

IEEE P802.3cv D2.0 4P PoE Maintenance 1st Working Group recirculation ballot comments

Cl 145 SC 145.2.5.7 P30 L8 # 1

Zimmerman, George ADI, Cisco, CommScope, Marvell, SenTekSe

Comment Type T Comment Status A

The exit conditions for IDLE_ACS do not appear to be mutually exclusive. The way I understand it, the right hand branch requires but inrush to be finished and power applied to the primary alternative (meaning > 50 (to 75) msec), pd_autoclass to be TRUE (meaning it happens after classification, but that isn't helpful because tinrush also happens after classification), and tpon_timer is not done yet,. This means that this branch is enabled for between 50 to 75 msec and 400 msec after the PSE applies power. The bottom branch to MEASURE_ACS_DLL requires pse_dll_ready = TRUE, which can be enabled "at any time" (per text) and, more importantly, an Autoclass request has been received from the PD by the PSE via LLDP. (hence MirroredPDAutoclassRequest is TRUE). This capability to send this request is what requires that the PD be powered and booted, and hence makes the race unlikely, but possible, if the PD were already powered from a local power source and is switching over. If I am right, it suggests we might consider delaying the bottom branch until tpon_timer_done, simply adding tpon_timer_done to the lower condition, which would fix the race. I suspect this would not be a problem, because we already believe that the race condition would be unlikely to occur, and therefore such a delay in DLL activation would be hidden by that time period.

SuggestedRemedy

Suggest adding "*" tpon_timer_done" to the branch from IDLE_ACS to MEASURE_ACS_DLL, making the branch condition "pse_dll_ready * MirroredPDAutoclassRequest * !ac_measurement_completed * tpon_timer_done"

Response Response Status C

ACCEPT.

Cl 145 SC 145.3.8.2 P36 L12 # 2

Jones, Chad Cisco

Comment Type T Comment Status R

Late comment submitted by the chair on behalf of Lennart Yseboodt - There is ambiguity regarding the permitted power draw during the inrush delay phase. The issue is that in the POWER DELAY state, pse assigned class is set, based on the number of class events and the PD requested Class. During this state, the variables pd max power and pse assigned class may be in conflict, where pd max power would be less than pse assigned class. Similarly, the NO POWER states all depend on the PD obeying pd max power.

SuggestedRemedy

See yseboodt_01_2009_pdpower.pdf as sent to the reflector.

Response Response Status C

REJECT.

This comment does not solve the ambiguity and in fact causes more. More work is needed to reach consensus on a solution.