



Session 13052 - Engaging Users and Reducing Complexity: z/OSMF Software Deployment Project Usability Discussion

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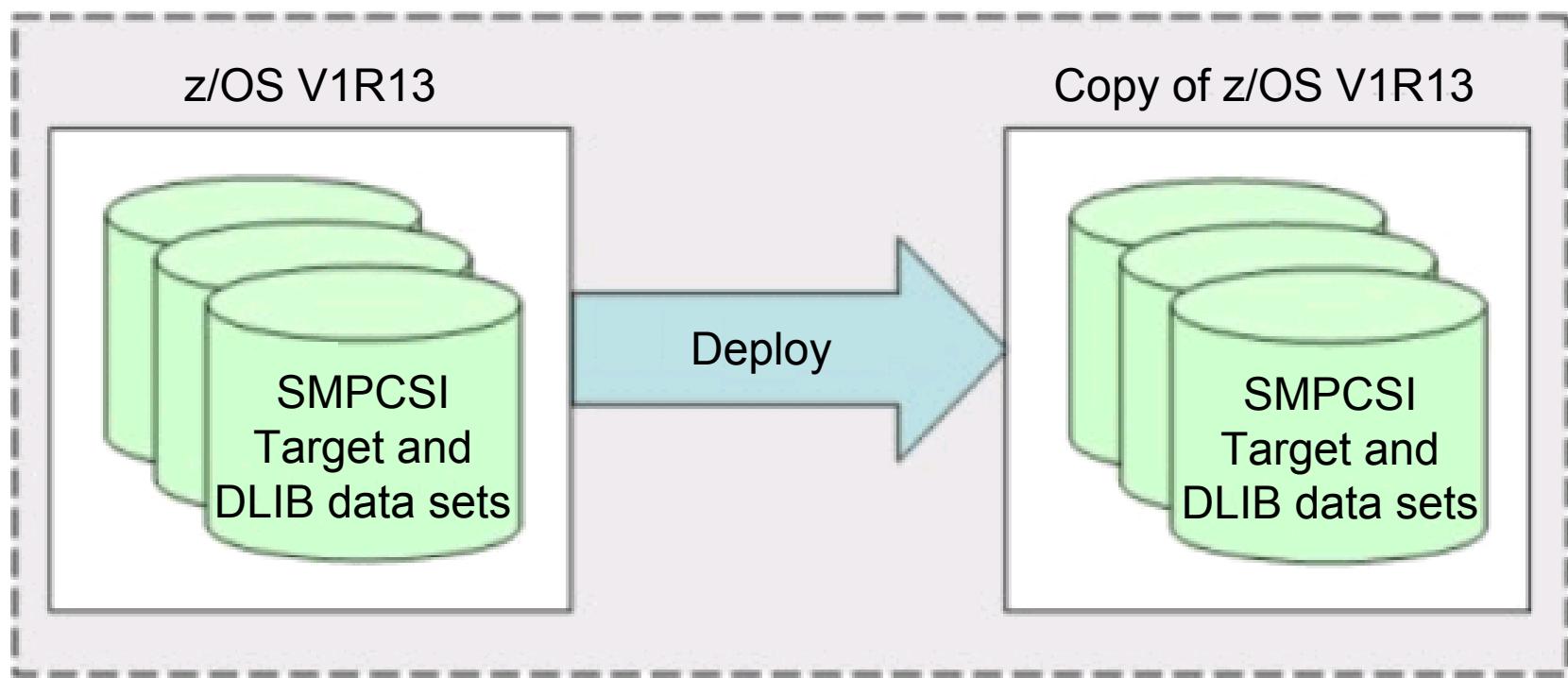
Agenda

- Why did IBM decide to simplify software deployment?
- How do we determine if the z/OSMF Software Deployment task is meeting your needs?
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What is software deployment?

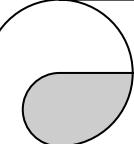
Software deployment is the process of making software available to be used on a system by users and other programs. You might deploy software to:

- Create a backup copy of the software
- Move the software to another system
- Create another SMP/E-serviceable copy for installing service or other products.



