

Changing the Game: Monthly Technology Briefs

Why is Mobility More than Making Enterprise Applications Available?

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Why is Mobility More than Making Enterprise Applications Available?

2011 was a remarkable year in terms of the sheer numbers of wireless connected hand-held devices shipped. A whopping 67 million tablets were sold in 2011, which is an astounding 260% increase over 2010 sales. The fourth quarter of 2011 alone witnessed sales of 27 million tablets, out of which iPads accounted for 58%, while all Android versions put together constituted 39% of the sales, as per data from Strategicanalytics.com. There are 97.9 million smartphones in use in the US with 47.3% being Android-based, 29.6% Apple-based, followed by Blackberry at 16% and Microsoft at 4.7% as per statistics compiled by ComScore for the fourth quarter of 2011. Smartphone sales, in fact, exceeded PC sales for the first time in 2011, according to Canalys.

In the period between Christmas and New Year, an incredible 6.8 million new Apple and Google devices were activated online for the first time, and 242 million software Apps were downloaded. While Google and Apple continue to dominate the new market sectors they have created, Amazon leads in eReader sales, accounting for as much as 91% of the entire market. The impact of Amazon's Fire tablet is yet to be seen. By contrast HP, RIM Blackberry, and Nokia, all existing market leaders have been forced to reconsider their strategy. The market, more or less, rejected their devices, which were based on their traditional software.

The big growth is all in the new devices that are being used in new ways and usually referred to by the term 'Mobility'. And this growth may come at the expense of what we traditionally know of as 'Enterprise Mobility'.

In the 'traditional' Mobile market or Enterprise Mobility, a client-server enterprise application is delivered to a mobile device either by wired or wireless connections. In Enterprise Mobility, the challenge is that the Mobile Platform must manage the refresh synchronizations as and when the connection is available, with due regard to the expensive bandwidth of the connection. Managing data that must reside on the mobile device with its consequential security problems is an additional challenge. Plus there is the problem of maintaining 'state-full' data integrity of transactions, when faced with a combination of conventional and mobile users of the application. Yet another challenge this market has to grapple with is the provisioning of remote access for enterprise notebook PCs over secure Virtual Private Networks (VPN), while making the PC appear functionally to be on the enterprise network, as if it were still inside the Firewall.

In contrast, 'Mobility' refers to the new market that has been created around personal devices. Here, the user usually has a high degree of control over the provisioning and use of software not in the form of monolithic enterprise applications, but in the form of 'Apps' or 'Services'. These Apps or Services are small enabling modular software elements provided by the Internet/web model, often running out of what we define as the 'Cloud'. The term 'Mobility' is used to convey that in architectural terms the Internet, web, Cloud and the services model is loose-coupled (hence the 'mobility' between all resources), stateless, and non-deterministic. This model uses browser technology as the presentation element for its thin-clients that access hosted services and data from the Clouds.

The term 'stateless' is important as it avoids many of the issues associated with Enterprise Mobility around the all important 'state-full' data model of the client-server applications. Instead, in Mobility there is a 'Representation of State', usually called 'Restful', whereby a browser displays a screen presentation sent to it by a web or Cloud server if it is content. The term Cloud is correctly used to denote a common environment comprising nominated services and user connections that include 'processes' as well as the pure content model of the web. An easier way of understanding this perhaps would be through the example of iFly, a popular app with business travelers available for use on iPhones or iPads.

Consider Apple, its App Shop and its iCloud. The Apple App Shop holds the Services or Apps that a user can choose to use and provides the authentication for their use, while a download provides the enabling client. But in Apps such as iFly all the data or information is supplied as a real-time connection under REST. Conversely, in the case of a banking app, a very secure method of separating the user in the outside-in environment from access to the secure traditional IT applications, data, and systems housed in the inside-out environment is used. In Apple iCloud, a user's data is held in the form of cloud storage and can be accessed by any of the user's devices; PC, iPad, iPhone, or iPod that posses the authentication key, thus ensuring that all activities are perfectly synchronized at all times. This is in direct contrast to the older form of mobile client-server application, and its requirement for an extensive and complicated synchronization to maintain 'state-full' data. As such the Cloud and mobility are inherently part of the same architectural model, and that leads us to the third part of the model around 'unstructured' data, often referred to as big data.

The impact of this and other technologies is discussed in the [Capgemini CTO Blog](#).

