



SITE-FOUR HIGH AVAILABILITY PROGRAM REVIEW

EVENT DATE(S): 3.20.2022 – 3.27.2022

SUMMARY:

As part of an ongoing business continuity program, CU*NorthWest, CU*South and Site-Four actively maintain a high-availability (HA) core-processing environment with real-time CU*Base/GOLD data replication between identical servers located at two geographically dispersed, state-of-the-art datacenters. Regular HA rollover events are scheduled to redirect core-processing and operations to the secondary/backup datacenter (located in Kentwood, MI) for up to seven business days as part of an active and constantly evolving business continuity program. At the completion of each event, core-processing is redirected back to the primary location in Yankton, SD. These rollover exercises are an invaluable part of business continuity testing and recovery processing readiness and ensure the ongoing availability of CU*Base/GOLD core processing environment.

These events are an important component of the Site-Four value proposition, and Site-Four encourages these be shared with all stakeholders. This level of reliability is above par and should be shared in the board rooms for client credit unions.

The rollover to the Kentwood, MI system began at 10:00 PM CT, March 20, 2022. The rollover itself was completed at 11:13 PM CT, with all post-rollover testing completed by 11:29 PM CT. The roll back on Sunday, March 28, 2021 began at 10:00 PM CT and was completed at 10:57 PM CT with core processing of CU*BASE/GOLD transferred back to the primary system in Yankton, SD and all post-roll checks complete by 11:14 PM CT.

This event was performed through the combined efforts of Site-Four, CU*Northwest, CU*South, and CU*Answers as part of an ongoing reciprocal HA colocation agreement with CU*Answers. This arrangement was created in 2014 as a proactive measure to minimize disruptions at credit union branch locations across the CU* network. The Group Providers announce these planned events and firmly encourage credit unions to test their connectivity to the secondary data center in advance of the rollover to minimize issues attendant to the role-swap exercise.

As highlighted in this report, the mutual colocation agreement between Site-Four and CU*Answers not only includes shared facility space within a state-of-the-art data center, but also network and operations support throughout the rollover event. The end goal in this agreement is to provide seamless support and a high and practiced level of readiness that allows the party experiencing the disaster time to focus on recovery and resumption while the unaffected partner oversees daily operations from the high-availability data center site.

The following sections review details, challenges encountered, lessons learned, and recommendations for consideration.

EVENT DETAILS:

On the evening of Sunday, March 20, 2022, 10:00 PM CT, the recovery team brought CU*BASE/GOLD offline and began the role-swap process to redirect Site-Four core-processing from the production system in Yankton, SD to the high availability system in Kentwood, MI. During the rollover process, a "splash-page" for online mobile banking was displayed to alert members that system maintenance was being performed. After completion of the rollover, all processes were verified, communications were back online, and CU*BASE/GOLD was back online by 11:13 PM CT. Additional audits are performed afterwards and were completed by 11:29 PM CT.

The rollback was completed on Sunday, March 27, 2022 beginning at 10:00 PM CT to redirect core-processing back to the primary production server in Yankton, SD for completion of the rollover event. All processes were verified, communications were back online, and CU*BASE/GOLD was back online by 11:14 PM CT.

CHALLENGES:

As we continue to expand and improve our products and services to a growing client network, systems and environments experience an increased number of changes at a very rapid pace. Performing these rollover exercises in a planned, controlled setting during non-peak business hours is a deliberate investment to prepare for an actual crisis. It is the position of Site-Four that any role-swap event which does not reveal any issues is regarded as a missed opportunity to learn and improve.

There were 3 credit unions with CU*South that had not completed their testing requirements prior to the roll over. One of these credit unions was a pre-conversion credit union and they only required access to continue conversion efforts and training. One credit union was offline all of Monday, March 21, 2022 as their tech company did not engage in the resolution of their issue until Tuesday morning on March 22, 2022.

It was discovered that since the last roll over done on March 21-28, 2021 that there was a change made and CTE's were no longer being replicated. This resulted in EOD/BOD errors.

On Monday, March 21, 2022 it was discovered that one port on the CU*HOME subsystem was not responding due to a bad service table entry. This was resolved the same day.

Following the rollback procedure, it was discovered that the ROBOT jobs placed on HOLD in order to perform the roll procedure did not get released. This caused an RDC error Monday morning as there were two files to receive which caused an exception. This was corrected and the RunSheets modified to call attention to the step to release jobs placed on HOLD.

CONTINUING EFFORTS AND RECOMMENDATIONS:

Each recovery test and high-availability rollover exercise provides us the opportunity to improve the process, expand capabilities, and adjust procedures as the production environment changes. The best way to accomplish this is to execute, document, and improve in regular iterations. The best way to be ready for a disaster is to practice.

This roll was the second time that CU*NorthWest staff took the lead on all roll-over processing from start to finish, including making all necessary networking changes while Site-Four took a backup role. Having more personnel fully versed in performing roll-over processes in addition to Site-Four personnel provides an additional level of redundancy that furthers our efforts to show continual improvement.

It should also be noted that there were multiple new EFT connections involved in this roll event and this was the first complete rollover following the recent IBMi hardware upgrades.

Overall, this was an excellent rollover event. The goal of these rollover exercises is to continue to show improvement, quickly and decisively resolve challenges and streamline the rollover process. Continuing to perform these scheduled events ensures team preparedness and we can be confident that even an unscheduled incident will be handled smoothly and efficiently.

Respectfully,



Alan Rogers | CEO- Site-Four, LLC
arogers@site-four.com