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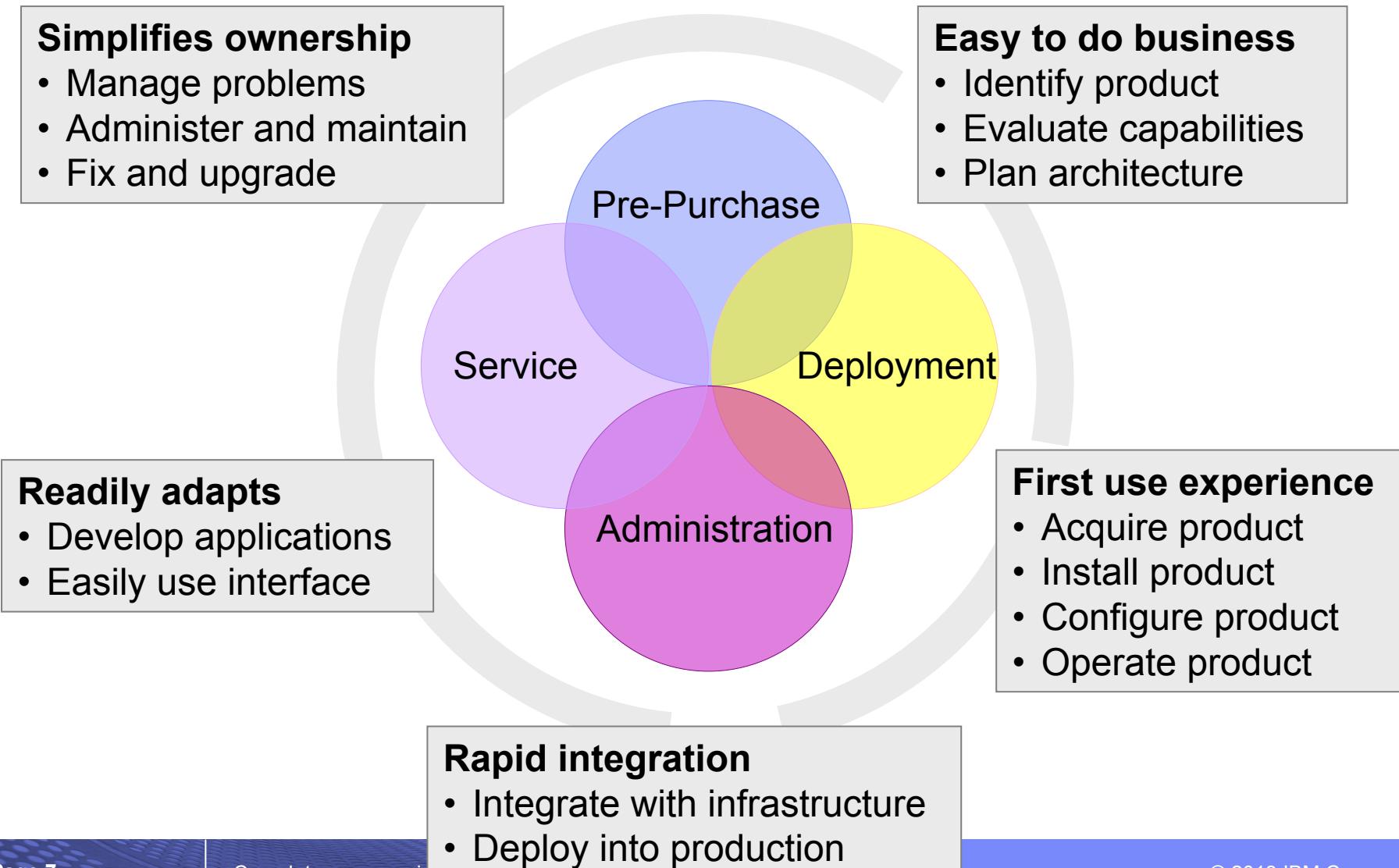


z/OS Consumer Experience Survey

- 1. If a failure occurred during my deployment of this product or solution into a production environment ...**
 - 5 - My systems were returned to their original state automatically.
 - 4 - I had to perform no more than one manual step to return my systems to their original state.
 - 3 - I was able to return my systems to their original state after completing at least two manual steps which are known and well documented.
 - 2 - Significant manual steps were required to return my systems to their original state, but these steps are documented and could be completed without external assistance.
 - 1 - I needed assistance from external support or service experts to return my systems to their original state.
 - 0 - I was not able to return my systems to their original state.

Consumability: Evaluating the total user experience

The survey measures z/OS® consumability, which is your total experience with z/OS products.



Consumability: Gathering stakeholder feedback

Measuring z/OS consumability is an ongoing, two-step process:

Step 1. Determine the z/OS consumability targets

- 12 customers provided input into z/OS consumability targets
 - Roles: System Programmers and IT Managers
 - Diverse companies across 7 different industries

Step 2. Assess z/OS consumability

- 97 customers completed the survey
 - Roles: System Programmers and IT Managers
 - Diverse companies across 5 different industries



Consumability: Results

Market Driver	Criteria	Customer Target (n = 12)	Customer Survey (n = 97)
Ease of doing business	Capacity planning Business value information available Technical sales support*	4 4 4	4 4 3
Positive 1 st use experience	Ease of Installation on mainframes Verified installation dependencies Skill and role appropriate tools and information Access to operational information*	4 4 2 4	4 4 2 3
Rapid integration into customer environment	Non-disruptive operation Failsafe deployment into production for mainframes*	4 4	4 3
Readily adapts to customer requirements	User interface ease of use*	4	3
Simplifies ownership and operation	PD and troubleshooting capabilities* Simplified security practices for mainframes System state and progress information Non-disruptive fix packs Real time PTF identification and delivery for mainframes Problem reporting*	4 3 4 3 3 3	3 3 4 3 3 2



Gap area

* High Importance Criteria

Consumability: Results

Market Driver	Criteria	Customer Target (n = 12)	Customer Survey (n = 97)
Ease of doing business	Capacity planning Business value information available Technical sales support*	4 4 4	4 4 3
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Readily adapts to customer requirements	User interface ease of use*	4	2
Simplifies ownership and operation	PD and t Simplified security practices for mainframes System s Non-dis Real time mainfram Problem reporting*	4 3 3 3	2 3 3



Gap area

* High Importance Criteria

Consumability: A solution (1 of 2)

The Software Deployment task, introduced with z/OSMF V1R13, allows you to deploy *any* SMP/E installed software within a sysplex (local deployment) or across sysplexes (remote deployment).

