

z/OS Software Deployment



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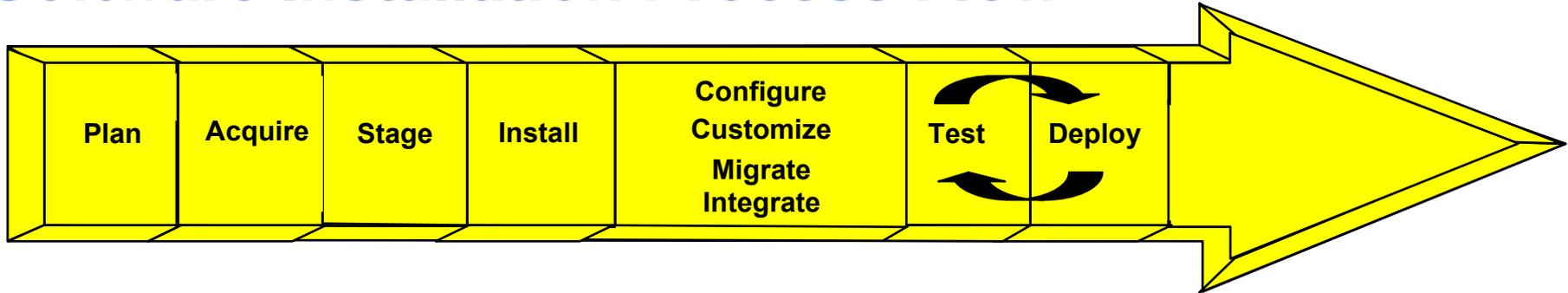
Agenda



- **Overview**
 - “Software Deployment”
 - “Software Instances”
 - Common “Software Deployment” Scenarios
 - Value of simplifying “Software Deployment”
- **IBM’s New Software Deployment function of z/OSMF**
- **Software Deployment “Demo”**
 - “Clone” existing software to prepare to upgrade a product
- **Summary**

Overview

Software Installation Process Flow

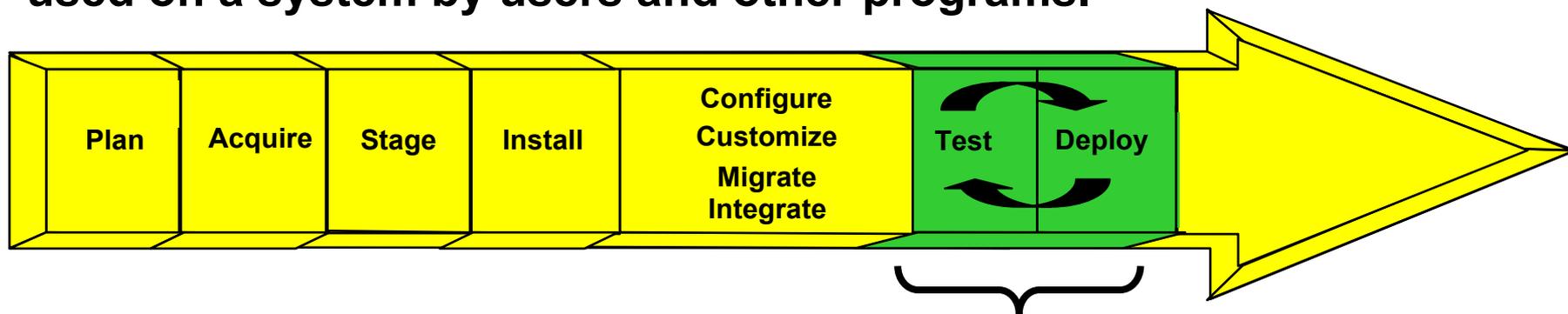


1. **Plan what hardware and software products and features are needed or desired**
2. **Acquire the products and features**
 - Order IBM software using ShopzSeries
 - Order hardware and ISV products (as needed)
3. **Stage the software**
 - Combined with acquisition for electronic distribution
4. **Install the software**
 - ServerPac (or SystemPac) installation
 - SMP/E installation for CBPDO products, web deliverables, or service
5. **Customize the software**
 - Configure features, override defaults (if necessary)
 - Migrate existing customization and perform required migration actions
 - Install/Connect middleware, ISV code, and applications
6. **Test the system**
7. **Deploy the system**
 - To other test systems, then to production systems

Note: Steps can involve multiple people with different responsibilities (roles)

What Is Meant By Software Deployment*

- Is a sub step in the end-to-end software installation flow.
- Software deployment is itself a workflow consisting of a number of steps to copy a software instance to another physical location such as another DASD volume.
- The purpose of software deployment is to make software (executable code, configuration files and operational data sets) available to be used on a system by users and other programs.



Test and Deploy Steps Are Iterative

- May need to deploy before you can test
- May need to test before deploying to a new environment
- May repeat tests and deployment several times

*As defined in this presentation by me, and used by the IBM z/OS Software Deployment function

What Is Meant By Software Deployment*

▪ Can involve

- Copying a software instance to different volumes or to data sets (or paths) with different names.
 - “Source” software instance identifies the software that you want to deploy
 - “Target” software instance identifies where you want the software deployed
- Performing customization tasks to create or update configuration files and operational data sets.
 - Can be performed:
 - o prior to software deployment for common configurations,
 - o after software deployment for instance specific configuration, or
 - o a combination of both
 - When upgrading from a prior level, some of these tasks may be identified as “migration actions”.

*As defined in this presentation by me, and used by the IBM z/OS Software Deployment function

Current State of Software Deployment

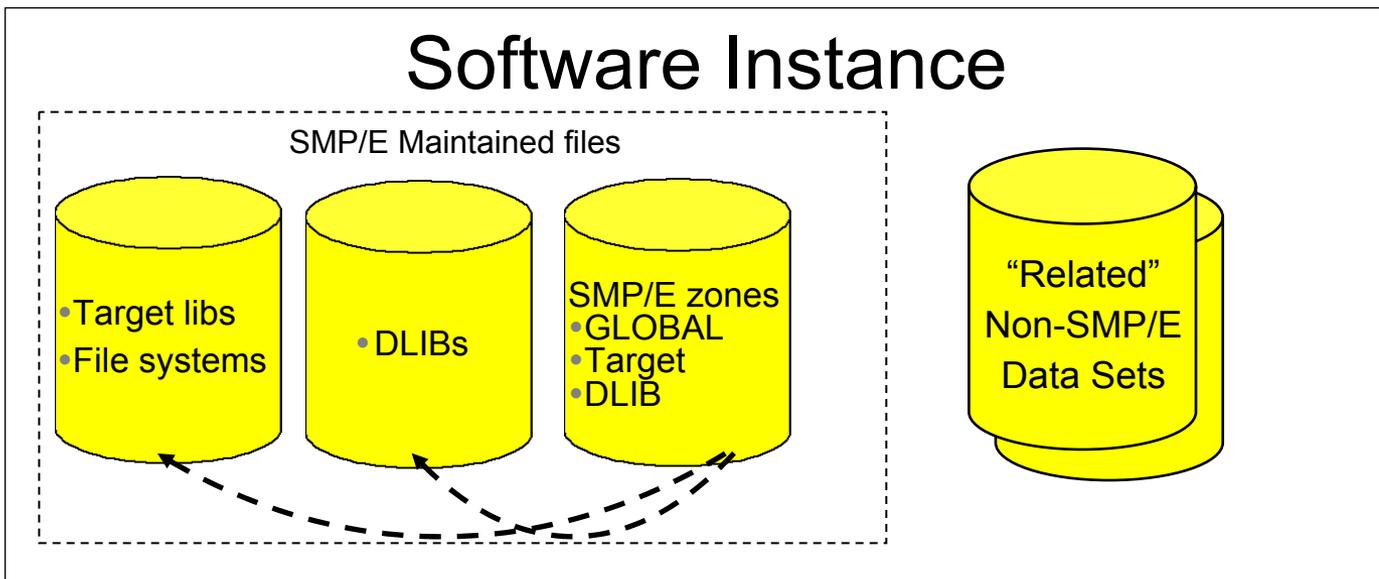
- **For years IBM has left software deployment as an exercise for the user.**
- **Over time, innovative approaches were developed by our customers to deploy a fix, maintenance upgrade, or new release.**
 - Errors occurred, because all the affected parts were not copied; such as
 - Load module aliases, HFS or PDS/PDSE files/members
 - Entire libraries or file systems
- **Some customers have been reluctant to exploit new technology (for example: zFS) due to having to make changes to their cloning process.**
- **Many customers choose not to copy the SMP/E Consolidated Software Inventory (CSI), which makes it hard to have a software inventory of the running system.**
 - The lack of a CSI (and possibly other required SMP/E data sets) makes it impossible to install maintenance in an absolute emergency.

