How Do I Drive Digital Transformation With Mainframe as a Cloud Service?

Optimize your existing IT infrastructure and digitally transform your business.

Now you can experience the best of both worlds–the benefits of the "superpower" mainframe and the open source cloud—in one easy place.

Executive Summary

Challenge

In the application economy, every company is a software company. The journey to becoming a digital enterprise requires both optimizing your existing IT infrastructure and transforming your business to be a more agile, modern software factory. For many companies, the mainframe continues to be an integral part of their IT infrastructure, and the key to success in digital transformation. But how can you get from where you are today to where you want to go?

Opportunity

The path to creating a cloud-enabled mainframe environment now exists. Optimize your mainframe environment using cloud-based deployment models. Transform your business by leveraging the assets you have on your mainframe, such as data and applications, in an open, secure, compliant, intelligent way. To that end, CA Technologies and IBM® have teamed up to deliver the industry's first truly viable option for mainframe services in the cloud.

Benefits

The modern enterprise must harness both the intrinsic powers of the mainframe platform, for secure, reliable and scalable computing, and the ease and agility of cloud deployment. Together, IBM and CA Technologies are architecting ways to help customers develop, run and manage mainframe applications in the cloud, thereby encouraging cross-company collaboration. These platform services will allow companies to simplify IT management and reduce total cost of ownership (TCO), insure against staff attrition, manage data security and compliance policies, and enable developer agility and productivity on mission-essential applications—ultimately propelling your business forward.

SECTION 1: CHALLENGE

How Do I Drive Digital Transformation?

In the application economy, every company is a software company. The journey to becoming a digital enterprise requires both optimizing your existing IT infrastructure and transforming your business to be a more agile, modern software factory. For many companies, the mainframe continues to be an integral part of their IT infrastructure, and the key to success in digital transformation. But how can you get from where you are today to where you want to go? And more importantly how do you remove the barriers to success specific to the mainframe?

Typically, organizations face three key challenges:

- **Optimizing their mainframe** environment to remove the risk of staffing gaps—which are on the rise— and improve shaky economics
- **Transforming their mainframe** environment by opening up access to data and applications
- **Keeping up with the demands** in the market for ever-increasing speed of innovation and application delivery

CA Technologies developed mainframe services compatible with the zCloud environment in order to extend our offerings to customers working in hybrid IT infrastructures, to better enable cross-functional teams to work together, and to increase access to the mainframe for next-gen developers. The ultimate goal: accelerate digital transformation.

SECTION 2: OPPORTUNITY

The Solution: Mainframe as a Cloud Service

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What is the zCloud?

IBM Cloud Managed Services on z Systems® enables you to run mission-essential workloads in a cloud environment and gain access to the latest mainframe technology and expertise while shifting from a capital-expense to an operating-expense model. By delivering a security-rich, scalable, multi-tenant mainframe environment running in a purpose-built IBM data center, IBM Cloud Managed Services on z Systems enables IT and line-of-business leaders to gain the agility they need to respond to dynamically evolving technology and business needs.

What can you do in the zCloud?

Simplify IT management and reduce TCO

Simplify your IT operations by moving into an off-premises and cloud-based setup that offloads some of the core IT functions, such as SLA management, and focus on mainframe management from your business. With the platform featuring a multi-tenant infrastructure with all required software, servers and tape, there are other benefits, as well. Backup, failover, and software currency is managed as part of the platform, and software redundancy is significantly reduced, saving costs. And 24/7 support helps ensure that your key business operations are always running.

The move from a capex to an opex model can reduce initial outlays for new services. With pay-as-you-go pricing, you get more control over managing your total cost of ownership in the future.

Protect your ongoing operations from staff attrition

One of the key concerns in a mainframe environment tends to be staff support as the first generation of mainframe system administrators and programmers reach retirement age. With the zCloud, you'll access a world-class talent pool to provide for your success and the continuation of best practices in mainframe management, optimization and automation.

Manage security and compliance policies

With 70 percent of corporate data sitting in mainframes[1], and the ever-present need to comply with incoming regulations, such as GDPR, which affects any company operating in the EU, including U.S. customers, the need to understand your data is critical. This becomes even more important as data moves into a cloud environment, and as some of your data expertise and documentation moves with it. The zCloud enables the industry's first data discovery solution for mainframe data, CA Data Content Discovery. With this solution, you can mitigate the risk of sensitive data being lost or hidden on the mainframe, including data that was poorly documented or ended up copied to various locations for testing purposes. The solution finds, classifies and protects mainframe data, based on pre-loaded sensitivity levels. Typically, clients find that this scan can, in a matter of hours, find what might have otherwise remained hidden, or taken longer to find through conventional data mining.

