

## MEETING 26 MINUTES:

Call to Order UPAMD Power Subgroup meeting ó Paul Panepinto 7am Pacific 20 Oct 2011

- I. Introductions/Attendance  
Bob, Edgar, Gary and Paul
- II. Approval of 10/20 /2011 Power Subgroup Agenda
- III. Presentation of 10/06/2011 Power Subgroup Meeting 25 Minutes  
Will review on main UPAMD meeting.
- IV. IEEE Call for Patents. See  
<https://development.standards.ieee.org/myproject/Public/mytools/mob/slideset.pdf>

### V. Discuss the Power Requirements as they Relate to:

1. Changes in devices connected in the multi-source and multi-device topology diagram
2. Changes in available input power that can cause a sink to become a source in the topology diagram
3. What power information does a System Monitor need to know

What does everything need to know vs. something supervisory. Turn on and off a lamp. Basic control. System monitor can be a control system too. Has security requirements. We said before that every sink device has control over its own power. No sink should force another sink to shut down, unless voluntary like a peripheral connected to a computer. Gathering information should be uncontrolled, but commands should be secure and controlled.

Source/sink interconnect are not affected by the ability to interact with the nodes in the topology. What about loops? Under some conditions you must stop power requests in a loop where the initial request for more power loops back to the original requester causing it to need more power.

Gamma requests power from Alpha who may not have enough power and Alpha requests more power from Delta who may not have it and requests more power from Gamma, an unacceptable loop. Max levels of request can be set to 1. If Gamma requests power from Alpha and Alpha cannot satisfy it, that could stop the request. Another option is to never allow a source to request more power until its previous request was satisfied, but that may create a deadlock situation.

1. Do nothing and the power limitations of the port take care of it. (Not ideal)
2. Forward and ignore any other request for power when you are in the middle of a request.
3. Get a request for power and the source being requested does not have enough power it will not look upstream for power and return unable to satisfy.
4. Could have each power request have a tag so that any source can detect a loop, but there is no room in the messages for a tag.
5. May have another solution mapping the loop and use communication to solve it. More complicated solution.
6. Add some signaling that the source is busy handling a transaction, so re-request later. Timeouts.

Our options - pick an option or put it out to a vote.

WHAT DOES EACH DEVICE KNOW ABOUT WHAT IS ATTACHED TO IT?:

Reviewed the device connect spreadsheet that shows what power is stored, what devices are connected on which points, etc. How often is the state info updated? Essentially setting a heartbeat.

4. Any other specific Power requirements of concern.

VI. Review the 9/21/2011 email with use-cases.

VII. New business?

1. Face to face meeting in Jan/Feb timeframe.

3-Day meeting finalizing the draft and non-IEEE mfg association meeting that follows.

VIII. Adjourn

Edgar moved at 9:14am Pacific