



IBM System z9 Delivers a Mainframe-Class Solution for SAP

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Management Summary

When you are going to build the bones of your business, you should architect for screaming success, not for mere survival. You should look carefully for controllable operational costs, not just for the cheapest up-front expenditure and let tomorrow take care of itself. You should choose built-in security – because the paste-on of ex-post-facto security is certainly too late, often too little, and usually costs too much. Finally, the ability to scale in capacity, performance, and controllable devices is key to keeping management seamless and management costs under control. It is like the story of the three little pigs. You can build in brick, or you can build out of straw or sticks. If your build out of the straw and sticks of commodity systems, you are committing yourself to an ongoing litany of grooming, acquisition and replacement. Building with brick costs more, but you have a more permanent asset. The IT technology brick-equivalent is IBM's *System z9*.

The System z9 BC model¹, the new low-end mainframe, has a competitive price point that has attracted new customers to the long-term resilience of mainframe architecture. **The expansion of business opportunity that is driven by innovation has raised in enterprises a need for more granular control of IT systems and an aversion to the operational costs and endless procurement of infrastructure sprawl.** Now SAP and IBM have come out with a mainframe-class solution for the BC and its higher-scaling sibling, the EC. **So what are the characteristics of a mainframe-class solution?**

It is integrated in design, yet inclusive in scope, and in the elements supported. This is not a matter of mere base-line compatibility, like the *in or out* of modern television shows. It is not a competition to be a *best partner*, but a matter of designing the integration of the software and hardware elements to provide the best *functionality*. It goes a step further to offer the tuning and optimization services that fit the functionality to the customer's strategy and tactics. This tailors the solution, not just to requirements, but also to the reality of the business situation, not just at deployment but, if needed, on an ongoing basis.

It is designed to minimize ongoing costs (management and environmental), and to maximize the flexible use of elements over time – in the course of a day, or a week, or a quarter. The mainframe-class solution of SAP on System z9 is designed to scale large without a bifurcation, trifurcation, or scattering of control points – so that management costs do not go up as the environment expands. It leverages z9's copious use of mature automation, processors that can be turned on and off, and a heritage of support for continuous operations to support SAP well. It contrasts sharply with the appliance approach.

Both SAP and System z9 are comprehensive in design scope, granular in control orientation, and procedurally dense. There are many SAP solutions out there, but the combination of SAP with z9 is a match made in heaven. For more details about the *IBM System z9 Advantage for SAP Applications*, please read on.

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¹ See **The Clipper Group Navigator** dated May 23, 2006, entitled *System z9 BC - A Mainframe for the Not-So-Large Enterprise*, and available at <http://www.clipper.com/research/TCG2006040.pdf>.

Mainframe-Class Solution Advantages

Many solutions attempt to address the entirety of a problem. *IBM System z9 Advantage for SAP Applications* addresses the entirety of a situation, from the requirements and priorities, through the initial deployment, and all the way to addressing the changes that will probably be needed down the road. That is the way that everything in life should work, but we are often stuck with solutions that run out of gas or run out of scope. Perhaps the strategy and tactics were overly focused on the short term – so much so as to exclude the ramifications of longer-term scenarios. Perhaps the solution strategy was exclusively focused on resilience by *swap-out* and scalability via *more*, which works fine for peripherals and peripheral processes but not so well for business core functions (like those supported by SAP) that tie a business together.

System z9's built-in security and cryptography options, combined with its ability to be part of a heterogeneous system, make it useful for a number of IT roles. Specialty processors for *Linux*, *Java* and *data serving* provide an optimized environment for the particulars of these processes, while a high-functionality operating system to regulate the whole environment as a multi-tenant space. The mainframe becomes a place to safely develop and deploy innovations that can scale.

Integrated yet inclusive

The mainframe's more-than-four-decade heritage of virtualization² gives a variety of environments in which to run workloads. It can run Linux, Java and Windows environments under the control and security of z/OS, or can address and control them as separate environments. This capability is the basis for its new and expanding role as the inherently resilient controller that keeps business processes resilient and always available.

