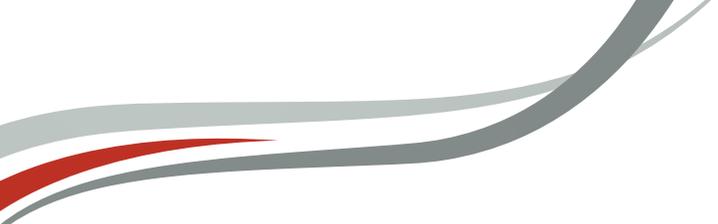


TRANSITIONING TO THE CLOUD



crimson[®]

MAKING YOUR ORGANISATION MORE AGILE
TO GAIN COMPETITIVE ADVANTAGE



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EXECUTIVE SUMMARY

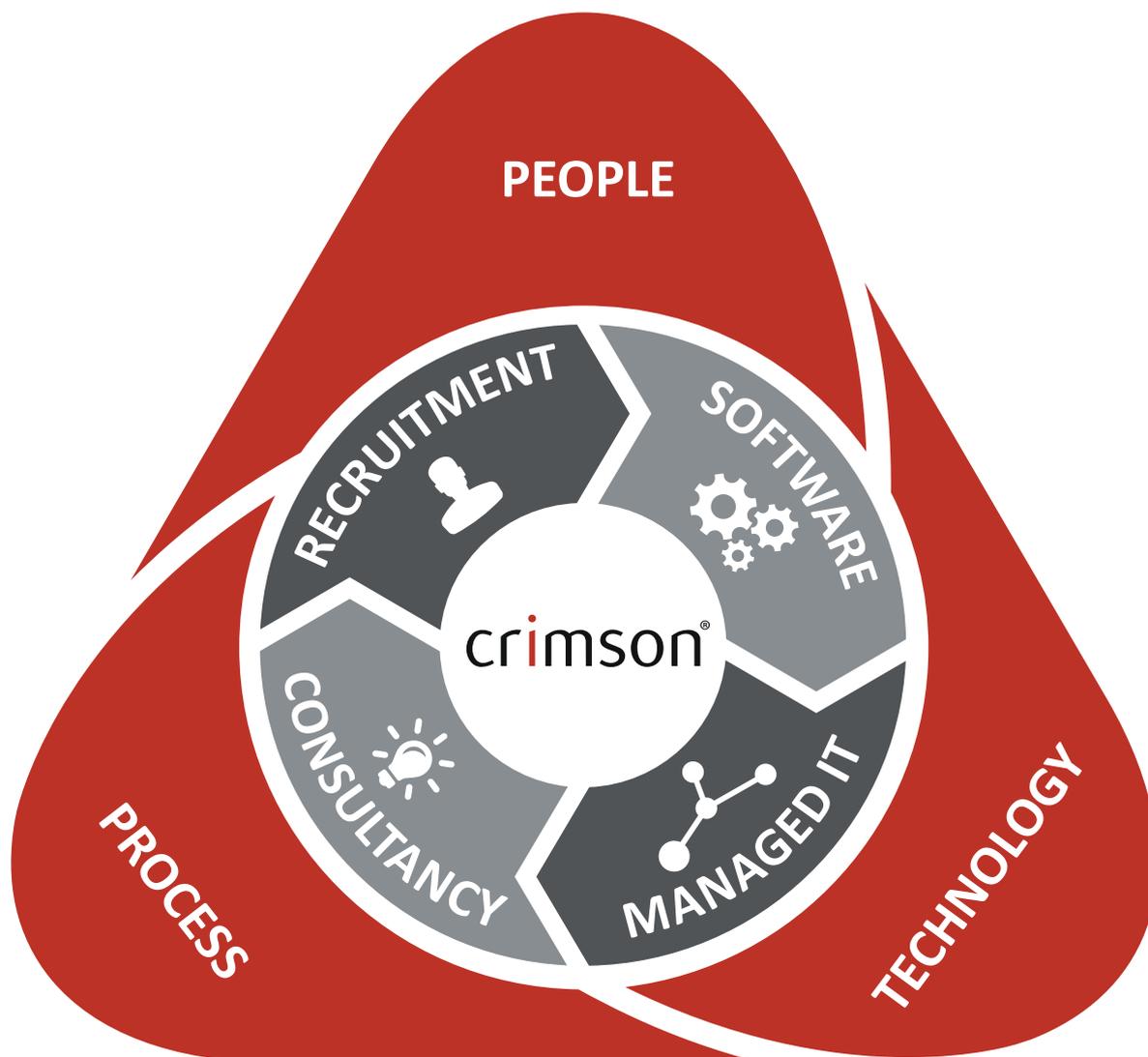
This white paper has been written for CIOs and IT leaders that are considering moving some of their organisation's services into the cloud.

