

Background and role of Biometric Capability Update (BCU) for identity management

- 1 Biometric data is measurable physical characteristics that are unique to an individual. Accurate biometrics are a core capability for INZ in an environment where identity fraud, terrorism and other sources of harm are prevalent and increasingly sophisticated, and where the volume of identities related to applications and border-crossings is expected to exceed pre-COVID-19 pandemic levels in outlying years.
- 2 The Biometric Capability Update (BCU) project delivers a significant upgrade of Immigration New Zealand's (INZ's) identity management, capture, and matching solution. This is a core capability for New Zealand's future protection in an environment where identity fraud, criminal activity and other sources of harm are prevalent, and increasingly sophisticated. The updated capability is crucial to risk mitigation and meeting INZ's future business needs. It will also assist with expediting visa application processing, improving the customer experience, and an anticipated reduction in manual identity resolution.
- 3 The BCU is a multi-year, technically complex project, involving multiple IT systems, products, and vendors, as well as very large volumes of biometric and biographic data.
- 4 The BCU project is required to improve the level of automated match/no-match results of identities by INZ, through implementation of updated biometric algorithms and software. This will reduce the level of manual resolution of identities required by INZ staff, speeding up visa and travel authority application processing and in time reducing the number of staff needed to complete manual resolution work. A new, more user-friendly, user interface for staff to utilise in their work will also be implemented.
- 5 An update is also being made to the ICT equipment (known as the In Person Enrolment (IPE) hardware) used by INZ to complete in-person enrolment of biometric data for certain cohorts of our customers, for example border cases or Refugee Quota Programme processing of candidates offshore. This will see new, modern and fit for purpose fixed and mobile equipment kits issued to MBIE's Border, Refugee Quota Programme (RQP) and Compliance teams as part of project implementation. Furthermore, it will establish a new model of support from Datacom (third party ICT vendor) with day-to-day maintenance of the IPE hardware and in the moment trouble shooting advice for INZ's staff.
- 6 Problems with the current IPE solution have resulted in failure by INZ to capture high quality biometrics over multiple occasions. This also results in INZ facing:
 - amplified risks at New Zealand's border,
 - inefficiency in operational processing,
 - wasted time and resources,

- an unresponsive and complex support model,
- outdated technology and,
- reputational risk to the organisation.

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- 8 The project is not making fundamental changes to the way INZ collects identity data, the type of data collected or how the data is processed and managed. Core business processes will remain the same and be undertaken by the same INZ's staff more efficiently.

Criticality of biometrics to the security and protection to New Zealand

- 9 The BCU project is critical to INZ's ability to maintain the safety, security and protection of New Zealand in the following ways:
- **Strengthening INZ's decision making** – The project will facilitate the protection of the border by enabling faster, high-quality decisions and will allow automated decision making. The product will allow early detection of high-risk applicants and suspected identity fraud.

Risks will be significantly reduced by using the world's top-ranking matching/no-matching algorithm. INZ will have assurance of high-quality data delivered by an increase in face images used in identity resolution and a higher quality check of fingerprints.
 - **Reduce the risk of illegal migrants entering New Zealand** - By detecting bad actors at the application stage, visas and travel authorities will not be issued to mala fide persons. The risk to INZ, and cost incurred facilitating departures of mala fide customers from New Zealand, is reduced.
 - **Strengthening the quality of INZ's identity holdings** – Meaning correction decisions can be made in an expedited manner, and INZ is able to better share identity data with domestic and international partners.
 - **Support economic growth of the country** – Through greater confidence in biometric matching, leading to automated processing and a reduction in processing time for visa and travel authority applicants (e.g. tourists, international students and skilled labour).

Business benefits of the BCU project

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- 11 The following key benefits are planned to be delivered by the project:
- a) A biometric system that can be fully supported and can manage future data volumes.
 - b) Reduction in time and cost to implement configuration changes and updates, as the INZ Identity Services team will be able to make its own changes to these rather than outsourcing to a vendor.
 - c) Reduction in the number of identity fraud cases each year.
 - d) Reduction in the number of manual identity resolution tasks that need to be completed by Identity Services staff. This will in time reduce the number of FTE required for this work.
 - e) Reduction in the weight and size of IPE mobile kits used to collect biometrics, improving usability for INZ staff in the field. Security of IPE hardware will also be enhanced.

Project Overview – costs and changes

- 12 The project has been in progress since August 2019, when the initial Business case was approved to update the biometric matching and management platforms. The business case indicated the project would take one year to complete (September 2020) with an estimate of \$10.5m Capex. Whole of Life Cost (WOLC) was estimated to be \$19.5m.
- 13 In May 2020, Change Request (CR) 01 was approved to transfer \$831k CAPEX from Project 3315 - Photo Quality Check (PQC). The scope of the BCU project was then increased to include the decommissioning of face image checker, that can only take place when BCU is implemented. The project was still scheduled to complete in September 2020. There was no increase in WOLC mentioned in this change request.
- 14 In July 2020, CR02 was approved to change scope, budget, benefits and duration of the project. The CR detailed the transfer of project 3586 – In Person Enrolment (IPE) to be delivered by BCU. An additional \$5.8m Capex was requested and the Go Live date changed to May 2021. At this stage, WOLC was estimated to be \$30m.
- 15 In July 2021, CR03 was approved to change the budget, benefits and duration of the project. The CR detailed the increase in technical complexity and challenges that had been found during the design phase, which identified that the original approach would not deliver the outcomes defined in the business case. This CR identified that the solution would need to be heavily customised to meet MBIEs requirements rather than implementing a Commercial Off The Shelf (COTS)

