
Disaster Recovery in European SMBs

Insights for vendors and the channel

Tony Lock, Martha Bennett and Dale Vile, October 2011

'Disaster recovery' is a term widely marketed by IT vendors but research carried out amongst small and mid-sized businesses in the United Kingdom, Germany and France indicates that most SMBs are not comfortable with either the language or concepts utilised by suppliers. The majority of SMBs recognise that their ability to recover from disaster or to retrieve information when required is nowhere near as comprehensive as it should be, yet investment is not being prioritised to address existing solution and process weaknesses. In this report, we look at how this translates to an opportunity for IT vendors and players within the IT channel.

Key Points

The term 'disaster recovery' is not widely used in small and mid-size organisations

When we asked 160 small and mid-sized businesses (SMBs) about their views on 'disaster recovery' (DR) we found that unlike in the enterprise arena, the term is not at all widely used. Suppliers selling into this space must therefore be very careful about the language they use.

Few SMBs have formal 'disaster recovery' plans, but they do manage risk proactively

SMBs don't tend to formalise policy and process in the same way as large enterprises, but they do generally take steps to protect themselves and recover in case of a major incident. Suppliers can therefore assume risk awareness, but customers will often need help in crystallising requirements.

SMBs only use a small selection of available DR solutions

Traditional file-based backup and recovery dominates DR in SMBs, with relatively little knowledge of what's available beyond this, and a common assumption that more advanced data protection solutions are not suitable for a smaller environment. An opportunity therefore exists for suppliers who are willing to educate SMBs on modern DR techniques and technology.

A potential DR-related role exists for virtualisation and hosted services

x86 server virtualisation and 'cloud' play only a limited role in SMB IT today, but there are signs that this is set to change over time. As there is potential for both to enhance an organisation's DR capability, suppliers who can offer broader integration/managed services that embrace these disciplines, are likely to do well.

SMBs recognise that their data protection and DR capabilities could be better

Clear gaps in capability exist, but investment commitment to improve systems is not readily available in most organisations. Help is therefore often needed to understand the options and put together business cases. Traditional suppliers of backup and recovery solutions - along with suppliers of specialist DR solutions - are likely to be the primary sources for new DR and data protection systems.

NB: This report is aimed at IT vendors and players within the IT channel, and is one of a pair. A companion document exists entitled "Enabling Rapid and Effective IT Recovery, DR insights and tips for small and mid-sized businesses". This is based on the same study, and is aimed at providing advice to end user organisations. Both documents are available from www.freeformdynamics.com.

This report is based on a research study designed, conducted and interpreted by Freeform Dynamics Ltd. 160 respondents from small and medium businesses across the United Kingdom, France and Germany were interviewed. The research was sponsored by Quest Software and completed during the first quarter of 2011.



Introduction

Nearly every organisation recognises, formally or informally, that it should be prepared to become operational again if a major interruption occurs inside the business or if its activities are interrupted by significant external events. The processes and systems to make this happen are commonly referred to as 'Disaster Recovery'.

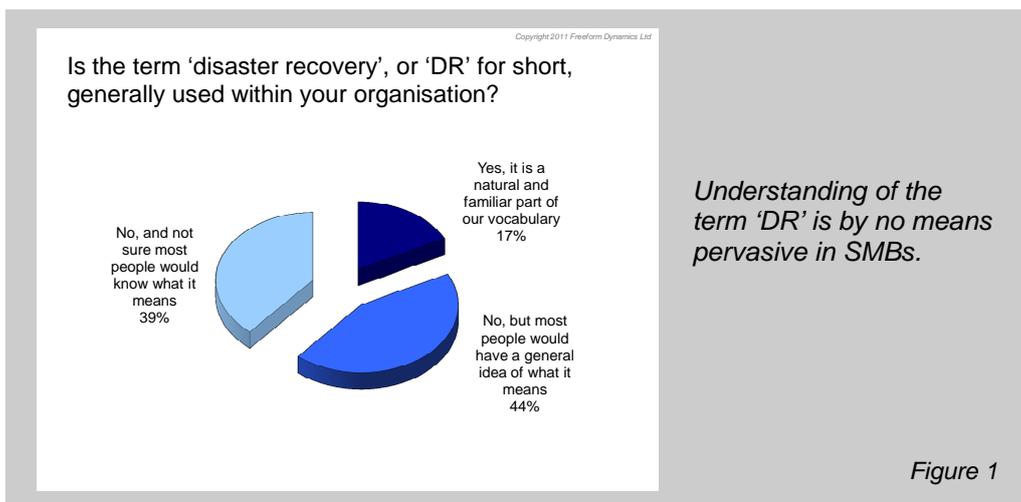
This report looks at the attitudes of small and mid-sized organisations (with 50 to 250, and 250 to 1000 employees respectively), to disaster recovery (DR), and the role that various IT solutions play. The input was gathered via telephone interviews with 160 small and mid-sized businesses (SMBs) across the United Kingdom, France and Germany (see Appendix A for more details).

Our treatment in this document is aimed primarily at distributors, resellers, integrators and others working in the IT channel, and as we walk through the research findings, we highlight tips and takeaways for those in the channel looking to drive or optimise their DR related business.

With this in mind, one of the most important considerations is communication, as unless suppliers are talking in a language that prospects and customers can understand, no one benefits on either the buyer or seller side of the equation.

SMB awareness of 'Disaster Recovery'

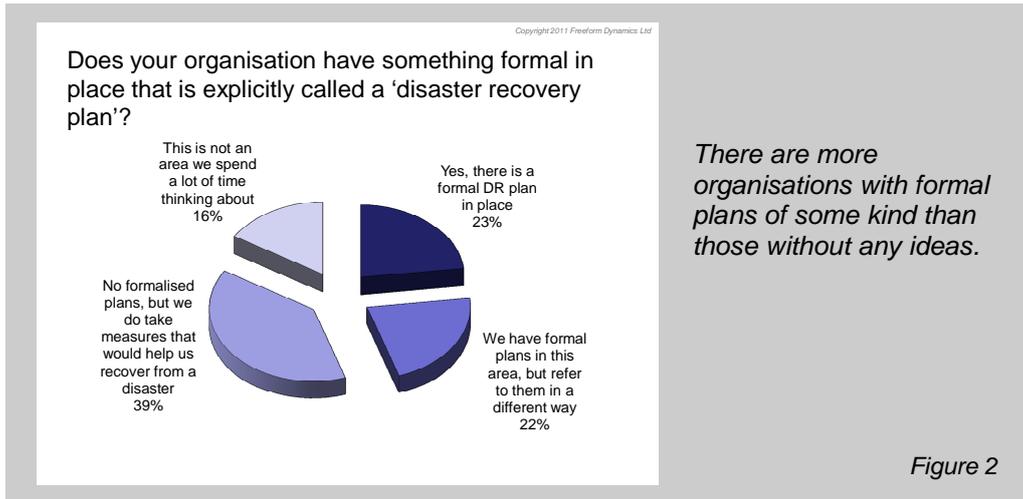
The term 'Disaster Recovery' or 'DR' is used liberally by IT vendors, service providers and specialists in the area, but our research highlights that there is comparatively little recognition of the term in the SMB sector (Figure 1).



As we can see from this chart, the term DR is not a natural part of the vocabulary of smaller businesses, so many would not appreciate the relevance of propositions that major heavily on DR as a core theme.

Channel Tip: Much of the messaging, marketing literature and other promotional material designed originally to resonate with specialists working in a more formal large enterprise DR context will not be effective when selling to small and mid-sized organisations. Jargon light presentations and collateral, with a heavy emphasis on risk scenarios and peer examples, will be better understood and appreciated by IT generalists working in a smaller business environment.

