

z/OS V1R13

Installation Planning Checklist

z/OS Version 1 Release 13
Installation Plan Checklist

January 2012

This checklist should be used as a **supplement** to available publications. It is not intended to replace publications for planning your installation and migration.

There is an [Installation Plan Skeleton](#) in Appendix A of the *z/OS Planning for Installation*. Use this if you do not have a tool to create an installation / migration plan for z/OS.

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Planning

- ___ Ensure a System z server is available (z196, z10, z9, z990, z900, z890, z800)
 - ___ Refer to the *z/OS Migration*, Chapter 3, for hardware migration actions

- ___ Validate your migration path is supported
 - z/OS 1.12 → z/OS 1.13
 - z/OS 1.11 → z/OS 1.13
 - Note:** *There isn't any toleration/coexistence service available for unsupported migration paths. This includes releases which have a Lifecycle Extension.*

- ___ Retrieve and review planning books
 - ___ *z/OS V1R13 Planning for Installation*, GA22-7504
 - ___ *z/OS V1R13 Migration*, GA22-7499
 - Notes:**
 1. This document is the sole z/OS migration document for system programmers. This document continues to use the narrow definition of migration. Exploitation of new functions is described in the many element and feature documents. (The *z/OS XL C/C++ Compiler and Run-Time Migration Guide for the Application Programmer*, which is directed to application programmers, continues to exist and is not planned for removal.) The migration information in the other element and feature documents has been removed.
 2. Use the softcopy z/OS Migration book – it is more current than the DVD version.
 - ___ *ServerPac: Using the Installation Dialog (Dialog Level 24)*, SA22-7815
 - ___ *z/OS V1R13 Summary of Messages and Interface Changes*, SA22-7505
 - ___ Part 1: Summary of Interface Changes
 - ___ Part 2: Summary of Message Changes
 - ___ *z/OS V1R13 ISPF Planning & Customizing*, GC34-4814
 - ___ *z/OS V1R13 Introduction and Release Guide*, GA22-7502
 - ___ *z/OS Unix System Services Planning*, GA22-7800
 - ___ *IBM Healthchecker for z/OS: Users Guide*, SA22-7994
 - ___ *z/OS V1R13 HCD Planning*, GA22-7525
 - ___ *z/OS V1R13 DFSMS Using the New Functions*, SC26-7473
 - ___ *z/OS V1R13 Communications Server: New Function Summary*, GC31-8771
 - ___ *z/OS V1R13 Common Information Model User's Guide*, SC33-7998

- Notes:
 1. Information has moved to different books than where you may be used to finding it.
 2. Softcopy available from: <http://www.ibm.com/servers/eserver/zseries/zos/bkserv>
 3. The latest version of any document can be found at the Internet Library. DVDs are not updated as frequently.

- ___ Understand coexistence and fallback policy for z/OS
 - ___ Review coexistence and fallback service

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- See the *z/OS Migration, GA22-7499, Chapter 2*
- Changes to this policy began with z/OS 1.6

<i>z/OS Coexistence Levels and Service Support Dates</i>			
z/OS Release	General Availability of z/OS Release Identified in column 1	Service Support of z/OS Release Identified in Column 1 is Available Through	Releases which can coexist with the z/OS Release Identified in Column 1
z/OS V1R11	September 2009	Planned September 2012	z/OS V1R9, z/OS V1R10
z/OS V1R12	September 2010	Planned September 2013	z/OS V1R10, z/OS V1R11
z/OS V1R13	September 2011	Planned September 2014	z/OS V1R11, z/OS V1R12

Table Notes:

1. Marketing and service support for ***all*** z/OS Releases 1 through 10 and z/OS.e Releases 1 through 8 are withdrawn.
2. Defect support for z/OS 1.9 is available for a fee through the z/OS 1.9 Lifecycle Extended Service, program number 5646-A01
3. Defect support for z/OS 1.10 is available for a fee through the z/OS 1.10 Lifecycle Extended Service, program number 5656-A01

— Understand integration test, as performed by IBM.

Notes:

1. Customers must still test their applications.
2. Semiannual test reports are produced. They are available on the Internet.

IBM Integration Test home page ⇒ <http://www-03.ibm.com/systems/services/platformtest/servers/systemz.html>

— Read *z/OS V1R13 Introduction and Release Guide, GA22-7502*

Note: This book now contains a chapter on new functions to consider for exploitation.

— Planning and Migration Assistant (PMA)

Use this tool to create reports of what's currently installed on your system and what changes you can expect when you go to a new release.

<http://www.ibm.com/servers/eserver/zseries/zos/smpe/pma/>

Note: PMA can help determine which USERMODs need to be reworked and which just need to be reinstalled. Use the Top or Intermediate Product Migration Changes Report to determine the product migration impacts reviewing the "changed" FMIDs. Then using the LIST SYSMOD USERMOD FORMID (listing the "changed" FMIDs) command.

— Read *z/OS V1R13 Planning for Installation, GA22-7504*.

— Review Table 2 (Chapter 1) - Summary of element, feature, and component name changes, additions, deletions

— Review summary of changes.

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- Review base elements and optional features Table 1 in Chapter 1.

These figures provide indicators for:

- a.) whether an element is exclusive or non-exclusive
- b.) identifies the last release the element changed

- Review software requirements in Appendix B.

Note: If you are upgrading from z/OS V1R11 or z/OS V1R12, you may use the product levels on z/OS V1R13 being used on your prior z/OS release, as long as the product level are still service supported, with the following exceptions:

1. If you are using any of the products in Table 12 you must use the product levels shown.
2. If you are using any of the functions in Table 13 and those functions have dependencies on IBM middleware or application products, you must use the product levels shown (or later).

- Review hardware requirements in Appendix C.

Note: Unsupported Hardware policy - Various z/OS elements, such as DFSMS, HCD, JES2, JES3, and MVS, contain code supporting specific hardware servers or devices. In some cases, this device-related element support remains in the product even after the hardware devices pass their announced End of Service date. z/OS may continue to service element code; however, it will not provide service related to unsupported hardware devices. Software problems related to these devices will not be accepted for service, and current service activity will cease if a problem is determined to be associated with out-of-support devices. In such cases, fixes will not be issued.

- Read *z/OS V1R13 Migration*, GA22-7499

- Understand what “migration” means as it pertains to this book
- Review actions to perform before installing z/OS 1.13
- Review actions to perform before the first IPL of z/OS 1.13
- Review actions to perform after the first IPL of z/OS 1.13

Note: Softcopy for specific migration paths is located at URL:

<http://www-03.ibm.com/systems/z/os/zos/installation/>

- z/OS V1R13 Migration - From z/OS V1R12 to z/OS V1R13
- z/OS V1R13 Migration - From z/OS V1R11 to z/OS V1R13

- Read *ServerPac: Using the Installation Dialog (Dialog Level 24)*, SA22-7815. Applicable to ServerPac users.

Notes:

1. *There have been significant changes to ServerPac Dialogs over the last several releases..*

- Update the CustomPac Installation Dialog (if applicable)

Required if first time using ServerPac Installation Dialog with z/OS 1.6 or later

- Understand z/OS system replacement delivery vehicles:

- ◆ ServerPac (entitled)
- ◆ SystemPac (fee) (<https://www-03.ibm.com/services/ca/en/custompac/deliverable/systempac.html>)

- Understand *Software Upgrade* install path via the ServerPac.

- Understand enable/disable support for elements in z/OS.

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- Ensure IEASYSxx used for IPL points to the proper IFAPRDxx for z/OS and reflect the program number for z/OS
- ___ Understand terms and conditions when enabling elements/features of z/OS.
- ___ Understand service integration levels.
*Note: Documented in z/OS Planning for Installation, Chapter 1.
 Service integration levels are identified by a unique SOURCEID assigned to each PTF. The integration-tested service level is tagged with a SOURCEID of ZOSV1Rn. Where "n" is the z/OS release.*
- ___ Understand Recommended Service Upgrade (RSU).
 An RSU is a regular service upgrade (++)ASSIGN statements with a sourceid=RSUyymm) IBM recommends for installation.
Note: RSU is redefined. Referred as Consolidated Service Test (CST). See <http://www.ibm.com/servers/eserver/zseries/zos/servicetst>
- ___ Plan and schedule z/OS education.
 IBM courses are available for z/OS. The existing curriculum is updated as needed. For schedules and enrollments:
 - ◆ Call 1-800-IBM-TEACH
 - ◆ World Wide Web - IBM Global Campus URL: <http://www.ibm.com/training/us/catalog/zseries>
- ___ Understand Coexistence and fallback (Chapter 1: z/OS Planning for Installation)
- ___ Identify product library requirements:
 - *The z/OS V1R13 Information Roadmap, SA22-7500, contains titles and order numbers for books, for all elements and products, which are part of z/OS.*
 - Books are available in softcopy on DVD and through the Internet at <http://www.ibm.com/servers/eserver/zseries/zos/bkserv/>
 - The internet level will always contain the latest information.

New books for z/OS 1.13

- A new book is added to the MVS library:
 - *z/OS Batch Runtime Planning and User's Guide, SA23-2270*

Changed books for z/OS 1.13

z/OS Distributed File Service Customization, SC24-5916, and z/OS Distributed File Service Administration, SC24-5915, are being deleted from the DFS library. They contained a high proportion of information about DCE, which is a product no longer supported by IBM. The remaining information from these books will be moved to z/OS Distributed File Service SMB Administration and z/OS Distributed File Service zFS Administration.

Deleted books for z/OS 1.13

- *z/OS DCE Administration Guide, SC24-5904*
- *z/OS DCE Application Development Guide: Core Components, SC24-5905*

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- *z/OS DCE Application Development Guide: Directory Services*, SC24-5906
- *z/OS DCE Application Development Guide: Introduction and Style*, SC24-5907
- *z/OS DCE Application Development Reference*, SC24-5908
- *z/OS DCE Command Reference*, SC24-5909
- *z/OS DCE Configuring and Getting Started*, SC24-5910
- *z/OS DCE Introduction*, SC24-5911
- *z/OS DCE Messages and Codes*, SC24-5912
- *z/OS DCE Planning*, SC24-5913
- *z/OS DCE User's Guide*, SC24-5914
- *z/OS Distributed File Service Customization*, SC24-5916
- *z/OS Distributed File Service Administration*, SC24-5915

New books for z/OS 1.12

- A new book has been added to support the new product, IBM z/OS Management Facility
 - *IBM z/OS Management Facility*, SA38-0652.
- A new book has been added to the IBM Tivoli Directory Server library:
 - *IBM Tivoli Directory Server Messages and Codes for z/OS*, SA23-2262.

Changed books for z/OS 1.12

- *z/OS Support for Unicode: Using Unicode Services* has been retitled to *z/OS Unicode Services User's Guide and Reference*.

Deleted formal books for z/OS 1.12

The MVS, JES2, and JES3 Data Area books are not formally available (no document numbers) from the collection kit or from the respective libraries. Instead, they are only available by searching on the z/OS Library Web site.

