



Scottish Government  
Riaghaltas na h-Alba  
gov.scot

## Directorate for Internal Audit and Assurance

### Internal Audit Report

### Social Security Scotland 2021-22

### Review of SPM

Directorate for Internal Audit and Assurance

Issue Date: 17-02-2022

## Audit Personnel

<b>Head of Internal Audit:</b>	[Redacted]
<b>Internal Audit Manager:</b>	[Redacted]
<b>Internal Auditor(s)</b>	[Redacted]

## Report Distribution

<b>Accountable Officer*</b>	David Wallace
<b>External Audit*</b>	Audit Scotland
<b>Senior Responsible Officer(s)</b>	[Redacted]
<b>Key Audit contact</b>	[Redacted]
<b>Internal Audit Business Support Hub*</b>	[Redacted]

\* Final Report only

## Contents

---

1. Introduction .....	4
1.1. Introduction .....	4
1.2. Audit Scope .....	4
1.3. Assurance and Recommendations .....	4
2. Management Action Plan .....	6
2.1. Management Action Plan .....	6
3. Findings, Good Practice and Improvement Opportunities .....	11
3.1. Good Practice .....	11
3.2. Improvement Opportunities .....	13
Annex A Definition of Assurance and Recommendation Categories .....	18
Annex B – Terms of Reference .....	19
Annex C Interim Follow-up Report .....	24

DRAFT

## 1. Introduction

### 1.1. Introduction

This internal audit review of SPM (Social Programme Management, the client management system used for the administration of the benefits delivered by Social Security Scotland) formed part of the Audit Plan agreed by the Accountable Officer and noted by the Audit and Assurance Committee in February 2021. The Accountable Officer for Social Security Scotland is responsible for maintaining a sound system of governance, risk management and internal control that support the achievement of the organisations policies, aims and objectives.

### 1.2. Audit Scope

The scope of this review was to evaluate and report on the controls in place to manage the risk surrounding Social Security Scotland's SPM system arrangements. The review focussed on the arrangements in place for the management of [Bugs and Defects](#); [Technical Debt](#); and System Changes, Developments and Controls.

To aid understanding it is important to clearly set out the relationship between Social Security Scotland and the Social Security Directorate (Programme). Social Security Directorate designs and builds the new Scottish social security system and is delivering the components on an incremental day to day basis. As such Minimal Viable Products for policies, systems and processes for each benefit are built by Social Security Directorate, and then handed to Social Security Scotland to deliver. It is then the responsibility of Social Security Scotland to develop these as appropriate to make them fit for purpose and reflecting actual processes and controls in place.

The agreed Terms of Reference for this review is attached at [Annex B](#).

### 1.3. Assurance and Recommendations

Assurance Category	Limited		
Recommendations Priority	Medium	Low	
	2	2	0

Our review has identified two high and two medium priority recommendations. A limited rating has been provided. There are weaknesses in the current risk, governance and/or control procedures that either do, or could, affect the delivery of any related objectives. Exposure to the weaknesses identified is moderate and being mitigated.

The rationale for this is that the recommendations made in this report highlight the need to strengthen controls in the management of defects inherited from system development, technical debt and system changes to ensure SPM, the system essential to the delivery of Social Security Scotland's services is effectively managed and improved over time and meets the needs of Social Security Scotland. It is crucial that the SPM system has the capacity and functionality within live benefit delivery development to continue to deliver services. However, it is recognised that the landscape of a complex, ambitious programme of delivery makes it difficult to deliver the needed improvements quickly and ability to action is limited and not solely within the gift of Social Security Scotland.

There is a concern that if current and future technical debt is not dealt with effectively this could result in significant issues leading to Social Security Scotland being unable to provide their services if systems and processes are insufficient and/or ineffective and we therefore feel this must be addressed as a priority.

SPM was reviewed as part of the 2020/21 Annual Plan and Limited Assurance was provided at that point as well. We have undertaken an interim follow-up of this review details from which are included at [Annex C](#).

Findings are summarised against recommendations made in the [Management Action Plan](#).

Full details of our findings, good practice and improvement opportunities can be found [in section 3 below](#).

Please see [Annex A](#) for the standard explanation of our assurance levels and recommendation priorities.

## 2. Management Action Plan

### 2.1. Management Action Plan

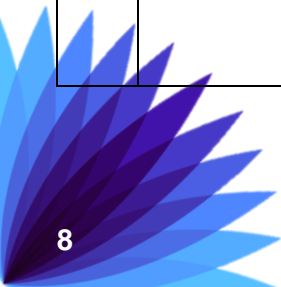
Our findings are set out in the Management Action Plan below:

No.	Issue & Risk	Recommendation	Priority	Management Response & Action Owner	Action Date
1	<p><b>Issue:</b> Defect Management</p> <p>There are weaknesses in the controls for managing defects which management need to work through and prioritise.</p> <p><b>Risk:</b> Poor management and oversight of delivery of resolutions to identified bugs and defects.</p>	<p>It is understood that delivery pressures influence the ability to make improvements and therefore management should produce an action plan to address high priority weaknesses within a reasonable timescale and create a long term plan to address weaknesses.</p>	H	<p>Agency Live Service Team are currently undertaking an organisational review to structure their team between maintenance/defect management and continuous improvements. In this work, we will take on board the recommendation by Internal Audit.</p> <p>[Redacted]</p>	March 2023
2	<p><b>Issue:</b> Technical Debt</p> <p>a) The definition of technical debt is not agreed, fully understood, or agreed between Social Security Scotland and Programme Directorate.</p>	<p>Management should:</p> <p>a) Take prompt action to agree an understanding and ownership of technical debt that is formally documented and understood across all key stakeholders.</p>	H	<p>a) We agree that all parties need to agree a precise and unambiguous definition of technical debt in order to maintain consistency in the scoping of technical debt and financial values associated with it.</p> <p>Chief Digital Office has a mature working definition of technical debt that underpins the analysis work carried out to date:</p>	

