Linux Foundation and Open Mainframe Project Overview
Agenda

• Open Source and The Linux Foundation
• Open Mainframe Project Background
• How to participate in the Open Mainframe Project
• Q/A
Open Source and The Linux Foundation
What is Open Source?

- Open source is a development method for software that harnesses the power of distributed peer review, transparency of process and the creativity of a global ecosystem of industry experts.
- The promise of open source is better quality, higher reliability, more flexibility, lower cost and the opportunity to drive open standards.
- Open source software is most often modular and enables open APIs that can be leveraged to swap out/in new capabilities as members of the community “scratch their own itch”.
- Does not have to be just about code – open source projects often encompass marketing and infrastructure goals as well.
About the Linux Foundation

- The Linux Foundation is hosting the Open Mainframe Project, providing operational, governance and other support
- The Linux Foundation supports the Linux OS and numerous collaborative projects
- > 100 staff
- 450+ members across all our projects
- Dozens of projects beyond Linux spanning thousands of developers
- Over 50 key developer events a year worldwide
- Largest share of voice in open source
The Linux Foundation team includes:

- Time Magazine’s 17th most important person of the century, Winner of Millennium Technology prize, IEEE Computer Pioneer Award, Internet Hall of Fame inductee
- Internationally recognized legal counsel have authored hundreds of open source legal publications, formed over 140 consortium, serve on the boards of ANSI, Center for Women in Enterprise, and more
- Full time staff fluent in English, Spanish, French, German, Russian, Japanese, and Korean
- Expertise in semiconductors, embedded systems, mobile computing, enterprise software, cloud infrastructure, automotive, IoT, technical training and more
- DevOps team that maintain and secure the world’s largest open source project with expertise in a wide variety of scalable development environments
- Marketing and Ecosystem development team with experience from pre-IPO startups to large scale enterprises
The Growing Linux Foundation Ecosystem
The Linux Foundation is the leader in its field.

“OpenDaylight arrives with some instant credibility because it’s hosted by the Linux Foundation, the not-for-profit that oversees the Linux operating system, the most successful open source project of them all.” – Wired

“The mere fact that The Linux Foundation has brought together essentially all the major players in the SDN space and has gotten them to agree to work on a common, open framework is remarkable in its own right.” – Zdnet

“Just like the Linux kernel, Xen enjoys contributions from a variety of different companies, so a vendor-neutral organization to host development and collaboration is a big win for the project.” – Tech Crunch

“The Linux Foundation continues to amaze me as it never ceases to stop adding new members to its roster.” – IT Business Edge

“This organization [Bitcoin] was modeled on the Linux Foundation, according to Gavin Andresen, who is currently the Bitcoin Foundation’s chief scientist.” – The New Yorker
Scalable Open Source Collaboration has a Common Set of Requirements

<table>
<thead>
<tr>
<th>Category</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance and Membership</td>
<td>• Incorporation, Tax status, Bylaws, Member Agreements, Anti-trust, etc.</td>
</tr>
<tr>
<td></td>
<td>• Ongoing business development and membership recruitment</td>
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<tr>
<td>Development Process</td>
<td>• Technical Decision Making</td>
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<td>• Project Life Cycle</td>
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<td>• Release Process</td>
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<tr>
<td>Infrastructure</td>
<td>• Custom infrastructure using open source best practices</td>
</tr>
<tr>
<td></td>
<td>• Security and reliability</td>
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<tr>
<td>Ecosystem Development</td>
<td>• Marketing</td>
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<tr>
<td></td>
<td>• Events</td>
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<td></td>
<td>• Training</td>
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<tr>
<td>IP Management</td>
<td>• Code Provenance</td>
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<td></td>
<td>• Trademark management</td>
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<tr>
<td></td>
<td>• Legal defense and Collaboration</td>
</tr>
</tbody>
</table>
Current Linux Foundation Projects Include

- AllJoyn
- Automotive Grade Linux
- Carrier Grade Linux
- Civil Infrastructure Platform
- Cloud Foundry
- Cloud Native Computing Foundation
- CodeAurora
- container.io
- CORD
- CoreDNS
- CoreDNS Initiative
- DIAMON
- DPDK
- Dronecode
- EDGE X Foundry
- Distro.io
- Fluentd
- Fossa Bazaar
- Fossology
- FRR
- gRPC
- Hyperledger Project
- iVISOR Project
- IoTivity
- JanusGraph
- JS Foundation
- KINETIC
- Kubernetes
- Let's Encrypt
- Libav
- Linkerd
- LSB
- Long Term Support Initiative
- ONAP
- OpenAPI Initiative
- Open Compliance Program
- Open Container Initiative
- Open Mainframe Project
- OpenStack
- OpenSDS
- OpenSwitch
- OpenTracing
- Open vSwitch
- OpenChain
- OpenDaylight
- OpenHPC
- openMAMA
- OpenPrinting
- OpenSDS
- OpenSwitch
- OpenTracing
- ONOS
- OpenDaylight
- OpenHPC
- OpenMAMA
- OpenPrinting
- ReThinkDB
- rkt
- SPDX
- Tizen
- TODO
- Xen Project
- Yocto Project
- Zephyr
Impact of Linux Foundation Projects