- *z/OS MVS™ Data Areas*, Volumes 1–6
- *z/OS JES2 Data Areas*, Volumes 1–5
- *z/OS JES3 Data Areas*, Volumes 1–3

New books for z/OS 1.11

- A new book has been added to the Communications Server library
 - *z/OS V1R12 Communications Server: SNA ACF/TAP Trace Analysis Handbook* GC23-8588.
- A new book has been added to the Open Systems Adapter library:
 - *System z9 and eServer zSeries Open Systems Adapter-Express Integrated Controller 3215 Support*, SA23-2247.

Changed Books for z/OS 1.11:

- *DFSMSdss Storage Administration Guide* has been retitled to *DFSMSdss Storage Administration*.
- *DFSMSHsm Storage Administration Guide* has been retitled to *DFSMSHsm Storage Administration*.
- *DFSMS Storage Administration Reference* has been retitled to *DFSMSdfp Storage Administration*. Additionally, some information from this book has been moved:
 - DFSMSdss section (Part 2) is moved into *DFSMSdss Storage Administration*.
 - DFSMSHsm section (Part 3) is moved into *DFSMSHsm Storage Administration*.
 - DFSMSdfp section (Part 1) remains in the current book, *DFSMSdfp Storage Administration*.

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Deleted Books for z/OS 1.11

- *C/C++ Legacy Class Libraries Reference*, SC09-7652.
- *IBM Open Class Library Transition Guide*, SC09-4948.
- *z/OS Integrated Security Services LDAP Client Programming*, SC24-5924
- *z/OS Integrated Security Services LDAP Server Administration and Use*, SC24-5923

___ Identify non-IBM (ISV) product requirements.

___ Contact Vendors

Notes:

1) Review ISV product support with z/OS

___ Software Developers Supporting z/OS 1.13

<http://www-03.ibm.com/systems/z/os/zos/software/isv113.html>

___ Identify and install coexistence and fallback service.

___ See *z/OS Migration (GA22-7499), Chapter 2*

___ Review PSP bucket for additions

Notes:

1. Use SMP/E 3.5 (shipped with z/OS 1.10) and ++FIXCAT from enhanced HOLDDATA. To simplify finding the appropriate PSP bucket and identifying which PTFs listed in the PSP bucket need to be installed on your system, use SMP/E FIXCATs and the REPORT MISSINGFIX command.
2. SMP/E 3.6 is shipped with z/OS V1R13.

___ Program directories for all elements and products are included in both ServerPac and CBPDO orders. They are located in data set "hlq.PGMDIR" in the order content for ESP PDO orders. They are in hlq.PDFPD for ESP ServerPac orders. You will need to FTP the datasets (as binary) to a workstation for viewing. Some are available from the internet at:

<http://www.ibm.com/servers/eserver/zseries/zos/installation/#resource>

___ Identify software requirements for z/OS elements and features. Review *Appendix B* in *z/OS Planning for Installation*

___ Identify usermods and user exits to be installed. Refer to:

- *z/OS V1R13 DFSMS Installation Exits*, SC26-7396
- *z/OS V1R13 JES2 Installation Exits*, SA22-7534
- *z/OS V1R13 MVS Installation Exits*, SA22-7593
- *JES3 Customization*, SA22-7542

___ Identify user SVCs to be installed.

___ Obtain PSP upgrades:

UPGRADE=ZOSV1R13 SUBSET=exclusive element name by FMID, or
=FMID/yymm, or
=descriptive name

UPGRADE=ZOSV1Rx SUBSET=ZOSGEN Note: x = Release of z/OS

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ServerPac dialogs: UPGRADE=ZOSV1Rx SUBSET=SERVERPAC

1. PSP buckets are removed from ServerPac and CBPDO
 2. Non-exclusive elements: Located in product specific program directory.
 - ___ Review z196, PSP bucket (if applicable), for latest z196 service
 - ___ Review z10, PSP bucket (if applicable), for latest z10 EC and BC service
 - ___ Review z9 buckets (if applicable), for latest z9 EC and z9 BC service
 4. Use SMP/E 3.5 or higher and ++FIXCAT from enhanced HOLDDATA.
To simplify finding the appropriate PSP bucket and identifying which PTFs listed in the PSP bucket need to be installed on your system, use SMP/E FIXCATs and the REPORT MISSINGFIX command.
- ___ Review hardware configuration:
- ___ Ensure the planned hardware configuration is reflected in the IODF and IOCP
- ___ Ensure any hardware requisites are satisfied.
- ___ Configure LPARs to use only central storage when z/OS is on a zSeries and Systems z9, z10 or z196. z/OS on a zSeries and System z196, z9/z10 server does not support expanded storage.
- ___ Ensure proper coupling facility levels are installed
See <http://www.ibm.com/eserver/zseries/psocftable.html>
- ___ Identify system software parameter and procedural updates:
- SYS1.PARMLIB
 - SYS1.VTAMLST
 - JESPARMS
 - /etc
- Note:** IBM defines directories in the /etc directory but does not install files there. Because the configuration and customization data in your existing /etc directory might not be correct for the new system, you might need to make changes to the files in your new /etc directory. IBM recommends these changes before the first IPL of the new system.
- /var
- Note:** During the installation of the OCSF Base component of the Cryptographic Services base element, files are created in the /var directory. If you have other files under your existing /var directory, then you will have to merge the old and new files under /var. The easiest way to do this is to create a copy of your current /var HFS and then copy the new /var files into the copy.
- ___ Identify required updates to program language options.
Note: IBM-supplied default language options will be used.
- ___ Identify changes to system commands
Refer to: z/OS V1.13 Summary of Message and Interface Changes, SA22-7505 –Part 1 and z/OS 1.13 z/OS MVS Commands manual, SA22-7627.
- ___ Identify changes to messages
Refer to: z/OS V1.13 Summary of Message and Interface Changes, SA22-7505 - Part 2

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- Contains new, changed and deleted messages
- ___ Identify changes to macros
Refer to: *z/OS V1.13 Summary of Message and Interface Changes, SA22-7505 - Part 1*
- ___ Identify changes to SMF records
Refer to: *z/OS V1.13 MVS System Management Facilities (SMF), SA22-7630*
- ___ Identify changes to Callable Services
Refer to: *z/OS V1.13 Summary of Message and Interface Changes, SA22-7505 - Part 1*
- ___ Identify changes to MVS control blocks
Refer to: *z/OS V1.13 Summary of Message and Interface Changes, SA22-7505 - Part 1*
- ___ Identify changes to IPCS commands
- ___ Identify required updates to operational procedures.
- ___ Identify required updates to system automated operations.
- ___ Identify Custom-Built FCBs to be installed.
- ___ Identify required updates to administrative procedures.
Some areas you should examine are:
- ◆ Security procedures
 - ◆ Procedures for adding, deleting, and changing user IDs
 - ◆ Application implementation procedures
 - ◆ Problem management procedures
 - ◆ Change management procedures
 - ◆ Test procedures
 - ◆ Recovery procedures
 - ◆ Data management procedures.
- ___ Identify subsystem migration requirements.
- ◆ Identify any hardware/software changes required to accommodate existing subsystems such as CICS, IMS, DB2, MQ Series and JES on the new z/OS system.
- ___ Identify items affected by changed interfaces
- ___ Run an SMP/E REPORT CROSSZONES command and review the resulting report to ensure other product service dependencies are met.
Note: This report can also be set up to ensure coexistence/toleration service is installed when migrating from one version/release to another.
- ___ Identify changes affecting applications.
- ___ Identify new address spaces
- ___ Review or establish backup and recovery procedures.

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- ___ Review or establish testing environment.
- ___ Review or establish service procedures.
- ___ Identify impact which may affect other platforms
 - ___ Perform necessary work on other platforms
- ___ Obtain DASD volumes for installation.
 - Total DASD space for z/OS is documented in *z/OS Planning for Installation, GC28-1726 and program directory for z/OS*
 - Additional DASD space will be required for additional products outside of the z/OS product
- ___ Add or change volumes to keep z/OS root system in a single data set. [not required, but for ease of management]
- ___ Satisfy driving system requirements for ServerPac:
 - See *z/OS Planning for Installation*
 - A Customized Offerings Driver, 5665-343, is available when driving system requirements cannot be met. This driver is entitled for z/OS customer.
 - Minimum driving system level is z/OS V1R11.
 - Do not specify these LE run-time options as non-overrideable (NOOVR) in CEEDOPT CSECT: ALL31, ANYHEAP, BELOWHEAP, DEPTHCONDLIMIT, ERRCOUNT, HEAP, HEAPCHK, HEAPPOOLS, INTERRUPT, LIBSTACK, PLITASKCOUNT, STACK, STORAGE, THREADHEAP, and THREADSTACK (ServerPac requires these to be overrideable)
- ___ Review and update existing standards based on new or changed functions, interfaces

Note: Now documented in *Summary of Messages and Interface Changes, SA22-7505*
- ___ Identify variables required for ServerPac Installation Dialogs

Note: *Description of variables is located in Using the Installation Dialog, SA22-7815*
- ___ Develop plans for exploiting new z/OS functions.
 - ___ See *z/OS V1R13 Introduction and Release Guide, GA22-7502*
 - ___ *z/OS V1R13 DFSMS Using the New Functions, SC26-7473*
 - ___ *z/OS V1R13 Communications Server: New Function Summary, GC31-8771*
- ___ Create an installation and migration plan.
- ___ Identify product/element customization tasks.

Now in *z/OS V1R13 Migration, GA22-7499* - documented by element
- ___ View product catalog for the chosen delivery vehicle

Note: *The product catalog is available at:*

<https://www14.software.ibm.com/webapp/ShopzSeries/ShopzSeries.jsp>
- ___ Identify additional required IBM products not on the checklist for reinstallation when selecting a ServerPac or SystemPac.
- ___ Determine the JES level to bring forward - if required.

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- ___ Use zSoftCap to identify the effect of capacity changes.
Note: zSoftCap is a PC-based productivity tool designed to assess the effect on capacity for IBM System z processors, when migrating to more current releases of the operating system or major subsystems. zSoftCap assumes that hardware remains constant while software releases change.
 ___ Download from: <http://www.ibm.com/support/techdocs/atmastr.nsf/WebIndex/PRS268>

- ___ Find alternatives for removed elements and features, if required
 - ___ Refer to *z/OS V1R13 Migration, GA22-7499, Chapter 2*
 - ___ See Washington Systems Center Flash, FLASH10451 titled *Withdrawal of z/OS Functions* at <http://www.ibm.com/support/techdocs>

- ___ Upgrade Windows 2000, 95, 98 and NT Workstation clients
 IBM no longer supports service for clients running these levels.

- ___ Remove ILM customization, if not already done

- ___ Remove references to deleted data sets and paths
 See Chapter 2 in *z/OS V1R12 Migration*

- ___ Verify virtual storage limits are set properly
 - ___ use IBM Health Checker for z/OS to help determine if virtual storage limits are set properly
 - See Chapter 2 in *z/OS V1R12 Migration*

- ___ Discontinue use of IBM Virtualization Engine Enterprise Workload Manager for z/OS (5655-M76 and 5655-EWM) [This product is deleted during installation of z/OS V1R11]

Ordering

ShopzSeries is a web-based ordering tool. Access from web site:

<https://www14.software.ibm.com/webapp/ShopzSeries/ShopzSeries.jsp> or off the z/OS "How to Buy" home page: <http://www.ibm.com/servers/eserver/zseries/zos/buy.html> under the z/OS Ordering Information section.

