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## SITE-FOUR HIGH AVAILABILITY PROGRAM REVIEW

EVENT DATE(S): 10.13.2024 - 10.20.2024

### SUMMARY

As part of an ongoing business continuity program, Site-Four, CU\*SOUTH, and CU\*NorthWest actively maintain a high-availability (HA) core processing environment with near real-time data replication between identical hosts located at two geographically dispersed, state-of-the-art data centers. A minimum of twice each year, live HA rollover events are scheduled to redirect CU\*BASE production and operations to the secondary data center (located in Kentwood, MI) for a period of one full business week or longer. At the conclusion of the rollover event, core processing is redirected back, and operations resumed at the primary data center (located in Yankton, SD).

These live production HA rollover events are invaluable to ensure the ability to recover CU\*BASE GOLD core processing in an effective and timely manner when unexpected incidents occur that threaten to disrupt business operations. A secondary benefit of regular scheduled rollovers is to allow time to bring production systems offline without incurring downtime for users, so that planned maintenance tasks can be performed. This helps to ensure peak system performance and the application of applicable software and security updates.

The Site-Four Fall HA rollover was performed as planned, starting on Sunday, October 13<sup>th</sup> through Sunday, October 20<sup>th</sup>, lasting one week with minimal challenges or issues observed.

The objectives of the fall HA rollover centered around two primary goals:

- A successful HA rollover with minimal impact and disruptions following the implementation in June of the new service agreement between CU\*Answers and Site-Four that provides daily management and operations of the Site-Four data center, and
- Additional testing of the soon to launch CBX environment with core processing production from the secondary data center in Kentwood, MI.

The remainder of this report reflects the details of the event, challenges observed, and continuing efforts to improve the HA rollover process, given the significance it plays in ensuring availability of CU\*BASE core processing during potentially disruptive scenarios.

*\*All times noted in this report are Central Time.*

### EVENT DETAILS AND TIMELINE

As noted above, this was the first HA rollover performed since the new management agreement was activated at Site-Four on June 3<sup>rd</sup>, 2024. Oversight and coordination of the Site-Four HA rollovers will be performed by teams at CU\*Answers going forward. Rollover and recovery team members will continue to be a collaborative effort from teams at Site-Four, CU\*SOUTH, CU\*NorthWest, and CU\*Answers.

#### Timeline of Events:

##### **Sunday, October 13<sup>th</sup>**

The initial rollover to the secondary data center began on **Sunday, October 13<sup>th</sup>**. The CU\*BASE subsystems were taken offline at **9:50 PM CT** to allow for transactions to finish processing. A splash page was presented for online and mobile users

to inform them of the planned maintenance period. At **10:03 PM**, the role-swap process was started to promote the HA host as the primary server. At **10:20 PM**, networking changes were made to redirect all CU\*BASE traffic to the Kentwood data center. Application testing completed by **11:05 PM**, completing the rollover and enabling live production traffic to proceed.

Core processing throughout the week remained normal with only two issues and incidents reported. One involved a firewall rule change to enable testing for the new web-based GOLD (CBX) to be completed on servers at the secondary data center. The other involved one credit union with connectivity issues to a third-party vendor for Instant Card Issuance (ICI) services. Both were resolved during the event as detailed later in this report.

### **Sunday, October 20<sup>th</sup>**

The rollback process was performed on **Sunday, October 20<sup>th</sup>** where the process was repeated to bring CU\*BASE back online at the primary production data center in Yankton, SD. Teams brought subsystems down at **9:50 PM** once again, to allow all pending transactions to finish processing. The role-swap process started at **10:00 PM** and finished at **10:20 PM**. Network changes were made, and application testing performed, before bringing CU\*BASE back online at **10:58 PM**, thus concluding the rollover event.

## **CHALLENGES AND CONTINUING EFFORTS**

Technology and system processes are always changing and evolving. As a result, there is an opportunity to learn and improve with each HA rollover performed. In this report, the challenges and continuing efforts are shared with all interested parties as evidence of the value received. During this exercise, the following challenges were observed:

1. On Wednesday, October 16<sup>th</sup>, it was reported that teams performing quality control testing for the new web-based GOLD (CBX) were experiencing connectivity issues on the HA host.
  - a. A firewall rule change was made to open access to allow testing to continue.
  - b. This change resulting in a brief connectivity drop of third-party vendors, requiring teams to reach out and have each vendor cycle/resynch systems to reestablish connectivity.
2. On Thursday, October 17<sup>th</sup>, it was reported that a credit union was experiencing connectivity issues for Instant Card Issuance (ICI) services with the vendor.
  - a. Support teams determined that a necessary network route was missing in the configuration at the credit union for connectivity to the HA host.
  - b. This was corrected, although confirmation was not received whether connectivity was fully restored.
    - i. This will be tested prior to the next scheduled rollover event.

Aside from the above challenges, no additional outages or failures occurred that could be attributed to the rollover event.

## **CLOSING REMARKS**

Each rollover exercise and recovery test provide the opportunity to strengthen our capabilities and identify areas for further improvement. They also help in better understanding not just how systems and applications function under normal conditions, but how they are impacted by disruptive incidents that require a prompt and effective response.

As a core processor for a network work more than 100 credit unions across six time zones, it is imperative that we continue to test and demonstrate our resilience. Working together across partners of the CU\*Asterisk network provides us the resources and leadership to do just that.

Respectfully,

*Site-Four, LLC*