While the language and terminology wrapped around DR aren't universally accepted, it is clear that most SMBs have some plans, or at least ideas, of how they would need to respond in the event of a disaster. Indeed, only one in six tell us that this is not an area they spend a lot of time thinking about (Figure 2).

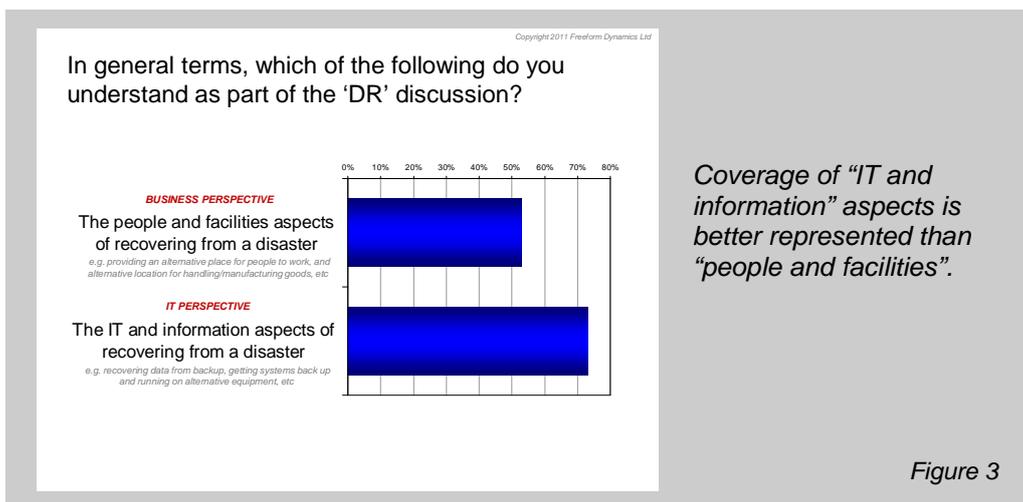


Many of the approaches clearly aren't recorded in formal plans – or even referred to in terms of DR - but most SMBs feel they are addressing the general need, at least to some degree.

Channel Tip: With few formal plans in place, or DR being just part of the broader planning process, the chances are that stand-alone DR investments and initiatives will be relatively rare. It will therefore typically be necessary to help the prospect crystallise the need before funding can be allocated, or to stretch the scope of other investments to include DR related solutions. The latter approach, which essentially translates to cross-selling and up-selling, is often going to be easier.

The state of disaster recovery in SMBs today

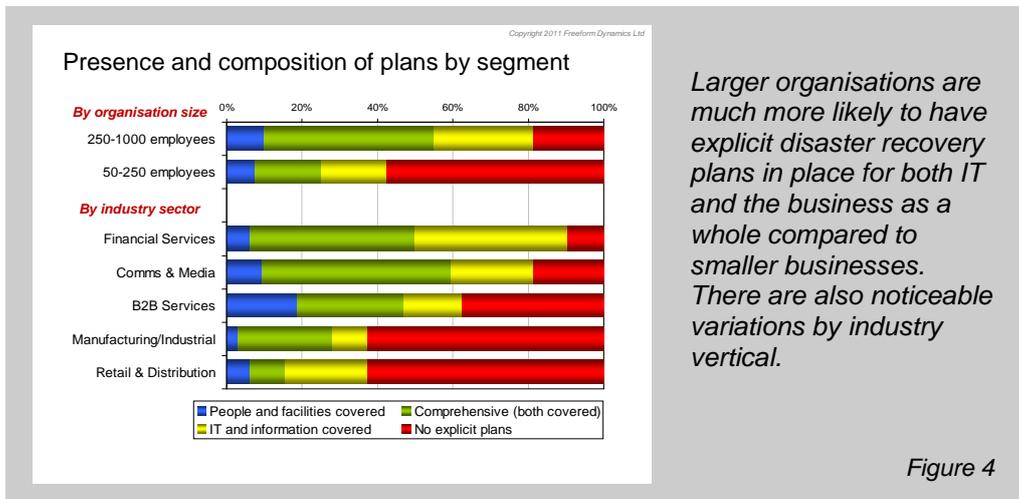
In terms of what SMBs understand to be included as part of the DR discussion, just over half of those surveyed stated that this would include the people and facilities aspects of recovering from a disaster, such as providing an alternative place for people to work or an alternative location for handling or manufacturing goods etc. A considerably larger proportion focussed on the IT aspects of DR (Figure 3).



As our interviewees were predominantly from IT, the emphasis on IT DR is natural, but it's important to bear in mind that DR may be interpreted differently by business decision makers.

Channel Tip: It's always necessary to clarify the scope of risk being considered, especially when engaging business stakeholders with a view broader than IT.

When it comes to looking at plans for DR, larger organisations with 250-1000 employees are almost twice as likely to have explicit plans in place compared to smaller ones at the 50-250 employee level. However, we also see a significant variation by industry, with organisations more dependent on facilities or plants less likely to have disaster recovery plans in place (Figure 4).



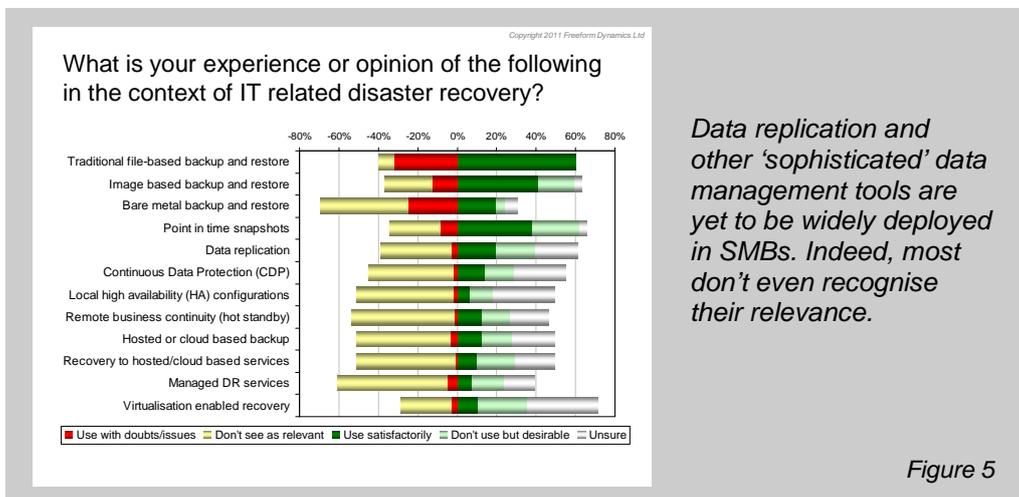
It is likely that many organisations without formal plans in place for recovering from disaster are applying “common sense” based tactics. Adopting any approach to DR is preferable to none, and having pragmatic measures in mind for recovering systems and processes can be effective. It should, however, be noted that having no formal processes in place can leave gaps where a lack of testing, planning or awareness could potentially expose the organisation.

Channel Tip: While it is tempting to focus only on those industries that explicitly plan, the truth is that most organisations nowadays rely heavily on IT systems and information to operate. A consultative selling approach will help to unlock incremental opportunity where the need is more latent than explicit.

High level view of current activity and perception

When it comes to the recovery of IT systems after major failures, data protection plays a pivotal role. In this report we talk about ‘data protection’ in terms of the copying and safe storage of data in order that such ‘copies’ can be made available to restore systems in the event of data corruption, system outage or a more widespread disaster, such as fire or flood etc.

While many solutions are available to help with this, the emphasis is currently on a relatively small subset when we look at activity within the SMB space (Figure 5).



