

# Municipal Networks

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# Executive Summary

**EarthLink is the leader in this fast growing market**

**Most feasible “last mile” technology**

**Product is in demand**

**Competition is fragmented**

**Technology is stable and reliable for consumer use**

**Partnering for success**

**Positioned for growth**

# Muni Wi-Fi Demand Drives Market

## Overlooked – Under invested communities

- **Scottsburg, IN – April 2004**
- **Chaska, MN – October 2004**
- **250-300 small towns do it themselves**
- **Philadelphia Issues RFP – April 2005**

# Why Wi-Fi?

**Wi-Fi devices have proliferated the market**

**Metro-Mesh Wi-Fi technology has rapidly advanced**

**Wi-Fi technology WORKS today!!!**

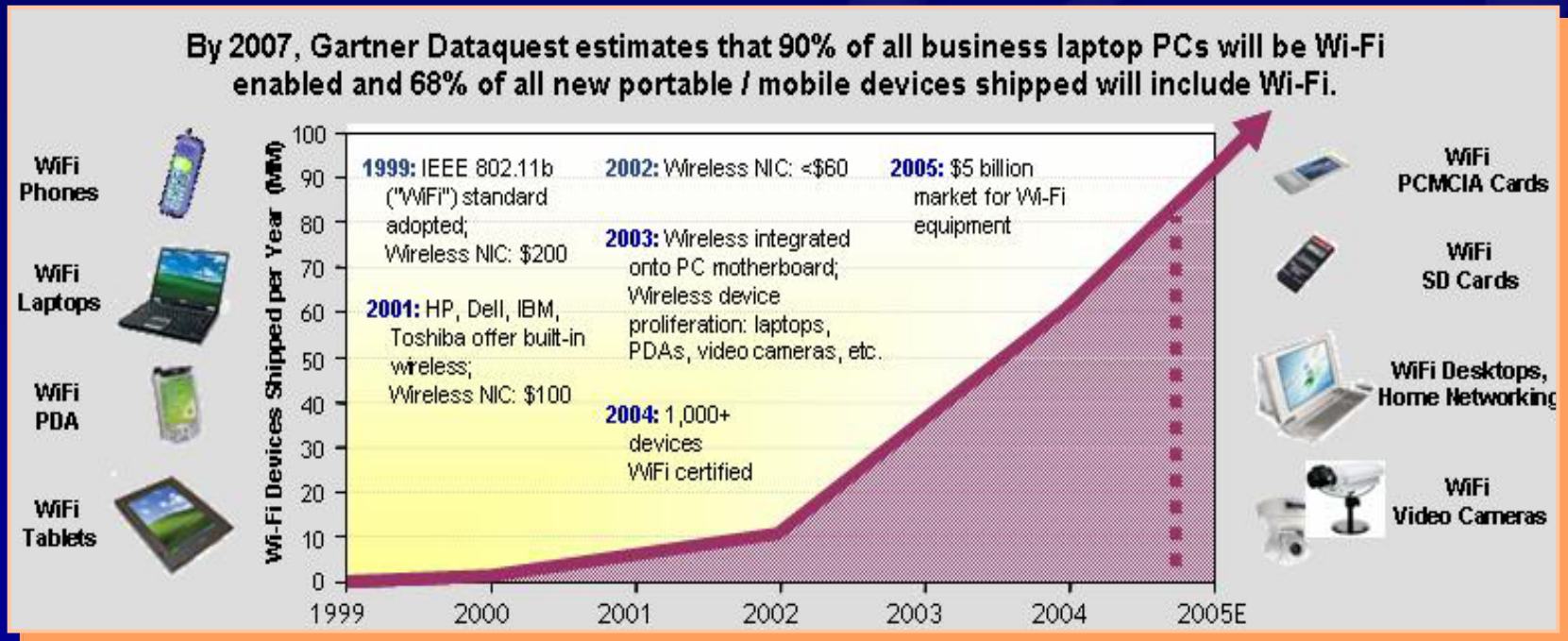
# Why Wi-Fi?

Customers can use a broad range of Wi-Fi products (IEEE 802.11 standards based)

