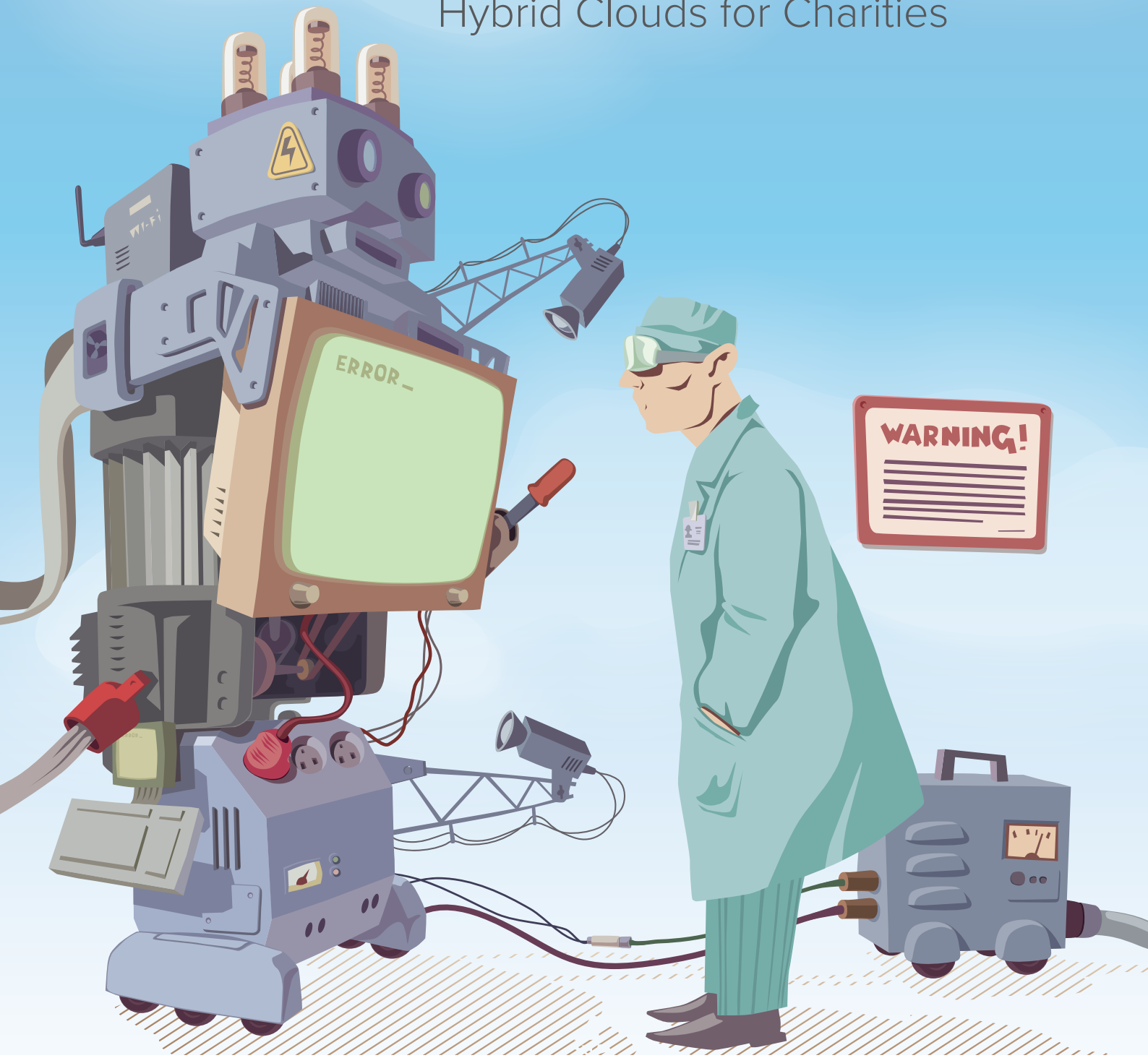
access

0845 345 3300 tellmemore@theaccessgroup.com www.theaccessgroup.com

IN A CLOUD OF DOUBT?

