



2024

ENTERPRISE

Solutions Directory

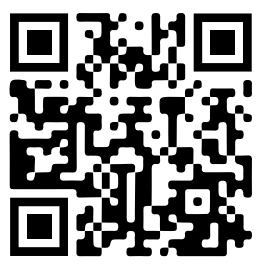
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EDITOR'S LETTER

TechChannel

Staying Ahead of Constant Innovation

2023 WAS A YEAR OF CONSTANT CHANGE AND INNOVATION in the tech industry, and 2024 is showing no signs of slowing down. From the proliferation of generative artificial intelligence and quantum computing to growing concerns about cybersecurity and data privacy, businesses now have more factors than ever to consider when making decisions about technology investments.

The rapidly changing tech landscape means our coverage is always changing, as well—from the topics we cover to the ways we deliver content.

One of the biggest changes you'll notice from us in 2024 will be a redesigned TechChannel.com. The website will have powerful search capabilities, streamlined navigation, and a more modern look and feel that reflects the nature of our content. TechChannel.com will still host the articles, podcasts, videos, webinars and special content presentations you rely on, with an experience that makes relevant content even more accessible.

The newly redesigned website also means it will be easier than ever for you to find the mainframe hardware, software, accessories and services you need to meet your business needs in our TechChannel 2024 Solutions Directory. Available on our website, via PDF or in print, the 2024 Solutions Directory is a comprehensive guide that features cutting-edge products and services from our partners. We've done the research for you—all you have to do is filter by OS, company or product category to find the right solution for your business.

Amid constant evolution, one thing that won't change is our commitment to serving our audience and partners with expert content, relevant IT solutions, and innovations of our own. Thank you for trusting us as your go-to source for what's next in tech. ■

**ALL THE BEST,
EMMA PITZL
MANAGING EDITOR, TECHCHANNEL**

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5 Defining Characteristics of z/OS and Mainframe

Longpela Expertise’s David Stephens highlights five characteristics that account for the longevity and performance of the mainframe

BY DAVID STEPHENS

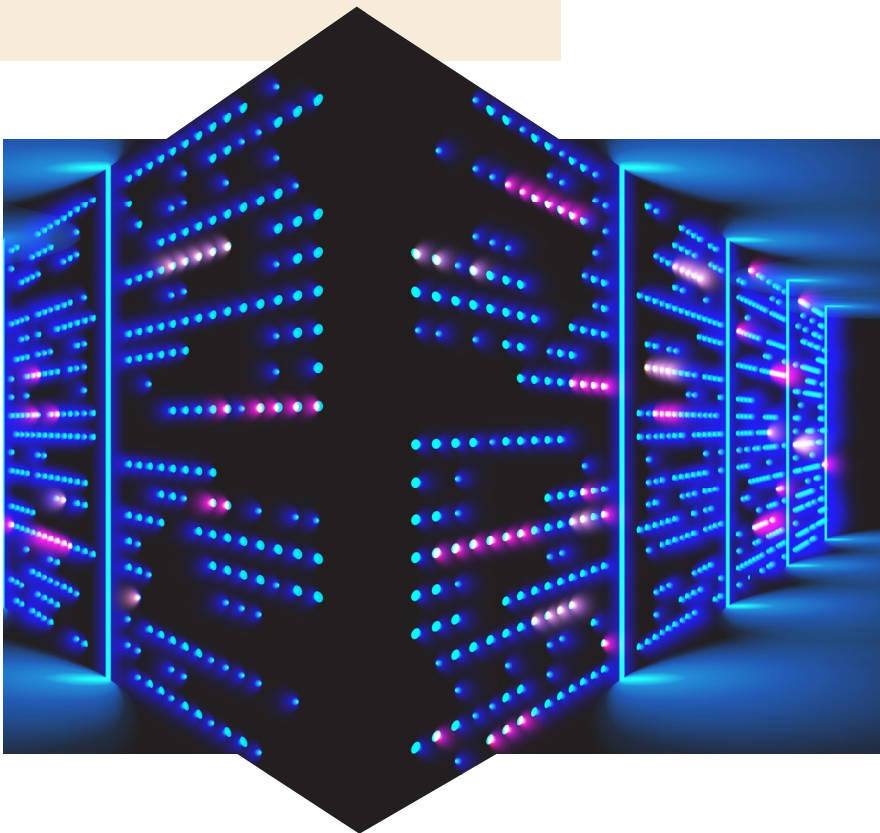
IBM Z mainframes and z/OS are important, still carrying out critical back-end processing after 60 years. But some things about mainframes seem strange. Why the obsession with batch? Why do sites have so few z/OS systems?

Let's look at five characteristics of the mainframe and z/OS that help explain what it is—and what it isn't—and why these characteristics can be a good thing.

1. BIG, NOT SMALL

Yep, mainframes have always been big and expensive.

In the past, big mainframes were the only tool that could do the things companies needed. And most sites could only afford one mainframe, maybe two. In those days, you could only have one MVS (as z/OS was called) system per mainframe. So, you packed all your applications into those one or two MVS systems.



It's not much different today. Sure, mainframes are smaller, and each can run multiple z/OS systems. But sites still have only a couple z/OS systems at most. I've seen z/OS systems with

more than a hundred applications. Compare this with Windows and Unix servers, of which many sites have thousands.

This centralized approach has a lot of benefits. It's far easier to manage the hardware and software. There are centralized configuration parameters, locations for logs, and security and access recording. Data and data backups, change management, source code repositories and more are all centralized.

You may think centralization makes mainframes more likely to crash, but the opposite is true. IBM and other vendors have had decades to make z/OS the most resilient and secure platform available.

2. CRITICAL, NOT OPTIONAL

Mainframes have always done critical back-end processing for businesses that simply cannot stop for long periods of time. So, technical development over decades has been making mainframes more resilient.

Today, nothing is more reliable than a mainframe. And mainframe support staff have been trained for decades to keep mainframes running. If you look at availability statistics in most mainframe sites, mainframes will have fewer outages than other platforms.

3. BATCH, NOT ONLINE

z/OS was originally a batch machine. Pre-punched paper cards went in, results came out. New-fangled ideas like terminals and screens came later. So, batch has been a big thing for mainframes from the beginning.

Although online workloads eventually became cool, batch never went away. Mainframes may be big, but they've rarely been big enough—users have always wanted more. So, running workloads that are not time-critical in the background has always been a smart idea.

So, z/OS has acquired sophisticated tools for managing batch jobs and streams. JES classes can limit the number of jobs running at one time, WLM can determine how much CPU a batch job will get. Other vendors have created fancy batch automation tools. We can start a job at a set time, when another job (or jobs) has completed, or when a file is received. If a job fails, these tools let the right people know automatically.

A big advantage of batch is that z/OS systems can run at 100% CPU capacity; onlines do what they do, batch uses the rest.

4. LEGACY, NOT BRAND NEW

Since the 1970s, IBM has promised that today's application programs will work on tomorrow's mainframe. And they've kept that promise: I've seen programs from the 1970s that still work fine. Mainframe sites still rely on those COBOL programs from the 1980s.

Technical development over decades has been making mainframes more resilient. Today, nothing is more reliable than a mainframe.

This backwards compatibility can make it harder to implement new technologies and features. For example, we may want to use mainframe data from Windows, but this isn't easy if that data is in VSAM data sets.

IBM is on this, regularly adding new features to z/OS. Recent innovations include Docker containers for z/OS, Node.js applications and a Python SDK. It's easy to think of IBM mainframes as dinosaurs, but they're continually changing. Innovation can be harder on mainframes, but it's not impossible.

5. CISC, NOT RISC

Your mobile phone is probably running an ARM processor: a reduced instruction set computer (RISC) CPU. RISC CPUs only have a small number of instructions—130 for the AMD A32. The idea is that complex tasks are done using multiple instructions, allowing CPUs to be smaller and simpler.

IBM mainframes have taken another path, using a complex instruction set (CISC) processor. The z16 mainframe has almost 1,250 instructions, and new ones are being added all the time. The latest z16 mainframe added another 30 instructions to the previous z15.

IBM's idea is to increase speed by doing complex tasks in a single instruction. For example, there is an instruction that can move any number of characters to a different area of memory (MVST).

z/OS and other subsystems can use these instructions to get better performance and

It's easy to think of IBM mainframes as dinosaurs, but they're continually changing. Innovation can be harder on mainframes, but it's not impossible.

use less CPU. The SORTL instruction is an example. Introduced with the z15 mainframe, this instruction sorts data using the IBM Integrated Accelerator for Z Sort, reducing sort elapsed times by 40% and CPU usage by 60%.

A ROBUST ENVIRONMENT

Mainframes and z/OS have been doing critical work for a long time. This history has determined where and what it is today. It explains why mainframe geeks get excited with the latest mainframe processors and why it seems so hard to get z/OS to do something new. But this history gives us a resilient, efficient, secure system that continues to reliably support mission-critical workloads. ▀

2024

SOLUTIONS
DIRECTORY

Company and
Product Listings



21CS is a leader in developing mainframe products that ensure data protection, recovery and migration, as well as products that provide the most comprehensive mainframe performance capacity planning solutions. Since being founded more than 30 years ago, 21CS has relied on its strong partnership with IBM to develop and enhance products that meet current market needs and lead predicted technology trends.

21cs.com ■ info@21cs.com / 800-555-6845



A pioneer in actively tracking and managing change in the MVS systems environment, Action Software International (ASI) provides solutions that work together with some of the world’s largest institutions’ critical processes. With 35+ years of z/OS MVS and z/OS UNIX systems management experience, ASI’s innovations offer proactive tools to enhance system availability, cost efficiency, audit controls and security.

actionsoftware.com ■ sales@actionsoftware.com / 905-470-7113

Cloud

IBM z/OS DFSMS Cloud Data Manager

Make hybrid cloud a reality with IBM z/OS DFSMS Cloud Data Manager (DFSMScdm) 1.1. Optimize cloud storage and reduce MSUs by moving large amounts of cold DFSMSshm data from physical or virtual tape seamlessly to the cloud without changing the data reference date and migration date.

Operating System

VSEn

21CS has been consistently investing in the future of the VSE ecosystem since completing our 2021 source code license agreement with IBM. We’ve recruited a new wave of developers who work alongside VSE experts to improve the operating system for years to come. Our first version of the operating system, VSEn, offers key feature updates and non-disruptive compatibility with previous versions of IBM z/VSE 5.2, 6.1 and 6.2. Upgrade today and elevate your VSE experience.

Security

IZBR

IBM Z Batch Resiliency (IZBR) provides real-time resiliency for non-database managed data with automatic recovery processes, leveraging detailed analytic reporting that can reduce reliance on complex domain-specific and possibly error-prone manual approaches. IZBR reduces mean time to recovery from hours or days by identifying at-risk data at the point of failure within minutes, enabling rapid restoration of data sets and determining possible downstream impacts associated from the point of corruption forward.