Some approaches to data protection, such as the archetypal backup to tape, have been around for decades while others, including point in time copies, virtualisation and Continuous Data Protection (CDP), are much more recent developments.

With such a history of usage, it is unsurprising to see that the majority of SMBs employ traditional file based backup (nowadays to disk as well as tape) in the protection of systems, although some are using the approach with doubts or issues (i.e. telling us that it may not be capable of providing sufficient ongoing protection and/or recovery flexibility).

It is clear that more recently developed IT solutions for enhancing data protection do not enjoy widespread usage in smaller organisations. Not only are newer, perhaps more sophisticated, solutions nowhere near as widely deployed as tape or disk based backup and recovery systems, but many SMBs don't regard them as relevant.

Channel Tip: A potential attention-grabbing point arises from the research that may be useful when opening conversations with SMB prospects. A significant number of their peers have already recognised that traditional file based backup is not always adequate for addressing their needs in a modern information intensive and IT-dependent operational environment. However, when developing such conversations, it will often be necessary to educate prospects on not just the nature, but also the relevance of more advanced DR solutions.

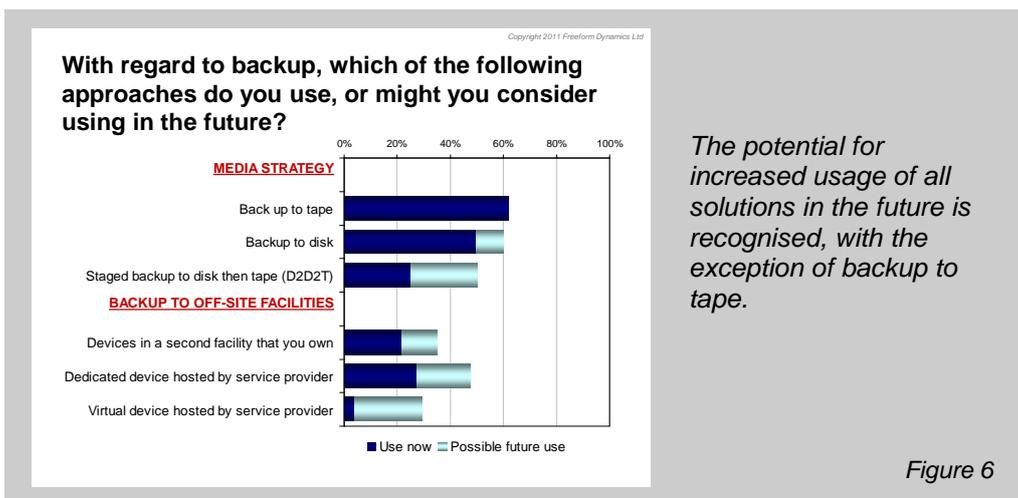
Beyond the high level picture we have been looking at, it is worth drilling into two areas of opportunity for those in the IT channel targeting SMBs. One is the potential role of more advanced DR solutions and techniques, but before getting into this, it is worth looking at what's going on within the more familiar backup and recovery space.

Evolution of backup and recovery

While the file-based backup and recovery approach to data protection is clearly a very well established anchor for much of the DR activity we see in the SMB sector, this area is far from static and without opportunity for the IT channel. So let's explore what's going on here.

Backup to tape and disk

As already mentioned 'traditional' file based backup is still the foremost method of data protection used by SMBs today. At the same time it is also clear that tape continues to be the primary medium employed in such solutions, with backup to disk now close behind (Figure 6).



This chart also shows that - while the usage of tape is unlikely to disappear in the near future - the utilisation of disk based backup and recovery is growing. Advanced organisations already employ both tape and disk in their strategies, and it appears that usage of this tiered backup approach is set to grow even more.

Channel Tip: Adoption of disk as a primary backup medium, whether as a replacement for or complement to tape, has advantages in terms of both speed and granularity of recovery. It can also minimise the need for manual processes around removable media. Tabling the idea of disk-based backup when discussing more general storage requirements might therefore unlock incremental opportunity for both additional storage capacity and backup/recovery management tools.

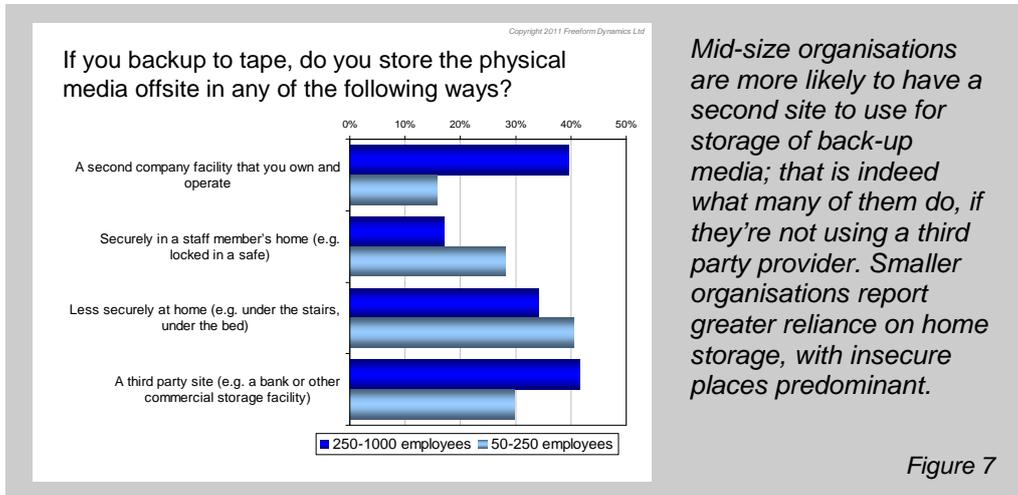
The other main observation from the above chart (Figure 6) is that it is not uncommon for SMBs to be backing up to remote devices, whether on a second site that they own, or a third party facility. The advantages of this from a risk management perspective are clear, but anecdotal evidence suggests that concerns around network related constraints are common. Nevertheless, it is notable that a significant number indicate interest in remote backup for possible future use.

Channel Tip: While pure ‘utility’ services offering ‘backup to the cloud’ have hitherto not gained a great deal of traction, there is strong circumstantial evidence here of a growing market for more consultative hosting and fully managed service plays in the area of remote backup and recovery. Helping prospects with comms as well as storage capabilities will be an essential part of the equation.

For the majority still using removable media, it is worth taking a closer look at how backups are stored.

Management of removable media

Users of tape backup clearly need to keep those tapes in a second location to cater for site loss scenarios. When such organisations are asked which locations are used for off-site storage, one of the most common responses is “at home” in an insecure location such as under the stairs or the bed (Figure 7).



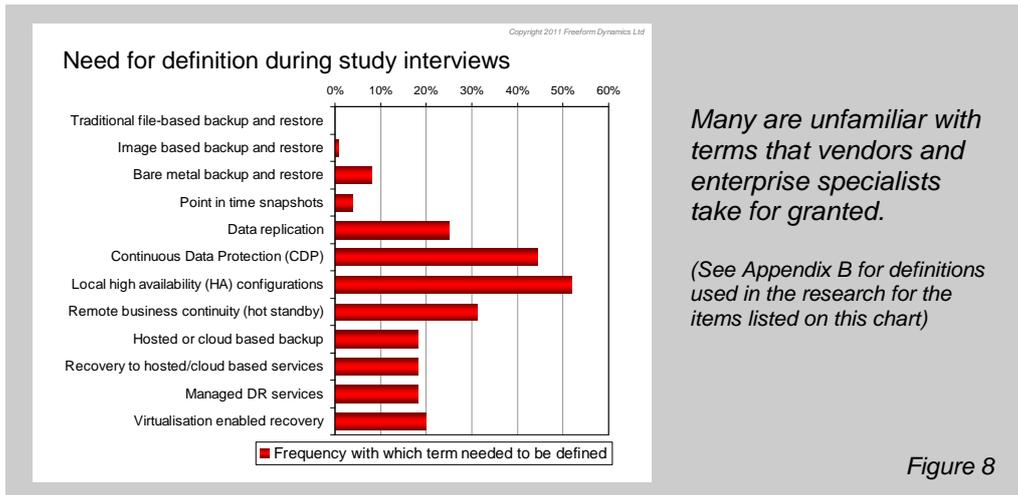
Practices then vary between small and mid-sized organisations, with the latter naturally more likely to be using a second company facility as they are more likely to have more than one site (see Appendix A). It should be noted that the methods we see listed here are not mutually exclusive, e.g. operations staff might take nightly backups home, but lodge a weekly backup at a more safe and secure location.

