

ID	Recommendation	Priority / Owner
	milestones and a recommendation (<i>recommendation 1.5</i>) that the integrated project schedule is used as the one version of delivery truth. We recommend project reporting is strengthened to include the agreed milestones from the delivery plan. In addition, milestones must include baseline date (based on approved CR 04), actual date and forecast date. This will allow the required high level of visibility and transparency, and highlight any potential future slippage, so it can be appropriately mitigated.	

DELIVERY APPROACH AND MANAGEMENT CONTROLS

Findings

Management

- There appears to be a strong and productive relationship between the MBIE and NEC Project Managers. This strong collaboration, along with clear communication, is a key factor in delivery success, with MBIE maintaining overall accountability for delivery. Project delivery can be complex and when problems occur, there must be appropriate transparency, and a collaborative approach to resolution, along with the appropriate thought leadership, and involvement of the Business Owner representing the users.
- There are various meetings occurring, including a weekly meeting with all supplier project managers, a weekly meeting with business users, and system owner, a 15 minute standup twice weekly with NEC and three standups a week with the internal project team, and we support these.
- We were informed there is also intent to develop a Project Initiation Document (PID) for the project, and we support this.

Scope

- The scope of the project has changed a number of times (supported by approved CR's); however the scope now appears to be clear, with all parties working from, and delivering to functional requirements v1.3 (28/4/2022). There is still some residual work to be completed on the functional and non-functional requirements, and we discuss this further below in the *Re-planning and Requirements* section below. This is also a key lesson we discuss further in the *Lessons Learned* section below.

Time

- A well-constructed and detailed delivery plan (MS Project schedule) contains almost 1,500 lines of tasks and milestones that cover the depth and breadth of the remaining delivery. Whilst the plan is fit for purpose, it does not include some of the important non-product delivery components (e.g. communications, change management, training), and the MBIE Project Manager advises the schedule is being adjusted to be more 'product delivery based'. We understand there is currently a single schedule both MBIE and NEC are working towards for SIT, but not for other deployments. We recommend the integrated schedule is used as the one version of delivery truth.
- There has been a commitment given at the PSG to deliver to the re-baselined plan, and we see no reason for the dates not to be achieved. We note however there has already been some slippage in the delivery of the functional test exit report (10th to 17th October 2022). Whilst this is just one week, the project simply cannot afford ongoing slippage, and there must be a key focus on achievement of the agreed timeframes.
- External dependencies are detailed in the dependency register, with the internal dependencies being managed through the project schedule.

Budget

- The project is forecasting to deliver within budget.

Resources

- Resources are mostly appropriate, however there have been a number of impacts to resources across MBIE, NEC and NCAM across the life of the project, for a number of reasons. Our interviews confirmed there is solid resource commitment from all parties to providing the necessary dedicated resources to complete the remaining delivery and we understand there are some ongoing resource constraints. An integrated resource plan will formalise this commitment to ensure there are the appropriate resources needed.
- The project is being delivered using global resources, and any needed discussions must include the appropriate global resources, with the appropriate subject matter experts leading the discussion.
- One of the lead MBIE Architects is leaving the project, and a replacement must be found to ensure that MBIE provides the necessary leadership in bringing together all elements of the design into an integrated architectural view. We discuss this further in the *Design and System Integration Approach* section below.

Risks and issues

- MBIE risk and issues are captured in the RAIDS register, and are appropriate. Now that the re-baselined plan has been agreed, we'd expect some of the issues and risks to be closed.
- There are number of key risks the project must keep a careful eye on, and there must be shared ownership of risks through a shared risk register.

Stakeholder Engagement, Communications and Change Management

- Stakeholder engagement, communications and change management activities are detailed in the Master BCU Change Management Plan (v0.8 September 2022). The plan contains an excellent level of detail, including stakeholder analysis, impacts/influence, engagement and change management approach and plans for managing the change. The plan also include the training aspects.

Quality

- A Quality Plan details the artefacts that are to be produced by MBIE and its delivery partners, along with who will provide the peer review and sign off. Quality aspects are also built into the various project artefacts (e.g. entry, and exit criteria, and acceptance criteria in the test plans). We discuss this further below in the *Testing and Validation* section.
- Collaboration tools are in place and include a TeamSite instance with NEC, as well as access to Confluence and Azure DevOps etc. for all delivery parties. This will ensure the appropriate visibility and versioning.
- We understand there are plans to have some other shared registers and further discussion is required as to the registers that will be shared.
- We understand co-location is planned for the SIT testing as well as some other deployment activities, to orchestrate the deployment plans and run sheets. We support this approach.

