



Meeting	Audit, Risk and Assurance Committee
Date	3 November 2022
Location	By video-conference
Title of Paper	Internal Audit Reports
Presented By	John McNellis, Head of Finance, Audit and Risk Paul Kelly, Azets
Recommendation to Members	For Discussion
Appendix Attached	Yes

PURPOSE

To present the Audit, Risk and Assurance Committee (ARAC) with the internal audit report on business continuity planning for forensic services.

The paper is presented in line with the corporate governance framework of the Scottish Police Authority (SPA) and Audit, Risk and Assurance Committee (ARAC) terms of reference and is submitted for consultation.

1. BACKGROUND

- 1.1 The Internal Audit plan for 2022/23 was approved by the SPA Board in February 2022.
- 1.2 The internal audit report on forensic services business continuity planning (BCP) was not available for reporting to the July ARAC due to staff sickness. The findings relating to BCP for Police Scotland and SPA Corporate were reported to the ARAC in July.
- 1.2 The internal audit function is managed within SPA corporate to provide assurance over the policing service and ultimately to provide an annual opinion on the systems of internal control.

2. FURTHER DETAIL ON THE REPORT TOPIC

2.1 Business continuity planning (BCP) forensic services (full report at Appendix A)

a. Background:

- The ability to be able to respond to unexpected events and provide continuity of service is critical. It is essential that formal plans and procedures exist to support it in the event of a disaster.
- The effectiveness of these plans requires a structured and methodical approach to identifying critical business processes, contingent resources, and optimal recovery strategies as well as robust maintenance and test processes.
- The response to Covid-19 has identified the need for business continuity planning to have a greater focus on organisational resilience, particularly relating to core operations, people, information and supply chain.

b. Internal audit findings:

Good practice

- There is a formal review schedule for the BCP which is built into the Quality Management System.

Areas for improvement

- Although Recovery Time Objectives (RTOs) are defined within Business Impact Assessments and the BCP, there has not been any process undertaken to confirm that these are

achievable when compared against IT resilience and recovery arrangements in place.

- Recovery Point Objectives (RPOs) – the maximum amount of data that can be lost defined by time - have not been defined for any business process.
- There is no ongoing assurance activity as part of the internal BCP review process to confirm that suppliers maintain and exercise their own business continuity arrangements during the course of the contract.
- There is currently no IT Disaster Recovery Plan in place within Digital Division to outline the recovery priorities for systems across the organisation and inter-dependencies.

c. Summary of recommendations:

Grade	Number of actions
4 – very high risk	0
3 – high risk	1
2 – moderate risk	6
1 – limited risk	0
Total	7

d. SPA conclusions:

- This is a detailed review and management have accepted all internal audit findings.
- Timescales for recommendations to be addressed range from Dec 2022 to August 2023. All findings are expected to be completed by December 2022 with one exception related to the high risk finding has the longest timescale (August 2023). This reflects the time required to work in conjunction with Police Scotland’s digital division on the overall Digital Division disaster recovery strategy and plan which was discussed in more detailed during the July ARAC meeting.

3. FINANCIAL IMPLICATIONS

3.1 There are no specific financial implications from this report, however, the implementation of some actions are likely to require financial resources.

4. PERSONNEL IMPLICATIONS

4.1 There are no specific personnel implications associated with this paper. The vetting internal audit review has implications on the police workforce as outlined.

5. LEGAL IMPLICATIONS

5.1 There are no specific legal implications associated with this paper.

6. REPUTATIONAL IMPLICATIONS

6.1 There are no reputational implications associated with this paper, however there are potential reputational implications associated with the pace and effectiveness of addressing management actions arising from internal audit reports.

7. SOCIAL IMPLICATIONS

7.1 There are no social implications associated with this paper.

8. COMMUNITY IMPACT

8.1 There are no community impact implications associated with this paper.

9. EQUALITIES IMPLICATIONS

9.1 There are no equality implications associated with this paper.

10. ENVIRONMENT IMPLICATIONS

10.1 There are no environmental implications associated with this paper.

RECOMMENDATIONS

Members are requested to note the internal audit report.

1.



