BridgeWave

60GHz & E-Band Wireless Security

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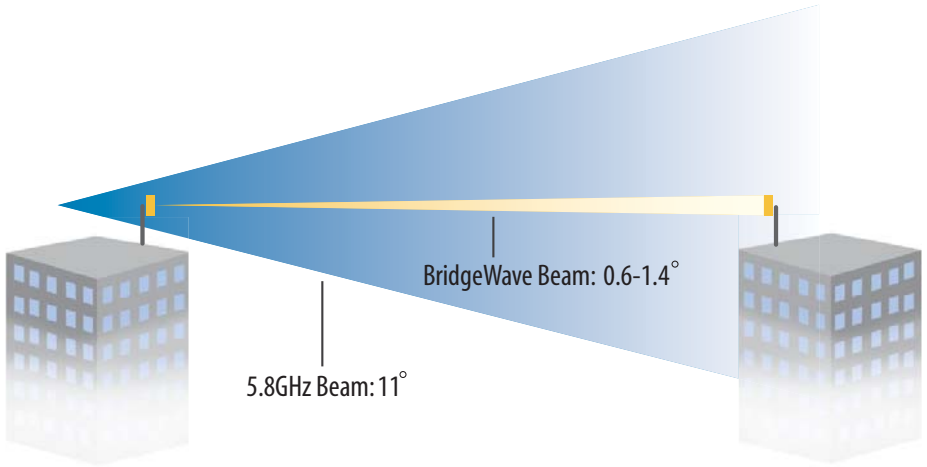
SECURE WIRELESS SOLUTIONS FOR HIGH-CAPACITY DATA APPLICATIONS

BridgeWave products support the security requirements of service providers, government/military installations and enterprise networks where the need for high-capacity connections between facilities often outpaces the availability of physical fiber connections. BridgeWave product innovations enable wireless solutions to deliver gigabit-speed performance with data transmission security equal or superior to that of fiber with virtually no possibility of data interception or disruption. BridgeWave's wireless solutions are currently supporting some of the world's premier high-capacity data applications. BridgeWave systems take advantage of properties inherent in the 60GHz and E-Band millimeter wave spectrum to achieve customer security requirements.

SECURITY INNOVATIONS

BridgeWave 60GHz and E-Band millimeter wave antennas produce very narrow beams that focus energy on the intended receivers while providing smaller, more secure data paths than lower frequency wireless systems. BridgeWave also utilizes proprietary modulation, auto-calibration and forward error correction methods to improve link performance while further enhancing data transmission security. The result is a reliable, highly secure, narrow beam link that makes interception of data streams virtually impossible. In order to intercept a signal produced by a BridgeWave transceiver, another BridgeWave transceiver would have to be located in close proximity to the link, lined up on the identical beam trajectory. Any attempt to insert an additional BridgeWave transceiver to intercept the wireless signal would result in a detectable link outage, preventing data interception and alerting the network administration staff to the intrusion.



NARROW-BEAM ANTENNA BENEFITS

- Extremely Secure
- Resilient to Interference
- Ability to Mount Multiple Links on Single Structure
- Enables High Density Deployments in Metro Areas

60GHZ OXYGEN ABSORPTION

The 60GHz millimeter wave spectrum has the unique property of oxygen absorption. As a 60GHz signal travels through the air, it is absorbed by oxygen, effectively eliminating the potential for interference to or from other transceivers located beyond the immediate vicinity of the link. Furthermore, the signal rapidly becomes too weak to intercept as one moves beyond the intended link path. Oxygen absorption provides additional immunity to interference and interception for 60GHz links, resulting in highly-secure connections for carrying mission-critical and sensitive data.

ADVANTAGES OVER INTER-BUILDING FIBER

The very narrow beamwidths of 60GHz and E-Band links (coupled with oxygen absorption in the 60GHz case) create highly secure connections that are typically more secure than buried fiber cables. In most cases, it would be easier to physically tap into or cut a fiber optic cable than it would be to intercept or jam a 60GHz or E-Band link. Furthermore, even if one did attempt to intercept the radio signal, it is unlikely that it could be done without interrupting network traffic, which in turn would trigger network management system alarms; it is much more likely that a fiber connection could be passively tapped without interrupting network traffic and without raising alarms.

SECURE WIRELESS APPLICATIONS


Enterprise Networks


Service Providers


Healthcare


Education


Government/Military

SECURITY & PRICE PERFORMANCE

BridgeWave is the leading provider of low-cost, high-capacity, secure wireless solutions. BridgeWave's products are designed and manufactured in the United States utilizing BridgeWave's patented transceiver and modem technologies. All BridgeWave products feature full line-rate, low-latency, full-duplex performance. BridgeWave's advances have enabled affordable, performance-leading products while achieving an unprecedented level of reliability. BridgeWave wireless links provide a secure, quick-to-deploy, low-cost alternative to physical fiber installation.

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www.bridgewave.com

BridgeWave Communications, Inc.
3350 Thomas Road, Santa Clara, CA 95054
Ph: 866-577-6908 | Fax: 408 567-0775