WIRELESS TELECOMMUNICATIONS INDUSTRY

By Thomas Reynolds, Jessica Smith, Jennifer Edwards and James Sikorski
Agenda

- Introduction
- Industry Structure
  - Background
  - Competition/Organization
- Company Overviews and Ad Strategies
  - AT&T
  - Verizon
  - Sprint
- Raw Data Analysis
- Recommendations and Investment Analysis
Why This Industry?

- Highly concentrated
  - Barriers to entry
  - Verizon Wireless, AT&T, Sprint
  - Increase in M&A activity
- Large advertising expenditure budget
- Comprehensive branding strategies
WIRELESS SERVICE INDUSTRY STRUCTURE

The Background, Competition and Organization of the Industry
Background – Industry Definition

“This Industry operates and maintains transmission facilities to provide direct communication through radio-based cellular networks. Industry services include cellular mobile phone services, broadband personal communication services and wireless public safety services.”
Background – Snapshot

- Key Drivers
  - # of mobile internet connections
  - % of services conducted online
  - Number of employees
  - Price of electronic components
Background – Technological History

1G
- Introduced in the 1980s
- Brick-sized analog phones
- One-dimensional (Voice only)
- Obsolete in 2008

2G
- Digitally-encrypted networks
- Global System for Mobile Communications (GSM)
- Code Division Multiple Access (CDMA)
- Enabled use of SMS and email
- Still used in developing countries

3G
- Industry Standard
- Increased speed of internet browsing, picture and video messaging, and handheld GPS use
- Data transmission speeds between 300 – 600 kbps

4G
- Fully IP-based system, much like modern computer networks
- Data transmission speeds up to 100 mbps
- Long Term Evolution (LTE)
- Mobile WiMAX
Background – Technologies Offered

- Cellular voice services
- Short message services (SMS)
- Multimedia messaging services (MMS)
- Advanced Personal Communications Services (PCS)
  - all-in-one wireless phone
  - data service

![Pie chart showing products and services segmentation (2013)]
Background – End Markets

- **Corporate Clients (15%)**
  - Predictable long-term usage patterns (stable market share)
  - 4G cloud-capabilities could increase corporate share of revenues
  - Key to service: Speed & Data

- **Small and Medium Businesses (30%)**
  - Eroded market share due to strong uptake of smartphones within consumer segment
  - Emphasis on cell phone tethering combining greater value with greater convenience

- **General Consumers (55%)**
  - Price, service reliability, and next-gen applications are crucial
  - Data-intensive content on 4G network will cause a spike in demand
Background – Supply Chain

- Computer Manufacturing Industry
  - Supplies motherboards and graphics cards
  - Supplied by semiconductor and circuit manufacturing industry

- Wired Telecommunications Carriers
  - Providing internet access and video services

- Telecommunication Networking Equipment Manufacturing
  - Supplies telephone switching systems, data bridges, routers and modems
  - Increased emphasis on internet protocol-based telecommunication
Background – Production Costs

- Capital Intensive
- $1.86 is spent on capital for every $1 spent on labor
- >$100 billion spent on expanding the capacity of wireless networks in past 5 years
  - Upgrading 3G infrastructure
  - Rollout of 4G network

![Capital intensity graph](https://www.ibisworld.com)

Dotted line shows a high level of capital intensity

*SOURCE: WWW.IBISWORLD.COM*
Competition

- **Major Players**
  - Verizon Wireless
  - AT&T Inc.
  - Sprint Nextel Corporation
  - Deutsche Telekom (T-Mobile wireless services segment)
  - Small regional wireless carriers
    - Usually acquired by the major players
      - Alltell by Verizon (2009)
      - MetroPCS by T-Mobile (2013)
      - Leap Wireless is expected to be another acquisition target
Relative Market Share (Revenue $)

- Verizon Wireless, 36.0%
- AT&T Inc., 31.5%
- Sprint Nextel Corporation, 14.1%
- Deutsche Telekom AG, 9.6%
- Other, 8.8%
Concentration Ratios

