



ORACLE®

Oracle Private Cloud

Home

Private Cloud Deployment

**ADOPTION BARRIERS,
DEPLOYMENT LEVELS,
CUSTOMER EXPERIENCES
AND FUTURE PLANS FOR
PRIVATE CLOUD**

IDG Connect, a division of International Data Group (IDG), the world's largest technology media company, produces, publishes and distributes local IT and business information on behalf of a truly global client base. Established in 2005, we have a fully nurtured audience of 2.6 million professional decision-makers from 130 countries, and an extended reach of 38 million names. This lets us conduct research, create independent analysis and opinion articles, and drive long-term engagement between professionals and B2B marketers worldwide. For more information visit www.idgconnectmarketers.com

Survey conducted by
IDG Connect on behalf of
Oracle

Infographic Summary

Infographic Summary

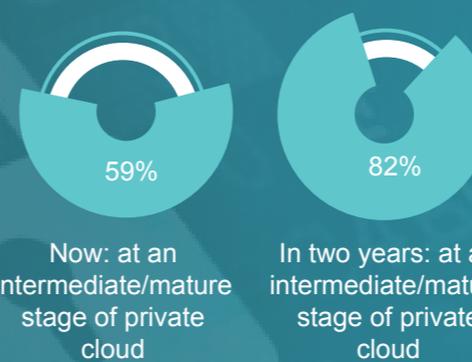
Cloud computing as a concept is widely accepted and is ramping up fast. All respondents are undertaking cloud projects, and most expect to be at a mature stage in two years. This is driven by a need to extract business value quickly from IT infrastructure, pointing to a desire to take advantage of cloud computing's benefits, such as flexibility, agility and cost savings.

IT managers' traditional concerns around security remain, but the picture is more nuanced with concerns over issues such as IT standardisation, staff skills and internal communication also expressed. However, this is not slowing adoption, suggesting a confidence that these challenges can be overcome, with key learnings including a need for strong IT management and standardisation.

The true business value of cloud lies in the applications, and here software, database, and platform as a service are the three most important now, with database as a service moving to top spot in two years' time. This indicates that when mature, those clouds will be hosting enterprise-level production applications.

Finally, our survey finds that the future of private cloud is assured, with the vast majority of respondents looking to deploy more and more diverse clouds in future, especially hybrid clouds which allow organisations to maximise the advantages of private and public clouds.

Speed of private cloud acceptance



The vast majority expect to be at a mature stage of private cloud within two years

Key learnings from private cloud deployment



- 1 IT change management must be strong
- 2 Standardisation of IT must be in place first
- 3 Adequate staff skills must be added/retained
- 4 Defining what is a private cloud is part of the challenge
- 5 Showing value to the business is critical

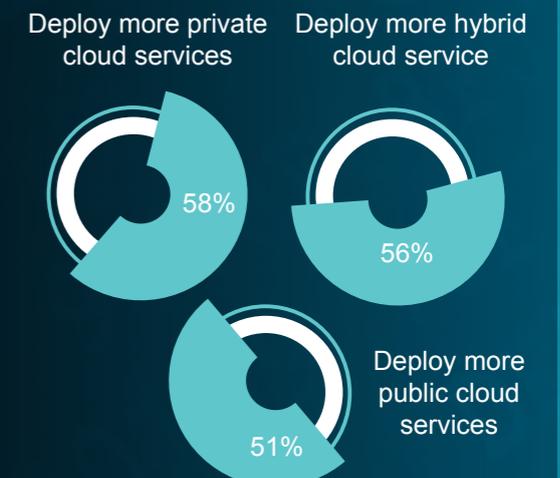
Asked to name a single key learning from cloud deployment, respondents' top five were IT change management, IT standardisation, staff skills, cloud definition and showing business value

Cloud type importance rankings



Changes in the rankings of the importance of cloud types indicates growth in cloud-based enterprise-level applications

Next steps in cloud



Most respondents said their next steps included all three main types of cloud. Cloud is here to stay

Maturity In Cloud Adoption

Maturity

Our survey provides clear evidence that private cloud adoption is on a roll, with all respondents having taken steps towards creating a private cloud. Right now, 20% report that their private cloud deployments are mature and sophisticated and 39% are at an intermediate stage. Between them, they constitute well over half of the respondents.

