

Which Carrier Flies High in Philadelphia? Discover what our independent testing revealed

RootMetrics is transforming the evaluation of mobile products and services: we design our independent, accurate tests from the consumer's, rather than the carrier's, point of view. Read on to discover what our real-world tests, using off-the-shelf phones in everyday conditions, revealed about carrier performance in Philadelphia.

To better understand the differences in network service between the carriers, RootMetrics conducted over 10,000 call, data, and text tests throughout the Philadelphia metro area. The resulting data revealed which national carrier provided:

- The fewest dropped and blocked calls
- The fastest data speeds
- The fastest text service

Data Performance



RootScore Award Winner: Verizon

The RootMetrics data performance tests analyzed 1) how fast each carrier's network was able to download or upload files, and 2) how often a consumer could successfully access a carrier's data network. Verizon's LTE network once again outperformed all other carriers in data performance.

Network Speed

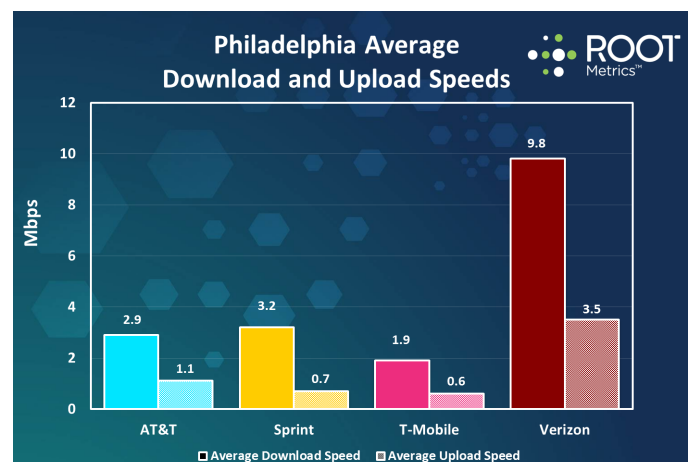
- Verizon's average download speed was over 3x faster than Sprint's and AT&T's and over 5x faster than T-Mobile's.
- Verizon's consistency in delivering download speeds above 10Mbps also stood out in comparison to the other carriers.
 - Verizon topped 10 Mbps in almost 50% of the tests
 - T-Mobile managed to reach this speed in approximately 3% of the tests
 - AT&T only reached this speed in 0.1% of the tests
 - Sprint never reached this speed during the tests
- At only 1.86 Mbps, T-Mobile recorded the slowest download speeds we have seen for the carrier in our series to date.

**Want to see how
your network
measures up?**



Download the RootMetrics Coverage Map app for [Android](#) or [iPhone](#)

- Check performance at your home, at your office, or during your commute
- Help provide greater transparency into mobile performance data by testing your network
- Test frequently—today, tomorrow, whenever!



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- Though T-Mobile had the second fastest maximum download test speed, they were last in average download test speed, suggesting that consumers rarely experience the fastest HSPA+ speeds.

Data Success and Network Accessibility

- At approximately 3.5%, Verizon experienced the lowest data failure rate.
- Verizon thus had both the fastest and also the most reliable data network in Philadelphia.
- Sprint recorded a notably high failure rate of 19.8%, over 4x worse than the next closest carrier.

Call Performance

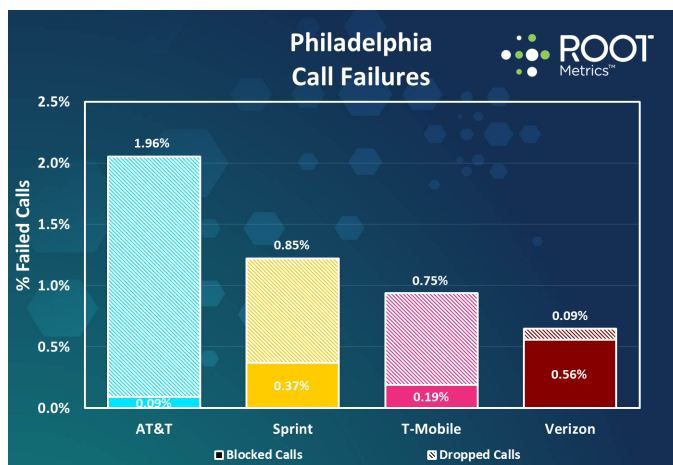


RootScore Award Winner: Draw

RootMetrics analyzed call performance by measuring both dropped calls and blocked calls (the inability to place an outgoing call). Statistically, no single carrier distinguished itself from the other carriers, resulting in a draw in the call performance category.

Interesting Facts

- The highest block call rate for any carrier was only 0.56%, recorded by Verizon.
- AT&T recorded the most dropped calls, but their dropped call rate was still a low 1.96%.



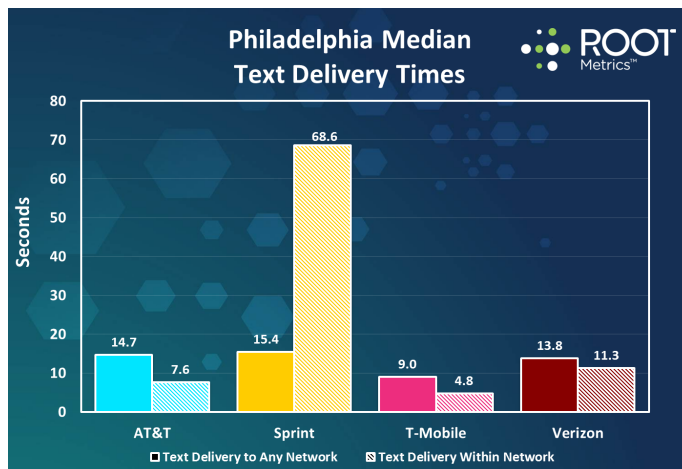
Text Performance



RootScore Award Winner: T-Mobile

We conducted a series of tests to determine how long it took to send or receive a text message (SMS) from each carrier. As in other markets we have tested, T-Mobile once again placed 1st in text performance and offered the fastest delivery speeds of any carrier.

