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July 13, 2001

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

via HAND DELIVERY

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
445 Twelfth Street, SW, TW-A325
Washington, DC 20554

RE: Notice of Ex Parte Communications
ET Docket No. 00-258

Dear Ms. Salas:

On July 11, 2001, IPWireless, Inc. conducted a demonstration of its advanced broadband wireless technology in Greensboro, North Carolina, for Messrs. Julius Knapp, Deputy Chief, Office of Engineering and Technology, William Lane, Chief Technologist, Wireless Telecommunications Bureau and Keith Larson, Associate Bureau Chief for Engineering, Mass Media Bureau. Representing IPWireless during the demonstration were Roger Quayle, Chief Technology Officer, and Jeff Gordon, Director of Industry Relations, of IPWireless, and Jeff Blumenfeld, Larry Blosser and the undersigned of this law firm.

At the meeting, IPWireless described in detail and demonstrated live its state of the art, advanced broadband wireless technology to Messrs. Knapp, Lane and Larson. A copy of the presentation made by IPWireless preceding the demonstration is attached hereto. No regulatory issues were discussed beyond the extent IPWireless has previously commented to the Commission in written form in this proceeding. An original and one copy of this letter and the presentation used are being filed with your office. Should you have any questions regarding this matter, please call me.

Respectfully submitted,

Jeremy D. Marcus

Jeremy D. Marcus

No. of Copies rec'd 0+1
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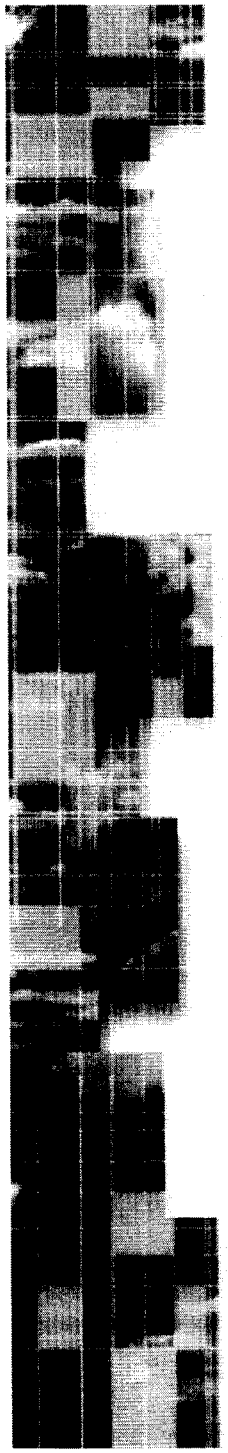
Enc.

cc: Julius Knapp
William Lane
Keith Larson



IPWireless

Greensboro Trial Demonstration

July 2001

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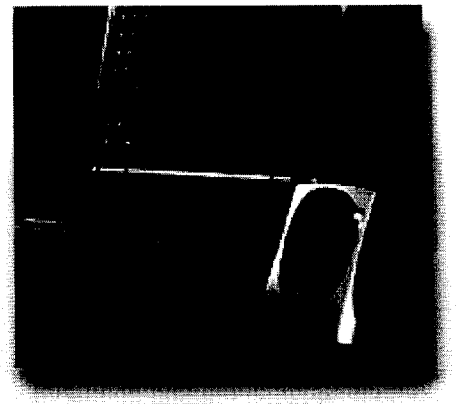
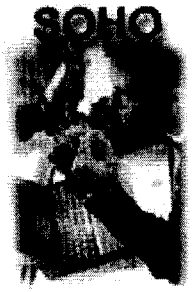
The Mission of IPWireless

Creating the Future Standard for Broadband Wireless Internet Access





IPWireless

Agenda

- Company Overview
- Product Overview
- Technology Overview
- Development Roadmap / Status
- Greensboro Trial

IPWireless

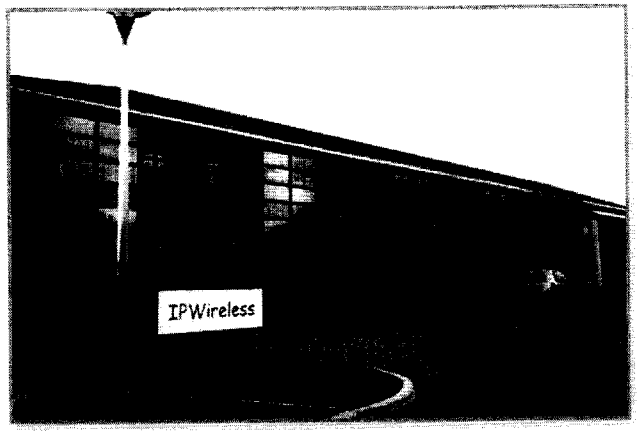
IPWireless Strategy

- Develop a breakthrough technology for broadband wireless Internet access
- Work toward its adoption as the global *de facto* standard
- Deploy the technology in the US market, covering a significant number of pops
- Migrate towards separation of equipment and service companies

IPWireless

Company Profile

- Combined benefits of European wireless expertise and Silicon Valley entrepreneurship
- Rapidly growing workforce
  - World-class team of over 100 engineers and contractors in UK focused on technology development
  - 3 regional offices in US
- Senior Management team in place
- Funded by leading VC firms
  - Over $120 Million funding to date, including Oak Hill (the Bass Family)
- First portable broadband in the world
  - 2-3 years ahead of competition



