CS50 Wireless Office Headset System

Plantronics CS50 Provides the Technology for Secure Conversations

The Plantronics CS50 Wireless Headset System uses the combination of TDMA/TDD digital radio technology and dynamic channel selection, together with additional 64-bit encryption, authentication and identification procedures, to provide a highly secure communication link.

With older analog cordless telephone technologies, almost anyone with a properly tuned radio receiver could eavesdrop and listen in. Digital radio technology makes it more difficult to eavesdrop, but with expert technical knowledge, eavesdropping is still possible. The Plantronics CS50, however, adds additional techniques that make casual eavesdropping impossible, and makes it extremely difficult and time consuming for even the most knowledgeable and well equipped unauthorized user.

The CS50 includes two key components: the headset and a base unit that connects to the phone. Whenever the headset is used, it automatically "subscribes" to the base. While subscribing, identity information is exchanged. This information is stored on both sides for later use. This procedure itself is made secure by first encrypting the identity information using encryption keys known only to the headset and base. Since the keys are secret, it is very hard to duplicate this procedure by an unauthorized headset.

When a link is established for a phone conversation, an encryption request is exchanged. The encryption request contains a key that is used together with the identity information exchanged during subscription to create encryption parameters. These parameters are then used to encrypt the speech data, thus making it nearly impossible for someone to listen in.

The encryption algorithm used in the CS50 was developed by experts in the field of security and is documented in the *European Standards body ETSI document EN 300 175-7*. This same algorithm is employed in the highly secure DECT systems used widely throughout Europe.

PLANTRONICS® World Leader in Communications Headsets