

z/OS Update

Jeff Magdall
z/OS PDT Lead
magdall@us.ibm.com

February 4, 2013



Topics

- Update on 2012
 - z/OS Version 2 Statement of Direction
 - zEC12 Announcement

- February 5th Preview
 - New Solutions Announcement
 - z/OS 2.1 Preview
 - Ecosystem

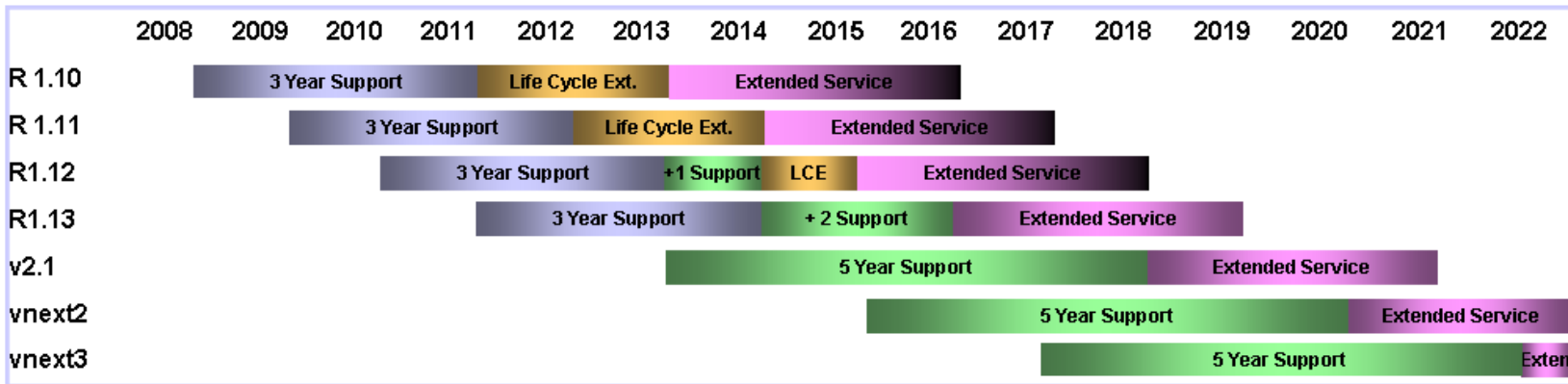
- Links to more info

z/OS 2 Year Release Cycle

Introduced Last March at SHARE

- **Shift z/OS to a 2 year release cycle – now to provide immediate relief to clients**
 - Better aligns with client needs and trends
 - Opportunity for us to put more complete function in a release

- **Version 2.1 targeted to deliver in 2H2013**
 - Release delivery cycle is planned to be every 2 years, in the second half of that year.
 - Will continue to deliver key hardware support & updates in-between releases
 - Maintain N-2 release migration (accommodate a 2 or 4 year migration cycle)
 - 5 Year Support with optional fee based service extension to accommodate migration
 - z/OSMF will be on the same release and service cycle
 - Minimum supported HW levels (z9 server or later, and 3990-3 controller or later)
 - R12 Support extended to 4 years, R13 Support extended to 5 years; bridges v2 migrations



Announced via Statement Of Direction on April 11, 2012

zEC12 Launched August 28, 2013

Significant value and innovation delivered through z/OS R13 updates

Five hardware models
5.5 GHz processor chips
Up to 100-way on z/OS.11 and higher
Doubled HSA – 32 GB
Improved processor cache design
Improvements to pre-fetch instructions
Up to 3TB real memory (1TB per LPAR)
Improved availability with Redundant Array of Independent Memory (RAIM)
Industry standard Peripheral Component Interconnect Express Generation 2 (PCIe Gen2) I/O drawer
Flash Express (Storage Class Memory)
1 MB Pageable Large Pages
Dynamic reconfiguration support for Flash Express¹
2 GB Large Page Support¹
Optional PLPA, COMMON page data sets¹
Crypto Express4S cryptographic coprocessors and accelerators
New support for PKCS #11 Hardware Security Module (HSM)
DUKPT for MAC and Data Encryption



(z/OS support in blue)

New and enhanced instructions
IBM zAware
OSA-Express4S (GbE LX and SX, 1000BASE-T, 10 GbE LR and SR)
FICON Express8S
Parallel Sysplex InfiniBand (PSIFB) Coupling Links
High Performance FICON
CPU Measurement Facility
CFCC Level 18 enhancements
Java exploitation of transactional memory
Exploitation of new hardware instructions – XL C/C++ ARCH(10) and TUNE(10)
Common Criteria Evaluation Assurance Level 5+ (EAL5+) certification
zEnterprise BladeCenter Extension (zBX) Model 003 support of general purpose blade servers and optimizers
zBX-003 with IBM WebSphere DataPower Integration Appliance XI50 for zEnterprise (DataPower XI50z)
zBX-003 with select IBM BladeCenter PS701 Express blades, or IBM BladeCenter HX5 (7873) blades

System z

Introducing the new and updated IBM zEnterprise solutions

IBM System z is committed to helping clients create business value through new solutions, key technologies and continued innovation.



