

Simply. Business Cloud

“Where Business meets Cloud” *Paul Hermelin*



People matter, results count.



“Where Business Meets Cloud”

The impact of Cloud on today's business is everywhere; from the foundations of technology infrastructure to information management, IT investments and solutions, all the way to day-to-day business processes and new activities. Cloud literally permeates society, not only touching us in our personal lives, but also changing our expectations at work.

Capgemini has been a pioneer in helping exploit Cloud benefits for our customers. We saw early on that by harnessing the power of the Cloud, we could help our clients achieve meaningful business change. Furthermore, from my interactions with industry leaders, it is clear that the benefits of Cloud are now well understood and can undoubtedly deliver new and simpler operating models, faster routes to market and enhanced bottom-line gains. This is why Cloud, to us, is a fundamental design principle that underpins the majority of Capgemini's solutions for our clients.

Thus, benefiting from Cloud can take many different forms. For example: Cloud powered a solution we developed that achieved a reduction of more than a third in energy consumption for a regional government; we delivered Cloud-based infrastructure strategies to reduce costs and improve quality and service delivery for a major Consumer Goods company; and furthermore, we expanded the customer footprint and enhanced the online user experience with a first-of-its-kind, Cloud-based, multi-channel ordering platform for a large North American telecommunications company.

As Cloud has developed, so have our views. Our global survey *Business Cloud: The State of Play*

Shifts Rapidly. Fresh Insights into Adoption Trends, combined with insights from our client work, highlight the changes impacting the adoption of Cloud and how organizations are addressing key issues and challenges in leveraging it across their business. What is clear from our research is that organizations are keen on Cloud - not only as an IT platform - but as a business enabler that brings qualities, such as pay-per-use, flexibility and speed-to-implementation, which drive business benefits, rather than focusing on technical features. Cloud may be making IT somewhat invisible, but it is fast becoming a ubiquitous principle of service delivery.

It is also crucial to realize that the business benefits of Cloud can be reaped without having to add complexity and risk to the management agenda. Our own proposition, as a *Cloud Orchestrator*, aims to help our clients navigate this quickly-evolving landscape without getting lost, being dazzled by choices, or following ineffective routes.

I believe we have a valuable and fresh perspective on how to accelerate business transformation through Cloud – putting the power of IT closer to the business than ever before. At Capgemini, we don't see Cloud as a destination in itself. We see it as a better way to reach your *business destination*, whatever your industry sector, and wherever you are in the world. It is no longer the journey to the Cloud, but the Cloud-enabled journey that matters. Simply, a new era we refer to as *Business Cloud*.

Paul Hermelin
Chairman and
Chief Executive Officer



Changes Driving Cloud Adoption

We all take it for granted nowadays that we can read and write emails using the Internet wherever we are, using our home computers and tablets, or in the street via smartphones. We appreciate being able to make photos easily available to friends and family, even if they live on the other side of the world. And we also share documents, insights and discussions with our fellow-workers, at any time and place we want.

None of this would be possible without the Cloud. But individuals are not the only ones who appreciate the benefits of the Cloud. Businesses are also weighing up its advantages, not just as a way of reducing their investments but also for example in using IT resources more flexibly – according to the volume of activity – and getting solutions up and running much more quickly than before. Cloud provides companies with a choice of how they organize infrastructures and applications, as well as different ways of working with service companies.

But Cloud itself is changing too, with considerable strategic and tactical shifts taking place. To establish the extent of how Cloud adoption is changing and its impact on the wider organization, Capgemini commissioned original research using an independent research company.

Our Cloud study consisted of 460 interviews with business and technology executives from enterprise-sized organizations (most with more than 10,000 employees) across six sectors: retail, financial services, energy/utilities, public, manufacturing/automotive, and telecom. The organizations have business operations in multiple countries, including US, Brazil, China, India, UK, France, Germany, Netherlands and Sweden. IT executives and line-of-business decision-makers were almost equally represented in our sample to give a rounded and balanced view.

The resulting report, *Business Cloud: The State of Play Shifts Rapidly. Fresh Insights into Cloud Adoption Trends*, published by Capgemini in November 2012, has informed the thinking behind this paper, which focuses on the impact of the rapidly-emerging Business Cloud and provides guidance on the next steps to take.

Read the full report at www.capgemini.com/business-cloud-report.