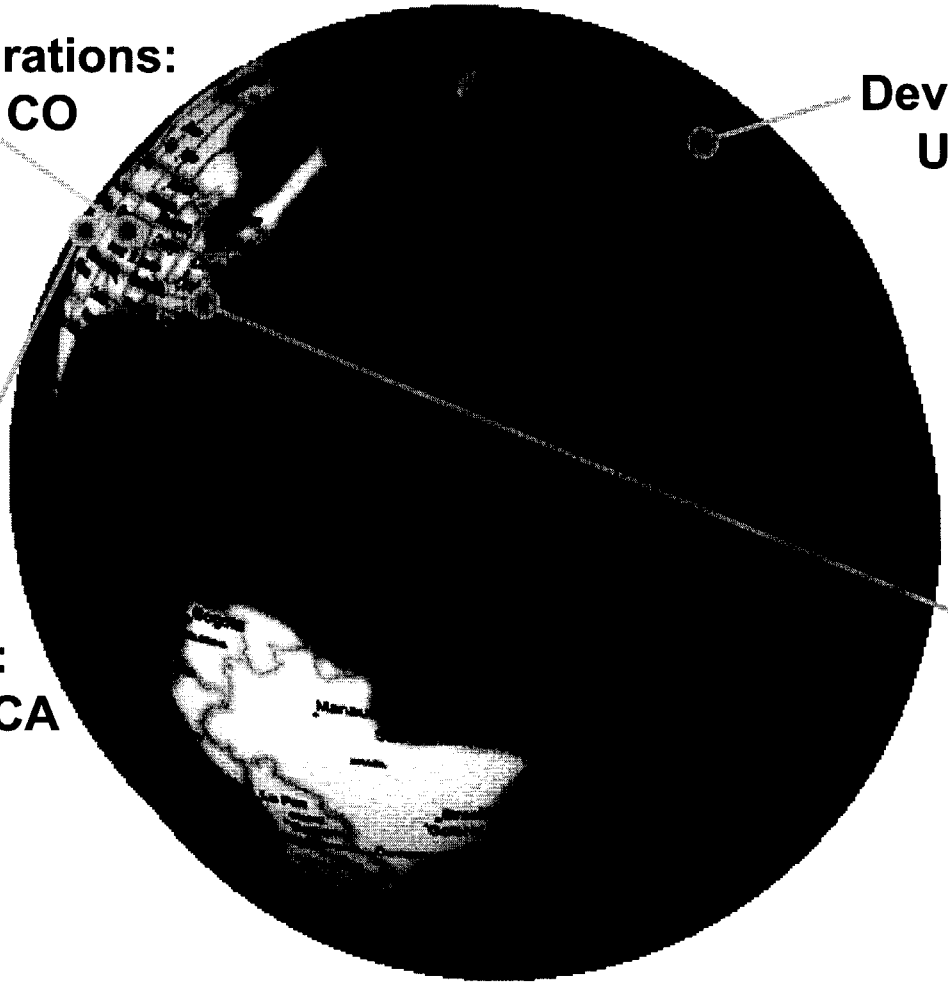
IPWireless

World Class Leadership

- Peter Howley – Chief Executive Officer (Exodus, Centex, MCI)
- Roger Quayle – Chief Technology Officer (Qualcomm, IWC)
- Dr. William Jones – EVP, Technology (Lucent)
- Craig Calle – Chief Financial Officer (Crown Cork, Salomon)
- John Lockton – Managing Director (IWC, Pacific Telesis)
- Malcolm Gordon – VP, Product Management
- Jack Fuchs – VP, Marketing Strategy (McKinsey & Co.)
- David Venn – VP, Market Development (C&W, Mercury)
- Wayne Leuck – VP, Engin. and Ops. (Qwest, US WEST, GTE)
- David Lamarre – General Counsel (Pillsbury Madison & Sutro)

