IBM z/OS Cloud Broker and the IBM Z and Cloud Modernization Stack

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Traditional models are becoming more and more complex

- Proprietary technologies in separate environments
- Siloed developer teams with manual, duplicative processes
There are a lot of dependencies, prerequisites, legacy code, and unique installation which makes the process highly complex.

“We don't want to have different options for Z and cloud in our organization. We want to integrate them. We want to have the same automation, same CICD pipeline”

- Large US Bank
Hybrid Cloud, a better architecture for business innovation

- Hybrid cloud platform single integrated fabric at its core
- A common cloud experience using agile practices for IT Practitioners
- Interoperability and integration of workloads across Silos
Modernize ≠ move to public cloud!

It’s about picking the right platform for optimal business performance
Clients can achieve full potential with IBM Z in hybrid cloud

A hybrid cloud transformation that integrates IBM Z can drive 2.5x to 5x* the value of a public cloud alone

* Based on IBM Business Value Study
Your hybrid cloud: The best of the mainframe and the innovation of cloud

Make it easier for users to embrace a cloud native experience on z/OS

Enable enterprise DevOps standards

Empower users through automation of z/OS resources with industry standard skills and practices

Easily access and leverage IBM Z data; no need to move off platform

Lower total cost of ownership; optimize costs
Jumpstart application modernization and IT automation on IBM Z

- Simple access to applications and data
  - Secure API creation and integration in minutes
- Agile enterprise DevOps
  - Cloud native development with industry standard open tools
- Standardized IT automation
  - Reduce need for specialized skills and empower developers

IBM Z and Cloud Modernization Stack
Poll Question 1

1. Do you have plans to adopt OpenShift?
   - We’ve already adopted
   - We are in the process of adopting
   - We plan to adopt
   - We are considering adopting
   - We have no plans to adopt (please explain)

2. Please explain your answer
Automated z/OS software management

- Preconfigured software packaging
- Leverage common skillsets for software management on z/OS
- Consistent interfaces and management of software leveraging Red Hat OpenShift
- Extend this process to manage any z/OS software of choice

**Step 1:** Download and install available software into OCP*

**Step 2:** User defines product instance name, version, and target endpoints in OCP

**Step 3:** Package manager installs software on z/OS

**Step 4:** On-demand provisioning and management of z/OS resources

**Step 5:** Download new operator versions and maintenance

* OCP – OpenShift Container Platform
z/OS Cloud Broker V2.1 is now a component within the IBM Z and Cloud Modernization Stack

Allowing you to integrate z/OS services into OCP
Poll Question 2

1. How familiar are you with Kubernetes?

- I work with Kubernetes daily
- I have worked with Kubernetes
- I have worked very little with Kubernetes
- I have read/heard of Kubernetes but have not worked with it
- I have never heard of Kubernetes
Kubernetes (over)-simplified

Event Driven Automation Platform

Controllers watch specific resource types

CRUD actions on a resource triggers some automation to run in Controllers

All of Kubernetes runs this way!
• Creation of a Pod triggers a Controller to create a container on a Node
• Deletion of a Node triggers Controller(s) to re-schedule workloads to other Nodes
• Update of a Deployment triggers a Controller to reconcile all underlying Pods to the new desired state

Source: https://medium.com/polarsquad/check-your-kubernetes-deployments-46dbfbc47a7c
Operators Explained – File Management

- Ansible Collections provide automation playbooks
- Imported Collections create Managed Operators
- Custom Resources each have unique RBAC controls for all CRUD actions
Poll Question 3

1. How excited are you to use this new installation method?
   - I am very excited
   - I am somewhat excited
   - I am neutral
   - I am somewhat scared
   - I am very scared

2. Please explain your answer
Poll Question 4

1. Would you like to help us build the next version of the IBM Z and Cloud Modernization Stack?
   - Yes, sign me up to be a sponsor user
   - I would be interested in having one additional discussion about the impact

2. Please provide name and email
Thank you!

Please reach out to Theresa (thans@us.ibm.com) with any additional questions or feedback.

Learn more about IBM z/OS Cloud Broker and the IBM Z and Cloud Modernization Stack by heading to this page: