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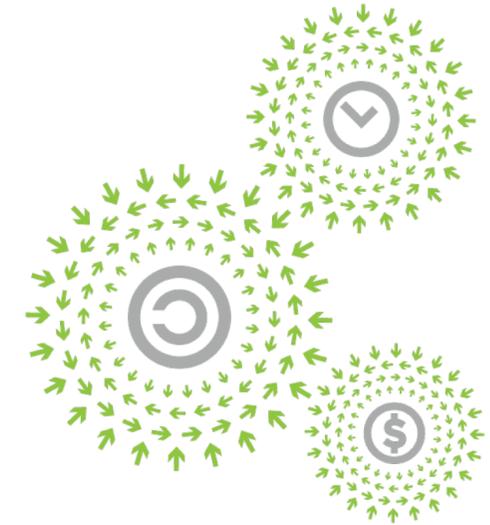


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Hardware
Management

OpenBMC – Project Update

Brad Bishop, OpenBMC Project TSC Chair



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Agenda

- OpenBMC Overview
- Miscellany
- Release Content
 - OpenBMC 2.6
 - OpenBMC 2.7
- Community Forums
- Open Source Firmware Meetup
- Call to Action



OpenBMC



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OpenBMC Overview



- Ancient History
 - <https://f990335bdbb4aebc3131-b23f11c2c6da826ceb51b46551bfafdc.ssl.cf2.rackcdn.com/images/6b289067c77f7bbac31d67104326e6e270fd27aa.pdf>
 - <https://www.opencompute.org/files/OCP18-OpenBMC-State-of-Development.pdf>
 - 3 CCLA signers, 0 ICLA signers
 - 16 meta layers, 66 subprojects, 87 contributors
- Today
 - 22 CCLA signers, 3 ICLA signers
 - 24 meta layers, 121 subprojects, 147 contributors
- Tomorrow
 - Feature Parity, Homogeneity



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Miscellany



- Code of Conduct
 - <https://github.com/openbmc/docs/blob/master/code-of-conduct.md>
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OpenBMC Releases

- Bi-Annual
- OpenBMC 2.6
 - Released February 2019
- OpenBMC 2.7
 - Coming August 2019
- OpenBMC 2.8
 - Propose content now for February 2020



OpenBMC



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OpenBMC 2.6



OpenBMC

- Yocto 2.6, Linux 4.19
- KVM over IP, Remote Media, Inband Update, SNMP Traps, IPv6, SoL, KCS, PECL, IPMB, IPMI 2.0, Fan Control, LDAP, Certificate Management were all worked and in various states of incomplete in 2.6. YMMV.
 - Many impacted by legacy REST API → Redfish changeover
- Release notes
 - <https://github.com/openbmc/docs/blob/master/release/release-notes.md>
- Live Status
 - https://docs.google.com/spreadsheets/d/1lts-YX8J_AnS2dKfhW649OQHijz-JRiJWHTDpKY62Hk/edit#gid=0

OpenBMC 2.6 (cont)

- Redfish
- <https://github.com/openbmc/bmcweb/blob/master/DEVELOPING.md#Redfish>
 - Fan control configurability
 - 2018.3 schema pack updates
 - Role and RoleCollection support
 - NetworkProtocol schema
 - AccountService
 - Managers
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 - Memory
 - Processors



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OpenBMC 2.6 (cont)

