451 Research

THE NEW GENERATION OF BUSINESS APP MARKETPLACES

Growing availability of technologies for provisioning and automation, an expanded ecosystem of partnerships, and heightened competition have given this market a jolt.

CLOUDSCAPE

KEY FINDINGS

- In the business application marketplace arena, what had been a group of SaaS/PaaS specialists providing platform services to support their existing customers is evolving fast, with startups and established hosters, telcos, and IT and software vendors coming into play. This new generation of app marketplaces is highly market-driven, with intuitive design and functionality such as pay-per-use licenses, usage analysis, reporting, tier-based management and single sign-on.

- Challenges facing marketplace providers in driving adoption include the complexity of application management and service support, incompatible applications, corporate governance and security issues, and inadequate market education. Eight out of 10 players we interviewed suggest they are on the right track to monetize the app marketplace trend. Although not everyone makes money today, players are being strategically patient and expect their efforts to pay off.

- The maturity of SaaS adoption is driving the proliferation of app marketplaces, and will continue to do so. While some suppliers (telecom providers in particular) may have held back on investment in emerging business models like app marketplaces due to uncertainty over demand, growing competitive pressure will prompt all types of providers to develop innovative service approaches.

- ISVs and application developers are likely to make good use of the cloud delivery model to reach out to increasingly mobile customers. And the mobility of various applications will become an integral part of app marketplace offerings.

- Whether it is to complement existing cloud strategies or to break new ground with innovative offerings, the app marketplace model is becoming a reality and is opening new avenues for multiple parties – enablers, developers/ISVs and service providers – in the app supply chain. While application management and integration remains a challenge, there will be opportunity for taking the app marketplace business to new heights.

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SECTION 1

Executive Summary

The app marketplace model is set to mature greatly over the next 2-3 years in the business software segment. Not only will the number of business app marketplaces increase, but they will also become more verticalized. This shift will continue to mobilize the vendor ecosystem, with more suppliers and new offerings coming into play. There are several dimensions to the rise of business app marketplaces:

- Expanding the app marketplace vendor ecosystem is conducive to innovation and growth.
- Business mobility changes the way providers deploy and deliver services and applications.
- The notion of having a centralized app marketplace where IT can drive business agility without losing control over the use of applications is taking hold as 'shadow IT' emerges.
- Open source software simplifies application development while also lowering costs, which in turn helps drive the proliferation of SaaS applications.

While the first generation of business app marketplaces – where users access a plethora of applications from a centralized system – primarily involved extensions of the providers' core product suites, the new generation of marketplaces is purpose-built and market-driven, with intuitive design and functionality such as usage analysis, tier-based management, pay-per-use licenses and single-sign-on capabilities. In line with the trend toward enterprise mobility, some business app marketplaces are designed to be accessible from a variety of endpoints (desktop, mobile phone, tablet), such as Partnerpedia's Enterprise AppZone and Orange Business Services' Business App Store.

The landscape of business app marketplaces is becoming more diverse, with startups and well-established providers taking a major role in driving corporate usage. Aside from investing in technologies and tools that help enhance the user experience, some players have focused their efforts on expanding the breadth and depth of service catalogs for competitive differentiation. This could be done through developing supply agreements with commercial software vendors, creating a partner ecosystem around their ISV and developer customer base, or a mix of both.

While the steady demand for SaaS applications from SMBs is viewed as key to driving the broader acceptance of business app marketplaces, consumerization of IT is shaping new requirements for application deployment and management in the business software segment. The rise of shadow IT – where employees use IT services and applications without explicit corporate IT approval – only exacerbates the situation as line-of-business managers are increasingly bypassing IT departments for new services and applications. This could have severe implications in terms of corporate-wide security and compliance, not to mention the complexity of cost control and management.

Frustrating as it may sound, to make order out of chaos, IT staff are slowly but surely coping with 'the new normal' by providing users with access to third-party managed app marketplaces while controlling costs. To address business concerns over security and compliance issues, a handful of organizations have begun to explore the viability of having their own dedicated, privately managed business app marketplaces for the delivery of company-specific, customizable services and applications. Growing corporate interest will help pave the way toward the deployment of vertical-specific and segment-specific business app marketplaces.

Managing business requirements is easier said than done. As the number of applications continues to swell, providers will find it challenging to provide management and service support. The value of business application marketplaces will hinge on providers' ability to demonstrate the security aspect of these marketplaces, from the endpoint device all the way to the datacenter. And their efforts to facilitate application integration will play a key role in driving enterprise deployment of app marketplaces going forward.

In this report, we examine major forces driving the proliferation of business app marketplaces and discuss significant changes that are helping to shape various deployment models, along with the unique implementation and management challenges involved. We also examine the growing app marketplace vendor ecosystem and the relationships between multiple parties involved in monetizing marketplace deployment. In addition, we profile more than 20 app marketplace enablers and providers, highlight their activities, and discuss their areas of competence and service differentiation.

1.1 KEY FINDINGS

- Market momentum is building for SaaS-enabled enterprise applications. In the business app marketplace arena, what had been a group of SaaS/PaaS specialists providing platform services to support their existing customers is evolving fast, with startups and established hosters, telcos, and IT and software vendors coming into play.
- As application providers settle on their channel strategies, a new breed of app marketplace enablers is emerging.
- From deploying and managing pure business app marketplaces to developing technology-driven cloud marketplaces, the partner ecosystem is growing rapidly to provide a wide range of applications, tools and services.
- Technologically speaking, many marketplaces today (e.g., salesforce.com's AppExchange, Amazon Web Services Marketplace and Liferay Marketplace) are being created around open source technologies, and development tools and open source applications become an integral part of their expanding service catalogs.
- Although many current app marketplaces primarily complement providers' existing product portfolios, we expect a gradual shift in provider strategies. For service differentiation, some players have started to invest in technologies that help companies transform the way they operate and manage their businesses.

- Initially focused on providing SMBs with a multitude of business applications via a single storefront, the scope and role of the app marketplace has been expanded to address a broader business segment, including enterprises and service-provider partners, over the past 12 months.
- Many organizations are still in the early stages of evaluating the feasibility of the business app marketplace model and its implications on corporate security, compliance and governance.
- Private enterprise app stores, which are deployed on the customer's premises and can only be accessed by internal users, have become available as providers try to address enterprise concerns related to security, compliance and governance.
- The dynamic interplay of app marketplace enablers, providers and developers/ ISVs is instrumental in driving the overall take-up of cloud computing – whether in the form of IaaS, PaaS or SaaS.
- Although not every app marketplace provider actually makes money today, players are being strategically patient, and expect that their efforts will pay off financially or operationally (i.e., driving traffic and visibility).
- Challenges facing the app marketplace providers in driving wider adoption include complexity of application management and services, incompatibility of applications, corporate governance and security issues, and inadequate market education.
- The app marketplace model will continue to operate on both closed systems (for partners and existing customers only) and open systems (for new and existing customers), and this will create opportunities for more vertical-focused offerings.

1.2 METHODOLOGY

This report provides perspectives on the evolving application/ cloud marketplaces in the business software segment, highlighting key enterprise trends driving demand and examining the role of various players (independent application aggregators, SaaS and PaaS providers, IT and software vendors, and telcos, hosters and cloud providers) in shaping the competitive landscape. This study is based on a range of primary research, including phone interviews with leading suppliers and vendors; attendance at industry conferences, events and other venues; and ongoing research on major players.

Reports such as this one represent a holistic perspective on key emerging markets in the enterprise IT space. These markets evolve quickly, though, so 451 Research offers additional services that provide critical marketplace updates. These updated reports and perspectives are presented on a daily basis via the company's core intelligence service – the 451 Market Insight Service. Forward-looking M&A analysis and perspectives on strategic acquisitions and the liquidity environment for technology companies are also updated regularly via the Market Insight Service, which is backed by the industry-leading 451 M&A KnowledgeBase.

Emerging technologies and markets are also covered in additional 451 practices, including our CloudScape, Enterprise Security, Eco-Efficient IT, Information Management, Infrastructure Computing for the Enterprise (ICE), Datacenter Technologies (DCT) and 451 Market Monitor services. All of these 451 services, which are accessible via the Web, provide critical and timely analysis specifically focused on the business of enterprise IT innovation.

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SECTION 2
Drivers of Change

Cloud computing is disruptive in that it not only changes how service providers deliver and price services, but also how companies purchase and deploy these services. In the context of product and service procurement, the traditional (and often complex) purchasing approach is giving way to simple-to-use app marketplaces, where employees and customers can access a multitude of internal and third-party applications via an intuitive storefront interface and pay for only what they use. Business-focused app marketplaces have come to fruition thanks to the promise of delivering cost savings, flexibility and control – to both IT managers and business users.

From enabling app exchanges to providing business apps out of a standardized management platform, vendors, application developers, service providers and enterprise IT managers are all eager to be part of the app marketplace ecosystem. In summary, we identify four major forces that are helping to drive the proliferation of SaaS-enabled app marketplaces in the business software segment.

Shadow IT is in the driver's seat – Facing growing demands from increasingly tech-savvy users today, line-of-business managers are looking for ways to bypass traditional IT procurement channels, which are often viewed as cumbersome and time-consuming. The growing availability of cloud-based services that are characterized by instant provisioning and self-service management and control only exacerbates the dislocation of the IT department as a budgetary power base.

This shift could have immense implications in terms of corporate governance and security. As the shadow IT trend is already in motion, IT managers have little choice but to embrace the new reality. The notion of having a centralized app marketplace where IT can administer software licenses and user access, while also striking a balance between flexibility and control, is gaining traction among executives as a way to manage the shadow IT phenomenon.

Bring your own device (BYOD) goes mainstream in the corporate environment – Riding along with the enterprise mobility trend is the BYOD model, implemented by a growing number of organizations across various industries. While workers are now able to use a variety of mobile devices to access once-restricted company resources, this requires new thinking about application deployment and delivery in order to ensure a seamless user experience.

In most cases, organizations will need to republish their own applications in a new format to support the various devices (e.g., tablets, smartphones and laptops) now being used. One approach is to deploy a centralized app marketplace to promote and distribute applications for various devices while using the Web browser as the front end to support different screen sizes and input methods. Together with the availability of mobile device management (MDM) tools to enforce corporate security and compliance, we expect to see positive momentum of private app marketplaces in the BYOD era.

Open source technology simplifies application development – While cost savings remains the primary force driving adoption of open-source-based software, the availability of higher-

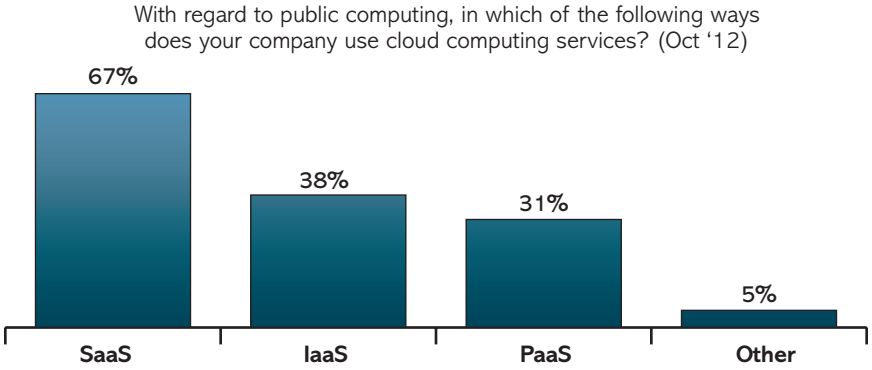
quality development tools with improved reliability and better security has helped companies redefine the value of open source technologies and software. With more business applications – such as CRM, finance and accounting software – being developed using open source development tools and frameworks, or being deployed via SaaS models, the process of application development, provisioning and management is greatly simplified.

This not only has a major impact on the overall software industry, but also reshapes the way vendors and service providers create and deliver applications. Many marketplaces today (e.g., salesforce.com's AppExchange, Amazon Web Services Marketplace and Liferay Marketplace) are being created around open source technologies, and development tools and open source applications become an integral part of their expanding service catalogs. Writing applications that run across multiple platforms and devices based on open source technologies bodes well for the overall adoption of app marketplaces within the business software segment.