- **Herfindahl-Hirschman Index**
  - Competitive market
    - $>1,000$
  - Moderately concentrated market
    - $1,000 \text{ – } 1,800$
  - Highly concentrated market
    - $>1,800$

- **Antitrust concerns**

- **Four-Firm Concentration Ratio**

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<thead>
<tr>
<th>Provider</th>
<th>Market Share</th>
<th>Squared Market Share</th>
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<tr>
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<td>Sprint Nextel Corporation</td>
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<td>Deutsche Telekom AG</td>
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<td>0.0092</td>
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</table>

**Herfindahl-Hirschman Index** 2579.220

**Four Firm Concentration Ratio** 91.2%
Mergers & Acquisitions Activity

March 2011
• AT&T makes $39B tender offer for T-Mobile
• Tentatively add 33.7M subscribers to AT&T's customer base

August 2011
• The Antitrust Division of the United States Department of Justice blocked the takeover

October 2012
• SoftBank makes $20B tender offer to acquire 70% stake in Sprint

April 2013
• Dish Network makes $25.5B tender offer to acquire Sprint
• Give DISH the largest portfolio of spectrum availability
Competition

- Entry is very difficult
  - High costs associated with building base stations, towers and other network infrastructure
  - Regulatory limits on the number of participants in each market
    - i.e. finite # of firms can operate PCS services
  - Re-allocating rather than creating demand

Barriers to Entry

- Economies of Scale
- Spectrum Availability
- Saturated Subscriber Growth
- Regulations on # of market participants
Competition – Degree of Rivalry

- **Churn Rate:** # of customers a firm loses on a monthly basis
  - Roughly 1.5% - 3.5% of customer base
  - Combative

- **Service**
  - Quality
  - Geographical coverage
  - Customer service

- **Product Innovation**
  - Boosts use
  - Increases margins
  - Attracts new customers
## Competition – Service Differentiation

<table>
<thead>
<tr>
<th>Pricing Comparison</th>
<th>Verizon Wireless</th>
<th>AT&amp;T Inc.</th>
<th>Sprint</th>
<th>T-Mobile</th>
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<thead>
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<td>Prepaid</td>
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<td>Days to Return Phone</td>
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<table>
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<th>Coverage</th>
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<td>50</td>
<td>50</td>
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<tr>
<td>Coverage Score</td>
<td>90%</td>
<td>90%</td>
<td>95%</td>
<td>70%</td>
</tr>
<tr>
<td>Rural Coverage Score</td>
<td>90%</td>
<td>85%</td>
<td>95%</td>
<td>70%</td>
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<table>
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<tr>
<th>Fees</th>
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<td>$325.00</td>
<td>$350.00</td>
<td>$200.00</td>
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<tr>
<td>Activation Fee</td>
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<td>$36.00</td>
<td>$36.00</td>
<td>$35.00</td>
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<tr>
<td>Data Overage Fee</td>
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<td>$15.00</td>
<td>Varies</td>
<td>None</td>
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<tr>
<td>Roaming Charges</td>
<td>Varies</td>
<td>None</td>
<td>None</td>
<td>None</td>
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</table>

<table>
<thead>
<tr>
<th>Help &amp; Support</th>
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<tbody>
<tr>
<td>Help &amp; Support Score</td>
<td>100%</td>
<td>85%</td>
<td>95%</td>
<td>90%</td>
</tr>
</tbody>
</table>
Competition - Regulations

- Federal Communication Commission (FCC)
  - Telecommunications Act of 1996
    - Do not regulate unless there is evidence that the market is being abused “to the detriment of the consumer and cannot be corrected outside of the regulatory process.”
  - Capped limits on the amount of spectrum
    - 45 MHz in urban markets
    - 55 MHz in rural markets
    - Dictates the # of service providers in a region (4-8)
  - Monitors auctions of wireless “real estate”
    - 700 MHz band auction bidding war between Verizon & AT&T (2008)
    - Spent a combined $16.2 billion to build out LTE infrastructure
Regulations