Cloud is not just a technology issue. It's an **opportunity for business to truly transform the way it works** and even embrace new commercial models for growth”

Cloud Powers the Business Technology Landscape

The new reality of Cloud is that it is now perceived by the organization as a whole as a powerful driver for business initiatives, rather than just an IT platform. It is therefore taking on a more strategic role within the organization – a phenomenon that we refer to as 'Business Cloud'.

Consider this:

- The Cloud has now proven itself and the days of evangelization are almost over. The business side of the organization has recognized its potential and has become much more involved in decisions about Cloud and in commissioning its use.
- This has led to heightened expectations by the business about the availability of quick, scalable, flexible and cost-effective solutions. This new benchmark of IT performance and value-for-money is rapidly becoming the norm against which internal and external IT organizations are being measured.
- Most organizations have articulated a Cloud strategy that is being implemented using a careful, step-by-step approach. In this way, IT caution is being balanced by business enthusiasm.
- The Cloud is already a default for new applications supporting high-growth "edge" business activities, much more than it currently is for existing, "legacy" applications.

Cloud is taking on a more strategic, powerful and influential role within the organization, in which it is impacting on both the business and IT sides of organizations. These developments clearly indicate that the adoption of Cloud is set for major change in the near future, and this paper provides tangible next steps for consideration.





Business Likes the Cloud Because It Delivers

The Cloud builds on advances in technology to quickly and effortlessly supply IT services, but its role is now extending beyond the boundaries of the IT department. Our research found that decisions regarding the Cloud are increasingly being made not only within the IT function of organizations, but also by the business, which in some cases is even taking final responsibility for Cloud strategy (Figure 1). In our research, 45% of respondents said the business is driving the Cloud agenda, compared to IT at 46%.

Cloud should be simple, not add to complexity

We found that departments such as HR, Finance, Supply Chain and Procurement, Sales, Customer Relationship Management and Marketing are among the first to see the benefits of Cloud solutions. That is not surprising as the beauty of the Cloud is that it allows people to use powerful technology solutions without needing to understand the underlying technology itself, or having to wait too long for it to be deployed.

This is likely to have significant implications in terms of the future role of the IT department, as well as the relationship between the business and IT, because sooner or later the

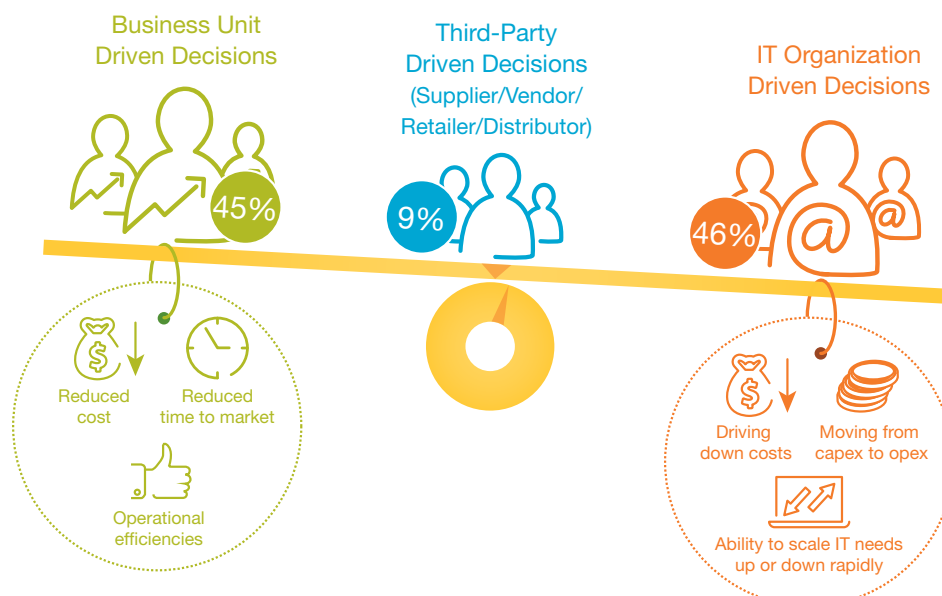
technological foundations will be absorbed by the Cloud and a new set of expectations will become the business norm.

Business benefits drive adoption

While *cost reduction* is considered the most important benefit of the Cloud by both IT and the business, many other factors are driving Cloud adoption. An additional key driver from the business perspective is reduced *speed-to-market*, named as a business driver for Cloud by 41% of respondents in our research. Improvement in operational efficiencies – for example, through standardization and easier access to solutions – was mentioned by 39%.