No.	Issue & Risk	Recommendation	Priority	Management Response & Action Owner	Action Date
	<p>b) A record of technical debt in development is manual, with limited management information and does not have assigned ownership or linked to existing JIRA tickets.</p> <p>c) Technical Debt is yet to be fully budgeted.</p> <p><b>Risk:</b> Lack of ownership and understanding of the impact, risk and potential costs the current and future technical debt poses to Social Security Scotland.</p>	<p>b) Consider the best way of recording technical debt and consider technical solutions to reduce labour intensive processes and risk of human error.</p> <p>c) Take action in conjunction with key stakeholders to understand the full cost of technical debt.</p>		<p><b>Technical Debt is the: CONSEQUENCES of DECISIONS and ACTIONS.</b></p> <ul style="list-style-type: none"> <li>• Consequences include operational inefficiencies, financial risks, the impact of defects and efforts of defect management and resolution, opportunity costs of implementing capability backlogs;</li> <li>• Technical debt arising from decisions tends to be planned and macro in nature. It can be created at any stage of the delivery lifecycle include scoping, design, development, testing and delivery activities;</li> <li>• Technical debt created from actions tends to be unplanned and micro in nature and include defects and defect backlogs. Defects have a significant impact with consequences when considered in aggregate.</li> </ul> <p>This definition is consistent with previous proposed definitions including those definitions proposed by Programme. While we acknowledge the need to engage with Programme stakeholders to</p>	

No.	Issue & Risk	Recommendation	Priority	Management Response & Action Owner	Action Date
				<p>communicate this definition, the Agency will need to use and support this definition for a significant amount of time beyond programme end consequently it is for Chief Digital Office and Agency to define Technical Debt in accordance with its own needs.</p> <p>This will ensure that:</p> <ul style="list-style-type: none"> <li>• External and internal audit partners are supported when looking for assurance that technical debt is clearly defined, identified and managed;</li> <li>• Year on year values will not change without good reason;</li> <li>• Consistent definitions are needed for Agency and Programme credibility;</li> <li>• Technical Debt management frameworks and financial modelling require consistency over time to provide meaningful trend analysis.</li> </ul> <p>• Action date: March 2023</p> <p>b) Given the definition in a) above; this issue refers to the management of micro technical debt items (consisting mainly of</p>	

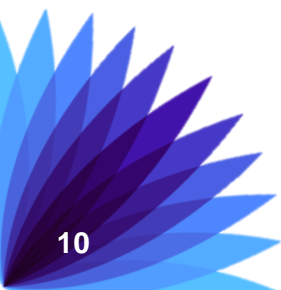
DRAFT





No.	Issue & Risk	Recommendation	Priority	Management Response & Action Owner	Action Date
				<p>defects and de-scoped capabilities in the Live Service backlogs).            The technical debt register is designed to capture technical debt at the macro level and is not an appropriate place to capture small grained quickly changing items of micro technical debt. These items are already actively managed in the development backlogs.            Some work needs to be done to groom these Live Service backlogs to tag items as Technical Debt in order to support improved reporting and metrics.</p> <p>Action Date: March 2023</p> <p>c) This activity is ongoing and will continue to mature alongside other initiatives to identify and categorise Technical Debt going forward.            Action Date: March 2023</p> <p>[Redacted]</p>	
3	<p><b>Issue:</b> Impact of System Changes            Pressures on delivery means there is less ability to deploy system changes and has resulted in examples of</p>	<p>Management should work with the Programme Directorate to reconsider the timescales applied to the testing phases to ensure all testing can be</p>	M	<p>Agency Live Service only undertake testing for its own deliverables and the timescales are outlined by the governance set and managed by Social Security Directorate with regards to code deployments. Our team regularly</p>	<p>March 2023</p>

No.	Issue & Risk	Recommendation	Priority	Management Response & Action Owner	Action Date
	<p>changes to code being made out with timescales where code should be frozen and Social Security Scotland inheriting products with many defects leading to inherit risk and increased workload.</p> <p><b>Risk:</b> Lack of co-ordination and insufficient testing prior to merging coding from various contributors leading to the release of new code which has an unintentional effect on the live system resulting in system errors or failures which leave Social Security Scotland unable to continue to deliver their services.</p>	<p>concluded in line with the strategy and there is ability to deploy releases and ensure products are not handed over to Social Security Scotland with an unmanageable level of defects. Management should also continue to work with IBM and the Programme Directorate in order to address code freeze timing issues and ensure testing requirements for all items within each release are understood are adhered to.</p>		<p>engages with the Programme testing team to share best practices and learn from each other experiences. The broader testing approach and strategy sits within Social Security Directorate. The scopes of deliverables from Live Services can often differ and there can be sometimes be slight differences. Our team continue to look at how we can enhance our testing approach and we are currently working with colleagues in the Chief Digital Office to improve the test data quality to reflect the data within live. We fully participate in the governance processes and Social Security Scotland co-chair the newly formed Release Scheduling and Delivery group.</p> <p>[Redacted]</p>	
4	[Redacted]	[Redacted]	<b>M</b>	[Redacted]	March 2023