- Proposal by the Federal Communication Commission
  - Transparent phone bills
- Network Neutrality Debate
  - ISP’s and telecommunications providers
  - Attempting to prevent extra costs for emerging services that require increased bandwidth
    - Video streaming
    - LTE
Industry Organization (Geographic)

• Geographic spread of this industry correlates closely with population density across the nation

• Industry Establishment breakdown
  • Southeast: 28.5% and falling due to over service
  • West: 15.6%
    • Highest mobile penetration
    • Most mature market
    • But consolidating after economic crisis
  • Great Lakes: 13.8%
    • Poorest region
  • Mid-Atlantic: 13.7%
    • Affluent region → high subscriber density
    • But decreasing population
Industry Organization (Geographic)
Company Overviews and Advertising Strategies
AT&T Overview And Advertising Strategies
AT&T

- Advertising expenditures

*Total Advertising Spending (2012)*

<table>
<thead>
<tr>
<th>Company</th>
<th>Spending (Millions)</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procter &amp; Gamble</td>
<td>$2,805</td>
<td>Down 5%</td>
</tr>
<tr>
<td>Comcast</td>
<td>$1,713</td>
<td>Up 10%</td>
</tr>
<tr>
<td>General Motors</td>
<td>$1,642</td>
<td>Down 7%</td>
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<td>AT&amp;T</td>
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<td>L'Oreal</td>
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<td>Berkshire Hathaway</td>
<td>$1,165</td>
<td>Up 12%</td>
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<tr>
<td>Chrysler Group</td>
<td>$1,065</td>
<td>Down 14%</td>
</tr>
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</table>

- Largest advertising budget in the industry.
- Market share: 31.5%
- Second largest wireless telecommunications provider in the United States.
- 106.96 million subscribers.
“Your World. Delivered.” & “Cingular is now the new AT&T.”

(2006)

- Launched in 2006 via electronic, print, and online media.
- Utilized informative techniques to make the public aware of the recent merger between AT&T and Cingular.
- An important re-branding campaign that carefully transitioned the Cingular brand to AT&T in advertising and customer communications.
“Rethink Possible” (2010)

- Sought to move away from the fierce, combative ad competition with Verizon.
- A highly conceptual campaign that focused on innovation and portraying AT&T as a “lifestyle company”.
- Persuasive tactics used to differentiate and polish AT&T’s image.
- No emphasis on selling particular services or products.
“It’s not complicated.” (2012)
“It’s not complicated.” (2012)

- Campaign uses humor as a persuasive tactic to push across simple ideas such as a fast network is better and versatility is better.
- Doesn’t really demonstrate why AT&T is the best network to choose.
- Was a major hit on social media but failed to increase sales or subscriptions.
<table>
<thead>
<tr>
<th>Rank</th>
<th>Brand</th>
<th># Tweets</th>
<th>Week-Over-Week % Change</th>
<th># Earned Impressions</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>AT&amp;T</td>
<td>13,837</td>
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<td>2</td>
<td>Geico</td>
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<td>3</td>
<td>State Farm</td>
<td>4,016</td>
<td>+71%</td>
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<td>4</td>
<td>Progressive</td>
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<td>5</td>
<td>Taco Bell</td>
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<td>7</td>
<td>Subway</td>
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<td>8</td>
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<td>9</td>
<td>Allstate</td>
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<td>10</td>
<td>Monsters University (Movie)</td>
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<td>+223%</td>
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<td>Rank</td>
<td>Brand</td>
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<td>Week-Over-Week % Change</td>
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<td>----------</td>
<td>-------------------------</td>
<td>---------------------</td>
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<tr>
<td>1</td>
<td>AT&amp;T</td>
<td>10,458</td>
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<td>Red Bull</td>
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<td>McDonald's</td>
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<td>9</td>
<td>Progressive</td>
<td>2,855</td>
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<td>200K</td>
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<tr>
<td>10</td>
<td>Allstate</td>
<td>2,081</td>
<td>-10%</td>
<td>119K</td>
</tr>
</tbody>
</table>
Very little search activity prior to 2007.
The spikes in search activity seem to be correlated with the release of the various iPhone models.
Dramatic decrease in search activity post-merger with AT&T.
Verizon Overview And Advertising Strategies
Verizon

- Second largest advertising budget in the industry.
- Market share: 36%
- Largest wireless telecommunications provider in the United States.
- 115.78 million subscribers.

