



# WIRELESS MARKET OBSERVATIONS

PRESENTATION TO

IEEE 802.11

BY

BOB ROSENBAUM

SEPTEMBER, 91



## Market Issues for Wireless LANs

- **An enabling technology that should expand the overall LAN connectivity marketplace**
- **A complementary technology that augments other connectivity medium including fiber, twisted pair, coax, etc.**
- **Connectivity advantages in the areas of mobility, speed of installation, flexibility, and recoverable costs.**



# Applications

**Temporary offices**

**Retail stores**

**Factory Floors**

**Schools**

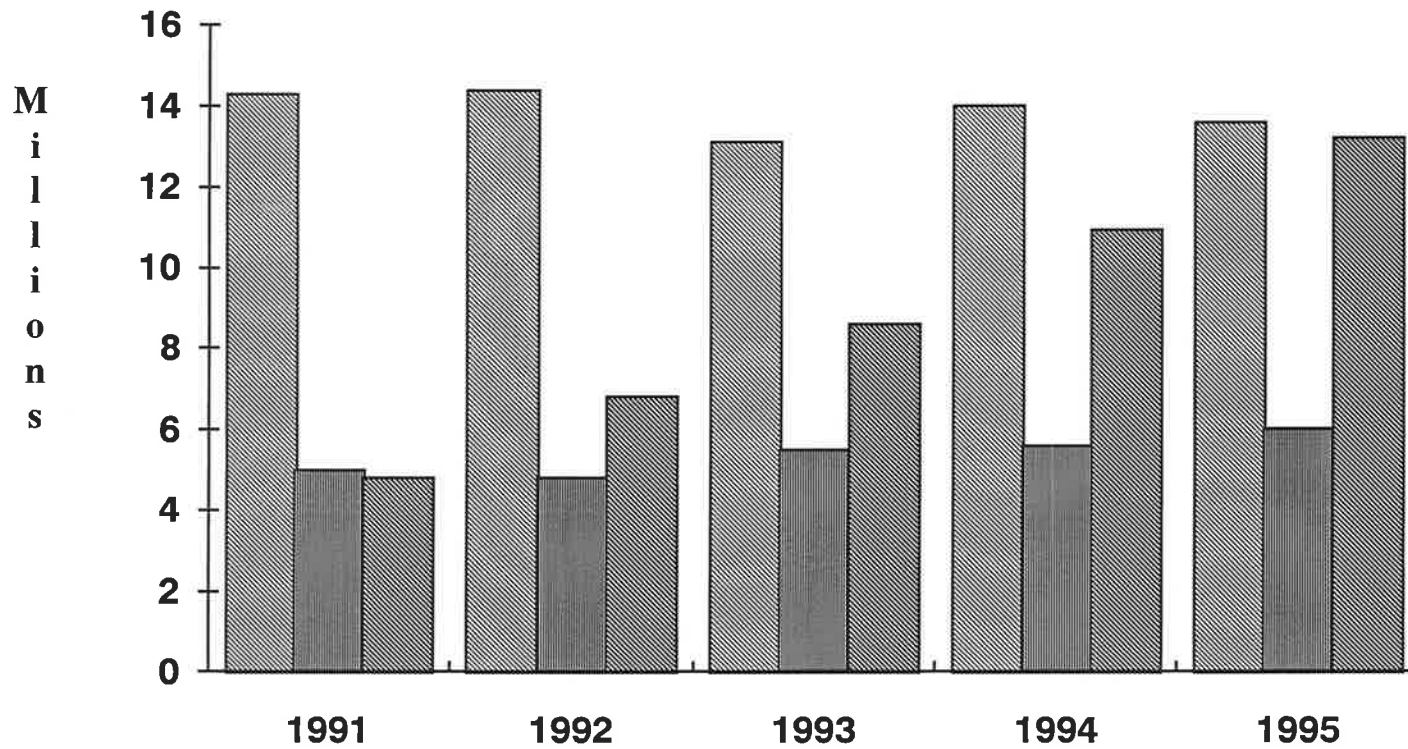
**Satellite offices**

**Construction obstacles**



# Unattached US PCs

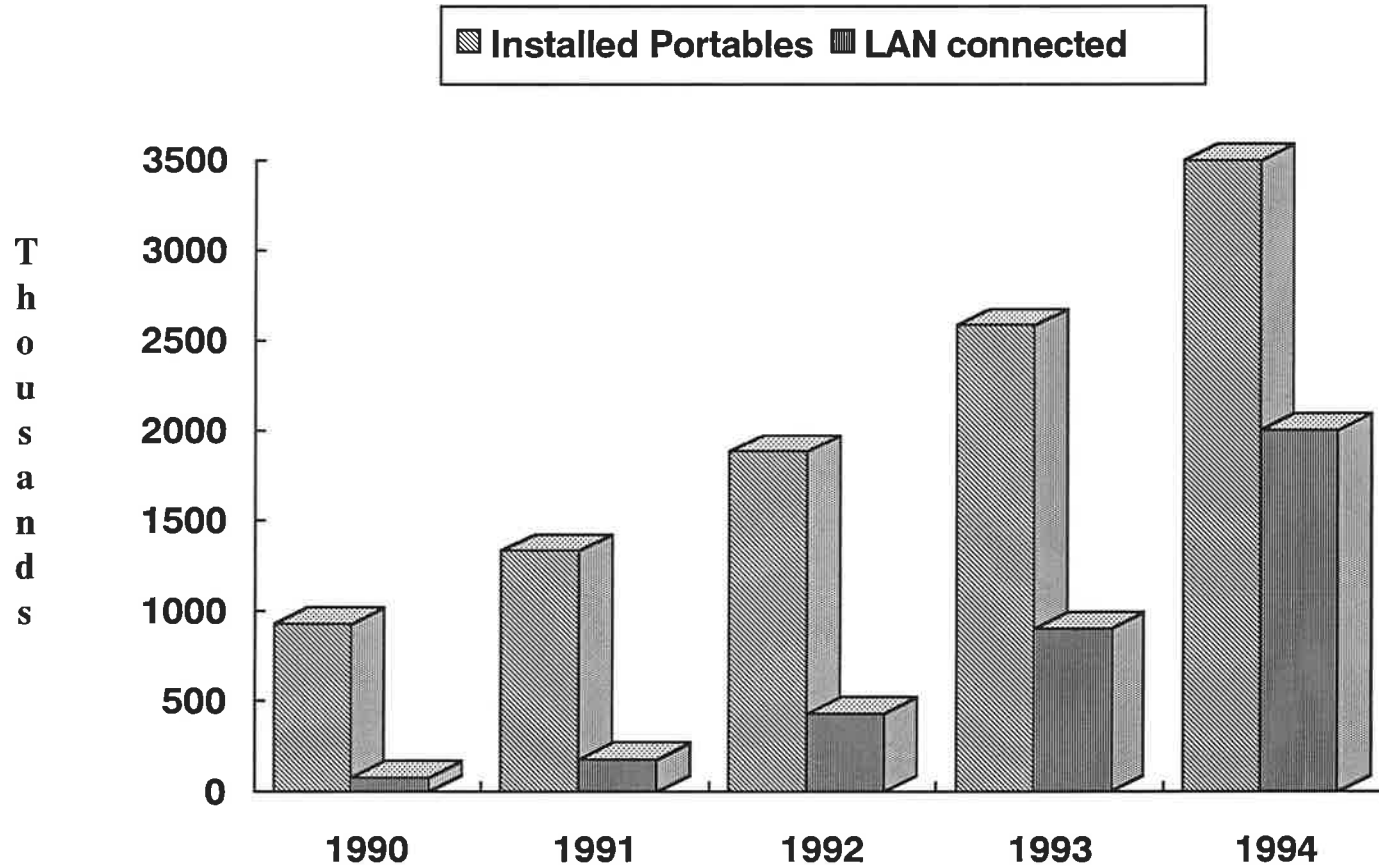
Unconnected PCs    New LAN PCs    LAN PCs Moved



source: IDC



# Worldwide Portable PC Market



source: InfoCorp & WINDATA



## Portable PC Issues

- **The portable PC networking market breaks down into two submarkets:**
  - **In building connections**
  - **Wide area connections**
- **In building applications inturn divide into 2 markets**
  - **Hand held devices; bursty small packet traffic; high speed is not important**
  - **Stationary devices; network characteristics similar to desktop PCs; high speed important**
- **Will portables replace current desktop PCs?**



## Typical configurations

*There are no typical configurations!*

- **Large offices**
  - Coverage in range of 20,000 sq ft
  - Compatibility with structured wire system (operation and management)
- **Small offices**
  - Coverage in range of 10,000 sq ft
  - Ability to use pure wireless
- **Retail**
  - Distance range 150 feet



## Wireless Space Management

- **The system must be "smart" enough to manage multiple subnets and avoid conflict among them**
- **Conflict avoidance cannot be legislated onto the end user**
- **Restricting coverage is not reliable with radio**
- **To maximize market success potential the system must be free of installation and operation restrictions.**





# Wireless Network Management

- Network Management is *required*.
- Should be compatible with efforts underway in 802.3 and 802.5
- Management definition under CMIP and SNMP
- Build on management structures defined in wired areas.



## Relationship to 802.x

- **Market requires a seamless integration of wireless with 802.3 & 802.5**
- **Cannot afford another 802.4 situation**
- **10Base36 much more successful than 802.4**