

# *How to Evaluate the Total User Experience of z/OS: Consumability and Simplification for a New z/OS*



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## Agenda

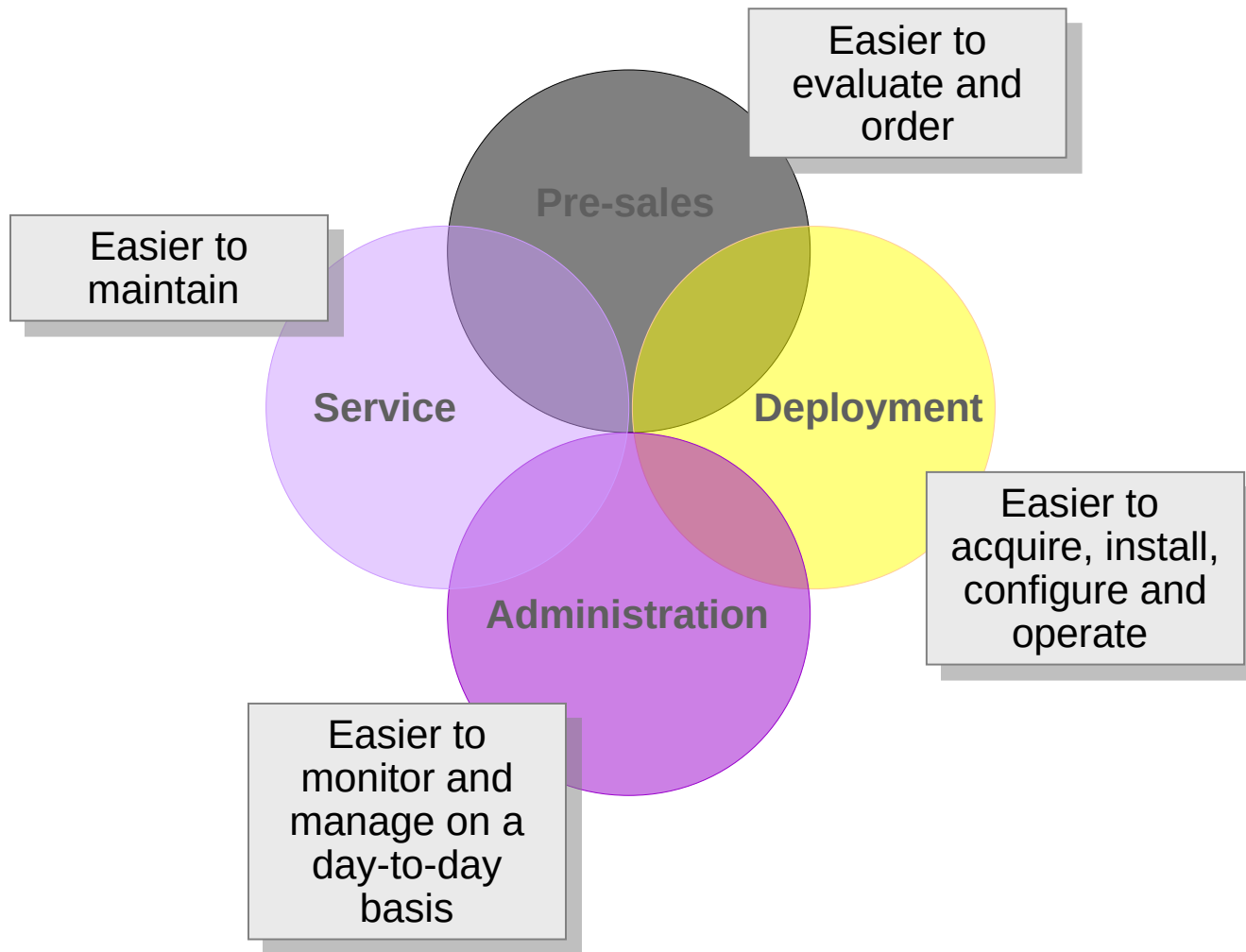
- What is Consumability?
- Our process and approach
- How consumable is z/OS?
- Consumability Gap areas, z/OSMF, and more

This presentation describes how we have set up a consumability process for z/OS that enables us to keep a constant focus on the total experience of the solution while working on designing the individual components.

## What is Consumability?

- Consumability is an important extension of usability because a product that is simpler may not be entirely consumable.
- User tasks may be made easier, but the solution may lack some key elements needed to achieve the business value you desire, for example:
  - **lack of information to make a purchase decision**
  - **lack of migration tools**
  - **maintenance is not concurrent**
  - **not able to integrate other products**
  - **etc.**
- We are using Consumability to prioritize customer requirements for simplification.