---

## 3. Findings, Good Practice and Improvement Opportunities

---

### 3.1. Good Practice

#### Defect Management

- 3.1.1. A large scale of work to improve system quality from a minimum viable product has been undertaken by colleagues in both Social Security Scotland and the Scottish Government Social Security Directorate, with ongoing work focussed on the development of SPM and actively addressing system defects.
- 3.1.2. Contracts are in place with suppliers to maintain and provide continuous improvement for SPM in both Social Security Directorate and Live Services (the Social Security Scotland team within the Chief Digital Office division which is responsible for the maintenance and further development of the live benefit services being delivered to clients). These are due to conclude in 2022, however we have assurances that new contracts are imminent to ensure cover beyond 2022 providing appropriate arrangements for longer-term SPM maintenance to support ongoing benefit delivery.
- 3.1.3. Currently, both Social Security Scotland and the Scottish Government have responsibility for managing and remedying defects. There are no differing definitions of what a defect is and both parties have similar priorities for addressing bugs and defects.
- 3.1.4. Child Disability Payment defects had automated updates within JIRA (the software used by both Social Security Scotland and Social Security Directorate for recording and tracking bugs and defects as well as user stories for system developments) to prompt users to include an appropriate description, which includes the steps required to re-create the issue, and all relevant screenshots and logs, encouraging consistency and good practice.
- 3.1.5. Controls are in place through the role of the Release Management Group in Social Security Directorate to capture and ensure appropriate action is taken to remedy known defects before launch of a new system release or benefit. There are also clear milestones post implementation for defects to be managed via an Information Support Centre function, with involvement of key stakeholders from both Social Security Directorate and Social Security Scotland.
- 3.1.6. Transition (the formal transfer of responsibility from Social Security Directorate to Social Security Scotland) has also commenced in some areas of Low Income

Benefit continuous improvement, where the resource is being formally transitioned into live service in Social Security Scotland. There is good governance around this through the controls established in the overarching Transition Project.

### **Technical Debt**

- 3.1.7. Whilst it is acknowledged and understood that the development of new systems, products and benefits following agile methodology delivering a minimum viable product, Technical Debt is a concern to Social Security Scotland and in response Chief Digital Office have taken good steps to tackle the barriers from system debts with roles in place to quantify, analyse, cost and determine responsibility of reducing this technical debt.
- 3.1.8. Discussions with stakeholders have begun within Chief Digital Office to communicate the need for Technical Debt to be managed and discussions are on-going to address the differences in understanding of Technical Debt between the Social Security Directorate and Social Security Scotland.

### **System Changes**

- 3.1.9. All system changes are managed through the use of JIRA. We raised queries regarding this system being used in line with information governance, however management confirmed that JIRA is used for Official information only and discussions have been held with Information Governance colleagues to confirm this is appropriate.
- 3.1.10. Good practice was identified from the controls in place for testing of system changes and defects supported by documented processes which set out the requirements of testing from beginning to end. Through fieldwork, we were able to evidence examples of implementation of the test strategy through documented output of the Child Disability Payment testing and co-ordination of developments with documented actions through JIRA, Q Test (the test management software used to manage testing), dashboards and management information. The functionality within Q Test allows automated interfaces into JIRA and when defects are identified through testing, clear processes are in place to ensure a defect is raised.
- 3.1.11. The same testing strategy and approach are used for testing of all SPM changes, due to using the same resource/contracts. The testing strategy has been recently reviewed ensuring it aligns with current processes.

- 3.1.12. The recent implementation of an anonymised test system has provided a valuable tool to improve the quality of testing in all areas of development.
- 3.1.13. Detective work is growing and developing around SPM use by the Fraud and Error Resolution Unit in Social Security Scotland to ensure compliance and reduce risk of a lack of system controls to prevent system users following incorrect processes or omitting steps which are essential to service delivery.

## 3.2. Improvement Opportunities

### Defect Management

[Redacted]

#### Management of Defects

- 3.2.1. [Redacted]
- 3.2.2. Any defect or bug is given a priority and severity in the process of addressing the action needed to resolve. The priority and severity allocated to a defect will determine the speed of action needed as a result of the impact. The classifications of the priority and severity categories for defects have never been reviewed and as such may not be aligned with Social Security Scotland needs or take into consideration the current volume and pace of defects being managed and so may no longer be fit for purpose. Given the current landscape, lower priority defects are not being addressed or workaround put in place and defects de-prioritised, this should also be reviewed.
- 3.2.3. Colleagues in Social Security Scotland's Service Desk advised that there were Service Level Targets with Social Security Directorate for the management of bugs and defects, however we found that they are not clearly understood and we were unable to evidence them being implemented and monitored. There also did not appear to be similar targets in place within Live Services. As such we feel that timescales and Service Level Targets are not being met or monitored and therefore not fit for purpose. There should be appropriate Service Level Targets to understand adherence and monitor levels of delivery.
- 3.2.4. There is also a lack of long term plan for what is considered a reasonable timescale or volume to resolve a bug or defect or for it to be in a backlog and the overall impact this has against the objectives. The implementation of bugs and defects are

based on the capacity and other priorities within the backlog of system changes in each release. There is a risk that levels become too high and timescales too long, management should have an appetite of reasonable levels for Social Security Scotland to inherent from new products aligned with the minimum viable product and a long term plan for managing SPM bugs and defects.

- 3.2.5. During our fieldwork, within our sample of bugs and defects reviewed in JIRA, we found an issue with the database used to recreate tickets to move defects into another backlog. This meant a ticket could not be moved into the appropriate backlog, increasing the risk that this ticket could be missed and action not taken to resolve the ticket raised.
- 3.2.6. All bugs and defects are expected to be impacted by the Product Owner assigning a priority and severity to the ticket. We found [Redacted]. Notes were added to this ticket to request that a priority and severity be added, however this was not done and the ticket has since been closed. By not assigning a priority, management information will be incorrect and there is risk that tickets which should be high priority are left for longer without sight of the impact.

