

AT A GLANCE

As the Internet of Things (IoT) begins transforming businesses, economies and society, some companies are emerging as the early leaders in the overall IoT ecosystem.

In this edition of the quarterly IoT company ranking we examine the current landscape of leading IoT companies, how much revenue they generate, how much awareness they create and how much these companies really do.

INSIGHTS

- Four companies are emerging as IoT leaders: Intel in the semiconductor space, IBM and Microsoft in the platform/ analytics space and Cisco in the connectivity space. Intel is reclaiming the top spot in the ranking.
- The big tech names **Google**, **Apple**, and also **Facebook** are losing ground in the ranking as these companies continue to focus more on their core business, rather than on IoT.
- In terms of self-reported revenues, **General Electric**, is the clear leader with \$5B in sales forecasted for FY2015. The IoT company ranking, however, does not mirror this clear leadership position that GE is claiming.
- Asian companies are starting to rise in the ranks with LG, NEC, and Huawei joining Samsung in the top 20 ranking.
- Computer companies **Hewlett Packard** and **Dell** are making strong gains compared to the last rankings but the IoT efforts of these companies are more buzz than actual doing for now.

1 Introduction

More than a year ago we published the first Internet of Things company ranking in order to monitor which companies are making the greatest progress in what many people believe is one of the most important technology wave of the decade.

Since then the company rankings have become an important source of information in the overall IoT ecosystem and a benchmark tool for many of the companies listed.

In this third edition of the quarterly IoT company ranking we are introducing three changes based on the feedback we have received from numerous IoT pioneers around the world.

We are introducing three changes to the third edition of the quarterly company ranking

1.1 IoT revenue ranking

The feedback we got most often about the IoT company ranking has been that it is not measuring actual IoT revenues.

Unfortunately only a small percentage of the 2000+ IoT companies that we monitor do report IoT-related revenues. And the IoT definitions of these companies vary greatly. (see further below the example of General Electric).

To visualize the current state of self-reported IoT revenues, an IoT revenue analysis is included in this report. We believe that going forward more companies will start to break out their IoT revenues as investors and other stakeholders demand clarity on the progress of IoT.

1.2 Doing IoT vs. claiming to do IoT

"Just because Google is all over the news, doesn't mean that they are actually doing a lot in IoT"

The company ranking is a mix of how much buzz companies create and how much the companies are actually doing in the Internet of Things ecosystem.

From now on we will be splitting these two dimensions. On the one hand we measure how much companies do by looking how many people actually work on IoT-related topics. On the other hand we look at how much awareness the companies create by looking at the number of news appearances and search engine queries.

The result is the IoT company leadership matrix (see below)

1.3 Measuring Tweets

In this third edition, we have stopped measuring IoT-related buzz on Twitter as we have found this to be the least accurate indicator of actual IoT activity.

1.4 Further rankings in 2016

We will continue to publish the IoT company ranking on a quarterly basis with the next one coming out in Q1/2016.

Please also note that for those interested in a more detailed analysis of IoT companies we will be publishing a detailed IoT company benchmark in Q1/2016 that ranks companies by IoT segment (e.g., Smart Home, Connected Car, etc.) and by technology (e.g., Platform, Sensors, Security, etc.). The report will also look at the top 100 IoT companies instead of just the top 50.

Stay tuned for these rankings.

2 Self-reported IoT revenues

Only few companies report or announce IoT revenues. Of those that do, four companies report revenues in excess of \$1B: GE, Intel, Qualcomm, and Fitbit.