- ___ Place an order for z/OS using ShopzSeries.
 - ServerPac available for Internet delivery
 - Requires SMP/E V3R3 and Cryptographic Services ICSF set up for SMP/E RECEIVE FROMNETWORK processing - **OR**
 - SMP/E V3R4, or higher
 - Does not require ICSF, but will use if set-up

- ___ **Order all non-priced optional features**
 - Cannot order separately, must reorder z/OS to receive, if needed later

- ___ Choose delivery medium
 - ___ Internet
 - ___ Tape
 - ___ DVD

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Notes:

1. Preferred delivery medium is via the Internet
2. Media 34xx tapes (3480, 3480C and 3480E) are not longer available

Prepare for System Replacement

There are several tasks to be done to establish an environment for easing in a new system. They are:

___ Separate IBM code from user code. This includes:

- ◆ Non-IBM products
- ◆ IBM products not available in checklist
- ◆ User modifications
- ◆ User exits.

___ Install additional required IBM products into their own set of target distribution libraries.

- ◆ Install required IBM products which are not available in the ServerPac checklist into their own set of libraries, if at all possible. These libraries should not reside on the IPL volume.

Note: Use the BUILD MCS command to copy products from one pair of target and distribution libraries into another pair of target and distribution libraries. See z/OS SMP/E Commands, SA22-7771, for a full description of BUILD MCS.

___ Install non-IBM products in their own set of libraries, excluding the nucleus.

___ Use alternate LPA libraries for non-ServerPac products.

Notes:

1. These non-ServerPac products should use alternate LPALIB through the LPALSTxx parmlib member.
2. Dynamic LPALST is available since OS/390 R4. It requires conversion to PROGxx parmlib member.

___ Use an alternate LINKLIB for non-ServerPac products.

Notes:

1. Linklist libraries can be added to parmlib member LNKLSTxx or PROGxx.
2. Dynamic Linklist is available since OS/390 R3. It requires conversion to PROGxx parmlib member.

___ Consider using dynamic exit service for user exits.

___ Standardize data set names and placement.

___ Review current procedures and processes for system installation to determine applicability.

___ Determine SYS1.PARMLIB usage.

ServerPac Installation

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1. ServerPac ships recommended data set layout as the default. Enhancements are made to the ServerPac dialogs in each release.
 2. z/OS V1R11 or higher required for installation
 3. **Default install volume is a 3390-9 instead of 3390-3**
 4. **Default file system is zFS instead of HFS.** Customers using a saved configuration with HFS as the file system and still want to use HFS as their file system will now be required to change the CustomPac dialogs value to HFS. The file system type will not be carried over from a previous saved configuration if HFS.
 5. Link list (LNKLST) data sets will no longer be allocated with secondary extents
 6. SMP/E 3.3 or higher is required for ServerPac electronic delivery – SMP/E 3.5 ships in z/OS V1R10 - V1R12 and SMP/E 3.6 ships in z/OS V1R13.
 7. Must either have SCEERUN (the Language Environment run-time library) in the link list or edit the installation jobs to add it to JOBLIB or STEPLIB DD statements.
 8. You can select the JES you want during installation and you can specify whether the JES SMP/E zones are to be merged with the BCP zones. Previously, both JESes were installed and usually one was deleted afterward.
 9. If you order a product with your ServerPac which uses ++JAR, you need Java 2 Technology Edition (5655-D35).
 10. RIM (Related Installation Materials) tapes are eliminated. The RIM files are now the first files on the System and Distribution tape.
 11. **HIPER and PRP (PE resolving PTF) PTFs are no longer ACCEPTed.** Before z/OS V1R10, all PTFs currently APPLYed in ServerPac were also ACCEPTed. Doing so prevented the ability to back off (SMP/E RESTORE) PTFs, if necessary, after the order was manufactured. Beginning with z/OS V1R10, HIPER and PRP PTFs not yet marked RSU are excluded from ACCEPT processing.
- ___ Run “one time update” job for z/OS 1.13 ServerPac Dialogs, **if not completed for z/OS 1.6**
 The format of the RIM tape has changed. For physical delivery there is an UPDATE job shipped in DOCLIB on the RIM tape. For internet delivery a job called EUPDATE must be run and this job is supplied on the download page. **Failure to perform this update will cause an ABEND 813 during ServerPac RECEIVE processing.**
- ___ Install CustomPac Installation dialogs – Ensure they are at the correct level.
- ___ Invoke CustomPac Installation Dialogs.
- ___ Run installation jobs and check output.
Note: These jobs are documented in the ServerPac: Installing Your Order and are submitted via the CustomPac Dialogs.
- ___ Review integrated SYSTEM HOLDS for possible required actions.

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Installation Planning Checklist

Note: HOLDDATA information is located on the RIM tape. The customized installation guide will provide a pointer to the appropriate data set.

SYSTEM HOLD Information

To get a complete view of the system HOLDDATA incorporated into a ServerPac, the following must be reviewed:

- > Unresolved SYSTEMHOLD Report
- > Pre-Analyzed SYSTEMHOLD Report
 - > SYSTEMHOLD Analysis Report

- ___ Run required post-installation jobs from dialogs.
- ___ Identify regressed service, if applicable.
The CustomPac dialogs provide an SMP/E Report SYSMODS job and IFREQ checker.
- ___ Download code to other platforms, if applicable.
- ___ Remove deleted data sets, paths and references - Refer to Table 5 in the *z/OS R12 Migration* book.

CBPDO Installation

- ___ Read the Program Directory for z/OS and other program directories.
- ___ Clone all applicable volumes/data sets (includes HFS and/or zFS)
- ___ Review PSP buckets
 - UPGRADE: ZOSV1R13
 - Subset: ZOSGEN and one for each element
- ___ Delete the withdrawn elements as documented in the *z/OS V1R13 Program Directory*
 - Sample job CLNOS390 is provided to delete the obsolete z/OS elements
 - After deleting the withdrawn elements, remove the obsolete target and distribution libraries, and file system paths
 - *z/OS Migration* documents the obsolete data sets and paths
- ___ Follow the steps in the program directories to prepare for installation; to SMP/E RECEIVE, APPLY, and ACCEPT the z/OS FMIDs and service; to run installation and post-installation jobs; and to verify installation.

Notes:

 1. Elements are grouped together based on driving and target system requirements, element dependencies, and natural separation points, called waves and ripples. **Ripples must be processed in the order specified, with all FMIDs in a ripple installed.**
 - ◆ Wave 0: FMIDs which should be available on driving system for subsequent wave installs - SMP/E, HLASM and the binder
 - Wave 0 requires z/OS V1R11 or later.

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Installation Planning Checklist

- Wave 0 requires the target system file system (zFS or HFS) be mounted on the driving system.
 - ◆ Wave 1: Install all core elements and features of z/OS with the exception of JES2 and JES3 and to service a ServerPac system.
 - Requires z/OS V1R11 with z/OS V1R13 Program Binder, SMP/E and HLASM, plus PTFs
 - ◆ Wave 2: SDSF, JES2 and/or JES3
 - May be combined with Wave 1.
 - Requires z/OS V1R12 with z/OS V1R13 Program Binder, SMP/E and HLASM, plus PTFs
- ___ Use the following recommended block sizes:
- ◆ non-RECFM=U: use system determined block size (BLKSIZE=0)
 - ◆ RECFM=U: BLKSIZE=32760
- ___ Download code to other platforms (for example, onto workstations).

Perform Pre-IPL Customization

This includes performing migration actions which must be completed prior to IPLing the target system. The z/OS Migration book identifies all migration actions which must be completed prior to the first IPL, by element.

ServerPac Installation

The following jobs are documented in the *ServerPac: Installing Your Order* and can be run from the CustomPac Installation Dialogs:

- ___ Create IPL text.
- ___ Build stand-alone dump text.
- ___ Set up IPCS environment.
- ___ Set up an ISPF environment.
 - ◆ Ensure proper libraries are concatenated.
 - ◆ Modify ISPF libraries to enable products and elements to be invoked.
- ___ Perform initial customization for individual elements.
- ___ Rework any usermods and user exits required to IPL z/OS.

CBPDO Installation

The following tasks are documented in Program Directory for z/OS and other program directories:

- ___ Create IPL text.
- ___ Build stand-alone dump text.
- ___ Set up a new IPCS environment.

Note:

 1. Concatenate the JES2 or JES3 IPCS data sets

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Installation Planning Checklist

- ___ Set up an ISPF environment.
 - ◆ Ensure proper libraries are concatenated.
 - ◆ Modify ISPF libraries to enable products and elements to be invoked.
 - ◆ Ensure logon procedure points to target system's level of IPCS data sets
- ___ Verify IKJTSOxx member points to your desired Broadcast data set
- ___ Remove Broadcast reference in MSTRJCLxx
- ___ Ensure SYS1.SDWDDLPA is in LPALSTxx (wait state 40 if not)
- ___ Ensure the target system's MIGLIB and SASMMOD1 libraries are APF-authorized.
- ___ Perform initial customization for individual elements.
- ___ Update the master catalog (CBPDO).
- ___ Rework any usermods required to IPL z/OS.
- ___ Migrate /etc and /var system control files

Perform Migration Actions

The required migration actions depend on what software levels you are coming from and whether you plan to exploit new function.

- ___ Create or migrate IODF, if necessary.
- ___ Modify system control files:
 - ◆ SYS1.PARMLIB
 - ◆ SYS1.PROCLIB
 - ◆ SYS1.VTAMLST
 - ◆ JES initialization deck
 - ◆ /etc and /var
- ___ Review *z/OS UNIX System Services Planning*.
- ___ Set up the proper UNIX System Services environment for z/OS.

Notes:

 1. The OMVS address space starts automatically since OS/390 R3.
 2. Must run full function mode
- ___ Remove ARCHLVL from IEASYSxx. Will default to correct level when running z/OS. The processor determines the appropriate z/OS architecture mode.
- ___ Set up IPCS environment

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Installation Planning Checklist

- Use the “*IBM Health Checker for z/OS*” to programmatically check migration actions. See *z/OS Migration* book, Chapter 1 for a complete description.
Note: Not all Migration actions are checked – still need to use the *z/OS Migration* book for all others.

Verify the New System

- IPL the system as the target system and log on.
Note:
 1. This system must be IPLed in z/Architecture mode on a zSeries server
 - Bimodal Migration Accommodation is not allowed nor supported
 2. This system is not customized beyond what was required to IPL the system and does not exploit any of the new function.
 3. Ensure all required service is installed if IPLing z/OS on a System z196, z10, z9, z990 or z890 server as documented in their respective PSP buckets.
- Run the Installation Verification procedures
 - ♦ See *ServerPac: Installing Your Order for information* on how the jobs can be run from the CustomPac Installation Dialogs.
 - ♦ See Program Directory for z/OS and other program directories for information on how to run these jobs, if using CBPDO to install.