Future State of Software Deployment

- **Clone z/OS images and deploy software more easily and consistently, using a new z/OSMF software deployment task.**
- **Manage the deployment of ALL SMP/E packaged (IBM, ISV, and user) software**
- **Codify IBM recommended best practices for software deployment**
 - Copying all affected parts of a software update.
 - Checking requisites prior to deployment.
 - Check existing software instances for missing coexistence service
 - Check products that will interact with the deployed target software instance for missing requisites which enable them to run on the new software level
 - Check if the source software instance is missing any SYSMODs for the target environment
 - Checking possible regression of maintenance or USERMODs previously installed.
 - Check that the new release has same or equivalent required service that the software instance being replaced had
 - Identify any SYSTEM HOLDS that may need to be resolved in the target environment PRIOR to deployment
 - Deploying the SMP/E zone with the libraries

Software Instance

Software Instance



- **Definition:** For z/OS platform software, the SMP/E target and distribution zones that are associated with a product set and the target and distribution libraries described by those zones.
 - The SMP/E zones point to the target and distribution libraries
 - DLIB data sets and DLIB zones are optional
 - Non-SMP/E data sets can include:
 - Other runtime libraries
 - Configuration files and operational data sets
 - Non-SMP/E maintained ISV or user libraries

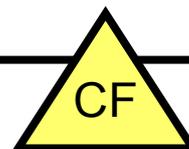
Software Instance ...

- Recommendation: Each software instance should contain one or more software products that you install, maintain, backup, recover and deploy as a group.
 - The “*z/OS Planning for Installation*” book uses the term “product set” for this group of products.
- A number of software instances can be accessible on a z/OS system.
 - When used as a driving system, the target system software instances that will be updated during installation are accessible.
 - A running system contains one or more software instances that are used during software execution.
- Software instances can be shared among one or more z/OS systems in a sysplex, for example:
 - Two z/OS LPARs IPLed from the same SYSRES.
 - Two DB2 instances using the same DB2 libraries.

Software Instances in a Parallel Sysplex (1 of 2)

z10

System 1	System 2	System 3
ZOSV1R10 DB2V8R1 DB2V9R1 WASV61	ZOSV1R10P DB2V9R1 IMSV9	ZOSV1R10



z196

System 4	System 5
ZOSV1R10 DB2V8R1 DB2V9R1 WASV61	ZOSV1R10P DB2V8R1 IMSV10

Environment

- **2 Servers (CPCs)**
- **5 z/OS Images (LPARs)**
 - Systems 1 – 5

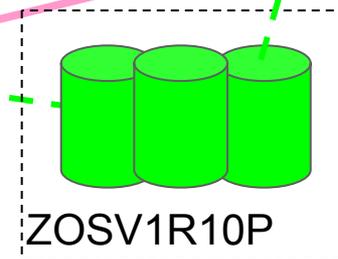
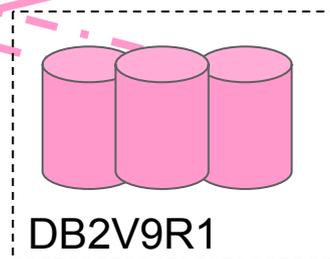
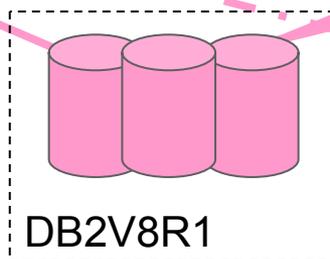
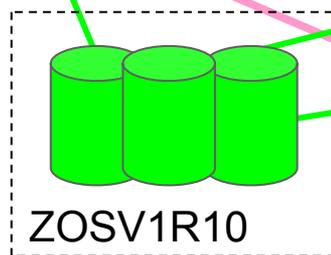
Software Instances in a Parallel Sysplex (2 of 2)

z10

System 1	System 2	System 3
ZOSV1R10 DB2V8R1 DB2V9R1 WASV61	ZOSV1R10P DB2V9R1 IMSV9	ZOSV1R10

z196

System 4	System 5
ZOSV1R10 DB2V8R1 DB2V9R1 WASV61	ZOSV1R10P DB2V8R1 IMSV10



Environment

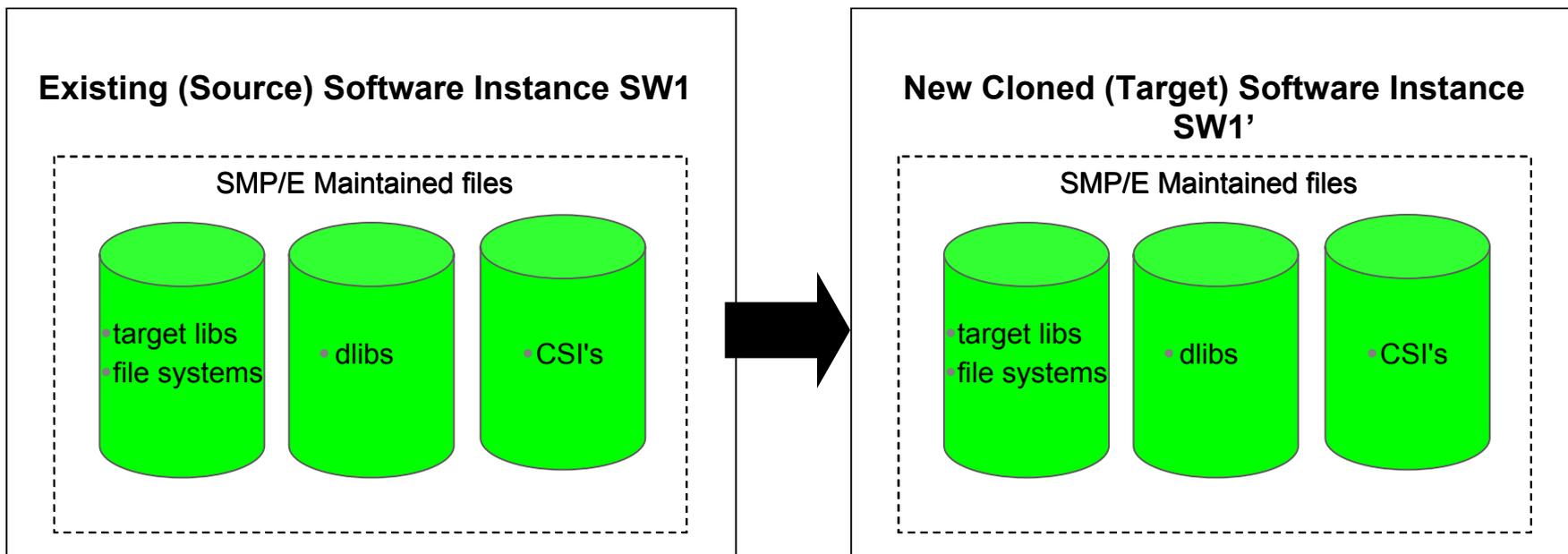
- 5 z/OS images share 2 z/OS software instances (ZOSV1R10, ZOSV1R10P)
- 4 z/OS images share 2 DB2 software instances (DB2V8R1, DB2V9R1)
 - Both DB2 instances are used on system System 1

Common Deployment Scenarios

Common Software Deployment Scenarios

- 1. “Clone” existing software to prepare to upgrade a product**
- 2. Deploy a new software level of one or more product sets, either**
 - A new release
 - A new maintenance level
- 3. Create an executable image from software installed into “work” data sets**
 - The “work” data sets are usually SMS managed, or uniquely named

“Clone” Existing Software to Prepare to Upgrade a Product



1. Start with existing product installed in Existing (Source) Software Instance SW1
2. Create new cloned (target) software instance SW1'
 - Copy libraries
 - Copy SMP/E zone(s)
 - Update DDDEFs accordingly
 - Catalog data sets (if necessary)

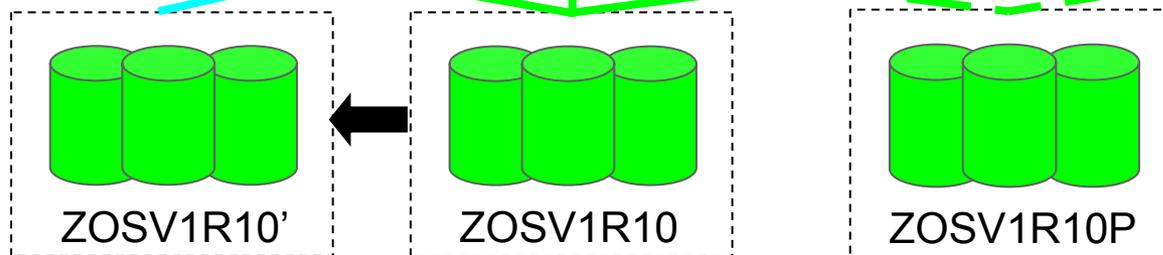
Deploy Maintenance Upgrade Software Instances in a Parallel Sysplex

z10

System 1	System 2	System 3
ZOSV1R10 DB2V8R1 DB2V9R1 WASV61	ZOSV1R10P DB2V9R1 IMSV9	ZOSV1R10'

z196

System 4	System 5
ZOSV1R10 DB2V8R1 DB2V9R1 WASV61	ZOSV1R10P DB2V8R1 IMSV10



When changing software levels

1. Create a new sw instance, or if the instance is not in use replace an existing one
 - Copy/rename libraries & file systems
 - Copy SMP/E zone(s)
 - Update DDDEFs accordingly
 - Catalog data sets (if necessary)
2. Upgrade ZOSV1R10' to a new software level