Channel Tip: The challenges associated with the manual handling and off-site storage of removable media lend weight to the aforementioned remote backup related propositions. And the prominence of insecure locations when it comes to off-site storage of backups is potentially a good conversation opener when looking to generate leads during the sales cycle.

The opportunity around more ‘advanced’ solutions

As we saw previously (Figure 5) a comparatively high number of respondents do not see as relevant newer protection solutions, including bare metal recovery, point in time snapshots, data replication, and CDP; the same applies to local high availability solutions, various remote options and managed/cloud services.

A big contributing factor here is simply unfamiliarity with a lot of the industry jargon used. When talking to those responsible for IT in the SMB space, it is often necessary to define the meaning of terms that suppliers and analysts typically use quite freely when conversing with specialists in large enterprises (Figure 8).



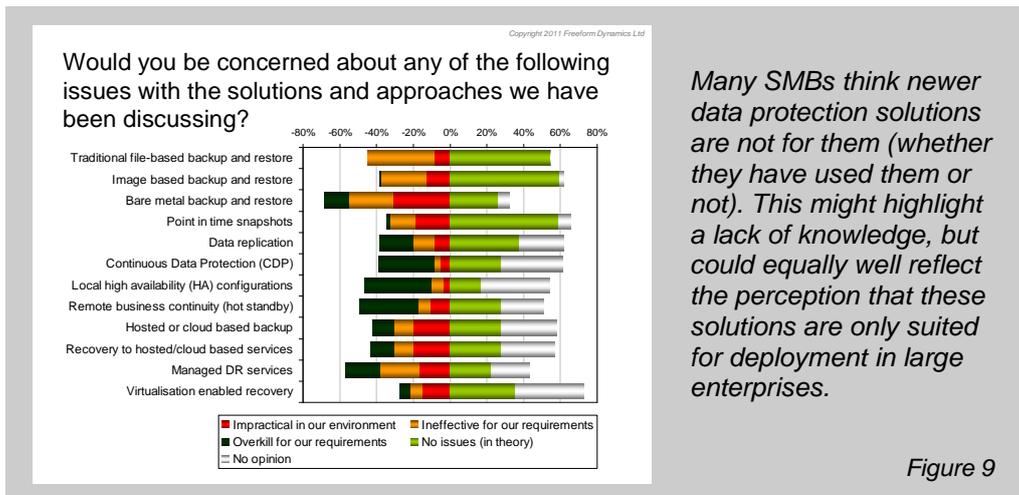
With the exceptions of traditional file based and image based backup and restore solutions, almost all other solutions resulted in significant numbers of requests for definitions to be provided. The large numbers of those surveyed requesting definitions of “local HA configurations”, “Continuous Data Protection (CDP)” and “remote business continuity / hot standby” illustrates that people working in SMBs need help understanding such solutions and where they might be deployed.

Channel Tip: It is important not to make any assumptions around the level and familiarity that exists in the SMB space in relation to specific approaches and solutions. The point to get across before getting into advanced technologies and techniques is the general principle of moving from periodic, often manually-driven processes (as is typical of most traditional file-based backup regimes) to more continuous automated approaches that increase the level of protection and the speed and flexibility of recovery, as well as reducing the overhead on IT. The pros and cons of specific solutions can then be discussed in that general context.

Equally interesting from the above chart (Figure 8) is the comparatively low number of requests for the definition of “image based backup and restore” and “point in time snapshots”. We suspect there may be a certain amount of assumption as well as confusion here. For example, it could well be that many IT professionals now use the term “image based back-up and restore” when thinking about protecting and restoring entire virtual machines or using software that copies entire systems in a ‘ghost-like’ fashion. Such concepts are firmly established in the minds of IT professionals, whereas modern data protection systems using imaging technology that can recover not only entire machines but also permit data to be retrieved in a very granular fashion have not yet penetrated widely in organisations of any scale, large or small.

Channel Tip: Again, it is important not to make any assumptions. Just because someone says they are using a technique, doesn't mean they have the corresponding modern solution in place.

Perhaps most importantly of all, SMBs aren't convinced that many of the more advanced or sophisticated solutions are suitable for adoption by organisations of their size (Figure 9).



Many SMBs think newer data protection solutions are not for them (whether they have used them or not). This might highlight a lack of knowledge, but could equally well reflect the perception that these solutions are only suited for deployment in large enterprises.

When the responses “impractical in our environment”, “ineffective for our requirements” and “overkill for our requirements” are combined, it becomes obvious that significant numbers perceive the solutions not to be suited to the needs of their business. The considerable number of “no opinion” responses to a number of the approaches almost certainly reflects a lack of knowledge of the solutions, as SMBs have little time available to research anything that is not an immediate priority.

Channel Tip: There is a real need for suppliers to focus on the ‘why’ and ‘how’ as well as the ‘what’ of advanced techniques, and this is where pre-contract assessment and post-contract implementation services play a role. IT generalists working in an SMB environment need clear explanations of how solutions can be made to work for them. It is also worth bearing in mind that DR related features are often embedded in storage systems and management tools, or are available as options. This can often help with questions around both relevance and affordability.

One area that currently attracts considerable marketing coverage, namely ‘cloud’, doesn’t yet live up to the claims of being on the point of taking over life, the universe and everything. It is clear that in SMBs, backup to the ‘the cloud’ has so far attracted few customers, although a minority see no issues, at least in theory, thus indicating there may be potential for usage to expand in the future.

Channel Tip: As a result of over-marketing of the term, it is sometimes useful to talk about ‘hosted services’ rather than ‘cloud’; the ‘C’ word is as likely to create negative as well as positive sentiment in the mind of prospects.

Relationship with other initiatives and investments

So far, we have been focussing on DR-centric solutions and techniques, but there are business opportunities for the channel that stem from bridging the gap between DR requirements and more general IT related investments.

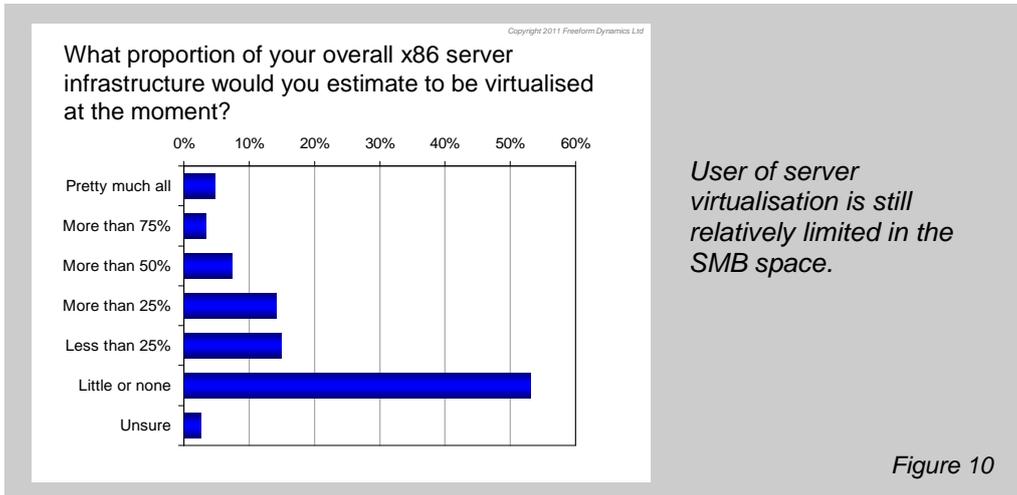
In some cases, highlighting the DR related benefits of a proposed solution can help strengthen the business case, which is good for both the supplier and the customer. In other situations, it may be more a case of making DR requirements more addressable/affordable by tackling them through broader solutions that create value in other ways too.

