



CLOUD BUSINESS MODELS, METRICS AND IMPERATIVES

A TCBC Best Practices Document

Essential guidance on how best to engage non-IT senior executives in scoping, planning and delivering cloud initiatives

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Cloud Business Models, Metrics and Imperatives

Best practice guidance from the [Toronto Cloud Business Coalition](#)

Definition and context

Two of the most important trends around cloud (and technology in general) are the increasing strategic importance of technology, and the increasing importance of business (rather than IT) leaders in determining technology strategy. These trends are tightly coupled: today's business executives are intimately aware of the role that technology plays in all manner of corporate and personal activities, and they have a much better understanding of what technology might be able to deliver than did previous generations of non-IT specialists.

Broad awareness of the potential of technology has changed the dynamic in IT-related communications targeted at the non-IT executive. This is no longer an exercise in basic education: with a powerful grasp of business objectives and a reasonable understanding of technology, the C-level executive may be better positioned to understand the strategic potential of technology than the CIO responsible for IT management. But there is still a need to provide business-relevant technology insight to executives. Most business leaders understand technology as a potential means of responding to points of pressure within their operations. Most do not fully grasp the opportunity for using connected systems to build new capabilities and competitive advantage.

The process of addressing this issue starts with defining a desired outcome: bridging operational siloes between different business activities and between IT and business activities through the establishment of cloud business models, metrics and imperatives that align cloud-based IT options with strategic objectives. This can be depicted (as it is in Figure 1) in terms of the tension arising from business issues and the options enabled by cloud.

One issue that is difficult to reflect in a graphic like Figure 1 is the tension between pressure for rapid outcomes vs. the need for sound execution of new initiatives. Any of the issues shown on the periphery of Figure 1 might demand rapid turnaround to meet a specific corporate objective. However, cloud-powered acceleration of new system introductions can create problems in turn: it is important for cloud-based systems to support business outcomes as consistently and securely as on-premises systems do. There is inherent in this additional tension a need for the business to transition to new methods of deploying systems. With cloud-based solutions, the business has less execution control, and a much wider span of requirement for management of business process issues, including integration and security. This argues for development/acquisition of skills that differ (at least somewhat) from those that the enterprise previously needed from its IT department.

Figure 1. The role of cloud business models, metrics and imperatives in addressing executive-level business concerns