- solution. An additional \$6.9m Capex was approved and the Go Live date was changed to July 2022. WOLC at this stage was estimated to be \$30.5m.
- 16 In November 2021, the previous Ministers of Immigration and Finance approved MBIE to allocate from baseline funding capital \$22.15m over FY21/22 and FY22/23 to implement the BCU, with whole of life costs of the BCU estimated at \$30.42m.
 - 17 In August 2022, CR04 was approved to amend the budget, benefits and duration of the project. s9(2)(b)(ii) and a critical milestone was missed. This CR returned \$864k Capex and requested \$4.7m Opex. The Go Live date was changed to September 2023. Again, the WOLC was amended and was estimated to be \$32m.
 - 18 In June 2023, CR05 was approved to amend the budget, benefits and duration of the project. The CR detailed that the key milestone to deploy to MBIEs System Integration Test Environment (SIT) had been missed, along with the Solution Design not being signed off as planned and Data Migration taking longer than planned. An additional \$507k Capex and \$5k Opex was approved and the Go Live date was changed to November 2023. The WOLC at this stage was estimated to be \$32m. In parallel to this, a paper was prepared for the Minister of Immigration in July 2023 seeking approval to go up to \$35m WOLC which was subsequently approved.
 - 19 In October 2023, the BCU project has likely exceeded the \$35m WOLC (actual spend + forecast spend) agreed by the Minister.
 - 20 The updated biometrics platform including hardware is now projected to cost approximately \$53m noting this is still underpinned by a set of assumptions (please see paragraph 36 for a breakdown of the estimated costs). This is an estimate as at this stage the project is still working through the commercials for ongoing support, maintenance and licencing with the key vendor. Recent meetings have identified that these might increase from the previously forecasted costs for these items.
 - 21 If the BCU project were to continue, permission to seek approval for the continuation of the project (by funding via levies and fees) would be required from the Minister of Immigration and Cabinet (or potentially Joint Ministers) with input and advice from Treasury.
 - 22 If the project was seen through to delivery, no Crown funding would be sought as the BCU project is funded through third party revenue from immigration fees and levies.
 - 23 The Ministry has considered options to reduce the overall cost. However, the revised costs reflect the investment required to deliver a functional, quality and secure system based on the solution being implemented.

Challenges

- 24 Initial specifications in the BCU Business Case did not anticipate the complexity of the configuration required to work within the immigration system. For example, the solution is mainly used for Law Enforcement and the vendor did not understand the complexity required for Immigration processing. Also, the system needed to be adapted to allow for the variance of quality of biographical or biometric information that immigration receives.
- 25 Early testing of the BCU project identified weaknesses in the security of the platform. These create vulnerabilities to the security of the data and additional work was required to ensure the update meets Government security standards.
- 26 The project commenced the implementation of the BCU code into MBIEs test environment in July 2023. This took over 9 weeks to complete, 7 weeks longer than anticipated. The project has commenced testing, however due to the number of critical and high bugs that have been found, the testing has slowed down. The time for these bugs to be addressed is a high priority although the key vendor is only able to fix approximately 15 bugs per fortnight due to resourcing.
- 27 A number of contract variations have been required from vendors. These variations relate to requirements clarification due the duration of the project and change in resourcing during this time along with variation from vendors to extend their support of the project due to the delays. The project is still receiving variations from vendors as the project Go Live date continues to be delayed.
- 28 Delays to the programme as a result of these challenges, have increased staffing and related costs to the vendor and the Ministry.
- 29 In addition, the recent Independent Quality Assurance review (IQA) carried out in October 2023 as requested by IQA contained a suite of recommendations (18 in all). The Executive Summary in the IQA report notes the following –

“Successful delivery of the change appears unlikely (by November 2023) with major risks or issues in key areas that require urgent management attention. Achievement of the next key milestone is in doubt.

Despite previous agreement of a refreshed delivery plan, and a firm governance commitment to achieving the delivery timeframes, the project will not achieve the current Go Live date of 17 November 2023. Given the project’s poor delivery history, and its inability to meet agreed milestones, we have doubts as to whether the project will in fact deliver at all, and we question its continuation.

The project is focussed on the completion of the System Integration Testing (SIT), and we support this approach, given the time and cost to date, and the alternative options available. The completion of the SIT is a crucial milestone for the project and must determine project continuation or closure. If the project can successfully complete SIT testing and confirm the solution meets the business requirements, it will likely be in a

better position for the remaining delivery. However, risk still remains including the cost to complete delivery, along with the support arrangements.

As noted in our previous IQA review, the Project Steering Group (PSG) continues to be pivotal to delivery success, and must hold itself, and its individual members, to account for meeting the agreed re-planned milestones, with clear transparency and visibility.”

Proposed changes to the timeline and Go Live

- 30 The project has been working closely with the key vendor to re-baseline the plan and agree a way forward. There are several risks and issues that the project have identified that have looked to be addressed in the new plan, which are regularly being reviewed by the Project Steering Group
- 31 The project is planning to complete the Priority 1 Test scripts and Security Workflow Testing in SIT before deploying to any other MBIE environments such as User Acceptance Testing (UAT) and Pre-Production (PreProd). This means that the project would be longer in duration. However, by following this approach, MBIE would have a higher degree of confidence that the solution would meet MBIEs requirements and therefore have a quality solution in production. This phase would be planned to be completed in February 2023.
- 32 The project would commence the migration and ingestion of the biographic and biometric data in UAT late December as this would take between 4-6 weeks to complete and would need to take place before the code deployment can take place. UAT cutover would start in February 2023, with UAT aiming to be completed in July 2023.
- 33 Upon successful completion of SIT and UAT, the project would then commence the builds of PreProd and Production (Prod). Security assessments would take place to ensure operational readiness and a proposed new Go Live would occur on Friday 30th August 2023, with INZ business users using the new IDme application on Monday 2nd September.
- 34 No Crown funding would be sought as the BCU project is funded through third party revenue from immigration fees and levies.
- 35 The Ministry has considered options to reduce the overall cost. However, the revised costs reflect the investment required to deliver a functional, quality and secure system.

Overview of Immigration Financials

- 36 Finance has provided an indicative view of the overall WOLC if the project was to proceed of approximately \$53m WOLC. There is underpinned by a set of assumptions – as noted below –

Project Costs	19/20	20/21	21/22	22/23	23/24	24/25	Total
MBIE Staff	158,188	500,525	498,760	769,211	1,622,491	603,720	4,152,894
Contractors	313,420	1,457,608	1,646,495	3,361,267	3,407,535	887,354	11,073,678
ICT	913,978	4,808,587	1,000,285	5,267,391	10,284,314	2,975,490	25,250,045
Total	1,385,585	6,766,720	3,145,540	9,397,869	15,314,340	4,466,564	40,476,617
10% Contingency on the remaining							1,780,162
Incremental On-going Costs	24/25	25/26	26/27	27/28	28/29	29/30	Total
NEC	1,019,749	2,039,499	2,039,499	2,039,499	2,039,499	1,019,749	10,197,493
Datacom	80,000	160,000	160,000	160,000	160,000	80,000	800,000
Total	1,099,749	2,199,499	2,199,499	2,199,499	2,199,499	1,099,749	10,997,493
Remaining costs (Oct 23 to Nov 24)	Millions						
12 months of resourcing	5.2	\$430k per month, roughly 15 - 20 FTE's					
Vendor Costs	12.6						
Datacom	2.5						
Datacom Environments	2.4						
DXC	0.7						
NEC	6.4						
Others (In-tech, One.NZ)	0.6						

37 Additional information can be provided upon request on the current Immigration memorandum and levy accounts – and what current commitments have been made in terms of what the fees have been allocated to for Immigration initiatives.