Customize the System

- Redo customization (update and merge system control files).
- Set up the security environment.
- Reinstall user exits and usermods, if required.
- Install any new required products and service (including ISV products).
- Reconnect subsystems (DB2, CICS, IMS, etc.)

Verify the Customized New System

- IPL the target system.
Note: This system is customized but does not exploit any of the new function.
- Perform function and stress test.
Note: IBM's comprehensive system testing does not replace the need for this testing in your own environment.

Testing might include:

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Installation Planning Checklist

- Initializing the system.
- Initializing JES.
- Logging on to TSO/E.
- Running the installation verification programs (IVPs), if supplied with the element or feature. The IVP jobs are listed in *z/OS and z/OS.e Planning for Installation*.
- Submitting a job.
- Checking the job's output.
- Starting customizing z/OS.
- If CICS or IMS is installed, initializing a region and signing on to a terminal.
- Bringing your independent software vendor products (ISVs) into the test environment.
- Running critical production jobs.
- Supporting a representative interactive workload.
- Communicating with all networks.
- Testing critical functions in applications.
- Checking some of the paths not often taken.
- Checking for completeness of accounting records.
- Testing all non-IBM product functions.
- Bringing your applications into the test environment.
- Ensuring performance goals stated in service level agreements can be met.

Migrate to Production

- ___ Cut the first system image to Production.
- ___ Prepare to clone the system (unit and volser on DDDEFs).
- ___ Roll the IPL across remaining system images, if applicable.

Exploit New Function

- ___ Determine functions to exploit.
 Refer to: *z/OS V1R13 Introduction and Release Guide*
 z/OS V1R13 DFSMS Using the New Functions, SC26-7473
 z/OS V1R13 Communications Server: New Function Summary, GC31-8771
- ___ Create a plan for exploiting new function.
- ___ Execute the plan.

Maintenance after Installation

- ___ Understand Recommended Service Update (RSU) - RSU redefined

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Installation Planning Checklist

Note: Review information at: <http://www.ibm.com/servers/eserver/zseries/zos/servicetst>

Service information - S/390 Software Support

<http://www.ibm.com/servers/eserver/support/zseries/index.html>

Note: From this site you can submit problems, review problems, search APARS, pull PSP buckets and link to other sites to download fixes and enhanced holddata.

ShopzSeries <https://www14.software.ibm.com/webapp/ShopzSeries/ShopzSeries.jsp>

An internet based software service tool to obtain products, preventive and corrective service. Products and service are now available for delivery over the internet.

Note: The new Internet Service Retrieval function in SMP/E 3.4 or higher can be used to retrieve service and HOLDDATA automatically.

Retrieve current holddata. May be obtained from internet. Enhanced HOLDDATA improves the content of HOLDDATA by providing ERROR ++HOLDS for PE APARs and for HIPER (High Impact and Pervasive) APARs. The ++HOLD includes the fixing PTF number, when available, and any HIPER reason flags such as:

- ◆ IPL
- ◆ data loss
- ◆ major function loss
- ◆ performance
- ◆ pervasive

Enhanced HOLDDATA: <http://service.boulder.ibm.com/s390holddata.html>

Note: To service z/OS R13 requires z/OS R11 **except** the program management binder, HLASM, and SMP/E must be at the latest z/OS levels (z/OS R13).

- To satisfy the program management binder, HLASM, and SMP/E requirements, you can use a STEPLIB DD statement to access the z/OS V1R12 binder, HLASM, and SMP/E in the target system's SYS1.MIGLIB and ASM.SASMMOD1 data sets. Ensure the target system's SYS1.MIGLIB and ASM.SASMMOD1 data sets are APF authorized on the driving system.

Elements in z/OS V1R13

Element information for previous z/OS releases is located in Chapter 1 of *the z/OS Planning for Installation* manual.

Changed Base Elements

- ___ BCP
- ___ CIM
- ___ Communications Server
- ___ Cryptographic Services
- ___ DFSMSdfp
- ___ Distributed File Service
- ___ HCD
- ___ IBM Tivoli Directory Server (TDS)
- ___ Integrated Security Services
 - components are Enterprise Identity Mapping (EIM), DCE Security Server, Network Authentication Service, and OCEP (Open Cryptographic Enhanced Plug-ins)

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- ___ ISPF
- ___ JES2
- ___ Language Environment
- ___ Metal C Runtime Library
- ___ Network File System
- ___ Run-Time Library Extensions
- ___ SMP/E
- ___ TSO/E
- ___ z/OS UNIX System Services

Changed Optional Elements

- ___ C/C++ without Debug Tool
- ___ Communications Server Security Level 3
- ___ DFSMSdss
- ___ DFSMSHsm
- ___ DFSMSrmm
- ___ HCM
- ___ Infoprint Server
- ___ JES3
- ___ RMF
- ___ SDSF
- ___ Security Server (RACF)
- ___ z/OS Security Level 3

Elements in z/OS V1R12

Element information for previous z/OS releases is located in Chapter 1 of *the z/OS Planning for Installation* manual.

Changed Base Elements

- ___ BCP
- ___ CIM
- ___ Communications Server
- ___ Cryptographic Services
- ___ DFSMSdfp
- ___ Distributed File Service
- ___ HCD
- ___ IBM Tivoli Directory Server (TDS)
- ___ Integrated Security Services
 - components are Enterprise Identity Mapping (EIM), DCE Security Server, Network Authentication Service, and OCEP (Open Cryptographic Enhanced Plug-ins)
- ___ JES2
- ___ Language Environment
- ___ Library Server
- ___ Network File System
- ___ Run-Time Library Extensions
- ___ TSO/E
- ___ z/OS UNIX System Services

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Changed Optional Elements

- C/C++ without Debug Tool
- Communications Server Security Level 3
- DFSMSdss
- DFSMSHsm
- DFSMSrmm
- DFSORT
- HCM
- Infoprint Server
- JES3
- RMF
- SDSF
- Security Server (RACF)
- z/OS Security Level 3

New FMIDS (z/OS R10)

FMID JDZ1AJ0, Japanese support, is new in base element NFS.
 FMID JJE775S, SDSF JES2 support, is new in optional feature SDSF.

Superseded FMIDS (z/OS R10)

In z/OS V1R9 DFSORT, the English FMID (JSM1H01) and Japanese FMID (JSM1H02) provided panels and messages. In z/OS V1R10, the English and Japanese FMIDs are not shipped; DFSORT panels and messages have been removed.

FMID JIP6199 – HFS code (see Merged FMIDS)
 FMIDs JPG290A and JPG290B – CIM (see Merged FMIDS)

Merged FMIDS (z/OS R10)

In z/OS V1R9 Communications Server, HFS code is in a separate FMID, JIP6199.
 In z/OS V1R10, HFS code is contained in base FMID HIP61A0 instead of in a separate HFS FMID.
 In z/OS V1R9 CIM, two dependent FMIDs were provided: JPG290A (eServer™ OS Management CIM providers for z/OS) and JPG290B (CIM Client for Java).
 In z/OS V1R10, CIM has one FMID: HPG7750. FMIDs JPG290A and JPG290B have been merged into base FMID HPG7750.

FMIDs Removed**z/OS R13:**

The following elements have been withdrawn as of z/OS V1R13:

- DCE (FMIDs HMB3190 and JMB319J)
- Integrated Security Services DCE (FMIDs HRSS190 and JRSS19J)
- z/OS UNIX System Services Connection Manager (FMIDs HCMG110 and JCMG1J0)
- z/OS UNIX System Services Process Manager (FMIDs HPMG110 and JPMG1J0)

z/OS R12:

- msys for Setup (HMS1707 and HMS1737)

z/OS R11: Integrated Security Services LDAP Server (FMID HRSL3AA)

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Installation Planning Checklist

Withdrawn Features and Functions

Functions Planned to be Withdrawn <i>in the Future</i> (no specific release has been specified)		Announcement Letter
BIND DNS 9.2.0 (from Communications Server)	Base Element – Anyone using this as a caching-only name server should use the Resolver cache function, which will be available in z/OS R11 to cache DNS responses. Anyone using this as a primary or secondary authoritative name server should investigate using BIND on Linux for System z [Will be removed in next release]	209-029 Feb. 24, 2009 211-007 Feb. 15, 2011
zFS cloning support (such as zfsadm clone and zfsadm clonesys commands). Do not mount file systems containing a cloned file system (.bak)	Base elements – when support for cloning is removed, only zFS capability mode aggregates will be supported. Find (with modify zfs,query command) and copy any cloned files to compatibility mode aggregates. [Will be removed in next release]	211-007 Feb. 15, 2011
zFS multi-file system aggregates (from Distributed File Service)	Base Element – copy zFS multi-file system aggregates to zFS compatibility mode aggregates. [Will be removed in next release]	211-007 Feb. 15, 2011
BPX.DEFAULT.USER	Base Element support – use BPX.UNIQUE.USER instead (as of R11) or assign unique UIDs and GIDs. [Will be removed in next release]	211-007 Feb. 15, 2011
SMP/E USERMOD for LE run-time options	IBM recommends using CEEPRMxx PARMLIB member to change Language Environment run-time options [Will be removed in next release]	210-008 Feb. 9, 2010
Capacity Provisioning using System z API with SE and HMC	Base Element support – will use BCPii instead. System z API will still be supported on the SE and HMC. Use Tracking Facility with OA35284. Look for “CPO-W:SNMP usage domain name”. [Will be removed in next release]	211-007 Feb. 15, 2011
IBM Configuration Assistant for z/OS Communications Server Tool	Currently a web-download. Currently provided as an “as is” non-warranted web download. Customers should migrate to z/OSMF (IBM Configuration Assistant for z/OS Communications Server) which runs within z/OSMF is part of a supported IBM product and contains all functions supported with the Windows tool. [z/OS R13 is the last release for this web based tool]	211-252 July 12, 2011
Functions Withdrawn in z/OS Release 13		Announcement Letter
DCE and DCE Security Server	Base Elements – IBM WebSphere Application Server, the IBM Network Authentication Service, and/or the IBM Directory Server as replacement strategies for each of the DCE technologies.	209-242 Aug. 18, 2009
DFS support that utilizes the DCE architecture	Base Element support – z/OS Network File System (NFS) implementation as the replacement	209-242 Aug. 18, 2009
z/OS UNIX Connection Manager and Process Manager	The z/OS UNIX System Services Connection Scaling functions provided by the Connection Manager and Process Manager components	210-235 July 22, 2010

