



Moving to the cloud

INFORMATION PAPER

HIGHLIGHTS

This Information Paper examines the basics of the what, why, and how of cloud computing for accountants working in small- and medium-sized practices (SMPs). It addresses potential benefits and pitfalls (including regulatory issues) of cloud computing to help SMPs remain relevant for their clients, which are mainly small- and medium-sized entities (SMEs).

This is part of a series of papers to help SMPs to best support their SME clients which make up 99.8 % of EU businesses (<http://bit.ly/SMPinfo>).

Why is this important to SMPs?

“If you don't like change, you're going to like irrelevance even less” – General Eric Shinseki, Chief of Staff, U.S. Army

The reason that Cloud-based computing is important for your practice is that it is important to your clients. Clients are increasingly demanding robust accounting tools that allow them to access and manage their data in real time and that facilitate mobile computing. Moving to the cloud is the best way to satisfy these demands and accountants must be ready to adapt to this new paradigm.

Cloud computing can potentially improve your service level to your clients, give you new services to offer to them, and deliver these at a lower cost. It can enhance your flexibility, harness the power of Big Data, and, thereby, keep you relevant in the eyes of your clients.

In this Information Paper we will examine the basics of the **what**, **why** and **how** of cloud computing.

What is cloud computing?

Cloud-based computing is about moving IT functions from your premises to online servers. These functions could be hosted by your firm's servers, but they are more likely to be hosted by third parties. Whilst virtually everything that can be done using your office network can be moved online, there are many things that can only be achieved by using an online platform.

Data storage is still perhaps the cloud-based service most widely used, but there is an increasing range of online hosted software services of use to you and your clients. Online accounting and tax return processing applications are well known examples, but practice managements systems (PMS) and customer relationship management (CRM) systems are amongst those packages also migrating online.

Looking at the future, there is an increasing variety of applications that only exist online or have been transformed by moving online:

- applications to allow clients to sign documents electronically so that paper forms will no longer have to be sent for signature
- simple word processing and spreadsheet applications are becoming collaborative tools for people to work together without physical proximity
- accounting packages not only take accounting information directly from online banking platforms but also from other sources – such as from photos taken on mobile devices or data directly from point-of-sale systems

It is inevitable that such cloud applications will become increasingly innovative and further removed from traditional desktop applications.

Cloud computing is not a perfect solution and there are both potential benefits and pitfalls from moving online. However, such a move is inevitable for your practice if you wish to remain relevant to your clients.

Why should SMPs move to the cloud?

Upgrade service level

Cloud technology can help you better serve your clients. Both you and your clients can access accounting information in real time to provide an instant picture of how the business is performing. You can use this information to help them adjust their strategy and improve their future profitability. Improved insight also allows you to tailor business advisory services to your SME client. This marks a move away from serving clients to collaborating with them.

New services

Increasingly, basic accountancy and compliance work is automated. To remain relevant, you will need to move away from being inputters and processors of financial information to providing the bridge between the information and your clients' business needs. You are ideally placed not only to interpret the (big) information available to your clients but also to help design those analytics (such as Key Performance Indicators (KPIs) and client specific dashboards) most relevant to them.

Although cloud technology has the potential for simplifying accounting for your clients, it is apparent that many clients will remain unwilling or unable to keep their own accounting records and will still seek the services of an accountant. Cloud computing provides the means for accountants to become their client's bookkeepers at a lower cost than was possible using desktop systems. Clients will still have complete access to their accounting systems without the responsibility of having to keep their own records.

You should also be fully involved in the design and implementation of any IT project undertaken by your clients that will impact on the accounting function.

Lower costs

Cloud computing can lower costs in many ways. Typically, the *Software as a Service* (SaaS) model does not require large upfront licence fees and does not require large outlays on hardware (although, as the software is licenced on an annual basis rather than 'owned', the software costs over time may not be lower).

Online services are updated and backed-up automatically and also tend to be less prone to bugs and issues related to the operating system. There is only one version of the data to deal with – no longer will there be different versions held on your system, on numerous different mobile devices/media and on your client's system. Support costs tend to be lower and the need for in-house IT support decreases.

