



Keynote Mobile Index

With Keynote Mobile Index you can

- Receive detailed performance rankings that show how you rank vs. the competition in terms of customer experience and performance.
- Get true business intelligence by looking at availability and responsiveness of your Mobile site performance.
- Compare your service quality performance against your closest competitors with regular competitive monitoring

Why Keynote Mobile Index?

Mobile is undergoing next generation evolution with the deployment of 3G and 4G networks such as EVDO, UMTS, HSDPA and WiMax. The purpose of these networks is to facilitate higher data rates, enabling users to download/browse media rich content on their mobile devices. Web browsing on mobile devices is one of the fastest growing applications in the mobile space leading companies to develop websites which are compatible with mobile devices. However, slow download speeds and unreliable performance of the mobile web makes end-user experience far from optimum and is the biggest inhibitor for its mass-adoption. Keynote Mobile Index addresses this issue by measuring the end-user performance of top mobile sites.

Companies who have websites on the World Wide Web are now developing mobile sites and need solutions which not only measure and monitor their performance, but the entire landscape giving them a better understanding of their competition. Keynote, the Mobile

and Internet performance authority, helps companies better understand their mobile site performance from an end-user perspective. With the help of its global measurement infrastructure, Keynote Mobile Index provides companies with an in-depth understanding of their

Benchmark mobile site performance and availability against your competition



Keynote Mobile Performance Indices

- Keynote Mobile Index US (KM10-US)
- Keynote Mobile Index Europe (KM10-EU)

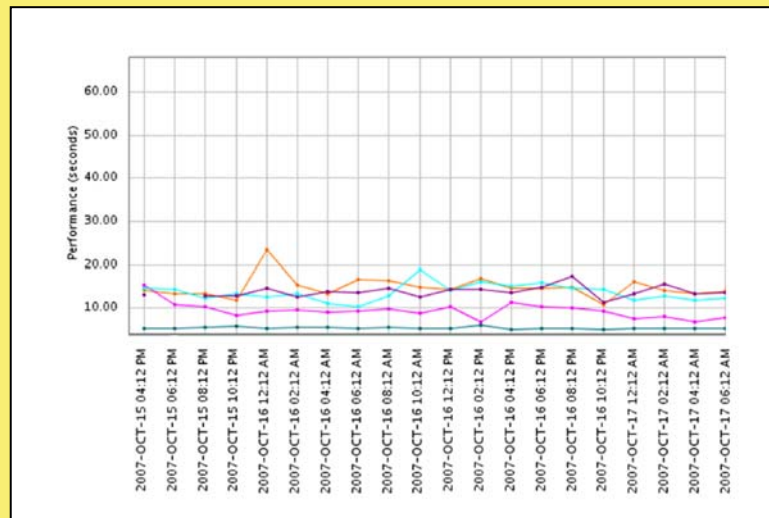
Industries Covered by Index:

- Portal
- News
- Sports
- Weather
- Maps/Directions
- Social Networking
- Shopping
- Entertainment

Keynote Page by Page Transaction Performance Index

URL	Included Data Points	Trimmed Data Points
Site A	46	0
Site B	44	0
Site C	39	0
Site D	45	0
Site E	43	0

Use Keynote Performance Indices to quickly understand where to allocate your budget and then tune your site for higher performance.



Ensure reliable and representative measurements for each mobile site selected

customers experience, their competitors, and markets. They will receive true business intelligence that will help them determine the best mobile strategies for gaining a competitive edge and accomplishing business goals.

Methodology

Keynote Mobile Index (KM10) is the competitive performance index for 10 popular mobile internet sites. Keynote's KM10 measures the responsiveness, availability and download speed of the mobile sites. To ensure that the indices are independent of variables introduced in mobile, all measurements are made using the same modem emulating the same device for each carrier. Motorola RAZR V3, being the most popular device in US, is emulated by all the modems to take measurements. Nokia N70 being the most popular device in Europe is emulated by all the modems in Europe to take measurements. Measurements are taken from 4 locations in US (New York, Dallas, Chicago and San Francisco – Bay Area) and 5 locations in Europe (Nuremberg, London, Paris, Stockholm and Amsterdam).

