

CU*ANSWERS REVIEW OF SAGE DIRECT'S DISASTER RECOVERY TEST

EVENT DATE: 10/24/2023

SUMMARY

As part of a robust business continuity program, CU*Answers regularly assesses the preparedness of vendors who provide critical business services and supplies. This includes the audit and review of vendor disaster recovery plans and testing programs. This report reflects the most recent annual recovery test performed by Sage Direct, LLC.

On October 24, 2023, a recovery test was performed at the Sage Direct secondary (DR) location. The process and procedures were observed by William Alsover (CU*Answers Operations) and Ted Kaake (CU*Answers Business Continuity Coordinator). A key objective of these tests is to confirm the capabilities of Sage Direct to fulfill service obligations in the event of a significant disruption at their primary production facility.

Daily notices, member, credit card, and mortgage statement files were generated and securely transmitted for testing by the CU*Answers Ops Engine Production Center to servers at the Sage Direct recovery site, located within the US Signal data center in Kentwood, MI. The files were processed for printing at US Signal and then securely transmitted to their alternate print service vendor, Extend Your Reach, located in Lansing, MI.

The following sections identify challenges observed, lessons learned, and recommendations for consideration related to this recovery event.

EVENT REVIEW

The Sage Direct continuity and recovery strategy includes three facilities:

Main office and primary production facility (IT and Printing):
3400 Raleigh Dr. SE
Grand Rapids, MI 49512

The vendor maintains a colocation agreement with US Signal to host their redundant servers in the Kentwood data center and the provision of workspace if needed during a recovery effort. The data center houses computer systems and networking equipment owned and managed by Sage Direct to receive, process and transmit data files to and from clients.

Disaster Recovery Site (IT only):
US Signal Data Center – Grand Rapids East
4765 Barden Ct.
Kentwood, MI 49512

The vendor maintains a contractual agreement with Extend Your Reach for emergency printing services in the event of a disruption to normal production at the primary production facility.

Extend Your Reach facility (IT and Printing):
4908 Contec Dr.
Lansing, MI 48910

This disaster recovery test proceeded as follows:

- The statement and notices test files were encrypted and sent via secure FTP to the recovery site prior to the beginning of the exercise by Ops Engine personnel.
- The test files were received by systems at the site and held for processing.
- Participants Evelyn Alvey, Steve DeNolf, Ted Kaake, and William Alsover arrived at US Signal at 9:00 AM ET and met with Sage Direct's chief liaison with US Signal, James Mucci.
- The test files were decrypted, processed, re-encrypted and then securely transmitted to the servers at Extend Your Reach for printing. James Mucci went over the verification and transmission processes of each file type with the participants in the DR-Test.
- After discussing the processes in detail in the designated conference room, Jim Mucci escorted the participants to the actual physical server owned by Sage Direct in the US Signal Data Center.
- Participants arrived at the Extend Your Reach production facility in Lansing at 11:15 AM ET.
- From the processed test files transmitted, a sample of daily notices, mortgage statements, member statements, and credit card statements were printed, folded, inserted into envelopes, and sealed.
- The test concluded around 12:30 PM ET.
- For confirmation purposes, several print proofs and production result samples of printed, inserted, and sealed statements were retained by Sage Direct for additional quality control checks then shredded on site at Sage Direct. The remaining test samples were destroyed, and statement data file(s) purged.

OBSERVATIONS

- The relocation of the Sage Direct recovery site to the US Signal data center provides enhanced physical security capabilities, including:
 - Retinal scanners installed at each ingress point between security zones.
 - During the test, Sage Direct staff demonstrated retinal access to the various parts of the building.
 - Test participants without access were required to sign in electronically and were escorted throughout the duration of the test.
 - Interior doors are configured so that the next will not open until the former is closed (man trap).
 - Enhanced perimeter security by fully encompassed gate with telecom to gain access to the parking lot and building.
- Sage Direct uses an enterprise data backup solution to archive all software and routines used for financial document processing. If needed, this back up would be restored on new hardware to be able to perform data processing functions.
- Physical security at the Extend Your Reach (EYR) facility included proper visitor sign-in and badging. Participants were always accompanied by an EYR employee throughout the test.
- EYR provided adequate proof of sufficient (rotated) inventories of paper and envelopes on site for use in the event of a disruption at the Sage Direct primary production facility. Note here that Sage was required to bring the correct envelopes needed for the DR facility due to window specifications.

CHALLENGES

Relatively little had changed procedurally since the last recovery test performed in October 2022. CU*A observers worked with the same personnel at both US Signal in Grand Rapids and Extend Your Reach in Lansing as had been involved in the last test.

During the calibration of the machine deployed for testing, EYR operators and quality control personnel noticed that the bar code in the lower right of the address window was aligned too far to the right. EYR discussed this issue with Evelyn and Steve who have passed on this information to their Sage Direct programming team.

All statement types—credit card, member, and mortgage—were used during testing along with the daily notices. This corrected the oversight in October 2022 when the sampling of members and their respective statements used for the exercise did not contain credit card statements.

