SHARE 2024 Kansas City August 4-8, 2024
By Ed Webb of SPARTA
Held at Loews Kansas City Hotel, Kansas City, Missouri

Items of Interest

SHARE 2024 Kansas City is also SHARE 143

Technical Agenda https://www.share.org/Events/SHARE-KansasCity-2024/Technical-Agenda ???

Presentations are currently only available via the SHARE app on your mobile device
　　They will be available to members in the Kansas City proceedings whenever that's built
　　https://www.share.org/Events/Past-Events/Proceedings
　　search for SHARE Kansas City 2024 ???

04Aug2024 Sunday

z/OSMF Software Management Hidden Gems
By Kurt Quackenbush, z/OSMF Software Management and SMP/E

What is z/OSMF?
　　Web Server on z/OS
Software Management is app running under z/OSMF
Software Instance
　　Install new software from Portable Software instance
　　Define SI for existing application
What can you do with a Software Instance?
　　Maintenance Reports with End of Service
　　　　Based on product information files on a download server
　　HOLDDATA
　　　　When did you get last HOLDDATA from IBM or other vendor?
　　　　　　Use Missing Critical Service
　　Deploy (Install) Software
　　　　Configure Deployment - use Model Step based on your existing installed software
　　　　Merge Target Data Sets during deployment in Data Sets step
　　　　Delete temp catalog aliases after install from Software Instance panel
　　Perform Workflows for a Software Instance
　　Software Update (APPLY PTFs)
　　　　Updated with UI96759 (3.1 only) for SU
　　　　Now install by Name (corrective), by Source ID (recommended), by Fix Category (functional updates)
　　　　　　REWORK is date PTF became available (started by IBM in late 2023)
　　　　　　Vendor recommended updates are selected automatically
　　　　　　　　You can unselect these recommended if desired
　　　　Settings (upper right on Software Update main screen)
　　　　　　per System
　　　　　　New is SMP/E userid - that is what userid should run the SMP/E Software Update work
　　Programming Interfaces
　　　　All REST APIs (Representational State Transfer)
　　　　Invoked by HTTP client program
　　　　Query SMP/E CSI

Use Reference center icon at bottom left of home page
     To get to REST API to use "Swagger" to try the API in real time
z/OSMF Software Management Ansible Content
  Some z/OSMF automate actions in Red Hat Certified Content for IBM Z
     Roles describe what can be automated
     5 roles available for SM
     Sample SM playbook in git repo
Software Instance UUIDs
  CSI and System Matching Game!
     Currently be installation's conventions
     z/OSMF SM generates a UUID (Universally Unique Identifier) for all SI, including target
        Practically unique within all z/OS servers everywhere!
        Stored in LPALIB module via USERMOD in z/OS Post Deploy workflow step
        Available via REST API and also Display IPLINFO command
Controlling authorization
  ZMFAPLA Security Class
     IZUDFLT.ZOSMF.SOFTWARE_DEPLOYMENT.DATA.**
        CONTROL for z/OS sysprogs
        READ for others to query
  Categories can be defined if you need them to control authorization

05Aug2024 Monday

SHARE Opening and Keynote

PkWare
  Data Security
  Quantum Safe Solutions
Rocket Software
  How AI Help You Modernize
  Predict and automate by leveraging Predictive AI
  Generative AI is challenging
     Data pipelines for reuse
     Access to unstructured, semi-structured, and structured data
     Governance and business policies
     Skills Gaps
     Quickly and safely deliver conversational document experiences on business information, driving efficient…
     simplifying mainframe operations
        Productivity increase with AI assistants
        Persistent knowledge with assignation of users' Z environment

Keynote
  Retired Navy Seal Dan O'Shea
  Message to Garcia?
     A daring escapade of Captain Andrew S. Rowan, West Point graduate, 1881 (1898) to deliver message from President McKinley to Cuban insurgent leader Garcia "somewhere in the mountains of Cuba" [Mr. O'Shea's description is based on a story by Elbert Hubbard (1899) that was not true but was very popular-there was no message, Rowan was just a U.S. spy who worked for a few hours with Garcia. See Wikipedia https://en.wikipedia.org/wiki/A_Message_to_Garcia]
     Courteous initiative, focus on mission essential tasks, faith in chain of command, understand and

carry out commands (in Mr. Hubbard's telling "a stiffening of the vertebrae which will cause them to be loyal to a trust, to act promptly, concentrate their energies: do the thing—"Carry a message to Garcia!"")

