INTRODUCTION

Many organizations worldwide still run their businesses on mainframe applications. They have made tremendous investments in proprietary infrastructure and custom applications but innovating on these platforms in order to meet business demands has become extremely difficult. These organizations want to migrate to open-source solutions but are concerned about the risks of migration and operation while maintaining their requirements for reliability, availability, security and serviceability.

The LzLabs Software Defined Mainframe (SDM) has been designed to address these concerns. This specialized software container provides a viable way to deploy mainframe applications on x86 computing solutions, running Red Hat® Enterprise Linux®, on-premises or in a cloud environment. This software solution provides functionally-equivalent behavior of the primary online, batch and data environments, enabling compatibility and exceptional performance, while dramatically reducing IT costs and migration risks.

LzLabs Software Defined Mainframe

Software Defined Mainframe is a specialized software container technology that provides the capabilities for mainframe applications to execute on open systems, with no requirement for recompilation or conversion of data types. SDM provides a runtime environment that supports the necessary functionally-equivalent subsystem application programming interface (APIs) to enable transparent execution of the binary representations of these programs and data.

LzLabs has developed SDM to run customer applications on alternatives to mainframe platforms, alternatives that leverage the power of open-source, x86 platforms or cloud deployment models. This approach enables agile development and maintenance through containerization, greater horizontal scaling, simpler analysis of (formerly locked) data and distributed database functionality. Through the power of open-source innovation, it also enables the SDM to meet all the reliability availability and serviceability (RAS) characteristics of the mainframe.

Figure 1. LzLabs Software Defined Mainframe architecture
ABOUT RED HAT

Red Hat is the world’s leading provider of open source software solutions, using a community-powered approach to provide reliable and high-performing cloud, Linux, middleware, storage, and virtualization technologies. Red Hat also offers award-winning support, training, and consulting services. As a connective hub in a global network of enterprises, partners, and open source communities, Red Hat helps create relevant, innovative technologies that liberate resources for growth and prepare customers for the future of IT.

FEATURED RED HAT PRODUCTS

To support the modernization journey of customer applications to open environments, the SDM integrates a number of Red Hat technologies. The SDM runs on:

- **Red Hat Enterprise Linux** is a stable, proven foundation that is versatile enough for rolling out new applications, virtualizing environments, and creating a secure hybrid cloud—all backed by Red Hat support.

- **Red Hat OpenShift Container Platform** is a multitenant container orchestration platform built on Kubernetes with fully integrated software life-cycle management, persistent storage configuration, and application routing.

- **Red Hat OpenStack Platform** is a cloud computing platform that virtualizes resources from industry-standard hardware, organizes those resources into clouds, and manages them so users can access what they need when they need it.

- **Red Hat Ceph Storage** is an open, scalable storage solution for modern workloads like cloud infrastructure, data analytics, media repositories, and backup and restore systems.

CONCLUSION

For most organizations, modernization is a journey they know they need to make. The LzLabs Software Defined Mainframe solution provides the key to unlock your legacy applications for that journey.

- Safeguards the significant investment organizations have in their mainframe applications and data by not having to rewrite or recompile applications.

- Increases performance and reduces costs by utilizing modern, industry-standard x86 servers.

- Provides a higher level of agility and flexibility than proprietary mainframe platforms.

- Reduces risk and costs, by greatly reducing the organizations’ dependency on a shrinking mainframe skill set.

NEXT STEPS

For more information about our solution and how we can help you reach your business goals please visit [http://www.lzlabs.com/our-solution/](http://www.lzlabs.com/our-solution/) or contact us at info@lzlabs.com.

ABOUT LZLABS

LzLabs GmbH is a software company that develops innovative solutions for enterprise computing customers including the LzLabs Software Defined Mainframe. The company was founded in 2011 and is headquartered in Zürich, Switzerland. LzLabs’ offices in Switzerland and the UK are home to highly-experienced mainframe experts and modern IT thought leaders from across the globe.