

The Link Wireless Telephone System versus Licensed Wireless Office Services (WOS)

**AG Communication Systems ROAMEO
Ericsson Mobile Advantage**

	Link WTS	Wireless Office Service
System Overview	<p>The Link WTS system is an adjunct wireless telephone system operating in the 902-928 MHz unlicensed band. It is SpectraLink's flagship product and has been shipping since 1998.</p> <p>The Link WTS system is a complete in-building solution that fully integrates with an existing host telephony system. Customers have complete control over their internal telephony requirements and implementation.</p>	<p>Wireless Office Service (WOS) provides in-building wireless service through public cellular carriers such as AT&T and Cingular (a joint venture between SBC and BellSouth). In-building wireless service is accomplished through infrastructure systems sold by AG Communications Systems (ROAMEO) and Ericsson (Mobile Advantage). Handsets are standard TDMA (IS-136) digital cellular telephones provided by the cellular network operator.</p>
System Cost	<p>The Link WTS is a complete system. All equipment, including handsets, is included in the installation, service, and maintenance contracts. There are no recurring or usage-based charges.</p>	<p>Often the cellular carrier absorbs the cost of the WOS system into a 3-5 year cellular service contract in order to lock in the customer's cellular business. Internal telephone usage is subject to multi-year contractual terms and monthly fees of about \$16 per subscriber for in-building use only. Additional out-of-building wireless costs vary depending on the negotiated service level. The WOS system cost does not include the cellular handsets.</p>
PBX Integration	<p>The Link WTS connects to most popular PBX and key systems using standard digital station ports. SpectraLink offers digital interfaces for Comdial, Fujitsu, Inter-Tel, Lucent, Mitel, NEC, Nortel, Panasonic, Siemens, and Toshiba telephone systems.</p>	<p>The Ericsson Mobile Advantage does not offer full digital station integration; it only supports basic telephone functionality and caller ID. The AGCS ROAMEO system offers limited digital integration with Lucent Definity, Nortel Meridian 1, and Siemens Rolm PBXs.</p>
Handset Features	<p>The Link WTS is an integral part of the enterprise telephone system and all feature programming is done through the host switch. The system takes advantage of features available on a digital deskset, such as call hold and transfer, speed dial, headset operation, and call forward.</p>	<p>Cellular telephones do not have PBX function keys such as "hold" or "line", so WOS system users usually have to memorize complex key sequences to access basic PBX features. The make and model of cellular phone used may change over time, requiring ongoing updates to user training and support materials.</p>

	Link WTS	Wireless Office Service
Security	The Link WTS uses proprietary digital spread spectrum radio technology to protect against radio eavesdropping. Link Wireless Telephones can only be used within the customer premises, eliminating the risk or theft, fraud, or abuse.	WOS uses standard cellular technology, which can be intercepted by commercially available test equipment. WOS handsets can be used as personal cellular phones, increasing the risk of theft.
Interference Risk	Link Wireless Telephones operate at 12.5 mW, which is well below acceptable power levels for use in sensitive environments such as hospitals and semiconductor manufacturing plants.	WOS uses standard cellular telephones that are capable of operating at 600 mW, a level that is proven to cause RF interference with sensitive equipment. Although the handsets are usually operating at lower levels, there is no way to prevent or warn the user of high-power operation.
System Engineering	SpectraLink uses floorplan analysis to determine the number and location of Base Stations. This approach insures comprehensive, overlapping coverage with no dead spots and allows for facility reconfiguration and remodeling. SpectraLink guarantees coverage based on floorplan analysis.	A complex process is required to certify the site for the wireless carrier to ensure that usage of the licensed frequency does not interfere with the public wireless network. The survey requires an on-site analysis by radio engineers and can add 6-12 weeks to the implementation timeline.
Service Availability	The Link WTS can be installed anywhere in North America with no constraints on building height, design, or construction materials.	WOS is only available where the wireless service provider has cellular coverage. Because the WOS system utilizes public cellular frequencies, WOS systems cannot be used in dense urban areas or high-rise buildings because of interference with the public cellular network.
System Capacity	The Link WTS supports 3,200 Wireless Telephones, 1,000 Base Stations, and up to 1,600 simultaneous calls within an easily expanded single system.	WOS systems are not engineered for high-capacity traffic. ROAMEO supports a maximum of 2,000 subscribers, but only 120 simultaneous calls. Mobile Advantage supports up to 600 users and 240 simultaneous calls on a single system.
Application Interface	SpectraLink's Open Architecture Interface (OAI) enables information systems such as alarm and control, nurse call, paging, databases, and scheduling to integrate with the wireless system. Access to PC based software applications is provided directly through an RS-232 interface and allows for two-way messaging functionality	Cellular-based systems do not support integrated messaging applications.

	Link WTS	Wireless Office Service
Installed Base (through 3Q00)	SpectraLink has more than 7,000 systems installed and more than 150,000 Wireless Telephones in use throughout the U.S. Every SpectraLink system installed was purchased specifically to meet a requirement for wireless.	ROAMEO has an installed base of only about 63 systems through 3Q00. Mobile Advantage has installed only 44 systems since their start in 4Q99.
Additional Product Information	www.spectralink.com	www.attws.com/business/lcorp/explore/enterprise_solutions/wos/ www.agcs.com/productsv2/roameo/ www.ericsson.com/dwos/