Optimizing IT Resource Capacity and Cost: How BMC Helix Can Help
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Executive Summary

For years, IT organizations have struggled to intelligently manage and use their IT resource investments. As organizations continue to grow increasingly reliant upon external service providers and public cloud services, these challenges are getting infinitely more difficult.

Today, cost and resource management limitations exact a steep price, leaving organizations exposed to significant cost overruns and wasted expenditures. In fact, it is estimated that most organizations are overprovisioned by 30% and cloud resources are overprovisioned by as high as 55%.

To contend with the increasingly urgent business demands for innovation, service level performance, and cost containment, IT organizations must gain advanced capabilities so they can proactively manage costs and capacity.

With BMC Helix Optimize, IT teams can intelligently manage costs and capacity of their on-premises and cloud resources. Discover how BMC Helix Optimize can help your organization lower infrastructure costs, prevent infrastructure-related performance issues and outages, avoid budget overruns, and minimize the cost and risk of cloud migrations.

1 Gartner, “10 Moves to Lower Your AWS Costs,” August 2019
Introduction: The Proliferation of Complexity—and the Ensuing Challenges

For today’s IT teams, change is the only constant, and complexity only seems to move in one direction: up. As they seek to support continuously evolving technologies and business requirements, IT teams have continued to adapt their strategies and investments. Now, the norm is for teams to be managing a complex, dynamic mix of on-premises data centers, outsourced service provider environments, and cloud services.

While the environments in play continue to see dynamic change, the fundamental imperatives for IT remain. Supporting innovation and agility are critical, however, so too are demands for effective service level management and cost containment.

These objectives are getting infinitely more challenging as organizations grow increasingly reliant upon external service providers and public cloud services. There’s a continued proliferation not only in terms of cloud services and options, but also in the number of buyers of those services. In fact, one survey found that 70 percent of IT leaders report that technology decisions are now being made outside of the IT function.²

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Compounding this complexity is the nature of tools currently in place in many organizations. Many teams rely on siloed tools and manual data gathering efforts, compiling data from multiple sources, which raises a set of problems. A recent BMC survey asked IT decision makers about their biggest challenge in establishing continuous optimization of cost. 53 percent of respondents reported that they have the data they need, but they are challenged because the information resides in silos. The same survey also found that, when it comes to predicting future usage and purchases, 21 percent have to do manual calculations and 36 percent have to resort to estimating what is needed. Only 29 percent have automated solutions.

These results show how, for a big percentage of IT teams, cost optimization efforts are time consuming, inefficient, and error prone. Too often, reporting is dated and, at best, yields limited insights or, at worst, inaccurate information that fosters faulty decision making. Fundamentally, teams lack the critical visibility they need, which presents a number of implications:

1. It is difficult for staff to determine what resources they have in on-premises environments and what they have in the cloud.

2. Teams don’t have unified visibility into whether and how these resources are being used.

3. Teams don’t have visibility into how much is being spent.

Given these limitations, teams completely lack the ability to intelligently manage decisions about migrating workloads into the cloud. Decision makers can’t establish effective baselines, or accurately track how much will be spent after a migration. As a result, it’s virtually impossible to predict how much a migration will save, or even to concretely measure savings after a migration has been completed.

We use one or more automation solution(s) 28%
We manually calculate what is needed 22%
We estimate what is needed 36%
We don’t do this 9%
We don’t need this capability 5%
The Implications

The challenges and limitations outlined above are costing organizations in a number of ways:

- **Over-purchasing.** Lacking timely, clear insights into current usage and how usage is trending, teams are either forced to overprovision so they can ensure adequate capacity, or they’re left to react to issues at the last minute and make urgent, and more costly purchases. The result is that many organizations are spending far more than needed. When it comes to on-premises environments, IT organizations routinely waste 30 percent of their investments. In the cloud, the waste is even worse: More than half or 55 percent, of expenditures are unnecessary.

