CLOUD-BASED HOSTED SERVICES IN SMBS: ADOPTION, PURCHASE PROCESS, AND PLAYERS

Author: Brian Cavoto, PhD

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The cloud-based hosted services market is an exciting and fast moving space that has attracted a great deal of attention for its potential to completely shake up the technology infrastructure of businesses.

Several key trends have converged to really change the dynamics of this space. **The computational capacity** of individual servers has exploded as processors and other hardware components of servers have evolved and multi-core processors and multiple processors are now standard. **Virtualization software** has made it possible to exploit server capacity further by partitioning the compute capacity of servers into smaller virtual chunks, which can be leveraged by different applications, or even different businesses. **The network bandwidth** available to end-users of applications — a historical bottleneck to running applications from servers in the cloud — has skyrocketed, making cloud-based applications accessible almost anywhere with a connection or wireless. Finally, **larger players (e.g., Amazon, Google, Microsoft)** have rolled out cloud-based services that offer global footprints along with a sense of stability and credibility where smaller hosted providers have historically fallen short of.

Who We Interviewed

While cloud-based services are impacting companies of all sizes, the small and medium-sized business (SMB) segment is considered one of the most important growth areas. We targeted Commercial SMBs (excluding Government and Education), and defined them as companies with 5-249 PCs, excluding home-based businesses. We excluded the very smallest companies because we know from previous research that their dynamics are different from the rest of the segment.

We required that companies were currently using email and productivity applications. Respondents also had to be currently using, or willing to consider, hosted services. Approximately 17% of the target population dropped out because they were not using or considering hosted services; this included similar percentages of both smaller and larger sized companies (Figure 1).
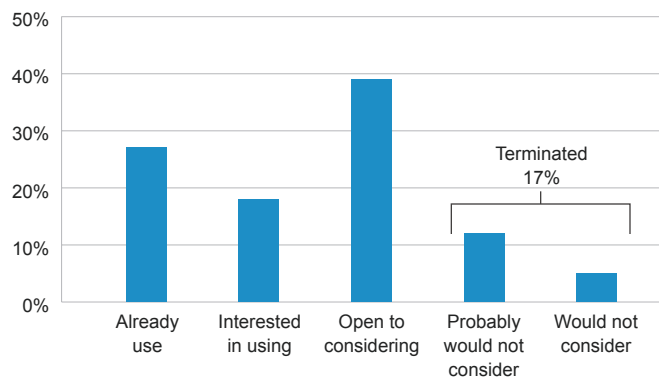

Figure 1 Current Status of Hosted Offerings (ALL RESPONSES)

In order to study the purchase process, responding companies needed to have purchased, renewed or upgraded one of the following in the past 12 months: servers, server operating systems, server management software, email software, web conferencing, collaboration tools, productivity applications, telephony systems, business applications, or file storage/backup.

Respondents included IT professionals (ITDMs) and business professionals (BDMs) who are purchase decision-makers for software and services at their organization. We set quotas by company size: Small (5-24 PCs), Lower Mid-Market (25-49 PCs), and Core Mid-Market (50-249 PCs).

As can be seen in Figure 2, the distribution of ITDM and BDM respondents varies by company size, with the bulk of small business respondents in BDM positions, while about two-thirds of the larger company sizes are ITDMs. We believe these differences explain some of the trends we see in the data.

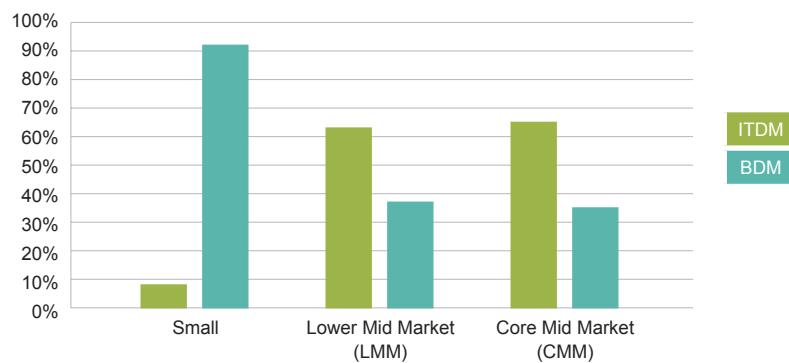Interviews were conducted during July 2010 in the US.

Figure 2 Respondent Type by Company Size (PCs)

The most striking pattern is the relative consistency across company sizes in the penetration and use of the various classes of technology. Approximately half the companies surveyed use servers and associated software, as well as collaboration and web conferencing software. There are, however, some differences by company size — mostly small companies showing lower penetration than the larger companies across a number of the technologies.

Figure 3 shows the penetration for each technology category by company size. There is a nearly ubiquitous use of telephony systems and file storage/backup solutions, which is not that surprising given the target audience. The fact that 100% of companies surveyed use email and productivity applications is simply a reflection of our recruitment criteria.
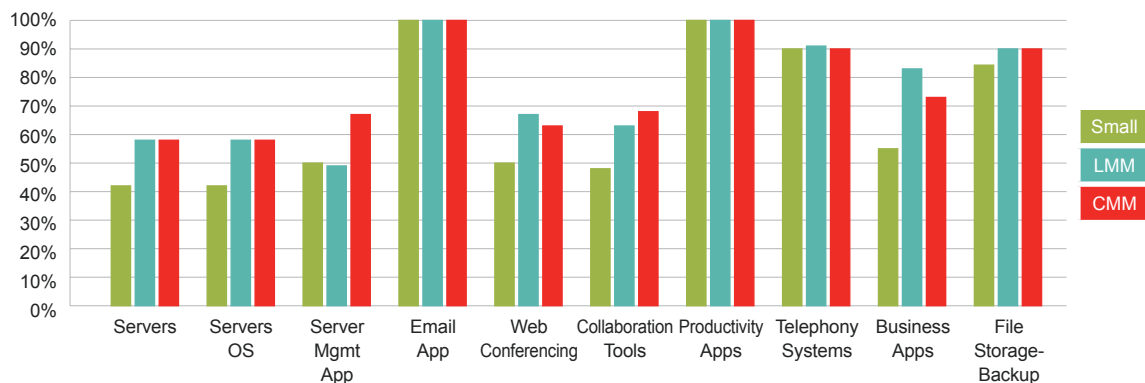

Figure 3 Currently Use

Technology Implementations

For each type of technology installed at their company, we asked respondents whether they leverage traditional on-premise solutions, managed solutions (where the company owns the equipment but it's hosted and managed off-site), and/or cloud-based hosted services.

Figures 4-6 depict the types of deployments in use across the various technologies, for each of the three company sizes. The bulk of technologies are currently still using on-premise solutions, with roughly two-thirds to three-quarters or more of the various technologies installed locally at the company.