Leaders must paint clear goals for the company's mission

z/OS System Programming and Hardware KickOff

By Art G. of Huntington Bank, Becky Parchman of BMC, John Shebey III of IBM

See handout

IBM Critical APARs by John Shebey III

OA66647 z/OS Unix with Shared File System sysplex

Fixes New Function PTF (UJ94645/6) Error

PTF target is August 9

Recovery steps are available

OA66785 z/OS Unix with Shared File System sysplex

Fixes another error in UJ94645/6

If use NEWROOT swap, then rolling IPL of sysplex to recovery

APAR still open

OA66439 RSM HIPER Pervasive

Base z/OS 3.1 and with certain PTF in 2.5

During Summary Dump Processing, Lock not released, random abends

PTFs available July 1, 2024

Red Alert

20240621 Db2 V12 and V13 for z/OS users: undetected data loss

PSP buckets (preventive service buckets)

No longer published on the web

Not being created for new IBM Z products

Existing PSP buckets still available via https://www.ibm.com/ibmlink

z/OS Simplification Over The Years

by John Petreshock, z/OS Principal Product Manager and Shelley Brand, IBM

z/OSMF and other products' work over past 20 years

Design Thinking started about

z/OS 2.2

z/OSMF changes, WAS Liberty instead of full WAS - reduced footprint and CPU

z/OS 2.3

autostart z/OSMF

RACF PARMLIB, parallel sysplex in z/OSMF

Software Management to use common process to download portable software packages

z/OS 2.4

zCX, SCA, desktop interface, multi-tasking

Assembler Exit Reduction

z/OS 2.5

NOSQL VSAMDB data set on z/OS

Sysplex CFRM Policy Editor

z/OSMF Software Management (July 2022) for ServerPac install

Assembler Skills Reduction

More C headers

       JES2 policy-based exit reduction
     RMM plug-in for z/OSMF
   z/OS 3.1
     z/OS Change Tracker
     CFRM policy editor for CF sizing
     z/OSMF REST services for Workflows and Ansible
     Cloud Device Access (CDA) services for single API to get data across all Cloud data platforms
     AI capabilities for WLM
 Other efforts
   IBM Z Ordering for "free software"
     Open Enterprise SDK Python
     IBM Z Open Automation Utilities (ZOAU)
     IBM Open Enterprise Foundation products
   IBM Z Community Skills and Training
     Badges, Mainframe Skills Council, New-to-Z community groups
   IBM Z Platform Simplification Mission
     Reduce green screen use
     Mainframe departments getting smaller
     New Users
       Distributed team member with 20+ years experience
       IT leaders who never worked on mainframe team
       Recent college graduates
     Pain points from new System Programmers
       Onboarding is years of effort and doesn't fit career path expectations
       Educational material may be difficult to obtain in school or on the job
       Specific skills needed to learn are difficult, uniques skills with high stakes
       Long time before new users can tinker, and longer still before new users are given core
responsibilities
     IBM's efforts
       4 simplification principles
         Consolidate, standardize, remove unnecessary or obsolete, educate
       Simplification governance board
         Support IBM product teams to simplify
         Identify work groups

       Developed specific projects design
         Announced and active
           Watsonx Assistant for Z
           Watsonx Code Assistant for Z
           AI integration into z/OS
         Projects under consideration
           Infrastructure as code
           New user experience for z/OS
         Cross-platform work groups under consideration
           APIs for SYS management
           Terminology standardization
           Reducing configuration parameters
           Automation strategy (levering Ansible)
           Installation
           Problem analysis and resolution

Ideas - user-friendly console
z/OSMF console requires login
Green screen looks old
Z hardware configuration is difficult for new users
z/OS Client Engagement
z/OS Sponsor Users
z/OS Function alpha
z/OS Function Beta
z/OS Release beta….
Contact Shelley.brand@ibm.com to participate

