2025 MAINFRAME SURVEY KEY FINANCIAL SERVICES TAKEAWAYS



Trust is the heartbeat of banking, financial services, and insurance firms. Customers trust that their paychecks will clear, that their credit card transactions will go through, that their retirement accounts will keep growing and most of all that their data will be safe. At the center of that trust sits the mainframe.

Sure, digital banking apps, crypto currency, and the latest in financial technology (fintech) services may dominate the headlines, but behind every smooth digital interaction, it's largely the mainframe doing the heavy lifting. The 2025 BMC Mainframe Survey shows just how true this is for the financial services sector. Now in its 20th year, the survey offers a rare and invaluable lens into how the role of the mainframe has evolved over two decades—capturing not just this year's story, but long-term trends shaping the platform's future. In the 2025 survey, we find that not only is the state of mainframe strong, but also that banks and insurers are harnessing the power of new technologies to innovate with the mainframe. They are investing, modernizing, securing, connecting to the cloud, adopting DevOps practices, and even experimenting with Generative AI (GenAI).

Let's look at what the data tells us about the role of the mainframe in financial services today—and where it's heading next.

Bedrock and launchpad

One of the clearest signals from the survey is how financial services (finserv) organizations perceive the mainframe. An overwhelming 96 percent of respondents said their view of the platform is positive. What's striking is the balance: 53 percent see it as a launchpad for growth and new workloads, while 43 percent expect steady, organic growth from their core systems—underscoring the platform's strength both for innovation and for sustaining critical operations for finserv firms.

It's both the vault and the incubator. In other words, the mainframe is simultaneously the fortress where core financial data is locked away, and the foundation where new digital services are built.

A long game of investment

When it comes to where the money is going, the story is just as strong. Ninety percent of financial services firms say they are either increasing or holding steady in their mainframe investments—47 percent increasing, 43 percent steady. In an industry famous for tight margins and constant regulatory pressure, that level of commitment speaks volumes.

It shows that the mainframe isn't seen as a sunk cost, but as a strategic asset. Finserv leaders are budgeting for the long game leveraging modern tools and technologies.

Pragmatic priorities

Of course, no industry sets priorities quite like financial services. The survey shows five areas consistently at the top of the list.

Cost optimization leads the way, cited by 58 percent—well above other industries. For banks and insurers, squeezing efficiency out of every dollar is essential. Security follows closely at 53 percent, which makes sense in a sector where the cost of a breach can be catastrophic. Application modernization (49 percent) is right behind, with firms updating core systems to use modern languages like Java, Go, and Python. Enhancing automation comes next at 46 percent, with operations automation a particular focus. And finally, staffing and skills (45 percent)—a clear acknowledgement that the generational handoff in mainframe expertise is already underway.

Taken together, these priorities paint a picture of pragmatism: save money, stay secure, modernize smartly, automate wisely, and prepare the next generation of talent.

Scaling with digital demand

If the perception and the investments are strong, the workloads are even stronger. More than two-thirds (68 percent) of financial services respondents expect growth in their general-purpose MIPS (millions of instructions per second). What's fueling that growth? Most of it comes from new applications, while 31% say it's a mix of new and core.

That tells us financial institutions aren't just keeping core systems running—they're actively scaling the mainframe to meet the surge in digital banking, real-time payments, risk analytics, and trading platforms. The digital economy is driving more traffic, and the mainframe is absorbing that growth.

Security: A sector that can't compromise

If trust is currency, then security is the vault door. The 2025 BMC Mainframe Survey shows financial services is setting the pace for other industries when it comes to securing the mainframe. Fifty-eight percent of financial organizations are using privileged user monitoring today—far higher than government (33 percent) or technology firms (45 percent).

They're also adopting privileged access management (47 percent), multi-factor authentication (45 percent), and ransomware detection (42 percent). Nearly half (46 percent) are even going beyond internal controls, bringing in external services for penetration testing.

The message is clear – the zero trust approach to security is here to stay and mainframes can now play their part in supporting the CISO's objectives. Financial institutions don't just lock the vault—they monitor it, test the locks, and train the guards.