Let’s look at two of these – virtualisation and hosted services.

x86 server virtualisation and its role in DR

As expected, the research confirms x86 platforms to be extremely important: they account for all or most of the server estate in nearly two thirds of SMBs. This widespread usage necessitates an investigation into the virtualisation of x86 servers, an area where much attention has been lavished in large enterprises to help improve the availability and speed of recovery of IT systems, as well as to consolidate server estates for cost saving purposes.

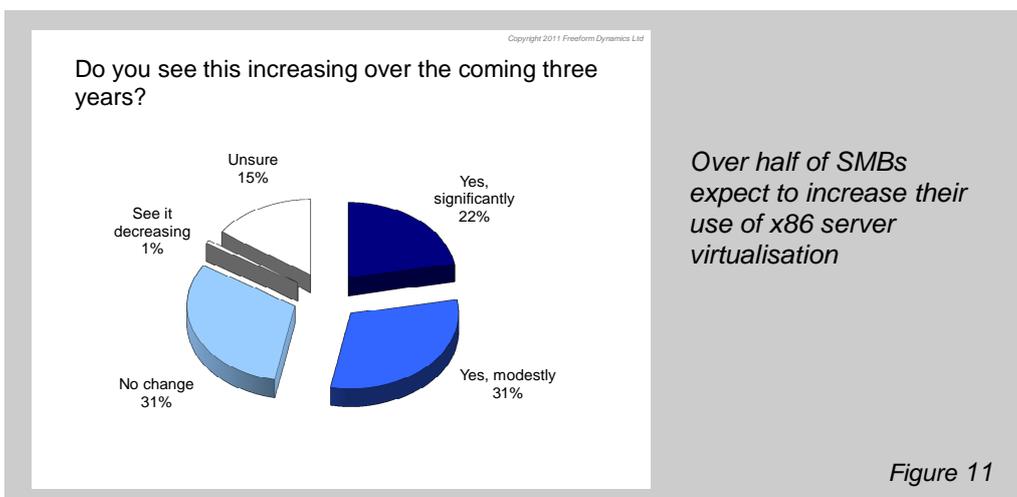
In the SMB space, however, it is still relatively early days with regard to the adoption of server virtualisation, with over half making little or no use of the approach (Figure 10).



This modest level of adoption is not entirely unexpected, and is at least in part indicative of the fact that small organisations have little time to research how new solutions may benefit them, or how they can be implemented without posing operational challenges.

Channel Tip: A lot of enterprise level discussions around DR are today naturally encompassing the role of virtualisation, but in the SMB space, knowledge of or commitment to virtualisation must not be assumed when formulating messaging.

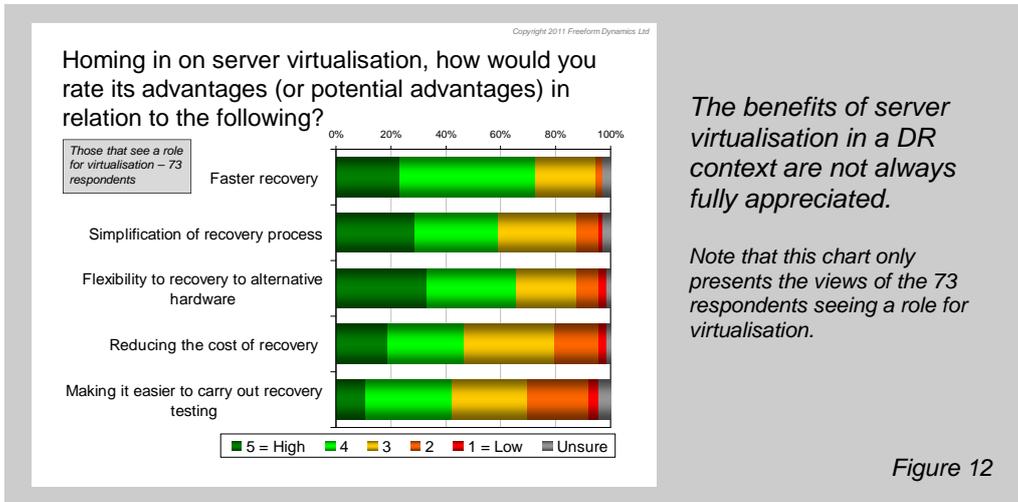
However, virtualisation technology vendors have been working hard to make their solutions more accessible to smaller businesses, and, of course, upping the level of education, marketing and promotion to SMBs. It is probably therefore no coincidence that more than half of our respondents anticipate adoption levels to grow over the coming three years (Figure 11).



It is likely, however, that adoption will grow more rapidly than indicated here, especially as x86 server virtualisation solutions are now being configured directly onto many new server platforms.

But how much are the benefits of server virtualisation in the context of DR understood?

If we put aside just over half of the respondents that don't currently regard server virtualisation as having a role to play, the views of the others are quite revealing (Figure 12).



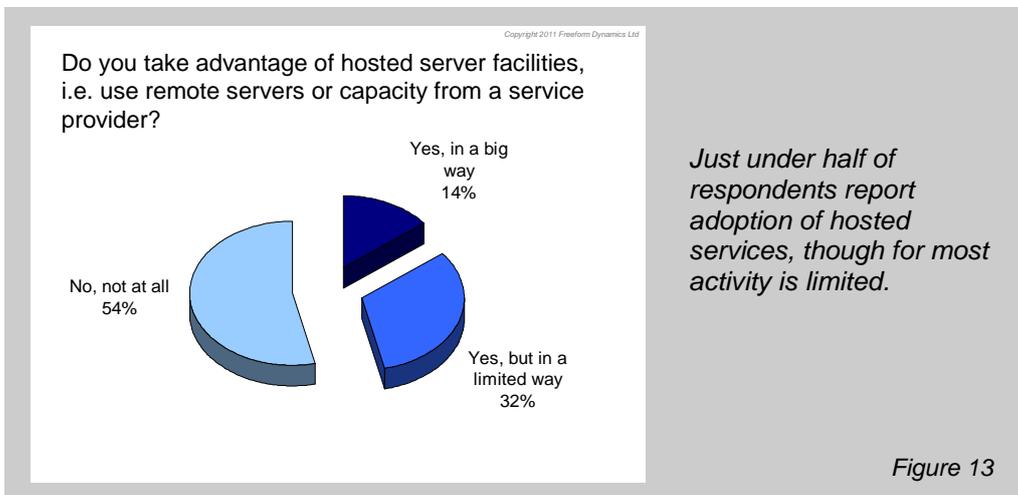
The reality is that server virtualisation can have significant DR related benefits in all of these areas, but SMBs typically only latch on to a subset of them. Having said this, we observed a strong correlation in the research between overall DR capability (as reported by respondents) and the use of virtualisation. This is discussed more fully in a companion report¹.