Recommendations

ID	Recommendation	Priority / Owner
1.4	Include the non-product delivery components in the integrated schedule The project schedule is well-constructed and well detailed, containing almost 1,500 lines of tasks and milestones covering the depth and breadth of the remaining delivery. The schedule is broken into two parts with the key milestones (Technical Streams, Integrated Design, Integrated Test Planning, Migration and Deployments) shown upfront, then more detailed plans following, which includes the reporting requirements, design, development, security, testing, migration, deployments, disaster recovery, support and operating model, operational readiness, handover to BAU and closure. Whilst the plan is fit for purpose, it is more focussed on the technology delivery, and does not include some of the important non-product delivery	High MBIE Project Manager End November 2022

ID	Recommendation	Priority / Owner
	components (e.g. communications, change management, training). The MBIE Project Manager advises the schedule will be updated to be more 'product delivery based' and this will include the missing elements.	
1.5	Gain commitment for the integrated schedule as the one version of delivery truth We understand there is currently a single schedule both all vendors are working towards for SIT, but not for other deployments. We understand there is an upcoming planning session scheduled with all vendors, and the intent is to then start actively sharing the detailed integrated schedule. Once this has occurred, we recommend the integrated schedule is used as the one version of delivery truth.	High MBIE Project Manager End November 2022
1.6	Ensure there are dedicated resources assigned to the delivery Our interviews confirmed there is solid resource commitment from the delivery partners to providing the necessary dedicated resources to complete the remaining delivery. The project has suffered from changes in resources and there are several reason for this (resignations, covid etc). Whilst we understand this is not always achievable, the project must ensure there is a pool of dedicated resources for the remainder of the project, and this includes the delivery partners. This will ensure consistency in understanding the project, and its needs, but also enable a greater and more productive working relationship across all parties.	Critical MBIE and NEC Sponsor(s) End November 2022
1.7	Ensure there are appropriate peer to peer discussions occurring There appears to be good discussion occurring across the project, and this is an important success factor for delivery. The project is being delivered using global resources, and any needed discussions must include the appropriate global resources, with the appropriate subject matter experts leading the discussion. There must also be the appropriate peer to peer relationship (e.g. tester to tester, tester to developer, architect to architect etc.) and discussions occurring across the various project components. This includes MBIE resources having appropriate access and direction discussed with global resources. We understand there are examples where MBIE resources are having to write up questions and/or clarifications and this unnecessary work could be avoided through conversation. This is a key success cultural factor for the project.	Critical MBIE and NEC Sponsor(s) MBIE and NEC Project Manager(s) End November 2022
1.8	Develop the integrated resource plan Resources are mostly appropriate, however there have been a number of impacts to resources across MBIE, NEC and NECAM across the life of the project, for a number of reasons. We have also recommended (<i>recommendation 1.2</i>) a full time Business Owner appointed to manage the day to day decision making, and this includes some of the Product Owner responsibilities. Our interviews confirmed there is solid resource	Critical MBIE and NEC Sponsor(s) MBIE and NEC Project Manager(s) End November 2022

ID	Recommendation	Priority / Owner
	commitment from all parties to providing the necessary dedicated resources to complete the remaining delivery and we strongly support this commitment. Similarly, it is pleasing to see that NEC New Zealand has increased its resource pool over time, and this will have undoubtedly increased its knowledge and expertise in the solution(s) that are developed in North America and Japan. Due to the numerous past issues, an integrated resource plan is required to formalise the verbal commitment for dedicated resources to complete the delivery work.	
1.9	Confirm the MBIE Lead Architect The architectural design is central to all delivery partners, and MBIE plays an important role in bringing all of the design elements into an integrated view. One of the lead MBIE Architects is leaving the project, and a replacement must be found to ensure that MBIE provides the necessary leadership in bringing together all elements of the design into an integrated view.	Critical DDI Sponsor End November 2022
1.10	Finalise the communications and change management plans Stakeholder engagement, communications and change management activities are detailed in the Master BCU Change Management Plan (v0.8 September 2022). The plan contains an excellent level of detail, including stakeholder analysis, impacts/influence, engagement and change management approach and plans for managing the change. The plan also include the training aspects. The plan is still in draft and requires finalising.	High MBIE Project Manager MBIE Product Owner End November 2022
1.11	Agree the shared registers In addition to the shared integrated project schedule, we understand there are plans to have some other shared registers and we support this approach. Further discussion is required as to the shared registers and how they will be reviewed and administered.	High MBIE and NEC Project Manager(s) End November 2022

RE-PLANNING AND REQUIREMENTS

Findings

Re-planning

- The project has incurred significant delays, with impacts to all parties, through its delivery life. There has been a historically **Section 9(2)(b)(ii)**, and these have all contributed to the current delivery position. This was exacerbated by lack of clarity of elaborated business requirements, prior to commercial commitment, a misalignment of delivery approach, and external factors (e.g. Covid, loss of resources etc.), and created a challenging situation. There is now clear evidence of a much improved, coordinated and collaborative approach, along with an improved relationship across key delivery partners.

- The project has now been through a re-planning exercise and a new delivery plan has been developed, in collaboration with the delivery partners. A change request (CR04) has also been raised and approved, and this formalises the re-baselining of the project. We understand MBIE and NEC have committed to some key milestones working around the NEC advised delivery dates, and we understand there is referenced in PSG Minutes.
- Now that the CR (04) has been approved, we strongly recommend the updated plan (at milestone level) is tabled at the PSG, and there is a clearly documented and written commitment from all delivery partners to delivering to the agreed milestones (including the appropriate sign off for that commitment).
- The MBIE Project Manager advises there is a planning session scheduled at the project level in late September to kick things off again. Whilst we support this approach, there would be benefit in the project bringing together all parties together for a more formal re-launch co-hosted by the MBIE and NEC project sponsors.

