Role Description
Senior Software Development Engineer

Cluster	Transport for NSW
Agency	Sydney Trains
Division/Branch/Unit	Customer Service/Information, Infrastructure and Programs/Passenger Information
Location	Sydney
Classification/Grade/Band	RC7
Kind of Employment	Temporary Full-Time/Salaried
Role Number	51014357, 51014358, 51014359
ANZSCO Code	261313
PCAT Code	3216423
Job Code	81000335
Health Assessment Category	Category 4
Vision	Nill
Hearing	Nill
Date of Approval	November 2018
Agency Website	www.sydneytrains.info

Agency overview

Sydney Trains has c10000 staff and was established in July 2013. Its vision is to Keep Sydney Moving by putting the customer at the centre of everything it does and delivering safe, reliable and clean rail services to the people of Sydney. The organisation is focused on providing sustainable, efficient and cost effective services.

Sydney Trains has a 'make it happen' culture where each individual accepts both a personal and shared responsibility for being innovative, for making a difference and for developing organisational capability.

Joining Sydney Trains presents an exciting opportunity to shape the future of rail services in Sydney and make a genuine difference for the people of NSW by providing the rail system they deserve.

Primary purpose of the role

The Senior Software Development Engineer is responsible for undertaking development work for the creation, enhancement and maintenance of passenger information systems and products for use by Sydney Trains customers and stakeholders.

The role contributes to the delivery of solutions completed internally and externally through IT vendors,

contractors, and staff to ensure that system and product improvements meet or exceed agreed upon time, cost and quality requirements.

Key accountabilities

- Live the NSW Public Sector and organisational values to achieve outstanding outcomes for the organisation and customers
- Undertake software development work on a range of applications in the Passenger Information Portfolio (PIP) Unit, including creation, enhancement and maintenance work to deliver projects that meet customer requirements
- Manage the delivery of development, configuration and enhancement work completed internally and externally through IT vendors, contractors, and staff, including monitoring performance and project outcomes to ensure delivery meets agreed time, cost and quality requirements
- Develop special diagnostic and monitoring tools to manage passenger information and undertake business critical development and enhancement work to deliver solutions that incorporate improved features
- Prepare technical specifications for development and enhancement work to ensure IT solutions meet user needs and business requirements. Work collaboratively with the test centre and provide input to ensure that technical solutions meet user requirements and Sydney Trains standards
- Contribute to the accurate scoping and forward planning of new works and system enhancements requiring the participation of the Development Services team
- Provide diagnostic and technical support for critical Passenger Information system issues, which may occur outside of ordinary business hours
- Execute safety responsibilities, authorities and accountabilities consistent with Sydney Trains safety management system requirements which are defined in SMS document number SMS-02-RG-3058.

Key challenges

- Maintaining relationships with the passenger information system stakeholders in implementing new technical solutions, upgrades, and enhancements, whilst ensuring the quality of the Passenger Information Systems is maintained
- Providing a high level of service in a continually changing environment whilst balanced competing priorities across PI systems
- Maintaining and implementing system maintenance priorities amongst competing business priorities.

Key relationships

Who	Why
Internal	
Passenger information system users	• For the provision of high quality new applications, and enhancements and upgrades to existing applications
Development Services Manager, Senior Software Engineers, Business analysts, Project managers	• To ensure that the development and deployment of solutions meets the business needs and requirements • Escalate issues, keep informed, advise and receive instructions
Development services staff	• To collaborate with the objective of delivering business value
Work Team	• Work collaboratively to contribute to achieving the team's business outcomes • Review and provide input to the work and proposals of team members

Who	Why
External	
External vendors and suppliers	• To develop a coordinated approach to providing technical solutions that meet business needs

Role dimensions

Decision making

The position is fully accountable for the formulation of advice and coordination across all operational objectives. Independent decision making requirements of the position include:

- Development decisions
- Design decisions

Collaborative decision making requirements of the position include:

- Advice, analysis and initiative on a range of SPI products
- Stakeholder engagement
- Customer service considerations.

Reporting line

Development Services Manager

Direct reports

N/A

Budget/Expenditure

N/A

Essential requirements

- Tertiary qualifications in Information Technology or equivalent or demonstrated equivalent industry experience in development
- Demonstrated, minimum 6 years' experience in the planning, development, implementation and high level technical maintenance of medium to large applications
- Highly developed skills in several contemporary programming tools and languages, in particular Java, across different platforms and experience with database programming
- Strong analytical and problem solving skills
- Demonstrated experience in developing technical specifications to business requirements

Capabilities for the role

The NSW Public Sector Capability Framework applies to all NSW public sector employees. The Capability Framework is available at www.psc.nsw.gov.au/capabilityframework

Capability summary

Below is the full list of capabilities and the level required for this role. The capabilities in bold are the focus capabilities for this role. Refer to the next section for further information about the focus capabilities.

