Facilities Management

in the



published by Service Works Group

Contents

Executive Summary	3
Introduction - The Concept of Cloud Computing	4
What is Cloud?	5
Cloud and FM	8
Mobility	11
Different Types of Cloud	12
Operatonal Considerations: Security	14
Risk Management	15
Other Possible Challenges	16
Paying for the Cloud	17
Scale	18
Further Benefits	18
Freed Time	19
The Future	19
Summary	20
Conclusion	21
Glossary	22
Contact Us	23

Executive Summary

Cloud computing is one of the most widely used buzzwords in the technology market place and businesses of every size are welcoming its flexibility. In return, they are benefitting from reduced costs, increased productivity and speed to market. Facilities Management software companies are encouraging their customers to embrace it, because **the Cloud is changing the software delivery model** to the benefit of the end user. Before buying into it, it's important to cut through the hype and ask: what exactly are we getting for our money?

Cloud Computing is now becoming prevalent for everyday consumers, whether through Apple's iCloud, use of social networks or shared software such as that available from Google. Recent hardware trends demonstrate how strongly the consumer market is influencing the way in which commercial organisations are adopting new technology. For example, Facilities Managers are now using iPads for logging reactive jobs as they walk around buildings while office based workers are sending maintenance jobs to field service engineers using the same or similar devices - technology they have at work because they are comfortable using it in everyday life. There is a similar and growing trend with Cloud computing. Apple's CEO, Tim Cook, announced at its conference in January 2012 that 85 million customers have signed up to iCloud in just three months.

This paper introduces the concept of Cloud computing, outlines its history and explains where it is useful in terms of saving money and making organisations more productive. It also runs through the practicalities and some of the security concerns. It looks at some real-life scenarios demonstrating the benefits that many real organisations have gained through adopting this new technology.

Most importantly, it examines the relevance of the Cloud and the benefits that it brings to facilities management professionals, particularly in terms of changing their function from purely reactive to something more strategic, which has far-reaching benefits to the wider organisation. Used intelligently, Cloud computing can provide greater business agility and free up staff to become more productive and strategic.



Introduction – The Concept of Cloud Computing

In simple terms, the Cloud is used to describe the supply of IT infrastructure and software over the internet. In fact, Google is a useful comparison. When people log onto Google to perform a search, they are immediately logging onto a computer other than their own, and every time they fire up a web page they are doing the same.

Awareness and understanding of the Cloud is low and conversely use of the Cloud is high. In the consumer market, whether people realise it or not, they are already accustomed to storing their data in the Cloud. Facebook and all of its users' information are in the Cloud. Likewise any data a business puts into LinkedIn, or an app someone uses on Google Docs - all of these things happen in the Cloud. Apple has had a slightly different strategy with its iCloud, in which people are encouraged to store all of their music and movies in the Cloud. Sony is doing the same with its Ultraviolet movie storage system.

In the commercial sector, Salesforce.com (a CRM software provider) was one of the first major pioneers of delivering Cloud technology at an enterprise level, enabling customers with internet access to purchase software as a service (SaaS as it's often abbreviated) on an on-demand basis.

Inevitably, FM has followed suit because the benefits are quantifiable.

Cloud Advantages - Highlights

* First it moves server management from an in-house IT team to an outsourced specialist, which speeds up the procurement process for purchasing FM software as well as the implementation process. Many Facilities Managers find that when purchasing a new FM software application, the IT team wants to be involved and indeed often controls the decision making process. What you need instead is an FM specialist making the decision with IT facilitating it – this process simplifies things for an organisation and puts FM decisions in the hands of the FM specialist.

* A Cloud solution shifts the cost of FM software from capital to operational expenditure. Most organisations during a downturn want to specialise in what they do for a living rather than learn to procure IT as well. Buying from the Cloud means leaving infrastructure and technical 'plumbing' to an external expert with economies of scale. As far as Facilities Managers are concerned, they secure all the advantages of automated FM and can measure the return on investment very quickly on a regular basis.

What is Cloud?

The term 'Cloud' is a metaphor for the Internet and it is thought that it **derives its name from the diagrams of Clouds used to represent the internet.** (See example on page 9). Simply put, the Cloud is where software or a project is deployed. This may be on a single server or spread across several – you won't see the difference. Worries about the hardware specification are completely removed from the Facilities Manager – the resources are 'elastic' and typically organisations are billed for what they use.