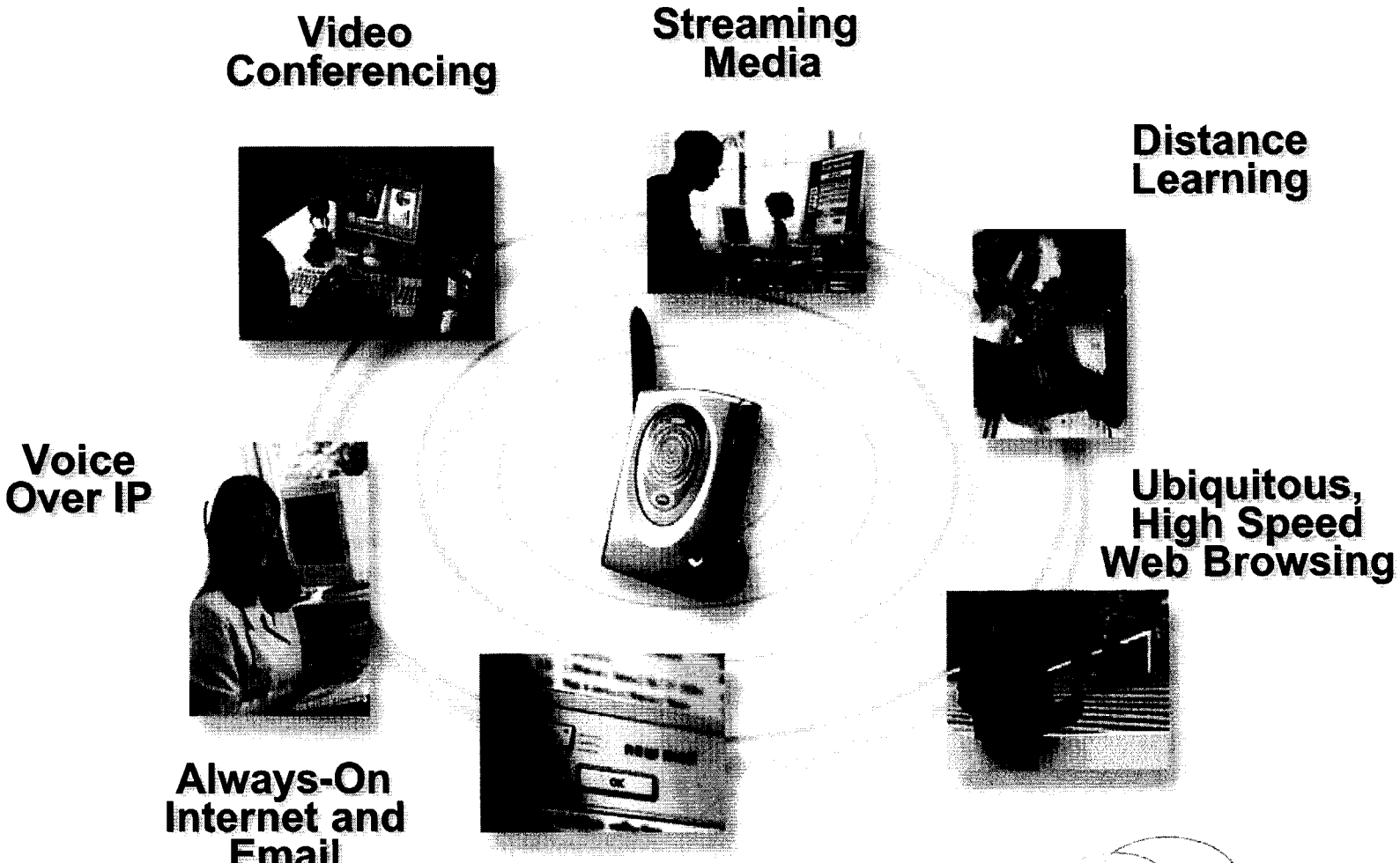
IPWireless

Developing Resources Around the Globe



IPWireless

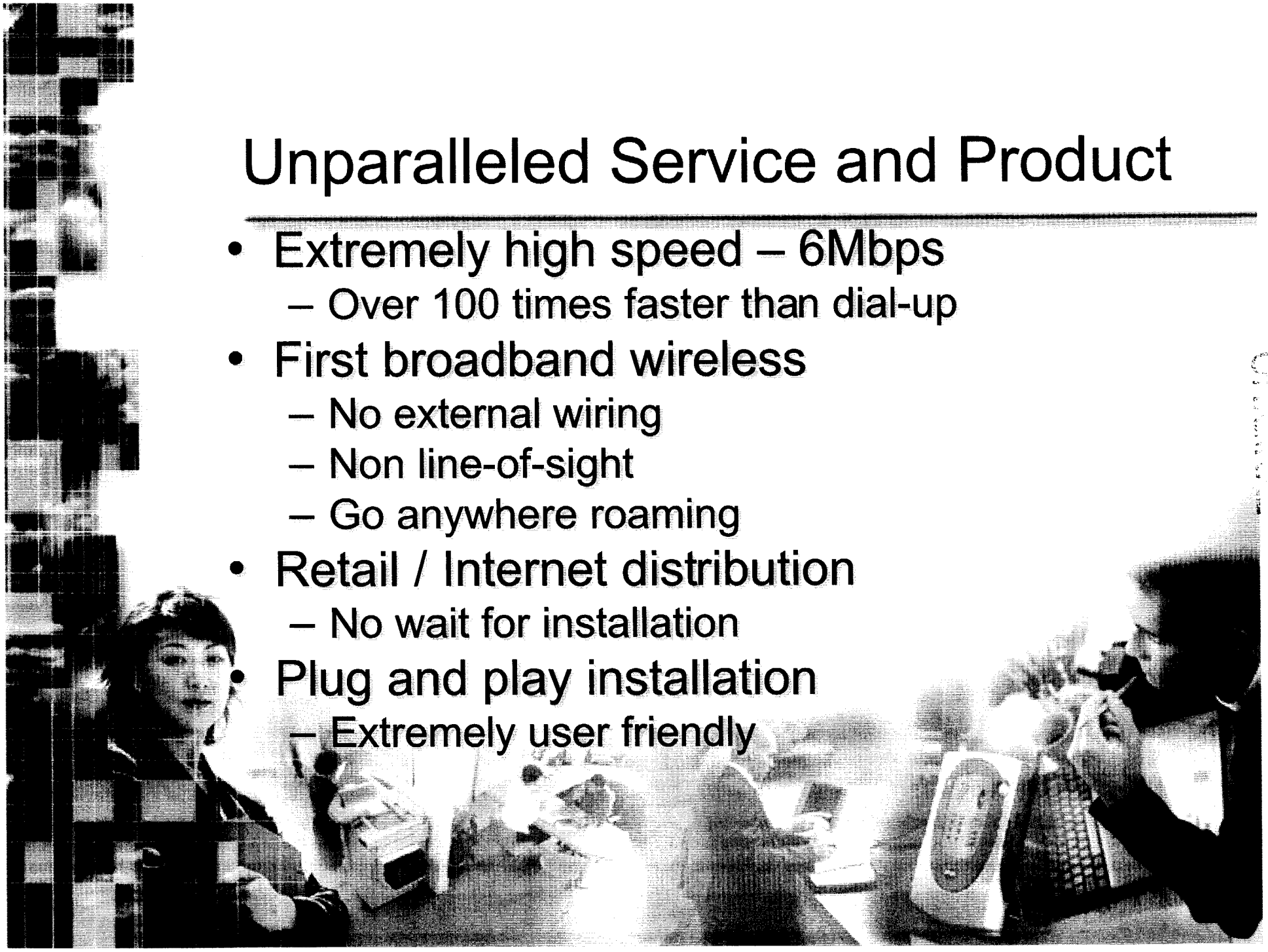
Applications Are Endless For Consumers & Small/Medium Businesses



