

Office of the Minister for Social Development and Employment

Cabinet Government Administration and Expenditure Review Committee

## **TE HAORO A: MINISTRY OF SOCIAL DEVELOPMENT DATA WAREHOUSE REPLACEMENT**

### **Proposal**

- 1 This paper seeks Cabinet approval to:
  - 1.1 drawdown Budget 2019 funding for the Ministry of Social Development's (MSD's) data warehouse replacement programme, and
  - 1.2 delegate authority to the Chief Executive of MSD to execute the agreement with the preferred technology supplier on behalf of MSD as the whole of life costs will be in excess of \$25 million.

### **Background**

- 2 Te Haoroa is a multi-year programme to modernise the foundations of MSD's data warehousing capability by replacing MSD's existing data warehouse with a fit-for-purpose, flexible, cloud-based solution, provided as a managed service.
- 3 MSD's current data technology platform, the Information Analysis Platform (IAP), is an on-premise suite of technologies managed in-house by MSD that provides a centralised storage, analysis, and reporting platform. It is over twenty years old and used by hundreds of staff across both MSD and Oranga Tamariki daily.
- 4 The IAP is now prone to regular outages that directly impact frontline staff and the services clients receive, creates risks to client privacy, lacks the resilience needed to respond to inevitable disruptions and new service demands, and is no longer cost-effective to maintain.
- 5 The Budget 2019 bid *Reducing risk in critical systems and implementing legislative changes* [CAB-19-MIN-0174.36 refers] sought funding, in partnership with Oranga Tamariki, to commence a programme of technology upgrades to reduce the risk of severe failure with MSD's computer systems.
- 6 Subsequently, Oranga Tamariki's future state data platform requirements were agreed to be materially different from MSD's. In June 2021, the Minister of Finance, Minister for Children, Minister for Social Development and Employment, and Minister for the Digital Economy and Communications agreed to a funding split of all Capital and Operating Funding from 1 July 2020, with 75% to MSD and 25% to Oranga Tamariki [MSD report REP/21/6/651 refers]. Accordingly, Oranga Tamariki's requirements have been de-scoped from Te Haoroa implementation case, and Oranga Tamariki are developing a separate business case.

- 7 Te Haoroa is a core enabler for MSD's long-term strategic direction, Te Pae Tawhiti. The programme will provide MSD with improved capabilities to make more efficient and informed decisions, facilitate quicker, more secure information sharing, improve data governance capabilities, and ensure MSD can identify issues and opportunities quicker and with greater accuracy.
- 8 The new platform will keep data (raraunga Māori, kōrero) safe and secure and be an enabler of Te Tiriti o Waitangi governance.

**MSD has developed a business case for implementation**

- 9 MSD's Implementation Business Case (attached as Appendix One) supports the proposals in this paper. The case has been prepared in accordance with Treasury's Better Business Case guidelines and builds on the business case that supported the 2019 Budget bid.
- 10 The preferred option is to replace the ageing, on-premise data warehouse with a cloud-based managed service for MSD.
- 11 Two other options were considered and discounted: the status quo and an on-premise solution. The status quo failed to address current risks. The on-premise solution addressed current risks, but presented longer-term platform failure risks, limited ability to keep systems current, and higher total cost of ownership over time.

**The preferred technology supplier has been selected**

- 12 Technology infrastructure, software, design and implementation services are required for delivering MSD's new data warehouse capability.
- 13 MSD has maintained a set of selection principles to source products and services required for delivery. The solution should be secure, cloud-based and provided as a service or a managed service. The Whole of Life Costs (WoLC) should be affordable, provide value for money and within MSD's available funding sources. The proposed providers should enable MSD to retire the IAP as quickly as possible. Both technology and delivery partners will work as a blended team with MSD.
- 14 The existing data warehouse at MSD is operated on software tools licensed to MSD from SAS, the existing supplier, who will also provide the core technology managed services required for Te Haoroa.
- 15 In March 2021, MSD issued a single source Request for Proposal to SAS, as the preferred supplier, and negotiations are now nearing completion.
- 16 MSD applied Government Rules of Sourcing, Rule 14.9 (c) and (d)(i) and (ii) 'Exemption from open advertising, only one supplier, procurement related to the acquisition of rights to intellectual property' as the basis to enter direct negotiations with this supplier.

17 s 9(2)(b)(ii)

s 9(2)(b)(ii)

**An expert delivery partner will support MSD’s migration to the new cloud-based service**

- 18 MSD requires expert data warehousing services with experience in using modern data warehousing technologies. This is key to ensure MSD are building the right foundations for the future – enabling reuse, providing better assurances on security and MSD’s ability to scale, and ensuring migrated products are of tangible, current business value.
- 19 MSD will engage an expert delivery partner to support the retirement of the legacy system and rebuilding of relevant data products on the new system. The preferred delivery partner will offer specialist services in data governance, data engineering, business change and technical support to assist in transitioning staff to the new technology.

