

VM Workshop 2024 - Session Abstracts

Title	Synopsis	Presenter
IBM LinuxONE Hardware and Technology Update	Come to this session to hear details and examples of IBM latest hardware and technology announcements on LinuxONE servers including chips/cores, servers, hypervisors, operating systems, and runtimes (middleware). The session will conclude with client use cases and success stories.	Monte Bauman
Building the Case for LinuxONE (LoZ)	Is LinuxONE as great as IBM says it is? Prove it!!! This session will illustrate a process and tool to analyze the technical case and to prepare the financial case to prove if LinuxONE is (or is not) a good idea. A fancy spreadsheet will be demo'd (and shared with brave "sponsor-users" (using Design Thinking parlance)). Assumptions (aka parameters) and calculations will be share and a request will be made of the "community" for data to harden assumptions. Please join me.	Monte Bauman
z/VM Concepts and Introduction	For those of you new to z/VM and virtualization on an IBM z server, this session will review why z/VM virtual machines are built the way they are and provide some of the structures used to create the z/VM environment on your z server. This session is technical in nature at the 10,000 foot level.	Sam Cohen
Rexx Language Coding Techniques - Part 1 of 2	If you are a beginner or intermediate Rexx programmer who wants further insight on better Rexx programming techniques, this session is for you! In Part 1, we will review available Rexx products and related products - both free and priced - an introduction to functions versus instructions versus procedures, variable visibility, and parsing. Attend Part 2 for more topics.	Tracy Dean
Rexx Language Coding Techniques - Part 2 of 2	If you are a beginner or intermediate Rexx programmer who wants further insight on better Rexx programming techniques, this session is for you! In Part 1, we will review available Rexx products and related products - both free and priced - an introduction to functions versus instructions versus procedures, variable visibility, and parsing. Attend Part 2 for more topics.	Tracy Dean
Operational Monitoring and Automation of Multiple z/VM LPARs with Linux Guests	As the Linux on IBM Z environment continues to grow, the need for software and solutions to manage this environment also grows. This session focuses on operational monitoring and automated operations across multiple z/VM LPARs, with or without SSI. It includes live demos of one or more of the following: (1) taking actions on other LPARs based on events on one LPAR, (2) automatically take action based on messages on z/VM service machines, on Linux guest consoles, and/or in Linux syslog data (3) view and interact with live consoles, for both monitoring and debugging purposes (4) monitor and manage spool space (5) send alerts to a central alerting system, such as IBM Netcool/OMNIBUS or other systems that accept SNMP traps (6) send e-mails based on console messages, spool usage, etc. (7) automatically archive logging data when a disk approaches full.	Tracy Dean
Hands-on Lab (BYOD): Managing z/VM and Linux on IBM Z	Bring Your Own Device to this lab that lets you access a z/VM system from your web browser and choose from several monitoring, automation and backup/recovery scenarios for z/VM and Linux guests. You can choose from separate hands-on labs using IBM Operations Manager for z/VM or IBM Backup and Restore Manager for z/VM. Lab exercises include viewing and interacting with service machine and Linux guest consoles, taking an action based on a console message, monitoring user IDs for logoff, monitoring spool and page space, and backing up and recovering z/VM data.	Tracy Dean
Exploiting z/VM Directory features for improved security	Once you have z/VM installed, changing some of the directory and SYSTEM CONFIG settings will help tighten up the environment. This session will review items to consider in both files to help improve the z/VM security posture out of the gate. If you will be implementing an External Security Manager (like RACF or VM:Secure), you still want to do these things before setting up the ESM.	Sam Cohen
Comparing FICON vs FCP Connection to Peripherals	z/VM, VSE and Linux can participate in Storage Area Networks (SANs) via Fibre Channel Protocol (FCP) connections. This session will review the similarities and differences between FICON- and FCP-connections to disk.	Sam Cohen
What's New in Red Hat OpenShift Container Platform on IBM Z and LinuxONE	Red Hat OpenShift Container Platform provides the foundation for containerized workload on IBM Z and LinuxONE . Join us for the latest news, enhancements, and use cases available with Red Hat Openshift.	Stev Glodowski
