

Heading To The Cloud Party? Here's How To Avoid The Hangover.

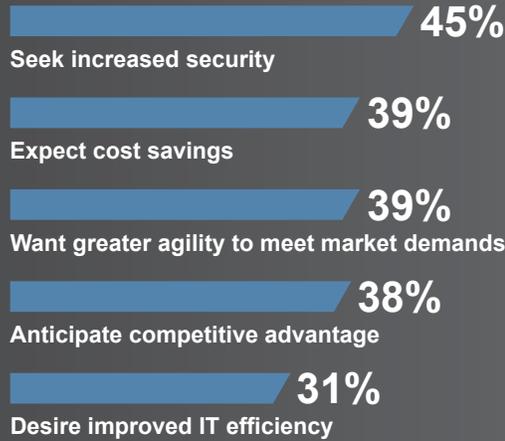
It seems that everybody is going to the cloud party these days. Businesses are joining the party *en masse*, drawn by promises of low costs, simplicity, and a solution to all that ails them.

But, while the party has had its high points, fun, and laughs, many corporate party-goers are waking up the following morning with a cloud hangover.

In August 2015, 247 US-based IT decision makers were surveyed on behalf of Sungard Availability Services regarding their views on the current state of cloud adoption. The survey focused on uncovering insights into organizations' experiences with cloud environments including current investment, expected future investment, vendor management and, ultimately, satisfaction. The research spoke to IT decision makers at enterprise businesses across a variety of sectors – including financial services, business process management, and retail.

The message from the survey was clear: businesses want to go to the cloud party, but clearly need ways of avoiding a cloud hangover when it comes to the **cost, complexity,** and **challenges** often associated with cloud implementations.

Why businesses go to the cloud party



Lingering headaches* from the cloud party



*Three years following cloud implementation

The Dizzying Effect of Cost

Tallying up the costs of implementing a cloud solution can make your head spin. Whereas you may want to migrate to the cloud to achieve better cost effectiveness, you may find – along with many others – that your initial implementation costs and day-to-day maintenance expenses are more than you had bargained (and budgeted) for.

The cost of implementing cloud services is steadily going up

- In 2013, 50% of organizations spent \$150,000 or more on implementing cloud services
- In 2014, that number rose to 53%
- In 2015, it has reached 63%

Monthly maintenance fees can be substantial

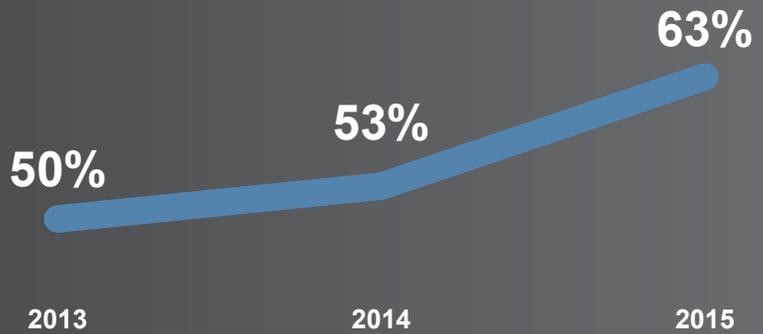
- 29% spend under \$30,000
- 12% spend between \$30,000 and \$44,999
- 24% spend between \$45,000 and \$59,999
- 32% spend between \$60,000 and \$74,999
- 3% spend \$75,000 or more

One of the biggest concerns with the cost of the cloud is that so much is *unplanned spend*: unanticipated costs that completely disrupt financial expectations and disillusion both IT and the executive suite.

