

# High-Level Summary of Business Continuity Plan (BCP) Testing – March 2025

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## Executive Summary

Between March 12th and March 17th, 2025, Funds-Axis conducted detailed Business Continuity Plan (BCP) testing across multiple systems, including HighWire, Sisense, SFTPPlus, EasyMorph, ABCDocs, and Fundware. This exercise aimed to validate the organization's preparedness to maintain critical business operations during potential disruptions.

The BCP testing was conducted in accordance with our procedures, which are designed to align with industry standards and regulatory requirements..

### **Key findings from the testing include:**

- Strong incident response capabilities, particularly in managing AWS hosting disruptions and database-related issues, with effective contingency actions restoring critical systems and services within acceptable timeframes.
- Identified areas for improvement, such as enhancing deployment controls, improving monitoring of server resources, and resolving license inconsistencies during disaster recovery scenarios.
- Successful handling of scheduled maintenance events during the testing window, reinforcing the effectiveness of the existing BCP processes.

Importantly, the insights gained from this exercise have led to enhancements in our testing schedule, which will allow us to continually improve our procedures and further strengthen our resilience against potential disruptions.

## Objectives

### **Primary Objective**

To assess the effectiveness of Funds-Axis' BCP in managing and recovering from a range of disruptions, ensuring that the organization can continue critical operations with minimal downtime.

### **Secondary Objectives**

- To evaluate the response time and decision-making process during an incident.
- To identify gaps or weaknesses in the current BCP.
- To ensure that communication protocols during an incident are effective.
- To recommend enhancements to the BCP based on test outcomes.

## Scope

The BCP testing covered a wide range of systems and applications critical to Funds-Axis' operations:

- **HighWire Application:** Tested for resilience in both frontend and backend operations under simulated disruption scenarios.
- **Sisense:** Assessed for continuity under various simulated failure conditions such as unexpected schema changes and complete database outages.
- **SFTPPlus and EasyMorph:** Tested for secure file transfer continuity and data processing resilience during simulated disruptions.
- **ABCDocs:** Evaluated for resilience in document management and database operations.
- **Fundware:** Tested for resilience in application and database operations.

The testing scenarios were designed to simulate disruptions such as:

- AWS Hosting Outages,
- Application Performance Issues, and
- Database Failures.

The testing did not include physical infrastructure disruptions or an AWS Ireland Region-wide outage scenario, focusing instead on localised cloud service interruptions.

Further details are set out in the Appendix.

## Tools and Methodologies

- **AWS:** Utilised to simulate hosting and infrastructure-related failures, including instance terminations and service disruptions.
- **ECS (Elastic Container Service):** Used to manage backend and frontend application tasks, ensuring automated recovery in case of task or instance failures.
- **SQS (Simple Queue Service):** Monitored to ensure message queuing and processing continuity during application downtimes.
- **ElastiCube:** Tested for resilience in data builds and accuracy of dashboard reporting during interruptions.

## Key Testing Scenarios and Results

### HighWire

- **Database Failures:** Simulated conditions where the database became unreachable or faced unexpected schema changes. Contingency actions such as rebooting the database instance and restoring backups were executed within 2 to 4 hours.

- **Application Failures:** Backend and frontend tasks were intentionally disrupted to test ECS and auto-scaling configurations. Recovery actions were generally successful within 15 to 30 minutes.
- **Reporting Failures:** Scenarios where the reporting server or data builds failed were simulated. Recovery actions included restarting servers and manually rebuilding data sources, typically completed within 1 to 3 hours.

## Sisense

- **Instance Deletion:** Tested backup and restore procedures, including reinstallation of Sisense and making the setup accessible in different URLs. Actions took 4 to 7 hours.
- **Schema Change:** Simulated build failures due to schema changes. Contingency actions included correcting table names and refreshing schemas, completed within 1 hour.

## SFTPPlus and EasyMorph

- **Instance Termination:** Simulated termination of running instances. Contingency actions included automatic replacement of instances within 1 hour.

## ABCDocs

- **Database Failures:** Simulated conditions where the database became unreachable or faced unexpected schema changes. Contingency actions such as rebooting the database instance and restoring backups were executed within 2 to 4 hours.
- **Service Failures:** Simulated backend and frontend service failures. Recovery actions included updating policies and permissions, typically completed within 15 to 30 minutes.

## Fundware

- **Instance Termination:** Simulated termination of running instances. Contingency actions included automatic replacement of instances within 1 hour.

## Conclusion

The BCP testing was concluded satisfactorily.

## Testing Schedule

Continuity Events	Event Description	Real Event or Simulation	Frequency	Last Test Date	Test Status	Next Test Date	Key Findings
<b>AWS Hosting Disruption</b>	Database Failures - Database Instance is Offline / Not reachable	Simulation	Half Yearly	March 2025	Complete	September 2025	Improved monitoring and maintenance scheduling recommended.
<b>HighWire Unavailable</b>	Database Failures - Unexpected Schema Change	Simulation	Half Yearly	March 2025	Complete	September 2025	Improved deployment control recommended.
<b>HighWire Performance Degradation</b>	Service Failures - Backend	Simulation	Half Yearly	March 2025	Complete	September 2025	Improvement needed in launch times.
	Service Failures - Frontend	Simulation	Half Yearly	March 2025	Complete	September 2025	Launch time improvements needed.
	Service Failures - Calculations and Rulesprocessing	Simulation	Half Yearly	March 2025	Complete	September 2025	Launch time improvements needed.
<b>Database Issue</b>	Invalid Code Release	Simulation	Half Yearly	March 2025	Complete	September 2025	Better deployment control needed.
	Report Error	Simulation	Half Yearly	March 2025	Complete	September 2025	Improved monitoring of report server resources and builds needed.
<b>HighWire Data Corruption</b>	Report Data Source Build Error	Simulation	Half Yearly	March 2025	Complete	September 2025	Improved monitoring of report server resources and builds needed.
	ETL Tool Crash	Simulation	Half Yearly	March 2025	Complete	September 2025	License inconsistencies need resolution in DR execution.
	SFTP Tool Crash	Simulation	Half Yearly	March 2025	Complete	September 2025	License inconsistencies need resolution in DR execution.

<b>HighWire Application Upgrade Issue</b>	Rollback to the previous application version	Real Event	As Needed	20th July 2024	Complete	As Needed	Full rollback completed.
	Issues related to application compatibility	Real Event	As Needed	20th July 2024	Complete	As Needed	Full rollback completed.
<b>HighWire Service Outage for Maintenance</b>	Scheduled maintenance downtime	Real Event	As Needed	31st Aug 2024	Complete	As Needed	Proactive communication and real-time status updates recommended for future maintenance.
<b>HighWire User Authentication Issues</b>	Restoration of user access	Real Event	As Needed	As Needed	Complete	As Needed	Handled via Client Support.



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