Requirements

- Business Requirements have been detailed in several requirement documents for each of the delivery partners (Datacom, Intech etc.) and have been finalised. The current version of the elaborated functional requirements for NEC is v1.3 (28/4/2022). We understand the bulk of requirements have been completed, with the exception of the updating of some reporting requirements. We understand there are requirements that will/cannot be met, and there needs to be discussion as to the treatment applied.
- The non-functional requirements (V1.0 Final 4/5/2021) remain mostly valid, and we understand the new agreed approach is to manage changes in the Part B Solution Designs. We discuss this further in the *Design and System Integration Approach* section below.
- A number of showcases (demos) were planned to walk through the end to end solution, and this has not yet occurred. This creates significant risk to the project, in that there has been no visibility of the end to end solution, and this requires rescheduling ASAP once entry into SIT has been completed as planned on 17 October 2022.

Recommendations

ID	Recommendation	Priority / Owner
1.12	Gain written commitment from all parties for the new delivery plan A CR (04) has been approved to re-baseline the project, with a go live scheduled for August 2023 and a new delivery plan has been developed, with a go live date of August 2023 (excludes early life support). Both MBIE and NEC have committed to the new plan and milestones, based upon NEC provided timeframes, and we understand there is referenced in PSG Minutes. The detailed delivery plans are being confirmed and there is confidence in the achievability of the plan. We strongly recommend the updated scheduled (in the form of milestones) is tabled at the PSG, to gain written delivery commitment from all parties. This includes gaining written commitment for other major delivery partners who may not be represented at the PSG.	Critical DDI Sponsor End November 2022
1.13	Bring all parties together for a re-launch The MBIE Project Manager advises there is a planning session scheduled at the project level in late September to kick things off again. Whilst we support this approach, there would be benefit in the project bringing together all parties together for a more formal re-launch.	Critical MBIE and NEC Sponsor(s) End November 2022

ID	Recommendation	Priority / Owner
	This will provide the opportunity for MBIE and NEC Sponsors to communicate their commitment and expectations for a collaborative culture and working together with a focus on delivery to the agreed plan. The Project Managers could then present delivery approach and the key milestones detailed in the integrated plan etc.	
1.14	Baseline the Functional Requirements, including the reporting requirements The current version of the elaborated functional requirements (v1.3 28/4/2022) have been finalised, with the exception of the reporting requirements (impact to UAT only), which need further rework. Similarly, monitoring and alerting requires work. The functional requirements document requires baselining and should ideally have been completed prior to the design and development occurring. There should not be any outstanding work and/or uncertainty in this area at this late stage. We discuss this further in the <i>Lesson Learned</i> section below.	High MBIE Project Manager End November 2022
1.15	Determine the treatment of any unmet requirements We further understand there are requirements that won't/cannot be met, and there needs to be discussion as to the treatment applied, to ensure the project still delivers its outcomes to enable benefit realisation. The Business Owner (along with the system owner and product owner) will play a key decision-making role in deciding whether it is acceptable for the requirement not to be met or whether a workaround is required. Where a requirement is not met and there is no time/cost impact then we'd expect this to simply be noted in the traceability matrix with the appropriate documented agreement (i.e. an exchange of emails) between parties. However where there is a time/cost impact, we'd expect a formal CR to be raised and approved. A pragmatic approach would be to roll these in an overarching CR, rather than the current rats and mice approach being taken to raise individually.	Critical Business Owner MBIE and NEC Project Manager(s) End November 2022
1.16	Re-schedule the end to end showcase There has been previous agreement on three showcases, to demo the end to end solution, and the last showcase was cancelled/postponed. There appears to be good reason for this in that NEC was focussed on the completion the functional testing in order to achieve the 17 October 2022 deadline, and we support this work being prioritised. We understand a 'scenario' has been provided by MBIE for the end to end demo, but effort is required for NEC to build the demo due to the high level of customisation in some components of the solution. However, the end to end solution remains unseen and this creates both uncertainty and risk for the project. A demo of the 'working solution' is a key tool for the change management aspects, and will help to build user confidence. Once the SIT entry has been successfully completed,	High Business Owner MBIE and NEC Project Manager(s) Directly following completion of SIT Entry.

ID	Recommendation	Priority / Owner
	we understand there is agreement to the re-schedule the end to end showcase, and we support this.	

DESIGN AND SYSTEM INTEGRATION APPROACH

Findings

- Part A of the Solution Design (v1.5) was approved 5/8/2021, and underwent appropriate oversight as per the MBIE Architectural Review Board (ARB) approval process. However, it is required to be updated to reflect the latest NEC designs. The non-functional requirements remain mostly valid, and we understand the new agreed approach is to manage changes in the Part B Solution Designs.
- Numerous iterations of the detailed designs have occurred, and this work has been completed by all delivery partners, with the exception of NEC. We understand NEC have now completed their detailed design, including internal sign off, and this has been handed to MBIE to review and highlight any gaps
- There appears to have been the appropriate oversight of the design work, by dedicated, experienced MBIE architects. However, there has been a cycle of back and forth dialogue between both MBIE and NEC as to the design specifics over a long period of time, and it appears this approach has not been overly effective at times.
- There are two Part B Solution Design documents (one covering the application and one covering infrastructure architecture) and these are both currently in draft.
- A new approach has now been agreed where MBIE will update the integrated solution design documents from each of the delivery partners, and note any clarifications and/or gaps that require further discussion and resolution. Any dialogue must be led by the MBIE Lead Architect who has the overall design and integration, and obtaining the necessary approval via the MIBE Architectural Review Board (ARB) sign off process.
- Following the functional test exit report delivery and SIT entry acceptance, we understand there are plans to then deploy the BCU software into the MBIE environment, then commence the data migration activities. An MBIE SIT Environment Deployment Overview (v0.1) details the plans, and is a work in progress between the parties.
- The data migration aspects are detailed in the Migration to NEC IDme Plan, IGMS to NEC IDme, AMS to NEC IDme Plan (v0.7 3 October 2022). Data migration will involve various parties and various migrations between applications, and this creates complexity and risk. The plan requires finalising, so a walk through can be completed, and there must be a high level of visibility and transparency of data migration activities by all parties.