IBM z/OS Management Facility



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

Software Instances	Add your software to z/OSMF, and manage existing software instances.
Categories	Create and manage the categories to organize your software instances and deployments.
Global Zones	Add and manage the global zone CSI data sets that identify and describe your software.
Systems	Add and manage the z/OSMF host systems that have access to the DASD where your software resides.
FTP Servers	Add and manage the FTP servers for each system.
FTP Profiles	Add and manage the FTP settings to use when communicating with an FTP server.
HTTP Proxies	Add and manage the HTTP settings to use when communicating with a system.
Settings	Select the time zone in which to display date and time data. Indicate whether to display or suppress information messages.

Consumability: A solution (2 of 2)

The Software Deployment task helps you adhere to IBM® recommendations for software deployment and helps reduce errors during the cloning process because the recommendations and steps are built-in.

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. Check for missing SYSMODs. <ul style="list-style-type: none">• View missing SYSMOD reports.
	5. Configure this deployment.
	6. Define the job settings. z/OSMF creates the deployment summary and jobs. <ul style="list-style-type: none">• View the deployment summary.• View the deployment jobs.
	7. Specify the properties for the target software instance.

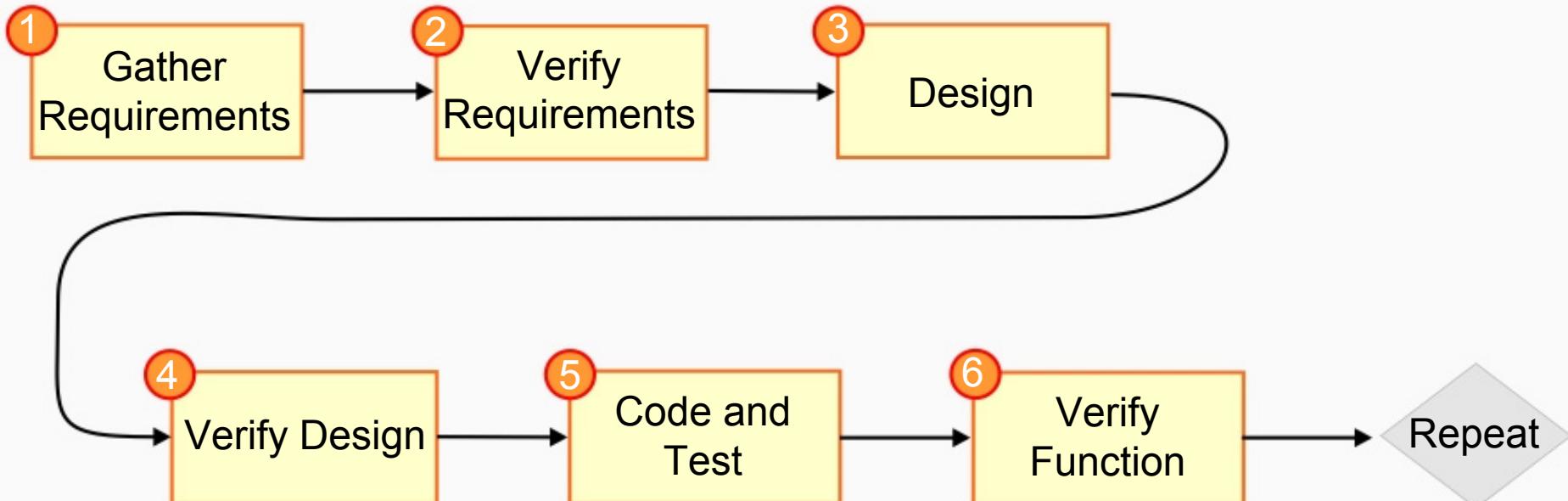
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- Why did IBM decide to simplify software deployment?
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Short answer: We collaborate with you

User Centered Design is the process of keeping you and your needs front and center throughout the design and development process.

Design process



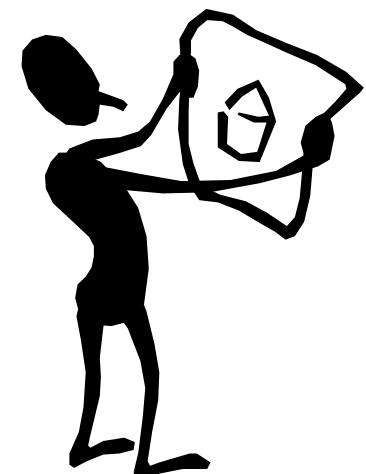
For the z/OSMF Software Deployment task, we:

- **Gathered feedback from internal and external stakeholders:**

- Internal stakeholders included members of the z/OSMF cross functional team, for example, developers, testers, user experience professionals, marketing, subject matter experts, and IBM Support
- External stakeholders included customers from SHARE, zBLC customers, and other customers who are part of IBM's stakeholder feedback program