Channel Tip: Virtualisation and DR are a natural fit, but given that experience and expertise are limited in the SMB space, it makes sense to offer skills in mainstream virtualisation technologies from VMware, Microsoft and/or Citrix allowing a more solution-based approach to engagement and problem solving to be taken.

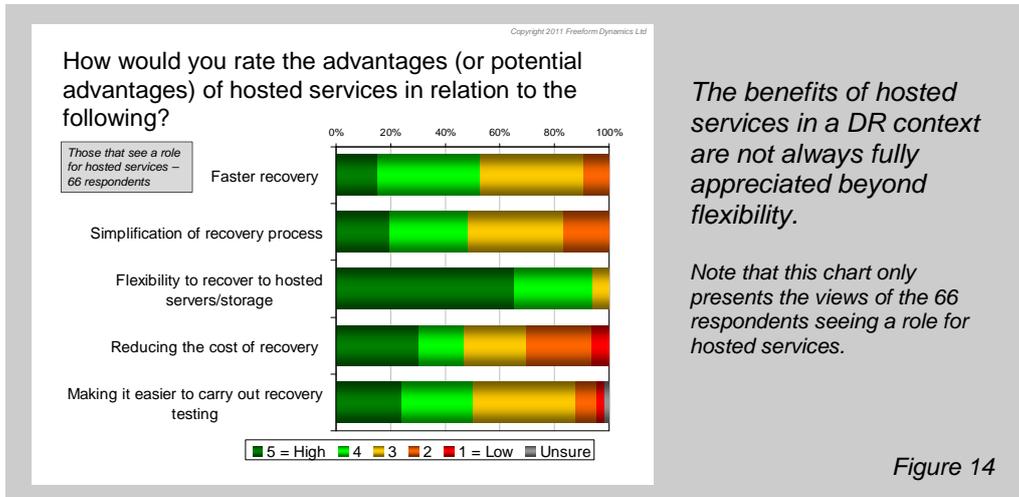
The ability to recover virtual images to alternative hardware underpins much of the value of virtualisation in the context of DR. This value can be further enhanced if hosted services are introduced into the mix. It is possible to enable 'recovery to the cloud' through either continuously maintained hosted stand-by machines for rapid fail-over, or by commandeering hosted resources on demand to minimise costs. Hosting has other DR related benefits too, so is worth exploring further.

The role of hosted services in disaster recovery

Right now, just as with virtualisation, we see significant but limited adoption of hosted services within the SMB community (Figure 13)



However, the benefits of hosted services are generally less well understood than for virtualisation. While most appreciate the flexibility that can be achieved, the potential in other areas is recognised much less (Figure 14).

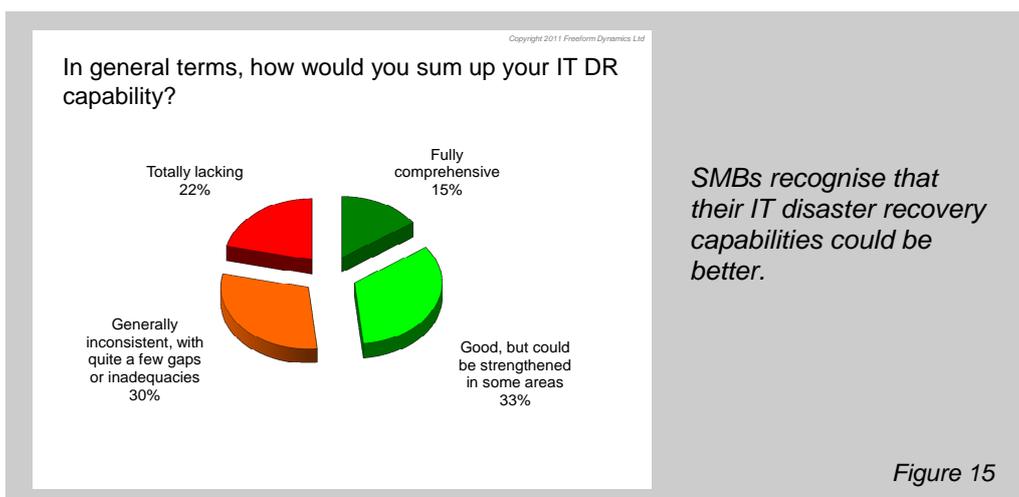


Despite this picture, those reporting a higher DR capability in their organisation overall are significantly more likely to be using hosted services, and again this is discussed in our companion report¹.

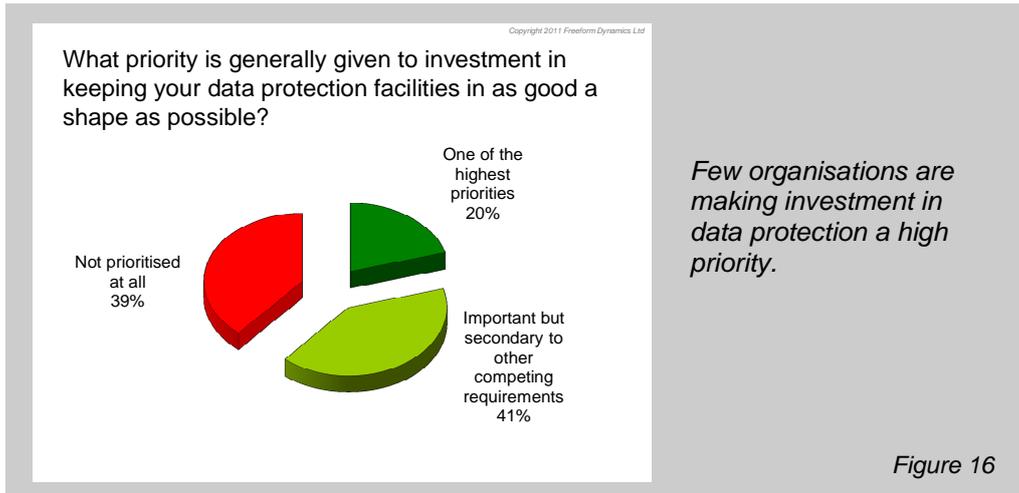
Channel Tip: In other studies², we have found that organisations have considerable reservations around the security of ‘cloud’ solutions, as well as the quality of service on offer. We also commonly encounter nervousness about the communications aspects of hosted services, i.e. reliance on the network³. With this in mind, there is a clear opportunity for DR propositions to be developed around fully integrated outsourcing or managed service offerings, presenting SMBs with assurances and service level agreements to overcome the uncertainties.

The drivers of change

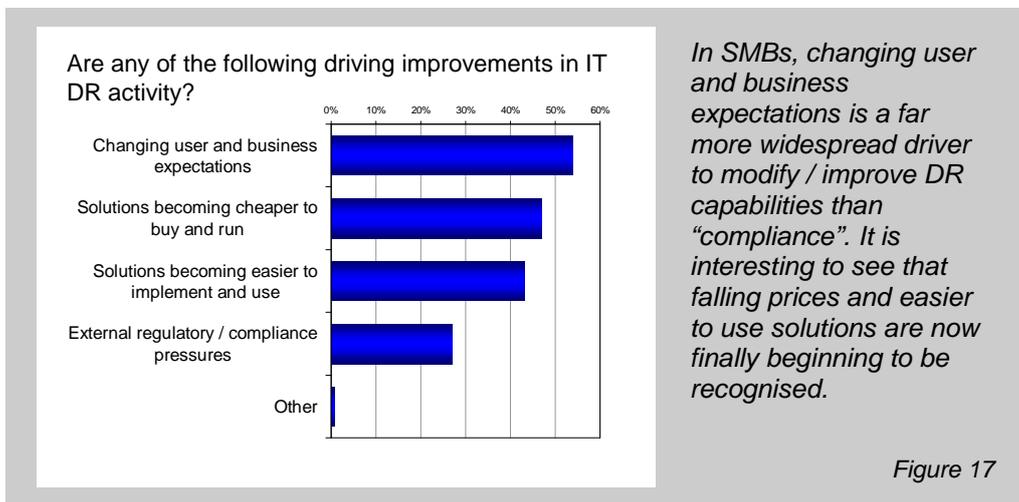
Many SMBs recognise that their IT disaster recovery capabilities could be better, with few organisations believing they have fully comprehensive systems in place (Figure 15).