Systems Management

eventACTION

eventACTION is a comprehensive event tracking and systems management product that helps you to proactively manage your z/OS environment. Using its unique event-driven methodology, it automatically and transparently allows you to:

- Track, control, back up and restore changes to z/OS system datasets or members in real time
- Analyze the content of changes using advanced compare on live datasets and backups
- Track references to z/OS system datasets or members
- Track and control z/OS system commands
- Ensure that program products execute only on licensed systems
- Propagate changed data to other z/OS systems
- Send data set and member change information to external monitoring products such as SIEMs

ussACTION

ussACTION adds Action Software International’s unique and powerful systems management capabilities to the z/OS UNIX (USS) environment. Its event-driven approach allows you to automatically and transparently:

- Track, control, back up and restore changes to z/OS UNIX files (in zFS and HFS file systems) in real time
- Analyze the content of changes using advanced compare on live files and backups
- Track references to z/OS UNIX files
- Ensure that z/OS UNIX program products execute only on licensed systems
- Propagate changed data to other z/OS systems
- Send directory and file change information to external monitoring products such as SIEMs



Applied Software, Inc. has partnered with Entegria Systems to expand our solutions and proven product reliability. FastSSR extends functions far beyond where ordinary file transfer has ever gone. Leverage existing file transfer solutions with digital file management, the latest encryption, AI and internet technologies. FastSSR implements secured, TCP/IP transfers to upload and download data up to 156 times faster! Increase productivity and efficiency by transferring more data within smaller time frames.

appliedsoftware.com ■ sales@appliedsoftware.com / 215-297-9441

➤ Communications and Connectivity

FastSSR

Energize your emulator-based file transfers with FastSSR, a high-speed file transfer system that will extend the value of your IBM mainframes. FastSSR implements secured, TCP/IP transfers to upload and download data up to 156 times faster. Increase productivity and efficiency by transferring more data within smaller time frames. Manage data movement, automate data transfer, encrypt and secure with FastSSR.

➤ Data Management

RheoWorx

Automate your data transfers with RheoWorx, a secure data transfer system that enables businesses to build automated processes for data movement. Workflow tasks process, compress, encrypt and transfer different types of data to multiple computers within an enterprise. RheoWorx gives personnel insight into when and where data is delivered as well as quick status notifications. Data is always safe and encrypted.

➤ Tools and Utilities

SSR

Applied Software, Inc. SSR Server products are full-featured file transfer applications supporting the MVS, TSO, CICS and native VTAM platforms. SSR Server supports host connections using SNA and TCP/IP.

SSR Client operates in conjunction with emulators to provide an intuitive and powerful user interface for the Windows platforms. SSR Client scripting language provides scheduling facilities and interfaces to batch- and host-initiated file transfer applications.



Advanced Software Products Group Inc. (ASPG), a leader in data center software for almost 40 years, specializes in IBM Z security solutions—including z/OS encryption (CICS, Db2, IDMS, IMS, etc.), RACF administration/reporting/auditing, enterprise password reset, user provisioning and device access. Data centers worldwide rely on ASPG solutions to increase productivity, protect data and solve critical issues in their IT environments. All ASPG solutions are backed by acclaimed, industry-leading 24-7-365 U.S.-based technical support.

aspg.com ■ aspgsales@aspg.com / 800-662-6090

➤ Security

ERA-Easy RACF Audit

Easy RACF Audit provides RACF security risk assessment, auditing and customizable reporting. Using the SMF log, quickly and efficiently assess, audit and create a graphical report based on a library of RACF events. You can also easily identify RACF security violations in your environment. An intuitive interface allows quick summaries of crucial events.

ERQ-Easy RACF Query

Easy RACF Query is a RACF administration, reporting and programming solution. It's ISPF-driven and intuitively designed so users can easily issue RACF commands or generate reports with little or no training. Easy RACF Query offers extensive reporting; including digital certificate, multifactor authentication and RACF setting reports. Find everything you need to manage RACF security in this one easy-to-use solution.

MegaCryption

MegaCryption is a suite of cryptography and key management utilities with APIs for persistent data encryption, integrity and digital signing on z/OS, UNIX, Linux and Microsoft Windows (including CICS, Db2, IDMS and IMS). It supports data sets and databases, data at rest, data in transit and data archiving. It also offers ZIP compression, text translation, utilization of ICSF, CPACF and zEDC hardware while complementing pervasive encryption.

ReACT

ReACT is a secure web-based enterprise password reset and synchronization tool designed to support your entire network (including z/OS) in one product. Quick implementation and custom scripting are free. It's fully customizable, configurable and easily cost-justified. ReACT includes leading-edge features the market demands; 25-plus authentication methods such as OTP and TOTP, point/click editing, live dashboard, offline access and audit/management tools.



Founded in 1982, Baer Consulting Inc. (BCI) is a managed solutions provider of mainframe services and support. BCI helps mainframe decision makers avoid the hassle and complexity of planning, managing and deploying on-premises/off-premises private cloud services to meet today’s business demands. We deliver solutions that provide greater security of a private cloud with the reduced investment cost and faster time to value from a public cloud.

baer-consulting.com ■ rich.garcia@baer-consulting.com / 303-838-3374

HA/DR/Backup

zSystem Disaster Recovery

BCI provides a fail-safe, effective disaster recovery plan (DRP)—one that is documented and tested regularly is essential for limiting downtime, avoiding lost revenue, ensuring a speedy recovery of resources and allowing an organization to restore services to clients quickly. The first step in creating a DRP that works in the real world is not planning; it is assessing what the system’s DR capabilities are. BCI will perform a DR gap analysis, identify what works, what is missing, and then implement any recent updates and re-test the changes to the plan. Why not schedule BCI to analyze, maintain and test your data center recovery process?

Managed Service Providers

zManaged Mainframe Hosting

BCI Hosting provides clients with a flexible choice between managing their IT services and hardware on-premises at their own site or using a BCI-supplied computing platform hosted remotely. BCI Hosting Services features an IBM Z multi-tenant CP supporting three networked co-locations. Baer Consulting also owns and operates our IBM mainframe environments (CPU, DASD, TAPE).

Systems Management

zManaged Mainframe Services

Baer Consulting can help you deliver on SME support services needed to maintain your critical systems and software. Baer Consulting managed services for mainframes are designed to address the disruptive change and modernization challenges IT departments face today. BCI Managed Services delivers:

- Systems programmer support/staffing
- zSystems maintenance, upgrades
- SW/HW license support
- Multivendor ISV support
- Call Center: 24-7 client support desk
- Project level support
- Disaster recovery-as-a-service



Beta Systems Software AG is one of the leading medium-sized, independent software providers in Europe, offering software for the digital control, acceleration and safeguarding of IT-based business processes. More than 3,900 customers worldwide—including the largest banks and insurance companies in Europe and Germany—use Beta Systems Group products and solutions for output management and document archiving, workload automation, log management and information management processes in the data center.

betasystems.com ■ info@betasystems.com / +49 (0)30 – 726 118 – 0

Business Intelligence/Analytics

_beta doc|z

_beta doc|z is a comprehensive software solution for the management, storage and provisioning of extensive document data on the mainframe. Sources from decentralized systems can be used and integrated, as well as the special mainframe document formats (AFP, AFPDS). Documents can be archived centrally in an audit-proof manner and made available online in a cost-effective manner. Data from many different document sources can be flexibly prepared and made available for mass printing.

Linux on IBM Z

_beta doc|x

_beta doc|x is a comprehensive software solution for the management, storage and provision of extensive document data, regardless of source, format and volume. Multiple sources of document input from special application systems such as SAP can be used and integrated as well as the long-established mainframe document formats. Documents can be archived centrally and audit-proof with _beta doc|x and made available online at low cost. Data from many different document sources can be flexibly prepared and made available for mass printing.

_beta log|x

Gain company-wide access to log data. _beta log|x is a solution for cross-platform and cross-format log file management in your company. Data from different sources (e.g., mainframe, Windows, Linux/ Unix systems and applications, such as SAP), can be brought together in one place and made available from there across the enterprise. Beta UX’s new data model provides improved job log output support for both IBM Z and distributed systems usage, and is also the ideal extension for log management for workload automation products like Broadcom Automic, BMC Control-M, IBM IWS/d, \$Universe and others.



Security

_beta access

_beta access for z/OS RACF simplifies administration, monitoring and auditing of the z/OS security system. One or more z/OS systems and RACF databases can be operated securely through the suite’s administration, auditing, analysis and monitoring tools.

Systems Management

_beta job|z

Schedule and control your automated processes across all relevant non-Z platforms from the mainframe while saving costs at the same time. Support any mainframe scheduler and all common OS platforms (Windows, Linux, Unix, IBM i and IBM Z with Unix System Services and z/OS Container Extensions) and special integrations (Java Batch, SAP and others).

Tools and Utilities

AutomateNOW!

AutomateNOW! is a cloud agnostic tool that helps manage cost and labor effectively in complex, multi-cloud environments where workflows span different technologies and support critical real-time systems. AutomateNOW! provides deep integration with cloud services from various vendors (e.g., Google, Microsoft, Amazon).

_beta log|z

_beta log|z enables you to reliably store, archive and provision vast volumes of log data or job output from workload management. It reduces the load on scheduling systems, facilitates transparent audits and helps you lower the cost of automating SAP processes. The intelligent agent network performs mainframe job log data archiving tasks and collects log data generated on any distributed platform in a company-wide log archive (e.g., Linux, Unix, Windows, IBM i, SAP system output).

_beta operlog|z

Operlog tools allow you to minimize the risk of accidental system downtime and greatly reduce the time required to identify the root cause. The tools furthermore simplify viewing and archiving of z/OS log streams (such as OPERLOG). Draw on powerful search functions that empower you to quickly home in on the piece of information you are looking for. Rapidly process and reliably archive millions of log entries.



Broadcom Mainframe Software Division empowers enterprises to amplify the value of their mainframe investments in ways that drive their business forward. Our market-leading DevOps, AIOps, security, data management and core infrastructure solutions enable clients to adopt common tools using industry standards and integrate mainframe as part of their hybrid cloud. Our commitment to partnership extends beyond software and features Beyond Code programs that give customers the power to achieve greater business success with the platform.

mainframe.broadcom.com 408-433-8000

Application Development

Contact: David McNierney / david.mcnierney@broadcom.com

DevOps Suite

Elevate mainframe AppDev with our open-first solution that combines a VS Code/Git developer experience with CI/CD integration and test automation. The mainframe DevOps suite, which includes Endeavor, testing tools and HostBridge API enablement, drives productivity, quality and speed without compromising security or reliability.

Endeavor

With a rich tradition of R&D investment and market leadership, Endeavor is the strategic foundation for mainframe software delivery. By enabling the adoption of Git, via Endeavor Bridge for Git and Team Build, as well as VS Code and DevOps toolchains, Endeavor offers a risk-managed, innovate-in-place approach to modernization. It empowers the next generation of talent to work side by side with career mainframers, each using their tools of choice.

Database

Contact: Tom Vogel / tom.vogel@broadcom.com

Database Management for Db2 for z/OS

Ensure optimal database and SQL performance, efficient administration and reliable backup and recovery of Db2 databases, systems and applications with powerful and flexible solutions. With interoperable solution suites for administration, backup and recovery, utilities and performance, your enterprise can improve service levels, data availability and application responsiveness—helping to reduce costs. Ease the burden of managing and maintaining Db2 while increasing productivity.