Recommendations

ID	Recommendation	Priority / Owner
1.17	Finalise the Part B Designs The delivery partner detailed designs have been through a number of iterations over a long period of time and a new approach has now been agreed where MBIE will update the integrated solution design documents (Identity Management Application Design Part B and Biometrics Capability SIT Solution Design Part B) and note any clarifications and/or gaps that require further discussion and resolution. Whilst we support the approach, there must be the appropriate peer to peer (i.e. architect to architect) conversations occurring so the design	High MBIE Lead Architect March 2023

ID	Recommendation	Priority / Owner
	can be agreed and finalised. Any dialogue around gaps, or further clarification must be led by the MBIE Lead Architect, who has the overall responsibility for bringing together the various architectural components into an integrated view, and then obtaining the necessary MIBE Architectural Review Board (ARB) oversight and sign off. Once the Part B designs are complete, there would be benefit in having a walk through with all delivery partners to ensure the solution is fully understood and the outstanding delivery work (and sequencing of that work) is clear across all parties. The Part B Detailed Design documents require finalising with urgency and they should ideally have been completed prior to the development occurring. There should not be any outstanding work and/or uncertainty in this area at this late stage. We discuss this further in the <i>Lesson Learned</i> section below.	
1.18	Finalise the Data Migration Plans and timings Ensure visibility and transparency of data migration activities The data migration aspects are detailed in the Migration to NEC IDme Plan (IGMS to NEC IDme, AMS to NEC IDme v0.6 15 September 2022). Data migration will involve various parties and various migrations between applications. We also understand some 47 million records will be migrated and this will occur in blocks of 5 million records. We further understand that all 47 million records will be migrated before MBIE SIT can begin, and we discuss this further in the <i>Testing and Validation</i> section below. Data migration can be extremely complex, and the migration plans must be clearly understood by all parties and any necessary pre-work completed to provide certainty of success. This includes data mapping/transformation, and the necessary practice runs to confirm the various migration aspects work, before committing to the actual live migrations. We understand this work is progressing and MBIE have provided records to NEC who are working through this detail currently. There must be clear visibility and transparency of this work from both parties, underpinned by clear communications. The Data Migration Plan requires finalising and a detailed run through of the plan is needed with all parties, to ensure all parties are clear on their role and how the various components will be sequenced, and any pre-migration work required. There were different views expressed by the review participants as to how much time is needed for the data migration activities. The finalisation of the plan, along with the initial test run of 200k records will confirm this and the speed in which it can be completed.	High MBIE and NEC Project Manager(s) End November 2022

TESTING AND VALIDATION

Findings

Testing

- Functional testing is nearing completion by NEC. A testing traceability matrix being completed by NEC to map their functional testing back to the design and business requirements, and we understand is undergoing review by NECAM before being passed over to MBIE.
- A robust MBIE BCU/IPE Updated Test Plan (v1.1 12/9/22) incorporating the final requirements, details the test approach and test phases and is awaiting sign off. We understand some 4000 test scripts have been created for SIT, and these have been scripted in MBIE's Azure Dev Ops (ADO) environment, with traceability back to the requirements. The plans also detail the test entry and exit criteria, and the different defect severity levels. There are a team of five testers, and this is an appropriate level of resources.
- The NEC Functional Test Exit Report is due for completion on 17 October 2022, and an entry criteria for SIT is there are to be no outstanding P1 or P2 defects. At the time of our review, we understand there were just a few outstanding priority (P2) defects to be resolved.
- SIT testing is scheduled between 20/12/2022 and 28/3/2023, and we support the extended SIT timeframes to allow the end to end solution to be thoroughly tested. Test defect meetings will be held twice weekly.
- SIT won't begin until following the migration of all 47 million data records. We understand the migration is being completed in batches of five million records, and we recommend thought be given as to whether SIT can begin following the initial migration batches.
- Following the completion of NEC Functional Test Exit Report, the MBIE testing will join the NEC testers to support the resolution of any outstanding P3 and P4 defects in the NEC test environment. We applaud the collaborative approach being taken for testing.

Security

- We did not have visibility of the security testing plans or certification, but there is evidence of the completed and yet to be completed activity in the project schedule. We understand there has been a delay in security certification, and this is being worked through. We'd expect the project to follow the documented standard MBIE security process, ensuring the delivery solution is certified, and any residual risks are either mitigated or accepted, with appropriate risk(s) noted and business sign off.

Training

- Training activities are detailed in the Master BCU Change Management Plan (v0.8 September 2022). The plan contains an excellent level of detail, including learning scope, timing, delivery and learning approach.