It is clear that many IT managers and administrators struggle with unreliable, inadequate or untested data recovery processes. And yet, despite acknowledging that things could be improved, only one organisation in five ranks data protection as one of the highest priorities in its IT expenditure plans (Figure 16).



However, contrary to the marketing messages of some vendors, for SMBs compliance and regulation are not generally triggers for a change in DR processes and technologies. Investment is most likely going to be driven by changing expectations on the part of the business (Figure 17).



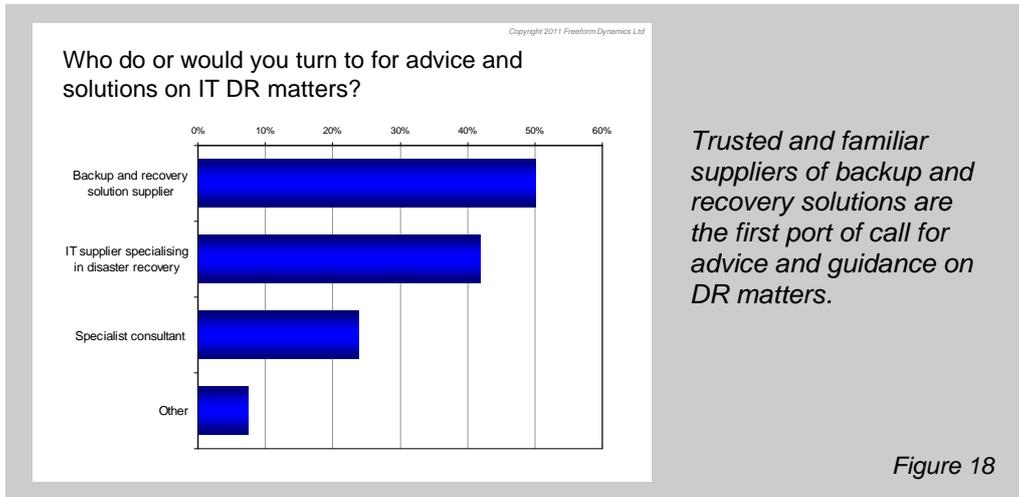
Other factors include changing attitudes on the part of IT professionals, who are beginning to see that solutions previously only available to large enterprises are becoming affordable and more suitable for deployment in SMBs.

Channel Tip: The reality is that DR often only gets prioritised following a real incident that has caused significant disruption to the business, which tends to focus the minds of business stakeholders and release funding for investment. When working with SMBs on building business cases for acquisition and implementation of enhanced DR capability, it is therefore helpful to paint relevant pictures of scenarios that represent a plausible risk. The ‘what if’ game can then be played to highlight the consequences of potential risk situations playing out in real life. When doing this, a major aspect of capability to challenge is ‘time to recover’, as many businesses focus simply on ‘whether’ they can recover, paying little regard to how long it will take and the consequences of extended down time.

Supplier engagement

So where are SMBs most likely to turn for help when seeking to improve data protection and DR? The short answer is that half of SMBs will generally seek advice first from the suppliers of backup

and recovery solutions with whom they are familiar and, more specifically, the channel delivery partners with whom they have established relationships. A slightly smaller number may look to IT suppliers specialising in disaster recovery offerings, but only one in five would look for specialist DR consultants (Figure 18).



Channel Tip: How you interpret this picture depends on the nature of your organisation. If you are a DR specialist used to serving the higher end of the market then you must be aware that SMBs will not automatically come to you in the first instance, so marketing and outreach are critical for business development in this space. If you are an established provider of backup, recovery and other IT solutions that smaller businesses have routinely procured for years, then you are in a good position to develop incremental business around more advanced DR solutions if you acquire the necessary skills and accreditations.

Discussion and Conclusion

Disaster recovery in general, and data protection in particular, are important areas of operational IT process and technology that have, for years, managed to slip under the radar of many small and mid-sized businesses. Many IT professionals recognise they need help to improve their capabilities in these areas, but they also need to be convinced that solutions originally developed for large enterprises can now be deployed and managed operationally in an SMB environment.

Outside of specialist DR and data protection solutions, it is also clear that broader evolutionary developments such as server virtualisation and adoption of hosted services can be exploited in a DR context. Suppliers that can help customers figure out how everything fits together to maximise leverage and help them with the necessary integration should do well as the SMB DR market evolves. We also see a place for hosted/managed services given the limited adoption and experience that exists at the moment in some of the key areas mentioned.

The bottom line, however, is that many SMBs have little awareness of the solutions that are available to them to improve both their ability to deal with IT DR scenarios as well as better protect data in daily IT operations. Vendors and channel partners that focus on providing advice and guidance on what solutions exist, and how best to match these to business requirements, will therefore benefit the most from the considerable opportunity that arises as SMBs become increasingly aware of their dependence on IT systems and information.