Scottish Police Authority

Internal Audit Report 2022/23

Business Continuity Planning – Forensic Services

July 2022



Scottish Police Authority

Internal Audit Report 2022/23

Business Continuity Planning – Forensic Services

Executive Summary	1
Management Action Plan	5
Appendix A – Definitions	15
Appendix B – Summary of management actions	16

Audit Sponsor	Key Contacts	Audit team
<i>ACC Mark Williams, Police Scotland</i>	<i>Chief Superintendent Sharon Milton, Head of EERP</i> <i>Graham Stickle, Risk and Policy Specialist (SPA)</i> <i>Jennifer Muir, Head of Strategy and Business Performance (Forensic Services)</i>	<i>Paul Kelly, Director</i> <i>Ashley Bickerstaff, IT Audit Manager</i> <i>Ruaridh Stewart, IT Auditor</i> <i>Connie Roberts, IT Auditor</i> <i>Natasha Williams, IT Auditor</i>

Executive Summary

Conclusion

Our review found that Forensic Services has a Business Continuity Plan in place which is subject to annual review.

We noted during our review that, although a Business Continuity Plan (BCP) is in place and created on the foundation of Business Impact Assessments across Forensic Services, there is no assurance over Recovery Time Objectives (RTOs) - a key element of the plans. RTOs are time durations within which a business process must be restored after a disruptive event to avoid a break in business continuity. There has not been any process undertaken to confirm whether the RTOs contained within BCPs are achievable when compared against IT recovery and resilience capabilities. We also noted that Recovery Point Objectives (RPOs), the maximum amount of data that can be lost defined by time, have not been defined for any business process.

Background and scope

The ability to be able to respond to unexpected events and provide continuity of service is critical to organisations and it is essential that formal plans and procedures exist to support it in the event of a disaster.

The effectiveness of these plans requires a structured and methodical approach to identifying critical business processes, contingent resources, and optimal recovery strategies as well as robust maintenance and test processes.

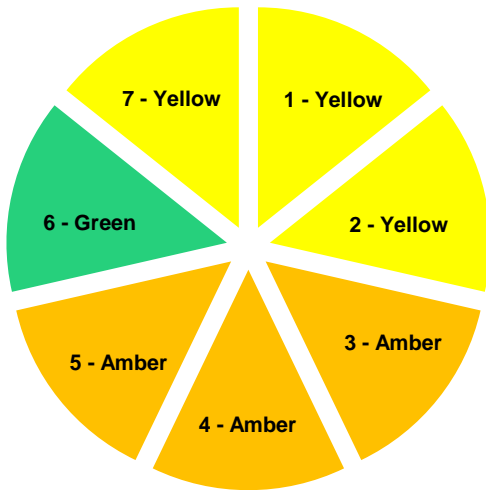
The response to Covid-19 has identified the need for business continuity planning to have a greater focus on organisational resilience, particularly relating to core operations, people, information and supply chain.

Many organisations found themselves unable to leverage their business continuity plans in responding to Covid-19 as they were designed around specific events e.g. fire, loss of power etc. This has highlighted the need for organisations to take a risk-based approach, ensuring that there is increased focus on having plans in place for critical business activities.

The review assessed the extent to which an effective Business Continuity Management framework has been implemented within SPA (Corporate), Forensic Services and Police Scotland. The review considered how approaches to business continuity have learned lessons from the response to the Covid-19 pandemic, including approaches to organisational resilience.