### **Defect Management Information**

- 3.2.7. There is a lack of [Redacted], with the number of defects existing in the current landscape, sufficient management information is needed to manage and categorise defects better to related areas. As such there is an increased risk that the overall impact of an individual issue may not be fully understood or considered which could result in inappropriate priority being given to some lower priority defects which may have a more significant impact on service delivery.
- 3.2.8. Business areas find it difficult to understand the actions taken against bugs and defects due to the technical detail, therefore business areas cannot follow updates and may be unaware of the changes or workarounds in their processes or whether progress is being made with the issues they have identified.
- 3.2.9. [Redacted]

### **Defect Management Guidance in Live Services**

- 3.2.10. [Redacted]

### **Technical Debt**

- 3.2.11. The use of the term 'Technical Debt' and its definition are not agreed or fully understood by all relevant stakeholders. We are however aware work is on-going

within Social Security Scotland's Corporate Assurance Team to improve the understanding and agree a definition for technical debt and what it represents. There also needs to be a formal agreement of technical debt arrangements between all stakeholders so that it is ensured all elements of technical debt are known and recorded, the impact is understood and when technical debt appears in new developments, Social Security Scotland are fully aware of what they are inheriting and ensure the resources and budget are available to respond to this.

- 3.2.12. It was noted that there are some areas of improvement needed which are currently not being addressed in the Live Service space due to being ring-fenced as technical debt. There are a large number of cross cutting requirements that remain undelivered and do not fit within the capacity of Social Security Scotland's Live Service team. It is unclear who will take on these actions and therefore the risks remain. Management advised that any areas for improvement that are not currently being addressed will be because of resourcing or other delivery or financial constraints and any request to address technical debt should be supported by a business case. However, we have not been able to evidence these considerations being made.
- 3.2.13. Good progress has been made within the Chief Digital Office to create a record of technical debt, with contribution from key stakeholders across the organisation, however the current processes may not be sustainable. The register in development is manual, with limited management information and doesn't have assigned ownership and is not linked to existing JIRA tickets. It should be explored whether this register can be linked to JIRA to avoid error.
- 3.2.14. An estimated upper and lower cost has been determined across the technical debt identified by Chief Digital Office, actual costs are yet to be determined. There is a risk there is no budget to address high risk debt, action should be taken promptly to determine the financial impact of debt. ([see recommendation two](#))

### **Impact of System Changes**

- 3.2.15. There has been an ambitious schedule of delivery in the benefit roll out, this has led to pressures on delivery. As a result, the release schedule is tight and there is less ability to deploy system changes in live service leading to an increased backlog or length of time before changes can be deployed and defects landing in live benefits. From review of the Low Income Benefits JIRA dashboard it was noted that there remains a growing number of defects for Low Income Benefits, with spikes in

defects. As maturing benefits on SPM, it's expected that defects in this area should reduce however, due to the historic set-up of Low Income Benefits and increasing system changes, defects continue to occur along with continuous improvement required. There is a need for sufficient releases to enable the Live Services Team to reduce the backlog of defects and reduce manual workarounds.

3.2.16. The impact of pressures of delivery has also resulted in examples of changes being made out with timescales, where a code freeze should be in place, increasing the risk of [Redacted] We are aware that IBM (one of the contractors procured to assist with system development and testing) are looking to automate and improve the speed of processes in order to improve code delivery, however there is a need to review the ability to implement deployment of system changes within live service as part of timescales and ensure sufficient time to test without changes being added throughout which could impact the reliability of changes.

3.2.17. As more benefits are transitioned, including the implementation of forthcoming disability benefits, the current process means the Live Services team will become responsible for responding to further bugs and defects. As a result, Social Security Scotland have to put in place processes, resources and tools are sufficient to manage this increase in demand. The Live Services Team are currently going through a restructure to support this growth in responsibility. We were advised that the plans include the creation of a Maintenance Team, which will comprise Service Owners, Developers and Testers, and an extra line of management and will be responsible for leading on Defect Management. The Live Services Team are currently coping with their remit, however pressures from the number of defects landing in live benefits has led to these changes and therefore consideration of why and the number of defects landing in live benefits should be reviewed due to the impact this had on workload and system workarounds.

[\(see recommendation three\)](#)

### **Access Controls**

3.2.18. [Redacted]

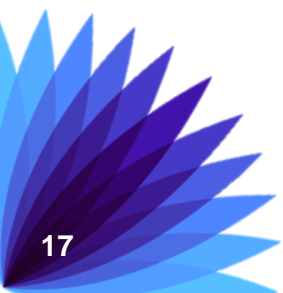


### 3.3. Interim Follow Up Review

3.3.1. Please see [Annex C](#) for the outcomes of our interim follow-up of the 2020/21 review of SPM. A summary of the statuses of implementation are below:

Recommendation/due date	Implementation status
1. User Access – Oct 2022	Partially Implemented
2. Training & Guidance – Sept 21	Partially Implemented
3. Roles & Responsibilities – Sept 21	Partially Implemented
4. Payment Batches – Dec 21	Fully Implemented
5. Manual Workarounds – May 21	Fully Implemented
6. Management Information – Dec 22	Partially Implemented
7. Benefit Calculations – July 21	Fully Implemented
8. Audit Trail – Dec 21	Partially Implemented
9. Gap Analysis and Planning – Aug 21	Fully Implemented
10. Work Flow - complete	Fully Implemented
11. Operational Issues – Sept 21	Fully Implemented