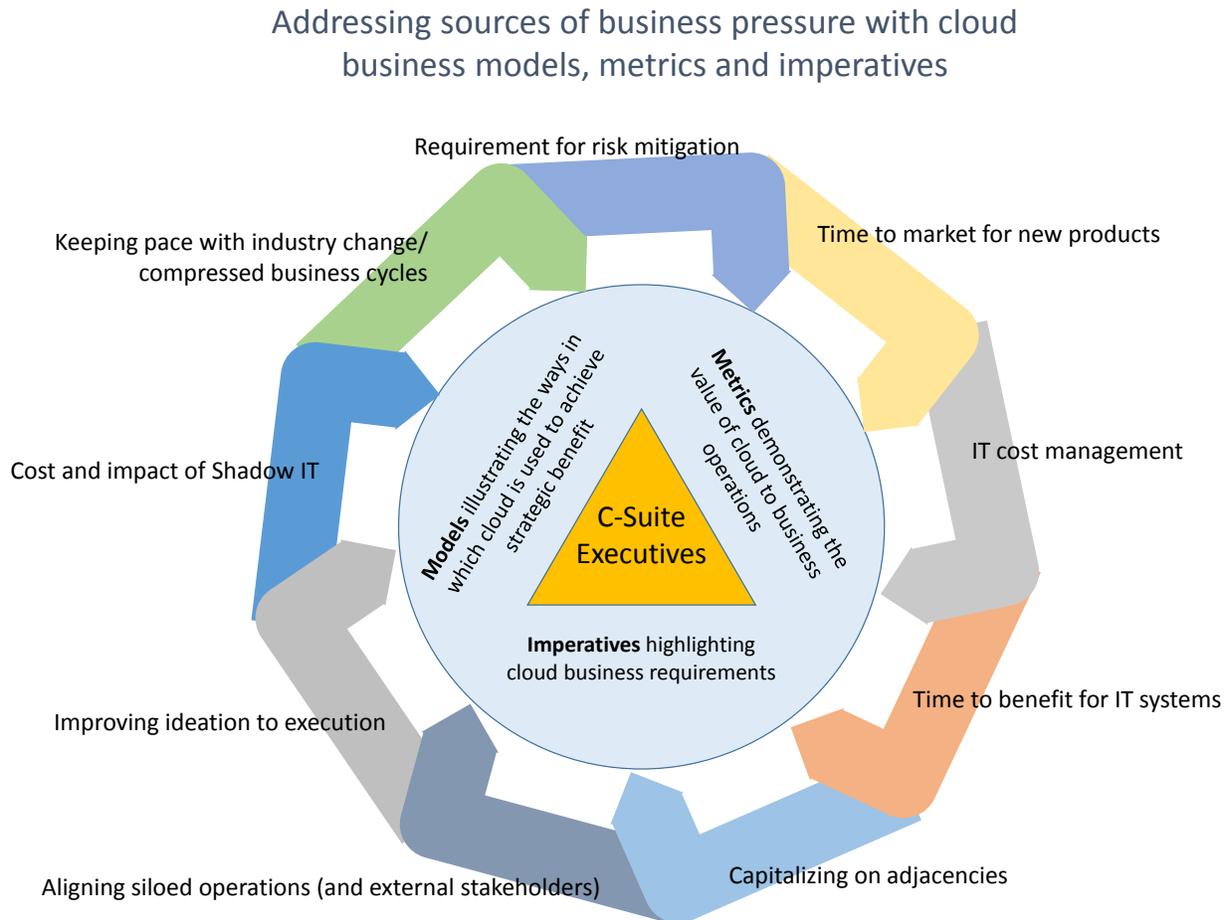


Figure 1 illustrates the role that cloud business models, metrics and imperatives should play in helping senior executives to understand and capitalize on the potential of cloud. In this context, cloud is not simply – or even primarily – a technology option. It represents a means of enacting measurable operating models that respond to key management imperatives.

Reference sources

Additional references that readers can use to better understand the key issues defining advanced cloud applications and adoption and enablement issues include:

- [The Death of Core Competency: A management guide to cloud computing and the zero-friction future](#) (InsightaaS Press, 2014). This management text sketches out the perils of a business-as-usual management strategy in the cloud era, and positions cloud as a means of enabling “omnicompetency.”

- [The Self-Tuning Enterprise](#) (HBR, June 2015). Article discusses the importance of moving from top-down to enterprise-wide decision making, and sets out five keys for reinventing the enterprise.
- [The feud between Oracle and Oregon over Obamacare has gotten even uglier](#) (Business Insider, February 2015). Provides a powerful example of how quickly and explosively issues with cloud-based systems can escalate beyond IT and into the press (and the courts).

Business objectives and benefits

The phrases aligned around the perimeter of Figure 1 illustrate a number of the challenges faced by business executives. Drilling down into each provides an indication of why an effective strategic response is critical for business success; adding perspectives on cloud business models, metrics and imperatives that might be usefully applied within this strategy underscores the importance of positioning cloud as an essential management option.

- Risk mitigation is a phrase that has several different cloud-related implications. The negative side is clear: expanding the data perimeter to include remote storage and processing can strain traditional approaches to security and audit/compliance monitoring. There is a positive aspect as well: embracing cloud enhances technological currency, reducing the risk that strategically-important IT systems and infrastructure will become obsolete. There is a third aspect of risk mitigation as well, a notion of business risk that courses through several of the other categories, and which is captured in the phrase (attributed to Klaus Schwab of the World Economic Forum) “In the new world, it is not the big fish which eats the small fish, it’s the fast fish which eats the slow fish.” Firms that fail to effectively adopt cloud are at clear risk of joining the “slow fish” category.
 - *Cloud connections:* Companies that are effective in mitigating operating risks around cloud will be better positioned to embrace cloud-based infrastructure and applications, reducing the risk of technological or market obsolescence.
- Time to market for new products. In many markets, the time required to develop new products exceeds their market life, and responses to competitive offerings are expected to be nearly instantaneous. Take the example of a product manufacturer who is unable to align orders and inventory in real time, or a services provider that is unable to respond to another firm’s pricing action. In both cases, a lack of agility impedes competitiveness.
 - *Cloud connections:* Cloud’s primary business function is as an agility platform. Cloud is inherently agile as an IT service delivery platform, and this in turn enables the deployment and scale-up of core business solutions and of analytics services that enhance understanding of IT and business issues.
- IT cost management. In many organizations, IT costs represent approximately 5% of revenue, and demand for IT services – new applications, storage, networking – increase constantly.
 - *Cloud connections:* Cloud is typically less expensive than conventional technology as a compute and storage resource. It is often much less expensive as a platform for business continuity/disaster recovery. And cloud-based applications can be anywhere from 33%-75% less expensive than server-based equivalents. Additionally, since cloud providers get paid on usage (rather than on an initial transaction), they have a clear incentive to drive the adoption and use of their products, thereby better aligning cost and utility.

