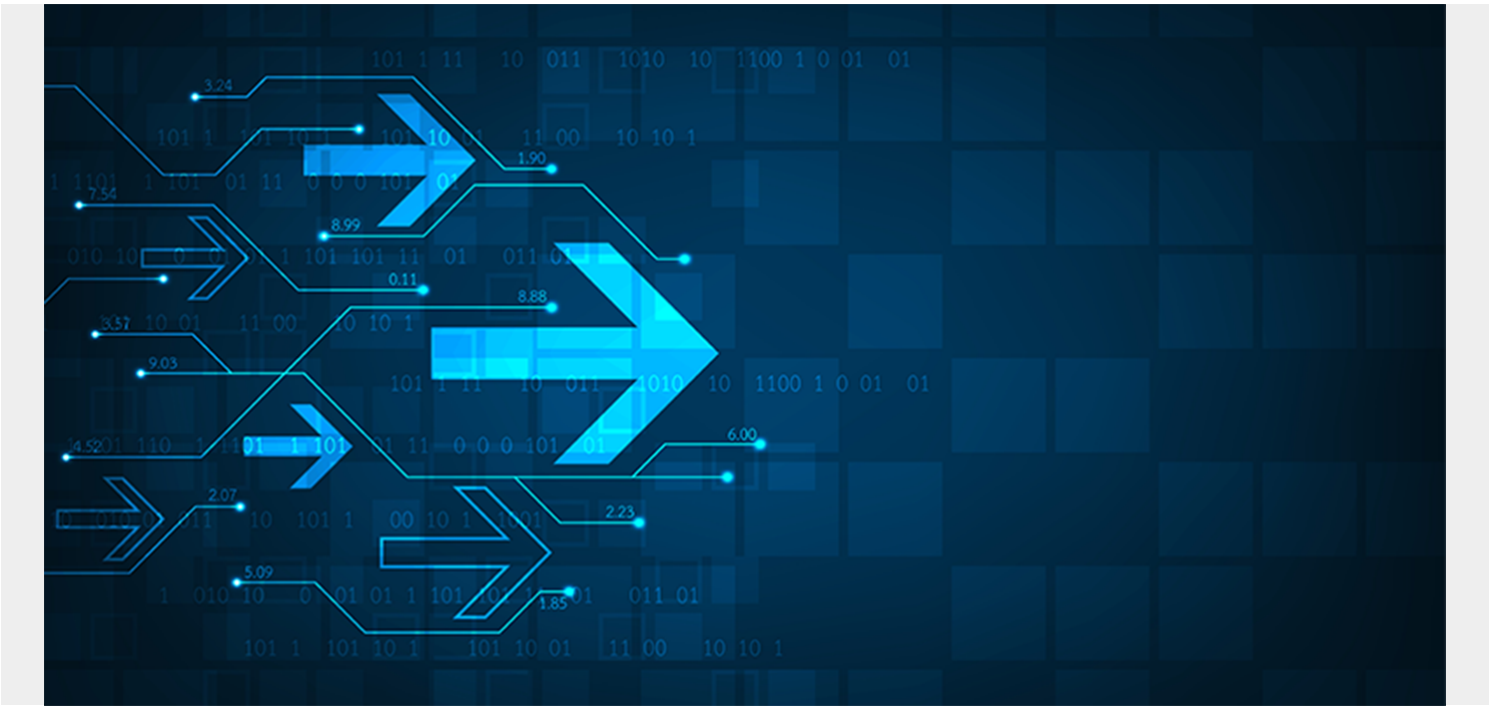
DEVOPS INSIGHTS FROM THE 2025 BMC MAINFRAME SURVEY



Twenty years of asking mainframe professionals questions gives you a lot of perspective. When BMC kicked off our first annual mainframe survey, the iPod was still the hot new thing and DevOps hadn't even been coined as a term yet. Fast forward to 2025, and the 20th annual BMC Mainframe Survey than 1,100 respondents weighing in across 15 industries—from financial giants to government agencies.

And here's the kicker: the mainframe isn't just alive and well, it's thriving, with 97 percent of respondents saying they see the mainframe as a long-term growth platform. Only 3 percent said they're considering an exit strategy, down from 10 percent back in 2018. That drop in doomsday talk is proof that the mainframe's "sunset" is more like a sunrise.

So, if the platform is sticking around, the big question becomes: *How are organizations actually working on it?* The answer is one word: DevOps.

The DevOps inflection point

Here's where things get exciting. Sixty-seven percent of respondents say they're now using DevOps on the mainframe, up from 63 percent just a year ago. On paper, that four-point bump might not sound earth-shattering, but think about it: DevOps on distributed systems has been table stakes for years, while mainframe DevOps adoption has been the cautious tortoise in the race. Now the tortoise is sprinting—two-thirds of organizations are officially on board. That's no longer "early adoption," it's mainstream momentum.

And the payback is speeding up. In 2025, 26 percent of shops saw DevOps delivering value in under six months, up from 21 percent the year before. For a platform that once moved in carefully

measured release cycles, that's like switching from a rotary phone to a smartphone.

A younger workforce, a new mindset

Here's a fun stat: Millennials are now the majority in the mainframe workforce (51 percent), Gen Z has jumped to 15 percent, and Baby Boomers have dropped to just 5 percent. If you've ever wondered why DevOps is finally clicking on the mainframe, this is part of the answer.

