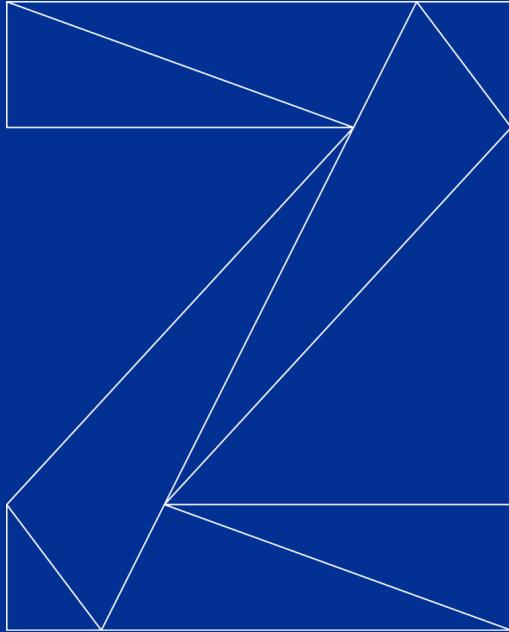


# Infrastructure as code

## Yes, it applies to z/OS as well

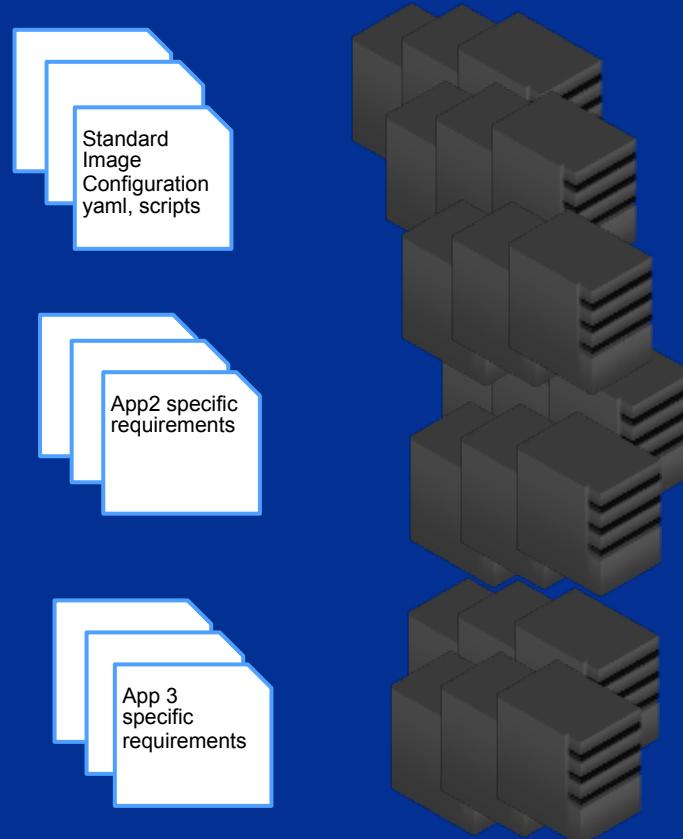
Rosalind Radcliffe  
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# Infrastructure as code

Infrastructure as code provides ability to define the infrastructure such that the definition is stored in the same source code manager as the application source code, and such that infrastructure can be recreated repeatedly and reliably.

For the large number of distributed systems this has been a requirement for a long time, and helps with configuration drift