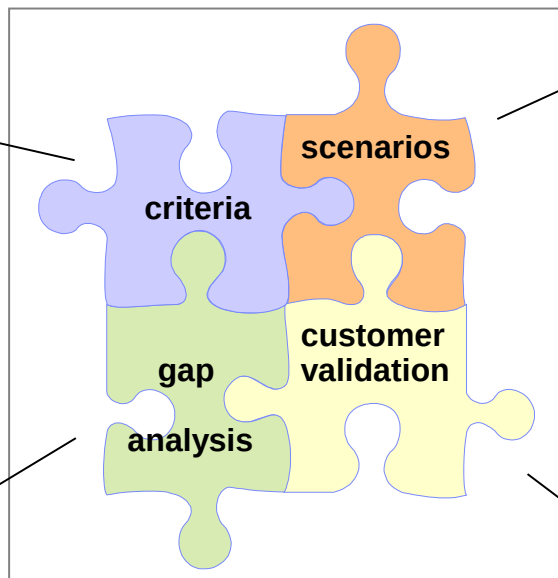
## Mainframe Simplification Scope: *The Total User Experience*



## STG Consumability

Consumability is a customer-centric term that describes the total customer experience with IBM products.

Based on customer, competitive, and market intelligence data



Understanding users' experience with multiple and cross-product offerings

Where we are compared to where we need to be to meet customer needs

Testing if our assumptions of product consumability are accurate given customer feedback

*Enable customers to achieve:*

- *Faster time to value*
- *Reduced total cost of ownership*
- *Higher value for their investment*

## z/OS Personas and Scenarios – Key to Process

### **Personas**

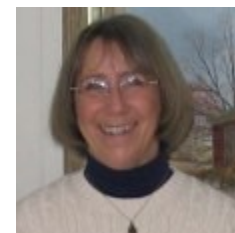
- Role, responsibilities, skills, years of experience, education, and learning style
- Mental model of the end user's goals and capabilities, which may be different from the designer's thought process
- Help teams prioritize features and functions based on how well solution meets the needs of the end user
- Developed from demographic information, behaviors, goals, skills, environmental factors

### **Scenarios**

- Analysis of responsibilities and associated tasks, tools, skills, and challenges
- Maintain z/OS systems
- Problem determination
- Deployment
  - Planning for installation
  - Ordering
  - Testing
- Configuration tasks
- Education



**Alice**  
Jr. System Programmer



**Casey**  
Sr. System Programmer



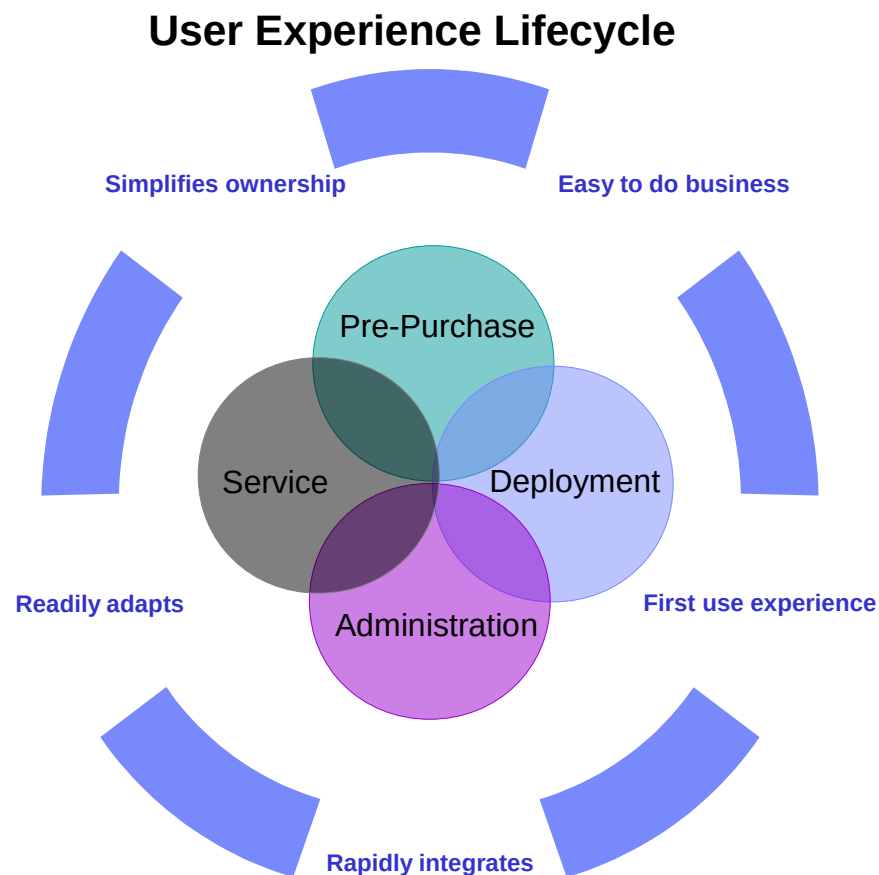
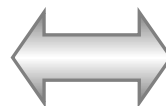
**Zach**  
Sr. System Programmer

# Consumability Criteria

## Addressing the user experience lifecycle

5 Market Drivers, 13 Key Attributes and a Library of 45 criteria  
**Attributes define user roles and activities within each market driver**

- 1) Easy to do Business
  - Identify product
  - Evaluate capabilities
  - Plan architecture
- 2) Establishes Positive First Use Experience
  - Acquire and obtain product
  - Install product
  - Configure product
  - Operate product
- 3) Rapidly Integrates into Customer Environment
  - Integrate with infrastructure
  - Deploy into production
- 4) Readily Adapts to Customer Requirements
  - Develop business solutions
- 5) Simplifies Ownership/Operations
  - Manage problems
  - Administer and maintain
  - Fix and upgrade




# Consumability Criteria: *Installation Example*


**Ease of Installation for mainframes:** When I tried to install the product, ...

Level	General STG Criteria	z/OS Criteria Assumptions
5	I could use the pre-configured and pre-installed data sets provided with the product to easily complete the installation.	A global place to install and customize all IBM and ISV products (SMP/E) would be preferable.
4	I could use pre-installed data sets provided with the product without needing to use SMP/E. Configuration for these data sets to match my environment was simple.	Not possible to not use SMP/E
3	I could complete the installation within acceptable bounds of complexity and time using the product configurator (for example, ICAT)	z/OS does not have a product configurator
2	I found SMP samples which exploit the SMP apply/accept checks for fail-safe installation. This allowed me to reasonable complete the installation.	Want better post migration (ongoing normal Health checks) checks to see WHAT CHANGED (defaults, intended or unintended changes) with LE and other key z/OS parameters
1	I could install it successfully, but it was overly complex or time consuming, or I had to rely extensively on documentation during installation.	
0	I could not install it without external support or service, or defects exist that prevented installation success.	


Target based on user survey and goal.



Assessed level: z/OS Consumability User Survey



Operational definitions or assumptions based on z/OS as an operating system product





## z/OS Consumability: *Target Assessments*

- **Internal target assessment** - brand, marketing, development and user experience teams that helped set the internal targets
- **Customer target assessments** - a diverse set of customers provided input into customer targets
- **Criteria ratings** - 0 to 5 (levels of attainment are different for each criterion)
  - 0 is the least consumable
  - 5 is the most consumable
- Participants rated the importance of the criteria **High, Medium or Low**
- Assumptions gathered for both internal and customer target assessments

## Criteria Rated High Importance

\* Gap Area

- **Positive first use experience**
  - Access to operational information\*
  - Ease of installation for mainframes\*
  - Verified installation dependencies\*
- **Rapid integration into customer environment**
  - Non-disruptive operation\*
  - Failsafe deployment into production\*
- **Readily adapts to customer environments**
  - User interface ease of use\*
- **Simplifies ownership and operation**
  - Support response
  - Problem reporting\*
  - Problem determination and troubleshooting\*
  - Simplified security practices for mainframes
  - Real-time PTF identification and delivery for mainframes
  - Ease of upgrade

**8 criteria of the 12 high importance criteria are Gap Areas**

## z/OS – Customer pain points

### General z/OS® ease of use pain points:

- Need for **many years of experience**
- Multiple, **inconsistent** UIs – no central system management portal
- Many **manual tasks** requiring extensive documentation
- **Difficult to locate** what you need from multiple vast libraries
- Students graduating from universities **lack mainframe skills**

### Potential impact:

- **Fewer** skills and resources
- **Longer** OS, SW, and HW migration and adoption cycles
- **Less consideration** for new workload and solution deployment
- Propensity for human **error**
- Potential for **compromised availability, security, integrity**

### Specific areas identified:

- **Problem management/analysis**
- **Installation/ migration/ maintenance**
- **Configuration**
- **Overall experience**

## z/OS Simplification Roadmap

The strategic simplification focus areas for z/OS help close high importance criteria gaps\*:

<i>Installation, Migration, and Maintenance</i>	<i>Configuration</i>	<i>Problem and Performance Management &amp; Analysis</i>
<p><b>Positive first use experience</b>                      Access to operational information*                      Ease of installation for mainframes*                      Verified installation dependencies*</p> <p><b>Rapid integration into customer environment</b>                      Non-disruptive operation                      Failsafe deployment into production*</p>		<p><b>Simplifies ownership and operation</b>                      Problem reporting*                      Problem determination and troubleshooting*                      Simplified security practices for mainframes</p>
<p><b>Simplify and modernize the System Programmer user experience</b></p>		
<p>User Interface Ease of Use*</p>		

