

z/VM Platform Update: Ever Onward

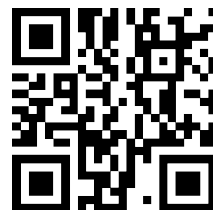
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IBM

(Presentation author: Bill Bitner, IBM)

November 2018

Session CJ



Agenda

- New delivery strategy
 - Two year cadence
 - Continuous delivery
 - Communication

- Preview of z/VM Version 7 Release 1

- Survey of enhancements in various areas
 - Scaling and TCO
 - Managing diverse workloads
 - Security
 - Resiliency and RAS
 - System Management improvements

- Other Highlights

Release Cadence and Continuous Delivery

Greater Predictability for Release Schedules and Function

- z/VM has gone to a two-year cadence on new releases.
 - Every two years in 3rd quarter of even years
 - Releases remain orderable for approximately 18 months after GA of the next release
 - Releases stay in service for approximately 4.5 years
 - Last 6 months of a release life cycle overlaps with the next two releases
 - Releases will be primarily a roll up of function released in the service stream as Small Programming Enhancements (SPEs)

- Continuous Delivery Strategy
 - Most new function will be delivered as an SPE to the most current release of z/VM
 - Heavy dependence on the sponsor user program
 - A set of SPEs will likely be grouped together and released within a few weeks of each other to help facilitate IBM and client testing
 - Plans for new function will be published on the z/VM home page

z/VM Release Cycle Cadence

- z/VM Release GAs: Every two years in 3rd Quarter of even years
- Releases remain orderable 18 months after GA of next release
- Last 6 months of release life cycle overlaps next two releases
- In service, roughly 4.5 years.

Announce **EoM** ↓

↓ Announce **EoS**

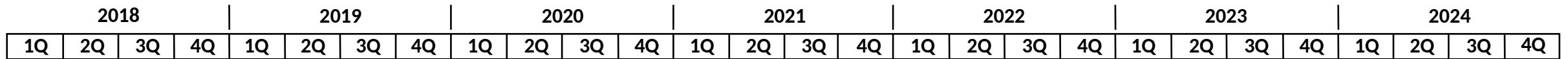
A RSUs & Corrective Service + CPU Compatibility

← **EoS**

z/VM V6.4 Orderable

← **EoM**

Dates are shown here for illustrative purposes.



↓ **GA**

Announce **EoM** ↓

↓ Announce **EoS**

SPEs, RSUs, Corrective Service

B **C** **D** **E** **F** **G**

RSUs & Corrective Service + CPU Compatibility Support

← **EoS**

z/VM V7 R1.0

Orderable

← **EoM**

↓ **GA**

SPEs, RSUs, Corrective Service

H **I** **J** **K** **L** **M**

RSUs & Corrective Service + CPU Compatibility Support

z/VM V7 R2.0

Orderable

- | = New function in release base
- X** = Potential SPE bundle delivered in service stream

z/VM Continuous Delivery Page

Gives an overview of new function that is under consideration. Allows clients to:

Express interest in being a sponsor user for an item.

Plan for new support coming out in the future.

Understand the value, benefit, and impact of new enhancements.

<http://www.vm.ibm.com/newfunction/>

Subscribe for updates via “Notify me” link on left navigation bar.

The screenshot shows the IBM z/VM Continuous Delivery News page. The left navigation bar includes links for z/VM, News, About z/VM, Events calendar, Products and features, Downloads, Technical resources, Library, How to buy, Install, Service, Education, Site map, Site search, Printer-friendly, **Notify me** (circled in red), and Contact z/VM. The main content area features a 'z/VM Continuous Delivery News' header, a 'Change Summary' box with a list of updates, 'Important news' dated April 24, 2018, and an 'Introduction' section. At the bottom, there is a table titled 'Small Product Enhancement (SPE) Information'.

Small Product Enhancement (SPE) Information	
Name	The simple name of the project.
Description	A brief summary of what changes, who it effects, and why you would care.
Status	Along with the current status, this will give indication of key changes since the last iteration of this page.
Target availability	Depending on the project, where it is in the cycle, and other factors, this will list TBD, a quarter, a month, or, in cases where it has become available, a date. This is not a commitment and as more is learned about the work and priorities the target availability date will likely be adjusted.

z/VM Continuous Delivery Page

Each item has information as seen in this example.

The “Target availability” may also be listed as TBD or less granular such as a quarter or month.

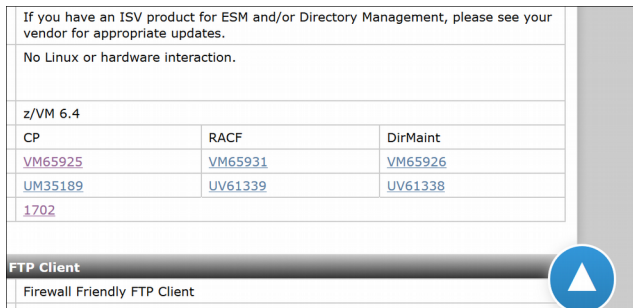
Since this is work in progress, the target availability dates can move multiple times and in different directions.

Encrypted Paging	
Name	Encrypted Paging
Description	Encrypted Paging will improve system security for z/VM 6.4 by exploiting z14 hardware to encrypt guest page data. Ciphering will occur as data moves from active memory onto a paging volume owned by CP (ECKD, SCSI, or native FBA). This will make customer data defensible from attack or breach of volumes, even in cases where a system administrator has unintended access to those volumes.
Status	Available December 11, 2017
Target availability	December 15, 2017
Compatibility	No known incompatibilities.
Enablement	Apply PTFs, re-IPL z/VM, SET ENCRYPT command within CP.
Effect	For the workloads studied, total CPU/tx did not increase more than 5% when compared back to an EP disabled configuration. Compared to a z13, the z14 with EP enabled performed better. As paging rate increases, the total amount of CPU used on EP will increase. Detailed performance report
ISV impact	Some monitor changes are needed. If you have a performance product, please see your vendor.
Linux or hardware interaction	z14 required
Release(s)	z/VM 6.4
Service details	See below for the IBM service information.
APAR	VM65993
PTF	UM35257
RSU	TBD

Navigating Continuous Delivery Page

- Near top of page are two tables with hyperlinks and some summary information
 - SPEs in progress
 - Available SPEs

- A floating navigation triangle will take you back to the top of the page from any where.