**Te Haoroa Whole of Life Costs are \$116.1m**

- 20 The estimated WoLC for the preferred option is \$116.1m over an eight-year period. This includes both operating and capital costs from a combination of MSD’s existing baselines and balance sheet, as well as from funds currently held in contingency from Budget 2019: *Reducing risk in critical systems and implementing legislative changes*. Table 1 below sets out the total operating and capital costs for the new system.

Table 1: Total Operating and Capital Costs (New system only – excl depreciation and capital charge)									
	Amounts in \$ million								
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	Totals
Operating	1.375	6.041	7.760	10.628	11.178	15.944	15.247	15.503	83.676
Capital	2.168	7.233	6.063	3.550	4.300	3.100	3.000	3.000	32.414
<b>Total</b>	<b>3.543</b>	<b>13.274</b>	<b>13.823</b>	<b>14.178</b>	<b>15.478</b>	<b>19.044</b>	<b>18.247</b>	<b>18.503</b>	<b>116.090</b>

**Te Haoroa is investment ready**

- 21 The delivery structure for Te Haoroa is established and, given Cabinet agreement to enter contract, SAS resources are prepared to begin implementation through January and February.
- 22 In the first year of implementation, the programme will establish technology foundations and a new operating model for this managed service. It will start to rebuild data products on the new platform.
- 23 As MSD’s data warehousing capabilities mature, the programme will continue to rebuild data products and gradually reduce reliance on the old platform. There will be complexity in rebuilding some older data products which are used as part of operational solutions. These will take consideration to unravel.

- 24 MSD have identified several delivery risks. These risks have been reviewed by the Government Chief Digital Officer and appropriate mitigation strategies are in place. The programme completed a Risk Profile Assessment and was rated 'medium'.
- 25 A key delivery risk is uncertainty on the level of support required for Oranga Tamariki. Their platform and capability delivery will likely run in parallel to Te Haoroa but is a key dependency for MSD to retire the IAP; this will be mitigated by regular engagement with Oranga Tamariki and the definition of specific dependency points and timings.
- 26 I am confident that MSD have planned the appropriate assurance activities given the programme's risk profile. These activities include independent quality assurance, technical quality assurance and ongoing engagement with the Government Chief Digital Officer.
- 27 MSD have identified a range of programme benefits in consultation with Treasury. These include key platform metrics for existing performance and vulnerability (some baselines in place, additional baselines established by February 2022), business value and efficiency measures (surveys to begin November 2021 for publishing in 2022), and time-to-build/change metrics (to be baselined by Q4 21/22).
- 28 These benefits will be on track and reported on following the implementation of the new platform and development of new products. Baseline benefits will also be determined and reported on for new data products developed and implemented through MSD's prioritisation approach.

### **Financial Implications**

- 29 MSD is not seeking any new funding for the replacement and ongoing support costs. It will be funded from MSD's balance sheet, baseline allocation together with the \$16.134 million held in the *Reducing risk in critical systems* operating and capital tagged contingencies for Data Warehouse - Te Haoroa (MSD), recommended for drawdown.

### **Legislative Implications**

- 30 The proposals in this paper do not require any legislative change.

### **Impact Analysis**

- 31 Regulatory Impact Analysis is not required for this paper.

### **Human Rights**

- 32 There are no human rights implications associated with this paper.

### **Gender Implications**

- 33 There are no gender implications associated with this paper.

**Disability Perspective**

34 There are no disability implications associated with this paper.

**Consultation**

35 The following agencies were consulted in the development of the Implementation Business Case: The Treasury, the Department of Internal Affairs (Government Chief Digital Officer), Social Wellbeing Agency, and Oranga Tamariki—Ministry for Children.

36 Consultation feedback has been supportive and, where relevant, incorporated in the development of the Implementation Business Case.

**Proactive Release**

37 This paper will be proactively released with any relevant redactions as appropriate, consistent with the Official Information Act 1982.

**Recommendations**

I recommend that the Committee:

- 1 **note** MSD’s current centralised storage, analysis, and reporting platform, the Information Analysis Platform (IAP), is no longer fit-for-purpose or cost-effective to maintain;
- 2 **note** Te Haoroa seeks to replace MSD’s on-premise, aging data warehouse with a cloud-based managed service and retire the legacy IAP;
- 3 **note** Te Haoroa is a key dependency and enabler for the Ministry of Social Development’s transformation programme Te Pae Tawhiti;
- 4 **note** that in Budget 2019, Cabinet allocated funding for the Ministry of Social Development’s data warehouse replacement in the *Reducing risk in critical systems and implementing legislative changes* bid [CAB-19-MIN-0174.36 refers].

