

Leadership

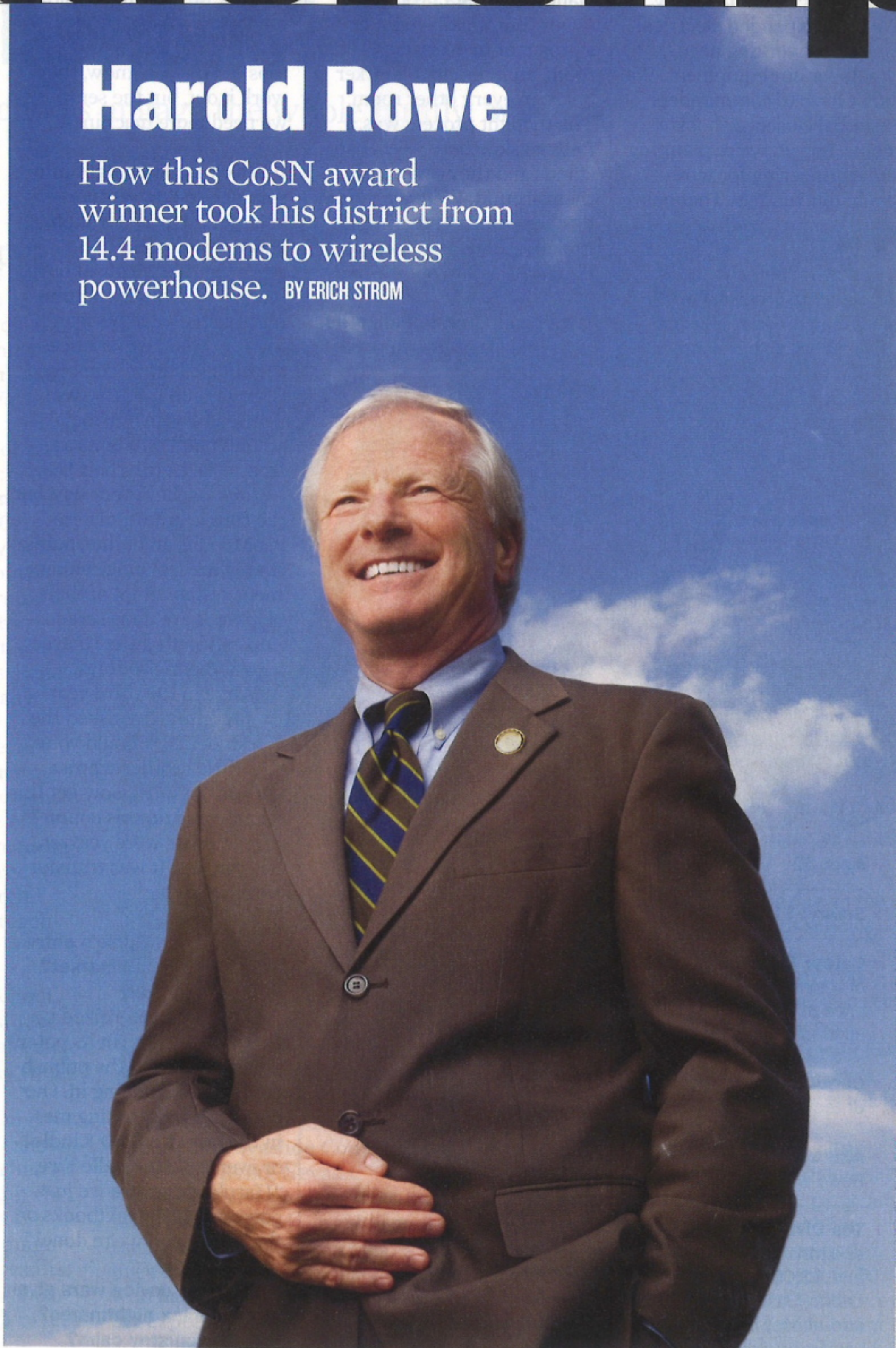
Harold Rowe

How this CoSN award winner took his district from 14.4 modems to wireless powerhouse. **BY ERICH STROM**

CYPRESS-FAIRBANKS ISD's longtime IT chief, Harold Rowe, has seen plenty of change over the years. When he arrived in 1991, the district had just 40,000 students and limited dial-up access to the Internet. These days, the district, which comprises a large swath of Harris County north and west of Houston, has more than 100,000 students—and a robust digital infrastructure that Rowe built from the ground up. The fruits of his efforts are abundant: interactive whiteboards and wireless access in the classrooms, take-home laptops for the entire 11th grade, and a centralized digital warehouse for reporting student data (which helps teachers improve individual instruction), to name just a few. Though his portfolio extends to transportation and custodial operations for all 84 campuses, Rowe is a technologist at heart. He can't help but look ahead and share his vision of the classroom of the future.

