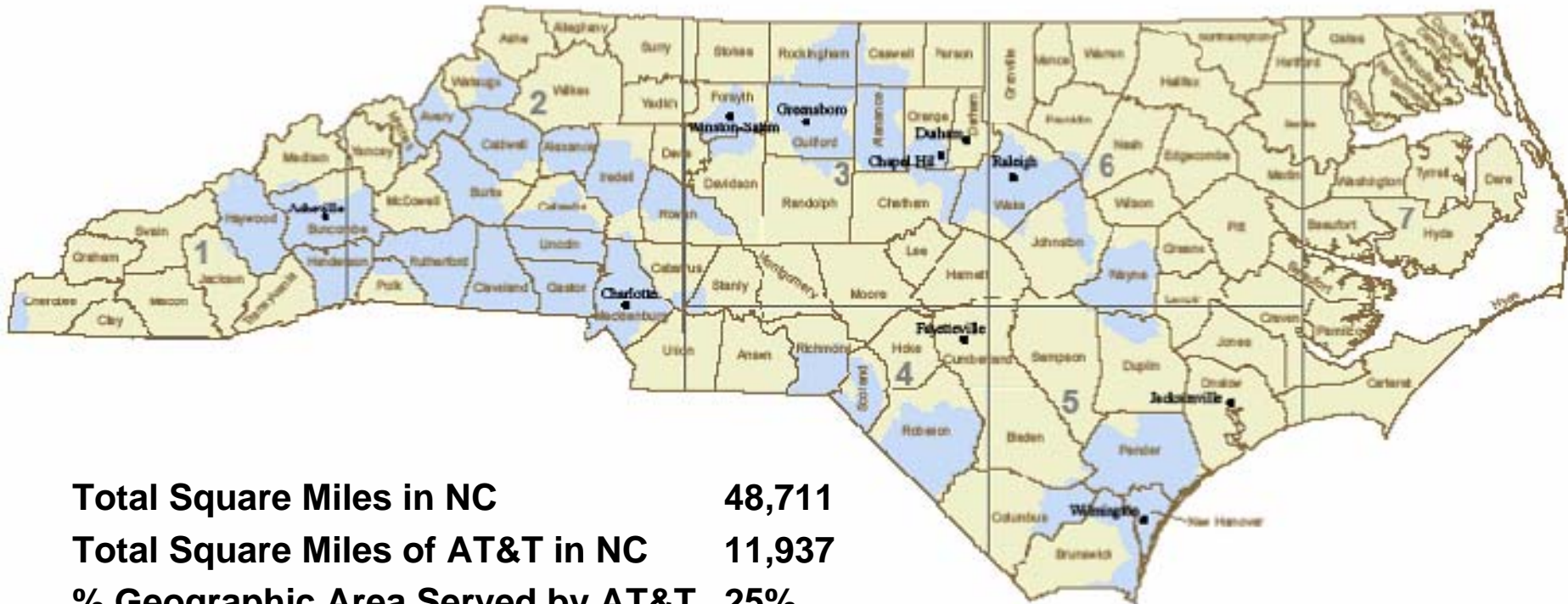


# AT&T Rural Broadband Coverage in North Carolina

AT&T Services, Inc.  
April 07, 2008



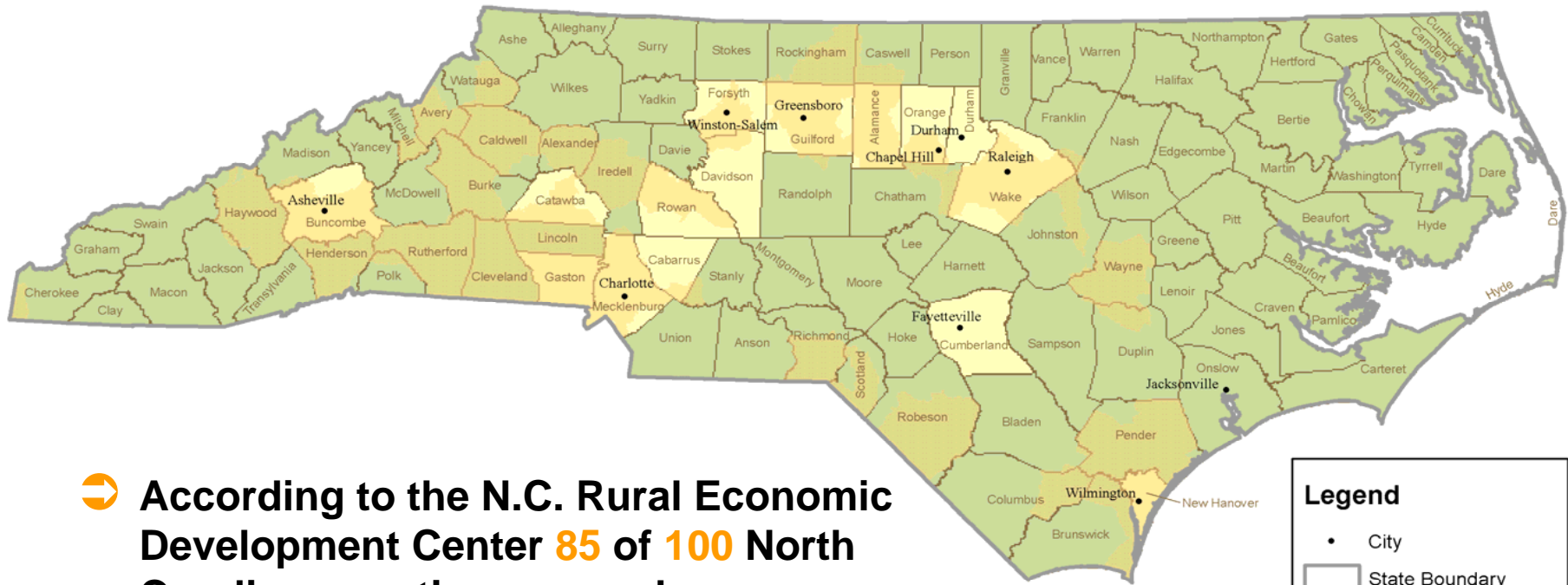
# AT&T's Service Territory



## Legend

- City
- County Boundary
- Map Grid
- AT&T Service Area
- Non-AT&T Service Area

# AT&T Serves 21% of North Carolina's Rural Geography



- ➔ According to the N.C. Rural Economic Development Center **85** of **100** North Carolina counties are rural.
- ➔ AT&T serves some portion of **47** counties in North Carolina, **34** of which are designated as rural.

## Legend

• City

State Boundary

AT&T Service Area

Urban County

Rural County



0 15 30 60 Miles

Date: 03-26-2008 Project: 08-0237

# North Carolina Broadband Market Overview

- North Carolina ranks 18<sup>th</sup> nationally in the number of residential and business broadband lines deployed
- In online population, North Carolina ranks only 42<sup>nd</sup> nationally – a measure of Internet users as a share of the population<sup>1</sup>
- NC had 2.4M broadband access lines in service as of December 2006
- 84% of residential premises have access to DSL where ILECs offer local telephone service<sup>2</sup>

<sup>1</sup> *The 2007 State New Economy Index: Benchmarking Economic Transformation in the States*, Robert D. Atkinson and Daniel K. Correa, February 2007.