The KM10 measurements include single page downloads of the mobile sites from each location. Each modem takes 1 measurement for each mobile site every hour across all locations. All US locations download same list of mobile sites giving a KM10 US index. All European locations will download another list of mobile sites giving a KM10 EU index. As a result, for every mobile site in US, there are 24 measurements a day times 4 carriers times 4 locations,

every day.

At the end of every week, all the measurements for each mobile site are aggregated across all locations and all carriers to give a unique value for that week. The top performing mobile sites are ranked and posted on the corporate website. Keynote also publishes an **Industry Index** which is the aggregated value across all mobile sites, all locations and all carriers. Companies can use this value to benchmark their performance relative to the industry index.

Data Analysis and Review

Each week, before the results for any index are published on Keynote's Web site or reported to our publishing partners, the data is systematically analyzed and reviewed as follows:

1. For each index, an automated data-aggregation script selects only those measurements taken during the relevant days of the week and hours of the day.
2. To minimize the impact of outliers in general in the Mobile performance data, Keynote calculates the geometric mean of the total transaction time from all the measurements during the period. The geometric mean is the final value for the week for that mobile site in the speed table.
3. In the calculation of mobile site availability values (success rate table), additional filters are also applied to the data as needed for specific sites depending on the type of errors encountered; this step allows removal of errors caused by Keynote script

List of Mobile Sites

US Mobile Sites

CNN	ESPN
Facebook	Fandango
Google	MapQuest
MSN	Schwab
The Weather Channel	Yahoo!

Europe Mobile Sites

eBay	BBC
EuroNews	EuroSports
Facebook	Google
MSN	Time
The Weather Channel	Yahoo!

About Keynote

Keynote Systems (NASDAQ "KEYN") is the global test and measurement company for mobile communications and online business performance. As an independent and trusted third-party, Keynote provides IT and marketing executives with an unbiased view into their Internet services from around the world. For over a decade, we have been providing measurement data and testing capabilities that allow companies to understand and improve their customer's online and mobile experience.

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problems, in which a script fails because of a site change. However, error measurements that indicate unexpected outages of a site reflect the real user experience and are therefore not removed from the results.

4. In the calculation of site success rate values, Keynote excludes other measurement errors that do not directly correspond to a loss of site availability (those labeled by Keynote as miscellaneous errors").
5. The download speed table is calculated by performing a simple division of bytes downloaded by response time.
6. If a mobile site exhibits an unusual pattern of performance which cannot be explained after further

investigation, measurements of the mobile site during the time period in question are usually excluded from the reported data.

7. Normally, a mobile site will not be included in the published results unless at least 70% of its selected data points are valid measurements. Because the published index data is subjected to a more stringent analysis and filtering process and uses a more robust methodology to calculate the performance and availability results, those results do not necessarily match the corresponding statistics displayed using MyKeynote, the portal Keynote customers use to view their performance data.

KM10 Sample Data on Website

Keynote Mobile Performance Index - United States
Week starting 2 June 2008

Rank by Response Time (seconds)				Rank by Success Rate (percentage)			Rank by Download Speed (bytes/second)				
Rank	Target	Seconds	Bytes	Rank	Target	%	Bytes	Rank	Target	Bytes/Second	Bytes
1	Facebook	2.65	5239	1	CNN	98.29	10805	1	MSN	3682	17785
2	CNN	3.19	10805	2	Fandango	98.28	9488	2	CNN	3392	10805
3	Google	3.39	7943	3	Schwab	98.23	7468	3	ESPN	3019	27292
4	Fandango	3.65	9488	4	MSN	98.12	17785	4	TheWeatherChannel	2749	13019
5	Yahoo	4.12	10070	5	TheWeatherChannel	98.11	13019		Index	2746	12344
6	Schwab	4.27	7468	6	Google	98.09	7943	5	Fandango	2601	9488
	Index	4.49	12344		Index	97.97	12344	6	Yahoo	2442	10070
7	TheWeatherChannel	4.74	13019	7	ESPN	97.96	27292	7	Google	2342	7943
8	MSN	4.83	17785	8	Mapquest	97.93	14215	8	Facebook	1980	5239
9	Mapquest	8.74	14215	9	Yahoo	97.57	10070	9	Schwab	1751	7468
10	ESPN	9.04	27292	10	Facebook	97.14	5239	10	Mapquest	1627	14215

Establish realistic service level objectives internally and with carriers