Security *Contact: David Bruce / david.bruce@broadcom.com*

Mainframe Security Suite

Protect data and apps, decrease risk and improve compliance with comprehensive tools built for today’s cybersecurity challenges. Reduce threats with advanced multi-factor authentication and privileged user management. Analyze user activity and behavior to find and resolve insider risk. With the ability to quickly interpret and assess the security posture of your mainframe, plus the freedom to install and adopt at your own pace, the security suite delivers modern, zero trust security capabilities to mainframes.

Services/Consulting *Contact: Hunter Johnson / hunter.johnson@broadcom.com*

Beyond Code Program

Enterprise challenges aren’t always technology related. Our Beyond Code Program provides access to unique offerings designed to enhance your overall success and value from the platform. These offerings cover areas like educating and upskilling your workforce, offering expert guidance and support for change events, identifying possibilities to improve efficiency and cost savings and more—often at no additional cost. Technology is just the beginning in this partnership.

Storage *Contact: Tom Vogel / tom.vogel@broadcom.com*

CA 1 Flexible Storage

Gain secure and flexible mainframe storage options that include hybrid cloud with this software-only solution that supports existing CA 1 policy-based automation without the need for additional infrastructure. Expand options for securing data using existing mainframe security rules with the addition of cloud storage to current tape and virtual tape strategies. Protect against ransomware by compressing and encrypting data on the mainframe and specifying security to the file level.

Systems Management

Mainframe AIOps and Automation Solutions *Contact: Paul DiMarzio / paul.dimarzio@broadcom.com*

Maximize operational resiliency with integrated solutions that combine big data with machine learning, automation and domain expertise. Overcome challenges finding, diagnosing and troubleshooting issues that might otherwise quickly disrupt business operations. Go beyond passive observability to gain unmatched end-to-end visibility, transparency and actionable insights that empower you to anticipate problems sooner, identify root cause faster and apply automation intelligently to foster self-healing.

Easytrieve Enterprise Reporting Solution *Contact: Rick Perret / richard.perret@broadcom.com*

Enterprise reporting tools must keep up with today’s explosive growth in data volume and variety while meeting your business needs. The new Easytrieve brings modern and agile capabilities out of the box so your business and IT teams can exploit features such as VS Code extensions into production, all while doing so in a resource-efficient footprint.

The Power of Preparedness: Harnessing Resiliency to Mitigate Mayhem

Business leaders today face significant challenges. Skyrocketing cybercrime, climate-related natural disasters, pandemics and geopolitical unrest to name a few. These threats are not only more frequent than ever; their impacts can also last longer. Mayhem like this is costly!

For Fortune 1000 companies, downtime can cost over \$1 million per hour. The average security breach now reaches \$4.2 million. This is hardly surprising since it can take just seconds for hackers to compromise your data, credibility and brand image.

Despite these challenges, businesses still need to drive growth. This tension has raised resiliency as a critical boardroom topic. The question isn’t whether your company will need to address a crisis. It’s when. And, more importantly, whether you’re prepared so you can bounce back quickly.

This is where the mainframe shines. Unmatched power, security and availability make the mainframe perfect for delivering on a business’s resiliency goals as well as its overall business success. The exponential growth of data and online transactions only increases the platform’s importance. This makes it essential to ensure you get the most out of it by following best practices and staying current with the latest tools and capabilities.

7 Resiliency Planning Tips

True resiliency isn’t a fixed state you arrive at. It’s an ongoing process. Done properly, resiliency pays dividends and drives brand value by giving customers confidence that their experience will consistently meet or surpass their expectations.

Here are some helpful resiliency planning tips:

1. Work with a partner, like Broadcom, to develop best practices that successfully align your IT resiliency with the business.
2. Prioritize testing and integrate it into your development process.
3. Make data available through open APIs to enable observability. This will yield critical insights so you can rapidly diagnose and adjust for problems.
4. Simplify your change management process so it’s easier to find the root cause of issues.
5. Design for automated recovery wherever possible.
6. Develop a comprehensive incident management plan for dealing with issues that require manual resolution.
7. Adopt a “no blame” culture to encourage open communication among team members. This can aid problem resolution and recovery.

Even in uncertain times, you’ll thrive despite the mayhem with proper resiliency planning, the mainframe and the right partner! ■



GREG LOTKO
SVP & GENERAL MANAGER, MAINFRAME SOFTWARE DIVISION,
BROADCOM SOFTWARE • GREG.LOTKO@BROADCOM.COM



Greg Lotko is a passionate leader known for his commitment to partnership and his talent for driving growth and innovation. He brings deep technical and business knowledge acquired over nearly 30 years of experience at IBM to his work on behalf of customers. In addition to his work as a business line executive for the mainframe, Greg has served as director of IMS, Db2 for z/OS and in other senior leadership roles across server, storage, software, services and information technology.



Cloud Compiling, with its technology installed in Global 100 data centers for more than 20 years, extends the benefits of cloud computing to the IBM z/OS platform. Its family of virtualized IBM z/OS language compilers eliminates or reduces the need for software licenses in your mainframe environment. Whether installed in your private cloud or externally hosted, Cloud Compiling delivers virtual compiling with all the benefits of cloud computing, including lower costs, improved efficiency, increased system controls and the ability to scale quickly.

cloudcompiling.com ■ info@cloudcompiling.com / 877-245-4322

➤ Cloud

Cloud Compilers

Cloud Compiling is the only true cloud compiling solution developed for IBM Z, bringing cost-effective compiling alternatives to the mainframe environment. Cloud Compiling’s innovative compiling technologies support COBOL, PL/I, FORTRAN and C/C++ programming languages.

Cloud Compiling offers managed turnkey secure cloud deployment, and in-house private cloud installation. The results: reduced expenses, increased operational efficiencies and lower MSU usage throughout the entire enterprise, which can reduce your 4-hour SCRT average. Cloud Compiling directs your source code and any other pertinent information (e.g., copy members) to a remote z/OS compile machine provided by IBM, then returns the completed module to you. As a result, the cloud-based compiler performs the same functions as your existing compiler, but with a minimum of 50% license cost savings and all the benefits of Cloud Compiling.

Cloud Compiling helps eliminate peaks in mainframe budgets that cause fluctuations in the rolling 4-hour average (R4HA). Additionally, if you choose on-premises deployment, you may select a less critical LPAR to compile on, freeing resources allocated to more critical workloads.

OS Support: IBM z/OS (All Versions)

Get your proof of concept: Our lightweight cloud-based compiler is quick to install and will reduce your MSU usage. V6 compiling can spike your R4HA but you can still control your budget by putting the resource in the cloud.

When installed in your private cloud, Cloud Compiling delivers virtual compiling for z/OS languages with all the benefits of cloud computing:

- No upfront investment
- Minimum of 50% cost savings in monthly compiler fees—immediately
- Greater systems control
- Increased flexibility
- Ability to scale quickly

Simple proof of concept or detailed demos available at: cloudcompiling.com/proof-of-concept.



CM First builds the most reliable, rapid and cost-effective software tools to optimize and transform enterprise applications. CM First products and services empower developers of IBM mainframe and midrange applications to advance their legacy code in the new digital economy, focusing on custom applications written in COBOL, RPG, Java, CA 2E (Synon), CA Plex, LANSAs, as well as other languages. CM First has served the IBM i and IBM Z communities since 1999 and is headquartered in Austin, Texas, with additional offices in Europe.

cmfirstgroup.com ■ info@cmfirstgroup.com / 888-866-6179

➤ Application Modernization

CM evolveIT for IBM Z

CM evolveIT is an innovative enterprise code analysis workbench for IBM mainframe developers and systems integrators. CM evolveIT adds powerful transformative capabilities with the ability to convert legacy code to Java and employs advanced code slicing technology, best-of-breed code visualizations and analytics to reduce analysis costs by up to 80%.

Managed Application Services

CM First’s Managed Application Services (MAS) help organizations manage, enhance and maintain custom enterprise applications. CM First provides MAS for the full life cycle—we are an extension of your dev team.



ColeSoft Marketing produces superior debugging products for software engineers and support staff working on IBM mainframes. We make IBM's z/OS-based Assembler, C/C++ and Metal C languages easier to work with and understand.

colesoft.com ■ bob@colesoft.com / 800-XDC-5150

Application Development

z/XDC

z/XDC is a powerful, interactive tool for developing and testing Assembler language programs in z/OS.

z/XDC makes IBM's z/OS-based Assembler language easier to work with and understand. Using z/XDC, programmers can effectively find and correct errors in programs running in nearly any z/OS programming environment: authorized or nonauthorized; multitasking or single tasking; batch, TSO or CICS; system exit or product exit; SVC routine or PC routine.

c/XDC

c/XDC expands z/XDC's powerful, interactive, source-level debugging to include IBM's XL/C languages. With c/XDC, programmers can move seamlessly between XL/C and Assembler code within the same program. You can STEP through your XL/C code as it executes, see statement operand values before and after statement execution, and display stack frames, variables, arrays and structures in real time. c/XDC functions equally well with all flavors of IBM's XL/C: C, C++, and Metal C in both 31-bit and 64-bit modes.

dump/XDC

dump/XDC brings the z/XDC command language into the world of dump reading.

dump/XDC allows the user to more quickly diagnose and repair problems in both internal programs and programs run by customers. dump/XDC works in concert with IPCS, allowing the use of IPCS commands right along with z/XDC commands. z/XDC's powerful and comprehensive FORMAT, MAP, DMAP and LIST commands bring new clarity to the dump-reading process.



CPT Global helps clients solve complex technical challenges that transform their IT environments. CPT Global is a global technology company that has served as a trusted advisor and long-term partner to Fortune 1000 companies for more than 30 years.

We're passionate about finding savings, risks and opportunities in technology to help clients get more value and performance out of their investments. Our team of technology experts possess a broad range of transformation, assurance and optimization skill sets.

cptglobal.com ■ +61 3 9684 7900 (Australia) / 416-642-2886 (U.S.)

Application Testing

Quality Assurance and Testing Services

CPT has delivered testing services to clients around the world for 30 years, providing successful testing outcomes. Whether independently or in partnership with client testing vendors, our holistic approach to testing ranges from capability and maturity reviews to fully managed testing services:

- Test strategy development and implementation
- Test governance, management, planning and executive
- Capability reviews
- Test automation and DevOps
- Environment management
- Test data management, masking and data virtualization
- Functional and nonfunctional testing
- Reporting and metrics

Test Coverage for Mainframe Service

Test Coverage for Mainframe provides system-level analytics and fact-based metrics to demonstrate the coverage of test suites and visibility of system risks.

Test Coverage provides insights into test coverage across programs, jobs, transactions and SQL statements, including:

- Overall test coverage analysis of testing approaches
- Measure coverage across multiple test cycles or test runs
- Identification of changed application elements between test cycles or runs
- Changed components tested or untested (coverage analysis)
- Alignment and comparison against production coverage

Performance

Mainframe Optimization and Cost Reduction Services

CPT is a leader in mainframe tuning and cost reduction. CPT's highly experienced team uses automated tools and proven processes to produce rapid results.

