

Smartphones and tablets: more than half of all computers aren't computers anymore

Deloitte predicts that in 2011 more than 50 percent of computing devices sold globally will not be PCs¹. While PC sales are likely to reach almost 400 million units², Deloitte's estimate for combined sales of smartphones, tablets and non-PC netbooks is well over 400 million. Unlike the 2009 netbook phenomenon, where buyers chose machines that were essentially less powerful versions of traditional PCs, the 2011 computing market will be dominated by devices that use different processing chips and operating systems than those used for PCs over the past 30 years (see Figure 1).

This shift has prompted some analysts to proclaim that "The era of the PC is over"³. Deloitte's view is that this is not the case: traditional PCs will still be the workhorse computing platform for most of the globe in 2011. PC unit sales are expected to rise by more than 15 percent year-over-year, and the global installed base of PCs stands at over 1.5 billion units⁴. At the end of 2011, non-PC computers will still represent only about 25 percent of all computing devices.

However, when looking at the future of computing devices, 2011 may well mark the tipping point as we move from a world of mostly standardized PC-like devices, containing standardized chips and software, to a far more heterogeneous environment.

How varied will this new environment be? Deloitte predicts there will be at least two substantially different chip architectures⁵ and at least 5 different operating systems that each have more than five percent market share.

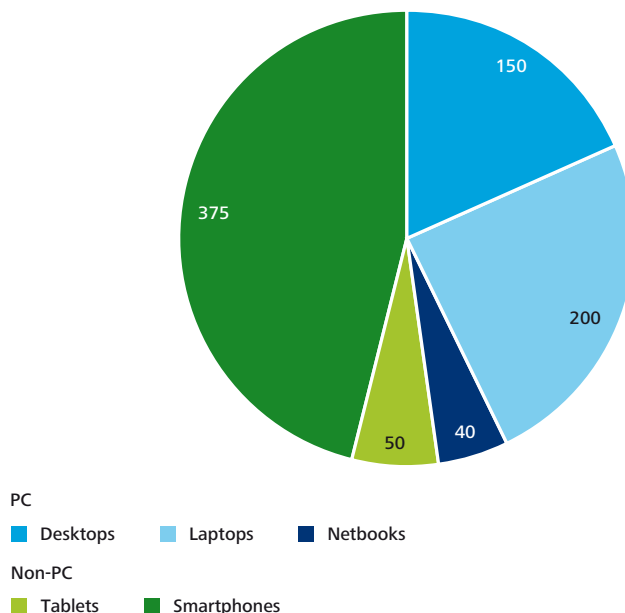
This more diverse computing world is expected to change some of the basic assumptions about the business model for computing devices.

In the PC environment, the average profitability of consumer software companies has generally been lower than for other software companies in recent years: an average net profit margin of less than 10 percent, compared with an average of 21 percent for all application software companies⁶. Also, consumer software companies have been growing more slowly than the overall application industry.

In the non-PC world, although app adoption is still in its infancy, the industry is forecast to enjoy 60 percent growth in 2011 to over \$10 billion⁷. Most of this revenue is expected to come from paid-for apps, with only about 10 percent from in-app advertising⁸. The app industry in aggregate does not seem to be very profitable: one estimate suggests that it takes the average app developer 51 years to break even⁹. However, leading apps companies appear to be significantly more profitable than average. Although many are private and do not publicly disclose their net profits, M&A valuations suggest expected profitability levels much higher than the single digits of PC software companies.

Figure 1. Computing device market forecast

PC and non-PC sales, 2011 (millions)



Source: Deloitte Touche Tohmatsu Limited, 2010

Manufacturing non-PC computing devices should also be substantially more profitable than making PCs. PC Original Equipment Manufacturers (OEMs) have averaged 10 percent gross profits in recent years, with 2 percent net margins. By contrast, the leading smartphone and tablet makers generate gross profits of 40-60 percent and operating margins of 25-40 percent¹⁰.

Distribution is expected to become more profitable as well. Traditional PC distribution gross margins average about 5 percent¹¹. Although separate figures for the entire tablet and smartphone distribution industry are not public, some distributors are reporting operating margins of 15 percent, which imply gross margins over 30 percent¹².

There will also likely be expanded service opportunities. Although many of these non-PC alternatives are marketed as "easy to use", the bewildering array of hardware and app choices makes it more likely buyers will be willing to pay for help selecting the best or most industry-appropriate devices and apps – along with subsequent integration, maintenance, and support¹³.



Bottom line

In 2011, buyers of computing functionality, whether in the enterprise or consumer sector, will face some interesting choices. In the past, most computer buyers purchased similarly configured machines at similar prices on similar replacement cycles. Although not quite as limited as the infamous paint options on Henry Ford's Model T – "any color so long as it's black" – the range of variation for PCs was quite narrow. But in this new era where more than half of all new computing devices sold are non-PCs, the ranges of price, performance, form factor and other variables will be at least an order of magnitude wider. Choosing will take longer, and will need to be done more carefully.