Younger developers grew up with agile workflows, automation, and collaboration tools. They're not asking, "Why DevOps?" They're asking, "Why not?" And their optimism shows: 73 percent of Gen Z respondents said the mainframe will grow and attract new workloads, compared to just 51 percent of Baby Boomers.

More than a generational gap, that's a shift in mindset, and it's reshaping how organizations think about mainframe application development.

Java finds its home

For years, people have talked about Java on the mainframe. But here's the real story: 49 percent of respondents say their Java usage on the mainframe has increased. That's the number to watch, because it shows growth, not just historical presence.

According to respondents, 60 percent now say Java is the most frequently used language on the platform. Why? Because modernization is in motion. In the 2025 survey, 72 percent of respondents report that new apps are being written in Java while 51 percent say existing apps are being rewritten into Java.

Here's the kicker: DevOps is the accelerator. With pipelines, automated testing, and rapid delivery, Java adoption doesn't just make sense—it's practical. DevOps gives Java the "home field advantage" it needed on the mainframe.

Modernization becomes a top priority

Application modernization has officially climbed the priority ladder. It's now the 5th highest priority overall (42 percent). For extra-large shops (greater than 50K MIPS), it jumps up to 3rd place (49 percent).

And here's why that matters: modernization requires continuous integration, automated testing, security scanning, and frequent releases. These aren't side benefits of DevOps, they're the core strengths. That's why DevOps is no longer optional. It's the engine that makes modernization on the mainframe possible at scale.

AI + DevOps: Expanding the trust spectrum

This is where the survey got really interesting. Respondents were asked about their willingness to let AI handle tasks across the DevOps lifecycle, from checkpoint/commit pacing to problem diagnosis.

- **Checkpoint/Commit Pacing:** In batch apps, checkpoint/commit pacing determines how often changes are saved and progress recorded. Developers usually tune this balance between performance and reliability. But in DevOps pipelines, AI can step in. Twenty-six percent of

respondents want AI to alert, 37 percent want it to recommend, and 28 percent are ready for AI to complete actions. That's a shift from manual coding to AI-driven adaptability.
- **Problem Diagnosis:** Traditionally, debugging has meant long hours of poring over logs and tracing dependencies. In modern DevOps, it's a continuous process integrated with monitoring. And now, AI can accelerate root-cause detection, suggest fixes, and even execute them. 25 percent want AI to alert, 37 percent want AI to recommend, and 32 percent want AI to complete actions. Here's the twist: for many organizations, this increasingly includes Modern Context Protocol (MCP) servers, where AI-driven automation isn't just theory, it's becoming reality.
- **Overall Analysis:** These numbers tell us that mainframe professionals are using AI for more than visibility—they're leaning into decision-making and even execution. For DevOps, that means pipelines that aren't just automated, but also intelligent and self-optimizing. And yes, MCP servers are part of this future, enabling AI to move from passive monitoring to active problem resolution.

Measurable benefits of DevOps

So, what are organizations actually getting out of DevOps on the mainframe? According to respondents, the top benefits are:

- Improved infrastructure stability
- Improved quality of deployed apps
- Increased automation
- Security improvements

And here's a stat worth celebrating: 53 percent say they're prioritizing DevOps adoption specifically to improve the efficiency of application development, up 15 points from last year. That's not just a blip, it's a trend.

The rise of new roles: SRE and platform engineering

The survey also revealed a fascinating shift in how organizations structure their teams. SRE roles now exist in 43 percent of organizations, with another 35 percent planning to add them within the year. That means 78 percent will soon have SRE in place. Meanwhile, 47 percent already have Platform Engineers, with 31 percent planning to add them — also 78 percent in total.

What does that tell us? That mainframe DevOps maturity is evolving into specialized practices.

- SRE brings reliability and operational excellence.
- Platform Engineering builds scalable, self-service foundations for DevOps.

In other words: the workforce isn't just "doing DevOps" — they're leveling up.

Why some still hesitate

Of course, not everyone's on board yet. Among those not using DevOps on the mainframe, 42 percent said it's because DevOps isn't adopted anywhere in their organization (up from 28 percent last year).

And this is important: the barrier isn't the mainframe. It's the enterprise-wide culture. If the larger IT

organization hasn't embraced DevOps, it's not going to magically thrive on the mainframe in isolation.

That's the implication: hesitation isn't about technical feasibility. It's about organizational readiness. And here's the good news: once the broader IT culture shifts, the mainframe can (and will) keep pace.

Conclusion: Mainframe DevOps as a growth engine

When you zoom out across 20 years of survey data, the picture is clear: the mainframe isn't stuck in the past. It's becoming the platform for the future.

With DevOps adoption accelerating, Java workloads growing, modernization climbing the priority list, and AI pushing pipelines closer to autonomous, the mainframe is positioned as more than just critical infrastructure. It's the engine of innovation.

With SRE and Platform Engineering taking root, the workforce is showing that DevOps isn't just a passing practice. It's a cultural shift, one that's setting up the next generation of mainframe professionals to thrive.

So, here's the real headline from 2025: DevOps on the mainframe has crossed the threshold. It's not the cautious tortoise anymore. It's running the race—and winning.

For more insights into the mainframe industry, download the 2025 BMC Mainframe Survey report.