

Verizon Puts Its Network Behind Innovation

Have an idea so crazy it might work but you don't have the resources to bring it to market?

Dan Murphy, director of technology product design at Verizon, might be able to help. As director of the Verizon Innovation Program, he specifically seeks out good ideas that need connectivity and a chance.

Verizon Innovation Program has a business development group that reaches out to startups with good ideas that the carrier can help come to light. Verizon can of course put its network behind any plan that needs connectivity, but the carrier can also provide capital and other resources to help startups finish prototypes or reach certification.

Verizon's efforts, along with 4G M2M modules becoming less cost prohibitive, means Murphy is seeing first-hand the kind of innovation LTE can fuel in the space. It's translated to a lot of action around vending machines and digital signage that benefit from strong, consistent signals.

"Partners are starting to see that it's not just a one-to-one connection now," Murphy said. "There's a lot you can do from a video standpoint."

Video has played a role in some of the projects coming out of the Innovation Centers. A company called Catalina Sea Ranch is working on making a mussel farm six miles offshore in



Changing Environments' solar-powered park bench.

dedicated federal waters.

Murphy said they needed a solution to help monitor their aquaculture project so Verizon worked with them on a video solution to send a feed back to the mainland. They also helped connect buoys that will allow Catalina Sea Ranch to make sure no one is stealing their mussels.

Murphy said the 4G connection is what powered the video quality they needed for their solution.

Verizon also worked with a partner out of MIT Labs called Changing Environments on a solar-powered park bench designed to recharge mobile devices. It's an environmental cause close

to Verizon's smart city work that the carrier mostly helped along by connecting the bench to the cloud. All 12 park benches launched in Boston contain Verizon's 4G-only module.

Now the bench provides analytics on number of users, time spent on the bench and environmental information, all useful to a municipality. And the time between when Verizon met Changing Environments in December 2013 to when the bench launched in May represents a speedy time to market.

Consumer demand for solar-powered benches and connected buoys is still low but Verizon Innovation has also put its resources behind more straightforward applications like the Ellipsis tablet. For that device, the carrier worked with module company Quanta on prototyping.

Verizon obviously wants to make money from its work in the innovation labs. The carrier picks partners that are likely to succeed and make it onto its network. But Murphy said it's also about Verizon staying tapped into the startup community and being engaged with people that are truly innovating.

"For us, at the end of the day, it's an opportunity for us to work with innovative partners, get them onto our networks, and generate revenue," Murphy said. ●

Carrier Networks See Increased Throughput at SMW over 2013

On Wednesday, Global Wireless Solutions (GWS) completed its final performance testing of four wireless national carriers inside the convention center as their networks remained loaded with traffic from CTIA. GWS continued its indoor testing using Rohde & Schwarz's SwissQual QualiPoc solution and the GWS Mobile Diagnostic App. The two GWS test engineers carried backpacks containing 12 Samsung Galaxy S4 devices. During testing, one of the engineers provided exact position data by noting waypoints on a tablet loaded with a map of the CTIA floor.

During testing, AT&T and T-Mobile each failed one call. AT&T blocked a call in the registration area, while T-Mobile blocked a call in the same location as Tuesday's testing in the back of the hall near the Freeman Service Center. Verizon improved slightly, but still

experienced 3 blocks, two of which were in the registration area. Sprint again experienced 7 failures, mostly near the Venetian Ballroom and the MobileCON hall. GWS performed voice quality testing using POLQA scoring and found that T-Mobile, Verizon, and AT&T all provided acceptable quality over 90 percent of the time, whereas Sprint's quality was dragged down by poor downlink voice quality.

T-Mobile's LTE network recovered on Wednesday to provide 22 Mbps downlink / 10 Mbps uplink throughputs, returning to performance it enjoyed during Monday's pre-show testing and making the most of its 15 MHz-wide channel on the 2100 MHz band. AT&T's LTE network delivered an average 10 Mbps DL / 3 Mbps UL throughput, using a 10 MHz-wide channel at 700 MHz and a 5 MHz-wide channel at 1900 MHz. Verizon's LTE

throughputs recovered on Wednesday to provide 10 Mbps DL / 7 Mbps UL with its own 10 MHz-wide channel on the 700 MHz band. Sprint's EVDO was still the slowest, with throughputs at about 800 Mbps. As noted in yesterday's article, Sprint's LTE network currently does not cover inside the convention center.

Comparing CTIA 2014 results to similar tests GWS performed during CTIA 2013, AT&T has seen its LTE download throughputs increase by 50 percent (but with no improvement in upload) and Verizon has increased its upload throughputs by 50 percent (but with no improvement in download). T-Mobile experienced a massive 4-fold increase with its LTE network. Sprint had stagnant performance with its EVDO network, but we look forward to see how Sprint's LTE rollout will play out at next year's CTIA. ●