

Quick smart

Amir Makleff, President and CEO BridgeWave, on why wireless is the smart choice.

CXO. What is driving wireless uptake at the moment and why is cost effectiveness so important?

AM. Two things are happening in wireless at the enterprise level. One is the deployment of wireless LANs to provide network connectivity. The other trend is outdoors – offering connectivity across campus, off-campus and to a variety of service providers (outsourced IT services, internet access, etc.) when fiber is not readily available.

The key driver for inter-building connectivity is IT centralization for cost savings. In order to truly extend LANs across buildings a gigabit Ethernet (GigE) connection is needed today and more will be needed in the future. In the past, it was not possible to deliver an affordable GigE wireless connection yet gigabit per second speed is truly required in order to centralize servers.

CXO. What specific challenges does wireless present to larger organizations in particular?

AM. The biggest challenge is that many private sector companies are not familiar enough with emerging technologies and how to leverage those technologies in the organization. People are still confused about Wi-Fi and multi-point technologies that are not relevant for most large enterprise building interconnects.

Most organizations rely on fiber connectivity and are not aware that wireless solutions exist that have performance, availability and security that are equivalent to fiber. These emerging wireless solutions can be deployed rapidly with very short payback periods.

CXO. What are the greatest barriers to wireless adoption in the private sector?

AM. I would say until recently most companies that wanted to interconnect buildings have used products in the 10 to 100 megabits per second (Mbps) products because they were affordable. The greatest barrier to mov-



ing towards true LAN speed was the excessive cost. In that arena, BridgeWave has recently produced a product that has broken the cost paradigm and delivers a gigabit connection at a price point comparable to 100Mbps or less products.

CXO. The number one issue for many companies especially financial institutions is security. So how do you respond to the perception that radio links represent a threat to network integrity?

AM. Indeed there is a perception, in some instances correctly, that wireless is not secure. Systems operating below 10GHz where antennas tend to transmit wide beams and the signal propagates to very long distances are inherently insecure. There are however frequencies that are very secure. The 60 GHz band, which is unlicensed, provides security that is equivalent to the licensed bands. Antennas are extremely directional and the signal fades rapidly (due to oxygen absorption) thus making it very difficult to intercept. To maliciously intercept the signal, the perpetrator would have to tune the receiver

to the correct frequency and locate on the main beam. This obstruction would cause line of sight interference, which would normally be detected by the network manager monitoring the connection.

CXO. Why is speed so important in the modern workplace?

AM. LAN speeds went from 10Mbps a few years ago to 10Gbps today for high-end LAN backbones. This increase is driven by servers and computers capable of working at higher speeds. Migration to higher speeds in LANs followed the rapid price decline of the faster LAN technologies simply because the cost of the technology fell rapidly enough to allow people to migrate to the higher speed at the same cost. LAN extensions across a campus (or a metro area) will move to gigabit per second or higher rates as the cost of wireless transport declines.

Applications and greater graphical content are driving more bandwidth needs and more businesses are reliant on rich web-based applications. Additionally, voice-over-IP, which requires higher throughput and low latency, is being integrated into the LANs.

The convergence of voice, video and data is increasing the need to increase LAN capacity and the affordability of gigabit per second wireless equipment is making it possible to upgrade and grow LAN infrastructure to support the current and future needs of your business.

CXO. Finally, what future developments are in the pipeline and of these what can we expect to see next year?

AM. Right now the products that we offer are distance limited to about half a mile and we're going to release some extended capabilities that would allow several mile distances and better manageability of the BridgeWave products in the next 12 months. ■