- Time to benefit for IT systems. Often hidden in the depths of IT budgets and operations, time to benefit is a critical IT success factor. If IT is a strategic asset, its ability to pay back quickly has strategic benefit; only systems that are in production help the business to be more agile and competitive. Additionally, IT funds tied up in work-in-progress (WIP – systems that are not yet delivering benefit) act as a drain on resources needed to keep pace with market opportunities and competitors.
 - *Cloud connections:* Cloud provides an “always on” option for deploying new systems. To repeat an oft-cited example, it is generally thought that ordering, setting up and deploying a server can take six weeks or more. The same capability can be sourced through the cloud in a matter of minutes.
- Capitalizing on adjacencies. In traditional software systems, monolithic core applications are modified to address related tasks or market opportunities through the addition of new upgrades or modules. This is a costly and time-consuming approach. Agile businesses succeed by connecting processes in new ways, and by moving rapidly to exploit demand in new market segments.
 - *Cloud connections:* A well-structured approach to cloud allows for tools and applications to be connected via APIs (application programming interfaces). Businesses that rely on the cloud can use cloud tools to expand process or market options. At the same time, innovation within the cloud itself produces new applications that can lead to opportunities not previously identified by business staff.
- Aligning siloed operations (and external shareholders). Most businesses operate in distinct ‘silos’, with limited numbers of well-defined interaction points connecting otherwise-discrete operations. Channels connecting the organization to its customers, prospects and suppliers are similarly narrow and rigid. In some cases, this design serves the needs of the business, but in others, it acts as a constraint to innovation. Aligning siloed operations into a unified organization, and involving customers, prospects and/or suppliers in richer dialogue where it is needed to unlock new opportunities, can provide significant competitive advantage to the business.
 - *Cloud connections:* Cloud systems can morph quickly to connect different parts of the enterprise and/or to enable customer/prospect communications. Additionally (and importantly), collaboration is a core attribute of cloud applications, as is analytics. With these capabilities embedded, executives can identify and address disconnects in internal and external communications.
- Improving ideation to execution. Many organizations have a significant gap in their ability to develop new ideas and then move them into test and production. In theory, use of IT infrastructure can accelerate this cycle, but business leaders generally rely on testing, experience, and iteration, and IT resources often become a choke point in this process.
 - *Cloud connections:* It is common for traditional enterprise software projects take years to complete, which ensures that the user-driven specification will be obsolete before delivery, and rules out any form of iteration. Agile development methodologies compress the delivery cycle to weeks or even days, but these approaches rely on (or at least, benefit tremendously from) access to cloud resources. Cloud-based organizations gain the ability to try different approaches to a common problem, to test and change new ideas, and to collaborate with internal or external experts via the cloud.

- Cost and impact of Shadow IT. It is estimated that SMBs in the US will spend \$25 billion on shadow IT in 2015. “Estimated” is an important qualifier, though – although it is acknowledged that shadow IT is a widespread phenomenon, it is difficult to measure with any precision. What is understood, though, is that shadow IT has several different costs to the business. It has a financial cost; it has a cost in the form of poorly managed and poorly secured systems that are generally outside of IT audit and control processes; and it has a productivity cost because it creates poorly-integrated data repositories that do not contribute to the enterprise’s understanding of its own business.
 - *Cloud connections:* Cloud is often a *platform* for shadow IT, as business professionals can avoid delays attributable to IT by procuring access to applications and infrastructure via the cloud. However, a robust enterprise cloud strategy can help consolidate these activities by providing a managed, corporately-sanctioned avenue for cloud use. This gives management more control over IT expenditures, and benefits the entire business by providing for higher levels of security, auditability and data access/integration.
- Keeping pace with industry change and compressed business cycles. Technology both enables progress within traditional industries and threatens their existence; both issues need to be on the radar of senior executives. Technology can enable traditional businesses to evolve with (or ahead of) direct competitors in their industries, particularly in situations where data itself can be packaged and analyzed to provide differentiation for core products or net-new revenue streams. At the same time, the phenomenon of “Uberfication,” in which technology-based companies disrupt existing industries, is spreading to many sectors of the economy. It is thought that – despite having no actual properties – Airbnb will book more rooms in 2015 than any of the world’s largest hotel chains; Alibaba, which is profiled in the HBR article referenced above, is one of the world’s largest retailers, but owns no inventory.
 - *Cloud connections:* Cloud-based storage and analytics systems offer unique advantages in both data collection and presentation. Cloud’s “fail fast” capabilities allow businesses to test new approaches with limited exposure: successful initiatives can be scaled up, unsuccessful ones can be wound down with little or no lingering cost exposure.

Reference sources

Additional references that readers can use to better best practices in cloud business models, metrics and imperatives for non-IT executives include:

- [The Phoenix Project](#) (IT Revolution Press, 2013). This fictitious account of how technology saves a manufacturing firm focuses on the importance of DevOps – but the key turning point occurs when the team turns to cloud.
- [Team of Teams](#) (General Stanley McChrystal, Penguin Publishing Group, May 2015). This book by the general responsible for the US Joint Special Operations Task Force in Iraq describes how McChrystal “remade the Task Force...into something new: a network that combined extremely transparent communication with decentralized decision-making authority.” The book is now being praised for management insights that can be applied in many different fields.
- [SMB Shadow IT, BDM spending amount to nearly \\$100 billion in the US alone](#) (Techaisle Research, December 2014). This post provides a rare data-driven perspective on shadow IT.

- [PGi halves the time-to-market for new products with cloud infrastructure solutions from CA Technologies](#) (CA, 2011). It's generally thought that cloud is a platform for agility and that savings are on the order of 50%; this document provides a case study to that effect.
- [How VMware Reduced Provisioning Time by 80% by Using vFabric Application Director and More](#) (VMware, 2012) – includes a table with apples-to-apples comparisons of hybrid cloud vs. virtualized on-premise infrastructure for time to deployment, cost, and other issues.

