

Bring Your Own Device (BYOD): Market Analysis and Forecasts



ARC CHART

Bring Your Own Device (BYOD): Market Analysis and Forecasts

May 2012

Caroline Gabrielle
Lead Analyst

Matt Lewis
Research Director

ARCchart
78 York Street
London
W1H 1DP
United Kingdom

Tel: +44 33 00 88 1355
Fax: +44 33 00 88 1350
service@arcchart.com

ARCchart is an independent research and consulting firm focusing on all aspects of the wireless communications sector. Based in London, ARCchart's depth and breadth of analysis provides a global perspective on wireless technology and industry developments. Combining original thinking with exceptional knowledge and experience, ARCchart assists clients in making sound commercial decisions about technologies, market strategies and competitive positions. ARCchart's strategic advice covers all aspects of the wireless value-chain - ranging from semiconductors and WLANs to network operators, handsets and mobile applications.

This report draws upon research and analysis conducted by all the ARCchart information groups. Use of this report by any third party for whatever purpose should not, and does not, absolve such third party from using due diligence in verifying the report's contents. Any use which a third party makes of this document, or any reliance on it, or decisions to be made based on it, are the responsibility of such third party. ARCchart, its affiliates and representatives accept no duty of care or liability of any kind whatsoever to any such third party, and no responsibility for damages, if any, suffered by any third party as a result of decisions made, or not made, or actions taken, or not taken, based on this document. ARCchart does not make investment recommendations, in this report or otherwise, and nothing in this report should be interpreted as an opinion by ARCchart either on market forecasts or on the prospects of specific companies.

Executive Summary

A major trend affecting enterprises of all sizes, and the smartphone industry, is the rise of BYOD (bring your own device) policies for mobile usage. Traditionally, mobile devices were specified and purchased by the organisation, and in most cases employees had a separate device for personal use. With BYOD, personally owned handsets, tablets and notebooks are used for business functions. The enterprise may, or may not, fund the usage fees, but must find ways to allow a diverse range of products to access corporate networks and systems, such that productivity is boosted without compromising security.

This study is based on an extensive survey of enterprise organisations around the world, with 65% of these corporations confirming that they will have adopted some level of BYOD by the end of 2012, and only 11% not having any plan for BYOD in the near future. The top two reasons specified for pushing forward with BYOD are cost reduction and staff motivation, yet there are many fears in the IT departments. According to our survey, key concerns include security, fragmented software, and ironically, a rise in support costs.

By 2016, ARCchart expects shipments of BYOD smartphones to rise by almost 175%, reaching a total 343 million units, about 36% of the total smartphone market. A natural consequence of BYOD will be a contraction of the overall handset market, since just one smartphone is purchased for both business and personal use, rather than two. As a result, we estimate that by 2016 the lost revenue potential for the smartphone industry caused by BYOD will reach almost \$40bn.

These changing patterns will create opportunities for industry stakeholders, especially handset makers which have not traditionally thrived in the corporate world, but will be challenging for those which have relied heavily on the enterprise segment - RIM being an example. Vendors will need to compensate for the squeeze on their growth potential by stealing market share from rivals, or by supplementing their revenues with other devices – although business users are migrating towards carrying a single smartphone, increasingly they will carry an additional mobile device such as a tablet, probably also on a BYOD basis.

BYOD creates opportunities for companies whose products help enterprises adapt to the new way of sourcing and supporting portable gadgets. While corporations have embraced BYOD in the hope of reducing the cost of purchasing smartphones, they also have significant concerns, most importantly how to secure and manage the devices. This is creating a boom in systems which automate mobile device management (MDM) and security, and in other technologies which can reduce the BYOD risk. Notable among these is virtualisation, which endows a handset with a completely separate and secure business profile, segregated from personal applications and data. Virtualisation and MDM vendors will be the assured winners from the BYOD trend.

Table of Contents

A. INTRODUCTION	1
A.1 The Rise of BYOD	1
Impact on Key Groups and Stakeholders	1
Enterprise Attitudes towards BYOD	2
Regional Variations in Attitudes	2
A.2 Different Approaches to BYOD.....	3
CYOD (Choose your own device)	3
Hybrid BYOD	3
Limited Access BYOD	4
Device Policy	5
A.3 The Survey	6
B. THE GROWTH OF BYOD	7
B.1 Factors Driving BYOD.....	7
Enterprise Drivers.....	7
Cost.....	7
Complexity.....	8
Employee Motivation	8
Increased Productivity	8
New Working Habits.....	8
Employee Drivers	8
The Rise of the Smartphone	8
User Experience Trumps Cost.....	9
New Working Habits.....	9
B.2 Factors Accelerating the BYOD Trend	9