38 At this stage, initial engagement with Treasury has indicated that Treasury believe that the BCU project would need Cabinet authority before it can continue. Finance colleagues are planning to engage with Paul Helm to seek further advice on this matter before having a further meeting with Treasury this coming week.

Alternative Options

32 The Ministry is also considering other options which includes stopping, pausing, slowing down activities or continuing.

a) Stop

- i. Stop any further work on the BCU project. Key vendor deliverables as per agreed milestones will need to be paid as per the relevant vendor MSA termination clauses. The key vendor may claim for all losses (included sunk losses) to develop the current solution above and beyond the fixed price in their Statement of Work (SoW).
- ii. Write-off of approximately \$26m for work completed to date, which include earlier Statements of Work that MBIE have committed too. Advice has been received from Finance on how this could be addressed and what steps would be required.
- iii. Remove uncertainty with project costs and minimises the risk of further spend. Use as an opportunity to seek alternative solutions to implement a solution.

- iv. The current licencing would need to be extended (s9(2)(b)(ii)) until an alternative solution is found.

b) Soft pause

- i. Put a soft pause any further work on BCU until certainty on the direction of WOLC and the project has been addressed. This would mean only key streams of work would continue and these would be the ones that MBIE would be liable to pay for in any case as there is no impact on contracted spend.
- ii. Use as an opportunity to seek alternative solutions to implement a solution.
- iii. Highly specialised teams at the vendor and Ministry are currently deployed on this work. It may be challenging to re-engage similarly skilled individuals in the future and the key vendor is likely to redeploy its staff to other major projects if a pause to the BCU is imposed.
- iv. There is a risk that the key vendor could make the decision to 'walk away' prior to the completion of the project, should it perceive that a pause puts the project at risk.
- v. The key vendor has indicated that they may raise a change request of between \$350k-\$750k a month for delays to project after November 2023. For estimating purposes, the project has forecasted \$400k per month for 10 months at a total of \$4m that is included in the funding requested to complete the project.

c) Slow-down

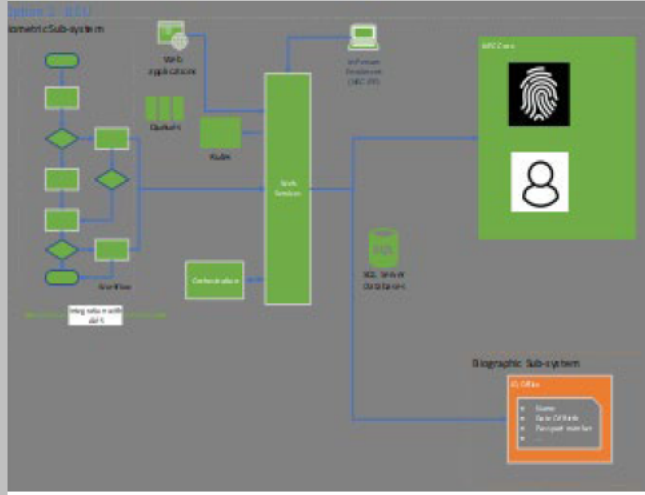
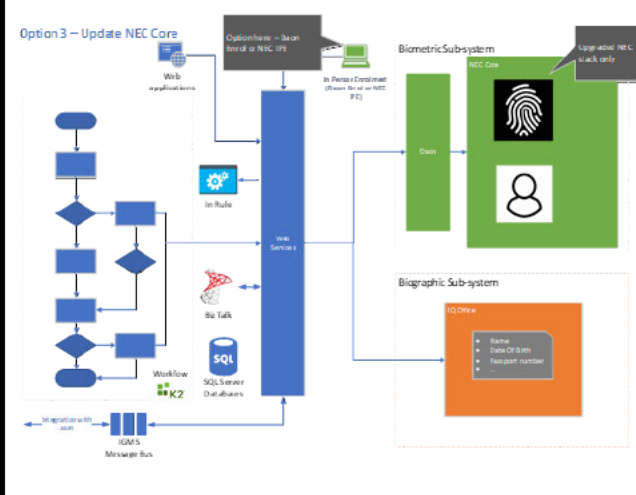
- i. Slow down current activities until certainty on the direction of WOLC have been addressed.
- ii. An options paper was presented to MBIEs Delivery Governance Board (DGB) on 11th September 2023 where it was agreed the project would focus only on activities taking place in SIT. Work in other MBIE environments would be put on hold until the project was able to provide guidance that the solution meets MBIEs quality and security criteria.
- iii. This option would allow the project to provide more certainty on the Go Live date, funding required and WOLC.
- iv. This option is looking at other activities that could be paused in SIT to reduce the spend such as Accessibility Testing, disestablishing the UAT environments and delaying the Security Control Validation Audit.

- v. This option means the project would likely exceed the \$35m WOLC agreed in July 2023 by the Minister but addresses options to reducing the monthly spend.

d) Continue

- i. Continue the project as per the latest approved CR and move through the MBIE environments without completing the checks on quality and security.
- ii. A CR would be required for additional funding and a change in the Go Live date but the confidence in these estimates would be low as testing would not be completed in SIT.
- iii. This option means the project would be over the \$35m put in place in July 2023 by the Minister and will continue to be over until a new agreement is in place with the Ministers and Cabinet.

