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# An Integrated Approach to Legacy IT Modernization

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# An Integrated Approach

Today, many organizations are faced with the dilemma of running business-critical applications on aging mainframe systems – systems that not only lack agility and the ability to change, but that are also extremely expensive to maintain. Studies indicate that most businesses running on mainframes spend between 75 and 80 percent of their total IT budget just on the maintenance of these legacy systems, leaving only a fraction of the budget for innovation.

As legacy systems continue to age, support becomes more and more challenging. The skilled IT staff who built their careers on these earlier systems are retiring from the workforce, while the remaining staff are trained on newer applications, not on yesterday's "Golden Oldies." Relatively few colleges and universities offer mainframe courses, signaling both the end of an era *and* the potential for a support crisis. At the same time, as software is sunset, this leaves companies with the potential of losing vendor support and/or increasing their support costs.

*So, what is the solution?*

## Breathing New Life Into the Legacy

The industry is moving to Legacy IT Modernization (LIM) as an alternative to costly and risky maintenance of outdated technology platforms. By definition, Legacy IT Modernization is a strategy that extends the ROI of existing applications by leveraging an organization's current systems and applications. With proven business logic, LIM can extend legacy IT investments with cost-effective alternatives – including migrating systems to new platforms, transforming systems to address new requirements and extending them with new technologies. This end-to-end approach bridges the old to the new, increasing efficiency and significantly reducing maintenance costs.

LIM entered prominence around 2002. Until that time, mainframes were the only option for the more complex systems. Today, UNIX and Linux platforms have caught up. Smaller servers can replicate legacy mainframe application performance, usually providing the same end-user functions less expensively. Major software manufacturers are investing in modernizing more of their critical applications to run on multiple platforms: UNIX, Wintel and Linux.

Modernizing yesterday's systems to support today's needs costs a fraction of what it would to implement a completely new system. Industry statistics show that a well-executed LIM can deliver a 20 to 40 percent reduction in costs by using less-expensive hardware and integrated software, as well as by drawing from a larger talent pool.

This is not to say that the modernization process is easy. The key to success is choosing a partner who understands the challenges ahead, from dealing with the complexities of the specific legacy environment to managing the cultural change that is inevitable when moving from the legacy platform. Just as important, that partner must provide a comprehensive solution with individualized options, tailored to each client's unique challenges and goals.

## What Are the Options?

**Legacy Modernization** is not a "one size fits all" proposition. Companies have the opportunity to choose the approach that best suits their specific needs and timeframes. The three most prominent types of solutions are: Mainframe Rehosting, Commercial Off-the-Shelf Implementations and Applications Modernization.

Mainframe Rehosting provides the quickest path to modernization, along with the fastest ROI. This "lift and shift" solution involves migrating existing mainframe applications written in COBOL and similar legacy languages to UNIX or Linux platforms, all while delivering equal or greater performance. Not only does this solution usually carry the lowest cost with the lowest risk, but it also provides an immediate return by quickly eliminating traditional mainframe hosting costs. Equally important is that the transition is transparent to the end users. The application's look, feel and function remain the same, so no user training is required. Mainframe Rehosting is a strong option for companies that need rapid results. A typical rehosting project can be completed in one year, with cost benefits and efficiencies to follow.

In one case, this type of solution was applied to a pharmacy benefits management application, which ran on two mainframes, used in more than a dozen states. By migrating this application to a single Micro Focus enterprise server, the total cost of ownership per pharmacy client was reduced by 70 percent over a four-year period, from \$1.4 million to \$400,000. At the same time, system throughput increased from 6,180 claims per hour to 23,580 claims per hour. Labor costs were reduced by 30 percent, while maintaining the sub-second patient-to-pharmacy response time required. Other similar rehosting opportunities have delivered comparable results.

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For other situations, replacing legacy applications with a **Commercial Off-the-Shelf Solution (COTS)** that runs on UNIX or Linux can be the better option. This application modernization can improve business functionality, often employing more global, corporate functions not available in the older system. With pre-established product life cycles and simplified software maintenance, this option is ideal for non-core commodity functions, such as finance or customer relationship management. Because this modernization involves new applications, user training and process optimization are vital parts of the transition.

The third LIM solution is for companies that want to transform their legacy applications into Web-based applications. In this case, ACS offers **Applications Modernization**, which involves rewriting the legacy applications. After a detailed analysis of an organization's mission-specific business rules, ranging from enterprise requirements to workflow, we use a state-of-the-art toolset to convert existing legacy code to run in a Java or .NET environment, retaining the existing business rules and even incorporating new rules that have been adopted by the organization since that legacy code was written.

This alternative provides the opportunity for a significant applications upgrade by enabling Web-based functionality, extending these core applications to new technologies. It also allows companies to modernize incrementally, updating in stages to better manage the changes. Using this solution, ROI is achieved through increased productivity gains. At the same time, companies create a more agile, flexible IT enterprise that can rapidly respond to a changing marketplace.

Choosing the right path to modernization is not a canned proposition. These three LIM solutions – Mainframe Rehosting, Commercial Off-the-Shelf Solutions and Applications Modernization – can be combined to develop a unique solution that is the right fit for any situation.

Equally important is choosing a solution provider that has broad experience in system migration and business process management. This combination of experience mitigates risk and ensures that each transaction delivers maximum value.

## Positioning for a Competitive Future

Today, CIOs face tremendous challenges, operating in a world of rapidly changing technology, increasing performance demands and decreasing IT budgets. The key is bringing these company systems in line with specific business goals. Since 1988, ACS has performed critical applications support for hundreds of high-profile clients, resulting in fundamental service, performance and quality improvements, not to mention considerable savings. We have successfully migrated hundreds of systems from one platform to another and from one data center to another, with little or no interruption in service. With our combination of experience and strong partnerships with leaders in the rehosting industry, ACS is uniquely positioned to move your company's applications into the 21st century.

You can learn more about us at [www.acs-inc.com](http://www.acs-inc.com).

### About the Author

Rex Shelton is Vice President of ACS's ITO Application Development Management Solutions (ADM) organization. In this capacity he is responsible for the Legacy Modernization Center of Excellence (COE) and applications outsourcing business, which includes application development, management and maintenance. During his tenure, he has assumed senior ITO leadership roles in improving and expanding ACS's ITO and BPO client services, building strategic alliances and implementing standard processes and tools across the ACS organization.

ACS's ITO Solutions Group serves thousands of clients around the world in industries including communications, education, energy, financial services, healthcare, insurance, manufacturing, retail, and transportation and travel.

