The Case for Re-Examining Mainframe MLC Software Costs

The mainframe is the most reliable, efficient processing platform today. Its use is increasing with the rise of digital business, and higher workload volumes are driving up costs associated with monthly license charges. Organizations need to use a structured approach to identify their top cost drivers and exploit technologies that reduce MLC, without impacting service levels.

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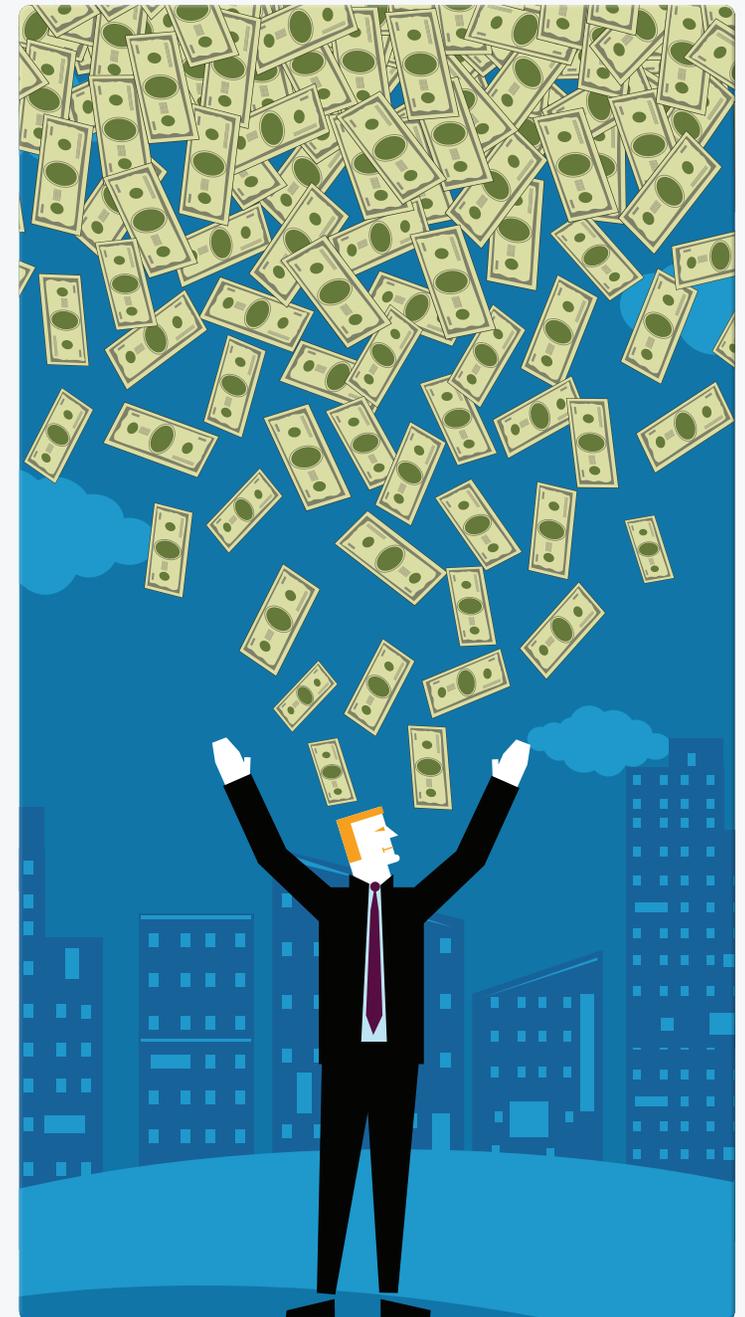
I f you thought the mainframe hosted only outdated legacy applications, it's time to think again.

Enterprises running IBM® z Systems® hardware report that as their digital business has grown, so has their mainframe usage. Today, many of their most critical new Web and mobile applications rely on mainframe technology. In fact, in BMC's 2015 Mainframe Survey, respondents said the No. 1 factor contributing to continued investment in the mainframe is leveraging legacy apps to create new business applications. And 83% of those surveyed said they expect their mainframe usage to hold steady or increase in the coming years.

Today, mainframes process more workloads and data than ever before. According to IBM, 91% of new client-facing apps will require System z servers to complete transactions, and mainframes now process up to 2.8 billion transactions per day.

Given this increase in mainframe usage, it's critically important to actively manage costs associated with monthly license charges (MLC). Popular mainframe software such as DB2, IMS, CICS, and MQ is frequently charged based on a monthly license charge that is driven by peak resource usage, as measured in million service units (MSUs). In a recent BMC study, 48% of organizations surveyed said they spend 25% to 50% of their total mainframe software budget on MLC costs, and 22% spend more than half of their mainframe software budget on MLC costs. On average, this is more than most companies spend on their mainframe hardware or the staff.

"It's encouraging to see a company introducing products that help customers manage MLC costs."
Director, Mainframe Operations, Liberty Mutual Insurance Co.

MLC costs are calculated using an organization's peak four-hour rolling average (4HRA), a measure of MSUs that the system is processing at its busiest. As more data and workloads flow through the mainframe at particular intervals, that peak 4HRA increases, resulting in higher costs.

In addition, IBM increases the cost of MLC software each year by 4% to 7% on average, without any increase in customer benefit. In other words, even if enterprises keep their mainframe usage steady, their costs increase over time.

Meanwhile, most IT managers report consistent pressure to reduce their budgets, so most mainframe managers are looking for ways to reduce costs. In fact, BMC found that IT cost optimization is the top mainframe priority for 2016, cited by 65% of organizations.

Unfortunately, mainframe cost optimization can be tremendously difficult.