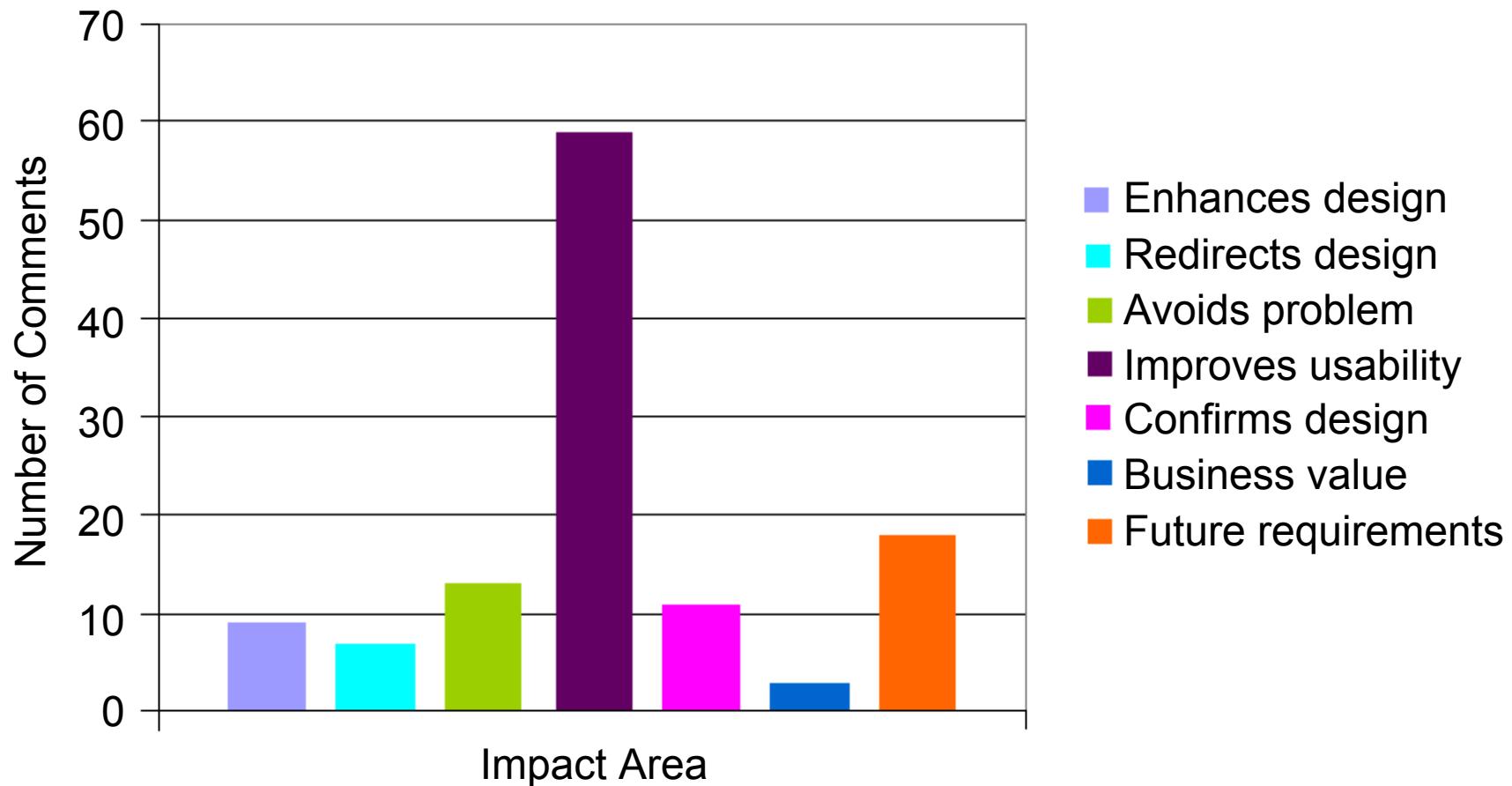
- **Used the following methods to obtain feedback:**

- Interviews
- Design walkthroughs
- Usability reviews
- Surveys
- Alpha, Beta, and ESP programs



User Centered Design: Results

We obtained 112 comments from stakeholders, which improved the overall usability of the solution and will, ultimately, make the z/OSMF Software Deployment task more consumable.



User Centered Design: Solution - Before (1 of 3)

Comment: The deployment checklist is unclear.

Response: Added steps, and updated the panel text.

Before:

Deployment description:

Modify...

Progress	Task
	<p>Select software to deploy: create or select a software instance to deploy.</p>
	<p>Configure target software instance: specify how to configure this deployment.</p>
	<p>Deployment Summary: confirm actions that will occur as a result of this deployment.</p>
	<p>Generate Jobs: provide data set name and optional JCL job card data.</p>
	<p>Create or update target software instance: save or update software instance created for this deployment. Note: Only perform this step if generated JCL Jobs have been successfully executed.</p>



Needs Enhancements

User Centered Design: Solution - After (1 of 3)

Comment: The deployment checklist is unclear.

Response: Added steps, and updated the panel text.

After:

Progress	Step
	<p>1. Specify the properties for this deployment.</p>
	<p>2. Select the software instance to deploy.</p>
	<p>3. Select the objective for this deployment.</p>
	<p>4. Check for missing SYSMODs.</p> <ul style="list-style-type: none">• View missing SYSMOD reports.
	<p>5. Configure this deployment.</p>
	<p>6. Define the job settings. z/OSMF creates the deployment summary and jobs.</p> <ul style="list-style-type: none">• View the deployment summary.• View the deployment jobs.
	<p>7. Specify the properties for the target software instance.</p>