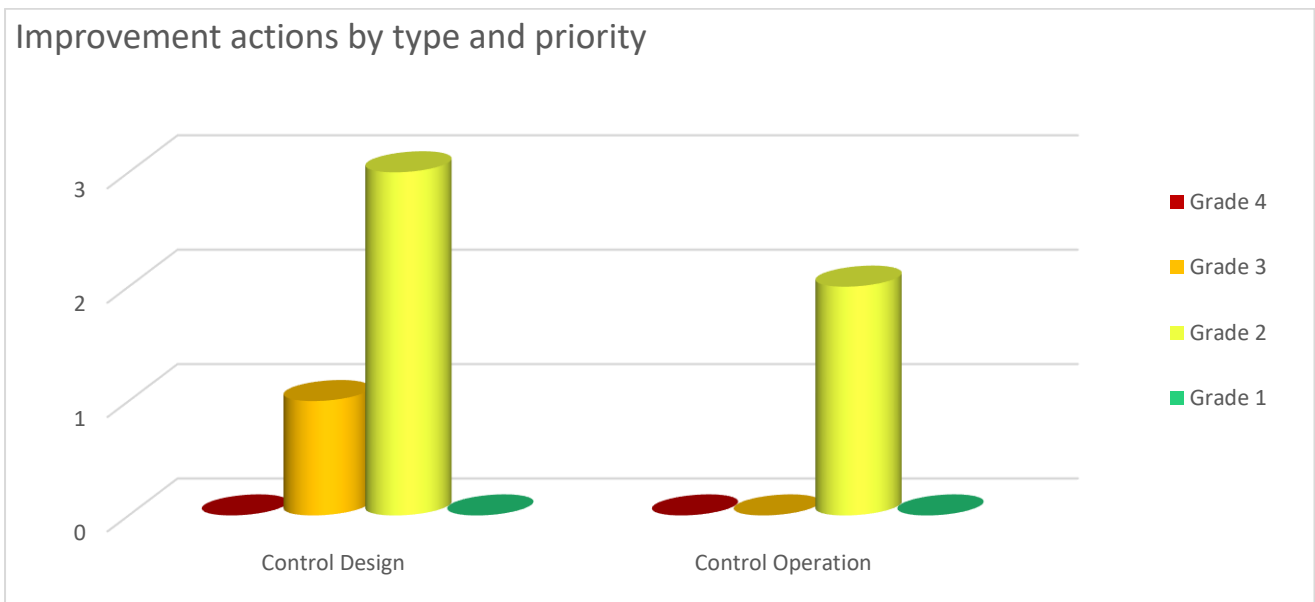
This report documents the assessment of the control framework in relation to Forensic Services.

Control assessment



- 1. A Business Continuity Management framework, including organisational resilience, policy and governance arrangements, has been implemented. This has been updated in light of lessons learned from the response to Covid-19.
- 2. Business continuity roles and responsibilities are clearly assigned.
- 3. Business Continuity Plans demonstrate a comprehensive understanding of the organisation, identifying the key services, as well as the critical activities that support them.
- 4. Comprehensive and robust recovery strategies and plans have been developed to manage the initial response to an incident and to ensure the continuity and recovery of critical activities.
- 5. There are formal processes through which IT resilience and recovery expectations set out within plans are validated with Digital Division.
- 6. Effective processes exist to confirm business continuity plans are kept up-to-date.
- 7. Business continuity plans are regularly exercised and updated in response to lessons learned from exercises.

Improvement actions by type and priority



Six improvement actions have been identified from this review, two of which relate to compliance with existing procedures, rather than the design of controls themselves. See Appendix A for definitions of colour coding.

Key findings

Good practice

Our review has identified areas of good practice within Forensic Services control framework:

- There is a formal review schedule for the Business Continuity Plan which is built into the Quality Management System and managed via the Q-Pulse system. Staff are notified when updates are made to the plan and asked to read it and confirm that they have done so.

Areas for improvement

We have identified areas for improvement which, if addressed, would strengthen Forensics Services control framework. These include:

- Although Recovery Time Objectives (RTOs) are defined within Business Impact Assessments and the Business Continuity Plan, there has not been any process undertaken to confirm that these are achievable when compared against IT resilience and recovery arrangements in place. We also noted that Recovery Point Objectives (RPOs) – the maximum amount of data that can be lost defined by time - have not been defined for any business process.
- Supplier business continuity arrangements are assessed as part of the procurement of services. However, there is no ongoing assurance activity as part of the internal BCP review process to confirm that suppliers maintain and exercise their own business continuity arrangements during the course of the contract.
- There is currently no IT Disaster Recovery Plan in place within Digital Division to outline the recovery priorities for systems across the organisation and inter-dependencies.

These are further discussed in the Management Action Plan below.

Best value

The events of the past two years in responding to the Covid-19 pandemic has highlighted the importance of organisations maintaining and exercising business continuity plans. It has also emphasised why it is vital for organisations to consider resilience within critical business activities.