SPEs in progress	Target date	Last updated
4TB Main Memory Support *	TBD	May 29, 2018
Centralized Service Management	TBD	
Dump Scalability	September 2018	May 15, 2018
Dynamic Crypto	TBD	February 9, 2018
Dynamic Memory Downgrade *	4th Quarter 2018	May 15, 2018
EAV Paging *	TBD	May 29, 2018
Elliptic Curve Support *	TBD	April 26, 2018
More than 64 Logical Processors *	TBD	May 16, 2018
Multifactor Authentication for z/VM	TBD	April 9, 2018
SSI Greater Than Four	TBD	February 9, 2018
VSwitch Priority Queuing	TBD	February 9, 2018
ZHPM Application *	TBD	March 8, 2018

* Denotes the z/VM team is seeking Sponsor Users. See related SPE for more information.

z/VM 7.1

- GA announce August 7, 2018
 - Preview announce April 10, 2018
 - GA September 21, 2018

- Single System Image and Live Guest Relocation included in the base
 - In z/VM 6.4 was the VMSSI priced feature

- New Architecture Level Set of zEC12, zBC12, or newer processor families

- Includes SPEs shipped for z/VM 6.4, including:
 - Virtual Switch Enhanced Load Balancing, DS8K z-Thin Provisioning, Encrypted Paging, etc.

- Additionally, includes:
 - Dump scalability improvements
 - Foundation work for future SPEs

z/VM Release Status Summary

z/VM Level	GA	End of Service	End of Marketing	Minimum Processor Level	Maximum Processor Level	Security Level
7.1	9/2018			zEC12 & zBC12		
6.4	11/2016			z196 & z114 [®]	-	Common Criteria Complete! FIPS 140-2 In Progress

z/VM 7.1 References

- z/VM 7.1 Introduction Video
 - <https://www.youtube.com/watch?v=drhhFFyyja4&feature=youtu.be>
- Videos explaining two-year cadence and continuous delivery
 - MP4 version <http://www.vm.ibm.com/devpages/bitner/presentations/intro71.mp4>
 - WMV version <http://www.vm.ibm.com/devpages/bitner/presentations/intro71.wmv>
- z/VM 7.1 Resources Page
 - <http://www.vm.ibm.com/zvm710/>
- z/VM 7.1 General Information Manual
 - http://www.vm.ibm.com/library/hcpa0_v7.pdf
- Client agility improved with continuous delivery & IBM z/VM
 - <https://www.ibm.com/blogs/systems/client-agility-improved-continuous-delivery-ibm-zvm/>

Focused Value Areas of Enhancements

Focused Value Areas

- Improved Scaling and TCO
 - More virtual machines in a single z/VM system
 - Lower costs of running a system

- Improved resource management for large diverse workloads
 - Fair and accurate resource control
 - Guest exploitation of z Systems and LinuxONE hardware

- Enhanced Security
 - Protecting data
 - Policy management

- Improved Resiliency and RAS
 - Scripting and automation frameworks
 - Problem determination

- Improved System Management
 - Including things that make a system programmer happy

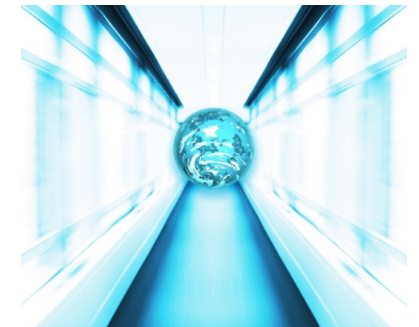


Improved Scaling and TCO

Real Memory Increase

z/VM 6.4 Base

- Real memory support increased from 1 TB to 2 TB with same degree of overcommitment of real memory
 - Individual virtual machine limit remains at 1 TB
- For systems that are memory constrained, this offers relief.
- For systems with sufficient processor capability, this allows doubling the number of virtual machines in a z/VM system



August 2017

EAV Minidisk Enhancements via Service

- More data means larger disks

- Extended Address Volumes (EAV) minidisks will be able to reside anywhere on EAV volumes

- Benefits:
 - Fewer volumes to manage
 - Regain benefits of sharing minidisks with large volumes

- CP APAR VM65943
 - PTF UM35187 (z/VM 6.4) closed August 25, 2017
 - RSU: TBD

- CMS APAR VM65945
 - PTF UM35204 (z/VM 6.4) closed August 25, 2017
 - RSU: TBD

- ICKDSF APAR PI85943
 - PTF UI49579 closed August 25, 2017

VM66140 (PTF UM35296)
corrects a HIPER from
VM65943.

Processor Scalability Improvement

August 2017

- Improvements of processing for shared-exclusive spinlocks

- Benefits:
 - Improves n-way curve and efficiency in scheduler and dispatcher processing.
 - Some benefit is exclusive to z14 and Emperor II as new capability is exploited

- APAR VM65988
 - PTF UM35214 (z/VM 6.4) closed August 23, 2017
 - RSU: TBD

Virtual Switch Enhanced Load Balancing

December 2017

- In link aggregation environments, VSwitch processing balances the load across OSA devices.

- Enhancements to the algorithms for a single VSwitch

- A Multi-VSwitch LAG environment will now do load balancing across the global VSwitch network.

- Benefits:
 - Better utilization of OSA hardware used for VSwitch LA groups

- APAR VM65918
 - PTF UM35253 (z/VM 6.4) closed December 11, 2017
 - RSU: TBD

z-Thin Provisioning

March 2018

- Allows all z/VM volumes to be on Extent Space Efficient (ESE) thin provisioned volumes.
 - Allows better use of disk space for disk hardware supporting z-Thin Provisioning.
 - Reduces storage costs
 - Most benefit when used to reclaim space with FlashCopy

- APAR VM66098
 - PTF UM35296 (z/VM 6.4) available March 28, 2018
 - RSU: TBD

VM66153 corrects a problem from VM66098 with FlashCopy.

August 2017

IBM z14 Enhancements & z/VM

- Available August 25, 2017
 - See <http://www.vm.ibm.com/service/vmreqz14.html> for background.
 - See [3906/ZVM subset of the 3906DEVICE PSP](#) bucket.
- z/Architecture IPL support on z14
 - Standalones changed to handle
 - ESA/390-compatibility mode for DAT-off ESA/390 guests
- Support for Crypto Express6S
 - Guest support
- Support for RoCE Express2
 - Guest support
- Improved memory management support
 - Potential performance improvement especially with SMT



May 2018

IBM z14 ZR1 and LinuxONE Rockhopper II

- Available May 29, 2018
 - See <http://www.vm.ibm.com/service/vmreqz14.html> for background.
 - Besides the previous z14 service, you'll need at least VM65639
 - Page includes a file (VMREQMR1 SERVICE) you can download to check for valid service with command:
SERVICE ALL STATUS LIST VMREQMR1 SERVICE
 - See also [3907/ZVM subset of the 3907DEVICE PSP](#) bucket.
- Just like the larger z14 and LinuxONE machines, please remember to rebuild stand alone utilities (Formerly ESA/390-based will not work on z14 and new LinuxONE).
 - See <http://www.vm.ibm.com/service/redalert/index.html#SAPLZ14>
- As with the other z14 machines, Security performance enhancements:
 - Crypto Express6S feature
 - CPACF no-charge feature
- Up to 30 configurable cores and 8TB
- 19-inch frame