It has been designed to explain in a concise manner the types of cloud services available and the benefits of these solutions.

We reveal how other companies use these cloud products to streamline operations and outline Crimson's seven step cloud implementation strategy.

We also address some common cloud concerns such as governance, security, maintenance, cost, and job protection.

Tap into these key insights from Crimson's consultants. We're experts at seamlessly shifting organisations into the cloud in a way that helps our clients achieve their objectives.





CHAPTER ONE:
WHAT IS THE CLOUD?

01

WHAT IS THE CLOUD?



The Cloud Industry Forum (CIF) reported in January 2016 that four out of five organisations in the United Kingdom “have formally adopted at least one cloud service”.

84% of the 250 IT leaders polled said that their company currently use hosted or cloud-based services.



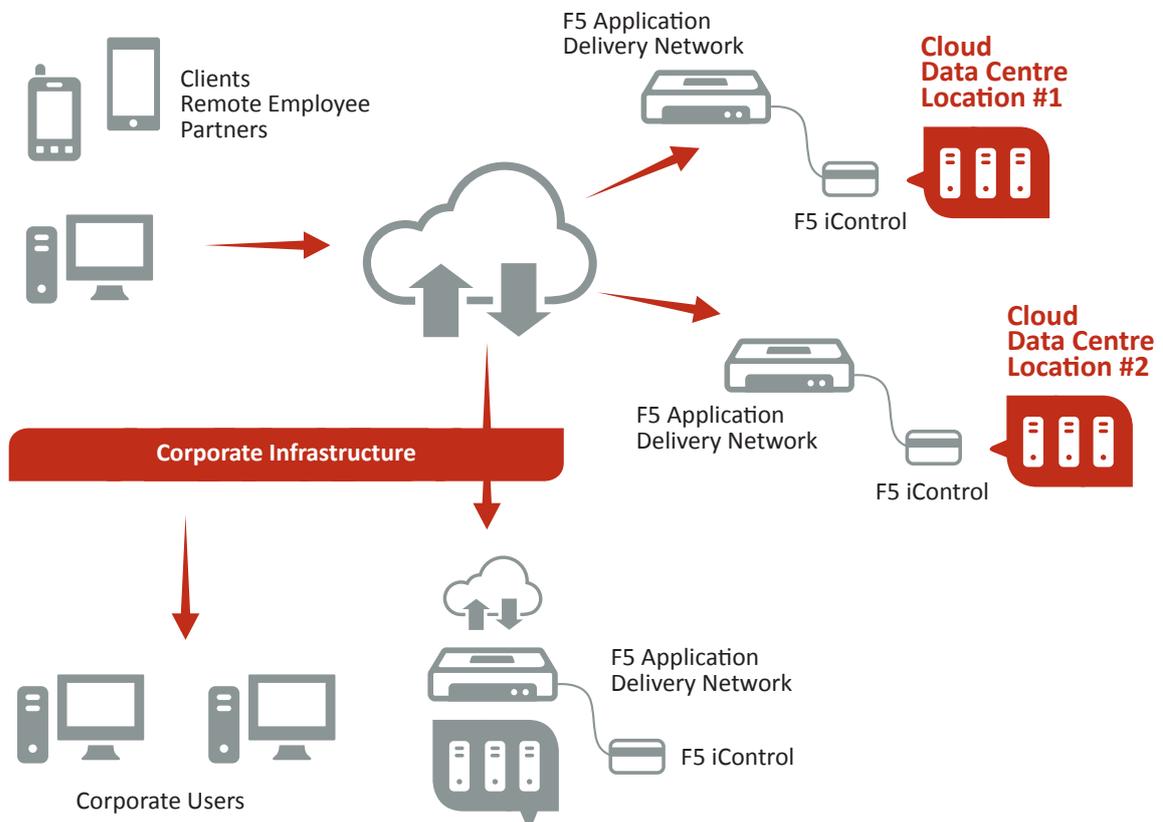
Cloud Industry Forum. (2016). UK Cloud Adoption & Trends For 2016

LET’S BE CLEAR WHAT WE’RE TALKING ABOUT. PEOPLE STILL GOOGLE ‘WHAT IS THE CLOUD?’. HERE’S OUR DEFINITION.