SaaS adoption is maturing – As the global economy faces strong headwinds, businesses are under increasing pressure to replace traditional capital-intensive licensing models with flexible, on-demand cloud service models that move costs to operating expense budgets. This is instrumental to the spread of SaaS deployment across various business segments. As indicated in the survey findings from ChangeWave Research, a service of 451 Research, SaaS remains by far the most common cloud model used in the public cloud environment, followed by IaaS and then PaaS (see Figure 1).

Looking ahead to future cloud spending, SaaS is registering the biggest increase among companies planning to use cloud services over the next six months – nearly one-third of respondents expect their spending on SaaS to increase. While the SaaS model is growing more popular for businesses of all sizes, the problems of getting software from several third parties are numerous. There needs to be an integration and aggregation point for all of these disparate services. The maturity of SaaS adoption is driving the proliferation of app marketplaces, and will continue to do so.

FIGURE 1: PUBLIC CLOUD COMPUTING USE



Source: ChangeWave Research

SECTION 3

Evolving App Marketplaces

Riding the wave of popularity from Apple's iPhone App Store (which the company claims had over 35 billion total downloads as of October 2012), the idea of a marketplace where users can purchase various applications on the fly out of a Web services catalog has finally taken hold in the business software segment. Initially focused on providing SMBs with a multitude of business applications via a storefront interface, the scope and role of the business app marketplace has been expanded to address a broader business segment, including enterprises and service-provider partners, over the past 12 months. From a usability standpoint, the service catalog is more than an *a la carte* menu of custom-built and commercial applications. Users are now exposed to a much broader set of services than just SaaS applications, including development tools and infrastructure services.

Meanwhile, in an attempt to bring cloud service provisioning within the realm of the governance and security policies implemented by various businesses and organizations, a handful of providers began to promote 'private' versions of business app marketplaces. Known as private-branded app marketplaces, they are designed to meet the requirements and expectations of individual companies, with personalization and customization in mind. An example of this emerging trend is Orange Business Services' Private Application Store, which is a catalog of business applications that are company-specific. Although the majority of applications reside in OBS datacenters, there are some third-party applications hosted within third-party datacenters, as well as custom-built applications owned and managed by customers on premises.

The first iteration of business app marketplaces was largely driven by service commoditization, with low barriers to developing apps that served as an extension of the provider's core product suite. The new generation of app marketplaces is more market-driven, with intuitive design and functionality such as pay-per-use licenses, usage analysis and reporting, tier-based management and single sign-on. These marketplaces appear to be more user-friendly for nontechnical users, while some UIs and marketplace frameworks also enable customization. There will be room for adding new features and functionality to address an increasingly diverse customer base, both horizontally and vertically. As enterprise-focused private-branded marketplaces continue to gain ground, the appeal of app marketplaces in general will push deeper into vertical industry segments.

As application providers settle on their channel strategies, a new breed of app marketplace enablers is emerging. Playing the role of intermediary, app marketplace enablers provide a common platform that helps bridge the service gaps between application developers, resellers/providers and customers. In most cases, these enablers offer creation of white-label app marketplaces that could be re-branded for commercial use (e.g., T-Systems' Business Marketplace enabled by AppDirect) or for private use (e.g., the Cloud Marketplace from the US General Services Administration). Some have opted for an end-to-end approach, including negotiating contract terms with application developers, while others

focus on being an aggregation point for apps and tools from different service layers. Standing Cloud is an example of the latter; the company deals specifically with cloud infrastructure providers and focuses on providing tools at all three layers – IaaS for manipulating clouds, PaaS for development on them, and SaaS in the form of a marketplace consisting of commercial and open source apps.

The bigger picture here is that the emerging business app marketplace model is more than a service delivery alternative. Both enablers and marketplace providers are looking to monetize their investment. There have been some proven business app marketplace cases, particularly from SaaS-rooted companies like salesforce.com. Then there are software vendors and IT providers looking to get a piece of the action. Even enterprise customers themselves are showing great interest in this space.

We can group the multiple app marketplace approaches into four distinct categories: Complementary, Transformational, Segment/Vertical-Specific and Disruptive (see Figure 2). Although many app marketplaces today primarily complement providers' existing product portfolios, we expect a gradual shift in provider strategies. For service differentiation, some providers have started to invest in deploying vertical-specific marketplaces. While transformational app marketplaces are still in the conceptual stage, they open a new window of opportunity for network-centric players, telcos and hosting providers in particular to reshape the traditional IT delivery model. Looking to the future of disruptive app marketplaces, providers are likely to grow beyond their initial focus on boosting SaaS and PaaS initiatives, advancing business innovation through the cloud.

FIGURE 2: TYPES OF APP MARKETPLACES

COMPLEMENTARY	TRANSFORMATIONAL	SEGMENT/ VERTICAL-SPECIFIC	DISRUPTIVE
The app marketplace is created to complement existing products for added value and customer loyalty. It tends to go after existing customers as opposed to new customers, leveraging established marketing channels. In most cases, the marketplace by itself doesn't generate revenue, but it could help improve sales and usage of existing products	The app marketplace is deployed to address the diverse requirements of a horizontal market, which typically involves incremental changes and customization in individual applications and services. This often leads to breakthroughs in market acceptance and shows signs of business transformation.	The app marketplace is designed to meet vertical/segment-specific requirements. It could be designated to a private community with restricted access. Selected applications and services will be delivered to members within the community to drive greater collaboration, productivity, and efficiency.	The app marketplace is formed to disrupt traditional relationships between application suppliers and buyers. It not only opens a window of opportunity for intermediaries, but also broadens addressable markets with a comprehensive service catalog.

3.1 ENABLING AN APP MARKETPLACE: FOUR CORE COMPONENTS

There are four fundamental characteristics or components of an application marketplace:

Storefront – A front-end interface where users and subscribers are able to browse, discover and order various applications out of a service catalog. To boost the user experience, many marketplace providers have invested in adding features such as ratings, product reviews and intuitive search tools.

Dashboard for users and subscribers – A management portal that provides single-sign-on user access and management for multiple service/application subscriptions. This is where subscribers handle billing and chargeback, manage helpdesk ticketing, and perform usage auditing.

Management portal for administrators – IT administrators have access to a back-end management portal for service account management. This includes the capabilities to centrally track purchases from multiple business units and create catalogs in ways that appeal to targeted audiences. It also enables the enforcement of compliance and security policies and performs historical usage analysis. Administrators can also automate subscription, invoicing and payment via the management portal.

Application on-boarding and integration platform – This is primarily used by application developers to facilitate application testing, integration, management and marketing with clear documentation. From a management standpoint, developers are able to manage customers and their respective subscriptions. In cases where customers already have pre-negotiated agreements with independent software partners, some app marketplace enablers will help manage all aspects of the technical integration.

SECTION 4

Competitive Landscape

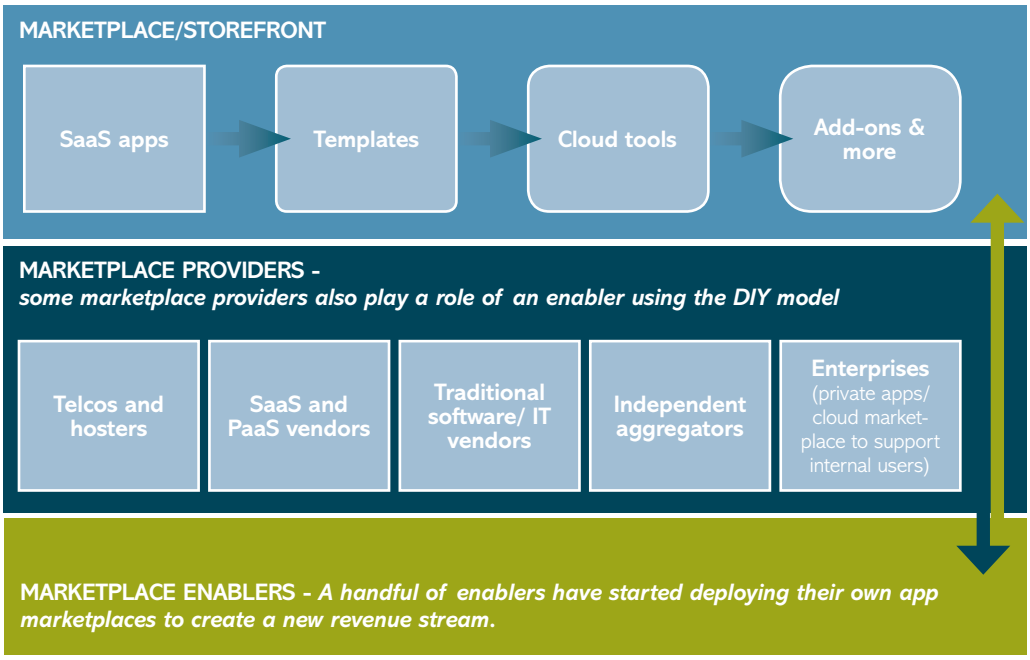
Underscoring the ability to enhance user experience and increase service value, the app marketplace model has steadily picked up steam in the past year. The most evident development trends include the growing availability of technologies for application provisioning and integration, the expanded ecosystem of partnerships, and heightened competition. The landscape of app marketplace players is getting increasingly diverse, with new vendors and providers coming into play. The competitive landscape is further complicated by the entry of VC-backed startups such as AppDirect and Standing Cloud, and also well-established industry players like Fujitsu and Pervasive Software, which are looking to deploy new business models and monetize them.

While the app marketplace supply chain involves multiple parties, they can be broadly categorized into two main groups: marketplace enablers and marketplace providers. As part of the value chain, each party plays a role in mobilizing its own set of users. At the core, enablers provide the automated technologies, on-boarding tools and management platforms required to fire up a marketplace. Meanwhile, vendors and providers serve as an aggregation point for a wide variety of commercial and open-source-based applications, which can be found and accessed in the provider's service catalog. The application delivery model has been increasingly adapted by cloud providers to deliver a wide range of offerings such as development tools, service templates, add-ons and other cloud services. We expect to see more use of 'cloud marketplaces' as a mechanism for content aggregation and distribution to customers and service partners (see Figure 3).

Playing the role of intermediary, cloud marketplace enablers and providers underscore a related subject that we are also currently examining: the cloud service broker model. Indeed, some of the cloud marketplace players, such as Jamcracker and Amazon, have certain characteristics of a cloud broker – e.g., managing and negotiating agreements with third-party providers on behalf of customers, and facilitating integration with open APIs. That being said, fundamentally, cloud marketplace providers are driven by different business goals and value propositions than cloud brokers.

The dynamic interplay of app marketplace enablers, providers and developers/ ISVs is instrumental in driving overall adoption of cloud computing – whether in the form of IaaS, PaaS or SaaS. For example, Zoho Marketplace is designed to add value for users of Zoho Creator, the company's PaaS offering. Rackspace's Cloud Tools Marketplace, meanwhile, functions as an online showroom of third-party applications and tools designed for Rackspace Cloud customers.

FIGURE 3: EVOLUTION OF THE APPS MARKETPLACE



4.1 APP MARKETPLACE ENABLERS

This group includes a mix of startups, such as AppDirect and Standing Cloud, that are backed by VCs looking to capitalize on the cloud wave, as well as established platform players like Parallels, Jamcracker and Partnerpedia, which have invested in adding cloud service capabilities. These app marketplace enablers tend to focus their resources on platform design and engineering. Brand awareness is not at the top of the priority list, since they tend to provide white-label/private-label enablement platforms to service-provider partners.

In this section, we present some examples of early movers among app marketplace enablers – including their product offerings, target segments and customers, partner ecosystem, differentiators, and near-term business focus. Please note that this vendor list is for reference only and is by no means exhaustive.