Enable developer agility and productivity

Organizations often have mission-critical applications that require maintenance and continued access to mainframe data and transactions. In fact, 78 percent of customers are growing MIPS (a measure of usage), 1.3 billion CICS transactions are processed every second, and there is a staggering $198.5 million opportunity in incremental revenue associated with a connected mainframe that is tied into the rest of your business.[2]

The zCloud gives you the ability to achieve greater developer agility and productivity with CA Brightside, the first solution for mainframe that allows teams to control, script and build for the mainframe like any other cloud platform using familiar open source tools. This allows developers and testers to use tools they are familiar with to build and test code, and for DevOps engineers to build and automate a CI/CD pipeline—from cloud to mainframe—and institute a near "zero touch" environment for frictionless development cycles.

The zCloud also gives you the speed to reduce testing cycles with testing virtualization using CA Service Virtualization. With this platform, customers can take advantage of game-changing virtualization capabilities, which provide a cost-effective alternative to dedicated logical partitions (LPARs); support parallel and agile development processes on the mainframe by virtualizing components; and establish strong controls with automated self-service test data management capabilities.

Improve application uptime and performance

Leveraging data for better platform management and optimized performance, faster incident recovery and clearer insights into your data systems are an integral part of your business' success. After all, what's the point of collecting all that data if you can't use it? The zCloud, together with CA Mainframe Operational Intelligence, gives you just that—a window into your operational data. Take action earlier using embedded analytics to detect abnormal patterns. Collaborate cross-enterprise to isolate root causes with data insights from multiple sources. Capture patterns and trigger automated and reliable problem remediation. Apply machine learning with operational feedback to make recommendations. With the right platform and the right software solutions, you can more effectively manage and leverage your data—for the good of the enterprise.

SECTION 3: BENEFITS

Achieve Optimization and Transformation

What can you achieve with a hybrid cloud model?

In a recent case study, a government customer estimated a 40 percent reduction in TCO and a five-times processing time improvement.[3] In addition, the customer now has a system with organizational resiliency, due to the:

- Flexibility of the cost model, which adjusts to platform demands

- Improved mainframe skills management

- Performance-optimized environment without the capex risk

When you move to a mainframe as a service environment, you can significantly reduce costs by eliminating expensive hardware and software upgrade and maintenance fees while transitioning to a more predictable operating-expense model. Based on previous client engagements, IBM estimates that you can reduce your total software maintenance costs by up to 30 percent.

This partnership is a true exemplar of the saying "The whole is greater than the sum of its parts."

By adding cloud accessibility, intelligent services through machine learning and modern compliance and data protection services, CA Technologies, together with IBM, is delivering customers a true path to drive digital transformation on the mainframe.

SECTION 4

The CA Technologies and IBM Advantage

IBM possesses deep mainframe and data center management expertise, with more than 35 years of experience in managing enterprise data centers around the world and supporting hundreds of clients. IBM offers a cloud model for delivering the power of z Systems along with current software technology. This model can help you deliver the services you need to support your company's mission-essential workloads and opportunities in mobile, analytics and social growth areas while also realizing a reduced cost structure.

CA Technologies is driving innovation on the mainframe with ongoing investments in the platform. CA Technologies' software solutions help customers leverage their existing mainframe investments while simultaneously enabling the next generation of programmers to use their skills to further transform the digital market. By combining innovative IT management, security and DevOps solutions with the industry-leading IBM Cloud Managed Services on z Systems, CA Technologies and IBM empower leading enterprises to modernize the mainframe and include it in their cloud-first strategies—ultimately unlocking transformational value by reducing costs and complexity, increasing data protection and compliance, and achieving new levels of business agility.

To learn more about zCloud and CA mainframe software, visit the
CA Technologies Solutions for IBM Cloud Managed Services on z Systems page.

Connect with CA Technologies

CA Technologies (NASDAQ: CA) creates software that fuels transformation for companies and enables them to seize the opportunities of the application economy. Software is at the heart of every business, in every industry. From planning to development to management and security, CA is working with companies worldwide to change the way we live, transact and communicate—across mobile, private and public cloud, distributed and mainframe environments.
Learn more at **ca.com**.

1 InfoSec, Inc. "Mainframes still process approximately 70% of the world's business transactions each and every day...", 2018, http://www. infosecinc.com/industry-history.php

2 IDC White Paper, Sponsored by CA Technologies, "The Business Value of the Connected Mainframe for Digital Transformation", December 2016, https://www.ca.com/us/collateral/industry-analyst-report/the-business-value-of-the-connected-mainframe-for-digital-transf.html

3 IBM, "Enterprise Cloud Services: Fueling Successful Digital Transformation at State of Arizona", March 2018, https://myibm.com/events/ think/all-sessions/session/8991A