The cloud is comprised of a network of servers in data centres and accessed via the internet. These servers can be used to store data and software, host platforms, and run applications. This information

can be found and used by any individual that has access to the cloud. The level of access can be controlled depending the type of cloud your organisation chooses to use.

CLOUD COMPUTING



WHAT TYPES OF CLOUD ARE THERE?

Public Cloud	Private Cloud	Hybrid Cloud
		
<p>This is the most recognisable format of cloud.</p>	<p>A secure separate cloud environment.</p>	<p>The hybrid cloud utilises private and public clouds to perform distinct functions within an organisation.</p>
<p>It is often constructed using shared physical resources.</p>	<p>Only accessible by a single organisation.</p>	
<p>Accessible over a public network, like the internet.</p>	<p>Private cloud services draw their resource from a specific group of physical computers, which can be hosted internally or externally.</p>	
<p>Used by multiple clients accessing the same infrastructure.</p>	<p>The private cloud can be accessed via private leased lines or secure encrypted public network connections.</p>	



According to CIF, 48% of IT leaders from private sector companies said they preferred a hybrid approach to their cloud set-up, with 37% preferring solely on-premise solutions and 16% choosing to put all of their systems and data in the cloud. (Cloud Industry Forum 2016)

Whereas, 50% of IT decision-makers from the public sector favoured on premise solutions, followed by 36% preferring a hybrid approach, and 14% moving all digital assets to the cloud.

US company Right Scale, has suggested that “Companies using cloud are leveraging three public clouds and three private clouds. On

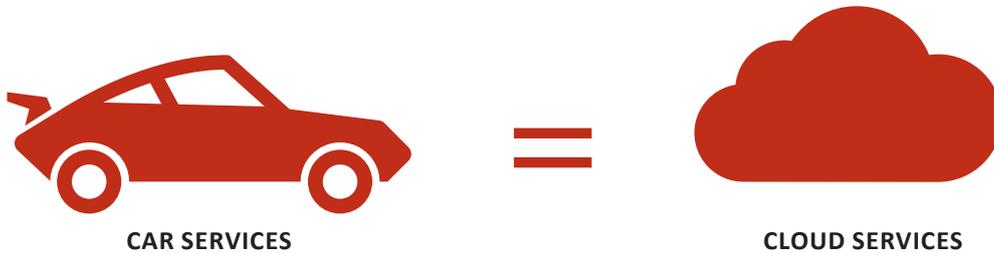
average, they are running applications on 1.5 public clouds and experimenting with an additional 1.5 public clouds. They are also running applications on 1.7 private clouds and experimenting with an additional 1.3 private clouds.” (Right Scale. 2016 State Of The Cloud.)

HOW DOES CLOUD DIFFER FROM TRADITIONAL SOLUTIONS?

The cloud can be used as the vehicle for change in your business. When explaining how it differs to traditional on-premise solutions to our clients, we often use the analogy of a car hire company. That's right, cloud products are much like car hire services!

Cloud services can be rented or purchased as and when you need them. You can use them for short jobs or long-term projects, much like hiring a removal van when you move house.

These services give you greater flexibility, scalability, and can save you money by not having to purchase expensive technology.