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Functions Withdrawn in z/OS Release 12		Announcement Letter
Msys for Setup	Base element	209-242 Aug.18, 2009
Optional setting for RFC4301 compliance (from Communications Server)	Base element. IBM intends to make RFC4301 compliance mandatory when using IPSec policies. This RFC includes restrictions on the routing of fragmented packets, which may require changes to existing z/OS IP filtering policy. [Will be removed in next z/OS Release]	208-042 Feb. 26, 2008 209-242 Aug 18, 2009
Language Environment underlying CSVRTLS services	Base Element support – LE RTLS support was removed in z/OS R5. Usage tracking assistance is provided in OA29019.	209-242 Aug. 18, 2009
Discontinue delivery of software on 3480, 3480C and 3480E tape media	IBM recommends using Internet Delivery Service. Internet delivery is IBM's flagship delivery method; therefore future software delivery enhancements will be focused in this area.	208-186 Aug. 5, 2008 209-242 Aug. 18, 2009 910-136 July 22, 2010
Functions Withdrawn in z/OS Release 11		Announcement Letter
BIND DNS 4.9.3 (from Communications Server)	Base Element - implement BIND 9.2.0 as a replacement (available since z/OS R4)	209-029 Feb. 24, 2009 203-266 Oct. 7, 2003 204-017 Feb. 10, 2004 208-042 Feb. 26, 2008
Network Database (NDB) function will be removed from Communications Server	Customers who currently use or plan to use the NDB function should investigate the distributed data facility (DDF) provided by z/OS DB2, and the DB2 Run-Time Client. DDF allows client applications running in an environment that supports DRDA(R) to access data at DB2(R) servers.	209-029 Feb. 24, 2009 207-175 Aug. 7, 2007 208-042 Feb. 26, 2008
DHCP server function will be removed from the Communications Server component.	Customers who currently use or plan to use the z/OS DHCP server should investigate using a DHCP server on Linux for System z.	209-029 Feb. 24, 2009 207-175 Aug. 7, 2007 208-042 Feb. 26, 2008
Boot Information Negotiation Layer (BINL) function will be removed from the Communications Server component	Customers using this function should investigate the use of IBM Tivoli(R) Provisioning Manager for OS Deployment for network based operating system installation services.	209-029 Feb. 24, 2009 207-175 Aug. 7, 2007 208-042 Feb. 26, 2008
Attaching zSeries File System (zFS) multi-file	z/OS V1.10 is the last release to allow attaching zSeries File System (zFS) multi-file system aggregates to be shared across systems in a sysplex.	205-034 Feb. 15, 2005

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system aggregates	IBM has previously recommended these multi-file system aggregates not be shared in a sysplex environment. Once this support has been removed, attempts to attach zFS aggregates will fail in a z/OS UNIX shared file system environment. Attaching zFS compatibility mode aggregates, which have a single file system per data set, will continue to be supported in all environments. Note: Mounting was removed in z/OS 1.8	208-186 Aug. 5, 2008
Support for IPCS Problem management commands	z/OS V1.10 is the last release to include IPCS Problem Management Subcommands. If you currently use the IPCS problem management subcommands to report and track problems, consider using IBM Tivoli Information Management for z/OS V7 (5698-A08) or other similar products. IBM plans to continue to enhance the dump and trace analysis and display facilities of IPCS.	208-186 Aug. 5, 2008
Integrated Security Services LDAP Server	z/OS V1.10 is the last release of z/OS which will support the Integrated Security Services LDAP Server. A new optimized LDAP server, called IBM Tivoli Directory Server for z/OS (ITDS) as delivered for z/OS 1.8. Customers who are currently using the Integrated Security Services LDAP Server, should investigate migrating to ITDS, which was designed to allow greater consolidation of LDAP directories on z/OS to help simplify enterprise management and disaster recovery	208-186 Aug. 5, 2008

Elements and Features with No Migration Actions

The following z/OS V1.13 elements and features with **no migration actions**.

- Alternate Library for REXX
- BDT
- BDT File-to-File
- BDT SNA NJE
- BookManager® BUILD
- BookManager READ
- CIM
- Communications Security Server Level 3
- EREP
- ESCON® Director Support
- FFST
- GDDM
- GDDM-PGF
- GDDM-REXX
- HCD
- HCM
- HLASM
- HLASM Toolkit
- IBM HTTP Server
- ICKDSF
- Integrated Security Services
- ISPF
- Metal C Runtime Library
- MICR/OCR
- NFS
- Runtime Library Extensions
- TIOC
- z/OS Security Level 3
- 3270 PC File Transfer Program

Element Migration Information

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Installation Planning Checklist

Review *z/OS Migration V1R13* for element migration actions. This is the primary migration document.

Notes:

1. Includes migration actions from z/OS V1R11 and z/OS V1R12
2. Describes migration actions for everyone
3. Describe hardware migration actions
4. Describes sysplex migration actions
5. Describes specific migration actions for elements and features - may refer to specific element books for additional information.

Use the "*IBM Health Checker for z/OS* to perform migration checking. << New for z/OS V1R10>>

Note: Beginning with z/OS R10 the IBM Health Checker for z/OS infrastructure is being exploited for migration purposes. See the *z/OS V1R13 Migration* book, Chapter 1, for complete description on usage. The previous migration checker "as is" web download is not updated for z/OS V1R10 or later releases.

Elements requiring Migration Actions for z/OS V1R12

<input type="checkbox"/> BCP	<input type="checkbox"/> JES2	<input type="checkbox"/> XL C/C++
<input type="checkbox"/> Communications Server	<input type="checkbox"/> JES3	<input type="checkbox"/> z/OS UNIX System Services
<input type="checkbox"/> Cryptographic Services	<input type="checkbox"/> Language Environment	
<input type="checkbox"/> DFSMS	<input type="checkbox"/> Infoprint Server	
<input type="checkbox"/> DFSORT	<input type="checkbox"/> Security Server	
<input type="checkbox"/> DFS	<input type="checkbox"/> RMF	
<input type="checkbox"/> HCM	<input type="checkbox"/> SDSF	
<input type="checkbox"/> IBM TDS	<input type="checkbox"/> TSO/E	

Elements requiring Migration Actions for z/OS V1R11

<input type="checkbox"/> BCP	<input type="checkbox"/> JES2	<input type="checkbox"/> XL C/C++
<input type="checkbox"/> Communications Server	<input type="checkbox"/> JES3	<input type="checkbox"/> z/OS UNIX System Services
<input type="checkbox"/> Cryptographic Services	<input type="checkbox"/> Language Environment	
<input type="checkbox"/> DFSMS	<input type="checkbox"/> NFS	
<input type="checkbox"/> DFS	<input type="checkbox"/> RMF	
<input type="checkbox"/> HCM	<input type="checkbox"/> SDSF	
<input type="checkbox"/> IBM TDS	<input type="checkbox"/> TSO/E	

Cryptographic Support

- Notify and forward *ICSF Application Programmer's Guide* to Crypto Application Development programmers
- Review cryptographic requirements and determine the appropriate ISCF level for installation.

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Operating System	Level Shipped in Base Product	Level Required for Clear Key Support	Level Required for Secure Key Support	Level Required for Enhanced Secure Key Support	Level Required for 64-bit addressing caller support
z/OS 1.10	HCR7750	Integrated in z/OS base level	Integrated in z/OS base level	Integrated in z/OS base level	Integrated in z/OS base level
z/OS 1.11	HCR7751	Integrated in z/OS base level	Integrated in z/OS base level	Integrated in z/OS base level	Integrated in z/OS base level
z/OS 1.12	HCR7770	Integrated in z/OS base level	Integrated in z/OS base level	Integrated in z/OS base level	Integrated in z/OS base level
z/OS 1.13	HCR7780	Integrated in z/OS base level	Integrated in z/OS base level	Integrated in z/OS base level	Integrated in z/OS base level

— Latest ICSF web download: [Cryptographic Support for z/OS V1R11-V1R13](#) FMID **HCR7790** (available Sept. 2011). This download provides support for new encryption functions in the IBM zEnterprise 114 and the enhanced (GA2) level of the IBM System z196. This includes support for ANSI TR-31, X9.8 PIN Security, PKA RSA OAEP w/SHA 256, ECC Support Phase 2, Dynamic RSA MK, AES Key Type Support, 4096 RSA FP, Dynamic CKDS Administration.

— Install, if applicable, the appropriate software crypto support. Web downloads at <http://www.ibm.com/eserver/zseries/zos/downloads/>.

IBM Healthchecker

The IBM Health Checker for z/OS is a z/OS component used to gather information about your system environment and system parameters to help identify potential configuration problems before they impact availability or cause outages. Individual products, z/OS components, or ISV software can provide checks which take advantage of the IBM Health Checker for z/OS framework. For additional information about checks and about IBM Health Checker for z/OS, see *IBM Health Checker for z/OS: User's Guide*. SDSF also provides functions to simplify the management of checks. See *z/OS SDSF Operation and Customization* for additional information.

- Ensure the z/OS Healthchecker is initialized.
- Review new checks provided in z/OS 1.13 and update accordingly
- Update your check customization for modified IBM Health Checker for z/OS checks
 - The checks changed by IBM in z/OS V1R12 are:
 - USS_PARMLIB
 - The checks changed by IBM in z/OS V1R11 are:
 - CSV_LNKLST_SPACE
 - HSM_CDSB_BACKUP_COPIES

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- HSM_CDSB_DASD_BACKUPS
- HSM_CDSB_VALID_BACKUPS
- USS_PARMLIB
- USS_PARMLIB_MOUNTS
- XCF_FDI

SYS1.PARMLIB Changes

Review *z/OS Summary of Messages and Interface Changes, SA22-7505* chapter 3 for a complete description of change.

z/OS SYS1.PARMLIB Member Changes		
ALLOC	z/OS 1.13 z/OS 1.11	Changed parameters New statement
ANTMINxx	z/OS 1.13	New parameters
ANTXINxx	z/OS 1.13	New parameters
AXRxx	z/OS 1.11	Release update
BPXPRMxx	z/OS 1.13 z/OS 1.12 z/OS 1.11	New parameters Updated statement New statement
CBROAMxx	z/OS 1.13	New statementmeters
CEAPRMxx	z/OS 1.11	Function enhancement
CLOCKxx	z/OS 1.11	Changed member
CONSOLxx	z/OS1.13	New and changed parameters
COUPLExx	z/OS 1.11	Changed parameter
CSVLLAxx	z/OS 1.13	Processing changed
CTICBR00	z/OS 1.13	New member
DEVSUPxx	z/OS 1.13 z/OS 1.11	New parameter New parameter
DIAGxx	z/OS 1.13	Changed member update parameters
EDGRMMxx	z/OS 1.13	New and changed parameters
EZAIPCSP	z/OS 1.11 z/OS 1.13	Changed member Changed member
GRSCNFxx	z/OS 1.13	New parameters
IEAOPTxx	z/OS 1.13 z/OS 1.12	New parameter Changed member
IEASYSxx	z/OS 1.13 z/OS 1.11	New parameters New parameters
IECIOSxx	z/OS 1.13	Changed behavior
IGDSMSxx	z/OS 1.13 z/OS 1.12 z/OS 1.11	New parameters New parameter Updated parameters

z/OS V1R13

Installation Planning Checklist

z/OS SYS1.PARMLIB Member Changes		
IGGCATxx	z/OS 1.13	New member
IKJTSOxx	z/OS 1.11	New parameter
IPCSPRnn	z/OS 1.11	New parameter
ISFPRMxx or ISFPARMS	z/OS 1.13 z/OS 1.12 z/OS 1.11	New and changed parameters Changed member Changed member
IXGCNFxx	z/OS 1.13	New member
MSGFLDxx	z/OS 1.13 z/OS 1.11	New parameters Changed member
SCHEDxx	z/OS 1.11	Changed member
SMFPRMxx	z/OS 1.13 z/OS 1.11	Parameter changes Changed parameter

