

## CASE STUDY

GE Capital reduces costs by 66% and improves agility by rehosting its mainframe with OpenFrame





**GE Capital** is the financial services unit of the global conglomerate General Electric. It provides commercial lending and leasing, as well as a range of financial services for consumers. Most of GE Capital's commercial loans are to small and midsize companies, spread across multiple industries and geographies, and secured by tangible assets. GE Capital's consumer lending activities are also diversified by product and geography and include operations in 55 countries.



CUSTOMER NAME

GE Capital

INDUSTRY

Financial  
Services

#### CHALLENGES

- Need to reduce risk for GE Capital's PMS system and improve agility
- Aging legacy mainframe hardware
- High maintenance and procurement costs
- Excessive complexity slowing GE Capital's ability to innovate

#### TMAXSOFT SOLUTION

### OpenFrame and associated components

#### RESULTS

- A smooth rehosting service onto a more reliable, flexible and automated platform with no requirement to redevelop or modify applications
- Annual maintenance costs reduced by 66%
- Reduced PMS application suite code from 71 million lines to only 16 million
- Improved employee user experience and greater agility
- Established the foundation for building the next generation PMS system on SOA-based architecture

## The challenge

GE Capital was looking to move its Portfolio Management System (PMS) suite of applications from ADS/O and COBOL/IDMS running on a mainframe, to COBOL running with Oracle on Unix without changing the user interface in the process. PMS was built by GE Capital in 1987 and began its life as a 20,000 account schedule system without any interfaces.

As with most homegrown systems, it was built out of necessity and to serve the business as it existed at the time. Over the decades, this small system grew in size and complexity to become the central nervous system of both GE Capital's direct and indirect business units comprised of four highly customized implementations.

With over five million account schedules, 382 interfaces, 1,700 concurrent users, and 3.5 million transactions per day running against 71 million lines of code, the PMS system had come a long way from its humble roots.

However, using such a legacy system to support GE Capital's whole business was incredibly risky; if PMS went down, the business went with it. "PMS is the sun in the universe of the GE Capital leasing business. This is a system that if it goes down, we are out of business at a very expensive cost," explained Marc Rubel, Executive Director of Application Development at GE Capital.



## The solution

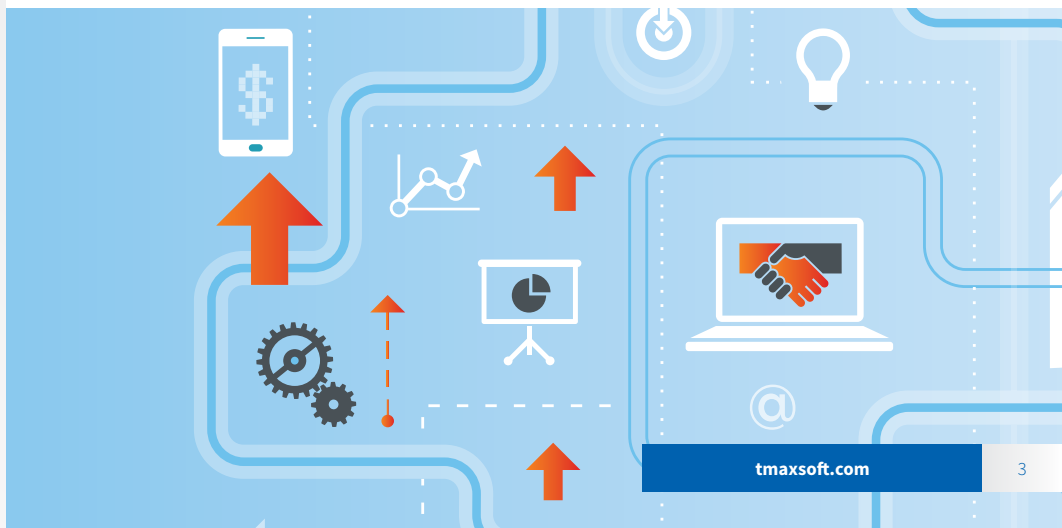
To tackle this project, GE Capital selected TmaxSoft to deliver the solution. TmaxSoft worked with its partner ATERAS, which merged with Blue Phoenix in 2014 and is now named Modern Systems, for the IDMS to CICS conversion work, and used its OpenFrame solution for rehosting the converted applications on Unix.

OpenFrame is TmaxSoft's complete mainframe rehosting solution that moves mainframe applications into a multi-tiered, x86 environment. For GE Capital, OpenFrame provided various components to emulate the functionality of the different sections of the mainframe (CICS COBOL emulation, batch processing, etc.) and was the ultimate landing place for the new open systems environment hosting the PMS suite of applications.

GE Capital chose to test drive the TmaxSoft and Modern Systems technologies through a proof of concept. "We spent a very little amount of time and money," recalled Marc Rubel. "And we completed a proof of concept within a month. We converted a small amount

of code and we really wanted to see what the compile and promote process inside of OpenFrame looked like." To the delight of Rubel and his team, the proof of concept on OpenFrame demonstrated that the target code was well-formed and easily maintainable, and the IDMS database converted as they expected with no surprises.

The modernization of GE Capital's PMS application suite and the data that drove it with OpenFrame took around a year to complete. The 71 million lines-of-code system moved from an ancient mainframe environment to a modern and open Unix environment with astonishing results. GE Capital's annual run cost for the PMS system and related applications fell by 66%, the time it took for PMS to recover from disaster decreased by 240%, and the overall application footprint shrunk by 78%. While the cost savings were enormous, the most positive result for Rubel was moving to a platform that integrated easily with the rest of the business that supported growth and innovation.





“ One of my systems analysts was attempting to help one of our users with a data problem. He searched high and low, driving himself crazy trying to find it. After a number of screen shares and troubleshooting steps, he realized that while he thought he was on the mainframe looking for this data, he was actually on the newly re-platformed Unix environment. In other words, even my most senior guys, the guys who designed and built the original setup, couldn't tell the difference between that and OpenFrame! ”

Marc Rubel

**Executive Director of  
Application Development  
GE Capital**



TmaxSoft is a global software innovator focused on data management, middleware and mainframe modernization, with solutions that offer enterprise CIOs viable alternatives to support their global IT powerhouses and drive competitive advantage. TmaxSoft has based its growth on a strong foundation of research and development, along with a sustained commitment to innovation. Today, we are working with over 2,000 customers around the world.

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**Tibero** is the best enterprise RDBMS for the Virtual Data Center. Our licensing model allows enterprises to fully maximize their virtualization investment by only licensing the cores associated to a given VM, resulting in drastically lower TCO.

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**OpenFrame** is a legacy rehosting solution that enables mainframe applications, resources and data to be migrated to a less expensive, high performance open system while reducing TCO, and minimizing risk of migration, all in very short timeframes.

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**JEUS** is the first Web Application Server in the world to be J2EE 1.4, JAVA EE 5 and JAVA EE 6 Certified, and can deliver improved security over traditional WAS.

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**TmaxSoft was founded in 1997 and today, we have over 1,000 employees in 20 strategic Centers around the world.**



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