# The IBM Wireless Family

Wireless Local Area Networks (LANs) and Wide Area Networks (WANs) provide the mobile user access to information stored in remote peripherals or databases. Wireless LANs enable communications within a single building or campus. Wireless LAN adapter cards use radio frequencies to communicate with each other, thus allowing the user to converse, retrieve or enter data without having his or her personal computer, notebook or pen tablet physically attached to a wired LAN or telephone line. Wireless WANs communicate in a similar fashion but use wireless modems to connect across radio or cellular networks.

### Wireless Family at a glance

| Product | LAN Interfaces Supported | Hardware Requirements |
|---|---|---|
| 2480 Wireless LAN Access Models E00 and EB0 | • Thin Ethernet, IEEE 802.3 10BASE-2, BNC connector<br>• Thick Ethernet, IEEE 802.3 10BASE-5, DB-15 AUI connector<br>• Twisted-pair Ethernet, IEEE 802.3 10BASE-T, RJ-45 connector | • Any host system with an Ethernet adapter and its associated features<br>• Any AS/400® with FC 2668 and FC 2663 |
| 2480 Wireless LAN Access Models TR0 and TB0 | • IEEE 802.0<br>• STP (DB-9 connector), IBM Type 1<br>• UTP (RJ-45 connector), IBM Type 3 or higher | • Any host system with a Token-Ring Adapter and its associated features<br>• For the AS/400, a Token-Ring IOA (adapter on Multi-Function Input/Output Processor (MROP) FC 7175 or FSIOP FC 6516, 6517, 6518 or 6519, as well as FCs 6526, 6528 and 6529<br>• 16/4 Token-Ring High Performance for Server Models FC 9619 |
| 2480 Wireless LAN Access Model RS0 | • Localtalk, Din-8 connector | • Any AS/400 with an AS/400 Wireless LAN Adapter FC 2663 and 2668 except Model D02 or E02 |

| Product | Software Requirements | Hardware Requirements |
|---|---|---|
| 2482 Portable Transaction Computer | • AS/400 host: Operating System/400® system V3.1 or higher capable of supporting wireless connectivity or<br>• Wireless connection for AS/400 (5798-TBW) devices | • IBM AS/400 Wireless LAN Adapter (FC 2668)<br>• One or more 2.4 GHz Wireless LAN Access Point E00s or TR0s (optional) |
| 2483 Integrated Laser Portable Transaction Computer Models 5S0, 5L0 and 5X0 | • AS/400 host: Operating System/400 system V3.1 or higher capable of supporting wireless connectivity or<br>• Wireless connection for AS/400 (5798-TBW) devices | • IBM AS/400 Wireless LAN Adapter (FC 2668)<br>• One or more 2.4 GHz Wireless LAN Access Point E00s or TR0s (optional) |
| 2484 Industrial Portable Transaction Computer Models 520 and 540 | • AS/400 host: Operating System/400 system V3.1 or higher capable of supporting wireless connectivity or<br>• Wireless connection for AS/400 (5798-TBW) devices | • IBM AS/400 Wireless LAN Adapter (FC 2668)<br>• One or more 2.4 GHz Wireless LAN Access Point E00s or TR0s (optional) |

*Wireless Family at a glance (continued)*

| Product | LAN Interfaces Supported | Hardware Requirements |
| --- | --- | --- |
| 2486 Portable Transaction Computer Models 5S0 and 5L0 | • None for the 2486; however, when connecting to an AS/400 host, the host must have either:<br>- OS/400® V3R1 or higher if using the AS/400 Wireless LAN Adapter<br>- OS/400 V4R1 or higher if using the Wireless connection for AS/400 (5798-TBW) | • An AS/400 host with an AS/400 Wireless LAN Adapter, or Wireless Connection License Program 5798-TBW<br>• A 2480-E00 or 2840-TR0 if using a wired LAN backbone |
| 2486 Portable Transaction Computer Models 5S0 and 5L0 | • None for the 2486; however, when connecting to an AS/400 host, the host must have either:<br>- OS/400 V3R1 or higher if using the AS/400 Wireless LAN Adapter<br>- OS/400 V4R1 or higher if using the Wireless connection for AS/400 (5798-TBW) | • A host that supports ANSI VT220 emulation<br>• A 2480-E00 or 2840-TR0 if using a wired LAN backbone |