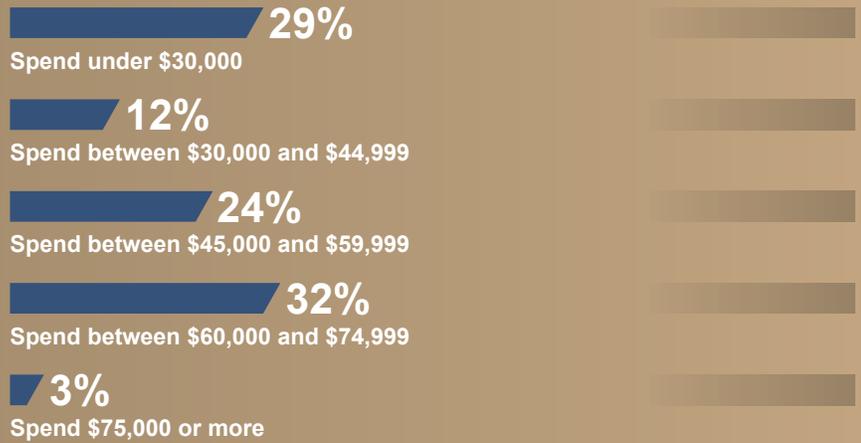
Unplanned spend over a three-year period required to make cloud services as effective as possible

- 21% spent less than \$75,000
- 9% spent between \$75,000 and \$149,999
- 15% spent between \$150,000 and \$374,999
- 18% spent between \$375,000 and \$749,999
- 18% spent between \$750,000 and \$1,499,999
- 19% spent between \$1.5MM and \$7.5MM

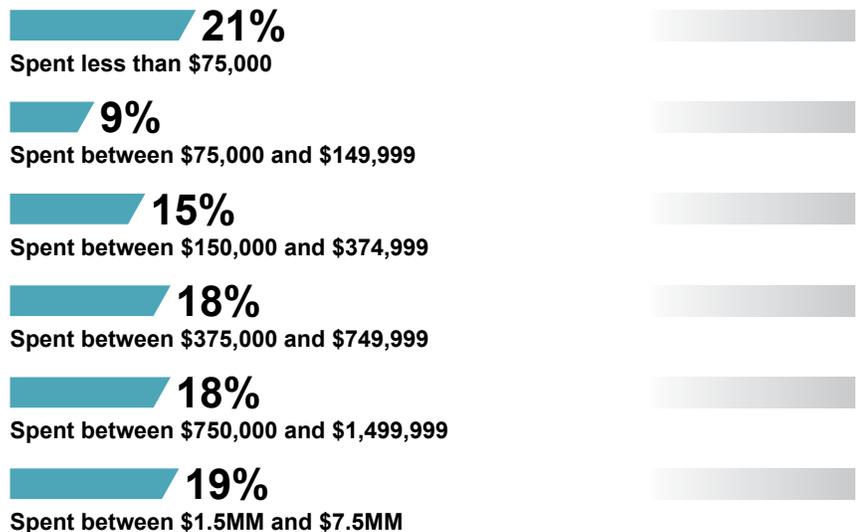
Organizations that spent \$150,000 or more on implementing cloud services



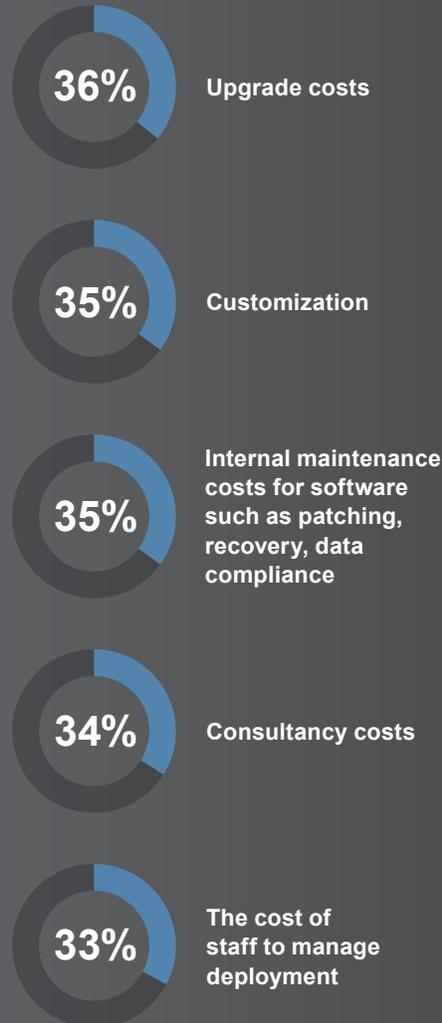
Monthly maintenance fees



Unplanned spend over a three-year period



Top drivers of unplanned spend



Fortunately, there are concrete ways to avoid the nauseating dizziness caused by spiraling cloud costs, beginning with understanding how to **set appropriate expectations**. The fact is, you may have bought into the cloud hype that basically said, “With the cloud, you’ll go from a capital expense-heavy IT budget to an operational expense budget that will be negligible. Compared to the millions of dollars required to run a data center, the cloud is practically free!”

