

interReach™ unison

(one network. one lasting solution.)



interReach™ unison

With the explosion of wireless device usage and applications comes a surge in demand for seamless coverage and ample capacity. Subscribers expect high-quality wireless communications wherever they are — on the road or in an airport, office building, convention center, or sports arena — whether they are alone or in a crowd of several thousand. While subscribers have come to depend on mobile communications, wireless networks still face the challenges of delivering adequate capacity and overcoming physical obstacles created by steel and concrete. LGC Wireless conquers those challenges by bringing the outdoor wireless network inside using the intelligent, powerful InterReach Unison system.

InterReach Unison operates as a seamless extension of the public wireless network infrastructure, expanding the reach of wireless communications by delivering crystal-clear signals and ample capacity throughout any facility. But it doesn't stop there. This system provides a revolutionary degree of flexibility, power, and intelligence that accommodates unique requirements elegantly; adapts to changing needs easily; and keeps system lifecycle costs low. Simply stated, InterReach Unison is the only intelligent software-based wireless networking system to meet today's demand and provide the power and flexibility to adapt to tomorrow.

(one solution. unlimited applications.

Every building, every application is unique. InterReach Unison was created specifically to address the needs of larger installations and dense, high-traffic environments. InterReach Unison provides the power and versatility to serve convention centers, sporting venues, airports, and other large-capacity environments through:

- ➔ Superior RF performance and high composite power to support more channels and deliver greater coverage while operating as an integral part of the broader wireless network

- ➔ Software-configurable components that provide flexible system configuration options
- ➔ Simple installation using minimal components and industry-standard cabling options
- ➔ The most advanced operations, administration, and maintenance features in the industry

Together, these unique features combine to provide wireless operators and building owners with power and intelligence in a single, versatile system.



(open for business.

InterReach Unison features an easy-to-deploy double-star architecture with just three components: a Main Hub, an Expansion Hub, and a Remote Access Unit (RAU). Unison's Main Hub, which can be connected to a basestation, a MetroReach™ Focus system, or a repeater, converts the incoming RF signal to an optical signal and sends it to the Expansion Hubs via fiber optic cable.

The Expansion Hub converts the incoming optical signal to an electrical signal and distributes it to all associated RAUs via twisted-pair cabling. The RAU converts the signal to RF once again and transmits it to and from wireless devices located within its coverage area.

InterReach Unison's Main and Expansion Hubs are software configurable, making it easy to set and change the specific frequencies they support. In addition to simplifying installation and maintenance activities, this capability will smooth migration to the latest technologies, including 3G wireless standards such as UMTS.

(more power to you.

InterReach Unison offers enough power to handle crowds, cover large areas, and meet future capacity needs without requiring new

equipment. When thousands gather in an airport or for an event, InterReach Unison delivers ample wireless channels to handle peak communications needs. More channels provide more capacity and encourage use, while extended coverage footprints reduce equipment, cabling and installation costs. More power, capacity, and coverage add up to more value.

(elegantly simple.

InterReach Unison makes it equally easy to create an optimal design for a large airport, an open sports arena, or a multi-building campus. The system uses only industry-standard cabling to allow system designers to choose their preferred cable types, often allowing them to use the facility's existing cabling infrastructure. The InterReach Unison system uses single-mode or multi-mode fiber, and CAT-5 or CAT-6 twisted-pair cabling. The system allows single-mode fiber to extend up to six kilometers; multi-mode fiber up to 1.5 kilometers; and CAT-5/6 up to 170 meters. Use of these types of flexible and lightweight standard cabling ensures the lowest possible installation cost and simplifies initial installation and future expansion.

(remote control.

InterReach Unison is an intelligent system that offers unparalleled configuration, operations, administration and maintenance functions. Software tools for both field and centrally located maintenance personnel provide simple, intuitive interfaces to monitor single and multiple systems and sites, and perform:

- ➔ Configuration management functions, such as specifying system frequencies and setting system gain
- ➔ Performance management tasks, including setting RAU output power levels and performing system calibration
- ➔ Fault management activities, including warning of excessive cable lengths and providing detailed reports on specific hardware problems and cabling faults

At any time, you can easily change configuration parameters and check system performance either locally or remotely. If there's a problem, the system has the intelligence to let you know exactly what's wrong. Armed with exact information, maintenance personnel can be dispatched immediately with the proper tools, equipment and cabling, reducing the number and length of site visits. It all adds up to a set of best-in-class system management features that make InterReach Unison the intelligent choice for simple installation, flexible and reliable on-going operation, and low lifecycle costs.

(A lasting solution.

With InterReach Unison, everything you'll need for years to come is built right into a single, flexible, and powerful solution.

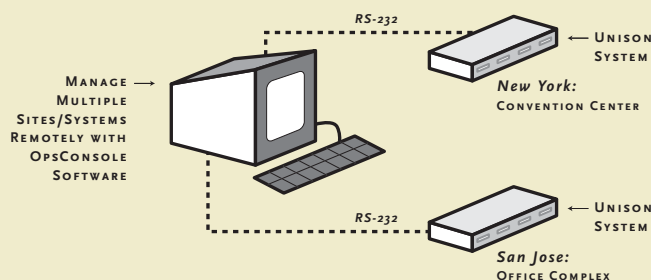
InterReach Unison provides software-controlled configurations to support the following frequencies/protocols:

- ➔ 800 MHz AMPS, TDMA, CDMA2000, iDEN, W-CDMA, GSM, EDGE
- ➔ 900 MHz GSM, Paging, EDGE, iDEN
- ➔ 1800 MHz, GSM, CDMA2000, EDGE
- ➔ 1900 MHz CDMA2000, TDMA, GSM, W-CDMA, EDGE
- ➔ 2100 MHz W-CDMA

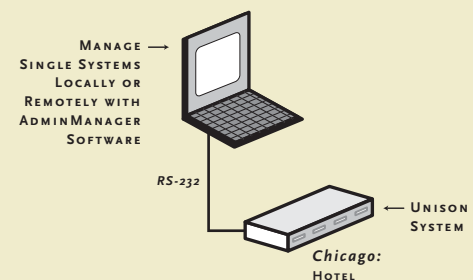
The system is fully compliant with key standards, including GPRS/EDGE, and has FCC, UL and CE approvals. The Remote Access Units (RAUs) are plenum-rated.

The system's modular components are arrayed in a double-star topology. Each Main Hub supports up to four Expansion Hubs. Each Expansion Hub can support up to eight RAUs which are connected to an indoor antenna suited to the facility. Thus, each Main Hub can support up to 32 RAUs and multiple systems can be connected together to cover larger areas.

FOR THE NETWORK MANAGER



FOR THE FIELD TECHNICIAN



(THE INTELLIGENT INTERREACH UNISON SYSTEM PROVIDES LOCAL AND REMOTE MONITORING AND CONTROL WITH INTUITIVE SOFTWARE INTERFACES. COMPREHENSIVE REMOTE MONITORING AND AUTOMATIC NOTIFICATION LOWER MAINTENANCE COSTS BY PROVIDING COMPLETE DIAGNOSTIC INFORMATION BEFORE TECHNICIANS ARE SENT TO THE SITE.)