On the IT side, the preference to replace upfront investments (capital expenditure) with more *flexible*, usage-based pricing (operational expenditure) is clearly driven by the current economic realities. The well-known move from capex to opex was cited as a key IT driver for Cloud by 50% of respondents. Also, the ability to quickly *scale* outward and inward – as requirements fluctuate over time – is highly valued (named by 48%), as is the improved service to customers, both inside and outside the organization (cited by 37% and 34%, respectively).

Figure 1: Who makes decisions about Cloud?



Source: Capgemini, *Business Cloud: The State of Play Shifts Rapidly. Fresh Insights into Cloud Adoption Trends*, November 2012.

What To Do Next: 'From Alignment to Fusion'

Clearly, as the business side of the organization becomes more and more comfortable driving Cloud adoption and execution, the role of IT has to adapt to this changing dynamic. What is more, the balance between IT demand and supply is not only shifting; it is being redefined. Cloud is an important catalyst to a true *fusion* of business and IT, rather than 'just' an alignment.

From the IT perspective, while it may not seem to be the case on first impression, these shifts mean that there really are better opportunities than ever to create tangible value by leveraging the advances in technology in close proximity with the business.

Working together, IT and the business have the chance to jointly develop a Cloud strategy and roadmap, architectural design and even (IT) governance, so there is a shared and end-to-end responsibility and ownership of Cloud. And in turn, IT can become an integral part of business change.

However, failure to acknowledge the change in the balance of control and adapt to this shared approach could lead to a greater divide than ever between business and IT. This in turn could lead potentially to the business taking care of Cloud-driven transformation unilaterally, leaving behind an IT department confined to maintaining the existing, legacy IT landscape and – ultimately – repairing the possible damage.

In our view, this is not, a desirable scenario for the business, and is certainly one that can be avoided by both worlds meeting together in common cause. We believe it is crucial that IT takes a positive and collaborative attitude towards the business, in embracing and maximizing the benefits of Cloud.

Raising Expectations: The New Cloud Benchmark

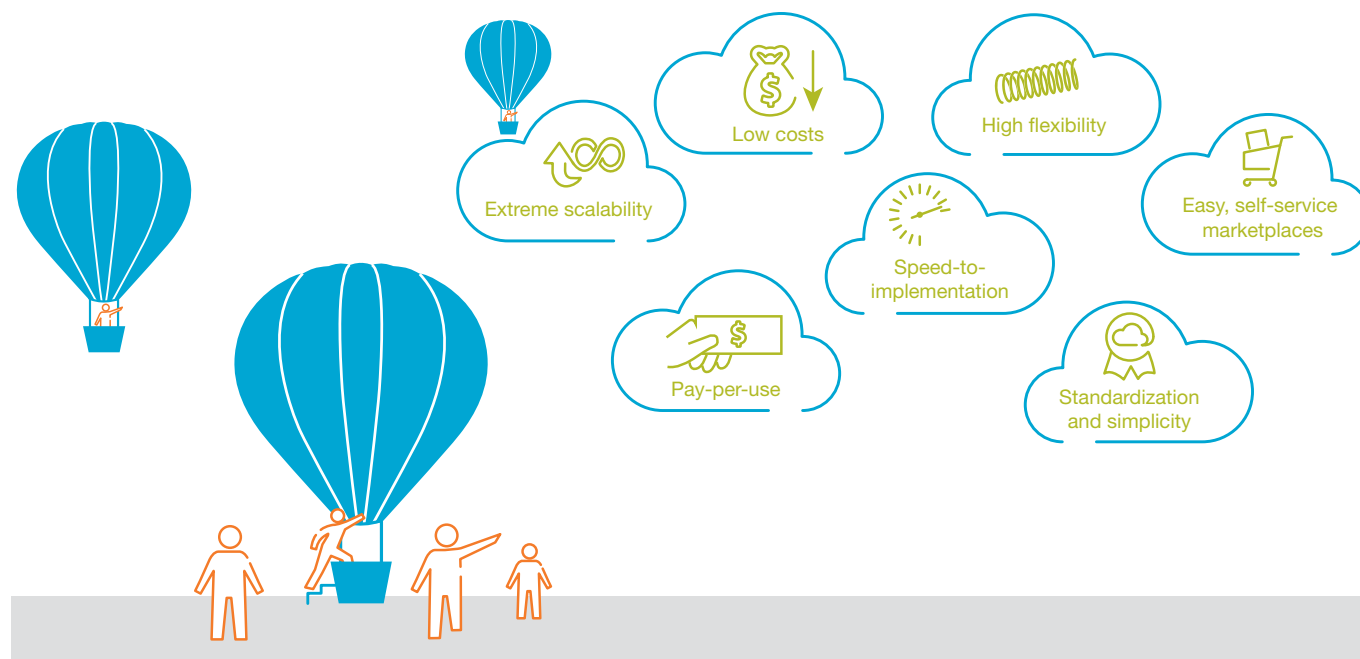
As the business takes a greater role in Cloud decisions, buyer and user expectations are changing to reflect this new reality. Key to this has been the development of public Cloud marketplaces, such as those from Amazon Web Services, Microsoft and Salesforce, which have created comprehensive catalogs of Cloud solutions, providing a broad range of “pay-as-you-go” services.