3. Perform migration actions (or System ++HOLDS)
4. Check for missing requisites & regressions
5. Quiesce existing instance
6. Start a new instance or perform rolling IPLs (or activations) to introduce new software level

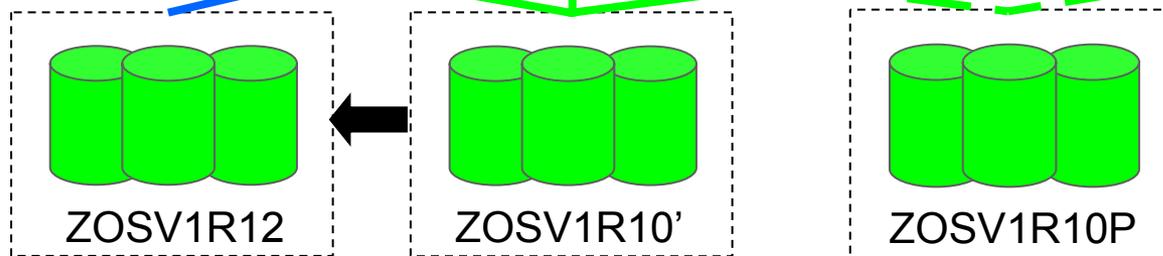
Deploy New Release Software Instances in a Parallel Sysplex

z10

System 1	System 2	System 3
ZOSV1R10' DB2V8R1 DB2V9R1 WASV61	ZOSV1R10P DB2V9R1 IMSV9	ZOSV1R10' DB2V8R1 DB2V9R1 WASV61

z196

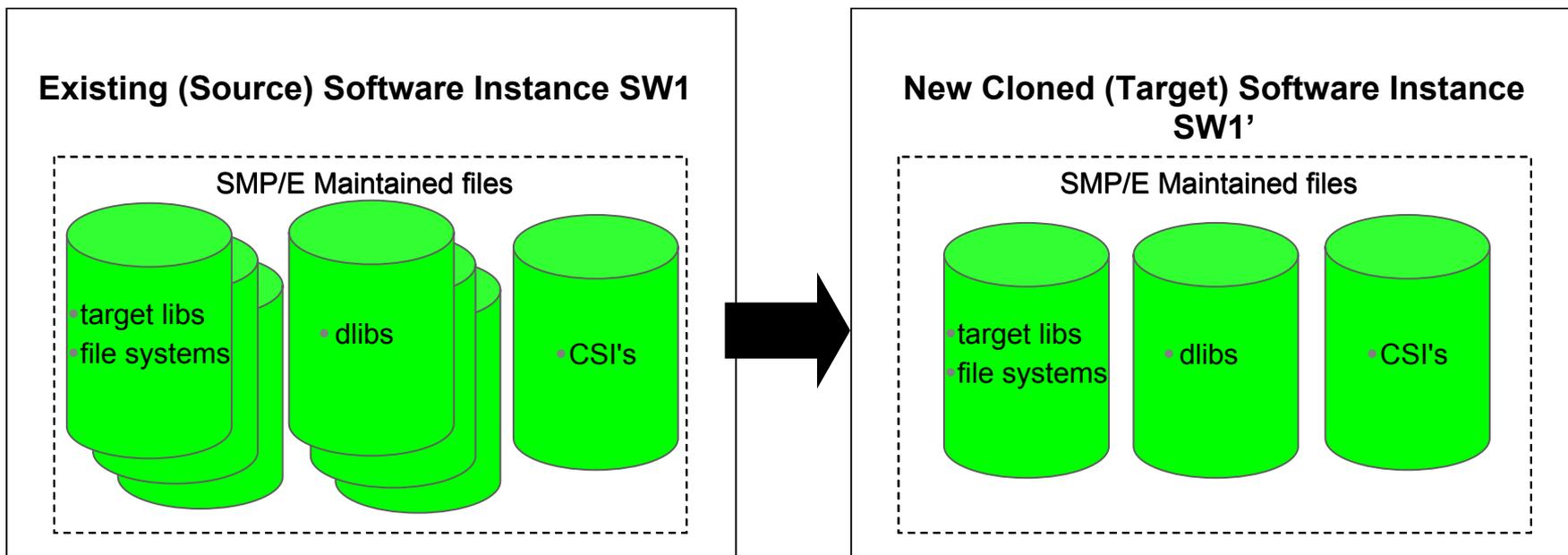
System 4	System 5
ZOSV1R10' DB2V8R1 DB2V9R1 WASV61	ZOSV1R10P DB2V8R1 IMSV10



When changing software levels

1. Create a new sw instance or if the instance is not in use, replace an existing one
 - Copy/rename libraries & file systems
 - Copy SMP/E zone(s)
 - Update DDDEFs accordingly
 - Catalog data sets (if necessary)
2. Upgrade ZOSV1R10' to ZOSV1R12 (a new software level)
3. Perform migration actions (or System ++HOLDS)
4. Check for missing coexistence service
5. Check for missing target software requisites
6. Quiesce existing instance
7. Start a new instance or perform rolling IPLs (or activations) to introduce new software level

Create an Executable Image from Software Installed into “Work” Data Sets



1. Start with existing “work” software instance SW1 with data sets spread across volumes, possibly with unique names.
2. Create new cloned (target) software instance SW1'
 - Copy/rename libraries and file systems
 - Copy SMP/E zone(s)
 - Update DDDEFs accordingly
 - Catalog data sets (if necessary)
3. Before using new cloned software instance
 - Perform migration actions (or System ++HOLDS)
 - Check for missing requisites and regressions

**z/OSMF
Software
Deployment**

z/OSMF Software Deployment

■ **Previewed in the 2/15 z/OS announcement**

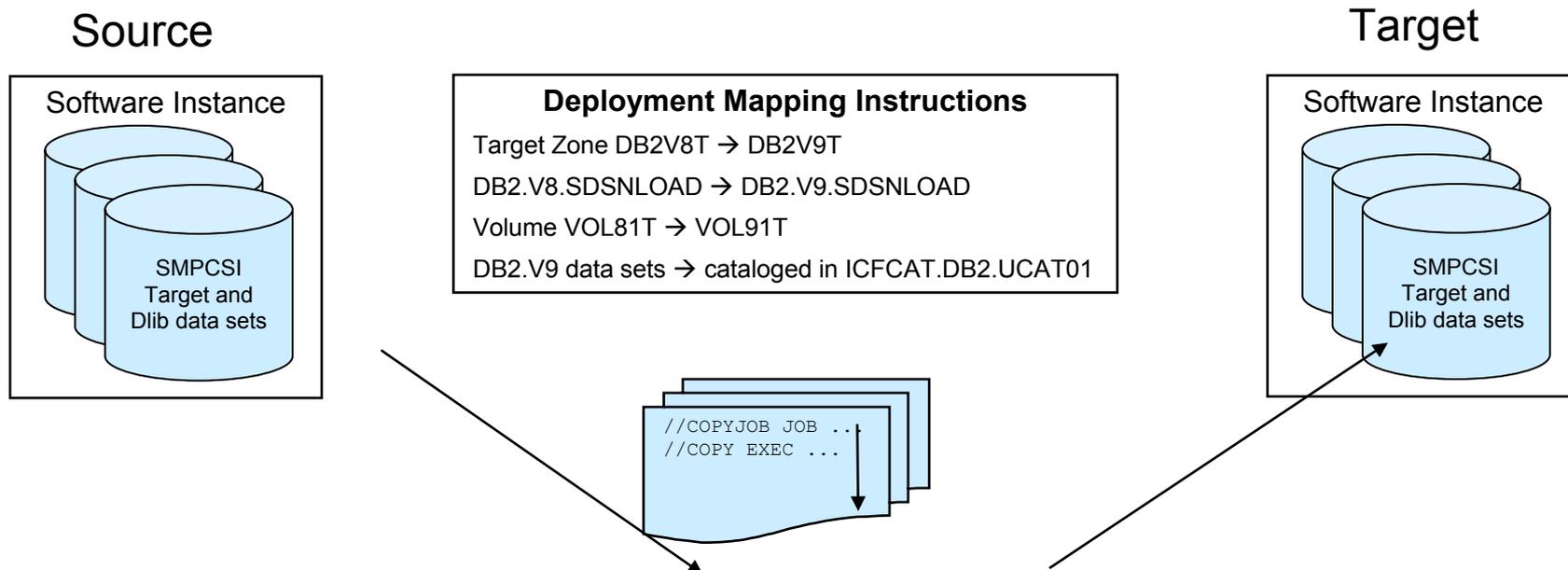
- A new software deployment function is planned for z/OSMF V1.13, which is planned to run on z/OS V1.13. The software deployment function is designed to provide the functions needed to create and deploy a copy, or clone, of an existing SMP/E-installed software image, including IBM software installed using ServerPac, CBPDO, or fee-based installation offerings, as well as ISV or customer software. The function is intended to help you create and distribute copies of system software, including target libraries, distribution libraries, SMP/E zones, and related data sets you identify. Software deployment is designed as a z/OSMF application, and is intended to make it easier to manage your software images by simplifying and standardizing these deployment processes.

