Cutler IT
The Luddites Guide to IT!

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A guide to help make IT and communications decisions easier for the non techy.

The 'Luddites' were English textile artisans who protested against newly developed labour replacing machinery from 1811 to 1817. The new technology introduced during the industrial revolution threatened to replace the artisans and change the market completely.

200 years on, is history repeating itself with a technology revolution to move IT services to the 'cloud', evoking similar reactions of fear and resistance?

This e-book aims to demystify some of the buzz words flying around the IT industry and also highlight the basic business requirements that remain constant regardless of the delivery mechanisms available. Returning to the Luddites analogy, people still needed textiles, it was the methods of manufacturing that were evolving.

We will take a look at some of the recurring pricing patterns and solution builds we see

everyday and concentrate on the 'things businesses want to get done' such as e-mail and file storage. Specifically looking at the different methods of delivering this and suggesting scenarios where one method may be preferable to another. With the right delivery method in place, we then provide insights into what you should expect to pay, framed in a business environment with a focus on value and how this is perceived.

The conclusions and insights are predominantly aimed at the small and medium sized organisations where employing a specialist in house is not a viable option. Our aim is to help making IT and communications decisions easier.

Jobs to be done?

It still all starts with the key business functions you want your IT and communications systems to achieve, namely:

– E-mail
– Calendars
– Shared files and documents
– Accounts / Stock management system
 (For example: Sage)
– Line of business application
– Telephony

All these functions then need to be on a reliable, secure and efficient platform that fits in with an organisation's business processes.

At Cutler IT we categorise the delivery of these key business systems in 3 ways - On Premise servers, Cloud or a combination of the two - Hybrid.

The right approach to take depends on the specific circumstances however there are scenarios where one of the above approaches would seem to be the better option, which we explore in the next section.

On Premise/ Hybrid/Cloud

With the advent of more and more 'cloud' based applications, the increasing availability of low cost, high speed internet bandwidth and the drive by major software providers to migrate onto their 'cloud' based platforms, the traditional solution of an 'On Premise' server (Box in the corner) is no longer the only option.
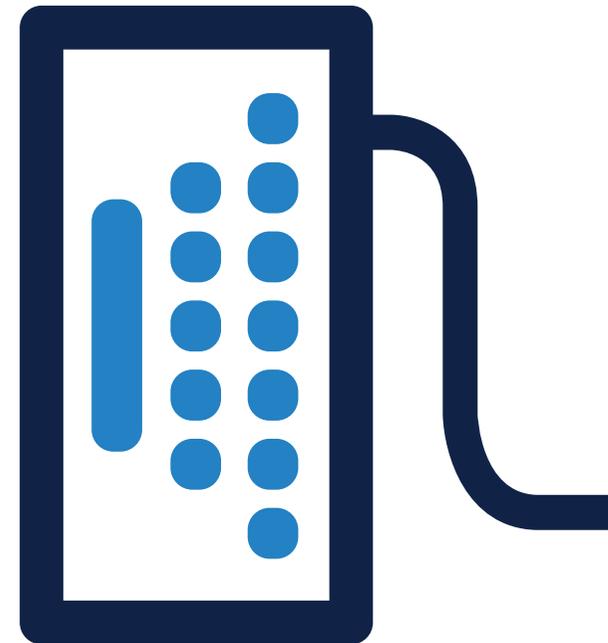
On Premise

This is the more traditional approach and in times gone by, the only choice. It involves a server or servers on a customer's premises carrying out the key business functions such as email, file sharing/storage and security.

Advances in technology such as 'virtualisation' have meant that this can be delivered more effectively than was previously possible, with fewer physical servers, designed with a great deal more redundancy to insure against the majority of failures.

It does need specialist resource to manage, has less redundancy than hosted or cloud options and can open you up to environmental threats such as power loss, theft & adverse weather, that tier 1 service providers in the 'Cloud' have plans to counter.

An on premise option can still be the right approach especially if your organisation fits some of the scenarios below:

– Majority of people using systems are at one main site

– Internet connections are slow, unreliable or expensive - which is generally location dependent.

– Price is the key buying criteria. Hardware and software on site can still be the most cost effective approach, especially if payments can be spread on an finance agreement

– If large documents, files and applications require sharing such as photo's or video

– For reasonably static organisation's where there is no requirement to significantly increase or decrease the scale of the solution

– Where there are more than 5 users. Realistically the economies of scale required to justify an on premise server start at around 5 users.

