

IBM z/OS Version 2 Release 3 enhancements

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At a glance

IBM's z/OS^(R) V2.3 operating system delivers innovations designed to build the highly scalable and highly securable next-generation infrastructure needed. z/OS V2.3 delivers the performance, availability, scale, I/O support, and security to provide the infrastructure, on or off premises or provisioned as-a-service, that allows for instant reacting to business opportunities.

This z/OS V2.3 announcement describes new capabilities designed to support:

- Simplify and modernize the user experience to enhance productivity
 - IBM^(R) z/OSMF
 - New short name for IBM Configuration Assistant for z/OS Communications Server
 - Network Configuration Assistant support for multiple location TCP/IP configuration
- Enhancing availability, scalability, and performance
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Overview

Simplify and modernize the user experience to enhance productivity

z/OSMF enhancements

z/OSMF has an enhanced look and feel designed to support both existing z/OSMF applications and new z/OSMF applications written in Angular. The support is optional by user and is represented by a new option on the logon dialog to select the new look and feel. The previous look and feel based on a category and task list will remain the default. In addition to supporting the mixture of the existing applications and new applications, there are benefits to the new user interface such as having more usable screen space, handling customer grouping of tasks into customer-named folders, and the ability to run and see multiple tasks at one time. This support is delivered with PTFs for APAR PI96462.

The z/OSMF Incident Log task is enhanced to support the CASE parameter with PTFs for APAR PI96024 in addition to the existing PMR number when sending diagnostic data to the IBM Support website. The CASE parameter is a new format for problem management.

The z/OS MF REST TSO/E address space service is enhanced to support starting TSO/E address spaces and running TSO applications on a remote system in the sysplex on z/OS V2.2 with PTFs for APAR PI93623. This matches the same function available on z/OS V2.3. An application can now start a TSO/E address space either on the system where z/OSMF is running (as before) or now on another member of the sysplex by name. This can be important if the action requires local access; for example, manipulating a cataloged dataset.

The z/OS MF Workflows task is enhanced to exploit the support for remote systems in the same sysplex on z/OS V2.2 with PTFs for APAR PI95358. The specification of "system" when creating a workflow will now direct actions of the workflow to the target system.

The z/OS MF Web ISPF is enhanced to support single signon to a remote system in the same sysplex on z/OS V2.2 with PTFs for APAR PI96538.

New short name for IBM Configuration Assistant for z/OS Communications Server

The short name for the IBM Configuration Assistant for z/OS Communications Server z/OS MF plug-in is changed from Configuration Assistant to Network Configuration Assistant. This support is enabled on z/OS V2.3 with the PTF for APAR PI97737.

Network Configuration Assistant support for multiple location TCP/IP configuration

The Network Configuration Assistant is enhanced to support TCP/IP profile Alternate Configurations. Alternate Configurations enable you to create profiles for a TCP/IP stack that can be started in multiple locations, for planned or unplanned outages, failover, or flexibility in moving z/OS system images. With Alternate Configurations, you use the Network Configuration Assistant to specify and manage configuration differences between different locations for a TCP/IP stack, without repeating redundant configuration across the locations. This support is enabled on z/OS V2.3 with the PTF for APAR PI97737.

Enhancing availability, scalability, and performance

zHyperWrite

The z/OS System Logger has been enhanced to enable the use of IBM zHyperWrite data replication when it is configured at your installation on z/OS V2.2 and later with the PTFs for APAR OA54814 applied. This support can improve logging throughput when log stream staging data sets are mirrored using the IBM HyperWrite data replication for exploiters of DASDONLY type log streams. The system logger processing to offload log data from interim storage to offload data sets for both

DASDONLY and Coupling Facility structure-based log streams is also improved when zHyperWrite data replication is used.

zlsf extended processing information

Enhancements have been provided to the zlsf (list open files) utility of z/OS UNIX System Services with PTFs for APAR OA55246 for z/OS V2.2 and z/OS V2.3 that show extended processing information, including start time, elapsed time, CPU time, thread number, state of the process read-write open mode, and other related information. This extended information will enable clients to get a more complete picture of file usage by z/OS UNIX processes currently active on the system. In addition, the zlsf utility can generate output in JSON (JavaScript™ Object Notation) format, enabling clients to parse and build reports.

Enhanced capacity management

The z/OS Capacity Provisioning Manager is enhanced with new commands to set and report LPAR weights. The support is provided with PTFs for APAR OA55039.

Enhanced security and data protection

MCS passphrases

z/OS Console Services is enhanced on z/OS V2.2 and later releases with PTFs for APAR OA54790 applied to enable the use of MCS logon passphrases through security policy profile specification. This support enables an installation to provide a more consistent secure system environment and aids in meeting their corporate/industry security requirements.

Expanded content delivery

Obtaining z/OS content for Knowledge Center for z/OS (KC4z)

Starting with the first content update after z/OS V2.3 general availability, Softcopy Librarian is no longer used to obtain updated z/OS V2.3 content plug-ins for Knowledge Center for z/OS. Instead, now use either HTTPS or FTP to download the plug-ins from the [KC4z content download directory](#). See the readme.txt file in the directory for a description of the manual procedure as well as an example shell script (receive.sh) that automates the transfer and installation of the content.

IBM z/OS Search Scope Catalog

Because of a change in how IBM Knowledge Center indexes content, the original IBM z/OS Search Scope Catalog was unavailable while it was recoded. It is available once again at the [z/OS V2R3 Search Scope Catalog V2.0](#) web page.