500
COMPANIES TOGETHER JUST
THE LAST FEW YEARS HAVE GENERATED

$5B
IN ECONOMIC VALUE THROUGH LINUX FOUNDATION COLLABORATIVE PROJECTS

That is work that would take 1,356 developers more than 30 years to replicate.

This is Distributed Genius
Open Mainframe Project Background
Open source on mainframe not taken off

Disconnected, independent efforts; no shared “hub” of innovation

Open source on the mainframe lacked a neutral home for growth

Community events were industry specific, also not vendor agnostic

No place for students and academic institutions to engage

Enterprise level engagement with upstream projects limited
Open Source creates shared R&D

Create an open source community to benefit Linux on the mainframe

Bring together end-users, solution providers, app developers, and system administrators

Provide the neutral technical infrastructure and governance for the open source project to flourish
Why participate in the Open Mainframe Project?

- Drive awareness of mainframe as first class Linux and Open Source platform
- Collaborate with peers on solidifying open source mainframe support for Linux in a vendor neutral environment
- Showcase your stewardship and support for the continued growth of the community
Technical Focus: Make Linux on Mainframe a first class Linux platform

- Identify areas which make Linux on Mainframe adoptions problematic
- Fix these problems, working as an open source community
- Collaborate with open source communities and the upstream projects
Highlights of technical initiatives

- Sponsored port to s390 architecture and continued development
- Hosting project for building next generation OpenStack driver for z/VM
- Donated code from IBM developed project. Continued investment from community
- Building s390 specific Docker Hub content and improving s390 support
Mainframe programs in academia through Linux and Open Source to produce future mainframers

• Project sponsored summer internship program
• Joint development of Linux on Mainframe coursework for universities
• University specific partnerships
  – Marist College ECC - Innovation & Entrepreneurship with Linux and Open Source
  – Capstone program with VCU for 2017-18 school year.
Governance Model for the Open Mainframe Project

Open Participation with corporate sponsorship opportunities

- Technical Steering Committee to lead projects and oversee collaboration with upstream projects
- Marketing Committee to help drive awareness in mainframe community
- Governing Board oversees business decision making
Technical Community Roles

**TSC**: top level decision making body, approves new projects and acts as an oversight committee for cross-project decisions, norms and expectations. The TSC elects a TSC Chair.

**CTO**: a technical “fellow” resource who will be available to help the technical community focus, plan and execute. IBM has offered an IBM Fellow to work with the Project in this capacity.

**Maintainer**: lead developer on a top level project, serves on the TSC

**Committer**: has the ability to commit code to the project’s main branch, as a group committers elect a Maintainer

**Contributor**: anyone in the community that contributes code or documentation to the project, may become committers after establishing themselves

- TSC and project meetings are open to anyone in the technical community, regardless of membership in the LF or the Open Mainframe Project
- Projects could potentially span multiple disciplines, including code development, documentation, test/build scripting, etc.
How to participate in Open Mainframe Project

Open participation for all interested in Mainframe, Linux, and Open Source

- Community discussion and collaboration - both virtually and at regional events.
- Shared R&D open source projects
- Corporate sponsorship for showing stewardship in the community
## Corporate, Academic, Associate Membership Levels

<table>
<thead>
<tr>
<th>Level</th>
<th>Annual Fee*</th>
<th>Board Seat</th>
<th>TSC Seat</th>
<th>Marketing Committee</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Platinum</td>
<td>$100,000</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Initial 2-year participant commitment</td>
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<td>Platinum End-User</td>
<td>$10,000</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Initial 2-year participant commitment</td>
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<td>Silver</td>
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<td>1 per 10</td>
<td>Non Voting</td>
<td>Yes</td>
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<tr>
<td></td>
<td>3,000 employees = $15,000</td>
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<td></td>
<td>1,000 &lt; 3,000 employees = $10,000</td>
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<tr>
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<td>500 &lt; 1,000 employees = $5,000</td>
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<td>&lt; 500 employees = $2,000</td>
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<tr>
<td>Academic</td>
<td>Free</td>
<td>1 per 10</td>
<td>Non Voting</td>
<td>Yes</td>
<td>Restricted to academic institutions</td>
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<tr>
<td>Associate</td>
<td>Free</td>
<td>No</td>
<td>Non Voting</td>
<td>Yes</td>
<td>Non-profits, open source projects</td>
</tr>
</tbody>
</table>

