
Private Cloud and IT Service Delivery

Exploring the broader organisational issues

Martha Bennett, Tony Lock and Dale Vile, Freeform Dynamics Ltd, June 2012

There's a lot of talk about budget pressures, and the need to do 'more for less'. But what's really going on 'at the coalface'? How are IT departments doing in their quest to deliver services more efficiently and effectively? And how does this impact the growing number of organisations interested in exploiting the potential of private cloud?

Key Points

IT funding is under stress, but it's not all about cutting budgets

When we recently asked 294 respondents in an online survey about what's happening with their IT budgets, responses ranged from funding being plentiful to barely having enough budget to cover core aspects of the operation. Over half are really feeling the squeeze, but only a third actually report a decrease in funding in real terms.

Morale, IT/business alignment and working styles are closely correlated with funding

Given the pressure on budgets, it comes as no surprise that morale is low in many IT departments. However, in organisations where pressure on funding is not as great, IT departments feel much more positive about things. The objectives of IT and the business also tend to be far better aligned in organisations where IT budgets are adequate. Where money is less tight, the working style between the business and IT is more likely to be based on collaboration and negotiation, and IT is also more likely to be regarded as an integral part of, or equal partner to, the business.

IT/business alignment, a focus on service delivery and shared infrastructure go together

Clearly defined services, coupled with formally specified and agreed service level agreements, are much more likely to be in place in organisations where the objectives of IT and the business are better aligned. Such organisations have also made greater progress in reporting on how the IT function is doing as well as in measuring user/stakeholder satisfaction. Justifying investment in shared infrastructure and tools also seems easier when IT/business alignment is better.

The 'good begets good' principle creates a virtuous circle in progressive organisations

Strong correlations between a clear services focus, comprehensive reporting and accountability, an emphasis on shared infrastructure investment, and overall alignment of IT and business activities are indicative of some of the things it takes to create an optimum environment for effective IT delivery. While it's obvious when you point this out, and easy to see how a virtuous circle can be created, the truth is that the correlations work the other way round too. Many respondents are clearly caught in a vicious circle, or at least a rut of mediocrity, in which IT and the business are disjointed, and good practices are a challenge to implement in a sustainable manner.

Private cloud adoption is more likely where a virtuous circle exists

Adoption of private cloud architecture tends to go hand in hand with the virtuous circle phenomenon. Increased funding availability is likely to be a factor here, but so too is an enhanced understanding of value. The benefits of modern, shared, flexible infrastructure that enhances service delivery are likely to be better appreciated, and indeed have a greater impact, in a more joined up and service-centric IT-business environment.

The study upon which this report is based was independently designed, interpreted and reported by Freeform Dynamics. Feedback was gathered via an online survey hosted on The Register IT news site and attracted 294 respondents (mainly IT professionals). The study was sponsored by Microsoft.

The Microsoft logo, consisting of the word 'Microsoft' in a bold, black, sans-serif font with a registered trademark symbol.

Introduction and study overview

'Budgets under pressure', 'do more with less', 'cost cutting is top of the agenda'! Many IT vendors use such phrases as part of the preamble when positioning their latest solutions, in particular if these solutions promise lower operational costs. Another set of favourite headlines argues that business departments and end users are 'doing their own thing', or 'taking the law into their own hands'.

But what's really going on? Are budgets on the way up or down? And how's the relationship between the business and IT really faring? The answers to these questions provide important context for the adoption of newer and emerging technologies - such as virtualisation, dynamic systems management and ultimately private cloud - that aim to help reduce cost and enhance service levels and response times through more efficient and effective use of resources.

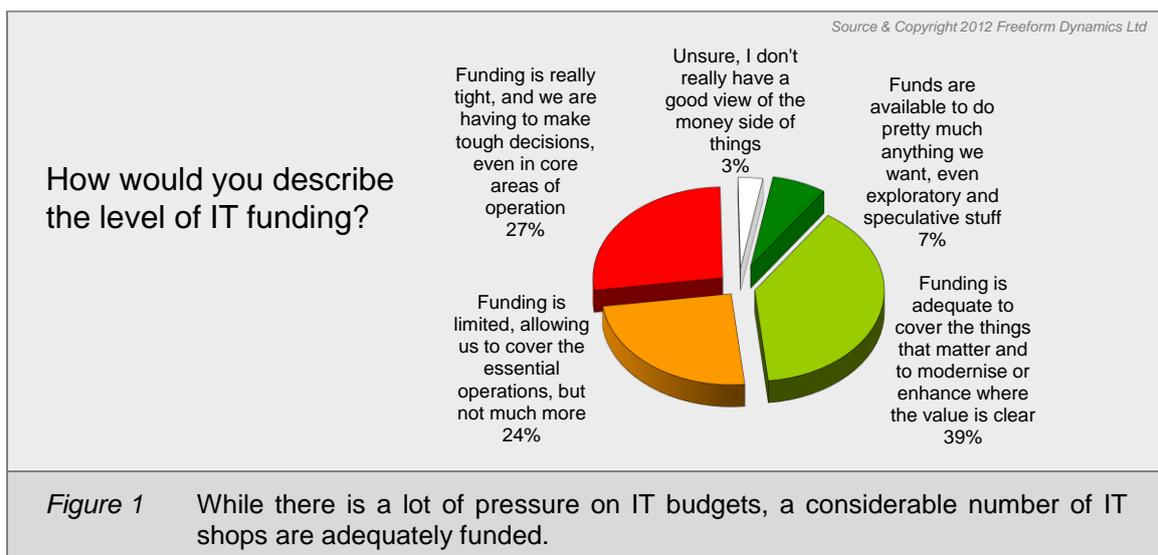
In order to gain a better understanding of these matters, in April 2012, we surveyed 294 online respondents, mainly IT professionals (see Appendix A for more details). In addition to requesting responses to very specific questions about how well the IT department is running, levels of funding and the use of new technologies, we also gave respondents the opportunity to tell us in plain text what's going on in their world.