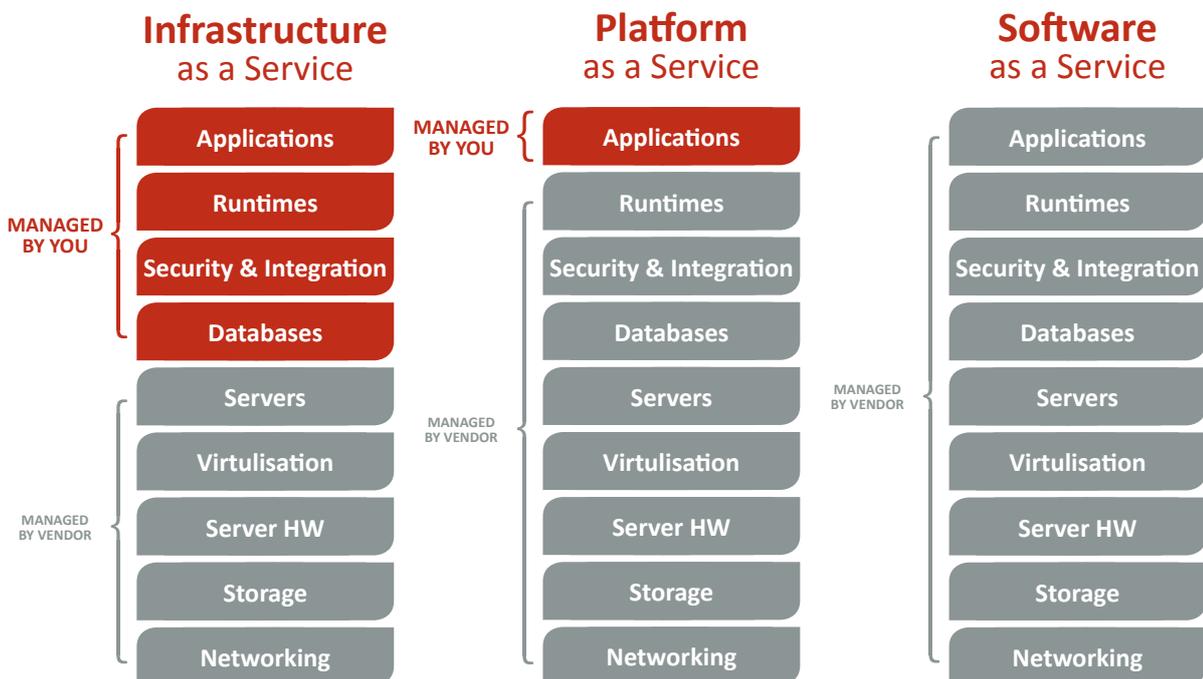
Car Hire Service	Cloud Product	Similarities
Chauffeur driven limousine hire	App services	You can purchase 'Ready to Go Applications' that can be configured/ extended depending on your need. Saving you on the initial cost of building from scratch.
Rental car services	Platform services	Rent the services that you need to build solutions changing /upgrading as them required.
Leased plan car hire	Virtual machines	With virtual machines, you can get your technology of choice, which you will pay for monthly and receive free maintenance.
Own your own car	On-premise data centre	You pay for the model you want upfront, and for maintenance, security, and insurance.

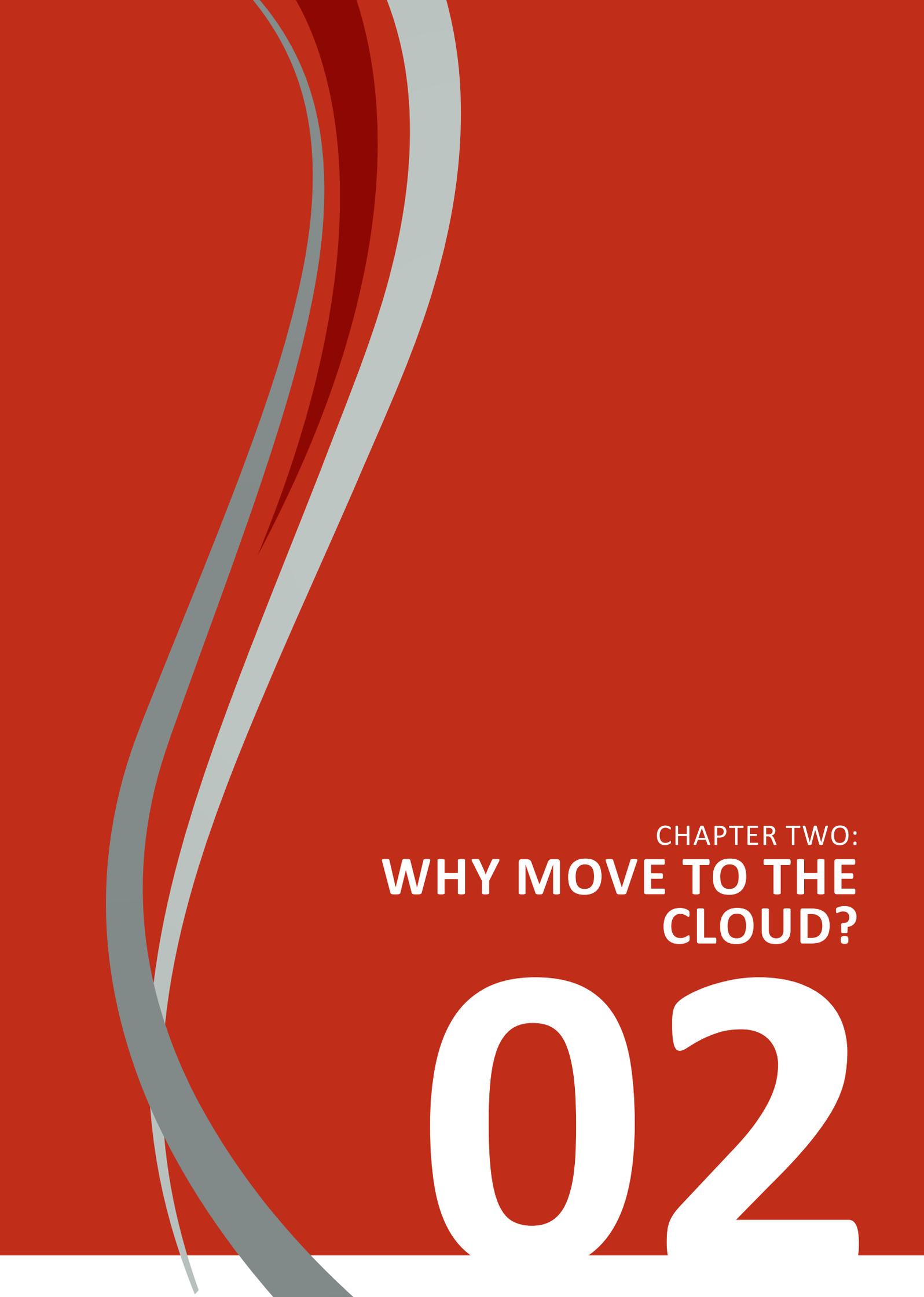
WHAT CAN THE CLOUD BE USED FOR?