Collective R&D knowledge from the global Wi-Fi alliance

Wi-Fi offers high-speed, secure connections

Ability to upgrade and enhance network functionality



# Why Wi-Fi Mesh?

**Underlying infrastructure for rapidly developing applications that don't exist today**

**Changes the way business, government and consumers do business....**

**Disruptive technology**

# Why Muni Wi-Fi?

**Cities want choices for citizens beyond the cable and phone companies**

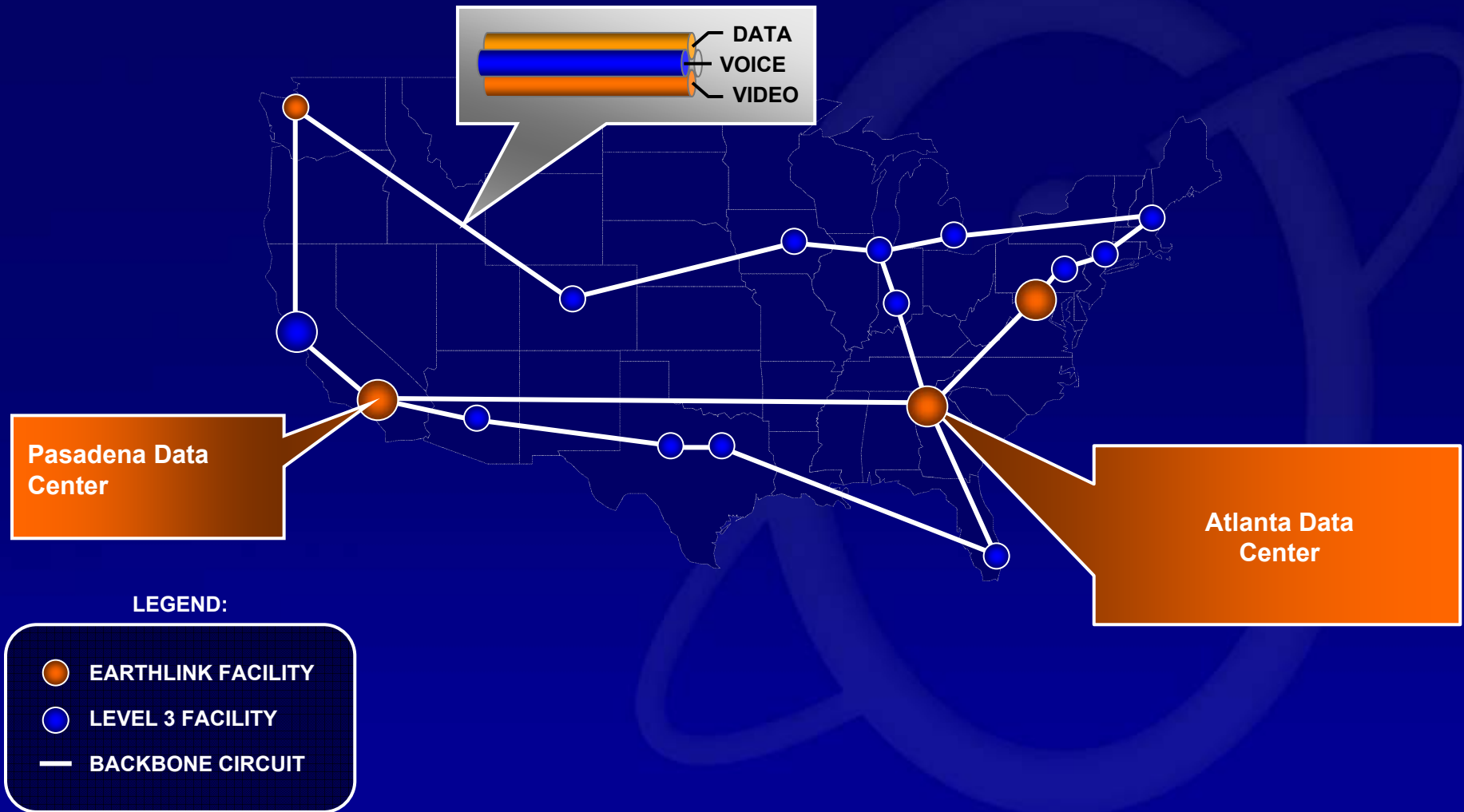
**The technology is proven and is now cost-effective to deploy**

**Technology is becoming increasingly mobile**

**For municipal workers, Wi-Fi solutions enable them to be more effective and efficient, reducing the cost of government services**

**Cities have the vision but need a partner that can execute**

# EarthLink Network – Backbone / Advance Services

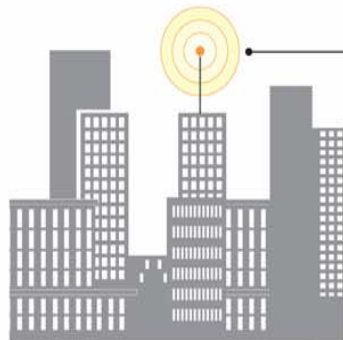


# Wifi Network

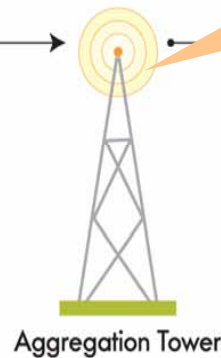
## Municipal Mesh Wi-Fi Network Solution

Data traffic is distributed from tower to Tropos Mesh Wi-Fi Nodes through Motorola Canopy radios

Tropos Mesh Wi-Fi Nodes are placed on City light poles to broadcast signal to end users