The current balance remaining in this contingency is shown in the table below;

	\$m – increase/(decrease)				
	2021/22	2022/23	2023/24	2024/25	2025/26 & Outyears
<b>Balance remaining - Reducing risk in critical systems and implementing legislative changes - Tagged Operating Contingency</b>	<b>3.007</b>	<b>5.196</b>	<b>5.321</b>	<b>5.321</b>	<b>5.321</b>
<i>Split across the following:</i>					
Data Warehouse - Te Haoroa (MSD)	2.200	2.171	2.296	2.296	2.296
Data Warehouse - Te Haoroa (Oranga Tamariki)	0.425	1.691	1.691	1.691	1.691
Legislative change (MSD)	0.382	1.334	1.334	1.334	1.334
<b>Balance remaining - Reducing risk in critical systems and implementing legislative changes - Tagged Capital Contingency</b>	<b>13.124</b>	<b>1.000</b>	<b>-</b>	<b>-</b>	<b>-</b>
<i>Split across the following:</i>					
Data Warehouse - Te Haoroa (MSD)	3.875	1.000			
Data Warehouse - Te Haoroa (Oranga Tamariki)	1.625				
Legislative change (MSD)	7.624				

The deadline for this drawdown was extended until 30 Sept 2022.

**COMMERCIAL IN CONFIDENCE**

- 5 **agree** to rephrase the *Data Warehouse - Te Haoroa (MSD)* component of the tagged contingency as follows:

Initiative Name	\$m – increase/(decrease)				
	2021/22	2022/23	2023/24	2024/25	2025/26 & outyears
Reducing risk in critical systems and implementing legislative changes – Tagged Capital Contingency	-	4.875	-	-	-
Reducing risk in critical systems and implementing legislative changes – Tagged Operating Contingency	-	1.313	2.626	5.024	2.296

- 6 **agree** to provide for the implementation of the Ministry of Social Development’s Te Haoroa programme as in the attached business case;
- 7 **approve** the following changes to appropriations to provide for the decision in recommendation 6 above, with a corresponding impact on the operating balance and net core Crown debt;

	\$m – increase/(decrease)				
	2021/22	2022/23	2023/24	2024/25	2025/26 & Outyears
<b>Vote Social Development</b>					
<b>Minister for Social Development and Employment</b>					
<b>Multi category Expense and Capital expenditure:</b>					
Improved Employment and Social Outcomes Support					
<b>Departmental Output Expense:</b>					
Administering Income Support (funded by revenue Crown)	-	1.313	2.626	5.024	2.296
<b>Ministry of Social Development</b>					
<b>Capital Injection</b>	-	4.875	-	-	-
<b>Total Operating</b>	-	1.313	2.626	5.024	2.296
<b>Total Capital</b>	-	4.875	-	-	-

**COMMERCIAL IN CONFIDENCE**

- 8 **agree** that the expenses incurred under recommendation 7 above be charged against the Reducing risk in critical systems and implementing legislative changes – *Tagged Operating Contingency* described in recommendation 5 above, and that the capital expenditure incurred under recommendation 7 above be charged against the Reducing risk in critical systems and implementing legislative changes – *Tagged Capital Contingency* described in recommendation 5 above;
- 9 **note** that the following balance will remain within the *Reducing risk in critical systems and implementing legislative changes* operating and capital tagged contingencies after this recommendation has been approved;

	\$m – increase/(decrease)				
	2021/22	2022/23	2023/24	2024/25	2025/26 & Outyears
<b>Balance remaining - Reducing risk in critical systems and implementing legislative changes - Tagged operating contingency</b>	<b>0.80</b>	<b>3.02</b>	<b>3.02</b>	<b>3.02</b>	<b>3.02</b>
<i>Split across the following</i>					
Data Warehouse - Te Haoroa (Oranga Tamariki)	0.42	1.69	1.69	1.69	1.69
Legislative change – MSD	0.38	1.33	1.33	1.33	1.33
	7	5	5	5	5
<b>Balance remaining - Reducing risk in critical systems and implementing legislative changes - Tagged capital contingency</b>	<b>9.24</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<i>Split across the following</i>					
Data Warehouse - Te Haoroa (Oranga Tamariki)	1.62				
Legislative change - MSD	7.62				
	4				

- 10 **note** that SAS is the incumbent supplier of MSD’s data warehouse software s 9(2)(b)(ii)
- 11 **authorise** the Chief Executive of MSD to execute the agreements enabling the ongoing support and replacement of the IAP Data Warehouse, and enter into a s 9(2)(b)(ii) agreement with SAS;
- 12 **note** that given agreement and authorisation above, Te Haoroa programme will proceed to deliver and implement the solution;
- 13 **note** baseline measures for most Te Haoroa benefits are in place, with additional baseline metrics for some measures to be established in February 2022, and baselines for the outstanding time-to-build/time-to-change measures to be established in Q4 21/22.



- 14 **note** that MSD will report back to Treasury on an annual basis on Te Haoroa benefit realisation plan.

Authorised for lodgement

Hon Carmel Sepuloni

Minister for Social Development and Employment

**Appendices**

Ministry of Social Development – Te Haoroa Implementation Business Case