

# Empowering Small School Districts for Hybrid Learning

How one small district in Oklahoma is leading the way in long-term and resilient strategies to amplify learning and engage students.



# Small School, Big Insights



# Small schools offer big insights

Along the remote southeastern border near Arkansas sets an atypical small town called Howe, Oklahoma. With a population just shy of 800 people, and a median income level straddling the poverty level, you might think technology would be an afterthought. But for the 600+ students in the Howe Public Schools District, technology is a core part of their daily lives.

## **Technology to amplify and engage**

As a small school district, Howe has purposely focused on technology to amplify and enhance educational opportunities for students. Their strategy has been led, in part, by Dr. Lance Ford who serves dual roles in the district. First as teacher, second as a Cisco education technology advocate. Along with staff, faculty, students, and supporters throughout the community, he has evidenced first-hand how a small school district can provide big insights into applying technologies that can shape the future of education.

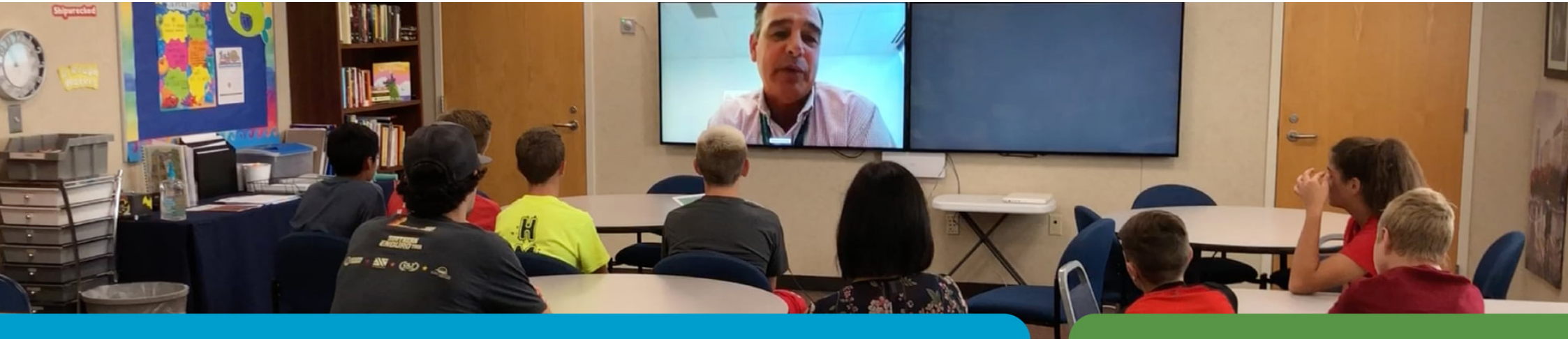
## **Swift and seamless transition**

Thanks to innovative technologies like Cisco Webex, a typical day in Howe Public Schools moves seamlessly from virtual classrooms that stretch across the sprawling district to individual on-demand experiences that let students learn at their own pace. Howe's ability to transition rapidly with the needs of users is pushing this small school district to the forefront of hybrid learning. Yet the process has had its challenges and required a long-term approach on several fronts.



# Challenges





# The unique challenges of a small school district



## Staffing limitations

- Too few teachers and staff to properly instruct students/ maintain facilities
- Fluid locations of students/staff due to COVID-19 quarantines



## Providing connectivity/bandwidth

- Lack of internet access in homes due to remoteness and poverty
- Slow upload speeds that hamper pace of live education



## Cultural

- 60+% of population under the poverty line
- Engaging students in way they understand

# Do small schools face bigger challenges?

## Too much work, not enough workers

Operating in a small school district involves unique challenges. While many are financial, some simply reflect the nature of small schools, such as having too few workers and too much work. As a result, at Howe and similar small districts, a teacher or administrator can wear many hats. When the school bus door swings open, students and parents are often greeted by the principal in the driver's seat. Or, if they happen to pass by one of the school buildings on a Saturday morning, they may get a friendly wave from the superintendent - who is laying bricks for a new walk or trimming the hedges.

Most instructors teach multiple topics, stretching beyond their degreed specialty. Plus, they must often handle duties outside the classroom that might otherwise fall through the cracks

The COVID-19 pandemic has added even more responsibilities for teachers and staff in small school districts as they attempt to transition to hybrid learning environments. This includes creating and maintaining a reliable and easily accessible stream of on-demand coursework and addressing the need for flexibility between remote and in-person instruction and learning. An instructor might unexpectedly have to teach and manage the entire in-class experience for students remotely, without notice. And, students might pop in and out of class throughout the semester due to temporary quarantines.



# Do small schools face bigger challenges?

## **Lack of access and slow upload speeds**

Another challenge for Howe Public Schools and many small school districts is reliable and secure connectivity. With thirty percent of their students struggling with internet access (60-70% if you include teachers) and over sixty percent of households living under the poverty level, there is a clear need to develop strategies that can help alleviate the strain. Add to that the need for advanced speeds when using real-time video for teaching, and bandwidth can quickly become an issue.

## **Poverty and engagement**

The issue of poverty in the district also has far reaching impacts and creates its own set of cultural challenges. This is a common issue in rural areas or those without a large population and property tax base. This also means many users may not be familiar with advanced technologies. So Howe and similar districts must often develop strategies that show the value of technology while also teaching users how it works. Plus, at Howe they must ensure each student has access to the proper type of device for their learning level, regardless of income level.



# Solutions





# Technology lets small schools make a big impact

With Cisco Designed for Education, small schools can have a big impact on their students. By partnering with a proven leader in education technology, your school district can upgrade its existing IT infrastructure with industry-leading solutions that secure, simplify, and enhance digital learning. Our solutions feature:



Simple deployment and use



Secure access and collaboration



Smart and intuitive technology



Support by Cisco and educators



Seamless integration



# Technology lets small schools make a big impact

## Administer, teach, and work from home

- [Webex Meetings free trial](#)
- [IP Phones 7800/8800](#)
- [Webex Desk Pro](#)
- [Webex Headset 700 Series](#)

## Enable reliable wireless connectivity anywhere, anytime on any device

- [Cisco Switches \(250/350, 1000\)](#)
- [Meraki Cloud Switching MS120 \(48 port\)](#)
- [Meraki Go Switching GS110](#)
- [Cisco Wireless 100/200/1800/2800](#)
- [Meraki Go Wireless APs Indoor/Outdoor GR10/60](#)

## Empower hybrid and distance learning

- [Webex Meetings free trial link](#)
- [Webex Education Connector](#)
- [Webex Room Mini](#)
- [Webex Room USB](#)
- [Webex Board 55S](#)
- [Webex Desk Pro](#)
- [Webex Headset 700 Series](#)



# Technology lets small schools make a big impact

## Secure your network

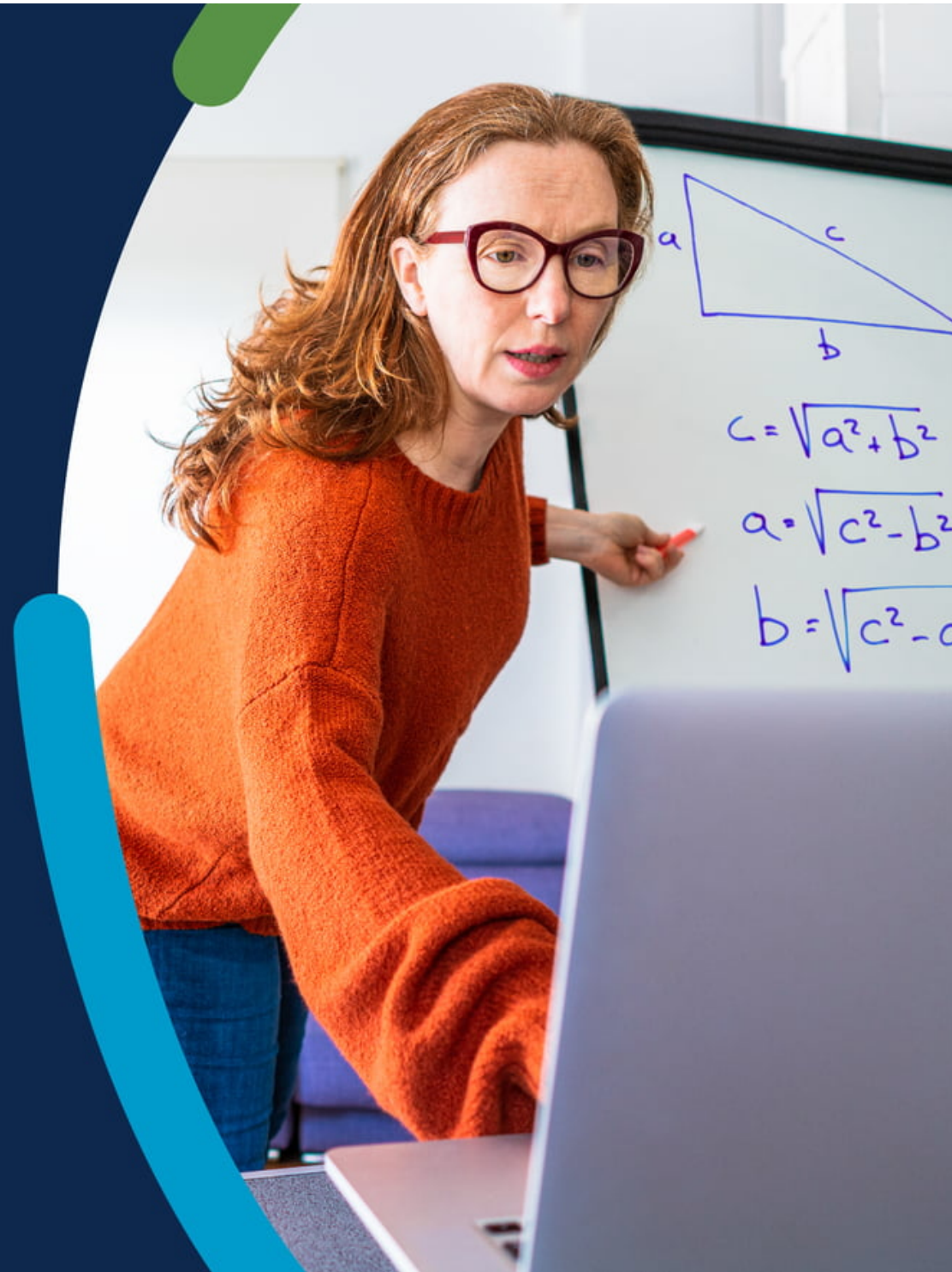
- [Firepower 1010/1160](#)
- [AnyConnect VPN](#)
- [Cisco Umbrella free trial](#)
- [Duo free trial](#)

## Secure your facilities

- [Cisco DNA Spaces](#)
- [Meraki Cloud Switching MS120 \(48 port\)](#)
- [Meraki Go Switching GS110](#)
- [Cisco Switches \(250/350, 1000\)](#)
- [Cisco Wireless 100/200/1800/2800](#)
- [Meraki Go Wireless APs Indoor/Outdoor GR10/60](#)



# Best Practices



# Amplify and engage: Best practices from a small school district

The Howe School District, while small, has been a leader in adopting and adapting new technologies in education. This ranges from launching one-to-one laptop and software initiatives, to supplying tools for individual podcasting projects, and brainstorming collaborative projects that connect their students with others nationwide. As a result, they've developed several best practices for technology in education that can benefit other small school districts

## **1** Deploy a force multiplier

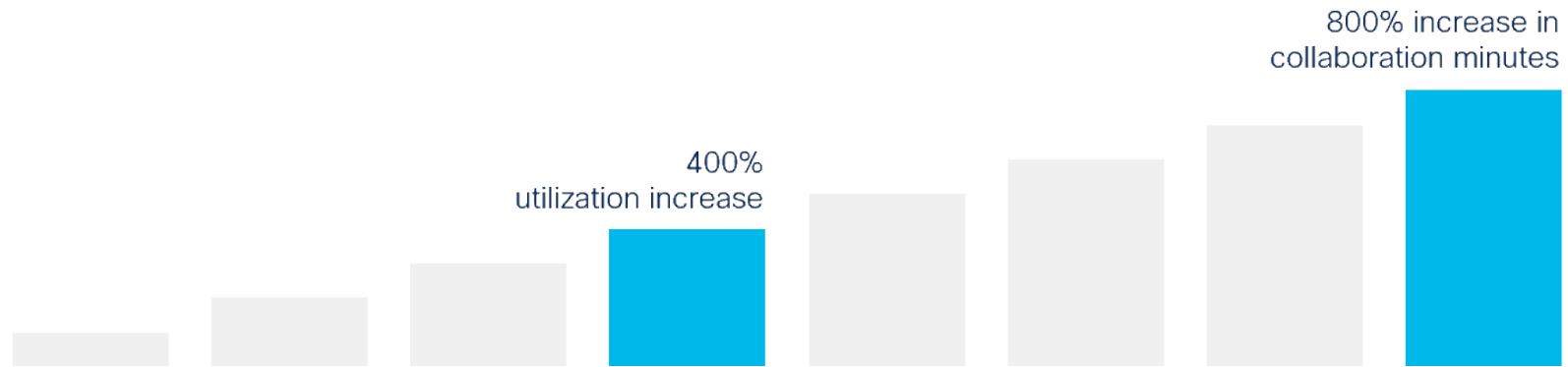
For Howe Public Schools, Webex serves as a "force multiplier," amplifying the reach and capabilities of teachers by:

- Enabling access to remote subject matter experts (across state lines or international time zones) to engage students in new and exciting disciplines.
- Empowering real-time collaboration and information sharing between multiple students and staff, allowing them to engage, debate, and whiteboard concepts and solutions as a team.
- Delivering a safe and secure learning environment that reaches beyond physical spaces, letting students explore cultures and environments they otherwise would never encounter (such as the Great Barrier Reef, a village in Asia, or the Columbus Zoo).
- Extending the college campus to the local high school, allowing students to gain advanced training and attain course credits that can speed their path to a college degree while reducing the costs involved (one recent valedictorian was just one class away from fulfilling the requirements for an Associate's degree).



# Amplify and engage: Best practices from a small school district

**Webex lets you rapidly scale to amplify and engage**



**First 30 days of COVID-19 pandemic, spring 2020, Howe Public Schools.**

Webex also serves as a force-multiplier beyond the classroom for administrators, counselors, safety officers, and facilities maintenance by allowing real-time video for collaboration and information sharing about daily operations and evolving events. This includes emergency notifications and giving safety officers more accurate information on unfolding situations before entering a location. Or improving workplace health by reducing unnecessary physical contact among staff. And enabling maintenance staff to perform daily inspections and diagnose equipment issues remotely, eliminating travel time and associated costs.



# Amplify and engage: Best practices from a small school district

## 2 Leverage a single communications platform

As the COVID-19 pandemic unfolded, instructors at Howe had the capability to offer a full hybrid learning environment powered by a single communications platform comprised of Cisco Webex Meetings, Webex Teams, Webex Boards, and IP phones. By unifying collaboration and information sharing with real-time video conferencing, Webex proved to be the primary driver for continuity of teaching. In addition, its flexibility and rapid scalability allowed the district to expand use by a factor of one hundred almost instantly. Using a single platform also lets Howe benefit from a secure core network and state-of-the-art wireless capabilities across solutions.

