Independent Review of the NTS Programme

New Zealand Transport Agency Waka Kotahi

Final v2.10

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Executive Summary

Our independent review has concluded that there is a very high likelihood of further significant delays to National Ticketing System (NTS) programme delivery and an inability to deliver the full scope within the committed contract value ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮ In the near-term, because of past and prospective delays in delivery, it is imperative that immediate focus be directed at ensuring that farebox revenue can continue to be collected by Environment Canterbury (ECan) and Greater Wellington Regional Council (GWRC) with an acceptable customer experience before the NTS solution is delivered.

▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮ stronger programme management and governance cohesion are the key to de-risking programme delivery. Elements of this are largely outside the control of the New Zealand Transport Agency (NZTA) ▮▮▮. Unless there is a major step change in ▮▮▮▮▮▮▮▮▮▮▮▮▮ to accelerate NTS programme delivery, we believe material delays will continue.

NZTA and the Public Transport Authorities (PTAs) have an essential role to play in restoring absolute clarity of the required end-to-end technical and customer solution, ▮▮▮▮▮▮▮▮▮▮▮ and internal programme effectiveness. The 10 overarching recommendations below have been developed with this in mind. These are supported by 32 detailed recommendations outlined in the body of this report, across five elements of the programme – Commercial, Governance, Solution, Delivery and Resources

1. A plan is urgently required to support the continued operation of legacy fare collection systems in ECan and GWRC, ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮. This should not consider options that require a significant system refresh and associated investment. Additonally, the programme's implementation sequence should be revised so that the Regional Consortium (RC) is put to the back of the rollout queue so that GWRC, with more immediate needs, follows ECan

2. ▮▮

3. Programme management and governance should be restructured to ensure a more effective overall governance framework is in place with effective leadership, tight membership, clear decision rights and escalation pathways and succinct information provision. Forums that encompass Cubic should be reflected in this structure

4. A realistic integrated Master Programme Schedule (MPS) covering both Cubic and NZTA/PTA deliverables and all customer and operational transition activities should be developed to enable effective programme management and instil stakeholder confidence in delivery and associated timelines. ▮▮

5. ███

    ██ A comprehensive
    programme scope with supporting requirements should be documented to provide
    that vision ████████████████████████ manage change requests effectively
    and enable the vendor and NZTA/PTAs to develop and execute a delivery plan with
    confidence

6. Opportunities for cross-PTA harmonisation and any other standardisation such as
    customer channels and data management should be captured. The programme must
    otherwise commit to the delivery of PTA fares and ticketing policy road maps
    (excluding concession harmonisation) and not seek to unreasonably de-scope the
    solution ██. It
    is imperative that the Governance Board fully align and provide clear direction to the
    Programme Leadership Team (PLT) on the detail of this recommendation

7. The NTS programme team structure and associated resourcing should be moved to
    a more conventional model which reflects equality across engineering, business and
    operational readiness, customer transition and the PMO functions. Clarity around the
    required capabilities and expertise is required and the timing for on and off boarding
    tied to a reliable MPS. The Programme Director needs to drive collaboration and
    partnership across the team

8. The programme has been technology-led and additional resources with public
    transport fare collection experience, including secondees from the PTAs, should be
    embedded in the revised programme organisational structure

9. Cubic must commit additional global expertise dedicated to the programme, ██
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10. ███
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1 Introduction

1.1 Background

The NTS is a signature project for the NZTA.

Despite delays, there has been significant work to date by all stakeholders committed to the
long-term success of the programme. Recent and notable process successes include
improvements in testing and defect management since the shift towards modular releases,
progress on the design of Auckland Transport Early Integration works, and emerging
improvements to the way NZTA, PTAs, and Cubic work together. We recognise the efforts of

those who have made considerable contributions towards the NTS vision since the project began – often in very challenging circumstances.

We also acknowledge that the Governance Board (GB) has initiated a programme reset and have made changes, including initiating this independent review, with some remediation actions continuing to be progressed (albeit within the constraints of the TSMSA and P2 agreement).