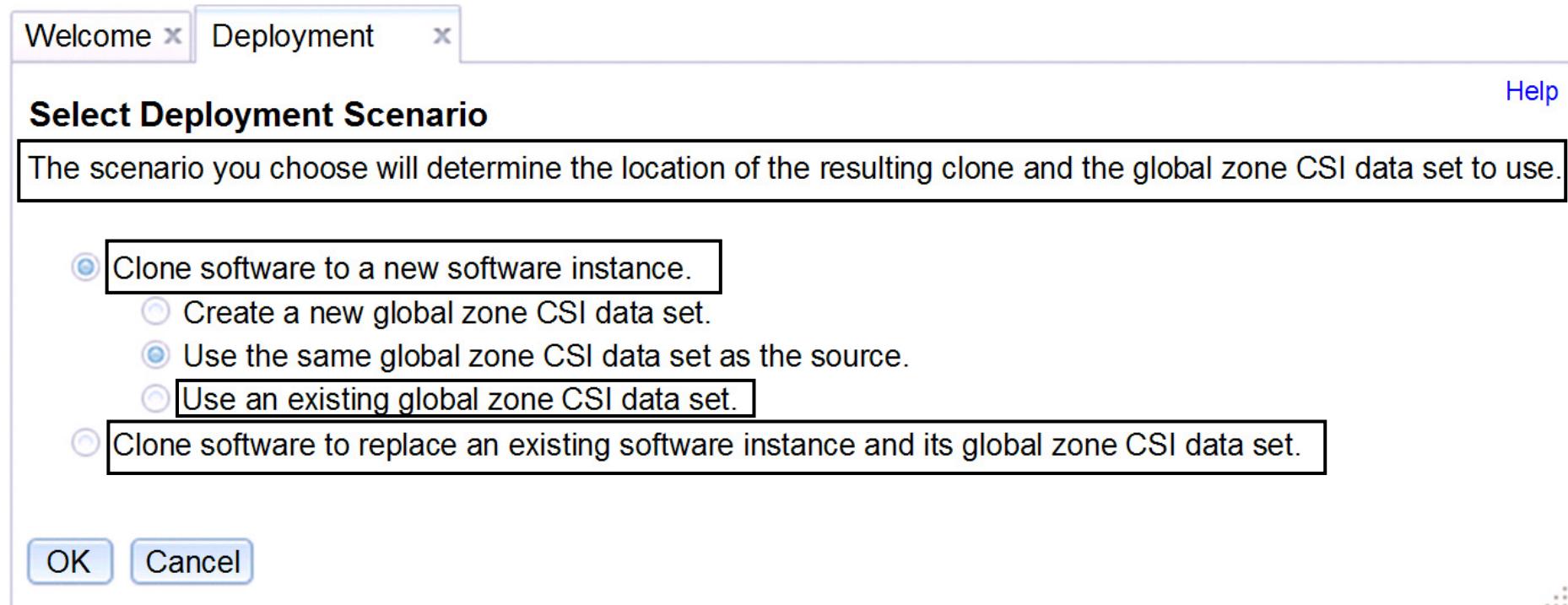
Enhancements

User Centered Design: Solution - Before (2 of 3)

Comment: The deployment scenarios are unclear.

Response: Updated the panel text, and expanded the online help.

Before:



Needs Enhancements

User Centered Design: Solution - After (2 of 3)

Comment: The deployment scenarios are unclear.

Response: Updated the panel text, and expanded the online help.

After:

Welcome x Deployment x

[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...](#)

OK Cancel



Enhancements

User Centered Design: Solution (3 of 3)

Comment: Unmounted UNIX file system data sets are excluded from the deployment.

Response: Provided new function, which allows users to add the unmounted UNIX file system data sets to the deployment.

UNIX File System Data Sets

The UNIX file system data sets that contain the directories listed in the **UNIX directories** field could not be identified because they are not mounted. Use the **Add** action to specify the name of those data sets and to identify the mount points that would make the directories accessible to SMP/E. To proceed, a data set and mount point must be specified for each UNIX directory.

Source software instance: z/OSR13 on system AQFT
Target system: SYS1

▼ **Unmounted Directories for z/OSR13 on AQFT**

Actions ▾	
Data Set Name	Mount Point

UNIX directories:

/u/mvsbuild/ZOS113/usr/lpp/NFS/IBM/
/u/mvsbuild/ZOS113/usr/lpp/Printsrv/bin/IBM/
/u/mvsbuild/ZOS113/usr/lpp/Printsrv/classes
/u/mvsbuild/ZOS113/usr/lpp/Printsrv/Infoprin
/u/mvsbuild/ZOS113/usr/lpp/Printsrv/Infoprin
/u/mvsbuild/ZOS113/usr/lpp/Printsrv/Infoprin
/u/mvsbuild/ZOS113/usr/lpp/Printsrv/Infoprin
/u/mvsbuild/ZOS113/usr/lpp/Printsrv/Infoprin
/u/mvsbuild/ZOS113/usr/lpp/Printsrv/Infoprin
Total: 8

Refresh

Agenda

- Why did IBM decide to simplify software deployment?
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- **How do we measure the complexity of the z/OSMF Software Deployment task?**
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Short answer: We use the complexity analysis methodology

Complexity analysis is a methodology that allows us to understand what tasks make a process difficult, and to quantify how complex a task step is compared to other steps.