What Does It Take To Be Hybrid Cloud Ready on IBM Z and LinuxONE ?	Hybrid Cloud Readiness: Can I leverage any of my existing investment in z/VM, KVM, and/or PR/SM, storage and network? How does Infrastructure as Code compare to Configuration as Code? The session will discuss use case examples and the supporting guiding principles for operating the mainframe as a self-contained Cloud-ready environment, and/or integrating into an enterprise hybrid Cloud configuration.	Stev Glodowski, Ingo Adlung
What's New in IBM's IaaS Platform Solution - Cloud Infrastructure Center	With the latest release of IBM's IaaS Platform solution IBM Cloud Infrastructure Center, we are providing new capabilities for our new and existing customers. Join us for a tour to explore the latest enhancements, use cases and news regarding IBM Cloud Infrastructure Center.	Stev Glodowski, Michael Snihur
Wadaya Mean I Can't Share My RACF Database Between z/VM and z/OS	A review of the various twists and turns we went through as we planned for the split of our RACF database between our z/VM and z/OS systems. Some of the false starts and dead ends we hit and the "scope creep" we encountered as we progressed to the final design. This is based on the announcement that beginning with z/VM 7.3 and z/OS 3.1 it will no longer be possible to share a RACF database between z/VM and z/OS systems. Since we are probably one of the few (or only) installations impacted by this we were breaking new ground as we progressed.	Aaron Graves
IBM Cloud Infrastructure Center (ICIC) deep dive	In depth introduction of IBM Cloud Infrastructure Center (CIC) - Relationship between z/VM, KVM and CIC and architecture topo - Use case of CIC and Infrastructure as a service model	Michael Snihur

VM Workshop 2024 - Session Abstracts

Evangelizing Mainframe Careers to Students	In the United States, 59,000 computer science students graduate college every year while 10,000+ baby boomers retire and leave the work force every day. There just aren't enough students to back-fill the roles that the baby boomer generation leaves behind. In 2020, there were more than 84,000 mainframe positions open and not enough practitioners to fill them. Using a presentation I call "IT" Best Kept Secrets" I highlight to students an important technology that they are not aware of, and a career path they may want to pursue. This session will highlight the need for current mainframers to evangelize the mainframe to students, and provide an easy to use presentation they can take to local high school and college students to advocate career opportunities.	Marc I Smith
ITs Best Kept Secret	This presentation is intended for our student attendees as a general introduction to the mainframe. I cover what is a mainframe, examples of who uses the IBM Z Systems, and recommendations on how to pursue a career around the mainframe.	Marc I Smith
Workload selection criterias for Linux on IBM Z or RH OpenShift	With the capabilities of running enterprise workloads in virtual machines or RH OpenShift, this session will categorize which workload fits best in which deployment and help you decide where you can position, develop and deploy such workloads highly virtualized.	Wilhelm Mild
We have the best time for Multi Architecture solutions with RH OpenShift and zCX	The last year was highly focused on technology enablement for applications bridging different Architectures. We have now great capabilities to develop, run and manage centrally, applications and environments running Linux and Containerized RH OpenShift workloads in different clouds including public clouds, in different Architectures and managing them flexibly.	Wilhelm Mild
Leverage IBM Z or LinuxONE as Hybrid Cloud Enterprise Management and Operation Hub	The flexibility in IBM Z and LinuxONE hardware deployments - from small Rack-mount systems to large scaled environments - enable now to build the most secure, reliable and scalable Hub for management and operation of Hybrid Clouds with RH OpenShift tooling and more. Come and see how you can take advantage of this flexibility.	Wilhelm Mild
Implementation of post-quantum crypto in Linux on Z	Post-quantum cryptography is leaving the realm of research projects and is starting to become implemented in both open source and commercial products. This presentation is going to cover the current state of post-quantum crypto in Linux and the open source projects is relies on for crypto, as well as a discussion of what needs to be done to prepare for large scale implementation and audit of post quantum crypto. There will be some discussion about z/VM and VSEn crypto, CryptoExpress card status, as well as potential mitigation strategies for products that may not be updated. Finally, there will be a demonstration of post-quantum algorithm implementations in ZLinux.	Jim Nelson
