

zEnterprise Newsletter

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Clothespins and Keys Now what could they have in common?

By Maura Schoonmaker – mkt@us.ibm.com and John Dayka - dayka@us.ibm.com

When you think about clothespins they always seem to be easily lost or when you use them to hang different items out to dry, you find that there are never enough of them!

Now think about all of the keys in your enterprise...at a high level there can be large numbers of keys however at a closer look some are for applications hosted on the System z platform and some are used by applications hosted by distributed platforms – but like the clothespins you may not really be sure of where they are. Wouldn't it be simpler if those distributed applications could keep their keys in one place and benefit from the hardware cryptography that is present on System z? How can this be done?

Well, it's simple really... IBM has released a new security solution called [Enterprise Key Management Pillar-Advanced Crypto Analytics Provider \(EKMP-ACSP\)](#), which enables the System z Cryptographic Hardware to be utilized across the enterprise for all of your cryptographic transactions.

EKMP-ACSP is a cli-

ent/server solution which enables distributed platforms to use the cryptographic coprocessor hardware on System z without any additional investment in cryptographic hardware on distributed platforms. For instance, a banking application running on a distributed platform could use the remote crypto services provided by EKMP-Advanced Crypto Services Provider to process sensitive operations that require the security provided by the Crypto Express coprocessors. EKMP-ACSP provides both PKCS#11 and full CCA programming services that enable remote applications to utilize the full capabilities provided by IBM System z Cryptographic hardware. On z/OS, the ASCP server can resolve and route through z/OS ICSF both PKCS#11 and CCA requests to the appropriate ICSF Services which in turn leverage the System z cryptographic hardware to perform the desired operation. The ACSP server can authorize the use of crypto operations and keys.

The EKMP-ACSP Server supports multiple hardware and OS environments –

where IBM hardware cryptography is supported. The supported clients are AIX, Linux, Windows and PureSystems as well as APIs in CCA, PKCS#11 and Java which helps to facilitate the use of this solution in multiple environments.

Now that we have ironed out the pieces of the EKMP-ACSP solution and the supported environments, let's take a look at how ACSP functions. The ACSP client binds to the ACSP server, where the ACSP server (in this example) uses the Crypto Express hardware to process requests made by the client application. The crypto operations are performed in the secure hardware boundary of the coprocessor card with results returned to the ACSP server, which in turn responds to the ACSP client and thus the requesting application. The communication between the ACSP server and client is protected by a SSL/TLS connection, which ensures the privacy of data. EKMP-ACSP centrally satisfies the crypto needs of authorized clients!



EKMP-ACSP - Conclusion

This EKMP-ACSP solution is a companion to the [Enterprise Key Management Foundation \(EKMF\)](#) Security solution. EKMF provides a centralized management system and point of control for managing crypto keys across multiple platforms and systems. Pairing EKMF with EKMP-ACSP enables both key management and cryptography as a service to other platforms and applications within your environment. The EKMF workstation provides a central-

ized console for key management operations and the keys used in the EKMP-ACSP solution. Between EKMF and its pillars, you have the ability to compose and tailor key management solutions that can meet the most pressing cryptography needs. This alone is a huge bonus, you will be able to have a single point of control for all of your key management operations across your enterprise while being able to provide a view of your cryptographic system

for your auditors.

To learn more about the Enterprise Key Management Pillar-Advanced Crypto Services Provider from IBM, and other related products and services, please contact your IBM representative or contact stgls@us.ibm.com or visit: ibm.com/systems/services/labservices or visit the System z Security Solutions site: <http://www-03.ibm.com/systems/z/solutions/security.html>

IBM Content Manager OnDemand



IBM Content Manager OnDemand

By Rick Gawronski – rgawrons@us.ibm.com

Are your customers demanding self-service access to their statements? Are your executives demanding “greener” delivery of content to your customers? Are you looking for ways to reduce the costs associated with statement delivery?

You’re not alone. Many companies still distribute their transaction-related content through print documents—even though this is an expensive and inefficient option for business users and customers alike. Not only does this outdated practice impact user productivity and create customer dissatisfaction, it also incurs high printing and storage costs. To respond to new opportunities and challenges, businesses need to get the right information to the right peo-

ple at the right time, quickly and cost-effectively.

