# 2010 AT&T Developer Summit

# **Apps for All**

Building an Application-Centric Network

John Donovan Chief Technology Officer AT&T, inc.

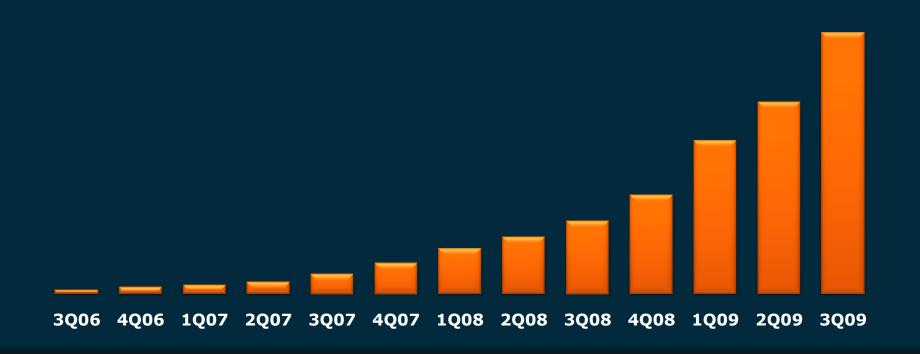


## **The Application-Centric Network**



#### **Wireless Data Growth at AT&T**

>6,732% growth over 13 quarters

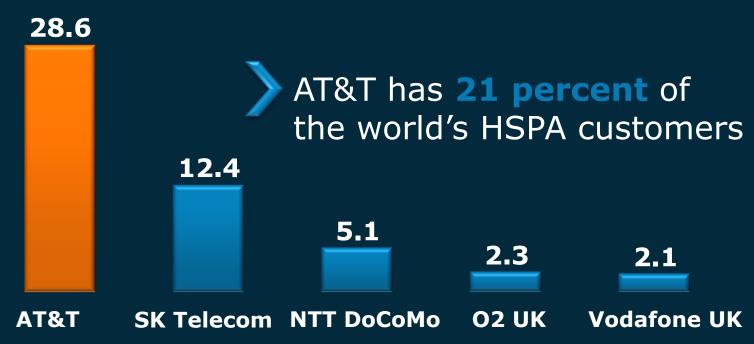




#### **AT&T** is the Network of Choice

#### **HSPA Customers**

(Millions of customers)



Source: GSMA, Aug 2009



#### **Major Wireless Initiatives Delivering Results**



# YoY Nov. 2009 Improvement\*

3G Dropped calls	1.08%	Down 17%
3G Blocked calls	1.01%	Down 19%
Network-driven churn	0.25%	Down 18%

<sup>\*</sup> Nov. '08 to Nov. '09

#### > Strong Operational Performance

- Overall, AT&T is performing well and delivers the nation's fastest 3G network
- Third-party drive tests show 98.68% call retainability\*\*

# > Focus on New York City and San Francisco

#### San Francisco

- Added 850 new carriers to increase
   3G capacity
- Added 6,500 T1s to ease congestion

#### **New York City**

- Added 900 new carriers to increase 3G capacity
- Added 7,000 T1s and 238 DS3s to ease congestion

<sup>\*\*</sup> GWS drive test results

# HSPA 7.2 Deployment: Nation's Fastest 3G Network Getting Faster



# AT&T's 3G Cell Sites Enabled with HSPA 7.2 Nationwide

- Generally improves consistency in accessing data sessions
- Prepares the network for faster speeds
- Increases network efficiency

#### **Aggressive Backhaul Program Underway**

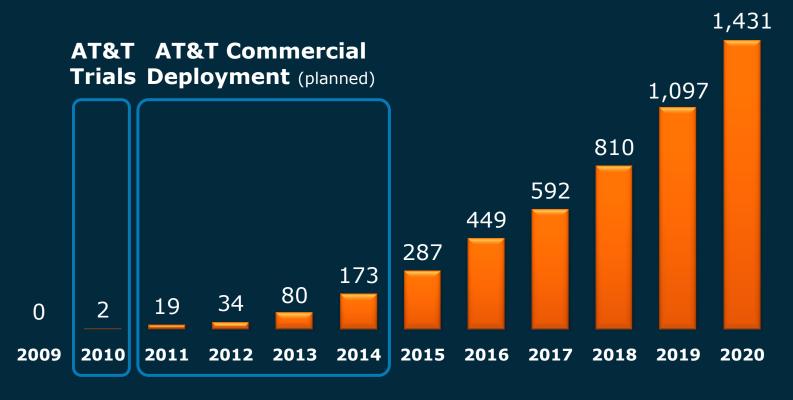
- Fiber optic and Ethernet connections to cell sites
- First 6 markets in progress: Chicago, Dallas, Houston, Los Angeles,
   Charlotte and Miami
- Expect majority of mobile data traffic will be carried on fiber-based backhaul by end of 2010
- Prepares the network for future LTE deployment

# **Supports Best Overall 3G Experience for Customers**

- As backhaul connections are complete, 7.2 software supports doubling of peak theoretical speeds
- AT&T has millions of customers who will immediately benefit; more than a dozen devices, including the iPhone 3GS, are already enabled with HSPA 7.2 capabilities