Appendix One- BCU options table as of 10 November 2023

Option	1	2	3	4
	s6(c)			s6(c)
Diagram				
Description		Continue with existing BCU project once necessary authority to spend has been received - customised solution built by NEC to integrate into INZ's existing systems, and workflow, with new In Person Enrolment equipment (IPE). This option addresses the existing lack of support and provides beneficial outcomes	Continue to pause & explore (under a separate project code & reverting to the existing solution in use) potential upgrade of the core components of the existing Biometrics Solution e.g. NEC and Daon updated matching algorithms. Report back to the DGB on estimated costs and time to implement and make a recommendation on whether to proceed	
Overall option RAG status				
Risk category RAG status summary		Technical Business Benefits Delivery	Technical Business Benefits Delivery	
Specific risk category				
Technical risk		Technical New operating system and architecture to manage the biometric system and associated workflows. Although NFRs yet to be fully tested	Technical New operating system and architecture to manage the biometric system and associated workflows.	
Security risk		Security Security workflow testing not yet completed which could discover additional vulnerabilities that will need to be mitigated or accepted	Security Potential for security concerns to be included in the work done to upgrade the biometric core and operating system	
Business & INZ user experience		Business Updated biometric matching algorithm, additional functionality, and reduction to manual resolution tasks in solution, along with a new UI, however, initial testing has identified limitations. Need to work with key vendor to understand if these can be addressed	Business Updated biometric matching algorithm and potential to provide new improved IPE kit and software if implemented	
Biometric matching algorithm		Algorithm Algorithm to be released from 2020 - not the latest. Need to work with NEC to understand when the algorithm was compiled and what face image technology was catered for	Algorithm Use the latest version of the algorithm	
Alignment to future needs (e.g. decom IGMS and moving to Adept)		Alignment Implementing the NEC solution would be a steppingstone for the INZ business group to decommission IGMS and move to Adept	Alignment Need to continue with IGMS	
Biometric system that can be fully supported and manage future data volumes		Support System fully supported. Unsure of the split of support between vendors	Support New operating system will enable vendors to continue to provide support	

Appendix One- BCU options table as of 10 November 2023

Reduction in time and cost to implement configuration changes and updates	s6(c)	Included in the NEC solution but not tested yet	No change from today and would still require vendor to implement configuration changes	s6(c)
Reduction in the number of identity fraud cases each year		Yet to be tested in MBIE environment as an expected outcome due to new algorithm and functions. Expecting a reduction in manual resolution tasks to allow INZ team to focus on potential fraud cases	New algorithm provides improved face and fingerprint matching, but fraud cases will not reduce	
Reduction in the number of manual identity resolution tasks to be completed by Identity Services staff		The solution includes a new algorithm which will reduce face manual resolution tasks; however, this is still to be tested in MBIE environment	A new algorithm provides better face matching which will reduce face manual resolution tasks.	
Reduction in the weight and size of IPE mobile kits, improving usability for INZ staff in the field		IPE test equipment agreed with NEC meets the reduction in size and weight; however quality of biometric data collected still to be tested	No change from today, unless new IPE kit and software is implemented	
Delivery				
Scope		Until testing has been completed, the project is unable to confirm all scope has been delivered and may have some limitations	Scope would be clear that only Biometric Core would be upgraded at the start, with an option to implement IPE later	
Timeframe		Due to ongoing project delivery challenges, there will remain a degree of uncertainty on the final Go Live date and project timeline - possibly 2025 due to pause	Unknown at this stage until analysis has taken place	
Commercial / legal		Need to work through the variation due to pausing the project. Estimate \$470k per month from November 2023 to Go Live January 2025. EULA and support and maintenance agreements still to be finalised.	No commercial discussions required with NEC directly, only Daon (unless we want to implement IPE, which would require discussions with NEC.) Liability costs that would be incurred due to ceasing agreement with key vendor and other secondary vendors. This could be reduced if IPE is used.	
Delivery cost		The project estimates that an additional \$15.4m CAPEX and \$4.3m OPEX is required to complete the project. The level of confidence in this estimate is low until testing has been completed and the project is certain of the number of change requests required; as such a 10% contingency has been included in these figures. No liability costs	Feasibility and cost of this option would need to be assessed.	
Write-off cost		None	\$19m CAPEX write off and \$5m OPEX sunk cost	
WOLC		Estimated WOLC between \$53.5m - \$60m.	To be determined.	


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Please can you send through the attached memo and e-mail exchanges below through to Greg for his background - Greg requested this following my 1:1 interview with him yesterday. Are you able to confirm if Greg already has this one?

Thanks,

Richard

Richard Owen (he/him)
General Manager - Immigration Risk & Border
Immigration New Zealand | Rōpū Manene
Ministry of Business, Innovation & Employment | Hikina Whakatutuki

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Sent: Monday, 24 November 2025 7:53 am
To: Richard Owen <[9\(2\)\(a\)@moe.gov.nz](mailto:9(2)(a)@moe.gov.nz)>
Subject: FW: BCU Next Steps Thoughts - Commercial is Confidence [IN-CONFIDENCE]

Thanks,

Richard

Richard Owen (he/him)
General Manager - Immigration Risk & Border
Immigration New Zealand | Rōpū Manene
Ministry of Business, Innovation & Employment | Hikina Whakatutuki



Sent: Sunday, 5 November 2023 3:41 pm
To: Michael Alp mike.alp@nibie.govt.nz; Greg Patchell greg.patchell@nibie.govt.nz; Richard Griffith richard.griffith@nibie.govt.nz; Aaron Toatelegese aaron.toatelegese@nibie.govt.nz; Alison McDonald alison.mcdonald@nibie.govt.nz; nibie.govt.nz

Subject: RE: BCU Next Steps Thoughts - Commercial in Confidence [SENSITIVE]

Hi all,

Please see the attached draft memo for your consideration prior to our meeting tomorrow. The memo (whilst not perfect) hopefully provides enough context for an informed discussion with you all.

I look forward to discussing next steps and finding a way forward for this important mahi.

Thanks,

Richard

Richard Owen (he/him)
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From: Richard Owen <[9\(2\)\(a\)@mbie.govt.nz](mailto:9(2)(a)@mbie.govt.nz)>

Sent: Sunday, 5 November 2016 2:33 pm
 To: Michael Ali michael.ali@bse.gov.np; Greg Pitchell greg.pitchell@bse.gov.np; Richard Griffiths richard.griffiths@bse.gov.np; Aaron Tostelegren aaron.tostelegren@bse.gov.np
 Cc: Richard Covey richard.covey@bse.gov.np
 Subject: RE: BCU New Accounts - Commercial in Confidence [SENSITIVE]

Thanks Michael – much appreciated. These are useful prompts for our discussion tomorrow. I have added in Alison for completeness as well

I have a memo that I have nearly finished in draft that summarises some of the BCJ history and will send through to the people above later this afternoon which provides a bit of further context as well to support discussions tomorrow

Thanks,

Richard

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From Michael Al... 9(2) ...