What's New in z/OS 3.1: Kansas City Edition

By Marne Walle, Steve Warren and Dave Surman of IBM

AI-Infused OS - WLM is first product
AI-platform, application modernization, simplification, security and resiliency, data serving and sharing
z/OS 2.4 is end of service (EOS) at end of September 2024
IBM z16
3931 high end server; 3932 single frame server including rack-mounted version
Integrated accelerator for AI in Telum chip
Enhanced zIIP Eligibility, particularly for Python-based applications
Crypto/ICSF enhancements
z/OS Validated Boot
Foundation Changes
Application Development Resources
AI on z/OS
Python AI Toolkit for IBM z/OS (no charge)
AI Toolkit for IBM Z and LinuxONE (Linux on Z or zCX on z/OS)
IBM ML for z/OS 3.2 (MLz Enterprise)
IBM ML for z/OS Core (MLz Core)
zCX to run containers on z/OS
NFS persistent storage
zCX Foundation for Red Hat OpenShift
Single Node OpenShift (SNO) supported (4Q2023)
IBM Z and LinuxONE container registry
z/OS Container Platform (zOSCP)
See Wed. 2:30 session
Latest Compiler Offerings on z/OS
IBM Open XL C/C++ 2.1 compiler
Open Enterprise SDK for Python, IBM Z Open Automation Utilities (ZAOU), and IBM Open
Enterprise Foundation for z/OS at no charge and no service charge
Java releases are determined by Oracle, not IBM
z/OS 3.1 required Semeru 11 (IBM support extended to Nov2025), now requires S17 and
expect S21 before z/OS 3.1 End of Service (EOS)
zShell (Zsh) on z/OS
EzNoSQL APIs
Usability and Skills
z/OSMF Desktop Productivity Enhancements
BYOD Labs Monday 2:30, Tuesday 2:15, and Wed. 1:15
PARMLIB (38 members supported) Syntax Validation REST APIs

Mon. 1:15, What's New in z/OSMF
z/OS Release Upgrade Enhancements
   Workflow is part of z/OS at /usr/lpp/bcp/upgrade/
z/OSMF Software Management Installation of z/OS 3.1 ServerPac
z/OS Software Package Signing supported by SMP/E and z/OSMF Software Management
   Verifies content and vendor integrity
z/OSMF to run TSO as surrogate User ID
z/OSMF Software Management improves zFS processing
z/OSMF Software Update task enhanced
z/OSMF Feedback Collection enhancement
Scalability and Performance
   z/OS memory to 16TB (with restrictions)
   Dedicated Real Memory Pools
   z/OS Unix Skulker enhancements
   RMF priced feature improved
      zWIC priced feature (Workload Interaction Correlator)
      Advanced Data Gatherer
Availability
   z/OS Anomaly Mitigation - PFA, RTD, SLIP/PER
Systems Management
   AI System Services for IBM z/OS
   IBM SMF Explorer with Python
      Jupyter Notebooks and Python
   JES2 Policies, JOB notifications, Resiliency - Tuesday, 2:15 pm session
   SDSF priced feature Wed. 2:30 pm
   z/OS Change Tracker including new Compare Resources
Networking
Data Serving and Storage - cloud storage enhancements
   Cloud Data Access
   DFSMShsm
   Union File System
   Data Set File System - z/OS Unix direct access to z/OS data sets
   z/OS Health Check and conversion utility
Security
   z/OS Authorized code Scanner and Monitor priced feature

Watsonx
IBM Watsonx Assistant (zWA) and Code Assistant for Z (zWCA)
91% of respondents hiring for mainframe work in the next years
Want to get to market faster yet have talent constraints
watsonx Code Assistant for Z 2.0 (zWCA) was available on June 19, 2024
   Application development, explanation and transformation
   4Q2023 availability
   GenAI teaching models about Z
   Understand, refactor, optimize - code explanation is important
      VS Code extensions with various assistants