The underlying concept of Cloud computing dates back to the 1950s and 60s when large-scale mainframes were used in corporations. Cloud as we now refer to it, however, is relatively new, dating back to the early 1990s, when telecommunications companies moved from point-to point data circuits to Virtual Private Networks (VPNs). This enabled them to improve the efficiency of their bandwidth and provide the same quality of service at a fraction of the cost.

And the costs are very real. Have a think about the infographic on the right hand side. Ask how much your IT spend has impacted your organisation's bottom line in the last 12 months compared to as recently as 2009. Rackspace, the Cloud computing provider, carried out research that revealed that IT teams from mid-sized UK and US businesses polled still spend over half (56%) of their time on server management and troubleshooting and only 28% on strategic, 'value-add' activities.

Definition of Cloud Computing:

'Cloud computing is a model for enabling convenient, ondemand network access to a shared pool of configurable computing resources (e.g. networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.'

(Definition from National Institute of Standards and Technology (NIST); an agency in the US responsible for defining standards in Science and Technology)



Other Types of Hosting

Later in the same decade a number of companies started offering 'Application Service Provision' (ASP) also referred to as on-demand software or software as a service (SaaS). This referred to the ability to log onto a website or into an account on a provider's premises using your computer as a terminal and use the software that was on offer.

Buying Patterns

On the face of it, this pattern of buying – often framed as a '**pay as you use**' model or '**utility computing'** – had a lot of appeal. The main benefit was that it took the IT infrastructure management burden away and gave it to a specialist technology organisation to manage. However, with hindsight, it was a little premature. 'Online' was a relatively new term, and putting all of your company's mission-critical data and applications 'online' at that stage, was too big a leap for some. Secondly, most offices were still on dial-up networking packages. Access was either through a very expensive leased line, a slightly cheaper but ultimately obsolete ISDN connection or, more usually, a shared modem connection. These were slow and the wait for data often considerable. Imagine (or try to remember!) typing your address into Word, going off for a break and coming back to see whether it had appeared on the screen yet! SaaS before affordable, ubiquitous broadband wasn't really a very viable option.

However, once the faster IT infrastructure was readily available, the business case was indisputable.



Commercial Value

More recently cost savings, specialist infrastructure management, scalability and the corresponding business benefits, have led to considerable success for the Cloud because it creates genuine commercial value.

Let's consider a real example. The UK charity, Comic Relief, which raises millions of pounds for good causes both in the UK and overseas. Its focal point each year is a huge fundraising weekend (either under the Comic Relief brand or the Sport Relief name) and its business issue is the need for a huge number of servers to process transactions for around one week a year, and if it bought those servers they would stand idle for the remaining 51 weeks.

Cloud Systems and Software as a Service

The answer has been to use Cloud systems and **software as a service (SaaS)**, as well as elements of **infrastructure as a service (IaaS)** – so in effect it's renting both applications and the environment. On the weeks in which the organisation is particularly active it asks its service provider to 'fire up' a number of virtual servers. The provider does so and Comic Relief can log into them from its own browsers on its own computers. These remote servers act as if they were separate pieces of hardware and the software licenses are activated only for the period during which they will be used.

When the intense activity is over, the servers are deleted or archived and the charges to Comic Relief stop. The computing power can be deployed to another customer so the service provider does not lose out, and Comic Relief pays for (or more usually 'receives through donations') only the usage and software licenses it actually uses. Likewise, the Cloud is ideal for organisations that need to enter into new markets or launch new products quickly. This level of adaptability is ideal for a number of businesses with flexible needs. If a company has seasonal requirements, perhaps a facilities management team at the time of the Edinburgh Festival servicing a multiplicity of packed venues, it can add desktops and subtract them after the main season is over. The disruption and financial overhead of adding servers and desktops and taking them away after the event is simply eliminated.

How does the Cloud differ from other hosted solutions?

So what is the difference between ASP (or SaaS) and Cloud computing? There are many websites debating this question and some suggest that it's just a difference in marketing terminology. However, the main difference is the scalability that is offered by the Cloud. It enables users or organisations to implement a project regardless of the specification of the host machine. The Cloud provides unlimited resources and you just pay more as you need it, (in essence, elastic resources).