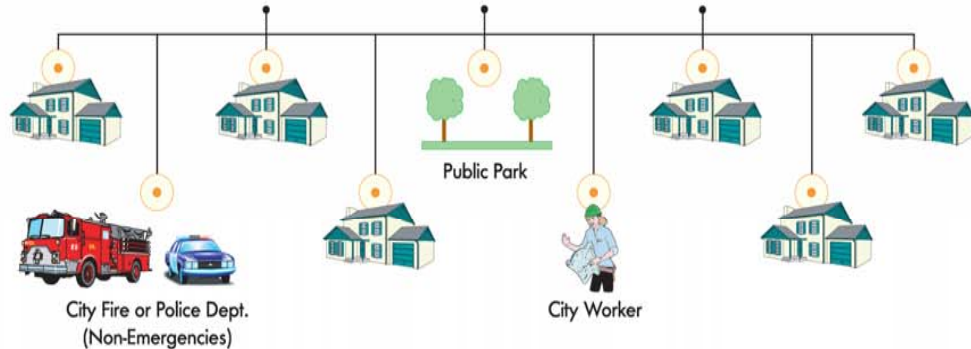
Local EarthLink Backbone Site



Aggregation Tower



WiFi Radios



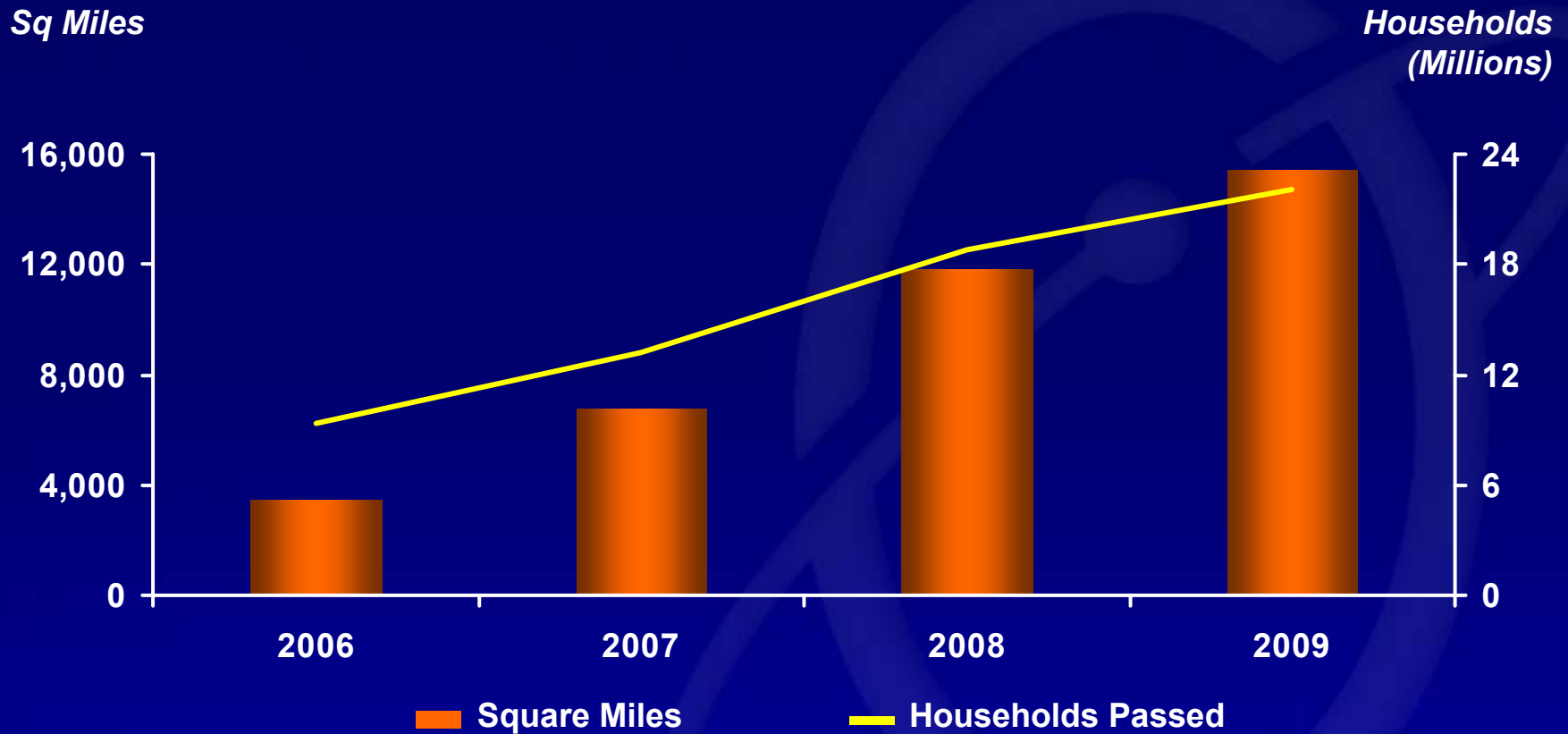
End users access the wireless network through industry-standard Wi-Fi equipment (802.11 b/g)