DRAFT



---

## Annex A Definition of Assurance and Recommendation Categories

---

### Assurance Levels

<b>Substantial Assurance</b> <b>Controls are robust and well managed</b>	Risk, governance and control procedures are effective in supporting the delivery of any related objectives. Any exposure to potential weakness is low and the materiality of any consequent risk is negligible.
<b>Reasonable Assurance</b> <b>Controls are adequate but require improvement</b>	Some improvements are required to enhance the adequacy and effectiveness of procedures. There are weaknesses in the risk, governance and/or control procedures in place but not of a significant nature.
<b>Limited Assurance</b> <b>Controls are developing but weak</b>	There are weaknesses in the current risk, governance and/or control procedures that either do, or could, affect the delivery of any related objectives. Exposure to the weaknesses identified is moderate and being mitigated.
<b>Insufficient Assurance</b> <b>Controls are not acceptable and have notable weaknesses</b>	There are significant weaknesses in the current risk, governance and/or control procedures, to the extent that the delivery of objectives is at risk. Exposure to the weaknesses identified is sizeable and requires urgent mitigating action.

### Recommendation Priority

<b>High</b>	Serious risk exposure or weakness requiring urgent consideration.
<b>Medium</b>	Moderate risk exposure or weakness with need to improve related controls.
<b>Low</b>	Relatively minor or housekeeping issue.

---

**Annex B – Terms of Reference**

---



Scottish Government  
Riaghaltas na h-Alba  
gov.scot

**Directorate for Internal Audit and Assurance**

**Internal Audit Terms of Reference**

**Social Security Scotland 2021-22**

**Review of SPM**

Directorate for Internal Audit and Assurance

Issue Date: 27-10-2021

## Key Audit Contacts

<b>Audit Year:</b>	2021-22
<b>Client Accountable Officer:</b>	David Wallace
<b>Audit Senior Responsible Officer(s):</b>	[Redacted]
<b>Client Audit Contact(s):</b>	[Redacted]
<b>Head of Internal Audit:</b>	[Redacted]
<b>Internal Audit Manager:</b>	Louise Spencer
<b>Internal Auditor(s)</b>	[Redacted]

## Estimated Reporting Timescale

<b>Fieldwork Starts:</b>	October 2021
<b>Fieldwork Ends:</b>	October 2021
<b>Draft Report Issued:</b>	November 2021
<b>Final Report Issued:</b>	November 2021
<b>Estimated Resource Days:</b>	30

---

## 1. Introduction

---

- 1.1. This internal audit review forms parts of our planned audit coverage agreed by the Accountable Officer and noted by the Audit and Assurance Committee on 09 February 2021.
- 1.2. This review follows [Redacted].
- 1.3. The Social Security Scotland Strategic Risk Register includes a number of risks related to this review including:

[Redacted]

---

## 2. Scope

---

- 2.1. To evaluate and report on the controls in place to manage the risk surrounding Social Security Scotland's SPM system arrangements.
- 2.2. Remit Item 1 – Bugs and Defects
- To assess the arrangements in place for management of system bugs and defects by Social Security Scotland and Social Security Directorate both during development and post implementation.

Bugs and defects (an issue raised where the system does not work as intended) are system issues identified by colleagues involved in the life cycle of service development.

Key Risks:

- [Redacted].

- 2.3. Remit Item 2 – Technical Debt

Determine the arrangements in place for the management of technical debt.

Technical Debt, as defined by the Chief Digital Office in their Technical Debt Management presentation to the Integrated Assurance Group is:

*The potential operational inefficiencies and financial risk to the Agency arising from the consequences of tactical decisions taken during technology implementation and the work necessary to resolve it. This can apply at a macro level (i.e. architecture decisions) or at a micro level (i.e. developer decisions made during platform configuration).*

Key Risks:

[Redacted]

#### 2.4. Remit 3 – System Changes, Developments and Controls

To provide assurance that there is a defined approach to developing, merging, testing and implementing new system processes and functionality to minimise the impact on service delivery and ensure sufficient controls are in place.

Key Risks:

[Redacted]

#### 2.5. Remit Item 4 – Interim Follow Up of the 2020/21 SPM Review

A number of the recommendations made in the 2020/21 review are not due for implementation until next year and the follow up will not be completed until after this time. However for some of the recommendations the date for implementation has now passed and it is also expected that progress towards the others is being made. As such we are looking to undertake an interim follow up to determine what progress has been made and provide assurance of the activities that have been undertaken

Key Risks:

- [Redacted]

---

### 3. Approach

---

- 3.1. We will undertake the audit in compliance with the Internal Audit Charter and, the Memorandum of Understanding agreed between Internal Audit and Social Security Scotland.
- 3.2. At the conclusion of the audit a customer satisfaction questionnaire will be issued to the main audit contact. Internal Audit appreciate feedback and to facilitate continuous improvement, we would be grateful if you could complete and return the questionnaire.
- 3.3. Management is reminded of our need for timely access to people and responsiveness to information requests, to enable the reporting timetable to be met.

