

# Grey Areas: The Legal Dimensions of Cloud Computing

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## ABSTRACT

*Cloud computing has been heralded as a new era in the evolution of information and communications technologies. ICT giants have invested heavily in developing technologies and mega server facilities, which allow end users to access web-based software applications and store their data off-site. Businesses using cloud computing services will benefit from reduced operating costs as they cut back on ICT infrastructure and personnel. Individuals will no longer need to buy and install software and will have universal access to their data through any internet-ready device. Yet, hidden amongst the host of benefits are inherent legal risks. The global nature of cloud computing raises questions about privacy, security, confidentiality and access to data. Current terms of use do not adequately address the multitude of legal issues unique to cloud computing. In the face of this legal uncertainty, end users should be educated about the risks involved in entering the cloud.*

*Keywords:* Access Data, Cloud Computing, Legal Issues, Privacy, Security, Software Service

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## INTRODUCTION

The term ‘cloud computing’ is used in this article to refer to the general system of centralised storage and maintenance of end user data by internet servers. For the purposes of this article, no distinction is made between those cloud computing services which offer software as a service and those that offer mass data storage facilities. Throughout this article, the corporations that offer cloud computing services are referred to as ‘hosts’.

The phrase ‘cloud computing’ originates from standard ICT industry practice, where the internet is graphically represented as a 2D

stencil of a cloud (Ranger, 2008). As hosts offer their services online, the basic premise of cloud computing is that end users transfer all their data from their personal computers into cyberspace (Lyons, 2008a). End users simply upload data, such as photographs or insert text and other data onto host software applications that function online. Once end user data is uploaded to a host, it is sent through cyberspace to purpose-built mega storage facilities filled with masses of hard drives (Corey, 2008). These facilities are located in various regions around the world and end user data may be divided across several of these super computer stores (Marshall, 2008). The host retrieves and dispatches the data from the storage facility whenever an end user requests access. The personal computer of the end user becomes little more than an access

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point and display screen for the data (Princeton University [PU], 2008a).

To date, the most successful cloud computing services have been online collaboration models targeted at private consumers, such as Facebook, Gmail and Hotmail (Ranger, 2008). However, the new wave of cloud computing is capturing the business market by providing software as a service (Hoover, Martin, & Hall, 2008). Small and big business alike is being drawn to cloud computing services by promises of reduced ICT expenditure. The centralised service delivery and storage model of cloud computing reduces, if not eliminates, the need for end users to purchase and maintain their own servers, individual software licenses, ICT support staff, and floor space for hard drive storage (Arnold, E., 2008). Power costs are also cut down as fewer computers and cooling systems are required to be maintained in house (IBM, 2008a).

With the world moving online, e-commerce is set to experience a new boom which will outpace current internet regulation laws.

## THE GROWING CLOUD

Sceptics have denounced cloud computing as the next 'dot.com bubble burst', but since the emergence of Amazon Web Services, Google Apps, Microsoft Office Live and IBM Blue Cloud, cloud computing appears to have become a significant and sustainable force in the ICT Sector.

The uptake of cloud computing services by major corporations such as Coca Cola Enterprises, Nokia and The New York Times has given credence to the permanency of cloud computing (Arnold, E., 2008; Lyons, 2008a; Fitzgerald, 2008).

Cloud computing is reaching into the world hubs of software development. IBM is developing its latest cloud computing facility in the software development region of Wuxi, China. For a subscription fee, software developers will be able to use IBM's open access source code

to collaborate, design, develop and test their software (IBM, 2008b).

The high uptake of cloud computing services can be attributed to clever marketing campaigns that promise end users low charges for data storage facilities and unrivalled access to computer programs such as word processing, bookkeeping and collaborative networking (Microsoft Corporation [Microsoft], 2008a). The centralised series of host servers that supports cloud computing, enables end users to carry out their everyday ICT tasks without in house software, downloads, storage space and support services (Otey, 2008). Cloud computing hosts are further reducing end user costs by assuming managerial control for the running and maintenance of ICT services. However, the decline of end user responsibility and control over ICT management has consequences for possession rights and ultimate accountability.

The implications for end users who place data into the cloud without properly understanding the inherent legal risks can be serious.

## PAYMENT MODELS

Currently, cloud computing hosts are offering their services on either a flat subscription rate or a usage fee basis. The flexibility of these payment models makes programs that were previously beyond the budgets of small and medium sized business affordable. However, the portability of end user data held by a host is yet to be tested and there is a corresponding concern that end users will find themselves locked in to a particular service (PU, 2008b). If end users are locked in, cloud computing hosts will have considerable market power.

## 'FREE' CLOUD SERVICES

Cloud computing hosts are also trialling free versions of their services (with limited capabilities) to domestic consumers (Microsoft, 2008b). Experience has shown that whenever the word 'free' is used in marketing, consumers should beware. Surprising conditions are

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