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MULTI-STATE LOTTERY ASSOCIATION

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MEET FLEX – THE GAME MANAGEMENT SYSTEM MODERNIZING MUSL OPERATIONS

The Multi-State Lottery Association is currently rolling out the biggest advancement to its software infrastructure in the past five years. It's called FLEX – a modern game management system, developed in-house, that will streamline how lotteries and vendors report sales and winner data during the draw process of some of the country's largest games, including Powerball®, Mega Millions®, Lotto America®, and Lucky for Life®.

This year, FLEX will begin phasing out its predecessor, the MUSL Automated Reporting System (MARS), for use in lottery drawings. In addition to housing the new Draw Dashboard, FLEX will also contain an extensive archive of draw reports and game data, an online directory of lottery professionals, and a document portal.

"The long-term goal is to house all MUSL applications under the FLEX umbrella," said Dallas Beek, MUSL Principal Software Engineer. "Users will no longer have to jump from site to site to navigate MUSL applications, everything will be accessible from one central location."

Beek, the architect of FLEX, began working on the system's framework two years ago after reviewing MARS and other MUSL applications.

Sue and Dallas reviewing the FLEX system in the MUSL draw-room

While MARS achieved its goal of implementing automation and additional checks and balances into the draw process, in the evolving world of tech, it was starting to show its age.

In comparison, FLEX offers users a simplified, intuitive interface designed to make draw nights run smoothly. Some of the new features include audible tones for messages and alerts; a progress bar to track each step of a drawing; and relocating all games to the same screen, so draw staff who are monitoring multiple drawings don't have to click between tabs.

But undoubtedly, the primary benefit of FLEX has been the ability for lotteries to check for balanced sales daily.

To ensure the integrity of the game, Powerball rules require balanced sales from all lotteries (matching CGS and ICS data), or play data in a secured state, before a Powerball drawing can begin. In MARS, lotteries could only check for balanced sales at draw break, which was one to two hours before a scheduled drawing.

"For draw staff, having an out-of-balance issue so close to draw time can be very stressful," said Sue Dooley, MUSL Director of Draws and Productions. "In the new FLEX system, if there is an out-of-balance, lotteries have additional time to detect it and resolve it, which means potentially fewer lockdowns, lockdown alternatives, and draw delays."

Sue Dooley and Dallas Beek

The FLEX Draw Dashboard is also automation compatible, so lotteries and vendors that previously setup automation systems within MARS don't have to repeat the process. With automation, draw staff only need to monitor the Draw Dashboard for progress, but information can be entered manually if needed. Another bonus – secure passwords that never expire but can be changed by the end user.

The elimination of password expirations was the direct result of FLEX's enhanced security backed by multi-factor authentication. Based on user preference, the authentication can be configured to email, text message or an authenticator app, such as Google Authenticator or Microsoft Authenticator. The feature provides an extra layer of security for the role-based site and games facilitated by MUSL.

topic in MUSL's recurring Draw Information Sessions for lottery staff. The session gave MUSL the opportunity to go over the new system and collect feedback from users on ways to improve it.

"FLEX is an agile system," Beek noted. "We're able to take suggestions and work solutions into future releases, so the user experience can be continuously strengthened."

In addition to supporting draws, FLEX's agility also bolsters the organization's product development initiatives. The MUSL Board of Directors has re-affirmed the development of new products as a top priority for the Association. With FLEX, MUSL can quickly add new games or make changes to existing games.

"The FLEX system really puts us in a position to be more nimble and improve our speed to market," said J. Bret Toyne, MUSL Executive Director. "This has been a tremendous undertaking for MUSL's technical infrastructure, but very worthwhile for the immediate and long-term benefits."

So far, the feedback from lotteries and vendors has been overwhelmingly positive. MUSL will start to transition additional business functions to the FLEX system over the next couple of months. Some long-term goals include eliminating VPN connections and implementing additional accounting activities, including the ability for lotteries to initiate receivables.

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"FLEX is a custom system for a truly unique organization," Beek added. "It's going to be able to evolve alongside MUSL." ■

"Believe it or not, we've had a few rare cases in which someone's password expired in the middle of a drawing," noted Dooley. "With FLEX, users won't have that problem. It's one less thing to worry about on draw nights."

MUSL's draw team and Beek have been onboarding lotteries and vendors to the FLEX system in phases over the last six months. They hope to complete the process by the end of the year. In September, FLEX was the featured