Heuristics used to measure complexity:

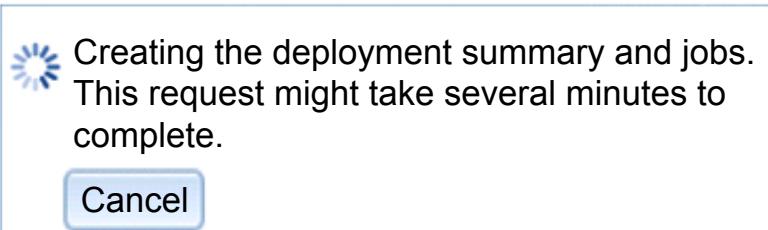
- Context shifts



- Navigational guidance



- System feedback



- Error feedback

 **IZUD404E**: No target zone is selected. Select at least one target zone.

- Input parameters

Deployment name:

- New concepts

A software instance describes the SMP/E global zones, target zones, and DLIB zones that will be analyzed to identify the data sets to copy during a deployment.

Complexity analysis: Evaluation

Tasks assessed using a local deployment:

- Deploy software using new resources
- Deploy software using existing resources

Goals:

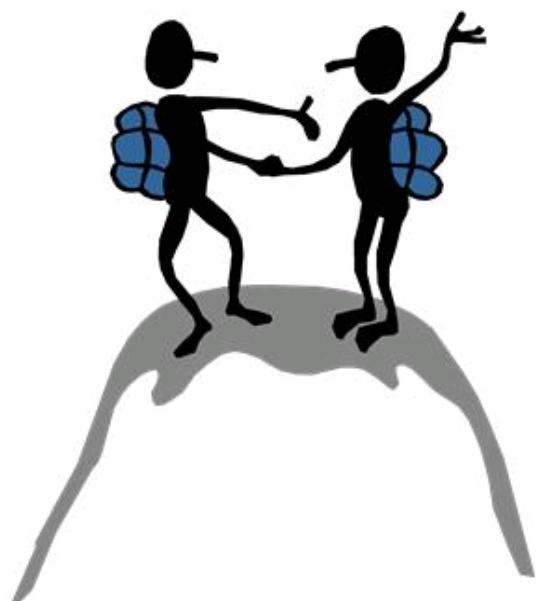
- Determine if Software Deployment task provides an intuitive navigation
- Ensure that the Software Deployment task is designed for new and experienced system programmers
- Identify potentially complex steps when deploying software and use results to prioritize future requirements
- Benchmark the complexity of the current release



Complexity analysis: Results (1 of 3)

The software deployment process is less complex when user's deploy software using existing resources.

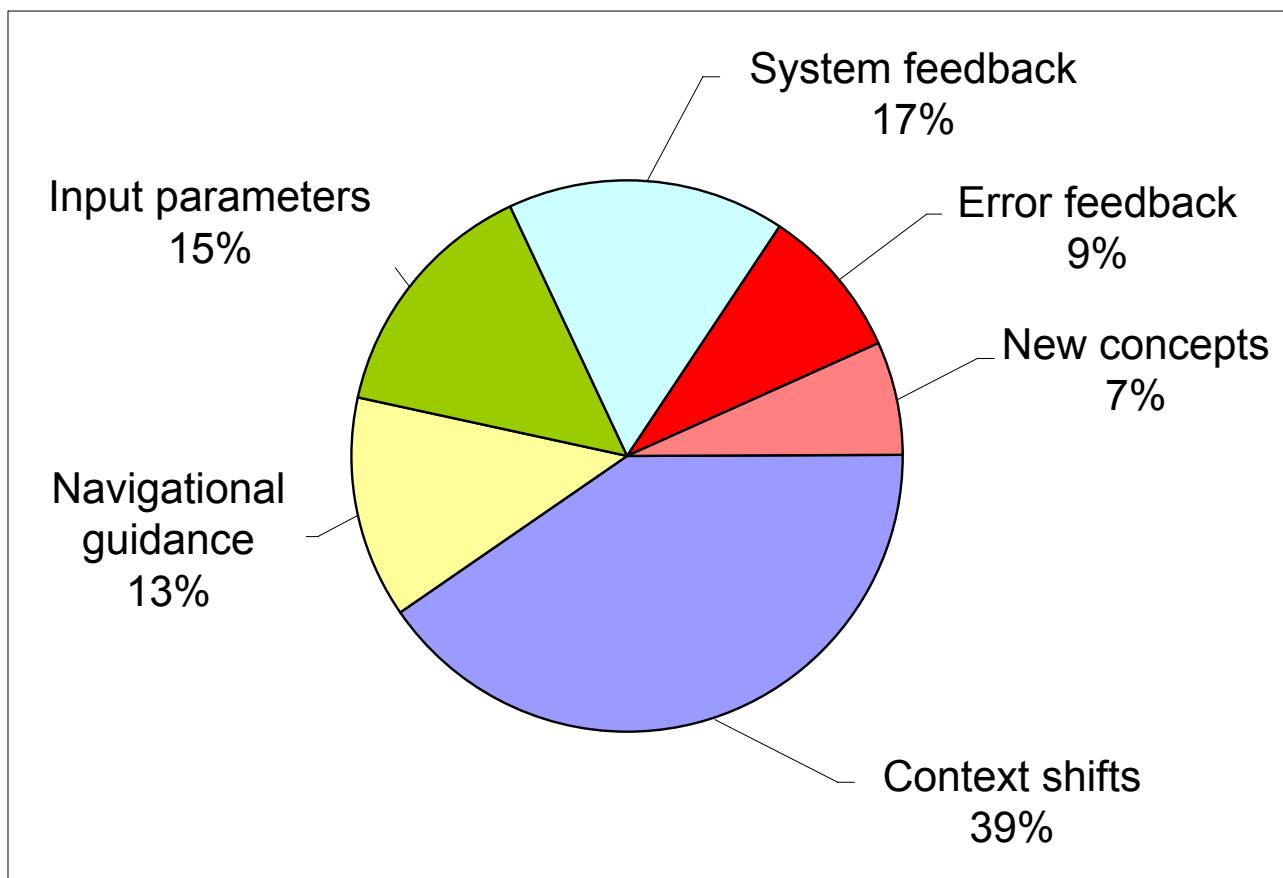
- **Total number of steps reduced by 26%**
 - Deploy using new resources: 27 steps
 - Deploy using existing resources: 20 steps
- **Overall complexity score decreased by 36%**
 - Deploy using new resources: 376.5 complexity score
 - Deploy using existing resources: 241 complexity score