Improved Resource Management of Diverse Workloads

Additional Processor Parking Controls

- New tuning capability to influence parking processors
 - New SET SRM option
 - VM66063
 - PTF UM35232 (z/VM 6.4) – Closed October 27, 2017
 - RSU: TBD

- Background and guidance on using in z/VM Performance documentation
 - <http://www.vm.ibm.com/perf/tips/unpark.html>



Greater Guest Efficiencies and Capabilities

December 2017

- z/VM guest exploitation support for the Instruction Execution Protection Facility
 - Increased isolation of data and instructions in memory
 - Z14, LinuxONE Emperor II, or LinuxONE Rockhopper II
 - Will require guest support to exploit
 - VM65986
 - PTF UM35255 (z/VM 6.4) – Closed December 11, 2017
 - RSU: TBD

- z/VM guest exploitation support for Guarded Storage Facility (reduces pauses in garbage collection)
 - Improve consistency of performance for Java environments
 - z14, LinuxONE Emperor II, or LinuxONE Rockhopper II
 - Will require guest support to exploit
 - VM65987
 - PTF UM35254 (z/VM 6.4) – Closed December 11, 2017
 - RSU: TBD

CP Foundation for zHPM CPU Resource Management

March 2018

- Foundational support for Hypervisor Performance Manager (zHPM)
 - Will allow future support for dynamic management of resources allocated to virtual machines.
 - Let IBM know if you're interested in doing a beta for zHPM

- z/VM support includes:
 - Extensions to the Store Hypervisor Information (STHYI) instruction
 - Enhancements to support resource pools, formerly called CPU pools
 - Monitor extensions and greater flexibility

- CP APAR VM66105
 - PTF UM35303 (z/VM 6.4) closed March 28, 2018
 - RSU: TBD

- DirMaint APAR VM66109
 - PTF UV99330 (z/VM 6.4) closed March 28, 2018
 - RSU: TBD

Dynamic Memory Downgrade

Target TBD

- Allows for real memory to be removed from a running z/VM system

- Complements the existing ability to add memory to a system

- Benefits:
 - Add and remove memory for workload shifts and other load balancing
 - Assist in DR scenarios

- Requires z14, LinuxONE Emperor II, or LinuxONE Rockhopper II

- APAR VM66173
 - PTF TBD (z/VM 7.1)
 - RSU TBD

Enhanced Security

Enhanced Security PTFs

March 2017

▪ RACF Security Policy Enhancements:

- Functional RACF enhancements providing improved security and usability for security administrators and auditors
- APAR VM65930
 - PTF UV61335 (z/VM 6.4) closed March 17, 2017
- APAR VM65982
 - PTF UM35042 (z/VM 6.4) closed March 22, 2017

▪ Crypto Express APVIRT for TLS/SSL Server:

- Enable connectivity from the TLS/SSL Server to crypto adapters for improved performance and reduced CPU overhead
- APAR PI72106
 - PTF UI45923 (z/VM 6.4) – Closed March 29, 2017
 - RSU 1701

Network Security Enhancement

- Simplifies management and security

- New ability to control definition and authorization of NICDEFs in one place, the user directory

- Eliminates operational differences between PORTBASED and USERBASED VSwitches

- Service available August 4, 2017
 - CP APAR VM65925 (PTF UM35189) RSU 1702
 - DirMaint APAR VM65926 (PTF UV61338) RSU 1701
 - RACF APAR VM65931 (PTF UV61339) RSU 1701

- Note: While applying the above service changes the default behavior, settings were added to change default back to previous behavior

Firewall Friendly FTP Client Enhancement

August 2017

- Updates the z/VM FTP client to improve interaction in configurations which require traversing firewalls.

- Adds new operands to LOCSITE

- APAR PI80912
 - PTF UI49779 (z/VM 6.4) closed August 23, 2017
 - RSU 1702

Encrypted Paging

December 2017

- Allows better security by encrypting user and virtual disk in storage pages when written to paging disks
 - Requires z14, LinuxONE Emperor II or Rockhopper II

- Goal of < 5% increase in CPU time for workload with encrypted paging
 - Performance is workload dependent

- VM65993
 - PTF UM35257 (z/VM 6.4) – Closed December 11, 2017
 - RSU TBD



Security Enhancements

Base z/VM 7.1

▪ Improvements

- Ability to use an ESM to control who can use which Systems Management APIs (SMAPI) against which targets (VM66167)
- Many virtual machines now configured to better match common security policies.
 - Set up to be autolog only or logon-by only
 - Affects new installs
- Accessing CP disks (CPACCESS) subset of commands that ignored Link controls in ESM have been corrected

▪ Benefits:

- Focus security policy coming from the ESM
- Better positioned to meet security policy
- Fewer surprises based on security policy

Elliptic Curve Cryptography Support

Target December 2018

- z/VM TLS/SSL Server enhanced with enablement of Elliptic Curve Cryptography (ECC) cipher suites

- ECC Ciphers provide a more secure mechanism for asymmetric encryption than standard RSA or DSS algorithms.

- APAR PI99184
 - PTF TBD (z/VM 7.1)
 - RSU TBD

Improved Resiliency and RAS

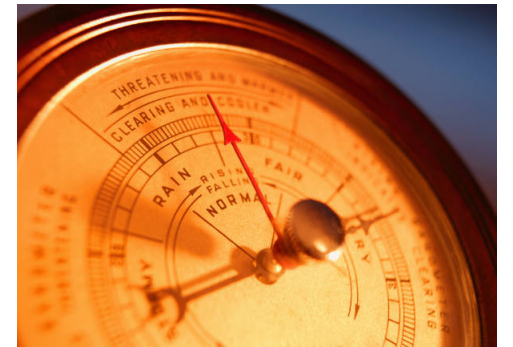
Problem Determination Aids

z/VM 6.4 Base

- New CP command to determine which PTFs or Local Mods are in the running z/VM system
 - Data is also provided in the z/VM monitor data stream

- New information on disk configurations
 - CP QUERY commands extended for both ECKD and EDEVs
 - Serial numbers, geometry information, features, etc.
 - Some data provided as 'block of hex' for vendor specific interpretation
 - New IOEXPLOR exec to format new information and make readable
 - Applies to IBM devices

- New command EXPLORE FCP allows for testing of FCP subchannels and WWPN ports
 - ADD: adds FCP subchannel and WWPN port to list of devices to be tested
 - START: activates FCP subchannels and opens WWPN ports in list of SCSI devices to be tested
 - Aids in problem determination when setting up FCP devices



FCP Monitor Enhancements

March 2018

- Provides new z/VM monitor records which will contain information related to FCP performance:
 - Utilization of FCP devices (subchannel) and CHPIDs (physical channels) for EDEVICE activity.