Again the general trends are quite similar — the smallest companies lean more towards managed solutions than larger ones, and larger companies are more likely to run multiple types of solutions.

Cloud-based hosted services are used in roughly a quarter of organizations across the technologies examined here, typically more than the amount of managed services that are being used (key exception is file storage/backup).

Services with the highest cloud penetration include web conferencing and collaboration tools, followed by email, business applications, and file storage/backup, with the trends pretty consistent across company size.
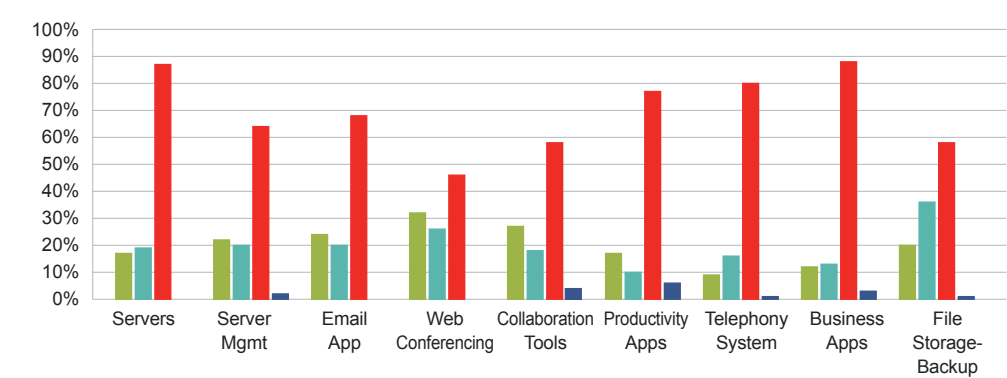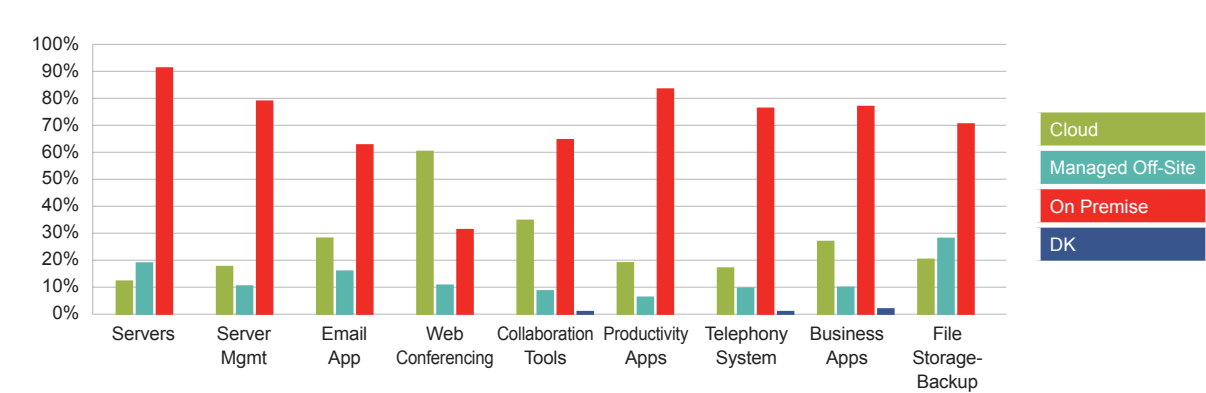

Figure 4 Nature of Implementations - Small
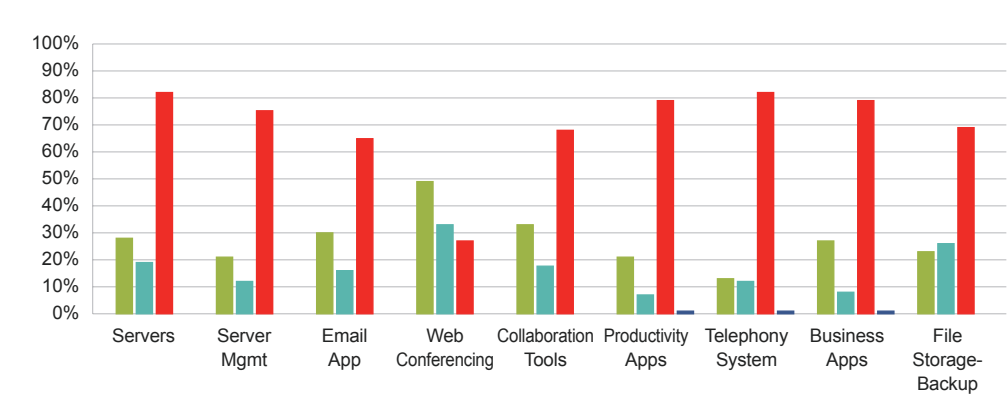

Figure 5 Nature of Implementations - LMM

Figure 6 Nature of Implementations - CMM

While cloud-based services are definitely on the rise — they are now more prevalent than managed services — there is clearly a lot of room for growth. Figure 7 depicts a count of the number of hosted services used across technology categories.

Two main trends stand out:

- Across the fairly extensive set of technology categories tested here, more than 40% of SMB companies have not taken the plunge into the world of cloud-based hosted services. That's a large number without any existing hooks into the cloud-based world.
- SMBs that *have* adopted cloud-based hosted services mostly typically have only one to three services across the nine categories tested, which also shows a lot of room for growth.
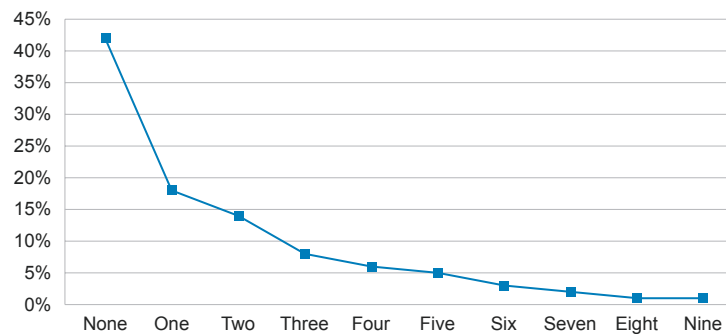

Figure 7 Number of Hosted Services Used Across Tested Categories

This summary of the data presented an opportunity to compare responses to two different questions related to the use of hosted services (a general question about engagement in hosted services compared to one that prompts respondents to think about specific technologies). Responses varied markedly depending on the exact nature of the questions asked.[1]

To provide more intelligence, the study asked about new technology purchases (upgrades and new versions counted as purchases) in the last 12 months, and which category of purchases entailed the largest financial investment.