APPDIRECT	
COMPANY INFORMATION	• Founded in July 2009 and headquartered in San Francisco, AppDirect believes it plays a key role in connecting application developers with SMBs by providing white-label cloud marketplaces. • The company has a team of ~85 employees in the US, handling sales and marketing, product management, customer support and engineering, and it plans to have 150 employees by the end of 2013. • It has raised an $8.5m series A funding round, backed by investors Stingray Digital and iNovia Capital. The company had collected $3.25m in seed funding in 2010-11.
PRODUCT & KEY FUNCTIONS	• It built the Application Marketplace management platform from the ground up; it comprises four core components – Application Marketplace (for users and subscribers), Application Manager (for subscribers), Developer Center (for application developers) and the newly added Marketplace Manager (for administrators). All can be fully white-labeled. • The company says a white-label custom marketplace can go live in a matter of weeks. • Developers can integrate and distribute applications to selected marketplaces using a REST-ful API. • Its catalog spans 20 product categories, over 130 SaaS applications and 400 products. • Revenue is derived from two components: a monthly fee from channel partners hosting their marketplaces on the company's multi-tenant platform, and a revenue-sharing split (10%) derived from developers converting users into paid customers using the marketplace. • On the demand side, pre-integrated cloud services and customer-owned cloud services will be priced on a subscription basis and will use the pay-as-you-go model.
PARTNER ECOSYSTEM	• The partner ecosystem includes a network of 80+ developers. It claims partner apps have grown over 160 % in the last 12 months and include well-known brands like Google Apps and McAfee. • Using a revenue-sharing model, all parties (developers, channel partners and AppDirect) will get a 70-20-10 revenue split, respectively.
DIFFERENTIATORS	• Offers service providers an 'instant' and streamlined platform to create value-added offerings. • Enables greater platform control and customization.
TARGET SEGMENT & CUSTOMERS	**Target Segment** • Hosting providers, MSPs, VARs and financial firms that have a ready-made SMB market are strong candidates. Geographically speaking, the company remains North America-centric but claims to have a strong pipeline of channel partners in Europe and Asia. **Customers** • AppDirect has deployed five public marketplaces since late 2010 for Bell Canada, Appcelerator, SaskTel, Deutsche Telekom and Rackspace, respectively. Although telcos and cable operators continue to demonstrate strong interest in deploying cloud marketplaces, AppDirect suggests the future lies beyond the communications sector. At present, about 60% of its pipeline is from the communications segment, with the other 40% from hosting companies, IaaS providers, SaaS specialists and systems integrators. It also sees growing interest from traditional enterprises, especially those in the finance, retail and manufacturing verticals looking to sell/deploy Web applications.

PRODUCT ROADMAP	• Add breadth and depth to partner ecosystem by teaming up with major companies in enterprise SaaS market. • Diversify service catalog to include vertical-specific apps. • Enhance product features to boost user experience.

JAMCRACKER	
COMPANY INFORMATION	• Founded in 1999 and headquartered in Santa Clara, California, Jamcracker claims to be the forerunner in the cloud service brokerage arena. • Instead of selling directly to end-user customers, the company has been selling through its channel/reseller partners, which span the globe. • It claims to have doubled its revenues during the past two years and experienced a growth rate of 20% on a quarterly basis.
PRODUCT & KEY FUNCTIONS	• Jamcracker Services Delivery Network (JSDN) aggregates a wholesale catalog of cloud and non-cloud services (software downloads or hardware delivered via channel partners or as part of the service bundles) and provides lifecycle service management to enable cloud service brokerage, and is under the spotlight in the service-provider market. • JSDN is a multi-tenant, multi-tiered cloud service delivery and management platform that is based on open-standards architecture and Web technologies such JBoss, Java and J2EE, with a configurable workflow engine. • The platform is designed to integrate easily with existing OSS, BSS and IMS infrastructures. There are several hundred APIs, which are exposed to develop 'adapters' for new services and applications. More importantly, the service delivery platform provides the business process lifecycle management components that matter most to service-provider customers for a single point of provisioning and settlement for a wide array of heterogeneous applications. • It has a wholesale catalog of more than 200 services in six broadly defined services categories (IT services, communications, collaboration, security, mobility and applications). Each category has 4-5 subcategories.
PARTNER ECOSYSTEM	• Jamcracker has three types of partners: cloud partners that have signed master distribution agreements (MDAs) with Jamcracker to provide cloud services and applications; technology partners such as Amazon, VMware and Microsoft (which Jamcracker works with via its distribution/reseller partners, but does not have a direct commercial relationship with); and reseller/distribution partners that provide value-added services to their channel or end customers leveraging JSDN. • JSDN has more than 200 pre-integrated services across the three layers (IaaS, PaaS, SaaS) in the cloud stack by signing MDAs with more than 80 cloud partners. • Aside from working with existing cloud providers to populate a wholesale catalog for cloud services, Jamcracker's platform enables service providers to on-board their own and deliver them to their end customers via a unified service delivery and management framework.
DIFFERENTIATORS	Provides managed services such as cloud ecosystem development, vendor management and go-to-market support to service providers that are interested in the app marketplace business.
TARGET SEGMENT & CUSTOMERS	**Target Segment** 1. Retail providers of SaaS, including telcos and hosting providers 2. Hardware/software vendors and IT distributors 3. Enterprises and government customers. **Customers** Jamcracker claims to have about 2,000 customers and is now betting big on four market segments using the cloud service brokerage model. These include communications service providers, technology providers, distributors and enterprise systems integrators. Examples of companies that represent each of these segments include: • Service Providers: Vodafone, Eircom, Telus, Telstra, and KPN • Technology Providers: IBM, Nokia Siemens Networks, Cisco, and Broadsoft • Distributors: Ingram Micro, Westcon, Arrow Electronics and AB&T • Systems Integrators: Wipro, Infosys, and Grupo TBA
PRODUCT ROADMAP	Focus more on adding enterprise-class services, driven by government and large-enterprise opportunities for cloud service brokerage.

PARALLELS	
COMPANY INFORMATION	• Headquartered in Renton, Washington, Parallels sells desktop/server virtualization and automation management platforms to consumers, businesses, SaaS vendors, telcos, and cloud infrastructure and hosting providers. It claims to serve 5,000+ service providers and 12 million+ end-user customers in 125 countries. • The company has more than 900 employees worldwide, with offices in North America, Europe and Asia-Pacific. It didn't disclose exact revenue figures, but estimated more than $100m in 2011.
PRODUCT & KEY FUNCTIONS	• Automation for Cloud Marketplace is the marketplace enablement platform from Parallels. • Parallels Automation is the enabler of the storefront. The subsystem called Parallels Business Automation enables the creation of service plans, furnishes the e-commerce engine, and interacts with payment gateways and domain registrars. • Another other primary subsystem, Parallels Operations Automation, handles all of the provisioning and management of applications, users and resources. It manages the services that interoperate via the SaaS Module. • The SaaS Module has two primary components: the Service Controller that interoperates with Parallels Operations Automation, and a library of XML documents and PHP scripts that constitute the applications a service provider has chosen to deploy, configure and offer to its customers. Both the Service Controller and the library are customizable and configurable. • Once the Service Controller has been installed and configured, the service provider can look up services in the service catalog on APSStandard.org. • For differentiation, customers can create upsell/cross-sell scenarios of various services, white-label certain services, integrate services to create vertical-specific/segment-specific offerings and more. • There are458 Application Packaging Standard (APS)-enabled apps, which is the company's hosting and cloud services integration mechanism – an open industry standard used to create new services as well as aggregated services and applications provided by third parties. All APS-enabled apps are part of the SaaS Module. • Parallels Automation partners are charged in two ways: 1) a percentage of the monthly recurring revenue the partner receives from selling the service, or 2) Parallels charges a flat percentage for the entire revenue estimated by the partner over one/two-year period.
PARTNER ECOSYSTEM	• The APS ecosystem more than a hundred ISVs, which work with Parallels' service-provider partners to reach SMB customers. It has also added a Parallels Certification Program to provide quality assurance. • Close to a dozen systems integrator partners work with ISVs to on-board their own applications. Three global SIs (IBM, Cisco and EMC) can help on-board existing apps while installing and configuring Parallels Automation. • The Parallels Professional Services team can help on-board providers' apps as well.
DIFFERENTIATORS	Parallels takes a three-pronged approach to its Parallels Partner Marketplace: 1. The APS is open standard that aims to connect ISVs with service providers. 2. Parallels' small-business automation strategy. 3. Channel strategy in which service providers buy and resell apps.
TARGET SEGMENT & CUSTOMERS	**Target Segment** Parallels doesn't limit who can use the marketplace – apps are sold directly and indirectly through channels, across everyone from end users to hosting providers. It is also aiming at traditional hosters that have websites and want to expand to other service areas. Another target segment is broadband providers that have bundles and are growing beyond their core business, as well as IaaS providers that look to their VARs and want access to app marketplaces for customized offerings. **Customers** About half of the active Parallels Automation partners have the SaaS Module.
PRODUCT ROADMAP	Simplify service development and integration.

PARTNERPEDIA	
COMPANY INFORMATION	Starting with a private-label apps marketplace infrastructure in 2010, Vancouver-based Partnerpedia has extended its offering by deploying Enterprise AppZone to provide third-party and custom-built mobile business applications under its own brand or a private label.
PRODUCT & KEY FUNCTIONS	• Enterprise Marketplace is a private-label app marketplace infrastructure with the following features: 1. Business focused/relevant 2. Pre-vetted, curated apps 3. Supports corporate purchasing (e.g., volume, PO) 4. Supports flexible licensing models (e.g., one-time, subscription) 5. Provides auditing and management of app licenses as a corporate asset 6. The ability to support not just mobile apps, but cloud and Web apps 7. Ability to offer support services associated with the apps • Enterprise AppZone, generally available since May 2012, is an online marketplace where business customers can access a suite of business-focused mobile applications from any endpoint (Web, mobile, desktop) and create their app stores under private label. • The company primarily focuses on the top 100-200 apps for enterprise opportunities, and then starts eyeing opportunities in key verticals such as education, public sector, energy management, manufacturing, and media. Mobile app management service is also available for these verticals.
PARTNER ECOSYSTEM	• The company works with app consolidators to source in volume and for economies of scale. • It is also starting to allow individual developers to publish and sell apps directly through Enterprise AppZone; it's a revenue-share model with developers and publishers, similar to Google or Apple App Stores. • For a private-label app marketplace offering, it includes SaaS reseller license and subscription fee in addition to the revenue-sharing model. • There is a vetting/curation process prior to publishing into the marketplace for purchase.
DIFFERENTIATORS	• Being the first mover in the business mobile application market. • Support for corporate procurement and management needs.
TARGET SEGMENT & CUSTOMERS	**Target Segment** SMBs or organizations with smaller IT departments, and less complex applications. Today's apps are largely productivity based and somewhat stand-alone. The company expects apps to be more sophisticated to support business/enterprise use cases in the next 2-3 years; once this happens, it expects larger companies to also purchase from third-party developers. **Customers** Large private-label app marketplace customers include Cisco, Avaya, VMware and Citrix. It claims that 140+ companies have signed up for the mobile cloud app accessible via Enterprise AppZone.
PRODUCT ROADMAP	• Focus on acquiring mobile apps for various verticals (create the ecosystem). • Expand the ability for developers to directly publish/sell through its systems. • Increase support for Web and desktop apps as mobile and cloud converge. • Offer IT/developers a mechanism to vet apps, whether purchased or homegrown, through Partnerpedia's system

STANDING CLOUD	
COMPANY INFORMATION	• Founded in 2009, Colorado-based Standing Cloud has approximately 20 employees. • With $10m of VC raised so far, Standing Cloud has found early success offering cloud application services directly to end users, but now it is looking to enable IaaS providers to move up to the application layer. Investors include Foundry Group and Avalon Ventures.
PRODUCT & KEY FUNCTIONS	• The Standing Cloud Application Marketplace has three elements: the Marketplace Storefront, where cloud users discover, purchase and deploy software and applications; an Orchestration Engine for provisioning and managing IaaS resources, applications and add-ons through their production lifecycle, as well as enabling multi-cloud deployment and management; and automated Software Packaging, utilizing scripted software packaging to add software to the marketplace. • Standing Cloud's marketplace is integrated with an IaaS offering, rather than simply presenting a storefront for third-party SaaS. • It deals specifically with cloud infrastructure providers and is focused on providing tools at all three layers – IaaS for manipulating clouds, PaaS for development on them, and SaaS in the form of a marketplace of commercial and open source apps. • There are 100+ open source apps and developer tools with automated deployment and lifecycle management features, of which 50 apps get used a lot/become popular. The company also has a number of commercial apps, typically under a joint 'customers and resellers-type' relationship. • For ISVs, Standing Cloud will integrate/on-board their existing applications at no additional charge. It's mostly a one-time effort, aside from version updates. • Three tiers of customization are available: a quick-to-deploy marketplace that is branded as 'powered by Standing Cloud'; a fully integrated white-label marketplace; and a completely custom application marketplace.
PARTNER ECOSYSTEM	• It works with any potential partners that have an installed base and market demand. It is also working with providers like SendGrid and New Relic to provide value-added 'add-ons.' • It is not rigid about which applications are available – customers decide if they want to use/buy them. • It has just signed a reseller agreement with a major software company to offer certain commercial software products out of its marketplace, which is scheduled to be rolled out in Q1 2013.
DIFFERENTIATORS	• Fully white-label offering; configurable. • Long-term management of apps for any clouds locally.
TARGET SEGMENT & CUSTOMERS	**Target Segment** Cloud providers, ISVs, MSPs/SIs, solution providers and consulting companies. It's working with early adopters and refining its capabilities in the enterprise market, in preparation for it to grow as 2013 progresses. **Customers** Customers for apps marketplace platform itself: 20 customers; some may have narrow apps marketplace, others have broader marketplace with a fuller catalog. Reference customers include VPS.NET, SingleHop, and Cloud Provider BV in the Netherlands.
PRODUCT ROADMAP	• Add several new offerings in Q1 2013, especially add-ons that are valuable for developers and users. • Invest in deploying packaging standards for application testing and QA automation purposes.

