Realising possibilities in the cloud: The need for a trusted broker

Camille Mendler

Summary

Catalyst

This report draws on a custom study of the cloud experiences and plans of more than 1,000 European organisations. Encompassing public and private sector firms in health, education, central and local government, financial services, retail and manufacturing, this study probed workload usage, investment plans and service provider performance expectations.

Ovum view

Ovum finds conclusive evidence that a fundamental shift in cloud purchasing priorities is under way. Positive results from growing end-user experience are validating enterprise usage of different cloud types for different workloads. However, managing multiple clouds – encompassing private, public and hybrid clouds – requires end-to-end cloud service visibility that spans enterprise and third parties' data centre and network assets. If skills to manage emerging hybrid cloud environments are not available, governance concerns will prevent more strategic and transformational use of cloud computing. Such concerns are realigning enterprises' preferred supplier lineup: they are increasingly likely to discriminate toward cloud service providers with combined data centre and networking orchestration skills as their trusted brokers across hybrid clouds.

Key findings

- Multiple private and public clouds are actively in use: More than 40% of European enterprises expect to manage a hybrid multi-cloud environment within the next two years.
- Supplier preferences are shifting: Nine out of 10 European enterprises now favour cloud service providers that can orchestrate end-to-end management across data centres and networks.
- A quarter of European cloud users are unhappy with their cloud service provider, largely due to poor service performance, weak service-level guarantees and lack of personalised support.
- Networked IT service providers have become a top choice to support European enterprises' private clouds, where the most sensitive corporate assets are held.
- European enterprises fear that the burden of cloud security compliance could outweigh any benefits they might gain from further cloud usage in their organisation.
- European enterprises believe that cloud computing can play a direct role in solving their most pressing business challenges, but few know how to derive strategic and transformational benefits from its use.
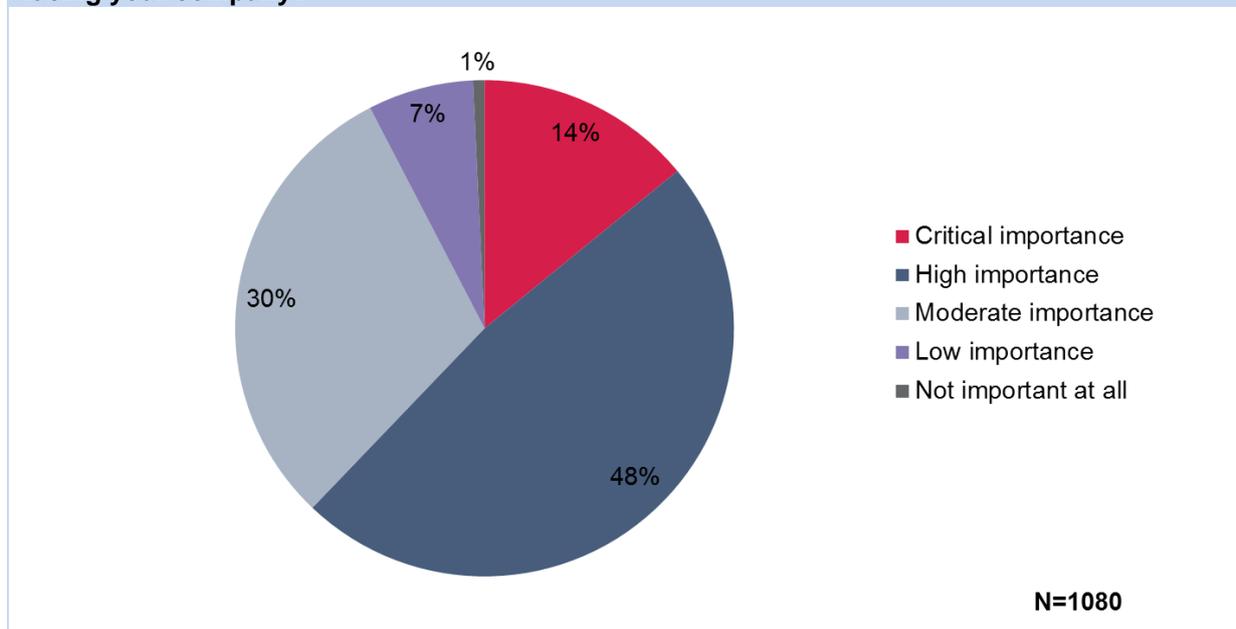
The status quo

Nine out of 10 European enterprises currently using cloud computing have achieved concrete benefits from their investments, according to Ovum end-user research. The use of cloud computing can no longer be called a bleeding-edge activity, whatever the industry. The top three benefits that ICT

decision-makers highlight are that cloud computing has improved business processes, lowered IT costs and accelerated new application launch.