From: Michael A. [redacted] <mbe.gov@sp.gov>
Sent: Sunday, 5 November 2017 12:15 pm
To: Richard Owens <mbe.gov@sp.gov>; Greg Patch <mbe.gov@sp.gov>; Richard Griffin <mbe.gov@sp.gov>; Aaron Tostelberg <mbe.gov@sp.gov>
Subject: BCU Owens & Associates - Commercial in Confidence (SENSITIVE)
Importance: High

Good afternoon all,

As you know I am away for the next two weeks. Given the discussions over the last week, I wanted to quickly give you my own set of thoughts:

- 1) I would recommend a soft pause – by this I mean only key areas of work continue – and these should be the ones that we would be liable to pay for in any case so there is no impact on contracted spend
- 2) During the soft pause period, a rapid assessment is undertaken to:
- a. Understand the timelines and why these have extended so much at reasonably quickly – do we consider we have taken a conservative or a realistic approach
 - b. How does the change in projected spend relate to the above? Has this been correlated to the contracts i.e. is any of the contracted spend set regardless of the timeframe or have we assumed that any time extension has automatic cost implications on all parties?
 - c. We started off with the out of the box solution and this is now heavily customised. Can we unwind any of the customisations – and how does this compare to other Five Eyes partners.
- 3) If a decision was taken to do a hard “stop” then we need to:
- a. Be very clear on what we are liable for in regards to contracted spend
 - b. P&L and balance sheet implications
 - c. Understand the risk of any potential, if any, “damages”
 - d. Prepare a considered exit negotiation strategy

Thanks, Michael.

Notă mihi

Michael Alp
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Delivery Governance Board (DGB)

13th November 2023

Biometrics Capability Upgrade (BCU) Project – options paper

Purpose

The purpose of this paper is to provide DGB with an overview of the -

- Current state of the project
- Background and original intent of the project
- Critical role of biometrics in relation to the security and protection of New Zealand
- Benefits of the project
- Overview of costs, changes and financial overview
- Project challenges and proposed re-baselined plan and project timelines (if continued)
- Options for DGB consideration in terms of next steps for the project. The currently recommended option is Option 2 (see Appendix 1 for details and options at paragraph 44 onwards)

Current state

Given the ongoing delivery challenges and delays in the Biometric Capability Update (BCU) project (the project), the project has now reached a critical juncture in terms of the Whole of Life Cost (WOLC). Current approval has previously been provided in July 2023 by the Minister of Immigration for a WOLC of \$35m. It has become apparent that with the spend to date, plus forecasted project commitments the decision to continue with the investment requires Cabinet approval. Treasury has advised that the project should not continue until this approval. The latest WoLC is around \$15-\$20m above the Ministers approval delegation.

Consequently, an urgent meeting was held with Richard Griffiths, Greg Patchell and Alison McDonald, as the three Deputy Secretaries with critical interest in this important project, on 6th November 2023. This meeting was convened to discuss the current financial position and seek advice on next steps.

A number of options were tabled to the three Executives including –

- **Option A** - stopping the project completely
- **Option B** - pausing it and assessing next steps
- **Option C** - slowing down the project
- **Option D** - Continuing the project

Given both options C & D would mean expenditure would continue to be incurred and further cost increase, these were not considered feasible.

In addition, option A was also not considered feasible as this does not allow for the consideration of other possible ways forward.

As a result, option B was supported – meaning the project would be paused and next steps would be assessed. This also meant that all activity related to the project would need to pause – in effect meaning all parties would “down tools”. Subsequent discussions have been held (once key messages had been agreed internally to ensure consistency across all parties) with NEC, all other key suppliers and vendors, the BCU project team and Identity Services staff.

The importance of the role of DGB as the overall Governance authority across the Ministry's projects was also noted – and hence this paper (and the accompanying A3 - Appendix 1) has been created to discuss and work through options as to next steps for DGB – following this “pause” occurring.

It is noted that “pausing” the BCU project creates an additional set of risks in and of itself including:

- There may be some commercial, financial and legal risk created
- Depending on the option(s) selected in this paper, it may be some time before further agreement/authority to spend is in place – in particular if this needs to be noted/approved by Cabinet.
- Potential loss of IP across NEC and the Ministry even in a “pause” phase, regardless of the option(s) presented in this paper.
- Highly specialised teams within the vendors and Ministry are currently deployed on this work. It may be challenging to re-engage similarly skilled individuals in the future and the key vendor is likely to redeploy its staff to other major projects if a pause to the BCU project is in place for a longer period.
- There is a risk that the key vendor could make the decision to ‘walk away’ prior to the completion of the project, should it perceive that a pause puts the project at risk from their perspective.

It is important to note that the options in this paper would either commit the Ministry to further cost (once authority to spend was in place) to deliver each option and/or potential commercial liability exposure.

Background and role of the Biometric Capability Upgrade project (BCU) for identity management

1. Biometric data are measurable physical characteristics that are unique to an individual. Accurate biometrics are a core capability for Immigration New Zealand (INZ) in an environment where identity fraud, terrorism and other sources of harm are prevalent and increasingly sophisticated, and where the volume of identities related to applications and border-crossings is expected to continue to exceed pre-COVID-19 pandemic levels in outlying years.
2. The project seeks to deliver a significant upgrade of INZ's identity management, capture, and matching solution. This is a core capability for New Zealand's future protection in an environment where identity fraud, criminal activity and other sources of harm are prevalent, and increasingly sophisticated. The updated capability is crucial to risk mitigation and meeting INZ's future business needs. It will also assist with expediting visa application processing, improving the customer experience, and an anticipated reduction in manual identity resolution.
3. The project is a multi-year, technically complex, and involves multiple IT systems, products, and vendors, as well as very large volumes of biometric and biographic data.
4. The project is required to improve the level of automated match/no-match results of identities by INZ, through implementation of updated biometric algorithms and software. This will reduce the level of manual resolution of identities required by INZ staff, speeding up visa and travel authority application processing and in time reducing the number of staff needed

to complete manual resolution work. A new, more user-friendly, user interface for staff to utilise in their work will also be implemented.