- Allows better problem determination for EDEVICE performance.

- APAR VM66095
 - PTF UM35297 (z/VM 6.4) closed March 28, 2018
 - RSU TBD

Dump Processing Enhancements

- Larger systems mean larger dumps

- Performance enhancement for hard abend and snap dumps to 3390 DASD
 - More intelligent channel programs
 - Decreases dump time significantly
 - 30 to 40% improvement in lab experiments

- Support includes creating smaller Snap dumps by not dumping PGMBKs (page tables) used for guests
 - Optionally can select to include them

- VM65989
 - PTF UM35132 (z/VM 6.4) – Closed May 31, 2017
 - RSU 1702

Enhanced Dump Processing

Base z/VM 7.1

- Improvements
 - Reduce size of both snap dump and hard abend dumps
 - Reduce time to take and process dumps

- No longer dump Frame Table and Page Tables by default unless it is an abend code where those are helpful for problem determination

- New options to override defaults on what data is dumped

- Dump size reduction varies, examples often show 20% the size of the former dumps

Reduce CPU Required for Dump Processing

September 2018

- Further improves performance of dump processing from a processor requirement perspective.
 - Applies to snap dump and hard abend processing

- APAR VM66176
 - PTF UM35352 (z/VM 7.1) available September 13, 2018
 - RSU TBD

RSCS Query Service Levels

Target December 2018

- New command option that shows the service level for each of the RSCS parts
 - Highest level PTF that is applied to each part

- APAR VM66174
 - PTF TBD (z/VM 7.1)
 - RSU TBD

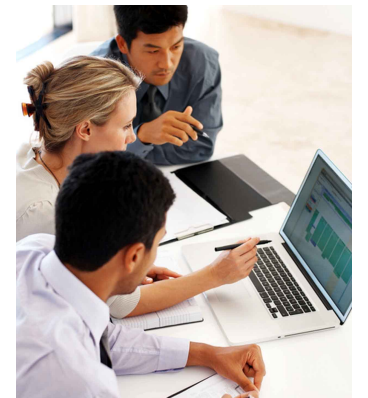
Improved System Management

Getting Up and Running

z/VM 6.4 Base

- Upgrade In Place – For existing z/VM 6.2 and 6.3 customers
 - Allows moving to z/VM 6.4 from existing systems rather than a new install
 - Support for vendor products, local mods, and backing out if necessary
 - See Install Guide for details

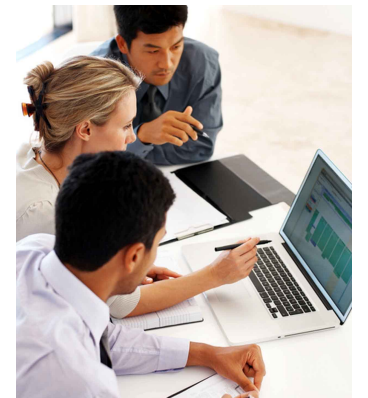
- Future Upgrade in Place will be supported from z/VM 6.4 only



z/VM and Dynamic Partition Manager

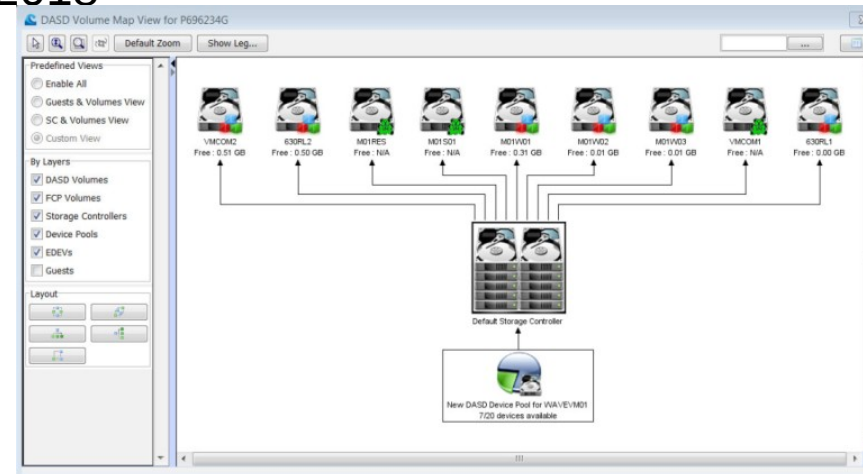
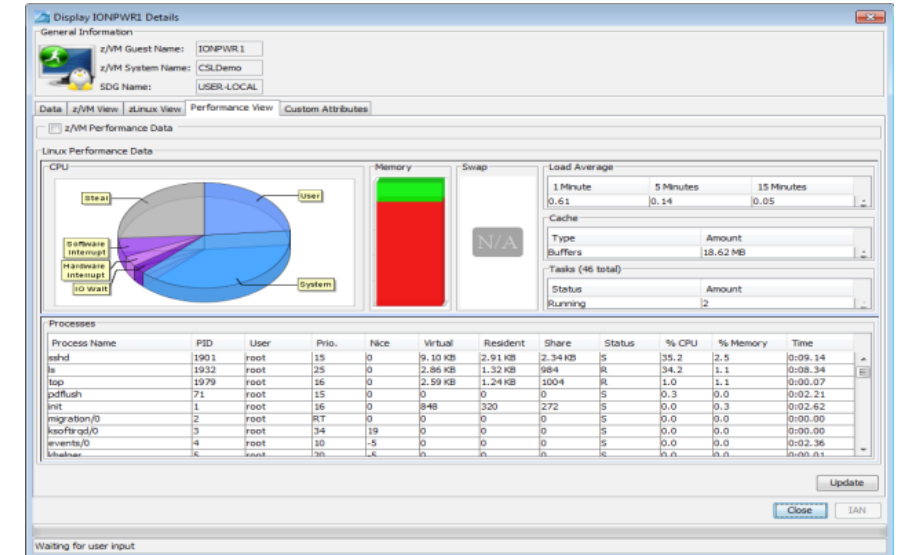
Target August 2018

- Dynamic Partition Manager (DPM)
 - z/VM 6.4 and z/VM 7.1 Supported
 - I/O configuration much easier than older IOCDs approach
 - FICON ECKD Support – Target availability of August 15, 2018
 - FICON CTCA Support – known requirement.
 - Required to permit Single System Image cluster and Live Guest Relocation



