OPEN
MAINFRAME
PROJECT

2021 Annual Report

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OPEN MAINFRAME COMMUNITY,

There were glimmers of hope in 2021 within the pandemic but we continued to shift the way we work, the way we live and how we connect with those around us. We became masters of our online journey with more on-camera meetings, using digital messaging platforms like Slack, Signal or Google Chat and attending virtual events.

We continued to see organizations embrace open source principles and collaborate with like-minded companies to accelerate new innovations and share best practices. I think the collaborative activities in our project communities brought a sense of togetherness that renewed people's spirits. This helped the Open Mainframe community achieve significant milestones in COBOL, GenevaERS, Mentorship, Zowe and a host of other projects and initiatives.

The 2021 annual report will give you an overview of all the accomplishments the Open Mainframe Project community made this year despite challenges. We are proud of our community and hope this gives you a look at how hard we all worked and the benefits to the ecosystem.

JOHN MERTIC
Director of Program Management,
The Linux Foundation and Open Mainframe Project

OVERVIEW

Linux and open source on the mainframe has been around for several decades and, with international technology giants heavily investing in enabling open source and linux on their mainframe platforms, it will continue to evolve. This is why the **Linux Foundation's Open Mainframe Project** is thriving.

Launched six years ago, the project has been laying the groundwork to become the focal point for mainframe and IT innovation for more flexible, scalable and secure enterprise solutions. Last year, there was quite a bit of momentum with expanding membership and projects that impact open source on the mainframe. In fact, when compared to 2019, Open Mainframe Project grew 14 percent with new members coming in with extensive technology, mainframe, COBOL and open source expertise in 2020.

With such momentum in 2020, Open Mainframe Project focused this year on amplifying the ecosystem by collaborating with groups and organizations that surround mainframes with expertise in continuous delivery, edge computing and financial open source solutions. These industry thought leaders spoke at the second annual Open Mainframe Summit and offered opportunities for Open Mainframe ambassadors and project chairs to engage and network with their communities. Through speaking opportunities to blog entries, this year saw more collaboration and networking than in previous years.

In 2022, Open Mainframe Project will continue working closely with other open source projects and like-minded organizations. The primary focus, however, will be on the downstream ecosystem and supporting the 22 projects and working groups with the technical tools and resources they need to mature their technologies and communities.

NEW PROJECTS

COBOL and Linux on Z Continue to Take Center Stage

COBOL's ability to support digital transformation is measurably faster and lower-risk than any of the alternatives, which is why there is an estimated 200 billion lines of code being used today. COBOL's value to the IT industry and global economy is sometimes underestimated, as is its contemporary usage and viability. COBOL is up-to-date technology, supporting the latest advances and innovations such as micro services, containers and cloud.

COBOL Check aims to enable unit testing for COBOL applications, including those hosted on IBM Z systems, and can support micro testing off-platform on Windows, OS X, Linux, or Unix. It has no dependencies on resources hosted on the Z system, which makes it easy to implement and key to supporting future technologies. For developers, COBOL Check will reduce code modifications and offer a shorter lead time to production. The program also improves the design, understandability, maintainability, and longevity of core business applications and supports IBM's mainframe modern-ization program by enabling restructuring of existing applications of APIs. COBOL Check will complement the COBOL **Programming Course** and will leverage the support of the **COBOL Working Group.**

Working Groups Aim to Solve Industry Problems

Working groups combine the best practices of open source development with a set of goals that enable organizations to foster industry collaborations. They provide a vendor-neutral governance structure that allows members of the foundation to collaborate on solving industry problems and to drive shared innovation through the related Open Mainframe projects. The collaboration meets the needs of specific industries and communities, including awareness, adoption, and contributions.

The new **Linux Distributions Working Group** was created to oversee the health and maintenance of the s390x port of various Linux distributions to ensure that the s390x port remains a supported architecture for them all. To this end, the group will collaborate on shared challenges and successes, work together to nurture new contributors, and make sure they also have the infrastructure they need.

The **Open z/OS Enablement Working Group** seeks to lower barriers to access z/OS, the premiere operating system for IBM System Z mainframes. As mainframes evolve, the shared nature of z/OS makes gaining access difficult. Unlike highly-partitioned cloud environments with no shared resources and thus low security risks, highly secured shared resources are the power behind z/OS.

PROJECT MILESTONES

Congratulations Graduates!

As an umbrella organization, Open Mainframe Project employs a project lifecycle process to determine how mature a project is. The maturity level is a signal as to where the project is in its lifecycle, dependent upon number of commits, use in POCs, community participation, interoperability/compatibility with other Open Mainframe projects, publicly documented release cycles, and more.

OPEN MAINFRAME PROJECT
COBOL
Programming Course

OPEN MAINFRAME PROJECT
G GenevaERS
The Single-Pass Optimization Engine

This year, the COBOL Programming Course marked a major milestone by becoming the first Open Mainframe Project to go through the lifecycle. The project, which launched in April 2020 as a result of the demand of COBOL skills, became an active project just one year after launching. It is now fully mature and operating as an open, transparent and sustainable project. **Learn more in this blog.**

GenevaERS, which was launched at the first Open Mainframe Summit in September 2020, is the single-pass optimization engine for data extraction and reporting on z/OS. The project combines the processing power of GenevaERS, the reliability of the mainframe and the dynamics of an open-source community. Within the year, the project solidified a governance structure, grew the community base with active participants from different companies and created the GenevaERS R&D labs for exploring the architecture with other technologies like Apache Spark. **Learn more in this blog.**

OPEN **MAINFRAME** PROJECT

PROJECT MILESTONES

## New Zowe Incubator Projects and Enhancements to the Conformance Program

Zowe continues to be one of the most popular projects under the Open Mainframe umbrella. It has brought new incubator projects that help explore its capabilities including:

- **Workflow WiZard** helps developers and systems programmers simplify the generation and management of z/OSMF workflows. Contributed by **BMC**, this tool assembles a workflow by reading a library of workflow steps and a properties file. It determines which steps are needed based upon rules within these templates, orders them based upon step prerequisites, and writes out an XML file of the complete workflow. Learn more in this **Open Mainframe Summit session.**

- **ZEBRA** provides re-usable and industry compliant JSON formatted RMF/SMF data records which enable ISV SW and users to exploit them using open-source software. Contributed by Vicom Infinity, Zebra project started as a Zowe Mentorship in 2020 but has grown significantly. Learn more in this **Open Mainframe Summit session.**
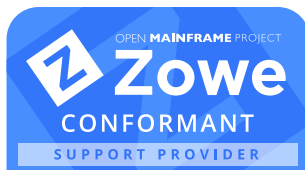
EXPANDING ZOWE CONFORMANCE TO SUPPORT PROVIDERS