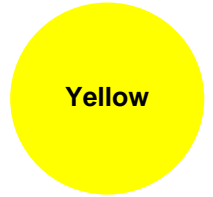
We have determined that, overall, the foundations of good business continuity management arrangements within Forensic Services are in place. However, there is a need for IT resilience and recovery requirements to be more clearly defined and then confirmed as being achievable. This will allow management to gain assurance that core elements of their BCP is capable of supporting the response to an incident. Alternatively, where there is a gap in IT resilience capability, management can assess opportunities for further recovery strategies and/or operational resilience arrangements that they can implement to reduce the impact on critical business processes. It will also be important for management to recognise the increased supply chain and use of third parties for service provision. Management will need to ensure that business continuity plans reflect this and that appropriate supply chain assurance arrangements are in place.

Acknowledgements

We would like to thank all staff consulted during this review for their assistance and co-operation.

Management Action Plan

Control Objective 1: A Business Continuity Management framework, including organisational resilience, policy and governance arrangements, has been implemented. This has been updated in light of lessons learned from the response to Covid-19.



1.1 Business Continuity Management Policy and Framework

Forensic Services (FS) does not have a business continuity policy in place. The Business Continuity Plan structure in use does contain elements of a framework and policy, such as:

- Procedure,
- Testing & Governance,
- Roles and responsibilities,
- Key contacts and
- Escalation process.

From review of the central Forensic Services risk register there are no business continuity related risks recorded to document the mitigations in place.

Risk

In the absence of a BCM policy there is the increased likelihood that Forensic Service's BCM arrangements will be inconsistent and not meet the recovery requirements of the organisation.

Recommendation

We recommend that Forensic Services develop and implement a formal business continuity framework and policy. This should include:

- Purpose of the policy
- Objectives
- Definition
- Roles and Responsibilities
- Governance arrangements
- Business Continuity Management process
- Training
- Testing
- Monitoring
- Evaluation
- How and when to update Business Continuity Plans.

A number of these areas are included within the current Business Continuity Plan and we recommend that management reviews the plan's contents and use this as the basis for developing a Business Continuity Policy and Framework. This should enable the plan to be a concise document used in the event of an incident, and the policy to contain the background information supporting the plan.

We recommend that Forensic Services management identify and record any risks relating to business continuity within relevant risk registers.

Management Action

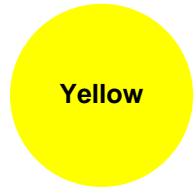
Grade 2
(Design)

Forensic Services will scope and develop a FS Business Continuity Policy and Framework.

Forensic Services will review risk registers to ensure relevant risks record how control measures mitigate risk to business continuity.

Action owner: Head of Quality Assurance and Information Compliance **Due date:** 31 December 2022

Control Objective 2: Business continuity roles and responsibilities are clearly assigned.



2.1 Business Continuity Training

We found that the roles and responsibilities of key role holders are defined within the FS Business Continuity Plan and that key role holders are aware of their responsibilities.

We interviewed a current staff member responsible for oversight of Business Continuity for Forensic Services, and we noted that training was provided in 2018 however, has not been refreshed since. The training was previously provided by the Police Scotland Business Continuity team and there is an awareness for the need to reintroduce this.

Risk

If key Business Continuity role holders are not routinely trained, then there is a risk that staff will not have the knowledge needed to manage Business Continuity within their areas. This could result in underdeveloped and ineffective BIAs and BCPs which could impact the organisation's ability to maintain services in an event.

Recommendation

We recommend that in coordination with the Police Scotland Business Continuity team, training for staff identified as part of the Business Continuity Management Response structure is undertaken to ensure that role holders are aware of key Business Continuity information, their roles and responsibilities and how to manage Business Continuity within their function. Further to this, the training should be refreshed on a regular basis.

We also recommend that as part of onboarding for any staff newly assigned Business Continuity responsibilities that they undertake the training.

Management Action

Grade 2
(Operation)

Forensic Services will engage with Police Scotland Business Continuity Team to scope training available and schedule a programme for relevant staff.