As with all online studies, the self-selection principle means that the results are likely to be somewhat skewed. In this case, given the way the online survey was promoted ("Tell us how things are in your IT department") we are likely to have attracted respondents towards either end of the performance spectrum, i.e. those working in a more positive environment keen to tell us how great things are, and those under pressure at the other extreme taking the opportunity to let off a bit of steam. While this works to our advantage when comparing and contrasting how behaviour and results are impacted by the nature of the environment, it does mean that numbers presented in this report should not be taken as absolute indicators of activity/performance in the universe as a whole.

With that caveat, let's take a look at what we are able to learn from the study.

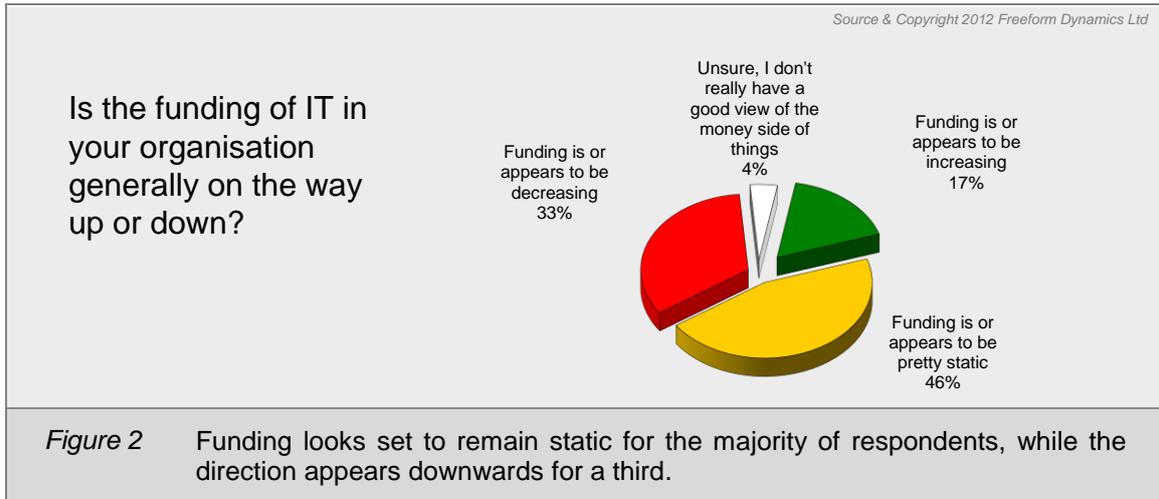
Budget, morale and IT/business alignment

Let's start with the 'glass half empty' view. When asked about IT spending, just over half of our survey respondents report that funding is under stress. Looking at it from a 'glass half full' perspective, IT budgets are adequate – in some cases even plentiful – for just under half (Figure 1).



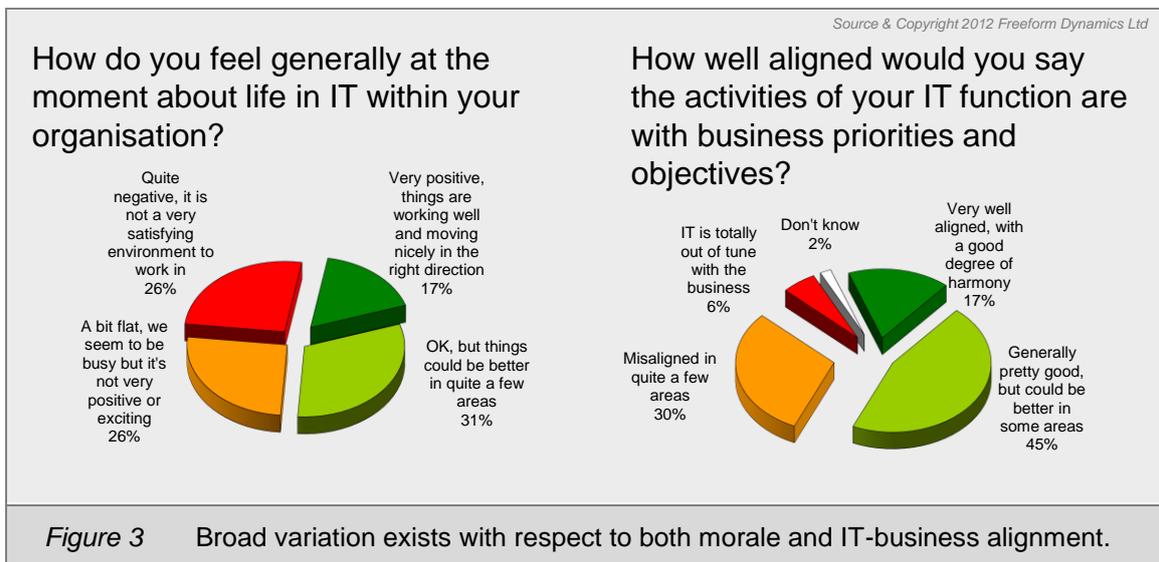
When asked whether IT budgets are on the way up, down or staying flat, one in three respondents feel that the trend is downward. Funding appears to be under most pressure in the largest enterprises (> 5000 employees), where nearly half are seeing negative growth. On the more

positive side, around one in six of our respondents state that funding appears to be on the increase (Figure 2).