In September 2021, the **Zowe Conformance Program** expanded to include badges for support providers. **The Zowe Conformant Support Provider Program** gives vendors the ability to showcase their Zowe support competencies. The program is different from the Zowe Conformance Program that exists for APIs, Desktop Apps, and CLI plug-ins. Support providers self-attest to the criteria defined by the Zowe Technical Steering Committee, which gives consumers the confidence they need to use Zowe in business-critical environments. In addition to the launch of this program, we are also announcing both IBM and Broadcom as the initial Zowe Conformant Support Providers.
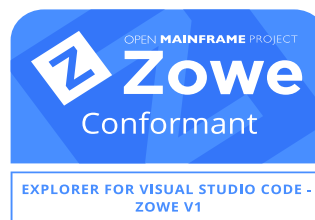
ZOWE EMBRACES VISUAL STUDIO CODE

The **2021 Stack Overflow Developer Survey** confirmed that Visual Studio Code has a "significant lead as the IDE of choice across all developers," which has led to the emergence of numerous mainframe VS Code Extensions. In November 2021, Zowe officially embraced these extensions by launching the Zowe Explorer for Visual Studio Code Conformance Program. This ensures that VS Code users will get a superior, integrated experience with extensions designed to interact with and amplify the value of **Zowe Explorer**. Instead of hoping their choice of VS Code extension "plays well" with Zowe, users simply need to look for the Zowe Explorer for Visual Studio Code conformance badge.

PROJECT MILESTONES

COBOL Survey Results Are In

The COBOL Working Group, which launched in 2020 as a response to the increasing misinformation of COBOL and skills gap, aims to promote and support the continued use of the COBOL language globally. One of its first missions was to identify the COBOL market, challenges, concerns and how companies are addressing these issues. They launched a global survey to learn from the industry and the results showcase that COBOL is a proven staple with hundreds of billions of lines of production code used across many industries. A few of the key findings include:

- There are about 250 Billion lines of COBOL code running the world economy
    - » Nearly all COBOL code is business logic, and not technology-focused infrastructure.
    - » That code has deep roots that have been developed and maintained for a very long time.
    - » There are constant new enhancements to COBOL applications that keep the business world turning.
- COBOL is here to stay. Organizations surveyed had long-term expectations to keep and grow their COBOL presence, and generally had very small numbers of COBOL applications that were being sunsetted or replaced.
- The world needs lots of new COBOL programmers. With so much code to maintain, there is a frank acknowledgement that there aren't enough new programmers to inherit it.

Learn more about the results in this blog.

Training the Next Generation of Mainframers

Since its launch, the Mentorship program has helped more than 50 students gain real-world knowledge in a hands-on learning experience with Linux, open source and mainframes. It also provides a more defined path for Open Mainframe Projects to connect with the next generation of student developers to inject more talent into their *developer* base. Each mentee applies, expresses interest in one of Open Mainframe Project's current projects and Working Groups, and are matched with a mentor who is a leader or an active developer in the mainframe community.

The Summer Mentorship, which kicked off in June through the end of August, paired 14 mentees with thought leaders from member organizations such as Broadcom, IBM, Micro Focus and Western & Southern Financial Group. This is the biggest mentee class Open Mainframe has ever had. It also marked an exciting milestone with a diverse group of projects including incubation projects – Mainframe Open Education, Polycephaly, Software Discovery Tool and active projects – ATOM, COBOL Programming Course, Zowe – and the COBOL Working Group. Learn more about the 2021 Summer mentors and mentees here.

OPEN MAINFRAME AMBASSADOR PROGRAM

Ambassadors Step Up

In April, the Open Mainframe Project tapped into the vibrant and talented community to launch the first-ever Ambassadors Program. These thought leaders are individuals who are passionate about mainframes and are actively contributing to one of the Open Mainframe projects. The main goal of the Ambassadors program is to spread the word around the world on how to join the community and advance Open Mainframe. Open Mainframe Project Ambassadors have volunteered to perform a variety of activities including speaking, mentoring, reviewing materials or presentations and writing blogs or contributed articles.

OPEN **MAINFRAME** PROJECT
AMBASSADOR

Open Mainframe Project Ambassadors 2021 include:

Michael Bauer, Broadcom

Joe Bostian, IBM

Richelle Anne Craw, Broadcom

Jerry Edgington, Western Southern

Matt Hogstrom, Broadcom

Dan Kelosky, Broadcom

Greg MacKinnon, Broadcom

Jessielaine Punongbayan, Broadcom

Rose Sakach, Broadcom

Joe Winchester, IBM

Open Mainframe Project had more than 40 speaking engagements this year. Events include cdCON, Code PaLOUsa, Embedded Linux Conference, Enterprise Computing Computing Community (ECC) Conference, IBM TechU, IBM Z Day, IDUG NA Db2, Open Mainframe Summit, Open Source Strategy Forum, Open Source Summit, SHARE, SUSECON and VM Workshop.

OPEN MAINFRAME SUMMIT

OPEN **MAINFRAME** SUMMIT

2nd Annual Open Mainframe Summit

The summit kicked off with some big news—Open Mainframe Project experienced record growth in contributions this year—with more than 105.31 million lines of code written and over 9,600 commits submitted by Open Mainframe Project communities so far this year. This is 100 percent more code than last year with an increased number of active participants in the project and working groups.

The theme of this year's Open Mainframe Summit expanded beyond the mainframe to highlight influencers with strengths in the areas supporting or leveraging the technology like continuous delivery, edge computing, financial services and open source. Keynote speakers for the event included Gabriele

Columbro, Executive Director of Fintech Open Source Foundation (FINOS); Jason Shepherd, Vice President of Ecosystem at ZEDEDA and Chair of the LF Edge Governing Board; Jono Bacon, a leading community and collaboration speaker and founder of Jono Bacon Consulting; Steve Winslow, Vice President of Compliance and Legal at The Linux Foundation; Tracy Ragan, CEO and Co-Founder of DeployHub and Continuous Delivery Foundation Board Member, and more.

The event also highlighted projects, diversity, and business topics that offered seasoned professionals, developers, students, and leaders an opportunity to share best practices and network with like-minded individuals.