DRAFT

## Annex C Interim Follow-up Report

Of the 11 recommendations, 8 of the implementation dates had passed, with the remaining 3 due in 2022. Of them all, 6 have been fully implemented and 5 have been partially implemented. Details of the findings from our interim follow-up are below:

Recommendation	Status
<p><b><u>Recommendation 1: User Access</u></b></p> <p>Management should establish:</p> <ul style="list-style-type: none"> <li>Processes for automating checks on inactive accounts.</li> <li>Processes for establishing periodic checks on live accounts to ensure all are valid and have the appropriate permissions.</li> <li>Improved controls around requests and creation of new user accounts.</li> <li>Removal of any user role profiles not relevant to Social Security Scotland and tidy up of other roles to ensure they are appropriate and provide users of each role the required access but not more access than necessary.</li> <li>Administration processes for Service Desk user access should be documented.</li> </ul> <p><b>Recommendation Priority: High</b></p> <p><b>Implementation Target Date:</b> October 2022</p>	<p><b><u>Findings:</u></b></p> <ul style="list-style-type: none"> <li>Manual access control reviews have been introduced and run on a weekly basis to identify inactive accounts.</li> <li>Internal Fraud are progressing on implementing a user story created for controls on user access. An options paper has been submitted, the outcome of this paper will determine the level of controls which will be implemented. A solution is expected to be implemented in January 2022.</li> <li>Further action has been taken to implement controls on individuals accessing their own cases in SPM, with two exception reports now available to Internal Fraud to highlight if this has occurred. Gaps remain in place for these reports in capturing information on contractors.</li> <li>Although work is progressing, there remains weaknesses in the processes for setting up users/access, roles, changes and removal or accounts. A project, in its infancy, has been set-up to deliver the technical solution for role based access control and work was completed to map roles to security groups which led to removal of 14 roles from SPM. However roles in SPM remain not fit for purpose and exposes the organisation to risk of misuse.</li> <li>Phase 2 The Enterprise Identity and Access Management (eIAM) was launched in October 2021 but still in planning/ discovery stage with a proposed completion date of January 2024. The project is focussed on establishing the definition, agreement and delivery of Access Management based on a Role Based Access Control model. The scope will consider access of Social Security Scotland business users and the development teams in Chief Digital Office and will cover foundational platforms and supporting applications used to manage and deliver solutions.</li> </ul> <p><b><u>Conclusion:</u></b></p> <p>Management are keen to implement controls to address the risks raised in the recommendation, actions have been taken to improve user access however gaps are still to be addressed to tighten system access and user roles.</p> <p>Recommendation <b>Partially Implemented</b></p>



<p><b><u>Recommendation 2: Training and Guidance</u></b></p> <p>a) Management should ensure all staff, including staff outwith the Client Advisor role, have sufficient guidance to enable them to undertake their duties.</p> <p>b) As part of this processes should be put in place between the Programme Directorate and Social Security Scotland to ensure guidance is available soon after all system changes or benefit launches and ensure administration processes are documented.</p> <p>c) Management should consider if any SPM e-learning is mandatory and establish a process for reviewing compliance with completion of e-learning.</p> <p><b>Recommendation Priority: Medium</b></p> <p><b>Implementation Target Date:</b> 2a and 2b – August 2021 2c September 2021</p>	<p><b><u>Findings:</u></b></p> <p>a) A step-by-step guide for Team Managers, on how to view the user workload, reserves task or the user, view assigned tasks and approve or reject a case, was created and shared on Knowledge Hub. Guidance for all other roles outwith Client Advisors hasn't been completed, management explained that for the Business Analysts Team to be able to create appropriate business process maps for various role types, Social Security Scotland colleagues would need to provide appropriate detail to inform these maps.</p> <p>b) All Client Service Delivery Team guidance is now under continuous review and feedback, the Content Team have begun a review across all low income benefits including producing videos and updating notes. They have also been working closely with the Programme Business Analysts and IBM Business Analysts to articulate detailed step by step tasks for Client Service Delivery Team colleagues within operational guidance.</p> <p>c) SPM training is provided to all new operational staff and a Skills Matrix developed, and Client Service Delivery Team are currently working on populating the matrix for Low Income Benefit staff.</p> <p><b><u>Conclusion:</u></b></p> <p>A large amount of progress has been made in this space to ensure staff have appropriate, timely guidance, with evidence of guidance constantly evolving apparent and the crucial input from key stakeholders to improve guidance. We were unable to seek evidence of the in-depth guidance developed for roles outwith Client Advisors and Team Managers and highlight the use of the skills matrix to formally monitor training completion still on-going.</p> <p>Recommendation <b>Partially Implemented</b></p>
<p><b><u>Recommendation 3: Roles and Responsibilities</u></b></p> <p>a) Roles and responsibilities should be clear and documented within Live Services Team, Chief Digital Office and other key stakeholders.</p> <p>b) Management should consider continuity arrangements within the Live Services Team</p>	<p><b><u>Findings:</u></b></p> <p>a) The Live Services Team and all technology roles are now imbedded within the Chief Digital Office division. The Live Services Team is being reshaped with new structure due to be in place before April 2022, which includes improvements to the governance structure with new C band staff and a change to establish one maintenance team which is currently split in two.</p> <p>However, wider review of roles and relationships with Chief Digital Office and other key stakeholders in Social Security Programme are not formally documented. There are controls within the transition project however, processes including management of crosscutting issues are informally agreed and could become complicated as transitions begin and there is more</p>