Hybrid Clouds for Charities



a Databarracks whitepaper for Access Databarracks access

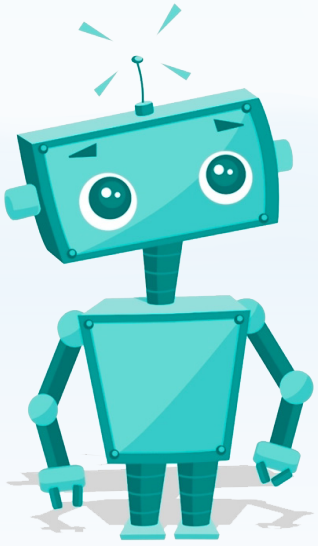
You may already have a hybrid cloud... but don't get ahead of yourself

Hybrid clouds are not a particularly new concept: they reached the peak of Gartner's hype cycle almost a year ago, and we're now at the tail end of the 'trough of disillusionment', in which the botched attempts of early adopters become less a cautionary tale, and more a mile-marker for the progress of the market.

However, hybrid clouds aren't always acquired by design. As organisations become more confident with cloud services, many have taken a phased approach to adoption. As a recent blog post from Forrester confirms, running newer cloud services in parallel with legacy systems in private clouds can result in hybrid architecture by default:

> 'If your company has even a single SaaS application in use today, I can almost guarantee it's connected to something inside your data centre, giving you a hybrid cloud'.

The National Institute of Standards and Technology offers a similarly catch-all description:



> **'Hybrid Clouds:** Cloud Infrastructure [which] is composed of two or more distinct cloud infrastructures (private, community, or public) that remain unique entities, but are bound together by standardised or proprietary technology that enables data and application portability'.

The third sector, which has traditionally adopted new technologies at a slower rate than other more commercially oriented sectors, is particularly susceptible to these kinds of unintentional hybrid clouds. With smaller internal IT functions and limited IT representation at board level, newly acquired cloud services regularly coexist with legacy systems.

However, as services become more varied (and the rate of adoption rises), the difference between operating a hybrid cloud on a technicality and building one that actually supports the business is going to become far more pronounced.

There's hybrid clouds, and then there's *hybrid clouds*

The uptake of Software as a Service among charities has been uncharacteristically enthusiastic, and is one of the main factors driving hybrid environments. There are a number of reasons for this.

First, there's a significant drop in management complexity compared to in-house provision – particularly given the smaller internal IT teams normally found in the sector. Software license management, for instance, is often complicated for charities due to the fluid and sometimes voluntary nature of employment within the sector. The flexibility gained by working with a service provider enables charities to simplify, if not outsource altogether, the technical and administrative challenges of traditional management to a third party, reducing both time and monetary costs.

Second, cloud services themselves are improving. There's far greater choice in the application market today than in recent years, and for charities, this means building out a suite of industry-specific systems and software from a range of providers. This fragmentation necessarily raises questions around integrating different cloud environments.

For instance, whilst traditional HR systems are likely to remain in-house, custom charity-specific CRM and fundraising applications are gaining traction in the market. To fully realise these benefits, charities and not-for-profit organisations must take a holistic approach to SaaS services. Properly integrating SaaS applications with both legacy infrastructure and other SaaS applications from different providers is a common challenge.

Furthermore, failure to properly reconcile old and new systems could result in duplication of effort as two IT functions run in parallel, potentially losing any management efficiencies supposedly gained.

Sharing the load

As an industry, charities tend to consume computing resources on an event-based model. Whether that's around media coverage, seasonal variations or driven by news-events, there's a real case to be made for flexible and scalable computing in the third sector.

Consequently, many charities are seeing great cost savings and operational efficiencies via Infrastructure as a Service.

For instance, earlier this year, a major children's charity received a twitter endorsement from a popular UK celebrity with millions of followers. What was intended as an act of generosity quickly became unintentional sabotage, as the charity's servers strained under the weight of hundreds of thousands of concurrent visitors. After only a few minutes, the website crashed, taking with it back-end office functionality for the entire charity.

Provisioning infrastructure to meet this elastic demand would have been very expensive using a traditional, dedicated environment – particularly when that kind of capacity is only needed occasionally.