4.2 APP MARKETPLACE PROVIDERS

For the purposes of this report, we identify four main groups of application marketplace providers: SaaS and PaaS providers; telco/hosting/cloud providers; software and IT vendors; and independent aggregators.

4.2.1 SAAS AND PAAS PROVIDERS

SaaS and PaaS providers continue to invest in building out their service capabilities and partner ecosystems. Many of them have used app marketplaces as a way to showcase what can be achieved by building on top of APIs offered through a PaaS. Partners can build complementary add-ons or extensions to the SaaS vendor's apps. Some support the open systems approach as a way to accelerate user adoption, while others require integration with their existing SaaS apps.

In this section, we present some examples of early movers among SaaS and PaaS providers – including their product offerings, target segments and customers, partner ecosystem, differentiators, and near-term business focus. Please note that this vendor list is for reference only and is by no means exhaustive.

INTUIT	
COMPANY INFORMATION	• Intuit, which was incorporated in California in March 1984 and completed its IPO in March 1993, is a developer of software used to manage personal finances (Quicken), small-business accounting (QuickBooks) and consumer tax preparation (TurboTax). • Other software offerings include industry-specific accounting and management applications for construction, healthcare and retail organizations. It also provides digital banking services, targeting the financial industry. • The company claims more than 60 million users for its products and services. • It reported revenue of $4.2bn in fiscal year ended July 31, 2012, and had approximately 8,500 employees, with offices in the US, Canada, India, the UK and other locations.
PRODUCT & KEY FUNCTIONS	• The Intuit App Center is where small businesses try, buy and use SaaS apps that are right for them. Apps are developed by third-party ISVs and Intuit. There are currently 125 Web-based business apps available, many of which integrate with QuickBooks, Intuit's financial management software. • Intuit Partner Platform (IPP) has two key functions. It provides an API that allows third-party developers and technology companies to create innovative financial apps for small businesses and consumers, as well as a place for them to buy the apps. • On the developer side, there are two sets of APIs Intuit offers. One set of APIs enables any SaaS or mobile application to connect to IPP and QuickBooks data. The other is the recently announced Aggregation & Categorization data APIs.
PARTNER ECOSYSTEM	• Apps are developed by ISVs within the Intuit Partner Platform and Intuit itself. • All partners must pass what's called the QuickBooks Technical Review to be listed in the marketplace. • To start, developers join the Intuit Developer Network. There, partners can build, host and publish applications that extend, support and complement Intuit's flagship financial software. • Developers have control over the pricing of their apps. Earnings are calculated based on gross revenue, less 20% (Intuit's share), taxes and transactional deductions (refunds).
DIFFERENTIATORS	• Tight integration with Intuit software to enrich the user experience. • Enables developers to gain deep customer insight with data-aggregation APIs. • No lock-in – developers are able to federate apps built on any programming language or hosted on any infrastructure.
TARGET SEGMENT & CUSTOMERS	**Target Segment** SMBs **Customers** While the IPP's customer account data API is currently in limited availability, the company says it has almost 100 apps that seamlessly sync with QuickBooks using QuickBooks API, which are currently available via Intuit App Center, where its four million QuickBooks customers can try and buy them.
PRODUCT ROADMAP	• Intuit Partner Program will transition toward a re-branded version of Intuit App Center, with more social integration and an enhanced user experience. • Strengthen product integration with additional APIs.

SALESFORCE.COM	
COMPANY INFORMATION	• Founded in 1999 and headquartered in San Francisco, salesforce.com has regional headquarters in Switzerland, India and Japan. • While the company still very much sells its distinct product 'clouds,' the true value in salesforce.com's vision is around using bits and pieces of each cloud to optimize and automate business processes – all sitting atop the Force.com platform. • The company claimed it had more than 85,000 attendees register for its 10th annual conference, while also announcing that it has reached a $3bn annual revenue run rate.
PRODUCT & KEY FUNCTIONS	• salesforce.com has moved above and beyond its CRM roots into providing a general platform for 'enabling a business.' • Launched in 2005, AppExchange initially was the marketplace platform to enable SaaS providers to build, develop and market their applications. The application development is done through the Force.com PaaS. • The marketplace concept has been expanded to include a list of consulting partners. • Core components include front-end UI with comprehensive review system, back-end system that interconnects with the installation flow, ISV resources and license management. • There are 1,750 apps in nine categories for 10 industry verticals; not all applications are hosted by salesforce.com, but it will facilitate application integration. • In terms of pricing, ~56% of them are paid apps and 44% are free, especially open source applications. The billing engine is handled by a third-party provider, which acts as an intermediary to handle payment between developers and customers.
PARTNER ECOSYSTEM	• The developer population around salesforce.com's platform is now an impressive 800,000. • For customers requiring IT outsourcing services, the company has developed a base of more than 4,000 consulting partners, including SIs specializing in 13 industry verticals. Services include business consulting, custom app development, systems integration and training. And there are more than 1,100 ISVs building commercial apps. • It also provides tools for developers to test vulnerability issues, and a vetting process is in place to provide guidance on technical requirements and architectural decisions. • Revenue agreement is a typical revenue-sharing model with app providers/ ISVs; revenue share is determined by the technologies and support required.
DIFFERENTIATORS	• Provides customers with a comprehensive service catalog (both apps and consulting partners) • Facilitates application mobility and integration.
TARGET SEGMENT & CUSTOMERS	**Target Segment** Targeting its two-million-plus subscriber base. **Customers** It claims that AppExchange has 1.5 million installs in total. By category, sales applications (41%) are in high demand, followed by IT and admin (22%), collaboration (10%), marketing (9%) and customer services (8%). The customer mix is approximately 60% enterprises and 40% SMBs; this represents a shift in user type from primarily appealing to SMBs to now larger companies.
PRODUCT ROADMAP	• Tighter integration with core salesforce apps – chatter feeds. • Create an active community – make it as active as Facebook, and let customers know who uses the apps.

ZOHO	
COMPANY INFORMATION	• Since re-branding its Web application division as Zoho in 2005, the AdventNet-backed company has evolved from offering an office productivity suite and a handful of 'lite' CRM applications into a full business productivity and CRM suite provider, with a total of 27 apps available on its platform. • Zoho has not taken any VC funding, and says it has been profitable for some time. The apps division of the company now has 600 employees. • The company claims over seven million users. Much of the marketing is inbound, with prospects finding Zoho via online advertising and other lower-cost marketing tools.
PRODUCT & KEY FUNCTIONS	• Zoho Marketplace serves as an aggregation point for applications created via the vendor's PaaS engine, Zoho Creator. Creator is touted to give less technical customers (think 'devops' staff) a simple drag-and-drop interface to build applications and related extensions. • The Marketplace has a fairly diverse repository of business apps built with Creator, and Zoho is also open to partnering with other SaaS providers. • There are 250,000 apps in nine categories on Zoho Marketplace, covering IT management, education, customer services, sales and marketing, education, nonprofit, and more. • Nearly 99% of these are 'private apps,' not publicly available for integration with its suite.
PARTNER ECOSYSTEM	• The partner ecosystem is driven by Zoho Creator users and subscribers. As its name indicates, Creator is a tool designed to quickly build custom applications that run on the Zoho platform. These apps use existing business logic and code, and users can leverage the core Zoho reporting engine to build charts and reports on the data stored. • It claims over 400,000 users for Creator, which serves as a base for the Zoho Marketplace's partner ecosystem.
DIFFERENTIATORS	Support for application integration and migration.
TARGET SEGMENT & CUSTOMERS	**Target Segment** Zoho Marketplace is tailored for its Zoho users – the company claims about seven million currently. **Customers** No visibility into actual number of users and user types, since the majority of applications are published as 'private.'
PRODUCT ROADMAP	• Invest further in Creator platform to improve flexibility. • Add enhanced features such as automation and third-party application integration.

4.2.2 TELCO, HOSTING AND CLOUD PROVIDERS

This group includes vendors that have made substantial investment in building and enhancing their network assets and datacenter facilities. The next step is to add value to this existing cloud infrastructure by providing applications and technologies running on top of it. This means pushing the envelope in terms of service depth in the cloud, moving beyond the role of simple cloud infrastructure providers. Another driver behind app marketplace implementation for these providers is the opportunity to extend their service reach in the SMB market through channel partners.

In this section, we present some examples of early movers among telco, hosting and cloud providers – including their product offerings, target segments and customers, partner ecosystem, differentiators, and near-term business focus. Please note that this vendor list is for reference only and is by no means exhaustive.

AMAZON WEB SERVICES (AWS)	
COMPANY INFORMATION	• AWS was founded in 2006 and operates as a subsidiary of Amazon.com. • It provides a broad range of IT infrastructure services running on top of its self-deployed cloud-based platform. It claims to have hundreds of thousands of registered customers (active customers who use at least one service on a monthly basis) spanning 192 countries. • Amazon continues to lead the IaaS market; by our conservative estimate, Amazon has exceeded the $50m mark in cloud revenue.
PRODUCT & KEY FUNCTIONS	• AWS Marketplace automates the process further, putting a selection of application stacks as Amazon Machine Images (AMIs) in an online store format. • The company believes automating app delivery will increase the use and attractiveness of the AWS cloud to users and ISVs. • Users can implement Amazon's well known '1-Click' to launch an AMI after selecting appropriate options (size, location, software version, etc.). They can also subscribe to the applications, which AWS makes available within the AWS console and via API. • AWS will handle service fulfillment with its own billing system. Thus, application charges will appear on the same monthly bill as AWS infrastructure services. Applications can be billed hourly. • There are over 400 apps in 10 categories and 2,300 pre-packaged machine images, including some from well-known vendors such as IBM, Microsoft, SAP, Oracle and others. All the software applications run on the AWS cloud.
PARTNER ECOSYSTEM	• Marketplace is a commercially pragmatic extension of Amazon's partner program. The ecosystem has a base of more than 4,000 partners, including both systems integrators and IT service providers such as Cognizant, Capgemini, Genpact and Hitachi Solutions, as well as ISVs such as Autodesk, Acquia and Heroku. Its Marketplace model also brings in a number of established software vendors like IBM, Microsoft, Oracle and SAP. • Amazon says a vetting process is in place, and it will work with partners to enable shared coordination around engineering. Therefore, partners can build new features on top of their core offerings. • Provides revenue sharing with developers (~20%).
DIFFERENTIATORS	• License mobility and Software Assurance. • Ease of use, tight integration with its own billing system. • Plays the role of a central clearinghouse for IT infrastructure where users start looking for answers and are already invested in the platform.
TARGET SEGMENT & CUSTOMERS	**Target Segment** AWS cloud customers. **Customers** Amazon declined to disclose customer count, but content management and databases are two categories seeing high demand.
PRODUCT ROADMAP	• Expand service catalog. • Develop new and enhanced features to shorten the time to market and simplify customer experience.