Cloud technology: Connecting trust to agility

The financial sector is also looking skyward. Among those prioritizing cloud technologies, nearly half (47 percent) are connecting the mainframe to cloud-based workloads, and 40 percent are implementing cloud-based mainframe provisioning.

But cloud in finserv isn't just about agility—it's about compliance. Among those who identified data recovery as a mainframe priority, one of the top challenges cited was the ability to prove recovery capability to auditors and external regulators (18 percent). That's why more than half (56 percent) would consider cloud object storage as part of their regulatory readiness strategy.

The pattern is familiar: in financial services, hybrid cloud isn't positioned against the mainframe, but alongside it. It's a partnership that's less about replacing trust and more about extending it.

DevOps: Delivering value faster

Another sign of modernization is the way financial services is embracing DevOps on the mainframe. Fifty-nine percent of respondents say DevOps practices are already in use on their mainframe systems.

And the benefits are tangible. Financial services teams point to gains like greater automation, stronger infrastructure stability, higher-quality applications, and better collaboration across teams. Many respondents also noted that DevOps practices are helping attract new talent to the platform—an important signal as the industry continues its generational handoff.

Perhaps most impressive: DevOps is delivering results quickly. Seventy percent say they realized value within a year of adoption, and more than one in five (21 percent) saw it in just six months. In a sector where time literally equals money, that kind of time to value is a powerful proof point. (Learn more about the value of mainframe DevOps in the Forrester® Total Economic Impact™ of BMC AMI DevX report).

Generative AI: From experimental to essential

No topic has captured more attention in the past year than GenAI—and the finserv field is no exception. The survey shows that 81 percent of firms are already using GenAI, and 45 percent are

applying it directly on the mainframe.

That's not just experimentation at the edges. It's AI woven into the fabric of the systems that carry the world's most sensitive financial transactions.

And what are they doing with it? Practical, high-value use cases: problem detection (47 percent), automated testing (47 percent), documentation (41 percent), compliance reporting (41 percent), and code explanation (38 percent). These aren't science projects—they're solving some of finserv's thorniest challenges. It's also why solutions like BMC AMI Assistant are emerging, giving organizations the ability to apply GenAI directly within the mainframe environment to explain code, generate documentation, detect problems, and accelerate modernization efforts.

AI task management: A spectrum of trust

Beyond use cases, the survey also asked how much financial services organizations are willing to let AI manage tasks on the mainframe itself. The results reveal a fascinating spectrum of trust.

In backup management, 27 percent still want AI to simply alert them when action is needed. But a combined 60 percent are open to AI making recommendations or even completing the task automatically.

The story is similar in system issue diagnosis: 24 percent prefer alerts only, but 68 percent are comfortable with AI recommending fixes or resolving issues outright. For checkpoint and commit pacing, 32 percent want alerts only, while 58 percent are open to recommendations or automation.

This paints a picture of a sector building trust step by step—from AI as an advisor, to AI as a partner, and eventually, to AI as an operator. Much like customers once moved from tellers to ATMs to mobile apps, financial institutions are gradually extending trust to AI in mainframe development and operations. (Learn more about smarter insights for the mainframe, powered by AI, from the award-winning BMC AMI Assistant.)

The future of the financial mainframe

Taken together, the results are striking. Financial services organizations see the mainframe as both bedrock and launchpad. They're investing steadily, setting pragmatic priorities, scaling workloads, and leading the charge on security. They're connecting to the cloud, adopting DevOps practices, and applying GenAI in ways that are already delivering value.

And most importantly, they're learning to trust AI—not just for coding and compliance, but for operational tasks at the very heart of the mainframe.

In financial services, trust is the ultimate currency. The 2025 Mainframe Survey shows that trust still rests on the mainframe—and increasingly, it extends to the AI systems that will help shape its future. To learn more about mainframe optimization and transformation for your financial services organization, explore the modern solutions on the BMC AMI portfolio webpage.