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[1] If you did the math, you may have noticed that roughly twice as many respondents indicated they used cloud-based hosted services when asked about the *specific* technologies used at their company compared to when they were asked at a high level whether they used cloud-based hosted services in the screener (i.e. the 57% in the above graph versus the 26% in the first graph showing incidence). This is not a data quality issue per se, but it is a great demonstration of how more detailed probing often reveals a different picture than a simple high level question will. The respondents only using one or two services needed retrieval cues to be reminded of the full range of relevant technologies at hand — a reason to be skeptical of the simplistic out of context single question surveys now ubiquitous in many arenas.

There is a range in activity across categories, with approximately a quarter to a third indicating purchase activity across the categories (Figure 8). Productivity applications, file storage/backup, and telephony systems have the most activity. The prevalence of productivity application purchases is not surprising, but the high level of file storage/backup and telephony systems is more interesting. Both of these types of purchases can have a big impact on the other services tested here. Choosing a VoIP telephony solution over a traditional one has implications for communications software, and we have seen in other research that connections exist between the type of file storage system a company uses and their willingness to adopt other cloud-based services.
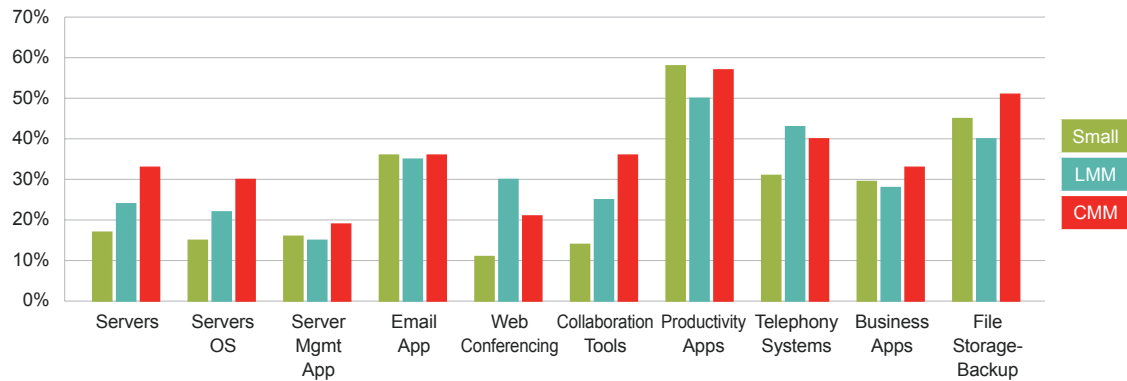

Figure 8 Purchased in Last 12 Months

Figure 9 depicts the distribution by financial investment, with servers, productivity applications, telephony systems, and file storage/backup solutions involving the largest investments for their respective companies in the past 12 months.
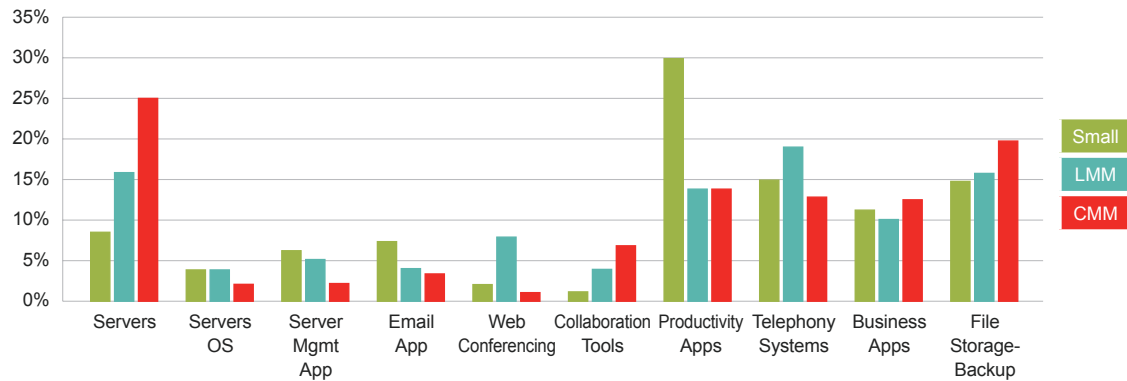

Figure 9 Largest IT Purchase Financially in Last 12 Months

Barriers to Deployment of Hosted Services

Here we investigate how companies perceive the risks associated with hosted services, the hurdles to greater investment, and which providers might be preferred across the various technology categories examined.

Figure 10 depicts the perceived risk of hosted solutions by company size. Smaller companies perceive hosted solutions as slightly more risky than larger companies. As the majority of the small business respondents were business decision-makers rather than IT decision-makers, this may reflect the audience (and their ignorance of these newer solutions) as much as company size. When asked which barriers were relevant and most important to their company's decision to deploy hosted services, respondents in smaller companies felt they were not knowledgeable enough about the solutions.
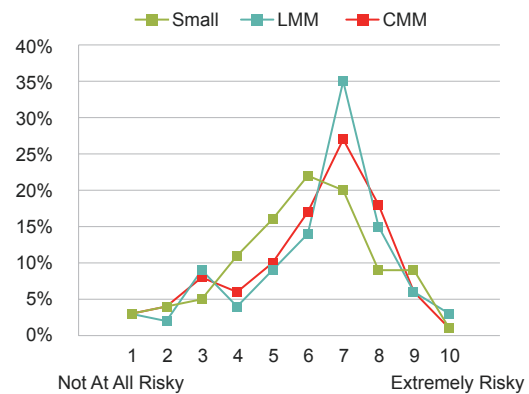
Figure 10 How Risky are Hosted Services Relative to On-promise?

Security/privacy is the top barrier across all company sizes. A lack of control over resources is the second biggest concern for larger companies (where most respondents are IT professionals), while lack of knowledge is the second most important barrier for small companies. Existing infrastructure investments is a close third for the smallest companies, likely reflecting tighter budgets (Figure 11).
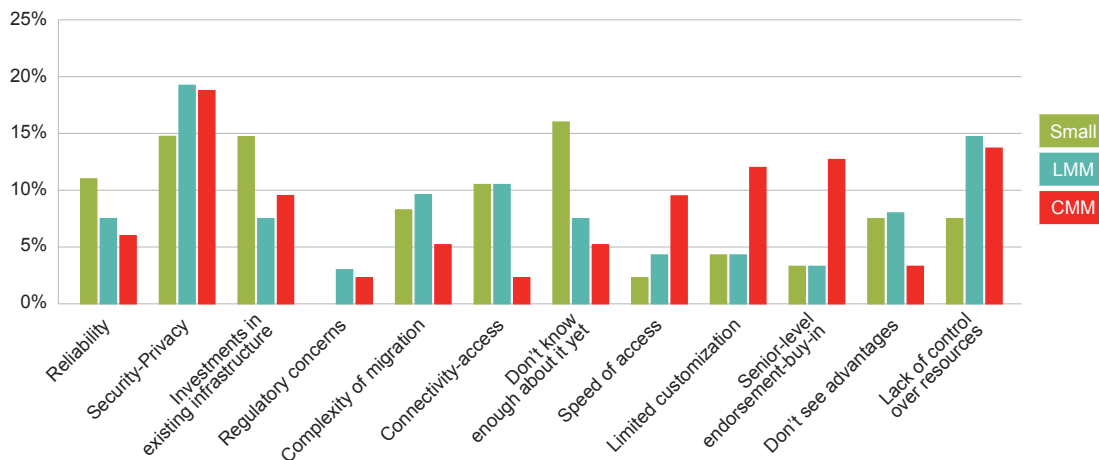
Figure 11 Most Important Barrier

Larger companies worry about more sophisticated barriers such as speed of access and customization, while the smallest companies are more concerned about basic considerations such as reliability and connectivity/access. After security and control, larger companies show greater concern about limited customization and getting senior-level endorsement, reflecting the different requirements and dynamics in the larger organizations and greater technical sophistication — if not of the company, then at least of the survey respondents.