Best practices in delivering cloud business models, metrics and imperatives to executives

Figure 1 and the subsequent discussion of business objectives and benefits illustrate the key starting points for a cloud solution discussion with senior management. It's essential to anchor the management dialogue in the business considerations that are most compelling to the executive in the context of his/her business imperatives, and to describe outcomes in financial terms. The items circling the outside of the diagram describe issues pertaining to customer service, finances, time to market and business strategy. It's not necessary to start the cloud conversation by covering *all* of these issues; but the relevance of the cloud discussion to the senior executive starts with a realistic assessment of where and how the cloud solution ultimately delivers business advantage. In each case, the executive will understand the implications of action (or inaction) in revenue or cost terms, and they will want to understand the cost of a cloud solution in the same context.

This is a substantial challenge for buyers and sellers alike, as both are undergoing significant (and simultaneous) changes. Sellers need to match offerings to needs in ways that are more complicated than the "this type of software requires that hardware configuration" models that were used in the past. Meanwhile, the needs themselves are changing, as corporate technology itself fragments into two distinct camps: a core function subject to structured (and potentially, restrictive) professional oversight and the more business-driven approaches used outside the IT department, and which are often (but certainly not always) delivered via shadow IT.

Models

Against this backdrop, rule #1 in developing models that can be used by C-level executives to grasp the rationale for cloud deployment is, "rely on clear financial calculations that are responsive to executive objectives and supported by real-world examples." All three of the underlined phrases are important.

- As a first consideration, the benefits need to be aligned with the executive objectives. Take the example of an application that expands sales performance by 30%. Some executives will see that as a means of increasing revenue by 30%, while others will interpret the same data as meaning that they can reduce their sales force by 30%. Which outcome is more important to the executive reviewing a proposed cloud initiative, and what evidence can be provided to support the claim that the solution will achieve this goal? Aligning the financial model with the executive objective is a complicated but necessary step in building a cloud model for a C-level audience. It is also the key to positioning the model: the starting point is the objective, not the technology or its rationale.
 - There are objectives that align very well with cloud. For example, a business focused on cost containment may well appreciate a CAPEX-based approach that emphasizes predictable expense, or a business that is focused on improving cycle times might appreciate the speed to market provided by cloud-based systems. There are two key issues implied here, though: that the executive objectives are clearly (and correctly)

defined, and that cloud is well aligned with these objectives. If cloud is not a good fit with corporate priorities, there's little point in creating a model demonstrating its benefits for C-level executives. If cloud does address business concerns, it's important to demonstrate the ways in which embracing cloud will positively affect operations.

- Secondly, clear financial calculations are always important to building a model that C-level executives will accept. These models generally include both hard and soft costs and benefits; the hard costs and benefits generally form the basis for analysis, but soft cost issues should be highlighted within the model, too. On the hard dollar side of the ledger, it's important to capture and present all relevant costs for both current and potential solutions, as omitting relevant factors makes it appear that the recommendation is incomplete and faulty. Soft-dollar issues should, wherever possible, reflect the concerns shown in the Figure. For example, if a cloud-based solution decreases risk by providing for continuous operation in the event of an emergency but increases risk by demanding scarce skills, both issues should be described in business terms and then calibrated in terms of estimated cost/benefit value.
 - Productivity is always important in this context, but is very hard to quantify directly. Claims that a new system will allow a smaller number of workers to achieve a higher level of throughput – as with the sales example above – can be assessed in different ways. In general, it's best to use conservative assumptions, so that discussion focuses on the model and the solution rather than on the potential variance in the associated claims.
- Thirdly, the evidence used to support benefit estimates need to be fact-based and credible. If a SaaS application (like the one in the example above) is positioned as increasing performance in a specific function by 30%, or an IaaS resource is positioned as being 30% less expensive than conventional alternatives, detailed cost comparisons based on actual (and hopefully, referenceable) customer experiences should be provided to support the claim.
 - In general, analyst reports from sources like Gartner Group or 451 Research are viewed as credible, as are articles sourced from IT or business magazines. Materials sourced to vendors are not viewed as credible in many situations.

Metrics

As is the case with models, metrics begin with executive objectives. Where is the business focused? If it is on growth, then the metrics need to align with growth – so in the example above, they need to reference the ability to drive a 30% increase in revenue without new sales headcount. If the focus is on cost control or cash management, the metrics would focus on reducing headcount without having a negative impact on sales. In both cases, the metrics themselves could include issues like time to conversion or value per contract – measures aligned with the executive objective.

Beneath the business outcomes calculations, there is a second set of metrics concerning the cost of delivering the systems needed to support the business benefits. These calculations require the staff member(s) making the recommendation to delve into differences between CAPEX-based acquisition of technology as a product and OPEX-based acquisition of technology as a service. The difference between the two acquisition models can and should be quantified – e.g., traditional technology would require a CAPEX budget of '\$x', staff resources of 'y' weeks, and a total time to benefit of 'z' months (plus an OPEX allowance for ongoing maintenance and licensing), while a cloud based solution requires up-front OPEX investment of '\$x', staff resources of 'y', and time to benefit of 'z' (plus a monthly fee for operations).

Executives need to understand how/whether cloud is a superior option to traditional infrastructure for a specific applications, and why some solutions are only feasible in a cloud model. IT-expert staff add value to the business discussion by quantifying these differences and providing financial metrics that can be tracked to support future initiatives.