5. An update is also being made to the In Person Enrolment (IPE) solution used by INZ to complete in-person enrolment of biometric data for certain cohorts of our customers, for example border cases or Refugee Quota Programme processing of candidates offshore. This will see new, modern and fit for purpose fixed and mobile equipment kits and software issued to MBIE's Border, Refugee Quota Programme (RQP) and Compliance teams as part of project implementation. Furthermore, it will establish a new model of support from Datacom (third party ICT vendor) with day-to-day maintenance of the IPE hardware and "in the moment" trouble shooting advice for INZ's staff.
6. Problems with the current IPE solution have resulted in failure by INZ to capture high quality biometrics over multiple occasions. This also results in INZ facing:
 - amplified risks at New Zealand's border,
 - inefficiency in operational processing,
 - wasted time and resources,
 - an unresponsive and complex support model,
 - outdated technology, and
 - reputational risk to the organisation.

7. s6(c)

8. The project is not making fundamental changes to the way INZ collects identity data, the type of data collected or how the data is processed and managed. Core business processes will remain the same and be undertaken by the same INZ's staff more efficiently in effect.

Criticality of biometrics to the security and protection of New Zealand

9. The project is critical to INZ's ability to maintain the safety, security and protection of New Zealand in the following ways:
 - ***Strengthening INZ's decision making*** – The project will facilitate faster, high-quality decisions, and will support automated visa decision making by improving the speed of identity verification (reduced manual resolution queues, which introduce delay). The product will allow early detection of high-risk applicants and suspected identity fraud.

Risks will be significantly reduced by using the world's top-ranking matching/no-matching algorithm (NEC is market leading in this space). INZ will have assurance of high-quality data delivered by an increase in face images used in identity resolution and a higher quality check of fingerprints.

- **Reduce the risk of illegal migrants entering New Zealand** - By detecting bad actors at the application stage, visas and travel authorities will not be issued to mala fide persons. The risk to INZ and cost incurred facilitating departures of mala fide customers from New Zealand is reduced.
- **Strengthening the quality of INZ's identity holdings** – Meaning correct decisions can be made in an expedited manner, and INZ is able to better share identity data with domestic and international partners.
- **Support economic growth of the country** – Through greater confidence in biometric matching, leading to automated processing and a reduction in processing time for visa and travel authority applicants (e.g. tourists, international students and skilled labour).

Business benefits of the project

10. s6(c)

11. The following key benefits are planned to be delivered by the project:

- A biometric system that can be fully supported and can manage future data volumes (we have reached out to other M5 countries with a series of questions to understand each of their own Biometrics capabilities and set up)
- Reduction in time and cost to implement configuration changes and updates, as the INZ Identity Services team will be able to make its own changes to these rather than outsourcing to a vendor.
- Reduction in the number of identity fraud cases each year.
- Reduction in the number of manual identity resolution tasks that need to be completed by Identity Services staff. This will in time reduce the number of FTE required for this work.
- v. s6(c)

Project Overview – costs and changes

	Capex	Opex	Total Project Cost	Project Cost Increase	WoLC	Start Date	Finish Date
BC	10.46M	0.05M	10.51M		19.49M	Aug-19	Aug-20
CR1	12.21M	0.05M	12.25M	1.75M	22.83M	Aug-19	Oct-20
CR2	17.08M	0.05M	17.12M	4.87M	30.75M	Aug-19	May-21
CR3	22.15M	0.05M	22.20M	5.08M	30.42M	Aug-19	Aug-22
CR4	21.29M	4.71M	26.00M	3.80M	31.93M	Aug-19	Nov-23
CR5	21.79M	4.34M	26.13M	0.13M	31.95M	Aug-19	Feb-24
CR6	37.16M	2.70M	39.85M	13.72M	53.50M	Aug-19	Mar-25

12. The project has been in progress since August 2019, when the initial Business case was approved to update the biometric matching and management platforms. The business case indicated the project would take one year to complete (September 2020) with an estimate of \$10.5m Capex. Whole of Life Cost (WOLC) was estimated to be \$19.5m.
13. In May 2020, Change Request (CR) 01 was approved to transfer \$0.83m Capex from Project 3315 - Photo Quality Check (PQC) and an additional \$0.92m. The scope of the BCU project was then increased to include the decommissioning of the face image checker, that can only take place when BCU is implemented. The project was still scheduled to complete in September 2020. At this stage, there was a \$3.24m increase in WoLC to \$22.82m.
14. In July 2020, CR02 was approved to change scope, budget, benefits and duration of the project. The CR detailed the transfer of project 3586 – In Person Enrolment (IPE) to be delivered by the project. An additional \$5m Capex was requested and the Go Live date changed to May 2021. At this stage, WOLC was estimated to be \$30.8m.
15. In July 2021, CR03 was approved to change the scope, budget, benefits and duration of the project. The CR detailed the increase in technical complexity and challenges that had been found during the design phase, which identified that the original approach would not deliver the outcomes defined in the business case. This CR identified that the solution would remain heavily customised to meet the Ministry's requirements rather than implementing a Commercial Off The Shelf (COTS) solution. An additional \$5m Capex was approved and the Go Live date was changed to July 2022. This led to a minor change in WOLC \$30.42m, with reduced support costs expected.
16. This increased the scope and move the customised workflows from IDME/IGMS into the NEC configurable workflow solution. Whilst this has created a more complex and challenging technical project solution, this decision was reached in terms of assisting with overall cost reduction, and because it may also have the benefit of IGMS being more easily decommissioned once visa products are migrated from IGMS to ADEPT. These benefits were not originally considered in the BCU Business Case – however were reviewed and updated within CR02 - and may have long term financial and enterprise benefits moving forwards, albeit now with a more technically complex solution, containing essentially some bespoke developed components, in the Identity space. However, what this does mean is, whilst the original BCU project intent was to utilise an out of the box solution, subsequent change requests (including Change Request 3 and subsequent customisation by NEC) mean we no longer have a COTS product and instead have one that has been partially customised, and therefore likely expensive to upgrade to any significant extent (as opposed to the originally envisaged configured out-of-the- box solution).
17. In November 2021, the previous Ministers of Immigration and Finance approved the Ministry to allocate from baseline funding capital \$22.15m over FY21/22 and FY22/23 to implement the BCU, with whole of life costs of the BCU estimated at \$30.42m. Reduced on-going costs offset the increase in project capex.

18. In August 2022, CR04 was approved to amend the budget, benefits and duration of the project. s9(2)(b)(ii)

The Go Live date was changed to September 2023. Again, the WOLC was amended and was estimated to be \$32m.