1.2 Scope of Work

The purpose of this review was to provide the GB with insights and an independent assessment on the current plan and approach to managing current challenges and end-to-end delivery of the NTS Programme ('the programme'). The Governance Board also seeks recommendations to further support the successful delivery of the NTS Programme.

The review was required to:

- Identify the key issues that are restricting the programme's ability to deliver on its charter across governance, programme delivery, NZTA, PTAs, and the TSP

- Provide an assessment of the TSP's ability to deliver within a timeframe that won't materially impact costs/benefits and customer credibility

- Review actions underway to address current issues and preparation and planning for end-to-end delivery and provide commentary on likely effectiveness and identify material gaps or misalignment

- Provide options and next steps for implementing recommendations.

1.3 Approach and Limitations

By necessity, this review was conducted remotely and over a short timeframe. Our approach and associated reporting have been tailored accordingly. We completed a rapid desktop review of documentation provided to us and undertook an extensive schedule of stakeholder interviews. The findings and recommendations reflect this, together with our professional judgement based on extensive experience with the transition to, and delivery of, new public transport fare collection systems.

One observation on the interviews is the commitment of all parties and individuals to the success of the programme. At the same time, almost without exception, there is an acceptance that there are major challenges and associated threats to the programme that need to be addressed as a matter of some urgency. We would concur.

Our scope and associated time frame have not allowed us to address the implementation of our recommendations in any detail. However, many of our findings are well understood by stakeholders and action has been taken or is in train to address some of these issues.

Sections 2 through 6 highlight our observations and recommendations with respect to the following elements of the programme:

- Commercial

- Governance

- Solution

- Delivery

- Resources.

Section 7 considers options and next steps having regard to our observations and findings.

2 Commercial

The Cubic agreement is non-standard, ▮▮▮▮▮▮▮▮▮▮▮▮

▮▮▮▮▮▮

Observations

- A highly unusual overarching contractual structure is in place which reflects staggered commitments to Cubic and the programme by the PTAs and the Regional Consortium (RC) over time (the Ticketing Solution Master Services Agreement - TSMSA). We acknowledge that this commercial structure was perceived to be the only viable means of moving forward at the point of execution. However, the TSMSA ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮ does not incentivise PTAs to show they are fully committed and to act with urgency

- ▮▮ Due to extensive programme delivery delays, both the NTS budget and PTA budgets are under pressure as legacy fare collection systems will need to be supported beyond originally envisaged time frames

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- The programme is incurring ongoing costs through resource hiring aligned to a delivery schedule that has prolonged significantly. ▮▮▮▮▮▮▮▮▮▮▮▮▮

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Recommendations

C1. ░░░

C2. ░░░ an assessment of contingency solutions for ECan and GWRC is required. This should not consider options that require a significant system refresh and associated investment ░░░░░░░░░░░░░░░░░░░░░░░░░░░░░░░░░░░░

C3. An assessment of what scope can be delivered within the remaining capital budget should be completed and GB confirmation sought that this scope is acceptable for NTS.

3 Governance

The governance structure is not working and needs revision

Observations

- The GB has been unable to fulfil its responsibility of providing strategic oversight to the management of programme time and cost and is not consistently operating at a strategic level. It has moved from a governing to a managing body

- As a governance layer that is designed to operate below the GB, the PLT has been ineffective and does not have a collaborative partnership approach across team members. ░░

- There have been too many governance forums established [redacted]. In addition to the NZTA ELT, there is the GB, the PLT, the ISG and the newly formed Partnership Management Forum, as well as forums within each PTA. This has created more confusion around governance and decision making

- [redacted]

- Major issues and decisions that arise in the programme take far too long to resolve (e.g. concession harmonisation), tying up valuable resources across the teams

- [redacted]

- The PMO does not appear to be operating at the level of responsibility and inclusion required in a Programme such as NTS.