# Total Muni Wi-Fi Opportunity

**EarthLink Wins**  
700k Households Passed  
185 Square Miles



# Muni Wi-Fi Opportunity



Poised for continued growth

# Fragmented Competition

Municipality	Bid Competitors	Market Competitors
Philadelphia	HP, AT&T, Clearwire, MCI	Comcast, Verizon, Verizon Wireless
Minneapolis	Echostar, Sprint, Qwest, US Internet	Time Warner Cable, Qwest, Verizon Wireless
Anaheim	None, EarthLink only bidder after RFI process	Adelphia, SBC
Long Beach	Unknown	Charter, Verizon
San Francisco	Cisco, IBM & SeaKay, Razortooth Comm., Comm. Bridge Global, NextWLAN & MetroFi (6 Total respondents)	Comcast, SBC, Verizon Wireless

# Municipal Product Roadmap

## Phase 1

### Retail

- EarthLink 1 Mbps Wi-Fi
- DigiBridge

### Wholesale

- Monthly 1 Mbps for Commercial, Institutional Service Providers
- Municipal Field and Safety
- Inbound Roaming

### Transactional

- Occasional Use – 1 hour, 24 hour, 3 day
- Parks and Public Spaces

## Phase 2

EarthLink Wi-Fi with National Roaming  
EarthLink “Limited” Wi-Fi  
PC / TV2 bundle

T-1 Alternative for Municipal Government  
T-1 Alternative for Commercial ISPs

Prepaid Variations on Occasional Use

## Phase 3

Wi-Fi Phone  
T-1 Alternative for Small Business  
T-1 Alternative for Residential Consumer

Bulk Wi-Fi Access  
QoS and Speed Tiers

Local Search, Content and Utilities

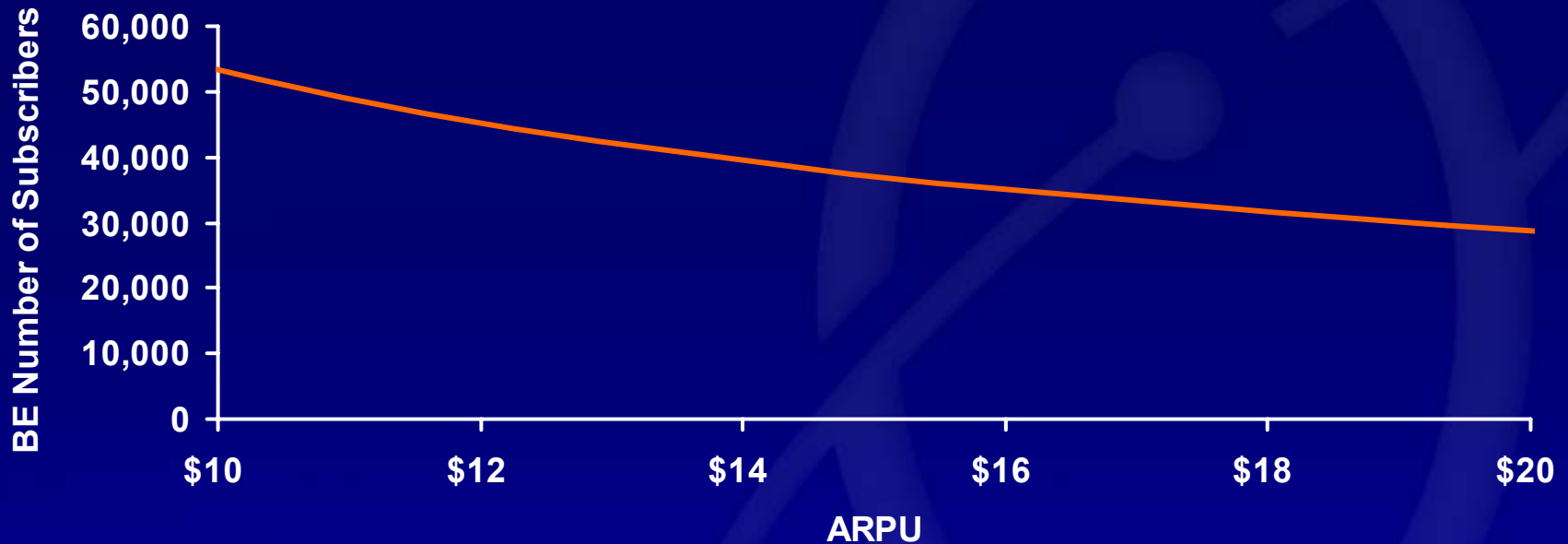
# Profitable Subscribers in a Mature Market

	Retail	Wholesale
Revenue	\$20.00	\$10.00
Communications	4.25	4.25
Gross Margin	\$15.75	\$5.75
Percentage	79%	58%
Operating Expense	4.00	1.75
Operating Contribution	\$11.75	\$4.00