Open Source, Open Culture	Open Source in Finance	DevOps & CD	Edge Computing	Open Source Security & Compliance
JONO BACON	**GABRIELE COLUMBRO**	**TRACY RAGAN**	**JASON SHEPHERD**	**STEVE WINSLOW**
Jono Bacon Consulting, Founder	FINOS, Executive Director	DeployHub, CEO & Co-Founder; Continuous Delivery Foundation, Board Member	ZEDEDA, VP of Ecosystem	The Linux Foundation, VP of Compliance & Legal

OPEN MAINFRAME SUMMIT

Open Mainframe Summit ended with 219 registered attendees that represented 83 companies from 22 countries. During the conference, there were 167 unique users on the platform, a 77% attendance rate, which is a slight increase when compared to last year.

The two-day conference featured 35 sessions, including keynotes, breakout sessions, and light-ning talks that had a mix of executive and technical content. The event was made possible thanks to Platinum Sponsors Broadcom, IBM, Rocket Software and SUSE; Gold Sponsors Micro Focus and Vicom Infinity; Silver Sponsor BMC; and Academic and Community Sponsors CD Foundation and FINOS. All of the details can be found in the 2021 Open Mainframe Summit Transparency Report.

Meet us next year in Philadelphia!
September 21 - 22, 2022
Convene at Commerce Square

With all of the positive feedback received from members, the community, and attendees, Open Mainframe Summit 2022 will be held on September 21-22, 2022 in Philadelphia, PA!

Open Mainframe 2021 Summit Playlist
All videos are available on demand below or on the Open Mainframe Project Youtube Channel.

KEYNOTES

- Welcoming & Opening Remarks — *John Mertic, Open Mainframe Project/The Linux Foundation*
- Walking the Open Source Trail Towards Supply Chain Integrity and Security — *Steve Winslow, The Linux Foundation*
- Parts are parts — the Joining of Mainframe, Distributed and Cloud Native Continuous Delivery — *Tracy Ragan, DeployHub & Continuous Delivery Foundation*
- Open Source in Action: Ansible for z/OS — *Skyla Loomis, IBM Systems Group*
- Leveraging the Open Mainframe for Hybrid IT — *Alan Clark, SUSE*

- Edge Computing: Did the Pendulum Just Swing Back? — *Jason Shepherd, ZEDEDA*
- Building Open Source Communities (Without The Pain) — *Jono Bacon, Author and Speaker*
- Is OSS Contribution Enabling a Nash Equilibrium for Fintech? — *Gabriele Columbro, Executive Director, FINOS*
- Our Journey to The Open, Modern Mainframe: Where Veterans and Next-Gens Meet — *Hayden Lindsey, Vice President of Engineering & Architecture, Broadcom Inc, Mainframe Software Division*
- Welcome Back — *John Mertic, Director of Program Management, Open Mainframe Project*
- Zowe, The Hottest Platform Turning Execs' Heads and Unifying User Experiences — *Tim Willging, Chief Architect of the z/OS Business Unit, Rocket Software*

OPEN MAINFRAME SUMMIT

SESSIONS

- **Panel Discussion: The Convergence of Open Source and the Mainframe** — *Steven Dickens, Fututurum Research; Skyla Loomis, IBM; Jeff Cherrington, Rocket Software; April Hickel, BMC; George Decandio, Broadcom; John Mertic, The Linux Foundation*

- **Zowe V1 Conformance: The Meaning Behind the Badge** — *Rose Sakach & Michael Bauer, Broadcom*

- **The Mainframe, Open Source and Renewal of Financial Systems** — *Kip Twitchell, IBM*

- **Panel Discussion: Making Our Strong Community Stronger** — *Dr. Gloria Chance, Mousai Group; Jeanne Glass, VirtualZ Computing; David Jeffries, IBM; Greg Lotko, Broadcom; Andy Youniss, Rocket Software*

- **Lightning Talk: Workflow wiZard: A Flexible Workflow Creation Tool for z/OSMF** — *Ray Cole, BMC Software*

- **Panel Discussion: The New Face of COBOL** — *Michael Bauer, Broadcom; Sudharsana Srinivasan & Paul Newton, IBM; Hartanto Ario Widjaya; Ahmed Eid, Al-Azhar University*

- **Lightning Talk: Avoid Unconscious Bias to Become a Better Colleague** — *Misty Decker, Micro Focus*

- **Introducing ZEBRA — an Incubation Project for ZOWE** — *Salisu Ali, Bayero University Kano, Nigeria; Andrew Twydell, IBM Intern 2020-2021; Yongkook (Alex) Kim, Vicom Infinity*

- **Integrating Tessia for Self-provisioning of Linux Distributions on Z** — *Alexander Efremkin, IBM*

- **General Mentorship Session** — *Krushnal Patel, Tye Glenz, Innocent Onwukanjo, Indranil Mandal, Divya Goswami*

- **Feilong: The Open Source API for z/VM Automation** — *Mike Friesenegger, SUSE*

- **DIY: Zowe Explorer Starter Kit** — *Jessielaine Punongbayan & Richelle Anne Craw, Broadcom*

- **COBOL Mentorship Session** — *Sudhanshu Dubey, Ahmed Eid, Hartanto Ario Widjaya, Joshua Fogus*

- **Building a Browser-based Search and Impact Analysis using Zowe as a Bridge** — *Ami Sadeh, IN-COM Data Systems*

- **Avoid Installing Open Source Malware in Your Enterprise** — *Joe Bostian, IBM*

- **API Design when Modernizing the Mainframe — Using Zowe APIML and Choosing Design Approaches and Patterns for Success** — *John Jakacki & John Mathunny, Broadcom*

- **5 Mainframe Mavens** — *Stacey Miller, SUSE & Yvette La Mar, IBM*

- **Address Scaling, Availability and DevOps with Containerized Zowe** — *Sean Grady, Rocket Software*

- **Lightning Talk: Experience Matters: How Zowe Docs Evolved to Empower the Community** — *Ashley Li, IBM*

- **Open Source Kubernetes Management on the Mainframe —** *Mike Friesenegger, SUSE*

- **Panel Discussion: For the Community, By the Community: The Evolution of Education for the Modern Mainframe Industry —** *Viviane Sanches, kyndryl; Darren Surch, Interskill; Robert Dahlberg, VCU; Hartanto Ario Widjaya, Singapore; Philip Gineo, Endevor*

- **USS, Linux on Z or zCX: Where, oh Where to Run Open Source —** *Tatiana Balaburkina & Vladimir Kudryakov, Rocket Software*

- **Zowe Mentorship Session**

OTHER OPEN MAINFRAME PROJECT INITIATIVES

Diversity, Equity, and Inclusion

Open Mainframe Project committed to diversity, equity and inclusion (DEI) several years ago. The project has created and sponsored Women in IT initiatives and has selected women for leadership roles with the Governing Board, technical advisory council, outreach committee and contributing to projects. DEI is not only a critical part of society but also Open Mainframe's community success.