The accountancy world is moving towards 'zero entry' – where customers and vendors enter information directly. With access to your online CRM/accounting/tax software, your clients can amend personal data, input data directly (perhaps using apps), and download documents and reports from the system themselves. Consequently, your staff will spend less time dealing with client administration and data entry, and can concentrate on providing value-added services.

Improve flexibility

Access to information no longer depends on location. You can fully service clients even when out of the office and make client meetings more interactive and productive.

Such flexibility also makes it easier to deal with the modern employment environment. Cloud computing makes remote working far easier to integrate into a small office environment and facilitates the use of part-time workers or specialists to cover seasonal increases in work load or for specific projects.

Access Big Data and those applications that really matter

The cloud offers smaller businesses access to services and tools previously available only to large organisations, such as Big Data analytic tools. These services are often offered on demand, using a pay-as-you-go approach, which allows you and your clients to experiment and adapt as required.

Traditional accounting, practice management, and CRM packages, for example, grow ever more feature rich. Few users require all of the features of their software and their presence often serves to make the basic functions more complex to use. There is now the concept of 'chunkification'. This involves using online applications that offer a key features that the business really needs, and then linking them to other 'chunks' that offer other key functionality. This could result in lower software costs and improved ease of use but, on the other hand, requires technical expertise to connect different 'chunks' together to provide a seamless flow of data and processes.

Stay relevant

In order to prosper, more and more of your clients will use cloud technology. At the bare minimum, you need a basic knowledge of cloud computing and an understanding of how this is embedded in their business. Mobile access and a high technology environment can also help you reach out to international clients and business partners as well as attract and retain young talent – both clients and staff.

How? 5 steps to the cloud

As with any major organisational change, this requires a thorough review of your business model and structure of your organisation.

1. Figure out your needs

You will need to define which business needs would be addressed by moving to the cloud – not just for your practice but also those of your clients. Don't just look to replicating your existing services in the cloud – research how moving to the cloud will enable you to expand the range of services offered, and the geographic area over which you offer them.

You are unlikely to obtain the full benefits of cloud computing by merely moving your existing work processes to the cloud. This is the time for a thorough review of how you handle and process data, of working arrangements, and staff training. Look at how you use your existing software and assess how well it matches your needs. Consider what are the most efficient workflows for your internal processes, such as document management, and for client services, such as accounting. When you know what you need, you can find the most suitable tools and service providers.

2. Assess risks and mitigate them

Accountants have a professional obligation to protect any client assets in their custody and also to protect client confidentiality. These obligations extend to client data held online. In addition to these professional obligations, each country will have its own rules on the protection of personal information held digitally.

In this section we will examine some general risk management issues and those that may specifically arise from data protection legislation.

- **security.** Despite the widespread perception that online services are less secure than desktop software, in reality most businesses fail to exercise proper controls over security regardless of where the data is held. The vast majority of data privacy breaches arise from employee errors, 'inside jobs', phishing, malware and lost devices. Most of these affect both cloud and locally held data. Only a very small proportion of data breaches is caused by hacking. Consequently, having a robust security system is essential for all businesses regardless of whether they use the cloud. You will need to verify that your cloud providers have adequate security procedures
- **privacy.** Whether your data can be viewed by non-authorized persons is more of an issue with cloud-based services and is a very hot topic in Europe at the moment. This has a direct impact on the regulatory environment, which is further discussed below. You need to clarify with your cloud suppliers where their data servers are based, whether data will be sent to other locations, and who (both within the supplier's organisation and third parties) has access to the data
- **backups.** Most businesses are poor at backup management. A component of most cloud systems is an automatic backup of data, giving, at first glance, better security than with desktop systems. However, you are not in control of the backup regime so you will need to check with your supplier whether they keep daily, weekly, and monthly backups, for example, and how to access the backups in circumstances of data corruption. You should also check the supplier's data retention policies in case of termination of the contract. For example, some online service providers will retain data for up to seven years after termination so it may be possible to recover lost historic data held by a previous supplier merely by reactivation of the original subscription
- **regulatory issues.** The European Union's (EU) existing data protection rules will undergo a significant and far reaching upgrade with the recent passing of the EU's *General Data Protection Regulation* (GDPR), which will come into effect in all Member States automatically on 25 May 2018. More information on the GDPR can be found in **Appendix** and in a separate Fact Sheet, available soon on our website www.fee.be.