2.1 General Electric

GE is making \$5B in revenues from IoT

If you believe the self-reported numbers, then General Electric is by far the biggest IoT company. Earlier in 2015, GE announced that the Predix platform had grown into a big business with \$5 billion in revenues and \$6 billion

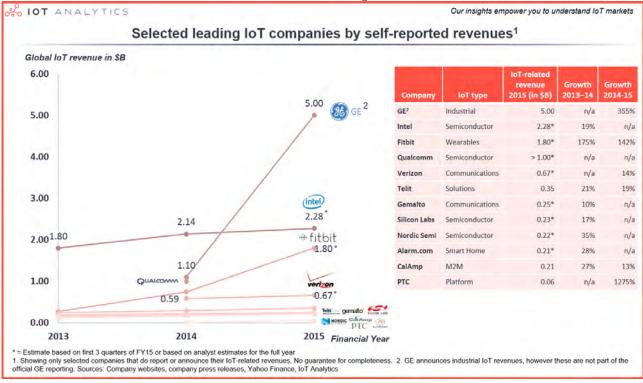


EXHIBIT 1: Self-reported revenue of selected IoT companies 2013 – 2015

in orders expected for FY2015. The company which had near 0 industrial IoT revenues in 2012 is on an incredible growth trajectory, growing the IoT business at a stunning rate of 355% in the last year.

There is one word of caution though: In contrast to companies like Intel, GE's numbers are not part of the official GE reporting. Therefore it is not clear how much of the \$5B is additional business and how much of it is relabeling of already existing business. Building a completely new \$5B business unit from 0 to 100 in 2 years would certainly be a world record (especially in the business-to-business environment).

2.2 Consumer IoT companies on the rise

Fitbit, the company known for its sports trackers that went public in 2015, is another company on an incredible growth trajectory. Analysts expect the company to reach

Fitbit is growing at an incredible pace of 142% per annum

\$1.8B in revenues in 2015. In the smart home space it is Alarm.com that stands out with \$210m in revenues.

2.3 The semiconductor battle

Intel and Qualcomm are battling out the IoT semiconductor war with smaller companies like Silicon Labs or Nordic Semiconductor far behind.

2.4 Growth rates are not gigantic

The analysis of self-reported revenues shows one important insight: IoT is not growing as fast as many analyst firms want us to believe. If you take out GE, Fitbit, and PTC (which is growing from a very low basis), then the growth rates of the companies mentioned are

The company data suggests IoT markets are growing at roughly 20% per annum, not 40 or 50%

in the 10%-35% range, averaging around the low 20s. IoT is a strongly growing trend but we are not in the 40% or 50% range (or even higher) as some IoT reports suggest.

3 The leading IoT companies

3.1 Overall ranking

The overall interest in almost all top IoT companies continued to increase in the last quarter. This development suggests that we have yet to reach the pinnacle of the IoT hype.

3.2 #1 Intel

After IBM had taken the top spot in Q2/2015, Intel has now come back to take #1.

Why is Intel top of the table in Q3/Q4 2015. Because the company delivered. Analysts were very happy with Intel's Q3 IoT revenue of \$581M.

And Intel's awareness is so good that 3,600 people search for Intel in conjunction with IoT every month.

3.3 #2 IBM

IBM remains a close follower in the IoT race. IBM is pursuing a strong partnership strategy. The technology giant announced partnerships with semiconductor

IBM remains Intel's close follower in the IoT company ranking

company ARM, and hardware and software design company HCL last quarter. IBM also launched their own

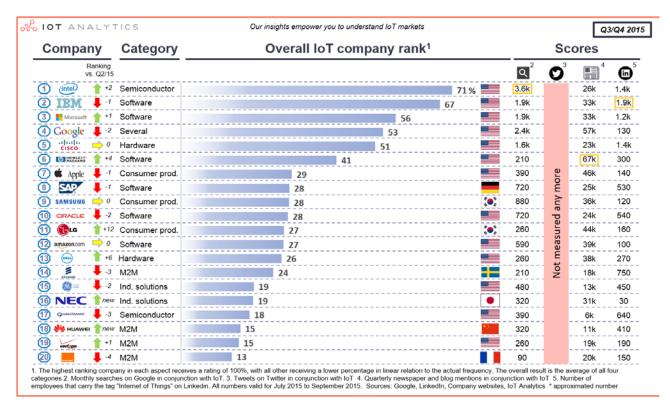


EXHIBIT 2: The top 20 IoT companies Q3/Q4 2015

IoT developer community. And the company continued to develop its "IoT foundation" platform for the Internet of Things (as part of the overall IBM Bluemix offering). IBM also acquired the company StrongLoop to add node.js API development capabilities to its Bluemix platform.