Fortunately, because these peaks are event-based, they're often predictable. Using an Infrastructure as a service platform, organisations have an in-built flexibility in the way they provision and consume resources. The charity in question could have quickly and easily scaled up the load-bearing elements of their infrastructure to cater for a sudden influx of web activity – whether that's page visits, donations or media consumption.

Data Segregation

For the majority of charities, working with hybrid environments means pushing data, applications or infrastructure into public clouds. For charities working with sensitive information (such as case notes or medical records), there's often a perception that this is inherently less secure than on-premise, or externally hosted private clouds.

It's one of the most prominent barriers to adoption for many charities – the idea that once a service or piece of infrastructure is moved outside the corporate firewall, there's a corresponding loss of control and drop in security.

The answer isn't simply to avoid cloud services however. Doing so needlessly forfeits the wide ranging benefits available. This fear actually misinterprets one of the main appeals of hybrid clouds – the ability to distinguish between variously secure environments and segregate sensitive data accordingly.

Working with cloud providers who have achieved various security and compliance accreditations from relevant government and industry bodies is a good place to start. IL levels, ISO 27001 and PCI-DSS are regulations all designed to demonstrate the provider in question has taken certain measures to ensure the security, resilience and quality of services they deliver.

But leveraging any existing private cloud investments is by far the best way to both assuage internal fears and address legitimate security concerns. Practically, this means separating applications that process, store or transmit sensitive information and keeping them within the boundaries of the corporate firewall. In truth, most public cloud providers offer hugely secure environments – security is core to their business and they will have likely invested far more than any prospective customer in building a secure environment. However, from a change management perspective, the choices delivered by hybrid clouds form a good stepping stone to convince anxious stakeholders in the early steps towards cloud.

Managing the Hybrid Cloud

Of course, advising the use of different cloud providers and the granular segregation of data makes the task of maintaining a unified hybrid environment very difficult, from both a technical and managerial standpoint.

Fortunately, organisations across all industries are feeling this kind of pressure, and in some, cases it's actually changing the job description of certain IT professionals. The CTO or CIO for instance, who at one time was responsible for the strategy, procurement and operation of all technical aspects of the business, now functions as more of a relationship manager, monitoring the different services delivered via multiple providers.

There are two ways to do this effectively.

The first is to manage separate clouds individually using specifically tailored tools, which tend to offer a high degree of control over certain environments, but do not scale well with particularly complex deployments.

