

# **GigE Wireless Solutions for Education Applications**



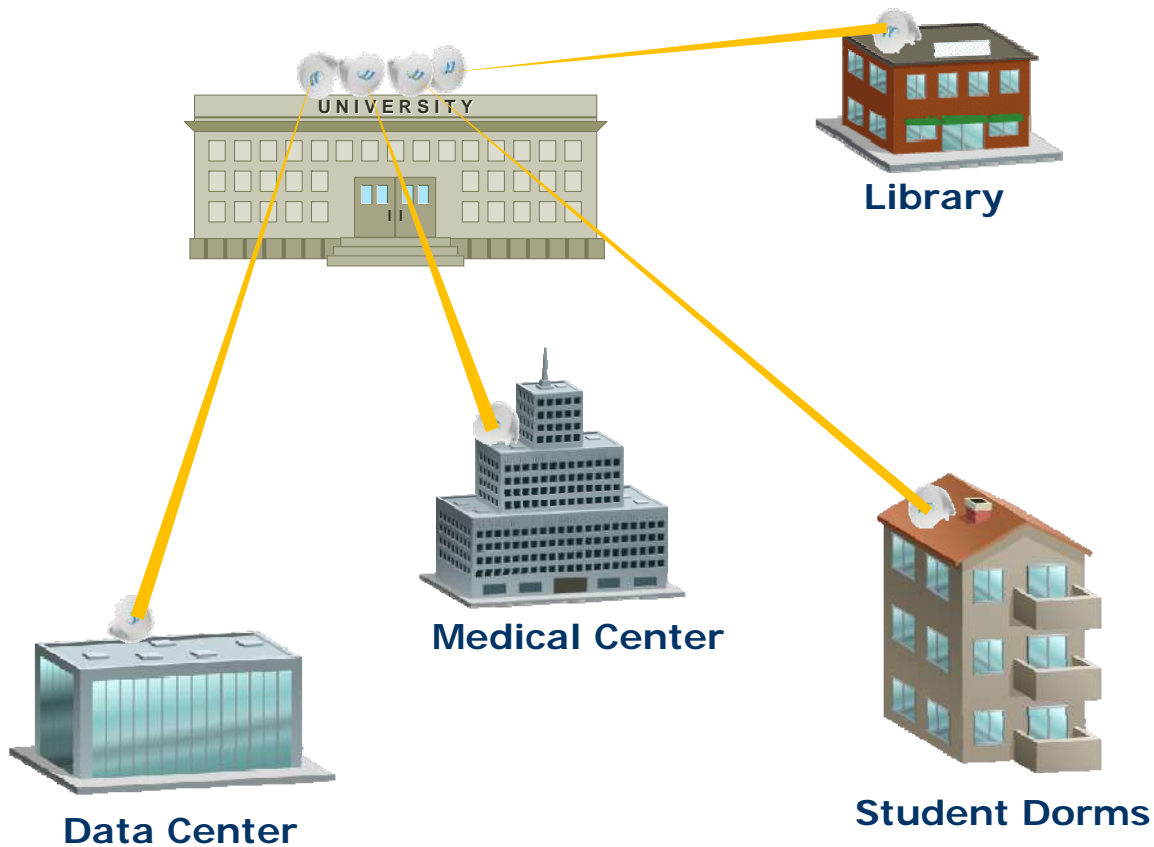
**BridgeWave**

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





❖ *Fiber capacity to every building?*

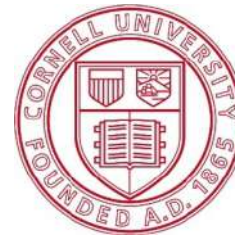
❖ **Gigabit wireless goes where fiber doesn't reach!**

## ❖ 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.”***

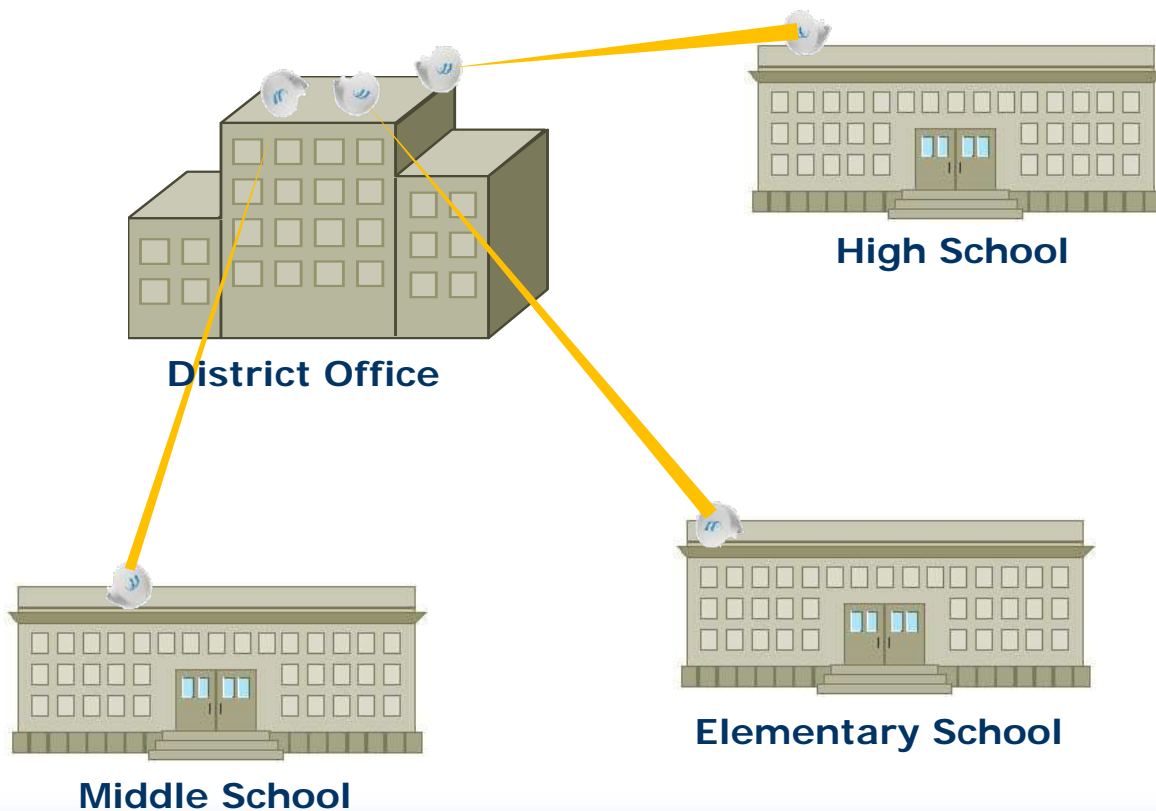
***- Jason Hernandez  
Sr. Network Infrastructure Architect, Seattle University***