Strong customer life time value (LTV) with low fixed costs

# Attractive Subscriber Levels

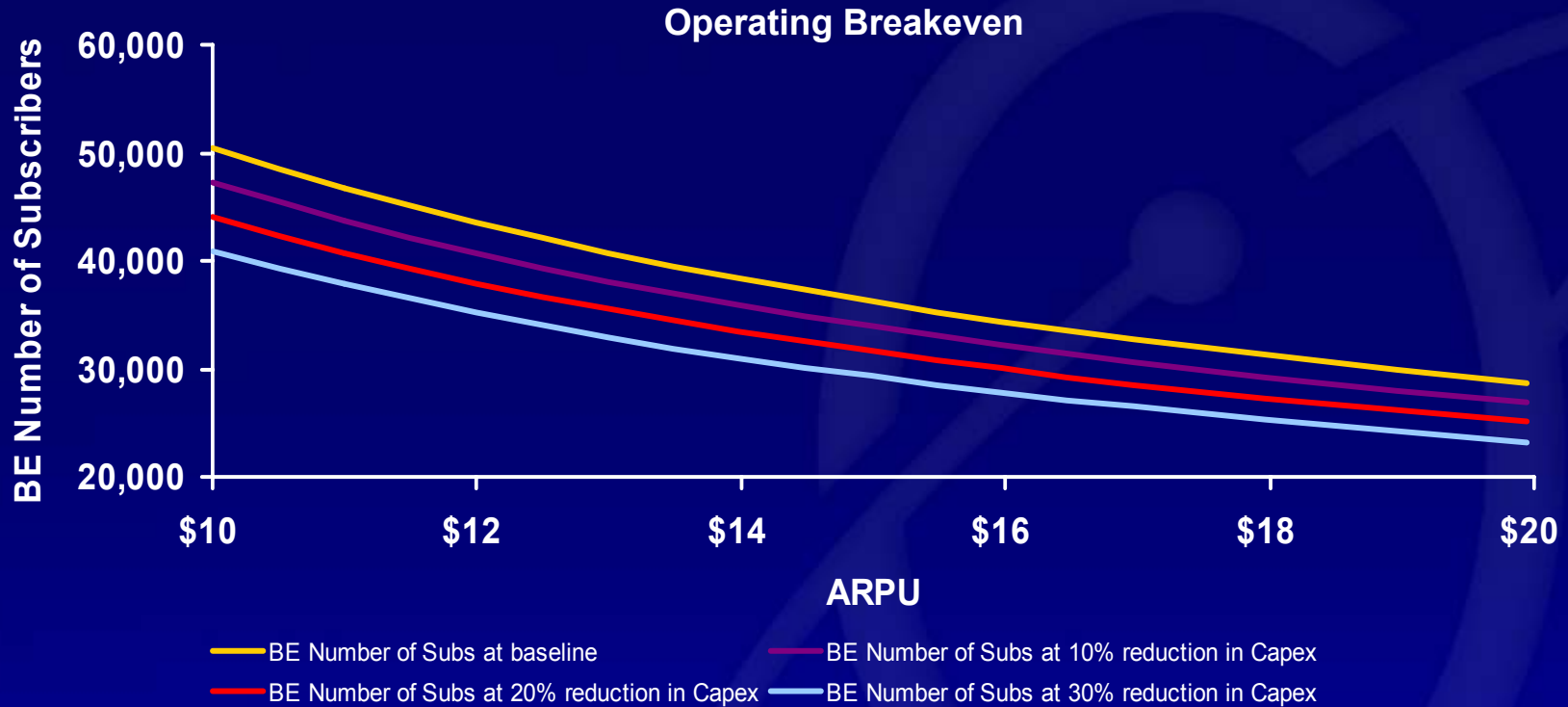
## Operating Breakeven



Based on 100 sq miles with 200k households

Targeting operating breakeven within 1 – 2 years

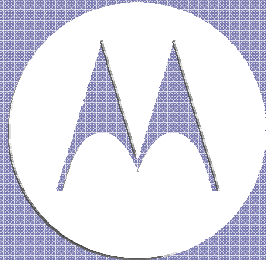
# Improvements in Cap Ex



Based on 100 sq miles with 200k households

Could reach breakeven faster

# Partnering for Success



**MOTOROLA**

**TROPOS**  
networks

Google™

# Google Partnership

**Agreement is to test different business models in two markets**

- San Francisco (low speed free & high-speed pay tier)

**An additional market (local garden & high-speed pay tier)**

## **EarthLink**

- Design, build, maintain and own the network
- Sell a premium service at higher speeds
- Offer an “open access” model for other ISPs to sell premium products

## **Google**

- Provide the “Free, low speed” and local garden content that will be supported by search and advertising revenue
- Contribute to the capital investment, on-going operational costs
- Share the ad revenue with EarthLink