BELL CANADA	
COMPANY INFORMATION	• Montreal-based Bell Canada is a wholly owned subsidiary of conglomerate BCE (Bell Canada Enterprises). As the largest telecom provider in Canada, the company offers consumers, businesses and large corporations a portfolio of fixed-line, mobile, Internet, digital television, broadband and other ICT services. • Annual revenue stood at C$19.5bn in 2011, with a total of 55,250 employees.
PRODUCT & KEY FUNCTIONS	• Bell Canada's Business App Store is designed to provide customers with cloud-based applications via a subscription model. Customers can browse and try out applications from the application catalog. • Core components within the App Store include user and company profile management (with the ability to add/remove users and their permissions) and dedicated application pages with various support options. Documentation and videos are available to help describe the value proposition for each app. • The Business App Store has a service catalog of 90 apps in 10 major categories; each category has 2-16 applications. • App pricing is determined mainly in conjunction with the ISV that has syndicated with Bell's app marketplace. Target markets and relative competition are part of the equation for price-setting. Customers can select free, single-user or multi-user versions.
PARTNER ECOSYSTEM	• The Business App Store is powered by AppDirect. • Leveraging a network of developers from AppDirect's Developer Center, Bell Canada was able to build out its catalog of applications. • Applications are currently hosted in third-party datacenters as opposed to Bell's own datacenters.
DIFFERENTIATORS	• Provides a comprehensive portfolio of vertical-specific apps. • Offers frontline support for the Business App Store to boost the user experience. • Creates service packages that bundle Bell's own applications with other cloud-based applications to achieve three distinct business objectives: to run, grow or protect the customer's business.
TARGET SEGMENT & CUSTOMERS	**Target Segment** The entire base of business Internet, phone and mobile customers; SMBs in particular. **Customers** Bell Canada does not disclose the size of its customer base for Business App Store. Business App Store is not a huge revenue generator for the time being. From a telco perspective, Bell Canada believes connectivity customers that show interest in security, CRM and online marketing will be an area of growth. Typically these are companies that are small in scale but very Web-savvy – usually companies that are in startup or growth mode.
PRODUCT ROADMAP	N/A

DEUTSCHE TELEKOM	
COMPANY INFORMATION	• Headquartered in Bonn, Deutsche Telekom is an integrated telecom services provider. With a presence in 50 countries, it offers consumers and business customers a portfolio of fixed, mobile, broadband, Internet and IP TV services. • It has approximately 240,000 employees worldwide. In 2011, the company reported revenue of €59bn, with over half of its revenue generated outside of Germany.
PRODUCT & KEY FUNCTIONS	• The Deutsche Telekom Business Marketplace serves as a centralized platform where SMBs can access a suite of applications that are critical to their businesses. The Marketplace is enabled through a partnership with AppDirect. • Using a self-service portal, SMBs can review product recommendations, handle booking and billing, and contact customer services – all in one place via a single sign-on. • Applications are grouped in six service categories: CRM and sales support, ERP, security, collaboration, communications, and office and productivity. All applications can be authenticated using a single user name and password. • Pricing varies by software; applications are billed monthly, and contracts are either 12 months or 24 months.
PARTNER ECOSYSTEM	• The Business Marketplace has numerous apps provided by nine current partners. • There are different hosting models (in Deutsche Telekom datacenters, or in datacenters within Europe and worldwide) available for partners. Both partners and customers are made aware of where their data is stored. • All applications are subject to a vetting process for data security and privacy purposes. • Depending on the level of application integration, Deutsche Telekom offers various partnering models. Generally speaking, the company will market a range of applications to its existing customer base and then develop co-marketing campaigns with partners to boost demand.
DIFFERENTIATORS	• Positioned as an end-to-end offering – from connectivity to storage to billing. • All applications are fully integrated with the Marketplace, where Deutsche Telekom is responsible for customer relationships, as opposed to simply reselling partners' apps. • Invested in platform management and control.
TARGET SEGMENT & CUSTOMERS	**Target Segment** SMBs **Customers** Deutsche Telekom launched the Business Marketplace in July 2012 with a promotional period. It declined to provide any indication on service take-up or growth prospects thus far. That said, the company reiterated its commitment to developing the Business Marketplace model.
PRODUCT ROADMAP	• Create a more robust partner ecosystem – adding approximately 100 new ISV partners. • Pursue geographical expansion to extend the Business Marketplace footprint to other countries Deutsche Telekom serves. • Introduce attractive all-inclusive packages. • Develop further segmentation by sector; offer verticalized app marketplaces.

KPN	
COMPANY INFORMATION	• Formerly a government-owned telco, KPN has grown from a traditional telecom incumbent into the largest ICT provider in the Netherlands. It acquired IT provider Getronics in 2007, transforming its business model for ICT leadership. • It operates several fixed/mobile ISPs and IP TV services in various parts of Europe, including Germany and Belgium, and sells wholesale network and IP services in the Netherlands through its iBasis subsidiary. • KPN had 31,084 employees as of December 2011; revenue for 2011 stood at €13.2bn.
PRODUCT & KEY FUNCTIONS	• KPN has three-pronged approach, targeting enterprises, SMBs and wholesale partners: • Enterprise Appstore is powered by KPN Grip – an aggregation and provisioning platform for cloud and legacy services. It supports the complete cycle of cloud service management, including on-boarding services, maintenance of users and roles, authentication and reporting. Users access multiple services from the KPN Grip portal with single sign-on. There are currently more than two dozen business applications (10 KPN-branded services and 15 third-party services). • KPN Software Online is positioned as an SMB-focused app marketplace where customers can select from a combination of KPN-branded applications and native third-party applications out of a management portal. KPN claims more than 200,000 software services, with a focus on security. • KPN Wholesale Open Cloud Store is aimed at traditional IT channels, SIs, VARs, smaller telcos, ISPs and hosters. There are over 30 applications; some are developed and managed in-house while others are done through syndication or developed by third parties and managed in-house. Services include Web hosting, file-sharing tools and other services.
PARTNER ECOSYSTEM	• KPN's ambition is to become the leading trusted services aggregator for client-specific, KPN and third-party cloud services. • Works with selected partners in the area of innovation, marketing, sales and service delivery. • KPN Corporate Market will handle the on-boarding of partners for the service aggregation platform in the coming months. Wholesale partner ecosystem focuses on hosted applications, hosted voice, hosted infrastructure and hosted VDI. Vendors and service providers can offer their services to SMBs via connecting vendors and service providers to the Open Cloud Store platform.
DIFFERENTIATORS	• Having a ready-made customer base. • Demonstrates proven experience in addressing customer concerns over security, compliance and QoS. • Ability to create segment-specific service bundles at competitive prices. • Providing white-label offerings via the wholesale model.
TARGET SEGMENT & CUSTOMERS	**Target Segments** SMBs, enterprises and service-provider partners; tapping business opportunities in both local (the Dutch IT segment) and international markets, leveraging KPN Group and indirect channels. **Customers** • The GRIP platform was made available last September; usage information is not yet available. • Software Online – 140,000 customers using 200,000 software services (~1.5 per customer); the company expects to see an uptick in the number of services per customer (from 2.5 next year to 3.5 in 2015). • Wholesale Open Cloud Store has 10 launching service-provider partners, of which 6-7 partners have already started selling services. **Key Demand Trends** • Endpoint security and backup services are in high demand. • Slow transition to collaboration (file sync and share, email services). • App store model shows signs of maturity as enterprises are more willing to bring critical apps (e.g., CRM) to the cloud.
PRODUCT ROADMAP	• Continue on-boarding partners for the service aggregation platform. • Grow the number of solution vendors, service providers and supporting partners. • Enable service providers to offer one-stop-shop offerings (access and cloud services) by adding fixed and mobile connectivity services to the Open Cloud Store.

ORANGE BUSINESS SERVICES	
COMPANY INFORMATION	• Orange Business Services, the enterprise ICT arm of France Telecom, is present in 220 countries and has 30,000 employees in 166 countries/territories. It claims to have more than 3,700 enterprise customers around the globe. • OBS currently has four global service support centers – situated in Brazil, Egypt, India and Mauritius – providing customers with 24x7support in 30 languages. • The company reported revenue of €7.1bn in 2011.
PRODUCT & KEY FUNCTIONS	• OBS unveiled the Private Applications Store in late 2010, targeting enterprise customers. • It provides a catalog of applications and services operated by Orange, the customer or a third party. • The applications and services are accessible through a customizable portal from multiple locations/devices (office, home, smartphones). • At the core of the Private Applications Store is the Mobile Device Management Platform, which enables the customer organization to deploy a full corporate solution (software, security, connectivity management, collaboration) onto corporate or personal devices, based on the policies of the organization. End users, meanwhile, can perform a number of tasks such as service discovery, self-provisioning, application on-boarding and mobile-IT integration. • Private Applications Store comes with a choice of service management levels to adapt QoS to different user categories. A validation workflow process enables administrators to keep control over usage and costs. • In a typical customer deployment, it has an average of 10-20 mobile apps within their own app marketplaces and another 50-80 applications accessible from their PCs.
PARTNER ECOSYSTEM	OBS has approximately 50 partners, which it selects based on their ability to bring innovative mobile business apps to enterprise customers using IT infrastructure – including mobile security, mobile collaboration (voice, video, doc sharing, instant messaging), enterprise apps (SAP, HTML5, Citrix) and also connectivity management (3G, Wi-Fi, telecom expense management).
DIFFERENTIATORS	• End-to-end business management. • Lifecycle management.
TARGET SEGMENT & CUSTOMERS	**Target Segment** It targets various types of companies, including large multinational organizations with a global presence, where OBS delivers dedicated (and on-premises) offerings. For the midsize market, OBS is using the operations it has in key 'mobile' countries (UK, France, Belgium, Spain, Poland, etc.) to deliver the enterprise apps on a cloud-based infrastructure. OBS is also targeting government institutions. **Customers** It claims between 30 and 50 unique customers on a global basis, and is growing in all regions. Potential vertical segments include finance and logistics. Positioned as a value-added offering, OBS is looking to monetize this type of private app store capability.
PRODUCT ROADMAP	• Go deeper into vertical-specific private app stores. • Enhance Mobile Device Management platform. • Strengthen content management capabilities.

RACKSPACE	
COMPANY INFORMATION	• Hosting provider Rackspace has made real efforts to accelerate its cloud strategy. Aside from transitioning to OpenStack as the core of its IaaS environment, it continues to build out its cloud portfolio with new services and enhanced offerings. • The company reported revenue of $336m in Q3 2012, up 27% Y/Y, and had a total of 4,596 employees as of Q3 2012.
PRODUCT & KEY FUNCTIONS	• Rackspace Cloud Tools Marketplace has two major functions: 1) Give customers better access to a broad ecosystem of technology partners that work with and for the Rackspace Cloud. These applications complement the Rackspace Cloud. 2) Enable a more seamless experience for customers to access these services with single sign-on from the marketplace, account provisioning and single billing, launching apps directly from the marketplace. • Over 140 services are listed, focusing on specific technology needs within the cloud infrastructure space – spanning monitoring, cloud management, data and storage, application development, etc. • Pricing for each offering is up to the specific partner.
PARTNER ECOSYSTEM	• There are two types of partners that Rackspace works with. The first group provide the pre-integrated applications available within the marketplace. Another group of partners are ISVs and developers that provide applications not available from the storefront. • A key requirement of the Cloud Tools Program is that these offerings are either hosted on Rackspace or integrated via the Rackspace Cloud API so that other Rackspace Cloud customers can leverage the services. • Rackspace will review the different applications, use cases, partner support and type of integration with Rackspace Cloud before publishing to the marketplace. • For apps available via the marketplace, AppDirect handles the billing. For all other apps available via the partner, the partner handles billing. Rackspace declined to comment on the revenue model.
DIFFERENTIATORS	• Enables an open ecosystem to support the Open Cloud. Partners are not locked in, and can support any OpenStack-powered cloud. By enabling a broader ecosystem, the Cloud Tools Marketplace further enhances Rackspace's broad portfolio. • Provides a more curated portfolio of options for customers, to make it easier for them to find the most appropriate offering for their needs.
TARGET SEGMENT & CUSTOMERS	**Target Segment** Hosting and cloud customers – with reach into over 180,000 customers – including clients at 40% of the Fortune 100. **Customers** Rackspace declined to disclose customer count; customers are not vertically-focused.
PRODUCT ROADMAP	No specifics at this time, but in general, the company's roadmap will focus on developing deeper relationships with more partners.

