

Why mainframe migration is a powerful solution for the energy industry

Is your energy company feeling the pressure to upgrade aging infrastructure, digitize, and shield your operations against natural disasters and cyberattacks? Are renewable energy providers luring away your customers? How are you balancing demands for smart meters and other devices, greater customer control of energy usage, IoT systems, and streamlined field technician applications with the need to maintain the mainframe running your core business systems?

The industrial internet of things (IIoT), digital twinning, technology-savvy consumers, renewables, and the demand for cleaner energy (and in some cases, environmental protection rollbacks) have resulted in new roadblocks in the energy sector. Digital transformation offers a way forward, a fact that is recognized by many in the energy sector. A recent Deloitte report states that 95 percent of energy executives have declared that digital transformation is a top strategic priority.

So, what's holding them back? In many cases, it's computing and network scale. Providing digital services, using digital twins, automating predictive asset maintenance and making use of other digital innovations means a dramatic increase in network and computing bandwidth, which can strain company infrastructure. The result can be periods of downtime or even business disruption. To avoid performance issues that could harm business and potentially shut down parts of the grid or halt services, energy companies need to shore up their infrastructure and prepare for short-term rapid increases in processing.



The barriers to digital transformation in energy

According to a 2020 Deloitte report on the energy industry, many energy companies want to explore new business models to address new technologies, evolving customer preferences, and the changing competitive landscape.¹ Unlike a decade ago, many energy companies have realized the importance of boosting decarbonization commitments and efforts. They also want to take advantage of technology to intensify and bring new opportunities for customer engagement and growth.

If your energy company is like most, it's been around for years, or even generations. Over the decades, you've probably invested millions of dollars in legacy IT systems, all of which are affecting business agility. And the biggest gobbler of your budget is the mainframe—the home of those core legacy systems. According to a report from Computer Economics, although energy companies spend more of their IT budget on business applications than companies in other industries, they have high network and computer maintenance costs.²

Maintaining an aging mainframe is a major contributor to high IT spend. Maintaining, fixing, and patching your mainframe to meet digital expectations and handle the heavy workload created by IIoT, simulations, smart applications, and metering can quickly drain your resources. Not to mention the major impact it has on the performance of your systems and on field and customer experiences. Decades of legacy system accumulation has woven a tangled web of interdependencies that can make data standardization and migration difficult, labor-intensive, and expensive.



Mainframe migration to the rescue

OpenFrame from TmaxSoft moves your legacy business systems from a mainframe environment to a more modern, open platform. The result is the cost savings and the greater flexibility needed to drive and deliver applications and analytics driven by IIoT, simulation, transaction processing, visualization, and smart metering.

Mainframe migration lets you take your existing mainframe assets and move them to the cloud or on premises quickly and with minimal risk. Your applications work as-is on an open system such as Linux. Underlying business logic does not change. Your business and the measures you have in place to address regulatory compliance and changes in data security are not impacted. Training is minimal. Because the system is open, it integrates with the IIoT, simulation, predictive analytics and other new technology required to deliver energy cost-effectively to customers.



What does mainframe migration offer energy providers?

If you choose to migrate your mainframe, your energy firm will benefit from:

- Infrastructure designed for the agility needed for digital transformation
- Freedom from legacy systems that prevent superior customer experiences
- Average deployments of 6 to 12 months – ensuring a very rapid ROI
- Supports COBOL, Assembler, PL/I, Easytrieve and more legacy technologies
- Deploys on AWS, Microsoft Azure and Google Cloud environments
- Allows for significant reduction in annual run costs for increased investment in innovation
- Enables horizontal and vertical scalability to deliver extremely high performance
- Uses your existing workforce and skillsets
- No change to the end-user experience or application business logic
- Supports both containers and virtualized environments
- Modernizes from a monolithic mainframe to a multi-tiered cloud-ready architecture

USE CASE

Major energy provider migrates mainframe with TmaxSoft OpenFrame

BENEFITS

- Annual run costs decreased by 70%
- High performance similar to that of mainframe
- Significant decrease in application footprint
- New migrated platform supports growth and innovation



What is needed to reduce or eliminate your mainframe footprint?

Partial migration: Reduce or re-platform peak MIPS

If you anticipate keeping your mainframe running for several years, OpenFrame can be a great solution to offload a portion of your batch or online applications to help reduce your peak MIPS and reduce your overall mainframe run costs.

Mainframe Replacement: Move all workloads to a distributed environment

OpenFrame can fully support the move of all your legacy technologies to the public or private cloud. Completely eliminate your z/OS environment and take full advantage of the flexibility and benefits that an open system/cloud environment can deliver.

Want More Reasons for Migration?

For more details on the benefits and drawbacks of upgrading, rewriting and migration, [check out this eBook](#).



- 1 "2020 Power and Utilities Industry Outlook," Deloitte. 2020. <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/energy-resources/us-2020-outlook-pu.pdf>
- 2 Applications Drive IT Spending in Utility Sector, Computer Economics, 2020. <https://www.computereconomics.com/article.cfm?id=1737>