IPWireless

Unparalleled Service and Product

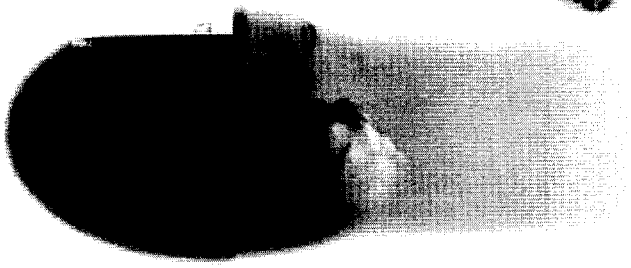
- Extremely high speed – 6Mbps
  - Over 100 times faster than dial-up
- First broadband wireless
  - No external wiring
  - Non line-of-sight
  - Go anywhere roaming
- Retail / Internet distribution
  - No wait for installation
- Plug and play installation
  - Extremely user friendly



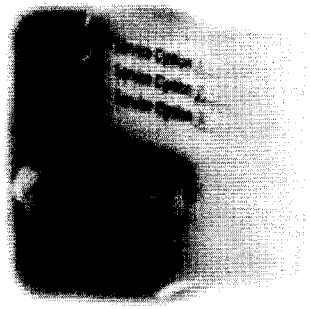
User Friendly Customer Experience: 3 Easy Steps

1 ***Buy Modem at Retail Store / Internet***

2 ***Plug into Computer***



3 ***Instant self-registration***



Connected

How We Stack Up

	IPWireless	Fixed Wireless	Cable	[redacted]		
[redacted]	3Mbps-6Mbps	256Kbps-1.5Mbps	128Kbps-3Mbps	256Kbps-1.5Mbps	56Kbps	19.2Kbps
Portability	✓	⊘	⊘	⊘	[redacted]	[redacted]
[redacted]	✓	⊘	⊘	⊘	✓	✓
No External Wiring / Equipment	✓	⊘	⊘	⊘	[redacted]	[redacted]
[redacted]	✓	⊘	[redacted]	[redacted]	[redacted]	✓
User Capacity	✓	⊘	⊘	[redacted]	[redacted]	[redacted]
[redacted]	✓	⊘	⊘	⊘	⊘	⊘
Retail Distribution	✓	⊘	⊘	⊘	[redacted]	[redacted]

Consumer Benefits of IPW Technology

- Efficient spectrum use
  - **Inherent high capacity through N=1 frequency reuse and high data rates**
  - **Single channel (6 or 12 MHz) provides service in entire market**
  - **No wastage of channels for FDD guardband**
- Widespread availability of broadband
  - **Ubiquitous coverage of commercial and residential areas. No line of sight requirement**
  - **Designed for mass-market deployment**
  - **Scalable to semi-rural markets**
  - **Low cost - available to all income groups**
  - **Educational uses**
- Encouraging new technology
  - **Perfect combination of standards and innovation**
  - **Brings 3G to market early in the US.**
  - **W-CDMA provides the ultimate in performance when combined with multi code and interference cancellation.**