Leading Company Results (Revenues)

Leading Company Results (Revenues)			
Full Year	ARM ↑ 21% @ £491.8mn	Terradata ↑ 22% @ \$2.36bn	Nvidia ↑ 13% @ \$4bn
	IBM ↑ 2% @ \$29.5bn		
Half Year	ATOS ↓ 11% @ €2.47bn		
Q4	Nokia ↓ 21% @ €10bn	Samsung ↑ 15% @ \$42bn	Amazon ↑ 35% @ \$17.43bn
	Cognizant ↑ 27% @ \$1.66bn	TCS ↑ 20% @ \$2.6bn	Terradata ↑ 23% @ \$673mn
Q3	CSC ↓ 6% @ \$3.76bn	TCS ↑ 2% @ \$2.58bn	SAP ↑ 14% @ \$3.4bn
	Software ag flat @ €274.6mn	Cognizant ↑ 31% @ \$1.66bn	Capgemini ↑ 13% @ \$2.4bn
	Salesforce.com ↑ 36% @ \$584mn	Dell flat 5% @ \$15.37bn	Alcatel-Lucent ↓ 7% @ \$3.8bn
Q2	Cisco ↑ 11% @ \$11.5bn	Microsoft ↑ 5% @ \$20.89bn	Nokia ↓ 7% @ €9.3bn
Q1	HP ↓ 6% @ \$30bn		

Movements by Industry Leaders

Cisco Aironet 3600 Series AP adds a new high capacity WiFi access point to meet the growth in the numbers of wireless connected tablets and smart phones. It is claimed to have unique technology that makes both speed and connection sensitivity better by using four aerials. Cisco data centre routing and switch product portfolio upgrade across a wide range of products includes Catalyst 6500 40 gigabit Ethernet data centre switch, Cisco Nexus extensions to include a 40/100 gigabit Ethernet interface, as well as new functionality on Cisco 6500, 4500 and Aggregation Service Router around a new technology called 'Easy Virtual Network'. Cisco will resell Citrix XenDesktop and use VMware View 5 as parts of its extended Cisco Virtualisation Experience Infrastructure, VXI. As part of a three year plan to restructure operating costs Cisco claim they have reached the \$1 billion reduction in operating costs milestone. www.cisco.com

Oracle relaunched their approach to CRM offering a total integration and packaged approach. It is built around the acquired RightNow cloud-based CRM platform but includes numerous other Oracle parts such as analysis of real time information etc. **Oracle Communications Data Model 11.2.5** supports communication service providers' analysis of various media types of traffic against any aspect of their business model. **Oracle Communications Network Integrity 7.1** supports network inventory management for network operators. **Oracle Meter Data Analytics** adds a further sector specific analytics product in this case to understand the new data feeds available from metering systems. **Oracle Utilities Mobile Workforce Management 2.1 and Oracle Utilities Mobile Workforce Analytics** offer field service management improvement and the ability to use the data generated to understand better what and how to improve field operations. **Oracle Health Services Omics Data Bank** is a highly specialised product to assist in personalised medicine initiatives. **Oracle JD Edwards EnterpriseOne Mobile applications support requisitions, purchase and sales activity applications.** **Oracle asks for a retrial in their court case with SAP**, after the original ruling of \$1.3bn in damages awarded to Oracle was cut to \$272mn on appeal. The case pertains to an SAP subsidiary called **TomorrowNow using Oracle information illegally.** **Oracle is to acquire Taleo** a 'cloud services' company that manages from 'hire to fire' aspects of staff relationships. **Oracle introduces Advanced Analytics** a combination of Oracle R Enterprise

and **Oracle Data Mining for Big Data requirements**. **Oracle Financial Services Analytical Applications** for insurance companies **needing compliance with Solvency II requirements**. **Oracle FLEXCUBE Multi Channel Solution** overviews all channels and provides a management capability for complex private banking operations. **Oracle PeopleSoft Financials and Supply Chain Management, FSCM, 9.1** Feature pack 2 introduces upgrades with the addition of new functionality in a simple upgrade pack. **Oracle MySQL Cluster 7.2** a higher performance supporting both SQL and NoSQL through a new Memcached API. **Oracle Healthcare Master Persons Index v2** provides a single master reference point for all data associated with a single patient. www.oracle.com