Recommendations

G1. The GB needs to fully align on the scale and scope of requirements harmonisation (beyond concessions) and provide clear direction to the PLT

G2. We note the appointment of the new NTS Programme Director and formalisation and appointment of the role of Sponsor and strongly support these changes. The new Programme Director should be fully empowered to make changes to the structure of the team and any associated personnel changes deemed necessary

G3. The governance structure should be revised to reflect clear levels of accountability, responsibility, decision rights and information provision. Forums that include Cubic and how each of these interfaces with the main NTS governance structures, also need to be captured

G4. The PLT needs to be revised to ensure an appropriate membership contingent with strong oversight of the resolution of matters pertinent to that forum. Membership must include people with ticketing operational and customer management experience. A culture of collaboration and respect must be embedded to enable successful outcomes. A clear information and escalation pathway is required from PLT to the GB to enable the GB to perform effectively

G5. The change request management process should be reviewed and then robustly implemented with rigorous oversight and time focused decision-making drivers

G6. There are multiple Decision Registers in place including one for each software Release and one for the GB. There is an opportunity to restructure these Registers to be able to extract decisions made at all relevant forums including the PLT. To provide visibility, key decisions made at lower-level governance forums should be reflected in the papers provided to higher governance forums

G7. Strong management oversight of the governance forums is required including the content of the materials presented at each. Only relevant matters should be presented and in as concise a manner as possible, with clarity around the issue and the recommendation

G8. Agreed actions from external reviews ⬛⬛⬛⬛⬛⬛⬛⬛⬛⬛⬛⬛⬛⬛⬛⬛⬛⬛⬛⬛⬛, need to be owned with target dates set and then time-managed back to completion

G9. An environment and culture of faster decision making needs to be adopted

G.10. The PMO lead has not been given the authority to improve governance outcomes including the content and sequencing of documents submitted to the GB.

4 Solution

The scope that NTS needs to deliver is not locked down and is evolving as the programme progresses. It is being managed with a technology focus rather than a customer focused programme

Observations

- NTS requirements were developed over five years ago taking an outcomes-based approach. As time has gone on, overall requirements have become more obscure

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Recommendations

S1. Opportunities for cross-PTA harmonisation and any other standardisation such as customer channels and data management should be captured. The programme must otherwise commit to the delivery of PTA fares and ticketing policy road maps (excluding concession harmonisation) and not seek to unreasonably de-scope the solution   . It

is imperative that the GB fully align and provide clear direction to the Programme Leadership Team (PLT) on the detail of this recommedation

S2. A detailed Requirements Traceability Matrix is required

S3. Workshops can then be held with Cubic to confirm how much of the solution they have already delivered, what of the required NZ solution has been delivered in other jurisdictions and which requirements are new for it to deliver for NZ and their level of complexity. An assessment of Cubic's strengths and weaknesses should also be undertaken and factored into forward planning

S4. Clarity on what the end-to-end solution will look like across NZTA and the PTAs including customer behaviours and channels, PTA local interfaces and reporting is required to enable effective decision making and planning and ensure the Programme team is on the same page when developing their constituent plans

S5. A mindset shift from thinking of this as a technology programme to a 'the customer is at the centre of everything we do' is required across all solution design decisions.

5 Delivery

The Programme continues to be progressively delayed

Observations

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- There has been a strong thread of 'optimism bias' from some of the senior programme leaders and across other members of the PLT

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- Detailed requirements for Releases 1 and 2 are still being finalised. Release 2 is required to be able to add another PTA after ECan to the solution.

- The NTS Implementation sequence reflects ECan, then the RC then GWRC and finally Auckland.