But the cloud isn’t free. It was never free. There are costs associated with converting from a physical to a virtual environment. Some applications or codes might have to be re-written. Other applications can’t be moved at all, necessitating a hybrid IT environment along with its associated complexity. The cloud involves technology, upgrades, skills, resources, and upkeep, just like physical data centers do. All of which must be paid for, whether you are performing the work in-house or relying on your cloud provider to do it for you.

It is also important to **mature your concept of the cloud’s benefits**. Assessing cost is not simply a matter of comparing your expense sheet pre-cloud and post-cloud. Instead, ask yourself:

- How has the cloud saved us time, effort, and resources through enhanced security?
- How has our competitive position improved because of the cloud?
- How has our business increased its agility and responsiveness?
- How has the cloud enabled us to increase customer satisfaction and penetrate new markets?
- How has the cloud helped drive innovation in the business?
- How has our productivity and efficiency improved?
- How has the cloud’s increased availability and resiliency supported our business objectives?

Questions such as these address issues of long-term business value, productivity, market position, and cost avoidance. So while the literal dollar-figure may be more than expected when it comes to the cloud, the better approach is to assess the total return on investment that the cloud has provided the company.

With proper expectations and an end-to-end view of the cloud’s benefits, it is time to **prepare a formal business case**. Frequently, companies do not perform a full analysis of an intended cloud implementation, having been sold on the idea that “the cloud will dramatically lower your costs” regardless of business drivers, industry, applications, or network.

Don’t make assumptions about the cloud. Treat it as you would any other major technology investment. By scoping out your cloud project thoroughly and in detail, you will have taken a major step toward ensuring that your implementation and ongoing costs remain within budget and meet your business’ unique needs.

As part of your business case development, be sure to:

- **Map your interdependencies.**
You don’t have to be a global enterprise to have a complex IT environment where various systems interconnect and depend on one another. Dependency mapping is critical to avoid performance problems down the line.
- **Check for cloud readiness.**
Which of your applications are able to run in the cloud? Which ones require remediation – and how much – to function at optimal performance in the cloud? Are there some applications you should not move, perhaps for performance reasons?



- **Beware of change control.** One of the biggest reasons cloud implementation costs skyrocket is because companies keep adding more and more applications to the migration after the conversion is already in progress. Every addition costs money. If you map your strategy in detail from the beginning, changes can be managed and costs controlled.
- **Budget for unknowns.** You should factor into your business case that there will be some unknowns that

will carry a price tag. For example, you may discover an interface problem or a latency issue along the way that could not have been predicted. Set aside a reasonable amount for tackling obstacles that are encountered during implementation or production.

