The Crowded Cloud

The impact of platform on multi-vendor cloud implementations

A report on market research conducted by

thinkJar, LLC and Beagle Research Group, LLC

Introduction

This study represents an extensive effort to identify, cull, and survey the most knowledgeable people and companies we could find to help us assess how well cloud applications are being adopted and to identify the obvious and hidden issues companies face with their deployment. Over the course of several months we have painstakingly worked to revise our questionnaire to ensure that an optimal number of highly qualified individuals would respond truthfully and unambiguously to our research initiative.

There were some surprises as well as some confirmations of our original hypothesis. One surprising finding is how many organizations use multiple cloud solutions. Less than 15 percent of those surveyed only use a single cloud application while the remainder often use many cloud applications. At a macro level this seems to confirm our original hypothesis, that there is potential among heavy users of cloud technology to surface issues associated with managing apps and synchronizing data.

One minor surprise (and perhaps the reader will feel this simply confirms a hunch) is how many IT departments have, in a short time, converted from a rigid IT-centric structure to one that more likely partners with the line of business units to achieve optimal solutions for the business. Only a small minority, about 15 percent, still maintain a centralized IT relationship with the business units.

The Cloud Adoption Conundrum

Cloud computing architecture, past the hype and misunderstandings, has a lot of promise. Cost savings, infinite elasticity to provide unparalleled scalability, security that trumps virtually any other model across organizations, and the potential of integrating virtually any system to any other seamlessly and efficiently.

Then why on earth is adoption so slow?

True, the cloud (as it is often and improperly called) is a commoditized element by now for organizations. It must have been at least two-to-three years since the last time we heard a vendor detail how their product was "cloud" or a customer ask whether a product is cloud. It's a given, a certainty. Actually, some of the late adopters are more into asking the question whether the product is made to run on-premisess (also mistakenly thought to be the anti-element for cloud computing). Cloud is a foregone conclusion for new implementations in small and mid-size organizations, and a certainty over the long term for larger organizations.

And, yet – the vast majority of processing today still happens off cloud.

We wanted to find out why customers were not making the cloud more popular for their deployments and the issues they were finding when deploying in the cloud. We conducted a survey aimed at cloud administrators and found some very interesting things about it. Here are the top eight items from that survey:

- **It is not the size of the IT department that defines the success of the cloud deployment.** The study yielded some interesting crosstabs that give us better understanding of what it takes to succeed – among them, the size of the IT department is not an indicator of fewer technical issues. Indeed, when crosstabbing the citation of technical problems to size of IT department there was no significant difference in the problems cited. Further, when asked if the size of the IT team had increased or decreased since the cloud application was implemented, those who responded that their IT teams had grown showed the same problems as those that had remained the same – or even decreased.
- **Most of the problems are technical**. The list of problems we presented to the respondents was evenly split between technical and business problems. The responses that gathered the highest number of votes were technical issues. The rest of our research shows most IT departments being overtaxed with work and unable to keep up with new requests and new demands. In spite of the size of the IT department being irrelevant to the defining the success (per our analysis above) it is a point of failure for all cloud adoption projects that IT cannot keep up with demand. Aligning the results of this survey with the issue of strategically growing IT departments means that the new resources must be cloud-aware and cloud-educated to reduce the potential number of problems that adopting cloud applications engender for organizations.
- **Benefits are hard to quantify**. We asked a few questions about benefits in an effort to try to convey the outcomes that organizations were seeking in adopting cloud applications. We used traditional responses (seek better customer outcomes, look for better information to distribute to stakeholders, increase revenue, optimize processes, etc.) spread throughout the study. We also asked them whether they had received the benefits they sought. When running cross-tabulations between the answers we found that those that were able to define the benefits better (i.e. which ones they were seeking) were also those that had not been able to quantify them

while those that were unable to determine which benefits they sought initially had an easier time quantifying them. This shows how the benefits that are promised or expected are not exactly what are received – and the promises of potential ROI used to justify acquisition may not be the best way to adopt cloud applications. But it also suggests that most organizations did poor jobs of quantifying their problems so that in the end they didn't have good data to compare. This is a common problem and should be highlighted if ROI data seems weak. It is weak but because of poor pre-implementation analysis.