Software Deployment

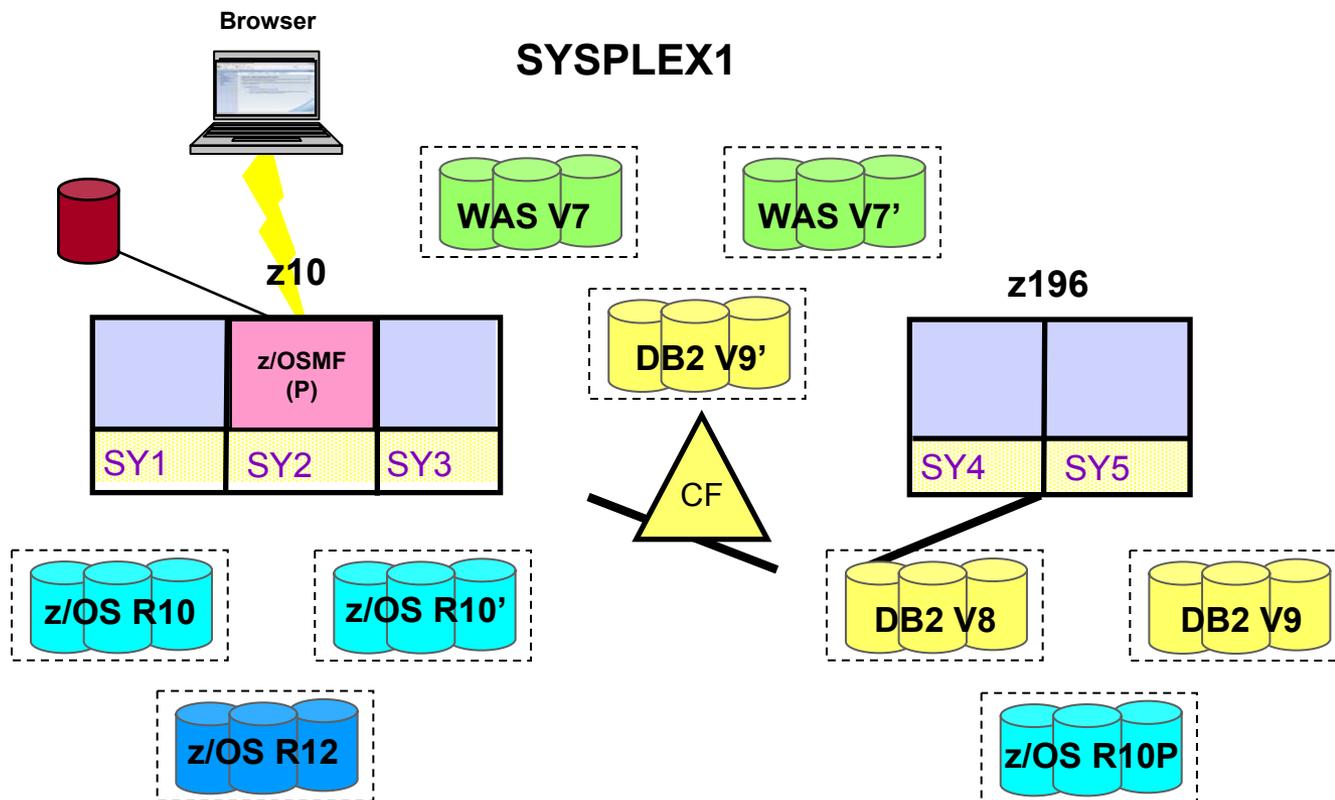
- **Software Deployment is a z/OS Management Facility (z/OSMF) plug-in application**
 - Web-based application.
 - User interaction is via a browser on a workstation.
 - z/OSMF and Software Deployment will be active on one system in a sysplex, allowing access to shared DASD.
 - Locally, either on a single system or system-to-system within a sysplex.
 - Remotely, system-to-system across a network and multiple sysplexes.

Basic Deployment Operation Flow

1. Identify a Software Instance.
2. Create a Deployment that describes where the source data sets will be copied.
3. Generate Deployment Jobs.
4. Execute generated Jobs to copy the source and create (or replace) a target Software Instance.



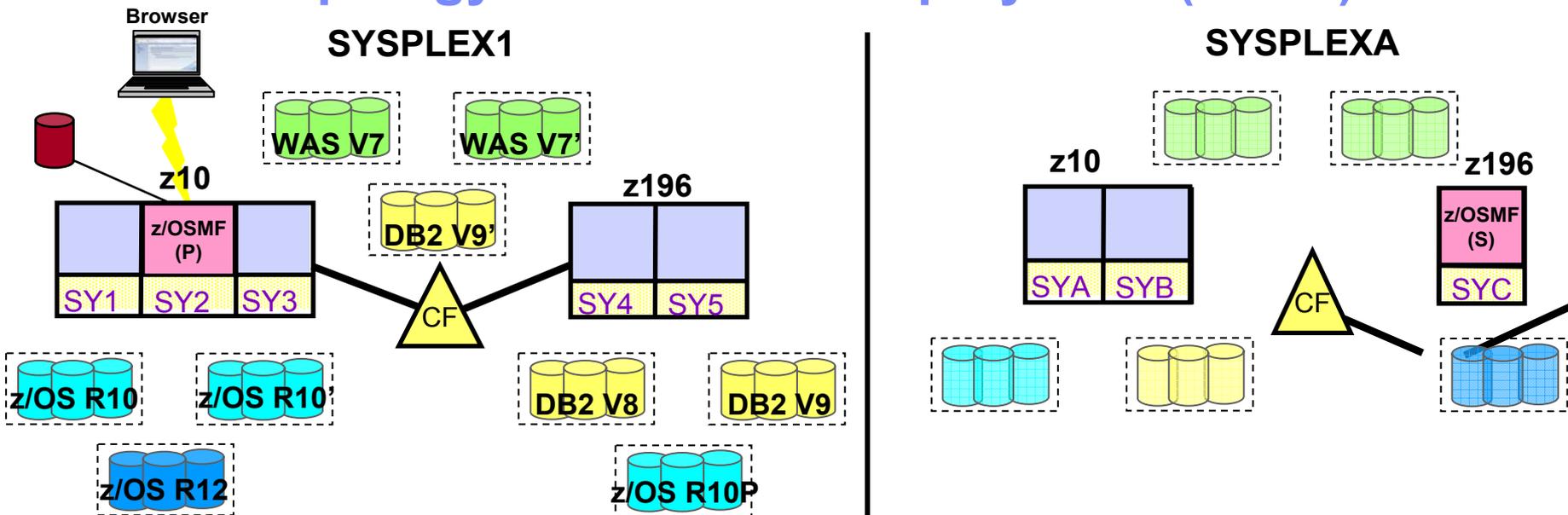
z/OSMF Topology for Software Deployment (1 of 2)



Environment

- **Systems SY1-SY5 are in SYSplex1**
 - ALL DASD shared across the sysplex
- **SY2 is the z/OSMF Primary system**
 - z/OSMF primary repository local to SY2
- **Only 1 system in a sysplex can run z/OSMF at a time**
- **All software instances will be defined and deployed from the primary z/OSMF system (SY2)**
 - From the primary, you can deploy an instance in SYSplex1 to another instance in SYSplex1

z/OSMF Topology for Software Deployment (2 of 2)



Environment

- **Systems SYA-SYC are in SYSplexA**
 - NO DASD is shared between SYSplex1 and SYSplexA
- **SYC is the z/OSMF Secondary system**
 - for remote deployments
- **Source or target software instances must be accessible from primary or secondary z/OSMF systems**
- **From the primary z/OSMF system, you can deploy:**
 - an instance in SYSplex1 to an instance in SYSplexA
 - an instance in SYSplexA to an instance in SYSplex1
 - an instance in SYSplexA to another instance in SYSplexA