- WebUI Updates
 - SNMP
 - Date & Time



OpenBMC

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- Yocto 2.7, Linux 5.x
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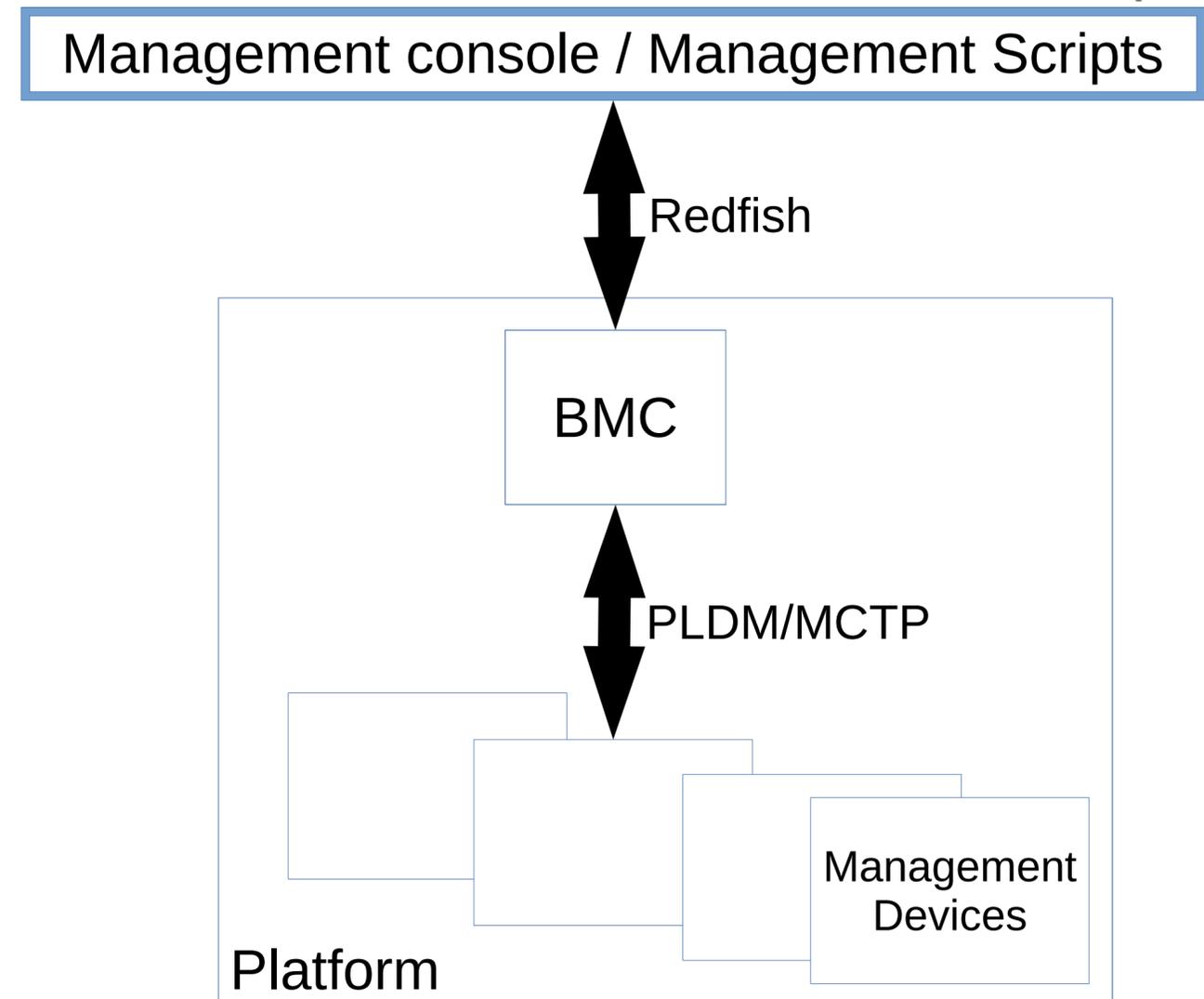


OpenBMC 2.7 (cont)

- PMCI Architecture Whitepaper
 - <https://www.dmtf.org/sites/default/files/standards/documents/DSP2015.pdf>
- PMCI Standards for Hardware Management
 - 2:30pm
 - <https://sched.co/JiIF>



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OpenBMC 2.7 (cont)

- Redfish
 - LDAP, CertificateService
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- MCTP
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Community Forums

- Workgroups
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Community Forums (cont)

