

Project Details	
Project	Next Generation Ticketing and Real Time Passenger Information Solution
Project Objectives	<p>There are several transport specific objectives that can be addressed through the deployment of a next generation account based Ticketing and Real Time Passenger Information Systems. These include:</p> <ul style="list-style-type: none"> • Quality customer experience - Any new ticketing system should contribute to rather than detract from a high quality and positive customer experience. Discussion with senior management from Transport Canberra indicated that a quality customer experience was one in which the ticketing system was: <ul style="list-style-type: none"> ○ Easy to use ○ Simple ○ Reduced or reoved barriers to customers using the system ○ Promote self service ○ Intuitive and ○ Reliable. • Flexibility – While the ACT public transport fares strategy proposes retention of capped flat fares, a future ticketing system should provide some flexibility to change the fare structure if a future government changes its policy on fares. Preferably, a future system will allow for the configuration of key elements of the ticketing system (rather than requiring code changes), allowing TCCS to implement policy changes quickly and cheaply. • Future proofed - As far as possible, the ACT Government is seeking to ensure that decisions made today allow benefits from future changes in technology to be available to the ACT ticketing system. • Inclusive - The new ticketing system should be able to be used by all Canberra residents and visitors. That is, all users of the public transport system should have the opportunity to pay the correct fare each time they ride the system. • Operational impacts - The ticketing system should, to the maximum extent possible, enhance operational efficiencies. In particular, the ticketing system should: <ul style="list-style-type: none"> ○ Minimise boarding and alighting times of passengers. For on-board validation (that is, buses) the ticketing system should meet minimum transaction speed benchmarks. Currently benchmark transaction speeds for card base ticketing systems are 300ms while account based and mobile ticketing is achieving 500ms. For off-board validation, transaction speeds are less important from the perspective of dwell time



but may be important to reduce crowding at touch on/off points. Significant crowding at card interface devices can lead to safety issues at stations and stops.

- The ticketing system should support revenue protection policies and practices. To minimise fare evasion and fraud, a future ticketing system should include:
 - Processes and procedures to ensure that a person has validated card or other device either before (light rail) or on entering the system (bus)
- Technology to support these processes and procedures
- Sufficient security and anti-fraud processes
- **Data** –TCCS currently receives high quality data from the current ticketing system (in combination with the real-time passenger information system). Primarily, this data includes boarding and alighting data by geographic location and time by passenger ticket type. The existing ticketing system also contributes to real time data and is used in the measurement and management of system performance.
- **Interoperability** - Interoperability refers to the ability of a customer to use the same ticketing media across multiple public transport systems. For example, a MyWay user in Canberra could use his or her MyWay card to access the public transport system in Sydney.
- **Extendibility** – The ACT Government has a range of services that might potentially be paid for using a future ticketing system’s payments platform and infrastructure. This may include using a future ticketing system to pay for Park ‘n’ ride, taxis, bike share and so on.
- **Transitional impacts** - In general, there is a desire for transition to be evolutionary rather than revolutionary. Transition from the existing ticketing system to a future system has a number of dimensions and requirements.
- **Cost effectiveness / value for money** - A future ticketing system needs to be cost effective and provide value for money for the Territory. Cost effectiveness and value for money includes not only the cost of procuring devices but also the cost of managing and operating a future system. These costs currently include a range of elements including system maintenance, licensing, card costs and the cost of fare sales (inclusive of retail commissions, merchant fees and so on). In the future, there will also be explicit cash collection costs as ticket vending machines are installed at light rail stations and major bus interchanges.



ACT
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Chief Minister, Treasury and
Economic Development

Risk Management Plan

Contact Details:

Directorate	TCCS	Business Unit (If applicable)	TCO
Name of Contact	Paul Skidmore		Phone no. [REDACTED]
Name of Decision Maker / Authority Holder	Judith Sturman		

Created by: Paul Skidmore

Date: 18/06/2021

Reviewed by: Hamish Stephens/Sarah Taylor-Dayus

Date:

Approved by: Judith Sturman

Date:

Signature: _____

Internal and External [Name and Agency/Organisation]	Level of Influence [Ability to influence project outcomes]	Level of Interest [Level of interest in the project outcome]
Public	Low	High
Disability Groups	Med	High
Recharge Agents	Low	High
Access Canberra	Low	High
DDTS	Med	High
Whole of Government Banking	Low	Low
Canberra Metro OPs	High	High
Transport Canberra Bus Ops	High	High
Incumbent vendor	High	High
CMTEDD - parking project	High	High
TCCS	High	High

Risk Register

This risk register is consistent with AS/NZS ISO 31000:2009 risk management standard and the CMTEDD Risk Management Framework and Policy Statement; and Risk Management Policy.