19. In June 2023, CR05 was approved to amend the budget, benefits and duration of the project. The CR detailed that the key milestone to deploy to the Ministry's System Integration Test Environment (SIT) had been missed, along with the Solution Design not being signed off as planned and Data Migration taking longer than planned. An additional \$0.5m Capex and \$0.01m Opex was approved and the Go Live date was changed to November 2023. The WOLC at this stage was estimated to be \$32m. In parallel to this, a paper was prepared for the Minister of Immigration in July 2023 seeking approval to go up to \$35m WOLC which was subsequently approved.

20. In October 2023, the BCU project has likely exceeded the \$35m WOLC (actual spend + forecast spend) agreed by the Minister.

21. The updated biometrics platform including hardware is now projected to cost approximately \$40m with a WoLC estimated to be around \$53.5m, noting this is still underpinned by a set of assumptions. This increase is due to a combination of factors including under-estimated costs s9(2)(b)(ii)

22. s9(2)(b)(ii)

23. MBIE's current ICR level allows it to make investment decisions up to a WoLC of \$25m, Joint Ministers of up to \$35m, and anything higher requiring Cabinets approval. If the project were to continue, Cabinet authorisation is required to spend above a WoLC of \$35m. Without this MBIE is in breach of a couple of Cabinet Mandates. (Agencies must not incur financial commitments or expenses, commence projects, offer settlements, or place orders unless authority exists or has been specifically authorised by the responsible Minister or Cabinet, consistent with the requirements of CO (23) 9: Investment Management and Asset Performance in Departments and other Entities and companion Cabinet Office circular CO (18) 2 Proposals with Financial Implications and Financial Authorities.)

24. Prior to the recent decision to pause, the project team was working to re-baseline the project, after it became clear it could not be implemented on 13th November 2023. The estimated timeline to implementation is now approximately September 2024, however the current

pause would further push this date out if the DGB decide to proceed with the project (Option 2 below) and approval is given by the Minister of Immigration and Cabinet.

25. None of the options presented require crown funded and any funding required would be fee funded.
26. The Ministry has considered options to reduce the overall cost. However, the revised costs reflect the investment required to deliver a functional, quality and secure system based on the solution being implemented.

Challenges

27. Initial specifications in the BCU Business Case did not anticipate the inclusion of IDme workflows and hence the subsequent level of workflow and integration customization that would be required to enable them to work within the immigration system. s9(2)(b)(ii)

[REDACTED]

28. s6(c)

[REDACTED]

29. s6(c)

[REDACTED]

30. Based on MBIE's, risk framework, s6(c)

[REDACTED] before IDMe could further integrate with other INZ systems and process production information.

31. s6(c)

[REDACTED]

32. The project commenced the implementation of the BCU solution into the Ministry's test environment (SIT) in July 2023. This took over nine weeks to complete, seven weeks longer

than anticipated. The project had commenced testing, however due to the number of critical and high bugs that have been found during initial testing, the testing slowed down while these were being addressed. The time for these bugs to be addressed is a high priority although the key vendor is only able to fix s9(2)(b)(ii) due to resourcing.

33. A number of contract variations and change requests have been required with vendors. These variations relate to requirements and/or design clarifications, along with extension of their support of the project due to the ongoing delays. The project has still been receiving variations from vendors as the project Go Live date continues to be delayed.
34. Delays to the programme, resulting from these challenges, have increased staffing and related costs for the vendors and the Ministry.
35. In addition, the recent Independent Quality Assurance review (IQA) carried out in October 2023 as requested by the DGB contained a suite of recommendations (18 in all). The Executive Summary in the IQA report notes the following –

“Successful delivery of the change appears unlikely (by November 2023) with major risks or issues in key areas that require urgent management attention. Achievement of the next key milestone is in doubt.

Despite previous agreement of a refreshed delivery plan, and a firm governance commitment to achieving the delivery timeframes, the project will not achieve the current Go Live date of 17 November 2023. Given the project’s poor delivery history, and its inability to meet agreed milestones, we have doubts as to whether the project will in fact deliver at all, and we question its continuation.

The project is focussed on the completion of the System Integration Testing (SIT), and we support this approach, given the time and cost to date, and the alternative options available. The completion of the SIT is a crucial milestone for the project and must determine project continuation or closure. If the project can successfully complete SIT testing and confirm the solution meets the business requirements, it will likely be in a better position for the remaining delivery. However, risk still remains including the cost to complete delivery, along with the support arrangements.

As noted in our previous IQA review, the Project Steering Group (PSG) continues to be pivotal to delivery success, and must hold itself, and its individual members, to account for meeting the agreed re-planned milestones, with clear transparency and visibility.”

Proposed changes to the timeline and Go Live

36. Up until the pause, the project has been working closely with the key vendor to re-baseline the plan and agree a way forward. There are several risks and issues that the project has identified that have looked to be addressed in the new plan, which are regularly being reviewed by the Project Steering Group.
37. The project had been planning to complete the Priority 1 Test scripts and Security Workflow Testing in SIT before deploying to any other MBIE environments such as User Acceptance

Testing (UAT) and Pre-Production (PreProd). This means that the project would be longer in duration with the benefit of Critical and High defects being resolved. However, by following this approach, the Ministry should have a higher degree of confidence that the solution meets the Ministry's requirements and therefore we would have a quality solution in production. This phase was planned to be completed in early February 2024.

38. The project had planned to commence the migration and ingestion of the biographic and biometric data into the User Acceptance Testing (UAT) environment in late December 2023 and scheduled this to take between 4-6 weeks to complete and needed to take place before the latest code deployment can be tested. UAT cutover had been planned to start in February 2024, with UAT aiming to be completed in July 2024. It should be noted that UAT would overlap with SIT testing with performance testing being the initial focus
39. Upon successful completion of SIT and UAT, the project would then commence the builds of Pre-Prod and Production (Prod). Security assessments would take place to ensure operational readiness and a proposed new Go Live would occur in January 2025.
40. The Ministry has considered options to reduce the overall cost. However, the revised costs reflect the investment required to deliver a functional, quality and secure system.