IBM Content Manager OnDemand (CMOD) software is a comprehensive enterprise report management (ERM) and electronic statement presentation solution. It’s designed to deliver critical business information across your organization—where and when it is needed. CMOD can help you capture and manage high-volume computer output, such as statements, invoices, explanation of benefits and back-office reports. You can also archive scanned documents, checks and content from other sources. Using CMOD, employees and customers can quickly answer queries and resolve issues, searching online by

customer account or invoice number instead of leafing through stacks of invoices and statements or scrolling through microfiche.

So how does IBM CMOD work?

When you install IBM CMOD (which runs on zOS, Linux on System z and many other multiplatform servers), you define the reports you wish to store along with the index values you wish to search on, and then you define who can access those reports and how long you wish to retain them. Once CMOD is installed and operational, every time that defined print job is run, it will automatically get ingested into IBM CMOD (based on those predefined rules) and can then be pushed or pulled

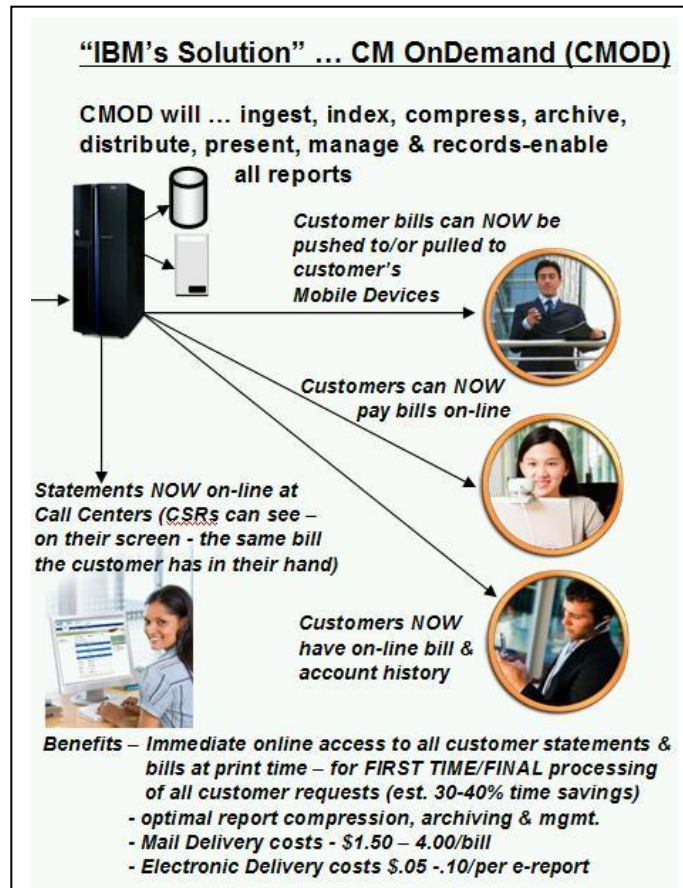
*IBM Content Manager
OnDemand - Conclusion*

to their users & customers. This on-line access NOW includes customer viewing from their mobile devices, including iPads, iPhones, Droids, etc. Also, company call center representatives can immediately view all customer bills & correspondence on-line, at print time, for FIRST TIME/FINAL processing of all customer inquiries, which increases customer service & satisfaction.

Where, in the past, companies used to print & mail customer bills monthly, they are

now promoting “e-delivery” of all customer bills & correspondence. WHY? ... Because our customers have quantified the cost of traditional printing and mailing of their customer statements, which can range anywhere from \$1.50 to 4.00/per bill. They have also quantified the cost for “e-delivery” of that same bill, which ranges anywhere from 5 to 10 cents. That represents BIG savings to our customers! So, in an effort to achieve these BIG savings, our customers are now offering

many creative incentives for their customers to sign up for “e-delivery” of their bills & statements. These incentives include “e-delivery” to their customer’s mobile devices (i.e. iPads, iPhones, Droids, etc.) - or if you sign up for “e-delivery” there is a chance to WIN an iPad or iPhone - or to promote “GO GREEN” initiatives, etc. Our customers know, that each additional percentage point of e-delivery adoption equates to big monthly/annual savings for their company.



For additional information about IBM's CMOD offering please click on this link - <http://www-03.ibm.com/software/products/us/en/ondemand>

Or you may contact any of your local IBM software representatives, for more detailed information.