<sup>2</sup> Unless noted, source: 10/2007 FCC report, "High Speed Services for Internet Access." xDSL includes both asymmetric and symmetric DSL. Each state-specific estimate is a weighted average of the availability percentages that ILECs or cable system operators report for the areas they serve. Reported xDSL availability is weighted by ILEC end-user switched access lines. Reported cable modem availability is weighted by cable TV subscribers. The weighted averages include ILECs or cable system operators that report no availability.

# North Carolina Broadband Market Overview

- The broadband market is highly competitive. The October 2007 FCC report shows more than 1,300 entities providing broadband service in the U.S, more than half using technologies other than DSL or cable.
- North Carolina and Florida rank 16<sup>th</sup> nationally in the number of high-speed Internet providers by state.

Providers of High-Speed Lines by Technology as of December 31, 2006 (Over 200 kbps in at least one direction)										
State	ADSL	SDSL	Traditional Wireline	Cable Modem	Fiber	Satellite	Fixed Wireless	Mobile Wireless	Power Line and Other	Total
North Carolina	33	19	17	10	8	*	8	5	0	60

\* Indicates one to three providers. Source: 10/2007 FCC Local Competition and Broadband Report

# North Carolina Broadband Market Overview

➔ North Carolina ranks 11<sup>th</sup> in total active high-speed Internet lines nationally.