Action owner: Head of Forensic Infrastructure & Support

Due date: 31 March 2023

Control Objective 3: Business Continuity Plans demonstrate a comprehensive understanding of the organisation, identifying the key services, as well as the critical activities that support them.

Control Objective 4: Comprehensive and robust recovery strategies and plans have been developed to manage the initial response to an incident and to ensure the continuity and recovery of critical activities.



Control Objective 5: There are formal processes through which IT resilience and recovery expectations set out within plans are validated with Digital Division.

3.1 Assurance over recovery and resilience expectations

On review of Forensic Services' Business Impact Assessments, it was discovered that RTOs for ICT systems are not agreed or defined for all applications and systems. RTO is the time duration within which a business process must be restored after a disruptive event to avoid a break in business continuity. The RTOs that are in place were agreed in 2018 however, these are no longer used by Police Scotland Digital Division and the time to recover systems have not been reviewed since.

We also noted that Recovery Point Objectives (RPOs), the amount of time that can pass during an event before data loss exceeds that tolerance, have not been defined for business applications within Forensic Services BIAs/BCPs.

We also noted that Digital Division does not have an overarching IT Disaster Recovery plan. Disaster Recovery is managed on an application basis with no holistic view or oversight of the recovery processes in place for infrastructure or in terms of recovery priorities and dependencies. This has been addressed in the Business Continuity Planning - Police Scotland and Scottish Police Authority audit report under MAP 3.1.

Recommendation

We recommend that RTOs and RPOs are defined in line with the results of the BIAs and are recorded within business continuity documentation to set out the maximum amount of data (within each business-critical process) that could be lost in terms of time.

We recommend that Forensic Services introduces a formal process to ensure that all technology-related recovery expectations (RTO and RPO) set out in BIAs and BCPs are reviewed against Digital Division resilience and recovery capabilities to assess whether the expectation can be met. Where recovery expectations are not in line with what is achievable, management will need to consider alternative continuity strategies or to invest in increased IT resilience or recovery capability.

Management Action

Grade 3
(Design)

Forensic Services will engage with Digital Division in the development of the Digital Division Disaster Recovery Strategy and Plan which will scope technologies and resilience.

Action owner: Digital Division (Supported by Head of Forensic Infrastructure & Support)

Due date: 31 August 2023

3.2 Supplier Assurance

We found that critical suppliers are identified within the Business Impact Assessments for Forensic Services.

Although during procurement suppliers must meet certain requirements, including review of Business Continuity arrangements, to become approved suppliers, there are no ongoing assurance activities to reconfirm that suppliers have adequate Business Continuity in place to meet the current ongoing needs of the business.

Risk

There is a risk that if suppliers' Business Continuity processes and plans are not reassessed on an ongoing basis then in the event of a disruption suppliers may not be able to support Forensic Services and recover in the identified time in order to minimise impact on the business.

Recommendation

We recommend that Forensic Services introduce, using a risk-based approach, an ongoing validation of supplier Business Continuity arrangements. This should form part of the BCP review process or be included in the annual review of suppliers. This process should seek to gain assurance that suppliers have maintained and exercised their own business continuity plans and would be able to continue to support the business in the event of a disruption to the supply chain.

Management Action

Grade 2
(Design)

Forensic Services will as part of critical supplier review seek assurance from suppliers that they have BCP arrangements in place.

Action owner: Head of Quality Assurance and Information Compliance **Due date:** 31 December 2022

3.3 Immediate Response Plans

In addition to the Forensics Services BCP, there are Immediate Response Plans for the four Forensics Services Laboratories. These plans provide guidance to duty managers on:

- how to respond to incidents that occur,
- details of the site immediate response teams and key contacts,
- when to invoke the BCP,
- immediate/emergency actions and notification checklist,
- evacuation plan and assembly areas,
- site guide information and
- guideline scenario information.

From review of the plans, two of the four immediate response plans contain key contact information which is no longer accurate. These plans were last updated in 2018 and 2019. Reviews of these plans are conducted through Q-Pulse (quality management system), where review dates are set. The expected frequency of reviews is not defined.