– If legal or regulatory restrictions exist. Some industries have strict codes of practice determining how and where data can be stored and managed

– Where systems are very bespoke, needing to be very feature rich and specific to the organisation in question
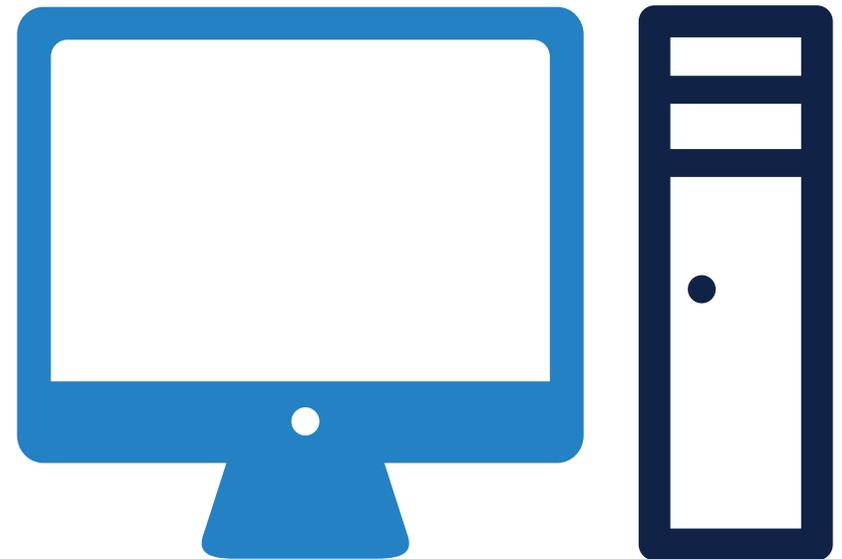
Cloud

So 'Cloud', what's it all about! In reality it is a throwback to the IBM mainframe days, when all the required data processing was carried out centrally and the end user had a dumb terminal (green & white or black & white screen). Nowadays all the processing equipment is located in datacentre's with the move back to centralised computing been made possible by the software technology and increases in high speed, low cost internet connectivity.

In the cloud world you subscribe to and consume a service, very much like you do with a utility like gas, water or electric! The delivery network just happens to be the internet.

The cloud approach makes sense, as business users are not really bothered how everything fits together, they just want to get a job done like e-mail or file storage and consume it as a service. When you want more, you pay for more and when you want less, you pay for less.

With consumer based services such as Facebook, twitter, iTunes and the gaming community with Xbox and Playstations, most people now see the 'cloud' as part of their everyday life.

Even in this brave new world, whether 'cloud' based solutions are right for your business or organisation will depend on the circumstances and what you ultimately want to achieve.

Some scenarios where we have found 'pure' cloud solutions to be the right approach:

– A mobile or dispersed workforce lends itself well to hosted services. With no infrastructure to support and access from anywhere at anytime

– Multi-sited organisation's wanting to share common business systems. Especially those companies which have an even spread of people throughout their sites

– Businesses where rapid expansion or contraction are commonplace, can find that the 'per user per month' model and capacity available can mean that you can grow and shrink quickly without major capital expenditure.

– Reliable and high speed internet connections are available and can act as a real enabler for 'cloud' based services.

– Organisation's with 5 or less computer users will find that cloud offers the functionality of a server without having to

pay for a platform that could handle 3 times as many users.

– Businesses that want to 'consume' as they use and grow their organisations

– Companies who want a powerful disaster recovery and business continuity plan at minimum cost. By putting services in the 'cloud' in high availability datacentres, you can still access core IT systems from anywhere with an internet connection.

– Situations where the 'vanilla envelope' type products provided by the cloud solutions is absolutely adequate to meet the IT needs of the business.

– Those clients who are prepared to pay a little more to know that all responsibility and management of their IT systems is outsourced.

– A lack of in house IT expertise

– A requirement for highly fluctuating capacity – the on demand nature of cloud means you can pay for what you need, when you need it.

– Use of less bandwidth hungry business applications, documents and files.

Hybrid

A 'Hybrid' solution is what it suggests, namely, a mixture of both 'on premise' servers or devices and 'cloud' based services. This can potentially give you the best of both worlds by for example backing up core systems to the 'Cloud' or supplementing some services such as e-mail into the cloud while retaining other services such as file storage on premise.

By mixing and matching the best elements of both 'On Premise' and 'Cloud' we can cover many more scenarios, however, some of the hybrid solutions which have proved effective for our customers:

– Use of an on premise server for file storage and user permissions combined with e-mail in the 'cloud' on a 'hosted' e-mail system such as 'Office 365' or 'Google Apps'. This brings the speed benefits of been able to access files and documents from the box in the corner, while having e-mails managed for you on a more resilient and secure platform.

– By moving your servers into a datacentre location and accessing through the internet or dedicated links you are effectively creating your own 'private cloud'. This means you can discount many of the environmental issues and prevent the over reliance on one site.