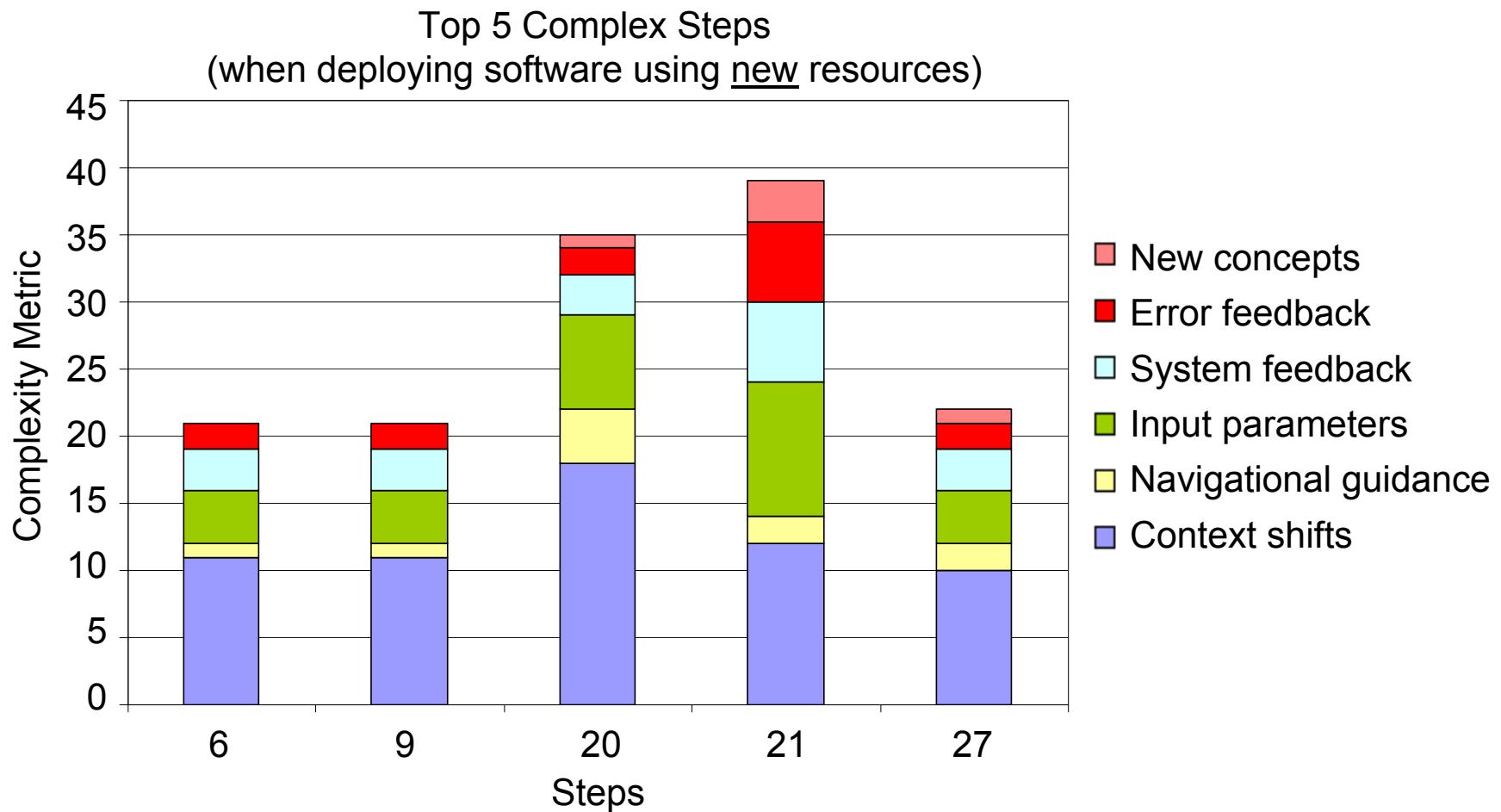
Complexity analysis: Results (2 of 3)

There are a large number of context shifts during the software deployment process, which increases complexity.

Each Heuristic's Contribution to the Overall Complexity Metric
(when deploying software using new resources)



Complexity analysis: Results (3 of 3)



Steps key:

- 6:** Select Global Zone
- 9:** Select Non-SMP/E Managed Data Sets
- 20:** Verify Catalogs
- 21:** Verify Volumes and Storage Classes
- 27:** Specify the properties for the target software instance

Complexity analysis: Recommendation (1 of 3)

Recommendation: Remove unnecessary clicks.

Impacts: Context shifts

Example:

General

*Name:

Description:

Categories:

There is no data to display.

Select...

