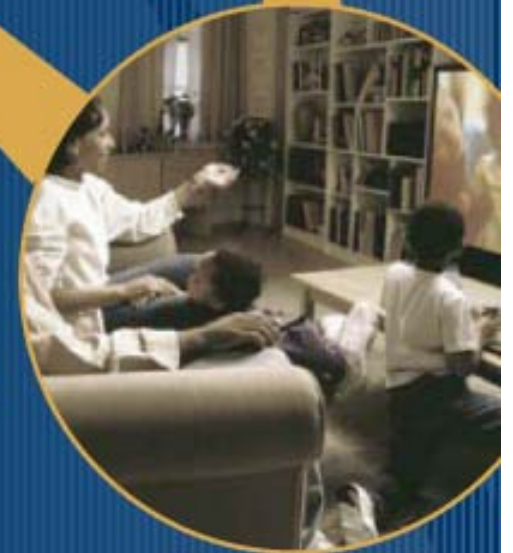




WIRELESS WITHOUT LIMITS



## MIMO Enables Wireless for Media Servers

Beau Beck | VP of Business Development | Airgo Networks, Inc



# **“Blueprint” for a Successful Media Server**

## **To fully realize the media server, content must be distributed**

- ▶ Not just locally but throughout the house
- ▶ Duplication of systems is costly and inefficient
- ▶ Ethernet cabling is not common and expensive to retrofit
- ▶ New wiring schemes are unproven in the real world and lack mobility

## **Wireless is the most flexible option for content distribution**

- ▶ Yet wireless as it has existed can be unreliable
  - slow speeds, limited range, spotty coverage

## **A successful wireless media server requires:**

- ▶ Wireless that “always works” so consumers can “forget about it”
- ▶ Versatility with price performance points that allow it to connect to devices to move multiple HDTV streams while at the same time connecting to devices to handle VOIP or PDA type data traffic in an economically feasible manner
- ▶ Devices built on broad standards with a mature and competitive infrastructure of suppliers
- ▶ Devices that leverage consumers existing base of network capable equipment

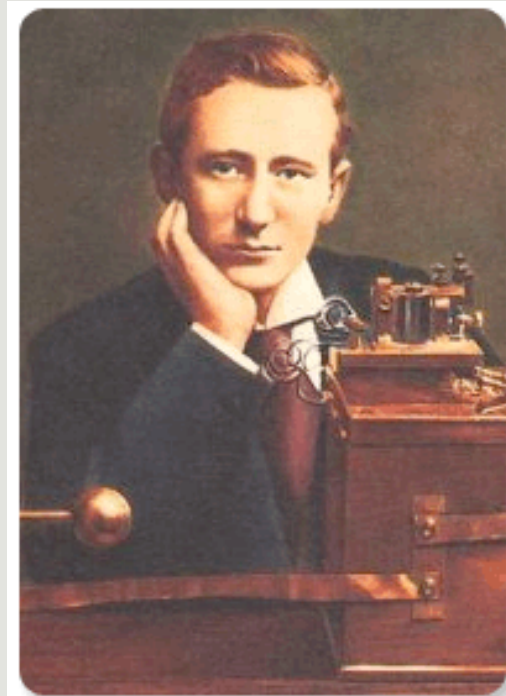
# From Marconi to MIMO

## A new concept completely reverses 100 years of thinking

- ▶ In 1896 Guglielmo Marconi transmits a radio signal from behind a hill
- ▶ For the next 100 years experts view multi-path, reflections of a radio signal, as a severe hindrance in wireless communications

## Introducing MIMO

- ▶ The technology behind the revolution
- ▶ Takes advantage of multi-path
- ▶ Employing multiple antennas and sophisticated algorithms to transmit and receive separate and unique radio signals over the same frequency channel multiplying the capacity and reliability