SOFTLAYER	
COMPANY INFORMATION	• Headquartered in Dallas, the seven-year-old hoster has emerged as one of the leading dedicated, managed hosting and cloud providers in North America and is expanding rapidly internationally. It claims more than 100,000 servers deployed, with 25,000 customers spanning more than 140 countries – with 40% of customers based outside the US. • It reported annual revenue of $335m in 2011, with more than 750 employees.
PRODUCT & KEY FUNCTIONS	• SoftLayer Technology Partner Marketplace is designed to provide added value to customers (ISVs and SaaS providers) that deploy applications and tools on the SoftLayer cloud platform. • The Marketplace serves as an interface and a marketing platform, connecting customers to featured partners' technologies and services. Ordering, provisioning, billing and support will be handled by technology partners once customers are transferred to the designated parties. • Although it is not a revenue generator by itself, the company does provide marketing resources such as video interviews to promote featured partners' offerings. • As of today, the Technology Partner Marketplace has built out a list of 50 applications and tools, with more to come.
PARTNER ECOSYSTEM	• Partners are derived from customers in the ISV/SaaS segment; a vetting process is in place to shortlist featured applications. • Reference partners include CopperEgg, Kontagent, Relenta and SendGrid.
DIFFERENTIATORS	• Investment in marketing resources such as video blogs and press releases to assist partners in promoting their apps and tools to a broader market. • Integration of a handful of apps/ tools into SoftLayer's existing product portfolio, such as SendGrid's email relay offering.
TARGET SEGMENT & CUSTOMERS	**Target Segment** Existing hosting and cloud customers – the company claims nearly 65,000 customers across the board. **Customers** Since the marketplace serves as a landing page to go to partners' websites, SoftLayer doesn't have any visibility into actual sales.
PRODUCT ROADMAP	• Build out an ecosystem of partners within the marketplace. • Invest further in marketing and training. • Enable application integration as it sees fit.

SINGTEL	
COMPANY INFORMATION	• SingTel is the largest company by market capitalization listed on the Singapore Exchange and is majority owned by Temasek Holdings, the investment arm of the Singapore government. • The company has done well in exploiting cultural ties and leveraging acquired resources, including datacenter assets and technology know-how from its wholly owned subsidiaries, NCS and Optus, to expand its sphere of influence in the ICT market in Asia-Pacific. • It reported revenue of SGD 18.8bn ($15.4bn) for the fiscal year ended March 31, 2012, and has approximately 23,000 employees.
PRODUCT & KEY FUNCTIONS	• SingTel's MyBusiness is an SMB-focused online application marketplace. • MyBusiness is built with three core propositions: SaaS applications, insights and opportunities. • SaaS applications (over two dozen applications in six service categories) are delivered out of a service catalog. In most cases, SingTel will provide a level of product customization that aligns business functions with company's overall strategy. Customers can manage their selected applications from a user dashboard. • Aside from delivering SaaS applications via MyBusiness, SingTel also provides market insights, which is a tech blog used to communicate with MyBusiness customers for technology innovation, use cases and business news. • Another core function of MyBusiness is the trading board – an area to facilitate business opportunities and transactions 'with a mouseclick.'
PARTNER ECOSYSTEM	• SingTel has developed a fairly robust partner ecosystem, built on a base of 2,000 ISVs via the SingTel Innovation Exchange (SiX). SiX is a partnership program designed to facilitate full lifecycle development of business and consumer applications among local ISVs and cloud providers. Aside from SingTel, the Info-communications Development Authority of Singapore (IDA) and International Enterprise Singapore also play a pivotal role in enabling SiX. • Aside from a huge network of ISV developers, SingTel also pursues strategic partnerships with leading SaaS-enabled provides such as Intuit and Google to build out its service catalog. • With only two dozen applications available from MyBusiness, the telco has put in place a stringent vetting process. • It is a typical revenue-sharing model with ISVs/developers.
DIFFERENTIATORS	• 50% of applications have been localized. • It can play the role of a broker via the partner trading board. • Adds value via the 'group deal' function, which allows customers to purchase from MyBusiness at a discounted rate.
TARGET SEGMENT & CUSTOMERS	**Target Segment** Local SMBs in Singapore. **Customers** SingTel claims to have over 250,000 cloud users, including users for MyBusiness. It doesn't provide breakdown by service segment.
PRODUCT ROADMAP	• On-board new applications to the marketplaces such as collaborative apps for SMBs. • Enable mobility where customers can access SaaS apps from their mobile devices. • Release a set of APIs that helps ISVs to authenticate with MyBusiness user ID and passwords. • Introduce a group of closely integrated apps that enable customers to have multiple SaaS apps working together.

4.2.3 SOFTWARE AND IT VENDORS

The software vendor community is slowly but clearly transforming itself, with a growing number of players embracing SaaS in their product portfolios. The deployment of SaaS-enabled marketplaces seems to be a logical next move. By the same token, IT providers are looking for ways to diversify their revenue streams and promote an integrated portfolio of services and applications. Aside from providing business customers (SMBs and enterprises) with integrated cloud mobility offerings, some IT vendors are eyeing opportunities in key industry verticals, with vertical-specific app marketplaces.

In this section, we present some examples of early movers among software and IT vendors – including their product offerings, target segments and customers, partner ecosystem, differentiators, and near-term business focus. Please note that this vendor list is for reference only and is by no means exhaustive.

FUJITSU	
COMPANY INFORMATION	• Positioned as a global IT outsourcer, Fujitsu provides a variety of IT services, including helpdesk, desktop management, disaster recovery, consulting, datacenter services and cloud computing. • It reported a total of 173,000 employees worldwide and revenue exceeding $54bn in 2012, of which 66.3% is generated in Japan; 18.1% in Europe, Middle East and Africa; 9.2% in Asia-Pacific and China; and 6.4% in the Americas.
PRODUCT & KEY FUNCTIONS	• Fujitsu's Business Solutions Store has three core components: a business enabling platform, user portal and marketplace portal. • The business enabling platform handles provisioning, multi-tenant support, billing and reporting. • The user portal serves as an interface for self-service subscription and user management. • The marketplace portal provides features like rating, reviews, overview, categories and vertical selections. • There are ~60 applications; most apps require configuration to fit into customers' business processes. • Pricing is set with the software partner, since the partner maintains the direct relationship with its customers. • Resellers can have their own marketplaces with their own brands; applications listed on the marketplace are selected from Fujitsu's software vendor ecosystem. • The app marketplace is currently available in multiple locations – including Germany, Austria and the UK – but the goal is to globalize the offering as the market matures. • The Business Solutions Store represents the company's SaaS strategy; all SaaS apps will be provided via the store going forward.
PARTNER ECOSYSTEM	• It has created an ecosystem with more than 50 partners. Fujitsu will review and qualify partner applications. • All applications are running on top of Fujitsu's cloud platform, which is hosted within Fujitsu datacenters. • Software partners provide all kind of apps – e.g., messaging, collaboration, ECM, CRM, ERP. • Revenue-sharing model for software partners – 75% goes to the software partner and 25% to Fujitsu, depending on complexity, infrastructure requirements and cloud-readiness. In this model, the partner is responsible for sales.
DIFFERENTIATORS	• Easy to partner with (no up-front investment, no recoding – just APIs, fair and predictable revenue sharing, multi-channel concept). • Provides a purpose-built business enabling platform with the features needed for a cloud software model, like provisioning, billing and reporting. • Supports an open ecosystem.
TARGET SEGMENT & CUSTOMERS	**Target Segment** All market segments, and companies of all sizes. Automotive (car dealers) is the first vertical that the company is pursuing opportunities in. **Customers** 400+ customers and 1,600+ users, including both Fujitsu and non-Fujitsu customers. In terms of company size, it tends to appeal to smaller companies in the business software segment.
PRODUCT ROADMAP	• Provide Enterprise Edition of Fujitsu Cloud Store that will integrate existing enterprise apps. • Enable Fujitsu Personal Cloud – a personal cloud using HTML browser, integrated Web desktop where individuals can access all apps from any devices, along with collaboration and productivity tools. • Invest in enhancing existing Business Solutions Store.

LIFERAY	
COMPANY INFORMATION	• Headquartered in Los Angeles, with offices in the Americas, Europe and APAC, Liferay has been a commercial entity since 2004, although the enterprise portal project dates back to 2000. • Aside from the portal software business, the company began expanding into Web content management several years ago, and has now added some lightweight document management features as well. • With no outside funding, its growth has been organic.
PRODUCT & KEY FUNCTIONS	• The Liferay Portal is mainly developed in-house and provides customers with a selection of applications, themes and templates as extensions/add-ons to its portal platform. The only feature the company outsources is payment processing for paid apps. • Liferay's own apps are primarily available free as Community Edition apps, and are included at no additional cost for Liferay Portal Enterprise Edition customers. • There are approximately 100 apps, which customers can search using a keyword or browse by category. Categories include business productivity, social collaboration, platform tools and themes/layouts. • These applications are offered for download, and stored in Liferay's datacenters, but are not available online in a true SaaS model. • The company is looking to integrate an e-commerce function into the platform, which will allow developers to charge for their contributed apps. It says the market reception looks promising as developers are waiting for this function to be enabled (it's targeting Q1 2013).
PARTNER ECOSYSTEM	• Liferay claims to have a network of ISV partners and developers, including major software vendors like Alfresco and salsaDev, that provide apps. • There is a vetting process to validate add-ons and applications provided by ISVs and developers before making them available to customers. Aside from running a basic antivirus check, it will conduct a functionality check. • Liferay will collect specific fees for those selling apps through the marketplace; while this is expected to support the costs of the marketplace, it will do so at a profit.
DIFFERENTIATORS	• Simplicity for developers and users. • Enables developers from its open source community.
TARGET SEGMENT & CUSTOMERS	**Target Segment** It is targeting a community of 75,000 users and developers around the world. In addition to a number of horizontal cross-industry apps, the company expects to see activity and interest from specific verticals, including financial services, healthcare and education, in alignment with the key verticals where its core portal business sees traction. **Customers** No specific customer information is available. E-commerce support will be added in 2013.
PRODUCT ROADMAP	• Activate e-commerce so that contributors can set their own prices for their apps. • Expand services to certify apps (e.g., for various regulations and requirements).