3.4 Notable movers

The landscape of IoT companies is starting to become more colorful. While the top 7 spots are still occupied by US companies, companies from other countries are

Asian companies are now entering the top 20 ranking

making a move.

Most notably, Asian companies are now entering the ranking. Korean electronics company LG gained 12 spots and is now ranked #11. LG announced a number of new IoT-enabled appliances, a smart sensor, a smart watch and at the same time the company is working on the next generation 5G telecommunication network for IoT (together with Ericsson). Japanese IT company NEC made headlines in Q3 with an announcement that it is increasing the employee count in its IoT division by a factor of five until 2020. The company is developing encryption technology as well as solutions in 5 different areas including industrial IoT and smart city. Chinese Huawei is the third of the three Asian newcomers in the ranking.

Other notable movers include Hewlett Packard and Dell. Both companies that are known for their business end-user and enterprise computer solutions have seen a decline in revenue in the last years and are now hoping that IoT can help them turn the trend around.

3.5 The runner-ups

It is quite an accomplishment to get into the list of top 20 IoT companies. These are the runner-up companies from rank 21-50 (in order):

AT&T, ARM, Gartner, Red Hat, August, Accenture, Alcatel Lucent, Arduino, PTC, BlackBerry, Salesforce, Vodafone, Pubnub, Bosch, Sony, Wipro, Jasper, HTC, Canary, Lenovo, IDC, Broadcom, Deutsche Telekom, Nokia, Symantec, Splunk, Schneider Electric, Telefonica.

4 Matrix of leading IoT companies

There are four real leaders of IoT emerging: Intel, IBM, Microsoft, and Cisco. These companies not only promote IoT strongly, they also have a strong workforce behind their IoT efforts. (IBM being the biggest)

Intel, IBM, Microsoft, and Cisco are emerging as the IoT leaders

The matrix reveals that Google (as the #4 company in the overall ranking) has a great awareness in IoT but doesn't actually do that much. Besides owning the well-known smart home company Nest, Google has announced the IoT operating system Brillo, the meta language Weave, and it is pushing the Thread mesh network communication standard. The workforce behind these efforts appears to be rather limited.

In general, out of the leading 20 IoT companies, it is fair to say that every company is doing quite a good effort in promoting its IoT efforts. Only Ericsson may be getting too little attention given how many people work on IoT solutions at the Swedish company. *Please note that the matrix does not take into account how good the IoT solutions are.

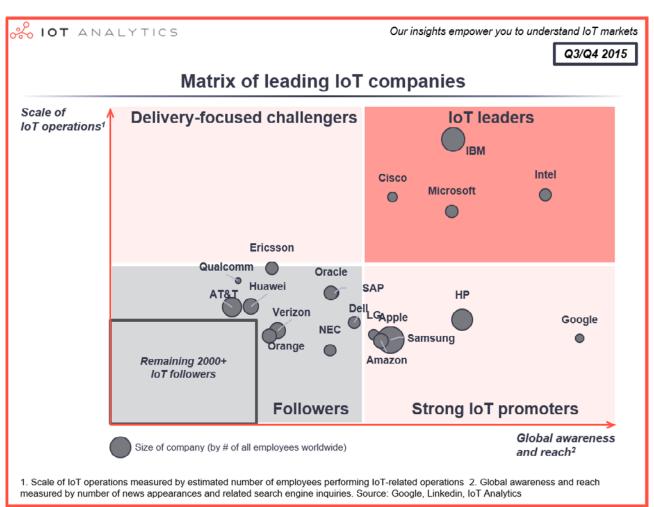


EXHIBIT 3: The matrix of leading IoT companies Q3/Q4 2015: Four IoT leaders emerging

5 Historical development

Looking at the last rankings, most companies in the ranking are relatively stable over time. What looked to be a five-way battle at the top in Q1/2015 has turned into a two-way battle between IBM and Intel.