To join Open Mainframe Project, go to [https://www.openmainframeproject.org/about/join](https://www.openmainframeproject.org/about/join) or email at membership@openmainframeproject.com

* Open Mainframe Project is setup as a Project under The Linux Foundation legal entity. All Platinum, Platinum End-User, and Silver Open Mainframe Project corporate members will have to be corporate members of The Linux Foundation to participate. Please visit [http://www.linuxfoundation.org/about/join/corporate](http://www.linuxfoundation.org/about/join/corporate) to learn more about Linux Foundation corporate membership.
Current Members Include

- VCU
- MARIST
- VELOCITY SOFTWARE
- SHARE
- ADP
- HOCHSCHULE COBURG
- EMA
- fit for mainframe
- East Carolina University
- University of Bedfordshire
- North Carolina Agricultural and Technical State University
- SuSE
- WiCOM Infinity
- SINE NOMINE ASSOCIATES
- GTSoftware
- Albany State University
- CA technologies
- HoGent
- IBM
- DATAKINETICS
- GOETHE UNIVERSITY FRANKFURT AM MAIN
- ubuntu
- Guide SHARE Europe UK Region
- EPSI
- l’École d’ingénierie informatique
## Current Membership - 28 orgs, 14 individuals

<table>
<thead>
<tr>
<th>Platinum</th>
<th>Silver</th>
<th>Academic</th>
<th>Associate</th>
<th>Individual</th>
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<tbody>
<tr>
<td>CA</td>
<td>BMC Software</td>
<td>Marist College</td>
<td>SHARE</td>
<td>Jesus Flores-Contreras</td>
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<tr>
<td>IBM</td>
<td>Vicom Infinity</td>
<td>North Carolina A&amp;T State</td>
<td>GSE UK Region</td>
<td>Amresh Kadian</td>
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<tr>
<td>SUSE</td>
<td>DataKinetics</td>
<td>University of Bedfordshire</td>
<td>GSE</td>
<td>David Cheng</td>
</tr>
<tr>
<td>ADP</td>
<td>Hitachi Data Systems</td>
<td>University of Washington CIAC</td>
<td>Academic Mainframe Consortium</td>
<td>Noel Sales</td>
</tr>
<tr>
<td>Sine Nomine Associates</td>
<td>East Carolina University</td>
<td>European Mainframe Academy</td>
<td>Ralph Stone</td>
<td></td>
</tr>
<tr>
<td>Canonical</td>
<td></td>
<td>Albany State University</td>
<td></td>
<td>Amit Ommeshwar ARMGGUM</td>
</tr>
<tr>
<td>Velocity Software</td>
<td></td>
<td>Coburg University of Applied Sciences and Arts</td>
<td>Aria Braz</td>
<td></td>
</tr>
<tr>
<td>GT Software</td>
<td></td>
<td>Johann Wolfgang Goethe University</td>
<td>Howard V. Hardiman</td>
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<tr>
<td>Docker</td>
<td></td>
<td>HTL Donaustadt</td>
<td></td>
<td>Parvez Ahmed</td>
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<td></td>
<td>EPSI</td>
<td></td>
<td>Sotirios Bogris</td>
</tr>
<tr>
<td></td>
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<td>Virginia Commonwealth University</td>
<td></td>
<td>Karl-Erik Stenfors</td>
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<td></td>
<td>Peter Wilke</td>
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<td></td>
<td>Michael MacDonald</td>
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<td></td>
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<td></td>
<td>Jim Porell</td>
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</tbody>
</table>

**Bold indicates new Members who have joined since the last board meeting**

**Email alias is omp-members@lists.openmainframeproject.org**
# Governing Board Member Directory

<table>
<thead>
<tr>
<th>Member/Role</th>
<th>Board Director</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA</td>
<td>David Stokes</td>
<td><a href="mailto:david.stokes@ca.com">david.stokes@ca.com</a></td>
</tr>
<tr>
<td>SUSE</td>
<td>Alan Clark</td>
<td><a href="mailto:aclark@suse.com">aclark@suse.com</a></td>
</tr>
<tr>
<td>IBM</td>
<td>Steven Dickens</td>
<td><a href="mailto:steven.dickens@us.ibm.com">steven.dickens@us.ibm.com</a></td>
</tr>
<tr>
<td>ADP</td>
<td>Steve Conger</td>
<td><a href="mailto:steve.conger@adp.com">steve.conger@adp.com</a></td>
</tr>
<tr>
<td>Vicom Infinity, Inc. (Silver)</td>
<td>Len Santalucia</td>
<td><a href="mailto:lsantalucia@vicominfinity.com">lsantalucia@vicominfinity.com</a></td>
</tr>
<tr>
<td>Velocity Software (Silver)</td>
<td>Barton Robinson</td>
<td><a href="mailto:barton@velocitysoftware.com">barton@velocitysoftware.com</a></td>
</tr>
<tr>
<td>Marist College (Academic Institution)</td>
<td>Harry Williams</td>
<td><a href="mailto:harry.williams@marist.edu">harry.williams@marist.edu</a></td>
</tr>
<tr>
<td>ADP (TSC Chair)</td>
<td>Phil Tully</td>
<td><a href="mailto:Phil.Tully@adp.com">Phil.Tully@adp.com</a></td>
</tr>
</tbody>
</table>