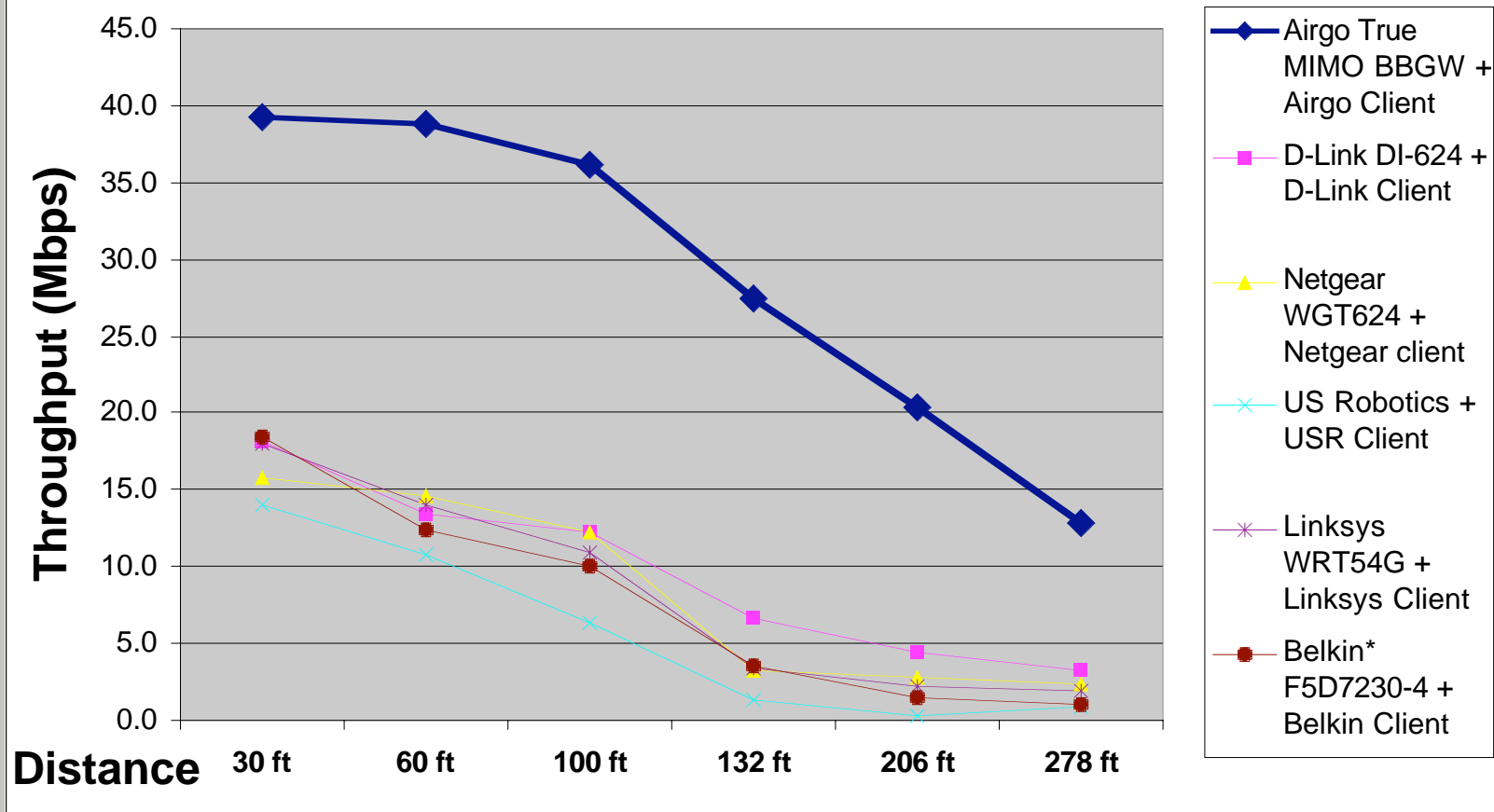




# Independent Test House Performance Results

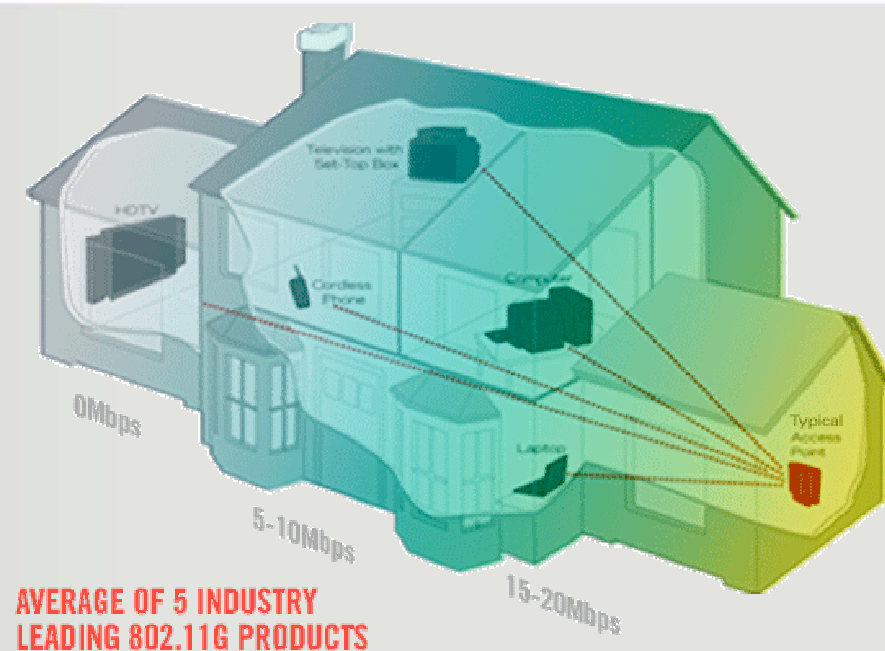
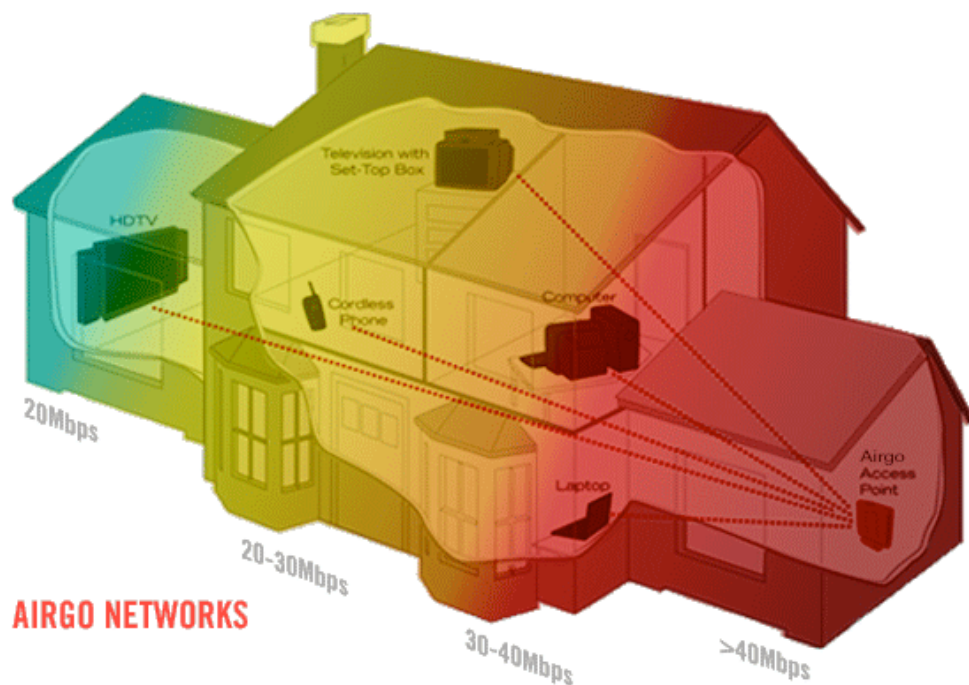


## Downstream Throughput (90% certainty)



Testing conducted over 4 test-points for a given distance, using turntable testing using I-Perf tool, recording the 90% certain point for each test-location, averaged over the four testpoints with the same distance from the AP

# Reliable Coverage **Test Summary**





# High Speed Wireless That Really Works Today



***“... best range and the fastest throughput we've seen to date... also less susceptible to interference, and it creates less interference for neighboring networks...” –Allen Fear***



***“...deliver--dramatically faster speeds and much better range than their fastest 802.11g predecessors...clearly benefit users who want to move large files, stream video, or extend the range of their home or small-office Wi-Fi network.” –Yardena Arar***



***“We are impressed with the speed and range benefits of MIMO technology.”  
–Craig Ellison***