CSL-WAVE



Linux on System z Management with CSL-WAVE

By Frank Heimes – frank.heimes@de.ibm.com

The Enterprise Linux Server (ELS) is designed from the ground up as a Linux-only System z server for mission critical workloads. What skills are required for maintaining the virtualization, network and storage management for this environment? Do you think “green-screen” expertise is still required? Are there any alternatives available? Well, there is something new and interesting called WAVE, formerly from CSL International, now an IBM company.

WAVE stands for **Web Administration VM Environment**, which is a good description for the intuitive and easy to use graphical front-end for IBM z/VM environments, supporting the System z Linux virtual machines. The ELS infrastructure design and the CSL-WAVE management solution lets you manage thousands of Linux business applications from a single visual interface and act on an individual server or the whole system at once with a click of a mouse. There is a capability to group specific virtual resources instantly according to your needs and expand visibility and control across your entire network easily and intuitively through virtual network manipulation. CSL-WAVE’s powerful au-

tomation features provide instant follow up through real time monitoring and alerts so you’re never out of touch. The result is a consolidated virtual infrastructure that provides the power and flexibility you need to meet today’s challenges without breaking the budget.

But why should Cloud deployments be done on System z?

System z and the entire zEnterprise system offers an optimized workload deployment with a high degree on efficiency based on “share everything” architecture. It combines and consolidates performance management and monitoring across the multiple supported operating systems.

With it’s highest security ratings (like FIPS 140-2 Level 4) and isolation levels (up to Common Criteria EAL5+ for LPARs and EAL4+ for z/VM), the System z platform offers a secure infrastructure with security built in by design.

Resiliency and RAS (reliability, availability and serviceability) become even more important with servers that run a high number of virtual machines. System z

with it’s built in hardware redundancies such as concurrent firmware updates, concurrent processor reassignment and RAIM - Redundant Array of Independent Memory is engineered to rapidly recover without system degradation or compromise to qualities of service in the event of a rare failure. The results are a high level of elasticity, scalability and application performance (QoS).

Together, the IBM Enterprise Linux Server and the CSL-WAVE Management solution give you the cutting edge consolidation and ground breaking management capabilities required to master IT complexity.

To learn more about CSL-WAVE visit:

<http://csl-int.com/CSL-WAVE-Base>

YouTube video about IBM Enterprise Linux Server (ELS) with CSL-WAVE Technology:

http://www.youtube.com/watch?v=TJB_9Deq3vA

More information about the acquisition:

http://www.ibm.com/systems/z/news/announcement/csl_announce.html

<http://www.ibm.com/press/us/en/pressrelease/41856.wss>



A New Wave of Information Protection

By Mark Simmonds – mtsimmon@us.ibm.com

Organizations face a tidal wave of big data being leveraged to generate more insight. Given the sensitive nature of these massive volumes and varieties of data being analyzed, organizations must address the additional challenge of protecting it against insider attacks, hackers and other outside influences. The average cost of a security-related event is estimated to be more than \$40 million involving everything from data breaches to malicious SQL injection.

Is System z Enough?

The resilience and security of the platform has attracted more data and applications to reside on it. Nonetheless, it does not stop people – insiders and hackers from trying to breach the security.

Monitoring everything is impractical as SQL activity can represent billions of statements per day. With audit reports potentially generating thousands of pages of output, few organizations have the workforce to gain any real security insight from just this element.

So while the IBM System z platform is clearly a solid foundation, using only the security that comes with it just isn't enough.

What Else Can Be Done?

InfoSphere Guardium provides real-time database security and monitoring, fine-grained database auditing, automated compliance reporting, data-level access control, database vulnerability management and auto-discovery of sensitive data. The scalable, enterprise-wide Guardium solution provides security to high-value data sources like databases, data warehouses, file shares, enterprise applications and open source environments.

The Guardium portfolio offers three main elements: Data Encryption for DB2 and IMS Databases, Data Activity Monitoring and Vulnerability Assessment.

Guardium Data Encryption for DB2 and IMS Databases exploits the latest System z encryption capabilities as delivered in the CEX4C cryptographic hardware element. By implementing these encryption capabilities, users will benefit from rapid implementation, centralized key and policy management and compliance ready capabilities with minimal impact to performance while transparently safeguarding both structured and unstructured data.