HP VirtualSystem for Enterprise Desktops has moved to offering complete integrated packages instead of the previous series of reference platforms using VMware or Citrix software and includes Proliant Blades and storage arrays. **HP OpenFlow network virtualisation technology** has been added to 16 models of the HP Network Switches models in the 3500, 5400 and 8200 series. **HP LoadRunner-in-the-Cloud** offers qualified partners consumption based performance testing as an on-demand service. **HP Proliant 8 servers** are to gain a new set of capabilities to make deployment and operation of software easier and significantly cheaper. **HP Service Integration and Management, SIAM**, is a cross cloud policy management capability to ensure that administration of multiple platforms is simplified and consistent. **HP Z1 Workstation** aims to offer big enterprise level workstation power at a lower cost to enable SME companies to use CAD applications and similar demanding applications. At HP Global Partner Conference **the doubling of R&D and the positioning of WebOS as a competitive alternative to Apple iOS and Google Android plus the importance of the Personal Systems Group** were three themes in CEO Meg Whitman's address. **HP Elite PC range gains new 'services' differentiation** around a premium 24/7/365 dedicated online white glove level of help desk service for owners/users of the Elite top of the range PCs. **HP blamed a drop in revenues** on falling demand for PCs in line with the overall market shipments. www.hp.com

Intel is acquiring 190 patents from Real Networks together with a further 170 patent requests in process of being granted and some specific Video Codec technology. All of this is intended to support the development of new features for Smart phones and Laptops. **Intel 525 Series Drives** gain read/write speeds of 550/520 MBs with a SATA III interface. **Intel Ivy Bridge 22nm die version of Sandy Bridge** adding performance improvements particularly with graphics is to have a delayed launch to allow PC developers to clear existing stocks before new upgraded versions make the older stock obsolescent. **Intel Next Generation Communications Platform code named Crystal Platform** is intended to add packet, application, and control processing to the chip to bring a breakthrough in online multimedia capabilities. www.intel.com

IBM Endpoint Manager for Mobile Devices Platform provides remote establishment and removal of policy management on remote devices running Android, Apple iOS or Symbian operating systems. **IBM are acquiring Worklight** a provider of specialist mobility software for tablets and smart phones claiming that this provides IBM with every part of mobility from development to integration and operational management. **IBM QRadar Security Intelligence Platform** has been updated to use new information sources on threats and proactively arrange defensive measures. www.ibm.com

Microsoft Office 15 technology preview has been posted on its web site and testing with selected customers has started. **Microsoft Dynamics AX 2012 for Retail** integrates a wide range of retail activities including Web and Mobile

based sales, multiple customer views as well as inventory management in a comprehensive upgrade. **Microsoft Dynamics CRM Mobile** adds support for Windows Phone 7, Apple iPhone, iPad, Google Android, and Blackberry devices to be used to interact with customer data. **Microsoft OneNote Mobile for Android** has been added to the existing Apple iOS and Windows Phone versions. **Microsoft will have its Windows 8 preview launch** at the Mobile World Congress show on February 29th. **Microsoft SkyDrive Cloud Storage** will be fully integrated with Windows 8 to allow any device on Windows 8 to store and use synchronized stored data. www.microsoft.com

SAP had its best ever year in 2012 due to its focus on what its CEO says are top customer priorities of Analytics, Mobility and 'reinventing' the Database and Cloud markets. **SAP pre-announced HANA for SMEs** offering SAP Business One, Business-All-In-One and BusinessObjects Edge real time data management. **SAP Human Capital Management, HCM**, moves to bring the existing ERP-based application into integration with the people performance oriented cloud-based tools of its SuccessFactors acquisition, plus provide analytics of the resulting Big Data insights. www.sap.com

Google Privacy Policies are to be made easier to understand in a single document following challenges that the current 60 separate policy documents were overly difficult to interpret. **Google Docs Office Suite** now supports offline working. **Google Chrome mobile beta is now available for Android 4.0.** Ice-cream Sandwich is claimed to be a wholly new approach to the browser for Touch screens on Tablets and Smart phones, it also does not have Adobe Flash thus aligning with Apple on this point. **Google Chrome 17 browser** is now available for download featuring greatly enhanced security, and faster downloads through pre rendering pages. **Google Android Market** has removed a number of so called 'fan apps' as they believe they offer security risks. www.google.com

Apple is stopping sales of 3G iPads/ iPhones in Germany following a recent patent loss to Motorola as the patent wars continue with both manufacturers suing each other. Developer preview of **Apple's OS X operating system**, code named Mountain Lion, is now available and introduces a number of iOS features to the Mac platform. **A revision of the Apple App Shop rules** covers new standards on the collection of data from users, requiring an app to have to ask for express permission before collecting data. www.apple.com