In addition to the increase in obligations that the GDPR will bring, there have been significant developments regarding the transfer of personal information relating to EU citizens outside of the EU.

The transfer of personal information of **real persons** outside the EU is a high risk area. If the country receiving the data doesn't appear on the European Commission's approved list, then the organisation sending the data must take additional safeguards to ensure data privacy. So far, only 11 countries have made this list¹ and the US is not one of them.

The EU-US *Safe Harbour* framework of self-certification was introduced to deal with this but was deemed inadequate by the Court of Justice of the EU (CJEU). It was replaced with the improved EU-US *Privacy Shield* – from 1 August 2016 US companies are able to self-certify with the US Commerce Department. This certification should be checked² by any EU based organisation intending to use a US based organisation for cloud services.

¹ http://ec.europa.eu/justice/data-protection/international-transfers/adequacy/index_en.htm

² The *Privacy Shield* list can be found on the website <https://www.privacyshield.gov/welcome>

3. Select suitable cloud service providers

Once you have decided on the functions to migrate to the cloud, it is then a question of finding the service providers. You may choose to take a 'chunk' approach, which may require an external expert to help with integration. Alternatively, you could choose an integrated software suite, although any single suite is unlikely to be able to satisfy all of your requirements.

In assessing suppliers, consider the following matters:

- **feature richness.** Cloud applications are less mature than their desktop equivalents. Consequently, features that you are used to may not (yet) be available in the cloud
- **reliability.** You need to assess the reliability of the supplier's infrastructure, its system, and its business. If their service has a lot of downtime, it will prevent you from working. If their data corrupts, who will fix it? If it can't be fixed, can it be restored? If the vendor fails, can you retrieve the data? It may not be easy to obtain this information, but contacts within the IT industry or even online searches may be able to provide you with an indication of the supplier's reputation for reliability
- **data ownership.** With a cloud system, who owns the data? Who else could have access to the data and does the vendor have strict policies on who can access the data? Is your data kept separate from other client's data? These questions have more relevance when moving away from desktop systems
- **data transference.** How easy is it to move to a different supplier and what happens if the current supplier ceases business? Does the service provider's standard contract specify a turnaround time for returning data – if not, is it possible to get the contract amended? Does the contract include a plan for exiting and specify the costs of doing so?
- **extensibility.** How easy is it to integrate into other software – i.e. 'chunkification'? Can developers easily produce add-ons? How easy is it to extract the data? How portable is the data, i.e. is it of a bespoke format or an industry standard, such as Virtual Machine Disk (VMDK), Virtual Hard Disk (VHD), Open Virtualization Format (OVF), etc.?
- **platform independence.** Does the system work equally well on all operating systems, browsers, and mobile platforms?
- **regulatory requirements** (see above)

It can be difficult to ascertain whether or not a potential product or supplier meets all of your requirements. Recommendations from others that have made the transition to the cloud are invaluable, but the web can be a good source of comparative information³.

4. Get your organisation cloud-ready

Moving to the cloud requires a full change management process. It is important that you include your staff early on; assess their needs, allow for input, and arrange for full training and continuous support to make the adaptation as smooth as possible. Advise your clients how this change in your service offerings will better support them.

Depending on the local regulatory environment, it may be necessary to obtain their permission about moving the data to the cloud and also a change to your engagement letter, and terms and conditions. At the very least, they need to know that their data will be stored differently and be made aware of their data privacy rights.