- **Service performance issues and failures.** This lack of visibility also leaves teams ill equipped to make the resource configuration and provisioning changes needed to adapt to increased demands, leaving the organization exposed to business service outages and performance issues. The BMC survey referenced above found that 66 percent of respondents have either experienced outages or performance issues due to resource constraints or saturation.

- **Budget over-runs.** Many teams are stuck looking at data that’s often at least 30 days old. Instead of proactively managing investments, teams are left reacting. Decision makers only find out about overspending in the cloud when it’s too late—after the bill has been received. Similarly, lacking current insights into on-premises usage and spending, teams make unnecessary purchases, wasting precious capital budget. Ultimately, using current methods, it’s next to impossible for teams to keep costs aligned with budgets.

What has your experience been with capacity constraints or saturations during the last...

- We have experienced outages due to resource constraints or saturations impacting our business and customer experience 17%
- We have experienced resource constraints or saturations which have caused slow response rates for our business and customers 50%
- We are not concerned about resource constraints or saturations 21%
- We never have resource constraints or saturations 12%

Most IT decision makers are clear there’s a problem. For example, one survey found 70 percent of IT executives say their companies could save money through more efficient use of cloud services. However, there can be a significant gap between understanding the problem and identifying a solution. The following sections reveal how BMC can help.

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3 Gartner, “10 Moves to Lower Your AWS Costs,” August 2019
The Solution: BMC Helix Optimize

Introduction
Today, BMC delivers the advanced capabilities customers need to intelligently manage their resources and investments—across all their data centers and cloud environments. BMC Helix Optimize is an advanced IT capacity and cost optimization solution that turns unknowns about resource use and cost into insights. The solution helps IT organizations effectively plan for changes in business demand and continuously optimize both IT cost and capacity.

With the solution’s analytical modeling and forecasting, IT teams can ensure resources are aligned with fluctuating business demand. With these capabilities, teams can establish future-proof operations that deliver optimized service experiences.

Using machine learning, BMC Helix Optimize enables teams to proactively right-size resources, both on premises and in the cloud, in order to minimize waste. This SaaS solution features two products:

- BMC Helix Cloud Cost. This product offers advanced capabilities for controlling and optimizing costs across multiple cloud environments.

- BMC Helix Capacity Optimization. This product enables teams to align IT resources with service demands.

Cerner

The organization: Cerner is a leading supplier of health information technology solutions and services, with more than 28,000 employees.

The challenge: As the organization grew, it became increasingly difficult for the IT organization to control costs of computing and storage, while ensuring application performance remained optimized.

The payoff: The team was able to reduce storage costs by 25 percent and defer more than $1 million in computing costs.
Key features

Pervasive intelligence for resource and budget optimization
BMC Helix Optimize enables teams to establish an intelligent environment in which systems, services, and cost can all be optimized. The solution equips teams with these capabilities:

- Actionable intelligence. BMC Helix Optimize features machine learning capabilities that deliver enriched analysis and insights. The solution enables teams to leverage analytics that help optimize on-premises and cloud resources, offering insights for right-sizing and terminating idle VMs, establishing power schedules for selected workloads, optimizing the use of cloud-reserved instances, and more.

- Automated recommendations and actions. Based on long-term usage patterns, the solution can harness machine learning to provide automated optimization recommendations.

- Budget management. With the solution, teams can establish thresholds and alerts for preventing budget overruns.

- Governance. With the solution, teams can create and enforce policies for managing cloud use, for preventing compliance violations, for guarding against cost overruns, and more.

Intelligent modeling and planning to future-proof your operations
BMC Helix Optimize helps teams establish plans for cloud migrations that are optimized for performance and cost. The solution can apply machine learning to larger, multi-cloud data sets to provide more intelligence for forecasting. With the solution, teams can also do modeling to carry out the following tasks:

- Determine how changes in computing, storage, and networking configurations will affect application performance.

- Assess how performance will be affected when on-premises workloads are migrated to the public cloud.