## **Scaling LTE with Device Availability**

# Number of LTE Devices (in millions)



Source: Ovum mobile device forecast 2008; Booz & Company

# **Proliferation of App Stores**





# **Building a World-Class Application Ecosystem**

**Applications** >



**Customers** 

Developer Support

Development Platforms

Device, Service, Network APIs

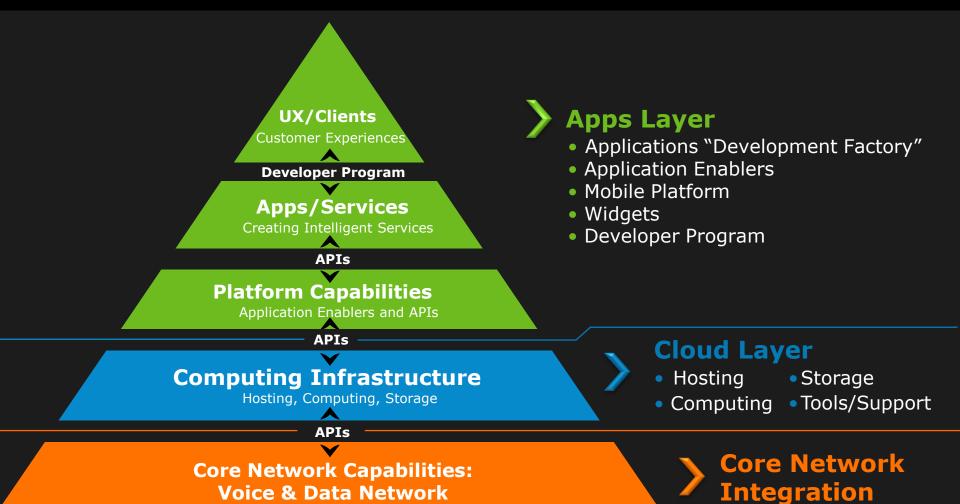
Cloud Infrastructure

Core Voice and Data networks



#### **AT&T Service Delivery Approach**

**Voice & Data Network** 





#### **Scalable IP Core Network**

Increasing capacity, resiliency and reach

Scalable 40G core

Feature rich routing

Supporting applications and services



#### **Defining the Cloud...**

#### **Cloud Services**

- Business or consumer services delivered and consumed over the Internet in real time
- Provides application enablers to developers

# > Cloud Computing

- Includes all elements of the full "stack" of IT and network products and supporting services.
- Enables the development, delivery and consumption of cloud services.

#### AT&T

State-of-the-art Data Centers

Vast Networks

Enables AT&T to develop a portfolio of service offerings Provides customers...

Business Improvement, Speed of Deployment, Scalability, Pay-per-use Options



#### **New Tools for Developers**

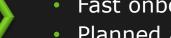
# Parlay X Compliant Web Services APIs

- Retrieve location of AT&T subscriber
- Send SMS messages
- Send MMS messages
- Send WAP push messages
- Discover device capabilities

#### **Lightweight APIs**

- RESTful APIs for location, SMS, MMS and WAP push
- Planned availability in late 2010

#### **Sandbox for APIs**



- Fast onboarding hours, not days
- Planned availability in 2Q 2010

#### **AT&T Innovation Lab and Centers**

Next phases of developer support

#### Phase 1 **Application Components** Convergence Speech Lab Lab AT&T Virtual Lab Billing & IMS Lab Information Services

#### **Core Components**

**IMS Core** 

**Packet Core** 

**Voice Core** 

#### Phase 1



#### Phase 2

**Planned Innovation** Centers

Innovation Center West

Innovation Center East

#### **Core Components**

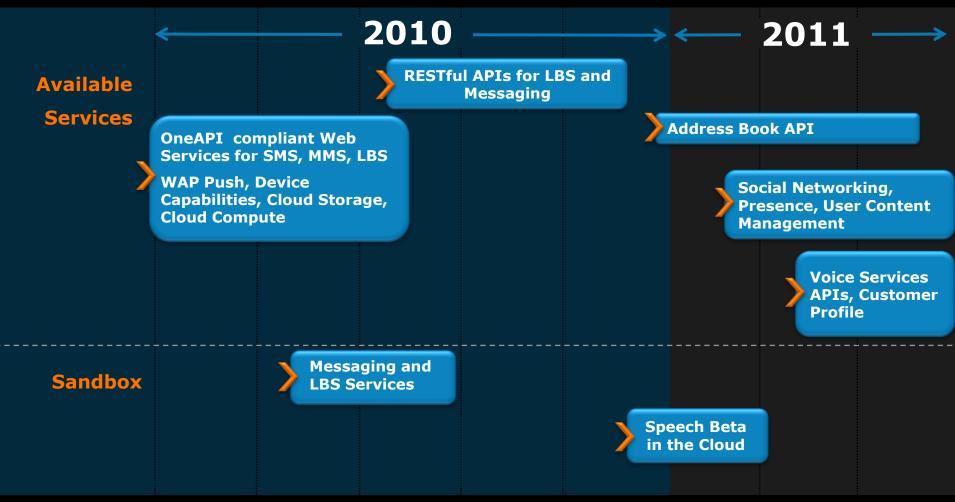
**3G 4G RF** 

**Development, Test** & Demo Areas

**Executive Presentation Rooms** 

### **Roadmap for Developers in 2010**

High Level Project Milestones





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