

The logo for BlueCentral, featuring the word "blue" in lowercase and "central" in lowercase with a stylized "C" that has a dot in the center. A white line starts from the top left, goes up, then right, then down, ending in a small circle that acts as a bullet point for the title below.

bluecentral™

A BlueCentral Whitepaper

● **No Bull - What customers should expect from cloud services**

○ Contents

- p3 ○ **About BlueCentral**
- p4 ○ **Executive summary**
 - Introduction
- p5 ○ **How the IT industry reached this position**
 - **What a customer wants**
- p6 ○ **Unpacking their wants:**
 - 1. A cheaper price, variable on usage
- p7 ○ 2. Absolute reliability
- p8 ○ 3. Security for their data
- p9 ○ 4. Simplicity of transaction
- p10 ○ 5. Comprehensive technical support
 - **So, what should customers expect?**
 - **Contact us**

○ About BlueCentral

BlueCentral is an Australian hosting company offering managed infrastructure and business-grade computing services to private and public sectors. Serving customers since 1997, it guarantees high-availability of customers' services through active management of critical online infrastructure including networking, server, data storage and security technologies. BlueCentral also recognises that customers hosting needs require flexibility as their businesses evolve and structures its contracts to deliver flexibility as a key differentiator.

Key service offerings:

- Managed Hosting (including Private clouds)
- Shared Hosting
- Storage
- Disaster Recovery
- Email
- Bulk SMS Messaging
- Mobile Billing

Priority One Support – Enabling Business Success

- Doing business with us is fast and easy. BlueCentral strives to develop, deliver and support services to our customers under our 'Priority One Support – Enabling Business Success' mantra.
- Commercial and operational flexibility - We address business needs for our customers to fit the changing needs of their business. From pay-as-you-go payment schedules to no contract terms, our aim is not to lock you in but to help you win.
- We always place the customer first – BlueCentral develops and provides solutions that help our customers use technology to gain a competitive advantage and be more successful in their specific industry.

phone: 1300 258 323

email: sales@bluecentral.com

www.bluecentral.com

○ Executive summary

Customers have finally taken control of services delivered by cloud Vendors.

They have moved past the hype and are now making what they want very clear – uptime, diversity, true technical support, jurisdictional control, security and genuine support. This paper describes how a cloud Services User achieves the true benefits of cloud services and sends warning messages to the providers, hosting companies and telecommunications firms. It also provides clues on how a customer can gain better value from services offered by the new cloud companies and Hosting businesses.

○ Introduction

Cloud computing has effectively been with us since 2006, when Amazon released Amazon Web Service, yet delivery of true cloud services has been at least two years behind the “hype curve.”

The word “cloud” is now ubiquitous in the industry, advertised by the largest international companies including Microsoft, Amazon and Google. But what does a prospective customer understand it to be? More importantly what do they expect to get when they buy the service?

Even the customers who have used other hosting services, including the most elementary “shared” web hosting, have an increasingly clear view of what they want. More importantly, these customers also now know what they will get from cloud services. For the first time, customer expectations are exceeding the reality of cloud service delivery, especially outside the USA (Australia, for example).

○ How the IT industry reached this position

Technologies that make the cloud possible have been slowly coming together since 1965, then later in the early 1990's. Theoretically, it should be possible to deliver a genuine computing utility service particularly since the concept of Grid Computing completely redefined data-residency. That said, it could be argued that the final rollout of a genuine cloud service has not yet happened anywhere.

The computing industry promised “computing on demand” in the mid 2000's - enabling a customer to pay for as much or as little as they needed – much like a utility service (e.g. gas or electricity) with the same expected level of reliability. It failed to deliver. Even the largest cloud service providers have had “outages” in 2011, including top-tier players such as Amazon.