Bit Talks with Friends	Join us in this session as Bill Bitner sits down with a few VM Community members to hear their stories. Find out how they got into the z/VM space, what surprises they found, and learned and grew their knowledge of VM. The panel includes Neale Ferguson, Barton Robinson, and Len Santalucia. When we tell our stories and we listen to others tell their stories, we often learn that we're not alone. We're much better together.	Bill Bitner
Thomas J. Watson Sr and the People that Impacted Him	A hundred years ago, Thomas J. Watson, Sr. launched the name International Business Machines, changing the previous name, Computing-Tabulating-Recording Company, to one that matched his vision for the corporation. Many know the rest of the history, but we'll take some time to look back at Watson's life, how he got to be CEO, and the people who had a huge impact on him.	Bill Bitner
GDPS Update (GDPS 4.7 & SPEs) What's New?	GDPS is IBM's premier continuous availability and disaster recovery solution for managing z/OS, z/VM, and Linux on IBM Z and their data, both within and across sites. In addition to the array of tightly integrated capabilities associated with IBM Z and data, GDPS extends its reach to heterogeneous platforms for end-to-end availability and recovery management. In this session we provide you with an update on the exciting new features and functions added in theGDPS is IBM's premier continuous availability and disaster recovery solution for managing z/OS, z/VM, and Linux on IBM Z and their data, both within and across sites. In addition to the array of tightly integrated capabilities associated with IBM Z and data, GDPS extends its reach to heterogeneous platforms for end-to-end availability and recovery management. In this session, we provide you with an update on the exciting new features and functions added in the latest release of GDPS. Including new products and the brand new V4R7.	Steven Cook
GDPS Cyber Resiliency	Threats to your business data can be external or internal. GDPS Cyber Resiliency increases your security capabilities to prevent even a privileged user from compromising your production data, systems, and protected copies of this data. You will be provided with capabilities to regularly create secure, Point-in-time copies of data to use for Logical Corruption Protection scenarios. You will see how GDPS Cyber Resiliency uses storage, operating systems, and middleware to enable protection, forensic analysis, and recovery use cases for Logical Corruption Protection copies.	Steven Cook
GDPS Overview	This session will overview how GDPS, IBM's multi-site application availability solution, integrates key availability technologies such as z/OS, VM, Linux, and remote copy technologies with automation to enhance application availability and improve DR for z/OS, VM, and Linux on z. GDPS offers the state of the art in terms of performance towards continuous availability. Existing clients come from the Financial, Public, Distribution, Communications, and industry sectors. Additionally, GDPS offers our clients a way to fulfill their regulatory and business compliance requirements by granting them "insurance" in case of a disaster recovery (i.e., disaster recovery - DR) and providing high availability (HA) as well as ease and continuity of operations (CO).	Steven Cook

VM Workshop 2024 - Session Abstracts

CMS Shared File System Administration	This session will describe how to configure and use the Shared File System. Administration, space management, and security will be discussed. Additionally, a modern approach to those three topics will be shown.	Rich Smrcina
Cloning and Provisioning z/VM LPARs	You probably already know you can clone and provision Linux guests on z/VM quickly and easily, especially with a Cloud Management product like zPRO. What if your assignment is to stand up brand new z/VM LPARs though? You may have a few to build or dozens (or more!). Doing that manually is possible, but terribly tedious and likely to have pitfalls if steps are missed or "finger-checks" occur. This session will map out the steps and details of using zPRO to build new z/VM systems that will be IPL'd in their own LPAR, with nearly push-button ease!	James Vincent
Brand New to the Mainframe World - a Younger Perspective	Come hear a panel discussion with a few younger generation mainframe professionals. A moderator will be presenting questions to help get their perspective on the good, bad and possibly ugly experiences of coming out of college and stepping right into a mainframe-centric job. Hear about the real challenges not only companies face finding talent, but what the younger generation also faces with choosing mainframe as a career.	James Vincent