There's even more evidence that cloud computing is resonating at various levels throughout organisations. Six out of 10 enterprises are strongly convinced that cloud computing can play a direct role in solving their toughest business challenges (see Figure 1).
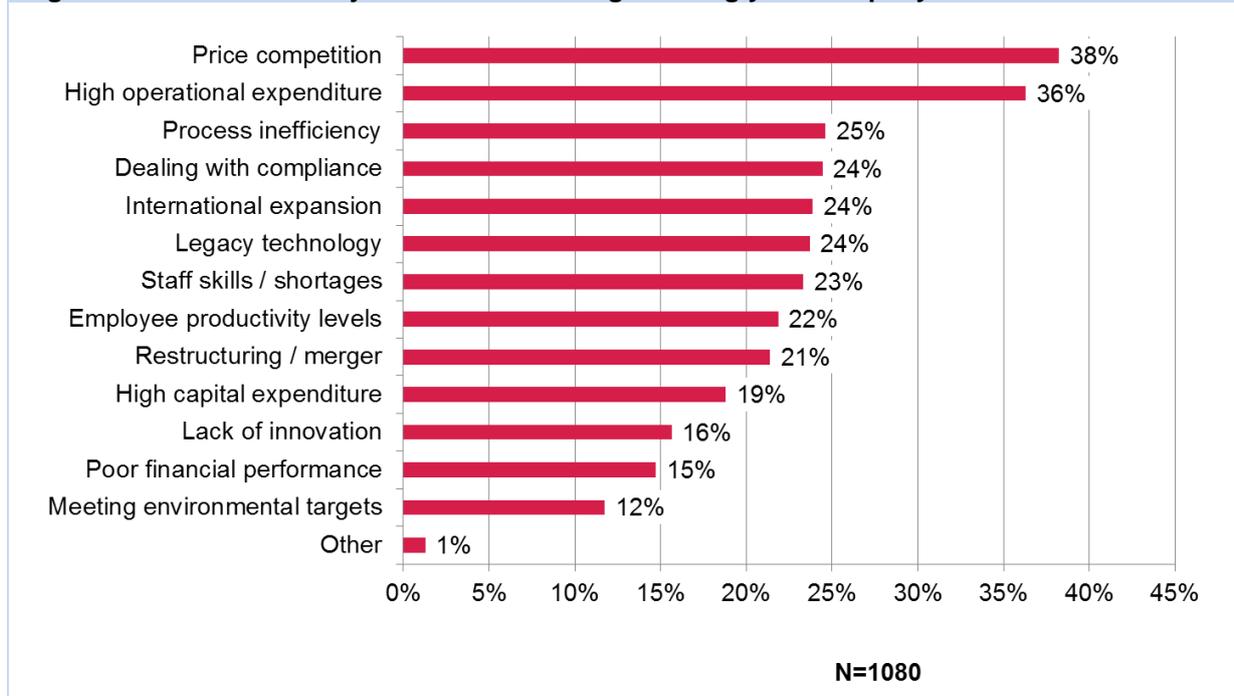
Figure 1: Do you believe that cloud computing has a role in solving the major challenges facing your company?

- Critical importance
- High importance
- Moderate importance
- Low importance
- Not important at all

N=1080

Source: Ovum

Enterprises vary widely in how they put cloud computing to work. For the vast majority, cloud computing will be used to serve tactical rather than strategic needs, such as cutting costs (see Figure 2).

Figure 2: What are the major business challenges facing your company?