A concluding analysis section should tie the first two items together. What is the real benefit (ROI, time to benefit, IRR) associated with the solution, and how does this vary with a cloud-based vs. traditional infrastructure-based solution? This calculation pulls together the different components of cost and benefit in a way that is meaningful to executives.

Feedback from the working group on metrics includes the observation that relatively simple measures, such as ROI, cash payback and payback time are adequate in this context; “the biggest issue,” one member stated, “is what you include in the math.” As an example, he outlined a scenario in which a business was able to remove all of its servers. This would mean, of course, that there is no need for the staff that currently manages the servers. But does it follow that the staff cost is entirely gone? Or is this headcount simply transferred, both (in a positive light) to address issues that are in need of action, or (less positively) because managers are very reticent to give up existing headcount? Accounting for the impact of staffing changes, the group observed, is an issue with which cloud planners struggle.

Quantifying the impact of risk or downtime reduction is another tricky area from a metrics perspective. One approach that has worked in the past is to discount from a common benchmark. For example, a cloud plan might include something along the lines of, “Gartner says the financial impact of reduced downtime is \$x; if, being conservative, we assume that in our context, it is only 10% of that figure, we’re able to identify (\$x/10) in benefit from an approach that substantially reduces or eliminates the threat of downtime.”

A third issue raised by the group – one which can also be problematic for staff quantifying the benefits of a cloud solution for non-IT executives – is the fact that the most efficient platform for a solution may vary depending on utilization rate. For example, Cisco has found that it is less expensive to run an in-house server operating at over 40% utilization than it is to acquire equivalent capacity in the cloud. It’s unusual for servers to operate at this level (studies have found that server utilization rates of 5%-10% are common), and there may be other reasons to use cloud-based rather than in-house resources. But it’s important for executives to have the best possible understanding of the costs and benefits associated with all alternatives as input to strategic decisions.

Imperatives

In contrast to measurements and metrics, imperatives provide a broader canvass for depicting the benefits of cloud solutions. Certainly, there are imperatives that align strongly with metrics and measurements: drive growth, control costs, manage cash flow, improve profitability. But there are other imperatives that resonate with senior executives and which support the case for cloud solutions.

Examples vary by the specific context of the discussion, but might include one or more of:

- *Brand and reputation.* Market perception is an important factor in corporate success, and an important reflection of executive effectiveness. Cloud can be positioned as a contributor to brand and reputation protection/enhancement in several ways: as a means of providing for operational continuity (and so, not disappointing customers and suppliers), as a means of delivering solutions that are consistent with market best practices (presenting the firm as being

current with market trends/opportunities), as a means of providing up-to-date capabilities (giving employees – inside and outside of IT – the sense that they work for an agile employer).

- **Security.** The discussion around security – both the ways that cloud alters the definition of what needs to be protected, and how, and the ways in which cloud can contribute to an improved security stance – are part of the brand and reputation discussion, but security has taken on such an overwhelming importance that it needs to be dealt with discretely. Executives are (or should be) becoming more concerned about the safety of corporate data, and many firms lack both the technology and processes to demonstrate that they are being as conscientious as possible in protecting that data. By its nature, cloud expands the potential threat perimeter, but it also opens avenues to managed services and other options that can reduce risk. Cloud strategies need to include specific reference to security (and governance, risk and compliance) to ensure that all parties within an organization understand the security strategy, and can support it operationally and explain it to relevant stakeholders.
- **Productivity.** In many enterprises, increases in productivity are the most direct route to improvements in financial performance. All executives recognize the benefit of productivity gains, and most believe that IT is an important means of pursuing this outcome. It may be that including productivity in “the math” begs more questions than it answers, but specifying the ways that cloud-based solutions yield productivity improvements is important to building a complete view of cloud’s benefits, especially with respect to SaaS solutions.
 - One of the reasons why quantifying productivity improvements can be problematic is that they are often linked to business process change. For example, implementing a new mobility or sales automation system might improve sales department productivity, but only if the sales process itself can be altered to capitalize on the new system capabilities. The application needs to follow business process optimization; if it does not, it will probably have a more limited impact than might be expected. The key, working group members agree, is to re-engineer a business process and then deliver support for the improved process via the internet – to deliver “cloud enabled” solutions, rather than focusing strictly on the “cloud” as a standalone imperative.
- **Speed and agility.** Financial models that attempt to quantify the impact of a company’s speed in reacting to changes in market requirements or opportunities are complex, and firm financial claims based upon them may be met with some skepticism. However, beyond specific calculations, executives understand that speed and agility are important to success. Being able to couple evidence that cloud improves agility with hard-dollar metrics and measurements enhances the overall business case for a C-level audience.
 - The differences between CAPEX and OPEX-based acquisition of technology capabilities, and the associated, oft-cited notion of “fail fast,” fits under this heading. While (as per Metrics, above), the difference between the two acquisition models should be quantified, there is additional agility benefit contained in the capacity to ramp up new systems more quickly, and to abandon systems that do not have substantial business impact without needing to write off capital investments.
 - At a higher level, the tools needed by a business change as the business itself evolves. Cloud provides an excellent platform for the adoption and integration of new capabilities, but organizations need to establish a plan for accelerating change and

improving agility within their operations to take best advantage of the platform and its features.