This year, for the annual summit, Open Mainframe Project worked closely with the CHAOSS Diversity & Inclusion Badging Program. This high-profile program encourages events to obtain badges for leadership, self-reflection, and self-improvement on issues critical to building the Internet as a social good. With more than 40% female speakers, Open Mainframe Summit

earned a Gold Badge for prioritizing diversity and inclusion.

Additionally, 24% of attendees were women and gender non-conforming and there were also several diversity, equity and inclusion focused sessions.

To further advance the Open Mainframe Project's commitment to DEI, the project partnered with Broadcom, IBM, Rocket Software, TechChannela and Virtual Z Computing on "Making Our Strong Community Stronger." This collaborative initiative focuses on DEI in the mainframe industry through a series of conversations about different diversity, equity and inclusion views, strategies, best practices and experiences. These discussions were held via webinars with a unique set of panelists and town-hall style forums where attendees could ask questions to Dr. Chance or panelists, share their stories or suggest tips or other areas of interest.

OTHER OPEN MAINFRAME PROJECT INITIATIVES

This year, the initiative was able to produce two webinars:

Unmasking Our Whole Self: Can We Create Inclusive Psychologically Safe Spaces in the Workplace?

Work/life integration is the modern equivalent of work/life balance, and inherent in this is the idea that your "whole self" is welcome at work. As the last many months demonstrated, there is less separation between work and personal lives than we originally thought. But this idea of work/life integration and its influence on corporate inclusion plays out differently for different people, when being your "whole self" is a privilege—while some may be comfortable being their genuine "whole self" at work, others (especially those from more diverse populations) still feel a need to wear a mask based on how they are expected to behave but not who they really are.

This July webinar tackled how we look at how the pressures of the pandemic have heightened racial, gender and additional inequalities:

- Video — *Making Our Strong Community Stroger Webinar*
- How Can We Create Psychologically Safe Workspaces? —*TechChannel Article*
- My DEI Journey —*Blog by Earl Dixon, panelist for this webinar*

How Personal Experiences Shape Corporate Inclusion

When we join companies, we bring our experiences — societal, cultural, spiritual, familial — with us. These experiences then create personas within the company that contribute to the collective personality of the organization. In this webinar, panelists shared personal stories and histories of colleagues across the mainframe community to reveal how experiences influence "company culture" and shape corporate inclusion.

The April webinar:

- **Video** — *Making our Strong Community Stronger Webinar*
- **Voices Come Together for Corporate Inclusion** — *TechChannel Article*
- **A Personal Look: Making Our Strong Community Stronger** — *Blog by Ashley Peterson, panelist for this webinar*

OTHER DIVERSITY CONTENT

- **A Call for Unity** — *Blog by John Mertic*
- **Linux Foundation Support for the Black Community** — *Blog by The Linux Foundation*
- **What Inclusion Means to Me and How to Get Started** — *Blog by Maemalynn Meanor*

- **When Your Employees Are Thriving, Your Business Is Thriving: Why DEI Strategies Should Be a Business Imperative** — *TechChannel Article*

All of the webinars are available on the **DEI Playlist** on the **Open Mainframe Youtube Channel.**

PARTNERSHIPS

TechStrong TV

TechStrong TV is produced by Techstrong Group, the team behind DevOps.com, Security Boulevard and Container Journal. TechStrong TV broadcasts 3 days a week, Monday, Tuesday and Thursday at 9:30 am ET, featuring live news and coverage, as well as focused interviews with industry leaders. This year Open Mainframe Project teamed up with them for a few panel discussions featuring project leaders and members.

All videos can be found on DigitalAnarchist, TechStrong TV's online platform for streaming and hosting these videos. The Open Mainframe Playlist can be found here and features seven videos:

- It's Not Your Mother's COBOL — May 24, 2021
- Open Mainframe Project — June 21, 2021
- Zowe — July 26, 2021
- Mainframe Open Education — August 20, 2021
- Open Mainframe Summit — September 20, 2021
- Continuous Delivery & Mainframes — November 4, 2021
- Predictions for 2022 — December 16, 2021

TFiR

TFiR is a video-focussed story-telling platform covering Open Source, Cloud Native Computing, Security, Edge, 5G & AI/ML. Founded by seasoned journalist and influencer, Swapnil Bhartiya, in late 2018, TFiR has become the fastest-growing publi-cation which boasts of its 20,000+ strong YouTube subscriber base.

Open Mainframe Project partnered with TFIR to produce content that offers news, overviews of new projects, updates on milestones for current projects. All Open Mainframe Project videos can be viewed on the TFiR website or their Youtube Channel.

Open Mainframe Playlist can be found here:

- Software Discovery Tool — *Elizabeth Joseph, Chair of Software Discovery Tool, and Divya Goswami, former Open Mainframe Project Summer Mentee*
- Zorow — *Hiren Shaw, Zorow lead*
- The Open z/OS Enablement Work Group — *Kip Twitchell, GenevaERS TSC Chair*
- News from Open Mainframe Summit — *John Mertic, Director of Program Management*
- BMC joins Open Mainframe Project — *April Hickel, Vice President, ZSolutions Strategy at BMC*
- Open Mainframe Summit Promo
- Tessia — *John Mertic, Director of Program Management*

RESOURCES

I am a Mainframer Podcast

[I am a I am a Mainframer: Kip Twitchell](#) — January 2021

[I am a Mainframer: Greg Lotko](#) — May 2021

[I am a Mainframer: Derek Britton](#) — September 2021

[I am a Mainframer: Anne McKee](#) — February 2021

[I am a Mainframer: Len Santalucia and Brian Ross](#) — June 2021

[I am a Mainframer: Steven Dickens](#) (Guest Host Joe Winchester) — October 2021

[I am a Mainframer: Thomas Amodio](#) — March 2021
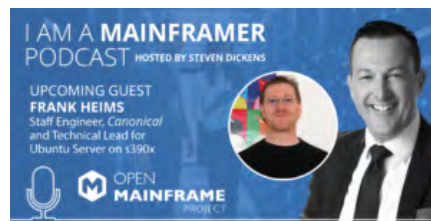
[I am a Mainframer: Frank Heims](#) — July 2021

