



# Modernize your mainframe using automated mainframe intelligence

Data used to be an afterthought. Today, it has become inescapable

In 2018, research demonstrated that an astounding 2.5 quintillion (that's 18 zeros) bytes, or 2.5 exabytes, of data were being created every single day, and 90% of all existing data was created in the prior two years. And that's just the start of the data deluge. Raconteur's "A Day in Data" infographic illustrates that the world will produce an incredible 463 exabytes every day by 2025. So, the zettabytes and yottabytes are already warming up to become the more practical terms for discussing the daily data growth.

For the companies that can make sense of the data to their business advantage, the potential is enormous. According to a 2018 study from the McKinsey Global Institute, digitization, automation, and AI could contribute some \$13 trillion to global GDP over the next decade. You can slice a \$13 trillion pie into quite a few pieces, but the companies that hope to earn a share must first demonstrate an ability to handle the amount of data being generated. For some 70% of the Global 500, the platform of choice is the same one it has been for decades—"Big Iron", as the mainframe is lovingly called.

The first mainframe was booted up on April 7, 1964. The System/360 cost \$5 billion to produce, but it set the wheels in motion for a computing revolution. By the 1970s, IBM had released the System/370 along with the pinnacle of processing at the time, the 64 kilobyte RAM chip. Fortunately, as data demands have skyrocketed, the mainframe has kept up with the times.

## Innovation Explosion on the Modern Mainframe

The latest development in IBM's long line of Big Iron, the z15 is capable of processing as many as one trillion secure web transactions each day. Offering up to 190 configurable cores, 40 terabytes of memory, and the mainframe's legendary reliability with 99.999% uptime, the z15 and its predecessors are empowering the biggest enterprises in the world to scale their way into the future.

The modern mainframe is far from disappearing, quite on the contrary: it is seeing increased demand brought on by digitization. The release of the z14 saw IBM's strongest mainframe sales cycle in a decade, and revenue from IBM's Z segment was up by 63% in the company's first full quarter of z15 sales.

According to a study by Compuware, a BMC Company, 89% of CIOs report more and varied mainframe workloads, and 78% see the platform as an important innovation driver. Other figures corroborate these findings, and mainframe CPU resource consumption is projected by many analysts to increase by 15-20% annually. In order to keep up with demand, however, enterprises will have to overcome a major obstacle—the ever-present skills gap.

## Helping Mainframers Do More With Less

As mainframe hardware is updated to the latest and greatest, the individuals who have been responsible for running big iron are ready to retire or already have. A study from Forrester Research found that 23% of mainframe developers retired between 2013 and 2018, and BMC's 2019 Mainframe Survey found that more than a third (37%) of the mainframe workforce was between the ages of 50 and 64. In other words, the existing skills gap is going to grow, and yet the IT infrastructures that power big business are expected to carry on as usual.

## End-to-End Intelligence for Your Mainframe

BMC's Automated Mainframe Intelligence (AMI) solutions cover all four major facets of the mainframe, helping you effectively manage the Security, Ops, Capacity and Cost, and Data of your most valuable IT asset.

Security is a cornerstone of the three latest iterations of the Z systems, z13, z14 and z15, at a time when threat actors have more weapons at their disposal than ever before. That's why BMC AMI Security helps you detect and respond to threats in real time. When there is an issue, immediate remediation can commence.

When it comes to operational issues, BMC AMI Ops is there to enable a proactive approach to system integrity. By monitoring and detecting problems ahead of time and improving performance within your organization's SLAs, and by providing central administration over your mainframe personnel, BMC AMI Ops helps ensure that your mainframe is operating smoothly to within expected tolerances.

Mainframes run 68% of production IT workloads around the world, yet they account for just 6% of the costs. While they're incredibly efficient, BMC AMI Capacity and Cost aims to minimize what can be the most significant and varying line item in any enterprise computing budget. With predictive analytics informing future costs and workloads and automation that can enact changes to keep costs under control, businesses can stay within budgetary constraints.

BMC AMI Data provides a set of modern data management solutions that accelerates the delivery of new and updated applications to the market. Through intelligent policy-driven automation, IT can manage growing amounts of data with ease while providing full application availability.

## From firefighting to value-add: the future of mainframe

When applying intelligent automation to your mainframe management with an encompassing solution such as the BMC AMI suite, you take your mainframe into the future. By implementing these solutions, our customers have enabled their IT staffs to work on high-value projects instead of firefighting, allowing them to squeeze more value out of their mainframes than ever before.