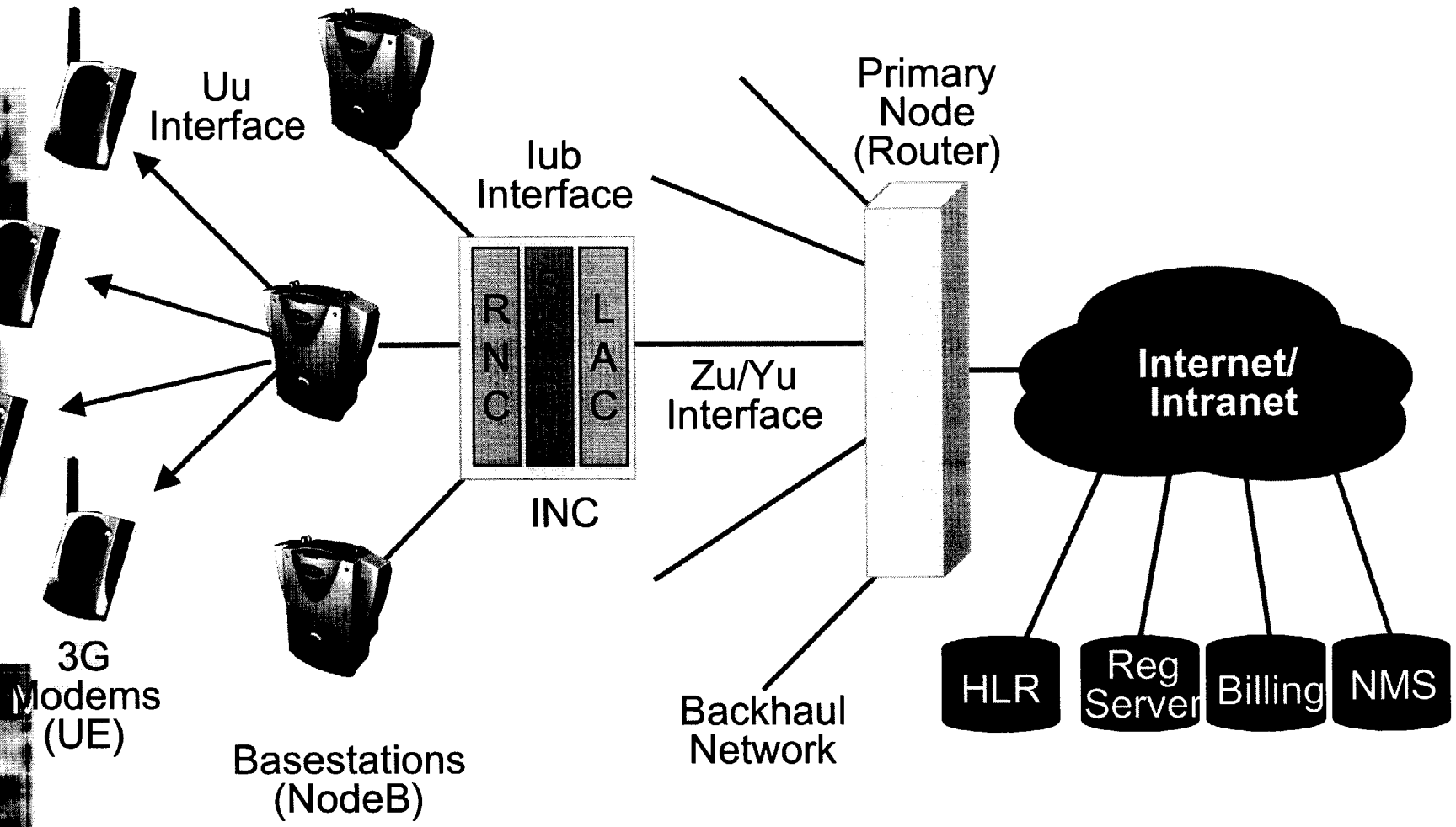
IPWireless

IPWireless Technology

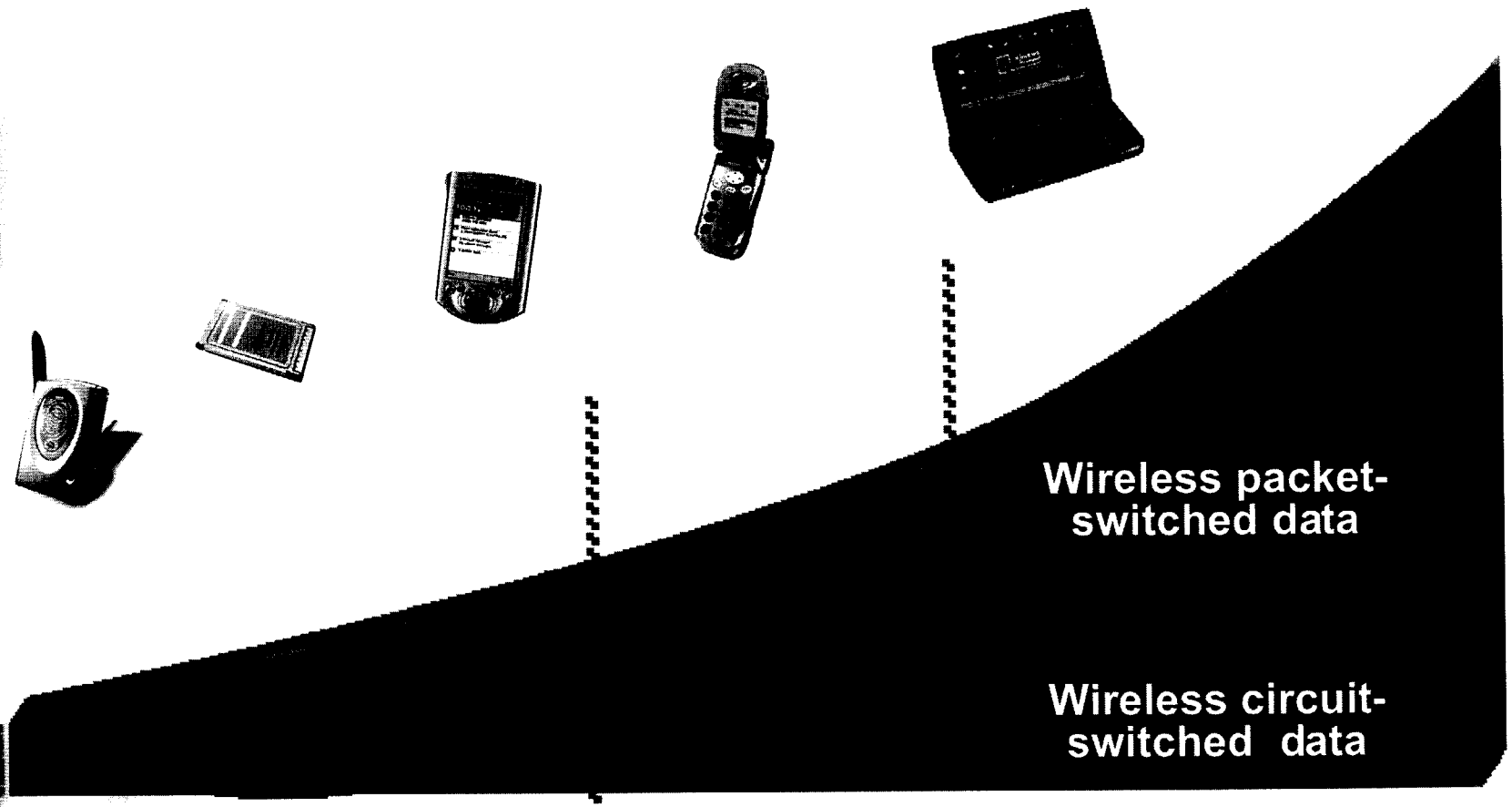
- UMTS compliant, W-CDMA, TDD (TD-CDMA), Packet data (not compromised by circuit switched voice)
- True N=1 frequency reuse
- Non LOS, multipath, building penetration
- Implemented and optimized for high data rates in large cells (typical cell radius 1.6 miles)
- Net user data rates up to 8 Mbps downlink (9 Mbps total up/down)
- Internet based authentication and self-registration
- Retail distribution with no provisioning

