



AIReach Healthcare



Wireless Healthcare of the Future -

NOW

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Wireless Healthcare of the Future

- Are we seizing opportunity?
- Or chasing it?

To seize the opportunity is to have

Wireless Healthcare

To implement is to have

AIReach Healthcare

Future of Healthcare

- **GOAL:** To be in the top IT Research
- **CONSTRAINT:** Limited financial resources
- **STRATEGY:** Concentrate on growth area of the New Millennium
- **GROWTH AREA:** Telecommunications
- **PROJECT:** AIReach Healthcare

AIReach Healthcare

AIReach Healthcare is the first prototype model for the *Outreach of the Future*:

- State-of-the-art point-to-multipoint systems for broadband wireless access,
- Fiber-quality wireless solution that encompass voice, video, data, multimedia, and Internet service up to 20 times faster than a T-1 line.

Reasons to be Confident

FACTS

- The heart of IT is *telecommunications*
- The future of telecommunications is *Broadband* with transmission rates in *excess of 1.5 Mbps*
- Broadband communications revenues in this decade are \$1.5 trillion creating one million jobs.

Vision 2014

Wireless Healthcare of the Future is based on five key concepts expressed in the acronym **MAGIC**

- **M**obile multimedia communications at high speeds to educate and inform,
- **A**nytime, anywhere with anyone communications,
- **G**lobal mobility with uniformity in quality and service,
- **I**ntegrated wireless solutions in a seamless environment,
- **C**ustomized personal service tailored to particular needs.

MAGIC

Walk into the **New Millennium** with **MAGIC**, which is based on the belief that the campus of the future has the potential to accommodate total wireless devices: laptop computers, vending machines, book finders, and access to campus network, internet, etc. from any location.

Hence, on-demand **wireless broadband system** for IT & communication services to carry voice, data & IP traffic in gigabytes routers.

Key Components of AIReach Healthcare

- **Bluetooth™:** Removing the limits of digital equipment interconnectivity by eliminating the need for wire connections.
- **i-mode™:** Cellular phone capable to navigate Internet, exchange e-mail and PDAs.
- **SpaceWay™:** High-speed bandwidth-on-demand affordable satellite services for point-to-point or full-mesh communications.

Broadband Infrastructure

Need to develop a new blueprint for broadband infrastructure:

- Deregulation, and
- Growth in data traffic:
 - Asynchronous Transit Mode (ATM)
 - Frame Relay (FR) & IP
 - Private line
 - Internet services, and
 - Multiple data service delivery mechanisms

Broadband Infrastructure Blueprint

Three major layers required for the blueprint:

- **Service Layer:** Interface with customer premises equipment (CPE),
- **Switching Layer:** Traffic over high-speed pipes connecting sub-OC3 (STM-1) speed to a core OC3 or higher speed transport layer, and
- **Transport Layer:** Interfaces directly with wave division multiplexing (WDM).

Notes

- **AIReach Broadband family, state-of-the-art point-to-multipoint systems for broadband wireless access.**
- AIReach Broadband gives carriers a powerful platform for offering fiber-quality "last-mile" wireless solutions that encompass voice, video, data, multimedia, and Internet services. AIReach Broadband can be deployed to serve individual business customers as well as multitenant offices/residential complexes.
- Available in multiple solutions for varying market needs, the AIReach Broadband product family consists of 7000 and 9000 series operating in frequency bands between 3 GHz and 42 GHz.
- Designed to help carriers implement and launch revenue-generating services in the most cost-effective and rapid way possible. the AIReach Broadband family offers:

Notes – cont.

- The AIReach Broadband family offers: completely scalable hub, for ultimate cost effectiveness. The system can start with a single radio at the hub and as few as two subscriber terminals. This allows you to minimize capital expenditure up front, provide excellent coverage for your customers, and expand your network as your business case demands it.
- Spectral efficiency, for the lowest cost solution in terms of dollars per bits per hertz. The only 64 QAM product operating in TDMA in the market today, gives you the highest return on your most precious asset - spectrum.
- Bandwidth on Demand, with voice and data concentration via dynamic bandwidth management making the economics very competitive to wire line solutions.
- A fully integrated, carrier-class network management system, designed for efficiency and operational simplicity.