The cost reduction service is offered via various pricing models, including the "risk-reward" model, where the risk of the project is shared with clients by basing fees on a share of the savings achieved in software, hardware, chargeback or managed services cost, ensuring a clear ROI to the client/business unit.



Performance

Non-Mainframe Optimization Services

For 30 years, CPT has successfully completed challenging and technically complex performance diagnosis and tuning engagements across a range of mainframe, open system and cloud technologies.

CPT’s approach considers the impact of architecture, design, scheduling, work practices and usage patterns. We can address system, application or infrastructure issues, including operating systems, storage, networks, middleware, databases and application code.

Our approach quickly identifies the underlying root cause and outlines the options to remediate.

Services/Consulting

Mainframe Services

CPT Mainframe Services enhance your mainframe, ensuring it runs efficiently, effectively and reliably, helping to:

- Reduce costs
- Improve resilience
- Boost performance
- Ensure capacity
- Enable you to use mainframe assets across new projects, including design and implementation
- Help modernize your mainframe and keep it relevant by activating the best technologies
- Support migration off the mainframe
- Work with z/OS, Assembler, COBOL, PL/I, SAS, C/C++, CoolGen, RACF, ACF2, Top Secret, Db2
- IMS, ADABAS, VSAM, CICS, MQ, WebSphere, VTAM and TCP/IP
- Enable effective system programming, application and database administration

Technology Assurance Services

CPT specializes in the delivery of technology assurance solutions, helping our customers to successfully implement complex transformation and modernization initiatives.

We lead mission-critical projects, implement change throughout production and drive IT transformation, cost reduction, governance, migration strategy and risk-mitigation initiatives.

We are an independent partner in mainframe and modernization projects, bringing deep strategy, delivery and operational technology expertise and perspectives. We help our clients solve problems and address challenges that enable better business outcomes.



Dino-Software develops z/OS enterprise solutions for optimizing complex IT environments and z/OS storage management. In 2002, it released its vanguard product, T-REX and quickly established itself as a specialist within the z/OS mainframe technology space. Products address ICF catalogs, z/OS storage management, VSAM record management and disaster recovery. Dino-Software engineers have authored more than 25 products that have saved clients hundreds of millions of dollars in lost revenue. Dino-Software technology has prevented many Fortune 500 company meltdowns.

dino-software.com sales@dino-software.com / 703-768-2610

Performance

VELOCI-Raptor

VELOCI-Raptor (VR) is an intelligent, intuitive performance VSAM optimization tool designed to dramatically improve system batch and significantly reduce system overhead by automating tuning activities. VR assists IT departments in meeting increased service level demands and helping manage growing workloads. Conversion Assist available for effortless migration.

Tools and Utilities

T-REX

T-REX is a mainframe utility to analyze, diagnose, reorganize while open, report, back up and repair clusters and ICF components in a z/OS environment. T-REX was built from the ground up to incorporate the latest features and functions, making it a superior alternative to the collection of old technology in this area. GUI optionally available.

Universal Data Manager (UDM)

Universal Data Manager (UDM) provides enterprise-wide z/OS storage management for DASD, DFSMSshm, CA Disk, tape robots and catalogs, ICF catalogs, spool data and related objects with real-time monitoring, policy-based automation, powerful message trapping, alerts, cutting-edge technology, drill-down explorers, easy install, a GUI—and no distributed servers required.



Direct Computer Resources’ DataVantage z/OS mainframe software and DataVantage Global allow you to edit, manage and mask your production data for safe, efficient and affordable testing.

DataVantage software products create production-like data for non-production uses like DevOps, testing, analysis and more. Data masking functionality enables compliance with policies and regulations including GDPR, HIPAA and CPAA while reducing the risk of data breaches.

- DataVantage products include:
- DataVantage for z/OS: Supports IMS databases, Db2 databases and flat files
 - DataVantage Data Masking Express: Buy mainframe data masking only
 - DataVantage Global: Mask distributed relational databases

datavantage.com ■ info@datavantage.com / 631-673-0077

➤ Data Management and Data Masking

DataVantage for z/OS

DataVantage for z/OS provides data management capabilities including browsing, editing and copying, along with data masking functionality to create production-like data for non-production uses, enabling compliance with corporate policies and government regulations. Competitive swap-out pricing.

DataVantage Data Masking Express

DataVantage DME Data Masking Express is an affordable z/OS data masking-only software solution that creates production-like data for non-production uses. It installs as an application program and runs alongside your current data management software. Competitively priced annual subscriptions are CPU-based regardless of processing capacity and include installation, training and support.

➤ Data Masking

DataVantage Global

DataVantage Global is an affordable enterprise data masking software solution for distributed platforms using relational databases. It creates production-like data for non-production uses such as DevOps, data analytics and data sharing. DataVantage Global provides proprietary, built-in masking and de-identification functionality that is repeatable and irreversible. Demonstrations are available upon request.



DTS Software is recognized as a worldwide leader in enterprise storage management software. Our integrated suite of software products, including the new COBOL Migration Manager, helps customers monitor, manage and control their storage subsystems. We specialize in storage software solutions for IBM z/OS, Hitachi VOS3 and Fujitsu MSP operating systems.

Our software provides superior function and features, allowing managers and users to maximize their investment in storage systems. It is designed to solve many of the problems encountered by storage administrators and operations staff, allowing a limited number of administrators to manage a rapidly expanding storage environment.

dtssoftware.com ■ info@dtssoftware.com / 919-833-8426

➤ Storage

Allocation Control Center (ACC) Monarch

ACC Monarch gives systems administrators the complete control you need to manage disk and tape storage resources in z/OS and the DFSMS storage subsystem. Features include:

- Standards enforcement: Easily examine, override and record users’ JCL or IDCAMS control statements
- Resource management: Control disk and tape device selection, OPENs and set detailed attributes for SMS and non-SMS data sets
- Policy-based control: Manage datasets, GDGs, RLS logstream attributes and jobs
- Tracing and recording: Extensive tracing, SMF recording, logging and debugging capabilities

NEW COBOL Migration Manager (CMM)

Introducing COBOL Migration Manager (CMM), a game-changing software solution from DTS. As z/OS evolves and older COBOL versions become obsolete, CMM offers a new approach to mainframe application modernization. The solution provides data-driven insights to help prioritize COBOL migration, saving countless hours of manual work. CMM preserves valuable recompiling resources by giving users a snapshot of what programs are in production. Integration with current reporting solutions provides a dashboard view that enables organizations to include COBOL modernization with other initiatives.

Space Recovery System (SRS)

Space Recovery System (SRS) eliminates production failures when available disk storage can’t meet application needs. SRS identifies available space and dynamically matches the application requests to free space, averting job failures and reruns due to out-of-space errors. Features include:

- Prevents out-of-space errors: Db2, VSAM, non-VSAM, SMS-managed, disk or tape
- Improves throughput: Eliminates production restarts/reruns, especially during peak workloads
- Eliminates human factors: Identifies available space automatically
- Improves space utilization: Allows more efficient use of expensive storage resources

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Enterprise Performance Strategies, led by Peter Enrico, has assisted hundreds of installations with their z/OS performance needs. Our services include z/OS performance education, consulting services and our premier z/OS SMF performance reporting software, Pivotor. We specialize in extending our expertise to ensure that your workloads are meeting their performance objectives while resource usage is optimized. We also work to ensure your mainframe environment is running as efficiently as possible.

epstrategies.com ■ peter.enrico@epstrategies.com / 813-435-2297

➤ Performance

Pivotor Free Cursory Performance Review

Peter Enrico and Scott Chapman offer a 60- to 90-minute complimentary z/OS performance discussion and data review. Prior to the review, we will request a set of raw SMF data. Once received, we will do a preliminary analysis of your data, after which we will schedule the review to discuss the data and answer questions to address concerns. After the discussion, you will have access to all reports provided by Pivotor, our z/OS performance reporting solution.

➤ Services/Consulting

z/OS Performance Health Check War Rooms and Performance Education Workshops

Peter Enrico and Scott Chapman offer z/OS performance analysis workshops and consulting “War Rooms” to provide in-depth z/OS performance reviews, analyses, discussions, education and a post-session call to discuss your environment and recommended changes. Prior to our workshop, you send us your SMF data and during the workshop you will perform z/OS performance analysis. Our War Rooms are interactive, on-site or virtual, and include a preliminary analysis of your performance and a follow-up call to review the effects of any implemented changes.

➤ Tools and Utilities

Pivotor z/OS Performance Reporting

In contrast to other z/OS SMF data reporting products, Pivotor z/OS performance reporting has the embedded expert knowledge and actual intelligence to help with the optimization of your environment. Some of Pivotor’s core architectural features are exception analysis, drill down by association, long-term reporting and data aggregation, short-term reporting and high-frequency analysis. We also have built-in “playlist” analysis, custom reporting capabilities and regular access to our team of performance experts.

z/OS Performance Management: Humans Still Needed

Several months ago, I was telling my wife how amazing this ChatGPT thing was: I just gave it a description of a Bash script I needed, and it wrote code for me that was about 95% correct on the first try. She said she wouldn't have guessed that my job would be among the first that artificial intelligence (AI) would take over. I told her it was good my job wasn't writing Bash scripts!

At Enterprise Performance Strategies, we help customers with their z/OS performance issues. While AI and machine learning (ML) have a place in augmenting mainframe technicians' abilities, AI and ML are unlikely to replace humans in managing z/OS performance anytime soon.

The primary reason I say this is that (so far) we don't have AIs that ask questions to understand your overall environment and your business objectives as they relate to your system and application performance. A simple example is capping: to lower their software costs, some customers intentionally limit performance to what is required to satisfy their business needs. Others avoid capping because it's

more important to them to provide as much capacity and performance as possible to their applications. Determining the proper capping level (if any) is a combined technical, financial and business decision.

We make many performance recommendations to customers, and these recommendations commonly come out of a larger discussion and almost always involve a trade-off of some sort. The most benign are those that redistribute resources from workloads that are providing more performance than is required to those that are suffering. But sometimes, harder choices must be made—some workloads might have to suffer for the greater good. Balancing competing workloads requires institutional knowledge.

In general, if you're getting z/OS performance tuning recommendations, you should be able to understand both why the recommendation is being made and the side effects of the recommendation. AI and ML may be able to highlight areas for improvement, but it's still up to you to understand your overall environment and what the real business priorities are. ■



SCOTT CHAPMAN
CIO
SCOTT.CHAPMAN@EPSTRATEGIES.COM

Co-creator of Pivotor, Scott has more than three decades of diverse experience in mainframe performance and capacity, having been an application developer, application performance analyst, system programmer and capacity planner. At EPS, Scott has helped many customers understand and improve the performance of their z/OS systems.



Software Consulting Education Enterprise Performance Strategies, Inc

For over 20 years, we have provided software and education to help our customers reach superior mainframe performance.



Peter Enrico
President & Founder, Co-creator of Pivotor®

Pivotor®
Pivotor, our performance reporting software, reads SMF data to return customers in depth reports and charts. This software is intelligent, easy, affordable, educational, and customizable.

z/OS Performance Education and Consulting
We offer unique z/OS performance Health Check® "War Rooms" and educational workshops. Both use your own data for in-depth discussions, education, and analysis, followed by post-session calls with our team.

z/OS Performance Complimentary Extras
Our own YouTube channel "The Mainframe Performance Channel", educational webinars, complimentary cursory data reviews, presentations, and more!