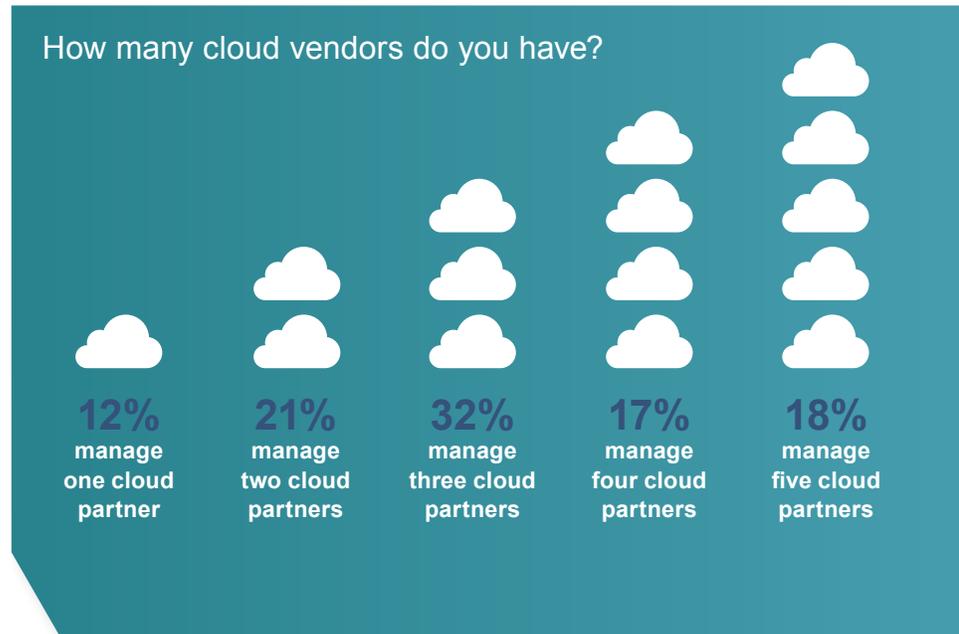
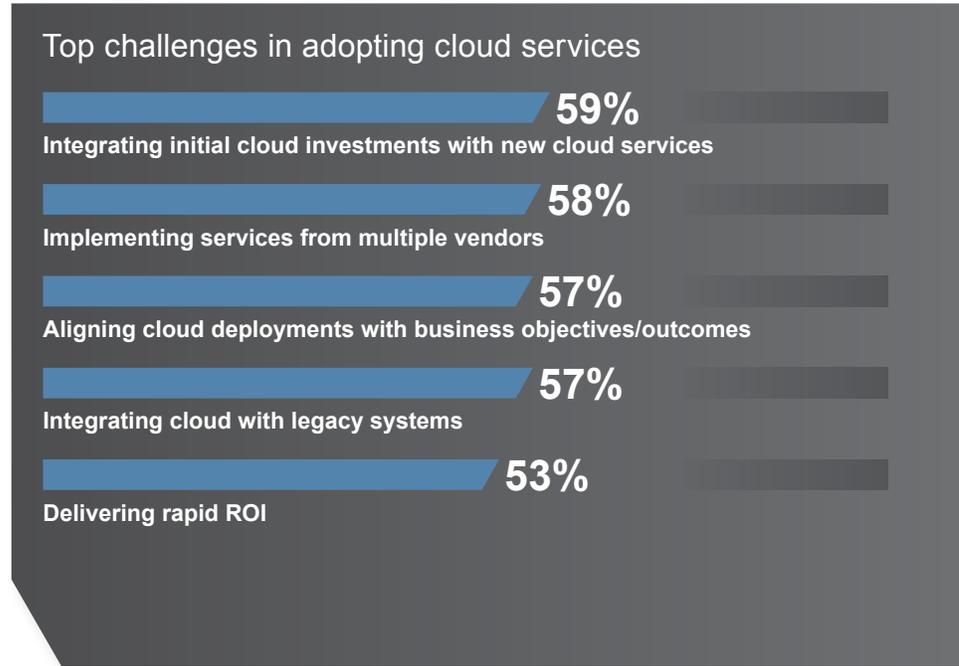
Finally, it is helpful to take an **incremental approach to cloud migration**. Migrate a discrete application or a small set of applications. You will then be able to compare your actual costs to

your planned costs, detect previously unknown factors, and evaluate what will be required for ongoing maintenance. Armed with this information, you can then plan for the next phase of cloud migration with greater accuracy. By moving incrementally to the cloud, you can identify true costs and staffing needs, and systematically address any interdependency, cloud readiness, latency, or performance issues that may arise.

The Complexity Headache

Complexity generates a severe headache for cloud party-goers. Moving to the cloud consists of many variables: integrating the cloud with other technology, prioritizing applications, managing multiple vendors, and establishing recovery tiers. It requires specialized IT staff, a significant investment in time, and an understanding of how multiple solutions integrate together.

