Fund Modernization with Reductions in Mainframe Spending

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z/Trim Operations Analytics is an easy-to-implement solution enabling easy access to mainframe data for analytics and mainframe optimization goals.

“For many years, it has been difficult to analyze mainframe consumption at the application level. With z/Trim Operations Analytics, the easy part is it comes with the interface, so it is done with a few clicks.”

RSD customer
Critical business applications depend on the power of the mainframe platform. Although true, IT Operations teams continue to be under cost pressure and are looking for solutions to better manage their infrastructure and increase their efficiency. Optimization of mainframe processing to reduce costs remains a priority.

### Key Challenges:

- IT Infrastructure and Operations budgets have decreased by an average of 7.6% over the past 2 years. The pressure for cost optimization will continue to grow.

- Managers face difficult questions about controlling their mainframe budget. Do they make across-the-board cuts, or can they optimize by collaborating with their business stakeholders?

- On average, 15% of mainframe budgets are wasted by running non-critical applications that do not require specific processing capabilities or features of the platform.

### Recommendations:

IT Managers seeking mainframe cost optimization should:

- Begin an assessment of the application portfolio to identify rationalization opportunities that can reduce cost and increase agility

- Optimize mainframe consumption and free mainframe budget through fact-based discussions with application stakeholders

- Continue to manage costs by identifying additional rationalization opportunities while keeping stakeholders involved and up to date
Part 1: Urgency to drive Mainframe Modernization

According to a recent customer survey by RSD, on average 15% of mainframe budgets are wasted by running non-critical applications that do not require specific processing capabilities or features of the platform. The resulting costs for these non-critical applications inhibits modernization and cost optimization initiatives. Over time, this portion of the mainframe budget results in lost opportunity for modernization and optimization.

Optimization strategies for this non-critical workload enable companies to accelerate their key initiatives for modernization and cost optimization.

This effort requires visibility to make fact-based decisions about the mainframe activity and costs:

- Understand the mainframe application portfolio and their impact on the overall MSU consumption that drives costs
- Optimize mainframe consumption and free mainframe budget through fact-based decision making with application stakeholders
- Build the cost optimization momentum by keeping your business stakeholders involved and up to date

Part 2: Use a step by step approach
to build mainframe optimization and modernization momentum

1/ Understand the mainframe application portfolio and their impact on the overall MSU consumption

A prerequisite to the optimization of the mainframe MSU consumption is an analysis of the mainframe application portfolio.

The platform providing this analysis needs to be easy to access and understandable to all stakeholders, IT and non-IT (application owner, management and procurement). It needs to present the MSU being consumed per application, program, and workload to enable accurate analysis and alignment with business units.

“Identifying the mainframe MSU consumption of my applications portfolio took three hours of one of my mainframe expert with our previous mainframe performance analysis tool. It now takes a few seconds and does not require mainframe expertise with z/Trim Operations Analytics.”

RSD Customer
Large European Insurance Group

Mainframes are a significant business cost for some organizations, and unmanaged use can rapidly ratchet up MIPS charges over the years. Carefully looking at workloads and moving some testing and low-value applications to an alternate platform can bring down the cost.

Gartner: Best Practices to Drive Cost Optimization in Application Support
The proper assessment of the MSU resource consumption provides the capability to identify and explain:

- The consumption by application and alignment with each business unit
- Any abnormal consumption and identify its potential origin
- The savings that would result from the optimization of an application

These functions enable fact-based discussions with all stakeholders (IT, application owner, management and procurement) about the alignment of applications with business priorities, SLA metrics, the MSU being consumed, and the associated budget.

In addition, having real-time assessment data available will enable the maximization of ROI by reducing time delays between data availability and decision-making processes. Further, processing of this analysis data should not contribute to MSU consumption since optimization is the goal. Data processing supporting this analytics platform should be fully automated to allow stakeholders to access and interact with the data online at any time.

2/ Optimize mainframe consumption and free mainframe budget through fact-based discussions with application stakeholders

First, this assessment will enable the identification of early win opportunities for cost optimization projects. For example:

- Identify abnormal consumption related to a change of configuration
- Unexpected changes in consumption related to the update of a software component
- Changes to scheduling that shift a non-critical application into the monthly R4H peak processing period

Having the capability to dynamically categorize and analyze applications in meaningful ways is an important second step. Some categories to consider may be: critical/non-critical, by application function, by business entities, etc. This categorization and the ability to do live analysis sets the stage for informed discussions with all stakeholders (IT, application owner, management and procurement). These fact-based discussions enable decisions about optimization based on application consumption, contribution to MLC costs, and alignment of the application portfolio with business plan priorities.