Figure 12 depicts the same barrier data sliced by company use of hosted solutions. Hosted services users are most concerned about the lack of control of resources — even more than security/privacy — followed by customization, reliability, and complexity of migration, suggesting they have at least partially moved on to the solution challenges related to actually running these solutions.
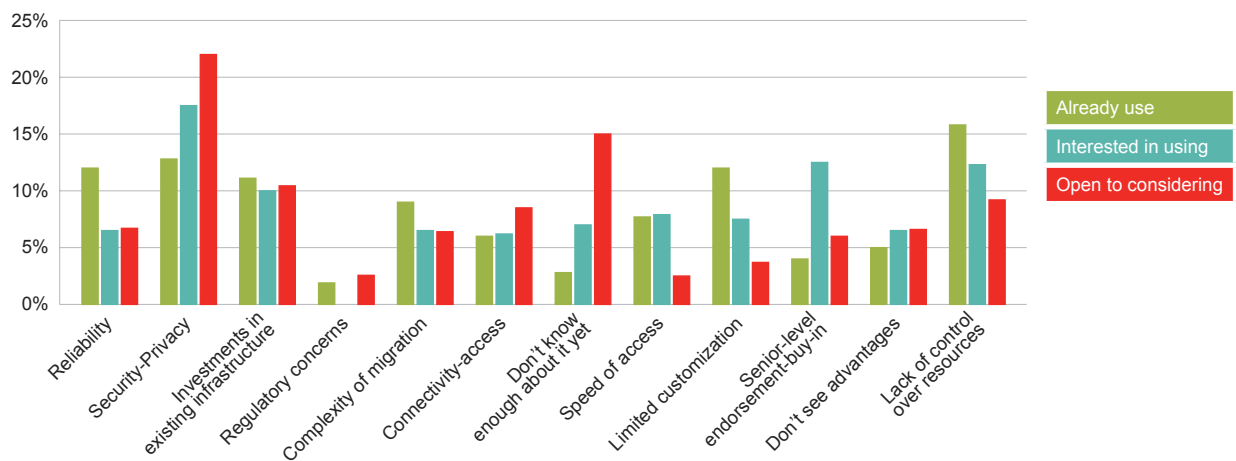

Figure 12 Most Important Barrier

The biggest challenges for those not currently using hosted solutions include security/privacy, ignorance regarding hosted solutions, and concern over investments in current infrastructure. While there are some high level consistencies across segments (e.g. security), these different priorities should be kept in mind when selling and marketing to these audiences.

Finally, when asked about the importance of visibility into, and the ability to monitor, hosted server applications, there is considerable interest in monitoring all or at least some of the applications (see Figure 13).

Only a small percentage of even the smallest companies indicated they had no interest in being able to see and monitor the applications. In this new world of hosted services these online portals are a critical part of the IT ecosystem — in essence they are the new "back room" of the IT ecosystem.
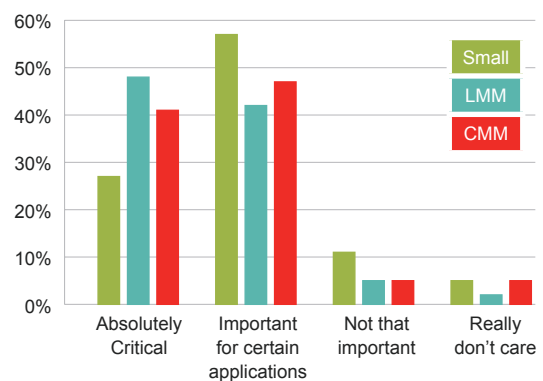

Figure 13 Importance of Visibility and Monitorability of Hosted Server Apps

Preferred Partners

We explored which providers our respondents would most like to procure a broad platform of services from (Figure 14). We presented a range of players for respondents to pick from, and asked *"If each of the below companies offered a portfolio of hosted offerings that suited your organization's needs, which ONE company would you prefer to purchase the services from?"*
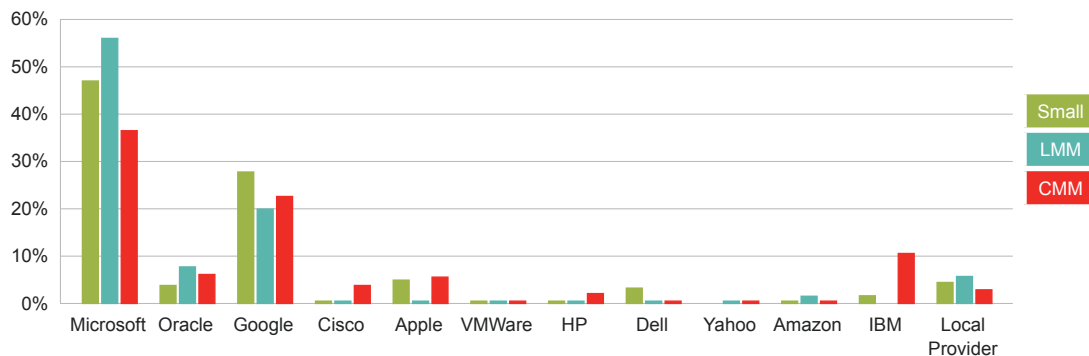

Figure 14 Preferred Company for Suite of Hosted Services

There are two clear winners in this space: Microsoft is top dog, capturing nearly half of responses, followed by Google with just under a quarter, with the other quarter spread among the rest. IBM still resonates with some of the largest of the companies surveyed, but in general the trends are pretty similar across the three company sizes. While Google has been grabbing headlines and building mindshare with this audience, Microsoft continues to be the preferred partner — not surprising given Microsoft's significant history in the business space.

As we delivered a simple question, not a formal estimation task including pricing, results should be interpreted as "preferred" partner, not what respondents would actually do.[2]

To get a better understanding of the drivers towards these top two providers, we created binary variables (i.e. selected Microsoft versus not, selected Google versus not), and ran two distinct sets of tree analyses treating those binary variables as the dependent variables in each set of analyses, including all the rest of the variables in the survey as possible predictors. What rises to the top — as well as what does not — is interesting.