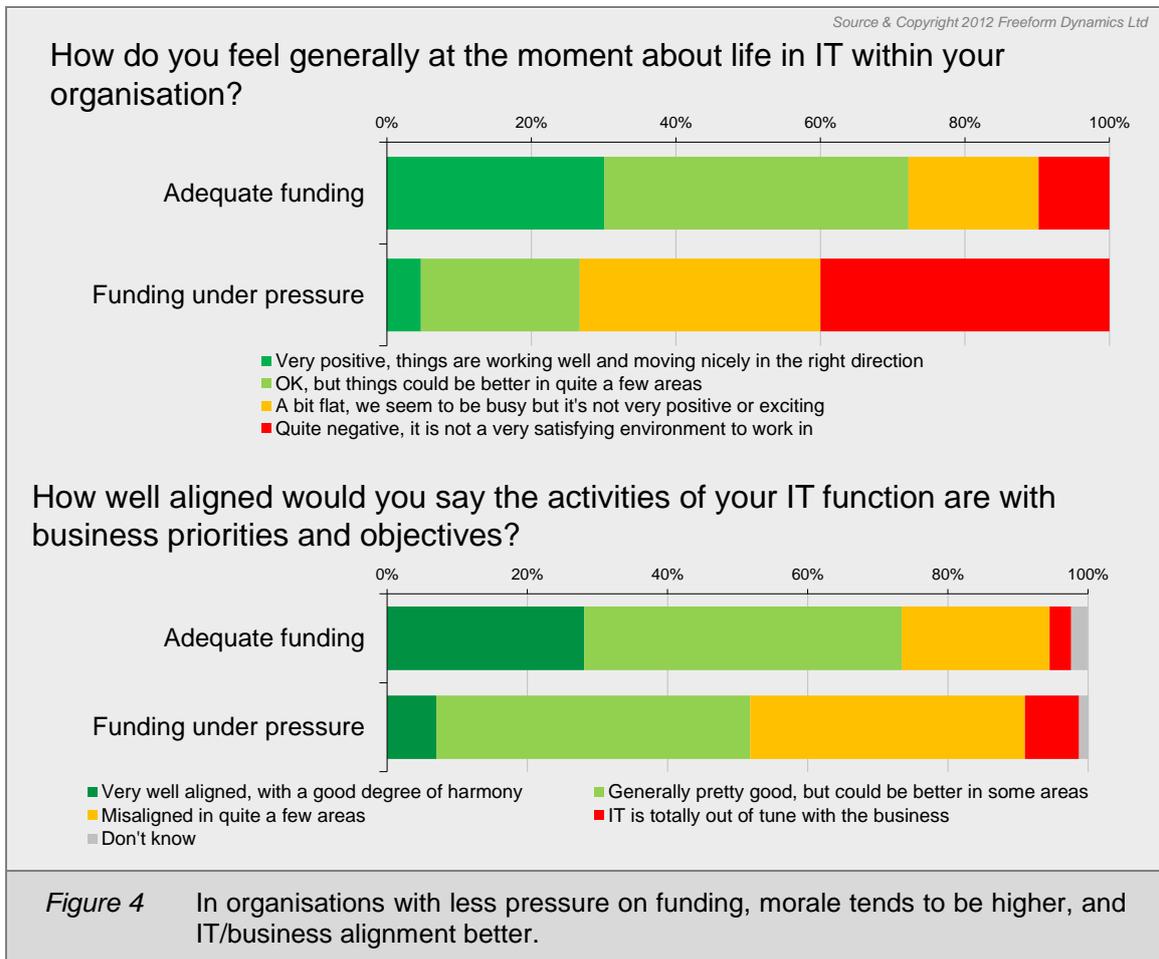
These results underline the risks of generalising too much when it comes to making statements about what's going on from a funding and budgeting perspective, which is something that vendors and pundits are inclined to do. Over-generalisation sometimes creates a disconnect between the assumed priorities weaved into marketing messages and the actual priorities that exist in any given organisation. If a vendor puts the emphasis on cost savings when promoting a new offering, when cost is only a secondary consideration for you in that context, you may miss potential benefits in other areas such as service delivery enhancement. And, of course, the same applies the other way around – promises in other areas mean little if all that matters to you is driving down costs.

Coming back to our survey, we also asked respondents how they feel about life in IT within their organisation, and how well aligned activities are with the overall business priorities and objectives. In light of what's happening with IT budgets, it comes as no surprise that we see a variation in terms of morale and alignment too (Figure 3).

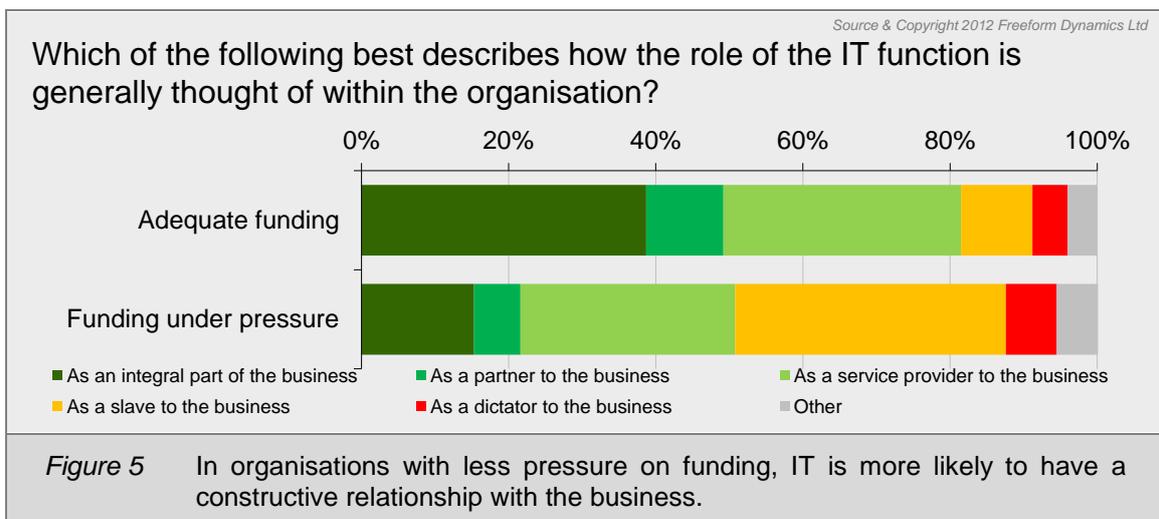


This highlights another set of disconnects (and possibly missed opportunity) that occurs when vendors assume that all IT professionals are leading a miserable high pressure existence, and that IT delivery is fundamentally broken in all organisations. While either or both of these might be true, in many cases (if not most) they are not.

Pulling these individual observations together, it is significant that funding, sentiment, and IT/business alignment are closely correlated. In organisations with less funding pressure, morale tends to be higher, and the priorities of the business and IT are better aligned (Figure 4; see Appendix B for details on how we arrived at the categories).



Furthermore, in organisations where funding is adequate or plentiful, IT is more likely to be regarded as an integral part of the business rather than its slave or dictator (Figure 5), and the relationship is more likely to be peer-to-peer and interactive in nature (Figure 6).