PERVASIVE SOFTWARE	
COMPANY INFORMATION	• Headquartered in Austin, Texas and publicly traded since 1997, Pervasive provides software to manage, integrate and analyze data, in the cloud or on premises, throughout the data lifecycle. • The company reported a total headcount of 260+ employees and an annual turnover of $49.2 million.
PRODUCT & KEY FUNCTIONS	• Pervasive Galaxy Marketplace is an interactive platform that enables the company's partners and their end users to communicate with one another and Pervasive, to get support, answers to questions, and help with managing their assets. • Offerings within the marketplace can be purchased and used by any party, whether they're looking for a complete packaged integration, or for pre-made pieces while doing an integration of their own. • Galaxy Marketplace was built by Pervasive and third parties: – Ratings: BazaarVoice – Community: Lithium Technologies – Distribution of revenue: Amplifinity – Billing: Zuora • There are hundreds of packaged, configurable integration solutions, templates, plug-ins and connectors made by partners. Applications are hosted within Pervasive datacenters.
PARTNER ECOSYSTEM	• Pervasive claims to have approximately 250 ISV and SI partners that it is targeting for Galaxy. • Prior to signing any partner agreement, Pervasive will meet with every potential seller to vet their application (and evaluate potential success). It says all Galaxy apps are discussed, planned and scoped prior to development. The company is creating a formal certification process. • The goal is to build out a partner ecosystem of SI resellers. For ISVs that don't have a channel, Pervasive will work directly with the ISV. • Targeting ISVs, SIs and BSPs, the company also provides a white-label version of Pervasive Galaxy called MyGalaxy. Essentially, it's an integration marketplace provided as a service that allows partners to distribute packaged point-to-point integrations (Galaxy Apps), integration templates, maps and processes throughout their organization, and/or provide integrations to end users. • Current customers use MyGalaxy as a distribution mechanism, as opposed to 'marketplace,' for offering pre-packaged integrations to their internal users or their customers. • MyGalaxy is hosted by Pervasive under the white-label offering (My Galaxy).
DIFFERENTIATORS	• Proven sharing capabilities within Pervasive Galaxy. • Handles billing for partners. • Users can utilize Search Engine Optimization (SEO) in order to drive business partners.
TARGET SEGMENT & CUSTOMERS	**Target Segment** Pursues opportunities within segments and verticals where the benefits and effectiveness of disparate software applications multiply when they are integrated. **Customers** It claims more than 300 paying customers. Experiences success mainly within the email marketing automation and CRM ecosystems, as well as in HR/payroll. Other key markets include CRM-to-shopping-cart applications and analytics-to-email-marketing-automation applications.
PRODUCT ROADMAP	• Add capabilities for partners to manage their applications on the Galaxy Marketplace. • Additional reporting will be available, including the use of mobile, so partners will have more visibility to monitor the activities of their applications. • Extend beyond apps marketplace function – the expanded form will include 'Galaxy Support Community' and 'Galaxy Administration.' Pervasive Galaxy will eventually enable partners and their end users to communicate with Pervasive and peers, access resources, acquire connectivity applications, and manage their software assets as needed.

T-SYSTEMS	
COMPANY INFORMATION	• T-Systems, a 100%-owned subsidiary of Deutsche Telekom, sells hosted and managed services to about 400 European-headquartered multinational enterprise customers, and supplies IT and infrastructure to parent Deutsche Telekom, enabling it to address the rest of the German market. • It reported annual revenue of €9.2bn in 2011, and has approximately 48,220 employees.
PRODUCT & KEY FUNCTIONS	• T-Systems Business Marketplace Enterprise Edition is designed to provide managed and unmanaged cloud services. • It is touted to give enterprise customers everything from product recommendations to self-service deployment, through to billing and customer service, with single sign-on. • Services will be running on top of is cloud platform and hosted within its datacenter. • Services include preconfigured appliances, enterprise search, database, Citrix app virtualization services, communication and collaboration, security, and SaaS applications (via T-Systems, partners, and ISVs). Customers can upload their own apps into the Business Marketplace as well. • Pricing will be based on usage of services and resources. Different customer contracts will be offered (ranging from days to months). • The company will introduce Business Marketplace Enterprise Edition at CeBIT 2013 in Germany.
PARTNER ECOSYSTEM	• It claims a huge base of ISV partners, with plans to add 100 new ISVs in the coming months. • Each partner service that's ready to be uploaded to the Business Marketplace will be subject to a 'control & release' process. • T-Systems will market the services using the marketplace structure and then develop additional marketing campaigns together with partners using the company's sales channels and customer base..
DIFFERENTIATORS	• Provides a one-stop-shop offering that spans network, cloud platform and cloud services. • Implementing 'control and release' process to ensure quality and security. • Enables personalization, as customers can upload their own applications. • Complies with EU/German security standards by hosting the Business Marketplace locally.
TARGET SEGMENT & CUSTOMERS	**Target Segment** Both existing and new enterprise customers, including midsized businesses, large corporations and multinational companies. **Customers** The Business Marketplace has yet to become commercially available.
PRODUCT ROADMAP	• Sign up 100 new ISVs. • Expand service catalog, plan to have 500 services available. • Replicate the Business Marketplace model and make it available to other markets and countries the company serves.

ZIMORY	
COMPANY INFORMATION	• Headquartered in Berlin, Zimory was spun off from Deutsche Telekom in 2008. Positioned as a cloud management software vendor, it is going after the fast-evolving IaaS market. • Deutsche Telekom is one of 10 Zimory customers; it is responsible for about 60% of its revenue, thanks to a five-year IaaS agreement announced in January 2011. • The company claims to have generated revenue of €7.5m in 2011, and has approximately 55 employees.
PRODUCT & KEY FUNCTIONS	• The main product to support the App Store function is zimory-publish – a software module that allows PaaS and SaaS providers to install their applications in containers that fit various virtual machines, making workloads moveable and interoperable. • At the heart of the technology is Service Design Tooling, which allows the vendor to compile the application in best-practice manner with other components (basic operating systems, etc.) to create complete business solutions. This tooling basically creates a recipe that is executed when the service is ordered. In addition, it allows the definition of the billing/pricing models, service support, etc. • Below that lies the plug-in infrastructure, which allows the integration of various configuration management tools. • Service catalog varies by PaaS/SaaS provider. • The company declined to disclose the pricing model of the app marketplace enablement platform.
PARTNER ECOSYSTEM	Zimory claims to have a complete process and tooling for ISVs to publish their software and remain in control regarding usage.
DIFFERENTIATORS	• Positioned as independent enabler for app stores. • Facilitates application interoperability.
TARGET SEGMENT & CUSTOMERS	**Target Segment** Systems integrators (for complete services) and ISVs (for components/applications). **Customers** No specifics on the number of ISVs so far.
PRODUCT ROADMAP	Expand zimory-publish capabilities: 1. Support XEN, Hyper-V, VMware + KVM PaaS 2. API to billing enhancement 3. API to identity management enhancement 4. API to license management enhancement 5. Support moving workloads/apps between service providers.

4.2.4 INDEPENDENT AGGREGATORS

Independent aggregators work closely with ISVs and application developers to build out their service catalogs. They are willing to invest in tools and services that help identify user behavior and usage patterns. In terms of service approach, some providers are geared toward a particular application ecosystem, such as xTuple, while others, like GetApp, prefer to remain vendor-agnostic.

In this section, we highlight GetApp – including its product offerings, target segments and customers, partner ecosystem, differentiators, and near-term business focus. Please note that inclusion of this profile is for reference, and is not intended to imply anything specific about other vendors.

GETAPP	
COMPANY INFORMATION	• Founded in 2009 under the business entity Nubera eBusiness; GetApp is the brand of the company's business app marketplace. • GetApp has a team of 14 employees located in Spain, but the majority of SaaS partners are from the US, UK and Australia. • It claims revenue has been growing at over 100% Y/Y, and it's on a seven-figure annual run rate.
PRODUCT & KEY FUNCTIONS	• GetApp serves as a platform where users can search and discover various applications by functionality, language, geography, etc. Buyers can also filter applications that integrate with Google, salesforce.com or Intuit apps. • When a potential buyer requests a demo or quote from a vendor's microsite, GetApp passes relevant leads on to the vendors. • The GetApp marketplace has a service catalog of nearly 5,000 apps from 2,000 vendors in 12 major categories; each category has 5-35 subcategories. • Nubera also operates an 'integration as a service' platform (iPaaS) called CloudWork. Unveiled in October 2012, CloudWork connects cloud business apps and facilitates data sharing using API connectors. All 'mundane' tasks such as synchronizing contacts and exporting files between apps are automated. CloudWork also allows users of multiple apps to see important app information via single news feeds. • CloudWork represents a shift in GetApp's strategy, from being a pure-play content aggregator to becoming a value-added platform provider. Up next is to add cloud application management services.
PARTNER ECOSYSTEM	• GetApp has a commercial relationship with over 700 SaaS vendors. • Application vendors or professional services providers can submit a self-service request to be included in the marketplace at GetApp.com. There is a registration fee of $299. • Once approved after product review, vendors can create a landing page or microsite in the GetApp marketplace (additional microsites from the same vendor are not subject to duplicate registration fees). There are more than 1,500 qualified SaaS partners. • Revenue model is based on a pay-per-click, pay-per-lead or pay-per-revenue basis, which varies between vendors. • GetApp also teams up with about 10 syndication partners (companies that already have a user base, and users are interested in deploying SaaS apps) to accelerate user traffic.
DIFFERENTIATORS	• Provides a comprehensive portfolio of vertical-specific apps. • Focused on value creation – enabling application integration and business processes automation. • Promotes an open system that protects against vendor lock-in.
TARGET SEGMENT & CUSTOMERS	**Target Segment** Ideal customers are SMBs with 10-500 users. **Customers** For GetApp's cloud business apps marketplace, 80% of users are based in the US, Canada, UK and Australia. Over 1.5 million businesses have used GetApp to discover and select apps. For CloudWork, the company claims to have approximately 1,500 users in less than two months that have automated over two million transactions.
PRODUCT ROADMAP	• Open platform for SaaS vendors to integrate with the CloudWork iPaaS. • Promote use of open APIs in SaaS. • Pursue geographical expansion.

4.3 REVENUE MODEL

While business app marketplaces have been well received and are increasingly being adopted by providers of all kinds, there are questions about whether the current business model makes financial sense. How do different parties involved in the supply chain make money? Who will reap the greatest financial benefits in the end? To answer these questions, we look at the revenue model that has been used by multiple parties involved in mobilizing the app marketplace ecosystem (see Figure 4) – including app marketplace enablers, providers and developers/ISVs.

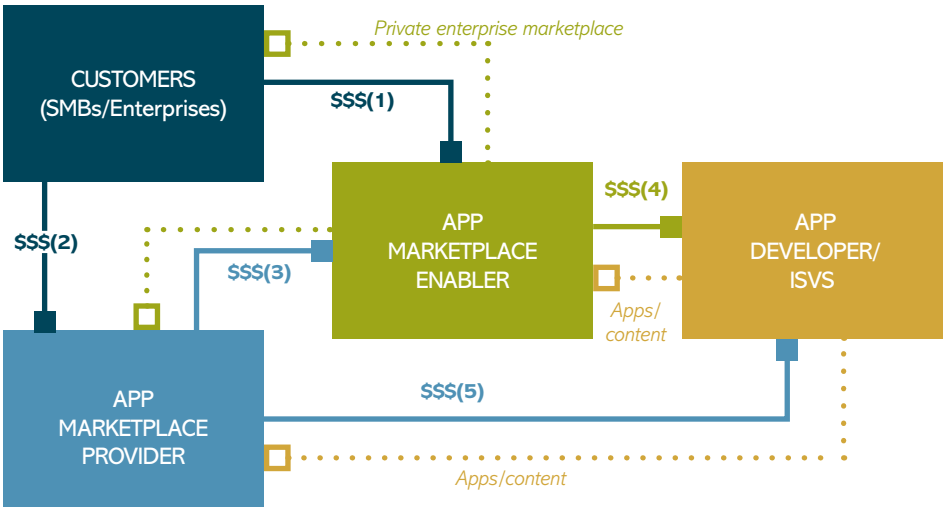
Enablers – The need for app provisioning and management platforms has created business opportunities for enablers to generate revenue by entering commercial relationships with service providers, as well as enterprises looking to fire up their own marketplaces. Revenues are primarily driven by licensing their marketplace enablement platform. Some enablers also get a revenue share from service providers for pre-integrated, pre-negotiated applications.

Vendors/Providers – The primary source of revenue for service providers is derived from their end customers – SMBs in particular – for subscriptions to applications (e.g., per user/month, or an hourly rate) from the service catalogs. Some providers also generate additional revenue through cross-selling/upselling opportunities. That being said, a handful of providers generate revenue via a revenue-sharing model (typically a 20-30% share) with developers/ISVs that handle billing and payment directly. For open-source-based applications that are free of charge, the opportunity for service providers is to increase customer stickiness and reduce churn. In addition, the 'freemium' model is often used by open source vendors to sell support services around the open source code.