[I am a Mainframer: John Mertic](#) — November 2021

[I am a Mainframer: Sean Grady and Haseeb Jawad](#) — April 2021

[I am a Mainframer: Paul Scott](#) — August 2021

[I am a Mainframer: Tina Tarquinio](#) — December 2021

RESOURCES

Open Mainframe Blogs

All of these blogs can be found on the Open Mainframe Project blog landing page **here.**

- **Welcoming Derek Britton and Cameron Seay to the Governing Board** — *John Mertic, Director of Program Management, Open Mainframe Project, January 4, 2021*

- **COBOL, I am a Mainframer and Zowe top Open Mainframe's Most Read Blogs in 2020** — *Maemalynn Meanor, Senior PR Manager, Open Mainframe Project, January 13, 2021*

- **Zowe in 2021** — *Jakub Balhar, Chair of the Zowe Technical Steering Committee and R&D Engineer, Broadcom, January 20, 2021*

- **Join our project and commit to the Spark-GenevaERS POC!** — *Kip Twitchell, Chair of the GenevaERS Technical Steering Committee, January 27, 2021*

- **Get Your Mentorship On! Open Mainframe Project Opens Annual Mentorship Application** — *Maemalynn Meanor, Senior PR Manager, Open Mainframe Project, February 1, 2021*

- **What's Next for COBOL** — *Sudharsana Srinivasan, IBM, Mike Bauer, Broadcom, and Paul Newton, IBM, February 3, 2021*

- **Open Source Education & Training: New Program Offers Best Practices for Managers and Technical Staff** — *Dan Brown, Senior Manager, Content & Social Media, LF Training, February 10, 2021*

RESOURCES

- **Immutable z/OS data with immudb – lightweight on big iron** — *Sebastian Wind, Open Mainframe Project Mentorship Graduate, February 12, 2021*

- **I am a Mainframer: Anne McKee** — *Chris Blum, February, 16, 2021*

- **Meet ATOM, one of Open Mainframe Project's Oldest Projects** — *Walter Church, Open Mainframe Project's Atom Syntax Highlighter Owner, February 18, 2021*

- **The Case for COBOL in the Mainframe – Even for Millennials** — *Cameron Seay, Open Mainframe Governing Board Member, COBOL Working Group co-chair, and Adjunct Professor at East Carolina University, February 19, 2021*

- **Open Mainframe in Japan** — *Maemalynn Meanor, Senior PR Manager, Open Mainframe Project, February 23, 2021*

- **Open Mainframe Project's Tessia Announces Updates** — *Open Mainframe, February 25, 2021*

- **Looking Back and Looking Ahead: Open Mainframe Project's 2020 Annual Report** — *Maemalynn Meanor, Senior PR Manager, March 1, 2021*

- **GenevaERS: Milestones, Goals and More** — *Kip Twitchell, Chair of the GenevaERS Technical Steering Committee, March 3, 2021*

- **I am a Mainframer: Tom Amodio** — *Chris Blum, March 9, 2021*

- **Mainframe Open Education: Join the Movement!** — *Deborah Carbo, Open Mainframe Education Core Team and Director of Mainframe Product Management and Strategy at Broadcom, March 10, 2021*

- **Why did HSTS join the Open Mainframe Project?** — *Open Mainframe Project, March 18, 2021*

- **A Call for Unity** — *John Mertic, Director of Program Management, Open Mainframe Project, March 19, 2021*

- **Zoweians Assemble! SHARE Virtual Summit 2021** — *Joe Winchester- Zowe Leadership Committee Member, March 22, 2021*

- **Master the Mainframe Announces This Year's Winners** — *Jeff Bisti, IBM Z Ecosystem Architect, March 31, 2021*

- **An Overview of the Academic Landscape of Mainframe in the US** — *Cameron Seay, Open Mainframe Governing Board Member, COBOL Working Group Chair, and Adjunct Professor at East Carolina University, April 7, 2021*

- **Apply for the Linux Foundation Training Scholarships by April 30!** — *Dan Brown, Senior Manager, Content & Social Media, LF Training, April 9, 2021*

- **Zowe 1.20 release available!** — *Joe Winchester- Zowe Leadership Committee Member, April 14, 2021*

- **I am a Mainframer: Sean Grady and Haseeb Jawad** — *Chris Blum, April 20, 2021*

- **The COBOL Programming Course Graduates!** — *Sudharsana Srinivasan, COBOL Programming Course Chair, April 21, 2021*

- **What inclusion means to me and how to get started** — *Maemalynn Meanor, Senior PR Manager, Open Mainframe Project, April 23, 2021*

- **Meet the Open Mainframe Project Ambassadors!** — *Maemalynn Meanor, Senior PR Manager, Open Mainframe Project, April 28, 2021*

RESOURCES

- **Why Have Colleges and Universities Stopped Teaching Mainframe Skills?** — *Cameron Seay, Open Mainframe Governing Board Member, COBOL Working Group Chair, and Adjunct Professor at East Carolina University, April 30, 2021*

- **Zowe 1.21 Release Highlights & Demo Video** — *Joe Winchester- Zowe Leadership Committee Member, May 6, 2021*

- **How Personal Experiences Shape Corporate Inclusion** — *Maemalynn Meanor, Senior PR Manager, Open Mainframe Project, May 11, 2021*

- **Mainframe Open Education – How to train the next generation of mainframers** — *Maemalynn Meanor, Senior PR Manager, Open Mainframe Project, May 13, 2021*

- **I am a Mainframer: Greg Lotko** — *Chris Blum, May 18, 2021*

- **The US Executive Order on Cybersecurity and the Open Mainframe Project** — *John Mertic, Director of Program Management, Open Mainframe Project, May 21, 2021*

- **Women in Technology Continue to Grow in Numbers and Contribution** — *Saghi Amirsoleymani, Vice President, WW Cross Brand, Rocket Software, May 26, 2021*

- **How Do We Get Mainframe Back in the Academic Curriculum?** — *Cameron Seay, Open Mainframe Governing Board Member, COBOL Working Group Chair, and Adjunct Professor at East Carolina University, May 28, 2021*

- **Zowe: Build open source with open source** — *Javier Perez, IBM Open Source Program Leader and Zowe contributor, June 2, 2021*