**z/OSMF Software
Deployment
“Demo”**

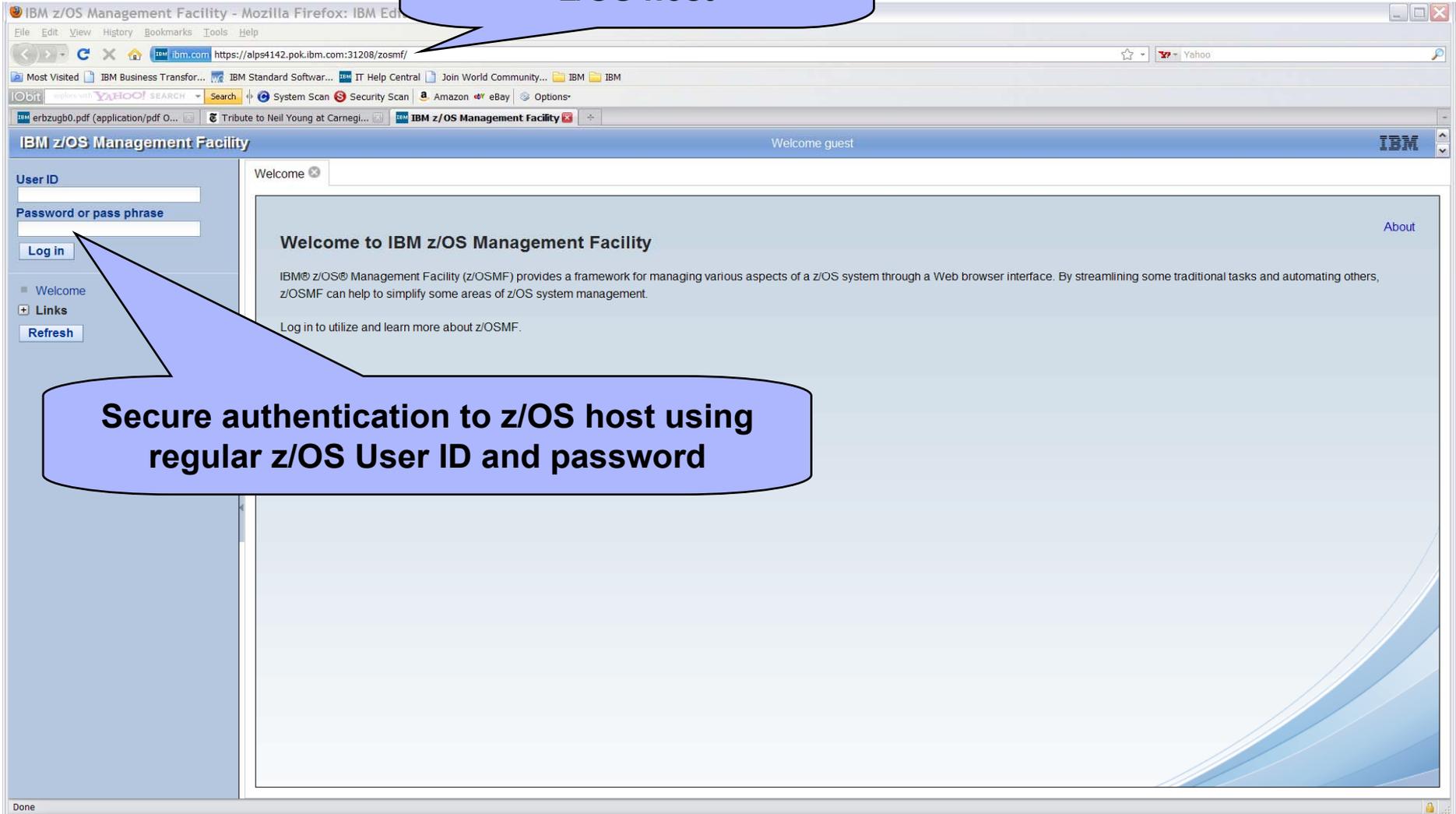
Software Deployment Demo

“Clone” existing software to prepare to upgrade a product

- Copy libraries and filesystems
- Update DDDEFs to reflect copied libraries and pathnames
- Change data set names of catalogued data sets (file systems and CSI data sets)

Welcome

Secure connection to z/OS host



Secure authentication to z/OS host using regular z/OS User ID and password

Welcome for logged on user

User is ZOSMFAD

The screenshot shows the IBM z/OS Management Facility (z/OSMF) web interface. At the top, a blue header bar contains the text "Welcome zosmfad" circled in red, and a "Log out" link. The main content area displays a "Welcome to IBM z/OS Management Facility" message, followed by introductory text and a "Learn More" section with links like "What's New" and "z/OSMF tasks at a glance". On the left, a navigation menu is visible, with the "Software" item circled in red and a callout pointing to the "Deployment" sub-item. A "Refresh" button is located at the bottom of the menu. The status bar at the bottom left shows "Done".

New Deployment task

Software Deployment

The screenshot displays the IBM z/OS Management Facility web interface. The top navigation bar includes the title "IBM z/OS Management Facility", the user name "Welcome zosmfad", and a "Log out" link. The left sidebar contains a menu with categories: Welcome, Configuration (with sub-item Configuration Assistant), Links, Performance (with sub-items Capacity Provisioning, Resource Monitoring, System Status, and Workload Management), Problem Determination (with sub-item Incident Log), Software (with sub-item Deployment), z/OS Classic Interfaces, and z/OSMF Administration (with sub-items Application Linking Manager and Links). A "Refresh" button is located at the bottom of the sidebar. The main content area shows the "Deployment" section, which includes a "Help" link, a descriptive paragraph, and a table of actions. The "Deploy Software" action is highlighted with a red circle. Below this is an "Administration" section.

IBM z/OS Management Facility Welcome zosmfad Log out

- Welcome
- Configuration
 - Configuration Assistant
- Links
- Performance
 - Capacity Provisioning
 - Resource Monitoring
 - System Status
 - Workload Management
- Problem Determination
 - Incident Log
- Software
 - Deployment
- z/OS Classic Interfaces
- z/OSMF Administration
 - Application Linking Manager
 - Links

Refresh

Welcome Deployment

Help

Deployment

Use this task to deploy software. To get started, select the **Deploy Software** action. [Learn more...](#)

Deploy Software	Deploy a software instance, and manage existing deployments.
-----------------	--

► Administration

Transferring data from alps4142.pok.ibm.com...

Deploy Software Wizard

Welcome zosmfad

Welcome ✕ Deployment ✕

Deployment ▶ Deploy Software ▶ Deployment Checklist

Deployment Checklist

To deploy a software instance, complete the checklist.

Checklist

Progress	Step
➔	1. Specify the properties for this deployment.
	2. Select the software instance to deploy.
	3. Select the objective for this deployment.
	4. Configure this deployment.
	5. Define the job settings. z/OSMF create the deployment summary and jobs. <ul style="list-style-type: none">• View the deployment summary.• View the deployment jobs.
	6. Specify the properties for the target software instance.

Close

Specify Deployment Properties

Welcome zosmfad Log out IBM

Welcome ✕ Deployment ✕

Deployment ▶ Deploy Software ▶ Deployment Checklist ▶ Specify Deployment Properties Help

Specify Deployment Properties

Enter a name and optional description for this deployment.

* Name:
z/OS V1.13 RPD6 Fixes

Description: (maximum 256 characters, currently 51 characters)
Create z/OS V1.13 work environment to install fixes

Categories

Actions ▼

Name Filter	Description Filter	Activity Filter	Last Modified (GMT) Filter	Modified By Filter	Locked (GMT) Filter	Locked By Filter
There is no data to display.						

OK Cancel

Deployment Checklist Progression

Deployment Checklist
Welcome zosmfad

Welcome ✕

Deployment ✕

[Deployment](#) ▶ [Deploy Software](#) ▶ [Deployment Checklist](#)

Deployment Checklist

To deploy a software instance, complete the checklist.

Checklist

Progress	Step
✓	1. Specify the properties for this deployment.
➔	2. Select the software instance to deploy.
	3. Select the objective for this deployment.
	4. Configure this deployment.
	5. Define the job settings. z/OSMF create the deployment summary and jobs. <ul style="list-style-type: none"> • View the deployment summary. • View the deployment jobs.
	6. Specify the properties for the target software instance.

Close

Select Software Instance

Welcome zosmfad Log out

Welcome Deployment

Deployment > Deploy Software > Deployment Checklist > Select Software Instance Help

Select Software Instance

Software Instances

Actions

Name <small>Filter</small>	System <small>Filter</small>	Description <small>Filter</small>	Activity <small>Filter</small>	Categories <small>Filter</small>	Global Zone CSI <small>Filter</small>	Target Zones <small>Filter</small>	Last Modif <small>Filter</small>
<input checked="" type="radio"/> z/OS V1.13 RPD6	LOCAL	z/OS V1.13 Test System (RPD6 level with fixes through 2/16/2011).	Being deployed		MVSBUILD.ZOSMF.R13ZOS.CSI	TGT113	Feb 22, 2011

Total: 1, Selected: 1

Last refresh: Feb 22, 2011 5:44:13 PM local time (Feb 22, 2011 10:44:13 PM GMT)

Select Deployment Objective

Welcome zosmfad Log out

Welcome ✕ Deployment ✕

Deployment ▸ Deploy Software ▸ Deployment Checklist ▸ Select Deployment Objective Help

Select Deployment Objective

This deployment will create a copy of the source software instance. The resulting copy is referred to as the target software instance. Indicate whether you want the target instance to be a new software instance or to replace an existing software instance.

Objective:

- Create a new software instance and connect it to the following global zone CSI. [Learn more...](#)
 - A new global zone CSI
 - The source global zone CSI
 - Another existing global zone CSI
- Replace an existing software instance, and connect the new instance to the existing instance's global zone CSI. [Learn more...](#)

Select the system where the target software instance will reside.