FM Software

The benefits of FM software are considerable and well publicised. Blogs are full of the advantages: in April 2012 Sprocketcmms.com cited "the ability to submit mobile work orders and conduct other important responsibilities remotely with mobile work management software" as a major facet of this; it also cited a conference that claimed Facilities Managers would be able to reduce costs by 40% through fuel innovations and promote growth ("Cloud computing presenting opportunities for facility managers," 17 April 2012).

Mobile Workers

The fact is that pervasive Cloud technology means that a Facilities Manager can log or report on a job anywhere and not just at their desk (i.e. walking around a building, or on their way home from work). The Cloud supports the event driven role of the Facilities Manager. People on the move can be alerted to issues (of interest) and they can seamlessly look at details about the issue / job on a mobile device of choice and deal with it properly as well as look at it contextually. The Cloud and mobile technologies compliment each other to give Facilities Managers the best of both worlds. The reality is that it's a seamless user experience and the place of work is no longer important, (which is ironic for the Facilities Manager whose role is all about the workplace).

Industry Feedback

All of this assumes that FM software is already in use, which is not always the case. The **UK 2012 CAFM** (Computer Aided Facilities Management) Software Survey revealed that just over half (52%) of respondents use FM software to manage their operation. There was a clear correlation between FM software usage and the square footage that an organisation occupied: for organisations occupying between 150,000 and 500,000 sq ft, 68% had an FM software system, penetration was highest for organisations with between 500,000 and 2 million sq ft. where FM software saturation was 80%. There were also an increasing number of organisations using a managed hosting solution for their FM software with 24% using a managed hosting service.

Many believe that Cloud computing will increase FM software use dramatically. Particularly for smaller organisations, where they have a need for FM software but can't justify the capital expenditure; by moving to operational cost it can fall within an FM's budgetary sign-off. So the procurement process becomes simpler.

Once the decision has been made, Cloud provides a secure, resilient and scalable solution. The hosting provider takes care of the management and expenses relating to the infrastructure and the budget becomes more predictable. Moving to the Cloud for FM software should boost an FM's personal output. The effects of the Cloud for the FM profession are only just starting to become apparent.

The Cloud - Enhancing the Users Experience

Furthermore, Facilities Managers are finding that the Cloud improves the way in which they interact with software. It is agile and works remotely as well as on-premises, it speeds up application deployment and enables the FM software providers to fine tune, maintain and upgrade the software centrally so all adjustments and improvements are felt immediately. As a result, the Cloud model enhances the user's experience overall.

How it Works

On a technical level, Cloud is essentially a progression from Virtual Private Networks (VPNs), still in use, in which a private network would exist as a 'tunnel' through the Internet between a remote node and a central computer.



FM in the Cloud

In many instances the essential structure and functionality of the system will be the same as a premises-based FM system application (and will ideally work with other systems including HR, accounting software and energy control). Typically, FM modules would include:

- Space management including CAD to walk the user through the buildings
- Move management
- Churn control
- Full asset management
- Lease administration
- Planned and reactive maintenance
- Asset management
- Health and safety

When using Cloud technologies most of the processing is handled offsite and therefore the server purchase is eliminated completely. Essentially the purchase becomes a matter of securing the benefit without the overhead.

The browser-based nature of the Cloud also makes it simpler for companies to move people around. Previously, opening a new office or even moving desks would have involved moving connections and phone points. An entirely Cloud-based set-up using WiFi means other than the furniture, nothing has to change.

These are the facts an FM professional will need when wanting to adopt FM software.

Mobility

Many businesses can take advantage of the Cloud, none more so than the business with mobile operatives.

Pop-up shops	Retail operations can set up a web-based EPOS system simply by connecting to the Internet as long as there is a suitable connection available. The technology ceases to be an issue.
Mobile data gatherers	Power meter readers, survey takers, and other people gathering information in the field can use hand-held devices to enter information into a cloud-based system and update the data in real-time.
Remote salespeople	Any organisation with remote salespeople will be able to accept orders in real-time.
Car fleet managers	Taxi drivers and couriers can enter and receive details of pick-ups through mobile devices, which will also act as satellite navigation systems. The information entered either through a WiFi or 3G-enabled system will allow data to be entered in real-time.
Facilities management	Clearly FM is not one discipline but a set of them. Each can be serviced in the cloud very efficiently. Certainly in cases where there is a problem requiring visual verification, the ability to go to the location, take a picture on a camera phone and upload it to the system immediately can speed a lot of processes up.