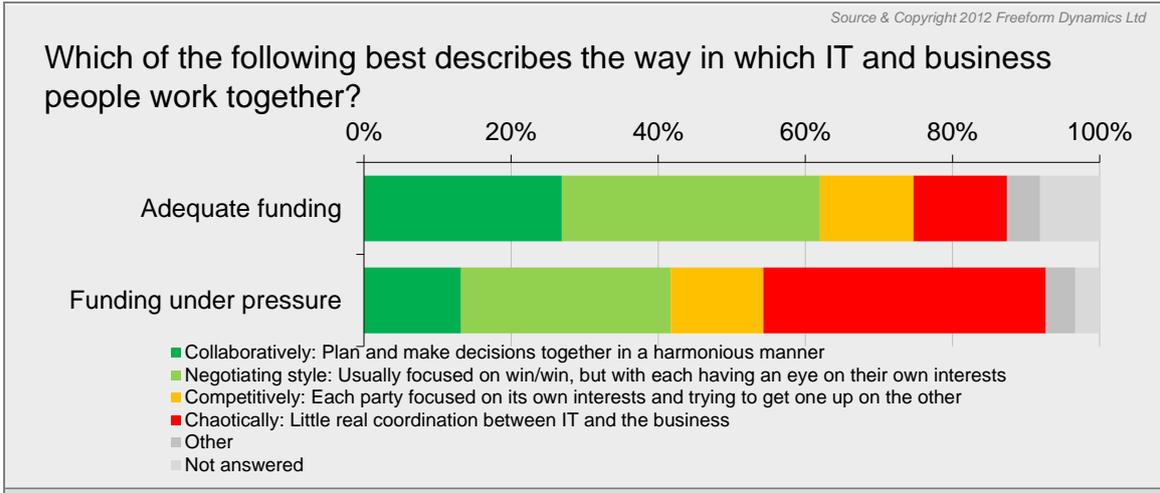


Figure 6 Funds are more likely to be flowing freely when the relationship between IT and the business is based on mutual respect and objective communication.

Whether you describe the correlations we are seeing as a virtuous circle, or talk about ‘good begets good’, the kind of patterns we see here come up time and again in our research. While specific ‘cause and effect’ mechanics are sometimes hard to pin down specifically (at least through research studies), it doesn’t take much to work out what’s going on. IT shops that have a constructive working relationship with the business, a clear understanding of what’s expected of them, and have the necessary level of communication in place to assess how well they are delivering against those expectations are more likely to be trusted and respected. This makes stakeholders more comfortable with making budget available, which in turn further enhances IT’s ability to deliver – and so the virtuous circle keeps turning.

This is all well and good, but what can you do to improve things if they are not working as well in your environment. We can get a few pointers here by looking at how those declaring good IT-business alignment differ from others.

Some important specific enablers

Drilling into the question of what IT is expected to deliver and how well it is meeting expectations, it is clear that those with a good level of IT-business alignment (see Appendix B for the methodology used to categorise respondents) place a greater emphasis on a service centric approach (Figure 7).

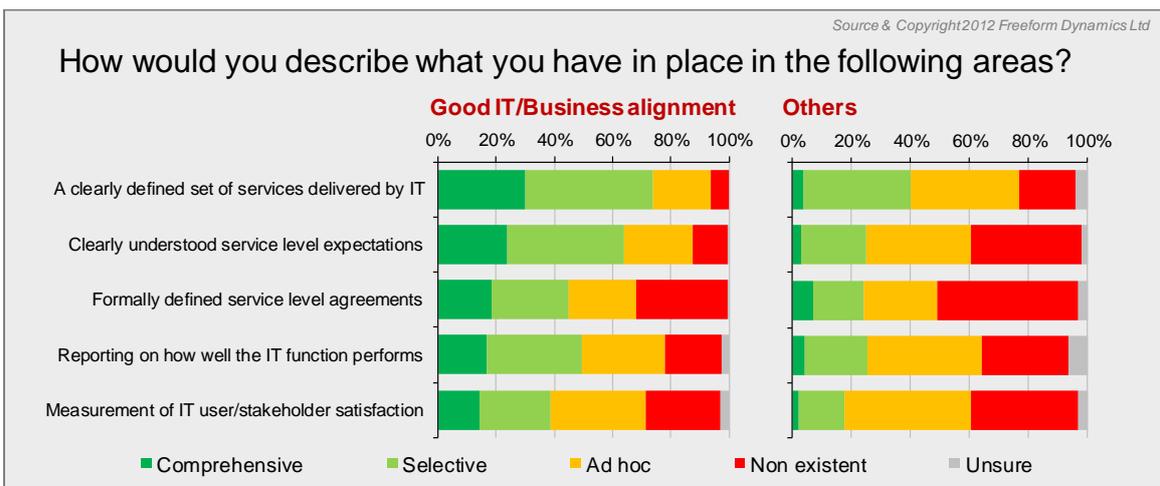


Figure 7 Organisations with good IT/business alignment are more likely to take a service-focused approach to IT delivery, and report on IT performance.

The survey also highlights that IT professionals who find themselves in an environment of better IT/business alignment are more likely to have considerable shared infrastructure (servers, storage, networking etc, controlled by IT and used as a corporate wide asset) in place. More importantly, they're finding it easier to obtain funding for this type of investment despite it being an area which is typically not uppermost in the minds of business people (Figure 8).

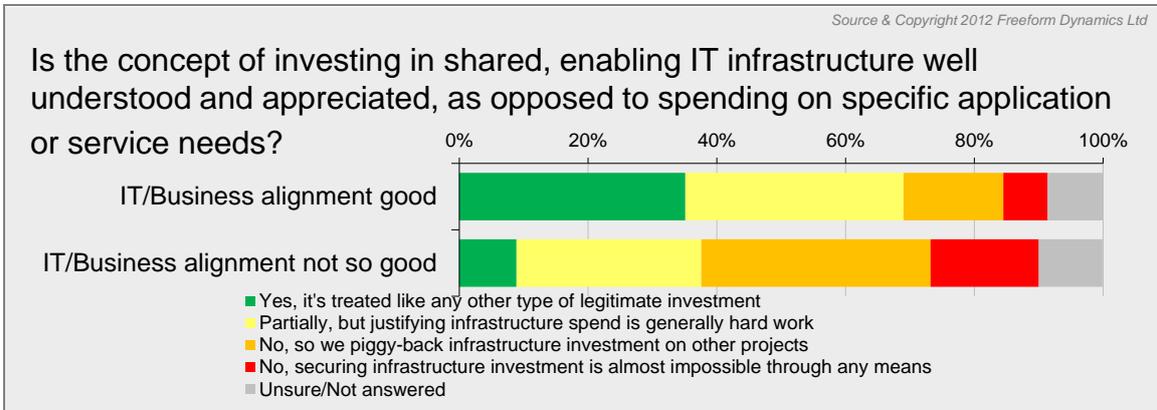


Figure 8 Organisations with good IT/business alignment are finding it easier to make the case for investment in shared infrastructure.