The ubiquity and ease of purchase of these services has created high expectations, mainly on the business side, in

terms of the availability of flexible, easy-to-deploy and sharply priced solutions. And a range of qualities demonstrated by Cloud solutions is rapidly becoming the new norm against which IT departments are measured in terms of performance and quality of service.

The seven qualities below make up what we refer to as the new Cloud Benchmark and which, in our experience, the business has come to expect in this new Cloud reality (Figure 2):

Figure 2: The New Cloud Benchmark – 7 Key Qualities



Source: Capgemini



- 1. Low costs:** Reduced costs result from economies of scale, building on the same “multi-tenant” solutions that are provided to multiple clients, with a high degree of standardization and minimized upfront investments.
- 2. Speed-to-implementation:** Organizations can move more quickly (typically in weeks instead of months) with solutions that can be selected and deployed rapidly without expensive and lengthy preparations or investments.
- 3. Extreme scalability:** Organizations can achieve infinite elasticity, effectively dealing with occasional or seasonal peaks and troughs in demand, without significant upfront design efforts or investments. A business can start small for a handful of users, and then scale-up (or back down) quickly and easily.
- 4. High flexibility:** Access to innovative, up-to-date solutions from any place and any device provides significantly increased flexibility and agility, without the need for an expensive rollout and management of fixed assets.
- 5. Pay-per-use:** The usage-based model is rapidly becoming the new norm, enabling organizations to pay for solutions based on actual usage and subscription-based pricing, avoiding the need for capital expenditure.
- 6. Easy, self-service marketplaces:** Business users can select and activate standard solutions through easy-to-use, self-service portals and catalog-based marketplaces, without the requirement for intermediates.
- 7. Standardization and simplicity:** With multi-tenancy and adoption of open standards, Cloud provides effective, proven solutions that are more straightforward to deploy and manage, and also less inviting to customize. In fact, by their nature, Cloud solutions are standard and simple.

What this new Cloud Benchmark demonstrates is that the main impact of the Cloud is not in fact in technology. Rather, it is the reshaping of the flow between demand and supply, both within an organization and between organizations.

Also, by means of all its key qualities, the Cloud provides an indispensable driver for Digital Transformation, harnessing the power of the new digital economy to change the way we reach out to clients, run our operations, and even conduct our business.

What To Do Next: 'Cloudification'

Both the business and IT sides of an organization should prepare to get '*Cloudified*': by this we mean taking a systematic look at every activity and service to assess what impact Cloud could make, and applying the seven key Benchmark qualities described. Taking a Cloud perspective alters the way we think about, for example, how to create the next level of customer experience, or how to drastically optimize internal operations. And it can even make us completely rethink our current business models.

Business: embrace the change potential

From the business standpoint, it is not just a matter of finding inspiration in the new generation of Cloud-based solutions available on the market (although much can be gained from quickly embracing some of their breakthrough services). But also about systematically applying the new Cloud Benchmark to existing processes and services, and finding fresh and unexplored perspectives.

Each of the seven key qualities can drive this journey, for example: What if your order system could standardize your order processes across the globe, quickly bringing much needed standardization at a fraction of the current cost? What if you could supply new subsidiaries with an F&A solution that smoothly integrates with your central systems, without the need for time-consuming local implementations? What if your Marketing & Sales department could access new social media management support in weeks, rather than months? What if all of your suppliers could be connected in real-time to your Procurement department? What if you could access powerful predictive forecasting tools without the need for costly, upfront expenses?