Bridging Gaps, Elevating Skills: The zXPLORE Initiative in z/VM Learning	The demand for skilled professionals proficient in z/VM has never been higher. The zXPLORE Initiative represents an effort to meet this demand by offering a unique, challenge-based learning environment designed to enhance the skills of professionals across various industries. This presentation will dive into the inception, development, and execution of these challenges, showcasing how this innovative approach bridges the knowledge gap while also elevating the technical proficiency of participants. We will cover the motivations behind these challenges, emphasizing the need for a practical, hands-on approach to learning in the complex area that is z/VM. The discussion will then pivot to the process of setting up the zXPLORE environment, highlighting the technical considerations and resources deployed to create a scalable, accessible, and immersive learning platform. Further, the presentation will provide an in-depth look at how the zXPLORE challenges function, from the initial setup of a small z/VM system to the use of SMAPI to dynamically manage resources in addition to utilizing NodeRED JS and DIRMAINT. Additionally, we will share insights garnered from the deployment of the challenges, including results from participants that work at different companies, success stories and case studies will illustrate how the initiative has positively impacted participants understanding of z/VM. Finally, the presentation will outline the future roadmap for the zXPLORE Initiative, discussing planned enhancements, new challenge themes, and strategies to further enrich our users learning experience. By offering a comprehensive overview of the zXPLORE Initiative's journey from concept to realization, and its significant contributions to z/VM education and skills development, this presentation will aim to inspire educators, professionals, and organizations to embrace challenge-based learning as a means to advance technical expertise and foster innovative learning in the field of z/VM.	Justice Heughan
Getting Started with IBM Z Cryptography on z/VM	IBM Z provides cryptographic features to protect your data--and your clients' data. Intrigued by the possibilities inherent in IBM Z cryptographic features? Uncertain as to what all these acronyms mean? Confused about which features operate when running under z/VM? Wondering about the basics of guest crypto configuration? Unsure of what to do with all those keys? Scared by the word "cryptography"? This presentation aims to alleviate fear and uncertainty by explaining the IBM Z cryptographic "stack": what the features do, how they help, how z/VM virtualizes them, and how a guest can capitalize upon them ... with as few security-related acronyms as possible	Brian Hugenbruch
z/VM V7.3 Security News and How To's	If you're paying attention to industry news, you know that cyber security threats are always on the move. Fortunately, so is z/VM. This presentation will look at the latest security enhancements for the product, including: Guest Secure IPL, the KEYVAULT utility, the Systems Compliance Utility, and Digital Signature Verification. We'll examine these topics (and more) with an eye toward covering the threats these enhancements solve, how to deploy, and the tips and tricks for using them well.	Brian Hugenbruch
Trusting Your Code: Deep Dive on Guest Secure IPL and Digital Signature Verification	Supply-chain concerns have escalated dramatically in the past handful of years, and this even impacts code running on the mainframe. How do you know that the code you're IPL'ing is, in fact, the code you think it is? And how do you trust service delivered from outside your data center? This presentation will explore code signing and chains of trust, with an eye toward explaining two new features for z/VM. One, Guest Secure IPL, validates the guest OS you're attempting to boot. The second, Digital Signature Verification, provides authentication and integrity validation for downloaded service. We'll cover what this protects, what it doesn't protect, and discuss what the future may hold in this space.	Brian Hugenbruch / Arielle Goldberg
What's Going Right?: z/VM's Warning-Track Support	A sequel to Dr. Brian Wade's signature presentation, "What's Going Wrong: LPAR Weights", this presentation dives into the recently delivered z/VM Warning-Track support. This function helps to mitigate symptoms, previously referenced by Dr. Wade, experienced by less entitled LPARs.	Lauren Maietti