Scott Chapman
CIO, Co-creator of Pivotor®

Ask about our FREE z/OS performance reporting tier!

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Enterprise Systems Associates Inc. (ESAI) has tools for database productivity, enterprise-wide test data management, performance, audit and security for mainframe and distributed systems. Our mission is to help IT get the job done, maintain service-level agreements and realize operational savings. Qualified database and IT staff resources are in short supply, and workloads are increasing. Our innovative solutions help you meet this challenge through automation as well as optimizing workloads, cost, machine and staff efforts.

esaigroup.com ■ info@esaigroup.com / 866-464-ESAI

Database

DBARS

Database access monitoring approaches in vogue miss reporting accesses to sensitive data and hacker breaches. DBARS's unique and efficient intercept-based technology for Db2 database auditing and protection overcomes these deficiencies. Its real-time database access monitoring and reporting technology implements powerful auditing, alerting and blocking capabilities with minimal overhead. Costly Db2 audit tracing and/or log processing are made obsolete. This provides a more powerful, timely, cost-efficient way to audit and protect data from being breached.

XDM/ BCV5

XDM/BCV5 enables you to find and order the data that fits your needs, manage data across different environments and automatically deliver data to where it's needed. This comprehensive test data management solution facilitates data masking, data refreshing, cloning and efficient data provisioning. It supports Db2 z/OS, Db2 LUW, Oracle, MS-SQL, PostgreSQL, VSAM, IMS, cloud, DevOps and more. The XDM/BCV5 suite enables developers, DBAs, test/QA and general IT staff to tackle daily challenges with flexible, repeatable, error-free processes.

Performance

BPA4DB2/SQLQC

BPA4DB2/SQLQC is a buffer pool advisor and SQL performance/tuning solution for Db2 for z/OS. It replaces old, dated vendor solutions with a new level of expert analysis. It easily identifies, recommends and performs ongoing monitoring and alerting to ensure optimum performance and responsive Db2 systems. The SQLQC component identifies and analyzes problem SQL from mainframe or distributed systems, and offers actions for improvement, simulation and overall performance advice. BPA4DB2/SQLQC offers modern, powerful analysis with low overhead and low trace data volume. Partners include authors UBSHainer, GmbH and SPR.



For more than 40 years, Fischer's vision for software development has been to provide innovative solutions designed to leverage and enhance the mainframe's place in the enterprise. Accelerate time to productivity with Fischer solutions for the mainframe. Interactive Output Facility (IOF) provides value with a strategic diagnostic ability and bottom-line problem resolution. Additionally, Fischer's strategic partnership with LogOn provides maintenance and support for various IBM products.

fisc.com ■ information@fischerinternational.com / 239-643-1500

Security

Identity and Access Management (IAM)

The principles of zero trust are the foundation for Fischer's full suite identity solution. When you can control all aspects of identity, you will have a more secure business. We offer automated provisioning, identity governance, password management and access management. Request a demo at www.fischeridentity.com.

Systems Management

IOF JES2 Management

IOF JES2 Management benefits your entire team by providing greater diagnostic tools for daily operation and detail for fast bottom-line problem resolution. IOF accelerates time to productivity with an intuitive interface.

In addition to all standard JES2 management features, the powerful executive job summary provides a comprehensive view of job information on one screen, including a return code and a menu of its sysout data sets.

Maximize productivity with:

- IOFSEND, a unique standard feature that automatically converts batch job output into HTML and emails it for easy filing on your PC.
- The ZF command, which allows the user to browse an entire PDS as a flat file. Scan for strings in a PDS using a revolutionary new approach unique to IOF.
- JobFind (JF), which allows users to browse all the jobs in the job list.

IOF allows the user to apply knowledge of another product's commands to IOF with a minimal learning curve for users of other JES2 products.

To learn more about IOF, go to www.FISC.com.



Infotel is an enterprise software vendor and IT consulting firm helping customers thrive in the digital age with solutions that optimize and improve z/OS usage and costs. Our diverse suite of products provides intelligent insight, automation and optimization tools that enable our customers to serve their customers better, more securely and at a lower cost.

insoft-infotel.com ■ software@infotel.com / 800-543-1982

➤ Application Development

Application Parallel Testing (APT)

Infotel’s z/OS Application Environment for Parallel Testing (APT) solution is the only testing tool using VSAM and containerization that leverages automation and isolation of programs and data for faster test cycles. With APT, the lead time of the most critical and costly stages of the test cycles is greatly reduced so applications are put into production faster and with less resources.

➤ Performance

DB/IQ QA (Quality Assurance)

DB/IQ is a tool designed for DBAs and DevOps to ensure high quality and maintainability of Db2 applications. DB/IQ evaluates the health of your existing applications, ensures full compliance of code put into production and suggests ways to optimize application performance.

DB/IQ Package Management (PackMan)

DB/IQ Package Management (PackMan) helps manage the DevOps chaos by identifying redundant packages, removing them and reorganizing the Db2 catalog. The result is a cleaner Db2 catalog that is streamlined for more reliable application performance.

➤ Tools and Utilities

Arvitam

Arvitam is a digital preservation solution enabling long-term protection of all electronic enterprise data. It preserves vital digital assets, eliminates risk of non-compliance with regulatory obligations and strengthens trust in clients’ data.



Log-On Software Inc. is a leading developer and provider of world-class software solutions, from programming to the complete management and execution of development projects. Log-On’s mastery of leading-edge technologies combines with extensive development experience to deliver superior solutions. With over 30 years’ experience and 850 specialists in software, data communications and security, Log-On delivers innovation and value across mainframe, security systems, e-business and more. Log-On serves all major industries, including many of the world’s largest organizations.

log-on.com ■ ask@log-on.com / 603-458-5300

➤ Application Development

Inspect-CPU

Inspect-CPU (ICPU) is an innovative, real-time CICS performance solution that monitors the activity of application programs, providing unique insights into application program performance characteristics. ICPU points out the programs that cause spikes in CPU usage and erratic response times, providing new opportunities to save CPU cycles and increase throughput. Most importantly, due to ICPU’s very low overhead (<2%), ICPU can monitor applications in production for unlimited time periods to capture sporadic problems—and provide an accurate picture of your programs’ CPU usage.

Log-On APL2

Do you need continued support for IBM APL2? IBM support for APL2 ended Sept. 15, 2021. Log-On APL2 is a direct replacement utilizing the same code base. Through Log-On APL2, continued support, maintenance and enhancements are available to users of IBM APL2. Log-On APL2 is a powerful interactive environment and programming language for modeling and solving problem sets in areas ranging from visualization and engineering to statistics and commercial data processing.

➤ Communications and Connectivity

Log-On NV FTP

IBM support for Netview FTP ended Nov. 30, 2022. Log-On NV FTP is a direct replacement utilizing the same code base. Log-On NV FTP offers continued support, maintenance and enhancements for IBM Netview FTP users. NV FTP is a solution for high-performance, reliable, efficient, secure bulk file transfer between z/OS systems. NV FTP offers direct fetch and store capability (i.e., no intermediate spooling), peer-to-peer operation, efficient data compression, checkpoint/restart support, file type conversion and more.



Database

QuickSelect for Db2 Performance

QuickSelect for Db2 delivers immediate performance gains and CPU savings for Db2 applications and batch jobs by caching frequently requested result sets outside Db2 in memory above the bar. QuickSelect eliminates expensive round trips to Db2 while delivering up to 100 times the performance of Db2 buffer pools! QuickSelect update sensitivity prevents data integrity issues and dirty reads. It is truly plug-and-play with absolutely no changes to programs, Db2 or JCL!

Total Utility Control for Db2

Executing the right Db2 utility at the right time against the right object is vital to the health of Db2 objects and the efficiency and performance of Db2 applications. Unfortunately, the DBA group often lacks the resources to continuously optimize the timing and scope of utility execution. Total Utility Control provides a flexible, vendor-agnostic framework that automates and optimizes all aspects of utility execution to ensure the highest level of Db2 performance and availability.

Linux on IBM Z

Log-On Wave for IBM Z

Log-On Wave for IBM Z, the successor to IBM Wave for z/VM, is a systems management and productivity solution for highly virtualized Linux environments under z/VM. With its powerful and intuitive UI, Wave shields the complexity of z/VM and simplifies the configuration, operation and management of Linux instances and resources. From one intuitive screen, you can easily manage complex IBM Z Linux infrastructures—automating repetitive tasks; responding faster to business requests; and quickly addressing performance and operational issues.

Storage

VTFM-NewGen

VTFM-NewGen is a software-only solution that manages z/OS tape volumes directly on mainframe DASD and in the cloud. VTFM-NewGen leverages your investment in commodity storage—no additional hardware is required. VTFM-NewGen delivers bulletproof mainframe reliability and availability to manage your most active critical tape volumes. VTFM is a transparent install and requires no change to your existing storage processes. Just define VTFM to your tape management solution, allocate storage and specify the volumes you’d like VTFM to manage—on-premises and in the cloud.



Since 1980, MacKinney Systems has provided some of the most widely used z/OS and z/VSE tools in the mainframe industry. MacKinney Systems has developed tools used by Fortune 500 companies worldwide and has achieved global acceptance by providing the best price and performance combined with top-quality support.

mackinney.com | sales@mackinney.com / 417-882-8012

Data Management

CICS/MAPR II, Easy Help for CICS, CICS/Forward Recovery

- Features include:
- CICS/MAPR II: Create or modify CICS screens fast and easily
 - Easy help for CICS: Easy-to-implement interactive help without program changes
 - CICS/Forward recovery: Quickly recovers corrupted or lost CICS VSAM files

CICS File Availability, MacKinney Batch to CICS

CICS File Availability provides file reorganization with concurrent update access in CICS, bringing you closer to 24-7 availability. After a CICS to batch file copy, any tasks accessing the file are suspended for the time it takes for a file rename. Users see a slight delay during the rename instead of file-closed error messages.

MacKinney Batch to CICS (MBC) provides the ability to control CICS resources from batch. With more than 50 commands, you can easily alter VSAM, RLS, program, TranID and TDQ resources. Complete audit trails and full security make MBC a choice tool for Fortune 500 companies.

ISPF/VSAM Utility and VSAM AdminAid

ISPF/VSAM Utility provides online access to the most used VSAM functions typically done with IDCAMS batch processing: allocating (defining), renaming, copying and deleting VSAM files with no LRECL or file size restrictions.

VSAM AdminAid aids in monitoring, tuning and reorganizing the production of VSAM files. VAA reduces online response times, batch window, CPU cycles, DASD space usage and VSAM administration time.

JES Report Broker, JSF-Job and Syslog Facility

MacKinney Systems offers a cost-effective and secured document delivery and archival system for the mainframe. JES Report Broker delivers JES documents via a secure web browser, FTP or email with available AFP transforms to PCL, Postscript or PDF. JOB and Syslog Facility archives JES SYSLOG to the JSF database for ISPF viewing and other processing.