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[2] While not discussed here, as part of this research we also did a methodological experiment involving three tasks, including two variants of a discrete choice task, set in a similar context of procuring cloud-based hosted services — in this case from Microsoft, Google, or Oracle - with prices included. Interestingly, when the latest considerations are factored in, such as the availability of Microsoft's Office365 hosted offering, the above split between Microsoft and Google isn't too far off from what we saw in the more robust tasks (see *Estimating Product Preferences: A Methodological Excursion*).

Figure 15 below shows the Top 10 predictors from each set of analyses.

Figure 15 Question text for DV's: *If each of the below companies offered
a portfolio of hosted offerings that suited your organization's needs,
which ONE company would you prefer to purchase the services from?*

Top 10 Predictors of Choosing **Microsoft** as provider of hosted services platform	Top 10 Predictors of Choosing **Google** as provider of hosted services platform
1. Use Microsoft Sharepoint at company	1. Don't use Microsoft Dynamics at company
2. Use Microsoft Dynamics at company	2. Don't use Microsoft Windows at company
3. Use Microsoft SQL Server at company	3. Don't use Server Mgmt software at company
4. Hosted servers currently deployed	4. Don't use Microsoft SQL Server at company
5. Microsoft Office considered for purchase during last 12 months	5. Security/privacy is not a barrier to hosted services
6. Use Microsoft Hyper-V at company	6. Don't use on-premise Server Mgmt software
7. Regulatory concerns is barrier to hosted services	7. Internal business staff not involved at all in purchase process
8. Business executives not involved in information gathering during purchase process	8. Respondent "not sure" how Server Mgmt software is deployed at company
9. Company size is Small and LMM	9. Internal IT staff involved in Needs Identification stage of purchase process
10. Advertising/Direct Mail information was leveraged during Needs Identification stage of focal purchase	10. Technology blogs are used in evaluating vendors

* Exhaustive CHAID technique used.

Three key trends stand out for these two key players:

- The use of existing technologies are the biggest drivers of preferences, with the use of Microsoft's SharePoint, Dynamics, SQL, Office, and Windows all rising to the top as the best predictors of choosing Microsoft. This speaks to Microsoft's existing footprint in this space, where an investment in a product like SharePoint or SQL makes that platform stickier.

- Specific players at a company involved in the purchase process have an impact on preferences. There is more interest in Microsoft if business executives are not involved in the information gathering process. The hypothesis here might be that if they see the alternatives upfront — and the potential cost differences — they might prefer to switch. There is also more interest in Google when internal business staff are not involved in the purchase process, suggesting the staff who actually have to use the applications are less keen to use Google services.

- Respondents who say that regulatory concerns are a barrier for them prefer Microsoft, while those who indicate that security/privacy is not a barrier for them would prefer Google. This likely relates to the perception of Microsoft as a more credible business software player than Google, and is something that Microsoft might leverage to its advantage, particularly in light of the ubiquitous concern over security.

Needs Identification	→	Information Gathering	→	Evaluation of Vendors	→	Final Decision

In this section we drill into the respondents' largest (financially) technology purchases, including who was involved and when, resources leveraged, channels used, who was considered and selected, and how communications unfolded.

Involvement in Purchase Process

The main difference between company sizes is the increased importance of internal IT staff in larger companies. The role for business executives is consistent across groups — they are just one of several players that might be involved during needs identification, information gathering, and evaluation of vendors, but are almost always involved during the final decision.

Other internal business staff play an important role across all company sizes, as important or more important than business executives during every stage except the final decision.

External IT partners play a bigger role in small companies than in lower mid-market and core mid-market companies, reflecting how small companies have access to fewer internal IT resources. When they are involved, partners contribute most during the first three stages leading up to the final decision — particularly the information gathering stage — with little role in the final decision stage itself.
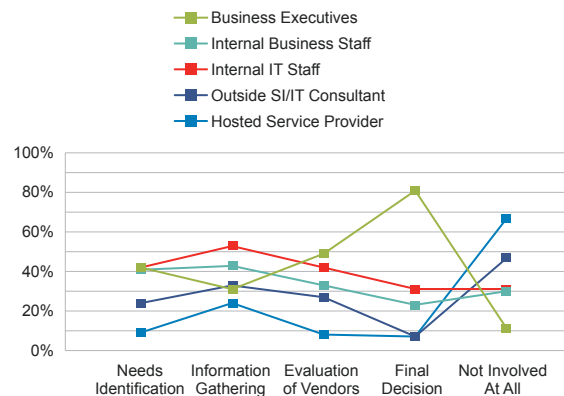
Legend:
- Business Executives
- Internal Business Staff
- Internal IT Staff
- Outside SI/IT Consultant
- Hosted Service Provider

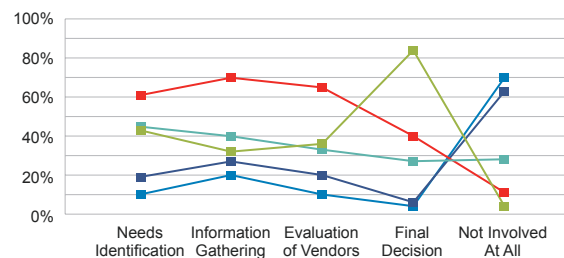**Figure 16** Involved in Purchase Process (Multiple Response) - Small

Figure 17 Involved in Purchase Process (Multiple Response) - LMM
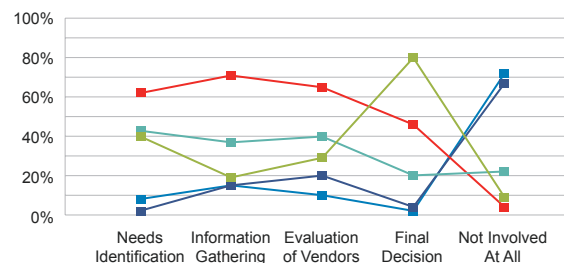

Figure 18 Involved in Purchase Process (Multiple Response) - CMM

Resources and Motivations

We also asked about resources leveraged during the process. While the details are not shown here, vendor documentation/representatives plus colleagues/peers are the two most common resources leveraged across the three stages leading up to the final decision. Colleagues and peers are most important during the needs identification stage, and the vendors themselves most critical during the information gathering stage.

This dependency on the vendors during all stages leading up to the final decision represents a real opportunity for providers to win over prospective customers through informative and easy-to-use resources and savvy customer-facing staff. Technology articles and blogs are also a critical resource across all stages — even more important than colleagues and peers during the information-gathering stage. Industry analysts, industry events, and advertising/direct mail are the resources leveraged the least.

To better understand how technology needs originate, we also asked respondents to describe the nature of the motivation for the specific purchases they made.

