

NATIONAL TICKETING SOLUTION

KEY RISKS AND MITIGATIONS

The below table provides a summarised position on the key risks that are currently being managed by the National Ticketing Solution programme. These risks are grouped together in categories to help with the linkages between the mitigant actions.

Groups of Risk	Key risks	Mitigants
Funding, Cost and Benefit Implications	<ul style="list-style-type: none"> The NTS Detailed Business Case (DBC) does not demonstrate Value for Money, and as such the NTS is not approved to proceed 	<ul style="list-style-type: none"> Close integration with the Best and Final Offer (BAFO) process so that requirements and associated costs are captured correctly Internal Waka Kotahi initial IQA review ahead of receipt of BAFO to flush out any fundamental DBC issues before costs and scope are updated Work to validate NTS Benefits captured in the DBC agreed by all PTAs and Waka Kotahi Investment & Finance (I&F) Wider system benefits (non-financial) are fully captured
	<ul style="list-style-type: none"> The NTS funding model cannot be agreed by Waka Kotahi and participant PTAs resulting in delay 	<ul style="list-style-type: none"> Document and socialise the new NTS funding model with: <ul style="list-style-type: none"> Waka Kotahi Risk & Assurance Committee ahead of seeking Board approval PTAs to present to their Board/Councils ahead of contract signature Waka Kotahi I&F, Legal and Transport Services staff
	<ul style="list-style-type: none"> Funding is not available to progress the NTS according to the desired implementation roadmap 	<ul style="list-style-type: none"> DBC process has called out the planned timing and taken into consideration funding constraints within those timescales Securing funding for ECan and GWRC implementations through the Waka Kotahi Nationally Delivered Programmes for the next NLTP period 2021-24 Securing funding for AT and RITS councils in the NLTP period 2024-26

		<ul style="list-style-type: none"> Close alignment of expected funding requirements post contract signature with Waka Kotahi NLTP & Treasury planning
	<ul style="list-style-type: none"> Transition costs for PTAs moving from their existing ticketing systems make the NTS unaffordable 	<ul style="list-style-type: none"> Senior level engagement between Waka Kotahi officers and equivalent PTA participant officers to ensure realistic and pragmatic transition plans Close management of agreed transition plans including oversight & assurance relating to key contractual obligations in this area between suppliers & PTAs and the Waka Kotahi shared service function (Transport & Ticketing Team, TTP) Consideration of NLTF funding to assist with PTA transition costs for the greater good
	<ul style="list-style-type: none"> DBC benefits are not realised to the full extent anticipated 	<ul style="list-style-type: none"> IQA of NTS DBC including a full panel peer review NTS Treasury Gateway review Close engagement of Waka Kotahi I&F staff to ensure benefits conform to the Monetised benefits & costs manual (v1.5 August 2020) and the Non-monetised benefits manual (v1 July 2020) Assurance work over the lifetime of the NTS to ensure benefits are being captured, analysed, and reported Scheduling post implementation reviews
	<ul style="list-style-type: none"> National benefits for the NTS are not realised as differences between local and national outcomes cannot be resolved for the good of NZ 	<ul style="list-style-type: none"> Early engagement with PTAs to establish the scope and parameters to underpin a National customer experience Senior level engagement between Waka Kotahi officers and equivalent PTA participant officers to ensure alignment on National outcomes Close working between PTA participants, the Waka Kotahi Public Transport team, the TTP and other interested stakeholders to identify and resolve issues early

Operational	<ul style="list-style-type: none"> The current target date of early 2023 as a pilot for ECan cannot be met due to a prolonged contract approvals process 	<ul style="list-style-type: none"> Consider an at risk 'early works' programme ahead of contract signature to manage timelines Develop & maintain a realistic integrated programme plan as the basis for all time-based decision making when choosing target dates
	<ul style="list-style-type: none"> A slow or extended approvals process extends the implementation timeline resulting in some Participants not joining 	<ul style="list-style-type: none"> Sign up all NTS participants to the NTS Participation Agreement as soon as possible Senior level engagement between Waka Kotahi officers and equivalent PTA participant officers to ensure ongoing commitment Develop plan for approvals and gain NTS Steering Group agreement in advance
	<ul style="list-style-type: none"> Waka Kotahi does not have the capability to act as the shared service organisation (TTP) resulting in inefficiency and delay to the NTS implementation & operations 	<ul style="list-style-type: none"> Waka Kotahi formal ELT agreement to establishing TTP including a supporting organisational design Clearly defined roles and responsibilities for TTP resources Clear internal Waka Kotahi Governance groups to oversee appropriate resourcing, reporting & stewardship Agreed ongoing budget for TTP and supporting controls
	<ul style="list-style-type: none"> Waka Kotahi does not establish the shared service organisation (TTP) in a timely manner delaying the programme and increasing reliance on expensive contracting resource 	<ul style="list-style-type: none"> TTP establishment and resourcing plan signed off as soon as practical Active recruitment of new permanent resources Agreed transition plan for knowledge handover from contracting resource to Waka Kotahi Contracts in place for ongoing consulting services where required
	<ul style="list-style-type: none"> Waka Kotahi officers cannot agree on the roles, responsibilities and priorities of the NTS and Waka Kotahi's governance role within it 	<ul style="list-style-type: none"> ELT approval of NTS internal organisational and governance structure Internal NTS Governance established, including reporting through to related groups such as Digital Technology Senior Responsible Officer empowered to drive execution of NTS within Waka Kotahi and between PTA stakeholders