Cloud Ready

Highly secure and scalable enterprise cloud

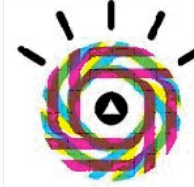
- IBM Intelligent Operations Center for Smarter Cities™
- z/VM® 6.3 Preview



Data Ready

Enterprise data repository that integrates operational analytics for accelerated insight

- IBM DB2® Analytics Accelerator V3.1
- IBM Smarter Infrastructure for Social Services – Curam on IBM zEnterprise
- IBM Smarter Analytics Anti-Fraud Infrastructure for zEnterprise
- IBM Enterprise Asset Management (Maximo) for Government
- IBM zEnterprise Smarter Analytics for Retail
- z/OS® 2.1 Preview



Security Ready

Unmatched security for critical business processes, applications and data

- IBM Enterprise Key Management Foundation

zEnterprise Industry Solutions for a Smarter Planet

Smarter Planet® – Industry Solutions

Banking

- IBM Financial Transaction Manager on zEnterprise
- SAP Bank Analyzer on zEnterprise
- IBM Core Banking Solution on zEnterprise
- FSS Business Intelligence and Data Analytics Solution
- **IBM Smarter Analytics Anti-Fraud Infrastructure for zEnterprise**



Insurance

- IBM Smarter Analytics: Anti-Fraud, Waste and Abuse Solution for Insurance
- IBM Genelco® Insurance Administration Solution
- IBM zEnterprise Insurance Integration Hub



Government / Smarter Cities

- IBM zEnterprise Starter Edition for Cloud for Government
- **IBM Intelligent Operations Center for Smarter Cities**
- **IBM Smarter Infrastructure for Social Services - Curam on zEnterprise****
- **IBM Enterprise Asset Management (Maximo) for Government****



Healthcare / Life Sciences

- IBM Smarter Analytics Signature Solution: Anti-Fraud, Waste and Abuse
- IBM Health Plan Integration Hub



Retail

- **IBM zEnterprise Smarter Analytics for Retail****



★ **Feb. 13, 11 am ET:**
 Joint zSW/zHW client
 webcast with Ray Jones
 & Jose Castano.
Register today

What's **New** in z/OS V2.1 & z/OSMF 2.1

Cloud Ready Efficiency at Scale

Cloud Computing Qualities of Service

- Cloud-like scale to support huge volumes of workloads through server improvements (100 way)
- Availability/performance through innovations (Flash Express and Pageable large pages, 2 GB pages)
- Optimized transactional performance through improvements to multi-threading (Transactional Execution enhancements, System Logger enhancements)

Data Ready Operational Analytics

Manage Data Explosion

- Designed for efficiency—Optimized data placement, access and retrieval to reduce costs
- Improve catalog sharing with VSAM record level sharing within a Parallel Sysplex
- zFS optimized file structures for improved scalability
- Optimized management and performance improvements for FICON® channels
- Improved batch parallelism. DFSMSHsm™-migrated data sets allocated by batch jobs recalled in parallel vs. sequentially

Security Ready Ultimate Security

Security ready to protect assets

- Get access to System z encryption from Linux (crypto as a service)
- Strengthened auditing and reporting for Digital Certificates & Health Checks
- Industry-ready standards support (NSA Suite B, TLS 1.2, new certificate validation support)
- Improved support for Enterprise PKCS #11 processing

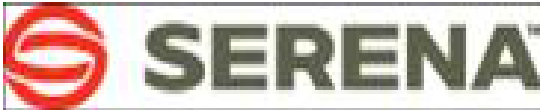
Powered by a Superior Management Foundation

Management built into the fabric of z/OS

- Dramatically reduce resource requirements and faster startup with WebSphere Liberty profile for z/OS
- Manage software currency with new Software Inventory capability
- Improve order and quality of task completion with innovative Workflow infrastructure
- Get enhanced security configuration support in Configuration Assistant

Software Developers supporting z/OS 2.1

... And the list continues to grow



z/OS Tools

Expanding the ecosystem and community

- Rocket Software plans to port and offer select tools to z/OS
 - Tools and technical support will be available directly from Rocket Software
 - Rocket Software intends to offer optional enhanced technical support for customers who require higher levels of support
- Rocket Software plans include current versions of tools offered today in IBM's Ported Tools offering: perl, cURL, bzip2, sudo, and PHP
 - These tools are intended to be available before the General Availability of z/OS V2.1
 - Rocket Software plans to offer additional tools based on customer demand
 - IBM and Rocket Software are working together closely to leverage IBM's experience and previous work enabling these tools on z/OS
- IBM intends to provide links from the IBM Tools web site to these current versions from Rocket Software as they become available



Thank You !

For your Time...
For your Passion...
For your Business...

For More information on the z/OS 2.1 Preview,
visit the z/OS website at:

www.ibm.com/systems/z/os/zos/

Additional Information

- **z/OS Page**

<http://www.ibm.com/servers/eserver/zseries/z/OS/>

- **Favorites for System z**

<http://www.ibm.com/servers/eserver/zseries/z/OS/zfavorites/>

- **z/OS Internet Library**

<http://www.ibm.com/servers/eserver/zseries/z/OS/bkserv/>

- **IBM System z page**

<http://www.ibm.com/systems/z/>

- **IBM Redbooks**

<http://www.redbooks.ibm.com/>