The most common trigger is organic, followed by an event, and then vendor initiated. The differences by category are interesting, although sample sizes are small for some categories so the trends should be viewed as directional.

Server management software and email software are more likely to be pushed by vendors than the other categories of technology, and events are more likely to trigger file storage/backup, collaboration tools, and server management software purchases than other categories of technology. The pattern by company size is very similar, but with more vendor involvement for smaller businesses.
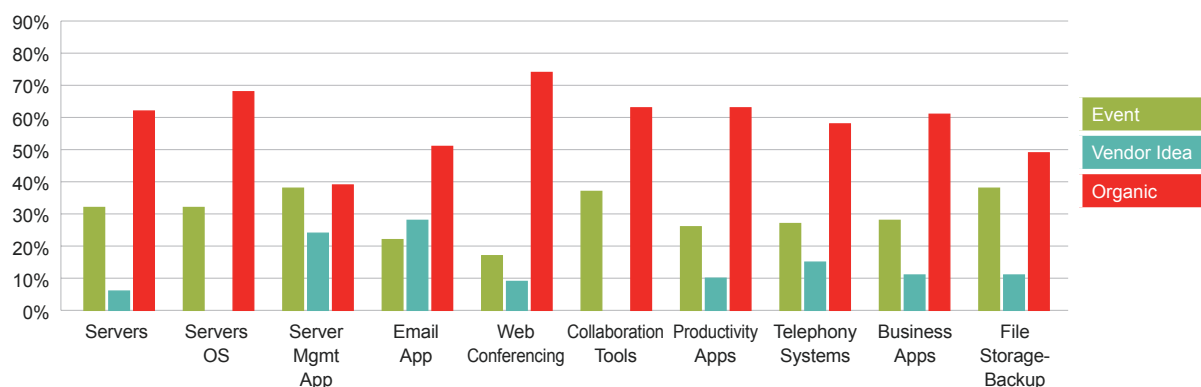

Figure 19 What Triggered Need/Purchase?

Purchase Process Lead Time

We asked respondents to estimate the length of time the purchase process took, from need identification to actual purchase, for their largest financial IT purchase in the past 12 months.

The length of the purchase process is most commonly weeks and months, however the process in smaller companies is about 2.5 times more likely to happen in days versus the other company sizes. There are at least a couple of possible explanations for the shorter timeframes. A smaller size means implicitly there are likely to be less people involved, and perhaps fewer processes required in making it all happen.

Figure 20 depicts the length of the purchase process by specific type of technology. The length of the purchase process is pretty evenly split between weeks and months, with productivity applications taking the least time, and roughly three quarters of business application purchases taking months to complete. This is not surprising given the complexities and integration issues that come with new business applications. Compared to business apps, the technology purchases referenced in this study are also likely to be less complex, with potentially fewer integration issues.

Small companies are twice as likely to indicate that productivity applications were their biggest investment. In terms of absolute numbers, approximately 30% of the smallest companies indicated productivity applications were their biggest purchase, versus about 15% for the other company sizes. Given that productivity applications take less time, this further explains some of the difference in how long the purchase process takes across the different company size segments.
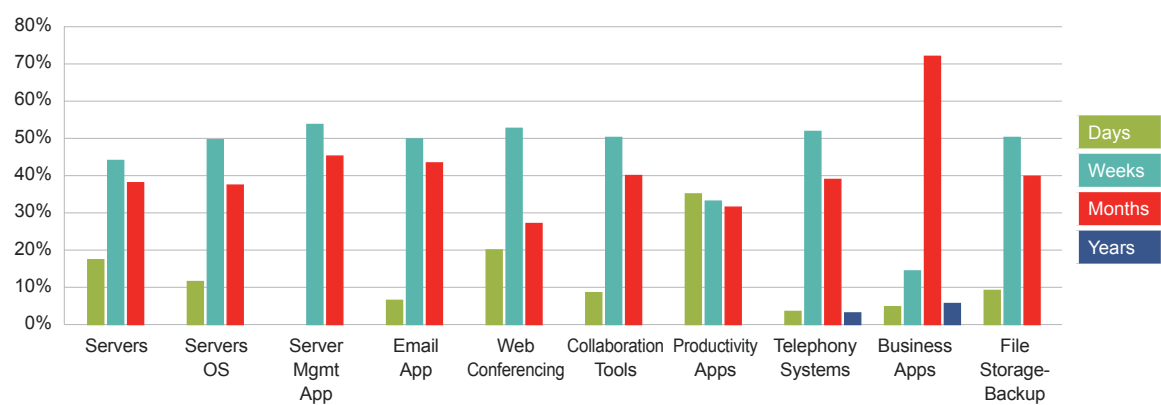

Figure 20 Length of Purchase Process

Purchase Channel

The most common channel for all companies is direct through the manufacturer, with roughly half of the purchases involving a direct component, and the pattern then a little different depending on size.

VARs are the next biggest channel for lower mid-market and core mid-market companies, while systems integrators/IT consultants are the second biggest channel for small businesses, which is consistent with the larger role we saw for them in small businesses earlier. Finally, there is also a trend for small businesses to leverage the retail channel more, although the greater incidence of productivity application purchases accounts for most of this difference.
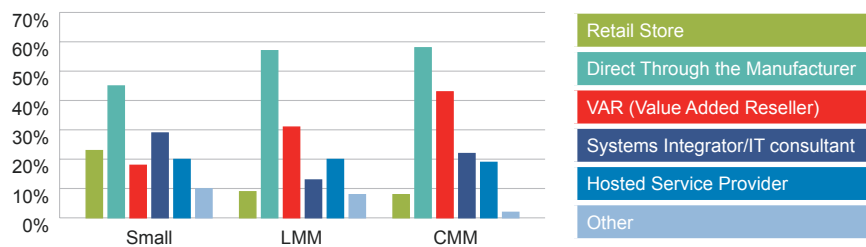
Figure 21 Channel Usage by Company Size

Our approach of examining the purchase process by specific purchases affords the opportunity to drill down into additional nuances related to vendor wins/losses. As anyone who works in the B2B space can attest to, one ubiquitous variable is incumbency.