Complexity analysis: Recommendation (2 of 3)

Recommendation: Provide a list of data sets, volumes, and global zones within the Software Deployment task.

Impacts: Context shifts and input parameters

Example:

General

* Data set name:

Volume (if data set not cataloged):

Complexity analysis: Recommendation (3 of 3)

Recommendation: Allow users to use the table of contents to move between the pages in a wizard.

Impacts: Context shifts

Example:

✓ Welcome
✓ DLIBs
✓ Model
✓ SMP/E Zones
➡ **Data Sets**

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.

<input type="checkbox"/> Actions ▾	Target Data Set Name Filter	Target Volume Filter	Target Storage Class Filter
	DB2.V9.CORE	SK7635	
	DB2.V9.SDSNLOAD	SK1234	
	GIM.V2.IBMCORE	SK2546	
	GIM.V2.IBMSET	SK2546	

< Back Next > Finish Cancel

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How do you tell us? By...

- Providing feedback at SHARE
- Completing the z/OS Consumer Experience Survey
- Participating in the System z Stakeholder Feedback process

AND...

We have quantitative data:

- With consumability data, we can determine if we are closing the consumability gaps
- With complexity analysis, we can determine if the complexity metric for the Software Deployment task decreases as we make enhancements
- With your feedback, we can determine if the number of customers using the Software Deployment task on their production systems increases



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- **Summary**

Summary

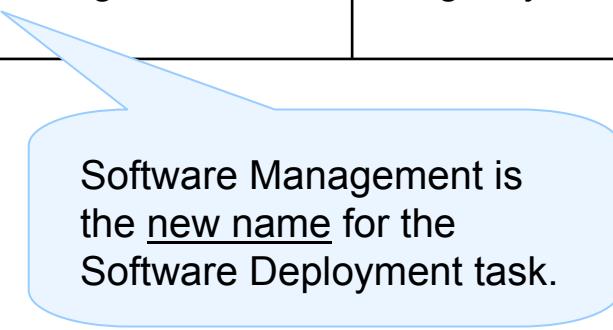
IBM:

- Includes you throughout the design and development process – from concept to production
- Values your feedback
- Uses your feedback to deliver the best possible product or solution



Invitation: Attend z/OSMF-related SHARE sessions

Title	Speaker	Day	Time
z/OSMF Advanced Functionality	Anuja Deedwaniya	Wednesday	1:30 pm – 2:30 pm
z/OSMF Roundtable	Anuja Deedwaniya	Wednesday	6:00 pm – 7:00 pm
New z/OSMF Software Management Capabilities	Greg Daynes	Thursday	8:00 am – 9:00 am
Manage your Workloads and Performance with z/OSMF	Juergen Baumann	Thursday	9:30 am – 10:30 am
z/OSMF Hands-on Lab	Anuja Deedwaniya	Thursday	11:00 am – 12:00 pm
z/OSMF User Experience	Anuja Deedwaniya	Thursday	4:30 pm – 5:30 pm
z/OSMF Software Management Hands-on Lab	Greg Daynes	Friday	8:00 am – 9:00 am



Software Management is the new name for the Software Deployment task.

To participate, you can:

- Complete the paper survey during this session, or Wednesday at the IBM survey table
- Complete the online survey (~30 mins):
<https://www.ibm.com/survey/oid/wsb.dll/studies/consumabilitywebform.htm?product=2&icode=SHARE&brand=8&crit=18dc8dcfa3a35c@55&group=stg>
- Drop off your business card for an email invitation

For more details about how you can participate, see [z/OS Consumability, User-Centered Design and Usability—It's All About You](#) by Iris Rivera.

To provide feedback for current and future projects, you can:

- Attend SHARE sessions and provide feedback.
- Join the System z Stakeholder Feedback program and help IBM capture deeper system-level requirements for z/OS in the following areas:
 - Simplification, z/OS Management Facility
 - Security configuration, Hardware Configuration Data
 - Hardware configuration, Hardware Management Console
 - Workload Management, Coupling Facility and sysplex
- Participate in one-on-one sessions with IBM developers. Sessions can encompass: roundtable discussions, design and interface evaluations, and task scenario reviews.

If you're interested in the System z Stakeholder Feedback program or the one-on-one sessions, email your name, company, and phone number to Laura Bostian at lbostian@us.ibm.com.

Questions or comments



Thank you

A decorative banner featuring the words "Thank You" in a large, elegant, blue cursive font. The banner is framed by two stylized, blue, flame-like or feather-like icons, one on each side. The background of the banner is a light blue color.

System z Social Media Channels

- Top Facebook pages related to System z:
 - [IBM System z](#)
 - [IBM Academic Initiative System z](#)
 - [IBM Master the Mainframe Contest](#)
 - [IBM Destination z](#)
 - [Millennial Mainframer](#)
 - [IBM Smarter Computing](#)
- Top LinkedIn groups related to System z:
 - [System z Advocates](#)
 - [SAP on System z](#)
 - [IBM Mainframe- Unofficial Group](#)
 - [IBM System z Events](#)
 - [Mainframe Experts Network](#)
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- Twitter profiles related to System z:
 - [IBM System z](#)
 - [IBM System z Events](#)
 - [IBM DB2 on System z](#)
 - [Millennial Mainframer](#)
 - [Destination z](#)
 - [IBM Smarter Computing](#)
- YouTube accounts related to System z:
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 - [Destination z](#)
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- Top System z blogs to check out:
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