- All Community Call – Mondays @ 10am CT
- IRC – freenode.net
 - #openbmc #openbmc-bot #openbmc-meeting
- Mailing List: <https://lists.ozlabs.org/listinfo/openbmc/>
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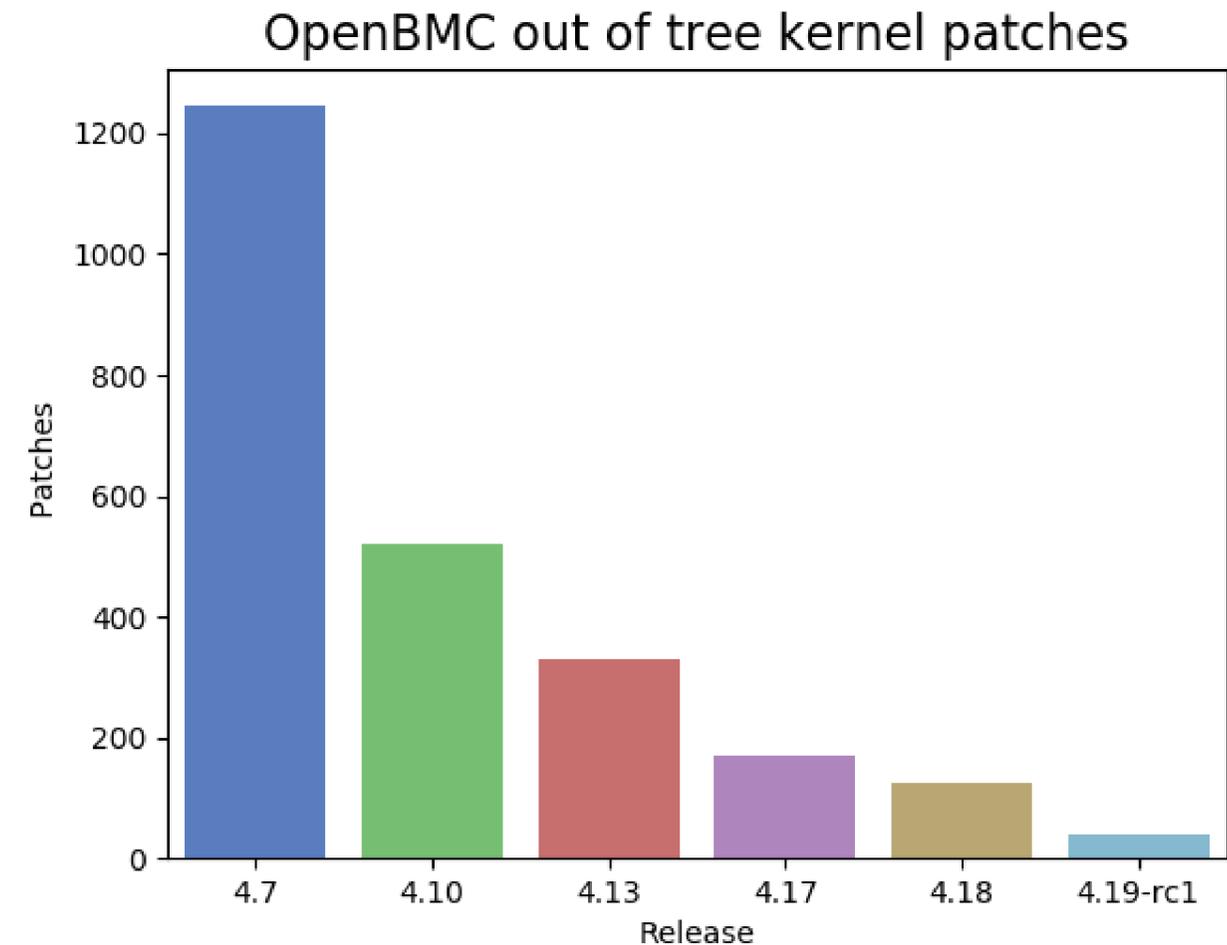
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Community Forums (cont)



OpenBMC

- OpenBMC participates in upstream communities
- Upstream Communities
 - Linux
 - Yocto
 - Systemd



Open Source Firmware Meetup



OpenBMC

- Right here at the OCP Global Summit
- 8am-5pm Thursday and Friday
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- Marriott Salon V&VI
- <https://docs.google.com/spreadsheets/d/1cKAYFP2fEhgBoEBjGrCrOAq6-01nyX53M9rrLaJxlk4/edit#gid=0>
- Topics Include
 - PLDM/MCTP
 - Redfish
 - SELinux
 - Code Review



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Get Involved

- OpenBMC 2.6 – February 2019
 - Test and submit bug reports (now)
- OpenBMC 2.7 – August 2019
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Release Planning: <https://github.com/openbmc/openbmc/wiki/Release-Planning>

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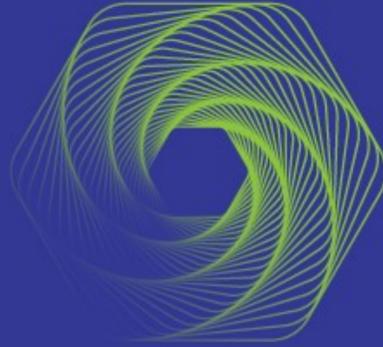
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OpenBMC