### Advertising Expenditures

*(Total Advertising Spending 2012)*

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</table>
“Can you hear me now?” & “We never stop working for you.” (2002)

- A massive TV campaign that utilized persuasive advertising to increase Verizon’s perceived network reliability.
- It also helped move network reliability up the ranks as a key purchase consideration for wireless users at a time when other companies were emphasizing price and minutes.
“Don’t be afraid of dead zones.” (2008)

- Multi-media campaign that makes subtle use of combative advertising.
- Pokes fun at AT&T’s “dead zones”.
- Reassures customers that Verizon’s network is superior.
- Consistent with the messages of previous advertising campaigns—Verizon has the best network (emphasis on coverage).
“Rule the Air.” (2010)

- Persuasive ad campaign that was organized in response to AT&T’s “Rethink Possible” campaign.
- “It’s a new brand campaign. It’s just meant to describe how our network empowers our customers. The ‘Can you hear me now’ campaign was meant to emphasize the company’s network strengths. This is an evolution of that message, but it speaks more to how customers use their wireless service.” –Verizon spokeswoman Brenda Raney
Search activity has remained at a high, steady level throughout the years.

Much less volatility than AT&T.
Combative and Comparative advertising strategies in the AT&T/Verizon rivalry.
“There’s a map for that.” (Verizon 2010)

- Comparative advertising campaign aimed at highlighting major differences in 3G network coverage (targeted at AT&T iPhone users).
- The expiration of AT&T’s contract with Apple as the exclusive carrier of the iPhone created a huge opportunity for Verizon (up to 6.5 million subscribers could defect from AT&T).
As the U.S. market leader in wireless data service, we typically don't respond to competitors' advertising. However, some recent ads from Verizon are so blatantly false and misleading, that we want to set the record straight about AT&T's wireless data coverage.

The key facts are:

- **AT&T's wireless data coverage reaches 303 million people** – or 97% of the U.S. population, where they live and work. Our data coverage consists of 3 different types of technology:
  - **3G.** 233 million people or 75% of the population are covered by AT&T's 3G network, the nation's fastest.
  - **EDGE.** 301 million people or more than 96% of the population are covered by EDGE.
  - **GPRS.** Covers 303 million people, allowing you to talk, text, e-mail and access basic websites optimized for wireless.

AT&T is the #1 network for smartphones, with twice the number of smartphone customers than Verizon, our closest competitor. Some of the reasons include:

**Most popular smartphones.** Unlike Verizon, AT&T offers the most popular smartphones in the industry.

**More wireless apps.** Unlike Verizon, AT&T customers have access to more than 100,000 applications, more than with any other wireless company.

**Talk and E-mail at the same time.** Unlike Verizon, AT&T's 3G network lets wireless customers simultaneously talk and surf the web or do e-mail.

**Fastest 3G in the nation.** Unlike Verizon, AT&T has the nation's fastest 3G network.

Thank you for allowing us to set the record straight. We appreciate your business and will continue to work hard to deliver the best wireless data experience in the industry.

Your AT&T Team
“Yes, I can hear you now.” (Verizon 2011)

- This ad campaign was combative rather than comparative.
- Focused on attacking the competition instead of comparing coverage, data speeds, etc.
- Although AT&T isn’t specifically mentioned, Verizon clearly insulted the reliability of AT&T’s network.
AT&T’s Response

Yeah, you may wanna check your email.

Refresh someone’s memory in real time

We got it right the first time with simultaneous voice and data across our network.
Did it have an effect?