For IT departments, the cost of managing a mixed network of both PCs and non-PCs is likely to be much higher than standardizing on one or the other. Yet employees are increasingly being allowed to pick their own devices, and tens of millions have already done so – especially smartphones¹⁴. If given a choice, some employees will pick PCs, some will pick non-PCs, and some will pick both! Reconciling these two trends and determining the true total cost of ownership will present a significant learning curve.

There will also be major challenges for software and peripheral developers. In the traditional PC world, software that ran on one machine generally ran on billions of others. The same was true for peripherals, as long as they complied with standard APIs. But in the more fragmented world of 2011 and beyond, software and hardware will likely require more customization, and developers may need to pick and choose which platforms they develop for, knowing that they cannot afford to address all markets simultaneously.

- 1 So what is a PC? Almost all laptop, desktop and netbook computers sold in 2009 and before were based on a common architecture. There were some variations in operating system, but almost all of them ran on chips that still were compatible with the original x86 architecture specified by the developer of the PC in 1981. In contrast, almost all of the non-PC devices (smartphones and tablets) that are expected to ship in 2011 will NOT use that architecture, those chips or any of the various PC operating systems. There are exceptions: in some markets some devices that look like PCs use different chips (mainly netbooks) and some tablets are expected to ship with chips and OS that are from the PC ecosystem. But the exceptions are just that, and are expected to be less than 5 percent of either market.
- 2 PC Sales Forecast Cut Further as Tablet Market Grows, Gartner estimates cited in an article from ChannelInsider, 30 November 2010: <http://www.channelinsider.com/c/a/Spotlight/PC-Sales-Forecast-Cut-Further-as-Tablet-Market-Grows-Gartner-711349/>
- 3 IDC Predicts Cloud Services, Mobile Computing, and Social Networking to Mature and Coalesce in 2011, Creating a New Mainstream for the IT Industry, IDC, 2 December 2010: <http://www.idc.com/about/viewpressrelease.jsp?containerId=prUS22593310§ionId=null&elementId=null&pageType=SYNOPSIS>
- 4 Installed base of PCs to hit 2B units by 2014, Gartner, 5 May 2010, cited in EE Times Asia, 2 July 2008: http://www.eetimes.com/ART_8800532355_1034362_NT_0f60995b.HTM and <http://www.gartner.com/DisplayDocument?id=1364917>
- 5 In the PC world, although there is more than one chip supplier, the two major manufacturers produce chips that are substantially similar to each other at the architectural level: x86 compatible Complex Instruction Set Computer (CISC) able to be used virtually interchangeably in most PCs with only minor modifications.
- 6 Yahoo! Finance, Application Software Companies: <http://biz.yahoo.com/p/821conameu.html> used as a screen, and excluding OS providers.
- 7 Mobile App Marketplace: \$17.5 Billion by 2012, GetJar report dated 17 March 2010 cited in TechCrunch, 17 March 2010: <http://techcrunch.com/2010/03/17/getjar-mobile-app-sales-will-overtake-cd-sales-by-2012-video/> and <http://blog.getjar.com/developer/sizing-up-the-global-apps-market/>
- 8 Gartner Says Consumers Will Spend \$6.2 Billion in Mobile Application Stores in 2010, Gartner Press Release, 18 January 2010: <http://www.gartner.com/it/page.jsp?id=1282413>
- 9 Full Analysis of iPhone Economics – it is bad news. And then it gets worse, Tomi T. Ahonen Blog posted on 'Communities Dominate Brands' Website, 22 June 2010: <http://communities-dominate.blogspot.com/brands/2010/06/full-analysis-of-iphone-economics-its-bad-news-and-then-it-gets-worse.html>
- 10 Phone incumbents' average operating margin: 4.5%, RIM and Apple: 34%, Asymco, 13 August 2010: <http://www.asymco.com/2010/08/13/phone-incumbents-average-operating-margin-4-5-rim-and-apple-34/>
- 11 Tech Data Corporation Reports Fiscal 2011 Third-Quarter Results, 22 November 2010: <http://phx.corporate-ir.net/phoenix.zhtml?c=115264&p=irol-newsArticle&ID=1499128&highlight>
- 12 Glentel Q3 2010 Quarterly Report, Glentel website: <http://www.glentel.com/images/financials/123/Glentel-Q3-Report-Web-Nov-10.pdf> pages 18 and 27 for retail distribution operating income.
- 13 Deloitte Predictions interviews conducted in November 2010 with wireless carriers in Europe and North America suggest that they see significant service revenue opportunities in the small and medium business segments for mobile and tablet app selection and maintenance.
- 14 The End Of The BlackBerry Elite, Forbes, 20 April 2010: <http://www.forbes.com/2010/04/20/smartphone-mobile-iphone-technology-cio-network-blackberry.html>

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