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AT already has an EMV solution in use by customers, albeit it is not an account-based solution

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Recommendations

D1. A plan is urgently required to support the continued operation of legacy fare collection systems in Ecan and GWRC,

[REDACTED] This should not consider options that require a significant system refresh and associated investment

D2. NZTA should work immediately and collaboratively with Cubic to unlock a guaranteed greater share of global Cubic expertise dedicated to the NTS as a means of establishing confidence that it can accelerate progress and reliably comply with reset Programme delivery milestones

D3. In parallel, it is imperative that programme requirements be better defined [REDACTED] and that there is a baseline which can be managed to:

    a. [REDACTED]

    b. Perform a gap analysis of completed requirements and what Cubic's proven solution can deliver

    c. Baseline the programme across scope/requirements, budget and timelines, dividing scope into clear releases across programme life

    d. Manage delivery back to signed off scope/requirements, budget and timelines. [REDACTED]

D4. [REDACTED]

D5. The RC should be moved to the back of the implementation sequence so that GWRC follows on directly from ECan

D6. Alongside this, the AT Early Integration (SOW13) change request should be developed and implementation fast tracked as this will provide confidence that the core EMV solution and supporting operational processes work for Adult fare paying customers, while cross regional concession approaches are resolved

D7. It is noted that an Integrated Plan is being developed and we impress upon NTS to consider that as an interim deliverable until the actions from this Review have been completed. Those actions need to include the development of a realistic Integrated MPS covering both Cubic and NZTA/PTA deliverables to drive the Programme and manage delivery to the contracted baseline

    a. Acknowledge the delivery track record to date, the functionality backlog yet to be built, [REDACTED]

    b. Follow normal programme management processes such as rolling wave planning. Rigorously implement stage gates that set measurable criteria to drive solution quality and trust in the recipient PTAs

D8. Ensure adequate experienced scheduling capabilities in both Cubic and NZTA teams to scrutinise schedules and identify areas of risk and drive correction - manage interdependencies tightly.

6 Resources

The programme structure is non-standard, has a surplus of some resource types while others are missing. There is a lack of trust and collaboration across the team

Observations

- The programme appears to have been on the backfoot from the start with no provision for a mobilisation phase. The programme therefore jumpstarted without several key Cubic team members in place with a solid level of understanding of ticketing or the programme

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- Public transport and ticketing knowledge within the programme team only exist in pockets. This reinforces the need to partner effectively with the PTAs and existing expertise within NZTA to leverage that knowledge

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- The current NTS programme organisation structure is non-standard. There is an excess of business analysts, project managers and solution architects with a consequent lack of consolidated business readiness and customer preparation resources

- PTAs and some NZTA teams sit entirely outside the main structure which discourages effective teamwork and collaboration

- Communication is poor and team members can often be ignorant of the direction being set by leadership and what decisions have been made

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Recommendations

R1. Assess Cubic's team size and capability.
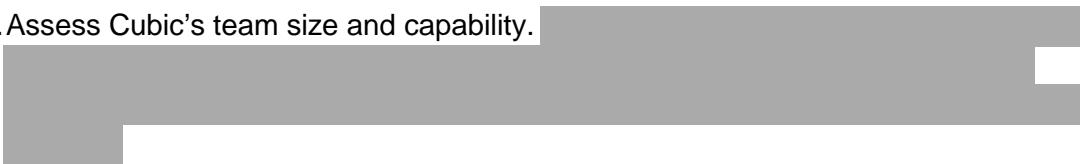
R2. Restructure the programme team to be aligned to a standard ticketing programme delivery model which reflects equality across engineering, business and operational readiness, customer transition and the PMO functions.

R3.

R4. A culture of partnership and collaboration must be embedded within the programme, which will be assisted by the secondment of some PTA team members into the programme team. Steps need to be taken to ensure the right participants across PTAs, NZTA and Cubic participate in decisions pertinent to them. At the same time, the difficult challenge of balancing the number of voices involved is required to fast track decision making

R5. Rework cross programme and governance communication mechanisms and frequencies to provide better clarity to all participants and stakeholders

R6. Review the Cubic/NZTA/PTA governance structures and participants to ensure the right people are involved in the right discussions.

7 Options and Next Steps

The NTS business case prepared by NZTA established a strong economic case for proceeding with a single national fare collection system over a series of regional upgrades. The implication for the business case associated with the delayed delivery of NTS is mitigated somewhat by the fact that Auckland Transport has rolled out contactless payments to its customer base. Auckland serves around 60% of New Zealand's public transport customers and the provision of contactless payments is the most important driver of benefits associated with contemporary fare system upgrades such as NTS. However, NTS is required to enable the full Auckland Transport fares policy roadmap. Moreover, almost 80% of the total benefits delivered by NTS over and above standalone regional upgrades are tied to NTS delivery to GWRC, ECan and the RC.