Opportunities to:

- Reduce available resources during peak processing for applications that do not have SLA requirements during that period
- Shift the scheduling of applications out of the R4H MLC peak, or possibly transfer the applications to an alternate platform to reduce the MLC costs
- Gather information to prepare software agreement negotiations or vendor software audits

The selection and implementation costs represent just a small fraction of the lifetime costs of an application, especially when that application will be in place for 10 years or more.

Gartner: Best Practices to Drive Cost Optimization in Application Support
Consider long term options like rationalization, optimization, or application platform placement to drive efficiencies.

3/ Build the cost optimization momentum by keeping your business stakeholders up to date

To maintain momentum for cost reduction and control, new opportunities for optimization must be identified. These cross-functional initiatives require keeping all stakeholders involved and informed. Communication and understanding are key elements of a successful long-term cost optimization project:

- Have the capability to easily create dashboards that are meaningful to each stakeholder and specialized for individual initiatives. Be able to automatically communicate updated dashboards at regular intervals.

- Implement a flexible solution. The initiative may change as it is planned and implemented. Having the ability to update views of information and dashboards easily to maintain timely communication will help keep the effort on track.

- Enable the live analysis of any abnormal mainframe resource consumption in a few clicks to take immediate fact-based actions to correct it and prevent its reoccurrence.

Part 3: Mainframe modernization with z/Trim Operations Analytics

Leveraging 45 years of mainframe expertise, RSD partnered with mainframe managers and mainframe performance analysis experts to develop z/Trim Operations Analytics.

Beyond the technical challenges and the commitment to the technology RSD focused on developing a tool that provides an easy to understand view of mainframe resource consumption to IT and business professionals.

Key principles that guided this development included:

- The solution should be intuitive for IT and non-IT stakeholders to use and understand.

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Optimization Tools

Applications are continually changed for business reasons, or to resolve bugs. Many application leaders pay very little attention to the performance of the application over time. It is not until the application begins to consume significant CPU time (MIPS on the mainframe) that the organization begins the complex undertaking of analyzing application performance.

Analyzing reams of performance data is normal for most mainframe developers and systems personnel. As legacy personnel begin to retire, however, new staff face the daunting challenge of understanding that data. Organizations are clamoring for more graphical methods of understanding their performance issues, which has spawned a vendor space in which there are few players.

RSD included in Gartner Research note:
Advancing Technology in Multiplatform Modernization Tools, Thomas Klinect, 9 August 2018*

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*Gartner, Advancing Technology in Multiplatform Modernization Tools, Thomas Klinect, 9 August 2018
Pricing will be simple and straight-forward to make acquisition easy.

The solution must be easy to install, and provide up-to-date data without contributing to MSU consumption.

z/Trim Operations Analytics – One click to view the impact on R4H of any application

300% ROI in 9 months
One-hour demo
One-day implementation

Source: RSD

Contact your market analyst to get some recommendation on how to start optimizing your mainframe consumption and accelerate your mainframe modernization!
Organizations are under tremendous pressure to reduce the cost and complexity of their application portfolios. We identify research that guides clients down a path to improve the health and agility of their application portfolios through rationalization and other cost-optimization techniques.

**Key Findings**

- Software companies are increasing the pace of audits to identify noncompliance and to help drive revenue.
- Rationalization of software maintenance is a good opportunity to create cost savings and reduce future risk.
- Organizations are increasingly focused on application rationalization as the way to reduce the long-term cost and complexity of their portfolios.
- Some organizations in regions or industries that are experiencing economic distress are under pressure to make more significant cuts.

**Recommendations**

- Application managers looking at cost optimization should:
Look at the possibility of radically changing how applications are supported and used to target more significant cost savings.

Treat all activities related to license compliance with the same level of rigor, and apply processes and controls. In all cases, software audits force you to share commercially sensitive and confidential data with a third party that sees this as a revenue-generation exercise.

Start the process of renewing your software maintenance contracts well in advance of the cancellation period to enable a full analysis of requirements and vendor quotations.

Begin an assessment of the application portfolio to identify rationalization opportunities that can reduce cost and increase agility.

Search for short-term application rationalization opportunities constantly as this is the only way to permanently bring down costs.