Document Imaging

JES Queue for Printers, VTAM Virtual Printer, MacKinney Print Transform, VSE/Power Queue for Printers

MacKinney Systems provides mainframe cost-effective and secured printing solutions. These printing solutions—including JES Queue for Printers, VTAM Virtual Printer, MacKinney Print Transform and VSE/Power Queue for Printers—deliver reports from the JES or VSE/Power spool to TCP/IP printers or print servers. Included are Solimar and Xerox’s LCDS interfaces. Traditional CICS printing is captured and redirected to a TCP/IP printer. Advance Function Presentation transforms to PCL, Postscript or PDF are available.

Systems Management

VTAM/Switch, Session Manager/SWAP, Session Manager/Menu

VTAM/Switch is a full-function multi-session VTAM manager. Session Manager for CICS/SWAP gives you up to eight CICS terminal sessions with the ability to launch specific applications per session. Session Manager for CICS/Menu lets you group users and gives menu access to CICS group-centric applications.

Test Data Management

TRACK, XRAY and Dump Detective

TRACK, XRAY and Dump Detective are MacKinney Systems’ cost-effective mainframe application debugging and analysis tools for z/OS and z/VSE environments. These tools provide application developers with an interactive source-level debugging session for Assembler, COBOL and PL/1 programs. They enable fast, effective development, testing and maintenance for CICS and batch programs.



MainTegrity Inc. is a software development company leading the way in innovation for z/OS mainframes. Our mission is to create software solutions that make the mainframe the most secure platform on Earth.

Our FIM+ product delivers both cybersecurity and compliance with a high degree of automation and is particularly effective against ransomware.

Early Warning detects and stops malicious encryption in seconds. Data exfiltration can also be identified and mitigated to help revolutionize mainframe integrity.

maintegrity.com ■ expert@maintegrity.com / 403-818-8625

Security

NEW FIM+

MainTegrity FIM+ delivers the only full-function file integrity monitoring solution for IBM mainframes. FIM+ integrates with your existing cybersecurity tools on z/OS, cloud and other platforms to eliminate security gaps that hackers exploit.

FIM+ enables you to:

- Combat ransomware and detect other malicious threats
- Intercept/suspend malicious encryptions in seconds
- Fight data exfiltration by tracking suspicious user behavior
- Respond to attacks with GUI-driven forensics
- Recover compromised software and parms surgically
- Comply with PCI DSS, NIST CSF, HIPPA, GDPR and other standards
- Reduce admin and compliance work for support staff

Early Warning

Stop ransomware in seconds. In a revolutionary step forward for the IT industry, MainTegrity FIM+ software can now detect and help neutralize ransom attacks. Encryption can be weaponized in the hands of unscrupulous criminals or rogue state entities. FIM+ can now identify malicious encryption actions and suspend the offending process immediately. Our GUI-based investigative tools make it easy to react. Halting the damage being done results in time to ensure the correct actions are being taken, instantaneously!

In addition, Early Warning provides protection against other common assault vectors including mass deletes, data overwriting, suspicious user behavior and more. Rather than waiting hours or days for conventional tools to indicate a problem exists, customers can react immediately, limiting the damage done to sensitive data by orders of magnitude.

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Over 10 million global IT and business professionals trust Rocket Software to solve their most complex IT challenges across applications, data and infrastructure. By architecting innovative solutions that deliver next-generation experiences, Rocket Software brings customers from where they are in their modernization journey to where they want to be.

rocketsoftware.com ■ 855-577-4323 (Toll-free) / 781-577-4324 (Direct)

Application Modernization

Rocket DevOps Solutions

Rocket Software offers DevOps value stream management solutions, DevOps-enabled JCL management solutions and open-source software solutions for z/OS to help accelerate and optimize your modernization journey—from mainframe to cloud—taking advantage of the latest innovations in AI-driven automation, development tools and open data formats.

Cloud

Rocket Solutions for Hybrid Cloud

With Rocket Software’s hybrid cloud solutions, get the best of both the cloud and on-premises IT infrastructure—from IBM Z to IBM i. Discover, understand, access, replicate and synchronize, and store mainframe data without locking into a platform or cloud provider, and re-envision your IBM i strategy with an endpoint-agnostic suite of products developed with cloud in mind. No matter where you are in your journey, solve your most complex IT challenges with solutions that simplify modernization.

Data Management

Rocket Solutions for Content Services

Rocket Content Services enables organizations to bridge mainframe, distributed and cloud tools with a single technology fabric that unifies and governs critical business data and information at scale. We don’t offer a one-size-fits-all solution because there isn’t one. We work with our customers to develop strategies and implement tailored content management solutions that reduce operational costs, improve data access, mitigate compliance risk and improve customer experiences.

HA/DR/Backup

Rocket Business Resilience

Ensure business continuity and resilience and drive modernization with innovative mainframe enterprise storage and performance solutions built to help you maintain high reliability, availability and serviceability on IBM Z. Improve data backup and recovery while reducing storage costs and ensure optimal mainframe health with solutions to help you tune your mainframe systems and processing.

Modernization

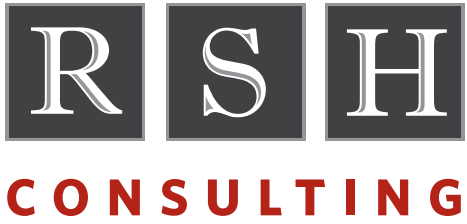
Rocket Solutions for Automation

With Rocket Automation Solutions, you can identify and automate your most critical manual and redundant operational business processes, workflows and workloads across your hybrid IT infrastructure—from mainframe to cloud. Reduce manual intervention, system downtime and processing errors, and free up resources to focus on value-added innovation for your business.

Security

Rocket Solutions for Mainframe Security

With Rocket Software, securing your mainframe isn’t just about defending against threats—it’s about evolving to meet the diverse challenges of today’s dynamic, hybrid IT environments. The mainframe is a crucial entity that enables billions of transactions globally every single day. And yet, it is not impervious to threats that are constantly evolving in complexity and sophistication. Dive into Rocket’s Mainframe Security solutions suite and empower your enterprise to mitigate risks, uphold compliance and ensure data integrity at every turn.



RSH Consulting, Inc. is a professional services firm established in 1992 and dedicated to helping clients strengthen their IBM z/OS mainframe cybersecurity by fully exploiting the capabilities and latest innovations in RACF. RSH staff is comprised entirely of exceptionally experienced technicians led by a recognized RACF expert. Our finely honed processes and extensive software toolset enable us to deliver the highest quality services efficiently and cost-effectively. For your next RACF project, contact RSH.

rshconsulting.com | sales@rshconsulting.com / 617-969-9050

➤ Security

RACF Security Reviews

RSH reviews pinpoint even the most obscure security exposures and identify opportunities for improving RACF administration and performance. We scrutinize all RACF controls to ensure critical system resources are protected. RSH looks beyond RACF to examine mainframe security policies, standards and procedures, and to inspect RACF-interface configuration options in other system software. This holistic approach provides a more insightful picture of the overall mainframe security posture. Knowing your security exposures is essential to prioritizing remediation.

RACF Implementation Services

RSH can tackle almost any RACF implementation, enhancement or remediation task, whether large or small and no matter how intricate. Our services are customized to meet specific client needs and budgets and range from occasional advisor to ad hoc assistance to complete, hands-on implementation. RSH staff can work independently or as teammates alongside client staff. We provide clear explanations of what was done and why so that clients can properly maintain controls going forward.

RACF Training

RSH is at the forefront of training the next generation of RACF administrators, technicians and auditors. Our course series offers the ideal pathway for expanding your RACF skills. RACF Level I Administration covers basic RACF functions and commands. Level II provides greater depth on RACF options and controls. Level III discusses RACF protection for CICS, JES, SDSF, DFSMS, programs and system commands. Securing z/OS Unix addresses the synergistic relationship between File System and RACF controls.



SMT Data is a Denmark-based software solutions company helping clients optimize IT resource consumption and understand how IT capacity costs relate to business activities.

The flagship product, ITBI Enterprise Insights, collects, aggregates and processes technical capacity and performance data—and a broad range of other data—from customers’ hybrid IT infrastructure across mainframe, Windows and Linux servers, whether on-site, cloud-hosted or outsourced. ITBI helps IT organizations deliver the best quality service at the lowest cost.

smtdata.com | sales@smtdata.com / 00-45-39-62-88-87

➤ Business Intelligence/Analytics

ITBI for Z

IT Business Intelligence for z/OS (ITBI for Z) supports capacity management and performance analysis for z/OS. ITBI gathers log data like SMF, RMF and more, and an advanced business intelligence tool helps customers analyze the data to reduce capacity costs and improve performance and availability. ITBI includes a tool for building extensive standard reports. The technical data can be enriched with business dimensions, revealing the relationship between capacity costs and applications, business units or activities.

ITBI for Servers

IT Business Intelligence for Servers (ITBI for Servers) supports capacity management and performance analysis for Windows and Linux servers. ITBI gathers CPU, memory, disk and network capacity and performance data via an agentless collector program using Windows Management Instrumentation (WMI) and Secure Shell (SSH) connections. An advanced business intelligence tool allows customers to analyze data to reduce capacity related costs and improve performance and availability. ITBI also includes a tool for building extensive standard reports.

➤ Tools and Utilities

ITBI Data Lake

The ITBI Capacity & Performance Data Lake allows customers to analyze their data using the tools of their choice, including SAS, WPS, SQL, Python, R, Julia or other programming languages. Machine learning and AI tools can also be applied to the ITBI Data Lake.

The ITBI Data Lake allows for one-off queries as well as programmatic access.



Software AG helps you integrate anything, anywhere, any way you want with application, data, API and B2B integration in the same enterprise integration platform. Founded in 1969, Software AG understands the value of enterprise software. Businesses and governments around the world rely on mission-critical applications built on Software AG’s Adabas & Natural. By integrating your enterprise systems with the cloud and new technologies, Software AG helps you accelerate innovation by building on what works.

softwareag.com ■ appmod@softwareag.com

APIs

EntireX

EntireX provides API integration for COBOL and Natural applications. By reusing the business processes and high-value data of your custom enterprise applications, you can quickly add new digital channels, participate in hybrid-cloud environments, integrate with new applications, deliver robust user experiences on any device and gain real-time insights into your business.

Application Development

Natural

Natural is the programming language used by the world’s largest companies and governments to create modern enterprise applications on IBM z/OS, Linux and the cloud. It is so easy to learn that developers can be productive in a matter of days. With the NaturalONE Eclipse-based IDE, you can increase developer productivity, accelerate modernization and participate in DevOps lifecycle and toolchains.

Application Modernization

ApplinX

ApplinX provides a low-risk, non-invasive approach to modernizing your enterprise applications. Transform screen-based programs into modern web interfaces and high-value business services—without touching your code. By providing access from a simple browser-based web terminal, a modern front-end application, enterprise-wide web services or externally through application programming interfaces (APIs), you can unlock your core application functionality and data to make it available across hybrid architectures.