| Product | Application software compatibility | Hardware |
| --- | --- | --- |
| 2488 Pen-Based Computer Model 300 | •Microsoft® Windows® 95<br>•Microsoft Windows for Pen Computing<br>•PenRight! for Windows (Runtime) 3.6<br>•Microsoft Windows for Workgroups<br>•PCMCIA card and socket services support | • 486SLC, 50-MHz microprocessor<br>• 2-MB flash EPROM and 12-MB RAM, 256-KB ROM dedicated to BIOS and operating system<br>• Display: monochrome, 151-mm (5.94-in.) diagonal, VGA, transflective LCD display with 640 x 480 pixel resolution, 64 levels of gray, switch-adjustable contrast and brightness, and scratch-and impact resistant |
| 2488 Pen-Based Computer Model 900 | •Microsoft Windows 95<br>•Microsoft Windows for Pen Computing<br>•PenRight! for Windows (Runtime) 3.6<br>•Microsoft Windows for Workgroups<br>•PCMCIA card and socket services support | • 486DX/2, 50-MHz microprocessor<br>• 256-KB flash EPROM used for BIOS and operating system<br>• 8-MB base RAM with 16-MB or 32-MB RAM optional<br>• Display: 241-mm (9.5-in.) diagonal, VGA, transflective, monochrome LCD screen with 640 x 480 pixel resolution, 64 levels of gray and keypad-adjustable contrast and brightness. Display is scratch- and impact-resistant with 1000-dpi resolution. |

| Product | Hardware Requirements | Software Requirements |
| --- | --- | --- |
| 2493 Portable Transaction Computer | • IBM AS/400 host with wireless connection capability for Models 5S0 and 5L0<br>• A host that supports ANSI VT220 emulation for Models DS0 and DL0<br>• IBM 2480-E00, EB0, TR0 or TB0 Wireless LAN Access Point if using a wired LAN backbone for any of the models (required for most environments) | • AS/400 host: Operating System/400 Version 3.1 or higher capable of supporting wireless connectivity<br>• If using TN5250 emulation software for Models 5S0 and 5L0 (FC 3298), TCP/IP on the AS/400 host<br>• If using Models DS0 or DL0, TCP/IP on the host |

# Positioning and Benefits

**Problem: Need mobile hand-held devices to provide local or wide area connectivity to a host system.**

**Environment 1:** Host system with existing Ethernet or Token-Ring LAN attached terminals with a need for mobile terminals in a warehouse, hospital, hotel or retail enviroment.

**Environment 2:** Mobile workers in a wide area (WAN) environment with a need to transmit data or act as a client device to a remote host system.

**Solution 1:** Attach an IBM 2480 Access Point (either Ethernet or Token Ring) to the existing wired LAN at each location where the mobile wireless coverage is needed (range is 91.4 to 457.2 m (300 to 1500 ft) depending on the environment). Various IBM Wireless  LAN devices configured with 2.4-GHz radios can then communicate to the host system as if they were wired to the LAN.

**1.** *Host System*

**2.** *Token-Ring or Ethernet*

**3.** *2480 Access Point*

**4.** *Wireless Adapter Device(s) (PCMCIA or ISA)*

**5.** *Wireless PTC Device(s) (2480, 2483, 2484, 2486,  2493)*

**6.** *Wireless Pen-Based System Device(s) (2488)*
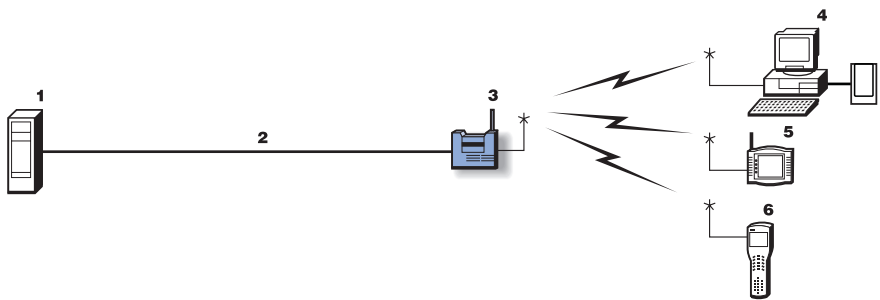


**Solution 2:** Configure an IBM 2488 Pen-Based system (Model 300 or 800) with a wide area radio (ARDIS, CDPD, RAM Mobitex, etc.) and establish an account with a wireless service provider. From anywhere within the service area, the IBM 2488 would be able to establish a connection to any host system attached to the service provider as either a client device or in a file transfer mode.

**1.** *Host System*

**2.** *Service Provider Antenna*

**3.** *2488 Pen-Based System*
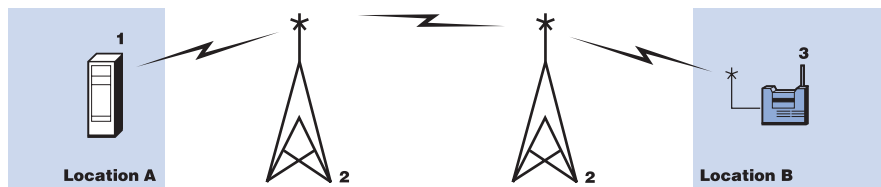


**Benefits**
- Variety of devices to choose from depending on need.
- Combines the advantages of mobility and real-time host-connected computing.
- Pen-based units provide the added versatility of pen-based operation.
- Rugged, sealed units designed to be used in harsh environments and PC adapters to turn wired PC's into wireless mobile devices.
- All devices use the same wireless backbone