- **Size and location of organization made no difference to adoption**. We wanted to make sure there were no differences in the answers between the different groups so we crosstabbed by company size, industry, and location of headquarters. We found absolutely no difference in the rate of adoption as far as location. We found some minor differences in location (with companies located in the US having a higher adoption rate to those in Latin America and Europe – in that order) but not significant enough to call out. We also confirmed the assumption we had going into the study that while cloud adoption if more established in mid-size organizations (under 1,000 employees and under $1 billion in revenues) the pace at which adoption is continuing in large organizations shows no significant difference when contrasted to the number of organizations in each band. In other words, cloud has been commoditized and everyone is adopting it.

- **Industry made no difference in adoption and usage**. While some industries that showed up more prominently than others (based in a mixture of sampling bias and the reduced sample we sought out by qualifying respondents before being allowed to enter the survey) we found no significant difference between the industries that participated. We found, in post-survey interviews, some hesitation from a few industries (government, financial services, healthcare) to adopt cloud publicly (or to advertise their adoption rates) based on compliance issues – but these were not reflected in their anonymous responses to the survey.

- **Old problems don't disappear because the solution is moved to the cloud**. This was mostly a finding of the interviews we ran among a select few respondents. We asked a group of people who cited both technical and non-technical problems equally what were the results of their cloud adoption. Our thesis was that most of them had cited specific pain points and problems in their operations that could've been solved by adopting a cloud-based application. Indeed, part of

their decision-making was that cloud could solve at least one of those problems. As it turned out, and based on these interviews, it hadn't. While cloud provided plenty of benefits (as shown in crosstabbing and confirmed by these interviews) none of those were solving the problem that had initially started the search. The issues were more easily resolved by adopting a new application than by the application being on the cloud. This was also the case for those people who cited access to information and integration between applications as their major problems. However, all things being equal, the lower costs of cloud systems made adoption of new applications more financially possible. So the cloud solution should be seen as both the application itself and the delivery mode and its favorable economics.

- **Collaboration between IT and business units is critical**. While parsing through the answers in different ways to find the benefits that organizations have received we noticed that those that had IT teams that worked more closely with, or in coordination with business units had shown better handle on the benefits received. When asked during post-survey interviews these findings were corroborated: indeed, working together with business units in selection, adoption, deployment, and even maintenance of the cloud solution makes a critical aspect of their success in using a cloud application.

Cloud adoption is, in many cases, very different from earlier paradigm shifts. The shift from mainframe to networked solutions, for instance, was accompanied by order of magnitude savings in IT costs which added up to a lot of savings for a limited number of applications such as GL/AP/AR. Cloud computing offers similar order of magnitude cost savings and should therefore lead every business' agenda. However, counterbalancing the savings is the large sunk cost investment in on-premises applications that must be written down as companies move to the cloud. Also, many cloud applications have no analog in on-premises systems other than spreadsheets which can be problematical to sell against. Finally, the lack of available cloud-aware and cloud-educated talent for IT departments makes it almost impossible to keep up with demands from stakeholders.

In many cases selling new cloud systems is not hard to do because systems implemented at the turn of the century have been fully depreciated. But cloud also brings with it many more opportunities for moving pseudo-applications hosted in spreadsheets into the professionally managed application realm. Moving these applications, which can include CRM, PSA, HCM, and SCM (and more) to the cloud represents a new cost

that organizations must justify. Although we have seen many instances of companies trading in their spreadsheets for modern PSA integrated with accounting for example, the case still needs to be made. In this, the industry is now fighting the battle fought and won ten or so years ago by CRM in areas like SFA (and just now starting for ERP and others).