IPWireless

Network Elements



IPWireless Technology Migration/Integration Path



Today

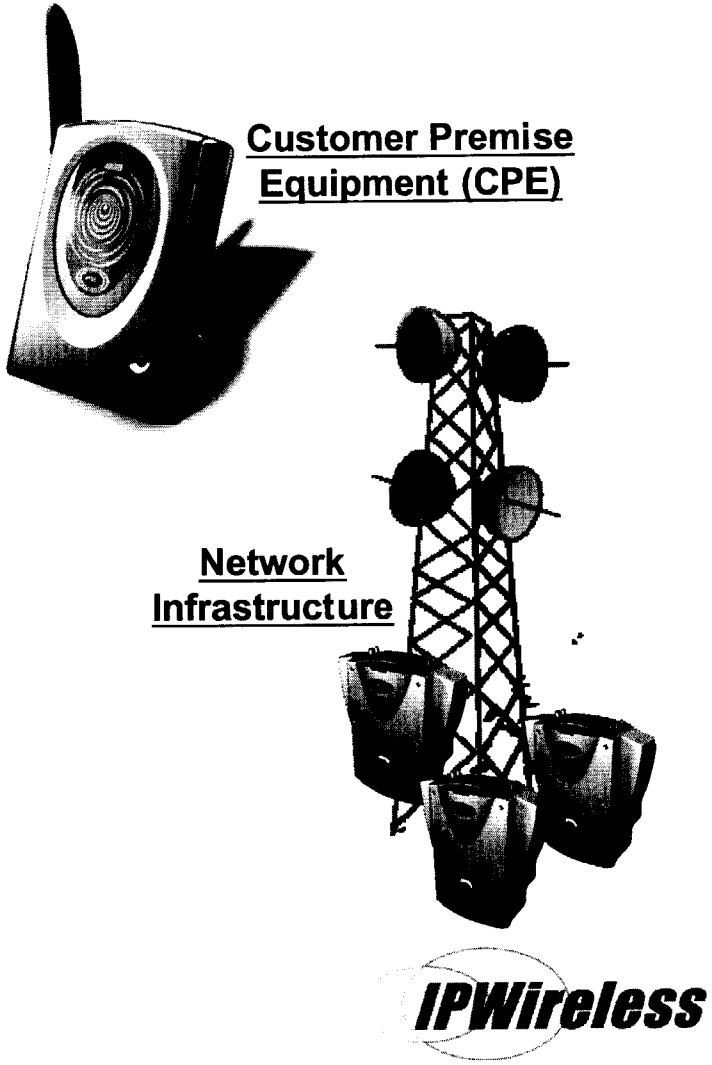
VoIP

Broad 3G Deployment

2005

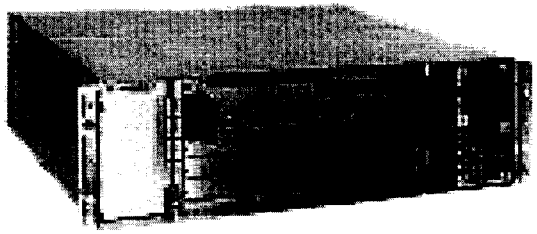
Complete Network Solution Will Revolutionize Internet Access

- Extremely high bandwidth (6Mbps)
- Retail and Internet distribution
- Plug and Play service
- No line of sight - Portable
- "Always on" technology
- Very low cost CPE (~$300/unit)



Network - Rapid, Low-cost Deployment

- Distributed architecture
- Highly scalable
  - Very flexible due to N=1 reuse
  - From urban microcell to 8 km rural
  - Low cost to add incremental capacity
- IP core network
- High spectral efficiency
- Low cost per subscriber



