



PUND-IT, INC.

Marketplace Update

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IBM's eServer zSeries – Helping Secure an Insecure World

By Charles King

The world is an insecure place in the best of times but during the past half decade security has come to dominate headlines and the public consciousness in issues ranging from geopolitical upheavals to fears over identity theft. Virtually all of these have some connection to information technology (IT), and indeed, security is a concern in areas including traditional and emerging federal and state government functions, expanding healthcare and financial regulations, and digital rights management.

For decades, IBM's mainframe solutions have offered enterprise customers singular security capabilities, but some vendors claim that their own servers are equal to IBM's zSeries solutions. Is this truly the case? We think not. While most other platforms have improved significantly during the past decade, the mainframe continues to evolve apace. Perhaps more importantly, though server solutions of every kind have become more sophisticated, the demands of datacenter computing are more rigorous now than they have ever been. Today more than ever, IBM's zSeries solutions remain the optimum choice for businesses requiring the highest levels of security performance and management.

Security's Changing Face

As IT solutions have become strategically important to enterprises of every kind, establishing and maintaining IT security has risen to the top of the must-do list for most companies. The reasons for this are largely practical. Since business processes can be enhanced by the cooperative exchange of information across organizations, all-too-common 'islands of computing' can tangibly impede a company's progress and success. The same thing applies to the information and resources companies share with trusted partners, customers, and vendors. The strategic nature of this information makes implementation of adequate security solutions business-critical.

The recent high profile security failures at Bank of America, CheckPoint, and Lexis/Nexis offer prime examples of the public embarrassment organizations suffer over security missteps, but they also provide insight into the more serious dangers that can result from such lapses. Punishment and fines from regulatory agencies are minor issues compared with potential legal actions affected parties might pursue. While security was once an esoteric subject, it is increasingly an issue whose influence extends far beyond IT. In essence, security is a critical element for establishing and maintaining essential trust in companies and their brands.

IBM's zSeries Security Features

For many enterprises, IBM's zSeries mainframe computing solutions represent the

epitome of enterprise-class security, and for good reason. The zSeries long-held integration of essential security capabilities is a model that IBM has adapted for its other enterprise IT platforms. The company's competitors have tried to emulate this approach with their own solutions, but IBM's integrated approach is more difficult to copy than most assume. These efforts are also complicated by the fact that competitors do not have mainframe solutions or expertise on which to draw.

Below is a list of the zSeries' security features and built-in capabilities that we believe are critical for most enterprises:

- Cryptography coprocessors/accelerators – zSeries cryptography coprocessors and accelerators are designed to address specialized security needs. The CP Assist for Cryptographic Function (CPACF) is built into every CP (central processor) and IFL (integrated facility for Linux) engine that ships with z890 and z990 servers, and provides cryptographic support for data Encryption Standard (DES) Triple DES (TDES) on every centralized processor (CP). Other zSeries options include PCI and PCIX cryptographic coprocessors, and a PCI Accelerator for computationally intensive public key operations
- Open SSH – Available through IBM's Ported Tools for z/OS, Open SSH allows non-z/OS servers to communicate with z/OS servers in security-rich environments, easing security management procedures in mixed-platform datacenters. OpenSSL technology supports secure login and secure file transfer processes.
- Intrusion Detection Services (IDS) – IDS supports detection of attacks and enablement of defensive mechanisms on z/OS servers. IDS offers self-protective features that can be used alone or with external, network-based intrusion detection systems.
- Multi-Level Security (EAL3+ certified) – Designed together with IBM's DB2 V8, IBM provides a multi-level security solution for zSeries servers using z/OS V1 Release 5, and supports government requirements for highly secured data shared between agencies. The combined solution allows customers to have a single secure data repository that can be accessed by various organizations and by people with different need-to-know classifications. IBM's Multi-Level Security is currently being evaluated for EAL 4 certification.
- PKI services – A base component of the Security Server element of z/OS, IBM's PKI (public key infrastructure) Services, allows customers to establish a PKI infrastructure to serve as a central authority for internal and external users. Digital certificates can be requested, obtained, and administered through Web browsers in accordance with organization policies. PKI Services also supports IBM's Resource Access Control Facility (RACF) for administering protected system and resource access.

In addition, IBM's zSeries solutions support numerous applications from Tivoli and security-focused ISVs including Vanguard, Consul, and Beta that are designed to help customers manage and monitor security across heterogeneous platforms.

zSeries Security - Traditional Strengths/Emerging Opportunities

IBM's zSeries remains a potent and trusted solution among the large enterprises that make up its traditional customer base, but the platform's native and evolving security capabilities also make it a natural solution for a wide range of emerging security-focused applications. Not only can zSeries solutions meet the needs of individual government organizations with the most rigorous security requirements, but tools such as IBM's new Multi-Level Security solution make the zSeries an ideal solution for se-

curely sharing common information across multiple agencies and individuals.

In addition, the zSeries proven security performance makes it a trusted solution for supporting applications focused on regulatory compliance in the financial and health-care sectors. Since these issues are likely to become increasingly thorny and complex over time, the zSeries offers an ideal platform for meeting both today's particular requirements and tomorrow's uncertain obligations. Finally, the zSeries' PKI offerings provide a rich environment for developing Web-based solutions to secure critical Personal Identifiable Information (PII) for consumers. Such offerings are key to creating workable solutions for continually evolving areas such as digital rights management.

Mission Accomplished?

Once considered an esoteric subject, world events and changing priorities have made IT security an increasingly critical issue for businesses and government agencies. Recent high profile security failures at Bank of America, CheckPoint, and Lexis/Nexis demonstrate the public embarrassment organizations can suffer over security missteps but also illuminate the dangers that can result from such lapses, including punishment and fines from regulatory agencies and potential legal actions by affected parties.

Over time IBM's eServer zSeries solutions have proven themselves equal to the most rigorous security-focused demands. Key zSeries features allow IBM customers to enjoy fully integrated and optimized security solutions, and offerings such as IBM's Multi-Level Security provide the means for enjoying the zSeries' unique benefits in new and emerging areas including public sector, healthcare, and financial industries, and digital rights management applications. These features and the company's commitment to the platform's continuing development suggest that businesses requiring the highest levels of security performance and management would do well to consider IBM's eServer zSeries solutions.

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