   Transform and validate
   Focused on COBOL, and COBOL>Java transformation
zWCA 2.1
   adds JCL support for explanation

COBOL code optimization (not GenAI)
Roadmap:
　　4Q2024 PL/I code explanation
　　Explanation support in Eclipse (IDZ)
　　User experience - simplify use
　　dynamic analysis with trace and other data
　　Later - PL/I to Java, JCL to Ansible, code generation for COBOL
　　https://ibm-data-and-ai.ideas.ibm.com

IBM watsonx Assistant for Z is focused on Operation Automation
　　Chat support for productivity
　　Reduce learning curve, increase productivity, increase efficiency, reduce errors
　　AI assistant - chat experience, conversational, automated tasks (skills)
　　　　Simple, repeatable tasks
　　　　Leverage customized LLM with IBM Z domain-specific RAG to deliver trusted answer to any Z
question
　　　　Recommend relevant automated skills
　　　　Customer specific knowledge, best practices, and documents to provide good answers
　　Builder - build skills catalog, create and personalize assistants

IBM Resiliency Dashboard for z/OS
Matt Hodak, IBM Product manager and Juliet Candee, IBM is development lead
　　Matthew.g.hodak@ibm.com and candee@us.ibm.com

38 attendees including the 2 speakers

No handout

Resiliency is core value of z/OS but clients still experience avoidable incidents
"system resiliency depends on configuration, currency, and feature exploitation"

Problem: resiliency-relevant data is large, dispersed, hard to interpret. Leads to late error detection
outage, misconfigurations, and inconsistent experience

Solution: dashboard that shows contextual data about resiliency while analyzing and extracting
relevant insights on how to improve system resiliency

Statement of Direction (SOD) with z/OS 3.1
　　z/OSMF plug-in to summarize resiliency posture
　　Proactively address deficiencies and better planning for future improvements of resiliency
　　May be able to use z/OS 2.5 data but only runs on z/OS 3.1

Solution pillars
　Best practices
　　Health Check data
　Resiliency features
　　Exploitation across systems and sysplex of key components which bolster resiliency
　Currency
　　Track software and fixes to limit exposure for end-of-service and promote consistent upgrade
practices

Any application help?

Architecture
    New z/OSMF plug-in
    Not new data or application
    Gathering data from diverse resources and providing consolidated view
    Data Collector
        Uses APIs to get data from other apps
        Leverage z/OSMF Application Linking capability
            Gather contextual data and link to other solutions
            Integration with management functions and interoperability
        IBM Function Registry (IFR)
            Map of products IBM and other ISV
                Available, Enabled, Used, How often function has been used
            Suggestion to include End of Service data in IFR, must be a required label>value pairs
Best Practices
    Health Checker report for Minimal Viable Product (MVP)
    Also using PFA and GDPS checks
    Data center reports>drill down to specific data center
        Number of checks success, exceptions, disabled
        Monitor checks changing
        Drill down to sysplex and then to system
    View directly to Sysplex
        By Health Check or by ….
Resiliency Practices
    14 IBM recommended features for MVP (minimally viable product)
    Shows down-level systems (2.5) but 2.5 delivers no data
    Component-development dependent
    Shows feature info even if not any data
        includes link to documents
        And which features are enabled or not
Currency
    Missing critical fixes
        Down to system level, actual APAR ids

z/OS 3.1 User Experience
    By Ed Jaffe of Phoenix Software International
Phoenix was first vendor in the world to deliver a z/OSMF PSI-based product set
SPEs a.k.a. New Function APARs IBM.com/support/pages/new-function-apars-zos-platform
IBM averaging 7.5 SPEs a week up from 6.5 at previous SHARE in March 2024

Security Configuration Assistant
    z/OSMF plug-in
    Ed J. experimented with own Security Definition Facility
    See /usr/lpp/sca/sdffile for SCA security definitions
CF Sizing
    Needs values which are unknown or hard to find, wish the app gathered some of the data itself
WLM Policy Advisor
    provide SMF data file but support for multiple systems (multiple files) is lacking
    Color selection not great: red is bad, pink is OK - confusing
SMF Explorer with Python

dependent on Python level
Requires a separate z/OSMF Server!