<p>to ensure sufficient knowledge and cover is available to support delivery of technical improvements and prevent any delay.</p> <p><b>Recommendation Priority: Medium</b></p> <p><b>Implementation Target Date:</b> September 2021</p>	<p>responsibility and less capacity. As per evidence provided by Live Services Team, we saw some good practice setting out plans for future work in the Low Income Benefit space which documents the roles and responsibilities of work planned for 2022 including IBM. Scottish Government and Social Security Scotland staff.</p> <p>b) The Live Services Team now have Product Owners in place to provide continuity and extend the knowledge within the team. A workforce plan is also in development for future products.</p> <p><b>Conclusion:</b> Resilience is now built into the Live Services Team, we have however received no evidence of roles and responsibilities being clearly set out between teams wider than the Live Services Team, as projects begin to transition from the Social Security Directorate into Live Services remit and responsibility. It is important the foundations of responsibility are clearly defined to avoid duplication, confusion or issues being missed. We therefore consider this recommendation partially implemented. Recommendation <b>Partially Implemented</b></p>
<p><b>Recommendation 4: Payment Batches</b></p> <p>Management should work to establish the root cause of payment batch failures and take action to prevent recurring issues.</p> <p><b>Recommendation Priority: Medium</b></p> <p><b>Implementation Target Date:</b> December 2021</p>	<p><b>Findings:</b> An update provided in August and then followed up in September advised that batch payment issues in Best Start Foods had not occurred and are paying as per the process and the Live Services Team are working to develop a better testing model to minimise risk to deliver further functional changes and we have evidenced the implementation of an anonymised data set mirrored to live SPM to improve the effectiveness of testing. We have been made aware that lessons learnt from this issue have fed into the roll out of other benefits.</p> <p><b>Conclusion:</b> Actions have been taken to monitor and track this issue on an ongoing basis, with no reoccurring issues identified and new testing tools now available to support preventing this happening again therefore we are content this action can be closed. Recommendation <b>Fully Implemented</b></p>
<p><b>Recommendation 5: Manual Workarounds</b></p> <p>a) Following the review being undertaken to capture and quantify the number of workarounds required within SPM and</p>	<p><b>Findings:</b> a) A list of workarounds has been created and the Live Service Team are deploying frequent fixes to address defects. Last year, this was aimed to be every 6-8 weeks however, since the launch of disability benefits this landscape has got tighter with more to</p>

<p>assess the impact on resources and productivity a clear, prioritised action plan should be developed to address workarounds with reasonable target dates.</p> <p>b) Management should also ensure, where possible, any current or new manual processes or workarounds being introduced are assessed for impact on current workarounds and Operational staff to ensure any further workarounds being implemented are appropriate before being applied.</p> <p><b>Recommendation Priority: High</b></p> <p><b>Implementation Target Date:</b> May 2021</p>	<p>deploy. We have evidenced that 1,616 defects have been resolved (this figure is true as at 30 November 2021 and covers last 90 days). As part of guidance updates, the Live Services Team aim to distinguish between workarounds and manual processes.</p> <p>b) Management ensure workarounds are in place to continue to progress claims when defects arise. The Live Services Team have processes in place to work with all operational areas when impacting and prioritising defects and test prior to deploying, we evidenced this through our fieldwork of the 2021/22 SPM Review.</p> <p><b>Conclusion:</b> Workarounds continue to be in place however the Live Services Team are actively resolving workarounds as a result of remedying defects across live benefits. Recommendation <b>Fully Implemented</b></p>
<p><b>Recommendation 6: Management Information</b></p> <p>Management should ensure Management Information needs are fully understood and ensure systems/processes are established to provide reliable, timely and accurate information which does not require labour intensive manual input to deliver.</p> <p><b>Recommendation Priority: High</b></p> <p><b>Implementation Target Date:</b> July 2021 and December 2022</p>	<p><b>Findings:</b> Five of the six daily and weekly benefit dashboards are now in place from Power BI, making the process quicker and more automated. Reports have also been developed from COIT for disability payments to increase visibility for operational staff. Work is on-going to address issues identified with the creation of BIRT reports as well as reducing the reliance on analyst teams to generate reports manually, however this is not yet sufficient for needs.</p> <p><b>Conclusion:</b> Vast improvements have been made to the development of management information to support oversight and control of processing benefits. Implementation of this recommendation is on track however capability in the data warehouse and data visualisation is needed to reduce reliance on the analyst teams in producing information manually. Recommendation <b>Partially Implemented</b></p>

<p><b><u>Recommendation 7: Benefit Calculations</u></b></p> <p>Management should ensure action is taken to provide timescales for implementation of updated guidance and SPM functionality to minimise the risk of instances of over/under payments due to such technical errors.</p> <p><b>Recommendation Priority: Medium</b></p> <p><b>Implementation Target Date: July 2021</b></p>	<p><b><u>Findings:</u></b></p> <p>The Live Services Team have taken action and looked at this issue to establish the root cause. Changes have been implemented with the Child Disability Payment to prevent this issue reoccurring which was as a result of client advisors applying changes. Guidance was updated and the Operational Readiness and Continuous Improvement Team are monitoring impact. However, there is still a risk of this reoccurring on low income benefits and if Client Advisors don't follow the guidance.</p> <p><b><u>Conclusion:</u></b></p> <p>We established that relevant guidance on SPM functionality has been updated and impact is being monitored.</p> <p>Recommendation <b>Fully Implemented</b></p>
<p><b><u>Recommendation 8: Audit Trail</u></b></p> <p>Implementation of an audit trail within SPM should be progressed.</p> <p>We expect on-going work to develop audit trail captures all activity in SPM, deletions, dates and time of actions. Management Information should be available from the audit trail for periodic checks and exception reporting.</p> <p><b>Recommendation Priority: High</b></p> <p><b>Implementation Target Date: December 2021</b></p>	<p><b><u>Findings:</u></b></p> <p>The issue around deletions was addressed by the SPM release in July 2021, with functionality that records the details of any person who has deleted data and timestamp the action. It will also permanently store the information that the user has deleted and it will not be amendable. Authorised Social Security Scotland Staff have access to view deletions and interrogate data.</p> <p>The initial phase of the Audit Trail Repository Service (ATRS), to capture and hold auditable application information from the Digital Portal was put into production in July 2021. The original interim solution of the logging and monitoring tool Elasticsearch, Logstash, and Kibana (ELK) which provides SPM data identified for use by the Fraud team within Social Security Scotland has been upgraded to the Logging Monitoring and Alerting (LMA) tool providing greater performance and an opportunity was taken to refine Fraud reporting further. The migration and re-direction into Audit Trail Repository Service is scheduled for summer 2022 with its full retrieval capability being in place Quarter 3 2022.</p> <p>By March 2022 enhancements to SPM are expected to provide more robust segregation of duties for users reducing the risk of specific scenarios.</p> <p>Alongside this, designs have been approved, although Internal Audit have not had sight of any approval, to provide the ability to track SPM user activity and searches and other auditable events, even if no case updates have been performed by the user. This auditable information will be ingested into the Audit Trail Repository Service completed in 2022.</p> <p><b><u>Conclusion:</u></b></p>