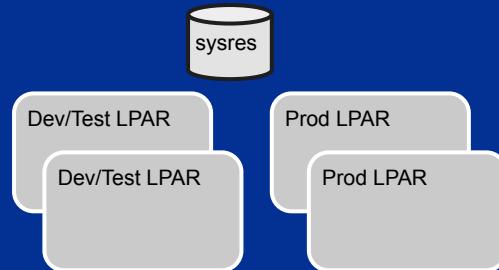


# Infrastructure as code – what about z/OS?

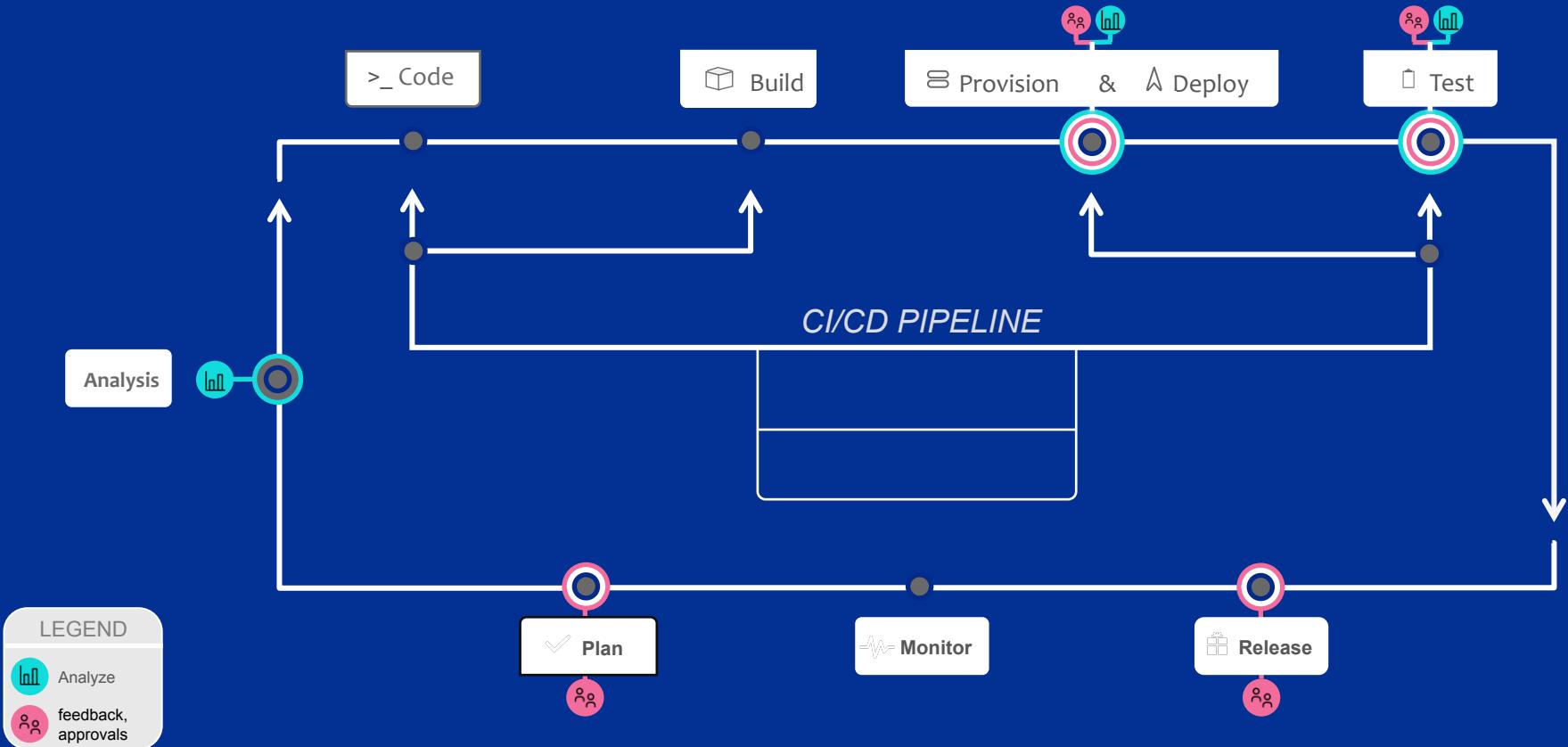
z/OS Sysres (operating system and middleware software) is usually shared across systems already so this is not variable.

Usually limited number of systems. Configuration primarily for application configuration in middleware.

