BridgeWave

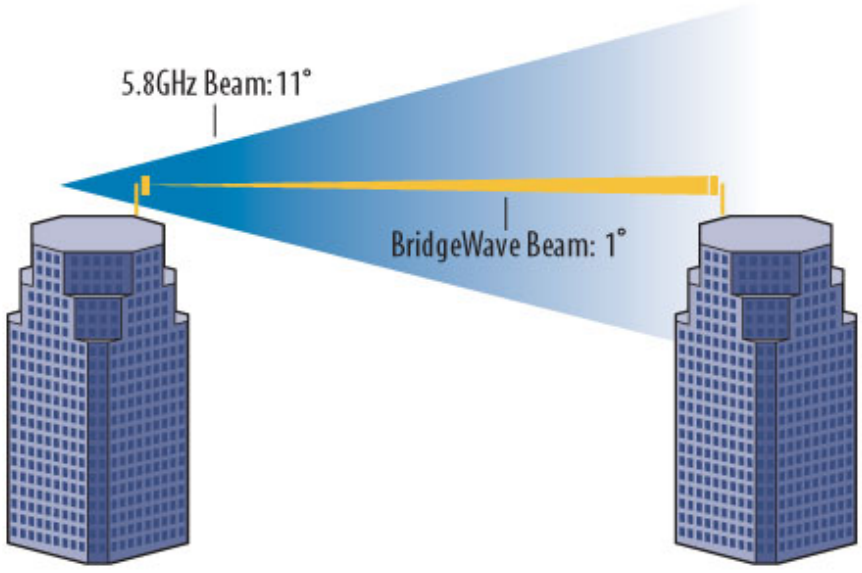
Gigabit Wireless Security

WIRELESS AND SECURITY

Public perceptions of wireless security have, to a large extent, grown out of experiences with early wireless LAN technologies that were notorious for being easy to intercept and/or jam with interference. Gigabit point-to-point wireless links stand in sharp contrast to these early products, not just in terms of their massive bandwidth they provide, but also in terms of the high degree of data security they offer. BridgeWave Gigabit and Fast Ethernet wireless links offer unprecedented levels of data security, not just in comparison to other wireless products but even in comparison to their "wired" counterparts. BridgeWave links offer physical layer security that exceeds fiber optic cabling and layers on top of this both state-of-the-art secure network management and the strongest data encryption technology available on the market. In a world where network organizations are expected to take every reasonable step to ensure the security of sensitive employee, customer and organization information, BridgeWave's advanced security solutions provide confidence and peace of mind.

"BETTER THAN FIBER" PHYSICAL LAYER SECURITY

BridgeWave 60GHz and 80GHz link antennas feature very narrow beams, on the order of one degree, that strongly focus the RF energy on a path directly towards the intended peer radio. A comparably sized 5GHz antenna has a beamwidth over ten times as wide, transmitting and receiving signals well beyond the location of the intended receiver, while creating the possibility of receiving harmful interference from other radio links. These RF "spatial pipes" effectively isolate a given radio link from other nearby radio links operating in the same frequency bands, and make it effectively impossible to intercept or jam the RF signal without physically blocking the intended RF path. When one considers the time, effort, and certainty of detection associated with physically inserting another radio system directly into one of these spatial pipes, it becomes clear that this narrow beam technology provides a greater degree of physical security than even inter-building fiber conduit runs.



Narrow beams:

- Resist interception
- Immune to interference
- Enable high-density deployments
- Allow use of large RF channels

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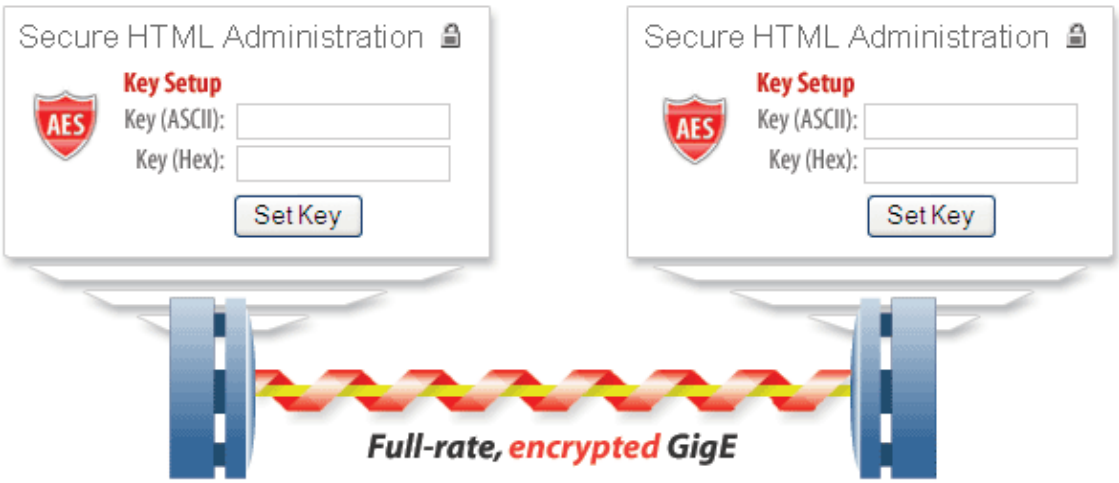
SECURE MANAGEMENT OPTION

HTTPS://

For networks that require more than basic password protected access to the radio link embedded network management agents, BridgeWave offers an optional security management package featuring secure (encrypted) HTTPS network management access from the administrator's PC to the radio unit management agent, and the ability to control user access to the management agent through the network's RADIUS user authentication server. This solution provides secure management access that complies with demanding US Army IMOD program requirements as well as offering the ease of network administration that comes with centralized access control. Combined with both SYSLOG and SNMP-based audit logging mechanisms, and the standard ability to configure links for either in-band or out-of-band management, this package provides network administrators the tools to seamlessly integrate BridgeWave links into their secure management subnets.

256-BIT AES ENCRYPTION OPTION

BridgeWave links provide a very high degree of physical layer security, but it is now possible to take security to the next level by layering 256-bit AES (Advanced Encryption Standard) security on top of physical layer security. Over the last few years, there have been many highly publicized breaches of sensitive employee, customer, and organization information. Organizations count on IT administration staff to take all prudent steps to safeguard against such disclosures. To address this requirement, BridgeWave is the first to offer gigabit links with built-in 256-bit AES, the strongest level of encryption available. 256-bit AES allows for over 10^{77} unique encryption keys and is specified by the US government to safeguard "Top Secret" information. Not only is this the encryption standard of choice, but BridgeWave's implementation operates at full Gigabit Ethernet line speed and adds only two microseconds of packet latency! This is a major improvement over costly traditional gigabit encryption solutions that require external boxes and result in reduced network capacities and increased packet latencies. BridgeWave offers this solution at an affordable price point, appropriate for mainstream enterprise, government and operator applications.



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