- **So many software options – what is available and how do I get it? Software Discovery Tool Answers These Questions and More**- — *Elizabeth Joseph, Open Mainframe Project's Software Discovery Tool Chair and Developer Advocate for IBM, June 9, 2021*

- **Open Mainframe Project Mentorship: Offline COBOL & CICS Education** — *Joshua Fogus, Open Mainframe Program Summer Mentee, June 16, 2021*

- **Code for Cause: Q&A with John Mertic** — *Open Mainframe Project, July 1, 2021*

- **Zowe 1.22 Release Highlights & Demo Video** — *Joe Winchester- Zowe Leadership Committee Member and Senior Technical Lead at IBM, July 7, 2021*

- **COBOL Modernization: The way forward** — *Sudhanshu Dubey, COBOL Working Group Open Mainframe Project 2021 Summer Mentee, July 9, 2021*

- **Open Mainframe Project at cdCON: Watch it here** — *Open Mainframe Project, July 14, 2021*

- **I am a Mainframer: Frank Heimes** — *Chris Blum, July 20, 2021*

- **Open Mainframe Project's Mentorship Program Welcomes its Largest Summer Mentee Class** — *Maemalynn Meanor, Senior PR Manager, Open Mainframe Project, July 21, 2021*

- **Stepping through the Door to the Mainframe World** — *Sudhanshu Dubey, COBOL Working Group Open Mainframe Project 2021 Summer Mentee- July 23, 2021*

- **A Personal Look: Making Our Strong Community Stronger** — *Ashley Peterson, Product Marketing Manager, IBM Z and LinuxONE, July 26, 2021*

- **Software Discovery Tool: A Mentee Perspective** — *Divya Goswami, Open Mainframe Project Summer Mentee, July 28, 2021*

RESOURCES

- **COBOL Education: An Interactive Hands-on Experience** — *Ahmed Eid and Hartanto Ario Widjaya, Open Mainframe Project 2021 Summer Mentees for the COBOL Programming Course, August 3, 2021*

- **Unmasking Our 'Whole Self': Can We Create Inclusive Psychologically Safe Spaces in the Workplace?** — *Maemalynn Meanor, Senior PR Manager, Open Mainframe Project, August 4, 2021*

- **Open Mainframe Project Mentorship: Offline COBOL Education** — *Joshua Fogus, Open Mainframe Project Summer Mentee, August 13, 2021*

- **I am a Mainframer: Paul Scott** — *Chris Blum- August 17, 2021*

- **My Mentorship: Zowe Explorer Extension Templates** — *Open Mainframe Project, August 19, 2021*

- **Mentorship: Analyzing Application Older Than You Are** — *Sudhanshu Dubey, Open Mainframe Project Summer Mentee, August 25, 2021*

- **Security, Innovation, and Collaboration Fuel Mainframe Transformation** — *April Hickel, Vice President Intelligent Z at BMC Software, August 26, 2021*

- **Zowe 1.23 Release Highlights & Demo Video** — *Joe Winchester- Zowe Leadership Committee Member and Senior Technical Lead at IBM, August 31, 2021*

- **My Mentorship: Polycephaly** — *Innocent Onwukanjo, Open Mainframe Project 2021 Summer Mentee, September 2, 2021*

- **Open Mainframe Project Mentorship: Cord Cutting the COBOL Coursework** — *Joshua Fogus, Open Mainframe Project Summer Mentee, September 8, 2021*

- **From Bootcamp to Employment: Closing the Mainframe Skills Gap** — *Cameron Seay, Open Mainframe Governing Board Member, COBOL Working Group Chair, and Adjunct Professor at East Carolina University- September 10, 2021*

- **I am a Mainframer: Derek Britton** — *Chris Blum, September 15, 2021*

- **Open Mainframe Project launches an Open z/OS Enablement Work Group** — *Kip Twitchell, Chair of the GenevaERS Technical Steering Committee, September 20, 2021*

- **Open Mainframe Project Announces Continued Growth in Community Contributions and Adoption as Mainframes Accelerate Innovation in Enterprise Hybrid Technology** — *Maemalynn Meanor, Senior PR Manager, Open Mainframe Project, September 22, 2021*

- **GenevaERS: A Growing Community Focused on Data Insights** - *Kip Twitchell, Chair of the GenevaERS Technical Steering Committee, September 29, 2021*

- **The Epilogue: A Retrospective of My Mainframe Mentorship Journey** — *Joshua Fogus, Open Mainframe Project Summer Mentee, October 1, 2021*

- **ISPF Menus Made Easy** — *Lionel B. Dyck, Contributor to CBT TAPE and an advocate for z/OS ISPF, October 6, 2021*

- **The New Zowe Conformant Support Provider Program** — *Rose Sakach, Zowe Onboarding Squad Lead and Product Manager at Broadcom, October 8, 2021*

- **Service Candidates: The Blueprint of a Modernized Application** — *Sudhanshu Dubey, Open Mainframe Project Summer Mentee, October 13, 2021*

RESOURCES

- **Who is Zac?** — *Peter Fandel, Zowe Product Manager at Rocket Software, ZAC Chair and Open Mainframe Project Governing Board member, October 15, 2021*

- **I am a Mainframer: Steven Dickens** — *Chris Blum, October 20, 2021*

- **My DEI Journey** — *Earl Dixon, Principal Client Services Management at Broadcom, October 21, 2021*

- **BMC's Contribution to Zowe provides an easier way to build and manage z/OSMF workflows** — *Paul Spicer, lead product manager for BMC's zSolutions, October 22, 2021*

- **A Recap of Open Mainframe Summit 2021** — *Maemalynn Meanor, Senior PR Manager, Open Mainframe Project, October 27, 2021*

- **Zowe 1.24 Release Highlights and Demo Video** — *Joe Winchester- Zowe Leadership Committee Member and Senior Technical Lead at IBM, November 3, 2021*

- **Building a Browser-Based Search and Impact Analysis Using Zowe as a Bridge** — *Open Mainframe- November 10, 2021*

- **My favorite Mainframe and Six Women Building It** — *Tina Tarquinio, Making Our Strong Community Stronger Panelist and Product Management Executive for IBM Z, November 12, 2021*

- **Sharing Code Snippets in VS Code** — *Michael Bauer, Zowe CLI Squad Lead and Senior Product Owner at Broadcom, November 17, 2021*

- **New Training Course Simplifies Learning Open Standards for Financial Desktops** — *Dan Brown, Senior Manager, Content & Social Media, LF Training, November 19, 2021*