# High Speed Wireless That Really Works Today



**“I was able to surf the Web from a laptop across the street and slightly down the block from my San Francisco home, despite a number of competing Wi-Fi networks that could have caused interference.”**



*—Cliff Edwards*

**“The result: clear, unbroken wireless Internet access over a large area, and fast as all get-out.”**



*—Mark Hazlin*

**“In short, the [MIMO] gear worked, far better than my expectations of any Wi-Fi gear thus far.”**



*—Chris Chiarella*

# What MIMO Means For Wireless

## **Multiplies coverage area**

- ▶ Extends reach
- ▶ Whole home coverage



**Coverage**

## **Multiplies data speed**

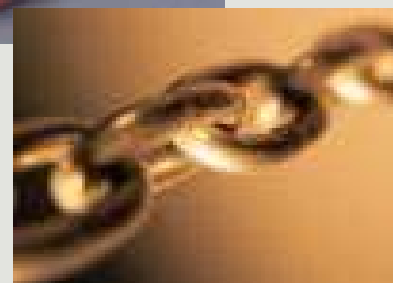
- ▶ Extends applications
- ▶ High quality multimedia streaming



**Speed**

## **Multiplies reliability**

- ▶ Eliminates hassles
- ▶ Wireless you can trust
- ▶ No more cables;