File and Data Set Upload and Download
Just shows data set names, needs to show more info
Migrated data set shows as missing , not migrated

Multiple File and Data Set Search
Filter and type ahead worked

REST API for Hardcopy Message Set

REST API for System Symbols

REST API for CFRM Policies

Swagger Interface
Ad hoc to test REST API
/zosmf/api/….

z/OS System UUID
Show which Software Instance in z/OSMF associated with which SMP/E CSI

Data Set Filesystem (DSFS)
In 3.1, now supports JES SYSOUT data sets
Extattr utility enhanced

Union Filesystem (UFS)
BPXPRMxx UFS setup

PROC [process] Filesystem

Z Shell (Zsh) 5.8.1
Using bash for a ….

z/OS UNIX recursive grep

z/OS Authorized Code Scanner (90 days for self-service trial)
helped Phoenix find a 20-year old integrity error in their code

Grafana-Based User Interface for RMF
IBM.github.io/RMF/grafana/rmf-app/

DFSMShsm ONLYIF command
Rolled back to earlier z/OS

DFSMShsm java hbackup
hbackup changed to use Semeru 11

JES2 Resource Limits
JOEs, TGs limits and actions NONE, WAIT, FAIL

ISPF PDSE Member Generations
Tom Conley says you may need to update default Change action - NONE, NEWGEN, …

Knowledge Center for z/OS
Missing, use 2.5 version as a band-aid

Predictive Failure Analysis (PFA)

IPCS IEAVHELP (follow-on to 2.6i)
48 new commands

ASCB Above the 16M Line
CBLOC VIRTUAL31(IHAASVT) was coded in DIAGxx
IBM services not affected but application code might break

ABDISPCC= EXEC JCL Keyword
This is great! Waited a long time.

Semeru 17
Mid-Term scare
Target system-requiredservice FIXCAT

What's New in zCX for Docker and Red Hat OpenShift on z/OS

By Stev Glodowski and Steve Warren of IBM
Containers
    Linux containers run in x86 architecture or s390x architecture
    X86 requires x86 hardware
    S390x requires Z hardware
    Linux on IBM Z
    zCX (classic)
    zCX for Red Hat OpenShift

IBM z/OS Containers Platform is not zCX, requires z/OS on s390x hardware

zCX does not have Kubernetes but zCX for OpenShift does Kubernetes
zCX for OpenShift
    IBM z14 or higher
    z/OS system with 6 zIIPs and SMT-2 enabled - NO HA (High Availability)
    Recommended: 3 z/OS LPARs with 6 zIIPs and SMT-2 enabled on multiple Z CPCs
    - includes capability to run workloads
    Only charged for Compute Nodes zIIPs
    Ordered via Shopz
        Enable on IFAPRDxx
    Need Red Hat account and use the self-managed Red Hat OpenShift trial
        Https://www.redhat.com/en/technologies/cloud-computing/openshift/container-platform
    WLM Resource Groups to manage zCX OCP
zCX for Docker (Classic) Enhancements
    Appliance 1.26.0 with zCX Workflow 1.2.0
        Docker updated to 24.0.5
        User Data File System conversion from Btrfs to zFS
            Required for future compatibility and maintenance
            Improves I/O performance
            Additional storage to hold converted filesystem
    ZCX_DATA* z/OSMF variables are converted/replaced with ZCX_STOR* names
    Kernel updated to 5.4.0-167
    New user data cleanup z/OSMF Workflow to remove user data VSAM LDSes after conversion
    Service APPLYed and then workflow to move into the zCX appliance
zCX OpenShift Enhancements
    Single node (SNO) OpenShift cluster size
        1 control node and compute nodes in single zCX Address Space
        Lower resource footprint due to smaller cluster size
        2 zIIPs with SMT-2
Multi-architecture (mixed platform) Cluster Deployment
Red Hat Ansible Automation Platform (RHAAP)
    End-to-end automation platform (on zCX OpenShift)
CP4I (Cloud Pak for Integration) on zCX Foundation for RHOCP