○ What a customer wants

With all the hype and advertising, thoughtful customers now want specific things from their cloud service – things the industry has yet to deliver. At BlueCentral, callers to our National Operations Centre (N.O.C) and quarterly customer survey respondees are particularly consistent in their requests;

- A cheaper price, variable on usage.
- Absolute reliability (100% uptime, sometimes “five nines” availability).
- Security for their data.
- Simplicity of transaction—easy-to-use, buy, and “instantly provisioned.”
- Comprehensive technical support in local language from a “real person” any time of the day or night.

○ Unpacking their wants

So let's unpack these "wants," determine if they are indeed "wants" or "needs," and discuss the implications of each for the hosting company or cloud service supplier;

1. A cheaper price, variable on usage

Contrary to the commonly held opinion of junior sales staff in many businesses, customers often do understand the difference between cost, price and value. When a person buys an expensive consumer item based on perceived brand attributes and aesthetics, they are demonstrating a desire for "value" even if that is only a perception. For this reason, early 20th century banks in small country towns built impressive facades to their buildings to assign trust and value to their brand. Today, this remains true for purveyors of internet services. Most buyers can tell the difference between a new service and one that is a little tired;

"Good, clean, fresh chaff comes at a fair price. Once it's been through the horse, it's available a little cheaper."

For cloud services, this goes a little further. The customer is now saying that they only want to buy, receive and pay for the computing power and data storage that they need today. If they use less tomorrow, the price should be lower.

This ability to scale up or down to even 10 times' capacity is now expected. This should be a fundamental deliverable of a cloud service, even for a private cloud service where the customer invests in their own hardware or other dedicated resources.

The scalability of service is becoming more important as businesses move online, due to peaks of usage. Actual manifestations of this need include:

- An Electoral Commission who only runs an election once every three years, and needs ten times its normal capacity for that single month.
- An online retail store that increases its work load three times for the two months before Christmas.
- An event organisation company that expects a huge load when consumers hit its web service to buy tickets to the next smash-hit concert.

2. Absolute reliability (100% uptime, sometimes “five nines” availability)

It's become the norm for customers to expect 99% uptime or availability of services from hosting provider. But as one key member of the ASX said in late October 2011, “that means the ASX would be offline for one full day in every 100 – and that's simply not acceptable.”

For the provider, the reality of delivering that extra 1% - or close to that - is technically possible, but at a cost similar to achieving the first 99%!

Mathematically, we know clearly what 99.9% or 99.99% or 99.999% uptime means in minutes (or seconds) per month off-line. Practically, it is not possible to deliver five nines out of a single data centre. A controversial statement, perhaps. Yet, even with duplicate systems and environmental support, reality dictates that you need QUAD services due to the many moving parts in a modern data centre. It's simply not possible to accurately predict a tsunami, earthquake or major bush fire in 12 hours.

Our experience is that by creating High Availability systems for a customer - where every server, power supply, network link, router, firewall, switch and disk drive is duplicated (“Tier 3” as specified by the Uptime Institute) - it is not possible to deliver better performance than “four nines” over the medium period. Without notable exception, every major data centre in Sydney has proved this point over the last five years by having at least one outage – and many have had multiple events.

If this argument is true, delivering true cloud services requires multiple data centres with duplicated equipment, global load balancing and replicated data. Very few achieve this today.

Most hosting companies who claim to have a cloud service actually merely offer an IaaS platform (Infrastructure as a Service) in one data centre. Moreover, many of these do not use RAID or similar data storage, HA duplicated server hardware or fully diverse telecoms. To this, the customer is often none the wiser – until their service goes offline. Many who do have two DC's do not connect or replicate data for customers unless specifically requested and paid for. Most importantly, customers also expect that a copy of their data will be kept by the cloud company as a contingency – even if they are not paying for it.

3. Security for their data

Customers want to know that their data is secure, but available.

Increasingly, they also want to know that they can get it back if they have a dispute with a hosting provider, which is not easy if your data is held overseas in another jurisdiction.

At best, it will take real time and money to get it back. And that is even before we get into a discussion of RPO (Recovery Point Objective) an RTO (Recovery Point Objective) for data.