Recommendations

ID	Recommendation	Priority / Owner
1.19	Complete the NEC test traceability matrix A test traceability matrix has been completed by NEC to map their functional testing back the design and requirements, and we understand is undergoing review by NECAM before being passed over the MBIE for review. The test traceability matrix is an important artefact that provides the linkage between the solution meeting the business need, and provides visibility and transparency of the depth and breadth of testing undertaken. Functional testing is drawing to end, and ideally the test traceability matrix should have been completed some time ago. This requires completing with	High NEC Project Manager End November 2022

ID	Recommendation	Priority / Owner
	some urgency and and is a dependency for MBIE to accept the NEC Functional Test Exit Report.	
1.20	Ensure the defect severity definitions are clear across all parties prior to SIT entry The MBIE BCU/IPE Combined Test Plan details the test entry and exit criteria, and the different defect severity levels. SIT entry criteria includes no outstanding P1 or P2 defects and this is appropriate. We note however the MBIE combined test plan documents the defect severity from critical to cosmetic. There must be appropriate discussion across both parties to ensure there is a clear and common understanding of the defect severity definitions and treatments. This includes the alignment between the MBIE and NEC severity definitions (e.g. P1 aligning to Critical).	High MBIE and NEC Project Manager(s) MBIE and NEC Test Manager(s) Prior to SIT entry
1.21	Determine whether SIT can begin prior to completion of the migration activity SIT won't begin until following the migration of all 47 million data records, and is scheduled to begin in late December 2022. We understand the migration is being completed in batches of five million records, and a total of 47 million records will be migrated. We understand the system will be unavailable while the records are being migrated, however we recommend further thought be given as to whether SIT can begin following the initial migration batches. This will allow SIT to start earlier than planned and provide early visibility.	High MBIE/NEC Project Managers MBIE/NEC Test Managers End November 2022
1.22	Review and refresh the training material Training activities are detailed in the Master BCU Change Management Plan (v0.8 September 2022). The plan contains an excellent level of detail, including learning scope, timing, delivery and learning approach. We understand there is some early engagement with NEC on training material and internal discussions occurring within MBIE. The plan is still in draft and requires finalising.	Medium MBIE Project Manager MBIE Product Owner End March 2023

CONTRACTUAL ARRANGEMENTS

Findings

- Signed Statements of Work (SoW) are in place with all of the vendors, and appear to contain appropriate detail including the services, deliverables, management, reporting, meeting and communications, roles and responsibilities, pricing and fees, and acceptance, using the standard MBIE template. Appendices are included for milestones and payments.
- In order to formalise the re-based plan, we understand a variation is being prepared to the SoW milestones, to align with the revised schedule, and we support this approach.

BENEFIT MANAGEMENT

Findings

- Benefits are captured in the original Business Cases (2019) along with alignment to the desired outcomes. Benefits include improvements in biometric data quality, reducing the risk of not capturing biometric data, and improved supportability.
- Benefits are also captured in the benefits tab of the RAIDS Register, and a benefits map provides alignment between the initiatives, outcomes, and benefits. Measures are also included. We note benefits have been tweaked as a result of CR01 and CR02, and additional benefits have been added, and this is appropriate. There is currently no Benefits Realisation Plan, and further work is required to develop one, along with the detailed Benefit Profiles for approval.

Recommendations

ID	Recommendation	Priority / Owner
1.23	Re-confirm the benefits and develop the Benefits Realisation Plan Benefits are detailed in the business case and have been tweaked in the Project RAIDS Register as a result of CR01 and CR02, and this is appropriate. There is good alignment between the project and outcomes that will allow benefits to be achieved. This includes KPIs, current state and timeframe information. Some of the benefits were based on the delivery of a COTS solution, and these require re-visiting and re-confirming as to the efficiency gains, and linkages to the change management aspects. The project must complete the Benefits Realisation Plan to confirm the information captured in the RAIDS Register as Benefit Profiles, benefit measures and owners, ensuring there remains the appropriate alignment of the benefits to the desired outcomes.	Medium Project Manager End March 2023

LESSONS LEARNED

The below section captures some key lessons/themes and the ongoing future learnings/considerations that apply. It is important to note some of the lessons are anecdotal and our review did not seek to do a deep dive into the lessons. Whilst it is important to reflect on these, the focus must remain on project completion.

Lesson	Learning(s)
There was no clear joint project establishment and agreed ways of working • The governance and management arrangements were not sufficiently discussed and agreed as to how the project would work together as part of project establishment. The project involved multiple delivery partners, and was being delivered using globally based NEC resources, despite the contractual arrangements being limited to NEC New Zealand. There was not enough upfront discussion as to the ways of working,	Complete project establishment activities. Discuss and agree the ways of working and document the governance and management arrangements • The governance and management arrangements are a key success factor for any project, especially those that involve multiple delivery partners, and globally based resources. • Determine if there needs to be additional contractual arrangements where delivery is largely completed elsewhere. Complete the