	<ul style="list-style-type: none"> Unable to secure appropriate TTP staff due to market limitations which affects capability to manage, deploy and operate the NTS 	<ul style="list-style-type: none"> TTP establishment and resourcing plan signed off as soon as practical and active recruitment to commence Consider plans to invest in non-ticketing staff through training and education & early involvement in the NTS Consider active secondments of ticketing staff resources from PTA participants
	<ul style="list-style-type: none"> Covid-19 impacts on staff and suppliers affecting time, cost and quality of the NTS 	<ul style="list-style-type: none"> Manage Covid-19 risks in line with Waka Kotahi policy Supplier will establish a local capability within NZ to mitigate risks of international travel Co-locate Waka Kotahi staff and supplier staff in NZ where possible & practical
Digital	<ul style="list-style-type: none"> Complex data sharing arrangements between many participants creates potential security or privacy gaps in the NTS 	<ul style="list-style-type: none"> Independent review of security & privacy implications at the NTS design phase Privacy impact assessments at appropriate points in NTS development, including engagement of Waka Kotahi Security/Privacy staff (or their delegates) as required Adequate contractual provisions for suppliers to comply with NTS requirements and to maintain compliance across the contract life Adequate Waka Kotahi policies & controls assuring security is operating as expected and regular audits to check Maintain PCI/DSS accreditation including supporting controls
	<ul style="list-style-type: none"> Nature of data collected by the NTS makes the system a target for accidental and malicious actors 	<ul style="list-style-type: none"> Ensure comprehensive security & privacy regime for all aspects of the NTS, suppliers, systems, processes, staff Develop comprehensive & timely reporting processes to detect and report any system breach or control failure
	<ul style="list-style-type: none"> The end to end NTS is not secured adequately resulting in an information security & privacy breach 	<ul style="list-style-type: none"> Involvement and independent review of security by Waka Kotahi staff at all key risk points over the life of the NTS, including in design/build/test phases, implementation, operations, and during transition Processes in place to detect & report on any security or control failures in a timely way Daily assurance over NTS operation, system security & integrity

		<ul style="list-style-type: none"> Maintain PCI/DSS accreditation including supporting controls
	<ul style="list-style-type: none"> Contracted suppliers store personal data offshore in a jurisdiction which exposes the NTS and its customers to privacy risks 	<ul style="list-style-type: none"> Review ticketing and financial supplier contracts carefully before signing, and take legal and other advice on the adequacy of data security, storage & transfer provisions, and obligations to make good on any failure Include provisions in Participation Agreements for similar requirements between participants Detailed consideration given to Te Tiriti in co-design and user experience including sovereignty of data.
Suppliers	<ul style="list-style-type: none"> Supplier capability to deliver the NTS is compromised through an overseas location, differing time zones, and differing global priorities of work 	<ul style="list-style-type: none"> Undertake due diligence process to ensure supplier responses are backed up by actual behaviour and experience in other jurisdictions Agree formal governance arrangements as part of the contracting process to ensure correct supplier behaviours at the right time and place Engage with existing customers of the chosen supplier where possible to gain visibility of the global workload and to agree mutually beneficial roadmaps where this is possible
	<ul style="list-style-type: none"> Ability of suppliers to deliver the agreed scope within the committed timescales 	<ul style="list-style-type: none"> Undertake due diligence process to ensure supplier responses are backed up by on time delivery in other jurisdictions Meet internal approvals deadlines according to supplier requirements so as not to be the main cause of delay for NTS rollout
	<ul style="list-style-type: none"> Risk that the choice of NTS results in technology lock-in and a potential lack of flexibility through contract length of 10+ years 	<ul style="list-style-type: none"> Due diligence for existing solutions including overseas experiences Contractual break points at sensible times Ensure sufficient flexibility to negotiate with the chosen supplier during the contract to bring services in-house, or to potentially outsource more services to the supplier without a fundamental contract renegotiation
	<ul style="list-style-type: none"> Integration between the different suppliers is not managed by the preferred 	<ul style="list-style-type: none"> Ensure early engagement between suppliers before contracts are signed to ensure they can work together properly Simplify the solution where practical to reduce interdependencies between competitors