**Analysis**

Cost optimization in the age of digital business means organizations must use a mix of IT and business cost optimization for increased business performance, while preparing for digital futures (See Figure 1).

Many of the organizations that Gartner works with have an unbalanced perspective with respect to the application portfolio. They have a “project” mentality, in which most of their focus and energy are devoted to the next new thing, and they are not spending enough time planning and managing the life cycle of their existing application assets, or ensuring efficient cost optimization. This leads to poor choices during the design phase. In turn, these choices have a direct...
impact on the long-term total cost of ownership (TCO) when the applications transition into production. The selection and implementation costs represent just a small fraction of the lifetime costs of an application, especially when that application will be in place for 10 years or more.

Organizations also need to place focus on four areas for cost optimization in the application support phase of the life cycle. The first two are tactics that can yield near-term savings, and the third is a more strategic effort to address the long-term agility of the portfolio:

1. **Radical changes in use and support**: To significantly cut costs, organizations may need to take radical action. Over time, some applications become mature or less critical, and may not need as high a grade of support or operating environment.

2. **Software license compliance**: Organizations need to have good discipline when managing software licenses or subscriptions. There are real potential savings when organizations can avoid buying new licenses and just optimize current usage. It also helps to avoid the unbudgeted costs that can come from a vendor software audit.

3. **Software maintenance renewals**: Software vendors earn a large percentage of their revenue from ongoing maintenance, which is extremely profitable. As such, vendors focus heavily on securing maintenance renewals on their terms.

4. **Application rationalization**: This is not a short-term opportunity for immediate cost savings, but in fact, often requires substantial commitment and investment. Many application portfolios are so complex that the only path to long-term health and cost optimization is through rationalization.

This research is part of our IT cost optimization research. It is designed to highlight some key issues about application support, and provides links to some key research best practices to help optimize ongoing investment in applications.

**Radically Change How You Use and Support Applications**

If the organization is under intense pressure to make significant cost cuts, some more radical approaches may be in order. Some of these changes may require changing how applications are used and supported and may limit some options in the future or require a substantial payment to recover lost capability.

Many vendors have several tiers of support with differing service-level agreements. Carry out an analysis of how support is currently used to see whether you can reduce the level of support in any way. For example, you may be paying for 24/7 365-day support on a system that is only used Monday to Friday, 9 to 5. You may also find you have only raised one support call in the last five years.

The high cost and low perceived value of vendor-provided support have created an interest in third-party software maintenance. If an organization has a mature implementation of something like ERP and is not taking advantage of new features in upgrades, it may still need support for production problems and annual statutory changes for taxes or human resources, for example. Vendors of these services typically charge half of what the original developer of the package does, and sometimes even have better customer service. Under the right conditions, third-party maintenance can produce some dramatic savings in the IT budget.

Mainframes are a significant business cost for some organizations, and unmanaged use can rapidly
ratchet up MIPS charges over the years. Carefully looking at workloads and moving some testing and low-value applications to an alternate platform can bring down the cost.

Avoid Unexpected Costs From Software Audits

Software compliance activity is increasing in frequency. Software asset managers are challenged to manage software audits to minimize internal and external costs, as well as compliance exposure. Almost all vendor contracts include the right to audit, and it is important to check the audit rights set out in the contract before responding to any request.

Not all audits are, however, created equal, and it is important to understand the difference between them. Many Gartner clients have discovered that an “audit” request is, in fact, a proposal for a license or asset management optimization exercise, or even a request for voluntary self-audit. Self-audits and audits initiated by third parties can cause additional confusion and impact on resource overheads that software asset managers may struggle to manage without robust processes and careful planning.

Audits generally fall into four categories:

1. **Formal contractual audit**: In line with (and referencing) the contractual audit clause, which may be carried out by the vendor, by a third-party nominated by the vendor, or as a self-audit.

2. **License and asset management optimization**: An activity marketed as helping organizations to maximize the value they get from their software investment.

3. **Self-audit**: Where the client runs reports and provides data remotely to the vendor.

4. **Third-party-initiated audit**: Where a third party — such as BSA/The Software Alliance, Software & Information Industry Association (SIIA), the Federation Against Software Theft (FAST), or Investors in Software (IIS) — contacts the licensee to directly request an audit.

In all cases, audits should be carefully managed, and any request for data should be considered in relation to the scope of the audit, and managed in line with organization’s data classification and security policies.