Different Types of Cloud



You can divide Cloud, as most businesses use it, into three types: public Cloud, private Cloud and hybrid Cloud, the latter of which is essentially a mid-point between the two.

Public Cloud

This is when applications, storage and other resources are made available by a provider to the general public. The most widely known is probably Google, through Google Apps and Google Docs, the free version. Generally they work on a pay-per-use model. This is often appropriate for small companies which don't want to or can't afford to pay for their own Cloud infrastructure.

Example: King and Allen is a tailor based in Surbiton, which has a number of premises and pop-up shops. It uses Google Apps and its own software to create a customised order based on a client's requirements. A tailor measures a customer, notes down the details and then uploads the details. The cutters can download these measurements anytime from their base in Hong Kong, so that the order is in another continent before the customer has left the premises. The public Cloud is not practical for larger enterprises, because there's not the same control over data, security and they do not meet the necessary service levels.

Private Cloud

Private cloud infrastructure is when a company builds its own cloud infrastructure or pays a cloud provider to put something exclusive in place. It offers a reasonable migration path for existing applications because it's possible to virtualise and overhaul as required, allowing for the original installation to stop working completely in such a way that the business keeps working. It is sometimes criticised as a system that doesn't let the client take advantage of the traditional benefits of Cloud, however it is flexible and provides control over service delivery and security.

Example: In some areas and markets which are highly regulated, such as banking, private Cloud can be the only way to manage Cloud infrastructures.

Hybrid Cloud

As the name suggests, the hybrid Cloud is a combination of two or more Clouds, offering the benefits of both models. It is an environment in which an organisation provides and manages some resources in-house while others are provided externally. In this way a business can take advantage of fault tolerance associated with on-premise computing but have the advantage of Cloud for remote workers.

Example: It works well in areas in which some of the activities are strictly regulated, e.g. financial services companies might have their publicly available information accessible through a public Cloud infrastructure but would switch to private Cloud when entering client details.

Operational Considerations: Security

Security is one of the major concerns of people new to Cloud computing. It's therefore essential to select the right Cloud partner, and that's someone who can tell you what happens when something goes wrong.

One financial services company had an issue with its Cloud infrastructure when, through no fault of anyone at the Cloud provider, a workman broke through the main data cable with a drill. There was no resilience in the system and it resulted in an unacceptable down time. Another organisation found that it's Cloud provider was in the Lake District and when there were issues with flooding found that its backups were inadequate.

The key questions to ask include:

- Are you aware of/compliant with current British data protection legislation?
- What industry ISO certifications do you have and how often are they renewed?
- What are the terms of your Service Level Agreement (SLA) assuming no system can be running 100% of the time, how much time do we actually get?
- What support level is provided 24/7, online, email, phone?
- What physical security measures do you have at the data centre?
- Are your data centres located in the UK? (Please note, data centres located in other countries will have to comply with the data regulations in those countries)
- Can we visit your premises to see where our data is being stored?
- How will you segregate our data from other organisations?
- What hardware redundancy do you offer? (i.e. servers, firewalls, network switches, etc.) In other words, if our systems fail on your current servers can you turn some more on very quickly?
- Do you have backup miles away from your everyday systems (i.e. what is your disaster recovery offer?) – so if there were to be an earthquake, accident or fire at your premises would our business still work?
- Do you have multiple internet service providers (i.e. so there is not one single point of failure)
- Are there any penetration tests carried out and how often? (A penetration test, is a method of evaluating the security of a computer system by simulating a cyber attack or similar)

Nobody need consider themselves completely safe from mishaps and no competent Cloud provider will claim 100% uptime. However, buyers of Cloud services should satisfy themselves that sensible precautions are being taken and only sane claims being made.

Risk Management

Understanding is key

Risk management is an important element of any new technology. If you move to the Cloud, it's essential to understand that the physical safeguards businesses have had in place will no longer be there, and a new set of security precautions need to be replicated or replaced (or even improved upon) by the new Cloud provider. Don't be afraid to ask a Cloud provider about hiring procedures, how they rotate the individuals who have access to servers containing sensitive information and other key security issues – their security is your security. Related to this, your data will need extra encryption; ask about this and also ask about recovery in the event of a disaster.

Regulatory Compliance

Don't forget also that your Cloud provider is a business in its own right and may one day be acquired or in the worst case go down completely. You need to know what happens to your information in these circumstances. Regulatory compliance remains your duty.

