

IEEE P1394b
B-Low Power Task Group

AGENDA
8th February 1999
Hilton Waterfront Hotel
Huntington Beach, California

1) Introductions

2) Accept volunteer to write minutes

Appreciation to Jerry Hauck for accepting a request to take meeting minutes.

3) Approve Previous Meeting Minutes

Unanimously agreed.

4) Review

4.1 Characteristics of "Standby" [Steve Bard]

5) Discussion

5.1 Expected Response when accessing node in Standby

No expressed opposition to accept ACK_MISSING as the expected response when endeavoring to access a node in Standby. Only nodes aware of the standby state of the leaf would, realistically, be trying to access the leaf; therefore, it would be expected that those nodes would command the parent node to restore the leaf from standby prior to accessing the leaf node.

5.2 Control Code for Standby (Upstarts/B-Port?)

Talked about reusing suspend/resume code as control code to tell parent node that leaf has gone into standby. This, however, requires the parent node to know if the child was a "leaf" or not so that it can get the proper context for the suspend indication (one case requires bus resets, etc. and the other requires proxying of self-id's, etc.).

One "code" should be sufficient to enter standby. The parent PHY stores (for each port) the limited set of bits (12 by the current count) from each self-id sequence - needed to proxy self-id packets for it's children. When a standby code is received from a child, the parent already has the proxy information needed. [Alistair took the action item to see if a control code is available, or whether we should look at a PHY packet from the child to the parent.](#)

The PHY packet for standby doesn't look promising! Fritz pointed out: the leaf

node knows which port is its parent port, but it doesn't know the PHY ID of its parent node, therefore, endeavoring to address a "Standby PHY packet" to its parent node is somewhat of a problem – the "Control code" seems to be the mechanism of choice.

Seeking resolution to the problem of delivering node-ID, gap count and gap count "stick-bit" status to the leaf node on restore, two similar schemes were proposed.

First: When a leaf node is restoring, its parent node arbitrates for the bus and then sends a PHY packet addressed to itself (the parent node). The restoring leaf node decodes the first PHY packet it receives and to grab the relevant information (node-ID, etc.). The parent node must service one and only one restoring child leaf at a time. Since nodes won't be considered active until the parent delivers the PHY packet, there is no danger that other parent nodes in the network which are in the process of restoring child leaf nodes will forward the PHY packet erroneously to one of their restoring leaf nodes.

5.3 Steve Bard took an AR to write-up the standby feature/function and present it to the next Plenary for ratification.

6) Review AR's

Alistair Coles: Investigate and report availability and value of a Control Code for Standby.

Steve Bard: Write up standby feature for delivery to next Plenary.

7) Opens

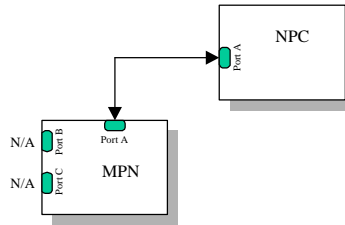
None

8) Adjourn

Discussion:

The group held a discussion about how a device enters standby on its own. There was a suggestion from Fuller (generally accepted by the group) that a leaf node entering into Standby on its own accord will transmit a PHY command packet (7/1) addressed to itself – allowing other nodes on the bus which may be interested (such as the Power Policy Owner of the leaf node), to observe the command packet. This procedure will appear to the link exactly the same as it would if the Power Manager or the Power Policy Owner commanded the leaf to enter into standby.

When the parent node of a leaf node in Standby goes into suspend, the parent node will issue a bus reset to the leaf node when the leaf node restores from standby as the result of the parent node resuming from suspend. The following drawing was used in the discussion:



When the NPC is in standby and the MPN is in suspend, the MPN will issue a bus reset when it resumes.

Attendance Roster for "B" Low-Power (2/9/99):

Name	Company	Email	Phone
Barton, Amy	Circuit Assembly	amyb@circuitassembly.com	949-855-7887
Brunker, Dave	Molex	dbrunker@molex.com	630-527-2622
Chander, Navin	Texas Instruments	navim@ti.com	972-480-2430
Chen, Dao-Long	LSI Logic	dao-long.chen@lsil.com	970-206-5461
Coles, Alistair	HP	anc@hplb.hpl.hp.com	+44 117 922 8750
Coletta, Mike	Harris	mcoletta@harris.com	949-707-1143
Dorsey, Chris	ST Microelectronics	christopher.dorsey@st.com	972-466-7850
Farhoomand, Firooz	Panasonic	farhoomandf@panasonic.com	408-653-4059
Feller, Scott	Hewlett-Packard	scott_feller@hp.com	(650) 857-7759
Fuller, John	Microsoft	jfuller@microsoft.com	425-703-3863
Furuya, Nobuo	NEC	nobuo_furuya@el.nec.com	408-969-2479
Gannon, Bob	C&M Corp	r.gannon@cm.corp.com	860-779-4249
Hauck, Jerry	Zayante, Inc.	jhauck@zayante.com	510-668-1006
Inoue, Tatsuo	Arch Tech	ted@archtech.co.jp	+81 3 5545 7813
Kadison, Eric	Harmonic Technologies	e_kadison@earthlink.net	949-470-4725
Killeen, Sean	SSL	sean.killeen@ssl.ie	+353 1 402 5700
Lopata, John	Molex	jlopata@molex.com	(630) 579-4110
McDonnell, Edward	HP Labs	emcd@hplb.hpl.hp.com	117-922-8942 (UK)
Morgan, Michael	Quantum Corporation	mike.morgan@quantum.com	408-894-4315
Niwa, Yoshikatsu	Sony	niwa@sm.sony.co.jp	+81 3 5448 4603
Nordby, Fritz	Silicon Engineering	fritz@sei.com	831-438-5331
Northey, Bill	Berg Electronics	northewa@bergelect.com	717-938-2119
Nyu, Takayuki	NEC	new@optsys.cl.nec.co.jp	+81 44 856 2082
Saito, Kyoza	Alps	kyozo_s@gw3.alps.co.jp	+81 229 23 5111
Saunders, Brad	Xircom	brad_saunders@xircom.com	805-376-6686
Sessions, D. C.	VLSI	dc.sessions@vlsi.com	602-752-6545
Shergill, Robbie	National Semiconductor	robbie.shergill@nsc.com	408-721-7959
Teng, Victoria	NEC	victoria_teng@el.nec.com	408-969-2861
Thatcher, Tom	Hewlett-Packard	thomas@dtc.hp.com	(650) 857-4039
Thompson, David	Lucent	davethompson@lucent.com	610-712-2730
Wakai, Hirosha	Sharp	wakai@slab.tnr.sharp.co.jp	650-638-7273
Whitby-Stevens, Colin	ST Microelectronics	colin.whitby-stevens@st.com	+44 1454 611500
Wooten, David	Compaq	david.wooten@compaq.com	281-518-7231
Yu, Patrick	NEC	patrick_yu@el.nec.com	408-588-5436
Zchikawa, Yujz	Sharp	ichikawa@slab.tnr.sharp.co.jp	+81-743-65-4529