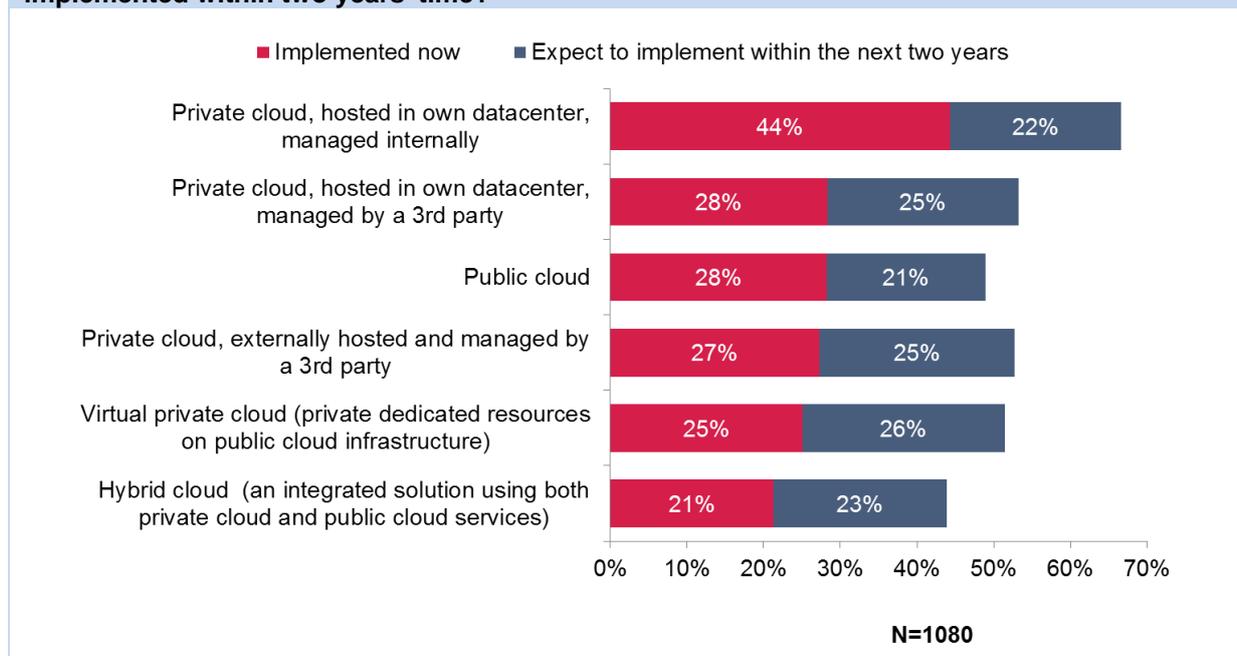| Challenge	Percentage
Price competition	38%
High operational expenditure	36%
Process inefficiency	25%
Dealing with compliance	24%
International expansion	24%
Legacy technology	24%
Staff skills / shortages	23%
Employee productivity levels	22%
Restructuring / merger	21%
High capital expenditure	19%
Lack of innovation	16%
Poor financial performance	15%
Meeting environmental targets	12%
Other	1%

N=1080

Source: Ovum

Today, European enterprises are torn between a strong theoretical desire to be strategic in their use of cloud computing, and a stronger pragmatic drive to be cautious – largely due to security concerns. For mid-sized enterprises in particular, lack of skills is also an impediment.

Differences in thinking are evident both within enterprises and across industries:

- Cloud decision-makers within enterprises are far more bullish about cloud computing's strategic and transformational benefits than implementers at the proverbial coal face.

- Retail and financial services firms are most likely to use cloud computing for competitive differentiation, which is linked to their need for speed in product turnover and service delivery.

- Public sector organisations are most likely to use cloud computing for cost reduction and control, which is linked to their need to demonstrate accountability and good value for money to taxpayers.

- Healthcare organisations – outliers among their peers in the public sector – are most likely to use cloud computing to disrupt existing business models, fuelled in part by the availability of cloud-connected devices which can transform doctor-patient interactions and administration.