Guardium Data Activity Monitor delivers continuous real-time monitoring and au-

ditng while being able to block suspicious behavior as it happens. The monitor prevents privileged users from interfering with the collection of audit data or contaminating its source. It maintains a separation of duties, which in turn, assures the integrity of audit data and provides more accurate reports. By collecting data in real time, it prevents latency associated with log- or trace-based even collection. This makes the audit process a real-time actionable process, with immediate alert and exception processing.

Guardium Vulnerability Assessment identifies exposures such as missing patches, weak passwords, unauthorized changes, mis-configured privileges and other vulnerabilities. It provides full reports with suggestions to address issues, automates vulnerability, configuration and behavioral assessment and can evaluate and document database security to help assess, escalate and resolve risks.

The Benefits of Guardium

Organizations can gain a holistic, integrated approach to security. A comprehensive solution, it protects sensitive data over its lifecycle, while enabling secure access and constantly validates regulatory compliance.

Information Protection
- Conclusion

Its benefits include:

- Mitigating risk by helping prevent cyber attacks and data breaches, enforcing database change controls, identifying application-layer fraud and blocking DBAs from creating new accounts.
- Simplifying information governance, compliance and security frameworks by automating controls to efficiently govern information and facilitate compliant use across an enterprise.
- Enhancing visibility and

control with a scalable multi-tier architecture that automates and centralizes controls, monitors data traffic enterprise-wide and aggregates audit data.

- Reducing IT cost and complexity by providing non-invasive protection with virtually no impact on business processes.

- Integrating with diverse IT ecosystems such as directory services, authentication, long-term storage, data classification, leak protection, software deployment, application servers and security manage-

ment platforms.

- Easing the cost of compliance by supporting enterprise-wide initiatives, accessing more than 150 pre-configured policies and reports, providing immediate access to audit-ready reports, addressing legal, regulatory, industry and business obligations, and helping meet requirements without additional overhead.

There is no excuse. For complete enterprise protection of your data and infrastructure visit: [System z software security](#)

Education

2014 Education

By Kurt Acker – bfishing@us.ibm.com

Note: This education is a USA exclusive offering (Mostly)



2014 IBM zEnterprise Technology Summit	Washington D.C. Costa Mesa, CA Chicago, IL Toronto, Ontario	Jan 14 Feb 4 Feb 12 Mar 20	Learn from real-world scenarios, live demonstrations and in-depth presentations.
PULSE 2014	Las Vegas	Feb 23-26	In order to stay ahead in turbulent times, you need to have a bold approach. Business and IT leaders already leveraging cloud are innovating faster, optimizing better and gaining a competitive edge. Whether your organization is asset rich or born on the cloud, we invite you to join us at Pulse 2014 to explore the latest developments in cloud, security and asset management that can help you drive bold innovations, reach new markets and improve profitability.

SHARE 2014	Anaheim CA Pittsburgh, PA	Mar 9-14 Aug 3-8	Learn from subject matter experts and peers at this System z focused user group event. Conferences like this offer real world experiences outside the marketing messages central to ISV sponsored events.
IMPACT 2014	Las Vegas	Apr 27-May 1	This IBM WebSphere focused conference offers information for optimization across all platforms. With a growing interest in areas like mobile computing, business process optimization, service orientated architecture and cloud computing, the 6,000 plus annual attendee rates provide insight into the value our customers see in this event.
Enterprise 2014	Las Vegas	Oct 6-10	Explore the latest innovations, expertise and best practices for building an IT infrastructure that matters, one that can reshape industries, improve customer service, enable better decisions through improved use of data, and enhance collaboration across the value chain.
IBM Insight 2014	Las Vegas	Oct 26-30	Is one of the largest System z software events, delivering know-how to help you improve business performance, gain more value from existing business analytics deployments, and get the latest innovations and success strategies.

Trivia Answer



Last Issue Trivia: What is the physically smallest mainframe IBM has sold?

Answer: Multiprise 3000 - 20" (W) x 43" (D) x 31.5" (H)

Trivia Question



Job Control Language is used by the mainframe to instruct the system on how to run a batch job. The JCL statement describing a dataset is logically divided into what five fields?

Please send your answer to Hank Meetze @ hmeetze@us.ibm.com

Stand up and be recognized!

Help Wanted



Articles wanted for next newsletter

If you have an experience or information that would benefit our zEnterprise community please send along your two to three paragraph article(s) to Hank Meetze @ hmeetze@us.ibm.com. Deadline 03/12/2014