Many companies elect to have a hybrid cloud solution, incorporating multiple private and public clouds alongside their traditional infrastructure. This setup brings with it a plethora of complications when it comes to managing and maximizing cloud environments. In the survey, 58% of all respondents listed implementing services from multiple vendors in their top five challenges, and 59% said that integrating initial cloud investments with new cloud services was a top five challenge. Almost half (49%) of respondents indicated that, in their opinion, their organization uses too many cloud platforms.



“The value of implementing a full or hybrid cloud infrastructure is clear, but many dive in without understanding the new challenges resulting from deployment, leaving IT leaders with a severe cloud hangover.”

CHRIS ORTBALS
Vice President of Services
Product Management
Sungard Availability Services

There is no question that the cloud introduces complexity into your IT environment. That is unavoidable. What is avoidable is letting the complexity get out of control, and the first way to do that is to **map out the right mix of cloud environments** for your business – paying special attention to where a hosted private cloud would be appropriate.

The fact is, picking a public cloud where a private one would be the better choice is a recipe for complexity. Many (though not all) public clouds limit the amount of customization and control you have over the environment, potentially leaving you to contend with noisy neighbors, latency issues, suboptimal application performance, and security concerns – all of which eat up time and energy. Public clouds may be most appropriate for your tier 4 or tier 5 applications, which do not have significant demands for customization or control.

A hosted private cloud, on the other hand, gives you a single-tenant environment. You can assume the level of control that you want with wide self-service capabilities, or have your cloud service provider manage the operating system, frequent updates and upgrades, database, security, etc. for you. By establishing firm control, you can better manage the inherent complexity of the cloud.

Once your cloud migration is complete, you can lessen complexity if you **seek automated or managed orchestration** of your cloud environment. This is imperative, because the likelihood is that you will have a multi-cloud, multi-vendor cloud strategy. One cloud simply will not fit all your use cases and workloads. But multiple clouds and cloud vendors mean differing service level agreements (SLAs), a variety of technologies, potential integration issues, business continuity concerns, and more.

You can invest in automated orchestration, where you can use a single interface to manage multiple providers, spin up and spin down instances, and move workloads. Or, you can contract with a single cloud provider to orchestrate your cloud environment via cloud managed services. In either case, you will add cost to your budget, but the return is significant in terms of lessening complexity and streamlining the efficiency and effectiveness of your total cloud solution.

Another critical element to lessening cloud complexity is to **build a strong operational framework and governance**. The cloud makes it easy for business users to provision their own virtual machines (VMs) without IT’s knowledge – eventually creating a sprawling cloud empire where IT cannot keep track of departmental spend, overall costs, interdependencies, data management, or security and compliance. It is crucial to have the right set of controls in place from the outset to govern how the cloud environment will function and to establish roles, responsibilities, and accountabilities for users and administrators.

With an operational framework and governance structure in place, you can measure the effectiveness of your controls in a standardized way with various automation tools to monitor what is actually happening within the system. Metrics can report on security, spend rates, VMs, storage, compute, etc. The moment an unauthorized activity takes place, it can be appropriately addressed to maintain control and minimize complexity.