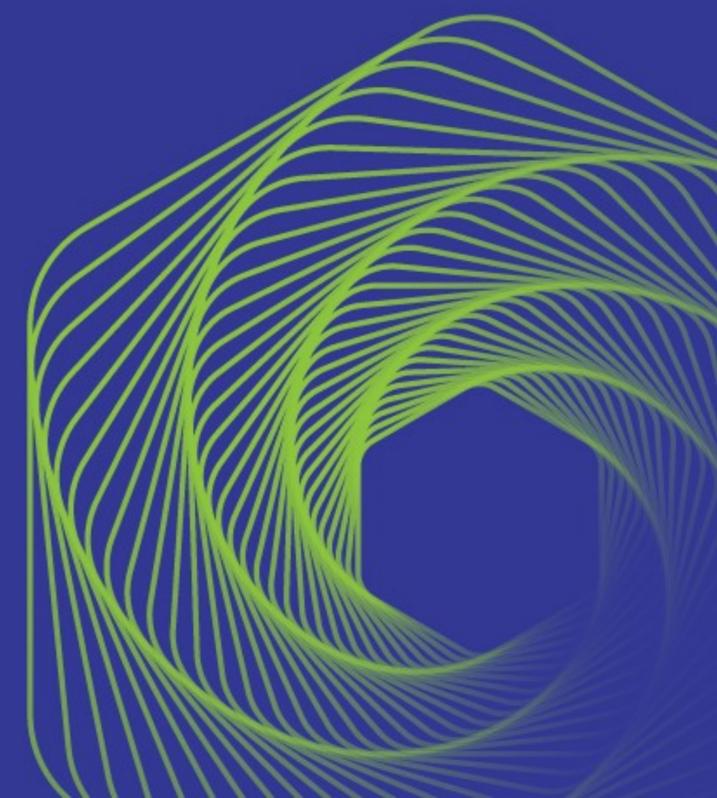


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OpenBMC – Project Update

Brad Bishop, OpenBMC Project TSC Chair



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Good Morning Everyone.

Thanks for coming out.

I'm Brad Bishop, and I'm glad to be here today on behalf of the OpenBMC community to share with you what has been going on in our project for the last year.

Agenda



- OpenBMC Overview
- Miscellany
- Release Content
 - OpenBMC 2.6
 - OpenBMC 2.7
- Community Forums
- Open Source Firmware Meetup
- Call to Action



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Here is what I would like to cover today.

An overview to get us in sync.

A couple misc topics that need highlighting.

OpenBMC release process and release content.

Review the community forums.

OSFM.

Call to action for the OCP community at the end.

OpenBMC Overview



OpenBMC

- Ancient History

- <https://f990335bdbb4aebc3131-b23f11c2c6da826ceb51b46551bfafdc.ssl.cf2.rackcdn.com/images/6b289067c77f7bbac31d67104326e6e270fd27aa.pdf>
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Just in case this is your first time here,
OpenBMC is a Linux distro for Baseboard
Management Controllers.
The linked slides are worth a look for information
about the formation of OpenBMC under TLF.
Here are a couple stats to give you a sense of
the current levels of activity around the
development of OpenBMC, and for
comparison those same stats from a year ago.
Finally, a couple of the longer term goals of the
project.

Miscellany



OpenBMC

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Two procedural things that I wanted to highlight. OpenBMC is an inclusive community. There was a good piece of work done by a couple folks last year to formalize that into a code of conduct for the project. You can go read that; nothing too surprising there.

Moving on, the security workgroup established a process for disclosing security issues. We have the project mail list for feedback but it is a public list – so the security mailing list is closed. To get on the list, attend the security workgroup meetings and form a relationship with the folks there. The security wg is an open forum – no specifics discussed there.

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OpenBMC releases.

Prior to last year, we didn't really have formal releases. We had a 1.0 release years ago, but after that we just tagged periodically. The last periodic tag was 2.4.

We formed a release planning workgroup and one of its first decisions was that OpenBMC would have biannual releases like Yocto, offset by a couple months. Since we were aligning to the Yocto releases, and the first release would have Yocto 2.6 we skipped 2.5 and called our release 2.6 too.

That was in February.

The next release will be 2.7 in August. Content planning is mostly wrapped up.

Please propose new content for the 2.8 release in February 2020.

OpenBMC 2.6



OpenBMC

- Yocto 2.6, Linux 4.19
- KVM over IP, Remote Media, Inband Update, SNMP Traps, IPv6, SoL, KCS, PECL, IPMB, IPMI 2.0, Fan Control, LDAP, Certificate Management were all worked and in various states of incomplete in 2.6. YMMV.
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Going over the content in the 2.6 release, like I mentioned before we had Yocto 2.6 and includes Linux 4.19.

There were a lot of things worked on. You can see the long list there, <read the list>. I put YMMV because it was our first release and there are a lot of people getting used to working together that weren't before – there were definitely some growing pains.