	<p>Adjustments have been made to SPM to improve the audit trail through resolution of deletion functions and the initial implementation of systems to support audit trail, however vital actions remain outstanding into 2022 to ensure a robust audit trail is in place within SPM.</p> <p>Recommendation <b>Partially Implemented</b></p>
<p><b><u>Recommendation 9: Gap Analysis &amp; Planning</u></b></p> <p>a) Processes should be developed for on-going review of gap analysis.</p> <p>b) Management should undertake work to review what SPM functionality has been delivered versus what should have been delivered to ensure the expected service is sufficient and meets Social Security Scotland's needs. Where it is not, action should be taken to escalate and resolve this.</p> <p>c) Management should consider analysis to quantify the number of technical difficulties and backlogs within SPM to establish whether they are reasonable and whether enough resource and capacity is available to implement improvements, and the impact these updates will have on other controls within SPM.</p> <p>d) Management should assure themselves that for those backlog issues identified there</p>	<p><b><u>Findings:</u></b></p> <p>a) Gap Analysis was undertaken in March 2021 for three low income benefits which is documented on Confluence as part of the transition work in the continuous improvement team, this was completed by Social Security Directorate with input and involvement from the Live Services Team. Work continues to improve gaps identified in low income benefits in which we have been provided information of via Confluence pages.</p> <p>b) Through discussions with the Low Income Continuous Improvement Team within Social Security Directorate and evidence on the Live Services Confluence page, we're aware of work undertaken to review what was delivered in low income benefits against the agreed minimum viable product, including user research with Client Service Delivery Team. Some of this work formed part of the backlog which is being managed and guidance improvements. However, this was also led by the Social Security Directorate and we are unsure if this addresses Social Security Scotland needs. We are aware that the low income benefits continuous improvement work is moving to the responsibility of Social Security Scotland in December 2021.</p> <p>A new finance role was filled in late August to measure the financial impact of technical debt. Chief Digital Office architecture logs and monitors technical debt. A glossary of terms including 'Technical Debt' is under review so it is clear to all how technical debt is classified.</p> <p>Management suggested in their response that action was being taken to address technical debt and through fieldwork for our 2021/22 SPM Review we have evidenced the work on-going within the Chief Digital Office to track, monitor and reduce technical debt. A framework has been established and cost modelling undertaken, this work continues to be a work in progress.</p> <p>c) Through fieldwork of the 2021/22 SPM review we also reviewed the processes in place for managing bugs and defects. We evidenced that JIRA is used to quantify the number of technical difficulties in the backlog. As per recommendation three, resources have been identified who are supporting the delivery of processing defects.</p>

<p>are reasonable timescales for action being taken to remedy them and that controls in place currently are sufficient to minimise risk to Social Security Scotland.</p> <p><b>Recommendation Priority: High</b></p> <p><b>Implementation Target Date:</b> August 2021</p>	<p>d) We evidenced the process for prioritisation of bugs and defects, where high priority defects are actioned as well as evidence of Live Services actively implementing improvements through regular releases. We have raised new findings on timescales for implementation not being agreed for addressing bugs and defects.</p> <p><b>Conclusion:</b> The Chief Digital Office have taken action to begin to address Technical Debt across the organisation and the Live Services Team have addressed a high number of technical difficulties from the backlog with regular management and releases due to an increase of staff and have since taken responsibility of Low Income Benefit Continuous Improvement resource to address historic and on-going low income benefit system gaps therefore we consider this action fully implemented.</p> <p>Recommendation <b>Fully Implemented</b></p>
<p><b>Recommendation 10: Work Flow</b></p> <p>Management should establish the root cause of the error tasks issue and ensure resolution and lessons learnt to prevent this issue re-occurring.</p> <p><b>Recommendation Priority: Medium</b></p> <p><b>Implementation Target Date:</b> Completed</p>	<p><b>Findings:</b> Management advised this issue has not reoccurred, we reviewed the Live Services Team backlog from the past 90 days to ensure no work flow tickets have been raised and were satisfied there are no further issues identified. The processes in place to regularly review defects would capture any future issues.</p> <p><b>Conclusion:</b> As this issue is now resolved and the route cause identified to prevent future issues, no further action is required.</p> <p>Recommendation <b>Fully Implemented</b></p>
<p><b>Recommendation 11: Operational Issues</b></p> <p>Management should undertake analysis of system issues which impact Client Service Delivery, prioritise and create an action plan for resolution to minimise disruption to Client Advisors ability to process applications.</p> <p><b>Recommendation Priority: Low</b></p> <p><b>Implementation Target Date:</b> September 2021</p>	<p><b>Findings:</b> This is an on-going action, however the Live Services Team work with Client Services Delivery to understand present issues which are linked back to guidance or system updates. Client Services Delivery were also able to confirm this. We were also made aware of additional engagement exercises in the improvements of guidance to include user research with Client Services Delivery.</p> <p><b>Conclusion:</b> Well established relationships are on-going to address concerns from Client Services Delivery.</p> <p>Recommendation <b>Fully Implemented</b></p>