

# 5 reasons to rehost your mainframe

How well does your mainframe meet increasing and ever-changing demands for new business applications and processes, digital transformation, innovation and reduced costs?

**Your mainframe has supported the major events in your enterprise for years. However, maintaining, fixing and patching it to meet today's agile workload demands can quickly drain your core business systems and resources while having a major impact on software and application performance. You know you need to do something, because doing nothing will leave you vulnerable to more nimble competitors with modern systems and processes.**

Several solutions to these issues are available: incremental replacement, a new front-end (user interface), a complete rewrite and rehosting. The front-end and replacement options simply prolong the life of your mainframe without addressing business challenges. Eventually, there will be a return to square one as snazzy-looking user interfaces churn away but don't deliver data. You also risk a disconnect between the replaced components and those that haven't been updated.

That leaves the options of rewriting or rehosting. Rewriting is doable, but it's a full-scale reengineering effort that includes rearchitecting for database and application tiers. By contrast, rehosting moves existing mainframe applications unchanged to a modern open system, such as an x86 environment on premises or in the cloud.

# 1

## Rehosting your mainframe is fast and practically risk-free

A quick search of “mainframe rewrite risks” results in numerous articles that say that it’s [the riskiest solution](#). Developed business logic needs to be completely redeveloped and databases need to be translated, so that increases the margin for error, not to mention the need for testing. All of that involves a significant amount of programming resources and effort, and it can take years. There will be business disruption and issues with the mainframe during the rewrite process. If a mainframe has been in operation for a quarter of a century or more (and most have), an overhaul of this magnitude can have a major negative impact on the business, and there is no assurance that the rewrite will even be successful.

Rehosting is much less risky than rewriting. The process simply moves the mainframe as-is to open systems where it provides services equivalent to those of the mainframe. Less time is lost, because the process can take as little as nine months instead of three to five years. More importantly, there are no changes to the underlying business logic or user interface and no negative impact on the enterprise. It requires minimal training, and the system operates exactly the same.

For example, [Kela, a European government agency](#), reports that rehosting its mainframe had no negative impacts on its business. This was critical to Kela because its Customer Information Control System programs process high volumes of online transactions. Moving smoothly into the new environment meant that citizens could continue to access Kela’s web services and their benefits.

# 2

## Rehosting your mainframe helps fund innovation by dramatically reducing costs

A mainframe rewrite is expensive on so many levels (infrastructure, resources, time, effort and spend) and is not guaranteed to lower costs over the long term. It’s estimated that the expenses of maintaining a mainframe can run in the millions annually for large firms, and that’s before factoring in the costs of redeveloping, rearchitecting, translating, testing and so on. For example, 10 years ago, according to [Capers Jones](#), the cost of rewriting just one mainframe program could be as high as \$495,000. Basically, massive investment is going into maintaining and rewriting. Little is left over for innovation.

Rehosting, on the other hand, has been proven to dramatically reduce infrastructure and operating costs. These funds then can be reallocated to innovation, such as gradually rewriting legacy apps so they are more flexible, reusable and able to deliver new ways of exploiting data. [GE Capital](#) is an excellent example. After it rehosted its mainframe environment, the costs of running its portfolio management system fell by 66%. However, GE Capital’s Executive Director of Application Management says the biggest benefit of moving to a platform that integrated easily with the rest of the business was the innovation it enabled. In addition, Markku Suominen, ICT Director of Kela, says that when their rehosting is complete, “This will take our costs down considerably, from around €8 million a year today to €2 million. That enables us to take some of that money that we save, to make it into the change budget.”

# 3

## Rehosting your mainframe opens the door to modernization

Investment in maintaining legacy UNIX, mainframes and other proprietary systems is at historically low levels. Quite frankly, they are just not in high demand. And companies looking over their balance sheets and trying to reduce capital expenditures are not willing to invest in new ones or major upgrades. One of the main reasons for this, besides cost, is that their proprietary architecture and infrastructure are not designed for all the business changes brought about by big data, IoT, streaming, artificial intelligence, voice recognition and the cloud.

By contrast, rehosting allows for a fast, flexible foundation for quickly responding to market change and future integration requirements. Open operating systems with multiple database and utilities options offer more opportunities for modernizing your legacy software because they can integrate with newer technology. Organizations can quickly take advantage of new, flexible technology such as reusable components, microservices and containers that can improve strategic services across all areas of the business. The mainframe gets a new lease on life, and companies, customers and employees can benefit from up-to-date, nimble and responsive applications.

GE Capital is one company that benefited. “Our platform now supports all the growth and innovation that the rest of our business wants. All the new applications can move forward with what they want to do, now that we are in a relational database. I can make that data available and I can make it SOA enabled,” says Mark Rubel, Executive Director, Application Development.

# 4

## You can rehost your mainframe with the resources and skills you currently have

A mainframe rewrite or reengineering project is likely to require additional resources who are skilled in the modern languages, technology and coding required to meet the demands of a disruptive business landscape. The process requires replacing hundreds of complex COBOL or PL/I applications, each of which can be 20,000 lines of code long, with applications written in languages like Java, Ruby, PHP and a host of new technology for mobile. And that’s just the source code portion; there will be rearchitecting, database work and more. Because businesses who rely on mainframes have COBOL and other experts in IT, the overhead for the project can get out of control as the different groups work to make the rewrite happen—all with no guarantees of success.

With rehosting, IT departments can take advantage of their existing skilled mainframe resources as well as those of open systems and modern technology teams. In fact, Kela reported that they were able to rehost their mainframe without adding even one additional resource. Eventually, business needs for more modern applications will require the services of developers versed in the technology needed to deliver them, but you can integrate them into your teams over time and put their skills to much better use than rewriting source code.

# 5

Great performance and reliability enable users to get the best experience

Customers and employees expect a super-fast, highly personalized experience that resembles what they get on their mobile devices. But, stopgap maintenance measures, workarounds, patches and the spaghetti architecture associated with an aging mainframe affect processing and performance. No matter how available the mainframe and systems are, when data is inaccessible or it takes a long time, frustration levels rise.

Rehosting ends the frustration of slow or no response. It delivers a secure, high-performance, and flexible environment that dynamically scales based on business demand so that your end users experience maximum service and reliability even during peak processing. Rehosting can even transform user experiences and unlock the value of your mainframe apps by exposing those apps to web services for mobile and digital applications.

Samsung Insurance, for example, says that since they rehosted their mainframe, online response time improved an average of one second, and application error rates dropped significantly. In the event of a system failure, database recovery can be completed within two hours. Overall system security improved with the implementation of a standard Public Key Infrastructure (PKI) system.

## Want More Reasons for Rehosting?

For more details on the cons of doing nothing, why upgrading is merely “kicking the can down the road,” the risk of rewriting source code, and the solution best able to give you benefits of a re-write with reduced cost and risk, [check out this eBook](#).