- **I am a Mainframer: John Mertic** — *Chris Blum, November 23, 2021*

- **Check out the LF Training & Certification Deals for Cyber Monday!** — *Dan Brown, Senior Manager, Content & Social Media, LF Training, November 29, 2021*

- **Zowe Embraces Visual Studio Code Extensions** — *Rose Sakach, Zowe Onboarding Squad Lead and Product Manager at Broadcom, December 1, 2021*

- **Zowe v1.25 Release Highlights and Demo Video** — *Ashley (Nan Nan) Li, Zowe Contributor and Content Designer at IBM, December 8, 2021*

- **Zowe named as finalist for Best DevOps for Mainframe Solution in 2021 DevOps Dozen awards** — *Joe Winchester, Member of the Zowe Community, Open Mainframe Project Ambassador and Senior Technical Lead at IBM, December 10, 2021*

- **The Uncommonly Common Sense of COBOL** — *Reg Harbeck, a member of the COBOL Working Group, December 15, 2021*

- **I am a Mainframer: Tina Tarquinio** — *Chris Blum, December 16, 2021*

- **Open Mainframe Project 2022 Elections – Welcome Misty Decker to the Governing Board!** — *John Mertic, Director of Program Management, Open Mainframe Project, December 17, 2021*

- **Enhance QEMU on Linux on Z** — *David Edelsohn, Open Mainframe Project community member and Senior Technical Staff Member, Open Source Ecosystem at IBM, December 21, 2021*

- **Join us as a 2022 Open Mainframe Project Ambassador!** — *John Mertic, Director of Program Management, Open Mainframe Project, December 29, 2021*

RESOURCES

Zowe Blog Series

In 2020, the Zowe community launched their own blog series on medium. Any and all community members are welcome to contribute content that goes through a technical review process by volunteers from the Zowe community. Additionally, Open Mainframe Project Ambassador Joe Winchester, a member of the Zowe Advisory Council who holds several other Zowe titles, also volunteered to be lead editor and review all blogs for branding and technical accuracy.

All Zowe blogs can be found here:

- Top 5 Most Read Zowe Stories — *David McNierney, Product Marketing & Developer Marketing Leader, Broadcom, January 5, 2021*

- Configuring Zowe Db2 Command Line Interface — *Joe Winchester, Senior Technical Staff Member, IBM, January 19, 2021*

- Zowe CLI: How to Quickly Bring Value to Customers — *Marcel Veselovsky, Product Owner, Broadcom Inc, January 26, 2021*

- Zowe CLI — Getting Started, Made Easy! — *Michael Bauer, Product Owner, Broadcom Inc, February 2, 2021*

- Use Zowe to validate JCL with the touch of a button — *Gene Johnston, Principal Software Engineer, Broadcom Inc, February 2, 2021*

- CA JCLCheck and Zowe ensure that JCL runs successfully at your site — *Gene Johnston, Principal Software Engineer, Broadcom Inc, February 8, 2021*

- Log in to Zowe APIML with Zowe Explorer in VSCode — *Katelyn Nienaber, Broadcom Inc, February 22, 2021*

- The Journey of Creating Zowe CLI Plug-in: From Zero to Hero — *Radek Stria, Software Engineer, March 5, 2021*

- Zowe client certificate authentication — *David Janda, March 11, 2021*

- z/OS FTP Plug-in for Zowe CLI — *Na Tian, April 8, 2021*

- Browser UI for z/OS® System Display and Search Facility (SDSF) based on Zowe CLI — *Frans Beyl, April 13, 2021*

- Using the new and updated Zowe.org website — *Nan Nan Li, April 20, 2021*

- How to Use Zowe Node Client SDK — *Dan Kelosky, April 21, 2021*

- Installing and configuring the Zowe cross memory server — *Joe Winchester, Senior Technical Staff Member, IBM, April 27, 2021*

- An API to simplify retrieval of Zowe Profile Information — *Gene Johnston, Principal Software Engineer, Broadcom Inc, May 12, 2021*

- How mainframe engineers can leverage CA SYSVIEW Zowe CLI Plugin in their CI/CD pipelines — *Zaid Alattar, Software Engineer, Broadcom Inc, May 24, 2021*

- Zowe Explorer Extension for FTP — *Na Tian, June 3, 2021*

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- [Automate CA Endevor Package Shipments with Zowe CLI](#) — *Joseph Walther, Broadcom Client Services Consultant, June 9, 2021*

- [Extending Zowe Explorer with Zowe CLI & VS Code Tasks](#) — *Dan Kelosky, June 29, 2021*

- [Zowe Doc Site: 11 new features & improvements you can't miss](#) — *Nan Nan Li, July 20, 2021*

- [Exposing partial API Documentation in the Zowe API Catalog](#) — *David Janda, August 3, 2021*

- [Using the Zowe Explorer extension for CICS](#) — *Andrew, August 9, 2021*

- [Troubleshooting SSL/TLS setup with Zowe Certificate Analyzer](#) — *Andrej Chmelo, August 16, 2021*

- [How To Become A Zowe Desktop Application Developer](#) — *Sergei Kurnevich, Software Engineer, Broadcom Inc, August 24, 2021*

- [Zowe z/OS Extensibility standardized](#) — *Jadin Luong, September 1, 2021*

- [Update your Services Without Disrupting Users with the help of the API Mediation Layer](#) — *Jakub Balhar, Broadcom Inc, September 13, 2021*

- [Got Zowe? Let the Zowe Conformant Support Provider Program be your guide for support!](#) — *Rose Sakach, September 24, 2021*

- [Automatic Zowe CLI Service Configuration Using API Mediation Layer](#) — *Fernando Rijo Cedeno, Software Engineer, Broadcom Inc, September 28, 2021*

- [How To Stand Up Zowe on z/OS in Minutes](#) — *Jan Prihoda, Product Owner, Broadcom Inc, October 7, 2021*

- [Sharing Code Snippets in VS Code](#) — *Michael Bauer, Product Owner, Broadcom Inc, October 8, 2021*

- [BMC's Contribution to Zowe provides an easier way to build and manage z/OSMF workflows](#) — *Maemalynn Meanor, Senior PR Manager, Open Mainframe Project, October 11, 2021*

- [Running Zowe in Kubernetes](#) — *Jack Jia, Software Developer, IBM, November 4, 2021*

- [How to Store Zowe CLI Arguments in Team Config](#) — *Dan Kelosky, November 12, 2021*

- [Zowe Embraces Visual Studio Code Extensions](#) — *Rose Sakach, November 18, 2021*