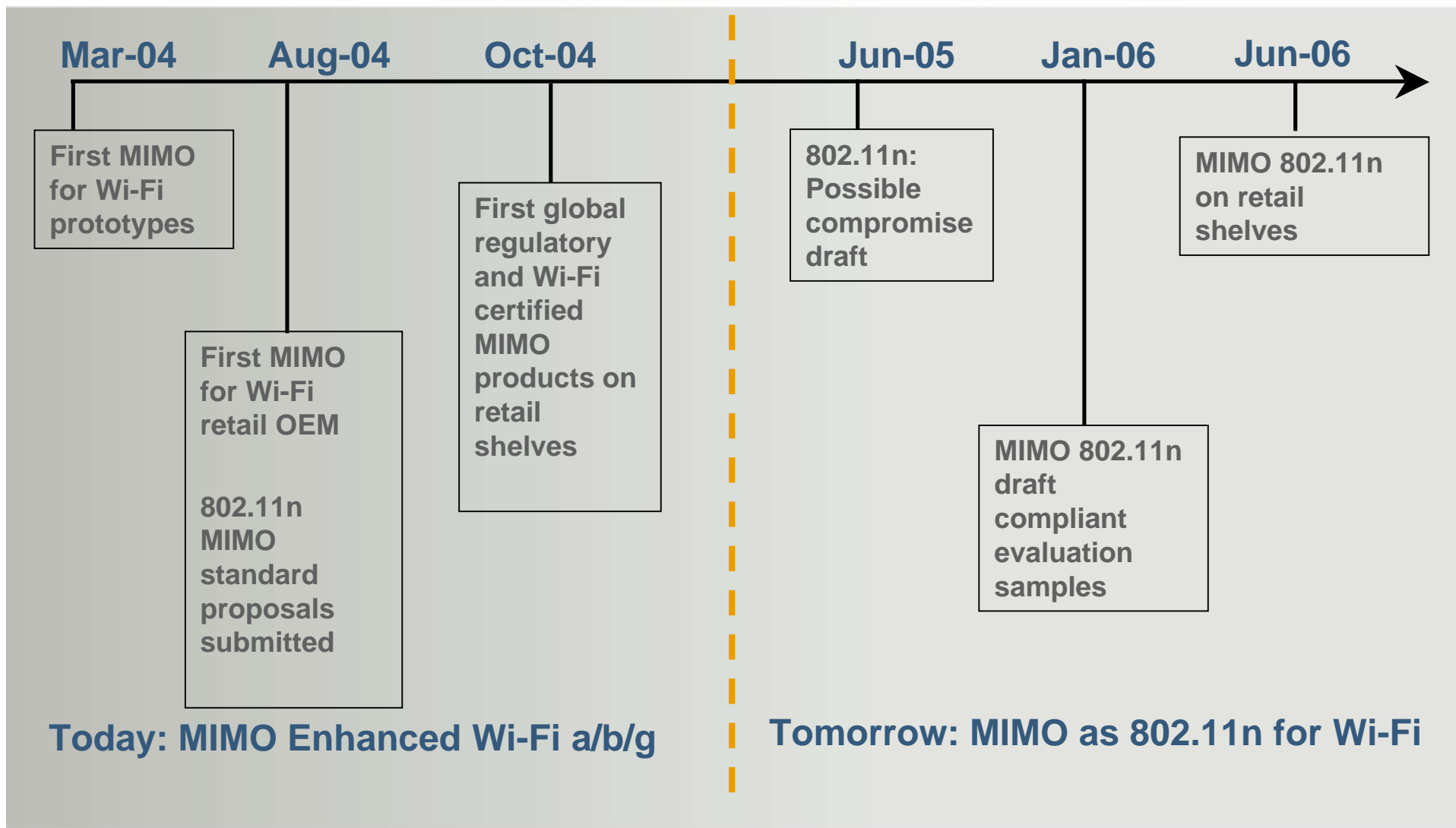
**Reliability**

**This new wireless performance frontier allows consumers to do more with their wireless over longer distances delivering more value and simplicity in their media server products**





# Technology Timeline





# A Brighter **Wireless** Future

**In 2004 MIMO chipset technology was inserted into the Wi-Fi consumer market**

- ▶ Over one million chips shipped within 8 weeks of the first retail product availability

**The entire Wi-Fi industry is now converging on a new interoperability standard based on MIMO technology**

- ▶ Main 802.11n proposals are virtually identical with MIMO OFDM as the key ingredient
- ▶ .11abg compatible MIMO technology will be the new mainstream by late 2005

# A Brighter **Wireless** Future

**This event has forever changed for the better what people will do with wireless networking**

- ▶ There will be no practical need for a non-wireless networking backbone in the home
- ▶ Niche based solutions will have a very hard time competing against the economies and installed base of Wi-Fi based products as they step up to these new levels of performance.

**MIMO removes the limits and frustrations of wireless, freeing people to work and play when, where and how they choose.**





Thank You



WIRELESS WITHOUT LIMITS