# Network Alliance Vision

## Leverage Existing EarthLink Network Development

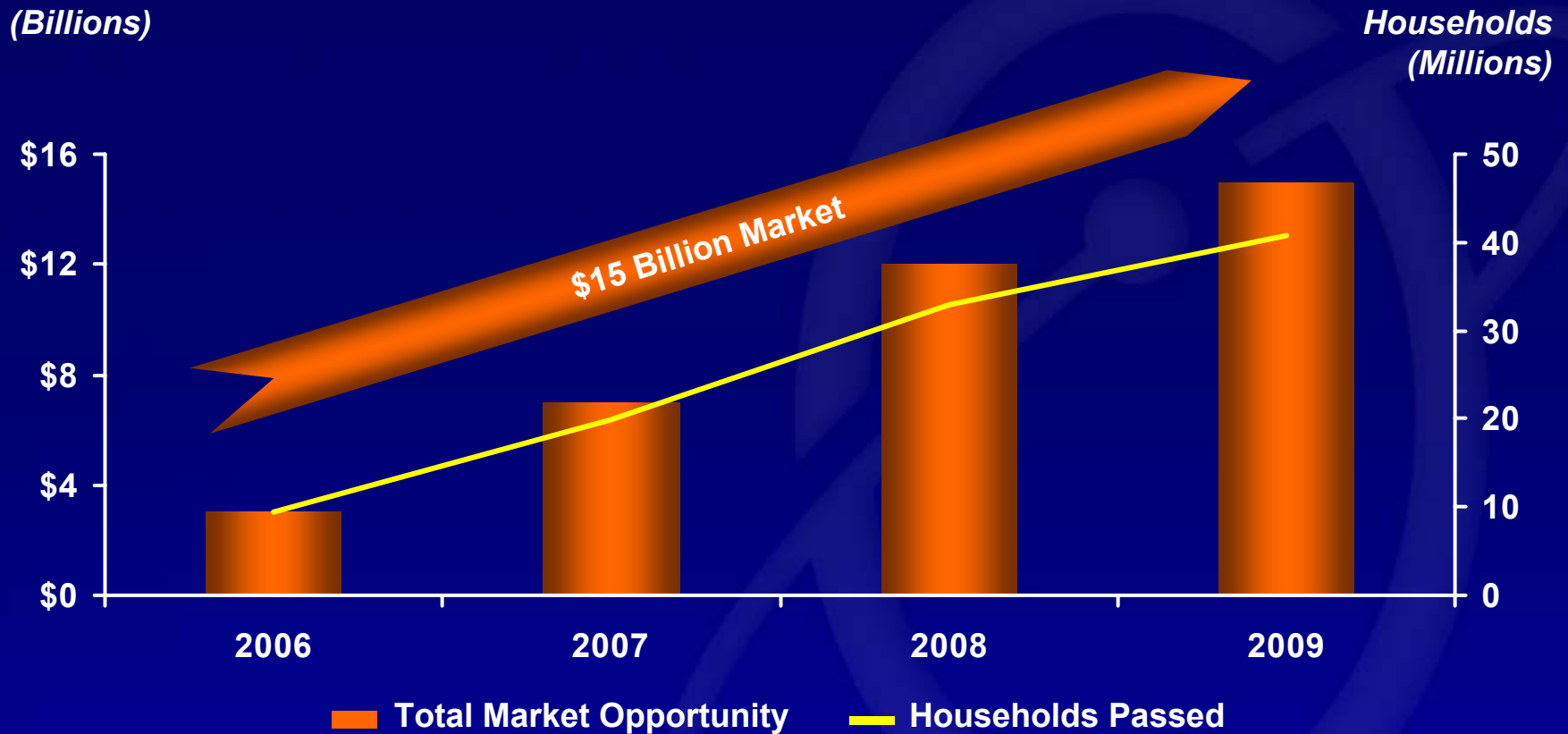
- Network architecture and deployment experience
- Volume pricing for equipment and services
- Existing EarthLink products and support infrastructure
- Seamless roaming & EarthLink customer experience

## Faster Deployment with Less Risk

- Use partners to expand footprint to additional cities more rapidly
- Take advantage of partners' local sales capabilities