Risk Ref. No.	Risk Description (source/ Cause)	Describe the consequence	Risk controls – what is in place to manage the risk.	Risk Owner <i>(person or entity who manages the risk)</i>	Consequence	Likelihood	Current risk rating	Control effectiveness
1	Timeline Risk <ul style="list-style-type: none"> • Current system vendor advised current solution contract cannot be extended. • Current solution is at end of life. • New solutions may take much longer time than is left on the current contract to implement. 	If what can happen does happen what is the impact or outcome? (In its most 'normal' form – not an extreme form) <ul style="list-style-type: none"> • Limited/reduced transition duration risk • Pressured early implementation risk • Possible cost risk of extended period of free travel • As time goes on, customer satisfaction with current solutions deteriorates 	How are risks to be Managed? What ordinary policies, procedures and actions (BAU) are to be taken to manage the risk? <ul style="list-style-type: none"> • In depth evaluation of tender transition strategy responses alignment with indication milestone timing. • Free travel is introduced to support congested rollout timelines and influence transport use and/or ease customer dissatisfaction. 	TCCS/project manager	Major	Likely	High	Adequate
2	<ul style="list-style-type: none"> • Unclear, incorrect or poorly developed specification / mis-specification. • Unrealistic customer/business expectations • Un-prioritised requirements • Vague and ambiguous requirements • Changes in the external/regulatory environment • Legal requirements not identified • Inadequate documentation • Information security requirements change during project altering scope 	<ul style="list-style-type: none"> • Product not fit-for-purpose • Non-compliance with legislative requirements • Increase cost • Schedule delays • Failure to meet quality standards • Potential de-scoping during delivery phase. 	<ul style="list-style-type: none"> • Project Governance in place • Project Advisory Group in place • Project Manager in place • Program Coordinator in place • Develop a specification register. • Establish a technical reference group. • Use experienced Business Analyst resource for requirements gathering. • Undertake a technical assessment of procurement responses. • Legislative requirements will be mandatory. 	Project Manager	Moderate	Unlikely	Medium	Adequate



3	<p>Ineffective change management:</p> <ul style="list-style-type: none"> • Poor stakeholder engagement • Loss of key people • Poor transition planning. Lack of organisational buy-in • Ineffective procurement. 	<ul style="list-style-type: none"> • Schedule delay • Mis-specification • Increased costs • Damage to reputation with the public. 	<ul style="list-style-type: none"> • Implement a change control process. <p>Develop a transition plan, and undertake risk-based scheduling and costing.</p>	Project Manager	Moderate	Unlikely	Medium	Adequate
4	<p>Systems / interfaces do not integrate correctly: Changes to external technology for example, 3G to 4G, Multiple vendors</p>	<p>Reduced performance of system Schedule delays Increase cost Reduced quality Damage to key relationships</p>	<ul style="list-style-type: none"> • Develop a detailed testing and inspection plan in conjunction with the Supplier (systems UAT), • Implement pilot, undertake load testing. 	Project Manager	Moderate	Unlikely	Medium	Adequate
5	<p>Insufficient responses received from the market: Size of the Canberra market, or the market offering is not sufficiently attractive to create a competitive market.</p>	<p>Lack of competitive tension throughout procurement has the potential to lead to failure to achieve a value for money outcome</p>	<p>Market sounding and signalling identified sufficient interest from parties in responding to an EOI/RFP.</p>	Project Manager	Moderate	Unlikely	Medium	Adequate
6	<p>DDA compliance complicated by the wider range of tokens available for use: Leads to Solution introduced complexity or is overly complex</p>	<p>System is difficult to access for all customers</p>	<p>A customer Accessibility Reference Group has been established to assist the project, along with a requirement for the new solution to meet accessibility standards and needs</p>	Project Manager	Moderate	Unlikely	Medium	Adequate
7	<p>Probity risk:</p>	<ul style="list-style-type: none"> • Potential litigation by Territory, • Reputation damage to the Territory, stakeholder relationship 	<ul style="list-style-type: none"> • All Territory officers involved in the development/interface with the RFP and evaluation process 	Project Manager	Major	Unlikely	High	Adequate