Lesson	Learning(s)
the resources required, the roles and responsibilities and the peer- to-peer global relationships required. • MBIE relied on NEC, via NEC New Zealand, to facilitate the NEC development, that was largely based in North America and Japan albeit within NEC. • The project was also operating during a global pandemic which made co-location of the NZ-based teams difficult, even though this attempted on at least two occasions. • MBIE has a clearly documented project delivery framework, with the appropriate expectation for its use. There was not a clear understanding across all parties as to its use. • The delivery approach was not agreed. This includes the delivery framework(s) used and the key stages. The delivery approach has been an uncoordinated combination of both waterfall and agile aspects and a lack of appropriate sequencing. The elaborated functional requirements were only finalised in March 2022 – three years after business case approval, and two years after SoW approval. The design work is still in progress, despite the development work also being completed. • The lack of agreement of the above aspects meant parties were operating in silos, and appeared to lead to a culture of mistrust, and not working in collaboration. There was not the appropriate visibility and transparency of the known delays and their causes, and shared problem solving.	necessary due diligence on both sales and delivery aspects of organisations. • Discuss and agree the governance and management arrangements upfront, as part of project establishment. This includes the collaboration aspects (and the global organisations/resources involved), the roles and responsibilities, and having appropriate and direct peer to peer relationships with the necessary expertise. Typically the governance and management arrangements would be captured in a Project Management Plan or Project Initiation Document. • Discuss and agree the delivery approach, and the sequencing of work, along with agreement of who will lead the various components. Ensure clear expectations are set as to expected adherence to the MBIE delivery framework. Agree whether waterfall or agile delivery is the most appropriate delivery mechanism. • Utilise the MBIE stage gate approval process. Stage gates are a useful mechanism to ensure projects have delivered agreed artefacts expected in each stage (e.g. elaborated requirements, design before development completion etc.) and to ensure there is continued alignment to the business case promises. • Agree the cultural aspects; encourage collaboration, trust, visibility, transparency and shared problem solving. Detailing these as a list of 'Principles' with the governance ToR, can be an effective way to foster a healthy culture.
There was not a clear discovery phase with the appropriate planning fact, to determine the delivery path • Statement of Work(s) were signed in August 2020 (BCU) and December 2020 (IPE) and reflected the change in scope. Whilst the SoW milestone dates were noted for delivery between 2020 and 2021, the requirements were at too high a level to detail the business need or determine the delivery dates.	Include appropriate discovery phase and planning activities to gain certainty of the delivery path • Include appropriate time to complete discovery and planning (the 'what'). This includes a collaborative approach between parties to elaborate the requirements, refine the high level design, determine any gaps, and how they will be managed. • When scope changes, revisit the discovery to include depth and breadth of the new scope.

Lesson	Learning(s)
- The first version of the elaborated functional requirements did not emerge until April 2021. These have been updated a number of times, and in the current version (1.3) they were completed April 2022. - A SoW variation was completed to update the milestones, following approval of CR03, and despite this the agreed deadlines were missed multiple times. Section 9(2)(b)(ii) - We understand there was initially some high level discovery work done, however we didn't have visibility of this. When the scope changed, the discovery work was not repeated as it should have been.	- Following discovery and planning clearly document the delivery path (the 'how') and gain commitment the delivery timeframes. - Ensure the commercial arrangements manage risk by gaining agreement to commit a portion of the time / budget to do more detailed discovery to confirm the business case assumptions, and determine fit, and include a key stage gate decision to agree continuation of the project. - Ensure there are detailed and clearly documented milestones (including the baseline, forecast and actual dates) included in project status reporting. Ensure the PSG is clear on its accountability in holding itself, and its members to delivery account. - We understand a variation is being prepared to the SoW milestones, to align with the revised schedule and approved CR04, and this is appropriate.
There was not enough thought given to configuration vs. customisation - There was a generally accepted view that the project would be delivered as a commercial off the shelf (COTS) solution, and there was discussion on this. However some components (e.g. Reveal) have been highly customised. - CR02 clearly states 'Replacement of bespoke Datacom code with industry proven "off the shelf" NEC tools.' There does not appear to have been the appropriate focus on the desired outcome or the necessary work undertaken to confirm if this was indeed possible. - The current product is a bespoke (customised) solution, and it appears there was too much emphasis on replicating the current processes. - The project had a heavy integration need and the complexity of this aspect, given the NEC out of the box design, was under-estimated.	Determine the desired outcomes and complete the necessary work to confirm whether they are achievable - Agree the desired outcomes, and communicate the expectations (as part of the discovery phase). - Undertake the necessary work to determine whether configuration of the solution could have delivered on the benefits rather than customisation. Typically this work would be led by a business analyst, working closely with the business subject matter experts to document the current workflows, and the delivery partner to determine the changes required to the existing business process to deliver a COTS solution, and any gaps. The delivery partner would provide thought leadership and system expertise. - Understand the integration aspects needed and how this impacts the design and solution.

REVIEW SIGN OFF

MANAGEMENT COMMENT

This has been a useful review after a period of resetting the project and ensuring deliverables could be achieved. The project is close to achieving SIT entry and the start of data migration. Both, when achieved, will be notable achievements. The recommendations in this IQA report are useful and reinforce a focus on ensuring governance support for delivery teams, the continuation of a productive relationship with NEC, and the successful delivery of this programme of work. As such the recommendations are accepted, and will be tracked with achievement monitored by the joint NEC/MBIE Steering Group.

SIGNOFF

Section 9(2)(a)

19/10/22

Robyn Moriarty
DDI Sponsor

[date]

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David Williams
Engagement Lead
DW Consulting Limited

[date]

APPENDIX A – REVIEW TERMS OF REFERENCE

SCOPE

The scope of this review included the following:

- The BCU Project, currently in the delivery phase.
- A detailed review of key project documentation.
- One-on-one meetings with key stakeholders.