We had a custom REST API which isn't really where we wanted to be. About mid-way through the release we started to cut over from one web framework to another and that impacted some of the features, but I expect those will all be in 2.7.

Here is a release notes perma-link.

A link to the release planning wg whiteboard.

OpenBMC 2.6 (cont)



- Redfish
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We really started ramping up on a Redfish implementation in 2.6.

Watch the developing page of the bmcweb subproject for Redfish support updates.

A list of the Redfish endpoints and schema implemented in OpenBMC 2.6. <read the list>
Again, YMMV.

OpenBMC 2.6 (cont)



- WebUI Updates
 - SNMP
 - Date & Time



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We're pretty proud of our web user-interface and there has been some good collaboration there, so I thought I'd highlight it here.

There were a couple new functions in 2.6 – snmp configuration, and date and time configuration.

OpenBMC 2.7



- Yocto 2.7, Linux 5.x
- Incomplete functions from 2.6
- Python-free by default
- Live Status
 - <https://github.com/openbmc/openbmc/labels/Release2.7>



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OpenBMC 2.7 is coming in August.

The plan is being worked now and coming together – you might be able to get content added to it if you act really quickly.

Core components - will have Yocto 2.7 (Warrior) and a 5.x Linux kernel (not sure which yet).

Working to be python-free – in the early days of the project there was a lot of prototyping done in python. Python on BMCs has its place but we decided we wanted to provide the option to be free of it.

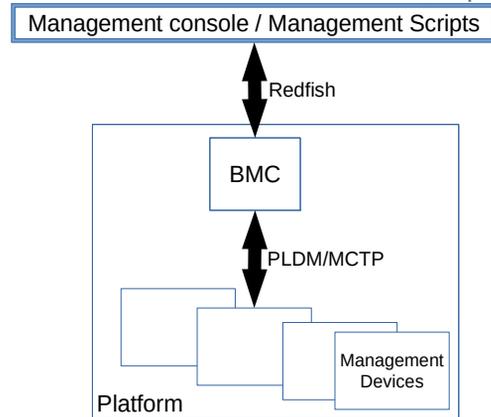
Live status of 2.7 content. The security wg is moving from using a spreadsheets to using GitHub issues to track features.

OpenBMC 2.7 (cont)



OpenBMC

- PMCI Architecture Whitepaper
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- PMCI Standards for Hardware Management
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A really big theme to 2.7 is shaping up to be PMCI and Redfish. These are DMTF standards, and here is a (really) quick overview of what the PMCI standards are. For much more detail, have a look at the PMCI Standards for Hardware Management presentation here at 2:30pm.

OpenBMC 2.7 (cont)



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So here are the details on what we are doing in the Redfish/PMCI space for 2.7.

For Redfish support we have <read the list> planned.

MCTP – there is a framework library in the works, and MCTP has different hardware bindings – there are smbus and serial bindings planned. The framework library is designed to be used in other firmware stacks too.

PLDM – again, a framework library in the works, also designed to be used in other firmware stacks.

Community Forums



- Workgroups
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We like to use the word community a lot around here but what does that mean really? One way to look at it as the collection of forums in which people come together to collaborate. Which means those forums are very important so I pretty much always cover them when I talk about OpenBMC.

Here are the currently active workgroups. We have <read the list>. They are open to anyone. These are phone calls.

Community Forums (cont)



- All Community Call – Mondays @ 10am CT
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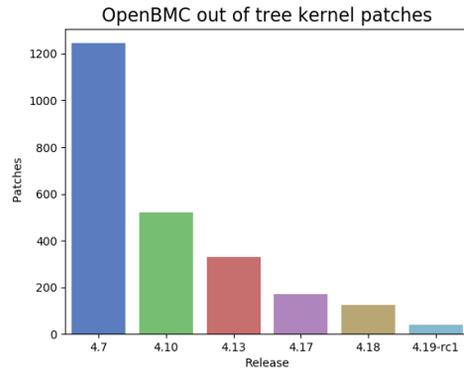
I put these slides in the wrong order. The workgroups form in one of these larger forums. After interested has been identified, those interested can find a time that might work for everyone to have actual meetings.

Except the first one, these forums are especially important because we don't have problems with availability (like time zones). More people can participate. These are the preferred forums.

Community Forums (cont)



- OpenBMC participates in upstream communities
- Upstream Communities
 - Linux
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I put this slide here because we rely on often contributes to other projects. Here are a couple.

So in general you can expect the project to ask you to upstream your patches to these projects.

Open Source Firmware Meetup



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