None of this should be disconcerting in any way. As long as you understand the issues they can be built into a contract. The contract itself needs a number of components. A quick Google search confirms that there are many pitfalls, and people need to be aware of what they are signing up to. In 2011 at the RSA conference in San Francisco the following areas were identified as crucial (information sourced from the TechTarget blog):

- Identify customer information that needs protecting and build that into the contract
- Agree specific procedures for safeguarding data
- The contract needs to state that the customer owns the data there must be no ambiguity around this
- · Customers need a means of verifying data integrity
- The vendor has to agree to periodic independent audits
- · Assume breaches will happen and agree how to address them with a set procedure

Service Level Agreement

A Service Level Agreement is also vital if a contract is to be enforceable. All of these elements have led to a certain reluctance from particular quarters to embrace the Cloud; however the benefits are likely to outweigh any perceived drawbacks.

Other Possible Challenges

There are other possible blocks to the adoption of the Cloud in the FM area. The first of these is simple: it's a change, and not everybody will adopt change willingly. Clearly the resolution to this is a solid business case as discussed throughout this paper. There are other specifics that people may raise, however.

There can be a genuine risk that Cloud won't work in a given culture. Corporate environments and technologies can be very ingrained, and if a business is used to people 'owning' their desktops then a Cloud-based set of shared resources which aren't even on site will be a concern. The answer to this is leadership and a clearly communicated vision of where the business is going; it is a transformation, not a technology, issue.



Paying for the Cloud

CapEx

As has already been stated, one of Cloud's prime objectives is the reduction of CapEx – but why is this a good thing?

CapEx is unpopular with managers because it is effectively dead money. Buy an individual computer for a business and the first thing an accountant will start doing is depreciating the value. Amplify this to an enterprise-wide implementation and it's not just a few laptops being written off, it's vast amounts of money.

And it's not just the computers. The cooling systems to keep them operating will involve more than a simple air conditioning installation; it's more likely to involve the design and commission of a sophisticated water-based cooling system and a specialist architect to design a heat efficient building, only one which is designed to push the heat out rather than retain it. This isn't just a computing issue; it's likely to be the FM's responsibility, too.

Redundancy in a Computing Installation

Switch this away from CapEx, eliminate the building adaptations and make it a month-bymonth operational payment and the immediate cost goes down. The business remains within an organisation. It also gets rid of redundancy. Redundancy in a computing installation can be a good thing; if one server goes down then another can take its place immediately. However, take this redundancy outside the organisation and the backup is handled elsewhere – again this is a headache taken away from the FM and IT teams.

Payment Models

There are different models of payment for Cloud computing. One of the most common is charging on a utility basis (known as utility computing) which works like any other metered utility (e.g. electricity; leave all the heating on at full blast in an enterprise and you will soon notice the costs mounting up). Likewise, careful reading and analysis of the bill for Cloud computing should point to areas in which savings can be made. Utility computing can be an advantageous method of managing the costs when less resource demanding applications are used and peak use is rare, although it may be inefficient to meter on a smaller scale. Another popular and alternative method is paying for the service on a monthly, quarterly or annual basis (based on storage usage, for example). It is therefore important to be able to gather all of the data on expenditure together in one place, very easily.

Cloud service providers talk a lot about the cost implications and financial savings of their services. It is telling, though, that a survey from Everest Group and Cloud Connect in 2012 (reported on the Forbes website) suggested that cost benefits came only fourth and fifth in importance in Cloud adoption, with a flexible infrastructure and reduced time for provisioning being rated as much more important.

Scale

As long ago as the late 1980s people were talking about how important it was that an installation should be fully scalable. In those rather different times it was anticipated that this meant a business could grow without tearing out all of its technology and starting again. This is still an important facet of facilities management of course; a business needs to be able to grow and the FM specialist needs visibility of how this can be made to work. Cloud computing remains an excellent way of making this view available. Most Cloud providers will allow for a complete on-screen view of where technologies and virtual computers are being used and how much they are costing.

The difference with the current economy, however, is that business needs to be able to scale down as well as scale up. This may not be because of adverse trading conditions. A business might take on a short term project that will need extra personnel and require (for example) extra software licenses. The vitally important thing to understand is the scenario in which you're adopting Cloud computing and how this can affect the cost. The key point is that the department or company size can move up and down, whether planned or otherwise, with no expenditure wasted on a permanent software licenses or hardware for someone who needs it for only a single project.

