EBOOK

UNLEASH THE POWER OF MAINFRAME DATA IN THE APPLICATION ECONOMY



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Data Drives the Application Economy

Data is the most valuable asset a business has, and the most important data lives on the mainframe. This critical information fuels the new apps and services that differentiate your business.

And it's rapidly growing, with each new app creating a new source of data. What's more, usage demands are increasing as developers seek access to mainframe-based data to promote innovation.

In fact, many new apps are mobile- and customer-facing—making related workloads more unpredictable than ever. The result is mounting pressure on enterprise IT to help provide that data access is available 24/7/365.

But these points of access to the mainframe also represent a new "surface area" that could put valuable mainframe data at risk. No wonder maintaining security and compliance profiles is a heightened concern in the application economy, especially given the stricter regulatory environment.

Unleashing the power of mainframe data means you can more efficiently secure, manage and analyze all the information generated and captured by your enterprise. Yet with data scattered everywhere, how can you achieve the agility needed to deliver data insight, support innovation and deliver apps that delights users?

[1] 2015 CA Sponsored Research—The State of Big Data Infrastructure: Benchmarking global Big Data users to drive future performance, http://www.ca.com/us/~/media/Files/IndustryResearch/the-state-of-big-data-infrastructure.pdf

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A Data-Hungry World

40%

of organizations plan to implement more data projects, with a 2X increase in the number of organizations that have initiated data-driven projects since 2014.[1]



Mission-Critical Mainframe Data

70%

of corporate data transacts on mainframe systems.[2]



New Data Management Realities ...

Taking full advantage of mainframe data is a strategic imperative in the application economy. Yet, far too many companies must overcome obstacles like data silos that can limit or slow their access to mission-critical data contained on the mainframe.

Without a unified way to get ahead of non-stop demands for data, your organization could continue to experience multiple issues as it addresses this surge in data consumption.

For example, from a data management perspective, you are probably:

- Struggling to provide 24/7/365 availability of increasing numbers of apps and services
- Applying more resources to manage, administer and optimize databases
- Relying on manual processes and having difficulty identifying performance bottlenecks
- Unable to leverage mainframe data as input to innovative big data projects
- Facing a growing talent shortage as retirement reduces the pool of technically skilled workers

[2] Enterprise Systems Media, July 2015.

… and Data Security Concerns

Operating under a data-driven business model also presents new challenges in data security. So, you're likely trying to tackle:

- A security environment where possible points of attack are no longer restricted to the perimeter
- Increased exposure to risk due to greater connectedness among apps, systems, devices and your mainframe
- Skill attrition and loss of mainframe expertise that can result in accidental open doors to sensitive systems of record
- Organizational blind spots, along with the misguided trust that the mainframe "can never be hacked'
- Big data initiatives that require ongoing and secure, compliant access to current and historical data

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A Modern-Day Conundrum

Choosing to manage or secure your data is not an option. You need to figure out the best way to address both of these challenges.



23%

increase in total cost of a data breach since 2013[4]

$154

the average cost per lost or stolen record[5]



First Things First: Secure Your Sensitive Mainframe Data

As you seek to secure your mainframe environment, consider this: the barriers that keep malicious perpetrators out can also prevent your developers, mobile apps and big data analytics from accessing required business data.

At the same time, data can seep through seemingly secure boundaries due to internal practices and errors, as well as mainframe security gaps. These situations increase the potential for a damaging security breach, the average cost of which is $3.79 million.[3]

But what if your data security approach could protect data and allow it to support innovation?

You'd be able to:

- Know who accesses your network, what they're doing, when and whether they should be doing it through standardized, enterprise-wide identity management
- Improve mainframe access control through role-based, automated ID monitoring and cleanup that tracks new users and changing roles while deleting obsolete or redundant identities
- Prevent sensitive structured and unstructured data from leaving your company—and potential compliance fines—by identifying every possible repository of sensitive content
- Apply standard compliance tools that facilitate the forensic analysis of data access and any infiltration
- Address regulatory audits with a reporting capability that offers greater confidence and transparency in your security posture

[3, 4, 5] Ponemon Institute, Cost of Data Breach Study: Global Analysis, 2015.

Let's look at three simple steps you can take to enable better data management and security.

The Value of Effective Data Management

Nearly every major company worldwide employs mainframe databases to support mission-critical applications. Still, it's increasingly challenging to manage these growing environments given all the associated staffing, support and financial concerns.