A single communications platform lets teachers use integrated tools like Webex Boards to present lessons wirelessly from a laptop, draw and annotate on the whiteboard digitally, and connect with other classrooms or remote experts through audio or video conferencing. “It has completely changed how students learn,” says Carol Ann Ford, Gifted and Talented Coordinator for Howe Public Schools. “. . . access to the materials that bigger schools have is now available to them. It has broken down the walls of social class and geographical boundaries.”

Cisco’s Webex for Education portfolio of integrated solutions is also adding Webex Classrooms, an innovative approach for secure and easy-to-use web-based learning experiences. It empowers users to join or host class sessions, listen to and search recordings, track class attendance, and more.



“It has broken down the walls of social class and geographical boundaries. I’m more of a facilitator now. It’s a guided process where they’re learning to solve real-world problems.”

-Carol Ann Ford, Gifted and Talented Coordinator for Howe Public Schools



# Amplify and engage: Best practices from a small school district

## 3 **Select easily integrated and scalable solutions**

Howe Public Schools consistently sought out technologies with proven ease of integration and scalability while developing its IT infrastructure. This helped speed an initial transition to secure distance learning, and then even further, to a hybrid learning environment. But in doing so, they were careful to select equipment that had a proven track record for reliability. This included Cisco routers and switches that could seamlessly and securely connect all of their connected devices to one another.

Howe further sought integration and scalability by deploying Cisco Unified Communications Manager (Unified CM) to provide secure call control and session management for on-site and remote phone users. By seeking solutions that easily integrate, teachers and staff can personalize their user experience to better fit their needs. For example, Howe team members can route calls from work, via Webex Teams, conveniently to their personal smartphones. This speeds response times to inquiries from students, parents, or other staff in after-hours or off-campus scenarios. It also gives teachers and staff at Howe an added sense of security since they don't have to give out their personal phone numbers.

Lastly, by recognizing the need for their IT infrastructure to easily integrate and scale as future innovations emerged, Howe Public Schools District was able to add Singlewire, an advanced solution that connects offices, classrooms, security, and administrators to simplify paging, school bells, and emergency notifications.





# Amplify and engage: Best practices from a small school district

## 4 Be realistic about bandwidth

Schools often encounter unexpected issues when deploying new technologies. For Howe, the unexpected revolved around what would happen as they tried to rapidly expand the number of connected end-users and uncertainties about having sufficient bandwidth. So, they focused on creating a hybrid learning environment that gave users multiple options, depending on their connectivity capabilities. Their approach helped alleviate issues with bandwidth by creating four paths for students to learn:

Synchronous – physically on-site (with mask and social distancing)

Synchronous – virtual off-site (due to family members or pre-existing conditions)

Synchronous – mix of physically on-site and virtual off-site (includes a unique “learning commons” option)

Asynchronous – on-demand recordings (Students learn at their own pace, with office hours available as needed)

# Amplify and engage: Best practices from a small school district

Leveraging the efficiency of a single communications platform and the knowledge-base of a proven long-term technology partner (Cisco) also helped Howe overcome bandwidth concerns. In addition, they creatively extended WiFi access to students beyond campus by deploying ruggedized mobile routers on school buses. This creates mobile WiFi hubs that can be positioned whenever and wherever needed so students can bring learning home with them, overcoming any income inequalities.

Bandwidth issues could have brought the schools efforts to a halt as the COVID-19 pandemic evolved. But thanks to their long-term strategy of adopting innovative technologies, they had already installed a system-wide fiber network plus rapidly scalable Webex solutions. This embedded a resilience to stress that allowed Howe to maintain continuity of educational services as user numbers ramped up during the pandemic.