From our review of the four immediate response plans we found that;

- two of plans were scheduled for review a year after their last update/review; and
- two scheduled for review four years from their active date (date last approved and updated).

Risk

There is a risk that response plans have not been updated to reflect current accommodations and processes to support in the initial response to an incident, which results in the likelihood that the response to incidents may not be managed effectively.

Recommendation

We recommend that all immediate response plans are reviewed and updated. This will better position the organisation in the event that an incident occurs that requires immediate response and potential invocation of the BCP. We also recommend that a review process is established to ensure consistency in the approach to reviewing immediate response plans.

Management Action

Grade 2
(Operation)

Forensic Services Immediate Response Plans will be reviewed and updated

Action owner: Head of Business Support

Due date: 31 December 2022

Control Objective 6: Effective processes exist to confirm business continuity plans are kept up-to-date.



No weaknesses identified

Forensic Services follow the same schedule of BCP review as the rest of Police Scotland, where the plans are to receive full review annually. This review schedule is built into the Quality Management System (Q-Pulse), where the BCP is held and available to access by all staff. The BCP has been reviewed and updated regarding their response to the pandemic. Once the plan has been reviewed and approved, the new plan is sent out to the necessary people with the requirement to read.

The plans are stored in the BCP pack at each Forensic Services location where the Admin Supervisor for that site has responsibility for ensuring the latest version is printed and available in the pack. The fieldwork for this review was conducted remotely due to the ongoing controls for COVID-19 so we were not able to verify if the plans in the BCP pack were the most recent version.

Control Objective 7: Business continuity plans are regularly exercised and updated in response to lessons learned from exercises.

Yellow

7.1 Business Continuity Testing

We noted that Forensic Services have an exercise and review schedule built within their Quality Management System. The plan is scheduled to be tested annually in alignment with the review cycle to aid in the review.

Forensic Services had an exercise of the BCP that was scheduled for May 2022 however, this has been deferred to later in 2022. The last exercise of the Forensic Services BCP was in 2019 and annual tests since have not been held due to the COVID-19 pandemic.

There is a process where lessons learned are documented in the form of a report which is escalated to the Director of Forensic Services. The Business Continuity Plan would be amended with any changes documented following an incident and testing of the plan.

Risk

There is a risk that without formally evaluating the BCPs through testing, Forensic Services will not be fully aware of the effectiveness of the plan in the event of a business disruption. This could result in the plan not being capable of supporting an effective and efficient response to a business disruption.

Recommendation

We recommend that a formal programme of testing the business continuity plan is developed and implemented. Outcomes of the testing should be reported back to the Director of Forensic Services with forward reporting to the SPA Audit and Risk Committee (ARAC). The range of tests should include live testing, and simulations of different scenarios. Testing should be risk-based and targeted for those areas of the organisation that are identified as being most susceptible to an incident and/or would suffer the most adverse consequences.

Live testing seeks to recreate a realistic threat to Business Continuity. These tests should, where possible, closely simulate an actual incident to provide assurance that BCP will aid the return of disrupted business critical services. Tests of plan should also consider involvement of areas that provide services to and from the areas under test, including IT representation to provide additional challenge, where assumptions may be made across areas. We also recommend where testing, assumptions should be subject to challenge.

The outcomes of testing, as well as responses to live business disruptions, should be formally documented and identify 'lessons learned' with actions from these tracked to completion, including updates to BCP documentation.