Focused on cost control and on re-purposing of assets

IBM has been working hard on improving the price/performance of the mainframe. These improvements come in comes in three forms. Each release of System z is designed to improve price performance significantly. The use of offload engines allows customers to avoid z/OS licensing charges³ for those workloads that do not benefit

² Including nested virtual environments and super-secure, share-nothing partitions

³ As a highly-evolved operating system with security and management features not found on other operating systems, z/OS is expensive to evolve and expensive – but it makes

SAP Solution Assets

- IBM *System z9 EC* or *BC*.
- IBM *zIIP z9* Information Integration Processor
- SAP Application servers from *System x*, *System p* and/or *System z*
- IBM DB2 UDB for z/OS
- IBM System Storage DS8000
- Tivoli *NetView* and *Systems Automation for z/OS*

All pre-integrated, pre-tested, plus the

- *IBM System Technology Center for SAP* - A virtual organization of IBM Centers of Excellence, IBM Labs, and SAP Development Lab dedicated to troubleshooting and knowledge transfer with regard to deployment and evolution of business use of the solution.

Source: IBM

from z/OS's advanced management functions. Now, with this solution offering, there is a rebate for customers in certain geographies.⁴

Ever since the days when technology was so crude that space, power and cooling requirements were truly gargantuan problems, the Mainframe has focused in minimizing operations costs. Environmental abstemiousness is designed in. IBM's *Cool Blue Initiative* launched in 2004 is built on this mainframe heritage. Processors that can be automatically turned on and off, by policy, according to need give another way to reduce costs while preserving the ability to address spikes of demand.

Today's business world is a world of constant operations. The technology ramifications of this requirement are not a matter just of hardware, but of resilience up and down the stack of hardware, middleware, and software. Customer expectations for quick response time and process efficiency are best addressed by well-integrated processes, and by the efficiencies of co-location. The agility given by the Mainframe's ability to prioritize, offload, and otherwise manage to business needs – not by

the platform exceedingly resilient and manageable by fewer people – producing ongoing savings in operational costs.

⁴ The rebate is offered to customers in Canada, the United States, and the Northern Caribbean area that purchase or upgrade to a new System z9, purchase at least \$50,000 of SAP software, and purchase any of the IBM Storage, Software, and/or services in the IBM "market-basket" of complimentary products. The rebate can be up to US\$250,000.

manual administration, but built into the system, can give a business edge to those in hyper-competitive environments.

Mainframe-Style Support

The *System z Technology Center for SAP Applications* is a virtual center that pools expertise from five Labs – four belonging to IBM and one belonging to SAP. The unified organization can provide the services you need when you need them. This is true both at deployment, when tuning for the particulars of the business is a primary concern, and farther down the road, when organizational change or refocus demands new kinds of optimization. This is a situation where having help from folks who do this kind of tuning often reaps big benefits.

The System z9 Advantage for SAP Applications leverages the deep commitment of partners to ongoing improvements evidenced by the two labs dedicated to IBM/SAP environments. When you add in the expertise of three other IBM labs, you get enough resources to address the ramifications of all sorts of new business models.

This is a lot more than a few FAQs and Web pages. It is more than on-line support (though there is that, too). It is even more than the on-site support that many large customers have come to expect. With the Technology Center, IBM and SAP focus on what it is that your business wants to do with this solution – not just today, but over time. This capability, judiciously used, can take costs out of your business. It can remove the costs of the time and resources of do-it-yourself evolution. It can avoid the lost revenues of timid or diminished expectations. And it can accelerate the value of a well-run business.

Conclusion

If you want to get on with business, build to suit your ambitions, to allay your risks and to address your fears and if you use SAP to run your business, think of the benefits of running it in a highly optimized, highly secure, mainframe environment. Think of the benefits of deploying and maintaining the environment that lets you leverage the expertise of others to take time and risk out of change – business change that, these days, is a normal part of survival. The costs you save may set you free.



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