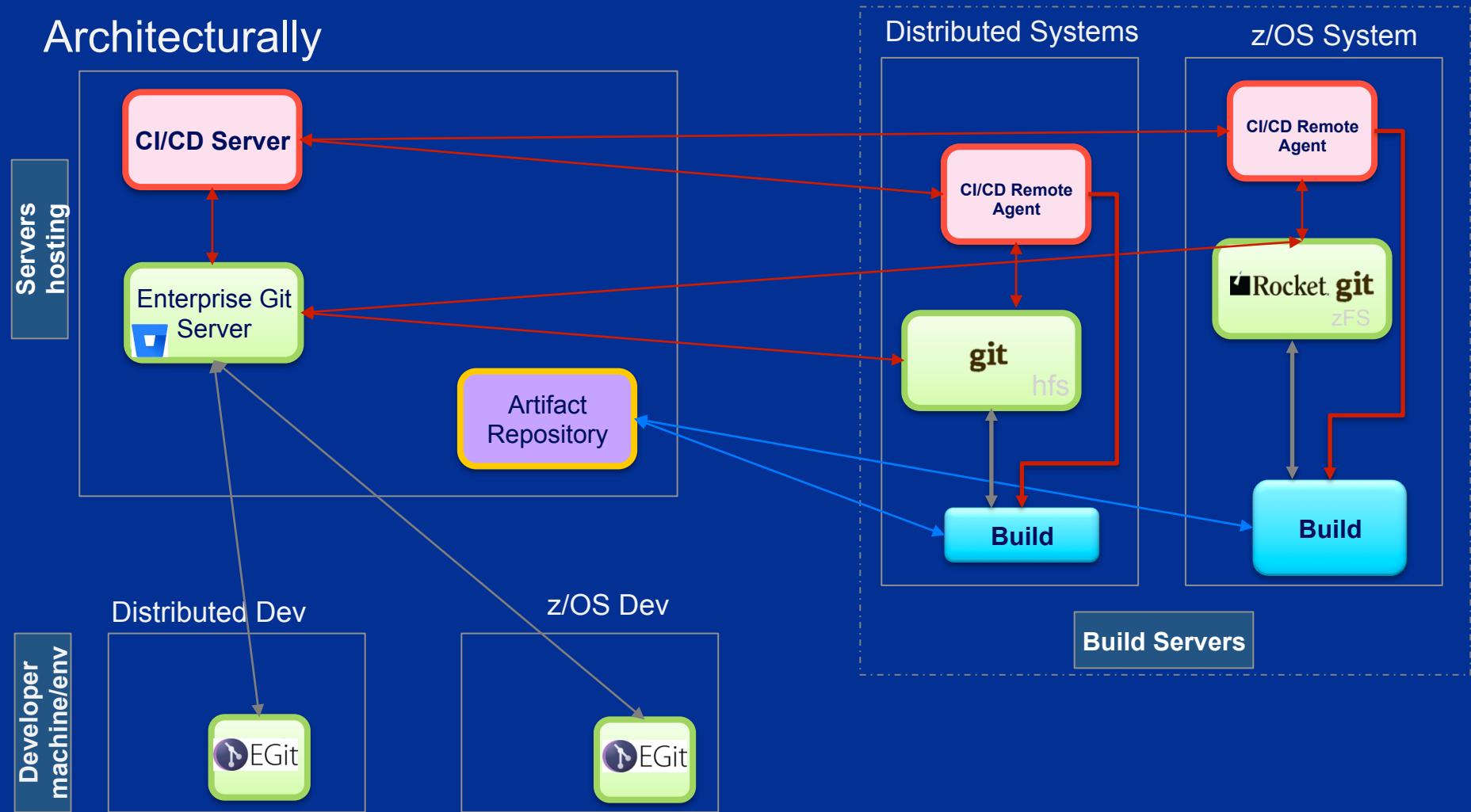
JCL generally used to configure system, but it's personal JCL for each system programmer



# Pipeline



# Architecturally



# What's your pipeline

Bring z/OS into your existing pipeline with common open source tools.



