

GigE Wireless Solutions for Education Applications



BridgeWave

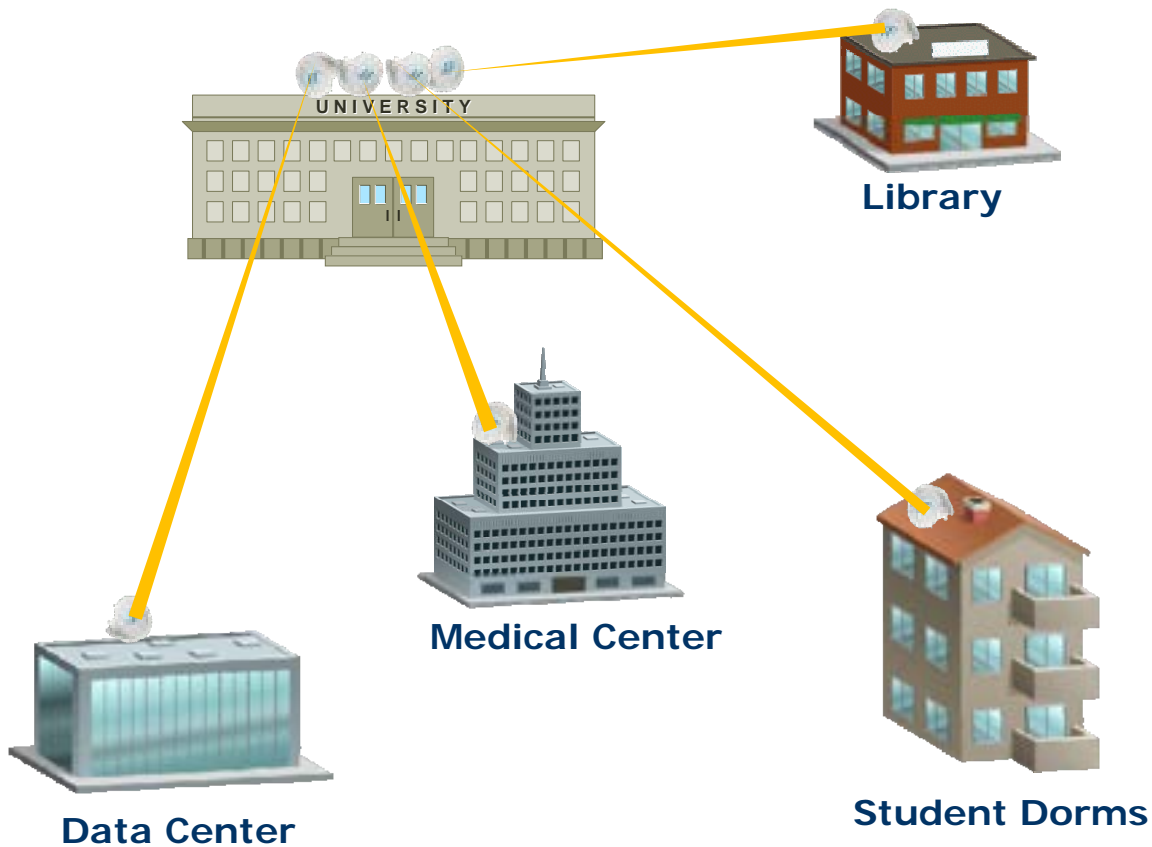
Gigabit Point-To-Point Wireless Bridges

With thousands of GigE links installed, BridgeWave is today's leading provider of high-capacity wireless solutions to over 120 education institutions across the United States and Canada

A Sample of BridgeWave's Education Users



Higher Education Campus Connectivity



❖ *Fiber capacity to every building?*

❖ Gigabit wireless goes where fiber doesn't reach!

❖ Challenges:

- ❖ Severe weather hindered network connections
- ❖ Limited connectivity in times of disaster
- ❖ Costs of \$2M for fiber exceeded budget

❖ Benefits:

- ❖ Reliable, uninterrupted campus connectivity
- ❖ Complete disaster recovery strategy
- ❖ 256-bit AES provides highly secure transmission



“BridgeWave’s AR60X links not only provided a solution to our previous network vulnerabilities, but also served as a ‘future-proof’ disaster recovery solution.”

