

Modernizing Mission-Critical Systems Without Losing Power

Supporting Members with Reliable Retirement Planning

For a membership-based organization serving communities across the energy and utilities sector, keeping the lights on is just the beginning. This organization supports and protects member interests, empowering local communities nationwide to improve their quality of life.

Central to that mission is helping thousands of members plan confidently for retirement. For years, a legacy system handled complex calculations behind retirement benefit estimates. The system worked, but after decades of evolution, the business logic driving those calculations had become deeply embedded and under documented. The knowledge of how the system worked resided with a small group of subject matter experts who understand its nuances.

The organization knew modernization was necessary. They partnered with Excella to find a path forward – one that would preserve the accuracy their members depended on while building a foundation for the future.

Critical Systems That Can't Afford to Fail

Modernizing legacy systems sounds straightforward – understanding what the old system does, build something better, and move forward. But the challenge here went deeper than technology.

The legacy retirement estimate platform had evolved over time, accumulating layers of calculation rules and conditional logic. Only a baseline retirement estimate had been captured. The team had yet to identify or document the full spectrum of member-specific results that's driven by unique combinations of eligibility, service history, and plan provisions. Each member's situation was unique, but the system's logic for handling these differences remained unclear, putting the modernization effort at risk of losing critical functionality.

The stakes were high. Inaccurate projections could affect members' financial futures, eroding trust and requiring costly fixes. Delivery timelines were fixed, and the team worked within two-week Scrum cycles with resource constraints. But the real problem wasn't the technology. The problem lies in understanding what the system actually did and how to translate that complexity into a modern platform without losing what members depended on.



Building What Members Actually Need

This wasn't a problem technology alone could solve. Rather than proceed without a complete understanding of the system's complexity, we proposed an analysis-led approach to align the team and focus on what members needed.

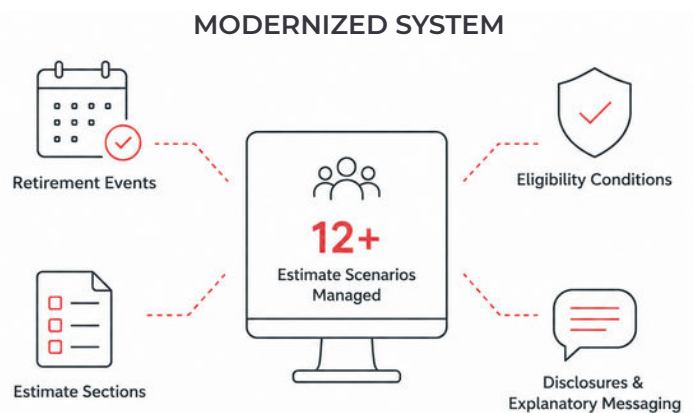
We worked closely with the development team to uncover how the system functioned. By testing real-world retirement scenarios, we validated the logic behind each calculation and turned those insights into clear requirements the team could build from.

UX and Communications worked in parallel, ensuring each member retirement estimate was accurately represented and clearly communicated. Prototypes, labels, and messaging evolved alongside requirements, enabling early feedback and reducing late-stage rework. This approach kept everyone aligned. Developers knew what they were building, UX designers understood the business rules, and Communications crafted messaging that matched what members would see. The close collaboration across functions meant feedback happened early and often, keeping the entire team moving in the same direction.

Results That Build Confidence

The team successfully rebuilt all existing retirement estimates in the modernized system, **supporting over 12 distinct estimate scenarios** driven by different retirement events, eligibility conditions, and combinations of estimate sections, disclosures, and explanatory messaging, ensuring each member scenario accurately preserved legacy calculation behavior while presenting results more clearly. The team delivered two weeks ahead of schedule while maintaining 100% of all planned requirements with zero release date changes despite fixed constraints.

By understanding the system upfront, the team avoided costly rework while staying ahead of deadlines.



THE RESULT Retirement estimates that members and administrators could easily understand and trust.

Infrastructure Built for Tomorrow

Legacy modernizations can fail when teams focus on technology rather than understanding the business. This effort succeeded because the approach focused on people, not just technology. The challenge wasn't building new software – it was understanding the business knowledge inside the old software and translating it reliably.

For this organization, modernization delivered more than a new system. They gained a clearer understanding of their own processes, a more maintainable platform, and the confidence that their members' retirement planning needs remain protected. The new foundation gave them flexibility as member needs evolve, regulations change, and their mission grows.

Most importantly, the members they serve can continue to rely on accurate, transparent retirement estimates that help them plan confidently for their futures.

Let's discuss your business needs so you can modernize with confidence.

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