	supplier within expected boundaries & timeframes	<ul style="list-style-type: none"> Actively manage suppliers
	<ul style="list-style-type: none"> Major technical failure results in loss or lack of service and no revenue collections 	<ul style="list-style-type: none"> Ensure appropriate remediation clauses in contracts Develop recovery plans for an event and practice/test these regularly Due diligence with other customers to assess the risk of this kind of event and how to manage Connect in other necessary elements such as communications to manage events
Participant	<ul style="list-style-type: none"> Key Participant(s) does not sign or withdraws from the NTS, affecting viability 	<ul style="list-style-type: none"> Senior level engagement between Waka Kotahi officers and equivalent PTA participant officers to ensure ongoing commitment Sign up all NTS participants to the NTS Participation Agreement as soon as possible Agree target NTS funding model to make joining attractive to participants Ongoing management commitment at all levels of Waka Kotahi & PTAs to ensure alignment
	<ul style="list-style-type: none"> Delays in timing mean that alignment to existing contracted ticketing services no longer exists 	<ul style="list-style-type: none"> Expedite contract signatures, approvals processes & planning to ensure NTS rollout alignment with existing contract end dates Consider contract extensions where possible/necessary Make suitable contingency plans
	<ul style="list-style-type: none"> Key Participant(s) take a longer than planned to agree and sign the Participant Agreements 	<ul style="list-style-type: none"> Ensure participant early engagement in Participation Agreement development Actively manage outstanding tasks/risks/changes required to secure agreement Gain agreement 'in-principle' where possible Unblock at Mobility & Payments Governance Group (MPGG) where possible
	<ul style="list-style-type: none"> Working within a national framework is perceived to have negative consequences for local decision making 	<ul style="list-style-type: none"> Early engagement on what forms part of the National customer experience, and what remains local Senior level engagement between Waka Kotahi officers and equivalent PTA participant officers to ensure ongoing commitment & to flush out areas of concern early

		<ul style="list-style-type: none"> • Unblock at Mobility & Payments Governance Group (MPGG) where possible
	<ul style="list-style-type: none"> • Lack of clarity over roles and responsibilities between PTAs and Waka Kotahi leading to confusion over accountability for aspects of the solution 	<ul style="list-style-type: none"> • Agreed Joint Responsibility Matrix (JRM) • Agreed and signed off Operating Model • Active TTP & PTA involvement in BAFO negotiations which determine and agree the final solution
	<ul style="list-style-type: none"> • Multiple participants create complexity resulting in not being able to agree the operating model 	<ul style="list-style-type: none"> • Early & ongoing engagement in development of the NTS operating model • Early & ongoing engagement with all PTAs, TTP and suppliers in agreeing the scope and scale of services • Secondments from PTAs to TTP to ensure PTA views fairly represented and understood
Customer	<ul style="list-style-type: none"> • Technical or process failures result in a poor customer experience 	<ul style="list-style-type: none"> • Chose a capable supplier with proven global track record • Ensure adequate testing and piloting throughout NTS deployments • Adequately resource TTP and PTA teams to ensure success • Engender a close & collaborative working relationship with each supplier • Plan well for transitions including customer communications and education and simple & easy transition processes • Test key processes before deploying • Run 'white label' pilots for friends & family & journalists to test the system ahead of formal launch • Consider a 'soft launch' approach to tease out issues and gradually increase volumes • Good relations with each supplier to quickly resolve any issues
	<ul style="list-style-type: none"> • System failures result in a lack of service for end customers and no revenue collection for NTS customers 	<ul style="list-style-type: none"> • Ensure adequate controls and monitoring in place to catch or predict possible failures • Ensure active response plans to fix issues quickly • Run regular test exercises to simulate failure and test & refine responses

	<ul style="list-style-type: none"> • Process for transition from the existing solution to the NTS has negative consequences for customers 	<ul style="list-style-type: none"> • Make customer transition as easy as possible • Simplify refund processes, and make transferring pre-paid funds back to customers quickly and easily • Have plans in place to actively correct individual journeys or large numbers of customers affected by a wider system issue • Begin transition planning early, particularly around transitioning school children being mindful of holiday periods and volumes of customers to transition
	<ul style="list-style-type: none"> • A security or privacy breach results in compromised data for customer(s) 	<ul style="list-style-type: none"> • Involvement and independent review of security by Waka Kotahi/experts at all key risk points over the life of the NTS, including in design/build/test phases, implementation, operations, and during transition • Processes in place to detect & report on any security or control failures in a timely way • Daily assurance over NTS operation, system security & integrity • Maintain PCI/DSS accreditation including supporting controls • Processes in place to communicate with customers quickly and make good any issues

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