OPENBMC: STATE OF DEVELOPMENT

Brad Bishop
Senior Software Engineer
IBM
Five Companies and the OCP Walk Into a Bar...

- Facebook
- Google
- IBM
- Intel
- Microsoft
OpenBMC Structural Update

- There is an agreed upon path to a unified OpenBMC community (it will take time to get there)
- https://github.com/openbmc
- OpenBMC has a project charter
- OpenBMC is now a Linux Foundation project
- OpenBMC has a Technical Steering Committee
- Working groups
- Code maintainers
- Project contributors
Project Charter

- Lightweight, flexible and non-prescriptive (five pages)
- Technical steering committee voting mechanics outlined
- Apache 2.0 license for code contributions (with clause for exceptions)
- CC BY 4.0 license for documentation
- Requires execution of a typical corporate or individual contributor license agreement to contribute
The Linux Foundation

- OpenBMC is now a Linux Foundation project
- Selected as a respected and neutral steward of the project for all involved
- Owns any project trademarks
- DNS registrant for project domains
- Github organization owner
Technical Steering Committee

• Members
  – Brad Bishop (IBM)
  – Sai Dasari (Facebook)
  – Ali Larijani (Microsoft)
  – James Mihm (Intel)
  – Nancy Yuenn (Google)

• Community contributions drive project direction
• Provide resolution as last resort
• Working to further define the role
• Working to identify new member criteria
• Let TSC members know how they are doing
  • https://github.com/openbmc/docs/blob/master/README.md#technical-steering-committee
Working Groups

• One or more individuals leading a team towards an OpenBMC implementation of a technology (e.g. Redfish)
• Organically forming based on contributor interest
• Formation proposed and announced on the project mailing list
• https://lists.ozlabs.org/pipermail/openbmc
• Per-workgroup discretionary forums for communication after that
• Only requirement is dissemination of workgroup output to the project mailing list
Code Maintainers

- Responsible for day to day code maintenance
  - Guides contributors and their contributions towards project quality standards and best practices
  - Ensures the project process is followed
  - Approves submissions for inclusion in the project
- 20 maintainers at last count
- Maintainer role beginning to be shared across company boundaries
- Assignment based on prior contribution merit – working to further refine the process
- Case study: IPMI stack maintenance
Project Contributors

- The most important role
  - Code submissions
  - Peer review
  - Testing
  - Documentation
  - Outreach
  - Project management
  - Project process and infrastructure
- Code submissions from 90 individuals at last count
Getting Involved

- Monitoring of the email list is *critical* to staying informed
  - Workgroup formation
  - Design discussion
  - Statements of intent
- Condensed, birds-eye view to come later with more project management contributions
- Bring your discussions to the email list: https://lists.ozlabs.org/listinfo/openbmc
- Monday community call: https://github.com/openbmc/openbmc/wiki/Weekly-Community-Telecon#access-information
- IRC: freenode.net#openbmc
- Review the code: https://gerrit.openbmc-project.xyz
- Bring your ideas, questions and feedback to these forums
Submitting a Patch: Step by Step

• Learn to use Git
• Open a Github account for Gerrit authentication
• Clone a project from Gerrit (not Github!)
• Make changes, test and commit
• Read and apply the rules outlined at https://github.com/openbmc/docs/blob/master/contributing.md
• Submit your patch following the directions at https://github.com/openbmc/docs/blob/master/contributing.md#submitting-changes-via-gerrit-server
• Add your peers to the list of reviewers for your patch in the Gerrit GUI
• Don’t be afraid. The community will help along the way. Ask for help on IRC.
Submitting a Linux Patch: Step by Step

- Understand the long term goal is to eliminate OpenBMC U-Boot and Linux forks
- Learn how to use Git
- Subscribe to the mailing list
- Clone the OpenBMC Linux kernel fork from https://github.com/openbmc/linux
- Make changes, test and commit
- Read and apply the rules outlined at https://github.com/openbmc/docs/blob/master/kernel-development.md
- Refer to previously submitted patches on the OpenBMC mailing list or LKML for examples
- Submit your patch following the directions at https://github.com/openbmc/docs/blob/master/kernel-development.md
OPEN. FOR BUSINESS.
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- chris, brad - fsp
- title - not tech, community people structure
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Hype – move to participant
Newcomers – who do ignore/talk to?
How to fix – single project
Output should be a minimum that we all can work in.
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This is what that looks like.
Top down structure.
Understand if logistical factors affect you via tsc/list
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Lightweight – low complexity until needed
Lightweight – let the community form roles and processes
Protections of CLA are valuable to people building products with OpenBMC
People available to explain the benefit of CLA
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Competitors in this space – natural to have a neutral entity.
Yocto, kernel already TLF projects.
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Get to know one of the people on this list. They can help onboard and connect you with subject matter leads – technical, PM or PR.
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So much yet to do in terms of PM, process, etc. Please don’t wait for those things to get involved. Start building merit now.