**Provides incremental revenue opportunities  
to EarthLink model**

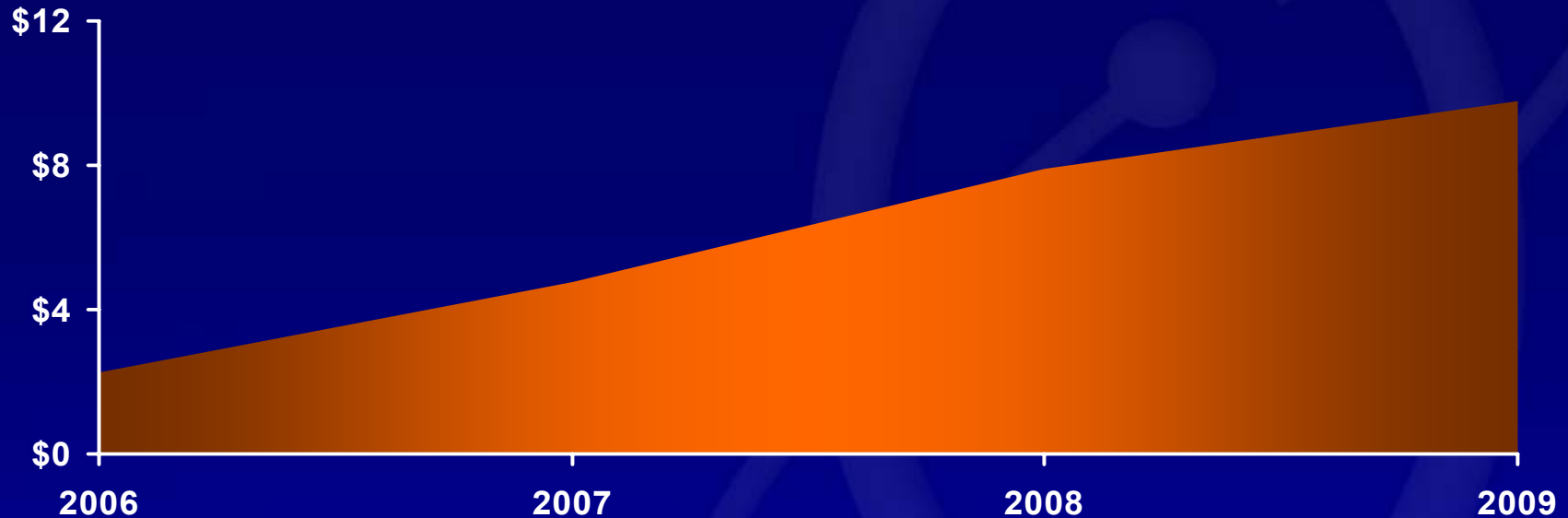
# Muni Wi-Fi Market Opportunity



Poised for continued growth

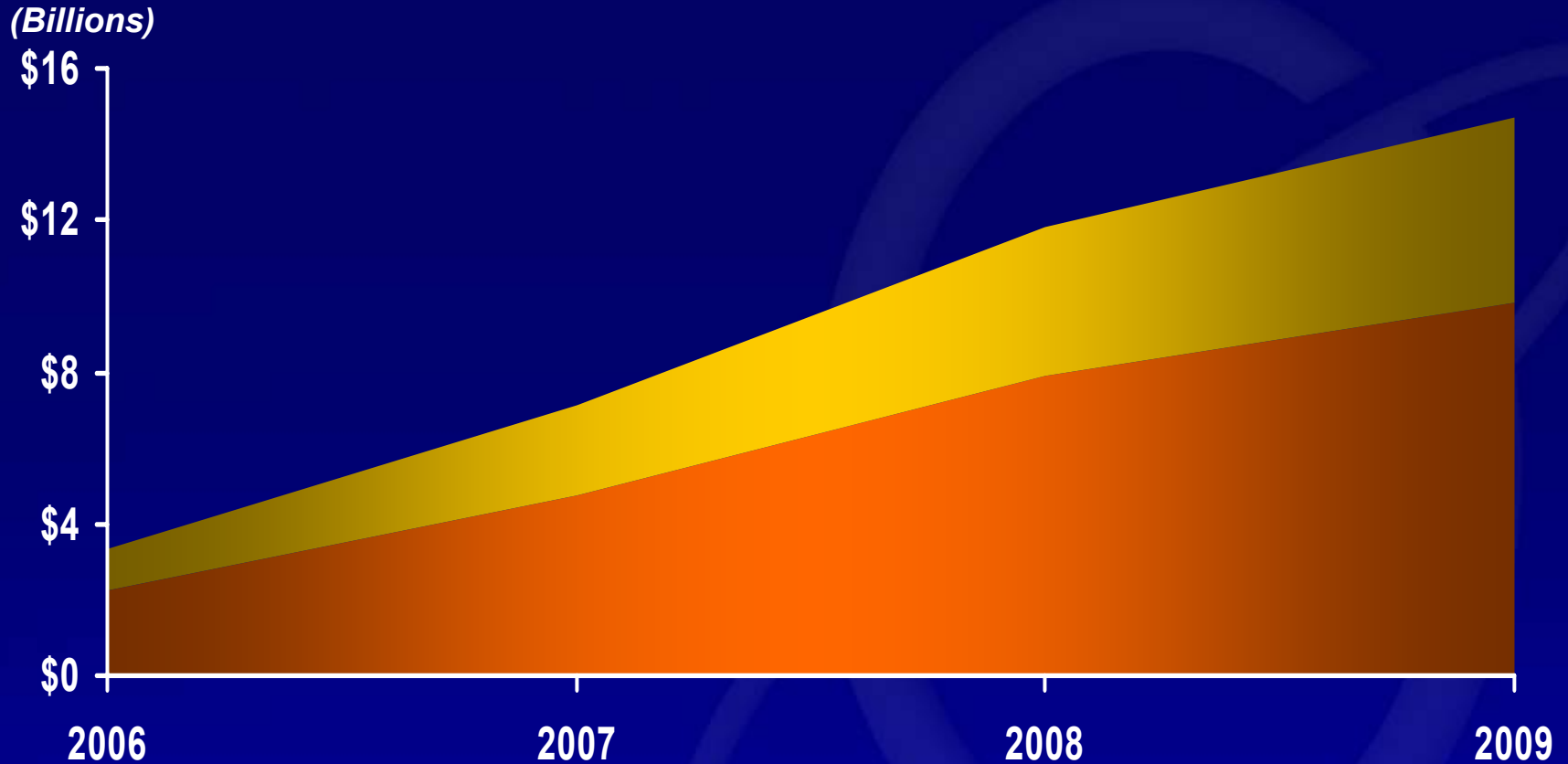
# Possible Wi-Fi Access Opportunity

(Billions)



