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EtherTalk: Ethernet-Microwave Link

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It is possible to expand an AppleTalk LAN (using Kinetics FastPath or Apple
EtherTalk interfaces) onto Ethernet and from there onto a microwave
transmission system. Getting the signals to a microwave system requires some
hardware: a multiplexer on each end of the microwave transmit and receive
stations, connected down to the Ethernet and back onto AppleTalk with an
Ethernet interface.

Another (less expensive) solution is laser technology: infrared laser systems
or LED (light emitting diode) systems that can be used for short-haul
communication. LED systems operate up to 2 or 3 miles, while laser systems
can manage up to 40 miles. This system would work in a similar fashion to
the microwave transmission system.

The physical characteristics of microwave and laser communication systems
can be limiting. Based on AC technology, microwave transmitters are, in
principle, AC generators with a radio frequency spectrum in the 2,000-23,000
megahertz (2-23 GHz) range. Much of this range is reserved for international
and special interest communications, and leaves only sections of the possible
spectrum for private use. These sections are the 2, 6, 12, 18, 19, and 23 GHz
bandwidths, more than enough for most digital communication needs.

Here are some vendors of microwave components and turnkey systems (for a more
complete list, contact Datapro Research Corporation):

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  AT&T Network Systems
  Avantek
  Digital Microwave Corporation
  Ericsson Radio Systems
  Fujitsu America, Inc.
  Harris Farinon
  International Microwave Corporation
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