**OCP Server Committee, 4/9/14**

**Attendees (who self-identified in Fuze) (~~regular attendee, not present~~):**

|  |  |  |  |
| --- | --- | --- | --- |
| ~~Bill Carter (Intel)~~ | Bob Ogrey (AMD) | ~~Chris Huff (Rackspace)~~ | Chris Petersen (Facebook) |
| David Chlaupsky | Erwin Centeno (Emulex) | ~~Frank Helms (Samsung)~~ | Fred Worley (Samsung) |
| Harry Li (Facebook) | ~~Jayaprakash~~ | Jean-Marie Verdun | Jia |
| ~~Latsavongsakda S.~~ | Mark Shaw (Microsoft) | Martin Goldstein (Microsoft) | Oscar Ham |
| ~~Somu Kovvuri (Rackspace)~~ | Son VoBa (Microsoft) | SuiLun Lam (NEC) |  |
|  |  |  |  |

**Agenda:**

* See the new mailing list? Opencompute-server!
* Charter Update/Feedback
* Mezzanine specification update
* OCS Mezzanine modification proposal – initial feedback
* Micro-server specification update
* Micro-server base-board specifications. Which way should we go? OpenRack or OCS?

**Action Items:**

1. AI (All): Subscribe to opencompute-server@lists.opencompute.org in order to continue to receive server working group email
2. AI (All): Send email to Mark Shaw if you are interested in participating in a joint Server / System Management meetup event to discuss BMC feature set support for multi-node servers during the Open BigCloud Symposium and OCP Workshop 2014 on 7-8 May, 2014 at UTSA in San Antonio, TX
3. AI (Mark Shaw): Send the Charter Update to the mailing list in a form acceptable to the list server
4. AI (Harry Li): Drive mezzanine spec to closure on v1.0
5. AI (Mark Shaw): Follow up with Bill Carter about Intel’s willingness to support release of the baseboard schematics to OCP

**Meeting Summary:**

* New mailing list
	+ Opencompute-server mailing list (replacing mobo)
		- opencompute-server@lists.opencompute.org
	+ People currently on the opencompute-mobo list need to subscribe to the new list
* Charter update
	+ Mark sent the updated Charter document to the mailing list as a Word document, but apparently the list server does not support distributing Word documents.
	+ Mark will post a version of the document and send a link to the reflector
* Mezzanine specification
	+ Harry Li will drive closer of v1.0 of Mezzanine spec
* Mezzanine modification proposal
	+ Email discussion of RMII support in progress
	+ No update this week due to vacation by key participants
* Microserver specification
	+ Version 0.7 has been reviewed by the call attendees that plan to review it
	+ Bob Ogray is working on an update that will be version 0.75 or 0.8
	+ Open issues:
		- I2C addressing
		- Pin assignment table portion of the spec
* Seattle microsever card specification
	+ Mark has received a microserver card specification for the AMD Seattle processor
		- Does not include processor specs; just a system hardware specification
		- Those who need Seattle processor specs please approach AMD directly for an NDA discussion
	+ AMD approves releasing the microserver card specification for review by the working group
		- With the knowledge that the specification is not complete
		- But with the expectation that review will spark discussion on the open issues
* Microserver baseboard specification
	+ Discussion of the need for a common baseboard to enable testing of microserver cards from multiple vendors.
	+ Discussion that ODMs will produce products based on volume expectations
	+ Discussed the potential for the OCP community to make a group order for ATX boards and work with a system integrator to integrate those boards into ATX chassis solutions
		- Allows the various OCP partners to jointly create enough volume for a board
	+ Discussed that in addition to a board implementation BIOS and firmware will need to be available
		- There is a need to define a common set of features for the BMC code for multi-node server architectures
		- Proposal to discuss at the next OCP meeting in San Antonio in May (see below)
	+ Facebook (Harry Li) is willing to release the baseboard specification
		- However, Intel collaborated on the spec and the spec requires their review and approval to release to the open source community as well
		- Mark to follow up with Intel to determine if Intel would support release of the OCP microserver baseboard schematics to OCP
* Proposal for “meetup” at San Antonio OCP to discuss systems hardware and management
	+ Identified need in today’s meeting for a discussion involving both the server WG and the management WG on defining the right feature set for the BMC on a multi-node server
	+ Proposed hosting a longer meeting or breakout session at the Open BigCloud Symposium and OCP Workshop 2014 on 7-8 May, 2014 at UTSA in San Antonio, TX.
	+ The OCP process supports “meetups” for off cycle or self-hosted events by working groups
	+ Need to have the community provide a list of interested attendees to plan the meetup
		- All interested parties please communicate interest to Mark Shaw

