



Analysis

We know you think HomePlug is great, but what does your CFO think?

By Peter White

We have a favorite trick here at Faultline, and we use it when addressing a room full of opinionated engineers, who are usually “certain” that one technical outcome and only one, is possible. We ask “Everyone who is a CFO, please raise your hands?” There is usually silence and a complete absence of hands going up - perhaps we just don’t move in the right circles.

But it’s true, in a world of engineering (certainty) it is the Chief Finance Officer who provides uncertainty and decides whether or not a product or product line wins or fails. And CFOs seem to have just decided that HomePlug is just about ready to die.

CFOs at both Qualcomm and Broadcom appear to have dropped all extraneous personnel involved with HomePlug, cancelled their HomePlug Alliance Membership (just before the HomePlug Alliance evaporated) and have put end of life sentences on their respective chip lines.

There are enough rumors and people speaking on the grounds of anonymity, for us to say this with confidence, and despite Qualcomm promising to give us answers, and emailing it hurry ups, there continues to be no official confirmation. Our understanding is that Broadcom has a new focus from Avago’s culture – “don’t ship products that make no money,” and “everything under a cer-

tain margin must go”. So Broadcom, which has a full spec HomePlug AV2 product line, using spectrum all the way up to 86MHz, has no plans for any new HomePlug product lines, and has cut all research into future HomePlug products.

Qualcomm Atheros (part of Qualcomm Technologies) has done much the same, except our understanding is that it only ever had a product line that used up to 68MHz and so was always at a small disadvantage to the full standard, and both have either re-assigned or eliminated all the product development and marketing positions around HomePlug.

They won’t confirm it, because there is no-one there to confirm it, but if you try to call any of them they are not there and their LinkedIn profiles show them working at new companies. The last chip from Qualcomm was in 2015, a wireless extender using the AR7420 chip running from 2MHz to 68MHz.

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Our understanding from insiders and rivals is that the current product lines will continue to be made and sold, until they are no longer relevant and that this has already led to the rival powerline group, Homegrid, signing new OEM deals and new retailer deals, to be rolled out in the coming months. Some retailers have simply started using the word “powerline” or “turbomesh” to describe hybrid WiFi mesh backhauled by powerline, and no longer reference the underlying technology directly. Underneath these products some are G.hn based rather than HomePlug.

Of course, if you put a Homegrid G.hn powerline chip into a HomePlug home, you may still have problems getting both to acknowledge each other and both to work, but that’s another story. If there is not enough profit left within the chips themselves, then there would be even less if these companies took time to add co-existence features.

One OEM is understood to have already recalled all equipment with the Qualcomm chip in it, and sourced a second Homeplug chip to replace it, once it heard the news.

The truth is that the two major US HomePlug suppliers can only see sufficient profit by shipping products as they are, and cutting out all the fat. And just as soon as the market moves on, more OEMs will either embrace a rival Homeplug supplier or move to

G.hn. This means either taking HomePlug chips from suppliers like Sigma and MStar, or opening up discussions with Homegrid players.

It must be a surprise to every engineer that ever defended the Homeplug architecture, but this now leaves the HomeGrid G.hn community as the one which will write powerline history, so naturally we called HomeGrid for its victory speech and to hear its version of history. And all because they could not keep the CFOs happy.

“We understand that Homeplug is just using up its existing runway,” said Donna Yasay, Homegrid President. “G.hn works over powerline, coax and twisted pair – so our silicon doesn’t have the same economic disadvantages as HomePlug, which only works in powerline. We are already shipping chips in the millions, and G.hn is also starting to be used for access lines. We understand that Homeplug is just unable to make sufficient margin, even on its existing higher volumes.”

Most analysts suggest that HomePlug chips are still shipping at 12 million or so chips a year, and that G.hn has barely got past a million, despite Yasay’s insistence that “millions” have shipped, and that fact that WiFi shipments are now close to 300 million units a year. The truth is that advances in WiFi have led to more operators selecting WiFi on its own, or with a coax backhaul rather than powerline, and powerline is beginning to reaching speed limitations that are tough (some believe impractical) to overcome.

“We expect Homeplug to continue shipping on volume throughout 2017 but then we will see G.hn chips taking over as more OEM designs take G.hn on board. We especially see the Wave 2 products taking over,” said Yasay.

Wave 2 G.hn uses spectrum up to 80 MHz in full MIMO, rather than the early products which used only up to 50 MHz, and HomeGrid consistently claims that these will give about 1.5 times the throughput of HomePlug AV2. Marvell, who employs Yasay, has already come out with such a chip. The market is likely to treat these chips like AV2 replacements over the coming two years.

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There was supposed to have been a successor to the HomePlug AV2 technology according to HomePlug Alliance President Rob Ranck speaking to Faultline Online Reporter in September last year and he talked about “bringing consumers the next level of enhanced connectivity as we build on the phenomenal success we have already seen with HomePlug AV2. But it has made no visible progress as the organization has been dismantled.

There are no longer any references to it on the pages of the HomePlug Alliance, and despite a statement which said that HomePlug would be sharing its technology with other companies and alliances, there has been virtually no change at the HomePlug Alliance where it no longer even lists members.

We also caught HomePlug president Rob Ranck in a fake rant last year where at first he told us that “HomePlug homes would stop working if anyone brought a G.hn powerline router into the home,” before it became obvious that this was only because the Homeplug chip vendors hadn’t implemented a coexistence protocol that had been agreed with standards bodies and G.hn chips had.

As far back as 2011, HomePlug Green PHY appeared to be chosen by car makers Ford, GM, Audi, BMW, Daimler, Porsche and Volkswagen as a connectivity standard for Electric Vehicles. Yasay said this week that Chinese G.hn chip maker Xingtera has just received its first order for replacing HomePlug in this with a leading car maker, but could not name the car maker.

In October HomePlug also said it had signed a Memorandum of Understanding with the Wi-SUN Alliance, moving HomePlug certification and testing to Wi-SUN. It did much the same with the Multimedia over Coax Alliance (MoCA) for testing IEEE 1905.1 products. HomePlug seems to be no more, despite Ranck’s continued role on his LinkedIn Page as President, and as Yasay says, 12 million chips a year is simply momentum which will eventually grind to a halt.

It would take a savage ramp in the fortunes of G.hn chips in order for it to take the mantle of leading powerline chip provider from HomePlug, but that outcome seems almost inevitable in the 2018 timeframe, but it is not a war that can have made either side very rich.