Use it as an alternate method to search the z/OS content in IBM Knowledge Center at the element level or individual book or information deliverable level. The Search Scope Catalogs for z/OS V2.1 and V2.2 will also be made available soon.

IBM Z: Look@ Knowledge Center Message Lookup Facility

A replacement for the popular LookAt message lookup facility is now available. When you enter a message ID into the search field, Look@ Knowledge Center returns a link that takes you directly to the message explanation. You can also use wild cards to return a list of all messages that fit the criteria. See the [IBM Z: Look@ Knowledge Center](#) website to try the new tool.

Font Collection web deliverable

As announced in Software Announcement [217-246](#), dated July 17, 2017, the z/OS V2.3 Font Collection element was extended to include the fonts that were previously available in a number of font products. The separate font products were withdrawn in Withdrawal announcement [917-189](#), dated December 5, 2017. To make those fonts available to other IBM z/OS Version 2 clients, they are planned to be included in a new web deliverable, IBM Font Collection for z/OS V2.1 -z/OS

V2.2. The additional fonts planned to be included in this web deliverable are the Sonoran, Data1, and APL2^(R) fonts, which were formerly provided in products 5771-ABA, 5771-ABB, 5771-ADA, 5771-ADB, 5771-ADW, 5771-ADX, 5771-AFL, and 5771-AFN. Note that these fonts are functionally stabilized and no future enhancements are planned. The web deliverable is planned to be available August 10, 2018, on the [z/OS Downloads](#) website.

Enhanced code page support

Code page enhancements for CSSMTP

The Communications Server SMTP (CSSMTP) mail client is enhanced to support multibyte character sets and to provide improved code page support for characters in the mail subject line. These enhancements are intended to facilitate migration from SMTPD to CSSMTP. This support is enabled on z/OS V2.1, V2.2, and V2.3 with the PTF for APAR PI93278.

NFS Server Unicode support

New function in the z/OS NFS Server enables text conversion from UTF-8 to single-byte EBCDIC (and vice versa) when sharing z/OS data with other platforms. Clients can now specify UTF-8 conversion on the mount statement for MVSTM data sets or z/OS UNIX file systems. Use of the new UTF-8 support requires the NFS version 4 protocol. This support is provided with PTFs for APAR OA51979 for z/OS V2.2 and APAR OA55124 for z/OS V2.3.

Improving application development

VSAMDB

The explosive growth of social applications, big data, mobile access, and cloud computing is generating large volumes and a variety of data that is changing the way applications are developed. The need to manage data at an unprecedented scale is driving the demand for new data models to store, manage, and access data. This has led to a new class of data stores that fall under the broad category of Not Only SQL (NoSQL) databases.

Enhancements to VSAM RLS provide NoSQL applications with low-cost, high-performing, transparent access to data stored in z/OS files, specifically VSAM KSDSs. This new functionality, known as VSAMDB, supports storing open standard BSON and JSON (UTF-8) objects into VSAM KSDSs and provides 24x7 Parallel Sysplex^(R) data sharing through the use of VSAM RLS along with indexing to alternate keys for faster queries and analytics. Base support for VSAMDB is available with PTFs for APAR OA55248 on z/OS V2.3 and APAR OA53189 on z/OS V2.2. Enabling support for VSAMDB is available through PTFs for APAR OA55153 on z/OS V2.2 and later.

JSON text-rendering sample program

A sample program in the z/OS Client Web Enablement Toolkit enables users to render JSON (JavaScript Object Notation) text into a human-readable format. JSON text consists of name-value pairs that is language-agnostic and can easily be parsed. The sample is available to both TSO/E and z/OS UNIX users. This support is provided with PTFs for APAR OA55438 for z/OS V2.2 and z/OS V2.3.

JSON entry deletion

A new service, HWTJDEL, has been added to z/OS Client Web Enablement Toolkit. This enhancement enables deletion of an entry from a JSON data stream and removes the need for the application developer to manipulate the JSON text string directly. This support is provided with PTFs for APAR OA54901 for z/OS V2.2 and z/OS V2.3.

cp utility enhancements

The focus on DevOps has never been higher. Development activities are being automated with tooling, and frequently clients are using open source tools for DevOps with traditional z/OS objects like load modules. To reduce the burden, the cp (copy) utility of z/OS UNIX System Services is supported.

Enhancements have been provided with PTFs for APAR OA55299 for z/OS V2.2 and z/OS V2.3 that preserve ALIAS information, both when copying load modules from MVS data sets to z/OS UNIX directories and when copying executables from z/OS UNIX to MVS data sets. This support is useful when transporting binaries across environments.

True random number generation for z/OS UNIX

With the PTFs for APAR OA55437, customers on z/OS V2.2 and V2.3 can now generate true random numbers via /dev/random when running on the IBM z14™ family of servers, without needing to set up the Integrated Cryptographic Service Facility (ICSF). This new support is significant for users of OpenSSH, who may now use functions such as sftp and ssh without needing to set up ICSF, especially when using the new function introduced last year in APAR OA54299 (also for z/OS V2.2 and V2.3) allowing OpenSSH to use the CPACF instructions, when present, directly for certain ciphers and MACs.

Business Partner information

If you are a Direct Reseller - System Reseller acquiring products from IBM, you may link directly to Business Partner information for this announcement. A PartnerWorld^(R) ID and password are required (use IBMid).

[BP Attachment for Announcement Letter 218-320](#)

Reference information

- Software Announcement [217-246](#), dated July 17, 2017(z/OS V2.3)
- Hardware Announcement [117-044](#), dated July 17, 2017(z14)

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