Amazon Web Services Storage Gateway replicates customer data onto an Amazon Cloud-based Simple Storage Service, S3, via an on premise software appliance to provide an effective and low cost data backup service. **Amazon Simple Workflow Service** adds an orchestration capability to enable the building of workflow routines from assembled services added to which is a claim that this is fully scalable as it is backed by the Amazon EC2 service. www.amazon.com

Open Source Update

Mozilla Firefox 10 for Windows, Mac, Linux and Android adds a few changes in user functionality, but substantial changes for developers to make it perform better with Rich Internet Applications around HTML 5. A further Beta is now available for testing Sync service add ons. **Mozilla Firefox Roadmap** moves towards 'people-centred' browser features with a stronger emphasis on Mobility rather than pure PC based devices. **Mozilla Marketplace** will offer a developers exchange for HTML 5.0 based apps though there are plans for it to become a consumer market place in the future. www.mozilla.org

Canonical, providers of the **Ubuntu Linux** distribution are adding for their Mobile version a **dual boot with Android** for when the device is mobile and Linux for when it is on an enterprise network. www.canonical.com

HP TouchTablet WebOS operating system will be Open Sourced, starting with key components in September 2012 and over some months moving to provide a complete distribution under the title of Open webOS 1.0. www.hp.com

RedHat Inter Operable Cloud computing road map webcast focused on developing their partnership with Amazon around RedHat Enterprise MRG Grid and the broadening of functionality for the RedHat DeltaCloud API as a top level Apache Project. www.redhat.com

Standards Watch

The Anti Counterfeiting Trade Agreement, ACTA, International Treaty to protect against Internet copyright breaches appears to be in danger of not being passed in the EU. This is due to the Polish Government's opposition to the provision of disconnecting suspected downloaders of illegal materials, which it deems too severe. Opposition has been mounting in several other countries and the President of the European Parliament has also spoken out against it.

http://trade.ec.europa.eu/doclib/docs/2011/may/tradoc_147937.pdf

More Noteworthy News

Strategic Analytics report surge in Android Tablet sales with the iPad at 58% and all Android versions combined reached 39% out of a total Q4 2011 market of 27 million units. Total sales in 2011 were up 260% over 2010 at 67 million units. www.strategicanalytics.com

ComScore mobile phone Q4 2011 statistics say there are 97.9 million smart phones in use in the USA with 47.3% Android based, 29.6% Apple-based, Blackberry is 3rd after a market share fall to 16% and Microsoft a distant 4th at 4.7%. www.comscore.com

Canalys report Smart Phone sales exceed PCs in 2011 for the first time with sales up 62%. **IHS report tablet market share for 2011** with Apple iPad 1st with 62%, Samsung 2nd with 9%, Amazon Kindle 3rd with 6%, while the remaining 23% was totally fragmented. The fourth quarter drop widely reported for the iPad is seen to be attributed to consumers buying Apple iPhone 4S. www.ihs.com

Public Encryption Security Keys have a flaw in the generation of random numbers causing approximately .4% to have the same prime number and allowing 'breaking' by trying these numbers. The issue affects 0124 bit RSA encryptions though if used with a valid X509 certificate there is still a level of security. www.rsasecurity.com

The EU European Cloud Partnership, ECP, has euro 10mn to prime the pump and start public and private sectors working together to find ways to actually get clouds working in European government.

http://ec.europa.eu/information_society/newsroom

Salesforce.com Desk.com is billed as 'the social help desk' for the cloud services era offering an HTML 5 Mobile device platform that delivers help desk support online to users. The platform integrates with Help Desk software and the users' Social profile to personalize the support experience. www.salesforce.com

VMware Solution Exchange is an App shop for both VMware and third party products that supports online evaluation and downloading of a wide variety of Apps that in some way or other provide or make use of VMware virtualization or development products. **VMware vCloud Integration Manager** adds new automation services to vCloud Director for the deployment of vSphere, vShield and vCenter. www.vmware.com

Novell GroupWise 2012 is a comprehensive makeover of the collaboration platform with new levels of integration between the various components and inclusion of support for Apple iPad. www.novell.com

Dell vStart 200m System offers a preconfigured package of servers, storage, networking and management including Microsoft Windows Server R2 DataCenter to add to the existing data centre and create a fully functioning private cloud of 200 virtual machines able to support 'services' rather than applications. www.dell.com

Nokia lost euro 954 billion but claims sales are heading in the right direction with more than one million Lumia phones sold and a fourth quarter lift in sales over the third quarter of 4.6 million units though this is still down by 8.2 million units from the same quarter last year. A further 4000 jobs are to be cut in factories in Mexico, Hungary and Finland as work moves to Asia. www.nokia.com