Further Benefits

The Cloud can and should offer a robust, reliable environment. One major retailer, for example, who is a Service Works client, started with a relatively simple cost analysis and concluded that working with someone externally was going to be a better and more cost effective idea than keeping the IT infrastructure in house. It also became obvious relatively quickly, that this gave them better control over their data and resulted in more informed decision making and they enjoyed considerable cost savings as a result.

Gaining that control is important as it highlights the value of that data to the customer as well. A fully functioning Cloud FM system will allow anyone with the right authorisations to pick up a query or a task to carry out, anywhere. The current trend towards call centre operatives working from home or otherwise remotely means that a client calling in will have all of their case notes available to any operative with the right software system in front of them and the right authorisations to access it. The customer will feel better looked after, the company's reputation soars and the increase in business through word of mouth is likely to be exponential. Contrast this with the amount of times you have heard "I can't tell you now, the right bloke isn't in the office" and you see what a difference the Cloud can make.

Freed Time

So far most of the focus of this paper has been around the reduction in IT cost whilst sustaining the resource. There is also the boost that comes from any system upgrade happening externally and without the need for downtime. As long ago as 2009, white papers were talking about the Cloud bringing cost savings by eliminating hardware upgrades and the opportunity cost of the time spent on them as well as business agility.

There is another, more considerable benefit, however, from the point of view of the facilities management personnel. Make an office auditable through a web browser rather than a visual check every time and it becomes an easier job. If you're checking something on foot and can enter the information through a hand-held tablet or smartphone so that it reaches the system in real-time means everyone else can use the data immediately. This eliminates time taken to update the system and makes service delivery faster, meaning you can deploy FM staff to make more strategic decisions rather than react to chunks of data coming in bit by bit.



The Future

Given the weakened economy worldwide, it can be seen that growth of Cloud adoption to date is healthy and therefore likely to continue. The consumerisation of Cloud for music and video will lead to a generation expecting and accepting it and social media as well as services such as Gmail has brought it into the mainstream.

The cost benefits and flexibility are likely to make compelling arguments for Cloud's adoption which is growing in other disciplines. This reflects a wider trend of organisations scaling up and scaling down on demand, which in turn has its implications for the facilities management community. A client may take on buildings on a temporary basis and need all of the FM skills their specialist has; the ability to acquire the FM software in a way that can be scaled up and down at will is going to be a considerable advantage as the whole economy moves towards more flexibly-sized businesses.

Summary

Facilities management is in an odd place in terms of the technology its professionals generally use. There are a number of professions which have traditionally been somewhat conservative and reluctant to embrace technology; if it's true that only 25% of FM professionals use FM software then it's one of the most conservative disciplines of the lot.

This is good news for the people looking to upgrade and start using a fresh FM software application, because the Cloud is established and this takes out layers of cost and inefficiencies. In three quarters of business cases people will have been using Excel spreadsheets so there will be no problem with disposal of old technologies. Facilities management professionals can bypass the previous desktop-only version of FM software and take advantage of a slicker, mobile or desktop version which works as the operative needs to rather than as the computer's physical limitations dictate.



Conclusion

There are many major practicalities to consider before adopting Cloud technology. The key question is two-fold: firstly, whether Cloud in general is a good idea for your business and secondly whether it will help facilities management in particular.

In terms of the first part of this question, there are clear business benefits to Cloud technology beyond the obvious 'it costs less'. These include:

- Working where you need to with a tablet or smartphone where necessary
- Working in real-time your information is uploaded to a Cloud system immediately so your colleagues can start working on it in your absence
- Flexibility of location open a new office, work remotely for a day, it won't matter

Practical Considerations

There are practical considerations too. What sort of Cloud fits your organisation best – private, public, hybrid? Do you want to put the whole of your infrastructure or just some apps into the Cloud – should you pilot the idea first (in a substantial organisation this will be essential) and do you have to re-skill your IT workforce beforehand? These are not drawbacks but necessary steps. They will help ensure the rewards outlined above.

Cloud - The Business Case

You could rephrase the second part of the question, whether Cloud is right for FM, and find the answer even easier. As we said earlier in this paper, Cloud structures make it easier for the ground force rather than a remote IT department to make the decisions on which systems to deploy and where, controlling it from their own budget rather than taking CapEx from a central pot. So the question becomes, who should decide on the FM system and how it's deployed; the FM specialist or someone with a discipline completely in IT?