Where to find the best z/VM Information?	z/VM's lineage is over fifty years old. A product with this much history means there is a wealth of information out on the internet. However, not all of it may be relevant or the exact information you're looking for. This presentation highlights the most important resources for someone interested in learning more about z/VM, or someone that needs to use z/VM for their day-to-day job. Find the best education and publication resources, learn how to effectively use the z/VM help facility, and find where you can get the latest news for z/VM.	Arielle Goldberg

VM Workshop 2024 - Session Abstracts

Let's Talk Tech: Presentation Tricks and Tips	Let's be honest: you sit through a lot of technical education sessions. (Depending upon where this session lands on the agenda, that may well be "just this week.") And let's be fair – there are fantastic odds that you (yes, you!) know something about z/VM or the ecosystem that no one else knows. We need <u>your</u> stories at the VM Workshop. So how does one tell that story in front of an audience, anyway? This session drills down on the techniques that Brian has used in the ~20 years of public speaking he's done and tries to lay them out, roadmap style, to get you (yes, you!) from "idea" to "any questions?"	Brian Hugenbruch
Common z/VM Hurdles and How to Overcome Them	As the saying goes "those who cannot remember the past are condemned to repeat it". In z/VM service, we've seen the history of many z/VM ecosystems, new and old. This session will go through some of the common problems we have encountered and how to avoid and/or overcome them. This session is great for new and tenured system programmers alike.	Lauren Maietti
z/VM Platform Update	Version 7 of z/VM started the era of a two-year release cadence. z/VM 7.3 is the most current release, and a preview announcement has been published for z/VM 7.4. This presentation will preview z/VM 7.4 as well as reviewing function that was delivered in z/VM 7.3. We'll look at the value of the most recent continuous delivery enhancements that have been shipped for z/VM 7.3 and cover some of the implementation requirements for them.	Frederik Hartmann
Introduction to Linear Service with z/VM 7.4	z/VM 7.4 will introduce a new philosophy on how the product will be serviced in the future. Get an overview of the timelines, release streams, deliverables, and IBM recommendations.	Frederik Hartmann
VCU Commonwealth Center for Advance Computing (CCAC)	The Commonwealth Center for Advanced Computing (CCAC), established by the Virginia State Legislature and led by Virginia Commonwealth University (VCU), has partnered with Vicom Infinity (IBM partner) and made a significant investment in IBM zSystems, IBM Storage, and IBM Software. CCAC is a consortium of all major universities in Virginia, with the vision of utilizing IBM state-of-the-art equipment in collaboration with government, and industry entities to grow TALENT, WORKFORCE development, and Research using IBM zSystems and IBM POWER Systems in Virginia. Find out when and where this initiative has been implemented and how it's being used.	Len Santalucia / Arty Ecock
Simplification and Modernization with IBM Cloud Infrastructure Center on Z	IBM Cloud Infrastructure Center can unlock the Z platform to simplify Linux infrastructure deployments, provide integration into hybrid cloud environments, and make APIs available with modern applications and tooling. We'll review usage scenarios for infrastructure as a service (IaaS), Infrastructure as Code (IaC), and how IBM Cloud Infrastructure Center can support infrastructure for traditional and cloud-native services. We'll show some examples of using infrastructure definitions, automated deployments, and modernized CI/CD tooling on IBM Z.	Michael Snihur
z/VM and Virtualization Hands-on Lab - Choose your own lab	In this multi-part hands-on lab you choose hands-on lab exercises from one of these options: z/VM 7.3 SSI Installation and Configuration, z/VM Upgrade In Place from 7.2 to 7.3, Implement z/VM 7.3 Centralized Service Management, clone an existing z/VM 7.3 SSI member to create a new member in slot 8, implement z/VM Datapump, DPM and KVM (modify a dpm partition, install Ubuntu 20.04 as a KVM host, install virtual machines) Most of these choices will take the full number of session slots, so it will not be possible to complete multiple labs. Each lab selection comes with a comprehensive lab workbook that provides step by step instructions and will be useful as a reference later. This session is intended for both beginners in z/VM and those who may have familiarity with z/VM but need a refresher.	Richard Lewis