Therefore it is highly useful to continue exposing the benefits of a single platform for things like security, management ease, integration, and synchronization. It is also still useful to attack spreadsheets as detrimental to good practice. Moreover, it is increasingly apparent that the business climate is aggressively migrating from a transaction orientation (which spreadsheets are useful for) to a process orientation. In the cloud processes use the big data that organizations collect and they generate metadata that helps ensure better and faster outcomes.

Cloud computing architectures have the potential to reduce costs, increase performance, and provide better data and metadata to organizations. Investing in better IT departments more able to manage those new systems is the critical decision that organizations must make now.

To better understand these issues, benefits, and the current state of cloud adoption in the enterprise we dissected the study question by question, analyzed the data question by question, and cross-related the findings to our other existing research.

Key Findings and Data Analysis

1.   The population surveyed for this study was well screened and just under 80 per cent of those answering fully qualified according to the criteria we agreed to. Some job functions were not covered in our listing. There were 148 completions by a population with a high correlation to the selection criteria. To get to those 148 we had 384 people attempt to qualify but many were turned away by the selection process. We believe we have excellent data based on this approach – finding the right people to answer the right questions, and it certainly increased the accuracy and reliability of the data.

Before we start, we want to ensure your experience matches our needs. The functions, not titles, listed below are those that align best with the work we are seeking to document. Although your title may not be among those, please select the function that best represents your responsibilities with cloud applications	
Answer Options	Response Percent
Cloud Application Administrator or Manager	18.2%
IT Administrator, Specialist or Manager	22.3%
Cloud Application User (with system responsibilities)	15.5%
Database Administrator or Manager	8.1%
Systems Administrator or Manager	15.5%
My function is not listed above (I don't qualify for this study)	20.3%

2.   Only a small number of respondents said they were using just one cloud application (14.8 per cent). Nearly half or 46.3 percent of respondents said they were using four or more cloud applications (39.8 per cent have more than four). The remaining responses came from people with two or three cloud apps.

How many cloud applications does your organization use today?	
Answer Options	Response Percent
Just one	14.8%
Two	21.3%
Three	17.6%
Four	6.5%
More than Four	39.8%

3.   More than 70 percent (71.3 percent) of organizations responding said that IT in some way collaborates with departments to select and

deploy cloud applications. Significant and roughly equal long tails show IT firmly in control of decisions (15.7 percent) or completely out of the decision-making process (13 percent). But the high participation rate may cloud the actual results as you will see below.

This further corroborates the validity and quality of the sample for our purposes because it represents IT departments and businesses that have a mostly modern outlook—these IT departments team with their customers to find acceptable cloud solutions. It also suggests that while many cloud providers at least imply that their solutions don't require IT involvement, most businesses involve IT and IT continues to have responsibility to make what the departments buy work.

There is growing trend in organizations large enough to have or need an IT department to place the responsibility of cloud back on IT to integrate existing legacy systems into it and to manage cloud security and expansibility. The findings of this survey confirm this trend as well.

Who makes Cloud systems decisions?	
Answer Options	**Response Percent**
IT decides what systems are implemented – entirely.	15.7%
IT supports departments making systems decisions.	21.3%
IT collaborates with departments making joint systems decisions	50.0%
IT does not participate in the decision making, departments make decisions on their own	13.0%
Other (please specify)	

4.   Using a simple scoring and ranking system developed for this analysis, we identified the top seven most important issues facing cloud app customers today—based on asking participants directly to identify their top three. The top issue before and after scoring is **Capped or reduced IT budgets** and the second overall and after scoring is **Slow performance** which also garnered the most second place votes. This list requires some unpacking.