**iPhone activations from Q4 of 2010 – Q2 of 2012**

- **Number of iPhone activations (millions)**
- **Time**

Comparison between AT&T and Verizon.
SPRINT OVERVIEW AND ADVERTISING STRATEGIES
Company Overview

- # 3 Wireless Carrier in US
- Serves over 55 million customers
- Market Share: 14.1%
- Merged with Nextel Communications in 2005
- Prepaid mobile access subsidiaries
- Planned acquisition of Clearwater
  - 5th largest service provider in the U.S.
  - 11 million current subscribers
Advertising Spend

- Spent $1.4 Billion in 2011
- Ad-to-sales ratio: 0.041567 (4.16%)
- Top Spender for RTB

<table>
<thead>
<tr>
<th>Industry</th>
<th>Ad/Sales Ratio %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer products</td>
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<tr>
<td>Communication Services</td>
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<tr>
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<td>Non-Health Care Services</td>
<td>2.9</td>
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<tr>
<td>Real Estate/Construction</td>
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<tr>
<td>Transportation/Travel</td>
<td>1.9</td>
</tr>
</tbody>
</table>

Based on 2010 Data from: Schonfeld Forecasts
Sprint- Ad-to-Sales Comparison

- 2012: Again Spent $1.4 Billion
- Mergent Online Statistics (2012)

<table>
<thead>
<tr>
<th>Wireless Provider</th>
<th>Total Revenue (Millions)</th>
<th>Advertising (Millions)</th>
<th>Ad-to-Sales Ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verizon Communications</td>
<td>$115,846</td>
<td>2,381</td>
<td>2.06</td>
</tr>
<tr>
<td>AT&amp;T Inc.</td>
<td>$127,434</td>
<td>2,910</td>
<td>2.28</td>
</tr>
<tr>
<td>Sprint Nextel Corp.</td>
<td>$35,345</td>
<td>1,400</td>
<td><strong>3.96</strong></td>
</tr>
<tr>
<td>Industry Average</td>
<td>$74,250</td>
<td>1,720</td>
<td>2.33</td>
</tr>
</tbody>
</table>

- Indicative of high advertising elasticity
- Prisoner’s Dilemma
Advertising Strategy

- “Truly Unlimited” data plans
- “Say No To Sharing” and “Say Yes To Sprint”
- “All. Together. Now”
  - Random Acts of Togetherness

Welcome to

Random Acts of Togetherness™

When you’re truly Unlimited, you can text, web and call all you want without worries. So let’s unlimited ourselves and see what we can all do together.
Let's wish Veatrice a happy 100th, again and again.
Veatrice Henson is turning 100. So go ahead and make her day, as many times as you want.

Watch the commercial

America's Favorite 4G Network

Get true Unlimited text, web and calling.
Simply Everything Plan. All while on the Sprint network.
Emotional Appeal

- Sprint “Drive First” Application

Texting & Driving

We can live without the “&.”
Humor Appeal

- Kevin Durant: streaming video
- School play: unlimited downloading
- Family Meeting: “Say No To Sharing”
Informative Advertising

Now families can call any mobile phone in the country for one flat rate on the 3G network PC World named most reliable.

Forget restrictive calling circles.
Your family is free to call any mobile, anytime, on any network.
And get unlimited text, plus 3G data, picture and video messaging.

1-800-SPRINT-1 sprint.com/ anymobileanytime

Your family is free to call all 250 million people nationwide.

After Thanksgiving Offers
Limited Time Offers on Select Samsung Devices

Promotional offers will be available on select Samsung devices for Preferred Retailers, Co-Branded, Exclusive and Certified Business Dealers. Check out the 11/16/12 Daily News for full pricing details.

11/23/12 ONLY! Special Offer on the Samsung Galaxy S® III (16GB)
The 4.8” HD Super AMOLED™ display offers true high-definition graphics, realistic color quality and an ultra-responsive surface.
- ARStash™ Play Group Cast, S Beam and Share Shot let you share your content in all new ways.
  - Processor: 1.5GHz Dual-core processor
  - OS: Android 4.1
  - Networks: 3G and 4G LTE

11/23/12 - 11/25/12 ONLY! Special Offers on these Samsung Devices
Samsung Galaxy Nexus
- It's slim, powerful, fast, and built to perform.
  - 4.65” HD Super AMOLED display.
  - Slim and curved design that features a contour display.
  - Processor: 1.2GHz Dual-core
  - OS: Android 4.1
  - Networks: 3G and 4G LTE