If it is connected to the internet, it can be hacked. That's a fact. Therefore, systems such as defence weapons controls, ultra-sensitive databases and the like are kept "System High" and are not connected in any way to public networks.

For example, customers with a need, ask about data encryption as an option, on top of their fire walls and filtering systems such as IPS (Intrusion Prevention System). It has its place. For many years, drug cartels held the US administration at bay by using a basic encryption service called PGP (Pretty Good Protection) a free software system. At the other end of the spectrum, the major banks encrypted credit card and transaction data using "Triple DES" - a very secure encryption algorithm. Breaking into these systems simply required a clever operator and massive computing power. To see how far we've come, there are super computers today that can decrypt "Triple DES" in real-time.

For the vast majority of customers the use of commercial fire walls and IPS, for example, is more than sufficient to protect their data from electronic snooping. Access controls as specified under the standard ISO27001 or under the new Payment Card Industry DDI (PCI) standard are sufficient for commerce. A few good quality Australian hosting companies are certified to these standards where the small premium for their secure services is money well spent for many online retail businesses.

4. Simplicity of transaction – easy to use and buy, and “instantly provisioned”

It's almost a truism to say that simple, reliable customer-orientated systems are notoriously difficult to build, test and operate. Yet for time-poor small businesses and individuals with no technical background, there is a clear expectation of simplicity and instant delivery. As it should be.

Gone are the days when a hosting system could be custom-designed, ordered and built over an eight-week period. Provision of a single virtual server should be done in hours not weeks. Customers increasingly reflect that they want to work with a hosting company or cloud service that is “easy to do business with.”

When asked what this means, the answers are consistent:

- Make it easy for me to see what you are offering.
- Make it clear what the price is.
- Give me flexible contractual terms but provide a specific statement of delivery times, back-up, service and support.
- Deliver as promised.

To achieve this requires very smart software that is both “multi-tenant” (i.e. lots of customers) and “multi-site” over a number of separate data-centres. Such software may be called “cloud Enablement Software,” “cloud Management Software” or “Client Management Software” - but none of the large commercial companies provide a full suite that works reliably in this field today (2011). This includes Google, Amazon, Microsoft, Parallels, Dell and EMC (including VMware), who all have some components, but not the full suite. All are “working on it” or use a kluge of software that they have integrated. Those closest to achieving the suite are some of the Open Source services such as cloud.com, yet these are not fully stable or reliable at this point.

The customer sees this simplicity of transaction from one perspective only – the supplier's website or eCommerce page. The leaders in this include Parallels Automation and Microsoft's Web Site Panel WHMS, amongst others. With these it is possible for a novice to buy hosting and SaaS services (such as managed MS Exchange email) simply and cheaply, but without flexibility.

5. Comprehensive technical support

Customers who have previously used some simple hosting services, such as DNS (Domain Name Registration), shared web hosting and a data connection, quickly realise that they also need technical guidance from time to time. This is acutely apparent when their website or application is first built, customised or provisioned.

Customers also find that hiring good, reliable competent technical people can be quite a challenge. A cloud service provider has an advantage here because the cost of hiring such technical people can be spread over many customers. This enables them to hire the best people - particularly those with specific skills in hardware, networking, operating systems, database or even good customer service.

Hosting companies have various methods of reducing this cost:

- Provide a non-24 hour service.
- Send the service offshore.
- Hire non-qualified staff.

Today's customers see through all of this.

At BlueCentral, we believe that best practice customer service should encompass:

- True 24 X 7 responses.
- Phones answered by real people (not IVR machines).
- Staffing by actual IT engineers with degrees and experience.

All of these are required for competent customer service and are now expected.

○ So, what should customers expect?

The Australian industry does not consistently provide true cloud services today at a fair price, particularly for small businesses. That said, the future is promising and this will be achieved by a number of Australian companies focused on best practice.

As a customer reading this paper, tell your supplier your expectations of their service – computing as a utility. The dream is achievable and nothing less should do.

○ Contact us

phone: 1300 258 323
email: sales@bluecentral.com
www.bluecentral.com