- [Tutorial to start Zowe in Kubernetes](#) — *Jack Jia, Software Developer, IBM, November 30, 2021*

- [Team Configuration: The new sheriff in town!](#) — *Richelle Anne Craw, Senior Software Engineer, Broadcom Inc, December 9, 2021*

- [Vote Zowe!](#) — *David McNierney, Broadcom, December 10, 2021*

- [Zowe Newsletter](#) — *David McNierney, Broadcom, December 13, 2021*

- [Zowe CLI — A Faster Experience (Made Better)](#) — *Dan Kelosky, December 13, 2021*

- [Zowe Explorer: Tips & Tricks](#) — *Michael Bauer, Product Owner, Broadcom Inc and Co-authored by Jessielaine Punongbayan, December 20, 2021*

- [A Step By Step Guide To Deploying Zowe With a z/OSMF PSWI](#) — *Jan Prihoda, Product Owner, Broadcom Inc, December 20, 2021*

RESOURCES

Media Coverage

- [Open Mainframe Project Welcomes New Project Tessia, HCL Technologies and Red Hat to its Eco-system](#) — *Enterprise Systems, January 26, 2021*

- [No, COBOL is Not a Dead Language](#) — *Data Center Knowledge, February 8, 2021*

- [Zowe in 2021](#) — *Dancing Dinosaur, February 8, 2021*

- [COBOL: Not Just for Old Credit Card Hacks](#) — *Payments Journal, February 9, 2021*

- [Open Mainframe Project Launches Tessia and Expands the Open Source Ecosystem](#) — *TechChannel, February 17, 2021*

- [Ushering in a New Era for the Mainframe with Open Source](#) — *CIO Review, February 18, 2021*

- [What is COBOL?](#) — *Computerwoche (German), February 19, 2021*

- [Why the Mainframe is Alive and Thriving](#) — *ZDNet, March 5, 2021*

- [Open Mainframe Project Kicks Off First Quarter with New Members, Additional COBOL and Linux on Z Resources and Launch of the 2nd Annual Open Mainframe Summit](#) — *DevOps.com, March 9, 2021*

- [Open Mainframe Project Kicks Off First Quarter with New Members, and Additional COBOL and Linux on Z Resources](#) — *Database Trends and Applications, March 9, 2021*

- [Open Mainframe Project Kicks Off Q1 with New Members, Additional COBOL & Linux on Z Resources](#) — *Enterprise Systems Media, March 10, 2021*

- [Open Mainframe Project Announces New Members, Additional COBOL And Linux on Z Resources](#) — *TFIR.org, March 11, 2021*

- [COBOL Supports the World's Business Operations](#) — *TechChannel, March 17, 2021*

- [Best Open Source for Students to Participate](#) — *Geeks for Geeks, March 24, 2021*

- [Richard Berman talks with Maemalynn Meanor, about the challenges and opportunities while marketing mainframes](#) — *TechChannel, March 31, 2021*

- [Modernizing Mainframes: The Z's Have It with Linux Foundation's Open Mainframe Project Breakthroughs](#) — *Cloud Computing Magazine, March 31, 2021*

- [How Personal Experiences Shape Corporate Inclusion Webinar](#) — *TechChannel, April 1, 2021*

- [ASG Helps Open Mainframe Project Accelerate Change on IBM Z](#) — *ASG, April 1, 2021*

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- Open Mainframe Project (Episode 624) — *Floss Weekly, April 7, 2021*

- Open Mainframe Project Begins First Quarter With More Growth — *TechChannel, April 12, 2021*

- Open Mainframe Project Offers New Ways to Collaborate — *TechChannel, April 20, 2021*

- Open Mainframe Project Launches Call for Proposals for 2nd Annual Open Mainframe Summit on September 22-23 — *Devops.com, May 5, 2021*

- Derek Britton on the Language and Application of COBOL — *TechChannel, July 1, 2021*

- BMC Reinforces the Mainframe with Variety of Security Enhancements — *Database Trends and Applications, July 10, 2021*

- Survey Says: The Truth About COBOL and the World Economy — *TechChannel, July 19, 2021*

- IBM upgrades its Big Iron OS for better cloud, security, and AI support — *Network World, July 27, 2021*

- Mainframe Ecosystem Mobilizes for Common Good with Congress, Micro Focus and Broadcom Providing Encouraging News — *Futurum, August 3, 2021*

- Leveraging the Open-Source Ecosystem When Developing Modern z/OS Applications — *Devops.com, August 6, 2021*

- Open Mainframe Project Announces the Full Schedule for the 2nd Annual Open Mainframe Summit on September 22-23 — *LXer, August 12, 2021*

- Open Mainframe Project announces full schedule for 2nd annual Open Mainframe Summit — *Enterprise Systems Media, August 13, 2021*

- Full Schedule announced for 2nd annual Open Mainframe Summit — *TechZone 360, August 17, 2021*

- Building a Browser-based Search and Impact Analysis using Zowe as a Bridge — *IN-COM, August 25, 2021*

- Mainframes and Open Source — *Mainframe Update, August 29, 2021*

- State of the Open Mainframe 2021 — *Linux.com, September 20, 2021*

- Chats, Webinars, Seminars, Shows and Other Happenings — *IT Jungle, October 20, 2021*

- Open Mainframe Project Announces Continued Growth in Community Contributions and Adoption — *Enterprise AI, September 22, 2021*

- Open Mainframe Project Announces Continued Growth in Community Contributions and Adoption as Mainframes Accelerate Innovation in Enterprise Hybrid Technology — *VMBlog, September 23, 2021*

- Open Mainframe Project Announces New Milestones and Opportunities — *Database Trends and Applications, September 28, 2021*

- EVOLVE21 — Rocket Software brings open source to the mainframe for 'modernization in place' — *Diginomica, October 7, 2021*

- The Leading Edge of Mainframes: Open Mainframe Project Reports Record Growth of the in 2021 — *TechZone 260, October 25, 2021*

- Open Mainframe Project Holds Second Annual Open Mainframe Summit — *TechChannel, November 2, 2021*

- The Impact of Zowe APIs on Browser-Based Search and Impact Analysis — *IN-Com, November 4, 2021*

- Women of COBOL Episode 1: Overturning Biases on COBOL and Women in Tech — *TechChannel, November 15, 2021*

- Open Mainframe Project Mentorship, COBOL and IBM Z Skills — *TechChannel, November 19, 2021*

- Confessions of a mainframer: I still recommend COBOL — *The Stack, December 3, 2021*

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