- Texting tidbit: T-Mobile, AT&T and Verizon were faster when sending texts to a phone on their own respective networks than they were when sending texts to a different network. Sprint, on the other hand, was slower when sending texts to a phone on their own network than they were when sending texts to a different network.



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Combined Performance



RootScore Award Winner: Verizon





Verizon's strong showing in data performance and a 2nd place finish in the texting category resulted in the highest combined mean score and a 1st place finish in our combined results.

The final standings are as follows:





1. Verizon
2. Tie: AT&T and T-Mobile
4. Sprint

Philadelphia RootScores





Winner: Verizon

RootScore Award—COMBINED			
1. Verizon		88.4	+/- 4.0
2. T-Mobile		55.4	+/- 2.7
2. AT&T		52.4	+/- 3.3
4. Sprint		42.7	+/- 3.7





Winner: Draw

RootScore Award—CALL			
Verizon		96.9	+/- 2.3
T-Mobile		95.6	+/- 2.9
Sprint		93.8	+/- 3.9
AT&T		90.8	+/- 3.9












Winner: Verizon

RootScore Award—DATA			
1. Verizon		91.5	+/- 6.0
2. AT&T		19.8	+/- 2.1
3. T-Mobile		5.9	+/- 2.6
3. Sprint		0.4	+/- 3.6

Winner: T-Mobile

RootScore Award—TEXT			
1. T-Mobile		97.2	+/- 2.8
2. Verizon		36.2	+/- 2.1
3. AT&T		26.3	+/- 6.3
4. Sprint		3.3	+/- 3.3

RootScore Ranking Key

Rank	Score Range	Rank	Score Range
	90 – 100		30 – 40
	80 – 90		20 – 30
	70 – 80		10 – 20
	60 – 70		0 – 10
	50 – 60		< 0
	40 – 50		

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Deciding on a Carrier

As with any purchase decision, consumers should consider both how they use their device (making calls, accessing data, and/or sending texts) and also where they will use the service to help decide what carrier is right for them. To find out which carrier is best for you and your area:

- Use RootMetrics online [coverage maps](#)
- Download the free RootMetrics app for [Android](#) or [iPhone](#)

Methodology

RootMetrics' RootScore Reports provide an assessment of mobile performance that reflects consumer experience in a specific geographical area. To evaluate the Philadelphia area, we performed over 10,000 call, data and text tests during the course of a 7 day period, covering all hours of the day and night. Tests were conducted using our RootScout app running from off-the-shelf Android-based consumer smartphones without external antennas or other non-standard equipment. The tests centered on activities that consumers perform most often: making phone calls, uploading and downloading files from the internet, and sending and receiving text messages (SMS). The data provided in this report reflect our findings in the Philadelphia market during testing conducted from July 8 – July 14, 2011.

Because Root's charter is to measure service the way that it is experienced by the consumer, we allowed phones to operate on the network specified by a customer's carrier. This means that, for example, in Philadelphia, the data service for Sprint was actually delivered by Clearwire's WiMAX network whenever the device was able to receive that service.

RootScores are calculated using a proprietary algorithm factoring in results from call, data and text. Within each category, based on various factors reflecting performance, a unique RootScore is calculated for each carrier, along with a statistical range within which the results of similarly conducted studies would most likely fall. Overlapping ranges are taken to indicate a statistical tie. In the specific case of data scoring, the data speed algorithm weights data speeds relative to the fastest speeds recorded in the market. Therefore, all data RootScores are proportional to the winner's score.

Throughout the course of 2011, RootMetrics will measure performance in major American wireless markets and will publish our findings along with corresponding RootScore Awards for each market.

About RootMetrics™

Bellevue, Washington-based RootMetrics is building a movement to create a more open mobile market that democratizes mobile performance data. Deploying sophisticated smartphone applications, RootMetrics collects performance measures such as network signal strength and data throughput speeds through data sourced from consumers via our Cell Phone Coverage Map app along with deeper testing

To compare the results of our Philadelphia test with those of other metropolitan areas, review additional RootScore Reports at www.rootmetrics.com.



See carrier summaries for:

Seattle	Chicago	Boston
Dallas	Houston	New York
Miami	Los Angeles	San Francisco
Washington, D.C.	Atlanta	San Jose

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conducted directly by RootMetrics in major metropolitan markets across the U.S. RootMetrics aggregates these metrics into easy-to-understand maps that rate each carrier's performance based on how consumers experience their service. This comparative data provides transparency into carrier performance down to extremely granular levels. RootMetrics is the only independent, single source of this comparative data that is made available to the public. For more information, visit: www.rootmetrics.com.

Any use of the information contained in this report must be accompanied by a statement identifying RootMetrics™ as the publisher and the Philadelphia RootScore™ Report dated August, 2011 as the source. Results are based on testing conducted during July, 2011. Wireless network performance is subject to a number of factors which may vary over time. Individual experience may vary. RootScores are derived using data sampling and analysis methods that are subject to statistical variation. No advertising or other promotional or commercial use can be made of the information contained in this report without the express prior consent of RootMetrics.