- Identify the best scenarios for data center consolidation and resource decommissioning.

- Validate disaster recovery scenarios.

- Forecast how increased service demand will affect resource requirements.

With these capabilities, teams can more intelligently manage planning and resource allocations to ensure optimized utilization and service levels.
A single view of IT operations
BMC Helix Optimize delivers unified visibility of both on-premises and cloud infrastructures. The solution offers pre-packaged connectors for collecting data from more than 50 platforms and applications. In addition, it enables teams to establish connectors to any resources and services their organization requires.

Flexible visibility and actionable intelligence
BMC Helix Optimize offers a number of capabilities that help ensure stakeholders get the insights they need, when they need them. The solution provides current, intuitive visibility into how resource usage and costs align with specific business services and applications. With the solution, business owners, budget owners, and other stakeholders can get self-service access to tailored dashboards that enable them to see spending, budget, and recommendations for their specific projects and purchases.

Telefonica Columbia

The organization: The largest telecommunications operator in Columbia, Telefonica Columbia serves more than 15 million customers.

The challenge: As the organization adopted cloud services, the team struggled to control resource usage and cost.

The payoff: The team implemented more than 300 optimizations, eliminated capacity related application failures, and established accurate forecasting of evolving resource requirements.

NICE inContact

The organization: NICE inContact is a leading provider of cloud-based contact center software. More than 275,000 contact center agents around the world rely on inContact solutions.

The challenge: The IT team lacked visibility into future resource requirements, which led to a lot of overprovisioning and overspending.

The payoff: The organization was able to reduce annual hardware and software licensing costs by more than $1 million, and achieve a return on its BMC investment in about six months.
**Benefits**
By employing BMC Helix Optimize, customers can realize a number of significant benefits:

- **Optimize cost management.** BMC Helix Optimize enables teams to gain the insights and controls they need to do more accurate forecasting and improve alignment with budgets and plans. With the solution, teams can gain predictive alerts to potential outages or budget overruns, so staff can take corrective action before overages occur. Teams can eliminate wasted spending on unnecessary IT infrastructure costs, seeing cost reductions of up to 30 percent, as well as a decrease in associated software costs. They can also minimize the cost and risk of cloud migrations.

- **Enhance operational efficiency.** With its advanced, comprehensive capabilities, BMC Helix Optimize offers teams a number of ways to enhance operational efficiency and improve staff productivity. By reducing manual reporting efforts, the solution helps teams minimize errors and delays. In addition, by fostering proactive management, the solution helps teams avoid the distraction and inefficiency of last-minute responses to issues and outages.

- **Improve service levels and the user experience.** BMC Helix Optimize enables teams to harness advanced forecasting analytics to determine when increases in demand will occur. It also helps teams establish effective resource reservations and allocations to support fluctuating demand.

- **Improve agility.** With the solution, teams gain the insights and controls needed to adapt to changing business usage and requirements. The solution helps organizations optimize investments, workloads, and resource allocations to best support business demands and initiatives. Decision makers can establish more informed cloud migration plans, so they can more effectively promote agility and cost efficiency.

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**Banca Monte dei Paschi di Siena (MPS)**

**The organization:** MPS has operated continuously since 1472, making it the world’s oldest bank. The bank operates more than 2,000 branches and serves four million customers.

**The challenge:** The organization set out to increase utilization and reduce costs in its distributed server environments.

**The payoff:** The organization was able to boost average server utilization by 500 percent.
Conclusion

As IT ecosystems continue to grow more dynamic and complex, today's IT teams can't continue to rely on siloed, legacy approaches to managing costs and resources. With BMC Helix Optimize, teams can begin to gain the insights and controls they need to intelligently manage their on-premises and cloud resources. With the solution, teams can not only reduce costs, but they can pursue the optimization that yields enhanced service levels, operational efficiency, and agility.

For more information
To learn more about the visit bmc.com/optimize.