Project Status - Red Hat OpenShift

Not Secure | console-openshift-console.apps.c6.os.fyre.ibm.com/overview/ns/default

Red Hat OpenShift Container Platform

Home Projects Status Search Events Catalog Workloads

Project: default

Project Status

Resources Dashboard

Group by: Application Filter by name...

other resources

D zaas-c6-local... #1 1 of 1 pods

D zaas-c6-local-30 Actions

Overview Resources

Desired Count: 1 pod Up-to-Date Count: 1 pod Matching Pods: 1 available 0 unavailable

OpenShift Web Console

Not Secure | c5m1:8443/console/project/default/catalog

okd Application Console

default

Overview Applications Builds Resources Storage Monitoring Catalog

(Ephemeral) PostgreSQL PostgreSQL (Ephemeral) Python Rails + PostgreSQL Rails + PostgreSQL (Ephemeral)

Redis Redis (Ephemeral) registry-console Ruby system

WildFly zaas-os-local zaas-os-nfs-20 zaas-os-nfs-21 zaas-os-nfs-22

OpenShift Web Console

Not Secure | c5m1:8443/console/project/default/browse/rs/zaas-os-nfs-22-5687865495?tab=details

okd Application Console

Host On-Demand | c5m1-1-A | c5m1-1-B

File Edit Settings View Communication Actions Help

Menu Utilities Compilers Options Status Help

ISPF Primary Option Menu

Option ==>

0 Settings Terminal and user parameters User ID : IBMUSER  
1 View Display source data or listings Time... : 13:47  
2 Edit Create or change source data Terminal : 3278  
3 Utilities Perform utility functions Screen... : 1  
4 Foreground Interactive language processing Language... : ENGLISH  
5 Batch Submit job for language processing Appl ID : ISR  
6 Command Enter Default  
7 Dialog Test Perfo Default  
8 IBM Products IBM p... Default  
9 SCLM SW Co... Default  
10 ISPF IBMUSER:/u/ibmuser: >ls /  
11 Workplace ISPF IBMUSER:/u/ibmuser: >  
H More Addit \$SYSPNAME Z3D domino4 opt was  
S0W1 APPS domino5 rsuser wascfg  
VERSYSB bin domino6 samples web  
Z23A dev etc tmp websphere  
Z23B domino1 izu u zaasi  
Z23C domino2 lib usr  
Z23D domino3 notesdata var  
IBMUSER:/u/ibmuser: >