## **The Learning Commons:**

A unique path to learning developed by the Howe School District is the use of a “learning commons.” Seeing the need for more stable connectivity by many low-income or rural students, the district acquired access to a large warehouse where they setup a reliable and secure WiFi environment. Students are encouraged to use the facility for their school work and can even get in-person help from staff at the site, if needed. And it’s all in a safe and secure environment.





## Amplify and engage: Best practices from a small school district

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### Seek a long-term partner for IT collaboration

The issue of scaling rapidly, which was often a key issue for schools attempting to address the pandemic, was not a major one for Howe. Thanks to their long-term collaboration with Cisco, the technology to do so was largely already in place. That existing infrastructure supported the tools needed for a smooth migration to instruction based on a hybrid learning environment.

By using a proven partner in the field of education technology, their existing infrastructure also had a strategic integratability built-in, one that provided a secure environment even as hundreds of new end-devices began connecting to their network.

Howe Public School District's long-term relationship with Cisco, including the presence of a Cisco education technology proponent in-district, also provided expanded collaboration and exchange of ideas to maximize opportunities quickly. It also allowed Howe to quickly tap a massive knowledge base and supply chain as events evolved, speeding decision making.

# Amplify and engage: Best practices from a small school district

## 6 Partner for funding

When it comes to actually paying for new technologies, small school districts often suffer more due to their lack of a sizable tax base that is typically used to fund education. This is the case with Howe and is complicated due to higher poverty levels in their district.

With Cisco's help, the Howe Public School Districts is regularly inspired to look beyond typical funding paths to a variety of potential sources, including federal and state, plus the Cisco Capital program that features 0% interest offers. By leveraging dollars from these and other sources creatively, based on experienced insight from their long-term partner Cisco, Howe is able to maximize investments.

At Howe, CapEx is a budgeting preference. They regularly and strategically invest any grants received in procuring hardware with long life-cycles (up to a decade). But for software, the move has been to OpEx. This gives them more flexibility since many solutions are subscription based and not as massive in costs as hardware. As a result, they can ebb and flow more easily with OpEx budgets. It also helps with scaling when unexpected needs arise.

To learn more about the funding side of digital learning, check out our new eBook [Investing in Education](#).



# Reimagining Education





## The future of IT in a small school district

Looking forward, Howe Public Schools hopes to evolve their use of existing and emerging technologies to create a seamless experience for all users. And do so while leveraging their Cisco security environment to keep data private and protect their network (including connected devices) from the evolving threats targeting education.

Dr. Ford also seeks to embed technologies in such a way as they become accepted every-day conduits for learning rather than the focus of learning itself. “As a teacher it’s not about Webex,” stated Dr. Ford. “Technology needs to be transparent rather than an obstruction.”

He is also optimistic. “We have the ability to build relationships beyond these four walls and it’s going to set our students apart as they move from their high school into their college and work careers.”

“To nurture great ideas and brilliant thinking at the point that it occurs, and not to have to wait for the next class. That’s how innovation happens. That’s the future.”  
- Dr. Lance Ford, Howe Public School Teacher

# Empower smart, seamless, and secure IT for your small school district

## Truly the new approach to education

By developing a long-term and resilient strategy to amplify learning and engage students, Howe Public Schools empowered their small school district to enable hybrid learning. Dr. Ford says that for small school districts, being part of a global experience is invaluable. “At a rural district we don’t have the opportunities to have as many instructors as we would like, and certainly not as many specialized instructors,” he explains. “But we don’t want our students to be at a disadvantage upon graduation. Bringing in specialized classes means that real-time video collaboration and information sharing will be the medium to do that.”

For education, this is truly the new approach going forward. No longer will education be a one size fits all scenario for learners. “This was going to happen in fifteen years perhaps, but due to COVID-19 it’s happening now. This is now the standard.”

## Get started today

Discover our smart, seamless, secure, and supported solutions designed to help small school districts like yours amplify learning and engage students while embedding institutional resilience.

To learn more, goto [Cisco Designed for Education](#).



Thank you for reading

# Preparing Small School Districts for Hybrid Learning