IT: What would Amazon do?

Similarly, the new Cloud Benchmark provides guidance to an IT department that's keen to improve its performance. In particular, today's public Cloud marketplaces - such as Amazon Web Services, Microsoft, Google and Salesforce - bring a wealth of inspiration. Again, this is not only true for the solutions being offered - although many are viable cost-effective, flexible and up-to-date alternatives to the existing stack of solutions.

But it is also true in terms of the catalog of IT services being provided to the business, the way these services are being measured and invoiced, the level of self-service provided, the scalability of services, and the speed of supplying IT services. "What would Amazon do?" is the critical question that every CIO should be asking him or herself when looking to improve their own IT services.



Taking a Step-by-Step Adoption Approach to Cloud Maturity

Evolution not revolution

While expectations of the Cloud are high – particularly on the business side - the majority of organizations have already developed a specific Cloud strategy that takes a careful, step-by-step approach to implementation and achieving Cloud maturity (Figure 3). Sixty-four percent of respondents in our study are at the “maturing” stage, while 17% said their Cloud adoption is “close to maturity.”

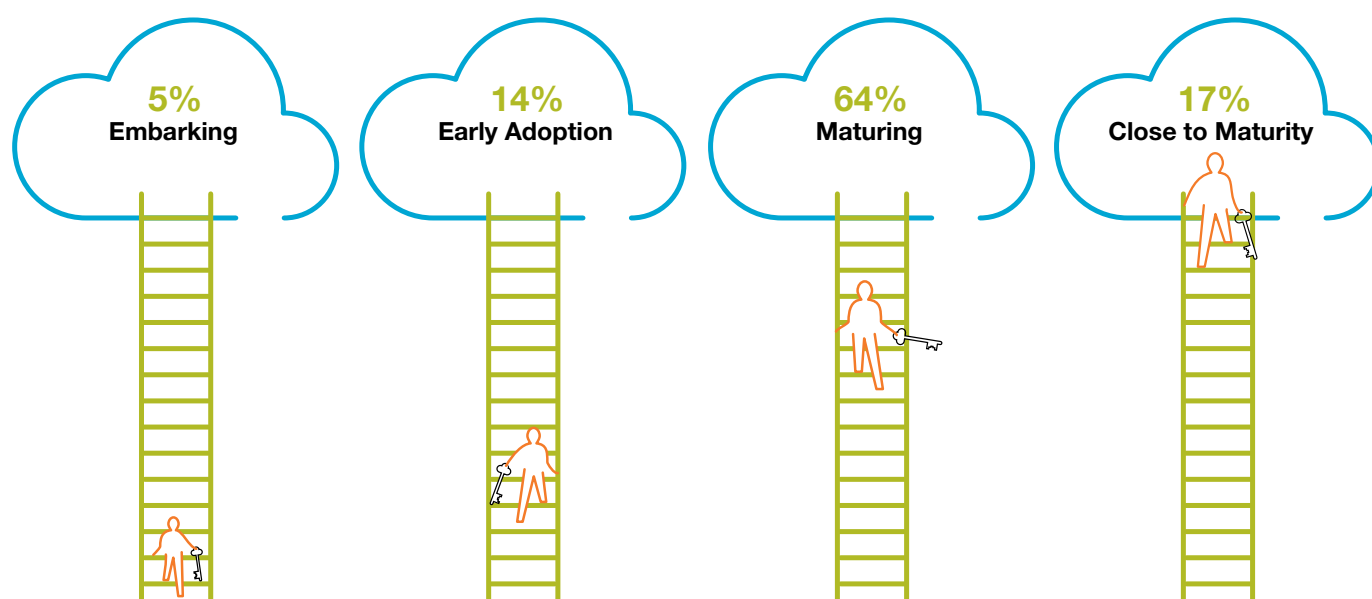
Our findings also show that private Cloud solutions are still preferred (named by 66% of respondents). Uncertainties regarding regulatory compliance, data sovereignty and security are keeping organizations from fully embracing public alternatives, although this seems to apply less to new

business activities and processes. In addition, the obvious economic advantages are bound to shift the balance in the forthcoming years, where national legislation allows.