Experience rich web-browsing with true multi-tasking, dual core processor and 4” screen size.
- Use Android Beam and S Beam to share with your friends and your other devices and use Google Wallet to pay at thousands of retailers with just your phone.
  - Processor: Qualcomm MSM8960 LTE, 1.2GHz Dual-core
  - OS: Android 4.0
  - Networks: 3G and 4G LTE
## Comparative Advertising

**SAY NO TO SHARING DATA**

Why share when you can get Truly Unlimited™ data for less?
No metering. No throttling. No overages. All while on the Sprint network.
Compare for yourself.

View: Individual Plans | Family Plans

---

### TRY TO MATCH THE VALUE

<table>
<thead>
<tr>
<th>Provider</th>
<th>Price for 3 Smartphones</th>
<th>Add a Line Smartphones</th>
<th>Data</th>
<th>Extra Data Cost</th>
<th>Voice</th>
<th>Messaging</th>
<th>Mobile Hotspot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sprint</td>
<td>$179.98/mo.</td>
<td>$29.99/mo.</td>
<td>UNLIMITED</td>
<td>Zip, Zero, Zilch</td>
<td>1500 + UNLIMITED to any mobile</td>
<td>UNLIMITED</td>
<td>sold separately*</td>
</tr>
<tr>
<td>AT&amp;T</td>
<td>$195.00/mo.</td>
<td>$35.00/mo.</td>
<td>6 GB shared</td>
<td>$15/1GB</td>
<td>UNLIMITED</td>
<td>UNLIMITED</td>
<td>Included</td>
</tr>
<tr>
<td>Verizon</td>
<td>$200.00/mo.</td>
<td>$40.00/mo.</td>
<td>6 GB shared</td>
<td>$15/1GB</td>
<td>UNLIMITED</td>
<td>UNLIMITED</td>
<td>Included</td>
</tr>
</tbody>
</table>

---

**TRY TO MATCH THE FEATURES**
Combative Advertising

Sprint Commercial - Charts
Raw Data Analysis
Raw Data: Survey

- Conducted a survey with the following questions:
  - Who is your Wireless Service Provider?
    - Verizon, Sprint, AT&T, T-Mobile, Other
  - Have you ever changed Service Providers? Yes/No
  - If yes, from:
  - To:
  - Why did you choose your service provider?
    - Price
    - Products
    - Coverage
    - Data Speeds
    - Brand Name
Overall Provider Results

Wireless Service Percentage Breakdown

Service Providers
- Other
- T-Mobile
- AT&T
- Sprint
- Verizon

Percentage of Consumers Surveyed

0% 10% 20% 30% 40% 50% 60% 70%
Relationship Between Service Provider and Perceived Qualities

- Brand Name
- Data Speeds
- Coverage
- Product
- Price

Percentage of Consumers Surveyed

- Other
- Sprint
- AT&T
- Verizon Customers
Raw Data Analysis

- Google Trend Comparison

Google Trend: AT&T

![Graph showing Google Trends for AT&T over time]
Raw Data Analysis

Google Trend Comparison

Google Trend: Verizon

[Chart showing a comparison of Google searches and DOLS for Verizon over a period from October 2007 to January 2010. The chart highlights a trend and includes a red circle focusing on a specific period.]
Industry Trends

Average Spend On 30-Second Ad

<table>
<thead>
<tr>
<th>Day</th>
<th>Spend</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUN</td>
<td>$12,838.61</td>
</tr>
<tr>
<td>THU</td>
<td>$9,549.91</td>
</tr>
<tr>
<td>MON</td>
<td>$8,894.84</td>
</tr>
<tr>
<td>WED</td>
<td>$8,303.24</td>
</tr>
<tr>
<td>TUE</td>
<td>$7,786.25</td>
</tr>
<tr>
<td>SAT</td>
<td>$6,209.95</td>
</tr>
<tr>
<td>FRI</td>
<td>$5,342.25</td>
</tr>
</tbody>
</table>