Linux for IBM Z Installation Hands-on Lab	This hands-on lab will provide an opportunity to install Linux for IBM Z into a z/VM virtual machine, do some basic system administration and configure commonly used packages such as Apache. There will also be an opportunity to install the docker engine and create some basic images and run those images in containers. The choices for installation will be RedHat 9.1, SUSE SLES 15 SP3, and Ubuntu 22.04 LTS. This is a multi-part lab to provide enough time to work through the lab workbook.	Richard Lewis
How OpenSource is Modernizing The Mainframe	The open source movement has rapidly become the way code is being developed for today's smart and agile businesses. This webinar will cover how an "open mainframe" is the perfect solution for deploying open source on an enterprise computing platform. Attendees will learn how the mainframe platform is a natural technology for Linux deployments and how the mainframe community operates within the 18+ open source projects and working groups hosted by Open Mainframe Project. With projects such as COBOL, Zowe, Mentorship, Feilong, Zebra, and Mainframe Open Education, many of these programs complement each other and we'll take you through how to participate and join the collaboration.	Len Santalucia
Transition and news from IBM z/VSE to 21CS VSEn 6.3	In this session we will cover the different announcements that have been happening since last year, things to consider when upgrading to 21CS VSEn 6.3 and the next steps you should take if you care about your VSE workloads.	Gonzalo Muelas Serrano
Hints and Tips working with/upgrading to 21CS VSEn 6.3	In this presentation we will show a mixed collection of experiences from the 21CS team on different areas while working with VSEn customers and upgrading to 21CS VSEn 6.3	Vasilisa Suvorova
Mastering Tracing and Debugging in 21CS VSEn via SDAID	This presentation serves as your gateway to understanding how to effectively trace and debug code using SDAID in the VSEn environment, simplifying complex concepts for beginners. Explore the essential features and practical techniques of SDAID, designed to help you localize errors and comprehend code flow with ease.	Vasilisa Suvorova
Securing 21CS VSEn	In this session, we delve into the intricacies of VSEn security, covering essential topics: BSM, DTSECTAB, DITTO Security etc..	Shahin Ram Krishna

VM Workshop 2024 - Session Abstracts

Secure Communication & Cryptography with 21CS VSEn OpenSSL	In an increasingly interconnected world, ensuring secure communication is paramount. The OpenSSL library plays a crucial role in achieving this goal. This session dives deep into using OpenSSL in VSEn to secure communications.	Shahin Ram Krishna
Understanding 21CS LE/VSEn Run-Time Options	In this session we will cover the following topics: VSEn Language Environment Run-Time Options; Provided Job Samples for customizing Run-Time Options; Determining Current Run-Time Options; OLTP and Data Base Considerations; Using Run-Time Options with a non-LE Environment; How to Protect Customised Members During FSUs.	Laura Grinham
User Experience Defining FICON CTCs	Configuring FICON CTCs for z/VM SSI and other product use can be challenging and confusing. Once you see a some examples and have a pattern, you should find that it is not quite so daunting. Many of us are finding ourselves updating SSIs from four to eight members. In the session I will show some examples and tricks that might make it easier. I will show how to use z/VM Dynamic I/O to define the devices or modify definitions to add new members. I will talk about how to create a raw IOCP source deck and import it into VM HCD. I will also show how to use HCD reports to extract the FCTC information to show which devices are available to connect between your systems.	Rick Barlow
Discover a new level of security through an OPEN z/VM architecture	Modernizing z/VM security practices, with APIs, can create an effective end-to-end secure infrastructure. In this session, explore how to limit user access, develop rules for user logon, and implement automated tasks through efficient workflow processes. As security initiatives tighten, z/VM environments must enhance their risk management and intrusion avoidance. APIs can open up new strategies to automate, protect, and respond.	Brian Jagos