Email alias is board@openmainframeproject.org
TSC Report

• Internship program fully staffed with 8 interns working on ADE, Docker, Linux Monitoring Tools, OpenStack.
• Formation and planning of Cloudstack for z/VM underway
• Tuan Hoang set to be maintainer of Alpine Linux s390 port - will join TSC

Email alias is
tsc@openmainframeproject.org
Marketing Report - Campaigns

- Social and outbound steady state communications
  - Open Mainframe Discourse Community (http://community.openmainframeproject.org/)
    - 68 profiles created
    - Community engagement and intern involvement a key element for next quarter
  - Open Mainframe Project Quarterly Newsletter for Q2 out now
- “I am a Mainframer” conversation series (monthly) (https://www.openmainframeproject.org/news/blog)
  - January 2017 - DataKinetics - Allan Zander
  - February 2017 - IBM - Emily K. Hugenbruch
  - March 2017 - North Carolina A&T University - Cameron Seay
  - April 2017 - Vicom Infinity - Len Santalucia
  - May 2017 - ???
- Tech brief campaign (quarterly)
  - November 2016 - MongoDB tech brief - 320 views and 60 emails gathered.
  - March 2017 - Blockchain tech brief - xx downloads
  - June 2017 - Docker tech brief - In progress

Email alias is marketing@openmainframeproject.org
**Academic Institutions Committee**

- Monthly conference call
- Academic Portal – sharing of course modules

### Member Resources

Below are resources you as an Open Mainframe Project Academic Institution can leverage as a part of your course work.

<table>
<thead>
<tr>
<th>Description</th>
<th>Contributor</th>
<th>Level</th>
<th>File(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HW virtualization</td>
<td>Cameron Seay</td>
<td>Beginner</td>
<td>hwirtualization.zip</td>
</tr>
<tr>
<td>VM coursework</td>
<td>Cameron Seay</td>
<td>Beginner</td>
<td>vm-courset-slides.zip and vm basics.pdf</td>
</tr>
<tr>
<td>Introduction to Linux</td>
<td>Linux Foundation</td>
<td>Beginner</td>
<td><a href="https://training.linuxfoundation.org/linux-courses/system-administrations-training/introduction-to-linux">https://training.linuxfoundation.org/linux-courses/system-administrations-training/introduction-to-linux</a></td>
</tr>
<tr>
<td>Linux Programming &amp; Development Training</td>
<td>Linux Foundation</td>
<td>Intermediate/Advanced</td>
<td><a href="https://training.linuxfoundation.org/linux-courses/development-training">https://training.linuxfoundation.org/linux-courses/development-training</a></td>
</tr>
<tr>
<td>Free Linux Training Publications</td>
<td>Linux Foundation</td>
<td>Intermediate/Advanced</td>
<td><a href="https://training.linuxfoundation.org/free-linux-training/download-training-materials">https://training.linuxfoundation.org/free-linux-training/download-training-materials</a></td>
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Internship program

- Eight student interns during the summer of 2017
- Work in the Open Mainframe Project development community
- Work closely with a mentor
- List of suggested intern development projects
- Each intern will work remotely from his/her location of choice.
  - There is no physical work facility provided or required.
- Three stipends
  - Start $500
  - Mid-term evaluation - $2,500
  - Completed projects - $3,000
- Interns successfully completing the program present project at an industry conference.
  - The Open Mainframe Project will provide a stipend for travel for each student.
  - Support for student in presenting, the project will provide professional resources and training to help build their presentation skills.
How to Join the Open Mainframe Project

- Find out more the Project at [www.openmainframeproject.org](http://www.openmainframeproject.org)
- Fill in the online form for more info: [https://www.openmainframeproject.org/about/join](https://www.openmainframeproject.org/about/join) or email at [membership@openmainframeproject.com](mailto:membership@openmainframeproject.com)
- Research other Linux Foundation Collaborative Projects: [https://www.linuxfoundation.org/projects](https://www.linuxfoundation.org/projects)
Questions?
Thank you!