	<ul style="list-style-type: none"> The procurement process is compromised through information leakage. Vendors actively seeking confidential information for their advantage 	<p>damage, possible legal action with a potential forced closure of the project.</p>	<p>are briefed on probity requirements/protocol and required to complete Confidentiality Forms.</p> <ul style="list-style-type: none"> TCCS have appointed an external probity advisor. A project plan and evaluation plan review and approval processes. 					
8	<ul style="list-style-type: none"> Poorly executed transition: Failure to commence transition planning <p>Technical solution doesn't support progressive transition of equipment</p>	<ul style="list-style-type: none"> Damaged reputation to the Territory Loss of revenue Increased costs 	<p>Evaluation of the Supplier's transition plan will be inclusive of the technical review of the RFP responses.</p>	Project Manager	Major	Unlikely	High	Adequate
9	<p>Evaluation:</p> <ul style="list-style-type: none"> Methodologies compromised like for like comparative assessment. Pricing is unable to be comparatively assessed Evaluation Team do not hold the level of technical knowledge to support capability assessment. Failure to document, record and administer the evaluation process in accordance with endorsed procurement documentation. 	<ul style="list-style-type: none"> Failure to assess and obtain value for money and increase contractual risk profile of the Territory. Poor selection of Ticketing System – not fit for purpose and future expectations. 	<p>The evaluation will consist of two-staged (EOI/RFP) process.</p> <ul style="list-style-type: none"> Stage 1 (EOI) will be open to public market and involve the assessment of all technical solutions-based capability, capacity and quality and include risk assessment over technical aspects of proposals, commercial models and LIPP assessment. A shortlisting process will then be undertaken to identify a minimum of 3 top scoring respondents, to be issued with a refined RFP. Stage 2 - Shortlisted respondent submissions will undergo further assessment around ticketing solution methodologies and specialist technical advisors will 	TCCS (TET)/ PACT	Major	Unlikely	High	Adequate



			<p>support the evaluation team assessment against detailed criteria applied in the RFP stage. The commercial component will then be calculated to determine a total cost of ownership to then be considered as an unweighted component for its risk and value against the proposed solution methodology, comparatively across submissions and the Territory budget.</p> <ul style="list-style-type: none"> • The evaluation team will utilise various technical and process-based experts to inform the evaluation team of technical risk consideration, solution viability, and contractual risk and performance indicators. • It is expected that ACTGS and PACT will support the process in terms of documenting the process, preparation of the TER and probity support. The Territory use of Consultants will play a key role in technical support to the Evaluation Team. 					
10	<p>Contract: Contract is insufficient in assigning managing rights and responsibilities of the parties</p>	<p>Contractual deficiencies may give rise to:</p> <ul style="list-style-type: none"> • Increased risk of 3rd party claims in relation to order and supply of equipment. 	<p>ACTGS and TCCS legal are committed to supporting the project and may engage consultants to play a key role in legal and commercial support as well as development of a suitable customised and legally effective form of contract.</p>	TCCS/ ACT GS	Major	Unlikely	High	Adequate



		<ul style="list-style-type: none"> • Insufficient liability protection in relation to warrantees and insurance. • Litigation occurs as a result of customer information and privacy protection, as well as IP and FOI implications. 						
11	Costs estimated by the vendor(s) exceed those allocated in the budget.	The budget will come under pressure and additional funding may be required, or a reduction in scope.	<ul style="list-style-type: none"> • Contract negotiation • Project has a contingency allocation of funding in place. • Continuous monitoring of forecast scope will need to be managed/possibly adjusted. <p>Additional finding will need to be sourced/approved to enable the full Solution to be implemented.</p>	TCCS/ Project Manager	Moderate	Likely	High	Adequate
12	Security and Privacy assessment By ICT Security may provide additional requirements that have not already been identified.	<ul style="list-style-type: none"> • Additional costs to implement the recommendations from IT Security and ACTGS. • Delays in the 'go live date' due to additional work having to be undertaken impacting the schedule 	Early engagement with Shared Services (SS) ICT Security and utilising core platforms that are already in use in similar circumstances within ACT Government and have achieved acceptable security and privacy statements.	Project Manager/ SS ICT	Moderate	Unlikely	Medium	Adequate
13	The integration with ACT Government Digital Account will require additional functions to be included in the design.	The high level of understanding for the Digital Account for citizen facing functions may need some additional design work to ensure successful integration.	Close working relationship with OCDO to ensure we provide the Digital Account with right data access to ensure project success.	CDIO	Minor	Unlikely	Medium	Adequate
14	New Solution may not be suitable for Integration with the whole of government banking contract.	A high level of new Solution banking interface functions, fees and services will need to be understood and the design applied to the new banking contract negotiations.	Close working relationship with TCCS key representatives for the whole of government (WhoG) Banking Project Team to ensure that key interfaces are known and addressed.	TCCS/ Project Manager/ WhoG	Major	Unlikely	High	Adequate