Developers/ISVs – The value of an application marketplace that connects developers/ISVs to hundreds of thousands of potential customers is highly compelling. Developers are becoming part of the partner ecosystem and are getting a piece of the action. In some cases, independent developers or ISVs may need to pay a nominal fee for joining the marketplace. And their applications are usually subject to a vetting process for security and compatibility purposes.

In our conversations with approximately two dozen vendors involved in the supply chain for application marketplaces, there is an overall note of optimism. Roughly eight out of 10 market players suggested that they are on the right track to monetize the app marketplace phenomenon. This speaks to the readiness of industry players and the growing availability of tools and technologies that help speed the time to market. Although not everyone is making money today, players in this space are being strategically patient, and they expect that their efforts will ultimately pay off. Only time will tell if the app marketplace business model will boost both the top line and bottom line for various participants in ecosystem.

FIGURE 4: APP MARKETPLACE REVENUE MODEL



1. Enterprises purchase a platform license from app enablers for the private enterprise marketplace.
2. SMBs and enterprises pay monthly subscription fee to service providers.
3. Service providers pay term license/monthly license fee to app enablers for the deployment of app marketplace; some service providers get charged based on the utilization of their infrastructures. For pre-integrated, pre-negotiated apps delivered out of the wholesale catalog, app enablers will get a revenue share.
4. App developers get paid using the revenue-sharing model.
5. Service providers pay app developers/ISVs using the revenue-sharing model.

SECTION 5
Demand Trends & Challenges

5.1 DEMAND TRENDS

Business app marketplaces are increasingly available to organizations across the board, from SMBs to large corporations, and they represent a fundamental shift in the way companies deploy and manage their IT resources. SMBs, many for the first time, are able to deploy enterprise-focused applications such as ERP and CRM that would have been unthinkable just a few years ago. While SMBs continue to take the lead in driving the take-up of app marketplaces in the business software segment, larger companies cannot afford to bury their heads in the sand.

The growing availability of business app marketplaces will essentially shift the focus of IT management from the complete lifecycle of hardware and software development to managing services and applications on the fly, outside the corporate firewall. But we are still a few years away from seeing this major shift. Industry players suggest that larger businesses are still in the early stages of evaluating the feasibility of the app marketplace model – and its implications on corporate security, compliance and governance. Some businesses have made the move on an application-by-application basis, while companywide deployments remain limited.

Reference customers for business app marketplaces (there are not many that are publicly disclosed at this point) include Greens on Screens, which uses a cloud-based document management application called Oystor to share important documents and inventory updates between their storefront and the back-end. Oystor is one of the SaaS applications accessible from SingTel's MyBusiness, the company's SMB-focused SaaS marketplace. Another example is FORMDENKER, which has adopted a cloud-based productivity suite provided by software vendor Verpura, which is accessible via Fujitsu's cloud marketplace, the Business Solutions Store. We also know of a media company in Brazil that deploys custom-built business applications out of Partnerpedia's Enterprise AppZone in response to the growing BYOD trend.

Many customers that are still skeptical about the outsourced model of app marketplaces run by third-party service providers are intrigued by the idea of having their own business app marketplaces to empower users with self-service management tools, without compromising corporate controls. Providers like Orange Business Services and KPN, and marketplace enabler Partnerpedia are early leaders in this space, working with enterprise customers to deploy their custom-built, private apps marketplaces.

By vertical, government customers are viewed as early adopters. The US General Services Administration (GSA) is one of the few first movers, deploying a cloud marketplace for federal agencies. Its positive sentiment towards cloud deployment is echoed by

the US Army as the latter recently unveiled an app marketplace prototype as the first step to get acquainted with the business model. NASA has deployed a private app store that provides agency employees and contractors with access to specific applications.

All in all, the learning curve remains steep and the need for guidance from service management, security, and integration standpoint is essential to build the business case in the corporate market.

5.2 CHALLENGES

Business application marketplaces are quickly taking shape, with interest coming from various parties in the vendor and service-provider communities. As in all markets, though, with new opportunities come new challenges. Here we identify four major challenges that providers face in terms of supporting customers and end users.

5.2.1 BUSINESS CONCERNS OVER SECURITY AND COMPLIANCE

While the opex-based app marketplace model is appealing to companies large and small, the idea of accessing what used to be internal, behind-the-firewall applications from a publicly accessible cloud marketplace raises enterprise concerns over data security, compliance and IT governance. The ability to access applications from any mobile device also raises security concerns specific to mobile device management.

These problems are exacerbated as enterprise customers come under increasing pressure to comply with stringent industry-specific regulations, policies and procedures while migrating applications to the cloud. Some providers believe the availability of vertical-focused app marketplaces that address issues associated with industry-specific regulation and compliance is an answer, but this boils down to the willingness of businesses to accept and share risk with third-party providers.

Building this kind of trust is becoming more challenging as well. How can the marketplace be trusted to deliver uncorrupted code? What security measures should be in place? App marketplace providers will need to address these fundamental issues.

5.2.2 APPLICATION MANAGEMENT AND SERVICE SUPPORT GROWS IN COMPLEXITY

App marketplace providers have been taking a proactive role in driving application lifecycle management and support. At the core, this requires the right mix of technologies, people, expertise and collaboration to smooth out the process of application development, governance and maintenance.

As the number of applications continues to swell and business requirements become more diverse, service providers will face challenges in handling the growing complexity of application management and support – not to mention the inflexibility of some soft-

ware vendors regarding licensing issues. And the availability of industry- or segment-specific applications will only complicate the situation. This surely requires attention from all parties involved in building out an app marketplace ecosystem.

5.2.3 INTEGRATION BETWEEN APPLICATIONS IS LACKING

With the growing availability of tools and platforms that help accelerate the process of application on-boarding, third-party applications are proliferating by leaps and bounds. From offering standardized business apps such as CRM and ERP to deploying custom-built applications, app marketplace providers have done a great job in terms of adding service breadth. That being said, new applications are often delivered independently, and have little or no integration with customers' existing applications.

As new applications still operate in silos, information sharing becomes difficult and confusing, if not impossible. GetApp is one of the few providers looking to bridge the service gap of application integration. The company's CloudWork integration-as-a-service platform is designed to connect cloud business apps and facilitate data sharing using API connectors. Others working in this area include MuleSoft, with its APIhub, and SnapLogic, which sells integration connectors dubbed Snaps. We expect more providers will follow this path going forward, giving birth to API marketplaces.

5.2.4 LEARNING CURVE REMAINS STEEP IN THE ENTERPRISE MARKET

While SMBs represent the core segment driving demand for SaaS applications, the learning curve remains steep in the enterprise segment when it comes to migrating existing business apps to the cloud – not to mention using third-party applications on the fly.

Inadequate education is partly to blame for this lukewarm enterprise reception. Together with limited availability of application marketplace models, market participants (both enablers and service providers) have their work cut out to 'sweeten' their offerings for enterprises going forward.

SECTION 6

Conclusions and Recommendations

The notion of app marketplaces is well received in the service-provider and vendor communities, thanks to the proven SaaS marketplace models developed by the likes of Google and salesforce.com. Business-focused app marketplaces finally caught the attention of traditional vendors and established hosting and telecom providers. From deploying and managing pure business app marketplaces to developing technology-driven cloud marketplaces, the marketplace partner ecosystem is evolving fast and getting more diverse.

ISVs and application developers are likely to make good use of the cloud delivery model to reach out to increasingly mobile customers. And the mobility of various applications will become an integral part of the app marketplace offerings. While some suppliers – telecom providers in particular – may have temporarily held back on investment in emerging business models like app marketplaces due to uncertainty over demand, we believe that growing competitive pressure will prompt providers to develop innovative service approaches as a way to advance their technology frontiers.

On the flip side, the explosion in the number and variety of apps available in the business marketplaces has made application integration a daunting challenge. And the complexity of application management and support presents a major barrier for the long-term business viability of the SaaS/cloud marketplace models, especially in sectors where vertical-focused applications are subject to stringent regulatory requirements. It would seem that various players within the app marketplace ecosystem have their work cut out for them in terms of bridging service gaps and boosting the overall value proposition.

Judging by the latest demand trends, companies large and small increasingly realize the value of app-store-like models. The cost savings derived from volume license purchases are appealing. And the ability to access a huge repository or catalog of services and applications on the fly for service discovery and deployment is valuable to businesses – particularly companies with a high proportion of nomadic employees.

Corporate customers that have been generally conservative about the use of public cloud marketplaces point to the potential security and compliance issues. This has driven the emergence of enterprise private app stores deployed within the customer's premises that are only accessible to internal users.

Early forms of enterprise private app stores focused on striking a balance between control and service flexibility. Taking a centralized approach to application management, IT managers are able to purchase software licenses in bulk and provide access to internal users based on their roles and business units within the company. With chargeback capability, IT managers can now develop an accurate picture of usage patterns and user behaviors, which is crucial for making informed decisions around IT budget planning and resource management.

There is little evidence so far that private enterprise app stores or cloud marketplaces will be a panacea for the enterprise cloud strategy. Nevertheless, some corporations are likely to define business processes over time to validate applications and access control. While enterprise-focused private app stores are still in their early days, we believe some significant developments from the likes of Orange Business Services and KPN will help set the tone for the growth and deployment of business/vertical-specific marketplaces in the next 12 months.

Whether it is to complement existing cloud strategies or to break new ground with innovative models, the app marketplace is becoming a reality and is opening up new avenues for multiple parties – enablers, developers/ISVs and service providers – in the app marketplace supply chain. The app marketplace model will continue to operate on both closed systems (for partners and existing customers only) and open systems (for new and existing customers), and it will create opportunities for vertical-focused offerings in the near-term.

6.1 RECOMMENDATIONS FOR APP MARKETPLACE PROVIDERS

- **Support business customers with the right mix of deployment options.** Each customer is unique. It is advisable to embrace a variety of app marketplace deployment options (public, private or hybrid) and articulate the value proposition of each approach based on usage patterns and business imperatives. Ultimately, companies will judge service delivery models on their applicability.
- **Understanding application management and integration is critical.** Regardless of where providers are in terms of their product roadmap, the ability to provide tools and platforms that help facilitate application management and integration will be essential to accelerate adoption in the business software segment. This is especially the case for organizations that have invested considerably in custom-built applications; seamless integration is clearly a prerequisite.
- **Focus on business challenges, not technology.** The new mandate for enterprise IT is to align business goals with IT operations. With that in mind, providers must focus on business-oriented service delivery. The app marketplace must be easy to use and backed by a highly automated and standardized management platform to ensure service quality and consistency.

6.2 RECOMMENDATIONS FOR APP MARKETPLACE ENABLERS

- **Offer tools that help automate compliance efforts.** As enterprise concerns over security and compliance remain unresolved, enablers have a role to play in improving the security aspect of app marketplace enablement platforms. Integrating tools that allow automation of IT audit processes into management platforms is the first step to build trust with partners, providers and end customers.

- **Anticipate technical and supply chain issues associated with application integration.** Enabling application integration could be a major endeavor as companies tend to work with multiple software vendors for their business requirements. Aside from making APIs available to service providers and enterprises that are looking for seamless application management and integration, app marketplace enablers may need to work with third-party application providers to ensure integration.

6.3 RECOMMENDATIONS FOR ENTERPRISES

- **Assess your readiness and determine the extent of your company's commitment to enabling an app store function.** One size doesn't fit all. Corporate readiness and preparation are critical to a successful implementation. The use of app marketplaces will lead to a fundamental change in process-driven service procurement and delivery, and will alter traditional financial models. Aside from empowering employees, enterprise IT must ensure there is a flexible organizational structure to manage the changing business processes. Upon implementation, be sure to deploy a mechanism to effectively measure the financial and business implications for users.
- **Select a partner that demonstrates a high level of transparency.** Aside from ensuring server-side security in the context of content filtering and intrusion prevention, your provider's willingness to maintain a high level of transparency to meet your security requirements is equally important. Geographically, do you know the location of the datacenters where your applications are hosted? From a network engineering standpoint, how does your partner address network outages?
- **Recognize the need for predictability.** As IT managers continue to empower their internal users to take advantage of innovative technologies and tools, they should model and predict how these users will interact with and employ various technologies in order to ensure that IT security and systems management can stand up to changing conditions.

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