**Meeting notes:**

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* Charter update
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	+ Mark will post a version of the document and send a link to the reflector
* Mezzanine specification
	+ In general for specs, would like to see specs get cranked out
	+ Teams have been working quite a bit on this
	+ Prefer to see us just get the specifications done and closed out if they are ready so we don’t have them linger
	+ First mezz specification made it to 0.5 and it was never officially ratified as a specification, although it is the defacto standard for the blades today
	+ Don't want to settle for a defacto standard
	+ Harry: will take the action to update the specification
	+ AI (Harry Li): Drive mezzanine spec to closure on v1.0
* Mezz modification proposal
	+ Discussing RMII support
	+ Several people out this week, limiting forward progress
* Microserver (uServer) spec
	+ Bob Ogray:
		- No updates as yet
		- Need to clean up some open issues
			* I2C addressing
			* Pin assignment table portion of the spec
	+ Next version will be 0.8 or 0.75
	+ Q: for the Seattle uServer card [is the spec ready for review]?
		- Mark: just received version 1.0, but haven’t posted yet
		- Bob: can go ahead and post it – will spark discussion
		- I2C interface and how it fits with board implementation will need to be rev’ed
		- Can spark discussion around how the system management interface should work
		- Not a lot of information – Bob just references the management spec
		- Need to figure out when the spec becomes final and how it applies to multi-node
		- [Chris:] if we can lock the uServer card spec w.r.t. HW features required, then we can figure out what we need running on top of i2C
		- Bob agrees with this approach
		- Protocol and features of protocol need additional discussion
		- Might be worthwhile to get both groups in the same room and talk about the hardware implementation as well as the protocol
	+ Q: anything else that will deviate from the general uServer spec?
		- No
		- Some things that will change
		- Should probably have been a 0.1 not a 1.0, but good to start the group review to move towards a 2.0 spec [that is more solid]
	+ Q: are there specs for the Seattle processor?
		- Available under NDA with AMD
		- There are no processor specs, just a hardware spec
		- Anyone that needs the processor spec should seek an NDA directly with AMD
	+ Q: is anyone planning to provide feedback on the 0.7 spec revision?
		- [no responses]
		- some statements that the speaker has already reviewed the spec and provided feedback
* uServer baseboard spec
	+ Have a spec, but how do we use it?
	+ How do we put it into a system?
	+ Have the Group Hug baseboard
	+ Both Quanta and Wiwynn have a carrier card
		- Wiwynn guys have a carrier card they use in OpenVault
		- Take the same baseboard and give it 12V if you want a test board for a single uServer
		- Quanta’s is probably similar, or they may have the ATX version mentioned in Jean-Marie’s document
		- Jean-Marie: they did not say they would release [the ATX card] as a product – expected to be used for debugging or for FB internal usage
	+ Jean-Marie:
		- Would be good to get Universities, research labs looking at the technology
		- Engineers working on uServer boards need a carrier board that can be used independent of the uServers
		- Mark will talk to the Wiwynn guys about this
		- Quanta also interested, but looking for volumes
	+ Q: are the Wiwynn and Quanta x16? Which options do they support?
		- It is the default, x16 for both
		- Per the spec, default is vanilla PCIe
		- Boils down to a business issue – [expect partners like Wiwynn and Quanta to do something if there is a business opportunity and not if not – can’t solve that in this forum]
	+ Q for Harry: do you envision releasing your baseboard spec?
		- Harry: see this like 2 things
			* One is enable kit, test kit
			* For development
			* For that part, think that people are on track with Quanta
			* They are going to build based on volume
			* Only for test and debug use, so they don’t have a plan to productize
			* If you can show a use case they may get interested (or not) to produce test kits
			* Q: if the schematic for the test kit is released, if so is that good enough for people to do on their own?
			* Mark: should have a simple spec that goes along with it
			* Harry: agree, but is that good for the committee? Can fab your own PDB
			* Can do small quantity build, standardize on test build
			* But it would still allow everyone to test the standard interface
			* Mark: believe that would go a long way to get people going with test kits
			* Harry: for DNI for OCP, going ahead to prepare for the microserver card independent of which vendor provides
				+ Mark: good suggestion – figure out what from Quanta would be the minimum order quantity for the ATX board, and talk to a system integrator about plopping them into an standard ATX chassis
				+ [other] people are savvy, can get them into whatever form factor they want
				+ But good to get the schematics out there
				+ Harry: will release them
				+ Mark: that is good – releasing them creates a reference design
				+ Wiwynn did the OpenVault – not an ATX board, but shares much of the same functionality
	+ RE baseboard question
		- Are there Intel people on the call?
		- Harry requests that Mark relate information to Bill
		- Baseboard developed with Intel
		- From FB side, no problem contributing the whole design
		- But also need Intel to approve this
		- Need to validate that Intel is also willing to contribute
		- Need Bill Potter (?) to drive approval at Intel
		- AI (Mark Shaw): Follow up with Bill Carter about Intel’s willingness to support release of the baseboard schematics to OCP
	+ Comment: if we order these boards from Quanta they won’t come with BIOS or firmware, right?
		- That soft code is not open source
		- Other piece is Intel network switch – firmware there is also not open source
		- BMC code is an issue – that is not common, there is not a common set of features
			* Implementation is different
			* We can figure out who writes the code, but we need common features for multi-node stuff
			* As a customer, want one card to be managed the same as the others
			* Spec is still not quite clear yet
			* There is a proposal that is being discussed now, what they built the BMC firmware around
			* Not there yet, but we shouldn’t give up
			* Workshop at San Antonio in May, could move forward on his at/after that
			* Mark: yes, but believe the San Antonio meeting just has 1 hour breakouts – not enough time to make significant progress
		- Suggestion that we schedule a ½ day or full day to discuss this at San Antonio meeting
			* General support for this idea
		- Mark talked to Amber about the process for having longer meetings
			* Process allows for “meetups”
			* Mark is trying to get a 4 hour block for the week of Computex (first week of June – 4th/5th, somewhere in there)
			* Could do the same thing at San Antonio
			* For a spec like this, San Antonio is better
* Q: should we hammer out changes to the uServer at that time too?
	+ Initial thought to get HW and HW Management folks in the same room
	+ Try to get all the system stuff
	+ We never meet
	+ The last one was really good – lots of good conversation in the management group, but we never get all of us in the same room
	+ Need to get a list of names of people that are interested
	+ [Bob?] will confirm that Hari can make it from their end – he has been doing the multi-node stuff
	+ Mark: Amber likes to capture planned attendees, [can help with logistics]s