Q Was there a pivotal moment years ago when you saw the digital era coming and knew the district had to be a part of it?

A Definitely. In 1998, when we went before the board and asked them to approve our fiber network to connect our schools to the district central office, it was really the beginnings of building out our network. I told the board that there will be a day when we say, "What did we ever do without the network?"



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How could we ever have done business without it?"

Q More than half of Cy-Fair's schools have opened on your watch. Has that been an advantage?

A We're lucky to build new. We have expanded electrical for our networking needs, closets for our equipment. We didn't have to commandeer custodial closets or book rooms. So yes, we're planning and engineering for wireless in our schools. That has served us very well.

Q You've helped shepherd through \$165 million worth of bond approvals over the years. What's your secret?

A I don't think it's about me as much as it is about the

community's understanding that children and young adults need technology to advance their education.

Q How does all that investment in IT infrastructure manifest in the classroom?

A Our thumbnail would be a projector in every classroom, an interactive marker board in every other room. The thought process was, Let's go slow here. We'll use stands and they can wheel them around. Well, we've had teachers wanting them. So I'm hopeful in our next bond issue we'll get to one-to-one.

Q And a student-to-computer ratio of under three-to-one?

A Even though that ratio sounds favorable—and indeed it is—those are scarce resources. We have labs but we've increasingly migrated to computers on wheels. Lots of laptops on carts for just-in-time, on-demand deployment. And when you're the teacher who can't get the laptops today—you know, they work it out, but the sense is, we need more machines.

Q Which leads us right into your one-to-one venture—kids get a laptop for their entire junior year.

A We felt like we owed our students—and our community—a chance to have an intense laptop experience: a go-home laptop, combined with an online course we developed with our social studies team. Students are face-to-face with their U.S. history teacher every day, but the course is administered via Moodle, an online, public shareware learning-management system. A lot of their activities are done screens-up, navigating the Internet to authentic sources.

We're in the third year presently. I've asked the students, "Should your little brother who's a 10th grader now get this laptop and do this course?" The answers were yes, yes, yes, yes, yes. It was transformational for us.

Q What about Apple's entry into the textbook market? Transformational?

A I am totally energized by that. It is striking in its potential if you look at the publishers that are chipping in. Our board has been asking me, in the face of a \$150 Kindle or even a \$250 Kindle Fire, "Harold, when are we just going to get the textbooks on the device and we're done?"

Q Do those device wars give you Betamax nightmares? How do you stay calm?

A I'd like to think I stay calm—but [remain a little] nervous, or anxious, about it. We're going to do a small pilot change from laptops to tablets. We have laptops that are going to age out, so we'll use some replacement money to get tablets.

Q So you can work them into the mix and see.

A That's right. Would you surrender your laptop for an iPad? That's the challenge we're faced with. We're just going to take a measured approach.

Q With one-to-one in mind, do you have a vision of how technology could physically remake the next generation of schools?

A We just opened a new school, Salyards Middle School. The whole idea was to make a more open, approachable learning space. We have lots of light and glass walls, large open-space areas where students can work on projects. Our architects have taken great pride in it. It's won some awards. I was not the leader in this area but I was a strong supporter and collaborator.

Q Down the road, do you see the walls falling away?

A I see much more open space and peer-based learning. The kids are going to have the capacity in their hands to do all the data acquisition. We'll still need great teachers, almost in the Socratic method, driving their critical thinking. But it can be done in a much less structured environment than we have today.

Q With technology at the heart of that?

A Yes! I wish I could live for 50 more years—as we all do, no doubt—but just as a technologist who's ridden part of this little curve that we've been on. It's so exciting. ■



DOSSIER: Harold Rowe

▶ **Age:** 62

▶ **Salary:** \$159,950

▶ **Career Path:** Before coming to Cy-Fair ISD in 1991 as head of information services, Rowe already had 20 years' experience in IT, including stints at NASA and IBM. He became assistant superintendent for technology services in 1999.

▶ **Current Status:** Rowe has been associate superintendent of technology and school services since 2003.

▶ **Affiliations and Awards:** A member of ASCD and CoSN, Rowe won the 2012 Withrow CTO Award in February.

▶ **The District:** Cy-Fair ISD has grown from a small agricultural district to the state's third-largest, with 107,000 students and 13,000 employees. The student body is diverse (42% Latino, 31% white, 15% African-American, and 8% Asian), and almost half are economically disadvantaged.