Appreciation of the importance of shared infrastructure is indicative of a more mature view of IT within the business. Where IT infrastructure is considered to be a strategic corporate asset and an important enabling foundation for the business as a whole, it is more likely to break free of the traditional narrow project-by-project investment approach which is the cause of so much fragmentation and inefficiency. The IT department is able to evolve the infrastructure in a coherent and future proof manner, which makes everything more flexible, robust and efficient.

And with regard to robustness and efficiency, and indeed the assurance of service levels in general (e.g. systems performance and availability) it is also notable that well-aligned organisations are more likely to recognise the importance of investing in monitoring and management tools (Figure 9).

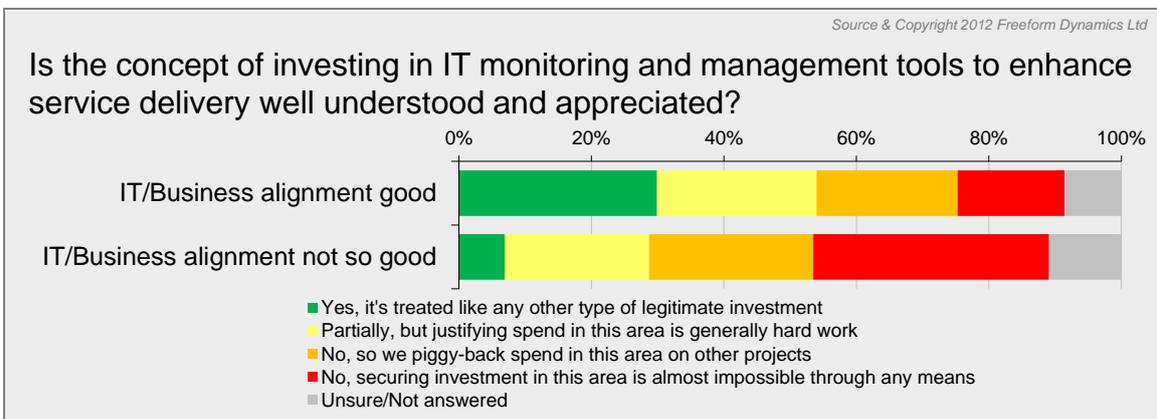


Figure 9 Making the case for investment in monitoring and management tools is easier in organisations with good IT/business alignment.

As management tools become better able to handle shared infrastructure, this also opens up the opportunity to manage corporate IT resources more dynamically, which brings us back to the topic of emerging ideas such as private cloud.

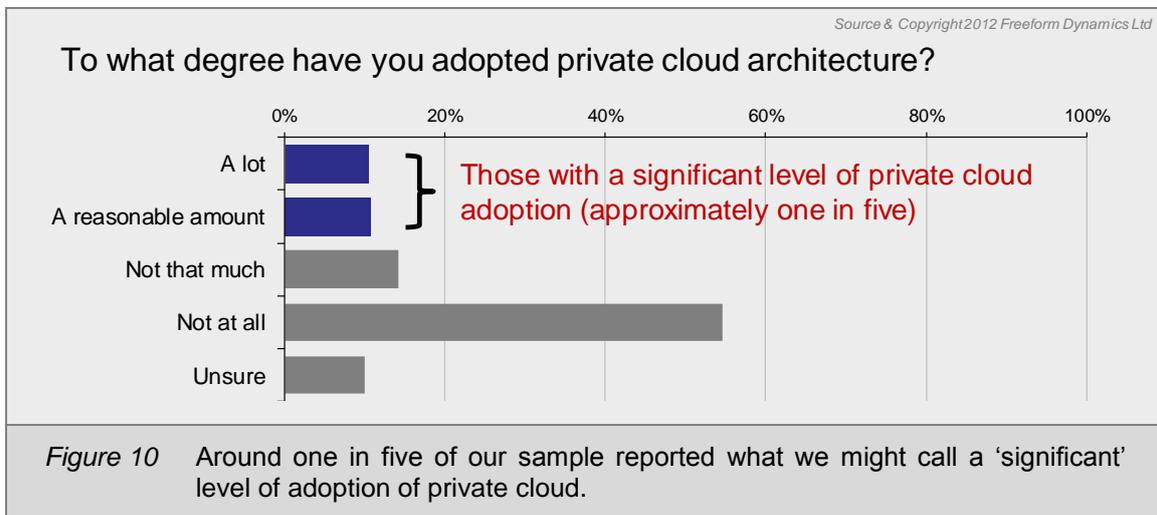
Private cloud and the virtuous circle

The natural evolution of shared infrastructure and enhanced management is what many in the industry are referring to as 'private cloud', which was defined in our study as follows:

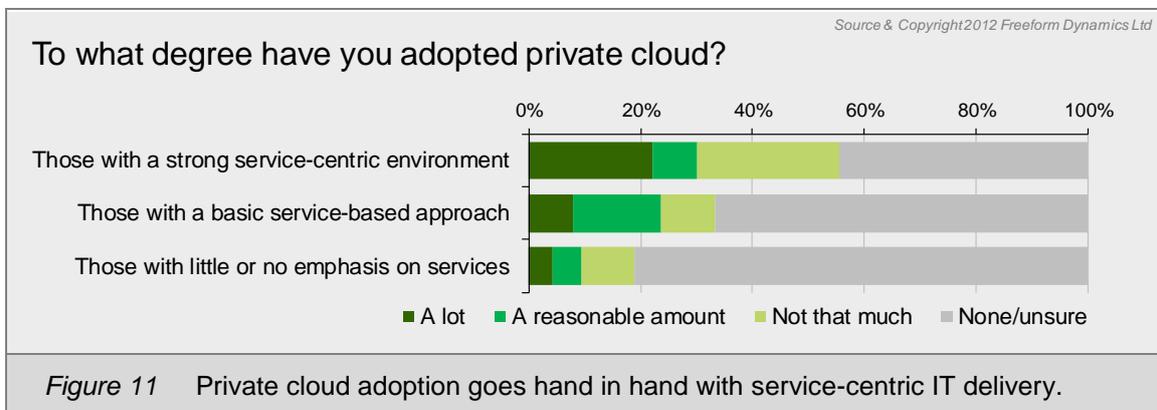
Private cloud is based on the idea of pooling servers, storage and networking to create a shared general-purpose platform upon which a variety of workload types may be run simultaneously. Rapid allocation/de-allocation of resources to/from workloads in a private cloud environment enables a more dynamic management approach.

In a previous study^[1], it was clear from the 570 respondents taking part that IT professionals are increasingly seeing the relevance of private cloud as a potential enabler of efficiency, flexibility, responsiveness and general service level enhancement. However, we would expect unlocking the full potential to be dependent, at least in part, on the environment in which private cloud technology and techniques are deployed.

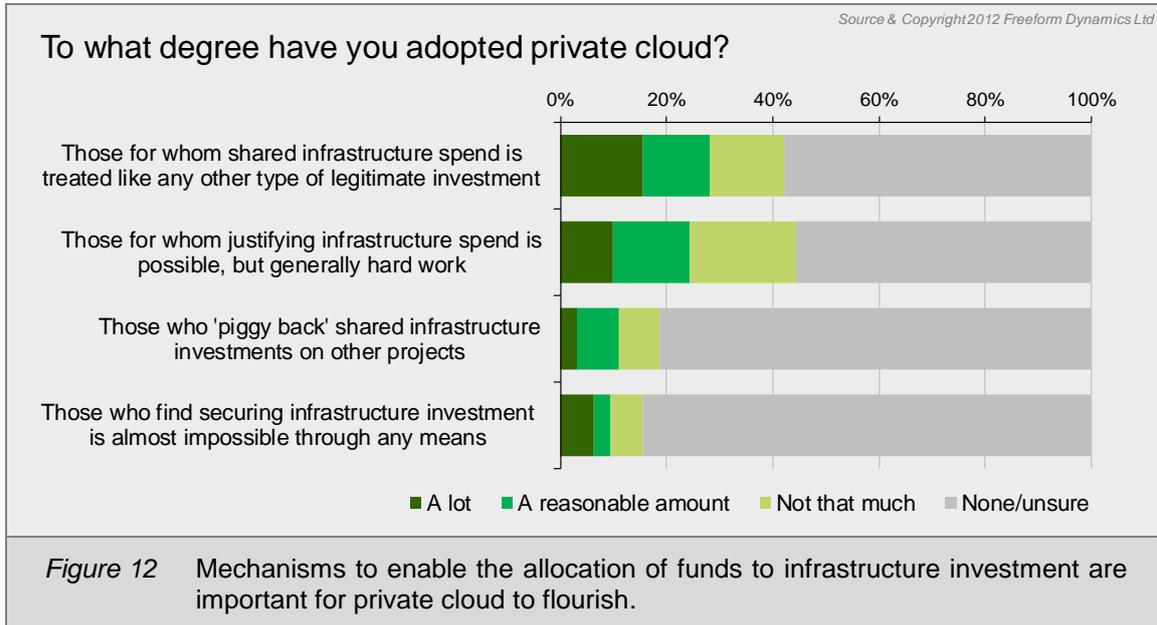
In order to investigate this during our current study, we captured the degree to which private cloud has been adopted, and overall, found that one in five report significant levels of activity (Figure 10).



We then looked at the kind of organisations that were most active in the private cloud arena to form a view of whether the broader IT environment had a bearing on propensity to adopt. As part of this, one hypothesis we tested was the notion that those with more of a service-centric approach to IT delivery would be more inclined to see the relevance of private cloud, be in a better position to exploit it, and therefore be more likely to take it on board. Grouping respondents based on the data previously seen in Figure 7 (see Appendix B for working), we did indeed find a strong correlation between service centricity and private cloud activity, which supports our first hypothesis (Figure 11).



The second hypothesis we tested was that mechanisms to support shared infrastructure investment from a funding perspective would be important in a private cloud context, and again the data supported this notion (Figure 12).



As we explored the data, we found similar correlations between private cloud adoption and other indicators of the virtuous circle, and while we don't have space to present all of the evidence here, the relationship between private cloud and the broader IT environment is pretty clear.

So what? Well, based on these findings and the results of other research^[1], including extensive anecdotal feedback, we can distil out some guidance that will be useful for those investing in or exploring the private cloud option.

Closing advice for private cloud adopters

The technologies and techniques around advanced workload management that form the foundation of private cloud architecture can be adopted unilaterally within IT on a tactical basis to ease some of the IT operational burden.

However, if you are implementing private cloud at the moment, or considering doing so, it is important to address some of the higher level environmental factors we have been discussing, or at least make sure that you already have them covered. Shared, dynamic and flexible infrastructure will deliver the most benefit in an environment where:

- IT and the business have a peer-to-peer rather than a master-servant relationship
- Objectives are aligned through frequent two-way communication between IT and business stakeholders, preferably within some kind of structured governance framework or process to facilitate effective assessment, prioritisation and decision making.
- Services to be delivered to IT are clearly defined, e.g. in a service catalogue. The form this takes is secondary to actually doing it.
- Service level requirements in relation to performance, availability, recovery, security and so on are properly understood, documented and agreed.
- Budgeting and accounting mechanisms recognise the concept of shared infrastructure as a corporate asset rather than trying to lock everything to cost centres within the business.

To net this out, we're saying that private cloud will only flourish and deliver its full potential in a well-run IT environment.