To address the review objectives, the following items were included in scope:

- Understanding the factors that contributed to the re-planning and re-scheduling of the project implementation, and what factors could have been managed better to support effective re-planning and delivery scheduling of the project implementation.
- Whether the process used to develop the time and cost estimates of the re-planned project was appropriate and aligned with good industry practice, and MBIE project management/planning standards.
- Whether qualified oversight over the suppliers' design(s) has been robust and appropriate for the scale and significance of the project.
- Whether the solution delivery processes used were appropriate and align/ support MBIE project management processes/expectations.
- Whether contractual arrangements with key suppliers captured the appropriate expectations.
- Assessment of the project governance and management environment and structures, including roles, responsibilities, capability, capacity, approach, processes, standards, and controls that were used to support the planning and phasing.
- Standard project management controls and the degree to which they were employed during the planning phase and support the remaining delivery:
 - Scope definition and management, including managing design brief and outputs
 - Schedule and dependency management
 - Financial management, including the cost estimation
 - Resource and contract management
 - Commercial arrangements with suppliers
 - Risk and issue management
 - Stakeholder engagement and communication
 - Quality management
- Identification of what is going well and areas of opportunity for improvement over the remainder of the project lifecycle.

Scope Exclusions

The scope of this review excluded the following:

- Review of any other project or business system.
- Detailed review of the RFP processes or contractual arrangements.
- In depth quantitative review and assessment of cost estimates and financial business benefits.
- Detailed review of the suppliers' design(s) and their appropriateness.

DOCUMENTS REVIEWED

-  _20200825 DXC_WI836 Biometrics Capability Update (BCU) SoW_CE and DXC fully SIGNE
-  _20200825 NEC Biometric Capability Update SoW_SIGNED.pdf
-  _DXC WI-836 - BCU Additional requirements CR01 Mar21 - SIGNED.pdf
-  _NEC IPE As a Service SOW - Signed 18Dec20 FINAL .pdf
-  20201218 Datacom Project Variation 4 Request K10902 INZ Biometric Capability_SIGNED.p
-  20220121 MBIE 109 - Theta BCU API Delivery SOW v3 (Final) - Signed.pdf
-  20220616 - SIGNED Extension of Services NEC Master ICT Agreement.pdf
-  20220815 CR003 Datacom IGMS Sub Proj Plan (SPP#30) Resource extension.pdf
-  Argonaut - FCC Check for BCU Integration SOW v2.0 - Signed - FINAL .pdf
-  Argonaut FCC Check Analysis SOW - Counter-signed FINAL.pdf
-  BCU CR018 - Initiation Further Extension Commence Implementation-Signed.pdf
-  BCU CR24 Include Business Context in DB16 & DB19 Messages FINAL.pdf
-  BCU Initiation - IGMS Work Statement 458 Signed BMDW.pdf
-  CR014 - BCU extend initiation phase Signed.pdf
-  IQ_Office_BCU_ICT_Contract_MBIE_Final.pdf
-  ITMS BCU initiation Phase K10902 SOW Signed.pdf
-  K10902 - BCU_ENV0_Variation 1_DC Fully Signed.pdf
-  K10902 - BCU_ENV0_Variation 3_Ver 1.1 - Signed.pdf
-  K10902 ITMS Variation 2 DC Fully Signed.pdf
-  MBIE WR752a BCU Project Change Request CR001 v1.0 - Signed.pdf
-  MBIE WR752a BCU Project ENV1 and ENV2 v1.3 FINAL-Signed.pdf
-  Memo Datacom Squad May 2021 - SIGNED.pdf
-  NEC BCU Project Initiation SOW signed.pdf
-  NEC EnvZero SOW MEMO Signed.pdf
-  SIGNED IPE SoW for design assistance.pdf
-  SPP30_CR02_BCU Squad_Extension v1.1 Final.pdf
-  Vodafone WR752 BCU EnvZero Project v1.1 Signed.pdf
-  BCU RAID Register.xlsx
-  Copy of BCU Budget Forecast to complete.xlsx
-  BCU - Identity Management Application Design Part B V0.9.docx
-  BCU Architectural Solution Design Part A.docx
-  BCU Infrastructure - SIT Solution Design Part B v3.0.docx
-  Biometric Capacity Update - Part B for ARB.docx
-  MBIE Data to NEC Migration Plan v0.6.docx
-  3644 - Master BCU Business Change Management Plan.docx
-  20211101 MBIE Milestone Variation v1.5 MBIE_SIGNED.pdf
-  MBIE Data to NEC Migration Plan v0.7 tracked.docx
-  20220817 BCU Project Status Report.docx
-  20220819 MBIE Governance report.docx
-  20220823 BCU Project Steering Group Minutes2.docx
-  20220823 BCU Steering Group Meeting Agenda.docx
-  20220902 - MBIE Governance report.docx
-  20220905 BCU Project Status Report MBIE.docx
-  20220906 BCU Steering Group Meeting Agenda.docx
-  BCU Steering Group TOR v5.0 .docx
-  MBIE SIT Deployment Overview_Copy.docx
-  AMS Changes Detailed Requirements v0.8 APPROVED.docx
-  D008 DXC BCU Traceability Matrix v0.1 200831.pdf
-  Datacom IGMS BCU Business Requirements_v3.0 APPROVED.docx
-  Intech BCU Business Requirements v1.6 APPROVED.docx
-  MBIE Migration Backfill Detailed Requirements v0.4 APPROVED.docx
-  NEC BCU Business Requirements v1.0 APPROVED.docx
-  NEC BCU Business Requirements v1.2 ISSUED.docx
-  NEC BCU Business Requirements v1.3 Tracked Changes.docx
-  NEC BCU Non-Functional Requirements v1.0 APPROVED.docx
-  NEC Functional and Non Functional Requirements inclu feedback July 2020.docx
-  NEC IPE Functional Specification v2.4.docx
-  NEC IPE Hardware Requirements v2.2 APPROVED.docx
-  NEC Manual Resolution Requirements Final 200904.xlsx
-  NEC MBIE_Specific_Configuration_Requirements_Document_(CSCRD)_05_12_2022_V3_2 APPROVED.
-  NEC requirements changes and impacts v1.2 vs 1.3 draft.docx
-  SRTP Business Requirements v6.10 APPROVED.docx
-  Theta BCU Azure Business Requirements v0.8 APPROVED.docx
-  _Biometric Capability Update Business Case APPROVED.docx
-  BCU Quality Plan.xlsx
-  BCU RAID Register.xlsx
-  INZ_BCU Project IQA Report 1.0 FINAL.docx
-  BCU Technology Schedule 20220914.pdf
-  _3644 - BCU CR02 Change Request 3Jul2020 Update01 - FINAL.docx
-  _Biometric Capability Update Business Case APPROVED.docx
-  3644 BCU Project Change Request 04 v3_clean.pdf
-  3644 BCU short form CR01 v1.0 APPROVED.docx
-  BCU Project Change Request 03 Final for ICDC.pdf
-  BCU RAID Register.xlsx
-  MBIE Biometric Capability Update Test plan.docx

