

CU*ANSWERS HIGH AVAILABILITY PROGRAM REVIEW

EVENT DATE(S): 3/18/2026 – 3/19/2026

SUMMARY

As part of an ongoing business continuity program, CU*Answers actively maintains high-availability (HA) solutions for its core processing and critical system environments. These systems are located at one of three geographically dispersed, state-of-the-art data centers. At a minimum of one each year per system, live HA rollover events are scheduled to redirect production (in this exercise, Online and Mobile Banking) to their respective high-availability environments. At the conclusion of the rollover event, Online and Mobile Banking is redirected back, with operations resuming at the primary data center (located in Kentwood, MI).

These live production HA rollover events are invaluable to ensure the ability to resume/recover CBX® core processing, Online and Mobile Banking, and other systems on which our credit unions rely. A secondary benefit of regularly scheduled rollover exercises is to allow time to bring production systems offline without incurring downtime for users, so planned maintenance may be performed. Doing so helps to ensure systems remain in peak performance and applicable software, and security updates may be made.

This planned exercise was a follow-up to the testing performed in November 2025, where Online and Mobile Banking teams at CU*Answers tested and verified vendor connections at the Las Vegas (LSV) data center, after its relocation from Grand Rapids.

The CU*Answers Spring Online Banking rollover was performed as planned, starting on Wednesday, March 18th through Thursday, March 19th, lasting 24 hours.

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

1. **[Secondary Online and Mobile Banking web servers]:** Test the functionality and performance of online and mobile banking applications from the secondary load-balanced web server pools also recently relocated from the Grand Rapids, MI, to the Las Vegas, NV, data centers.
2. **[Third-Party EFT network performance]:** Additional testing of performance and network latency for third-party applications, including RTP® and the FedNow® services, as well as a comprehensive validation of third-party vendor connections to the Online and Mobile banking servers in LSV.

All goals and objectives were met. The data collected from this exercise will be extremely helpful in our continued planning and implementation of the new data center in Las Vegas, NV, which seeks to serve credit unions West of the Rockies, as well as being the future High Availability data center for the Central and Eastern Time Zones.

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 CBX® core processing during potentially disruptive scenarios.

All times noted in this report are Eastern Time.

EVENT DETAILS AND TIMELINE

The CU*Answers Spring 2026 Online and Mobile Banking HA Rollover exercise was divided into three phases to accomplish the above-mentioned objectives:

1. **Online and Mobile Banking Rollover** (Wednesday, March 18, 6:00 AM – 7:00 AM)
 - Redirect all online and mobile banking traffic to server pools located at the Las Vegas, NV, data center for twenty-four hours.
2. **Monitoring and Testing of the Online and Mobile Banking High Availability Environment** (Wednesday, March 18, 7:00 AM to Thursday, March 19, 6:00 AM)
 - Monitor, test, and correct issues observed in the Online and Mobile Banking environment.
3. **Online and Mobile Banking Rollback** (Thursday, March 19, 6:00 AM – 7:00 AM)
 - Redirect all online and mobile banking traffic back to the production data center in Kentwood, MI.

Timeline of events:

Wednesday, March 18th

On the morning of Wednesday, March 18th, beginning at 6:00 AM, teams initiated the procedures to redirect traffic from our primary Online and Mobile Banking systems in Kentwood, MI, to the secondary, high availability, servers in Las Vegas, NV.

A timeline and limitation were introduced to indicate when to Rollback to primary Online and Mobile Banking production servers, should the exercise require it.

Following the redirection of traffic to the high availability servers by network engineers, teams verified traffic and processing to those servers. Initially, some concerns developed once running on the Online and Mobile Banking servers in LSV. These concerns included:

- Multifactor Authentication – initially, testers were unable to submit multifactor authentication, and not retrieving security questions. Following a refresh of the authentication environment, test participants confirmed improved performance.
- OB510 Errors and missing widgets – it was suggested that since traffic had cleared the primary production servers that a recycle of application pool servers may be the solution. Following the application pool cycling, OB510 errors had decreased, and widgets were populating.
- Server Configurations – the Online and Mobile Banking Team noted that configurations on the server relative to a set of API servers needed to be updated, and were done so immediately.

After these challenges were met, the team addressed any system performance issues which might be occurring after the roll to the HA environment. It was reported that CPU usage was well within limits on both production servers (PROD and PROD2). Teams established monitoring requirements to be observed throughout the day.

A final change involving the Online and Mobile Banking authentication environment was delayed until the Rollback, as it would trigger another recycling of the application pool. This delay gave the team more time for testing and reduced any urgency around the timeline.

The session concluded at 6:50AM, and teams prepared for the rest of their day. Throughout the next 23 hours, Online and Mobile Banking Teams continued to monitor, detect and correct all issues discovered throughout the test period, though some of these are still ongoing action items and projects.

Thursday, March 19th

The following day, Thursday, March 19th, at 6AM, teams met again to perform the High Availability Rollback of the Online and Mobile Banking environments. This is when the network engineers point the systems from their HA environment back to their production environment in Kentwood, MI.

After the traffic redirection was carried out, teams noted that we had a high CPU rate on the production server. Troubleshooting involved recycling the application pools and blocking use of mobile apps was used to address the situation. It was identified that the cause of these symptoms was that too many jobs were starting simultaneously. Teams rectified this by gradually restarting API groups under the iSeries team's guidance. An Action Item has since been created to develop procedures that will keep this from recurring.

Following the troubleshooting, functional testing was performed and Operations verified that all credit unions were live on the system. This session concluded at 6:53AM with the Rollback considered a success.

Security note: At the start of the rollback, it was observed and remarked that Online Banking appeared to be under a Brute Force attack, as the observed traffic was not what was expected to be seen at that hour. To address the concern, in case it may have been stemming from an internal system aspect, application pools and subsystems were cycled. With the suspicious attempts to login continuing, the team confirmed this to be a Brute Force attack and took the appropriate measures to block the source IP. No unauthorized login attempts were found to be successful while the attack persisted.

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. This OLB rollover represented the second test since relocating the secondary web and SQL servers from the Grand Rapids to Las Vegas data centers.
 - a. Teams prepared these servers with all the necessary routing for vendor connections.
 - b. Throughout the day, teams used this time to test connections to ensure that functionality at the HA site mirrored that of the Production site.
2. Graceful stop and restart of Online and Mobile Banking.
 - a. An important observation with need to rectify is in the current procedures for when CPU processing spikes because of restarting the Online and Mobile Banking environment.
 - b. Teams involved in the handling of the HA Rollover for Online and Mobile Banking will be developing an automated process to reduce the CPU spikes when restoring OLB APIs to service. This may include:
 - i. Rebalancing of the API groups
 - ii. Assigning a dedicated host programmer to oversee and support the process
 - iii. Developing procedures to automatically update information and keep OLB and IBMi data in sync.

CLOSING REMARKS

Once again, the value that these regular high-availability rollovers provide is instrumental not only in the prevention and preparation for disruptive incidents, but also in the planning and implementation of new technologies as the core data center environment evolves.

These rollover exercises give us the opportunity to validate the significant changes being made in the data centers as well as provide invaluable data regarding performance and resilience of each system and the network at large. Through stress testing and forcing failovers between redundant systems, we are able to design and optimize the technology layer that will drive the future of core processing.