The most fundamental piece of specific advice in this context if you are not working in an ideal environment is to encourage the adoption of a 'service centric' mind-set around IT related matters. The idea of this is to switch the dialogue between IT and the business to revolve around services to be delivered rather than systems to be implemented, maintained and supported. Only then can you get away from the traditional view of a 'system' being a 'stack of stuff' (application, platform software and hardware) that is procured, managed and accounted for as a discrete entity, which flies in the face of the shared infrastructure concept that is fundamental to private cloud.

Once you start thinking in terms of services, most of the other things we have highlighted as part of the virtuous circle become much more natural.

Are we saying this is easy to pull off? Well, no. If you have challenges with trust between IT and business stakeholders, for example, and are constrained by the funding issues that are often associated with this that stifle investment in shared infrastructure, then you clearly can't march into executive offices and demand things are done differently. Our advice in such situations would be to focus on the basics for a while^[2] – e.g. make sure the email system and other core applications are stable and perform well. Once trust is rekindled, the communication can be enhanced, and the conversations focused on services as we have outlined.

None of this means you can't get your feet wet with private cloud sooner rather than later. The main point is not to take the promises of flexibility, responsiveness, efficiency and so on as an indication that private cloud is some kind of 'silver bullet' to vanquish all of your problems. It can certainly help, but for it to really flourish and deliver maximum benefit, you need to create the right environment.

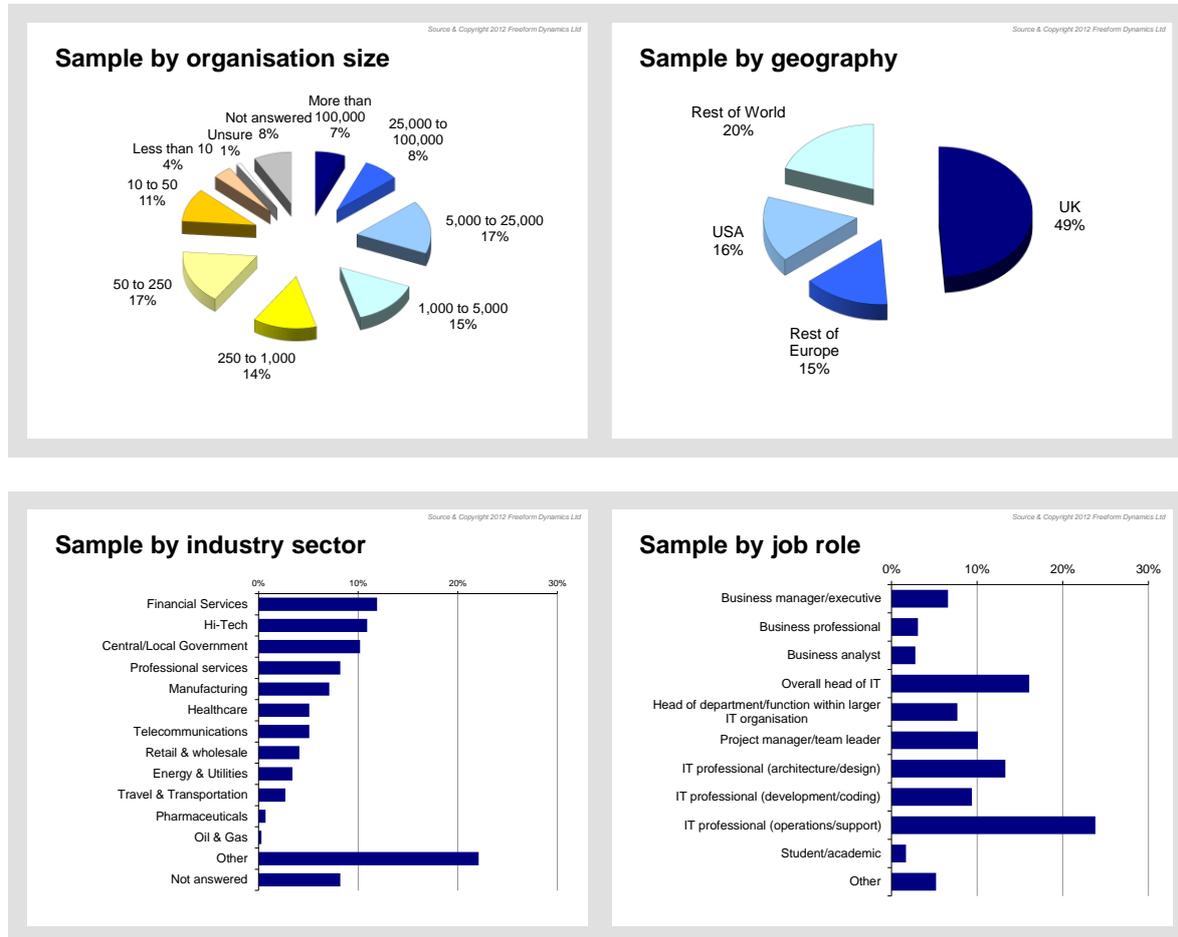
References and further reading

1. **Private Cloud in Context: What's it for and where does it fit?**
<http://www.freeformdynamics.com/fullarticle.asp?aid=1526>
2. **The Technology Garden: Cultivating Sustainable IT Business Alignment**
Available from Amazon and other online book sellers (ISBN: 978-0-470-72406-4)

Appendix A: Study Sample

Feedback was gathered via an online questionnaire published on The Register news and information site (www.theregister.com). The respondents, totalling 294, were mainly IT professionals representing a good cross section of job functions and working in a range of different industry sectors.