References and Further Reading

1. Enabling rapid and effective IT recovery

DR insights and tips for small and mid-sized businesses

<http://www.freeformdynamics.com/fullarticle.asp?aid=1383>

2. Trust and security in the cloud

The myths and realities of hosted applications

<http://www.freeformdynamics.com/fullarticle.asp?aid=1307>

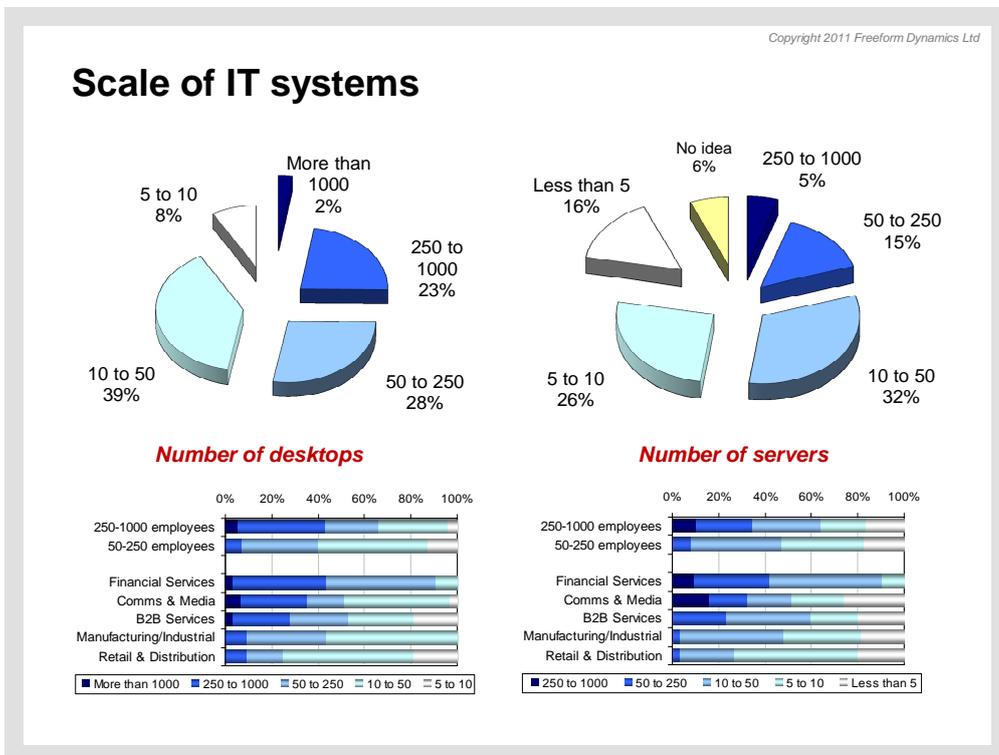
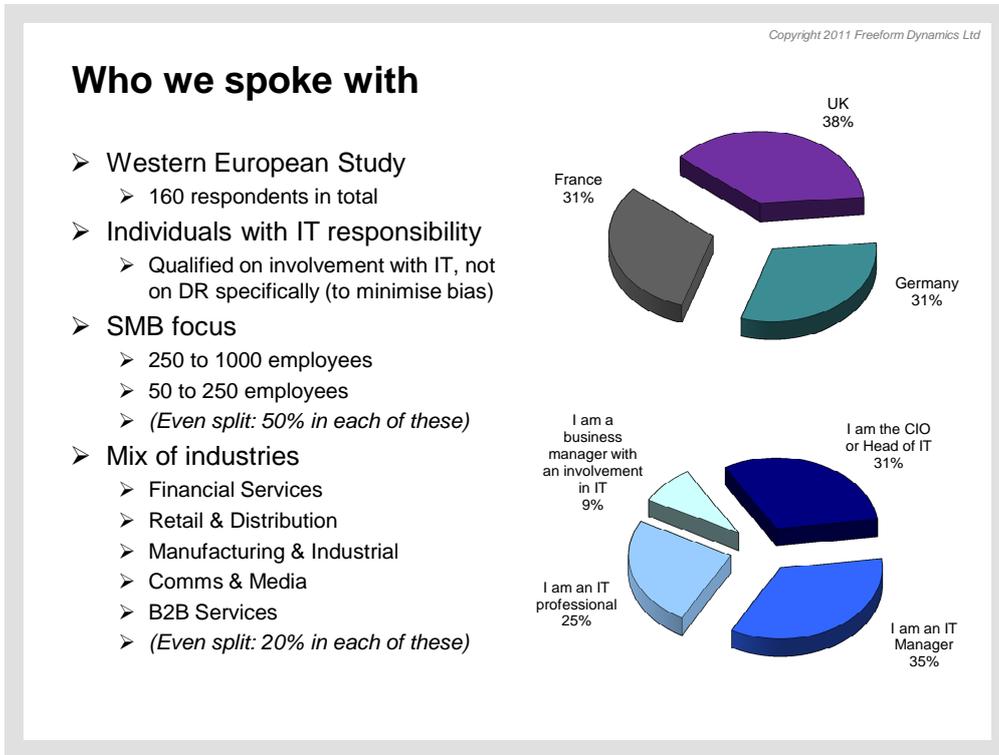
3. Cloud connectivity

Carefully does it

<http://www.freeformdynamics.com/fullarticle.asp?aid=1350>

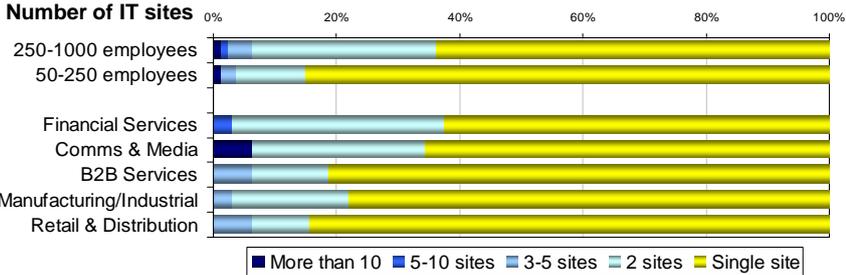
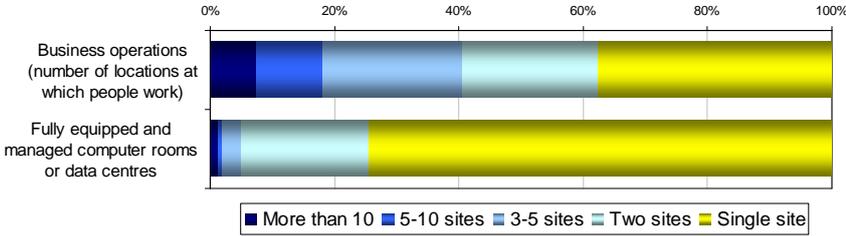
Appendix A: Study sample and profile of respondents

The study upon which this report is based was designed, conducted and interpreted by Freeform Dynamics Ltd and completed in the first quarter of 2011 with sponsorship from Quest Software.



Physical distribution of IT

How many physical sites/offices are your business and IT operations spread across?



APPENDIX B: DEFINITION OF SOLUTIONS

Table 1: DR SOLUTIONS AND DEFINITIONS	
Traditional file-based backup and restore	Backup of file system contents to tape or disk. Includes both complete and incremental backups, and the backup itself may or may not be compressed or encrypted, depending on the tools that are used.
Image based backup and restore	A block-by-block copy of the disk is made, allowing that disk to be recovered exactly as it was backed up. Modern systems maintain meta-data with the backed up image to allow selective recovery, e.g. the retrieval of a single file, without having to reload the entire image.
Bare metal backup and restore	Backup of a complete server, including system and application software as well as data, in a form that can be reloaded onto an alternative physical machine as part of the recovery process. The new machine typically needs to be similar but not identical to the original.
Point in time snapshots	As the name suggests, this technique is based on taking periodic snapshots of the information being protected. Similar in principle to traditional backup, but often used to create remote copies of data across a network that are then available quickly for recovery purposes.
Data replication	A technique used to create and keep a remote replica of data up to date on a continuous basis through continuous synchronisation as changes occur. Often used as part of a 'hot standby' solution (see below).
Continuous Data Protection (CDP)	A mechanism for providing ongoing protection. Works by keeping a separate record or log of all changes made to a data store so it can be rolled back or recovered to a specific point in time in the event of a failure or corruption.
Local high availability (HA) configurations	Hardware or systems software based mirroring of tightly coupled systems or clusters allowing rapid failover in the event of a component failure. The basic idea is to prevent systems originating disasters occurring in the first place.
Remote business continuity (hot standby)	The concept of maintaining a second system on a remote site in a state that allows direct fail-over in the event of a disaster. Unlike local HA, the business is protected against disasters affecting a complete site (e.g. fire, flood, power failure, etc).
Hosted or cloud based backup	Use of physical or virtual storage facilities in a service provider environment for remote backup purposes.
Recovery to hosted/cloud based services	The notion of using hosted resources for recovery purposes, e.g. provisioning cloud based servers and storage in the event of a failure that can be used in place of on-premise equipment that has become unavailable. You get up and running by loading your backups into the cloud.
Managed DR services	Specialist services delivered by a third party to implement disaster recovery measures. Can be based on any combination of the mechanisms we have been discussing.
Virtualisation enabled recovery	The technique of recovering from backup onto virtual servers to minimise the need for standby or replacement hardware. This technique also potentially has benefits in terms of recovery testing.



About Freeform Dynamics

Freeform Dynamics is a research and analysis firm. We track and report on the business impact of developments in the IT and communications sectors.

As part of this, we use an innovative research methodology to gather feedback directly from those involved in IT strategy, planning, procurement and implementation. Our output is therefore grounded in real-world practicality for use by mainstream IT professionals.

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About Quest Software

Quest Software (Nasdaq: QSFT) simplifies and reduces the cost of managing IT for more than 100,000 customers worldwide. Our innovative solutions make solving the toughest IT management problems easier, enabling customers to save time and money across physical, virtual and cloud environments.

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