As such, despite the delays   , there is no strong rationale not to proceed with NTS at this point.

The figure below therefore supports the continuation of NTS. The successful implementation of the 10 overarching recommendations and 32 detailed recommendations contained in this report will significantly enhance confidence associated with the delivery of the NTS programme. This will augment the initiatives already identified by the GB.

8 Glossary of terms

ABT – Account Based Ticketing

AT – Auckland Transport

ECan – Environment Canterbury

EMV – Europay, MasterCard Visa

ELT – Executive Leadership Team

GB – Governance Board

GWRC – Greater Wellington Regional Council

NTS – National Ticketing Solution

NZTA – New Zealand Transport Agency Waka Kotahi

PLT – Programme Leadership Team

PMO – Programme Management Office

PTA – Public Transport Authorities

PT – Public Transport

RC – Regional Consortium

RITS – Regional Interim Ticketing Solution (provided by Init)

SOW – Statement of Work

TSMSA – Ticketing Solution Master Services Agreement

TTP – Transport Ticketing and Payments team

UAT – User Acceptance Testing.

Appendix

A. High level summary of documents reviewed

- Business Case

- Programme Management Plans

- Old versions of schedules

- Release Plans

- GB and PLT papers

- Risks and Issues

- Programme Org Structure

- TSMSA

- Testing Strategy

- SOWs 1 and 13

- Other miscellaneous

B. List of interviews conducted

C. **Management response to the Draft Report**

Type	Ref #	External Review Recommendations	Mangement Responses
Overarching Recommendations:			
Recommendations	1	A plan is urgently required to support the continued operation of legacy fare collection systems in ECan and GWRC, ▮▮▮ Additonally, the Programme's implementation sequence should be revised so that the Regional Consortium (RC) is put to the back of the rollout queue so that GWRC, with more immediate needs, follows ECan	Management have undertaken a review in conjunction with PTAs and timelines for decisions required to be made to support their ticketing business continuity. Options and costs for the continuation of each legacy system are being gathered and collated and will form part of the integrated plan.
Recommendations	2	▮▮▮	Management have agreed to review progress of delivery at the end of September on a number of evaluation points including the delivery on time of Release 1a and b and concessions work being available for ECAN from SIT.
Recommendations	3	Programme management and governance should be restructured to ensure a more effective overall governance framework is in place with effective leadership, tight membership, clear decision rights and escalation pathways and succinct information provision. Forums that encompass Cubic should be reflected in this structure	New NTS Programme Director appointed & commenced 7/07. The structure of the programme is currently being worked on with advice from LEK as well. The governance structure of the board is under review, taking into account the P2 agreement which will need to be amended if and when changes are contemplated. The lower level management operation of the PLT is being reviewed to improve the working collaboration between the project and PTAs. The Cubic NZTA strategic and project overview executive meeting have been reviewed and the TOR amended to propose removing the Board members from Operational Matters and align the meeting to the meeting objectives
Recommendations	4	A realistic integrated Master Programme Schedule (MPS) covering both Cubic and NZTA/PTA deliverables and all customer and operational transition activities should be developed to enable effective programme management and instil stakeholder confidence in delivery and associated timelines. ▮▮▮	The Integrated Plan being developed by the Programme will include details from all of the parties. Workshops are being held mid July with each of the PTAs to understand their components of the plan which is required to build an Integrated Plan. A resource matrix has been circulated to the PTAs so that gaps in resource of capability can be identified and rectified. The same is being done to map Cubic resources to the project resources to ensure alignment
Recommendations	5	▮▮▮ comprehensive programme scope with supporting requirements should be documented to provide that vision ▮▮▮ manage change requests effectively and enable the vendor and NZTA/PTAs to develop and execute a delivery plan with confidence	These components exist, branding has been agreed and signed off including the co-branding required for Auckland. A clear vision of the outcome is there. ▮▮▮ That expectation is best expanded by Auckland's view that the new system should provide at least as much functionality as their current system. A more concise set of outcome goals will be developed with the PTAs to ensure that the outcome vision is aligned.
Recommendations	6	Opportunities for cross-PTA harmonisation and any other standardisation such as website functionality and customer channels and data management should be captured. The programme must otherwise commit to the delivery of PTA fares and ticketing policy road maps (excluding concession harmonisation) and not seek to unreasonably de-scope the solution ▮▮▮ . It is imperative that the Governance Board fully align and provide clear direction to the Programme Leadership Team (PLT) on the detail of this recommendation	Noted and Agree. There is no plan to offer website customisation for each PTA. Standardisation of Fare Types has been agreed during July by the PTAs. The Programme is looking to involve PTAs more in design work for the web as it is an agile approach using 2 weekly sprint showcases to obtain feedback for instance.

