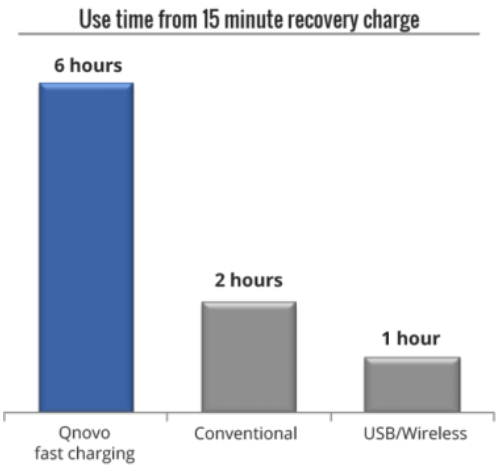
Qnovo finds way to speed up smartphone charging

12 August 2014, by Nancy Owano



Credit: Qnovo

No small setback: Those moments when your smartphone does not look smart at all, telling you it is about to die while you are in the middle of somewhere, looking for an outlet, dreading the waiting time it will take to charge. No small deal: The day when you can easily make use of battery technology that results in very fast charging times. A Newark, California, company Qnovo is working on that deal. Qnovo's team said they sought to apply an intelligent charging process: "Rather than charging with a simple current, Qnovo injects a series of charge 'packets', followed by measurements to determine the battery's state-of-health."

As MIT Technology Review said on Tuesday, "the company has "a technology that constantly checks and adjusts the flow of power during recharging to charge batteries faster and increase their lifespans." The CEO of Qnovo, Nadim Maluf, told Forbes, "Our method comes from what the automotive and aircraft engine industries have done, which is to measure the performance of their products in real time and created closed loop systems to really monitor what's going on and improve efficiency."

By using intelligent electronics and software, said the company, Qnovo technology continuously monitors the battery health and adjusts the speed of charging, hundreds of times a second. Maluf told Forbes, "We offer a software-only version that can simply be written into an existing operating system." There is a hardware and software part to their products. QNS is the software-only solution. QN200 is the hardware-based solution that offers fast charging and increased battery lifetime.

Robert Nalesnik, marketing VP, said in Forbes that "What our chipset does is to sit between the charger and the battery – we're the traffic cop that manages the current flow into the battery. So we don't replace anything in the phone. The software solution updates the battery once a second but in the hardware solution we're updating the battery once every millisecond."

MIT Technology Review said Maluf predicted the technology will be available on some smartphones next year. He said he was talking to phone makers about embedding Qnovo's software on their devices or, for even better performance, installing the chip that manages the charging process. Similarly, Nalesnik told Forbes the team has been working with a number of smartphone manufacturers, on either embedding Qnovo's software solution into their OS or including the Qnovo chipset on their motherboards. He said the team expected its technology "to be in many products released in 2015."

More information: www.qnovocorp.com/

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