* Target system:
 ▼

Configure Deployment Wizard

Welcome zosmfad Log out IBM

Welcome Deployment

Deployment > Deploy Software > Deployment Checklist > Configure Deployment Help

Configure Deployment for z/OS V1.13 RPD6

Welcome

Use this wizard to configure the data set names, catalogs, volumes, mount points, and SMP/E zones to be used for the target software instance.

This wizard guides you through the following steps:

1. Indicate whether this deployment should copy the distribution zones and distribution libraries (DLIBs) that are associated with the source software instance.
2. Select the software instance to use as a model for configuring the target software instance.
3. Specify the SMP/E zone names to use.
4. Specify the data set names to use, and assign the data sets to a volume or storage class.
5. Assign each data set prefix to a catalog.
6. Ensure that the volumes and storage classes have enough space to store the target software instance.
7. Specify the mount point to use for each UNIX file system data set that will be included in the target software instance.

< Back **Next >** Finish Cancel

Copy DLIBs?

Welcome zosmfad Log out

Welcome ✕ Deployment ✕

Deployment ▸ Deploy Software ▸ Deployment Checklist ▸ Configure Deployment Help

Configure Deployment for z/OS V1.13 RPD6

- ✓ Welcome
- **DLIBs**
- Model
- SMP/E Zones
- Data Sets
- Catalogs
- Volumes and Storage Classes
- Mount Points

DLIBs

Indicate whether you want this deployment to copy the distribution zones and the distribution libraries (DLIBs) that are associated with the source software instance.

Do you want to copy the distribution zones and libraries associated with the source software instance?

Yes

No

< Back **Next >** Finish Cancel

Software Instance to use as a Model

The screenshot displays the IBM z/OS Software Deployment web interface. At the top, a blue header bar contains the text "Welcome zosmfad" on the left and "Log out" on the right, with the IBM logo in the top right corner. Below the header, there are two tabs: "Welcome" and "Deployment". The main content area shows a breadcrumb trail: "Deployment > Deploy Software > Deployment Checklist > Configure Deployment". The title of the page is "Configure Deployment for z/OS V1.13 RPD6".

On the left side, there is a navigation menu with the following items: "Welcome", "DLIBs", "Model" (highlighted with a red arrow), "SMP/E Zones", "Data Sets", "Catalogs", "Volumes and Storage Classes", and "Mount Points".

The main content area is titled "Model" and contains the following text: "Select the software instance to use as a model for configuring the target software instance. z/OSMF uses the data sets, volumes, mount points, catalogs, and SMP/E zones that are associated with the model to prime the corresponding values for the target software instance."

Below this text, there is a section titled "Select the software instance to use as a model." with two radio button options:

- The source software instance
- Another existing software instance

At the bottom of the page, there are four buttons: "< Back", "Next >" (circled in red), "Finish", and "Cancel".

Configure Target Instance SMP/E Zone Names

Welcome ibmuser

Log out

Welcome Deployment

Deployment > Deploy Software > Deployment Checklist > Configure Deployment

Configure Deployment for z/OS V1.13 RPD6

- ✓ Welcome
- ✓ DLIBs
- ✓ Model
- **SMP/E Zones**
- Data Sets
- Catalogs
- Volumes and Storage Classes
- Mount Points

SMP/E Zones

The Zones table lists the names that will be used for the SMP/E zones included in the target software instance. Accept the default names, or modify them by double clicking the editable cells, or selecting the cell and pressing **F2** or **Enter**.

Target Zone	Target DLIB Zone	Messages	Source Target Zone	Source DLIB Zone
TGT113F	DLB113F		TGT113	DLB113

Total: 1

< Back **Next >** Finish Cancel

Switched User IDs (by log of and log on) to show that different users can complete a deployment

Since we are creating a new global zone, we could have used the same zone names. However, I changed the names to avoid confusion in the "Demo"

Configure Target Instance Data Sets

Welcome ibmuser Log out

Welcome Deployment

Deployment > Deploy Software > Deployment Checklist > Configure Deployment Help

Configure Deployment for z/OS V1.13 RPD6

- ✓ Welcome
- ✓ DLIBs
- ✓ Model
- ✓ SMP/E Zones
- **Data Sets**
- Catalogs
- Volumes and Storage Classes
- Mount Points

Data Sets

The Data Sets table lists the names, volumes, and storage classes that will be used for the data sets included in the target software instance. Accept the default names, volumes, and storage classes, or use the **Modify** action to modify them.

Target Data Set Name	Target Volume	Target Storage Class	Messages	Source Data Set Name	Source Volume
<input checked="" type="checkbox"/> AOP.SAOP	Contains "zd113"	Filter	Filter	Filter	Filter
<input checked="" type="checkbox"/> AOP.SAOP	ZD113			AOP.SAOPEXEC	ZD113
<input checked="" type="checkbox"/> AOP.SAOP	ZD113			AOP.SAOPMENU	ZD113
<input checked="" type="checkbox"/> AOP.SAOP	ZD113			AOP.SAOPJPN	ZD113
<input checked="" type="checkbox"/> AOP.SAOP	ZD113			AOP.SAOPPENU	ZD113
<input checked="" type="checkbox"/> AOP.SAOP	ZD113			AOP.SAOPJPN	ZD113
<input checked="" type="checkbox"/> ASM.SASMMAC1				ASM.SASMMAC1	ZD113
<input checked="" type="checkbox"/> ASM.SASMMAC2				ASM.SASMMAC2	ZD113
<input checked="" type="checkbox"/> ASM.SASMMOD1				ASM.SASMMOD1	ZD113
<input checked="" type="checkbox"/> ASM.SASMMOD2				ASM.SASMMOD2	ZD113
<input checked="" type="checkbox"/> ASM.SASMPUTS				ASM.SASMPUTS	ZD113

Total: 1236, Filtered: 608, Selected: 608

< Back Next > Finish

Filter for DLIB or SYSRES volser

Use Actions to Select All, then Modify

Configure Target Instance Data Sets (Volume)

Welcome ibmuser Log out

Welcome ✕ Deployment ✕

Deployment ▶ Deploy Software ▶ Deployment Checklist ▶ Configure Deployment ▶ Modify Help

Modify Data Sets

Enter the data set name or qualifiers to use for the selected data sets.

Common data set qualifiers: Example data set name:

From: AOP.AAOPEXEC

To: AOP.AAOPEXEC

Select or type the volume: **Change the volume**

Volume Storage class 

Selected Data Sets

Actions ▼

Target Data Set Name Filter	Target Volume Contains "ZD113"	Target Storage Class Filter	Messages Filter
<input checked="" type="checkbox"/> AOP.AAOPEXEC	ZD113		
<input checked="" type="checkbox"/> AOP.AAOPHFS	ZD113		
<input checked="" type="checkbox"/> AOP.AAOPHJPN	ZD113		
<input checked="" type="checkbox"/> AOP.AAOPMENU	ZD113		
<input checked="" type="checkbox"/> AOP.AAOPMJPN	ZD113		
<input checked="" type="checkbox"/> AOP.AAOPMOD1	ZD113		
<input checked="" type="checkbox"/> AOP.AAOPPENU	ZD113		
<input checked="" type="checkbox"/> AOP.AAOPPJPN	ZD113		
<input checked="" type="checkbox"/> ASM.AASMMAC1	ZD113		

Total: 621, Filtered: 621, Selected: 621

Updated Display with Changed Target Volume

Management Facility

Welcome ibmuser Log out

Welcome Deployment

Deployment ▶ Deploy Software ▶ Deployment Checklist ▶ Configure Deployment Help

Configure Deployment for z/OS V1.13 RPD6

- ✓ Welcome
- ✓ DLIBs
- ✓ Model
- ✓ SMP/E Zones
- ➔ **Data Sets**
- ✓ Catalogs
- ✓ Volumes and Storage Classes
- Mount Points

Data Sets

The Data Sets table lists the names, volumes, and storage classes that will be used for the data sets included in the target software instance. Accept the default names, volumes, and storage classes, or use the **Modify** action to modify them.