Management Action

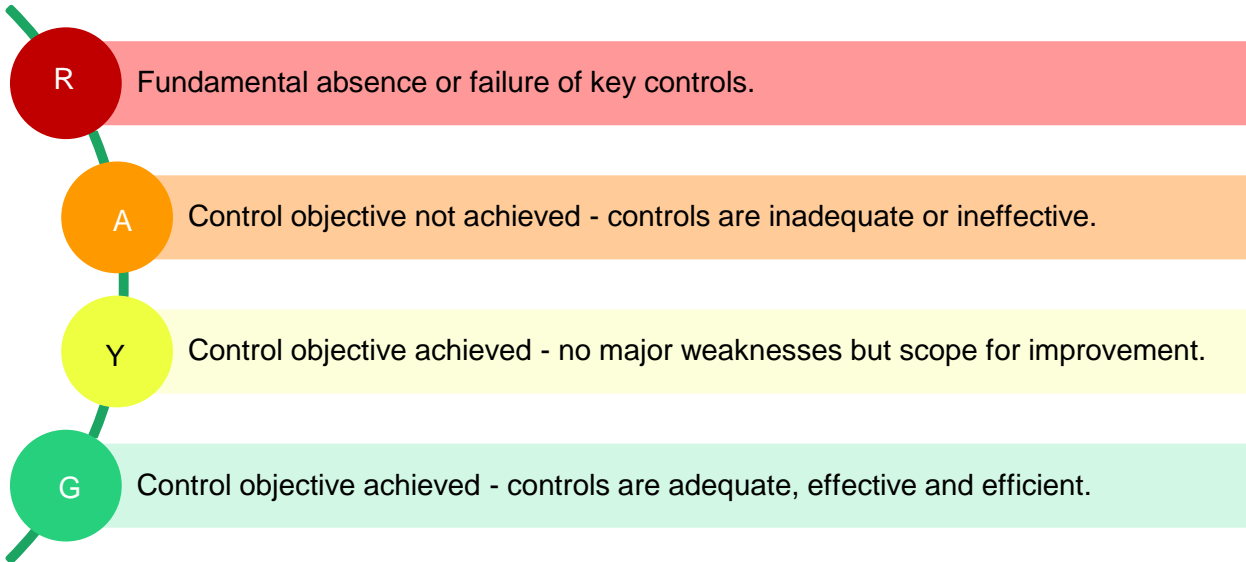
Grade 2
(Design)

Forensic Services undertook an exercise in July 2022. Forensic Services will ensure outcome is reported to Director of Forensic Services with forward reporting to the SPA Audit and Risk Committee (ARAC). Forensic Services will also report future programme to SPA ARAC.

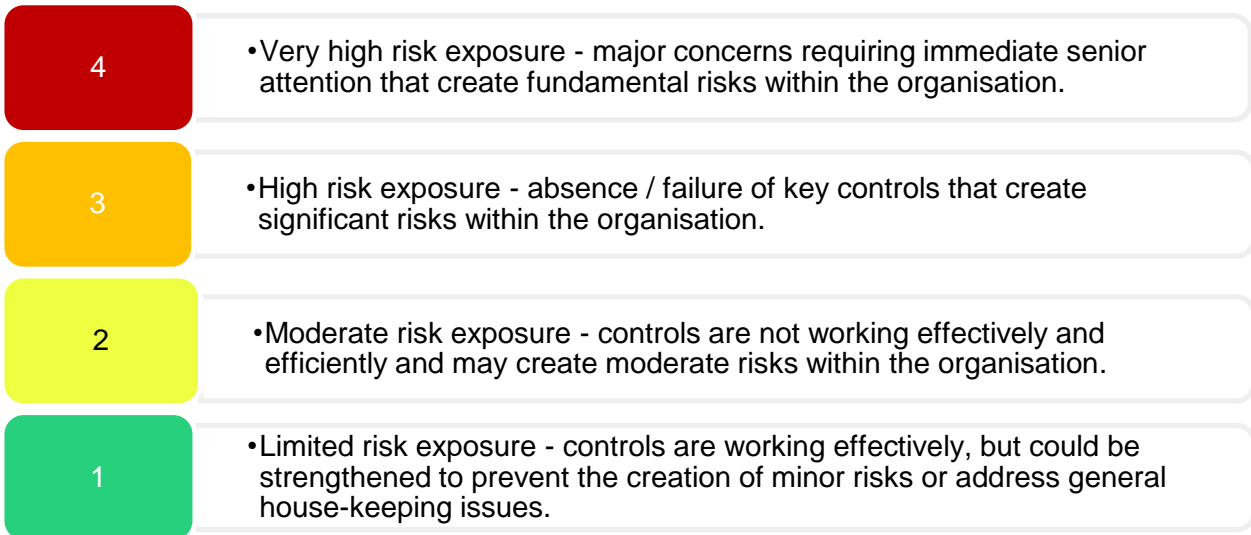
Action owner: Head of Quality Assurance and Information Compliance **Due date:** 31 December 2022