PEOPLE INTERVIEWED

Our thanks go to the following stakeholders who contributed to this review.

Name	Project Role
s9(2)(a)	MBIE Project Manager
	MBIE Project Director
	MBIE Business Systems Owner
Karen Bishop (Acting for Richard Owen)	MBIE Business Owner
s9(2)(a)	MBIE Product Owner
	MBIE Solution Architect
	NEC Project Manager
	NCAM Sponsor
	MBIE Test Manager
	NEC Delivery Owner
Robyn Moriarty	DDI Sponsor
s9(2)(a)	INZ Sponsor
	NEC Solution Architect

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APPENDIX B – DELIVERY CONFIDENCE RATINGS

This review uses the Government Chief Digital Officer (GCDO) Delivery Confidence Ratings that aligns with the Office of Government Commerce (OGC) Gateway© Delivery Confidence Assessment, a recognised good practice standard.

Delivery Confidence Rating	Description
Highly Likely	Successful delivery of the change appears highly likely and there are no major outstanding issues that significantly threaten achievement of the next key milestone.
Likely	Successful delivery of the change appears likely. Attention will be needed to ensure that risks do not materialise into issues threatening achievement of the next key milestone.
Possible	Successful delivery of the change appears possible. However, issues exist in key areas that require management attention in order to achieve the next key milestone. Issues appear to be resolvable at this stage if addressed promptly.
Unlikely	Successful delivery of the change appears unlikely with major risks or issues in key areas that require urgent management attention. Achievement of the next key milestone is in doubt.
Highly Unlikely	Successful delivery of the change appears to be highly unlikely due to significant issues which do not appear to be resolvable at this stage. The schedule may need to be re-baselined or overall viability of the investment re-assessed

MINISTRY OF BUSINESS, INNOVATION AND
EMPLOYMENT

BIOMETRIC CAPABILITY UPDATE (BCU) PROJECT

INDEPENDENT QUALITY ASSURANCE REVIEW REPORT



In Confidence

Document Control

Document Information

Document Name	MBIE_BCU Project IQA Report
Contact	David Williams, Director – DW Consulting Limited
Status	FINAL

Document History

Author	Description of Change	Date	Version
David Williams	Initial draft	30 September 2023	0.1
David Williams	Final incorporating factual accuracy review and management comment	4 October 2023	1.0
David Williams	Final Signed for distribution	10 October 2023	1.0

Distribution Control

Person	Role	Date	Version
s9(2)(a)	Project Manager	2 October 2023	0.1
	Head of Portfolio Management	2 October 2023	0.1
	Project Coordinator	2 October 2023	0.1
Richard Owen	Project Sponsor	5 October 2023	1.0
s9(2)(a)	Project Manager	5 October 2023	1.0
	Head of Portfolio Management	5 October 2023	1.0
	Project Coordinator	5 October 2023	1.0
Richard Owen	Project Sponsor	10 October 2023	1.0
s9(2)(a)	Project Manager	10 October 2023	1.0
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Contents

EXECUTIVE SUMMARY	4
Delivery Confidence Assessment Rating	4
Review Objectives	4
INTRODUCTION	6
Background.....	6
Review Approach.....	6
DETAILED FINDINGS AND RECOMMENDATIONS.....	7
Governance and Reporting.....	7
Delivery and Management controls	10
Re-planning and Delivery	14
Testing and Validation	19
Contractual Arrangements	21
Benefits Management	23
Previous IQA Recommendations	25
REVIEW SIGN OFF	27
Management Comment	27
Signoff.....	27
APPENDIX A – REVIEW TERMS OF REFERENCE.....	28
Scope	28
Documents Reviewed.....	29
People Interviewed.....	30
APPENDIX B – DELIVERY CONFIDENCE RATINGS	31

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