Active High-Speed Lines by Technology as of December 31, 2006										
(Over 200 kbps in at least one direction)										
State	ADSL	SDSL	Traditional Wireline	Cable Modem	Fiber	Satellite	Fixed Wireless	Mobile Wireless	Power Line and Other	Total
North Carolina	648,001	23,883	17,903	1,040,513	8,656	*	18,506	*	0	2,366,079

\*Data withheld to maintain firm confidentiality. Source: 10/2007 FCC Local Competition and Broadband Report

➔ NC has seen a tremendous increase in the number of high-speed lines.

High-Speed Line Growth December 1999 - 2006										
(Over 200 kbps in at least one direction)										
State	1999 Dec	2000 Dec	2001 Dec	2002 Dec	2003 Dec	2004 Dec	2005		2006	
							Jun	Dec	Jun	Dec
North Carolina	57,881	136,703	357,380	593,609	841,572	1,119,805	1,222,648	1,482,930	1,601,938	2,366,079

Some historical data have been revised. Source: 10/2007 FCC Local Competition and Broadband Report

High-Speed Lines by Type of End-User as of December 31, 2006			
(Over 200 kbps in at least one direction)			
State	Residential	Business	Total
North Carolina	1,659,657	706,422	2,366,079

Source: 10/2007 FCC Local Competition and Broadband Report

# AT&T North Carolina DSL Coverage

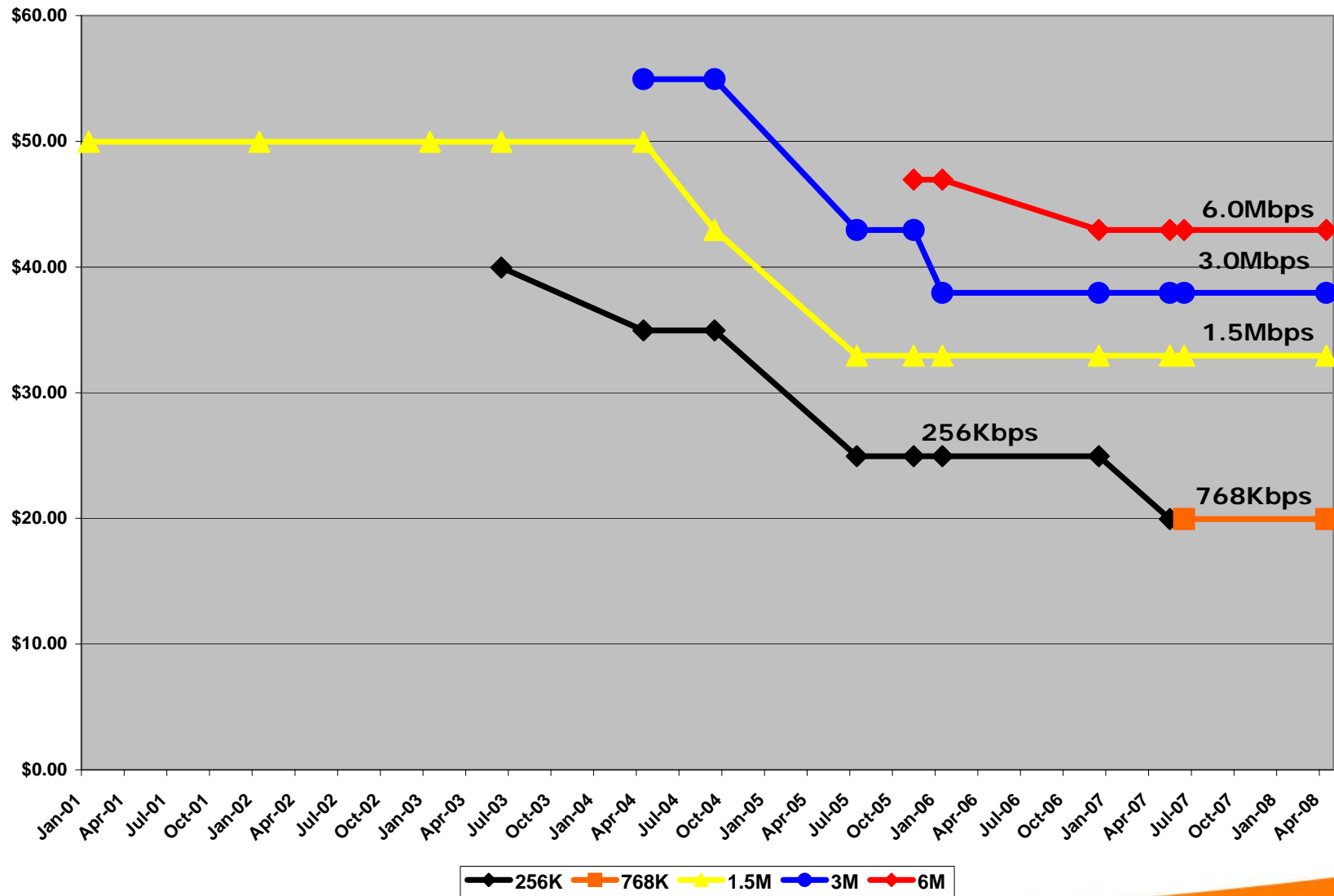
## **Total DSL coverage - NC**

- ➔ 91% of all living units served by AT&T in NC are wireline DSL capable
- ➔ Alternative technologies are available including, but not limited to, satellite and Wi-max fixed wireless, to serve remaining living units, resulting in 100% broadband availability
- ➔ 16% overall penetration of AT&T Wireline DSL in NC

## **Rural DSL coverage - NC**

- ➔ 87% of all rural living units served by AT&T in NC are wireline DSL capable
- ➔ Alternative technologies are available including, but not limited to, satellite and Wi-max fixed wireless, to serve remaining living units, resulting in 100% broadband availability
- ➔ 14% penetration of AT&T Wireline DSL in Rural Counties of NC

