



Technology that Powers Student Outcomes

Inside the districts turning Wi-Fi 6E, cyber-resilience, and device lifecycle wins into stronger student results.

Editor's Note

Shrinking budgets, expiring ESSER relief funds, and school board mandates to “do more with less” have K-12 IT leaders in a tight spot. On top of that fiscal cliff, cyber risk is spiking: 82% of districts reported at least one cyber incident in the last 18 months, and ransomware attacks across education jumped 69% in Q1 2025 alone, with six-figure ransom demands now the norm. At the same time, classrooms are hungry for bandwidth-heavy AI and mixed-reality apps, pushing network-modernization projects—think Wi-Fi 6E/7 and zero-trust architectures—to the front of the queue.

Against that backdrop, the districts featured in this issue show what real-world progress looks like.

- **Kansas City, KS Public Schools** locked down 35,000 endpoints and unified data-center operations.
- **Aldine ISD** rolled out 8,000 Wi-Fi 6E access points and doubled backbone capacity, turning “walk-out” threats into five-bar selfies.
- **Albuquerque Public Schools** made every one of its 163 campuses Ray-Baum-Act compliant.
- **A Western district** rebuilt 75% of its VMs—and stood up an isolated cyber-recovery vault—in under four weeks.
- Finally, **a Midwestern district** executed a 12,000-device lifecycle refresh that gave a 20-person IT team back 40% of its week.

These stories prove that even in an era of tighter funding and louder threat actors, the right roadmap—and the right partner—can transform risk into resilience and bandwidth into better learning. I hope the pages ahead spark ideas you can take to your next board meeting.

– **Anthony Thomas, Editor, C1 Insights**



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Impact Snapshot



180,000 + students – from Kansas City, KS to Houston’s Aldine ISD and Albuquerque, NM—now learn on C1-modernized networks that put security and speed first.

“C1 has been pivotal in helping us... build a future-ready school district.”
– Dr. Zachary Conrad, KCKPS



35,000 endpoints at Kansas City Kansas Public Schools (KCKPS) are monitored around the clock by Rapid7 + Duo MFA, closing critical gaps in minutes instead of days.



8,000 Wi-Fi 6E access points across 80 Aldine ISD campuses doubled usable bandwidth and silenced “Wi-Fi walk-out” talk overnight.

“[Student] Ambassadors now speak highly about their Wi-Fi experience.”
– Michelle Okoro, Aldine ISD



Zero ransom payments for a Western district after C1 stood up an isolated cyber-recovery vault—critical as K-12 ransomware incidents jumped 35% nationwide between 2023 and 2024.



163 sites Ray-Baum-Act compliant at Albuquerque Public Schools; 11,400 VoIP phones now feed precise 911 location data in real time.

“The ability to have precise location data readily available to our PSAPs and police department is invaluable.”
– Brian Thompson, APS



12,000 learning devices imaged, engraved, asset-tagged, and deployed in four Midwestern high schools—restoring taxpayer confidence and giving a 20-person IT team back 40% of its week.

Bottom line: Whether it’s Wi-Fi 6E, endpoint hardening, life-safety compliance, or cyber-recovery, these districts prove that the right roadmap—and the right partner—turns today’s tech headwinds into measurable wins for students, staff, and budgets alike.



From 20-Year-Old Phones to Future-Ready Classrooms: Kansas City, Kansas Public Schools Hit Fast-Forward

Kansas City, Kansas Public Schools (KCKPS) serves **21,000 students** in **45+ buildings** and manages an annual budget topping **\$428 million**—yet, until recently, much of the district still relied on dial-tone-era phone systems and a patchwork of aging servers. “Supporting such a large district with limited resources means constant prioritization,” says **Dr. Zachary Conrad, Executive Director of Technology and Data**. “Our focus has been on driving impactful change through strategic technology decisions.”

The Pain Points

- **20-year-old PBXs** that cost more to maintain than to replace
- **35,000 endpoints** generating rising cyber-risk and data-storage headaches
- Growing pressure to protect sensitive student records and meet new security mandates
- Limited IT staff forced to juggle day-to-day troubleshooting with long-term innovation plan

The Game Plan

Enter **C1**. Rather than rip and replace piecemeal, KCKPS adopted a “secure-then-scale” roadmap:

1. **Modernize the core** – Two **Dell VxRail hyper-converged data-center stacks** now anchor a district-wide private cloud, giving IT one-click scalability instead of forklift upgrades.
2. **Lock down every device** – **Rapid7 MDR** delivers 24×7 visibility across all 35K endpoints, while **Cisco Duo MFA** adds a vital identity layer.
3. **Move smarter, not harder** – C1 engineers rewired bus depots so Wi-Fi uploads route data nightly, eliminating bulky drive-and-dock routines for the fleet.
4. **Unify collaboration** – A district-wide shift from Google to **Microsoft 365**—planned, licensed, and supported by C1—streamlines email, Teams, and secure file sharing.