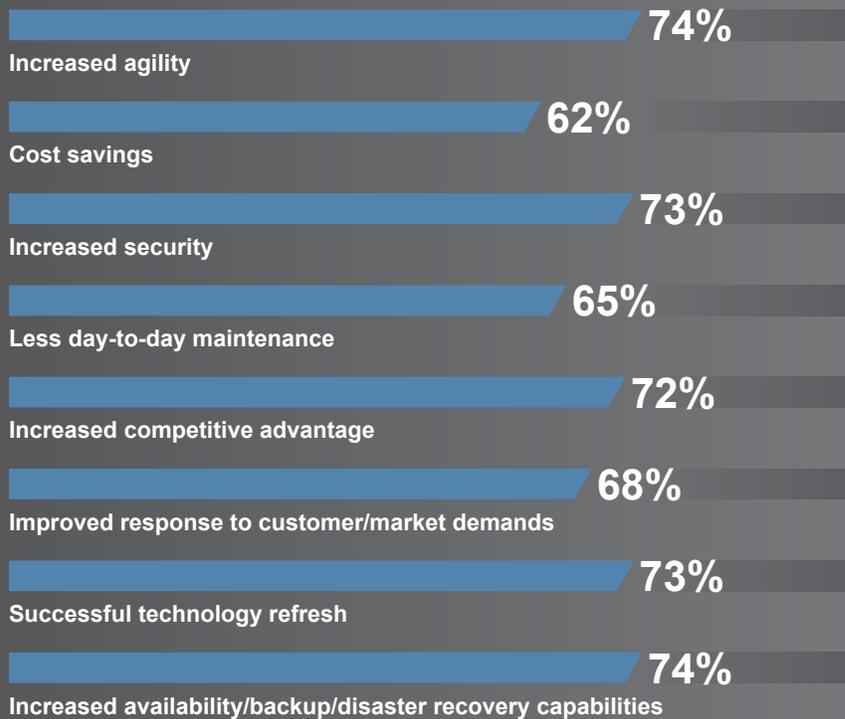


Stress from Too Many Challenges

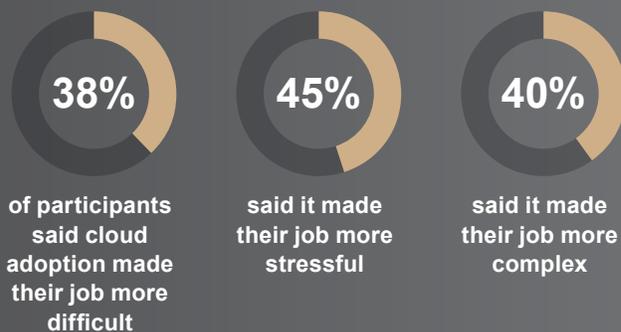
So, is it worth it to attend the cloud party? Many believe that the transition to the cloud is worth the cost and complexity, but implementations must be thoroughly planned and managed in partnership with an expert.

Stress caused by the challenges inherent in the cloud have caused businesses to split in their future cloud strategies, with some reverting to physical infrastructures and others creating a more hybrid strategy with fewer vendors.

Yes, businesses can get great favors from the cloud party...

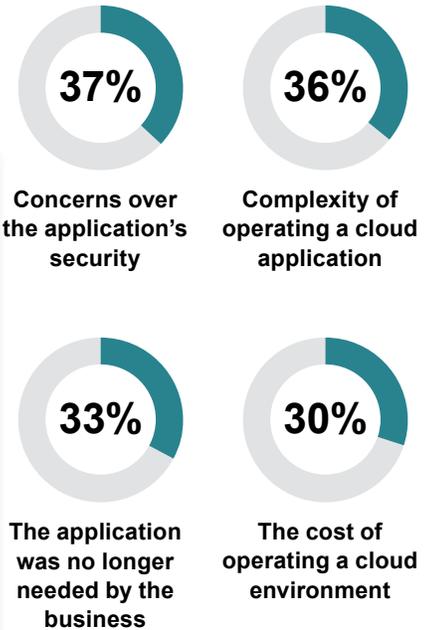


But, they can also experience significant cloud hangover symptoms ...

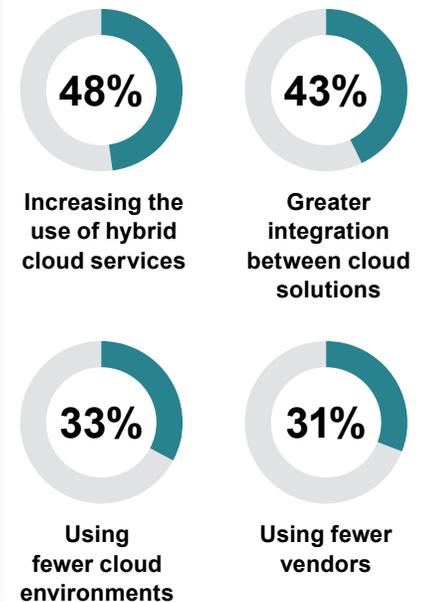


66%

of respondents moved **31% or more** of their previous cloud services back to physical infrastructure. The top four reasons given for the move were:



Respondents are rethinking their cloud approach by:



If you want to minimize the stress associated with cloud adoption, it's important to **define your business and technology requirements** before you hit the switch to move to the cloud. Which of your workloads are cloud-appropriate? Which can be bundled together into a certain type of cloud platform? Which are interdependent to support a single business process? Which have distinct regulatory requirements?