- *Human impact.* Describing the benefits associated with new cloud technology or the savings that can be gained through improved productivity helps support the cloud business case, but it can leave some important human issues unanswered. If productivity increases (as in several of the examples above), making it possible to perform work at an acceptable level with fewer resources, what are the options associated with the now-unneeded people? Are they to be deployed to meet unmet needs elsewhere in the organization, or let go to free up cash or headcount in other areas? And on another tangent, what will the impact be of expecting staff to take on new, changed or expanded roles? Will this improve morale by exposing staff members to new opportunities, or will it strain the culture and create skills-based gaps necessitating staff training or replacement? In some cases, the human impact may be a primary driver (we need to reduce headcount or improve retention by providing a more interesting work environment), but even where it isn't, there are human factors associated with new systems that should be considered by business management.

Examples

Examples that can be cited when looking at the issue of positioning cloud for non-IT executives include:

- *Salesforce* is cited as an example of a supplier whose connection with customers is heavily based on speed and agility: the product was positioned to a senior business executive (VP sales) as a means of obtaining business-relevant features that would have a positive impact on sales performance (a metrics/measurement issue) and obtaining these features faster than IT could deliver them (a speed and agility issue). As a supplier, Salesforce was very crisp in its messaging and approach. The company worked closely with its target customers, focused on 2-3 issues (like those around the outside of Figure 1) it could address, and delivered a clear value proposition.
- *GE* is a firm that is used as a model of a traditional manufacturer that has grasped the need to evolve into not only new businesses but new IT-enabled operating models. GE chairman and CEO Jeff Immelt has been famously quoted as saying "If you went to bed last night as an industrial company, you're going to wake up today as a software and analytics company."¹ This embrace of IT as a core component of business strategy is estimated (by GE, as reported in Fortune Magazine) to be worth over \$1 billion annually already, and to provide an important window on a \$1 trillion market for the company's core products.
- *Netflix* is often viewed as one of the pioneers of cloud computing. The company leveraged Amazon Web Services infrastructure to revolutionize video, building a multi-billion dollar enterprise by delivering billions of hours of content to customers located around the world. Along the way, Netflix also decided to capitalize on another important IT trend: the company has open sourced many of the management tools it has developed, meaning that Netflix benefits from the input of developers who are outside of the company's IT department.
- *Uber* and *Airbnb* provide two more contemporary examples of how a cloud-based service can disrupt major industries. Uber has revolutionized the taxi industry: a five year old start-up, it is expected to hit total bookings of roughly \$10 billion in 2015, and has a market valuation of over

¹ E.g., [CIO Magazine](#), [Fortune](#)

\$40 billion.² Airbnb offers a parallel example: founded in 2008, Airbnb is expected to book over 60,000 room nights in 2015 (with a total booking value of more than \$6 billion), making it a leader in the \$500 billion global hotel market. Airbnb is currently valued at \$20 billion. Uber and Airbnb demonstrate the type of innovation that cloud unleashes. One article noted that Uber has become “a massive hit...because technology has emerged that freed Uber from having to be an expert on absolutely everything in its app. Mapping services, location services, optimization services (to pick the closest driver), payment services and rating and feedback services are among the behind-the-scenes technologies that Uber has harnessed. The company didn’t have to invent them – instead, it just accesses them through the cloud.”³ Airbnb (like Netflix, [an Amazon case study account](#)) is also beholden to cloud: because the company doesn’t need to manage infrastructure, it can dedicate its entire engineering team to solving “problems unique to Airbnb.”⁴

- *Amazon* itself provides an example of how cloud can expand business horizons. The world’s largest online retailer, in June, Amazon’s market capitalization surpassed Wal-Mart’s, making it (by value) the largest retailer of any type. But referring to Amazon strictly as a retailer is misleading. Amazon’s AWS (Amazon Web Services) operation recently reported 1Q15 revenue of more than \$1.5 billion, and margins of nearly 17%.
- *Technology companies* such as Microsoft are using the cloud to establish more direct relationships with customers. Past generations of Microsoft software, such as Office, have been sold by and delivered through intermediaries. With cloud-based systems like Office 365, Microsoft can establish direct links to customers, expanding the company’s ability to renew and upsell. This approach may not be ideal for customers requiring the support services that intermediaries provide (and certainly isn’t preferred by the intermediaries themselves!), but it does provide Microsoft with business options that it did not previously have available.
- *Traditional industries* are using cloud to expand their product lines and relevance. The automobile industry is an excellent example, using cloud-based services like mapping to enhance the features that they sell to customers. The automotive industry is looking to expand these “connected vehicle” services – for example, by providing feedback on relative driving efficiency and preventative maintenance alerts to drivers. The importance of cloud-based services will expand further with the introduction of autonomous (driverless) cars, which will capitalize on cloud-based systems for scheduling, payments, mapping and other core services. This pattern of using cloud-based interaction and data options to enhance current offerings and support the introduction of new products is likely to be replicated in many industries.