– By backing up the server data and configurations to a cloud based location, you can take advantage of the benefits of an on premise server while bringing in more business continuity options should there be a major problem or failure. Because the information is safe in the cloud, it does mean that it can be restored to new hardware or to an alternative site if there.

What Should I Pay? -
Is 100 the magic number?

A good place to start would be the services required and getting an idea of the price you should expect to pay. Although every business, business sector, quotation and proposal is different in its own way, there are generalisations and patterns we can share from the thousands of quotes, proposals and solutions we provide.

To build an IT and Communications solution you need a number of component parts which can either be purchased, leased or rented. What we have found is that by converting capital expenditure into a per user per month figure amortising over a 5 year period and adding any service rentals the monthly price per user invariably comes out around the £100 mark!

This number includes the computing, telephony, internet and mobile hardware, software, rentals and support services a person would realistically require to work

effectively. It gives a good indication for businesses building a budget or reviewing the services currently in place.

At a basic level, the following table outlines the core components and how the £100 is distributed across the services required for an organisation:

Product Area	Per User Per Month
Computing	£52
Telephony (Incl. Calls)	£20
Mobile	£20
Internet Connectivity	£8
Total	£100

Some simple calculations based on the number of employees requiring the services above will give a good 'rule of thumb' indication of what you should expect to be paying for IT and Communications services in order to deliver a quality overall solution.

For example if you run a building contracting firm and have 15 employees, 5 in the office who need all the services and 10 who just need mobiles, the total amount per month would be : £700 per month that you should expect as the overall price for IT and communications services.

This would include everything from the price of the computer and telephone on the desk (spread over a 5 year period) to operating expenses such as mobile and landline rentals and ongoing support services.

How the numbers are distributed can be slightly different depending on the chosen delivery route of on premise, hybrid or cloud but invariably the end price will be around this amount whichever route is chosen.

Economies of scale will result for businesses as the number of user's increases. Allowing benefits from the volume discounts available and fuller utilisation of the investment in the core platform.

Tariff & Service

So now we have an idea how much we should be paying and the different delivery methods available, so what's really changing!

Well not a lot, you still get what you pay for and as Warren Buffet so wisely commented 'Price is what you pay, value is what you get'.

It's just as important now as it was then to partner with a supplier you can trust who provides a 'value for money solution'.

If anything, it is more important as demarcation points are changing and where traditionally providers would stick to their core competencies such as phones or computers, they will start encroaching more and more into each other's product areas.

One advantage to you the customer is that having a single (or less) suppliers does simplify the billing, management, reporting and support mechanisms with one point or fewer points of responsibility. I suppose the disadvantage is that organisations concentrating on defined products get good at providing and supporting them and may struggle outside their comfort zone.

Perspective

Talking about price is only one side of the coin, we also need to look at the value side of Warren's equation. Earlier we identified a number of £100 per employee per month as the price of IT & communications, but what value are you getting and how can this be justified within a business.

Business perspective

One way to add perspective is to look at the price of a seat or role within an organisation.

If we take some numbers based on the average person:

The Average UK Salary
£26,500

Number of Working Days in a year
253 days

Holiday Entitlement
28 days

Therefore - The cost per person per day
£117.78

This is without including any business overhead costs such as buildings, general infrastructure, transportation, marketing, taxes etc…

So what am I getting at, well if you are prepared to spend over £100.00 per day to have someone in your business it stands to reason that you should make them as effective as humanly possible and this means giving them the right and best tools for the job.

Also interesting is that the £100 per person per day correlates well with the £100 per person per month price of IT and communications infrastructure.

If we assume 20 working days in a month, then that equates to a £5 per person per day spend on IT and communications to give people the right tools to do their job.

Anyone for coffee

I don't know about you, but every morning I grab a coffee on my way to work costing £1.49, I do get the 7th one for free with my coffee vouchers! I then have a sandwich for lunch and a bag of crisps that come to around £3.00. So basically for the cost of the coffee covered my telephony and internet costs, the crisps have paid for mobile and the sandwich IT. If I go for a chocolate bar for a mid-afternoon snack I'm over the £5 required to cover all my IT and communications.

OK, it's more simplifications, but it puts into perspective the amounts we actually need to spend to get the right IT & communication tools to effectively run a business.

Microsoft/Apple/Amazon/ Google – Who's winning?

When deciding on the right solution for your business, you will ultimately need to decide which software you want to use. There are thousands of suppliers and applications, but ultimately for software and platforms it will boil down to 4 big players – Microsoft, Google, Apple and Amazon.

For the consumer marketplace, I think the jury is still out on who will win and there is room within the market for all 4 anyway. The overall percentage share of Microsoft operating systems is declining, especially when you include mobile services and bring in the Google's Android and Apples IoS platforms. We are also seeing products such as tablets, which were initially targeted at the consumer market finding beneficial uses in business.