System Command Changes

Review *z/OS Summary of Messages and Interface Changes, SA22-7505* chapter 6, for a complete description of changes to z/OS commands and refer to the *z/OS MVS Commands* manual for specific details.

z/OS System Command Changes		
ACTIVATE	z/OS 1.13	New option
CHNGDUMP	z/OS 1.12 z/OS 1.11	New option New option
CMDS	z/OS 1.13 z/OS 1.12	New option Guidance
DEVSERV	z/OS 1.12	New options
DISPLAY	z/OS 1.13 z/OS 1.12 z/OS 1.11	New options New options New options
MODIFY	z/OS 1.12 z/OS 1.11	New option New options
SET	z/OS 1.13 z/OS 1.12	New options New options
SETALLOC	z/OS 1.13 z/OS 1.12 z/OS 1.11	New options New options New command
SETAUTOR	z/OS 1.12	New command, New options
SETCEE	z/OS 1.12	New command
SETHS	z/OS 1.11	New option
SETIOS	z/OS 1.13	
SET GRS	z/OS 1.13	New option

z/OS V1R13

Installation Planning Checklist

z/OS System Command Changes		
SETLOGR	z/OS 1.13	New options
SETOMVS	z/OS 1.13	New parameters
SETMF	z/OS 1.11	Deleted option
SETPROG	z/OS 1.13 z/OS 1.12	Updated New options
SETSMF	z/OS 1.12	New options
SETSMS	z/OS 1.13 z/OS 1.12	New options New options
SETXCF	z/OS 1.13 z/OS 1.12 z/OS 1.11	New option New option New Option

SYS1.PROCLIB Changes

No updates for z/OS 1.10, z/OS 1.11 and z/OS 1.12.

z/OS 1.13

Member **AOPSTART**: Added the REGION=512M parameter to the EXEC statement of AOPSTART.

SMF Record Changes

Review *z/OS MVS System Management Facilities*, for a complete description of change.

z/OS 1.13

- Type 6
- Type 23
- Type 42
- Type 30
- Type 90
- Type 89

z/OS 1.12

- Type 7
- Type 30
- Type 42
- Type 64
- Type 70
- Type 72
- Type 82
- Type 89
- Type 90
- Type 99

z/OS 1.11

- Type 0
- Type 14
- Type 23
- Type 30
- Type 84
- Type 92
- Type 99

z/OS V1R13

Installation Planning Checklist

New Address Spaces – z/OS 1.13

There are two new address spaces for z/OS V1R13.

- GPM4CIM: This address space is for cross platform performance management with RMF XP.
- HZR: This is the Runtime Diagnostics address space and it is persistent.

___ Verify the MAXUSER value is sufficient to handle new address spaces.

Note: The MAXUSER value in parmlib member IEASYSxx specifies a value the system uses to limit the number of jobs and started tasks which run concurrently during a given IPL.

New Address Space – z/OS 1.12

There is one new address space for z/OS 1.12: ARCnRSTy

- This address space is the identifier for full-volume recovery from dump, where n is the DFSMSShsm host ID and y is the instance of the DFSMSdss started task (a number from 1 to 4). Data set recovery from dump will still use ARCnREST. See “DFSMSShsm: Configure your security system to permit started procedures using new address space identifier”. See *z/OS V1R12 Migration* for more information.

New Address Space – z/OS 1.11

There is one new address space for z/OS 1.11: HWIBCPii

- The Base Control Program Internal Interface (BCPii) function allows authorized applications to query, change, and perform basic operational procedures against the installed System z hardware base. As a base BCP component, the new BCPii address space allows authorized z/OS applications to access the local support element and other support elements in the HMC network to perform HMC-like functions. Connectivity to the Hardware Management Console (HMC) network is done internally, without the requirement of connecting the HMC network to an intranet or the Internet. The HWIBCPii address space is started automatically during z/OS initialization and can be manually restarted with a procedure.

Exits

New and changed exits. Detailed information is located in *z/OS MVS Installation Exits*, *DFSMS Installation Exits* and *JES2 Exits* manuals.

Installation Exit	Description	Release
ADRUIXIT	DFSMSdss	z/OS 1.12
ADREID0	DFSMSdss	z/OS 1.11
CBRUXSAE	Security Authorization exit (DFSMS)	z/OS 1.11
CNZ_MSIXIT	Master Scheduler Initialization Dynamic Exit	z/OS 1.12
IEF_ALLC_UNLOAD	New – Device Allocation	z/OS 1.13
CSSMTP	Comm Server Application exit	z/OS 1.11
CSVLLIX1	changed	z/OS 1.12
CSVLLIX2	changed	z/OS 1.12
IEALIMIT	Region specification	z/OS 1.11
IEF_ALLC_EVENT	Added to Dynamic Exit Table	z/OS 1.13
	New	z/OS 1.12
IEF_ALLC_MOD	Added to Dynamic Exit Table	z/OS 1.13

z/OS V1R13

Installation Planning Checklist

IEFUJV	changed	z/OS 1.12
IEFUSI	changed	z/OS 1.12
Initialization	SDSF Initialization	z/OS 1.12 z/OS 1.11
ISGCNFXITSYSLEX	changed	z/OS 1.11
ISGCNFXITSYSTEM	changed	z/OS 1.11
ISGNQXITQUEUEED2	(New) ISGENQ / ENQ / DEQ Second Queued Exit	z/OS 1.11
JES2 Exit 0	Pre-Initialization	z/OS 1.11
JES2 Exit 1	Print/Punch separator	z/OS 1.11
JES2 Exit 2	JOB JCL Statement Scan	z/OS 1.12
JES2 Exit 14	JOB Queue work select	z/OS 1.12 z/OS 1.11
JES2 Exit 15	Output data set/copy select	z/OS 1.11
JES2 Exit 18	SNA RJE LOGON/LOGOFF	z/OS 1.10
JES2 Exit 20	End of Input	z/OS 1.10
JES2 Exit 38	TSO/E receive data set disposition	z/OS 1.11
JES 2 Exit 46	Modifying an NJE data set prior to its transmission	z/OS 1.11 z/OS 1.10
JES2 Exit 52	JOB JCL Statement Scan	z/OS 1.12 z/OS 1.10
JES2 Exit 56	Modify NJE data area before transmission	z/OS 1.11
JES2 Exit 58	Subsystem interface (SSI) end-of-step	z/OS 1.13
Label Anomaly Exit (IFG019LA)	Tape Exit	z/OS 1.11
ICHRFX02 & ICHRFX04	RACF – Post processing exits	z/OS 1.11

Reminders

- ◆ Exploiting functions in some areas may require an implementation plan of their own.
- ◆ The following information is not considered a complete list of migration actions for the components listed. **Refer to the z/OS V1R12 Migration book for a complete list of migration actions for all elements.** Softcopy (pdfs) are available for specific migration paths at this URL http://www-1.ibm.com/servers/eserver/zseries/zos/bkserv/zos_migration_manuals.html
 - z/OS V1R12 to z/OS V1R13
 - z/OS V1R11 to z/OS V1R13
 - All migration paths

BCP**BCP (z/OS 1.13)**

- ___ Exploit WARNUND for new IEASYSxx statements
Note: Rolled back to z/OS V1R12 and z/OS V1R11 with APAR OA35929
- ___ Define DASD storage for Predictive Failure Analysis
- ___ Migrate from SNMP to z/OS BCPii for communication to the HMC or SE

z/OS V1R13

Installation Planning Checklist

- ___ Verify at least one blank follows all major keyword statements
- ___ Examine source for dynamic allocation callers setting the S99DSABA and S99ACUCB flags
- ___ Upgrade Java support for Capacity Provisioning
- ___ Remove references to the MTFTPS utility
- ___ Discontinue use of PGSER to protect and unprotect the READONLY nucleus
- ___ Update LLA for automation
- ___ Accommodate OPERLOG EMCS console name change
- ___ Adjust CON= system parameter to accommodate default change
- ___ Accommodate HiperDispatch default of YES on IBM zEnterprise 196 (z196)
- ___ Start Runtime Diagnostics at system initialization
- ___ Update Capacity Provisioning Manager parameters to use CIM Client for Java Version 2
- ___ Set AUTHQLVL parameter in GRSCNFxx parmlib member to recognize new GRS qnames
- ___ Examine use of the CMDS ABEND command
- ___ Ensure Runtime Diagnostics is installed before invoking Predictive Failure Analysis
- ___ Carry over your existing Capacity Provisioning Control Center (CPCC) policy

BCP (z/OS 1.12)

- ___ Verify locally written programs invoked with system-generated temporary data set names are not dependent on the format of the data set name

Note: Device allocation no longer uses the label in the data set name it selects

- ___ Track CSVRLTS Services

Notes:

1. Exclusion entries are removed from Run-Time Library Services for Language Environment.
2. Exploit the z/OS tracking facility to help determine if you are using any of the CSVRTLS services (SET RTLS command, DISPLAY RTLS command, CSVRTLS macro, and RTLS system parameter in IEASYSxx parmlib member).

- ___ Use the new 16M default buffer size for trace options with the CTIGRSxx member
- ___ Specify valid user exits for the IFASMF DL and IFASMF DP programs
- ___ Make IFASMF DL and IFASMF DP run in an authorized environment
- ___ Specify directory parameter when installing Predictive Failure Analysis
- ___ Change default locations for LCCA or PCCA control blocks to retain 24-bit virtual storage location
- ___ Remove reference to Unicode Services pre-built image CUNIDHC2 [eliminated in z/OS V1R12]
- ___ Remove classification rules with the ETC work qualifier
 - Beginning with z/OS V1R12, the workload management (WLM) service definition no longer supports the work qualifier EWLM transaction class name (ETC) for classification rules of the subsystem type EWLM.
- ___ Update the SFM policy to control automatic termination of impaired critical members
 - A member of an XCF group can identify itself as being critical to the operation of the group or the system.

z/OS V1R13

Installation Planning Checklist

- ___ Accommodate new REUSASID default=YES
- ___ Review the list of WTORs in parmlib member AUTOR00
 - If the WTORs listed in AUTOR00 are automated by your existing automation product, ensure the replies in AUTOR00 are appropriate.
- ___ Carry over existing CPCC (Capacity Provisioning Control Center) policy on Windows® workstation
- ___ Evaluate applications which parse AMBLIST command LISTLOAD or LISTIDR output
- ___ Evaluate applications for sensitivity to changes to binder API GETE return and reason codes
- ___ Ensure analysis tools interacting with HIS (Hardware Instrumentation Services) output accommodate HIS state change events
- ___ Detect program objects having multiple INITIAL LOAD segments
 - the binder RMODE option applies to all initial load classes by default. Thus all segments containing initial load classes are affected.
- ___ Update automation handling messages IEF374I and IEF376I

BCP (z/OS 1.11)

- ___ Reassemble Standalone Dump program
 - ___ Review WSC document TD103286 for Best Practices –
<http://www-03.ibm.com/support/techdocs/atsmastr.nsf/WebIndex/TD103286>
- ___ Remove SYS1.SVCLIB, SYS1.NUCLEUS, and PASSWORD from global resource serialization RNLs
- ___ Use the sysplex failure management (SFM) policy to specify how a system is to respond to a status update missing condition
- ___ Enable ENF 51 listeners to listen to conditional ENQ contention
- ___ Discontinue use of IPCS problem management subcommands
- ___ Update and run the IPLTEXT job to write a new copy of the IPL text
- ___ Ensure Correct use of CIRB (Create Interruption Request Block)
- ___ Use the new default of COUPLExx parmlib member INTERVAL (failure detection interval)
- ___ Accommodate quoted argument changes in System REXX MODIFY AXR command
- ___ Ensure IXGWRITE in authorized programs correctly handles reason code X'0867'
- ___ Modify applications using the IXLMG service
- ___ Update automation handling messages IXL141I and IXL150I
- ___ Remove message flood automation exits
- ___ Accept the new lower storage limit for stopping SVC dump data capture

z/OS V1R13

Installation Planning Checklist

- Modify SMF exit routine IEFACTRT because of lengthened fields
- Adjust interval time of recovery allocation message reminders
- Ensure your ESQA specification in IEASYSxx is adequate

SMP/E V3R6

The SMP/E element is changing in z/OS V1R13 and it is the same level of SMP/E in SMP/E V3.6 (program number 5655-G44).