## Simplification Strategy Focus Areas: z/OS System Programming

<p><b><i>Problem Management and Analysis</i></b></p> <ul style="list-style-type: none"> <li>• Monitoring health; identifying real and potential problems</li> <li>• Analyzing and resolving problems</li> </ul>	<p><b><i>Installation, Migration, and Maintenance</i></b></p> <ul style="list-style-type: none"> <li>• Planning, installing, and upgrading z/OS systems and products that run on z/OS</li> </ul>	<p><b><i>Configuration</i></b></p> <ul style="list-style-type: none"> <li>• Adding or changing system components; enabling new features; defining and updating policies that affect system behavior</li> </ul>
<p><b><i>Simplify and modernize the System Programmer User Experience</i></b>                  Deliver solutions in a task-oriented browser-based user interface with integrated user assistance</p>		
<p><b><i>Information</i></b>                  Finding the information needed to use z/OS</p>		
<p><b><i>Educating z next generation</i></b>                  Academic Initiative: Training tomorrow's system programmers</p>		

## Positive first use and integration into customer environment

### ▪ **z/OSMF Software Deployment**

- Provides an IBM recommended path with best practices to clone z/OS and z/OS software
- Allows you to reduce or reallocate resources normally used to develop and maintain in-house deployment tools
- Documentation and support to reduce errors and missed steps in the cloning process, including requisite and regression checks

### ▪ **z/OSMF Communication Server Configuration Assistant**

- Provides simplified configuration and set up of TCP/IP policy-based networking functions
- Helps you configure TCP/IP networking policies
- Dramatically reduces the amount of time required to create network configuration files
  - for example, what once may have taken hours to set up TCP/IP filters, may now potentially take as little as 30 minutes
- Step by step tasks are provided for RACF security, started procedures, and Policy Agent configuration

### ▪ **z/OSMF Workload Management**

- Provides a web-based way to create, edit, and activate z/OS Workload Management (WLM) policies with best practices checks
- Reduces the amount of information required to optimize a service definition

## Simplifies ownership and operation

- **IBM System z Academic Initiative**
- **z/OS Health Checks**
  - Configuration is checked for accuracy and compared against pre-defined best practice
  - Alerts are raised for any potential problems
  - View the alerts from SDSF
  - Define your own custom checks to be run
- **z/OSMF Problem Determination Incident Log**
  - Provides simplified capture, packaging, and sending of SVC dump diagnostic data
  - It facilitates problem data management tasks for new or less skilled system programmers and system administrators
  - Provides a consolidated list of SVC related incidents, along with details and diagnostic data captured with each incident
- **z/OSMF Resource Monitoring and System Status tasks**
  - Requires the optionally priced RMF feature of z/OS
  - Provides a single view of sysplex and Linux® performance status and dynamic real time metrics
  - The Sysplex Status task:
    - A single, attractive sysplex status screen with easy to understand 'red', 'yellow', 'green' status icons across multiple sysplexes
    - Most of the data available in RMF Monitor III provided as a web-browser integrated view
  - The Monitoring Desktop task:
    - Drill down monitors with information about connectivity, performance index status, common storage, and more
    - Create and customize your own desktops to create cross references, correlations, and advanced filtering for focused resource monitoring

## *z/OS Consumability: Actual User Survey Assessments*

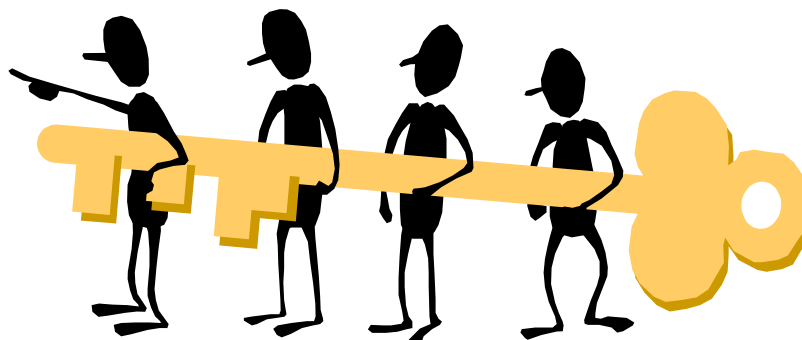
- User survey assessments - a diverse set of customers provided input into customer targets
  - 50 customers to date
  - Roles: System Programmers and IT Managers
  - Companies across different industries
- Assumptions reported for customer assessments
- We are also looking for input from decision makers at your company!





## Rolling out Consumability for System z

- System z has significantly invested in simplification and Consumability
- Focus on stakeholder feedback
- Continue persona/scenario evaluation and gap analysis
- Focus on early customer involvement; has the biggest benefit and value
- Continued z/OS Consumability Assessment
  - Consumability User Survey will be ongoing and data will be gathered quarterly



## Questions or Comments?



Thank You

Gracias

Merci

Obrigado!

Bedankt

Vielen Dank

Grazie