Linux Power!

(from a perspective of a PMIC vendor)

Abstract. Very abstract :)

Powering-up the processor/SOC and peripherals has been getting more and more complex. In many cases it is no longer enough to provide a fixed DC power. World has been and is facing increased need for power-savings. More and more devices are battery powered, requiring handling the charging. We want our devices to turn on at given time or due to an external event. Finally, demand for functional safety is increasing.

PMICs (Power Management Integrated Circuits) are designed to tackle these issues. I have been developing and upstreaming PMIC Linux drivers for PMICs from ROHM Semiconductors – and this is a short introduction to things I have encountered during my road. The main focus is adding the WARNing level events/error statuses to the Linux regulator framework. Configuring the safety limits using device-tree and using a helper for IRQ based error/warning notifications. This all filtered via eyes of a Linux kernel/driver developer working for a component vendor.