Key financial considerations

41. If a decision was reached not to continue engagement with NEC (and related vendors), there would be significant impairment costs and potential commercial exposure to consider.
42. An impairment of approximately \$19m would be required to expense capex costs recognised in WIP (work in progress), an additional \$5m of expenditure may be required to expense any contractual agreements, (Earlier Statements of Work that MBIE has committed to). The impairment would require Chief Executive approval, the CE has delegation to approve impairments up to \$20m. A review of INZ's finances would be required to access affordability options, however the significantly increased Visa revenue forecasted in FY2023/24 and beyond, the adjustment of the fee and levy structure to more appropriately align with a post-Covid environment, and surplus memo account balance should have created enough capacity for this action.
43. Additional information can be provided upon request on the current Immigration memorandum and levy accounts – and what current commitments have been made in terms of what the fees have been allocated to for Immigration initiatives.

44. s9(2)(b)(ii)

45. s9(2)(b)(ii)

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

46. s9(2)(b)(ii)

Next steps in terms of options

There are a number of potential options in terms of moving forward. These are captured in Appendix 1 along with a summary of pros, cons and risks in terms of what each option would address from a system and architectural perspective. The options which have been worked through with multiple internal stakeholders via a series of workshops are -

Option 1 - Stop the BCU project completely and revert to today's existing systems (i.e. status quo)
No further action – NOT RECOMMENDED

Pros

- Ongoing vendor and project costs would be ceased
- The solution used today by Identity Services staff works and enables manual identity resolution to be carried out
- Provides more certainty around the ongoing resourcing required for the Identity Services team
- Provides more certainty of the ongoing cost of both Identity Services staff and system costs regarding support and maintenance

Cons

- s9(2)(b)(ii)

s9(2)(b)(ii)

- Financial considerations around write-off of investment to date
- s9(2)(b)(ii)
- Current Daon licencing would need to be extended (s9(2)(ba)(ii))
- There would be no benefits realisation
- s6(c)
- Does not provide a strategic long-term solution
- There would be no improvement to staff user experience
- s6(c)

Option 2 - Continue with existing BCU project once necessary authority to spend has been received - customised solution built by NEC to integrate into INZ's existing systems, and workflow, with new In Person Enrolment equipment (IPE). This option addresses the existing s6(c) and provides beneficial outcomes – RECOMMENDED with a caveat of built in stage-gates for quality (e.g. SIT, UAT etc) that unlock funding for each subsequent stage – this would have to be discussed and negotiated with NEC.

Pros

- Existing key vendor engaged and in place including necessary personnel (for both NEC and the Ministry)
- The project is in the System Integration testing phase with an assessment of the quality of the solution underway which includes functional quality, cyber matters and Non Functional Requirements as well
- s6(c)
- There is a re-baselined plan under discussion
- Commercial liability exposure remains as it stands currently, no added commercial liability or associated costs of disengagement or stopping.
- Business benefits would be delivered – particularly including increased facial image matching efficiency reducing manual resolution activity. In addition, both Refugee & Migrant Services, Border and Compliance teams will benefit from new upgraded modern equipment
- Overall improvements in supportability.

Cons

- Ongoing challenges in terms of vendor engagement including delivery performance, commercials & relationship management
- Ongoing uncertainty of Whole of Life Costs due to project timeframes changing, s9(2)(b)(ii)
- Due to the history of delivery of the BCU project, potential likelihood that an agreed re-baselined project plan (that delivers a quality, safe and secure solution) may not contain enough contingency to manage project delivery risk (e.g. such as unforeseen security risks, slow pace in terms of defect resolution)

- Risk of ongoing volume of Change Requests (and therefore additional costs) from multiple vendors including NEC (recent IQA noted the volume of Change Requests related to the BCU project are extraordinary)
- As the end solution will be significantly customised, this will make operational supportability of the solution more costly and difficult at a service and technical level
- The customisation of the NEC Core puts its sustainability and strategic purpose in question
- Current interface developed to date by NEC for our Identity Services team is sub-optimal
- s9(2)(b)(ii)
- May be further challenges regarding the satisfaction of non-functional requirements for the solution.
- Potential ongoing ability to easily and cost effectively upgrade the solution due to the high levels of customization in some components.
- Uncertainty of potential security issues until SIT is complete and a base assessment completed

Option 3 - Continue to pause & explore (under a separate project code reverting to the current existing solution in use) potential upgrade of the core components of the existing Biometrics Solution e.g. NEC and Daon, including: updated matching algorithms; and potentially exploring the use of the In Person Enrolment capability being developed currently by NEC. The project would then report back to the DGB on estimated costs and time to implement the option and make a recommendation on whether to proceed. If this alternative option was subsequently chosen and ultimately implemented, the following points would become relevant. NOT RECOMMENDED

Pros

- Existing contracts in place so it is expected only relatively limited commercial/legal negotiation required to implement the required upgrades
- Substantial improvement in automated matching leading to reduced manual resolution, reduced staff cost and faster turnaround of biometric identity matching leading ultimately to faster visa processing overall. Increased fraud detection.
- Increased confidence and certainty of implementation
- Efforts are focussed on each existing vendor's core capability
- Improved certainty of system performance to support business delivery
- Enhanced environment enabling better security and platform supportability
- Potential to re-use some/all of the In Person Enrolment capability created through current engagement with NEC (although this would require commercial engagement with NEC)
- Delivery can be achieved in smaller incremental stages rather than a single big bang
- Provides a runway to assess a more enhanced end-to-end strategic Identity solution enabling the entire INZ ecosystem.
- Overall improvements in supportability and security posture, compared to Option 1 – Status Quo.
- Achievement of a key project benefit if the new matching algorithms can be updated within the existing solution.

Cons

- s9(2)(b)(ii)

- Financial considerations around write-off of investment to date related to existing project
- Current Daon licencing would need to be extended (s9(2)(b)(ii))
- There would remain a linked dependency to IGMS (which includes IDME workflow) so future decommissioning of IGMS would become increasingly difficult
- Does not provide a strategic long-term solution, however provides the necessary runway to assess strategic options
- No improvement for user experience for Identity Services staff. Additional enhancements would be required.

Option 4 - Stop the BCU project completely and revert to today's existing systems (i.e. status quo) while assessing strategic options/go to market under a new project NOT RECOMENDED

Pros

- Same as Option 1
- Allows time to take a fresh look at the wider environment, assess the market, confirm ongoing INZ needs in the biometrics/biographics space and re-validate business requirements

Cons

- Same as Option 1 in the short term (noting some would be mitigated through longer term new solutions)