# Broadband competition in North Carolina has resulted in lower prices and increased speeds for AT&T consumers!





# AT&T Wireless and Satellite Solutions

- In May 2007, AT&T announced the expansion of AT&T Yahoo! Broadband via satellite (provided by WildBlue and Hughes Communications) across its 22-state wireline footprint, focusing on areas that otherwise have little or no access to a broadband connection – especially rural areas.
- WildBlue estimates that 10-15 million households do not have access to other forms of high-speed Internet providers.

Product	Speed Down/Up	Install/Equipment Fee	Monthly Fee
WildBlue Value	Up to 512K/ up to 128K	\$299.99	\$54.95
WildBlue Select	Up to 1M/ up to 200K	\$299.99	\$69.95
WildBlue Pro	Up to 1.5M/ up to 256K	\$299.99	\$79.95
Hughes Home	Up to 700K/ up to 128K	\$399.98/\$0*	\$59.99/\$79.99
Hughes Professional	Up to 1M/ up to 200K	\$399.99/\$0	\$69.99/\$89.99
Hughes ProPlus	Up to 1.5M/ up to 200K	\$399.99/\$0	\$79.99/\$99.99
Hughes Business Internet	Up to 2M/ up to 500K	\$699.98/\$299.99	\$179.99/\$199.99

Hughes allows customers to pay for equipment up-front and get a lower monthly rate, or avoid the up-front fees and pay a higher monthly rate.

# How is AT&T Working to Stimulate Rural Broadband Access and Adoption?

**Through its partnerships, broadband deployment proposals, philanthropy and capital investments, AT&T is committed to delivering the benefits of high-speed Internet access to rural America.**

- ➔ Partnerships with the e-NC Authority and Connected Nation
- ➔ Federal funding for broadband deployment to unserved areas
- ➔ AT&T Foundation Programs
- ➔ Capital investments to support the scope and capability of AT&T's wireless network
- ➔ Capital investments to create and deliver next-generation services

# AT&T State and National Partnerships

## e-NC Authority

The e-NC Authority has been the catalyst for significant gains in broadband availability in North Carolina's rural areas since 2000.