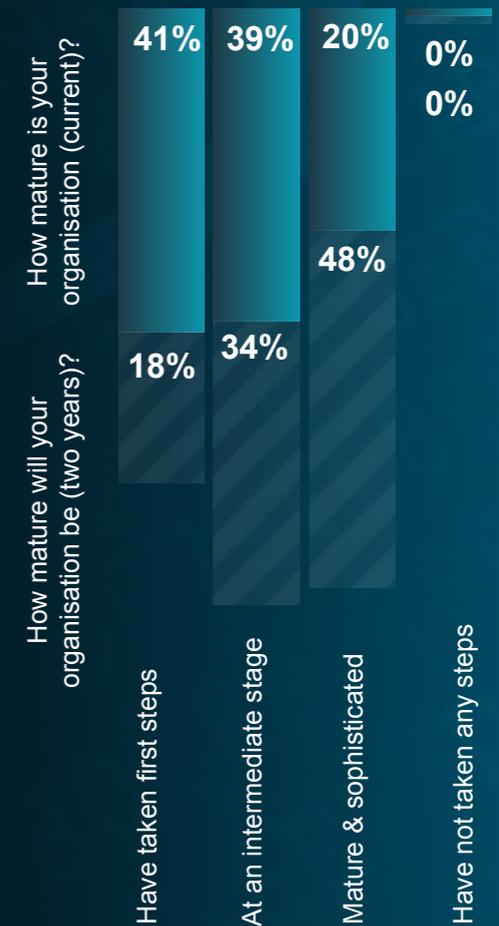
The adoption of private cloud is not a simple process: it requires changes within all layers of the organisation, from top management to the IT infrastructure. Additionally, it alters the relationships between many departments, creates new functions and alters the importance of others.

In this light, the fact that 82% of respondents expect to be at the mature and sophisticated stage of private cloud adoption within two years is remarkable. It indicates a strong buy-in from senior managers across the enterprise, driven by a powerful financial incentive.

Most organisations have either taken first steps or are at an intermediate stage of adoption of private cloud today (41% and 39% respectively). About half of them expect to be in a mature and sophisticated state of private cloud adoption in two

years and over a third expect themselves to be at an intermediate stage (48% and 34% respectively). Germany, in particular, seems to be ahead of other nations, both in current maturity levels, as well as in expected speed of adoption.

How mature is your organisation in terms of its adoption of private cloud and where do you feel it will be in two years?



Constituents Of A Successful Private Cloud

Constituents

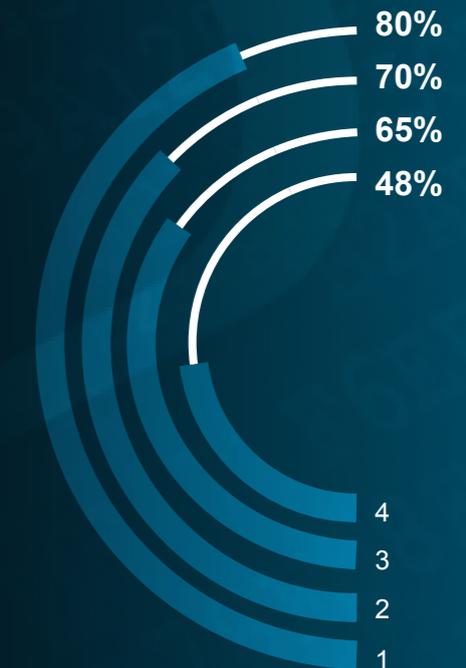
It is clear from the shape of this graph that a number of components need to be in place when building a private cloud. The importance of IT standardisation is underlined by its top score (80%), showing that the potential for cost savings achieved by centralising and standardising is a key driver for private cloud. Almost as important is the need to achieve buy-in within the organisation in order to achieve those savings by maximising utilisation of the private cloud infrastructure and minimising shadow IT operations. At the same time, strong governance is key to ensuring that compliance and security issues are tightly managed.

The need for a *strong relationship with supplier* was selected by fewer than 50% of respondents – and even then, very close to half (48%) nominated it as a key constituent. That it scored significantly lower suggests a fairly high degree of self-reliance within the respondents' organisations.

All the listed options are significantly seen as building blocks of a successful private cloud infrastructure. *Standardisation of IT* followed by *winning the support of key business decision makers* received the most responses (80% and 70% respectively), while having governance

controls in place is the most important (34%). *Standardisation of IT* is the single most important building block for respondents from Russia (42%), while UK respondents said that *winning the support of key business decision makers* was the most important.