IBM z/OS Container Extensions (zCX) Use Cases - see Redbooks

06Aug2024 Tuesday

General Opening

IBM Fellow

1940 - bits separated from machines
2020 - qubits probabilistic answers

Bits, mathematics plus information, classical computing
Neurons, Biology plus information - statistical frequency
    AI move classical with neurons
Qubits marries physics and information - probabilistic

Hybrid clouds bring platforms together
    Classical, neurons, probabilistic

Synthetic Biological intelligence (SBI)
    Free energy principle - minimize surprise by predictions
Crazy last 100 years
    Population and global CO2, inventions, patents
        Hockey stick (exponential) growth
Passion is key

What's Up, Mainframe? By Zack and Lukas Podcast
    https://medium.com/modern-mainframe/whats-up-mainframe-a-podcast-for-programmers-architects-687b444188ed
Stories Drive Everything

Priya Doty, BMC VP Solutions
Multi-Platform is the New Normal
        Leverage AI
        Resiliency
            Predictive AI, Casual AI, Generative AI, Agentic AI

10467 Upgrade to z/OS 3.1: Planning
By Aaron Kippins and Marne Walle of IBM
41 attendees including 2 speakers

JES2 is only subsystem in z/OS 3.1, JES3 is not available from IBM (talk to Phoenix Software)
z/OS Security Level 3 must be ordered explicitly (unless you're from a US government-embargoed country)

KC4Z removed, will be replaced on z/OS by DOC4Z sometime

CIM server dependency removed in z/OS Next

Bypassable Reqs - see Marne's Blog https://www.marnasmusings.com

Orderable no-charge products
    Semeru 11 required for z/OS 3.1
    Semeru 17 will be required for z/OS 3.1 by end of 2024
    XML Toolkit no longer orderable with z/OS 3.1 (built-in now asa base element)
    IBM Open Enterprise SDK for Python
    IBM Z Open Automation Utilities (ZOAU)
    IBM Z Open Enterprise Foundation
    IBM AI System Services for z/OS - support for AI

SDK for Node.js 20 and 18

Semeru support cycle is 2 years while z/OS is 5 years so get use to changing Java Semeru releases during a z/OS life-cycle
    FIXCAT for …Semeru*
    /current symlink points to newest Java and may break applications that depend on older Java

DASD for Root is at 4GB, may have to go to EAV

Run Health Checks early and they will be run by z/OS 3.1 upgrade workflow

/usr/lpp/bcp/upgrade is workflow location (updated via PTFs)

10506 Upgrade to z/OS 3.1: Technical Actions
By Marne Walle of IBM
38 attendees including 1 speaker

Upgrade, not exploitation

Type of action: Required, Required-IF, Recommended
Timeframe for action: Now, Pre-first IPL, or Post-First IPL

2.5 upgrade issue ZAD-related WSC TechNote 7162097

>> SSD-capable sysplex couple data sets are required for all sysplexes

Parameter passing in JCL will be in non-executable storage

Recommended: Update DIAGxx: CBLOC VIRTUAL31(IHAASVT)
    Use less SQA below the 16Mb line

JES2 Resource Limiting enabled by default

Vanguard PSP
By Brian Marshall of Vanguard Professionals

No handout

Patch Tuesday (a.k.a. Update Tuesday) refers to MS, Adobe, Oracle and others who regularly release software patches for their software.
    User (organization) Testing before deploying fix to system
    Mainframe sites are more conservative about testing before deployment
Patch management affected by legal regulations or guidelines, such as HIPAA, SOX, …
SMP/E RECEIVE ORDER and Automated Service request Server Interface
    Vendor-written RESTful API to obtain service for your system

18-19Jul2024 (Thu-Fri) Crowdstrike Falcon software update for Windows machine, may have been first worldwide outage
    Blamed a bug in quality control tool that allowed error to pass through to Windows
    No human involvement in QC?
    Southwest Airlines runs Win95 and Win3.1 so was not affected

Monitor Vulnerabilities
PCI DSS, for example, requires site to protect systems and networks from malicious software
NIST 800-115 calls for file integrity checking (FIM File Integrity Monitoring)