***- Ed Kiefer
Manager of data networking, Cornell University***

George Brown College

❖ Challenges:

- ❖ Integrate nine buildings on two campuses
- ❖ Impending fiber connection price increase
- ❖ Maintain Service Level Agreements



❖ Benefits:

- ❖ Complete ROI in less than 8 months compared to fiber
- ❖ Ultra-low latency for VoIP & video

“We are so happy with our original four gigabit wireless links that BridgeWave’s GE60s have become our standard for connecting new buildings.”

***- Yves Hébert
CIO, George Brown College***



Arizona State University

❖ Challenges:

- ❖ Provide gigabit service to off-campus partner
- ❖ \$600K for fiber connection too costly
- ❖ Needed low latency for VoIP and video

❖ Benefits:

- ❖ Reliable network backbone connection
- ❖ Connection ready in days, not months



“Not only did BridgeWave’s AR60X product save us a substantial amount of time and money, it also provided more network capacity than competing solutions.”

- Antonio Cerrera
Network Project Manager, Arizona State University



❖ Challenges:

- ❖ Needed fiber-equivalent performance
- ❖ Quick installation to extend network to new overflow classrooms

❖ Benefits:

- ❖ Full GigE bandwidth
- ❖ Quick installation
- ❖ No long term leased-line contract



“ The performance of BridgeWave’s gigabit wireless links has been seamless, without any additional OPEX costs, and with very little support needed from our IT staff.”

***- Dick Rader,
Director of Telecommunications, Coppin State University***



❖ Challenges:

- ❖ Swiftly provision high-speed connections to relocated outpatient clinic
- ❖ \$500K fiber installation was well out of budget
- ❖ HIPAA compliance



❖ Benefits:

- ❖ Immediate gigabit connectivity
- ❖ ROI in 5 months
- ❖ Secure, reliable transfer of sensitive patient information

“We have already saved \$200,000 by using BridgeWave’s GigE solutions instead of fiber. BridgeWave allowed us to stay under budget with low operating costs for high-speed connections and functionality.”

***- Eric Schoedel,
Voice Manager, Rush University Medical Center***



❖ Challenges:

- ❖ Quickly provide services to staff moving to new leased offices
- ❖ Need gigabit capacity for programmers preparing for a large PeopleSoft implementation

❖ Benefits:

- ❖ Fiber-like performance without the cost and delays

“....we realized BridgeWave links provide fiber-equivalent connectivity at a fraction of the cost...and we’ve been pleased with the results.”

***- Dick Bednar,
Sr. Director of Information Technology, CSU Fullerton***



Challenges:

- ❖ Connect campus buildings to core fiber network
- ❖ FSO impractical due to fog

Benefits:

- ❖ Quick and easy installation
- ❖ Limitless bandwidth
- ❖ No recurring lease-line charges



“...bringing up the link was literally a ‘point-and-shoot’ operation. The link has performed perfectly ever since.”