Business Intelligence/Analytics

StreamSets Mainframe Collector

StreamSets empowers data engineers to build, run, monitor and manage smart data pipelines for the modern data ecosystem. It provides a single pane of glass for monitoring all pipelines to eliminate blind spots and control gaps. StreamSets Mainframe Collector provides the most efficient and secure approach to liberate mainframe data (e.g., Adabas, Db2, IMS, VSAM) for cloud-based data analytics. The data is presented in a relational format, is easy to understand and can be queried with SQL.

Database

Adabas

Adabas is a high-performance database that supports large-scale transaction processing of data on IBM z/OS, Linux and the cloud. Adabas can store multiple data relationships in the same table, eliminating data redundancies found in RDBMS. You can easily access Adabas data with SQL, replicate to the cloud, data lakes and BI platforms.

Data Management

CONNX

Software AG’s CONNX provides data integration from the mainframe to multiple data platforms on-premises to the cloud. Whether you are looking to power data-driven apps, support real-time dashboards, move data to the cloud or support a hybrid architecture, CONNX can access more than 150 data sources and provide data virtualization, ETL, ELT, CDC and replication solutions at a low TCO. CONNX uniquely provides standard SQL data access to non-relational data sources (e.g., VSAM, IMS) in just minutes—so you can make faster decisions by putting real-time data at the fingertips of your analysts and decision-makers without moving it or impacting mainframe performance.

DIVE INTO MAINFRAME MASTER INNOVATIONS



“Since its introduction in 1964, the IBM mainframe has represented world-class business computing. Upon the solid foundation of the mainframe, the ecosystem constantly evolves, influencing the future of information technology.

Now, over 60 years later, it’s time to look at those foundational principles that are either unique to the mainframe or essential in other computing platforms that are equal to critical responsibilities and continue forward to see the further advancements and innovations that have built the key strengths of the most trusted information technology in the world.”

—Reg Harbeck, TechChannel Contributing Editor and IBM Champion

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Established in 1982, Software Engineering of America (SEA) is a worldwide leading provider of optimization, automation and system management solutions. SEA’s customers include nine of the Fortune 10 and more than 90% of the Fortune 500.

SEA enables IBM Z modernization efforts and DevOps initiatives. We provide solutions that cover all aspects of automation and optimization, including DevOps integration, batch performance, JCL management and report and output management.

seasoft.com ■ info@seasoft.com / 516-328-7000

➤ Systems Management

TRMS (Total Report Management System)

Total Report Management System (TRMS) enables viewing, archiving, distributing and printing reports and other IBM Z system production outputs.

IBM Z reports are accessed and viewed using standard 3270 terminal interfaces or modern user experiences, such as Web UI and RESTful APIs. Reports can be securely transformed into popular formats such as Excel, Word, PDF, HTML and text.

TRMS can also create indexes for searching across multiple reports and quick viewing of archived reports.

➤ Tools and Utilities

plus+Pack Suite

plus+Pack Suite is a complete JCL orchestration solution covering all aspects of enterprise JCL asset and testing management to achieve a higher level of automation and improve overall JCL quality.

plus+Pack thoroughly checks, validates, performs JCL run-time simulation and automates site standards enforcement and JCL changes.

plus+Pack can fully document your batch environment and identify which JCL components will be affected by a change or obsolescence. plus+Pack integrates with DevOps tools, including Java Scripting Language (JSL), Jenkins, Urban Code Deploy and IDEs.

\$AVRS (Sysout/Syslog Accumulation Viewing & Retrieval Solution)

The Sysout/Syslog Accumulation Viewing & Retrieval Solution (\$AVRS) is crucial for IBM Z system output management.

\$AVRS compression, self-optimization and elastic services fully automate the collection, archiving, viewing and retrieval of job entry subsystem output—including JCL, SYSOUT, Syslog and job log.

The \$AVRS accumulated reports are accessed and viewed using standard IBM interfaces or modern interfaces, including Web UI and RESTful APIs. \$AVRS advanced middleware provides a bridge to integrate other platform system logs.



The Source Recovery Company is a privately held corporation based in Atlanta, Georgia. SRC provides a service of recovering missing mainframe COBOL or Assembler source code directly from the executable object module.

source-recovery.com ■ jrahm@source-recovery.com / 770-712-9887

Services/Consulting

ReSource—Full Recovery

A Full Recovery delivers guaranteed accurate source code in the original language as created the executable module. Source Recovery uses its proprietary ReSource technology to rebuild the source code and then validates its accuracy by recompiling the new source and comparing the resulting object module to the original.

Recover Missing Source Code

The Source Recovery Company, with its patented ReSource technology, has been recovering COBOL and Assembler source programs directly from IBM z/OS mainframe executables since 1994.

ReSource technology rebuilds source code in its original language, then validates its accuracy by recompiling the new source and comparing the resulting object module to the original.

Today, missing source code is often identified when organizations embark on modernization journeys, migration projects or compiler upgrades. The complexity of applications, along with the diminishing availability of subject matter experts, means that seldom-accessed programs that were written 20-30 years ago simply disappear.

Why a source program is missing is not the issue. The question is: How can you fix the problem if you don't have the source?

That's where ReSource comes in. Recovering missing source code provides better results in less time and for a lower cost than rewriting or replacing the program. Additionally, it preserves the logic of the original source code and produces a functionally equivalent executable module.

Source Recovery services include:

- Complete recovery of an executable program back to its original language, limited to COBOL or Assembler
- Source code reconciliation to ensure a given source program is the same as the intended executable



Tone Software develops, markets and supports mainframe software that increases efficiency, reduces z/OS operational costs and increases the productivity of mainframe users and IT teams. Based in Anaheim, California, Tone Software is privately held and answers to customers, not shareholders.

Leveraging more than 40 years of proven expertise, Tone Software actively participates in IBM PartnerWorld and ISV Early Test Programs, SHARE and other relevant industry organizations. Tone Software is committed to delivering quality software and exceptional customer support 24-7-365.

tonesoft.com/mainframe ■ info@tonesoft.com / 714-991-9460

Systems Management

DYNA-STEP

DYNA-STEP dynamic STEPLIB allocation and ISPF library management reduces TSO overhead, system I/O, STEPLIB volume contention and LOGON PROC maintenance. Under TSO and ISPF, DYNA-STEP provides concurrent access to multiple product versions, ISPF libraries and Db2 subsystems to expedite testing, upgrades and system maintenance.

Transparently replace unsupported CBT STEPLIB shareware, CA TSOPLUS and other unsupported tools with the fully supported z/OS-certified DYNA-STEP dynamic STEPLIB solution.

OMC-FLASH

OMC-FLASH manages all JES3 and JES2 spool operations and resources, enabling users to view and control jobs, started tasks, TSO users, APPC jobs, active tasks, held and non-held output, devices, workflows, and the entire JESPLEX.

OMC-FLASH supports all JES options, including JES3, JES3plus and JES2. JES Management capabilities include a REXX API, WLM support, PROCLIB display, Resource Monitoring display, Batch facility, Spool Volume Display and CONFIG to fully customize panels.

JES2Mail and JES2FTP

JES2Mail and JES2FTP enable z/OS shops to transform mainframe output into PDF, XML, HTML and spreadsheet-ready formats, then securely deliver the output to users' email, FTP servers, RSS feeds or the cloud, all with few or no host job changes.

With JES2Mail and JES2FTP, output from legacy z/OS applications, including CICS transactional applications, can be customized to segment content, mask data, add graphics, add a table of contents and encrypt files for secure delivery to specific recipients on the most cost-efficient platforms.

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Since 1978, Trident Services has established a solid reputation for the excellence of its software, responsiveness of its support team and the expertise of its consulting staff with more than 40 years of experience in their individual specialties. Trident has been an IBM business partner for more than 29 years. Since launching its first software solution in 1988, Trident has continued to develop and enhance its software products and services to keep pace with industry changes, emerging technologies and client-driven needs.

triserv.com ■ sales@triserv.com / 800-887-4336

Services/Consulting

z/OS Systems Consulting

We offer a wide spectrum of services to fit our clients' needs, including: mainframe managed services, staff augmentation and extended systems programming support. Trident Services' U.S.-based staff has, on average, over 25 years' experience in their individual specialties. We are a full-service mainframe support team, available for unique scenarios and special projects. Reach out to our services team for more on how we can support your environment.

Systems Management

zOSEM for Software Cost Reduction

zOSEM can lower your software maintenance bill effectively, easily and safely by defining processing policies.

With zOSEM you can reduce software license charges. ISV software and IBM MLC products are licensed based on the total capacity of the LPAR(s) on which they run, regardless of how little capacity the products use. If you can run ISV software and IBM MLC products in fewer or smaller LPAR(s), you can significantly lower your ISV software and IBM MLC costs.

zOSEM HSM Reporting and Optimizer

zOSEM HSM Optimizer provides reports and real-time policies that can significantly reduce DFSMSHsm resource usage. This can potentially lower the rolling four-hour average for all IBM MLC products.

VANGUARD
INTEGRITY PROFESSIONALS
CYBERSECURITY EXPERTS

Vanguard Integrity Professionals is the largest independent provider of enterprise security software for addressing complex security and regulatory compliance challenges.

Vanguard continues to innovate and expand its portfolio of cybersecurity solutions and services and offers a range of options designed to help organizations secure their mainframe environments, including security assessment and compliance services, security software solutions, migration services, and training and support.

go2vanguard.com ■ 702-794-0014

Compliance

Vanguard Mainframe Software Delivery System (VMSDS)

This capability facilitates the process of delivering software updates, changes and new applications to RACF, ACF2 and Top Secret (TSS) environments. The primary purpose of this tool is to ensure the efficient and reliable delivery of software while maintaining the stability and integrity of the mainframe system, as well as meeting software patch management requirements. A successful patch management process requires an organization to stay current on available software patches, properly testing them to ensure proper installation and documenting the process.

Vanguard Active Alerts with SIEM

Vanguard Active Alerts (VAA) sends user-specified, event-driven data to SIEMs, SNMP or SYSLOGD formats. The identified target devices receive real-time information in a timely manner for compliance, security and audit requirements. VAA provides the ability to continuously monitor security related events at the system and or user-specified level. When an event occurs, VAA will notify the SIEM in order for organizations to take decisive action and make critical business decisions.

Vanguard Compliance Manager for RACF, ACF2 and TSS

Vanguard Compliance Manager (VCM) is an exceptional tool for any external and internal regulation to perform critical compliance checks. It exposes adherence to industry specific or clients' custom checks without costly and time-consuming processing overhead. Security and audit teams can more efficiently identify potential company-wide compliance violations immediately. VCM will perform baseline checks for custom NIST, DISA, STIG and CIS requirements while taking corrective actions by enforcing company-specific security and compliance in harmony with today's industry-standard requirements.

Vanguard Compliance Manager with SIEM Connectivity

SIEM connectivity for VCM allows you to monitor, search, analyze and visualize systems compliance data in real time for automated reporting. This process is powered by Vanguard Aggregation and Delivery (VAD). With VAD, it is now possible to automatically access and process the results file of VCM from a centralized site to multiple LPARs across the z/OS enterprise and send them to the SIEM using a standard SYSLOG interface. This offering is currently available for Splunk.