Detect Changes to Executing Libraries and LMODs
    Some SMF records can help but EXCP not helpful
    Other issues
Architecture
    Scan LPARs for given data sets and create message digests
    Discover running and maintaining state
    Save discovered data for reporting
    Continuous monitoring required
    Be alert to differences

z/OSMF Lab
    Several handouts for various z/OSMF applications

    Used z/OSMF Diagnostic Assistant
    Swagger to see PARMLIB validation API (Joey of IBM z/OSMF development provided private tutoring for me)
    Used Software Update

Ansible for z/OS 101
    By Stewart Francis, CICS TSO Architect for Developer Productivity

No handout

Setup laptop for Ansible and on z/OS
    General purpose automation tool
Tagline: "Turn tough task into repeatable playbooks"
Agentless architecture
Orchestrate multiple systems at same time

common usage
    System provisioning, installing applications, managing users, updating certificates, continuous delivery, configuration management
    Open source collections

Generically applicable to lots of scenarios, easy to write automation, standardize automation strategy, makes configuration as code more realistic, thousands of community developed extensions

Architecture
    Control node (not z/OS) ——>SSH/Python modules——>z/OS
        (Could connect via nonSSH and use non-python but not with z/OS)

Ansible is Python application runtime, runs on the Control Node
Ansible Playbook YAML script to implement automation
Ansible Collection are stored at Galaxy
Ansible Galaxy
Ansible automation platform - Red Hat priced offering

Ansible is native to Unix-like OS, not natively in Windows but use WSL
Needs Python
   Pyenv manages different Python runtimes
   Install Python
Get Ansible-core is basic package (Ansible is core plus stuff)
   Pip install ansible-core
setup Ansible inventory
   Uses yaml-based format
   Set Ansible properties including where Python runtime is (like z/OS)
Use SSH keys (generate ssh-keygen and copy public key to z/OS)
   Has had problems with generate key on z/OS
   SSH key directory permission of rwx……
set z_environment_vars
   _bpxk_Autocvt on
   _Cee_runopts xxx
   other vars
VS code Ansible extension from RedHat
   Create yaml playbook
      Hosts all
Ansible-playbook -i inventory.yaml first-playbook.yam. (Add -vv for debugging)

Uses z/OS Open Automation Utilities (ZOAU)
   Z/OS Unix library command line interface (CLI)
   Ibm_zos_core
Update inventory
   Connect python and ZOAU via z_environment_vars
   pyz and zoau variables

Zos_mvs_raw to execute code on z/OS without JCL
   Program, ddnames, and such
See Ansible samples such as Z Ansible Playbook Samples
Video on mediacenter?
Red Hat Ansible Certified Content for IBM Z: Collections

07Aug2024 Wednesday

No sessions attended as Ed W (me) is sick (Covid?-Negative tests)

Here's Wednesday sessions I planned to attend:

WSC System Programmer Hot Topics

z/OS & HW Planning for 2025 - CLOSED Meeting

2024 Security Trends and IBM z

Using Generative AI to Help Modernize System Programmers Tasks

Get Conversational Answers to z/OS Questions and Launch Automation with IBM Watsonx Assistant for z/OS

Python 360: z/OS Management

What Did We Learn about Your Systems during the WLM AI Initiator Project?

z/OS 3.1 Release Beta Program Client User Experience

08Aug2024 Thursday

No morning sessions attended while Ed W (me) decided whether to venture forth (still negative Covid tests)

Here's Thursday sessions I planned to attend:

Configuration as Code for z/OS

z/OS 3.1 AI Framework Overview

CBTTape - Open Source for z/OS - Greatest Hits

Here's Thursday sessions I did attend:

ISPF Config for Fun and Profit
By Tom Conley BMC
   Slides have been uploaded
   WAC (World According to Conley)