Type	Ref #	External Review Recommendations	Mangement Responses
Recommendations	7	The NTS programme team structure and associated resourcing should be moved to a more conventional model which reflects equality across engineering, business and operational readiness, customer transition and the PMO functions. Clarity around the required capabilities and expertise is required and the timing for on and off boarding tied to a reliable MPS. The Programme Director needs to drive collaboration and partnership across the team	New Structure has been developed under the new NTS Programme Director. This includes a skills gap analysis. Ways of working across the programme, Cubic and PTAs will be part of this. It still needs finalisation & implementation
Recommendations	8	The programme has been technology-led and additional resources with public transport fare collection experience, including secondees from the PTAs, should be embedded in the revised programme organisational structure	Noted and this will be further improved. It is noted that there are 4 PTA members of the PLT. There is also ticketing experience in the TTP business function, who are heavily involved in the NTS Programme The Design Review Board comprises PTA subject matter experts and numerous design workshops were held with PTA business representatives.
Recommendations	9	Cubic must commit additional global expertise dedicated to the programme,	This is being addressed with the new NTS Programme Director and Technical Lead meeting in person with Cubic in the USA
Recommendations	10		
Sub Recommendations:			
Commercial	C1		

Type	Ref #	External Review Recommendations	Mangement Responses
Commercial	C2	▨▨▨ an assessment of contingency solutions for ECan and GWRC is required. This should not consider options that require a significant system refresh and associated investment ▨▨▨	Work is currently underway to identify and plan decision dates and cost impacts for all the PTA service continuity. It will be available by the end of July
Commercial	C3	An assessment of what scope can be delivered within the remaining capital budget should be completed and GB confirmation sought that this scope is acceptable for NTS.	A rebaseline of the project including a new finance forecast and resource forecast are being prepared ▨▨▨
Governance	G1	The GB needs to fully align on the scale and scope of requirements harmonisation (beyond concessions) and provide clear direction to the PLT	It is noted that the GB will need to make some decisions about how much PTA specific requirements can realistically be implemented within the current funding envelope.
Governance	G2	We note the appointment of the new NTS Programme Director and formalisation and appointment of the role of Sponsor and strongly support these changes. The new Programme Director should be fully empowered to make changes to the structure of the team and any associated personnel changes deemed necessary	Agree and these aspects are being addressed
Governance	G3	The governance structure should be revised to reflect clear levels of accountability, responsibility, decision rights and information provision. Forums that include Cubic and how each of these interfaces with the main NTS governance structures, also need to be captured	Agree, the new NTS Programme Director is working on a new structure and ways of working across the programme to address this
Governance	G4	The PLT needs to be revised to ensure an appropriate membership contingent with strong oversight of the resolution of matters pertinent to that forum. Membership must include people with ticketing operational and customer management experience. A culture of collaboration and respect must be embedded to enable successful outcomes. A clear information and escalation pathway is required from PLT to the GB to enable the GB to perform effectively	Agree, the new NTS Programme Director is working on a new structure and ways of working across the programme to address this
Governance	G5	A robust change request management process should be implemented with rigorous oversight and time focused decision-making drivers	Change Management process is being reviewed and a new framework and process will be implemented in August that enables the GB to have visibility and accountability for projects changes. Cubic has also completed a review which identifies better ways of manging change requests which will be implemented
Governance	G6	A mechanism such as a Decisions Register should be implemented and key decisions made at lower-level governance forums reflected in the papers provided to higher governance forums	A Decisions Register already exists for the GB and there are different Decisions Registers in place across the programme for example one for 0.5 Extension, Release 1(a) etc
Governance	G7	Strong management oversight of the governance forums is required including the content of the materials presented at each. Only relevant matters should be presented and in as concise a manner as possible, with clarity around the issue and the recommendation	Agree, work is underway to prepare better papers, this will include specialist training for staff as well
Governance	G8	Agreed actions from external reviews ▨▨▨ need to be owned with target dates set and then time-managed back to completion	Agree, will be managed by the PMO
Governance	G9	An environment and culture of faster decision making needs to be adopted	The reality of implementing a programme that has Central Government and Local Government parties does by default bring many layers of governance for approvals. It is noted that there are still opportunities for improving the governance structures and approval pathways. NTS Programme Director to consider as part of his structural refresh.
Governance	G10	The PMO lead should be included as a senior member of the programme management team and given the authority to raise matters of critical importance directly to the Programme Director.	The PMO lead is part of the PLT. A weekly 1 to 1 with the NTS Programme Director has been in place for the past 10 months. We will look into this recommendation as part of the structure redesign currently underway.