What do you see as the building blocks of a successful private cloud infrastructure?



- 1 Standardisation of IT
- 2 Winning the support of key business decision makers
- 3 Having governance controls in place
- 4 Strong relationship with supplier

Approach To Cloud Adoption

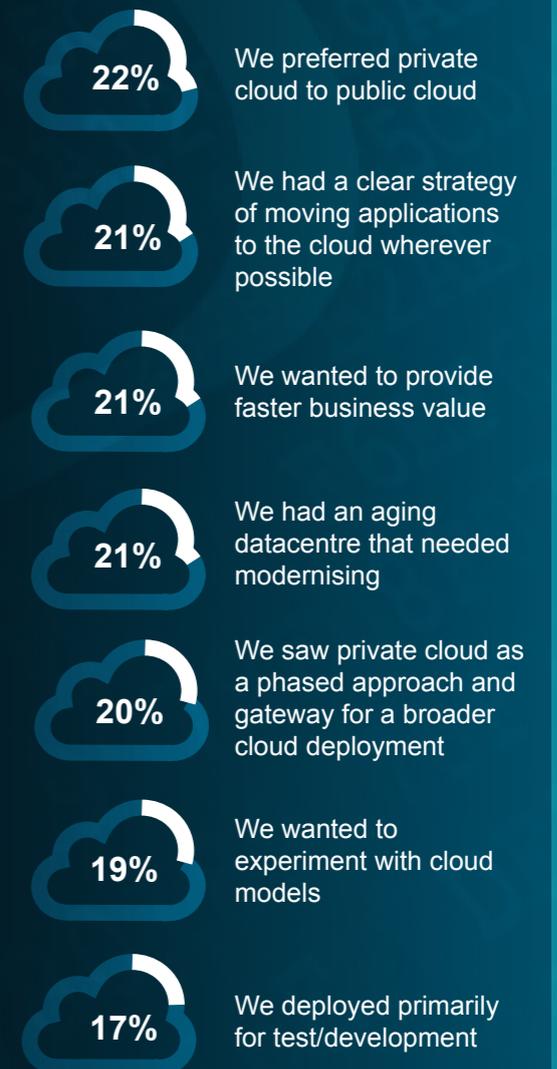
Approach

The private cloud is a perfect storm for many organisations. It combines a range of issues that are likely to have been simmering for some time, centred around a need to extract maximum business value from expenditure on IT infrastructure. This is a clear conclusion to be drawn from the list of reasons the respondents selected, and the near-total unanimity with which they selected all of the options.

A preference for private cloud over public cloud – especially in Germany where for historical reasons privacy concerns are heightened – indicates that concerns over data security persist, as can be seen from the results on the next tab. The other results indicate however a belief that private cloud is broadly perceived as a first step in a longer journey towards complete cloud adoption.

Respondents chose several attitudes that steered them when moving to private cloud. *We preferred private cloud to public cloud* received marginally more responses than others (22%), but the difference was within the margin for error. *We preferred private cloud to public cloud* received a much bigger response from respondents in Germany (32%), while most respondents in Russia placed *we wanted to provide faster business value* as the top attitude (19%)

Which of the below best described your attitude when moving to private cloud?



Most Critical Barriers To Cloud Adoption

That data security remains at the top of a list of barriers to the adoption of private cloud will come as little surprise. When asked to select a single issue, data security is at the forefront, followed by integration with existing applications – which is clearly seen as a complex, time-consuming and therefore potentially expensive issue. That said, when taken with the strong optimism manifested by respondents when asked about future cloud adoption (see Tab 3), the inference is clear: respondents believe that none of these issues is a deal-breaker, and that they are confident the barriers can be surmounted.

The geographical differences between the responses are most likely explicable by local macro-economic and cultural factors. For example, UK-based respondents report hardware costs and application integration as the most critical barriers, as might be expected from a highly-developed economy with high levels of complex IT infrastructure penetration.

Most respondents picked data security as a major barrier to the adoption/expansion of private cloud (55%), and integration with existing applications as the next most important barrier (47%). All the other listed barriers received significant responses,

while the barriers that received top responses in individual regions are:

- Russia: Hardware costs (58%)
- UAE: Network design (52%)
- UK: Available skills (53%)

Critical Barriers

What are/were the major barriers you see for your organisation as it adopts or expands its use of private cloud?