SMP/E V3R5

Note: SMP/E 3.3 is minimum SMP/E level for Internet delivery of ServerPac and SystemPac.

- Authorize use of SMP/E commands and services
- Change severity of APPLY and ACCEPT processing messages to warning
- Accommodate changes to BYPASS HOLD reason report
- Support the longer length of the Utility Input entry name

CIM**z/OS 1.12**

No migration actions at this time

z/OS 1.11

- Accommodate configuration property SLP default change

XL C/C++ (z/OS 1.13)

- Review the XL C/C++ Migration Guide for the Application Programmer

XL C/C++ (z/OS 1.12)

- Review the XL C/C++ Migration Guide for the Application Programmer
- Update IPA compiler option IPA(OBJECT)

XL C/C++ (z/OS 1.11)

- Review the XL C/C++ Migration Guide for the Application Programmer
- Adjust inlining settings for changes to the INLINE option
- Use the XL C/C++ compiler -qmakedep option instead of the stand-alone makedepend utility

Communications Server**z/OS 1.13**

- IP Services: Permit IKE daemon running in FIPS mode to use additional ICSF services
- IP Services: Migrate from BIND 9.2.0
- IP Services: Understand and prepare for expanded Intrusion Detection Services

z/OS V1R13**Installation Planning Checklist**

- IP Services: Ensure that the FTP user exit routine FTCHKPWD tolerates an additional parameter
- IP Services: Understand change in VIPARANGE security verification processing
- IP Services: Review VIPARANGE definitions
- IP Services: Update /etc configuration files
- SNA Services: Ensure IVTCSM ASSIGN_BUFFER requests do not exceed 500 images for a single CSM buffer
- SNA Services: Adjust to the relocation of the VTAM internal trace table

z/OS 1.12

- IP Services: Update IP filter policy to filter IP fragments correctly for RFC 4301 compliance
 - Beginning with z/OS V1R12, all IP security filters must be compliant with RFC 4301.
- IP Services: Update syslogd configuration for archiving rules with shared z/OS UNIX file destinations
- IP Services: Update automation which keys on TN3270E Telnet server messages
- IP Services: Ensure the TN3270E Telnet server can end automatically when an OMVS shutdown command is issued
- IP Services: Disable resolver monitoring of name server responsiveness
- IP Services: Restore resolver UDP request timeout interval duration
 - New default is 5 seconds
- IP Services: Ensure applications tolerate a larger addrinfo structure
- IP Services: Disable IP validation checks when defining key exchange policy rules for a dynamic VPN
- IP Services: Update modified Netstat message catalogs to include timestamp
- IP Services: Release addrinfo storage after resolver thread task terminates
- IP Services: Update /etc configuration files
- SNA Services: Ensure VTAMSG2 is not used in your VTAMLST definitions
- SNA Services: Disable Enterprise Extender connection health verification
- SNA Services: Code MULTIPATH start option when using multipath
- IP Services: Ensure that preference values associated with IPv6 router advertisement routes are as expected

z/OS 1.11

- Modify applications to no longer add IPv6 type 0 routing headers to outgoing packets
- Update automation to accommodate FTP output is changed for extended address volumes

z/OS V1R13

Installation Planning Checklist

- ___ Update procedures using the syslogd job name
- ___ Accept new behavior of TCP receive buffer size
- ___ Migrate from Network Data Base (NDB) function
- ___ Migrate from BIND DNS 4.9.3 function
- ___ Migrate from Boot Information Negotiation Layer (BINL) function
- ___ Migrate from Dynamic Host Configuration Protocol (DHCP) server function
- ___ Remove customization of SNMP sysObjectID MIB object in OSNMPD.DATA file
- ___ Allow usage of the full range of ephemeral ports
- ___ Run the syslog daemon in the background when starting from the UNIX shell
- ___ Accept the new resolver behavior of saving the results of DNS queries
- ___ Update /etc configuration files
- ___ Ensure dump data sets are large enough to include VTAM internal trace data space
- ___ Increase region size for VTAM
- ___ Ensure IKE daemon retransmission settings are compatible
- ___ Create a new APPN topology checkpoint data set
- ___ Accommodate Netstat changes in automation and front-end programs
- ___ IP Services: Migrate from DNS BIND 9.2.0
 - In a future release of z/OS, support for BIND DNS 9.2.0 will be discontinued.
- ___ IP Services: Accommodate DEFAULT route selection changes for CINET

UNIX System Services**z/OS UNIX V1R13**

- ___ Update invocations of /usr/sbin/mount commands
- ___ Update invocations of /usr/sbin/unmount commands
- ___ Discontinue use of z/OS UNIX System Services Connection Scaling
- ___ Update invocations of MOUNT statements in the BPXPRMxx parmlib member
- ___ Accommodate changes to support read-only z/OS root for the cron, mail, and uucp utilities
- ___ Discontinue use of invalid REXX variables in z/OS UNIX syscalls

z/OS UNIX V1R12

- ___ Accommodate new Shell and Utilities version of the tsocmd command

z/OS V1R13**Installation Planning Checklist**

- Remove MAXSOCKETS values from AF_UNIX in the BPXPRMxx parmlib member
- Discontinue use of z/OS UNIX System Services Connection Scaling
- Consider skulker invocations due to updated restriction
- Use man instead of OHELP
- Review programs that invoke the BPX1EXM/BPX4EXM callable service

z/OS UNIX V1R11

- Migrate from HFS file systems to zFS file systems
- Update z/OS UNIX configuration files changed by IBM
- Install books and a bookshelf for the OHELP command
- Use the BPX.UNIQUE.USER profile instead of BPX.DEFAULT.USER
- Update automation handling message BPX0046I
- Update automation handling ISPF Edit and ISPF Browse

Language Environment**Language Environment (z/OS V1R13)**

- Convert to CEEPRMxx to set system-level default runtime options
- Update Language Environment load modules in the LPA
- Update the CSD based on the newest CEECCSD

Language Environment (z/OS V1R12)

- Programs reading output when a D CEE command is issued need to be examined
- Set runtime options as overrideable or nonoverrideable in CEEPRMxx parmlib member
- Programs reading output from a CICS CLER transaction need to be examined
- Use Unicode Services to create conversion tables

Language Environment (z/OS V1R11)

- Update the CSD based on the newest CEECCSD
- Update Language Environment load modules in the LPA
- Determine the impact of added and changed runtime options

DFSMS**DFSMS (z/OS 1.13)**

- DFSMSdfp: Back up SMS control data sets
- DFSMSdfp: Accommodate deletion of NOIMBED and NOREPLICAT LISTCAT command attributes
- DFSMSdfp: Ensure that the Language Environment runtime library is available for DLLs
- DFSMSdfp: Update operator procedures and system automation for new DADSM pre- and post-processing dynamic exits
- DFSMSdfp: Accommodate 64-bit and AR mode rules enforcement in DFSMS macros
- DFSMSdfp: Run OAM configuration database migration job

z/OS V1R13

Installation Planning Checklist

- ___ DFSMSdfp: Run OAM DB2 BIND jobs
- ___ DFSMSHsm: Accommodate the changed default of PDA trace during DFSMSHsm startup
- ___ DFSMSHsm: Accommodate the changed SETSYS FASTREPLICATION command DATASETRECOVERY parameter default
- ___ DFSMSHsm: Replace user-defined patch with new SETSYS FASTREPLICATION command to enable ARC1809I messages
- ___ DFSMSHsm: Review messages changed from I (informational) to E (eventual action) type
- ___ DFSMSHsm: Remove patch that prevents SMS MVT chain rebuild
- ___ DFSMSdss: Accommodate Catalog Search Interface default change

DFSMS (z/OS 1.12)

- ___ DFSMSdfp: Modify exit routines to support 31-bit UCB addresses
- ___ DFSMSrmm: Replace CIM providers and CIM classes
- ___ DFSMSHsm: Increase the backup control data set maximum record size for dump stacking values great than 99
- ___ DFSMSdfp: Evaluate applications and modify for EAV enhancements
 - Additional non-VSAM data set types in the extended addressing space (EAS) are supported.
- ___ DFSMSdfp: Accommodate new DCBE macro option
- ___ DFSMSdss: Build the IPLable stand-alone DFSMSdss image
- ___ DFSMSdss: Recompile and link-edit exit routines or applications that change options in the ADRUFO block
- ___ DFSMSdss: Modify applications to handle larger I/O buffers
- ___ DFSMSHsm: Remove user-defined patch which disables or enables the use of DFSMSdss cross memory API
- ___ DFSMSHsm: Configure security system to permit started procedures using new address space identifier
- ___ DFSMSHsm: Update applications that depend on QUERY COPYPOOL output
- ___ DFSMSHsm: Update applications depending on LIST command output
- ___ DFSMSHsm: Update operator procedure in the Multicluster CDS environment
- ___ DFSMSdfp: Use indirect zFS file system data set catalog support
 - zFS file systems may be cataloged using a system symbol.

z/OS V1R13

Installation Planning Checklist

DFSMS (z/OS 1.11)

Support for a new data set level attribute, EATTR, allows migration control of non-VSAM data sets to EAS by making it possible to specify whether data sets can be partly or entirely located in EAS. This attribute is supported for both VSAM and non-VSAM data sets, as follows:

- NO indicates no extended attributes and ineligibility to reside in EAS. This default is for non-VSAM data sets.
- OPT indicates that extended attributes are allowed, and that a data set is eligible for placement in EAS. This default is for VSAM data sets.

The EATTR specification is recorded in the format-1 or format-8 DSCBs for all data set types and volume types and is recorded in the VVDS for VSAM cluster names. EATTR is listed by IEHLIST, ISPF, ISMF, LISTCAT, and the catalog search interface (CSI).