MLC Cost-Optimization Challenges

You probably find that it is difficult to know how much your organization will pay each month in MLC fees. SCRT reports only offer limited insight. Today's mainframes process so many transactions and workloads from so many different applications that it can be difficult to monitor how usage is affecting MLC costs.

Typically, companies approach cost optimization by trying to reduce usage during peak periods. According to this recent BMC survey, reducing peak resource consumption is the No. 1 strategy enterprises are

using to optimize costs. But without an accurate view of which workloads are running during this peak, it is difficult to figure out which jobs might be run at another time of day.

Some companies cap workloads at certain times. Usually this is a manual process that puts in place hard-and-fast rules intended to lower peaks. While this approach is well-intentioned, it can have unintended consequences. In some cases, it can reduce service levels for critical applications. And that can have a negative impact on the business as a whole, especially if the caps are reducing application availability or slowing customer-facing applications. That can cause a loss of customer base, and most mainframe shops cannot afford to tolerate such a situation for even a brief period.

Other companies use spreadsheets and manual processes to calculate and predict drivers of peak usage, and these methods simply can't capture the dynamic nature of mainframe workloads. These organizations frequently embark on time-consuming projects to reduce their MLC costs, only to discover later that their strategies were fruitless. As a result, they achieve only marginal cost reductions—if any.

As a result of these experiences, some companies just give up on particular cost-optimization projects such as capping. Because manual processes take up so much valuable staff time, the cost-optimization projects never achieve any measurable ROI. Instead, organizations simply resign themselves to paying higher costs each year.

An Innovative Solution for MLC Cost Optimization

But companies don't have to—and shouldn't—pay higher MLC costs each year. More and more enterprises are finding that they can reduce

their MLC costs by 10% to 30% by deploying MLC cost-optimization solutions. At the same time, these cost-optimization solutions are helping ensure the availability and productivity that organizations need to stay in business. Organizations interested in this approach should look for solutions with five key capabilities.

For more information, visit **www.bmc.com/mlc**

REAL-WORLD COST-OPTIMIZATION EXAMPLES

- *Major U.S. transportation company uses Intelligent Capping software to lower MLC by 20%.*

- *Growing U.S. insurance company uses BMC Cost Analyzer and Intelligent Capping to lower its usage peaks by 7% , saving 9% in MLC costs.*

- *A large reinsurance company reschedules database utility work to start one hour earlier, saving $100,000 in MLC costs.*

- *IT team disagrees about whether moving some DB2 work from one LPAR to another would reduce costs. It models the proposed change in Cost Analyzer to determine benefit and saves $150,000 per year.*

- *An IT organization uses intelligent capping to achieve $40,000 in MLC savings.*

- *Company consolidates IBM CICS work on one LPAR to save $300,000 per year.*

Source: BMC

four-hour rolling averages invariably fall short. Managers need a real-time view into what is running on their systems and how those transactions are affecting MLC costs.

1. **Dashboards and reports that show how workloads are impacting MLC costs.** It's nearly impossible to reduce peaks if organizations don't know what workloads are running on their systems, or when they're running. But because the environment is changing all the time, manual processes for tracking peak

2. **The ability to model proposed changes to show how they will affect MLC costs.** Once organizations understand which workloads are contributing to peaks, it's easy for them to jump to conclusions about how they might reduce these peaks. However, the complicated, interdependent nature of today's digital business workloads makes it likely that any change could have unintended consequences. Organizations need a technological solution that will allow them to predict how a proposed strategy will affect their licensing charges and application availability.

3. **A cost-aware, intelligent capping solution to reduce peak usage without negatively affecting the business.** Hard-and-fast caps can create more problems than they solve, but intelligent capping solutions can determine whether a given workload really needs to run in a particular time interval or if it can be delayed to run outside of the peak. Intelligent solutions are also aware of the capacity and workloads running on various logical partitions, and they can adjust the caps for each LPAR dynamically while making sure that costs are not increased. As a result, the business gets the transaction processing and application availability it needs to remain competitive while driving down costs to the lowest possible level.

4. **The ability to increase availability by identifying system-optimization opportunities that also can reduce costs.** In many shops,

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multiple IMS, DB2, and CICS subsystems are maintained on the same LPAR (for good reasons). However, enabling cross-LPAR communication to process transactions, even when a subsystem goes down, can be a critical competitive advantage. In addition, because of the way MLC math works, it can also be less expensive to isolate subsystems on their own LPARs. An MLC subsystem-optimization solution such as BMC Subzero with Cost Analyzer can help you identify and achieve these savings, while adding extra redundancy to reduce risk.

5. **The ability to identify workloads and applications that might be tuned to reduce MLC charges.** Many organizations have applications that include inefficient code, or they are running monitors that account for a lot of CPU usage. In those cases, tuning the code or switching to a more efficient monitoring solution can lower peak consumption, improve performance of the application, and lower MLC costs. This potential cost savings opportunity can be difficult to spot unless organizations have a technological solution that can identify inefficient workloads and applications.

Get MLC Costs Under Control

Companies don't have to wave the white flag and succumb to paying these skyrocketing MLC costs. When your MLC costs increase next year, don't just pay them. And don't waste staff time trying to solve the problem on your own.

The best way to control rising MLC costs is to apply a structured approach and deploy software that is designed to lower your monthly MLC bill. Best-of-breed solutions can identify opportunities for cost reduction that would remain hidden with standard manual processes. And in many cases, the savings you can achieve will be significant, generating a positive ROI within just months.

To learn more about how to reduce MLC costs, check out the following resources:

- Five Levers for Lowering Mainframe Monthly License Charge Costs
- BMC Automated Mainframe Cost Management Saves Money and Lowers MLC Costs for Insurance Company
- IDC Analyst Connection: Controlling Mainframe Monthly Licensed Software Costs: What's the Best Approach?
- Video: BMC Mainframe MLC Cost Management Solutions

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