The answer to both is that Cloud is the way forward. It's making huge strides in the consumer market as individuals get used to working on a remote computer from their own, using a browser as a portal. The business case is clear and it's catching up in both the enterprise and the smaller business – it's time to make sure your business isn't the last to gain the benefits.

Glossary

3G Enabled System: Any device/system that has build-in support for 3G - the 3rd generation of mobile telecommunications technology.

Application Service Provision: An early iteration of Cloud computing, in which a trusted partner called an Application Service Provider (ASP) would host software for clients.

CAD: Computer Aided Design, one of the tools that enables an FM software installation to visualise physical locations and objects at the design stage.

CAFM: Computer Aided Facilities Management.

CapEx: Capital Expenditure - when a company acquires or upgrades physical assets such as equipment, property, or buildings.

Cloud: A network of computers, either public or private, on which applications, data and infrastructure are managed remotely.

CRM Software: Customer Relationship Management software manages a company's interactions with customers, clients, and sales prospects.

Electronic Point of Sale (EPOS): The location where a transaction occurs in exchange for goods or services.

Hosting: Taking a client company's computing data or infrastructure and putting it on your own system.

Infrastructure as a Service (laaS): The pay-as-you-go version of buying computers, as physical or more often as virtual machines, and other resources such as file-based storage, firewalls and Virtual Local Area Networks (VLANs). Cloud users then install operating system images on the machines as well as their application software.

Integrated Services Digital Network (ISDN): Set of communications standards for simultaneous digital transmission of voice, video, data, and other network services over the traditional circuits of the public switched telephone network.

Managed Service Provider: Technology partner who undertakes specific tasks concerning a client's IT infrastructure.

Random Access Memory (RAM): A form of computer data storage.

Software as a Service (SaaS): Sometimes called utility computing – the pay-as-you-go version of buying computer applications and environment, as distinct from the one-off retail model in which people bought a copy of an application.

Virtual Private Network (VPN): Technology for using the internet or another intermediate network to connect computers to isolated remote computer networks that would otherwise be inaccessible.

WiFi Enabled System: Any device/system that has build-in support for WiFi - a standard for wireless network interoperability.

Contact US

www.swg.com info@swg.com

Europe:

Service Works Group SWG House 4 Keswick Road Putney London SW15 2JN

T: +44 (0)208 877 4080 F: +44 (0)208 877 4090

Asia Pacific:

Service Works Global Pty Ltd Suite 2.02, 365 Little Collins Street Melbourne VIC 3000

T: +61 (0)3 8676 0380 F: +61 (0)3 9600 2455

North America & Canada:

Service Works Global

36 Toronto Street Suite 850 Toronto Ontario M5C 2CS

T: +1 416 603 9096 F: +1 416 360 3838

Middle East:

Service Works International 7th Floor, Al-Salam Tower Fahad Al-Salem Street Salhia Area 13 Parcel 28 Kuwait Service Works Group is an expert software solutions provider with many years of experience in the facilities, property and public– private partnership (PPP) market sectors. The company's flagship software, QFM, has been identified as the product of choice for many leading service provider, blue chip and public sector organisations because it optimises the operational efficiency for asset, building and service activities and delivers measurable cost savings across FM operations.

Service Works Facilities Management Cloud offering ensures that organisations benefit from a comprehensive, reliable FM software application combined with peace of mind that their software is professionally managed in a secure, stable, cloud environment. The solution provides flexible and on-demand availability that scales with an organisation's traffic, providing clients with a rapid return on investment.

© 2012 Service Works Group Ltd. All rights reserved. "Service Works Global" refers to Service Works Global Pty Ltd, a company registered in Australia with Australian Company Number 108 665 818 and whose registered address is Suite 2.02, 365 Little Collins Street, Melbourne VIC 3000 or Service Works Global Ltd, a company registered in Nova Scotia with registry ID 3222235 and whose registered mailing address is 36 Toronto Street, Toronto, Ontario, Canada M5C 2C5 as the context requires. Service Works Global Pty Ltd and Service Works Global Limited are wholly owned subsidiaries of Service Works Group Ltd, a company registered in England with company number 4915250 and whose registered address is SWG House, 4 Keswick Road, Putney, London, SW15 2JN. The information in this document is not intended to be used as a substitute for consultation with professional advisors.