- Review batch jobs and determine impact.
- Use the EAV migration assistance tracker to find programs which might need to change if you want to support extended address volumes (EAV).
- Back up SMS control data sets
- Add columns ODSTATF, ODRETD, and ODINSTID to OAM object directory tables
- DFSMSHsm: Define additional volumes to ML1 OVERFLOW and NOOVERFLOW pools for backup and migration
- DFSMSrmm: Migrate from VRSEL(OLD) to VRSEL(NEW) in parmlib member EDGRMMxx
- Ensure Language Environment runtime library is available for DLLs
- Remove user-defined trace points for VSAM record management trace
- Update automation for changed messages
- Handle changed LIST command output for DFSMSHsm
- Use ALL, DATE, or VERSIONS with the (H)BDELETE command and ARCHBDEL macro (DFSMSHsm)
- Maintain coexistence when encountering backup copies with RETAIN DAYS value for DFSMSHsm
- Update the HZSPRMxx DATE parameter for HSM_CDSB_* checks for DFSMSHsm
- Use DFSMSrmm parmlib options instead of USERMOD to specify how VRSEL processing handles duplicate GDGs
- Update operator procedures and system automation for dynamic installation exits (DFSMSrmm)
- Replace obsolete stem variables in REXX execs in DFSMSrmm
- Run OAM DB2 BIND jobs
- Accommodate change of IDCAMS DEFINE for RECORDS involving VSAM linear data sets
- Define facility class names to protect (H)BACKDS RETAIN DAYS commands in DFSMSHsm
- Review batch jobs failed as a result of the addition of C
- DFSMSdfp: Verify the version set for ANTQFRVL
- DFSMSdss: Update the storage size for jobs invoking ADRDSSU

z/OS V1R13

Installation Planning Checklist

DFSMSdss: Enable or disable the Catalog Search Interface

DFSORT (z/OS 1.13)

No migration actions.

DFSORT (z/OS 1.12)

- Update automation for changed DFSORT messages
- Use new MOWRK option to prevent the use of memory object storage for work space sort applications
- Change the number of dynamically allocated work data sets using new DYNAPCT option

DFSORT (z/OS 1.11)

Use means other than ISPF to invoke DFSORT

Integrated Security Services (z/OS 1.11)

Migrate from LDAP Server to IBM TDS

ISPF (z/OS 1.11)

Accommodate changed behavior of the Data Set List utility SRCHFOR command

Security Server (z/OS 1.13)

- Normalize user names specified as X.500 distinguished names in distributed identity filters
- Check for duplicate class names
- Update database templates

Security Server (z/OS 1.12)

- Modify programs and JCL using the LRECL of the IRRADU00 output data sets
- Check for duplicate class names
- Update database templates
- Use new RACDCERT GENCERT and REKEY defaults for digital certificates

Security Server (z/OS 1.11)

- Check for duplicate class names
- Update database templates
- Remove trusted and privileged started task user IDs from RACF profile access lists
- Accommodate the change of authorization for the help desk function

Cryptographic Services (z/OS 1.13)

- OCSF: Migrate the directory structure
- System SSL: Ensure PKCS #11 tokens contain complete certificate chains

z/OS V1R13**Installation Planning Checklist**

ICSF: Ensure the expected master key support is available

Cryptographic Services (z/OS 1.12)

ICSF: Ensure PKCS #11 applications call C_Finalize() prior to calling dlclose()

ICSF: Modify ICSF startup procedure

PKI Services: Change the time at which the daily maintenance task runs

Cryptographic Services (z/OS 1.11)

Migrate the OCSF directory structure

Modify applications encoding an Issuing Distribution Point certificate extension using the gsk_encode_certificate_extension API for SSL

Modify applications using the x509_reason_removeFromCrl_byte and x509_reason_removeFromCrl_mask

System SSL: Modify applications to address disablement of SSL V3 and TLS session renegotiation

Infoprint Server (z/OS V1R13)

Remount the Printer Inventory and copy files that were customized

Update or remove the region size in the AOPSTART startup procedure

Run aopsetup

Infoprint Server (z/OS V1R12)

Increase space in the Printer Inventory file system

Remove Version 2 Printer Inventory files at fallback

Upgrade Java support for IPP Server

Remount the Printer Inventory and copy files that were customized

Upgrade XML for Infoprint Central

Run aopsetup

Remove Version 1 Printer Inventory files after deploying z/OS V1R12

Infoprint Server (z/OS V1R11)

Upgrade XML for Infoprint Central

Remount Printer Inventory and copy other customized files

JES2**JES2 (z/OS V1R13)**

No new migration actions.

z/OS V1R13

Installation Planning Checklist

JES2 (z/OS V1R12)

- Update code to remove references to PDBLENG
- Ensure calls to JES Property Information Services SSI can handle multiple members
- Update JES2 macros and exit routines
- Activate z11 mode [if not already completed]
 - Check BERT utilization

JES2 (z/OS V1R11)

- Update JES2 macros and exit changes
 - Review Chapter 4 in the *JES2 Exits* book.
- Update CKPTSPACE BERTNUM=
- Review new checkpoint activation level (z11)

Note: A new checkpoint activation level, which is called z11, is available for JES2 release V1R12. The current checkpoint level is z2. JES2 needs certain conditions to activate to the z11 checkpoint level.

 - Review \$ACTIVATE command in *z/OS JES2 Commands* manual

JES3 (z/OS V1R13)

- Modify code that depends on the format of suppressed split messages in the DLOG
- Avoid redundant *S main,FLUSH command in response to XCF messages
-

JES3 (z/OS V1R11)

- Modify code depending on the value of STVSTOD returned by extended status
- Update JES3 exit IATUX72
- Identify the JES3 auxiliary address space to your security product

SDSF (z/OS 1.13)

- Review and reassemble user exit routines
- Use dynamic statements for ISFPARMS to avoid reassembly
- Update configuration for sysplex support
- Review colors on the OPERLOG panel

SDSF (z/OS 1.12)

- Review and reassemble user exit routines
- Use dynamic statements for ISFPARMS to avoid reassembly
- Set a default for the Initiators panel
- Set the format of device names on the Printers panel
- Update batch programs or REXX execs for changes to message ISF770W
- Set the view of the OPERLOG

SDSF (z/OS 1.11)

z/OS V1R13

Installation Planning Checklist

- Reassemble user exit routines
- Use dynamic statements for ISFPARMS to avoid reassembly
- Delete unnecessary HASPINDEX data sets
- Define a new SAF profile controlling access to SYSLOG
- Update batch scripts for changes to the format of the SYSLOG panel
- Update REXX execs for changes to fields on Held Output Queue(H), Output Queue(O) and Spool Volumes (SP)
- Update the widths of columns on SP
- Access SYSLOG data sets created in z/OS V1R10
- Delete unnecessary HASPINDEX data sets

HCD (Hardware Configuration Definition) – z/OS 1.10

- Set up IBM TDS LDAP server for calling the HCD LDAP backend. The HCD LDAP backend must be defined as a plug-in to the TDS LDAP server.

HCM (Hardware Configuration Manager) – z/OS 1.11

- Install the new HCM

IBM Tivoli Directory Server (z/OS 1.11)

- Determine use of IBM TDS WLM support

IBM Tivoli Directory Server (z/OS 1.10)

- Reconfigure the TDS for ICTX extended operations. The IBM TDS and ICTX Java API is now an IBM TDS plug-in.
- Accommodate changed native authentication bind behavior. SDBM operations are accepted now using LDBM or TDBM
- Update programs using SMF record type 83

Distributed File Service (z/OS V1R13)

- zFS: Accommodate new DASD space requirements
- zFS: Copy cloned file systems to a compatibility mode aggregate
- zFS: Copy data from zFS multi-file system aggregates to zFS compatibility mode aggregates
- zFS: Ensure sysplex=filesys is available on all zFS R11 and R12 systems in a shared file system environment
- DCE/DFS: Disable DFS Client initialization

Distributed File Service (z/OS V1R12)

In a future release, IBM plans to withdraw support of the z/OS Distributed File Service (DFS) support which utilizes the Distributed Computing Environment (DCE) architecture. IBM recommends the z/OS Network File System (NFS) implementation as the replacement. The Distributed File Service also supports the Server Message Block (SMB) architecture. Support for SMB remains, and is not affected by this withdrawal of support. For z/OS V1R12, the Distributed File Service SMB support will run with DCE and DCE DFS

z/OS V1R13

Installation Planning Checklist

using the RPC protocol; your system will continue to work. However, IBM will not support this environment much longer. To prepare for this change, IBM recommends migrating any data in DCE DFS or Episode file systems to zFS or HFS file systems.

Distributed File Service (z/OS V1R11)

- Discontinue use of multi-file system aggregates
- Ensure sysplex_admin_level=2 is available on all systems
- Modify programs, execs, or procedures issuing an unmount of zFS file systems
- Permit the SMB server user ID to BPX.DAEMON
- zFS: Verify virtual storage usage

NFS (Network File System - z/OS 1.11)

- Discontinue use of the DEBUGn parameter in NFS server startup procedures

NFS (Network File System - z/OS 1.10)

- Remove mixcase and upcase site attributes – no longer supported.

RMF (z/OS 1.13)

- Check automation for Monitor III messages ERB812I and ERB813I
- Update automation procedures that react on messages issued by the DDS module GPMSERVE
- Use an RMF Monitor III reporter version equal to or later than the RMF Monitor III gatherer version
- Determine need of SMF data collection for Postprocessor Serialization Delay report

RMF (z/OS 1.12)

- Retrieve the distribution of the IN-READY QUEUE

RMF (z/OS 1.11)

- Migrate Working Sets to the new Spreadsheet Reporter format
- Use an RMF Monitor III reporter version equal to or later than RMF Monitor III gatherer version
- Replace the Postprocessor Plot report with an RMF Spreadsheet Reporter macro
- Redisplay fields for HiperSockets in the Monitor III CHANNEL report

TSO/E (z/OS 1.12)

- Do not rely on TSO/E to check the syntax of passwords
 - TSO/E LOGON will no longer check syntax of eight character or less passwords before passing them on to the security product for verification.

TSO/E (z/OS 1.11)

- Use the default of ON for the LOGONHERE parameter
- Accommodate changes for data sets allocated by the RECEIVE command

z/OS Management Facility

z/OS V1R13

Installation Planning Checklist

Customers with z/OSMF V1R12 should migrate to z/OSMF V1R13 concurrently or after migrating to z/OS V1R13. For information about the migration steps, see *IBM z/OS Management Facility Configuration Guide*.

Internet sites

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

<http://www-03.ibm.com/systems/services/platformtest/servers/systemz.html>

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

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

<https://www14.software.ibm.com/webapp/ShopzSeries/ShopzSeries.jsp>

<http://www.ibm.com/support/techdocs>

<http://www-03.ibm.com/servers/eserver/zseries/zos/rmf/>

<http://www.ibm.com/servers/eserver/zseries/zos/downloads/>

IBM z/OS home page

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