Appendix A – Definitions

Control assessments



Management action grades



Appendix B – Summary of management actions

Action No.	Recommendation	Management Response	Grade	Action Owner	Due Date
1.1	We recommend that Forensic Services develop and implement a formal business continuity framework and policy.	Forensic Services will scope and develop a FS Business Continuity Policy and Framework.	2	Head of Quality Assurance and Information Compliance	31 December 2022
1.1	We recommend that Forensic Services management identify and record any risks relating to business continuity within relevant risk registers.	Forensic Services will review risk registers to ensure relevant risks record how control measures mitigate risk to business continuity.	2	Head of Quality Assurance and Information Compliance	31 December 2022

Action No.	Recommendation	Management Response	Grade	Action Owner	Due Date
2.1	<p>We recommend that in coordination with the Police Scotland Business Continuity team, training for staff identified as part of the Business Continuity Management Response structure is undertaken to ensure that role holders are aware of key Business Continuity information, their roles and responsibilities and how to manage Business Continuity within their function. Further to this, the training should be refreshed on a regular basis.</p> <p>We also recommend that as part of onboarding for any staff newly assigned Business Continuity responsibilities that they undertake the training.</p>	Forensic Services will engage with Police Scotland Business Continuity Team to scope training available and schedule a programme for relevant staff.	2	Head of Forensic Infrastructure & Support	31 March 2023

Action No.	Recommendation	Management Response	Grade	Action Owner	Due Date
3.1	<p>We recommend that RTOs and RPOs are defined in line with the results of the BIAs and are recorded within business continuity documentation to set out the maximum amount of data (within each business-critical process) that could be lost in terms of time.</p> <p>We recommend that Forensic Services introduces a formal process to ensure that all technology-related recovery expectations (RTO and RPO) set out in BIAs and BCPs are reviewed against Digital Division resilience and recovery capabilities to assess whether the expectation can be met. Where recovery expectations are not in line with what is achievable, management will need to consider alternative continuity strategies or to invest in increased IT resilience or recovery capability.</p>	Forensic Services will engage with Digital Division in the development of the Digital Division Disaster Recovery Strategy and Plan which will scope technologies and resilience which will then be recorded in business continuity documentation	3	Digital Division (Supported by Head of Forensic Infrastructure & Support)	31 August 2023

Action No.	Recommendation	Management Response	Grade	Action Owner	Due Date
3.2	We recommend that Forensic Services introduce, using a risk-based approach, an ongoing validation of supplier Business Continuity arrangements. This should form part of the BCP review process or be included in the annual review of suppliers. This process should seek to gain assurance that suppliers have maintained and exercised their own business continuity plans and would be able to continue to support the business in the event of a disruption to the supply chain.	Forensic Services will as part of critical supplier review seek assurance from suppliers that they have BCP arrangements in place.	2	Head of Quality Assurance and Information Compliance	31 December 2022
3.3	We recommend that all immediate response plans are reviewed and updated. This will better position the organisation in the event that an incident occurs that requires immediate response and potential invocation of the BCP. We also recommend that a review process is established to ensure consistency in the approach to reviewing immediate response plans.	Forensic Services Immediate Response Plans will be reviewed and updated	2	Head of Business Support	31 December 2022

Action No.	Recommendation	Management Response	Grade	Action Owner	Due Date
7.1	<p>We recommend that a formal programme of testing the business continuity plan is developed and implemented. Outcomes of the testing should be reported back to the Director of Forensic Services with forward reporting to the SPA Audit and Risk Committee (ARAC). The range of tests should include live testing, and simulations of different scenarios. Testing should be risk-based and targeted for those areas of the organisation that are identified as being most susceptible to an incident and/or would suffer the most adverse consequences.</p>	<p>Forensic Services undertook an exercise in July 2022. Forensic Services will ensure outcome is reported to Director of Forensic Services with forward reporting to the SPA Audit and Risk Committee (ARAC). Forensic Services will also report future programme to SPA ARAC.</p>	2	Head of Quality Assurance and Information Compliance	31 December 2022

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