Data Sets

Actions ▼

Target Data Set Name <small>Filter</small>	Target Volume <small>Contains "ZD113"</small>	Target Storage Class <small>Filter</small>	Messages <small>Filter</small>	Source Data Set Name <small>Filter</small>	Source V <small>Filter</small>
<input checked="" type="checkbox"/> AOP.AAOPEXEC	C90ESD			AOP.AAOPEXEC	ZC113
<input checked="" type="checkbox"/> AOP.AAOPHFS	C90ESD			AOP.AAOPHFS	ZC113
<input checked="" type="checkbox"/> AOP.AAOPHJPN	C90ESD			AOP.AAOPHJPN	ZC113
<input checked="" type="checkbox"/> AOP.AAOPMENU	C90ESD			AOP.AAOPMENU	ZC113
<input checked="" type="checkbox"/> AOP.AAOPMJPN	C90ESD			AOP.AAOPMJPN	ZC113
<input checked="" type="checkbox"/> AOP.AAOPMOD1	C90ESD			AOP.AAOPMOD1	ZC113
<input checked="" type="checkbox"/> AOP.AAOPPENU	C90ESD			AOP.AAOPPENU	ZC113
<input checked="" type="checkbox"/> AOP.AAOPPJPN	C90ESD			AOP.AAOPPJPN	ZC113
<input checked="" type="checkbox"/> ASM.AASMMAC1	C90ESD			ASM.AASMMAC1	ZC113
<input checked="" type="checkbox"/> ASM.AASMMAC2	C90ESD			ASM.AASMMAC2	ZC113

Total: 1236, Filtered: 621, Selected: 621

< Back
Next >
Finish
Cancel

Configure Target Instance Data Sets (Names)

Welcome ibmuser Log out

Welcome Deployment

Deployment > Deploy Software > Deployment Checklist > Configure Deployment Help

Configure Deployment for z/OS V1.13 RPD6

- ✓ Welcome
- ✓ DLIBs
- ✓ Model
- ✓ SMP/E Zones
- ➔ **Data Sets**
- Catalogs
- Volumes and Storage Classes
- Mount Points

Data Sets

The Data Sets table lists the names, volumes, and storage classes that will be used for the data sets included in the target software instance. Accept the default names, volumes, and storage classes, or use the **Modify** action to modify them.

Target Data Set Name	Target Volume	Target Storage Class	Messages	Source Data Set Name	Source Volume
<input type="checkbox"/> TCPIP.SEZAXLD1	ZD113			TCPIP.SEZAXLD1	ZD113
<input type="checkbox"/> TCPIP.SEZAXLD2	ZD113			TCPIP.SEZAXLD2	ZD113
<input type="checkbox"/> TCPIP.SEZAXMLB	ZD113			TCPIP.SEZAXMLB	ZD113
<input type="checkbox"/> TCPIP.SEZAXTLB	ZD113			TCPIP.SEZAXTLB	ZD113
<input type="checkbox"/> TCPIP.SEZAX11L	ZD113			TCPIP.SEZAX11L	ZD113
<input checked="" type="checkbox"/> ZOS113.LPP.HFS	HLZ11			ZOS113.LPP.HFS	HLZ11
<input checked="" type="checkbox"/> ZOS113.MAN.HFS	HMZ11			ZOS113.MAN.HFS	HMZ11
<input checked="" type="checkbox"/> ZOS113.NLS.HFS	HNZ11			ZOS113.NLS.HFS	HNZ11
<input checked="" type="checkbox"/> ZOS113.ROOT.ZFS	ZRZ11		✘ IZUD531E	ZOS113.ROOT.ZFS	ZRZ11

Total: 1236, Selected: 4

< Back Next > Finish

Select the data set, then use Actions to Modify

Configure Target Instance Data Sets (Names)

Management Facility Welcome ibmuser Log out

Welcome Deployment

Deployment > Deploy Software > Deployment Checklist > Configure Deployment > Modify

Modify Data Set

Enter the data set name

From: ZOS113
To: ZOS113.RPD6F

Common data set name: ZOS113
Example data set name: ZOS113.LPP.HFS
ZOS113.RPD6F.LPP.HFS

Select or type the volume or storage class to use for the selected data sets.

Volume Storage class

Select or type

Selected Data Sets

Target Data Set Name	Target Volume	Target Storage Class	Messages
ZOS113.LPP.HFS	HLZ113		
ZOS113.MAN.HFS	HMZ113		
ZOS113.NLS.HFS	HNZ113		
ZOS113.ROOT.ZFS	ZRZ113		

Total: 4, Selected: 4

OK Reset Cancel

Configure Target Instance Catalog Environment

Welcome Deployment

Welcome Deployment

Deployment ▶ Deploy Software ▶ Deployment Checklist ▶ Configure Deployment Help

Configure Deployment for z/OS V1.13 RPD6

- ✓ Welcome
- ✓ DLIBs
- ✓ Model
- ✓ SMP/E Zones
- ✓ Data Sets
- ➔ **Catalogs**
- Volumes and Storage Classes
- Mount Points

Catalogs

The Target Data Set Name Prefixes table lists the catalogs where target data sets with the data set name prefixes will be cataloged. You can accept the default catalog assignments, select different catalogs, or select not to catalog the corresponding data sets.

Target Data Set Name Prefixes						
Prefix Filter	New or Existing Filter	Catalog the Data Sets? Filter	Catalog Name Filter	Catalog Type Filter	Messages Filter	
<input type="checkbox"/> IMW	Existing	Yes	PAGE08.CATALOG	MASTER		
<input type="checkbox"/> IOA	Existing	Yes	PAGE08.CATALOG	MASTER		
<input type="checkbox"/> IOE	Existing	Yes	PAGE08.CATALOG	MASTER		
<input type="checkbox"/> ISF	Existing	Yes	PAGE08.CATALOG	MASTER		
<input type="checkbox"/> ISP	Existing	Yes	PAGE08.CATALOG	MASTER		
<input type="checkbox"/> MVSBUILD	Existing	Yes (Required)	PAGE08.CATALOG	MASTER		
<input type="checkbox"/> REXX	Existing	Yes	PAGE08.CATALOG	MASTER		
<input type="checkbox"/> SYS1	Existing	Yes	PAGE08.CATALOG	MASTER		
<input type="checkbox"/> TCPIP	Existing	Yes	PAGE08.CATALOG	MASTER		
<input type="checkbox"/> ZOS113	Existing	Yes (Required)	MVSBUILD.PRZDFS.USERCAT	USER		

Total: 27, Selected: 0

VSAM files (CSIs and zFS) show up as required to be catalogued

Update Target Instance Volumes

Welcome Deployment

Deployment ▶ Deploy Software ▶ Deployment Checklist ▶ Configure Deployment ▶ Modify Volume Help

* Volume:
C90EST

Total capacity (MB):
8514.05

Initialize volume:
 Yes No

Catalog method:
 Direct Indirect * Indirect catalog entry symbol: *****

Current allocated space:
MB: %:
5204.48 61

* Planned threshold (%):
85

Planned allocated space:
MB: %:
5735.81 67

Allocated space delta (MB):
531.33

Change:

- Volume serial number
- Whether to initialize the volume
- Catalog method
 - If indirect, the symbol to use
- Acceptable usage threshold

Configure Target Instance Volumes ...

Welcome ibmuser Log out

Welcome Deployment

Deployment ▶ Deploy Software ▶ Deployment Checklist ▶ Configure Deployment Help

Configure Deployment for z/OS V1.13 RPD6

- ✓ Welcome
- ✓ DLIBs
- ✓ Model
- ✓ SMP/E Zones
- ✓ Data Sets
- ✓ Catalogs
- ➔ **Volumes and Storage Classes**
- Mount Points

Volumes and Storage Classes

The Target Volumes and Target Storage Classes tables list the volumes or storage classes where each target data set or new user catalog will reside. Accept the default volumes and storage classes, or use the **Modify** action to modify them.

▼ Target Volumes

Volume	Capacity (MB)	Current Allocated Space (MB)	Current Allocated Space (%)	Messages	Planned Allocated Space (MB)	Planned Allocated Space (%)	Allocated Space Delta (MB)	Planned Threshold (%)	Initialize Volume	Catalog Method	Indirect Catalog Entry Symbol
<input type="radio"/> C90ESD	8514.05	6077.55	71		7848.42	92	1770.87	99	Yes	Direct	
<input checked="" type="radio"/> C90EST	8514.05	5204.48	61		5735.81	67	531.33	85	Yes	Indirect	*****
<input type="radio"/> C90ES8	2838.02	2730.92	96	IZUD516W	2574.02	91	-156.90	85	Yes	Direct	
<input type="radio"/> C90ES2	2838.02	480.96	17	IZUD516W	2486.76	88	2005.80	85	No	Direct	
<input type="radio"/> C90ES1	2838.02	213.96	8		2050.10	72	1836.14	85	Yes	Direct	
<input type="radio"/> C90ES9	2838.02	2674.20	94			55	-1102.62	85	Yes	Direct	

Total: 6, Selected: 1

▶ Target Storage Classes

< Back **Next >** Finish Cancel

Annotations:

- Changed C**: Points to the Volume column header.
- Symbol, for indirect entries**: Points to the Indirect Catalog Entry Symbol column header.
- Warnings (or errors) displayed when planned threshold exceeded**: Points to the warning icons in the Messages column for C90ES8 and C90ES2.

Configure Target Instance Mount Points

Welcome ibmuser Log out

Welcome Deployment

Deployment > Deploy Software > Deployment Checklist > Configure Deployment Help

Configure Deployment for z/OS V1.13 RPD6

- ✓ Welcome
- ✓ DLIBs
- ✓ Model
- ✓ SMP/E Zones
- ✓ Data Sets
- ✓ Catalogs
- ✓ Volumes and Storage Classes
- ➔ **Mount Points**

Mount Points

The Mount Points table lists the mount points that will be used for the UNIX file system data sets included in the target software instance. Accept the default mount points, or use the **Modify Target Mount Point** action to modify them.