- Offers "technology neutral" grants to incent providers to deploy broadband in rural areas
- Developed 7 self-sustaining Business and Technology Telecenters in rural counties to create jobs, provide free high-speed Internet access, and training
- Created public Internet access locations in all 100 NC counties to provide free access to high speed Internet connections
- Identified "e-champions" in each county to encourage Internet adoption
- Provides mapping and reporting of broadband deployment by county in North Carolina

## Connected Nation

National non-profit organization, which facilitates market-based strategies for broadband expansion and adoption.

- Collaborates with all broadband providers to produce statewide household-level mapping of broadband gaps
- Simultaneous supply enhancement and demand creation
  - Community driven technology planning to create demand
  - Which in turn drives investment to extend supply
- Began with Connect Kentucky
  - From 60% broadband availability to 95% in 3 years
  - From 24% broadband adoption to 44% adoption in 2 years

# AT&T's federal funding proposal for broadband deployment in unserved areas

- ➔ AT&T will propose new federal mechanisms to promote the deployment of fixed-location and mobile wireless broadband infrastructures in unserved areas.
- ➔ We believe that providers should file applications, effectively competing to obtain project-based funding for the deployment of fixed-location broadband and mobile wireless broadband services, respectively, in unserved areas.
- ➔ The challenge is how to transition the existing high-cost support mechanisms into incentives for broadband deployment. We plan to unveil our proposed transitional framework in the coming days.

# AT&T Foundation Programs

- AT&T's collaboration with One Economy, Habitat for Humanity and other low-income housing providers delivers technology packages, including Internet access to low-income families and unserved areas.
- Since 2002, the AT&T technology grant program has provided more than 2,500 technology grants to get more people connected nationwide.
- AT&T provided over \$340,000 in grants to NC organizations in 2007, for example:
  - Lutheran Retirement Center, Salisbury
    - Support collaborative effort to provide seniors training on basic computer and Internet use
  - Cleveland Community College Foundation, Shelby
    - Support wireless technology for Early College initiative to enhance education for low income students
  - NC A&T State University, Greensboro
    - Support development of wireless sensor networks course to teach engineering students how to use wireless technology to sense and respond to environmental events

# AT&T Network Investments

## North Carolina Network Investments

- AT&T is investing approximately \$350M in fiber network upgrades, further broadband deployment and Internet-based technologies to bring new services, including cutting-edge television, to North Carolina over the next several years.
- AT&T invested almost \$289 million in North Carolina networks for 2006 including:
  - Bringing high speed Internet and fiber-based data services
  - Upgrading and maintaining existing customer lines
  - Enabling competition through a variety of pro-competitive initiatives

## National Network Investments

- AT&T has invested \$18 billion over the last three years to build and support the scope and capability of its wireless network.
- AT&T's 3G and EDGE coverage areas combine to create the nation's most expansive high-speed voice and data network, covering 13,000 cities and towns and 40,000 miles of highway.
- For the period 2004-2008, AT&T is expected to have invested \$6.5-\$7 billion to develop Project Lightspeed – an IP network built to deliver next-generation services.

# Broadband is a Powerful Economic Driver

- Increased broadband adoption adds revenue to the economy and brings jobs to local communities.
- A February 2008 report from Connected Nation on "*The Economic Impact of Stimulating Broadband Nationally*" estimates that the U.S. could realize an economic impact of **\$134 billion** annually and create more than **1.6 million jobs** by accelerating broadband availability and use across all states.
  - ➔ Estimated economic impact in North Carolina is **\$3.6 billion**.
  - ➔ Estimated annual net job growth in North Carolina from the increase in broadband **69,432**.

# Broadband Policy Recommendations

## **Encourage investment in and deployment of next-generation broadband networks**

Incentives include tax breaks and grant programs for broadband providers and other consumers

Federal broadband deployment incentives: FCC proposal to support deployment of broadband, in both fixed location and mobile wireless infrastructure, in unserved rural areas

Apply consistent policies to competing technologies and services

## **Encourage greater adoption of broadband services**

Demand side analysis is key to success

Barriers to adoption include lack of a computer, perceived lack of need, price

Understand community broadband needs

Support adoption of applications to address challenges in healthcare, environment, education and public safety

## **Encourage public/private partnerships to unleash innovative responses to 21<sup>st</sup> century social and technological challenges**