



## *Innovations in Student Transportation Improve Safety and Productivity*

### *Watkins Glen Central School District*

Size: 1150 students and 125 staff  
Industry: Education  
Location: United States

### *Solutions*

- School buses with Wi-Fi using Cisco® 829 Industrial Integrated Services Routers
- Bring-your-own-device environment powered with Cisco Aironet™ access points
- Secure campus networking with Cisco switching and next-generation firewalls
- Optimal uptime and simple IT management with Smart Net Total Care™ service

### *Results*

- Fairer access to education
- Improved student safety and wellbeing
- Better use of time and learning opportunities

### *An Opportunity to Change Downtime to Productivity*

Set in the stunning surroundings of Seneca Lake, New York, Watkins Glen Central School District has a clear vision: provide equal opportunity education and set the foundation for students to be college and career-ready.

“Our digital quest is to extend learning beyond the classroom so staff and students have a more enriched, always-accessible educational experience,” says Superintendent, Tom Phillips.

The school’s latest innovation focuses on transportation. Rides between home and school take up to 40 minutes each way, with sports events and field trips extending travel time to two hours and more. In today’s era of connected classrooms, where many class assignments require online access, student time on these bus rides could be more productive.

Additionally, bus drivers were losing radio communications due to dead spots. Always-on communication when transporting students was a priority. However, the traditional approach of staying in contact using mobile devices was expensive across the fleet of 18 buses.

“Students with long bus rides home or with long-distance school events were at a disadvantage in trying to complete class assignments requiring online access,” explained Transportation Director, Michelle Clark. “Staying up late into the night is also not ideal for these kids. This was a real opportunity to innovate.”

### *Innovations Improve Transportation Experience*

Forging ahead in the digital era, Watkins worked with Cisco to deploy Connected Buses. These allow secure, reliable online access to the internet and school system. Students are no longer sitting idle on long bus rides. Watkins created an opportunity to connect and be productive.

With digital learning solutions from Cisco, Watkins Glen Central School District is:



Helping ensure equal access to education for all



Improving student safety and wellbeing



Making better use of time and learning opportunities

The school chose a solution based on the Cisco 829 Industrial Integrated Services Router. Designed to withstand harsh conditions, the compact device helps ensure always-on connectivity, especially important for student safety.

"The toughened, easy-to-install Cisco solution ticked every box and extended our bring-your-own-device policy," says Melanie Chandler, Director of Technology. "We deployed it across all our buses in just 12 weeks."

### Extending the digital campus

Buses have now become an extension of the school's digital campus. Cisco 829 routers link back to a fast, reliable Cisco infrastructure with Catalyst® switches and Aironet access points. Students can now access learning content and resources while they travel. Teachers can also take laptops on board and stay connected to the school's secure network. There's no need to switch to a cellular device or use personal data allowances.

Cisco next-generation ASA firewalls makes sure students doing their work on buses receive the same levels of security and malware protection they would on campus. Having greater insight into devices, threats, and vulnerabilities also helps automate security tasks and speed remediation.

To help ensure optimal uptime and protect network performance, Watkins chose Cisco Smart Net Total Care service. With automated inventory and contract management, it's able to solve network problems faster and improve operational efficiency.

### On-The-Go Access for Homework and More

The Connected Buses at Watkins are creating innovative educational opportunities.

"It's really cool," Chandler says. "With always-on, reliable access, teachers can run online quizzes relevant to field trip activity. On the return journey, freshly informed students can upload pictures and work on their reports."

Additionally, students representing the school at after-school sports events are no longer disadvantaged.

### Transport Is Safer and Compliant

Improved connectivity with the Cisco 829 router has helped the school upgrade its global positioning system. Every bus is now trackable to help ensure correct routes are taken, and in case of emergency situations.

"Students can swipe their ID cards each time they join and leave the bus," says Clark. "This data flows across our Cisco network infrastructure in real time, so we have better security awareness and always know which students are traveling on which buses."

Student demeanor has also changed.

"They occupy their time better," Clark adds. "We're seeing a significant reduction in reports of bullying and disruptive behavior."

*"Cisco is helping close the digital divide and insure students aren't disadvantaged because of where they live or the activities they participate in."*

Tom Phillips  
Superintendent  
Watkins Glen Central School District

### Potential Benefits for the Wider Community

Innovation never stands still at Watkins Glen Central School District. Connected buses could play a wider community role in boosting home connectivity.

"Some households struggle to get reliable internet access," says Phillips. "Parking the buses overnight in such locations could offer a public wireless hotspot. Cisco is helping close the digital divide and ensure students aren't disadvantaged because of where they live or the activities they participate in."

### For More Information

To learn more about the Cisco solutions featured in this case study, visit

Cisco Customer Stories:  
[www.cisco.com/go/customerstories](http://www.cisco.com/go/customerstories)

Cisco Education:  
[www.cisco.com/go/education](http://www.cisco.com/go/education)

Cisco Wireless and Mobility:  
[www.cisco.com/go/wireless](http://www.cisco.com/go/wireless)

Cisco Security:  
[www.cisco.com/go/security](http://www.cisco.com/go/security)

Cisco Switches:  
[www.cisco.com/go/switching](http://www.cisco.com/go/switching)

Cisco Smart Net Total Care:  
[www.cisco.com/go/smartnet](http://www.cisco.com/go/smartnet)

### Products and Services

#### Routing and Switching

- Cisco 829 Industrial Integrated Services Routers
- Cisco Catalyst 2960X and 4500E Switches

#### Wireless

- Cisco 5500 Series Wireless Controllers
- Cisco Aironet 3600 Series Access Points

#### Security

- Cisco ASA 5500-X Series Next-Generation Firewalls

#### Unified Communications

- Cisco Unified Communications Manager
- Cisco Unified IP Phones 6901, 6945, and 8961

#### Services

- Cisco Smart Net Total Care



Americas Headquarters  
Cisco Systems, Inc.  
San Jose, CA

Asia Pacific Headquarters  
Cisco Systems (USA) Pte. Ltd.  
Singapore

Europe Headquarters  
Cisco Systems International BV Amsterdam,  
The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at [www.cisco.com/go/offices](http://www.cisco.com/go/offices).

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: [www.cisco.com/go/trademarks](http://www.cisco.com/go/trademarks). Third party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

ES/1216