Cloud Orchestration manages complexity

The inclination for step-by-step, evolutionary adoption of Cloud, rather than a more “big bang” revolutionary approach, together with the increasingly high expectations about the benefits that Cloud can deliver, could result in a degree of friction within organizations. It is not difficult to imagine a scenario in which the lines of business want to quickly procure public Cloud solutions to deliver immediate, new business value, while the IT function prefers to take a slower, risk-mitigating course that uses private and hybrid clouds.

Figure 3: Taking a Step-by-Step Approach to Cloud Implementation



Source: Capgemini, *Business Cloud: The State of Play Shifts Rapidly. Fresh Insights into Cloud Adoption Trends*, November 2012.

What To Do Next: The Orchestration Perspective



As described earlier, Cloud can indeed bring a true fusion of Business and IT. But, on the other hand, differences in pace, rhythm and priorities can also widen the existing gap between the two worlds.

Good reasons for caution

The reticence regarding Cloud – more often experienced by the IT side of the organization – is understandable: solutions can be sourced from a multitude of vendors and they all need to be integrated in a secure and unified way. Different vendors may also provide different service levels and support different standards, especially in a market that is still maturing, and managing this ecosystem can prove to be a time-consuming task, just as much as monitoring and implementing updates, new releases and innovations.

However, sooner or later public Cloud scenarios will prevail, because of their obvious economic benefits, but in the meantime, the industry faces many years of *hybrid* deployments in which a volatile mix will evolve combining public Cloud, private Cloud and on-premise solutions.

Keeping it Simple

So before an organization realizes it, there can be a whole new level of Cloud complexity on the management agenda. This is in sharp contrast to the initial attraction of Cloud - its *simplicity*: a business wants to focus on achieving the benefits of using Cloud, rather than on managing its complexities. Taking an *Orchestration* perspective however can protect the majority of the organization from this paradox, by offloading the management of Cloud complexity to a separate service or organizational entity. The IT organization therefore has an important opportunity to pro-actively take up this role (particularly if it appears that its remit is becoming more dispersed and even fragmented).

Cloud Orchestration and the marketplace

For IT, this would mean the orchestration of the different Cloud resources, integrating existing and new solutions, and mixing public, private and hybrid scenarios. Ultimately that could lead to an organization-specific marketplace or catalog-based platform of Cloud services to be selected, activated and deployed and that could inspire the business to address their challenges in fresh and powerful ways.

From a business perspective, they would ostensibly see a simple catalog. But 'behind the scenes', there would not just be a number of providers and vendors, but everything beyond, managed by IT; solution releases, integration, standards, functional interoperability and master data management, security and identity management, and service levels. IT's orchestration function would take care of not only the complexity of managing this evolving ecosystem, but also keep a close eye on market developments and new solutions on the horizon.

Cloud orchestration provides the *hub* that connects the fast-evolving needs of the business together with the robust foundation of corporate IT. The central catalog and marketplace should be defined and developed in close collaboration, finding a subtle balance between *ad-hoc* needs and the tendency to be "complete" and "in control". A Cloud-orchestrated catalog should be an inspiration and driver for business change, not a restriction.

Cloud: Already the Default for Powering New Business Solutions

Many organizations indicate that they consider the Cloud to be much quicker for implementing new solutions rather than for replacing existing business applications. In our research, 78% of respondents said they are focusing on new applications for Cloud adoption (Figure 4). Similarly, in the development area, the focus is also on new applications (named by 83% of respondents) rather than on redeveloping legacy applications.