Overall, cloud budgets are rising: more than half of European enterprises plan to increase their expenditure on data centre infrastructure and services over the next 12 months. However, because enterprises have different motivations and business processes, they invest in different types of cloud. Today, private clouds dominate, in a number of different permutations (see Figure 3).
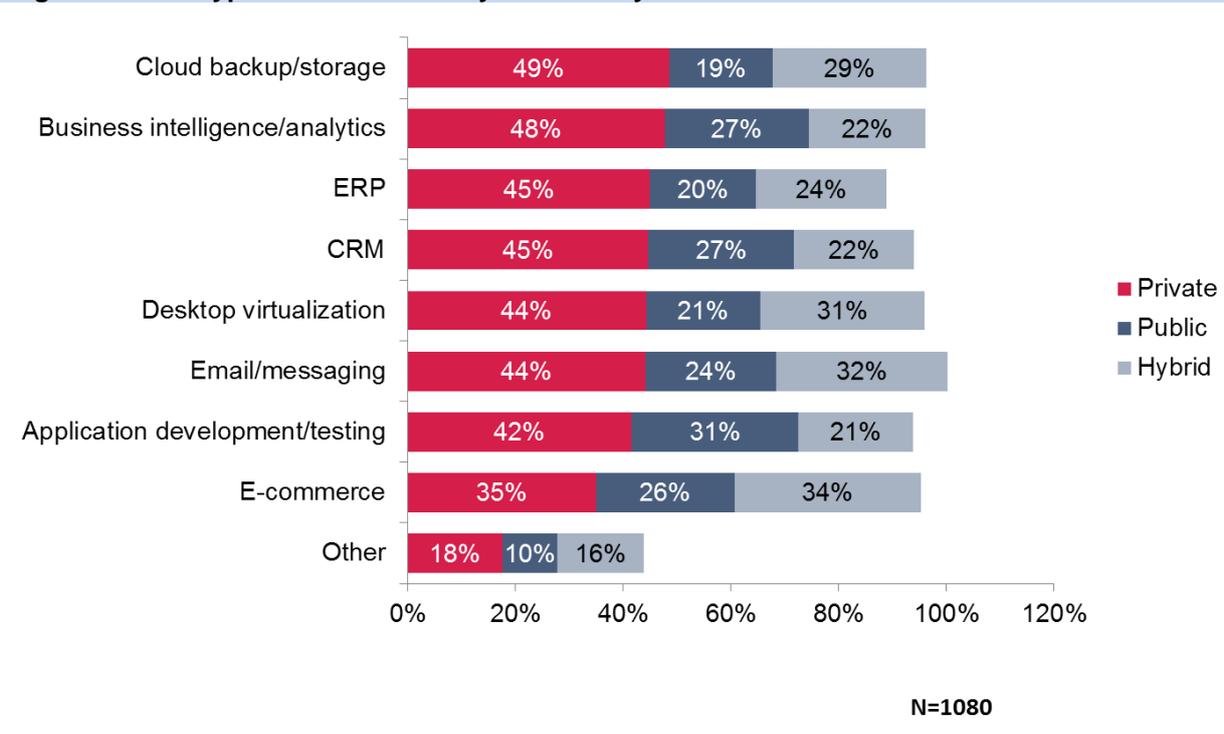
Figure 3: What IaaS has your company implemented and which do you expect to have implemented within two years' time?

Legend: ■ Implemented now ■ Expect to implement within the next two years

Category	Implemented now	Expect to implement within the next two years
Private cloud, hosted in own datacenter, managed internally	44%	22%
Private cloud, hosted in own datacenter, managed by a 3rd party	28%	25%
Public cloud	28%	21%
Private cloud, externally hosted and managed by a 3rd party	27%	25%
Virtual private cloud (private dedicated resources on public cloud infrastructure)	25%	26%
Hybrid cloud (an integrated solution using both private cloud and public cloud services)	21%	23%

N=1080

Source: Ovum

With greater experience, enterprises understand which clouds they should use for different jobs (see Figure 4) and they progress to using public clouds and hybrid environments. In public cloud environments, for example, devtest and CRM workloads are set to grow, while email is increasingly used in a hybrid cloud context. Private cloud environments remain most popular for business intelligence, ERP and storage needs.

Figure 4: What types of workload do you currently deliver from the IaaS cloud?

| Workload	Private	Public	Hybrid
Cloud backup/storage	49%	19%	29%
Business intelligence/analytics	48%	27%	22%
ERP	45%	20%	24%
CRM	45%	27%	22%
Desktop virtualization	44%	21%	31%
Email/messaging	44%	24%	32%
Application development/testing	42%	31%	21%
E-commerce	35%	26%	34%
Other	18%	10%	16%

N=1080

Source: Ovum

Gaps to fill

One cloud does not fit all, but at the same time enterprises should reduce complexity if they can. That's because complexity expands potential risk – and risk is already an acute problem for enterprises.

