Position Description

Position title:	Senior System Engineer
Reports to:	Technical Systems Innovation Manager
Direct reports:	Nil
Date:	July 2020

Organisational Context

Transport Certification Australia is a national organisation that provides assurance services relating to transport technologies and data to enable improved public purpose outcomes from road transport.

Priority outcome areas enabled by TCA services include improved road safety, transport efficiency, freight productivity, asset management and sustainability.

TCA provides four broad categories of service:

- Assurance
    - Certification of service providers, telematics applications and data
    - Type approval of devices and systems, including telematics and on-board mass systems
    - Auditing of service providers, applications, and data
- Administration
    - Administration of the National Telematics Framework, including its rules, specifications, agreements, and digital infrastructure
    - Support for applications, schemes, and other initiatives on behalf of key stakeholders
- Analysis and reporting
    - Standardised and ad-hoc data analysis, reporting and data provision to support compliance, policy, planning, investment, and operational decision making
    - Managing the Telematics Analytics Platform to support user access to data and reporting services
- Advice
    - Provision of authoritative information and advice on current and emerging transport technologies and data, and associated services

TCA promotes a culture of professionalism, innovation, and integrity, with a commitment to accountability, quality, and excellence in the delivery of all TCA programs and services.

We recognise the unique skills and abilities of each individual, who come from a wide range of disciplines and backgrounds. We support our people through ongoing development and learning opportunities and create a supportive team environment for all our staff. We strive to be an employer of choice.

The TCA office is based in Melbourne.

The Role

Purpose of the Role

The Senior System Engineer is a hands-on role that requires a broad technical background to deliver technical support and assistance through the provision of advice relating to the performance of specialised IT systems.

As part of the role, the Senior System Engineer undertakes a range of activities including testing, technical audits, data analysis and reporting. The role includes also IT-related design and validation activities. The role may include both a business as usual and project delivery responsibility.

Major Responsibilities / Accountabilities

- Provide advice on IT and system engineering related matters linked to the activities of the Operations Division

- Conducing specialised IT audits.

- Design and validation of new IT-related and system engineering processes to enhance TCA capabilities in conducting type approvals, audits and re-certification activities.

- Research existing and emerging software technologies to determine capabilities and cost-benefits relationship

- Contribute to the definition of performance-based specifications or functional requirements for new and existing programs and testing methods related to IT functionality

- Development of test protocols for testing IT systems of TCA Service Providers for certification, re-certification and audits

- Design of new software applications that meet performance and budgetary requirements for various parts of the business, development of new technical solutions to assess/support new and existing applications and initiatives.

- Conduct investigations/tests and evaluate results and analyse data

- Document to a high level all activities related to type approval, re-certification and audit

- Ensure product designs submitted for TCA approval comply with TCA functional and technical specifications through the assessment of system architecture and related documents

- Maintain in an operational state (inclusive of security and stability) TCA owned IT infrastructure used for testing and data evaluation

- Liaison with external IT providers and consultants, as required, for successful delivery of IT related assessments

- Exercise diligence when making decisions adhering to the requirements outlined in TCA's Delegations of Authority

- Maintain and adhere to Quality Systems processes and procedures relevant to the role.

- Create thorough documentation records of design specifications and instructional manuals as necessary to enable all staff and end users to interact correctly and effectively with software systems.

Key Stakeholder Interfaces

All TCA Staff.

The Person

Qualifications, Knowledge and Experience

- An Engineering Degree in System Engineering, Software, Computer Sciences, Electronics or equivalent is required

- Qualifications in Cloud Security and Compliance in Cloud.

- Experience with the design or testing of systems based on software / hardware

- Experienced in architecture design or assessment

- Experience with visualisation technologies

- Proven experience in creating quality system documentation

- A sound understanding of IT security principles

- Very good written and oral communication skills are essential

- Experience in the use of data mining software is desirable

- Basic understanding of electronics is desirable.

Personal Qualities

- Problem solving skills

- Good communication and negotiation skills

- Ability to prioritise tasks across multiple streams of work

- Strong ability to collaborate within a multi-disciplinary team

- Willingness to learn and get your hands dirty.

- Ability to communicate technical information to users with varying experience and seniority