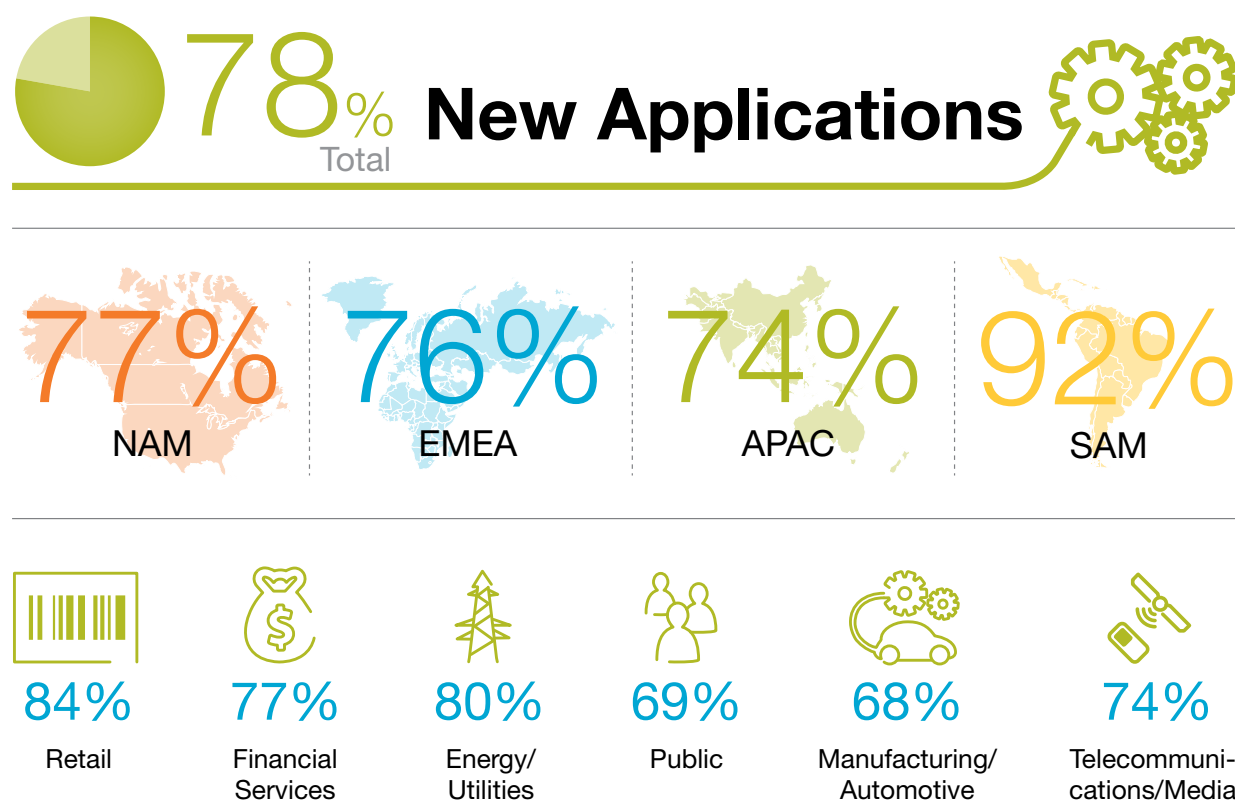
Edge initiatives - a natural fit for Cloud

In particular, organizations are showing an appetite – despite all valid inhibitors – to use Cloud for innovative, high-value,

high-growth “edge” business activities, such as social media management, customer experience management, human capital management, analytics, smart utilities and collaborative procurement, where the typical Cloud constraints are not so naturally apparent.

In this context, Cloud solutions are becoming almost a *de facto* standard. The implication is that these applications are easier and more cost-effective to run from the Cloud, as opposed to legacy applications with their built-in risks and migration issues.

Figure 4: Does your Cloud adoption focus on new applications? (Percentage answering “yes,” by region and sector)



Source: Capgemini, *Business Cloud: The State of Play Shifts Rapidly. Fresh Insights into Cloud Adoption Trends*, November 2012.



What To Do Next: Close To The Edge

Following the 'Principle of Least Effort', organizations should look for areas that are particularly suitable for benefiting from the Cloud, without having to deal with restrictions and inhibitors that may apply elsewhere.

Already a default

What we are increasingly seeing in the market is that the public Cloud is becoming the default platform for start-up companies or corporate spin-off businesses. This is supported by our research that finds that Cloud is also the *de facto* for activities "at the edge" of a business: activities that are new, experimental, rapidly growing, and value-adding are particularly suitable. We have already mentioned areas such as Social CRM, Human Capital Management, procurement and business-to-business collaboration, but equally innovations in supply chain management (such as the demand-driven supply chain) and finance & administration (for example financial transparency and daily close) could classify for Cloud-enablement.

Anything elastic

Clearly, the extreme scalability of Cloud makes it particularly suitable for activities that show demand spikes, are difficult to predict in terms of volumes and loads, or have a temporary need. Cloud could therefore be applied to seasonal activities, such as holiday period sales, to the launch of a new mobile application with limited prediction of user take up, or monthly analysis and reporting that is resource-intensive.