The risk profile of cloud computing remains significant for several reasons:

- **Security and compliance:** This is the number one issue cited for the present (see Figure 5) and for the future. In particular, data sovereignty remains a critical concern. European enterprises worry about how to comply with current rules (industry specific, national and international), future rules, and they also worry about their exposure if they operate in areas where no rules governing cloud services yet exist.
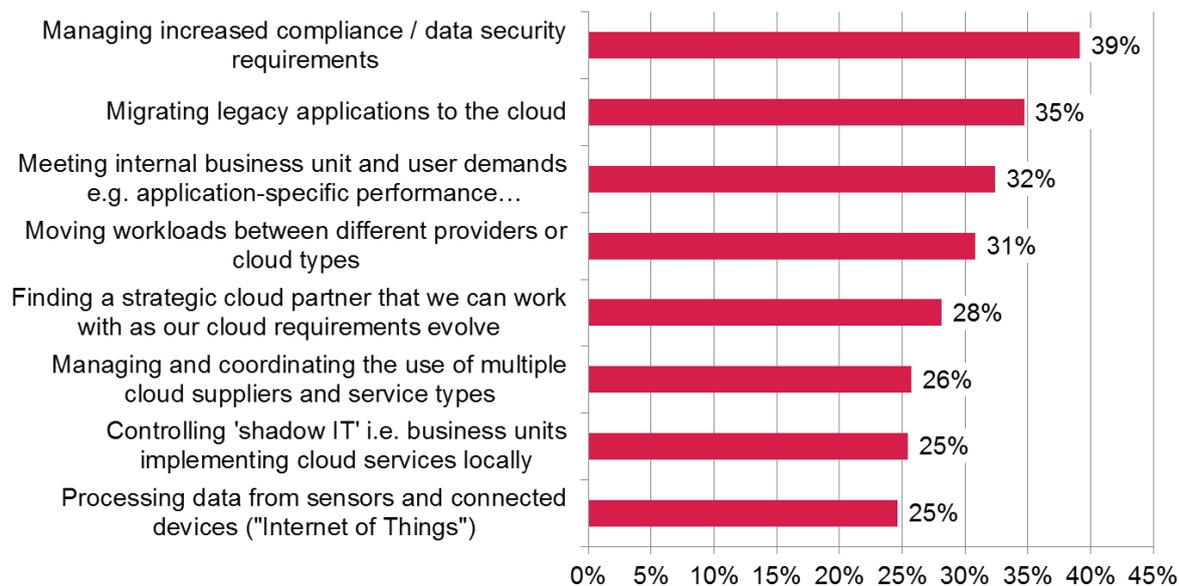
Figure 5: What are the biggest problems that your organisation has faced in using or evaluating cloud computing?
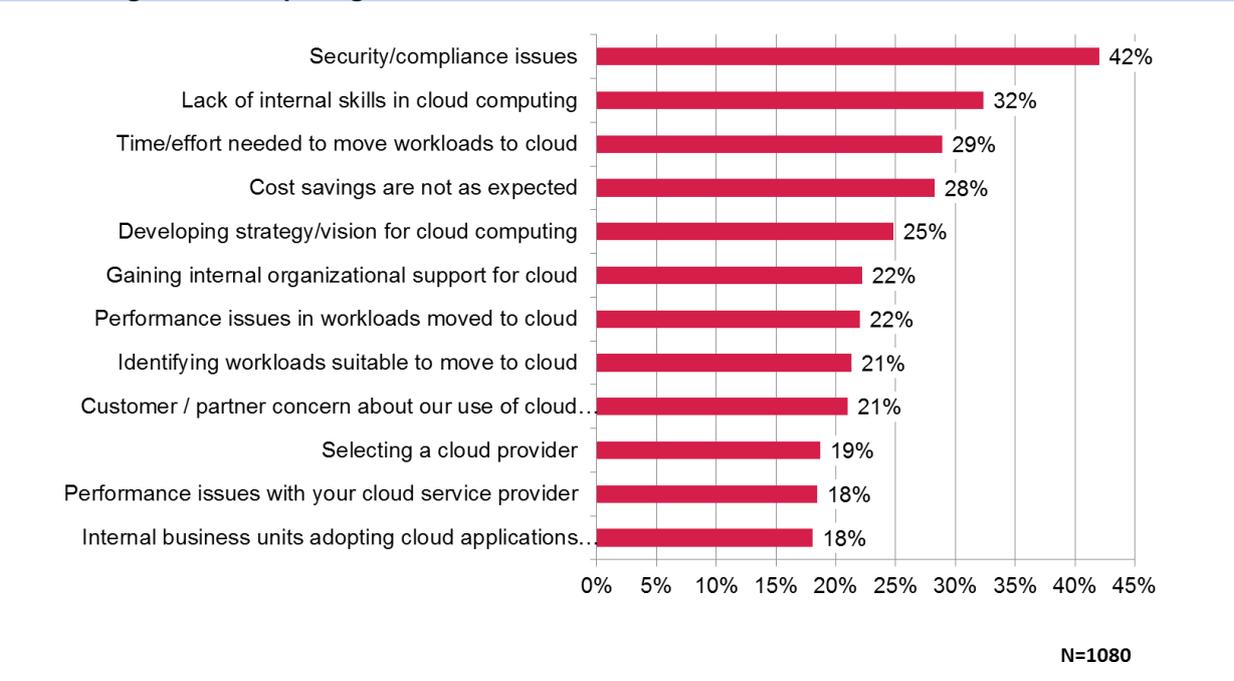
Source: Ovum