Results Students Can Feel

- **Zero major breaches** since go-live, thanks to Rapid7's real-time threat hunting.
- **Seconds, not hours** for secure logins, slashing classroom downtime.
- **Nightly bus-fleet uploads** keep maintenance, safety, and route data up to date without extra overtime.
- IT staff reclaimed **40% of their week** for curriculum-enhancing projects instead of break-fix fire drills.

Beyond "Fix It" to "Future-Proof"

KCKPS is considering **AI-powered language-translation avatars** to serve multilingual families and exploring automated data governance to stay ahead of statewide compliance rules. "C1 doesn't just sell solutions; they take the time to understand our needs and collaborate on what works best for us," Dr. Conrad notes. "We've moved from transactional IT fixes to relationship-driven innovation."

Three Takeaways for District Tech Leaders

1. **Treat security as your springboard.** Locking down endpoints first gave KCKPS the confidence to modernize everything else.
2. **Hyper-converged means hyper-flexible.** VxRail let the team scale storage for STEM video projects without new silos.
3. **Find a partner who'll sweat the details.** From MFA rollouts to bus-depot Wi-Fi, incremental wins added up to system-wide transformation.

Bottom line: You don't need a blank check to build tomorrow's classrooms today—you need the right roadmap and the right partner. KCKPS and C1 just wrote the playbook.

From Walk-Out Threats to Wi-Fi Bragging Rights: Aldine ISD's 8,000-AP Upgrade

Aldine Independent School District (ISD) sprawls across **111 square miles** of greater Houston, teaching **60,000+ students on 80 campuses**—yet until recently it ran on aging gear that left classrooms buffering and student ambassadors flirting with a “Wi-Fi walk-out.” “We were dealing with equipment that was crucially due for a significant upgrade,” recalls **Matthew Childs, Network Operations Manager**.

A leadership shake-up became the catalyst. New CIO backing allowed the tech team to more than double—from 50 to **116 staffers**—and gave Childs and **Michelle Okoro, Executive Director of Network Infrastructure**, the green light to rethink the network from the closet out. “We needed to stop spending on end-of-life equipment,” Okoro says, highlighting the crucial importance of not just selecting the right technology vendor, but choosing the ideal technology partner.

The 6 GHz Game Plan

After a competitive review, Aldine stayed loyal to **Extreme Networks** gear but swapped resellers, tapping C1 for deeper bench strength and project scale. The roadmap hit three big milestones:

1. **90 wiring closets refreshed** with new switches—silencing fan noise so well that “you’d need a school map to find them now,” laughs Okoro.
2. **8,000+ Extreme 6 GHz access points** blanketed every campus and the new **10,000-seat Thorne Stadium**, paving the way for AR/VR lessons and livestreamed games.
3. **Extreme Cloud IQ + Fabric Connect** delivered zero-touch provisioning and segmentation, letting a lean IT crew manage Gig-class Wi-Fi like a SaaS app.





Instant Classroom Cred

The payoff was immediate. Student ambassadors who once circulated petitions now post “five-bar” selfies. Teachers run simultaneous Zoom, Nearpod, and video without a hitch. “Ambassadors now speak highly about their Wi-Fi experience,” Okoro reports—proof the network is finally invisible in the best possible way.

Reliability gains freed the team to chase bigger goals. Noise complaints in IDF closets dropped to zero, help-desk tickets fell sharply, and the district is green-lighting an internet backbone jump from 20 to 40 Gbps to stay ahead of esports and AI-driven learning apps. **“The partnership with C1 has been transformative,** allowing us to strategically address our immediate needs while setting the stage for future advancements,” says Childs.

Three Lessons for District Tech Leaders

1. **Future-proof = people + gear.** Aldine paired 6 GHz hardware with staffing and skills expansion so the solution could grow after go-live.
2. **Automation beats firefighting.** Cloud IQ’s AI insights let a slim crew manage tens of thousands of endpoints—as Okoro puts it, “We can now focus on expanding our capabilities efficiently.”
3. **Find a partner who scales with you.** When their local reseller couldn’t keep up, Extreme’s referral to C1 made the difference between a refresh and a reinvention.