	Issue	Raw #1	Score	Raw #2	Score	Raw #3	Score	Total Score
1	Capped or reduced IT budgets	15	45	6	12	4	4	61
2	Slow Performance	5	15	16	32	3	3	50
3	Application accessibility	10	30	6	12	4	4	46
4	Synchronization problems	11	33	5	10	2	2	45
5	Operating multiple databases	7	21	7	14	4	4	39
6	Number of applications and enabling technologies in use	5	15	9	18	5	5	38
7	Ongoing data quality concerns	8	24	3	6	7	7	37
	Below the line							
8	Managing multiple logins	3	9	7	14	7	7	30
9	Mobile accessibility	3	9	6	12	8	8	29
10	Pace of and demand for innovation	3	9	5	5	6	6	20
11	Timely response to stakeholders	3	9	1	1	8	8	18

The seven most popular issues facing cloud app customers

- Capped or reduced IT budgets
- Slow Performance
- Application accessibility
- Synchronization problems
- Operating multiple databases
- Number of applications and enabling technologies in use
- Ongoing data quality concerns

It may seem that capped budgets make it hard for an outside cloud vendor to do much about but it also indicates an opportunity to disrupt existing on-premises solutions provided that the benefits of cloud solutions can be delivered quickly so that the new solutions can be turned immediately to productive uses thus freeing up cash flow from older systems. This means that cloud vendors should either have (and be able to document) quick and efficient onboarding processes and ROI or that pilot projects and training have to be back-end loaded for costs.

Alternatively, IT budgets are capped for cloud applications, but business units have sufficient budgets. Our continuous conversations with business units and non-IT leaders confirm the existence of these budgets and the slow shifting to become part of IT budgets over the near term (2-4 years) and a potential change for IT budgets not to be a barrier to adoption. Next years' study should begin to show this trend and confirm its continuation.

At the same time, **performance of cloud solutions** rests primarily with the vendor. Obviously, the end-customer has responsibility for maintaining adequate Internet access, which directly impacts performance. Less obvious and more important though is **their accessibility**—the customer also has to deal with the unique aspects of integrating what can be a large number of cloud applications—four or more in many cases. High numbers of cloud apps was a major part of the original research hypothesis and the importance of a standardized platform in such cases proves true. This is a major selling point for platform based cloud solutions, especially when selling into a situation where a vendor's preferred platform is already in use.

The remaining issues in the top 7 list in one way or another are affected by the platform issue directly. For instance, **Synchronization problems, Operating multiple databases, Number of applications and enabling technologies in use** are all more difficult when multiple platforms collide in a user environment. The survey confirms this part of the hypothesis, though these issues are further down the stack.

The message of platform-based cloud computing is certainly a major issue in corporations these days and must be part of the selling process—especially to IT. The benefits of cloud is what most business units are more interested in seeing.

The last four issues, **Managing multiple logins, Mobile accessibility, Pace of and demand for innovation,** and **Timely response to stakeholders,** scored so low that we do not believe they represent significant issues for cloud computing adoption. Of course, individual

prospects may have unique needs that reshuffle this list. Nevertheless, understanding the top seven issues and their impacts on buying decisions should be very useful in most selling situations.

5. The size change of the IT team responsible for cloud applications is a statistical tie with 48 per cent saying their team has grown (increased) and 44 per cent saying it has stayed the same while only 8 per cent said team size has decreased. This is an interesting finding given that the most significant concern of those responding was capped or reduced IT budgets. If we combine these findings with the observation that a significant number of businesses have four or more cloud apps, one interpretation would be that the budgets for maintaining or increasing the size of IT teams is coming from reduced expenditures for on-premises applications. It would appear that many of these companies are plowing their savings back into the business by supporting a move to the cloud. If this is what's happening, it may mean an easier selling environment for cloud vendors in the future.