(multiple choices)



Key Learnings From Private Cloud Deployment

Business and organisational issues are the most important lessons learned from the deployment of private clouds. When asked both for a single or multiple choices, strong IT change management emerged as the most important but only by a tiny margin.

So *IT change management must be strong* was very closely followed by the top six (out of eight) other lessons, indicating that there is a range of lessons stemming from cloud deployments, including some we have seen elsewhere in this survey. These include a requirement to add business value, and for IT standardisation and good communications to both staff and managers. Adding business value is key here, as this not only provides motivation for all those inside the enterprise, but is a key driver for senior decision-makers.

IT change management must be strong followed by *standardisation of IT must be in place first* received the most responses as key learnings from private cloud deployment (54% and 50% respectively). *Adequate staff skills must be added/retained* received the maximum responses from South Africa (55%), while *IT change management must be strong* followed by *standardisation of IT must be in place first* remain the most important learnings too (17% and 16% respectively). The

most important learning for UK-based respondents was *defining what is a private cloud is a big part of the challenge* (22%). *Showing value to the business is critical* was seen as most important by respondents from South Africa (18%).

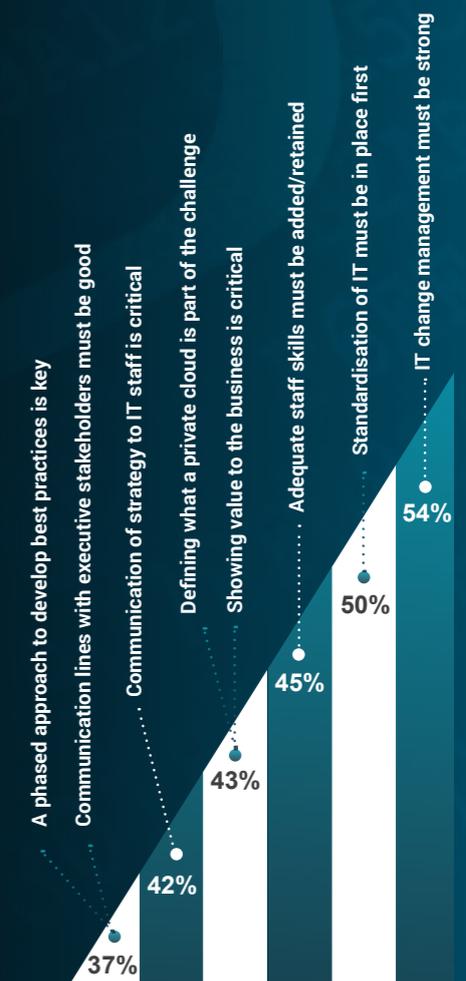
When asked to single out a single option from among a range of key learnings, respondents reported that their priorities remained very similar compared to those when they could select a number: the shape of the graph and the order in which they appear are both very similar.

Key Learnings

Key learnings from private cloud deployment (single choice)



Key learnings from private cloud deployment



Private Cloud Applications

Of the main cloud types, for most business unit managers software as a service (SaaS) is likely to be viewed today as adding the most immediate business value. So while respondents all included some form of IT function in their job titles, they reported that SaaS is the most important form of private cloud, delivering as it does fast access to applications. This is not to understate the importance of other cloud applications, including platform and middleware as a service, which are seen by respondents almost as important as SaaS, demonstrating the tremendous breadth and depth of added value delivered by the cloud.

However, while DbaaS is second in the respondents' considerations today, when thinking about the organisation's needs in two years' time – by which time most respondents expect their private clouds to be mature and sophisticated (see Tab 3) – it will be top of the list, followed by PaaS. We can infer that, in two years' time when their clouds will be mature, respondents expect to be developing and testing their own production applications using cloud-based platforms and tools. This means that private clouds will be adding business value in the form of enterprise applications running in production environments. That such a change is anticipated to have

occurred in just two years shows not just the huge value that cloud computing adds, but also its flexibility.