Furthermore, development and testing activities that are short-lived and with fluctuating demand will also typically be highly suited to Cloud solutions. Of note is the concept of 'Test & Drive' in which organizations can test drive a new market solution (for example analytics, mobile device management or simply new ERP functionality), without the need to set up infrastructure, acquire licenses or install software.

Power of SMAC

Organizations are most successful with Cloud when they combine it with other powerful technology drivers behind Digital Transformation, in what is being called SMAC: Social, Mobility, Analytics (or more appropriately Big Data) and Cloud. The more these forces are combined, the more impact is achieved.

So whenever an organization is considering using or creating solutions in these areas, the first option should simply be the Cloud to enable them. Moreover, organizations that are looking for new, fruitful areas to benefit from Cloud will find a wealth of inspiration in activities that apply social, mobility or analytical technologies.



Defining Cloud:
Moving Beyond the Boundaries of
“Just” Computing

The days of Cloud evangelization are over. Nowadays, the technology industry largely agrees on the definition set by the U.S. National Institute for Standards and Technology (NIST), which states:

“Cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g. networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.”

In other words, the Cloud builds on advances in technology to quickly and effortlessly supply IT services.

The definition distinguishes between three key service models:

- **Software as a Service (SaaS):** applications running on a Cloud infrastructure.
- **Platform as a Service (PaaS):** a Cloud-based infrastructure for applications development and deployment.
- **Infrastructure as a Service (IaaS):** providing processing, storage, networks and other fundamental computing resources.

Finally, it describes four models to deploy the Cloud:

- **Private Cloud:** provisioned for exclusive use by a single organization.
- **Public Cloud:** open use by the general public.
- **Community Cloud:** provisioned for exclusive use by a community of consumers from organizations that have shared concerns.
- **Hybrid Cloud:** a composition of two or more Cloud infrastructures – private, community or public.

Today, the impact of the Cloud is moving beyond the boundaries of “just” computing, and it is redefining the way processes are being run and provided as well. This brings us to one additional service model: Business Process as a Service (BPaaS), which provides full business process services, enabled by Cloud applications and infrastructure.

In Conclusion

From our research and client work, it is clear that the impact of Cloud is moving beyond the domain of the IT function, and is becoming an integral part of the entire business. Business Cloud is therefore developing into a powerful driver for change: it is the future of business and technology fusion.

In this paper, we have suggested four next steps that organizations should consider when looking to increase their benefits from Cloud:

- **Adopt a Fusion not Alignment Approach:** Couple the energy and drive of the business, together with IT's objective technical know-how, in a joint end-to-end approach that will ensure the organization maximizes its investment in Cloud.
- **Get 'Cloudified':** Systematically apply the unique qualities of Cloud to every dimension of the organization - from business processes and activities, to IT infrastructure and applications - to identify the best opportunities for true Digital Transformation.
- **Apply an Orchestration Perspective:** Orchestrate the quickly-evolving landscape of Cloud providers, vendors and solutions so that the business side is not confronted with the complexities of security, integration and service levels, and can instead focus on employing a powerful catalog of business-oriented Cloud services.
- **Move close to the Edge:** Explore the edges of the business, where the benefits of Cloud can be most

effective, without being impeded by the inhibitors and obstructions that apply elsewhere.

For Capgemini, Cloud has become a ubiquitous design principle that underpins the majority of our business solutions and is integrated into our service approach. Thus, in these uncertain economic times, we can help our clients realize the transformative impact of the Cloud on their organization.

Our Cloud Orchestration services help clients to access this power without having to deal with integration and multi-vendor issues. We remove Cloud barriers and hide the complexity: something you expect from the Cloud in the first place. We can help articulate a Cloud strategy, find the best starting point, and establish roadmaps and architectures, all the way from infrastructure via applications to your business processes.

As your Cloud partner, Capgemini can enable you to optimize your results from the Cloud without having to face the complexity of multiple suppliers, integration issues and emerging technologies - balancing your in-house IT with Cloud. In the end, whatever the solution, it's about your business benefiting from Cloud, not about Cloud itself. It is no longer about the journey to the Cloud, but the Cloud-enabled journey.

Find out more at www.capgemini.com/cloud-services

Simply. Business Cloud

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www.capgemini.com/cloud-services

For more information about how our Cloud Orchestration services can optimize the benefit of Cloud for your business, please contact:

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