



The Solution.

With knowledge of Executive Order 14028: Improving the Nation's Cybersecurity requirement, JSL began solutioning a multi-factor authentication (MFA) solution to help secure student/borrower accounts at FSA. As the front-end application program interface (API) developer for FSA's PAS implementation, the challenge for JSL was to develop an MFA solution that:

- Provided the best combination of security and usability throughout the implementation.
- Prompted execution via both new user registrations and current user adoption through a phased rollout.
- Appeared seamless to front-end users and non-disruptive to day-to-day business and back-end development.

JSL reviewed nearly a dozen market-leading time-based one-time password (TOTP) products to determine the best fit for the PAS application. JSL then developed a successful proof of concept to prove the proposed solution was feasible for broad, frictionless adoption across 4-5 million weekly user logins. JSL also provided our FSA customer with thorough research that compared MFA solutions ranging from secure codes via mobile devices to push notifications and soft tokens to biometric recognition. With JSL's guidance, our FSA customer determined that an MFA solution with the following characteristics would provide the best frictionless authentication solution:

- Short message service (SMS) secure codes
- Email secure codes
- TOTP soft token technology via user-installed third-party application

The Impact.

JSL worked with our FSA customer to roll out a seamless implementation and adoption of MFA for our PAS application. After determining that half of all 80 million users were once per year logins, the implementation was conducted as follows:

- Setup of MFA became a mandatory procedure for all new user registrations.
- Specific users accounts were then identified and prompted to achieve compliance over a four-month adoption window.

The implementation was successful and seamless for FSA as evidenced by no marked uptick in support calls or deadline cycle disruptions at FSA. Adoption of MFA helped bring FSA's PAS application into compliance with government security requirements and improved the security posture for all FSA user accounts.

The Situation.

With 85+ million users, the U.S. Department of Education Federal Student Aid's Person Authentication Service (PAS), known as the FSA ID, provides a common authentication and authorization solution for FSA's applications used by financial aid borrowers, students, and parents. The implementation of PAS eliminated the use of PII data during the authentication process. PAS currently protects FSA's Next Generation digital platform applications, including FAFSA, National Student Loan Data System (NSLDS), and StudentAid.gov.

As part of ongoing operations, **Jazz Solutions, Inc. (JSL)** and FSA collaborate on ways to improve the PAS application. A focused improvement area was the need to offer higher Authenticator Assurance Levels (AAL) for the large PAS user population. Offering higher levels of AAL, would reduce the likelihood of successful phishing attacks on FSA's end-user population. As part of this implementation, FSA and JSL needed to remain cognizant of the implementation costs for PAS's large user population.

