

NetLink IP Wireless Telephone

The Workplace Mobility Solution for Cisco CallManager

What is the NetLink IP Wireless Telephone?

The NetLink IP Wireless Telephone is a mobile handset for enterprise IP telephone systems. The Wireless Telephone operates over an 802.11b wireless Ethernet LAN, giving users the freedom to roam throughout the workplace while providing all the features and functionality of an IP deskphone.

What VoIP protocols does the NetLink IP Wireless Telephone support?

The NetLink IP Wireless Telephone supports the Skinny Client Control Protocol (SCCP). “Skinny” is an open protocol developed by Cisco Systems for communication between an IP endpoint and the CallManager call processing application. SpectraLink will support the H.323 standard and additional protocols in future releases.

How does the NetLink IP Wireless Telephone work with CallManager?

Using CallManager software release 3.08/3.09, the system administrator creates a button template for mobile users and adds a Wireless Telephone extension the same as any other IP phone. A TFTP client in the Wireless Telephone is used to download configuration information. The user’s Wireless Telephone and Cisco IP phone can have the same directory number.

What CallManager features are supported by the NetLink IP Wireless Telephone?

NetLink IP Wireless Telephone users have access to up to 12 programmable CallManager features or lines. All the features available to a Cisco IP Phone are available on the NetLink IP Wireless Telephone, excluding speakerphone.

How are the NetLink IP Wireless Telephones managed on the network?

The NetLink IP Wireless Telephone can be automatically added to the network and registered with CallManager following a DHCP request. After the handset is registered it gains its configuration information from CallManager using TFTP. The TFTP client is also used to upgrade software in the wireless handset.

What type of voice encoding does the NetLink IP Wireless Telephone use?

The NetLink IP Wireless Telephone uses G.711 voice encoding at 64 kbps. A future product release will also support G.729a at 8.3 kbps.

What is the IEEE 802.11 standard?

The 802.11 specification is an international standard for wireless LANs approved by the IEEE in 1997. The 802.11 standard, also known as wireless Ethernet, defines the physical (PHY) and media access (MAC) requirements for all devices on a wireless LAN. The 2.4 GHz PHY is defined as operating in the 2.400-2.483 GHz band using either frequency hopping or direct sequence spread spectrum radio technology. The MAC defines how packets access the wireless media. This method is known as Carrier Sense Multiple Access/Collision Avoidance (CSMA/CA).

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What is the IEEE 802.11b standard?

The 802.11b standard was added in 1999 defining a new modulation technique using direct sequence transmission to achieve speeds up to 11 Mbps. The NetLink IP Wireless Telephone is fully compatible with this standard and operates over 802.11b wireless LANs.

What is the transmission type and data rate of the handset radio?

The NetLink IP Wireless Telephone uses Direct Sequence Spread Spectrum (DSSS) radio technology to operate over 802.11b wireless Ethernet networks. The handset radio transmits and receives packets at 2 Mbps. In a future product release the radio will operate at 11 Mbps.

Is the voice conversation secure? Does it use encryption?

The NetLink IP Wireless Telephone uses Wired Equivalent Privacy (WEP) as defined by the 802.11 specification. SpectraLink offers the product with both 40-bit and 128-bit encryption. WEP increases the security of the wireless LAN to a level similar to a wired Ethernet LAN.

What is SpectraLink Voice Priority (SVP)?

SVP is a standard for quality of service (QoS) on 802.11 networks. Adopted by the leading wireless LAN vendors, SVP guarantees audio quality in a shared voice and data network. SpectraLink's NetLink SVP Server works along with the 802.11b access point to guarantee channel access and reserve bandwidth for data applications. NetLink IP Wireless Telephones have a controlled jitter buffer and proactive handoff between access points. The NetLink SVP Server, NetLink IP Wireless Telephones, and wireless LAN access points work together to provide the clearest voice quality and the flexibility to manage radio bandwidth. SpectraLink Voice Priority is an open specification that is fully compliant with the 802.11b standard.

What is the NetLink SVP Server?

The NetLink SVP Server is a network appliance that works with the wireless LAN access point to guarantee QoS. The NetLink SVP Server triggers proper SVP operation in the access point by encapsulating and de-encapsulating NetLink IP packets. All call setup and audio packets are routed through the NetLink SVP Server. Once the 802.11e specification replaces SVP, the NetLink IP Wireless Telephones can be upgraded and the NetLink SVP Server can be removed from the system.

What is 802.11e?

802.11e is a specification under development by the IEEE standards committee to address QoS on wireless LANs. SpectraLink and their 802.11 technology partners will adopt the new specification once it is ratified in early 2002. 802.11e will gradually replace SVP, providing the same functionality in an industry standard and ensuring high-quality voice in a mixed client environment. SpectraLink is actively working with the 802.11e committee to ensure success of this product enhancement.

If voice has priority, what happens to data traffic?

An option in the NetLink SVP Server software allows the administrator to set the maximum number of simultaneous voice calls over a single access point. A call will not handoff to an access point that is carrying the maximum number of sessions but will handoff to other nearby access points. By limiting the number of active voice calls per access point, voice quality is ensured and a portion of bandwidth is reserved for data.

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How many voice calls can an access point support?

Depending on the manufacturer, four to six simultaneous telephone calls can be supported on an access point. Each call consumes approximately 14% of the access point's available bandwidth. The administrator can set the maximum number of simultaneous voice calls over a single access point, thus preserving bandwidth for data applications.

Which WLAN vendors have implemented SVP?

SpectraLink has established technology partnerships with leading wireless LAN vendors, including BreezeCOM, Cisco, Enterasys, Intermec, Lucent (Agere Systems), and Symbol. The technology alliance consists of a cooperative engineering effort, ensuring product interoperability and high performance, along with implementation of SpectraLink Voice Priority (SVP) into the access point.

What is the battery life?

The NetLink IP Wireless Telephone uses a NiMH battery pack that provides a minimum of two hour of talk time and 40 hours of standby.

What accessories are available?

Accessories such as carrying cases, batteries, chargers, and headsets are available from SpectraLink.

How does a customer buy the NetLink IP Wireless Telephone?

The product is developed and manufactured by SpectraLink and sold through the company's distributors. Value Added Resellers (VARs) of Cisco CallManager and Aironet product lines can become certified resellers through SpectraLink's NetLink IP Specialist Program. Customers can locate a NetLink IP Specialist by visiting SpectraLink's web site at www.spectralink.com.

What is the price of the NetLink IP Wireless Telephone?

List price for the NetLink IP Wireless Telephone is \$679 USD.

When is the product available?

The NetLink IP Wireless Telephone will be generally available in 3rd Quarter, 2001.

Is SpectraLink an AVVID Partner? Is the product Cisco certified?

SpectraLink is a member of the AVVID Partner Program, in the IP Telephony category. The NetLink IP Wireless Telephone is scheduled for Interoperability Verification Testing (IVT) from Cisco Systems by July 2001.

What experience does SpectraLink have with this technology?

SpectraLink was the first to bring in-building wireless telephony to the United States, and continues to lead the industry with over 50% market share. SpectraLink achieved its leadership position by having a single product focus that provides a durable, high quality, and feature-rich product to the mobile workforce. SpectraLink introduced the NetLink Wireless Telephone System, its first 802.11 product, to the market in late 1999. The NetLink IP Wireless Telephone builds on this technology experience while embracing emerging IP telephony products.

For more information visit www.spectralink.com or call 800-676-5465