Bucketing your use cases will help you determine how many clouds you need, and of what type. That will drive what you are looking for in a cloud vendor, because a single vendor may be able to provide you with multiple cloud platforms.

You may still need more than one vendor to support your cloud solution, but you probably don't need half a dozen.

Having identified your use cases, you should **plan for integration and a hybrid IT solution** right from the start. Much of the stress, complexity, and frustration that contributes to the cloud hangover comes from the assumption that everything in a network can be moved seamlessly into the cloud. That is not realistic. You will have some applications that – for whatever reason – need to remain in your physical infrastructure. These legacy applications will require integration and form the basis for a hybrid IT environment.

Planning proactively for a hybrid IT environment puts you in control of that hybrid environment once it is implemented and in production. You can set up an integration layer between your on-premise IT and the cloud infrastructure that you outsource to. You can establish ease of access and secure private connectivity to the various components of your hybrid environment. With a governance structure, you can set policies and procedures to support the effective management of your entire environment.

Finally, stress is always lessened if you have someone ready to support you and share the load, so be certain to **pick the right cloud partner**.

Finding the right wingman supports hangover-free cloud adoption



Report that expert help improved the level of integration across their IT environment



Said hiring support ensured their cloud implementations were a success

Some characteristics of a cloud partner who can prevent a cloud hangover are:

- **Their cloud fits your business.** You want a cloud solution that is aligned with your business from the start; you don't want to find yourself aligning your business with your chosen cloud solution! Look carefully at the cloud options: are they flexible for your needs? Can they be customized or tailored to your requirements? Will they integrate well with your legacy applications and physical infrastructure?
- **Their services can simplify cloud management.** Nothing relieves stress like shifting responsibilities to someone you know will handle them well. A managed cloud service provider can take on maintenance tasks, cloud orchestration, disaster recovery planning, and more.
- **Their expertise can aid in cloud adoption.** If you haven't setup a cloud environment before, it is easy to miss important design considerations, application interdependencies, risk areas, management costs, implementation steps, and more. But an expert cloud provider who offers consulting services has seen it all and can guide you through cloud adoption step by step, giving you confidence in the process and excellence in the result.

A cloud partner will add to upfront cloud costs but, in the end, the actual costs to implement and operate the environment will likely be much less, as will the complexity and the challenges encountered in cloud adoption. It is well worth it to be able to enjoy the cloud party and avoid all these symptoms of a cloud hangover.



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The Cloud Party Continues

What will the cloud party look like in 2016 and beyond? Given the costs, complexity, and challenges that are frustrating businesses today, it is reasonable to expect that cloud providers will respond with refined solutions. This will include:

- A greater emphasis around managed services rather than the commoditization of the cloud
- Interoperability being a requirement for all major cloud players
- A focus on security and compliance
- An explosion of hosted private clouds geared to specific use cases
- An evolution of multi-tenant clouds to answer some of the concerns present today

As cloud providers come out with new and improved clouds, the cloud party is only going to pick up speed and energy. It will be – even more than today – a key component of every businesses' IT strategy. And as businesses become more savvy on how to maximize the potential found in the cloud, the cloud hangover will become a thing of the past.

Come join the party! www.sungardas.com/cloudhangover

About Sungard Availability Services

Sungard Availability Services is a leading provider of critical production and recovery services to global enterprise companies. Sungard AS partners with customers across the globe to understand their business needs and provide production and recovery services tailored to help them achieve their desired business outcomes. To learn more, visit www.sungardas.com or call 1-888-270-3657.

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