The Long Life of COBOL and the Mainframe	COBOL was developed in 1959, and over the years has become the most important data processing programming language; furthermore, it has molded the design of the IBM Mainframe, and defined a professional data processing industry, that has served well, the largest companies in the world. This presentation will explore the history and development of the IBM mainframe, from the perspective of the needs and requirements of COBOL. From its introduction in 1964, the IBM mainframe has been designed to implement the COBOL programming language, among its many other valuable purposes. This tradition has continued until the present day, with the introduction of the z/16. Each new hardware architectural level, has guided, implemented, and improved the value of COBOL. We will explore this symbiotic relationship, illustrating carefully how the value of the language has molded the improvements of the world's most powerful data processing equipment. Beyond the influence COBOL has had on the IBM mainframe, has also been its influence upon the data processing industry as well. This additional symbiotic relationship has had as powerful a molding effect, as anything else over the last sixty years. Equipment and programming would be unreliable without the professional methods, processes, and philosophies that are so often illustrated by the IBM mainframe. In our current modern climate, the stability of the data processing industry cannot be overemphasized, and the professional data processing community can expect a vibrant future for another sixty years.	John Rankin
Tips and tricks when working with Broadcom's VSE solutions	Our jobs are already complex. Knowing if you are taking full advantage of a products features and functionality makes it even more intrinsically difficult. Let us help you. We have heard the calls into support and through other conversations, allowing us to gain insights of both questions and pain points. In this session, we will discuss the security associated with FAQs, sharing two tape libraries within Dynam, new export capabilities from Explore and more. So come join this session and better take advantage of the tools you already have.	Robert Dougherty
Intro to z/VM performance	An hour of understanding different aspects of z/VM performance, and Linux on z performance. I will keep to concepts, but examples to explain concepts would of course be from zVPS.	Barton Robinson
Modernizing z/VM	Why is Velocity Software the leader on z/VM modernization? It has a lot to do with having a native webserver that can directly enter CP and CMS commands without learning 200 odd SMAPI functions. Modernization should not include adding significant complexity or learning curve. Simple and elegant should be the objective. I will discuss what we have done to modernize, and why installations world wide choose "Linux on Velocity".	Barton Robinson
Openshift - Understanding Architecture and Performance	This session will go through the different container architectures, their architecture, measurement capabilities, and tuning capabilities. Container technology no longer seems like magic when you understand how it works and how to measure it.	Barton Robinson
Using GitHub Actions as part of your Linux on z CI/CD	Runners are the machines that execute jobs in a GitHub Actions workflow. For example, a runner can clone your repository locally, install testing software, and then run commands that evaluate your code. GitHub provides runners that you can use to run your jobs, or you can host your own runners. Up until recently Linux on z has been a notable exception to the platforms supporting this function. In this session I describe their use and how to set up your own self-hosted runner as well as describing what we hope will be hosted on IBM infrastructure that you are able to use for your own projects.	Neale Ferguson
FBA, CKD, FCP, FICON, NVMe - What are they? What are the differences? Is one better than the other?	As a VM user, you have the choice of configuring and accessing your DASD storage as Fixed Block Address (FBA) LUNs connected via Fibre Channel Protocol (FCP) or as Count Key Data (CKD) volumes connected via FICON. And certainly you've been hearing about NVMe lately as well. So what's the best option? Of course, the answer (since you're running on an IBM system after all) is "it depends!" This presentation will give an overview of these various technologies - FBA v. CKD & FCP v. FICON and don't forget NVMe. We will delve into the basics of each and then compare and contrast them with a focus on capability, performance, and cost differences.	John Wolfgang

VM Workshop 2024 - Session Abstracts

<p>Feilong: The Python Open Source API for z/VM automation</p>	<p>Feilong is an open-source project under the Open Mainframe Project that provides a framework for managing IBM z/VM systems. The Python Open Source API for z/VM automation is a key component of Feilong, offering a streamlined and accessible way to automate tasks within the z/VM environment. This talk will provide the Feilong project updates, an overview of Feilong and the architecture of the project, highlighting the benefits of using the Python API for z/VM automation. Attendees will come away with a clear understanding of how Feilong and the Python Open Source API can simplify and streamline z/VM management.</p>	<p>Michael Snihur</p>