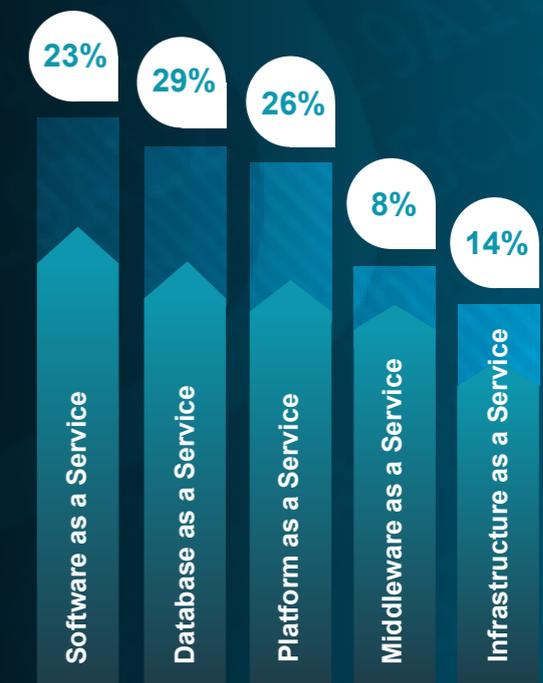
All forms of private cloud received significant responses (over 40%), with Software as a Service followed by Database as a Service and Platform as a Service receiving the most responses (65%, 61% and 57% respectively). Most respondents from South Africa picked Database as a Service as an important form of private cloud for their organisation.

Database as a Service will be the most important form of private cloud in two years' time (29%), Platform as a Service and Software as a Service will be the next most important (26% and 23% respectively)

Private cloud forms in individual locations with distinctly higher importance in two years:

- France: Platform as a Service and Software as a Service (33% and 29% respectively)
- Russia: Infrastructure as a Service (31%)
- Germany: Software as a Service (32%)

Most important form of private cloud today



Which form of private cloud do you view as most important to your organisation?

Which form of private cloud do you think will be the most important in two years?

Important Technical Areas For Cloud Deployment

Cloud changes everything, it has been said, and this is clear from our results. Application integration, systems management, and availability and deployment architectures are all closely grouped by respondents as key technical areas. Such deep technical changes have implications for IT and for specialisms with the department. Teams deploying clouds need to be multi-disciplinary, and all but the largest organisations will probably need to enlist outside help.

For those who have already deployed private clouds, systems management just noses ahead as an area that merits more attention but not by a significant margin. Rather, the very close grouping of the top three technical areas reinforces the multi-disciplinary nature of cloud deployment and operation – and the importance of understanding all the components and their interaction.

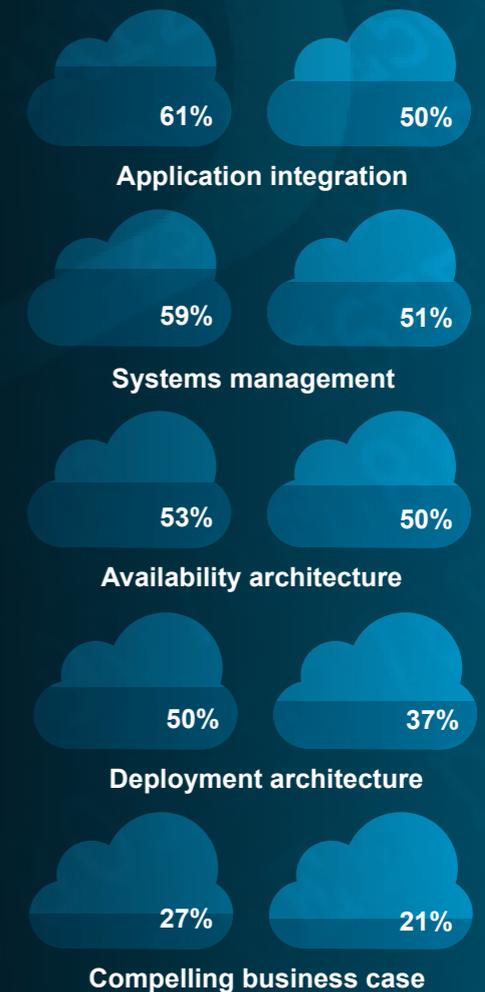
Several technical areas were marked important by a significant number of respondents: application integration and systems management received top responses (61% and 59% respectively). Deployment architecture was the top response from respondents in the UK (69%), and availability architecture received second

highest response among technical areas from respondents in Germany and UAE (60% and 63% respectively). Systems management followed by availability architecture and application integration received most responses in terms of technical areas that respondents (post-deployment) felt should have been given more consideration (51% and 50% respectively).

What's interesting here is that the relative positions of the various technical areas do not change a great deal, but that the top three areas are much more closely bunched.