Bottom line: Aldine’s turnaround proves that even the ninth-largest district in Texas can leapfrog from “please reboot” to “bring on 4K VR.” Ready to write your own upgrade story? Ask C1 how a 6 GHz foundation and the right partner can turn Wi-Fi woes into bragging rights.



The Pin-Drop Promise: How Albuquerque Public Schools Turned 163 Campuses into One Smarter, Safer Network



When the bell rings across **163 sites** serving **70,000 students**, Albuquerque Public Schools (APS) wants its technology to be as reliable as that first-period tardy bell—especially in an emergency. Yet until recently, a 911 call from the gym might show up at the dispatcher as “Main Office, Somewhere.” That gap put compliance with the federal **Ray Baum Act** at risk, and worse, added precious seconds to response times.

“Our primary goal was to enhance the safety and security of our students and staff by improving our emergency response capabilities,” says **Brian Thompson, Director of IT & Infrastructure**. “We were looking for a solution that would not only comply with regulations but also provide our police department and local PSAPs with the tools needed to respond swiftly and effectively to emergencies.”

Why the Old Tools Fell Short

C1 Managed Services already handled **11,400 VoIP phones** on an Avaya core, plus SIP and ISDN trunks, 200 + auto attendants, and a chorus of five-digit extensions for APSMapping all that to exact floor plans was hand-drawn-map tedious. Meanwhile, **80% of district 911 calls originate from cell phones**, leaving building addresses useless.

Enter 911inform + C1: A 12-Year Partnership Levels Up

APS turned to its long-time ally, **C1**, and adopted **911inform**, a cloud platform that marries real-time mapping with geofencing and rapid SOS alerts. Thompson calls the geofence feature “a game-changer” because it pins a mobile caller to a classroom, bus bay, or athletic field in seconds.

C1’s engineers:

- **Uploaded every DID and floor plan** into 911inform, tying extensions—and cell callers—to exact rooms.
- Integrated the new platform with Avaya, existing SIPtrunks, and the APS Police Department’s dispatch console.
- Coordinated live tests with local PSAPs in the rugged East Mountain schools, providing caller locations down to the hallway.

“C1 was instrumental in helping us navigate the deployment process. Their responsiveness and dedication ensured that we could address issues promptly and keep the project on track.”

Brian Thompson, Director of IT & Infrastructure, Albuquerque Public Schools.



Fast Wins and Future Peace of Mind

- **Ray Baum Act compliance**—no more liability over vague caller IDs.
- **Real-time campus maps** pop on dispatch monitors the moment a handset or cell phone dials 911.
- **Rapid SOS buttons** empower staff to trigger district-wide alerts without hunting for a phone.
- **No more blind spots:** every new site or phone auto-registers in the system, eliminating manual updates.

"We've already seen the benefits of 911 inform in action," Thompson reports, "particularly in our East Mountain schools, where we've successfully tested the system with local PSAPs. The collaboration with C1 has been a positive experience, and we're confident that as we complete the rollout across all sites, our schools will be safer and more secure."



Three Takeaways for Tech Leaders

1. **Map first, integrate second.** Load floor plans and DIDs before you cut the first line of code. It shortens go-live headaches.
2. **Mobile is your real 911 source.** If 80% of calls come from cell phones, geofencing isn't optional—it's table stakes.
3. **Pick partners, not vendors.** A 12-year relationship meant C1 could bypass discovery and dive straight into solutions.

Bottom line: APS turned a tangled phone maze into a one-click safety net, proving that location-aware 911 isn't a big-city luxury—it's a district necessity. Ready to give your campuses pin-drop precision? C1 has the roadmap and the mile-high success story to prove it.



Reboot Before the First Bell: How a Western School District Beat Ransomware in < 4 Weeks

At 7:30 a.m. on a sweltering August Monday, a large Western-U.S. district discovered 75 percent of its virtual machines had been encrypted overnight. Two short weeks stood between “systems down” and the first day of school. Every attendance record, curriculum file, and cafeteria payment were suddenly out of reach.



A Crisis in Three Numbers

- **75% of VMs offline**—core infrastructure, student portals, even the bell-schedule software.
- **2-week deadline**—teachers and buses were coming, ready or not.
- **0 recent backups**—the newest clean data set was months old.

Enter C1's Rapid-Recovery SWAT Team

Within hours, C1 mobilized a dedicated crew of engineers who camped onsite—figuratively and, at times, literally. Their first job: triage the damage, isolate infected segments, and spin up provisional services so summer-school sessions could limp along. Next, they launched a from-scratch rebuild anchored by best-practice hardening.