The tech giants Google and Apple are slowly on the way down as these companies continue to focus most on their currently successful core business. It seems that HP is on a steep rise in the IoT ranking. But it remains to be seen if the HP spike is just a quarterly phenomenon or whether the company can actually push its way into the top 5.

6 Methodology

The basis for the ranking is the 'IoT Analytics' database of 2000+ Internet of Things companies. We rank the firms based on three dimensions:

1. # of Google searches

How often people search for the companies on Google in conjunction with IoT

2. # of News items

How often newspapers and blogs mention the companies in conjunction with IoT

3. # of IoT employees

How many company employees carry the tag "Internet of Things" on Linkedin

The highest scoring company in each dimension receives a rating of 100%, with all other companies receiving a lower percentage in linear relation to the score of the highest ranking company. The total score is an average of all three measured dimensions. All numbers were measured between 07-09/2015.

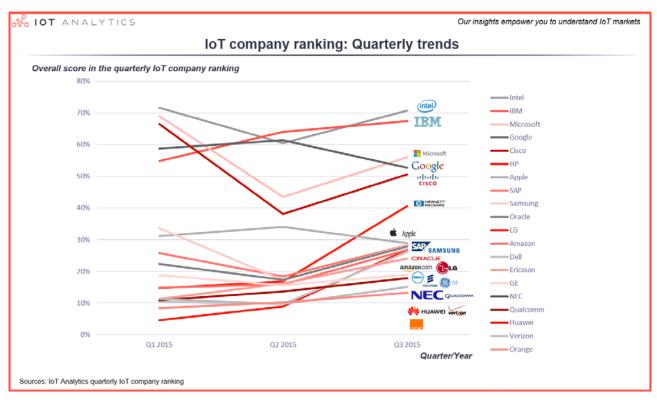


EXHIBIT 4: Quarterly IoT company trends

About



IOT ANALYTICS

IoT Analytics is the leading provider of market and industry insights for the Internet of Things (IoT). The company reaches more than 20,000 people in the IoT ecosystem every month, offfering the following products and services:



LATEST INSIGHTS: Latest IoT news, regular blog posts, monthly newsletter, specific white papers

MARKET REPORTS: Targeted industry reports, company databases/lists, specific IoT data sets

GO-TO-MARKET SERVICES: Sponsored publications, joint webinars, custom research for specific inquiries

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Selected recent publications



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Q2/2015 MARKET REPORT: IoT companies - List of 2000+ Internet of Things companies. \$1999US. Visit website for more information.

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Do you have a question or feedback on the ranking? Do you have other inquiries or ideas? Then get in touch.

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gifting his testad toop of time habite his QNIQA 2015. Beet earner that company between the brompto were very happy with water's Q1 left revenue of \$141M. of a meanwearth to so good that 3,600 penging The leading lot 3.3 #2 IBM 1884 remains a close follower in the lot race, 884 is gursuing a strong partnership strategy. The techni giant announced partnerships with sem 3.1 Overall ranking The overall interest in almost all top by companies IBM remains Intel's close follo continued to increase in the last quarter This development suggests that we have yet to reach the the loT company ranking company ARM, and hardware and sof company HCL last quarter IBM also pinnacle of the lot hype. enot in Q2/2015, Intel has a empower you to understand to T markets #1 Intel verall lot company rank Copyright © 2015 IoT Analytics GmbH. All rights reserved. 41 IoT Analytics is the leading provider of market and industry insights for the Internet of Things (IoT) and for Industry 4.0. This document is intended for general informational purposes only, does not take into account the reader's specific circumstances, and may not reflect the most current developments. IoT Analytics disclaims, to the fullest extent permitted by applicable law, any and all liability for the accuracy and completeness of the information in this document and for any acts or omissions made based on such information. IoT Analytics does not provide legal, regulatory, audit, or tax advice. Readers are responsible for obtaining such advice from their own legal counsel or other licensed professionals. e top 20 loT companies Q3/Q4 2015 For more information visit http://www.iot-analytics.com