Type	Ref #	External Review Recommendations	Mangement Responses
Solution	S1	Opportunities for cross-PTA harmonisation and any other standardisation such as website functionality and customer channels and data management should be captured. The programme must otherwise commit to the delivery of PTA fares and ticketing policy road maps (excluding concession harmonisation) and not seek to unreasonably de-scope the solution ▓▓▓▓▓▓. It is imperative that the GB fully align and provide clear direction to the Programme Leadership Team (PLT) on the detail of this recommedation	Noted and Agree. There is no plan to offer website customisation for each PTA. Standardisation of Fare Types has been agreed during July by the PTAs. The Programme is looking to involve PTAs more in design work for the web as it is an agile approach using 2 weekly sprint showcases to obtain feedback for instance.
Solution	S2	A detailed Requirements Traceability Matrix is required ▓▓▓▓▓▓▓▓	Agreed this is a deliverable from Cubic ▓▓▓▓
Solution	S3	Workshops can then be held with Cubic to confirm how much of the solution they have already delivered, what of the required NZ solution has been delivered in other jurisdictions and which requirements are new for it to deliver for NZ and their level of complexity. An assessment of Cubic's strengths and weaknesses should also be undertaken and factored into forward planning	This discussion is currently underway with the NTS Programme Director talking to Cubic executives directly around the state of development of Releases 1 and 2. A Technical Quality Assurance (TQA) review will be undertaken at a suitable time after the External Review. ▓▓▓▓
Solution	S4	Clarity on what the end-to-end solution will look like across NZTA and the PTEs including customer behaviours and channels, PTA local interfaces and reporting is required to enable effective decision making and planning and ensure the Programme team is on the same page when developing their constituent plans	Agree
Solution	S5	A mindset shift from thinking of this as a technology programme to a 'the customer is at the centre of everything we do' is required across all solution design decisions.	Noted and agreed. Work on this has already started with a new approach from the new NTS Programme Director to be more inclusive. Discussions have been held with PTAs to start this realignment
Delivery	D1	A plan is urgently required to support the continued operation of legacy fare collection systems in Ecan and ▓▓▓▓▓▓ This should not consider options that require a significant system refresh and associated investment	Plan is being prepared by the end of July
Delivery	D2	NZTA should work immediately and collaboratively with Cubic to unlock a guaranteed greater share of global Cubic expertise dedicated to the NTS as a means of establishing confidence that it can accelerate progress and reliably comply with reset programme delivery milestones	It has been established that the Cubic development resources are committed via work orders to the development of R1 and R2 requirements for NTS. Additional resources will be allocated to NTS to fulfil R2 development
Delivery	D3	In parallel, it is imperative that programme requirements be better defined ▓▓▓▓▓▓ and that there is a baseline which can be managed to:	It has been agreed that to better define the remaining requirements for development that test scripts will be finalised prior to the development completion to ensure that what is being developed meets the PTA and project expectations
Delivery	D3a	▓▓▓▓▓▓▓▓	Agree
Delivery	D3b	Perform a gap analysis of completed requirements and what Cubic's proven solution can deliver	Agree will need to be undertaken
Delivery	D3c	Baseline the programme across scope/requirements, budget and timelines, dividing scope into clear releases across programme life	Agree, already done for R1 and R2 and further releases are currently under planning ▓▓▓▓
Delivery	D3d	Manage delivery back to signed off scope/requirements, budget and timelines. ▓▓▓▓▓▓	Noted and agreed.