...about 35% market penetration – a significant market potential

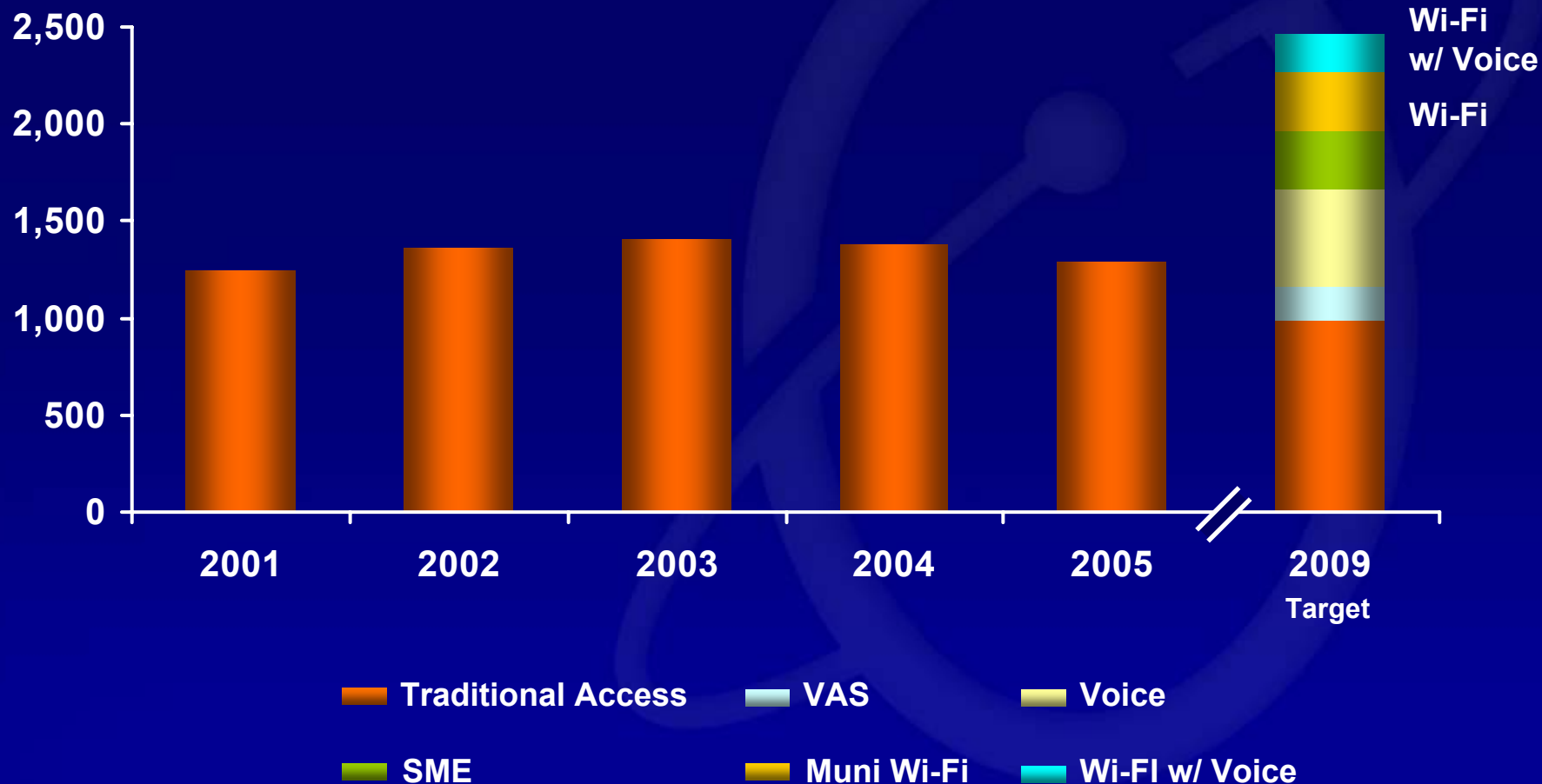
# Possible Wi-Fi Access & Voice Opportunity



...but adding Wi-Fi voice to network access makes it even more attractive

# Transforming to Revenue Growth

(in millions)



# Key Takeaways

**Significant market opportunity with fragmented competition**

**Efficient capital deployment**

**Attractive customer economics**

**Muni Wi-Fi Voice opportunity**

**Wi-Fi networks lay the foundation to deliver novel applications (that drive high value to network stakeholders)**

**EarthLink leads this market and is uniquely positioned to capitalize on the opportunity**