- **Lack of supplier accountability:** A quarter of European enterprises are unhappy with their cloud service provider. Unexpected downtime is the main reason, and is cited by a third of enterprises. Lack of accountability is endemic: most cloud service providers provide weak and narrowly-defined service-level agreements, rarely backed up with any liquidated damages for non-performance. As enterprises point out, mediocre is the best score that most cloud service providers deserve.

- **Internal skills shortages:** Many enterprises don't have the skills to articulate what they need, manage workload migration to a cloud or select appropriate suppliers. This is particularly true among central government and healthcare organisations. Unfortunately the future holds even more risks because European enterprises really want to gear up their cloud usage – and this will exacerbate existing issues, and add new challenges (see Figure 6).

Figure 6: Which of the following do you regard as important future challenges for cloud computing in your company?

| Challenge	Percentage
Managing increased compliance / data security requirements	39%
Migrating legacy applications to the cloud	35%
Meeting internal business unit and user demands e.g. application-specific performance…	32%
Moving workloads between different providers or cloud types	31%
Finding a strategic cloud partner that we can work with as our cloud requirements evolve	28%
Managing and coordinating the use of multiple cloud suppliers and service types	26%
Controlling 'shadow IT' i.e. business units implementing cloud services locally	25%
Processing data from sensors and connected devices ("Internet of Things")	25%

N=1080

Source: Ovum

A future priority is to migrate more legacy applications to a cloud environment. To do this, enterprise IT departments must demonstrate a deeper understanding of application-specific performance needs – a perennial challenge in recent years, according to Ovum's end-user research. This is linked to how and where employees work, and to the tools that they and customers want to use to consume and share business intelligence and enterprises' digital services. Maintaining application performance is tough to do well whether an application is in the cloud or not: impaired application performance is almost as damaging to business productivity as an actual outage.

Ultimately, this means that enterprise IT must conduct a more in-depth assessment and right-sizing of their (public) network infrastructure in conjunction with non-trivial data centre centric issues. This is resulting in a notable shift in capabilities valued among cloud suppliers. Almost half of European enterprises now say that end-to-end management and SLAs across data centre and network environments would be of considerable benefit to them when looking to deploy cloud services (see Figure 7).

Equally , enterprises identify networked IT service providers and system integrators as their most preferred partners to design, implement and manage private cloud environments, typically where their most sensitive and valuable corporate assets are held.