Figure 22 depicts whether the winning vendor was an incumbent for the category, an incumbent for some other technology or if they were a new vendor altogether. Incumbency reigns across most categories, but particularly in the server space and in the world of productivity applications (the sample sizes are thin for some of the categories, so the findings should be considered directional). Incumbency is least critical for web conferencing and telephony systems, perhaps because these solutions have historically been a bit more isolated from the other technologies — more "stand-alone" if you will — and thus working with a new provider is less of a hurdle. Admittedly many vendors would like to change that today, as more comprehensive solutions increasingly cut across these arenas as well.
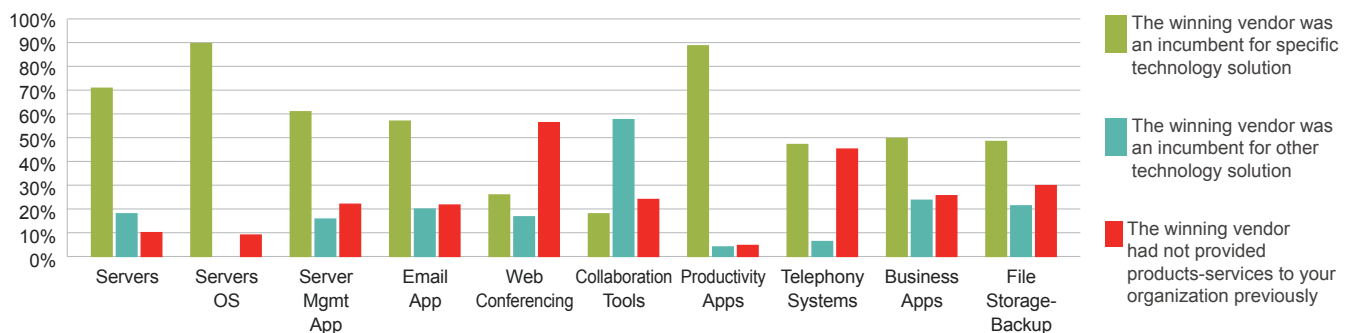
Figure 22 Vendor Incumbency by Technology Solution

Consideration and Conversion

Figures 23-26 look at the vendors considered/selected for a handful of the technology categories examined, including collaboration tools, web conferencing, email software, and productivity applications. Again, the sample sizes are quite thin, but this data sheds some light on the above dynamics.

Within the collaboration tools category, the high percentage of *incumbent for other technology* (Figure 22) is largely the result of Microsoft's SharePoint product in this category, in the context of an already huge Microsoft footprint in the business software space. Cisco appears to be enjoying some success as well, while Google Sites appears to be getting a lot of looks, but not much conversion.

For web conferencing both WebEx and GoToMeeting appear to be doing well in terms of consideration and conversion, at the expense of LiveMeeting.[3] In the email software category Microsoft's Exchange leads the way in both consideration and conversion, although Google Gmail is also doing well. Local cable providers/ISPs are often considered, but the rate of conversion lags behind Exchange and Gmail.

In the world of productivity applications Microsoft wins, with Google and OpenOffice considered, but rarely converted. Again, sample sizes are small, but the trends seem consistent with other reports, particularly in the realms of email and productivity software, where Google appears to be making some headway against Microsoft with its' email offering, but less so in the realm of productivity applications.

Some of the big government deals related to productivity app deals have received a lot of attention in the media, but our focus here is of course SMBs. Also, and this may be most critical, Google offers a couple different versions of their productivity software, with one free, and one that requires payment. The reality is that their free version has gained a lot more traction than their version that requires payment, and our approach of focusing respondents on the purchase that cost their company the most over the past 12 months would obviously be sensitive to this difference, systematically excluding those using the free version from focusing on that particular "purchase" in our survey.

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[3] Note, LiveMeeting was rolled into Office Communicator/Lync just prior to data collection for this study, likely negatively affecting the responses for "selected" accordingly.
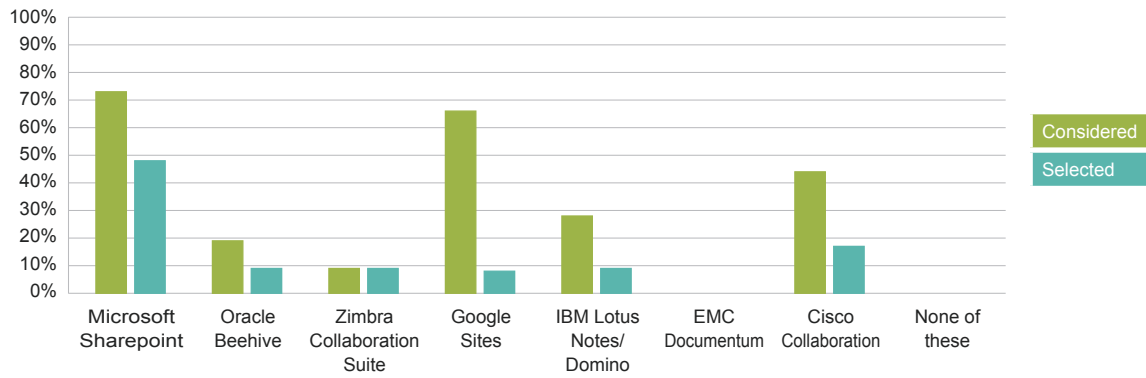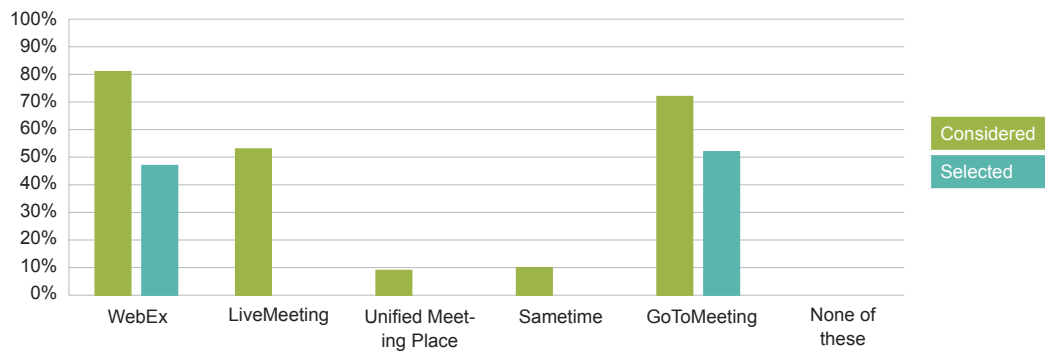
Figure 23 Collaboration Tools
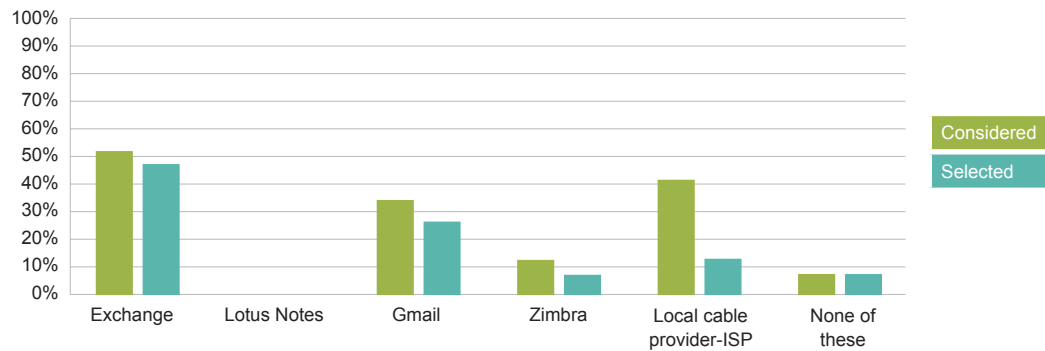