The sample distribution was as follows:



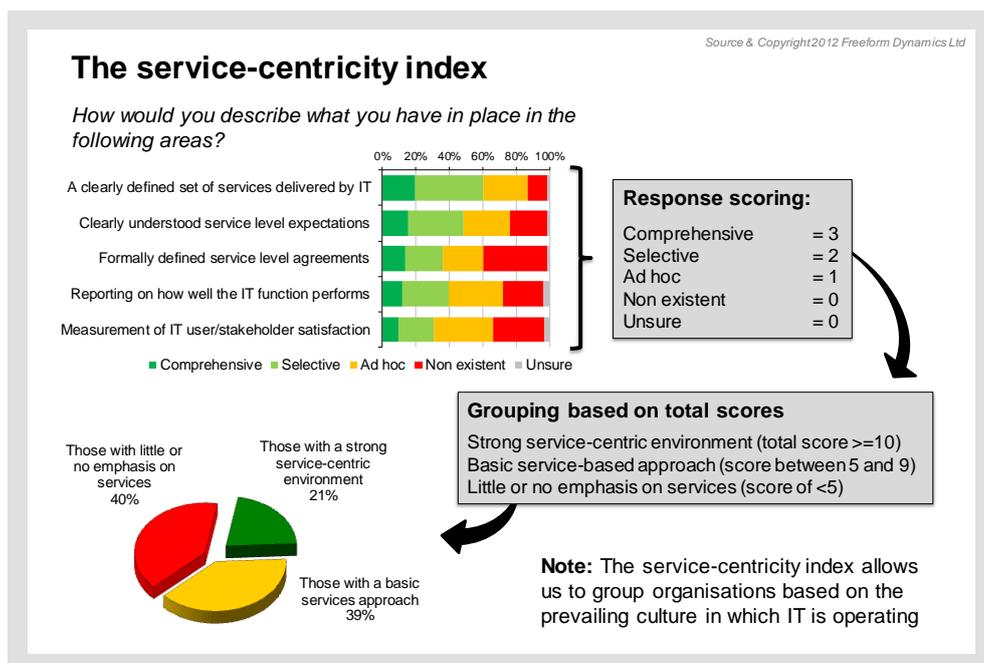
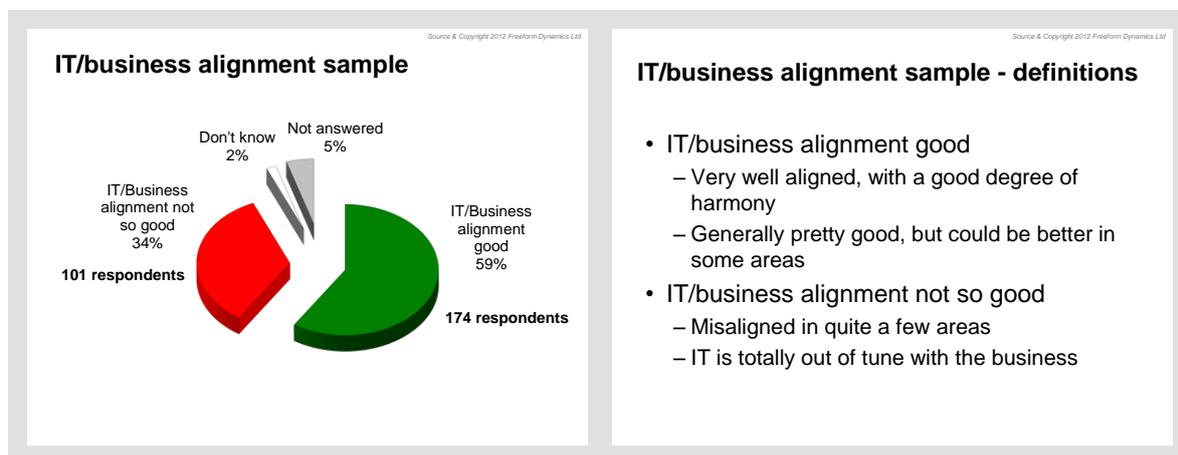
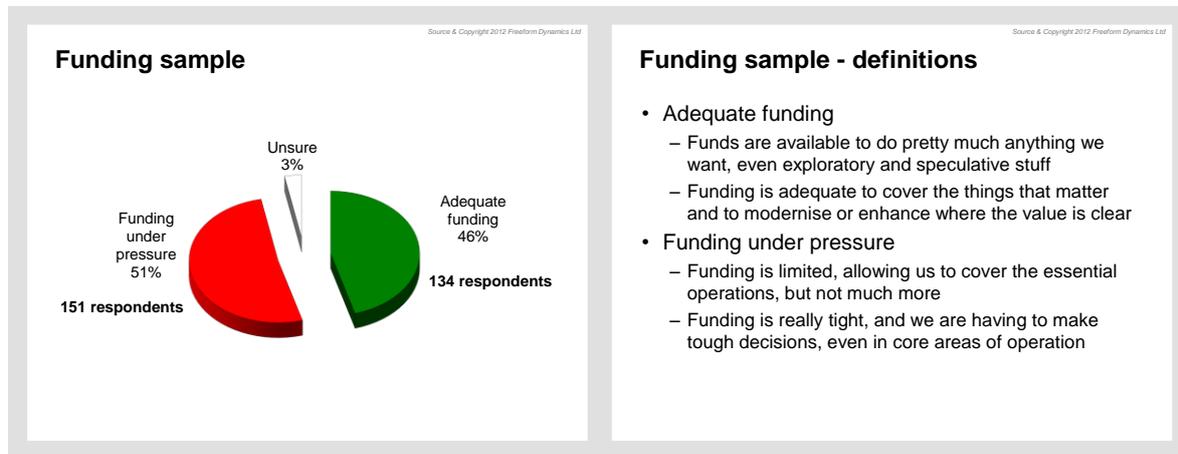
A note on methodology

Information was captured from respondents via a web based questionnaire hosted on The Register science and technology news site (www.theregister.co.uk). As with all online studies, the self-selection principle means that the results are likely to be somewhat skewed. In this case, given the way the online survey was promoted ("Tell us how things are in your IT department") we are likely to have attracted respondents towards either end of the performance spectrum, i.e. those working in a more positive environment keen to tell us how great things are, and those under pressure at the other extreme taking the opportunity to let off a bit of steam. While this works to our advantage when comparing and contrasting how behaviour and results are impacted by the nature of the environment, it does mean that the numbers presented in this report should not be taken as absolute indicators of activity/performance in the universe as a whole.

The study was completed in April 2012, and we would like to take this opportunity to thank all of those who took the time to participate. Your help is very much appreciated.

Appendix B: Sample Categorisation

The following charts contain further background information on the composition of the samples used for analysis and referenced in the report. Further details on definition are also provided.



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