Nevertheless, respondents tell us that hiring outside contractors is one way IT is keeping its budgets in line at least because consulting costs may come from different budgets. But as one person with over ten consulting groups on premise told us, the politics of the situation are having a negative effect on overall productivity. This is a key point to make as we move to future years and can prove that teams continue to reduce in size, but delivery increases in quality and quantity

Has the size of the IT team responsible for Cloud Applications...	
Answer Options	Response Percent
Increased	48.0%
Stayed the same	44.0%
Decreased	8.0%

The caveat here is that the last six most important issues—Slow Performance, Application accessibility, Synchronization problems, Operating multiple databases, Number of applications and enabling technologies in use, Ongoing data quality concerns all indicate "high-class" problems. Importantly, they are likely blow-back problems encountered by businesses so eager to implement cloud solutions that they run into management issues brought on by expanding them without a clear vision of what the ultimate solution should look like.

Again, this offers an opportunity for cloud vendors to step into the role of a trusted advisor who can look down the road and point out more than the benefits of implementing one cloud solution.

6.   As we have seen, the size of the IT team has grown and IT appears to be doing better at partnering with business units; however, when it comes to IT doing its job the data is less confirmatory. More than half of respondents or 54.6 percent said that IT still performs its traditional role more or less. IT remains primarily an internal support function (37.3 per cent) or IT still provides reports, metrics and key performance indicators only (17.3 per cent). This suggests that the departments are taking the lead in cloud implementation, a job that they may not fully comprehend and the results bear this out.

On the other hand, 45.3 per cent reflect IT departments that are taking on a more modern approach to enabling the business units to succeed. Our results indicate that 36 percent said IT now better enables business strategic initiatives in partnership with LoB (Line of Business). Also, 9.3 per cent said that IT better supports business users creating their own reports, metrics, and KPIs.

How has the role of IT changed in relation to Cloud Applications?	
Answer Options	Response Percent
IT remains primarily an internal support function	37.3%
IT now better enables business strategic initiatives in partnership with LoB	36.0%
IT still provides reports, metrics and key performance indicators only	17.3%
IT better supports business users creating their own reports, metrics, and KPIs	9.3%

Taken together with other findings, we see IT straining to catch up with the business units' dash to the cloud. We do not have enough data to make a valid cross tabulation with other results, but this suggests to us that the business units have taken the lead in deploying cloud systems and that while largely successful, many could benefit from some of the more rigorous governance that IT has supported historically. This strongly suggests to us that issues like **Synchronization problems, Operating multiple databases, Number of applications and enabling technologies**

in use, could be reduced if IT had a more direct role in cloud (and platform) selection and implementation.

7.   Broadly speaking, the vendor-customer relationship has improved as a result of cloud deployments, but at a cost. This statement includes both end customers and internal customers (e.g. for management reports) in the definition of customer. This is both not surprising and a bit troubling. It's great that business units have greater access to their data and that they have the ability to turn that access into greater attention to end-customers and better responsiveness to management. For instance, just under half or 49.3 per cent said cloud applications have increased customer service while only 6.7 percent said the opposite. Also, 46.7 percent said their cloud apps have improved the speed of preparing management information and 54.7 per cent said the apps have improved their quality. But to a degree these gains are coming at the cost of more chaotic back end processing as exemplified in the top seven issues and the previous discussion. We see opportunity here for the vendors who communicate an understanding of the big picture and who can suggest a role for IT that better bridges front and back office needs.

Has the introduction of Cloud Application(s) helped in any of the following (select all that apply)	
Answer Options	Response Percent
Speed of preparing management information	46.7%
Improved the quality of management information	54.7%
Increased customer service	49.3%
Decreased customer service	6.7%

Survey Demographics

8.   As you can see, better than 90 percent (93.3) of responses came from smaller companies with 5,000 or fewer employees and revenues below $1 billion (85.1 percent). This represents the majority of the market.