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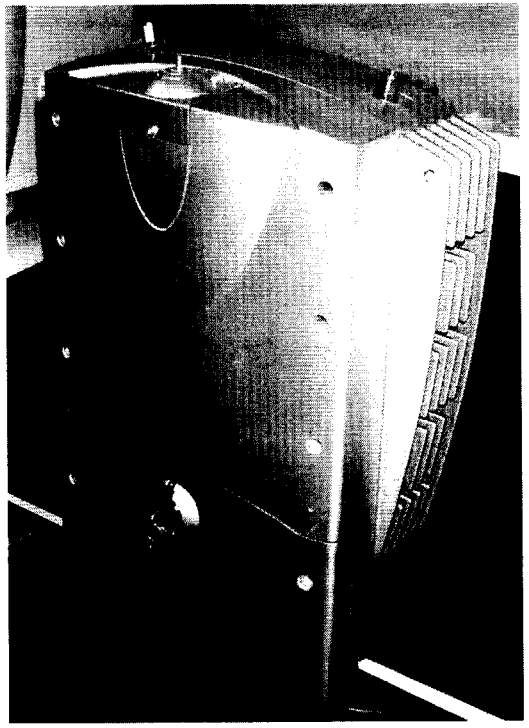

Basestation

IPWireless

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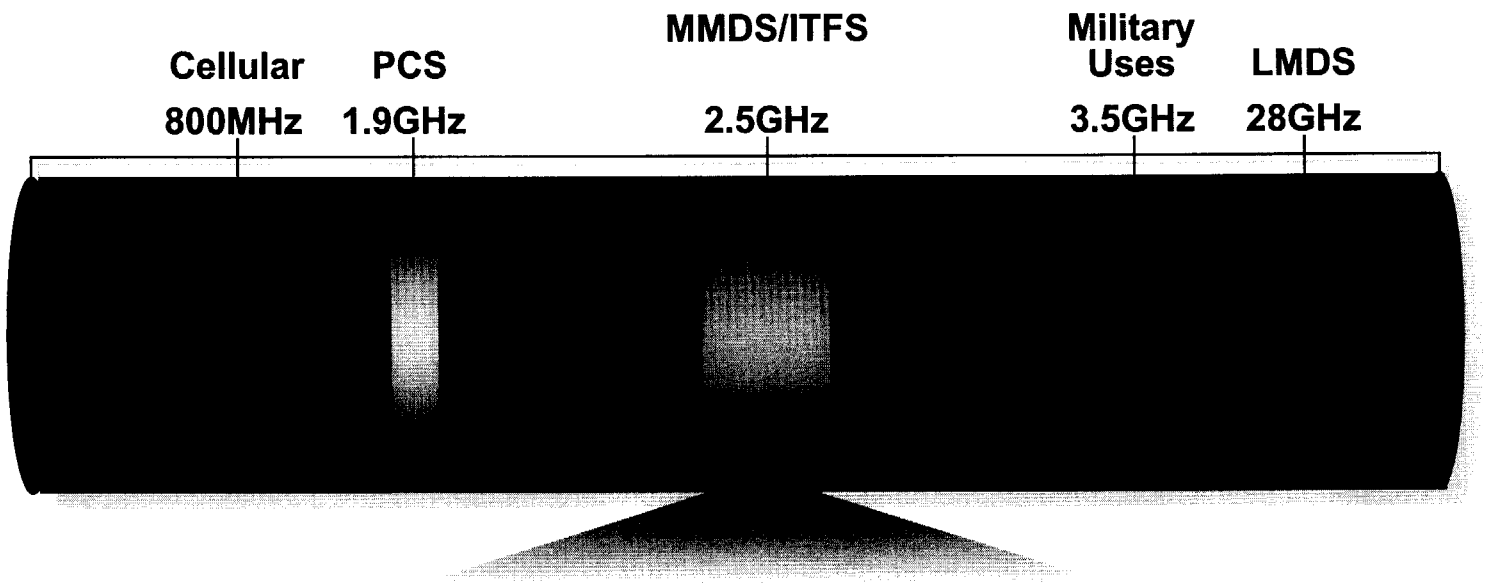
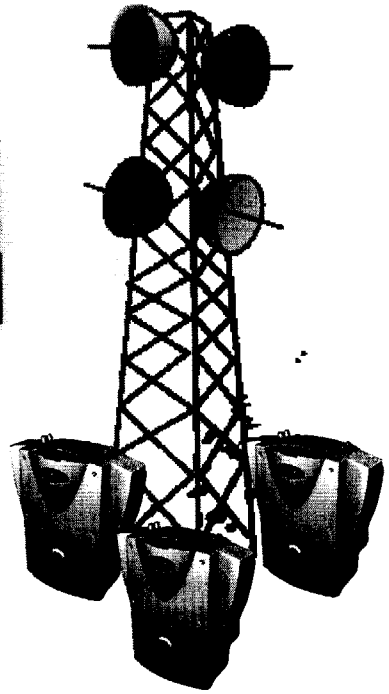
Our Technology has Been Optimized for the Wireless Broadband Spectrum