The research below is targeted at helping organizations identify improvement opportunities and better manage an audit.

Manage Software Maintenance Costs to Avoid Long-Term Pain

The most profitable part of any software business is the annuity revenue often generated from maintenance contracts, and software vendors are laser-focused on maintaining or increasing that revenue. However, software maintenance renewal is a common affair in business, and is often viewed as a nonevent. When organizations receive payment requests and renewal notices for software support, maintenance and subscriptions, rarely is there a set of responsibilities clearly laid out or a process in place to check the requirement and validate the quotation. In many cases, invoices are simply processed by an order desk on the assumption that, if a budget is in place, the bill should be paid. Organizations often miss deadlines and opportunities to alter elements of the subscription or the support and maintenance schedule, or even to terminate unnecessary contracts. This creates missed opportunities for cost optimization and allows the vendors to drive the process.
Better collaboration between all stakeholders — from finance to the operational managers of the technology — can result in significant financial, commercial and operational benefits. Adherence to price caps can be enforced on renewal; cancellation penalties can be avoided by canceling with sufficient notice; and late-payment penalties can be averted by allowing sufficient time before the renewal date to agree on and raise payment paperwork. Software entitlement records can be validated and updated as part of the process, and the operational impact of late payments or erroneous cancellation can be avoided. Improved understanding of renewals can, in turn, lead to more-accurate budgeting and a clearer understanding of the value derived from the relationship with the vendor.

The research below offers some great guidance on how to better manage software maintenance renewals, with specific guidance for some vendors where the amounts in play are often very large.

**Identify Opportunities for Application Rationalization**

Many organizations approach a cost-optimization exercise under severe duress. They have an urgent mandate to cut short-term spending — which they can accomplish through canceling or deferring projects, optimizing license or maintenance costs, or consolidating infrastructure. These efforts can have a significant short-term payback, but often suffer from the law of diminishing returns. After several short-term cuts, the organization struggles to find the savings necessary as it is already running very lean. In essence, the organization has hit a wall (see Figure 2).

Many organizations Gartner speaks with have hit that wall and are looking at alternative means to reduce the cost and complexity of managing their application portfolios. For most, that path is to kick off an application rationalization program designed to reduce the long-term cost and complexity of the application portfolio.

This program includes the following steps:

- Identify applications that can be retired, and then implement a project to do so.
- Identify redundancy where multiple applications are serving the same purpose, and develop a path to consolidate and reduce their number and cost.
- Identify applications that are on aging technology, yet still deliver important business capabilities. The goal here is to modernize to a more robust and stable platform to reduce the risk of business disruption.
- Identify heavily customized applications that have a high cost to maintain, and initiate an effort to simplify that complexity to reduce costs over time.

Unlike many of the techniques highlighted in Figure 2, these are not short-term cost-saving opportunities, and actually require investment (perhaps significant) to execute and reap the benefits. So having a longer-term mindset is key when embracing portfolio rationalization.

Ultimately, it’s not an either/or option. Companies should continually look for those short-term cost savings opportunities. At the same time, they should begin an assessment of the application inventory and portfolio to identify rationalization opportunities that can reduce cost and increase agility. The Recommended Research in this section identifies some key best practices for rationalization and provides some tangible tools to help with the assessment.
Figure 2. Opportunities for Cost Optimization

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<tr>
<th>Business Process and Business Information</th>
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<tbody>
<tr>
<td>Application Rationalization</td>
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<td>Cost-Cutting Wall</td>
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<tr>
<td>IT Staffing or Sourcing Alignment</td>
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<td>IT Process Refinement</td>
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<td>Infrastructure &quot;Cleanup&quot;</td>
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<td>IT Asset Management (Inventory)</td>
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<td>Project Rationalization</td>
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<td>Vendor and Contract Management</td>
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Source: Gartner (February 2016)
About RSD

Headquartered in Geneva, with offices in the US and in Asia, RSD develops and sells enterprise-grade software solutions to help its customers to make a change in the way they use and manage their hybrid IT environment.

Built upon 45 years of expertise, innovation and the highest professional standards, RSD’s offerings, enable customers to optimize their IT resources whether on mainframe or open systems and reduce their operating costs thanks to a flexible and breakthrough licensing model.

RSD has built a strong and loyal customer base of Fortune 2000 companies with millions of users worldwide. RSD offerings are available around the globe – both directly and through business partners.

Please visit www.rsd.com or contact us at info@rsd.com for more information.