How many employees are in your company?	
Answer Options	Response Percent
Less than 100	17.6%
Between 100 and 1,000	39.2%
Between 1,000 and 5,000	36.5%
Between 5,000 and 10,000	2.7%
More than 10,000	4.1%

What is the total revenue for your company?	
Answer Options	Response Percent
Below $10 million	20.3%
Between $10 and $100 million	17.6%
Between $100 and $500 million	32.4%
Between $500 million and $1 billion	14.9%
Between $1 and $3 billion	9.5%
Over $3 billion	5.4%

9.   Additionally, 71.6 percent of respondents stem from North America. Adding the UK and Western Europe gets us just under 90 percent of the market.

Where is your organization headquartered?	
Answer Options	Response Percent
North America (US, Canada)	71.6%
Latin America	8.1%
United Kingdom	12.2%
Western Europe	5.4%
Eastern Europe	0.0%
Middle East	1.4%
Africa	0.0%
Japan, Korea, China	0.0%
India	0.0%
Rest of Asia	0.0%
Australia, New Zealand	1.4%

10.   Finally, the spread of industries from which this data is culled is very broad with a few pluralities but no real dominant sector. Larger pluralities come from Banks, Personal Services, and Software.

What industry best represents the market for your products or services?	
Answer Options	Response Percent
Agriculture	1.4%
Apparel	1.4%

Automotive	4.1%
Banks	9.5%
Brokerage and Investments	2.7%
Chemicals & Allied Products	0.0%
Computer Manufacturing	1.4%
Construction	2.7%
Electric, Gas & Sanitary Services	1.4%
Hospitality	4.1%
Insurance	1.4%
Medical and Dental	2.7%
Metal Products	0.0%
Oil & Gas Production	0.0%
Papers & Allied Products	0.0%
Publishing	1.4%
Pharmaceutical	2.7%
Radio & TV Broadcasting	1.4%
Real Estate	4.1%
Retail	9.5%
Services-Personal Services	14.9%
Software Publisher	10.8%
Telecommunications (land)	6.8%
Telecommunications (wireless)	2.7%
Travel	4.1%
Waste Management	0.0%
Wholesale	9.5%

Discussion of Findings

Cloud computing is very successful in the population studied, which we believe is a good representation of the market at large. As with any new thing put into the market there are bound to be growing pains. While IT is demonstrating a good ability to partner with the lines of business to help them deliver on the cloud's promise, it appears from reading the data that the departments might—at least in some cases—be out of their depth in selecting and supporting cloud applications. They may be racing ahead of IT as well as their own abilities.

Most businesses have well over 2 cloud applications in use and for those that choose less wisely, the proliferation of cloud apps—and their platforms—is delivering a complicated mix of databases and management tools as well as synchronization issues. For all of the benefits of cloud computing, and there are many, at least some of these organizations are at risk of over complicating their cloud deployments.

This situation provides an opportunity for any cloud supplier that can get outside of the box of providing a single solution. We believe that vendors who demonstrate an understanding of platform issues and the end to end processes that they serve and counsel customers on optimizing deployments will be sought after in this market. This means acting as a trusted advisor, which has long been a smart strategy.

Since the dominant platform today is Salesforce in all of its permutations, it is highly likely that if an end customer has multiple apps at least some will be running on Salesforce thus providing a built-in advantage for the Salesforce native vendor.

Some ways to take advantage of this situation include:

1. Position your solution as an essential component of end to end process support.

2. Position your reporting scheme as taking advantage of other platform data thus providing richer reports. If you can do this out of the box with other popular packages and insulate customers from any of the development overhead, so much the better.

3. Take this a step further by developing and offering standardized metrics and KPI's that use other systems' data thus providing richer insight into the business for the end customer.

4. Develop best practices for day-to-day operations on the platform.

5. Identify specific ways to speed up overall processing for complex workflows oriented toward specific verticals.

6. Generally, in a heterogeneous environment, the more a vendor can do to shield the customer from complexity and to reap more benefits from the mix, the better.