C. COSTS AND RISKS	11
C.1 Risks.....	11
Security.....	12
Security Breaches	12
Costs	12
Liability	12
Software and Services	12
C.2 Costs	13
Source of Cost Savings.....	13
Device and Billing Costs.....	13
Savings and Costs of Mobile Devices.....	13
Cost of Expense Management.....	14
Savings and Costs of Mobile Bills.....	14
IT Support and Device Management Costs	15
IT Support Costs.....	15
Network Infrastructure Costs.....	16
C.3 Cost Saving Outlook.....	17
C.4 BYOD Case Studies.....	18
Citrix	18
IBM18	
D. ENABLING TECHNOLOGIES	19
D.1 Mobile Device Management.....	19
MDM Approaches	20
Google	20
Handset Vendors.....	21
Device Platform MDM Support.....	21
iOS and Blackberry.....	21
Windows Phone.....	21
Android	22
MDM Revenues.....	22
Security.....	23
Android	23

iOS.....	24
BlackBerry.....	24
Windows Phone.....	24
Access Control Policies	24
Costs and ROI	25
Low-Cost Solution from RIM.....	25
Low-Cost Solution from Amtel	25
D.2 Virtualisation	26
Approaches to Virtualisation.....	26
Bringing the Desktop to Mobile Devices	26
One Device, Multiple OSes	26
Benefits and Limitations of Virtualisation	26
Separate Billing.....	26
Limitations	27
Virtualisation Outlook	27
Virtualisation Vendors.....	29
VMware	29
Enterproid.....	29
Red Bend.....	30
Intel.....	30
Handset OEMs and UI-Switching.....	30
D.3 The Multi-OS Environment	31
Addressing the Multi-OS Challenge	31
HTML5.....	31
Corporate App Stores	32
Barclay's App Store Initiative.....	32
Employee Apps	33
D.4 Unified Communications.....	33
Alcatel-Lucent.....	34
E. IMPACT ON THE DEVICE INDUSTRY.....	35
E.1 Reduction of the Business Smartphone Market.....	36
E.2 Platform Winners and Losers	38
Stealing Market Share	39

Apple	39
iOS Enterprise-friendly Improvements	39
Driving iDevice Enterprise Adoption	39
Android	40
RIM	41
Falling Enterprise Position	41
Enterprise Defections	42
BYOD Opportunity	42
Windows Phone	43
E.3 Selling Additional Devices	44
Convergence of Handset and PC Ecosystems	44
Tablets	45
F. MARKET SIZE & FORECASTS	47
F.1 Smartphone Market	47
Platform Market Share	48
Enterprise Smartphones	49
F.2 BYOD Market	51
Market Size	51
BYOD versus Business-only	52
Regional breakdown	53
Lost Revenue	56
Platform Market Share	57
Market Share Shifts	57
Platform Winners and Losers	58
Android	59
Apple	59
Microsoft	60
RIM	60
Virtualisation	61
G. CONCLUSIONS AND LOOKING AHEAD	63
BYOD 2.0	63
Move to Thin Clients and the Cloud	64

List of Figures

Figure 1 - Proportion of medium to large enterprises supporting BYOD or partial BYOD policies....	2
Figure 2 - Regional adoption of formal BYOD policies	3
Figure 3 - Adoption of limited access BYOD versus universal schemes	4
Figure 4 - Adoption of hybrid BYOD versus fully open schemes.....	5
Figure 5 - Reasons to support BYOD, top two criteria	7
Figure 6 - Proportion of US mobile employees using a tablet for business, by platform	9
Figure 7 - Top five perceived BYOD risks among medium to large companies	11
Figure 8 - Split of mobile bills between employer and employee	14
Figure 9 - BYOD gains and losses compared to existing cost base.....	17
Figure 10 - Revenues from MDM products and services 2012 to 2016.....	22
Figure 11 – Platforms perceived as posing the biggest security risk by corporations	23
Figure 12 - Revenues from mobile virtualisation: 2012-2016.....	28
Figure 13 - Proportion of BYOD devices with embedded virtualisation technology: 2012 - 2016 ..	28
Figure 14 - Lost revenue to smartphone vendors from BYOD	36
Figure 15 - BYOD handset shipments, by region: 2012 - 2016.....	37
Figure 16 - BYOD handset shipment regional breakdown: 2012 - 2016.....	37
Figure 17 - Smartphone market share in medium to large enterprises, by platform.....	38
Figure 18 - Corporate perceptions of RIM	41
Figure 19 - Evolution of the business user's mobile devices portfolio: 2008 & 2013.....	44
Figure 20 - Corporate and personal tablet ownership in North American: 2011 & 2012.....	45
Figure 21 - Global smartphone shipment volumes: 2012 - 2016.....	47

Figure 22 – Smartphone platform market share: 2012 - 2016	48
Figure 23 - Global enterprise smartphone shipment volumes: 2012 - 2016	49
Figure 24 – Enterprise smartphone shipment volumes, by region: 2012 - 2016.....	50
Figure 25 - Global BYOD smartphone shipments: 2012 - 2016.....	51
Figure 26 – Enterprise smartphone shipments, BYOD and business-only: 2012 - 2016.....	52
Figure 27 – BYOD smartphone shipments, by region: 2012 - 2016	53
Figure 28 - Global smartphone shipments by device category: 2012-2016	54
Figure 29 - North American smartphone shipments by device category: 2012-2016	55
Figure 30 - European smartphone shipments by device category: 2012-2016	55
Figure 31 - RoW smartphone shipments by device category: 2012-2016	55
Figure 32 – Lost revenue due to BYOD: 2012 - 2016	56
Figure 33 – Smartphone market share breakdown, by platform: 2012 - 2016	57
Figure 34 - BYOD-driven loss of unit shipments by platform: 2012 – 2016.....	58
Figure 35 - BYOD-driven loss of sales by platform: 2012 - 2016.....	59
Figure 36 – Global revenues from mobile virtualisation: 2012-2016	61
Figure 37 - Proportion of BYOD devices with embedded virtualisation technology: 2012 - 2016 ..	62

ARCchart
78 York Street
London
W1H 1DP
United Kingdom

Tel: +44 33 00 88 1355
Fax: +44 33 00 88 1350
service@arcchart.com