In the beginning, ISPF Config was difficult
   Scattered configuration options
IBM started with ISRCONFIG exec
   SMP/E USERMOD in ISR.SISPLPA
OS/390 V2R8 set up ISPCCONF exec
   Better dialog, code changed to honor parameters
   Default part of ISPF, could be executed by any user
   Security concerns
Setup then invoked ISPCCONF
   Target data set with member name
   Option 2 include defaults as comments
   Create and compile ISPCCONF Keyword file
     Choose options for parameters
   Output has changes at top of file with defaults afterwards
     Don't edit output to avoid syntax problems
   Build Config load module
   Skip ISRCONFG conversion (obsolete)
   Don't Build SMP/E USERMOD
     ++DATA and ++PROGRAM not done so regression not identified
Recover Keyword File
   Option 7 to recover from ISPCFIGx
   alphabetized text file
USRCCONF - the newer way
   CUCI collection on CBTTAPE on 2017 file 967
   Modeled designed after ISPCCONF
     Repurpose ISPPCONF files into USRCCONF
   Create keyword file for all options July 2020
     In 2021, added more options

    Define settings, generate keyword file
        Do not overlay ISPCCONF keyword file with USRCCONF
        Set calendar colors
        Set edit and browse strings
        Force recovery on
        Change UDList column arrangement, also Mount Table columns
        Zkit=Low for calendar notes
        Changed fields followed by default comments
    View keyword file
    Update ISR@PRIM for USRCCONF Keyword File
        VPUT keywords
WAC ISPF Configuration

Bit Bucket x'44'

By Ed Jaffe of Phoenix Software (PSI), Mike Shorkend, Donna Hudi of PSI, Lionel Dyck, Tom Conley

Frustrated TSO/E Command Line
    by Ed Jaffe
    Using RACDCERT
    Hard to read Red-colored text on screen
    No log of what you did
    commands from Ready don't use wide screen, wraps at 80 columns
        Unless wide screen on other displayed panel
    Zowe CLI
        Now Ed J uses z/OS UNIX prompt via SSH
        Set alias for TSOCMD as T
        Uses Rocket's terminfo from AppDev for Z
        use DSFS to access output on JES SPOOL

Beam Me Up to z/VM
    by Mike Shorkend
    small ISV running zPDT using z/VM
        Hosting 3 z/OS systems
        No Sysplex - only GRS Rings
            Startup of 3 creates 2 GRS rings instead of one
        Possible solutions
            z/VM scheduling tools
            REXEC allowing commands between systems
            DIAGNOSE from Assembler program
                OpCode is x'83'
                ZVM supplies macro for DIAGNOSE
                Need ADDRSPC=REAL, or PAGEFIX/PAGEFREE

Fully Wired System Programmer REBOOT
    By Donna Hudi
    Originally by Sam Knutson starting at SHARE 20 years ago
        LISTSERVs like IBMMain, MVS-OE, ISPF-L (died years ago but link goes to new site)
        IBM Tech Xchange Community
        Open Mainframe Project (OMP) Slack Channels
        Redbooks, z/Arch PoOps
        Blogs and Webinars - IBM Community and Open Mainframe
        Interskill Learning - individual pricing available
        IBM Z Xplorer Learning Platform (was Master the Mainframe)

  Interskill.com/zowe
  OMP COBOL Programming
  OMP MF Open Education
  CBT Tape cbttape.org still active
   Now part of OMP
  OMP Software Tools Research
  OMP: z/OS Open Tools

zFSTools for z/OS ISPF Application
open source REXX and ISPF interface to zfsadm command parameters
ZFS Shrink, others
 Shows generated commands
Get dialog from GitHub and cbttape

Java Jive
By Tom Conley
Customer app needed Java17 but running V2R4
 IBM intends to support Java for all supported releases

It's a Small zFS, After All
By Tom Conley
challenges with zfsadm shrink
Tom's Ideas for IBM zOS-I3390/3

CBT USERMOD Collection for ISPF (CUCI)
By Tom Conley
File 967 on cbttape.org
Several enhancements for ISPF
CUCI V1R8 for 20230704
 Fix issues and add capability to HIGHLITE
 Now PYTHON and JAVA supports ASCII as well as EBCDIC
 fixed problems
 Added /* REXX */ to some execs that were missing them so HIGHLITE worked
CUCI V1R9 coming soon
 YAML Highlighting
 Make all highlighting ASCII-aware