Target mount point	Target Data Set Name	Source mount point	Source Data Set Name
<input type="radio"/> /service/etc	MVSBUILD.ZR13FZMF.ETC.ZFS	/SYSTEM/etc	MVSBUILD.ZR13ZMF.ETC.ZFS
<input type="radio"/> /service/usr/lpp	ZOS113.RPD6F.LPP.HFS	/usr/lpp	ZOS113.LPP.HFS
<input type="radio"/> /service/usr/man	ZOS113.RPD6F.MAN.HFS	/usr/man	ZOS113.MAN.HFS
<input type="radio"/> /service/usr/lib/nls	ZOS113.RPD6F.NLS.HFS	/usr/lib/nls	ZOS113.NLS.HFS
<input checked="" type="radio"/> /service	ZOS113.RPD6F.ROOT.ZFS	/	ZOS113.ROOT.ZFS

Total: 5, Selected: 1

< Back Next > **Finish** Cancel

Selected and modified the directories to prefix them with /service

View Deployment Summary

Welcome ibmuser Log out

Welcome ✕ Deployment ✕

[Deployment](#) ▶ [Deploy Software](#) ▶ [Deployment Checklist](#) ▶ View Deployment Summary Help

View Deployment Summary

Review the changes that will occur on the target system when you submit the deployment.

Source software instance: z/OS V1.13 RPD6 on system LOCAL
Target system: LOCAL
Deployment objective: Create new software instance, create new global zone

SMP/E Zones | Volumes | Data Sets to Delete | Data Sets to Add | Data Sets to Replace | Catalogs | Catalog Aliases | Catalog Entries To Delete

Catalog Entries To Add | Catalog Entries To Update

Global Zone CSI:

Zones to Add

Zone Name	Data Set Name	Zone Type
TGT113F	MVSBUILD.ZOSMF.R13FZOS.CSI	TARGET
DLB113F	MVSBUILD.ZOSMF.R13FZOS.CSI	DLIB

OK

Multiple tabs with detailed summary information for the target software instance

View Deployment Jobs

Welcome **ibmuser** Log out

Welcome Deployment

[Deployment](#) ▶ [Deploy Software](#) ▶ [Deployment Checklist](#) ▶ [View Deployment Jobs](#) [Help](#)

View Deployment Jobs

Review and submit the jobs created for this deployment. The jobs are stored in the specified partitioned data set.

Data set name: MVSBUILD.SWDEPLOY.CNTL **Changed the default data set name**

Jobs

Actions ▼

Job Sequence Filter	Job Name Filter	Description Filter
1	IZUD01RA	RACF Definitions: Add groups and data set profiles to RACF for new data set prefixes. This job is a SAMPLE and requires modification to specify the correct owning user id and access list. In addition, this job should be run by your Security Administrator.
2	IZUD02IV	Initialize Volumes: Initialize selected target volumes. Note: All referenced volumes must be off-line before running this job.
3	IZUD03CP	Copy Data Sets: Copy the source software instance data sets to create the target software instance data sets in the location defined by the deployment configuration, using temporary and unique data set names.
4	IZUD04RN	Rename Data Sets: Rename the target software instance data sets from their temporary and unique names to their desired names defined by the deployment configuration, and update catalog entries for the data sets as needed.
5	IZUD05UC	Update CSI Data Sets: Update the entries within the SMP/E CSI data sets to reflect the target software instance zone names, data set names and locations, and UNIX directory prefixes.

Total: 5

OK

Specify the Properties of the Target Software Instance

The screenshot displays the IBM z/OS Software Deployment web interface. At the top, a blue header bar contains the text "Welcome ibmuser" and "Log out" with the IBM logo. Below the header, there are tabs for "Welcome" and "Deployment". The main content area shows a breadcrumb trail: "Deployment > Deploy Software > Deployment Checklist". The title "Deployment Checklist" is followed by a "Help" link. Below the title, a message states: "To deploy a software instance, complete the checklist." A section titled "Checklist:" contains a table with two columns: "Progress" and "Step".

Progress	Step
✓	1. Specify the properties for this deployment.
✓	2. Select the software instance to deploy.
✓	3. Select the objective for this deployment.
✓	4. Configure this deployment.
✓	5. Define the job settings. z/OSMF commands: <ul style="list-style-type: none">• View the deployment summary.• View the deployment jobs.
→	6. Specify the properties for the target software instance.

Below the checklist is a "Close" button. A yellow warning dialog box is overlaid on the interface. The dialog box has a title bar "Warning" and a yellow background. It contains a warning icon (a triangle with an exclamation mark) and the following text:

IZUD223W
You are about to define a new software instance or modify an existing instance. To keep your installation and z/OSMF synchronized, ensure that the deployment jobs are complete and that the software instance is deployed. Click OK to proceed. Otherwise, click Cancel.

At the bottom of the dialog box, there are two buttons: "OK" and "Cancel". The "OK" button is circled in red.

Specify the Properties of the Target Software Instance

Welcome ibmuser Log out

Welcome × Deployment ×

Deployment ▸ Deploy Software ▸ Deployment Checklist ▸ Specify Target Software Instance Properties Help

Specify Target Software Instance Properties

* Target software instance name:
z/OS V1.13 RPD6 w/fixes

Description: (maximum 256 characters, currently 40 characters)
z/OS V1.13 test system with latest fixes

Categories

Actions ▾

Name <small>Filter</small>	Description <small>Filter</small>	Activity <small>Filter</small>	Last Modified (GMT) <small>Filter</small>	Modified By <small>Filter</small>	Locked (GMT) <small>Filter</small>	Locked By <small>Filter</small>
There is no data to display.						

Total: 0, Selected: 0

Deployment Complete!!!

The screenshot shows a web browser window with the title "Welcome ibmuser" and a "Log out" link. The browser tabs include "Welcome" and "Deployment". The main content area displays a breadcrumb trail: "Deployment > Deploy Software > Deployment Checklist". Below this is a "Deployment Checklist" section with a "Messages" box containing two notifications: "IZUD154I: Target software instance 'z/OS V1.13 RPD6 w/fixes' was added or updated." and "IZUD155I: Deployment 'z/OS V1.13 RPD6 Fixes' is complete." Below the messages is a checklist table with six steps, all marked as complete. The sixth step, "Specify the properties for the target software instance", is highlighted with a dotted border. A "Close" button is circled in red at the bottom left of the page.

Welcome × Deployment ×

Welcome ibmuser Log out IBM

Deployment > Deploy Software > Deployment Checklist Help

Deployment Checklist

▼Messages × 0 ! 0 i 2 Close All

i **IZUD154I:** Target software instance "z/OS V1.13 RPD6 w/fixes" was added or updated. Feb 23, 2011 5:17:55 PM ×

i **IZUD155I:** Deployment "z/OS V1.13 RPD6 Fixes" is complete. Feb 23, 2011 5:17:55 PM ×

To deploy a software instance, complete the checklist.

Checklist

Progress	Step
✓	1. Specify the properties for this deployment.
✓	2. Select the software instance to deploy.
✓	3. Select the objective for this deployment.
✓	4. Configure this deployment.
✓	5. Define the job settings. z/OSMF create the deployment summary and jobs. <ul style="list-style-type: none">• View the deployment summary.• View the deployment jobs.
✓	6. <u>Specify the properties for the target software instance.</u>

Close

Target Software Instance Created

Welcome **ibmuser** Log out 

Welcome Deployment

Deployment ▶ Software Instances [Help](#)

Software Instances

Actions ▼

Name Filter	System Filter	Description Filter	Activity Filter	Categories Filter	Global Zone CSI Filter	Target Zones Filter	Last Modified Filter
<input type="checkbox"/> z/OS V1.13 RPD6	LOCAL	z/OS V1.13 Test System (RPD6 level with fixes through 2/16/2011).			MVSBUILD.ZOSMF.R13ZOS.CSI	TGT113	Feb 22, 2011
<input type="checkbox"/> z/OS V1.13 RPD6 w/fixes	LOCAL	z/OS V1.13 test system with latest fixes			MVSBUILD.ZOSMF.R13FZOS.CSI	TGT113F	Feb 23, 2011

Total: 2, Selected: 0

Last refresh: Feb 23, 2011 5:19:27 PM local time (Feb 23, 2011 10:19:27 PM GMT)

Summary

Summary

- **The z/OS Software Deployment function of z/OSMF will provide rigor in the deployment of any SMP/E installed software.**
- **It will ensure:**
 - ALL affected parts are copied
 - The zone(s) is carried forward with the software
- **It will help to ensure:**
 - Cross system requisites are satisfied (coexistence and preconditioning)
 - Cross product requisites (on the same system) are satisfied
 - Software fixes are not regressed
- **Can be used to create a clone for subsequent installation or execution.**
- **Software Deployment will save user specified information and allow for reuse**
 - Subsequent deployment operations of the same source will require little or no user input.
- **Local and Remote deployments are supported**