# 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***



## ❖ 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 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**

- ❖ **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

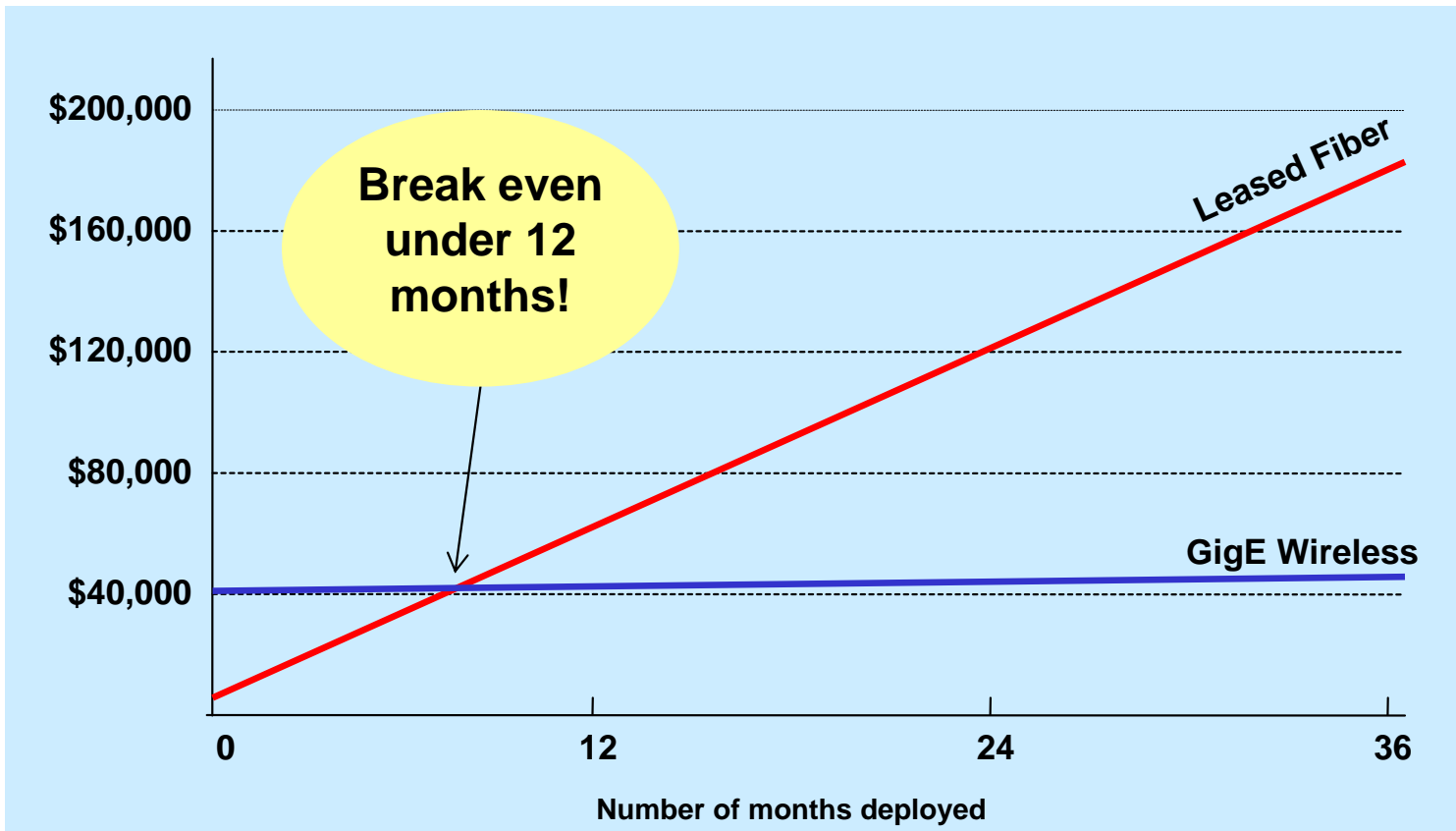
**...without the costs and delays**



❖ *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