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NSW Public Sector Capability Framework

Capability Group	Capability Name	Level
Personal Attributes	**Display Resilience and Courage**	**Adept**
	Act with Integrity	Intermediate
	Manage Self	Adept
	Value Diversity	Intermediate
Relationships	**Communicate Effectively**	**Adept**
	Commit to Customer Service	Adept
	Work Collaboratively	Adept
	Influence and Negotiate	Intermediate
Results	**Deliver Results**	**Adept**
	Plan and Prioritise	Adept
	Think and Solve Problems	**Advanced**
	Demonstrate Accountability	Intermediate
Business Enablers	Finance	Intermediate
	Technology	**Adept**
	Procurement and Contract Management	Intermediate
	Project Management	Adept
People Management	**Manage and Develop People**	**Intermediate**
	Inspire Direction and Purpose	Intermediate
	Optimise Business Outcomes	Intermediate
	Manage Reform and Change	Intermediate

Occupation / profession specific capabilities

Capability Set	Category, Sub-category and Skill	Level and Code
SFIA	**Solution Development & Implementation, Systems Development, Programming/software development**	**Level 5 – PROG**
	Solution Development and Implementation, Systems Development, Systems Design	**Level 5 - DESN**
	Business Change, Business Change Management, Requirements Definition and Management	**Level 5 - REQM**
	Solution Development and Implementation, Systems Development, Testing	Level 5 - TEST

Focus capabilities

The focus capabilities for the role are the capabilities in which occupants must demonstrate immediate competence. The behavioural indicators provide examples of the types of behaviours that would be expected at that level and should be reviewed in conjunction with the role's key accountabilities.

NSW Public Sector Capability Framework		
Group and Capability	**Level**	**Behavioural Indicators**
Personal Attributes Display Resilience and Courage	Adept	• Be flexible, show initiative and respond quickly when situations change • Give frank and honest feedback/advice • Listen when ideas are challenged, seek to understand the nature of the criticism and respond constructively • Raise and work through challenging issues and seek alternatives • Keep control of own emotions and stay calm under pressure and in challenging situations
Relationships Communicate Effectively	Adept	• Be flexible, show initiative and respond quickly when situations change • Give frank and honest feedback/advice • Listen when ideas are challenged, seek to understand the nature of the criticism and respond constructively • Raise and work through challenging issues and seek alternatives • Keep control of own emotions and stay calm under pressure and in challenging situations
Results Deliver Results	Adept	• Be flexible, show initiative and respond quickly when situations change • Give frank and honest feedback/advice • Listen when ideas are challenged, seek to understand the nature of the criticism and respond constructively • Raise and work through challenging issues and seek alternatives • Keep control of own emotions and stay calm under pressure and in challenging situations
Results Think and Problem Solve	Advanced	• Be flexible, show initiative and respond quickly when situations change • Give frank and honest feedback/advice • Listen when ideas are challenged, seek to understand the nature of the criticism and respond constructively • Raise and work through challenging issues and seek alternatives • Keep control of own emotions and stay calm under pressure and in challenging situations
Business Enablers Technology	Adept	• Be flexible, show initiative and respond quickly when situations change • Give frank and honest feedback/advice • Listen when ideas are challenged, seek to understand the nature of the criticism and respond constructively • Raise and work through challenging issues and seek alternatives

NSW Public Sector Capability Framework		
Group and Capability	**Level**	**Behavioural Indicators**
		• Keep control of own emotions and stay calm under pressure and in challenging situations
People Management Manage and Develop People	Intermediate	• Ensure that roles and responsibilities are clearly communicated • Collaborate on the establishment of clear performance standards and deadlines in line with established performance development frameworks • Develop team capability and recognise and develop potential in people • Be constructive and build on strengths when giving feedback • Identify and act on opportunities to provide coaching and mentoring • Recognise performance issues that need to be addressed and work towards resolution of issues

Occupation specific capability set (Skills Framework for the Information Age – SFIA)		
Category and Sub-Category	**Level and Code**	**Level Descriptions**
Solution Development & Implementation, Systems Development, Programming/software development	Level 5 – PROG	Sets local or team-based standards for programming tools and techniques, advises on their application and ensures compliance. Takes technical responsibility for all stages in the software development process. Prepares project and quality plans and advises systems development teams. Assigns work packages to technical staff, monitors performance and reports progress. Provides advice, guidance and assistance to less experienced colleagues as required.
Solution Development and Implementation, Systems Development, Systems Design	Level 5 – DESN	Specifies and designs large or complex systems. Selects appropriate design standards, methods and tools, consistent with agreed enterprise and solution architectures and ensures they are applied effectively. Reviews others' systems designs to ensure selection of appropriate technology, efficient use of resources, and integration of multiple systems and technology. Contributes to policy for selection of architecture components. Evaluates and undertakes impact analysis on major design options and assesses and manages associated risks. Ensures that the system design balances functional, service quality and systems management requirements.

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Occupation specific capability set (Skills Framework for the Information Age – SFIA)		
Category and Sub-Category	**Level and Code**	**Level Descriptions**
Business Change, Business Change Management, Requirements Definition and Management	Level 5 - REQM	Facilitates scoping and business priority setting for large or complex changes, engaging senior stakeholders as required. Selects the most appropriate means of representing business requirements in the context of a specific change initiative. Drives the requirements elicitation process where necessary, identifying what stake-holder input is required. Obtains formal agreement from a large and diverse range of potentially senior stakeholders and recipients to the scope and requirements, plus the establishment of a base-line on which delivery of a solution can commence. Takes responsibility for the investigation and application of changes to programme scope. Identifies the impact on business requirements of external impacts affecting a programme or project.

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