³ For example <http://blog.xenaccounting.com/whats-the-best-online-accounting-software-for-your-business>, <https://www.getapp.com/>, accessed on 5 August 2016

Additionally, you also need to determine if your network is capable of dealing with the increased data traffic requirements that cloud computing entails. For example, if your network has a 2 megabit per second (mbps) capacity, downloading a 1 gigabyte file will take just over an hour. With a 50mbps connection the same file would be downloaded in less than three minutes.

The network requirements obviously increase with the number of users and with introducing services such as video conferencing, cloud backup, and remote working. Your infrastructure supplier should be able to advise you on this, but for a rough approximation, an online search of 'network bandwidth calculator' will provide you with several free calculators.

5. Keep moving

Even once your practice has adopted cloud technology, you are not done. Technology develops with increasing rapidity and this also goes for opportunities to adapt your practice to your (future) clients' needs. Now that real-time data input from multiple sources can provide instant business relevant information, your clients will require more of your analytical skills, and a wider range of business advice. The cloud makes it easier for clients to perform basic accounting tasks themselves, or cheaper for you to do it on their behalf. This frees you up to help your clients grow their business. When you get to make technology work for you, you can serve clients faster, more strategically, and at a lower cost.

Having gone through the process of moving to the cloud, your experience is valuable when advising your clients who are considering doing the same. You will be able to deal with many of their problems yourself – if not, you will already know reliable external specialists.

Appendix

General Data Protection Regulation (GDPR)

Due to the broadening of the scope of the GDPR, virtually all organisations holding personal data of EU citizens in a filing system will fall within the rules. The GDPR will require, amongst other things, the following:

- an individual's clear consent to the processing of personal data
- easier access by the subject to his or her personal data
- a right to rectification, to erasure and 'to be forgotten'
- a right to object, including to the use of personal data for the purposes of 'profiling'
- a right to data portability from one service provider to another
- extension of the rules to cover data processors as well as data controllers
- registering with one supervisory authority to deal with their data protection issues across the entire European Economic Area (EEA)
- reporting privacy breaches to their supervisory authority within 72 hours of being discovered

To help protect against the risks arising from these changes, existing and future contracts with software suppliers should be checked for the following:

- where the data is held (and where back-up data is held)
- how the data is encrypted
- whether there is a possibility that data could be passed on to 3rd parties
- what controls exist on the access to the data from both within the cloud service provider's own organisation and by external organisations
- what data is collected by your cloud provider about your use of their system and the uses to which they put that information
- that data is destroyed when the contract ends

Anonymised personal data is not covered by the GDPR so effective use of 'encryption', 'tokenisation', and 'pseudoanonymisation' (see Glossary) can greatly assist in reducing risks to your firm from privacy data breaches. However, it is very unlikely that any one of these techniques will suit all of your requirements (for example, encrypted data may be unreadable by online accounts packages) so it may be necessary to consult a specialist.

Glossary

Big Data – it is an evolving term that describes any voluminous amount of structured, semi-structured, and unstructured data that has the potential to be mined for information. Big data can be characterised by the extreme volume of data, the wide variety of types of data, and the velocity at which the data must be processed.

Chunkification – splitting up software, systems or processes into discrete parts

Encryption – translating data into a secret code which can only be read via a secret key or password that enables you to decrypt it. There are two main types of encryption: asymmetric encryption (also called public-key encryption) and symmetric encryption

Pseudoanonymisation – replacing the most identifying fields within a data record by one or more artificial identifiers, or pseudonyms

Tokenisation – substituting a sensitive data element with a non-sensitive equivalent, referred to as a token, that has no extrinsic or exploitable meaning or value

Zero entry accounting – moving bookkeeping away from manual data entry towards entry via software connections and data flows



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Federation of European Accountants

WHO WE ARE

The Federation of European Accountants represents 50 professional institutes of accountants and auditors from 37 European countries, with a combined membership of almost 1 million professional accountants working in different capacities. As the voice of the European profession, the Federation recognises the public interest.

The Federation is in the EU Transparency Register (No 4713568401-18).