STATEMENT PROCESSING AGREEMENT

The objective of each recovery test is to confirm the following requirements from the 'Statement Processing Agreement' between Sage Direct and CU*Answers, including:

1. Sage Direct warrants that they will ship within two weeks of a catastrophic event.
 - a. Based on test results, there is no evidence to suggest that the Sage Direct would be unable to meet this requirement.
2. Sage Direct warrants the ability to receive and decrypt statement and notice data using SFTP protocol.
 - a. Secure file transmissions have been tested successfully during multiple tests.
 - b. The files used for the test were sent securely via SFTP protocol to both US Signal in Grand Rapids and to EYR in Lansing.
3. Testing will "ensure that the disaster recovery service will satisfactorily handle the current CU*Answers processed volumes." This is to include details for onsite processing capabilities as well as material sources (paper, envelopes, etc.).
 - a. The data processing and printing capabilities (including raw material inventories) at the primary, alternate print facilities (EYR), and envelope vendor's warehouse meet and/or exceed the requirements of CU*Answers.
4. Minimum 12-month testing cycles.
 - a. The previous test was performed in October 2022, placing this test within the agreed upon 18-month schedule timeframe.
5. CU*Answers has the right to audit and visit the site accompanied by a Sage Direct employee.
 - a. As noted earlier in this report, both the recovery site and their alternate vendor site have been reviewed for production capability and security.
6. Sage Direct follows appropriate procedures to always maintain confidentiality of data.
 - a. Proper security controls were observed as part of this test.

Sage Direct Test Results



SAGE DIRECT INC

DISASTER RECOVERY TESTING RESULTS

Date: 10-24-23

Person completing form: Evelyn Alvey, General Manager

Sage Direct's United States Postal Service (USPS) status:

Enterprise Payment System (EPS)
Mail Anywhere
Seamless

Data Processing Location:

Sage Direct's Disaster Recovery (DR) Colocation
US Signal
4765 Barden Ct SE
Grand Rapids MI 49512

Print and Inserting Location:

Extend Your Reach (EYR)
4908 Contec Drive
Lansing MI 48910-7101

Attendees:

Sage Direct: Evelyn Alvey, James Mucci
CU*Answers: Will Alsover, Ted Kaake
Extend Your Reach: Charlie Bahl – General Manager, EYR's Production Team

Files transmitted to Sage Direct's DR server on 10-20-23 from CU*Answers:

Statements: STMFLAT01.zip
Credit Card: STMFLCC.zip
Mortgage: STMFLATMTG.zip
Daily Notices: NOTICES.zip

Files transmitted to EYR 10-24-23 from Sage's colocation:

Daily notices: NoticeStmR22dr_2023.pdf
Mortgages: MortgageR1dr_2023.pdf
Statements: CUASmtR1dr_2023.pdf
Statement files contain householded credit card statements.

In a disaster recovery occurrence, data files transferred to Sage Direct are processed by Sage Direct's Data Center employees, output in finished PDF documents, then transferred to the Disaster Recovery print vendor to print, insert, and mail.

DISASTER RECOVERY TESTING RESULTS

Printing:

- ✓ To and from dates on all statement types are correct.
- ✓ The number of pages shown on the statement match the number of pages printed.
- ✓ All address lines show name, address, city, state, and zip.
- ✓ Account numbers and member's name are identical on all statement pages belonging to the same member.
- ✓ The tray and pallet numbers are present.
- ✓ The print is clear and readable.
- ✓ The 2D barcodes are clear, clean, crisp, and readable.
- ✓ Intelligent Mail Barcodes are present and meet postal specifications.
- ✓ The correct paper is being used.
- ✓ Statement detail is checked for irregular characters in the detail lines.
- ✓ The log and return address is the correct image file for each credit union being printed.

Inserting:

- ✓ Sage Direct's RSR envelopes are being used for the test.
- ✓ The Mail Run Data File (MRDF) number in the address block are identical on all statements inserted into the same envelope.
- ✓ The address block placement shown through the Sage envelope window meets postal regulations.
- ✓ All envelopes are sealed properly.
- ✓ Quality control EYR employees showed Sage and CU Answers that the documents in the envelopes are inserted correctly.

Comments:

- Documentation is available containing US Signal's physical and cyber security controls and made available upon request.
- EYR and Sage Direct are SOC 2 certified.
- EYR's 2D sequence barcode prints in the address block of the first statement only. This barcode shows through the envelope's window and is read by the inserting camera system making sure all statement's sequence numbers are accounted for and in numeric order.
- The data processing comingles all printed documents creating mailings per document type.
- EYR demonstrated what happens by intentionally creating the following conditions:
 - A page of the statement is pulled from the statement packet.
 - A page of one member's statement is inserted into another member's statement.
 - A statement is pulled from the belt causing the sequence numbers on the statements to be out of order.
- In all demonstrations, the inserter stopped, the error was identified on the monitor, and the operator reconciled the error.
- Audit totals provided by CU*Answers are compared throughout the workflow process. This ensures the correct data files were transmitted, the data was processed in its entirety, and all statements were printed and inserted.
- Inserted statements are shredded on site at EYR and Sage Direct. Data files are deleted from EYR's servers.
- Sage Direct's quality controls were discussed with Will Alsover and Ted Kaake.

Signature: *Evelyn Alvey* General Manager