

# MAINFRAME Executive

## [How to Reduce Mainframe Expenses and Stay in Line With Your Business Challenges](#)

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The idea of reducing IT costs during turbulent economic times isn't new. However, some cost reductions involve risk and can limit an organization's ability to develop, or even maintain, competitive advantages.

Mainframe organizations can view this challenge under a different lens. Savings can be realized through several solutions that won't jeopardize your ability to deliver the business' strategic applications.

### **Defer Hardware Upgrades**

One of the most overlooked opportunities to reduce mainframe hardware and software costs is for organizations to better manage CPU consumption. Hardware-related expenses are growing faster than the business itself and the IT budget. The growing cost of mainframe systems, with processing power measured in Millions of Instructions Per Second (MIPS), is predicted to become even more pronounced.

In a March 2007 report titled "The State of the Mainframe," Ovum analyst Carl Greiner states: "Mainframe MIPS growth is averaging around 20 percent per year and large mainframe-centric enterprises have been consistently averaging 35 percent-plus MIPS growth."

This is substantial, as the **cost of a single MIPS can be between \$4,000 and \$15,000.** Some large customers would estimate even higher costs per MIPS. Instead of reacting to MIPS growth by purchasing additional hardware, **IT departments can take a proactive approach to controlling MIPS.** Specifically, organizations can control two of the largest factors that IT executives agree impact MIPS growth:

- Application code that executes inefficiently
- Recurring application failures.

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Organizations can easily address these two issues by using software tools designed to pinpoint and fix areas with excessive MIPS use. The cost savings from making these types of changes is substantial. For instance, when one insurance company proactively managed its MIPS, it was able to delay a CPU upgrade for almost 18 months, saving approximately \$2 million in hardware and software costs.

### **Improve Programmer Productivity**

Labor is the most expensive IT asset and costs are increasing as more mainframe staff members retire. It's counterintuitive to say replacing experienced staff with newer staff would be expensive, but in terms of "productivity equaling dollars," it's quite expensive to bring on inexperienced staff members.

Companies successfully tackling this issue are introducing development productivity tools into their procedures, enabling less experienced developers to be productive faster. Many of these tools even enable a userfriendly Graphical User Interface (GUI) that helps newer mainframe developers more easily adapt to developing and testing mainframe applications.

Organizations also can benefit from capturing usage information about their development productivity tools. This helps the organization (and the developer) understand the productivity gained by using these tools. Such usage reports validate the software investment to upper management and shed light on how the most productive developers use the tools. When used effectively, this information can be valuable in creating training schedules and procedures to ensure each developer is as productive as possible.

### **Measure Quality**

Outsourcing or offshoring is another cost-savings approach. This can be an especially attractive option for mainframe IT departments because developers from other countries recognize the mainframe skills shortage in the U.S. and Europe and are eager to take on the workload. But offshoring is far from a silver bullet. Many organizations expect to see a substantial cost savings when they offshore development, but without a reliable method of measuring application quality and managing the quality of the newly developed code, the expected savings are consumed through additional management time and local developers fixing issues.

"You get what you pay for and the lowest cost will not necessarily deliver the best results," says Tony Baer, senior analyst at Ovum. In an Oct. 1, 2008 report titled "Agility Brings Results—Innovation in Software Development," he adds that, "The lower the cost of the coding skills base, the bigger the investment in management costs has to be made, which is why a proportion of development is coming back onshore and even back in-house."

Companies that are realizing the expected savings from outsourcing are using software to understand the code they're handing over—and are quantitatively measuring the code they're getting back. These organizations rely on software solutions to benchmark and measure their applications on several key metrics: code quality and complexity, testing effectiveness, application efficiency, and time-to-market productivity.

With the benefit of these metrics, the organization can verify the outsourced code meets the organization's standards and then determine if the updated application is ready to be deployed. The result is that the applications, even complex ones, are efficiently and effectively updated or enhanced without fears about hidden performance issues or excessive and costly CPU consumption.

A large insurance company with operations in the U.S. and India used specialized software to automate the process of determining which area of code needed the most work and quantifiably answering the question, "Am I done testing?" This type of insight provided the company with phenomenal programmer productivity improvements.

Consider another example. A large credit card company was paying \$90 per hour for 60 consultants to manually enter 20 transactions for each of 2,400 accounts being tested. By replacing the manual process with automation, the company could complete the same work in 20 minutes.

### **Solutions for Every Mainframe organization**

These suggestions are approaches many organizations have used to generate a quick and substantial ROI. Changes such as these can help an organization prosper even in a troubled economy and make improvements that yield growth despite tight budget constraints.