Percent of Ad Spend Per Weekday for Industry

- SUN: 25%
- THU: 15%
- WED: 13%
- TUE: 13%
- MON: 14%
- FRI: 8%
- SAT: 12%

Verizon

- FRI: 7%
- SUN: 26%
- THU: 17%
- WED: 13%
- TUE: 13%
- MON: 14%
- SAT: 10%

AT&T

- FRI: 9%
- SUN: 21%
- THU: 14%
- WED: 14%
- TUE: 12%
- MON: 17%
- SAT: 13%

Sprint

- FRI: 8%
- SUN: 37%
- THU: 12%
- WED: 11%
- TUE: 9%
- MON: 9%
- SAT: 14%
Primetime accounts for 62% of advertising spend and only 24.35% of ad placements, according to 2011 data.
Raw Data – Primetime

Total Primetime Ad Spend Across Carriers

<table>
<thead>
<tr>
<th>Carriers</th>
<th>Dollars Spent (Millions $)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT&amp;T</td>
<td>600</td>
</tr>
<tr>
<td>Verizon</td>
<td>500</td>
</tr>
<tr>
<td>Sprint</td>
<td>200</td>
</tr>
<tr>
<td>T-Mobile</td>
<td>100</td>
</tr>
</tbody>
</table>
## Raw Data – Programs

<table>
<thead>
<tr>
<th>Top 5 Programs Per Carrier</th>
<th>Sum of DOLS Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Verizon</strong></td>
<td></td>
</tr>
<tr>
<td>X FACTOR-FOX</td>
<td>1</td>
</tr>
<tr>
<td>NBC SUNDAY NIGHT FTBLL</td>
<td>2</td>
</tr>
<tr>
<td>AMERICAN IDOL-FOX</td>
<td>3</td>
</tr>
<tr>
<td>GLEE-FOX</td>
<td>4</td>
</tr>
<tr>
<td>AFC FOOTBALL GM-2</td>
<td>5</td>
</tr>
<tr>
<td><strong>AT&amp;T</strong></td>
<td></td>
</tr>
<tr>
<td>AMERICAN IDOL-FOX</td>
<td>1</td>
</tr>
<tr>
<td>DANCING WITH THE STARS</td>
<td>2</td>
</tr>
<tr>
<td>NFC FOOTBALL GAME 2</td>
<td>3</td>
</tr>
<tr>
<td>GLEE-FOX</td>
<td>4</td>
</tr>
<tr>
<td>BIG BANG THEORY-CBS</td>
<td>5</td>
</tr>
<tr>
<td><strong>Sprint</strong></td>
<td></td>
</tr>
<tr>
<td>NBC SUNDAY NIGHT FTBLL</td>
<td>1</td>
</tr>
<tr>
<td>AFC FOOTBALL GM-2</td>
<td>2</td>
</tr>
<tr>
<td>AFC FOOTBALL GM 1</td>
<td>3</td>
</tr>
<tr>
<td>NFC FOOTBALL GAME 2</td>
<td>4</td>
</tr>
<tr>
<td>AFC FOOTBALL GAME-CBS</td>
<td>5</td>
</tr>
</tbody>
</table>

- Consistent with comparative advertising of Verizon & AT&T
- Sprint’s sports program focus
  - Explain high ad-to-sales ratio?
Analysis and Recommendations
AT&T

- Address your network issues—don’t let Verizon use “network reliability” against you.
- Use humor to your advantage—translates into a lot of exposure on social media.
- Move away from the highly conceptual ads—your customers are very disgruntled when it comes to billing, customer service, coverage, etc.
  - Differentiate on service via persuasive advertising. Branding as a “lifestyle” company isn’t resonating. Avoid combative advertising.
- Bottom line: focus on the tangibles rather than the intangibles.
Verizon

- Keep emphasizing AT&T’s operational deficiencies.
  - Comparative better than combative advertising.
  - Combative advertisements have the potential to backfire and don’t appear to have much affect. No need to take those risks.
- Bottom line: stay the course until AT&T addresses their technical issues.
Sprint