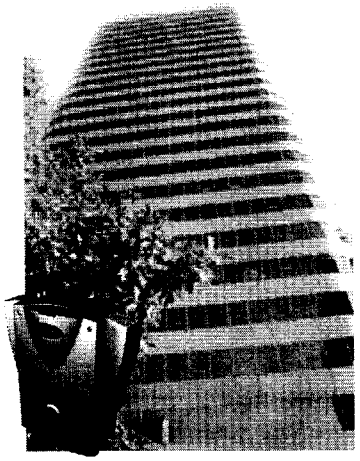
ITFS and MMDS

IPWireless

Deployment Methods

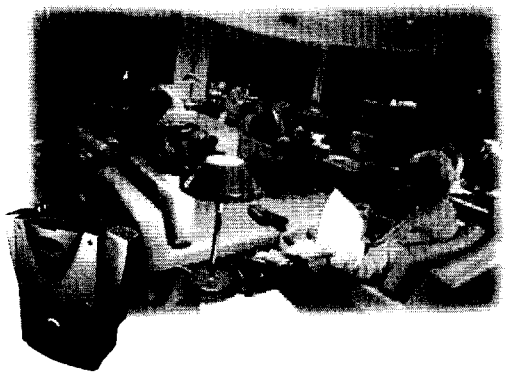


Macrocell Omni
- 3 sector
- 6 Sector



Outdoor microcell
- Omni
- Directional Panel

Airport Terminal



Indoor microcell
- Omni
- Directional Panel

IPWireless

Standards Based

- Access Network
  - UMTS UTRA TDD Release 99 compliant
    - W-CDMA standards-compliant air interface
    - Time Division Duplex (TDD) mode
    - Standard interfaces
- UMTS Core Network
  - GPRS SGSN functionality
    - UMTS / IP Interface
    - Session Management
  - RADIUS Home Location Register (HLR) replaces GSM HLR
  - Layer 2 tunneling to ISP / VPN, per subscriber

IPWireless

Air Interface

- W-CDMA, 3.84 / 7.68 Megachip/sec
- Spreading factor - SF 1 thru 16
- Implemented for high data rates in multipath environment (UMTS 30-03 “channel B”)
  - Multicode
  - Joint Detection
  - Channel estimation and dynamic rate adaption

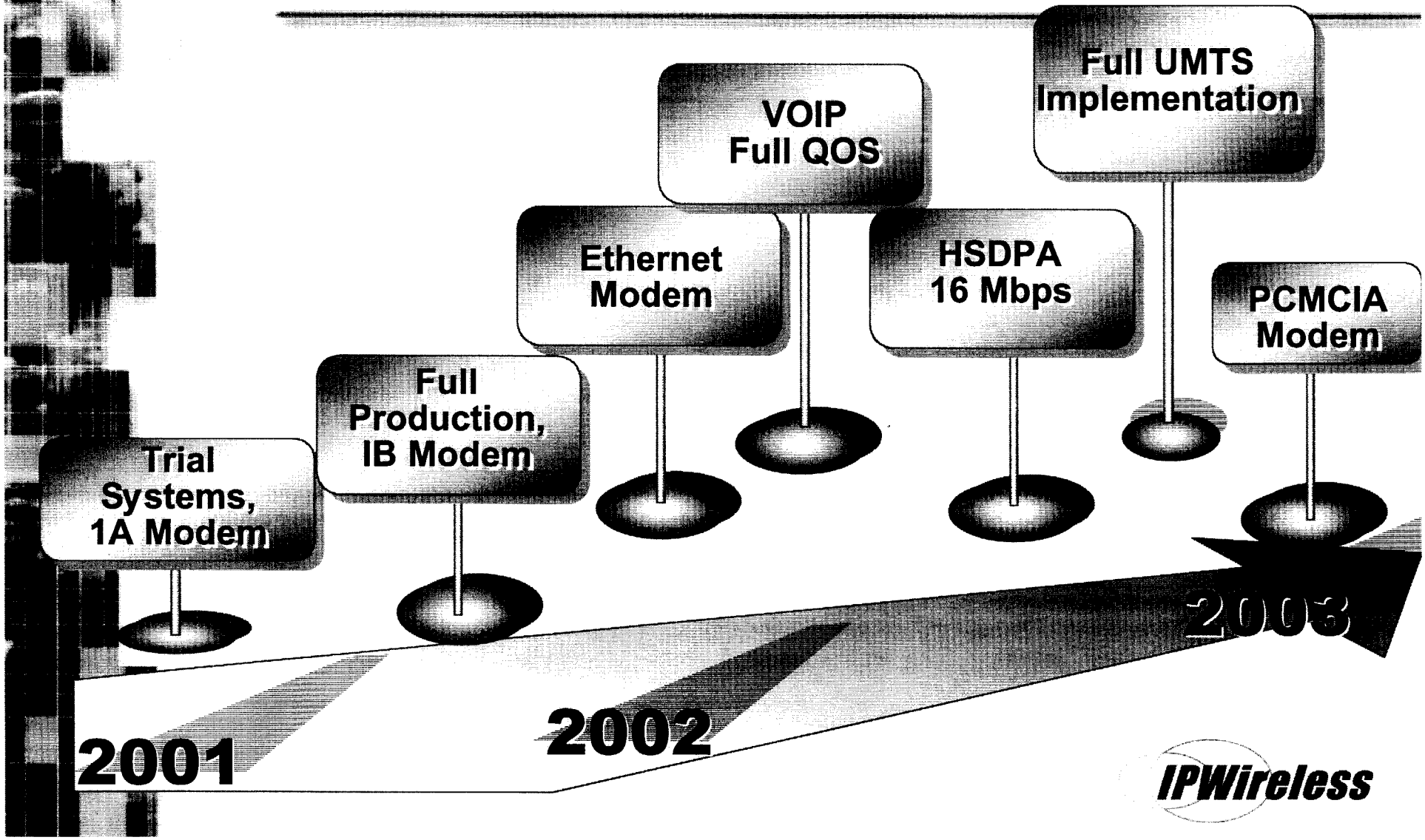
- Large cell (relatively for such high data rates)
  - > 150dB of system Gain

IPWireless

Development Roadmap / Status

IPWireless

Product Evolution



IPWireless