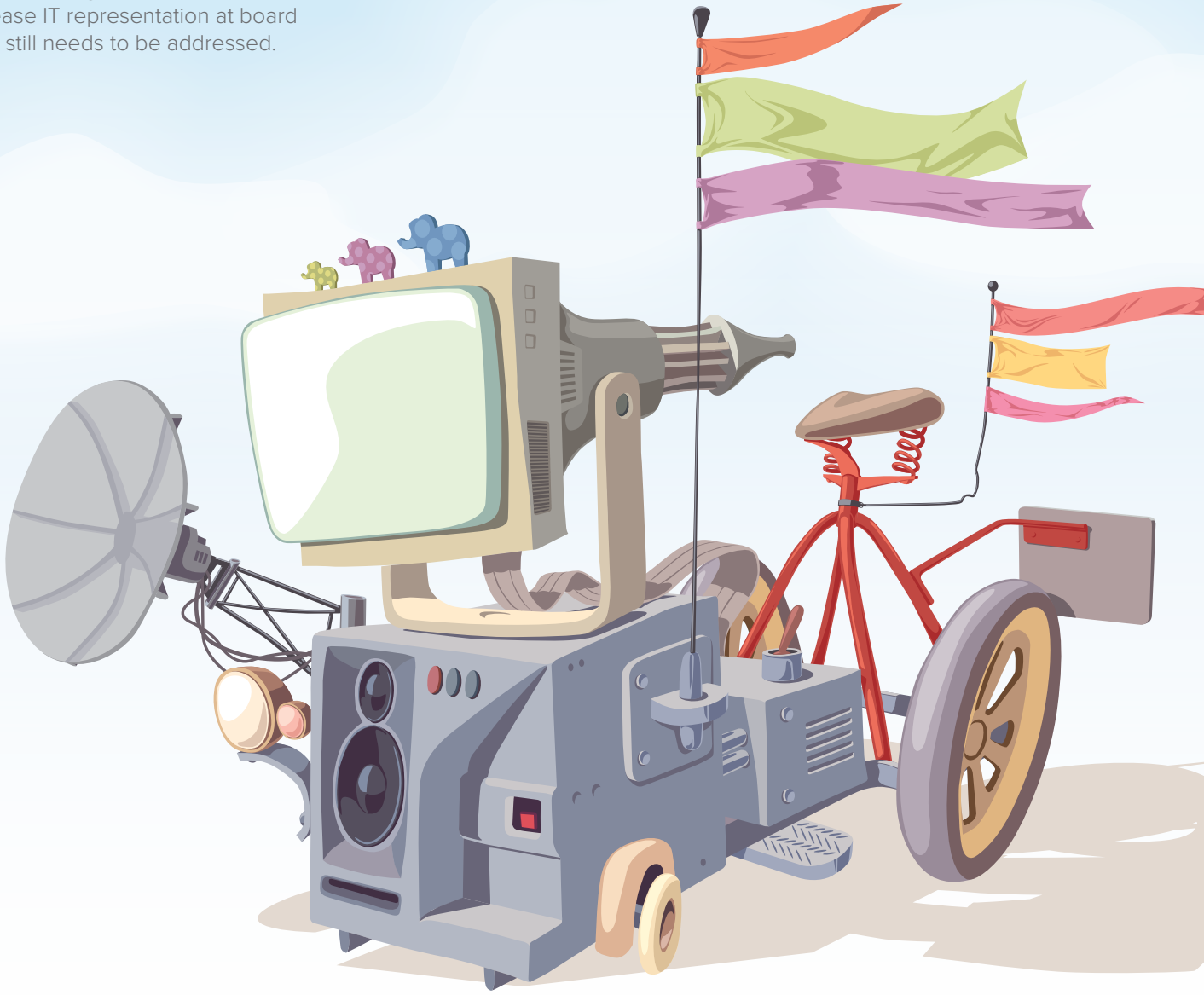
The other option is to take the 'single-pane-of-glass' approach and use a cross-platform tool that supports deployment, capacity management, load balancing and operational tasks across multiple systems from a single console. This option will necessarily be more expensive to configure effectively, but might be preferable to charities in the long-term because of the reduced management complexity.

Taking Control

The key to hybrid clouds is integration. Organisations that let IT functions from different environments sit in silos aren't really using a hybrid cloud at all – simply a number of different services with no central management strategy.

Despite a historical reticence to adopt new technologies early on, cloud services are getting popular with many charities, and if the current phased-adoption trend continues, they'll be well placed to build a solid management strategy from the ground up. This slower pace will ease some of the usual blockers to adoption, such as organisational resistance to change, but the more general need to increase IT representation at board level still needs to be addressed.

It's unlikely that charities will adopt cloud services in an all-or-nothing approach. Budgetary restrictions, legacy investments, existing cloud infrastructure and limited internal technical resources are variously prominent throughout the third sector and taken together, it's likely that the most strategic approach for charities will be a staggered, hybrid approach. As such integration needs to be built in as a fundamental component of any proposed cloud strategy from the beginning.



Further reading

Keep it Simple for the Volunteers

Hybrid-Cloud: what is it?

No training required for aCloud Expense - as proved by Kew

About the Author

Oscar Arean, Technical Operations Manager, Databarracks

Oscar Arean is a specialist in providing private, public and hybrid cloud services including backup, archiving, DR and email hosting. Oscar is also Databarracks' Information Systems Manager and has been instrumental in helping Databarracks achieve ISO certifications 9001 and 27001.

About Access

Access is the leading charity software provider in the UK. We help organisations improve performance, increase cost efficiency, and make the most of their funds by delivering integrated software for finance, expenses, HR & payroll, fundraising & membership, and business intelligence, to name just a few.