Vanguard Policy Manager

Vanguard Policy Manager policy profiles are created and administered using user-friendly ISPF panels or native z/OS RACF commands which are used by all security administrators. These policy profiles manage the commands that administer the user ID, group, data set and general resource profiles that cover your resources, not the resources themselves.

Policy Manager also supports a feature called best practice policies. These are predefined, user-enabled policies based on industry-wide best practices. Added support allows authorization check for the value(s) of the ADDMEM and DELMEM parameters using command policies.

Vanguard Multifactor Authentication (VMA) for RACF, ACF2 and TSS

VMA integrates with z/OS through the Vanguard Telecommunications Access Method (VTAM) to create the most comprehensive MFA tool in the industry. Vanguard extends the ez/Token MFA functionality of the VMA Suite into the VTAM logon process. When the VMA Suite is used with VTAM, it provides a VTAM log-on portal that authenticates users through a one-time use multifactor authentication personal identification number and/or security token along with an ESM user ID and, optionally, password (or passphrase) when they log on through VTAM.

Vanguard Privileged Access Monitoring (PAM)

Vanguard Privileged Access Monitoring (PAM) allows you to monitor data set and general resource access, RACF, ACF2 and z/OS commands issued—and the start and stop events for tasks like TSO, STC and JOB. With Vanguard PAM, you can specify criteria that helps narrow the scope to the events of interest for security and/or auditing purposes.



Velocity Software was founded in 1988 to create the premier performance products for the z/VM platform. z/VM system performance was Velocity Software’s singular commitment for a dozen years. With the introduction of Linux running in a z/VM environment and the proliferation of internet and networking activity, Velocity Software’s view of performance measurement and management has expanded to include Linux and the network.

velocitysoftware.com | info@velocitysoftware.com / 650-964-8867

Performance

zVPS Velocity Software’s Performance Suite

The complete performance package for Linux, TCP/IP, z/VM and z/VSE. zVPS contains the following components: zMON, zWRITE, zMAP, zTCP, zVWS, zVIEW, zALERT and zOPERATOR. Highlights include: capacity planning, operations support, performance analysis and chargeback. zVPS collects and analyzes data from z/VM, your Linux servers, network, z/VSE and z/OS systems in a consistent and integrated format. Data is continually collected, presented in real time and stored in a single performance database. Automatic analysis triggers alerts when exceptions occur. Reports are generated for long-term trend analysis and capacity planning—and all of this information is accessible via your web browser or a CMS terminal.

Systems Management

zPRO

zPRO focuses on modernizing z/VM and Linux cloud management.

Highlights of zPRO include:

- Builds and manages an on-prem cloud
- Simplifies the provisioning and management of Linux servers and the z/VM host system
- Simplifies access requirement for managing z/VM with simple and easy-to-use tools and functions
- z/VM system administration including a full zSPOOL feature to view console output, a built-in Directory Manager with zDIRECT, and security management
- Reduces z/VM administrator tasks by safely empowering end users

zOSMON

Features of zOSMON include:

- Offloads all processing from z/OS MIPS, leaving a footprint of almost zero resource consumption
- The incremental cost of processing each LPAR is expected to be much less than 1% of a processor
- zOSMON is designed to support an unlimited number of LPARs and CECs within one zVPS subsystem
- One enterprise view for operations, capacity planning, performance management and for chargeback
- zOSMON provides real-time performance monitoring with a one-minute interval



Vertali creates new value for clients by providing a focused pool of mainframe skills and resources not available anywhere else. At a time of continued digital transformation, our mission is to help you reduce risk, work smarter and deliver your mainframe strategy while securing and optimizing your environment. We also offer bespoke software development for clients and vendors focused on mainframe integration with distributed systems; solutions for management, monitoring and security; and networking and communications software.

vertali.com | +44 (0)1527 868380

Security

Mainframe Security Services

In an era of digital disruption and rising cybercrime, bad actors see the mainframe as simply another server to be hacked. Our unique mainframe security expertise helps you understand, secure and protect your systems and processes against the rising tide of internal and external threats. Our services include:

- Security assessments and remediation
- Penetration testing: Mainframe systems, applications, and vendor products
- Security as a Service, with remote services to manage and monitor your mainframe security (RACF, ACF2 and TSS)
- Cyber resiliency strategy and planning

Services/Consulting

Mainframe Outtasking and Staff Augmentation

We provide the right mainframe skills, resources and capabilities to augment and extend your in-house teams. Many mainframe houses face increased risk due to a lack of capacity and capability. With skills scarce and an aging workforce, it can be difficult to deliver essential projects as well as BAU. Vertali’s skills and support are proven across operating systems, subsystems (CICS, Db2, IMS, etc.), storage, hardware, software and ISV tools. Few other providers can match our z/OS infrastructure skills and support expertise.

Mainframe Migration Services

Our experts can help you make the move with confidence, de-risking and accelerating the transition. We provide advice and hands-on support for version-to-version software migrations and upgrades, vendor-to-vendor product swap-outs/migrations, vendor consolidation, data center migrations, data/DISK/DASD mainframe storage migrations and hardware migrations. Our approach helps you to contain and reduce costs while ensuring your environment is up to date, fit for purpose and optimized to deliver the value you need.



Virtel, a division of the SysperTec Group, is an independent software publisher founded in 1993 that develops, markets and supports a comprehensive suite of System Z modernization technologies. Virtel has more than 30 years’ experience helping organizations modernize access and usability of mainframe applications to improve productivity, save money and simplify support.

virtelweb.com ■ info@syspertec.com / +33 (0)1 46 02 60 42

➤ Application Modernization

Virtel Screen Redesigner

Virtel Screen Redesigner (VSR) transforms 3270 application screens into modern web pages that produce a genuine web experience. VSR is a no-code solution which overcomes issues earlier generations of 3270 web enablement tools experienced and is a simpler, faster and more cost-effective solution than redeveloping, replacing or rehosting 3270 applications. Virtel Screen Redesigner:

- Features a drag-and-drop interface design, customizable widgets, re-useable HTML templates and a real-time preview capability
- Is intended for use by personnel familiar with the legacy 3270 application
- Requires NO change to the mainframe application
- Requires NO web programming skills

➤ Communications and Connectivity

Virtel Web Access

Virtel Web Access (VWA) securely serves 3270 screens as standard HTML5/JavaScript web pages over encrypted HTTPS connections. VWA replaces outdated TN3270 terminal emulators and expensive VTAM session managers. With VWA, there is:

- Nothing to install or support outside of z/OS or z/VSE
- No Java/plugin security risk and ability to centrally manage macros
- Works with any browser on any web-enabled device
- Simplified multi-application access using the included Virtel Session Manager

➤ Web Development

Virtel Web Integration

Virtel Web Integration (VWI) creates highly scalable real-time connections to integrate CICS, IMS, TSO and other mainframe applications with server, web or cloud applications. VWI exposes host transactions either through legacy 3270 screen UIs or screenless COMMAREA transactions. Virtel Web Integration:

- Supports any web services protocol and format: RESTful, XML, JSON, SOAP, MQ and more
- Requires NO application code changes when using 3270 screen UIs
- Provides superior performance and scalability in a small host footprint



Zetaly is a dynamic software editor and innovative solutions creator dedicated to assisting customers in adapting our cutting-edge technology to their unique needs and ecosystem. Zetaly Data Platform is the cornerstone of our offerings. It empowers businesses to extract valuable insights from their data to enhance performance, streamline resource allocation and drive cost efficiencies, enabling businesses to gain a competitive edge in today’s rapidly evolving market.

zetaly.io ■ contact@zetaly.io / +33 (0)2 22 06 88 60

➤ Business Intelligence/Analytics

PredOps Solution: Zetaly Resource Planning

Zetaly Resource Planning is a predictive analytics solution designed to build capacity plans, taking into account the evolution of your business.

By harnessing Zetaly’s predictive insights and seamless integration with financial operations (FinOps), organizations can make data-driven decisions, negotiate contracts with confidence and track projected versus actual expenditures.

Based on historical activity and future user events, ZRP allows you to define the infrastructure and configuration requirements for your forecasted activity.

➤ Capacity Planning

FinOps Solutions: Zetaly Cost Control/Zetaly Automated Capacity

Discover how Zetaly revolutionizes IT cost management by providing a comprehensive view of expenses, automated cost attribution and clear visibility into resource utilization. With real-time insights, organizations can achieve budgetary control, set thresholds and receive alerts for proactive expenditure monitoring.

Zetaly Cost Control is a cutting-edge FinOps analytical solution tailored to monitor the financial impact of your information system.

Zetaly Automated Capacity is a FinOps-focused software solution that optimizes mainframe capacity utilization.

➤ Performance

ITOps Solution: Zetaly Service Intelligence

Zetaly Service Intelligence is an innovative ITOps solution built on the “quick and easy” concept. It enables organizations to quickly exploit operational data, extracting the necessary information for effective observation and decision-making in managing and optimizing information systems.

By leveraging ZSI’s observability solution (ITOps), businesses can easily tap into the valuable insights generated by their IT infrastructure, ultimately achieving optimal performance and maximizing the potential of their IT investments.

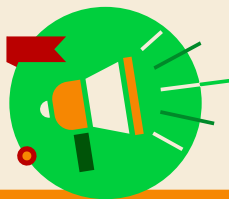
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EDUCATION • NETWORK • INFLUENCE

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SOLUTIONS
DIRECTORY

Resources



As more companies recognize the importance of speeding up innovation and accelerating their digital transformations, it's critical for ISVs to keep pace with new, innovative products, tools and services offerings to deliver what customers need, when they need it, adding value and driving better business outcomes.

The following partners and ISVs are launching new products or offerings in 2024, contributing to the vibrant IBM Z mainframe partner ecosystems with enthusiasm. We encourage users to investigate these availabilities on the platform:

New Products, Tools and Services Keep Customers Up-To-Date and the IBM Z Ecosystem Thriving

Storage

COBOL Migration Manager (CMM) from DTS Software

Introducing COBOL Migration Manager (CMM), a game-changing software solution from DTS. As z/OS evolves and older COBOL versions become obsolete, CMM offers a new approach to mainframe application modernization. The solution provides data-driven insights to help prioritize COBOL migration, saving countless hours of manual work. CMM preserves valuable recompiling resources by giving users a snapshot of what programs are in production. Integration with current reporting solutions provides a dashboard view that enables organizations to include COBOL modernization with other initiatives.

[Learn more about DTS Software and CMM on page 25 →](#)

Security

FIM+ from MainTegrity

MainTegrity FIM+ delivers the only full-function file integrity monitoring solution for IBM mainframes. FIM+ integrates with your existing cybersecurity tools on z/OS, cloud and other platforms to eliminate security gaps that hackers exploit.

- FIM+ enables you to:
- Combat ransomware and detect other malicious threats
 - Intercept/suspend malicious encryptions in seconds
 - Fight data exfiltration by tracking suspicious user behavior

- Respond to attacks with GUI-driven forensics
 - Recover compromised software and parms surgically
 - Comply with PCI DSS, NIST CSF, HIPPA, GDPR and other standards
 - Reduce admin and compliance work for support staff

[Learn more about MainTegrity and FIM+ on page 37 →](#)

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