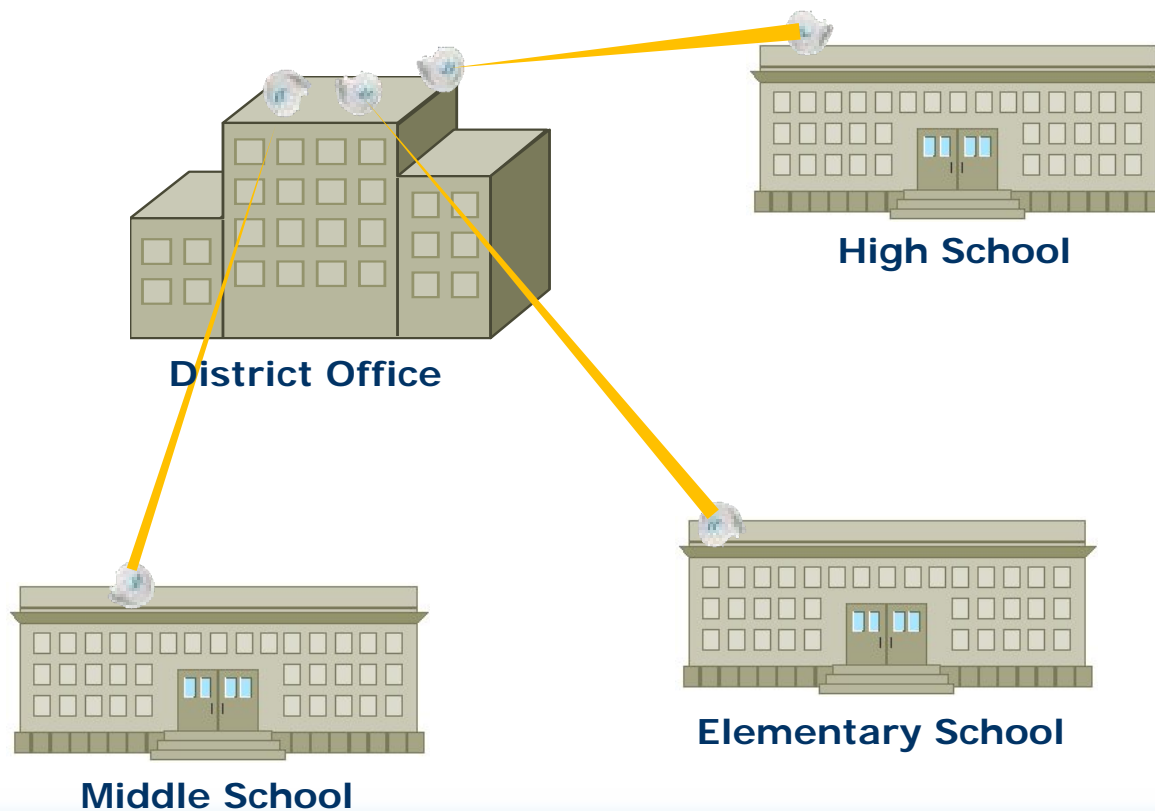
***- Jason Hernandez
Sr. Network Infrastructure Architect, Seattle University***



A Sample of BridgeWave's Education Users



K-12 School Connectivity



- ❖ *VoIP, data, Internet connections*
- ❖ *Efficient “ghosting” student desktops*
- ❖ *Information sharing*
- ❖ *Research*
- ❖ *Video-in-classroom*

❖ Challenges:

- ❖ Deliver high-capacity connectivity to rural elementary schools
- ❖ Severe weather hindered network connections

❖ Benefits:

- ❖ Gigabit speeds provide future-proof bandwidth
- ❖ ROI in 6 months



“With BridgeWave, our schools now experience highly reliable, seamless network connectivity. A solution that supported our entire network and one that was scalable to accommodate future applications was a real win.”

***- Tony Brancich,
Director of Technology, Deer Creek School District***



Quinlan Independent School District

❖ Challenges:

- ❖ New intermediate school needed connectivity
- ❖ Poor results using 2.4/5.8 GHz links
- ❖ Needed to consolidate servers

❖ Benefits:

- ❖ High-performance gigabit speeds
- ❖ Reliable connectivity
- ❖ Less expensive than fiber



E-Rate and BridgeWave

❖ E-Rate Program:

- ❖ Federal subsidy (20% - 90%) on:
 - ❖ Phone lines, data lines, internet access, internal connections
 - ❖ Significant dollars for schools with high free/reduced lunch eligibility
 - ❖ Priority 1
 - ❖ Telecommunication services & Internet access
 - ❖ Priority 2
 - ❖ Internal connections & basic maintenance

❖ BridgeWave:

- ❖ Falls under Priority 2 as:
 - ❖ Wireless WAN devices
 - ❖ Wireless Internet devices

<http://www.bridgewave.com/solutions/erate.cfm>



BridgeWave.....chosen by:



**Seattle
University**



Quinlan School District



**Rush
University**



**Crane
School
District**

BridgeWave Communications

- ❖ **Leader in gigabit wireless solutions**

- ❖ Thousands of GigE links installed

- ❖ **Specializing in 60–90 GHz bands**

- ❖ Multi-GHz allocation
- ❖ Multi-gigabit services



Corporate Headquarters: Santa Clara, CA



- ❖ **Wireless alternative to fiber:**

- ❖ Performance
- ❖ Security
- ❖ Reliability

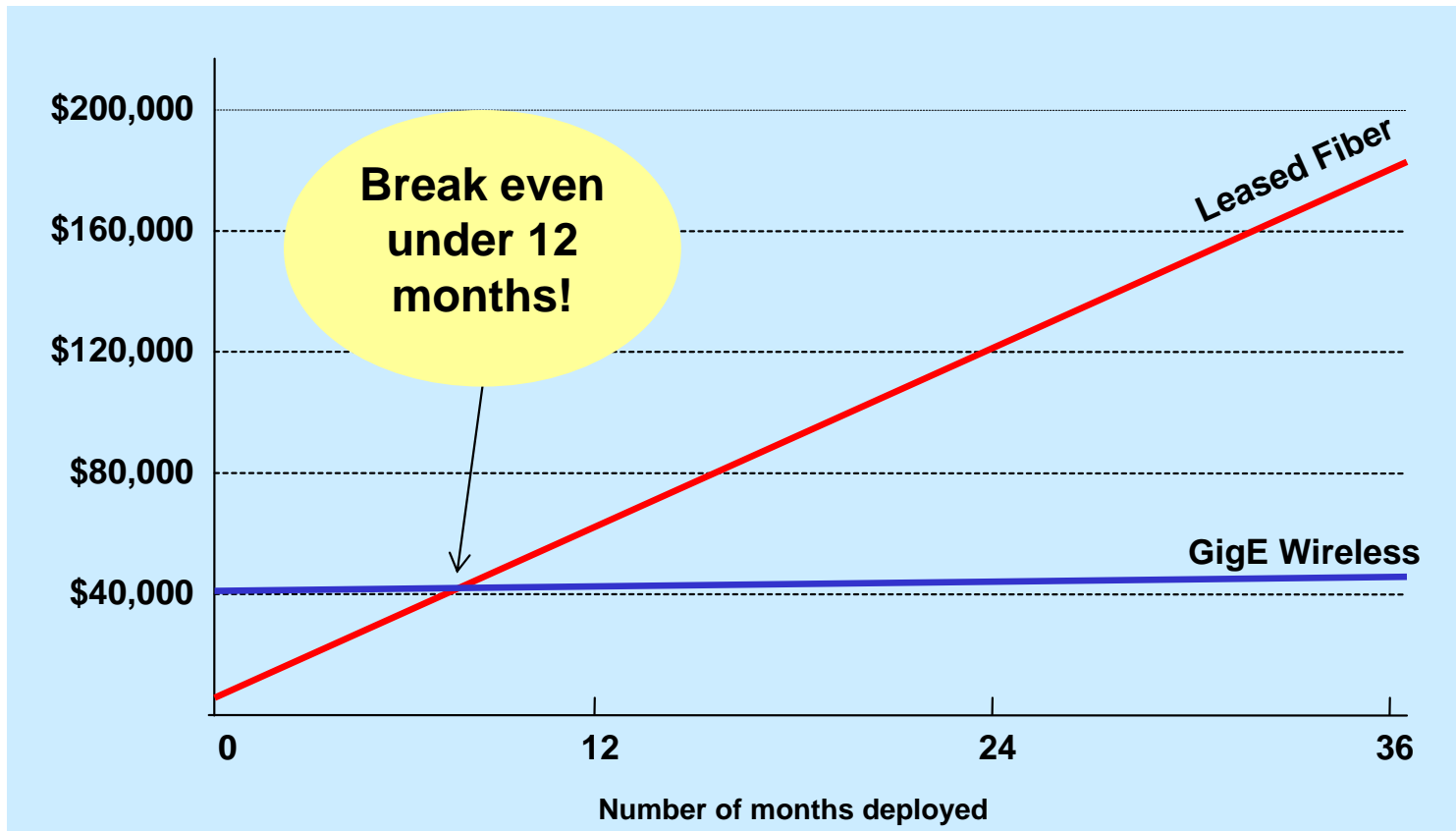
...without the costs and delays



❖ *Leased lines too slow...too costly?*

- ❖ Own your own gigabit wireless backbone
- ❖ Full GigE capacity
- ❖ ROI in months

Fiber vs. GigE Wireless 3-year Costs



Why BridgeWave?

- ❖ Full gigabit data rates
- ❖ Rapid deployment
- ❖ Future-proof capacity
- ❖ No leased-line costs
- ❖ Highly secure
- ❖ Total network control