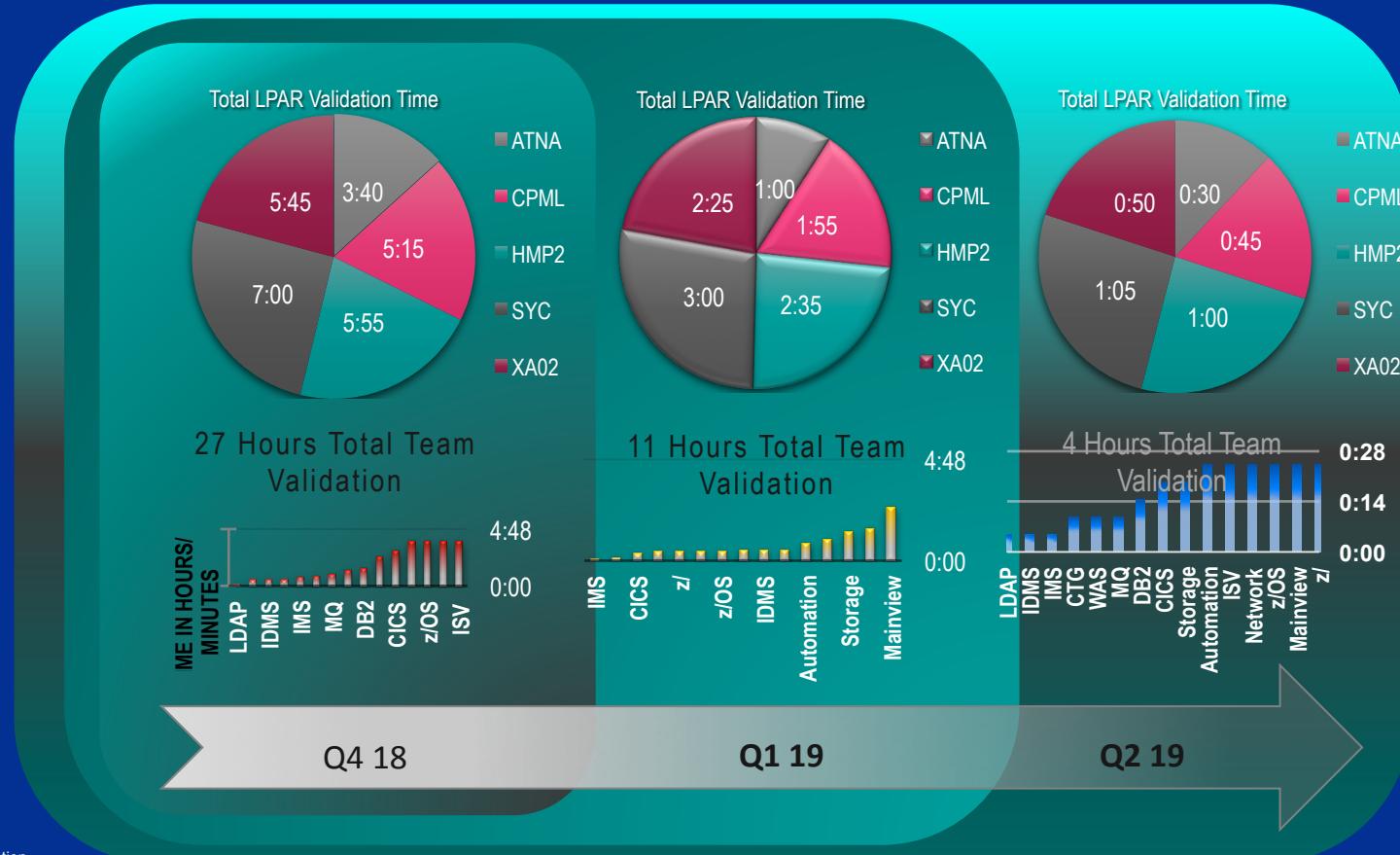
Container zaas-os-nfs-22 does not have health checks to ensure your application is running correctly. Add Health Checks

