



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

EVENT DATE: 10/25/2021

SUMMARY

As part of a robust business continuity program, CU*Answers regularly assesses the preparedness of vendors who provide business critical 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, Inc.

On October 25, 2021, a recovery test was performed at the Sage Direct DR site, witnessed, and reviewed by William Alsover representing the CU*Answers OpsEngine Team. The test was conducted in part to confirm the capability to fulfill the vendor service obligations in the event of a significant disruption at the Sage Direct primary production facility.

For the purpose of this test, daily notices, member, credit card, and mortgage statement files were generated and securely transmitted by the systems at the CU*Answers production data center to servers at the Sage Direct recovery site, located within the US Signal data center in Kentwood, MI. From there, the files were processed for printing and securely transmitted to their alternate print service vendor, Extend Your Reach 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 provide workspace if needed for disaster recovery purposes. The data center houses computer systems and networking equipment 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 test files were encrypted and sent via secure FTP to the recovery site prior to the beginning of the test by CU*Answers Operations personnel.
- The test files were received by systems at the Sage Direct DR site and held for processing.
- Participants arrived at the US Signal data center at 9:40 AM ET and met in a conference room to discuss the processes that will be used during the exercise.
- Participants were then escorted to the actual physical server owned by Sage Direct in the US Signal Data Center.
- The test files were decrypted, processed, re-encrypted and then securely transmitted to the FTP server at Extend Your Reach for printing. Sage Direct personnel went over the verification and transmission processes of each file type with the participants in the DR-Test.
- Participants then traveled to the Extend Your Reach production facility in Lansing at 12:00 PM ET.
- From the processed test files transmitted, a sample of daily notices, member statements, credit card statements and mortgage statements were printed, folded, inserted into envelopes and sealed.
- The test concluded around 1:15 PM ET.
- For confirmation purposes, several print proofs and production result samples of printed, inserted and sealed statements were retained by Sage Direct for their own recovery test records. The remaining test samples were destroyed, and statement data file(s) purged. Sage Direct will be sending CU*Answers their report of the DR-Test by November 15, 2021.

OBSERVATIONS

- The location of the Sage Direct recovery site at the US Signal data center provides enhanced physical security capabilities, including:
 - o 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.
 - o 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 backup solution 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 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.
- Additional observations and comments are included in "Disaster Recovery Test Results" on page four of this report.

CHALLENGES

Relatively little had changed since the last recovery test performed in October 2020. The only challenge observed was the lack of envelopes in compliance with Sage Direct specifications at the offsite DR facility. These envelopes were brought by Sage Direct and deployed by EYR personnel. It took several minutes for EYR operators to calibrate the 'stuffer' so that member data was appearing correctly in the address window.

Additional details about the recovery test efforts are included in the attached report provided by the vendor (page five).

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 vendor is unable to meet this requirement.
- 2. Sage Direct warrants the ability to receive and decrypt statement and notice data using the 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 18-month testing cycles.
 - a. The previous test was performed in October 2020, 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 INC

DISASTER RECOVERY TEST RESULTS

Date: 10-25-21

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 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

Extend Your Reach: Charlie Bahl, EYR Production Team

Files transmitted to Sage on 10-21-20 from CU*Answers:

Statements: STMFLAT6.zip
Credit Card: STMFLCC6.zip
Mortgage: STMFLATM01.zip
Daily Notices: NOTICES.zip

Files transmitted to EYR 10-26-20 from Sage's colocation:

Daily notices: NoticeDRmail.pdf
Mortgages: MortDRmail.pdf
Statements: CUAStmtR1dr.pdf

Statement files contain householded credit card statements.

DISASTER RECOVERY TESTING RESULTS

Printing:

- To and from dates on all statement types are correct.
- Number of pages shown on statement match the number of pages printed.
- ✓ All address lines are showing 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.
- ✓ Check for irregular characters in the detail lines.
- ✓ Make sure the logo and return address text is the correct image file for the Credit Union.

Inserting:

- ✓ Sage Direct's RSR envelopes were 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 in the Sage envelope window meets postal regulations.
- ✓ All envelopes sealed properly.
- ✓ Document folds are adjusted properly.

50 random documents were opened cumulatively from mortgage, member/credit card statements, and daily notices print files after inserting was complete and all statement pages were correct.

Comments:

- Documentation is available containing US Signal's physical and cyber security controls and made available upon request.
- EYR is SOC 1 certified.
- EYR's 2D sequence barcode prints in the address block of the first statement only. This barcode shows through the envelope's window 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 page groups creating one mailing 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. Reconciliation totals were verified with Will Alsover.
- Sage's quality controls procedures were discussed with Will Alsover.
- Inserted statements are shredded on site and data files are deleted from EYR's servers.

Signature: Evelyn Ülvey - GM