That said, in the business market Microsoft are still the dominant provider of software solutions.

The 'Golden Bullet' is still undoubtedly Microsoft's Office Suite of products namely – Outlook, Excel, Word and Powerpoint, which are still the defacto software products familiar to a majority of businesses.

All these familiar applications are in turn sat at desktop level on Microsoft operating systems such as Windows 7, Windows 8.1 and soon to be Windows 10.

Over and above the desktop, Microsoft has a 'Silver Bullet' in the business server market with its Windows Server operating systems running functions such as file storage/security/domain management and database platform SQL on which a majority of bespoke business software are designed to work.

These are the line of business software applications that manage information and workflows for all flavours of businesses from estate agents to solicitors to care homes to building contractors etc etc….. In general there are 1 or 2 key software providers in each industry who on the whole design software that sits on a Microsoft software or server platform.

It's hard to get away from Mr Gates legacy and with the Office 365 platform and recent pricing and package changes, they again have a very compelling product set to begin the journey to the 'cloud'.
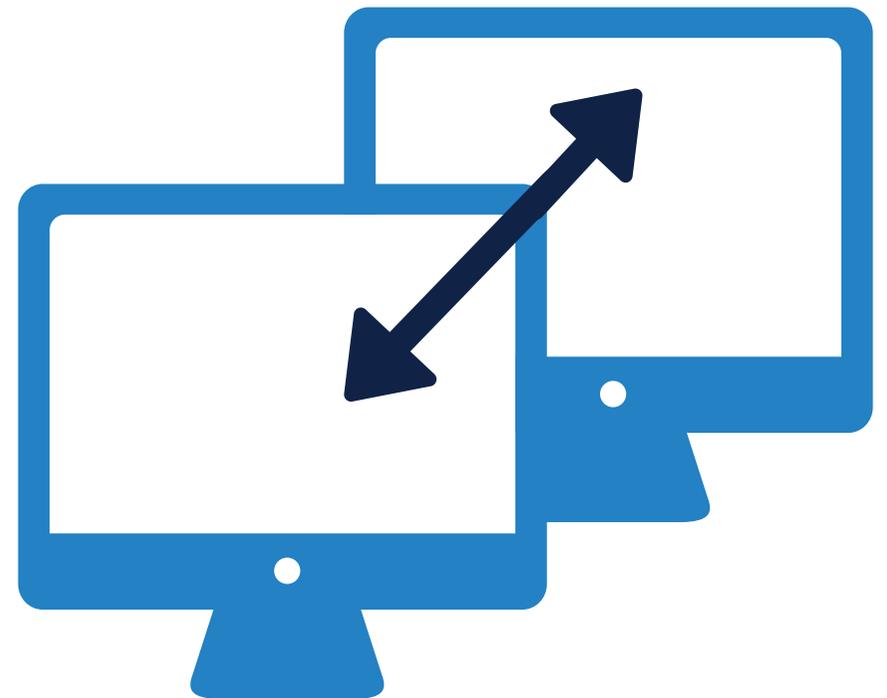
Summary

In summary, there is very little for the 'Luddites', like myself to fear. The delivery methods maybe changing, but the 'jobs to be done' and applications people are used to will remain very similar with added features to allow better collaboration, sharing and finding of information.

It is still as important to work with people and organisations you can trust and the overall price paid again remains similar although with cloud there is more emphasis on the operating rather than capital expenditure budget.

Author

This will be my 20th year in the IT and communications industry, starting out in 1994 at BT Mobile when the Nokia 2110 brick was the cutting edge of technology. A service had just been introduced called SMS (texting), but nobody used it or thought it would take off, after all, we all had pagers!!

Since then I have worked in various sales and service roles within the BT group and been the director at 3 successful ICT businesses.

I have seen the world from the perspective of the eager salesperson attempting to make the square product fit the round hole to the decision maker not knowing whether to go for the 'Ford Focus' or 'Rolls Royce' option and really wanting trusted advice to point me in the right direction.

About Cutler IT Ltd

At Cutler IT our goal is to help our customers businesses and our own, to prosper through our advice and actions. It defines a company ethos based on partnership and mutual gain.

Our background provides a strong insight into business processes and, most importantly, where the technology available can be deployed to best advantage.

From our base in South Yorkshire we are continuing to develop and deliver a breadth of IT services focused on meeting the requirements of small and medium sized businesses mainly across the local regions of Yorkshire, Derbyshire and Lincolnshire.

Please check out our blog at **www.cutlerit.co.uk/blog** for the latest announcements or our website at **www.cutlerit.co.uk** to find out more.

CutlerIT
in it together

Thanks for
Reading.