<p>Charting Our Journey: Past, Present, and Beyond - A Comprehensive Look at 21CS's History, Portfolio, and Future Direction</p>	<p>With a legacy spanning over three decades, 21CS has consistently delivered cutting-edge solutions for data protection, recovery, migration, and performance capacity planning. Central to their success is the strategic alliance with IBM, which led to 21CS entering into a z/VSE source code agreement in 2021. Explore how 21CS continues to shape the future of mainframe technology through its commitment to excellence and forward-thinking approach to the VSE operating system.</p>	<p>Eduardo Ciliendo</p>
<p>Pervasive Plumbing - Pipelines for Everyone</p>	<p>Unlike other attempts to implement CMS Pipes workalike, the design does not require special libraries or closed environments such as the JVM. All stages run natively. Dispatching is managed by the operating system, same as all other programs. Stage interconnect does not use, nor does it interfere with, traditional stdin, stdout, stderr. The project follows CMS Pipelines syntax as closely as possible. This is NOT shell pipes. Attendees should be familiar with CMS Pipelines for the talk to make the most sense.</p>	<p>Rick Troth</p>
<p>How-Tos and Futures for z/VM Express System Installation</p>	<p>z/VM ESI has been making waves in many areas since it was developed, from simplifying Linux on z/VM PoCs to streamlining delivery of some internal systems in IBM. This session will start with a brief update on some of the changes that have gone into the tool recently. Then, we move on to a discussion of the main components that enable the current z/VM ESI package, both in the z/VM layer and above it. Finally, if you don't want to use our version but would like to make your own express-z/VM, we'll provide some pointers on how you might do that.</p>	<p>Vic Cross</p>
<p>Server Speak</p>	<p>We should be able to ask our CMDB the status of our systems. This presentation will describe a prototype that does just that. You say "Computer, how many of my servers are down?", it pings every server and speaks the status to you. Tie this app into mobile devices, and the CIO/CTO types will just love it.</p>	<p>Mike Maclsaac</p>
<p>Cooling Improvements in Existing Data Centers</p>	<p>As we all know, Data Centers are power hogs. The majority of that power is used for cooling. This causes high electricity cost, environmental pollution, and acute local power supply shortages. Concentrated and systematic approaches toward reducing cooling costs in existing DCs have been mostly ignored even though this topic is getting hotter by the month (pun intended). The large 5 ISPs consider switching to immersion cooling (another vastly expensive and risky option) to prepare for the expected load due to AI, while smaller data centers are left hanging even though they might need cost savings the most. SNA has been specializing in efficient data center and command center design for decades. We are now offering consulting services to fashion bespoke improvement plans. Complex, data-driven, real-life simulations result from a tool we are building to visualize, analyze, and prioritize cooling improvement challenge mitigation. This session is a status report on our efforts to-date. We would like your friendly feedback on our future tool, as that will help us sharpen our efforts. Thank you.</p>	<p>E. Margarete Ziemer</p>
<p>Right sizing Linux on IBM z Systems and LinuxONE</p>	<p>As interest in running Linux on IBM z Systems and LinuxONE continues to grow, sizing the virtual machines for optimal performance and value becomes a must. In this session we'll discuss the fit for purpose methodologies that define the correct candidates for consolidation, how to manually adjust them, and then take a closer look at a way to automate tuning using Knowledge-based Intelligence (KI) to perform the actions for you dynamically.</p>	<p>Kurt Acker</p>
<p>Channels - how the mainframe ruled the I/O roost for 50 years</p>	<p>This session will present a brief overview of mainframe I/O architecture (with an emphasis on DASD devices) as well as a brief introduction to channel programming.</p>	<p>Perry Ruiter</p>
<p>CSI Solutions</p>	<p>For thirty years CSI has provided mainframe users with innovative, performance-minded solutions for networking, data and storage management, and systems management. In today's environment, CSI has focused on modernization and performance to bring value-driven solutions to our partners in the mainframe ecosphere. Learn how we can bring forward your mainframe workloads through talent tuning, new data management solutions, network performance solutions, and a modernized COBOL solution.</p>	<p>Barry Boyer</p>