While it's key to develop strong relationships with line of business users, and despite any discussion about independence from IT, it might be smart to reach out to the IT department with specific ideas for helping them better manage the complexities of dealing with departmental cloud solutions. In fact, acting as a trusted advisor to IT may be one of the smartest strategies since it is clear that IT remains on the hook for overall success of cloud projects even if the end user feels free to pursue them independently. Given the distribution of responses, many of the companies involved will be smaller, with smaller IT groups and less expertise at the business unit level so that reaching out with expertise may be very welcomed.

To finalize the work we did in the report we aggregated the work we did in this study and found the four top conclusions that came from doing the analysis.

Conclusions

The findings from this research should be very useful to IT. For a long time cloud providers have proceeded on the idea that their solutions are self-installable and self-maintainable and to a great extent they are. However, while one system might be capable of being administered without help from outside the department, when multiple systems are used, the level of complexity jumps so that IT is once again responsible for making the trains run on time. Our data shows that the vast majority of cloud adopters have much more than one system, hence many will have integration, synchronization and update issues to deal with. Here are our recommendations for any business considering moving to the cloud.

1. *Move deliberately.* Our research shows that unchecked by IT, many departments buy cloud solutions without much thought to how multiple systems will share data. This results in too many integration and synchronization issues not to mention needing to develop a knowledge base consistent with multiple unrelated apps. Departments might not need IT help to implement a solution, but they will need and want help administering them. The time to make administration decision is before purchase so IT needs to be involved after all.

2. *Keep trying to relate to the departments in meaningful ways.* Our data shows that most IT groups are doing a good job of reaching out to peers at the department level to provide assistance and advice about the delicacies of cloud migration. The departments that have experienced this cooperation first hand report better results for their cloud implementation and are generally more satisfied with their relationships with IT.

3. *Focus on what matters.* Things that don't matter or that don't matter very much in cloud adoption include size of the IT staff, industry of the business making the shift, or even cloud as a delivery system. What mattered most to our population was being able to implement new cloud systems that better addressed their needs than older in-place on-premises systems. Importantly, though, cloud systems provide more favorable cost of ownership profiles which made acquiring new systems more possible in a constrained economic environment. So cloud goes hand in hand with new systems but

they are slightly different issues. Of even greater importance in businesses that had multiple apps was their ability to simplify integration and management through common a platform. Reducing the number of platforms in use (hopefully all the way to a singularity) affords maximal simplification of those systems' back ends and the skills and resources needed. This can be a significant aid for small and medium businesses that have the ability to buy sophisticated cloud solutions but do not necessarily have the resources to manage a sprawling implementation.

4. *The race is barely beginning.* Many of the data points above are highly fragmented. Comments from the people we talked to indicated also a lack of common agreement on where we stand and where we are going. While the concept of cloud computing has been commoditized across organizations, the adoption of the same has not yet broken mainstream status (at least thirty percent of the market having adopted it). There are many initiatives here and there and – as the data shows – most organizations are still trying to figure out what to do and how. As we continue to monitor the adoption and evolution of cloud computing in the enterprise we have to remember that what it will look at the end is not the same as it looks now.

Appendix – Survey Data

Cloud Adoption Issues 2015

1. Before we start, we want to ensure your experience matches our needs. The functions, not titles, listed below are those that align best with the work we are seeking to document. Although your title may not be among those, please select the function that best represents your responsibilities with cloud applications

Answer Options	Response Percent
Cloud Application Administrator or Manager	18.2%
IT Administrator, Specialist or Manager	22.3%
Cloud Application User (with system responsibilities)	15.5%
Database Administrator or Manager	8.1%
Systems Administrator or Manager	15.5%
My function is not listed above (I don't qualify for this study)	20.3%

2. How many cloud applications does your organization use today?

Answer Options	Response Percent
Just one	14.8%
Two	21.3%
Three	17.6%
Four	6.5%
More than Four	39.8%