Important technical areas for private cloud deployment

Which of these technical areas were important when you scoped your private cloud deployment? And afterwards, which did you feel should have been given more consideration?



Private Cloud Vendor Selection

Vendor selection for complex systems such as private clouds will always be a lengthy and involved process. Like the cloud itself, not only does the process cross technical boundaries, it includes both hardware and software, and the integration of the two with existing systems. Therefore it will come as little surprise that companies with a track record of successful integration especially in the cloud market are top of the list of selected vendors.

In particular, Microsoft retains a huge footprint in the enterprise with its wide range of mobile, desktop and datacentre software. Given this, and the importance of integration with core enterprise systems such as Active Directory, the Redmond-based company is likely to remain at the top of most respondent's vendor choices.

All the remaining vendors have quality reputations within the IT marketplace, based on the numbers of large enterprises who run their systems using their products. Between them, they deliver a wide portfolio of products and services that reduce the risk inherent in new systems, such as building a private cloud.

What's interesting is that Oracle is the first or second most-considered vendor

in places as far afield as UAE and South Africa, suggesting that customers are now perceiving the company as more than just a single product merchant.

Microsoft receives top scores both as a considered vendor as well as the primary vendor (56% and 27% respectively), with IBM, Cisco and Oracle as the next top vendors:

- Vendors considered (46%, 41% and 41% respectively)

- Primary vendor (16%, 11% and 10% respectively)

Oracle is the second most considered in South Africa (41%), and got the top score in UAE both as considered and primary vendor.

HP is one of the top vendors considered by respondents from Russia (52%).

Engineered systems/integrated infrastructure specialist e.g. Nutanix received the third highest score among primary vendors in South Africa (12%).

When asked to select a primary vendor – one only – the respondents left the vendors in pretty much the same order as when they were allowed to make multiple choices but this time Microsoft's score is approaching twice that of the second-placed company, IBM.

Private cloud vendor selection



Future Cloud Strategy

Earlier in this survey, we concluded that private cloud adoption is but the first step in a journey (see Tab 5). These results confirm this conclusion: over half the respondents plan to deploy more cloud projects of all types, especially hybrid cloud, which reached top spot when respondents were asked to make a single selection.

We can infer from this that most have bought into cloud computing as a concept and can see the strong commercial and technical advantages that it confers. Respondents can also see the separate benefits of private and public clouds, and plan to maximise the advantages of both by building hybrid clouds. Additionally, almost half also see an opportunity to commercialise their cloud projects, although this is more of a side-benefit than a primary objective.

All steps have significant presence in future cloud plans of organisations. Deployment of private cloud services followed by hybrid services score the highest responses (58% and 56% respectively), while *deploy more public cloud services* received top responses from UAE, UK and South Africa (62%, 62% and 51% respectively). *Deploy more hybrid cloud services* and *deploy more private*

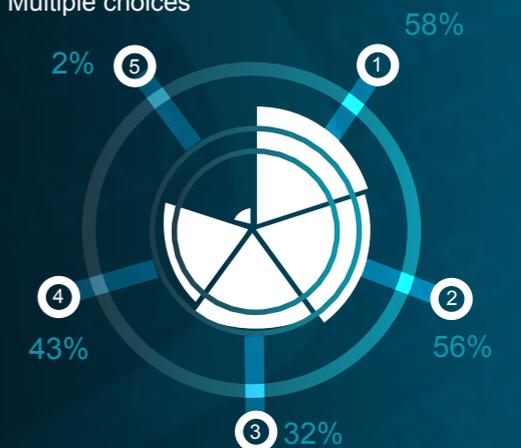
cloud services are the most important plans (36% and 32% respectively). *Commercialise project and sell on cloud services to third-party customers* is the second most important plan in the UAE (27%).

As when the respondents made multiple choices in the previous question, it is clear that hybrid and private clouds are the most popular, although public cloud is much less favoured when only a single option is provided.

The online research conducted by IDG Connect covered a cross-industry sample of 300 decision-makers and C-level executives at mid-sized and larger organisations (250 plus staff) in UK, Russia, France, Germany, South Africa and UAE.

Which of these are among your plans for next steps?

Multiple choices



Single choice



- 1 Deploy more private cloud services
- 2 Deploy more hybrid cloud services
- 3 Deploy more public cloud services
- 4 Commercialise project and sell on cloud services to third-party customers
- 5 Don't know