Figure 24 Web Conferencing

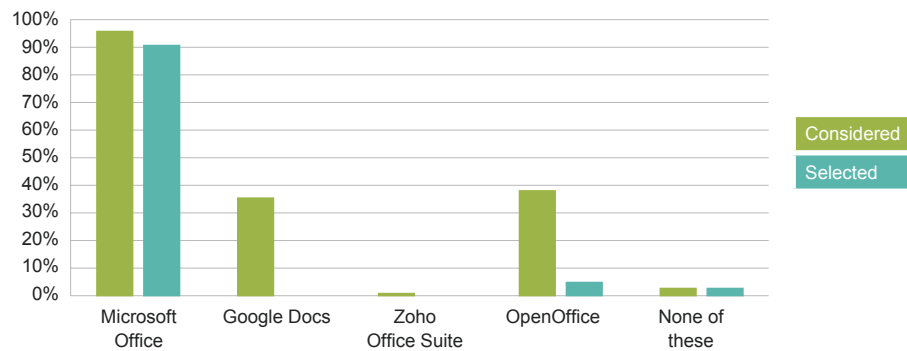**Figure 25** Email Software

Figure 26 Productivity Applications

Communications

Not surprisingly, the most common form of communication with vendors is by email or online, with three-quarters or more of respondents communicating with vendors this way, followed by telephone, and then face-to-face. Generally there seems to be more telephone and face-to-face communications in the larger companies.
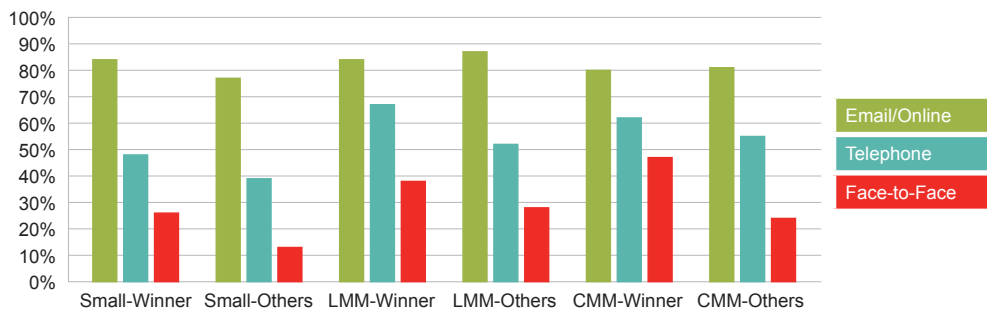

Figure 27 Vendor Communication by Company Size

More interesting are the gaps between the winners and losers, which are depicted in Figure 28.

There are a couple trends to note. First, across all company sizes, the winning vendors engaged in more telephone and face-to-face contact, with a whopping 22% gap in the face-to-face contact between winning and losing vendors in the core mid-market. Second, for small companies, winning vendors also engaged in more email/online communication than the losing vendors, suggesting that the winning vendors engaged in all forms of communication to a greater degree than losing vendors, with some losing vendors having not engaged directly with the customer in any form.

The results suggest that even in the realm of technology sales, where buyers are typically very savvy about online resources, there is still an important role for human communication. If you consider that a lot of the motivations for going with a particular vendor in the B2B space actually tie back to some pretty basic principles around trust and risk avoidance, this finding is not that surprising, and it shows how some tactical changes around the mode of communication can impact the chances of success.
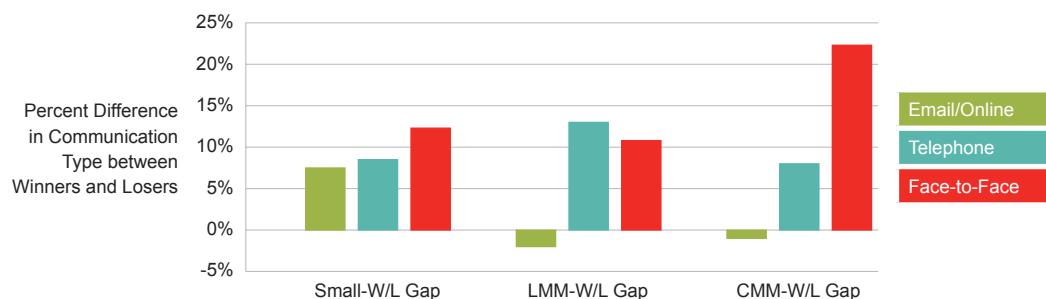

Figure 28 Gap in Communication Between Winning & Losing Vendors

Summary Implications

- There is a real appetite for cloud computing, with the bulk of the target market already using or at least open to using cloud-based hosted services.

- There is a lot of room for growth — with penetration low to moderate across the various technology categories tested.

- Vendors need to address the barriers to adopting cloud-based hosted services, which include: security, control over resources, ignorance, and concerns over performance. The barriers vary based on whether a company has experience with hosted services, as well as the sophistication of their IT environment.

- Administrative portals are a critical component of hosted offerings that need more attention. Customers want to be able to monitor applications, and the opportunity for vendors to use the portal as a vehicle to cross-sell services should be a huge motivation.

- Looking across the cloud-based solutions available today, it appears to be a two horse race, with Microsoft in the driver's seat, and Google struggling to make headway. While many have been waiting for Google to beef up the offline capabilities of GoogleApps — a key hurdle to adoption — the rollout of Microsoft's Office365 platform may mean Google has already missed a big window of opportunity.

- Vendors need to stop obsessing over the final decision-makers. Internal IT staff and business staff are also critical targets involved in the purchase process, as much or more than the final decision-makers, in all the steps leading up to that final decision.

- There appears to be ample time and opportunity to affect the decision process of companies, as more often than not their needs emerge organically over time, and the actual purchase process typically unfolds over weeks and months.

- Even in the high tech world of cloud-based services the human component matters, with telephone and face-to-face communications on the part of vendors leading to higher conversion rates for vendors in this space.

About the Author

Brian Cavoto, PhD, Managing Partner

Brian has over 20 years research experience. Prior to YouGov Definitive Insights he was Senior Partner at Momentum Market Intelligence, Head of custom research for Harte-Hanks Market Intelligence and Expert Consultant for SPSS.

Brian's BA is from University of Connecticut. His PhD was awarded at Tufts University where he studied cognitive psychology and published in multiple top-tier psychology journals.

Contact Us

Please contact us if you have any questions or interest in our research services:

Brian Cavoto
email: brian_cavoto@definitiveinsights.com
phone: 503-575-7630 ext. 803