A point of caution

Cloud service providers and IT department buyers are apt to describe cloud in technical terms. While this works at a technology level, it isn’t helpful in constructing the models, metrics and imperatives needed by corporate (non-IT) executives. Executives and IT staff understand language in different ways: for example, when IT professionals use the word “agile,” they are often referring to a software development methodology, while C-level executives use “agile” to describe an organization that is able to seize on new opportunities to increase revenue. Similarly, IT executives talk about “mapping business

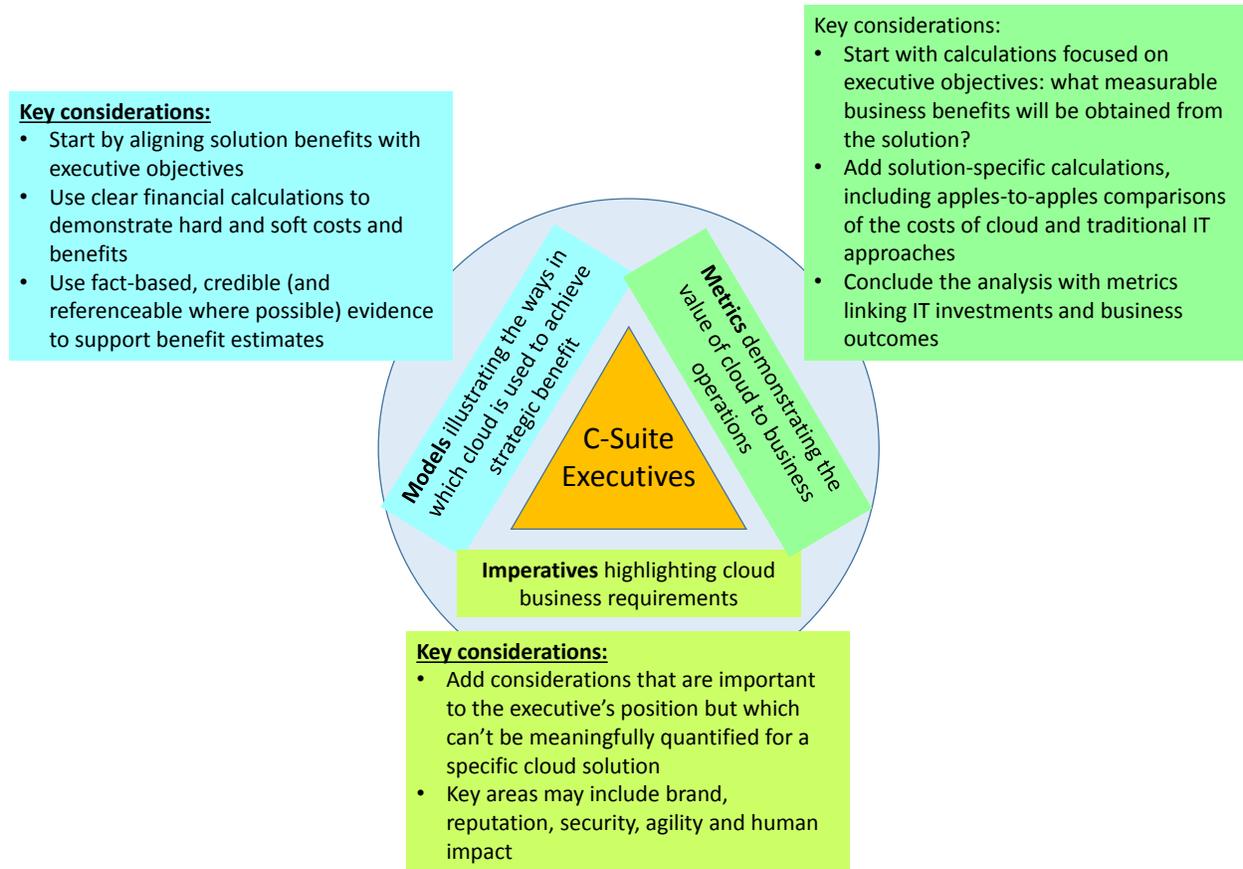
² [Business Insider, November 2014](#)

³ [Boston Globe, 2014](#)

⁴ [CIO Magazine, June 2014](#)

processes to IT systems,” while business management views IT as an enabling layer; if they consider “mapping” at all (and with cloud, they should), business executives would start with the business process and look at how IT can be mapped against their requirements, rather than vice-versa. These are just examples drawn from a much broader discourse, but they illustrate how language can obscure communications between technology-oriented and business-oriented managers. There is a place and requirement for technical language and explanations, but that place isn’t here, where we are looking at how to position cloud for the non-IT executive. Discussions involving non-IT business leaders need to stay consistent with business discourse and expectations.

Figure 2. Positioning cloud solutions for C-level executives



Source: TCBC/InsightaaS, 2015

Reference sources

Additional references that readers can use to better understand the best practices in cloud business models, metrics and imperatives for non-IT executives include:

- [AWS Case Study: Netflix](#). This video discusses the importance of AWS technology to Netflix’s business success.
- [The great communications divide](#) (InsightaaS). Article discusses impacts of and ways of addressing communications gaps between development teams and the business units they support.

