

## School buses bring Wi-Fi to impoverished families

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Near the shore of the murky Salton Sea in the Southern California desert, a bus drives up to West Shores High School each day with a critical connection: A Wi-Fi router mounted behind an interior mirror, providing Internet access for students whose homes aren't wired.

At night, the bus driver parks more than 15 miles away on a sand driveway in a mobile home park. There, the hotspot is available to <u>students</u> as long as the battery lasts. On most nights, it fades after one hour.

Unlike wired and wealthy communities elsewhere, many homes in the former resort town of Salton City, about 65 miles north of the Mexican border, do not have high-speed Internet. The school bus Wi-Fi program that the district started this fall is one example of how a poor and undeserved community is trying to help students get better connected.

President Barack Obama mentioned the district's efforts in a in a recent speech in Washington, calling the effort "really smart. You've got underutilized resources - buses in the evening - so you put the routers on, disperse them, and suddenly everybody is connected."

The effort comes at a time when a lack of Internet access in homes and schools remains a huge challenge. Earlier this month, the Federal Communications Commission voted to increase funding for the federal E-rate program, which provides money for school districts to access the Internet, by \$1.5 billion for a total of \$3.9 billion annually. But the



money goes to schools, not home Internet access, and roughly half of lowincome families nationwide lack Internet service.

"Come on. We can do better than that as a nation, especially for our lowincome families and our disadvantaged families," said Darryl Adams, superintendent of schools of the Coachella Valley Unified District, one of the nation's poorest.

The district spans about 1,220 square miles of craggy mountains and sandy valleys; nearly 9 out of 10 students in the district qualify for free or reduced-price lunches. More than half of the children are not fluent in English. About 2,000 of the district's nearly 19,000 students are the children of migrant farm workers. Date groves, citrus trees and grapes vines flourish on irrigated land.

Last year, district leaders gave every child a tablet computer to use in the classroom and at home. They trained teachers and set up in-house teams to improve lessons.

At school, students use the tablets and the Internet to tap into a variety of educational resources, including self-paced lessons. After students got the tablet computers, completion rates for a required online health class increased, said Richard Pimentel, the West Shores principal.

This fall, the district started the school bus Wi-Fi program, but so far only two buses have been fitted with routers; the district has about 90 buses.

Many children ride buses more than an hour each way to school. Their ride weaves through an unfinished housing development near the salty, manmade lake. Modest houses, RVs and mobile homes provide affordable living.



As more schools get online, and teachers develop lessons that make use of new technology, more people are paying attention to at-home access.

"I think that's the last frontier, the biggest divide," said Sara Schapiro, the director of the League of Innovative Schools, a Washington, D.C., nonprofit that works with districts to develop and share effective school technology plans.

The educators at Coachella Unified school district still haven't figured out all the logistics for the Wi-Fi school buses. Mobile home parks are on private land, so each location requires cooperation from owners. And <u>school</u> officials need to find a way to keep the connection on longer than the hour of battery life available at night, as the router now runs off the bus' battery. The latest idea is mounting a solar panel on the bus, said Michelle Murphy, the district's chief technology officer.

The district must also carve out money to pay for this. They estimate it will cost about \$290,000 to put Wi-Fi on all 90 buses, district officials said. Lacking that money, they started with what they could do now. The first wired bus went to West Shores High School because the need is greatest there.

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