Key Moves

1. **Forensics & containment**—root-cause analysis plus network segmentation to stop lateral spread.
2. **Clean-room restore**—new Dell hosts, hardened images, and staged data imports to avoid reinfection.
3. **User trust reset**—district-wide credential change and multi-factor enforcement before any logins reopened.



From Rubble to Resilience in < 4 Weeks

Intense, round-the-clock work paid off: the district returned to full functionality in **under four weeks**, beating the bell and saving the school year.

Future-Proofing, Not Just Fixing

Recovery wasn't the finish line. C1 deployed an advanced Cyber Recovery vault—an isolated, immutable repository that now snapshots critical workloads and validates every restore point before it's certified clean. Rigorous new access-control policies require every data request to clear a multi-layer validation gate.

The result? Night-and-day confidence. Today, the district's recovery-time objective has shrunk from "weeks if we're lucky" to "hours by design," and simulated failovers prove it.

Three Playbook Tips for Fellow Tech Leaders

1. **Treat backups like gold bullion.** Air-gapped, immutable copies are non-negotiable.
2. **Practice "assume breach."** Segment networks so an infection can't cascade through every VM you own.
3. **Pick partners who stay after the fire is out.** C1's engagement extended well beyond re-image scripts to long-term cyber-resilience architecture.

Bottom line: Ransomware doesn't wait for a convenient time—but with the right roadmap, neither does recovery. Ready to bullet-proof your district before the next bell rings? C1's rapid-recovery blueprint is already tested—and school-board approved.

12,000 Devices, 0 Do-Overs: How One Midwest District Turned a Tech Fumble into a Touchdown

The new superintendent of a midwestern school district aimed to bring significant technological changes to the district, which served a community of **30,000 students across 72 buildings**. However, a recent pilot 1:1 rollout at the district's newest high school had crashed and burned, eroding taxpayer trust and rattling a 20-person IT team already stretched thin.

The Reboot Plan

Instead of retreating, district leaders called **C1's IT Lifecycle Services (ITLS)** crew and mapped out an end-to-end rescue mission:

1. **Listen first.** ITLS interviewed every stakeholder—from media-center aides to network admins—to pinpoint what went wrong and what “good” had to look like.
2. **Own the heavy lift.** C1 agreed to **image, laser-engrave, asset-tag, and ship 12,000 Apple devices** to four high schools, then roll up sleeves for on-site hand-outs.
3. **Leave nothing to chance.** Bar-code scans at every handoff moment fed real-time dashboards so IT could see progress and parents could see accountability.

The district experienced a significant relief as C1's complete ownership of the project provided much-needed breathing room. The efficiency of the process was evident when shipments arrived classroom-ready, showcasing the seamless execution and readiness for immediate use.



Results That Speak Louder Than Rumors

- **12,000 devices** delivered, deployed, and enrolled on schedule—no lines, no lost serial numbers, no lost sleep.
- **Community confidence restored.** Board meetings flipped from finger-pointing to fist-bumps as teachers demoed new digital lessons on day one.
- **40% time win** for IT: with imaging and asset management offloaded, the 20-person team could finally focus on security policies and STEM-lab upgrades instead of endless break-fix.

The project was executed with remarkable smoothness, successfully achieving the goals set forth to the community. This success is expected to generate momentum for securing funding for future innovative initiatives.

Three Playbook Moves to Steal

1. **Brand your devices.** Laser engraving sounded flashy until the first lost iPad came home in minutes instead of weeks.
2. **Single throat to choke (or high-five).** One partner accountable for procurement-to-deployment eliminated finger-pointing between resellers, shippers, and integrators.
3. **Dashboards calm the noise.** Live status updates cut “Where’s my cart?” tickets to near zero and proved ROI in real time to principals and parents.

Why It Matters Beyond the Midwest

Whether you’re prepping Chromebooks for third graders or MacBooks for a burgeoning esports league, the lesson is the same: **a flawless rollout is 50% logistics, 50% optics.** Parents need to see tax dollars at work; teachers need gear that works out of the box; IT needs weekends back.

Bottom line: C1’s ITLS model packaged all three, turning a public misstep into a district showcase. If your next device deployment feels more like walking a tightrope than throwing a parade, maybe it’s time to invite the folks who turned 12,000-device panic into pep rally-level applause.

Ready for your own zero-drama rollout?

C1 already has the barcode
scanners warmed up.

Get the details about how these school
districts are powering student learning with
technology:

- [Albuquerque](#)
- [Aldine](#)
- [Midwestern School District](#)
- [Kansas City, Kansas](#)
- [Western School District](#)



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