Metrics and milestones

Although cloud is a complex subject, the working group has found that straightforward financial metrics such as ROI or cash payback are sufficient to demonstrate the benefit of cloud investments to senior managers. A more complicated issue can be ‘what is included in the math?’ For example, an IaaS proposal might indicate that the activities of individual members of the IT team are no longer needed. Does this lead directly to cost savings associated with letting these individuals go? If the individuals are reassigned to other tasks, how is the value of the new activity reflected in the calculations – are the salaries fully assigned to a new activity, or is there a transition period in which the salaries and associated overhead expenses are still part of the IT infrastructure cost? Is the benefit of the new activity included as a benefit of the cloud initiative? There is no universal answer for these questions – but it is universally true that the assumptions need to be endorsed by the executives in order for the cost calculations to be accepted.

Risk elements can be similarly difficult to quantify. What is the actual cost of downtime in your environment, and what is the real impact of cloud in diminishing the threat of downtime? As is discussed under the “Brand and Reputation” header in the Best Practices section of this document, it is probably best to use this kind of element as an addition to, rather than core component of, the financial calculations used to support the cloud business case.

The working group identified several issues that should be considered when structuring quantitative and qualitative guidance for non-IT senior executives, including:

- *Understand payback periods and their importance:* A solution with a payback period of less than twelve months is easy to justify to a C-level executive. A project with payback of 12-24 months still often represents a very good initiative from a corporate perspective. There’s no firm guidance for cloud initiatives with payback periods in excess of 24 months; the extent to which this is expected/acceptable varies by industry. Generally, SaaS suppliers can meet the 12 or 24 month time frames, while IaaS suppliers may struggle to provide clear payback within that period.
- *Understand industry norms for evaluation:* Variability by industry is a factor in the previous point, but needs to be called out as a specific issue. Different industries have different ways of assessing the desirability of an initiative. In some contexts, the magnitude of payback on a project (measured as a percentage of its cost) is a critical consideration, while in others, it’s sufficient to meet a specific set of payback hurdle rates and timeframes. In OPEX-intensive services industries, OPEX-defined contracts are well aligned with management perspectives on cost and cashflow; in CAPEX-intensive industries (such as manufacturing), an OPEX-heavy approach may be at odds with prevailing management practice.
- *There’s no magic ROI benchmark:* It would be convenient to specify an ROI clip point that would define initiatives that will obtain executive management support, but unfortunately, this isn’t possible: as one working group member said, “every CFO is different, even within a single industry.”
- *“The math” only really matters in context:* To build on a point made above, individuals used to dealing with senior non-IT executives have found that in a majority of cases, demonstrating an understanding of the business context and focusing on key areas is more important than the payback rates themselves.

Reference sources

References that readers can use to better understand the measurements and metrics used by non-IT senior executives to assess cloud business models, metrics and imperatives for non-IT executives include:

- [Building the business case for cloud computing](#) (FERF) - this whitepaper is sponsored by a vendor of cloud-delivered financial software, and (unsurprisingly) focuses on the benefits of cloud-delivered financial software, but it is an interesting read regardless of this provenance. Using results from four interviews with CFOs (plus sponsor input, of course), the whitepaper provides relevant and digestible information on motivations for choosing a cloud solution, the tangible benefits of cloud,, and how cloud can transform the finance function, plus brief profiles of the four firms interviewed for the report.
- [3 secrets to creating a business case for cloud computing](#) (Infoworld). This article highlights issues that are neither particularly "secret" nor especially unique, but they are aligned with key topics from the working group sessions, and may be useful for positioning recommendations to "define the cost what's not working" (from a business rather than IT perspective), "move beyond the buzzwords to the heart of the business problems," and "understand that the business case needs to be specific and tied to an overall plan."
- [Cloud and the SMB manufacturer](#) (InsightaaS). This piece, written by an experienced IT manager, highlights some of the difficulties involved in applying cloud in an SMB manufacturing context. The impediments would not apply evenly in another context (such as a services enterprise located in a city core), but the piece does a good job of illustrating the importance of cloud issues in different business contexts.

[About this document/for further information](#)

This document has been prepared by the Cloud Business Models, Metrics and Measurement working group of the 2015/2016 Toronto Cloud Business Coalition. Key members of (and contributors to) this working group included:

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The [Toronto Cloud Business Coalition](#) (TCBC) is a partnership focused on accelerating cloud adoption and use in the GTA and across Canada. It includes individual and corporate members from many different cloud stakeholder communities: IT management from both enterprises and SMBs, global IT and cloud vendors, Canadian 'Born in the Cloud' (BITC) suppliers, ecosystem/channel firms, academics, corporate finance experts, training providers, associations, executives at large with deep experience in the cloud industry, and other experts interested in developing best practices in key areas.

TCBC's activities are underwritten by our corporate members, including:



In addition to this document, TCBC and its members have developed guidance and frameworks on many essential cloud practice areas; we also regularly engage in events ranging from informal discussions to

formal, large scale panels and presentations. For more information, please visit our [website](#), or contact us at inquiries@businesscloud.to.

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