IBM Wave for z/VM

- Current level is IBM Wave V 1.2
- Fix Pack (FP 10) - released May 29, 2018er 2017
 - Support for IBM z14-ZR1
 - Configuring multiple EDEVs on 1 FCP Device
 - APAR fixes
- Next Fix Pack (FP 11) planned for September 2018
 - Support for z/VM 7.1, SLES 15, RHEL 7.5
 - APAR fixes



Extend the Reach of Skills with IBM Wave for z/VM

Intelligent Visualization



- Shorten the learning curve needed to manage complex environments
- Organize and simplify management of z/VM and virtual Linux servers
- View servers and storage utilization graphically; understand the status of system resources with Intelligent icons
- Reduce unnecessary steps using highly customizable views
- Graphical or tabular displays with layered drill down

Simplified Monitoring



- Monitor the status of z/VM systems through an innovative interface
- Monitor performance of CPU, paging devices, spool disks and more;
- Use agentless discovery to detect an accurate view of your environment
- Use advanced filters, tagging, layout and layer selection to make monitoring and management more meaningful
- Complements IBM OMEGAMON® XE used for in-depth performance monitoring

Unified Management

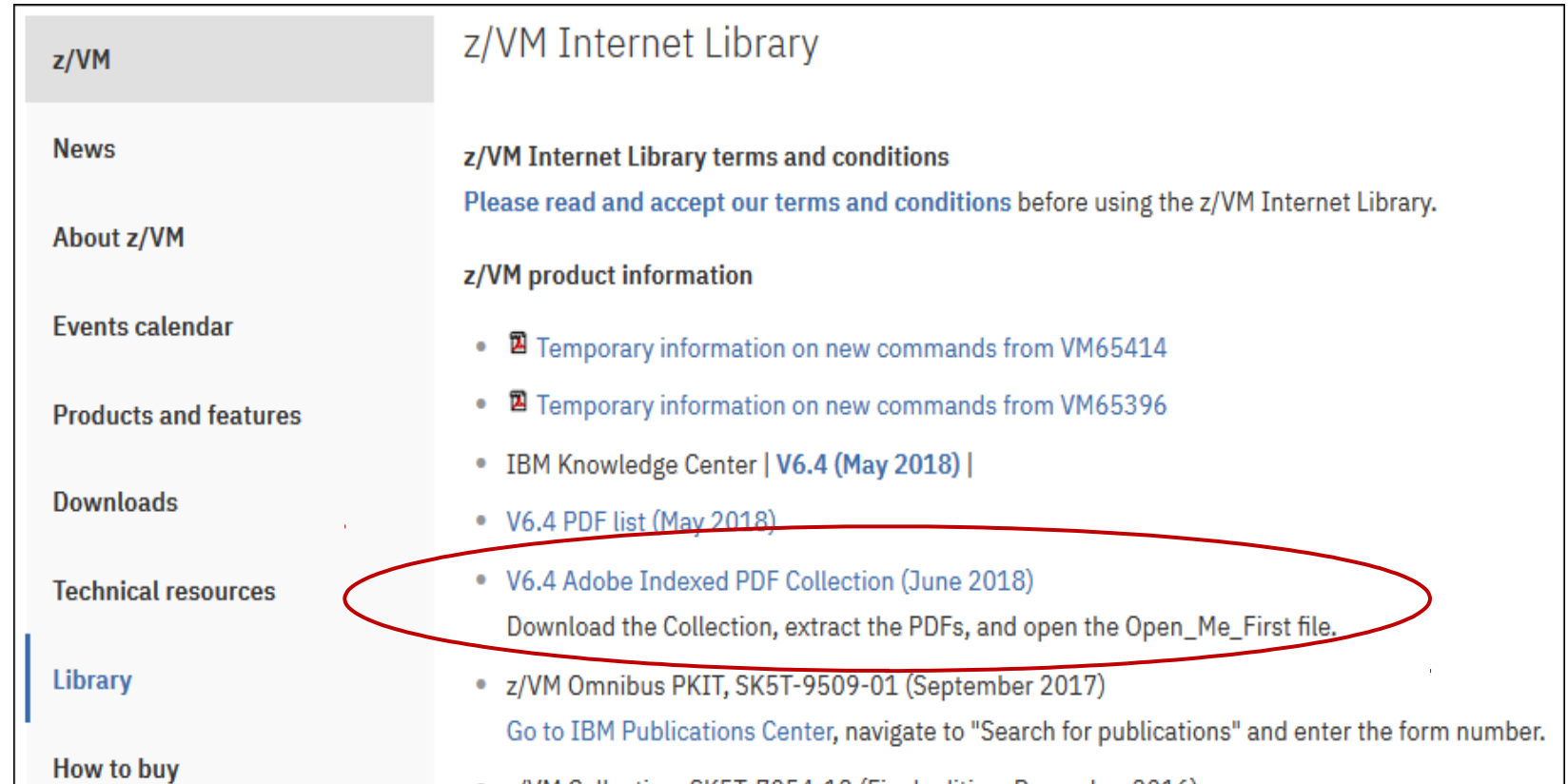


- Manage your system from a single point of control
- Assign and delegate administrative access with role based assignments
- Provision, clone, and activate virtual resources . Define and control virtual network and storage devices
- Perform management tasks such as live guest relocation
- Annotate resources for additional policy based management
- Execute complex scripts with a single mouse click

z/VM 6.4 Adobe Indexed PDF Collection

December 2017

- <http://www.vm.ibm.com/library/index.html>
- Download zip file & extract folder
- Open Open_Me_First.html
 - detailed instructions
 - Index of the z/VM 6.4 Library



z/VM Internet Library

z/VM Internet Library terms and conditions
Please read and accept our terms and conditions before using the z/VM Internet Library.