Type	Ref #	External Review Recommendations	Mangement Responses
Delivery	D4		This has been agreed with Cubic
Delivery	D5	The RC should be moved to the back of the implementation sequence so that GWRC follows on directly from ECan	Noted and planning underway
Delivery	D6	Alongside this, the AT Early Integration (SOW13) change request should be developed and implementation fast tracked as this will provide confidence that the core EMV solution and supporting operational processes work for Adult fare paying customers, while cross regional concession approaches are resolved	Agree this action sits with AT who are awaiting SOW from their 3rd party vendors before proceeding
Delivery	D7	It is noted that an Integrated Plan is being developed and we impress upon NTS to consider that as an interim deliverable until the actions from this Review have been completed. Those actions need to include the development of a realistic Integrated MPS covering both Cubic and NZTA/PTA deliverables to drive the programme and manage delivery to the contracted baseline	Agreed and underway. R 2, concessions completed, DCU completed and Website sprints underway
Delivery	D7a	Acknowledge the delivery track record to date, the functionality backlog yet to be built,	Noted, delivery is now broken down into smaller components and is being sequentially delivered.
Delivery	D7b	Follow normal Programme management processes such as rolling wave planning. Rigorously implement stage gates that set measurable criteria to drive solution quality and trust in the recipient PTAs	We are intending to present stage gates for Customer Phase 1 & 2 to the July GB for approval. Phase 3 is August and Phase 4 is September. We are on track for that.
Delivery	D8	Ensure adequate experienced scheduling capabilities in both Cubic and NZTA teams to scrutinise schedules and identify areas of risk and drive correction - manage interdependencies tightly.	Cubic have appointed an experienced scheduler based in Wellington
Resources	R1	Assess Cubic's team size and capability.	Skills and capability matrix is underway
Resources	R2	Restructure the programme team to be aligned to a standard ticketing programme delivery model which reflects equality across engineering, business and operational readiness, customer transition and the PMO functions.	Agreed and underway by the new NTS Programme Director. Cubic resources being mapped to NZTA and PTA resources to ensure sufficient and also alignment
Resources	R3		

Type	Ref #	External Review Recommendations	Mangement Responses
Resources	R4	A culture of partnership and collaboration must be embedded within the programme, which will be assisted by the secondment of some PTA team members into the programme team. Steps need to be taken to ensure the right participants across PTAs, NZTA and Cubic participate in decisions pertinent to them. At the same time, the difficult challenge of balancing the number of voices involved is required to fast track decision making	Work is underway to determine the skills gap analysis and agreement has been reached with 3 of the PTAs to provide additional expert resource to the programme
Resources	R5	Rework cross programme and governance communication mechanisms and frequencies to provide better clarity to all participants and stakeholders	Noted, this is part of the project structure reset by the NTS Programme Director
Resources	R6	Review the Cubic/NZTA/PTA governance structures and participants to ensure the right people are involved in the right discussions.	Noted, this is part of the project structure and meetings review which is part of the reset by the NTS Programme Director