			Technical expertise from the WhoG Banking Project Team will be involved in the evaluation of RFP responses.	Banking Team				
15	Card / token security breach. Risk that card security is insufficient to prevent hacking, virus or other malicious threat leading to theft of data, revenue loss and breaches of privacy requirements	Possible loss of data, adverse impact on reputation, higher costs, loss of revenue, and legal action by customers/public.	Cyber Security Assessment to be undertaken by Territory Cyber Security team or security contractor preferred Solution prior to entering into Contract.	Shared-TCCS / Vendor	Major	Unlikely	High	Adequate
16	Revenue Risk, that fare revenue is affected by fraudulent activity on the system as a result of the deliberate mis-use of any part of the ticketing system	<ul style="list-style-type: none"> Reduced revenue, Increased cost to address fraudulent use of the system and potential reputational risks 	RFP response/assessment criteria requests Respondents to demonstrate how their Solution contains mechanisms to support revenue protection concession management and fraud protection. (SOR Section 3.2.1 (k))	Shared-TCCS / Vendor	Major	Unlikely	High	Adequate
17	<ul style="list-style-type: none"> Solution does not meet Territory expectations: Loss of key people Poor stakeholder engagement Poor transition planning Lack of organisational buy-in Ineffective procurement. 	<ul style="list-style-type: none"> Product not fit-for-purpose Non-compliance with legislative requirements Increase cost Schedule delays Failure to meet quality standards Potential de-scoping during delivery phase. 	<ul style="list-style-type: none"> Reference check a vendor's working Solution. Develop a specification register. Establish a technical reference group. Use experienced BA resource for requirements gathering, use an adequate requirement gathering tool Undertake a technical assessment of procurement responses. 	TCCS	Major	Unlikely	High	Adequate
18	Network failures and transport delays incurred by prolonged infrastructure building	<ul style="list-style-type: none"> Public complaints. Adverse publicity for the Territory. Public use private transport for commuting. More vehicle congestion on roads. 	<ul style="list-style-type: none"> Free travel is introduced to influence transport use and/or ease customer dissatisfaction with network failures and delays due to infrastructure building. 	TCCS	Moderate	Likely	High	Adequate



		<ul style="list-style-type: none"> • More CO2 emissions. 	<ul style="list-style-type: none"> • Communications Plan - Communicate changes to the public. • Consider project scope to mitigate cost. 					
19	Variations occurring in Contract phase required/implemented.	<ul style="list-style-type: none"> • Cost increases • Quality and capability of Solution to meet future needs compromised. 	<ul style="list-style-type: none"> • May undertake Site visits/referee checks during evaluation if required to confirm capability of the Respondents to provide a working Solution. 	TCCS	Moderate	Likely	High	Adequate
20	COVID issues	<ul style="list-style-type: none"> • Inability for Supplier to travel to Canberra if interstate • Solution complies with Covid safety issues. 	<ul style="list-style-type: none"> • MS Teams or other online format to be utilised for meetings • contactless ticketing solutions 	TCCS/Supplier	Moderate	Likely	High	Adequate



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Risk Management Plan

Risk Treatment Action Plan

A risk treatment action plan is required for all risks rated as “**Extreme**” or where the control effectiveness rating is “**room for improvement**” or “**inadequate.**”

Risk Ref. No.	Risk Description (source/ Cause) <i>The risk event, source and cause. (Copied from above)</i> <i>What can happen (that will affect our ability to meet our objectives) and how it comes about.</i>	Additional Risk Treatments or actions to be taken: to Manage the risk. <i>(In addition to the Business as Usual Controls listed above.)</i> <i>Could include a different treatment action for a new procurement (new technology) or an unusual project with different installation or construction techniques. For example: may include additional processes and procedures for sites that are known to contain asbestos.</i>	Consequence	Likelihood	Residual Risk Rating	Control effectiveness	Implementation and Reviewing		Emergency Response Should Control Measures Fail. <i>(The risk is realised.)</i> <i>Contingency Plan.</i>
							Responsible Officer <i>(Officer responsible for implementation and ongoing review)</i>	Implementation Date <i>(Date to be completed by)</i>	
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