z/VM product information

- [Temporary information on new commands from VM65414](#)
- [Temporary information on new commands from VM65396](#)
- [IBM Knowledge Center | V6.4 \(May 2018\) |](#)
- [V6.4 PDF list \(May 2018\)](#)
- [V6.4 Adobe Indexed PDF Collection \(June 2018\)](#)
Download the Collection, extract the PDFs, and open the Open_Me_First file.
- [z/VM Omnibus PKIT, SK5T-9509-01 \(September 2017\)](#)
Go to [IBM Publications Center](#), navigate to "Search for publications" and enter the form number.
- [z/VM Collection, SK5T-9509-01 \(First Edition, December 2016\)](#)

z/VM

News

About z/VM

Events calendar

Products and features

Downloads

Technical resources

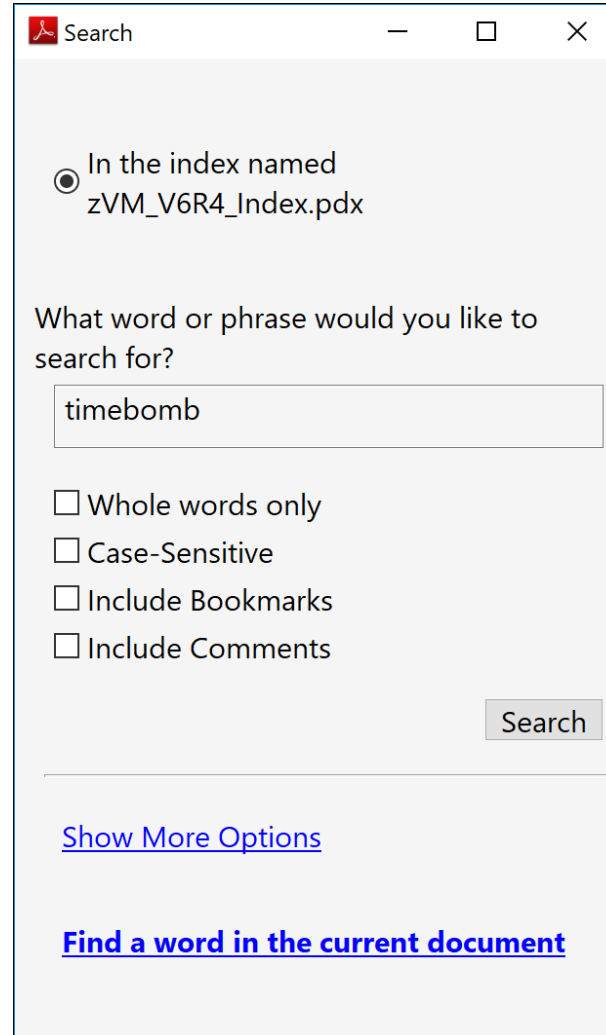
Library

How to buy

z/VM 6.4 Adobe Indexed PDF Collection

December 2017

- Opening the .PDX file allows searching entire z/VM Library



Search

In the index named
zVM_V6R4_Index.pdx

What word or phrase would you like to search for?

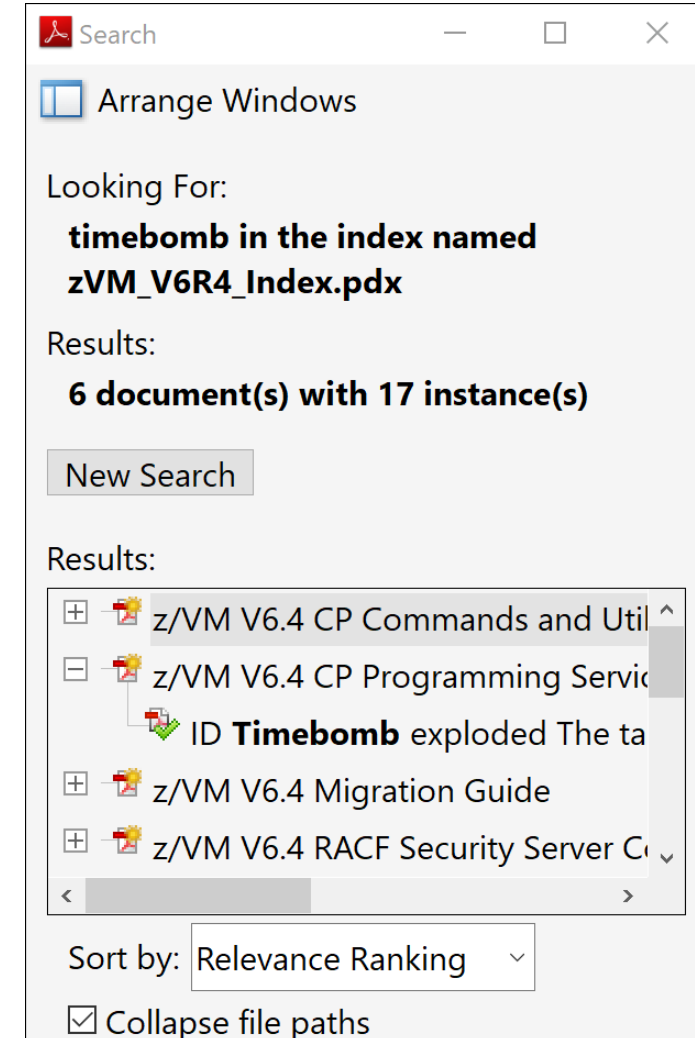
timebomb

Whole words only
 Case-Sensitive
 Include Bookmarks
 Include Comments

Search

[Show More Options](#)

[Find a word in the current document](#)



Search

Arrange Windows

Looking For:
**timebomb in the index named
zVM_V6R4_Index.pdx**

Results:
6 document(s) with 17 instance(s)

New Search

Results:

- z/VM V6.4 CP Commands and Util
- z/VM V6.4 CP Programming Servic
ID **Timebomb** exploded The ta
- z/VM V6.4 Migration Guide
- z/VM V6.4 RACF Security Server Co