3. Who makes Cloud systems decisions?

Answer Options	Response Percent
IT decides what systems are implemented – entirely.	15.7%
IT supports departments making systems decisions.	21.3%
IT collaborates with departments making joint systems decisions	50.0%
IT does not participate in the decision making, departments make decisions on their own	13.0%

4. Please rank the top three challenges you see with your cloud applications today

Answer Options	Most Important	Second Most Important	Third Most Important	N/A	Rating Average
Operating multiple databases	7	7	4	0	1.83
Synchronization problems	11	5	2	0	1.50
Capped or reduced IT budgets	15	6	4	0	1.56
Application accessibility	10	6	4	0	1.70
Number of reports needed	3	2	3	0	2.00
Slow Performance	5	16	3	0	1.92

Number of applications and enabling technologies in use	5	9	5	0	2.00
Ongoing data quality concerns	8	3	7	0	1.94
Increasing customer attrition	0	0	1	0	3.00
Increasing employee attrition	0	1	0	0	2.00
Mobile accessibility	3	6	8	0	2.29
Pace of and demand for innovation	3	5	6	0	2.21
Timely response to stakeholders	3	1	8	1	2.42
Managing multiple logins	3	7	7	2	2.24
Extending workflows to mobile apps	3	1	5	0	2.22
Lack of collaboration between business units and IT	2	1	4	0	2.29

5. Has the size of the IT team responsible for Cloud Applications...

Answer Options	Response Percent
Increased	48.0%
Stayed the same	44.0%
Decreased	8.0%

6. How has the role of IT changed in relation to Cloud Applications?

Answer Options	Response Percent
IT remains primarily an internal support function	37.3%
IT now better enables business strategic initiatives in partnership with LoB	36.0%
IT still provides reports, metrics and key performance indicators only	17.3%
IT better supports business users creating their own reports, metrics, and KPIs	9.3%

7. Has the introduction of Cloud Application(s) helped in any of the following (select all that apply)

Answer Options	Response Percent
speed of preparing management information	46.7%
improved the quality of management information	54.7%
increased customer service	49.3%
decreased customer service	6.7%

8. How many employees are in your company?

Answer Options	Response Percent
Less than 100	17.6%
Between 100 and 1,000	39.2%
Between 1,000 and 5,000	36.5%
Between 5,000 and 10,000	2.7%
More than 10,000	4.1%

9. What is the total revenue for your company?

Answer Options	Response Percent
Below $10 million	20.3%
Between $10 and $100 million	17.6%
Between $100 and $500 million	32.4%
Between $500 million and $1 billion	14.9%
Between $1 and $3 billion	9.5%
Over $3 billion	5.4%

10. Where is your organization headquartered?

Answer Options	Response Percent
North America (US, Canada)	71.6%
Latin America	8.1%
United Kingdom	12.2%
Western Europe	5.4%
Eastern Europe	0.0%
Middle East	1.4%
Africa	0.0%
Japan, Korea, China	0.0%
India	0.0%
Rest of Asia	0.0%
Australia, New Zealand	1.4%

11. What industry best represents the market for your products or services?

Answer Options	Response Percent
Agriculture	1.4%
Apparel	1.4%
Automotive	4.1%
Banks	9.5%
Brokerage and Investments	2.7%
Chemicals & Allied Products	0.0%
Computer Manufacturing	1.4%
Construction	2.7%

Electric, Gas & Sanitary Services	1.4%
Hospitality	4.1%
Insurance	1.4%
Medical and Dental	2.7%
Metal Products	0.0%
Oil & Gas Production	0.0%
Papers & Allied Products	0.0%
Publishing	1.4%
Pharmaceutical	2.7%
Radio & TV Broadcasting	1.4%
Real Estate	4.1%
Retail	9.5%
Services-Personal Services	14.9%
Software Publisher	10.8%
Telecommunications (land)	6.8%
Telecommunications (wireless)	2.7%
Travel	4.1%
Waste Management	0.0%
Wholesale	9.5%