Containers

bash

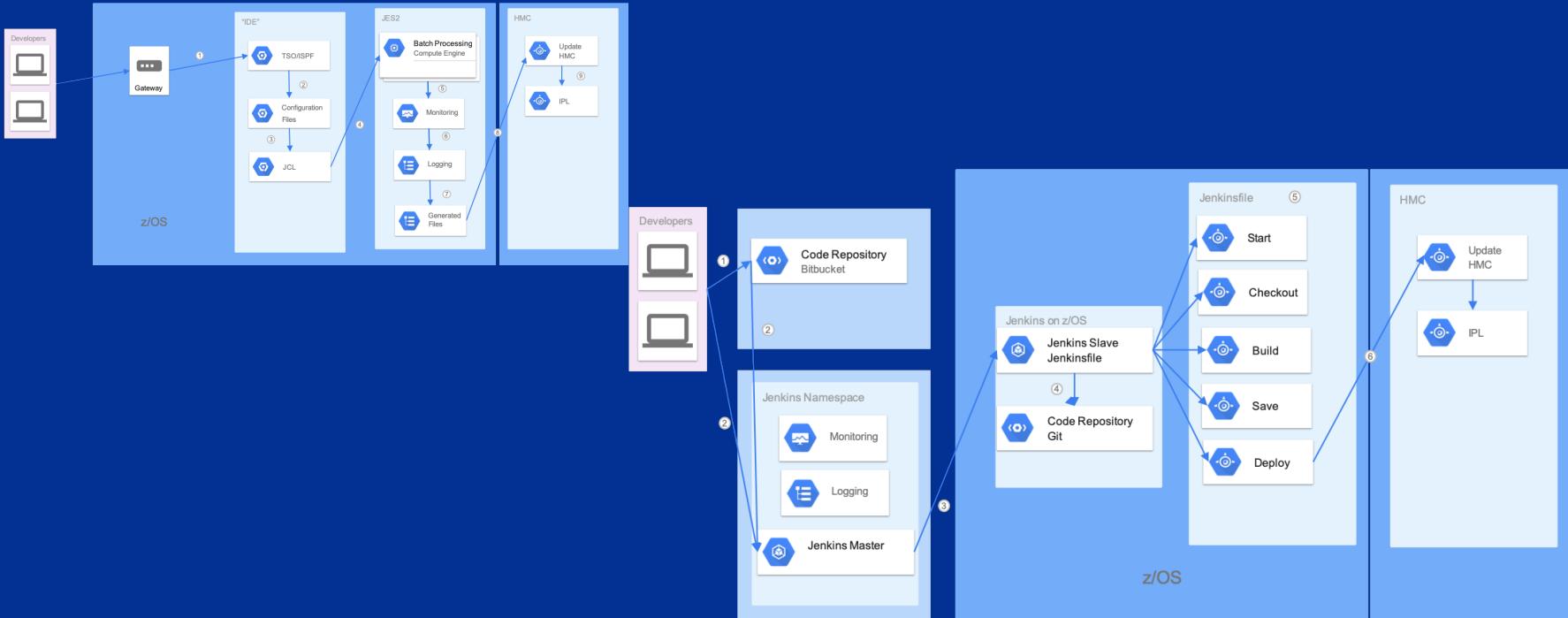
7

# Customer improvement using pipeline with automated verification



# Automated pipeline for creating z/OS LPAR

<https://github.com/edge05/zJenkins>



# Zowe - Modern UI for z/OS

The screenshot displays the Zowe web interface with several highlighted features:

- Browser-based Web Desktop:** A screenshot of a browser window showing a main panel with a blue header and a detailed job log panel below it. The job log panel shows a list of JCL statements and their execution status.
- API Mediation Layer API:** A screenshot of a browser window titled "apicatalog". It includes sections for "API Catalog" and "API Catalog service". It provides details about the API version, base URL, and a REST API endpoint for retrieving catalog dashboard tiles.
- Swagger-defined z/OS REST APIs:** A screenshot of a browser window titled "Api Document". It shows the "JES job APIs" section with a list of REST API endpoints for managing jobs. Examples include GET /api/v1/jobs/{jobName} and POST /api/v1/jobs/dataset.
- Node.js-based CLI:** A screenshot of a terminal window titled "bright zos-files". It shows command-line usage for managing z/OS data sets and USS files, such as "bright zos-files [action] [object] [options]".

# What I need help with

Which open source tools do you use and want to use on z/OS?

What else can we provide to help you modernize your z/OS environment?

# Thank you

Rosalind Radcliffe  
IBM Distinguished Engineer  
Chief Architect for DevOps for Enterprise Systems

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IBM / dbb

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Branch: master **dbb / Automation / idManagement /**

Create new file Upload files Find file History

drbruce-git Initial Load Latest commit 7848d79 on Mar 16

..

<a href="#">README.md</a>	Initial Load	3 months ago
<a href="#">useradd.groovy</a>	Initial Load	3 months ago
<a href="#">useradd.properties</a>	Initial Load	3 months ago
<a href="#">userdel.groovy</a>	Initial Load	3 months ago

[README.md](#)

## Userid Management

The sample scripts here create and delete users on a z/OS system. There are three files in this sample. The samples are based on RACF interfaces.

useradd - a groovy script that adds a new user to the system. It is meant to have a linux look and feel. In addition to providing the RACF commands to add a user, it adds a default dataset profile and an alias. It relies on a properties file that allows an

<https://github.com/IBM/dbb>