Sort by: Relevance Ranking

Collapse file paths

Performance Toolkit HyperPAV Support

April 2018

- New and updated reports to report on z/VM system use of HyperPAV

- Allows better problem determination and management for z/VM system paging

- APAR VM66085
 - PTF UM35304 (z/VM 6.4) closed April 11, 2018
 - RSU TBD

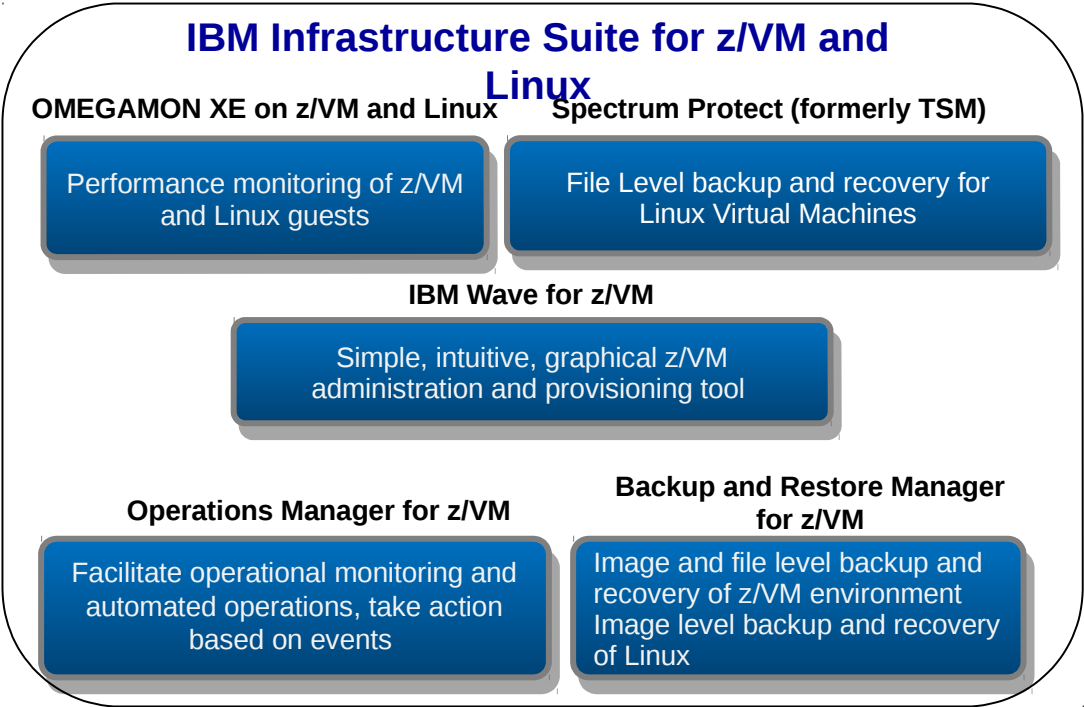
Complete Solution for Administration & Management of z/VM and LinuxONE

Integration with other platforms and solutions

- Alerts
- Log data



Single PID
 5698-IS2 OTC
 5698-IS1 Annual S&S



Add Tape Manager for z/VM (5697-J08) for customers backing up from z/VM to tape

Web site: <http://www.ibm.com/software/products/en/ibm-infrastructure-suite-for-zvm-and-linux>
 DeveloperWorks Wiki – videos, presentations, white papers: <http://ibm.biz/Bd4up3>

Other Highlights

z/VM Service Changes with GDPR

- Global Data Privacy Regulation (GDPR) has far reaching implications including on how you send documentation for z/VM problem records and how we retrieve, use, and control them.
- Date for complete enforcement has been extended, but we are encouraging everyone to not wait until it is enforced.
- z/VM-centric information: <http://www.vm.ibm.com/service/vmgdpr.html>
- In addition to general information, if you are going to send data from z/VM itself, you'll need to:
 - Install and configure the z/VM SSL server using the TCP/IP Planning and Customization book, SC24-6238, Chapter 16: Configuring the SSL Server
 - Get the required ECuRep DigiCert Certificates into GSKKMAN and test connection.
<http://www.vm.ibm.com/related/tcpip/tcpipdig.html>
 - Customer firewall changes may be required. Consult with firewall administrators to identify any changes.
- Stay tuned for additional information

Software Withdrawal from Marketing

- IBM DB2 Server for VSE and VM, V7.5
- Announced December 5, 2017
- Effective March 12, 2018
- See https://www-01.ibm.com/common/ssi/rep_ca/9/897/ENUS917-189/ENUS917-189.PDF

z/VM Sponsor Users

- Customers input and feedback on individual enhancements

- Examples of value add:
 - Feedback on how to handle IPL when dynamic memory downgrade configuration settings do not make sense with real memory on the system
 - Testing of EAV minidisk support with non-IBM DASD
 - Feedback on NICDEF Security Enhancements switch to go back to old default behavior
 - Feedback on VSwitch load balancing enhancement:
 - Urgency
 - Degree of wasted bandwidth at the time and improvement required

- http://www.vm.ibm.com/sponsor_user/



“I helped build z/VM”
– Sponsor User

Become a Sponsor User

- Look for items that interest you and you'd work to make a reality with IBM
 - New web page to subscribe to:
 - <http://www.vm.ibm.com/newfunction/>
 - Request For Enhancements (RFE) that you submit
 - Other dialogues with IBM

- Express interest in being a sponsor user for an item
 - Link on the continuous delivery page
 - Email to Kerry Wilson (kerryw@us.ibm.com)

- Requirements
 - Program is free
 - Must have an IBMID
 - Must sign Feedback Program Agreement (FPA)
 - Commit to work with IBM on the candidate items

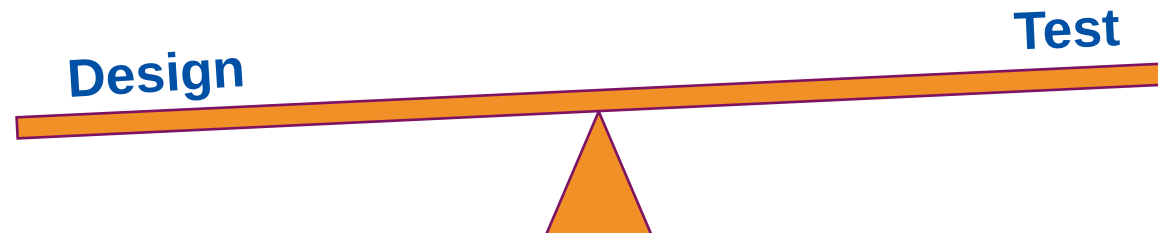
Life of a Sponsor User

Design-Heavy

- Paperwork (really online web-work) for approval
- Initial meeting to discuss the pain points / opportunity
- Follow up meetings to discuss design and feedback on externals
 - ~Monthly
- Demo of early code on IBM systems
- Delivery of drivers for client testing

Testing-Heavy

- Paperwork (really online web-work) for approval
- Initial meeting to discuss the pain points / opportunity
- Follow up meetings to discuss design and feedback (no externals)
 - 1 or 2
- Delivery of drivers for client testing
 - Various hardware
 - Various ISV products



Sponsor Users Wanted:

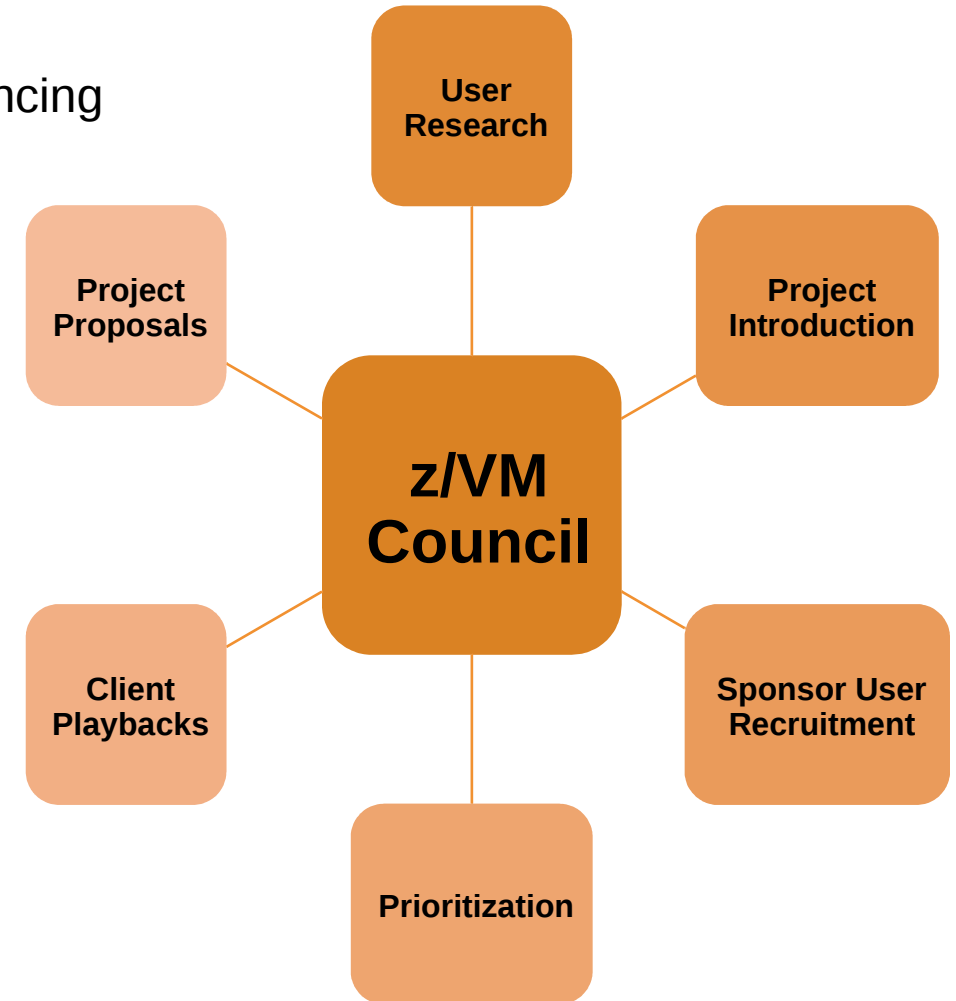
Specifically looking for sponsor users for:

- Four Terabyte Real Memory Support
- EAV Paging
- z/VM TCP/IP Elliptic Curve Support for TLS
- More than 64 Logical Processors



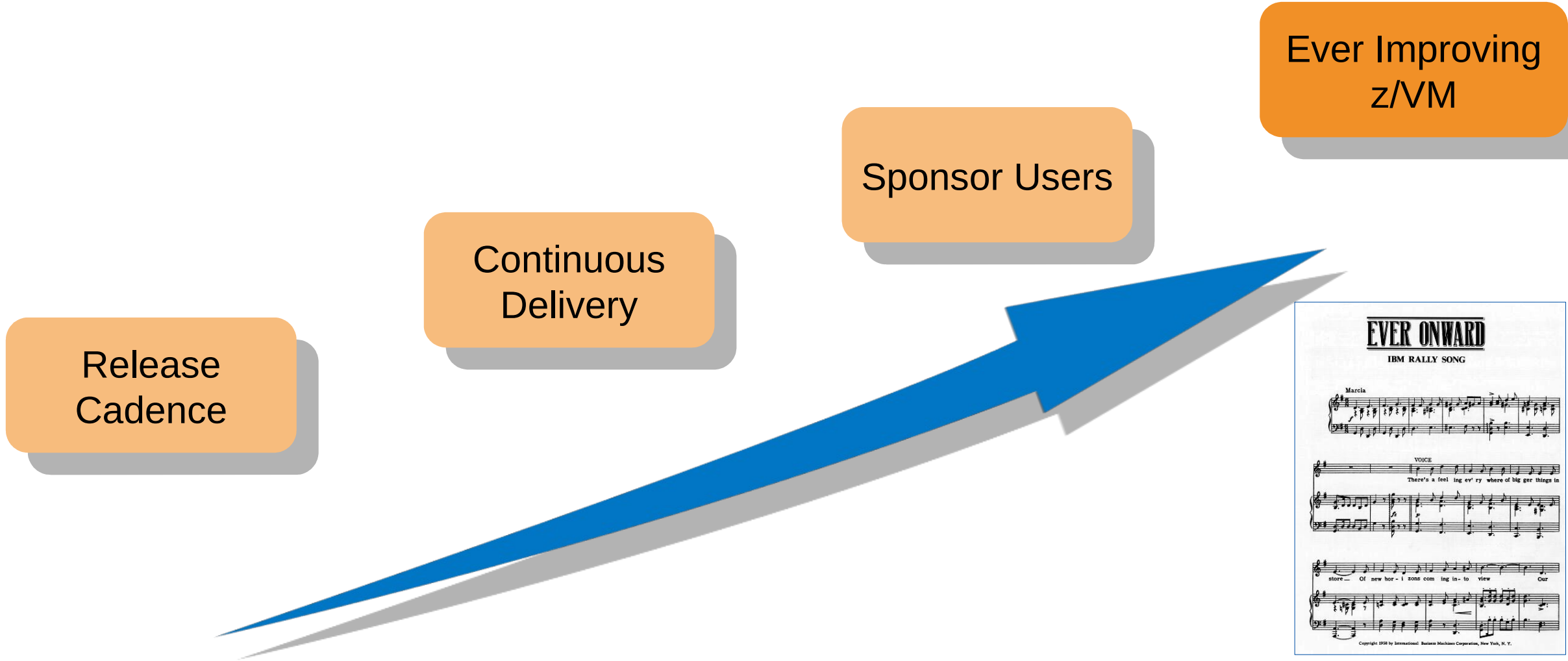
z/VM Council – Client Communication and Collaboration

- z/VM-centric community started in June 2018
 - Meeting about once a month via telephone and web conferencing
 - User research
 - Propose, define, and prioritize new project proposals
 - Sponsor User Recruitment and Playbacks
 - Other collaboration done via membership web site
- Membership Requirements
 - IBM Z Feedback Program Agreement (FPA)
 - Regular participation
 - Sponsor User for at least one project per year
 - Homework assignments
- Additional details:
 - http://www.vm.ibm.com/sponsor_user/zvm_council.html
 - Contact: Kerry Wilson – kerryw@us.ibm.com



Summary

z/VM – Ever Onward



EVER ONWARD
IBM RALLY SONG

Marcia

VOICE
There's a feel ing ev' ry where of big ger things in
store - Of new hor - i zons com ing in - to view Our

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We want your feedback!

- Please submit your feedback online at
 - <http://conferences.gse.org.uk/2018/feedback/CJ>
- Paper feedback forms are also available from the Chair person

- This session is CJ