The fact is, greater complexity and fast-paced business requirements are making your current data management practices untenable when you're dealing with:

- Manual database administration and management practices that are costly and resource-intensive
- Difficult problem resolution because you lack integrated tools to help you quickly identify performance problems
- Compliance concerns and missed SLAs or downtime that lead to lost business
- Productivity issues related to the ongoing transition from seasoned mainframers to less experienced DBAs

But what if your data management approach could be effectively streamlined to deliver the level of support and innovation that's now expected of your organization?

You'd be able to:

- Optimize database resources to address the needs of your changing business environment
- Maintain high availability, improve the user experience and minimize outages
- Deliver on SLAs of mission-critical business applications
- Increase staff productivity so they become more effective and take less time to accomplish more

Reduce the amount of time, experience and effort required to better manage, monitor and secure critical business data while enabling faster issue resolution.



Step #1: Transform IT Staff and Systems Into Star Performers

Your goal: Reduce the amount of time, experience and effort required to better manage, monitor and secure critical business data while enabling faster issue resolution.

Apply capabilities that help you to:

- Streamline and automate repetitive tasks so your IT staff has more time for more strategic projects
- More easily visualize complex data relationships, proactively monitor thresholds and alerts, and identify, diagnose and resolve performance bottlenecks more quickly to improve performance
- Gain real-time access to data statistics, compliance state and events to help your IT staff better manage the data infrastructure by using complete, current and accurate information
- Employ automated alerts on threshold exceptions to provide a launch point for easier troubleshooting
- Leverage in-context domain documentation with third-party integration

Your benefits:

- Increase IT team effectiveness without a long training ramp-up
- Improve service quality for your company, partners and customers by lowering cost, complexity and risk
- Speed problem resolution and response to anomalies
- Facilitate better collaboration, skills retention and productivity among current and next-generation IT staff

Step #2: Optimize for Better Performance—Knock Out Risk and Resource Requirements

Your goal: Manage data and compliance lifecycle to "keep the lights on," employ flexible tools that enable you to optimize productivity, address compliance requirements and improve your ability to meet service-level agreements.

Apply capabilities that help you to

- Automate the technical review of your system, hardware and software environments and identify integrity exposures
- Identify and control IBM z/OS® security exposures
- Enable continuous and unattended security file cleanup
- Perform deeper, longer-term analysis of critical database system performance without further impacting your mainframe CPU cycles and resources

Your benefits:

- Achieve granular, role-based control and access in IBM z/OS® environments via automated monitoring and auditing activities
- Promote proactive problem mitigation and fulfillment against compliance controls
- Meet growing business demands for data faster through streamlined performance of complex systems and applications
- Shape or develop optimal performance, efficient database administration and reliable backup and recovery of IBM DB2® for z/OS®

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Manage data and compliance lifecycle to "keep the lights on," employ flexible tools that enable you to optimize productivity, address compliance requirements and improve your ability to meet service-level agreements.



Integrate critical data with business intelligence products and analytics applications that help important business processes to continue while protecting sensitive corporate assets.



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Step #3: Unlock the Power of Your Data on the Mainframe

Your goal: Integrate critical data with business intelligence products and analytics applications that help important business processes to continue while protecting sensitive corporate assets.

Apply capabilities that help you to

- Integrate IBM z Systems'™ big data across your infrastructure to allow your big data analytics to address all your enterprise data ssed and by whom

Your benefits:

- Facilitate better analytics through self-service access to enterprise data
- Find, classify and protect regulated or sensitive data on IBM z Systems™
- Improve efficiency by minimizing CPU cycles through exploitation of zIIP specialty engines
- Accelerate data access by eliminating risky processes for offloading or Extract, Transform and Load processes

LEARN HOW BROADCOM CAN HELP YOU UNLEASH THE POWER OF YOUR MAINFRAME ENVIRONMENT

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About Broadcom Mainframe Software

Broadcom Mainframe Software empowers customers to amplify the value of their mainframe investments. Our commitment to partnership is grounded in delivering to customers greater success with the platform. It starts with embracing open technologies in ways that unite the mainframe and hybrid cloud environments. Our leading DevOps, AIOps, Security, Data Management, and Core Infrastructure software solutions and innovative value programs go beyond code to unlock the platform's full potential.

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