in an effective and timely manner.
 - Intelligence Development activities at GCSB are integrated with other areas of work across the Cryptologic community, through the analyst's engagement.
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Precise performance measures for this position will be developed in discussion between the jobholder and manager as part of the performance development and review process. It is also expected that you will undertake other duties that can be reasonably be regarded as relevant to the position, your experience and capability.

Person Specification

This section is designed to capture the expertise required for the position at the fully effective level. (This does not necessarily reflect what expertise the current jobholder has.) This may be a combination of knowledge, experience, key skills, attributes, job specific competencies, qualifications or equivalent level of learning, .

Qualifications

Essential:

- A relevant degree with an analytical or technical focus e.g. Computer Science or Mathematics

Desirable:

- Post-graduate qualification
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Knowledge / Experience

Essential:

- Demonstrated written and oral communications skills.
- The ability to analyse diverse information sets, derived from a range of information sources, to reach sound analytical conclusions.
- The capacity to conduct on the job training in the use of analysis tools and techniques.

Desirable:

- An understanding of the technology underpinning modern telecommunications networks including transmission media and common protocols.
 - Technical understanding of dominant and emerging technologies shaping the commercial communications landscape
 - The ability to conduct analysis of large and diverse datasets using software, and to contribute to the development and introduction into service of new tools.
 - An appreciation of current international political, economic, and security affairs, and a broad
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understanding of New Zealand's role and interests.

Personal Attributes

- The ability to be self-motivated and work as part of a small team in a technical environment;
- Effective oral and written communication skills;
- Results oriented and committed to task;
- Critical and logical thinking, and practical problem solving skills;
- A willingness and ability to learn new and complex skills in a fast changing, technically demanding profession; and
- Effective time management and the ability to prioritise tasks.

Core Competencies

Core competencies are based on and consistent with our values. They describe qualities that are common requirements for all GCSB staff at differing levels in the organisation, irrespective of their specialist skills or the particular requirements of their job. They are complemented by specialist competencies, which (where applicable) are set out in individual performance agreements. All employees are measured against the following core competencies as part of performance development and review:

- Security
- Teamwork and leadership
- Results focus
- Communication and knowledge sharing
- Professionalism
- Innovation
- Customer focus.

Changes to Position Description

Positions in the GCSB may change over time as the organisation develops. Therefore we are committed to maintaining a flexible organisation structure that best enables us to meet changing market and customer needs. Responsibilities for this position may change over time as the job evolves. Such change may be initiated as necessary by the manager of this position. This position description may be reviewed as part of planning for the annual performance cycle.

Health and Safety

GCSB is committed to providing a healthy and safe work environment and management practices for all employees. Employees are expected to share this commitment as outlined in current Health and Safety legislation by taking all practicable steps to ensure:

- a. The employee's safety while at work; and
 - b. That no action or inaction of the employee while at work causes harm to any other person.
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Knowledge Management

Employees are responsible for ensuring that all business records created are accessible and stored in the correct manner according to GCSB record keeping policy, standards, and procedures.

Employee: _____

Date: _____

Manager: _____

Date: _____