Facebook, Twitter and MySpace have partnered to offer a representation of Google results in a personal manner that doesn't require the use of Google+. Facebook will audit accounts and verify the numbers claimed by celebrities and other high profile users if the user offers a government ID with their demand to see the figures. www.facebook.com

EMC Mozy Stash is a new file synchronization capability that creates a master 'Stash' file that both takes data from a selection of personal devices such as PCs, Tablets and Smart Phones as well as sending it out to ensure all devices are constantly working from a synchronized file. **EMC Hadoop Distributed File System, HDFS**, is now fully integrated with EMC Isilon Storage Systems and EMC Greenplum HD to support all the aspects of Big Data. **EMC VF Cache Solid State Storage Drive, SSD**, provides high speed data access for high demand apps via a PCIe connection. **EMC COO declared their strategy** was to be a Big Data and Cloud Computing supplier and that the CentreStage Essentials social tools platform would be wound up. www.emc.com

Zscaler Zulu Service uses both direct or masked URLs to check sites for problems and security risks as a free service with the aim to gain huge amounts of information about sites and risks for their chargeable products. www.zscaler.com

RES HyperDrive provides a file sharing platform for users who are outside the Firewall to enable them to exchange and share files from different Mobility devices in a secure environment managed by the IT department or an operating agency. www.ressoftware.com

Twitter can now selectively block content from specific users or countries to provide the control requested by some countries in respect of civic unrest over the recent months being orchestrated on Twitter. www.twitter.com

Huddle Sync Platform provides what is claimed as 'intelligent' file synchronization between user workgroups and / or devices via a Cloud service. www.huddle.com

India has ruled that 21 companies including Google, Facebook and other global operators remove 'offensive' content in the latest in a series of moves aimed at controlling data and content within the Indian Borders. <http://online.wsj.com/article/SB10001424052970203711104577198593058159360.html>

Samsung Galaxy S Advance adds a bigger 1 Ghz dual core processor to the specification of the previous Galaxy S, upgrading it to Android 4.0 Ice Cream Sandwich and has a new design casing. **Samsung Galaxy Tab2** has been preannounced with no shipping date. Pitched as a direct competitor to Apple iPad2, it has a 7 inch screen and Android 4 OS. **Samsung Galaxy Ace 2 and Galaxy Mini 2** add new lower cost smart phones on Android 2.3.

www.samsung.com

Wyse R10L offers full compatibility with Microsoft Remote Display RDP7, a claimed first, and continues to be based on the Wyse ThinOS Platform.

www.wyse.com

Blackberry Business Cloud Services for Microsoft 365 provides the necessary capabilities to both access and manage users of email on Microsoft 365 services platform. **Blackberry Playbook 2.0** downloadable update is now available offering a single inbox for all mail accounts and better integration to social networks. www.blackberry.com

Riverbed Cascade Network monitor and management platform gains new capabilities for virtualized environments including integration with VMware ESXi. Riverbed Granite remote branch storage solution provides an efficient access and transfer mechanism for remote offices to use centralized data storage services.

www.riverbed.com

Toshiba AT 200 Android Tablet comes at a low price point running Android 3.2 Honeycomb and features such as a number of hardware ports, Micro USB, Micro HDMI, Micro SD, plus wireless. www.toshiba.com

Gigamon GigaVUE HD4 is a new compact hardware version of the existing HD8 network monitoring platform requiring five rack units rather than fourteen units.

www.gigamon.com

Citrix CloudStack 3 allows enterprise to build their own internal version of an external provider's cloud service, offering virtual machines to rent internally.

www.citrix.com

Centrify Direct Control for Mobiles allows Microsoft Active Directory to be supported onto Apple and Android Mobile Platforms and adds management of enterprise data on these platforms. www.centrify.com

Canopy is a new startup for Cloud and Enterprise App shop operated by Atos using VMware and EMC technology. www.atos.com

Parallels Plesk support platform for clouds has been extended and aims at providing a new level of service by web hosting companies aimed at the SME market. www.parallels.com

Kaspersky Labs Security for Virtualization pre-announcement for a product to ship in some months, which protects and scans individual virtual machines on clouds and in data centers. www.kaspersky.com

Aruba ClearPass provides auto provisioning of the abilities to monitor and manage iOS, Android, Blackberry, and Windows mobile devices using enterprise network. www.aruba.com



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Capgemini has developed its own way of working, the Collaborative Business Experience™, and draws on Rightshore®, its worldwide delivery model.

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