- Continue to highlight low prices and attractive data plans (although network coverage and speeds seem to be more important to customers).
- Try to differentiate on the basis of responsiveness to customer needs and flexible contracts.
  - Customers of AT&T and Verizon complain about rigid contracts, hidden fees, and overall unresponsiveness.
- Bottom line: Utilize persuasive and comparative advertising strategies to give disgruntled AT&T and Verizon users a competitive third option.
Industry Outlook

- IBIS World estimates that revenue growth will be 4.5% from 2013-2019
  - Expanding demand for wireless data services (LTE, WiMax)
  - Decrease dependence on landlines
- Outsourcing less technical positions will increase profitability
- Price of semiconductors (decreasing by 1.9% annually) will decrease input prices

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue $ million</th>
<th>Growth %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>235,313.2</td>
<td>6.2</td>
</tr>
<tr>
<td>2015</td>
<td>245,666.9</td>
<td>4.4</td>
</tr>
<tr>
<td>2016</td>
<td>257,704.6</td>
<td>4.9</td>
</tr>
<tr>
<td>2017</td>
<td>265,951.2</td>
<td>3.2</td>
</tr>
<tr>
<td>2018</td>
<td>275,525.4</td>
<td>3.6</td>
</tr>
<tr>
<td>2019</td>
<td>288,345.1</td>
<td>4.7</td>
</tr>
</tbody>
</table>
# Key Statistics

<table>
<thead>
<tr>
<th>Key Statistics</th>
<th>Verizon</th>
<th>AT&amp;T</th>
<th>Sprint</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock Price</td>
<td>53.46</td>
<td>37.30</td>
<td>7.12</td>
</tr>
<tr>
<td>Market Capitalization</td>
<td>152.96B</td>
<td>202.28B</td>
<td>21.45B</td>
</tr>
<tr>
<td>Shares Outstanding</td>
<td>2.86B</td>
<td>5.42B</td>
<td>$3.01B</td>
</tr>
<tr>
<td>P/E Ratio</td>
<td>133.98</td>
<td>28.8</td>
<td>N/A</td>
</tr>
<tr>
<td>Net Income</td>
<td>$1.14B</td>
<td>$7.38B</td>
<td>($4.11B)</td>
</tr>
<tr>
<td>Earnings Per Share</td>
<td>0.40</td>
<td>1.30</td>
<td>-1.37</td>
</tr>
<tr>
<td>Revenue Growth (QTR)</td>
<td>4.20%</td>
<td>-1.50%</td>
<td>0.70%</td>
</tr>
<tr>
<td>PEG Ratio</td>
<td>2.06</td>
<td>2.76</td>
<td>N/A</td>
</tr>
<tr>
<td>Beta</td>
<td>0.34</td>
<td>0.38</td>
<td>0.8</td>
</tr>
<tr>
<td>Enterprise Value</td>
<td>$200.19B</td>
<td>$271.12B</td>
<td>$38.18B</td>
</tr>
<tr>
<td>EBITDA</td>
<td>$31.52B</td>
<td>$28.82B</td>
<td>$7.20B</td>
</tr>
<tr>
<td>EV/EBITDA</td>
<td>6.35X</td>
<td>9.41X</td>
<td>5.30X</td>
</tr>
<tr>
<td>EV/Revenue</td>
<td>1.71X</td>
<td>2.13X</td>
<td>1.08X</td>
</tr>
</tbody>
</table>
Sprint Buyout?

- SoftBank made a $20B tender offer in October 2012
- DISH Network made a $25.5 billion offer in April 2013
- Bidding war expected
- Benefits of DISH’s tentative acquisition of Sprint
  - 55 million subscribers
  - Product Scope
    - Video, high-speed internet and voice service
  - Ownership stake in Clearwire
  - Control of largest portfolio of spectrum
Spectrum Distribution

Spectrum: corresponds to the frequency (rate of oscillation) of radio waves. Increases the width of cellular channels.

![Graph showing spectrum distribution among firms: AT&T with 106 MHz, Verizon with 107 MHz, DISH with 45 MHz, Sprint with 53 MHz, and CLWR with 132 MHz. Source: completedishsolution.com]
Questions?