Figure 7: Do you see any benefits in selecting an IaaS cloud provider that can provide end-to-end management and SLAs for both the cloud data centre and WAN connecting your company sites?
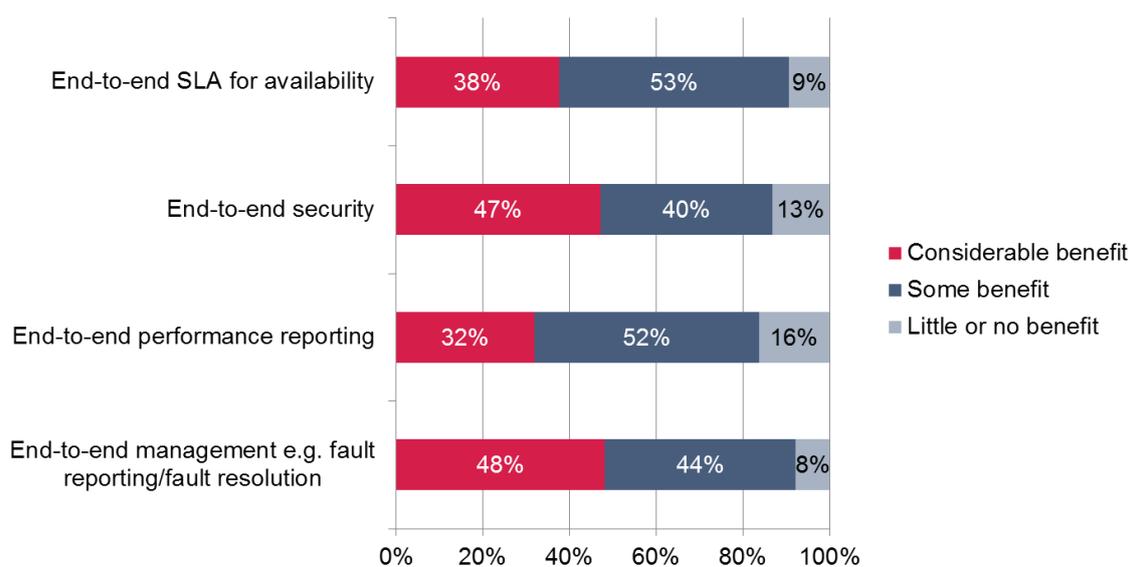
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Source: Ovum

What enterprises must do

While designed with the best intentions, European Union efforts to codify cloud SLAs, establish standards for supplier accountability and bring greater professionalism into the cloud computing market will not address all the challenges that Ovum has identified.

In terms of choosing cloud suppliers, enterprises are still largely on their own. However, enterprises should shortlist suppliers that:

- **Offer cloud choice:** Enterprises want hybrid cloud environments, but also want to minimize complexity. That can be achieved with suppliers that can broker between private and public cloud environments without prejudice, and have the consulting skills to determine which configurations are best for the project in question.

- **Bridge the IT and network divide:** While there is no cloud without a network as well as a data centre, supplier competences are often polarised within the data centre. In today's increasingly mobile and connected world, customer and employee consumption patterns are changing. As a result, enterprises are demanding deeper expertise and services in connectivity from their suppliers.

- **Take responsibility:** Cloud service providers must make clear and tangible service commitments including escalation procedures and fair remedies for non-performance. Networked IT service providers can be best-placed to deliver those.

- **Speak the language:** Seek suppliers that are structured into verticalised account management teams. Their industry expertise will pay dividends and save time

because the supplier should already understand industry KPIs, applications in use, performance and compliance requirements.

- **Certify competence:** Demand third-party proof of expertise because investment in certification demonstrates market commitment in addition to reducing risk of supplier engagement. Among competences that should be demonstrated and certified, security is top of the list.

Summary

Let's recognize achievement: only one in 10 European enterprises has failed to profit in one way or another from investing in cloud computing. For the remainder, benefits have been varied, but promising enough to warrant a continuing – and growing – wave of cloud-related investment.

Enterprises have learned from their experiences. The rise of hybrid cloud environments reflects a differentiated understanding of how to match corporate needs to appropriate technical capabilities. Yet the hybrid cloud – demanding navigation through different cloud options – is not a trivial operational environment. Selection, configuration, and orchestration of workloads across hybrid environments demands converged skills that few enterprises or suppliers currently possess. Relatedly, security risks and compliance rules are becoming more complex.

Assured, end-to-end performance and security without the complexities and rigidity of a patchwork of contracts should make cloud computing viable for entirely new business purposes. However, enterprises must be vigilant not to be "guinea pigs" in anyone's cloud experiment except their own. They must demand more from their cloud suppliers, and establish a higher order of credentials in order for suppliers to belong on their shortlists. Equally, enterprises should not let complexities stifle their cloud ambitions: transformation, not just optimisation, is an achievable goal.

Appendix

Methodology

Ovum conducted an online survey of 1,080 European enterprises between July and August 2014. This survey was sponsored by BT and Cisco Systems, and conducted independently by Ovum. The sample included enterprises based in the UK, France, Germany, Italy, Spain, the Netherlands and Belgium. Demographically, 79% of enterprises surveyed had 1,000 or more employees, while enterprises with 250–999 employees accounted for the remainder of the sample. Respondents were drawn from health, education, central and local government, financial services, retail and manufacturing firms.

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