The most salient examples of cloud computing tend to fall into the public cloud model because they are, by definition, publicly available.

Public clouds are used extensively in offerings for private individuals who are less likely to need the level of infrastructure and security offered by private clouds. Organisations can also utilise public clouds to make their operations significantly more efficient, for example, with the storage of non-sensitive content, online document collaboration, and webmail.

Services	Description	Products
Software as a service (SAAS)	Using SaaS you can access storage and online applications through the cloud.	Office 365, Exchange, SharePoint Online, Delve, Yammer, Dynamics CRM Online, Dynamics AX 7 Skype for Business, OneDrive
Infrastructure as a service (IAAS)	Access to computer resources via the internet. These resources are useful when your workload is experimental or if it changes / fluctuates suddenly.	Web Sites, Mobile, Service Bus, Logic Apps, Machine Learning, Search, Batch & Automation, PowerBI, HDInsight, PowerApps, RemoteApp, Backup Recovery, Directory Services, Operational Management
Platform as a service (PAAS)	PaaS provides the ability to develop, run and manage applications through the cloud without the complexity of building and infrastructure maintenance.	Virtual Machines – Windows / Linux & Pre-Build Templates Storage, Virtual Networks, VPNs, Firewalls, ExpressRoute, Resource Manager, Affinity Groups, Availability Groups





CHAPTER TWO:
**WHY MOVE TO THE
CLOUD?**

02

WHAT CAN THE CLOUD BE USED FOR?

There are numerous benefits to each type of cloud. By aligning your IT strategy to your business strategy you can create a cloud package that can be tailored to your organisation's specific needs.

Public Cloud	Private Cloud	Hybrid Cloud
		
Benefits		
<p>SCALABLE: Public cloud resources are available on demand from vast pools of resource. So, applications that run on them can respond seamlessly to fluctuations in activity.</p>	<p>SECURE: Using restricted connections behind firewalls, dedicated leased lines, and/or on-site internal hosting, private clouds can ensure that operations are kept out of the reach.</p>	<p>EFFICIENT: Streamline operations by only using private cloud when necessary and public cloud for more general purposes.</p>
<p>GOOD VALUE: Public clouds share a wide range of resources so users can benefit from the large economies of scale. Some are funded by ads. Some are charged using a pay-as-you go model.</p>	<p>EFFICIENT: Access to the private cloud can improve accessibility to and availability of certain resources.</p>	<p>SECURE: Hybrid clouds provide security where necessary but are not so overly restrictive they slow down work flows.</p>
<p>RELIABLE: the sheer number of servers and networks involved in creating a public cloud mean that should one physical component fail, the cloud service would still run unaffected on the remaining components.</p>	<p>CONTROL: As a private cloud is owned by a single organisation, they can tailor and upgrade it to meet their changing needs.</p>	
<p>FLEXIBLE: Most software and services can now be accessed via public cloud from anywhere using an internet enabled device.</p>	<p>RELIABLE: Even if resources are still hosted internally, the creation of virtual environments makes the network more resilient against individual failures.</p>	
<p>INTEGRATION: Public clouds can be partially integrated with private or hybrid clouds to allow business to perform more secure business functions.</p>	<p>SPIKES: Private clouds can have in-built 'cloud bursting' functionality, which increases capacity when there are spikes in demand.</p>	

WHAT CAN THE CLOUD BE USED FOR? continued...

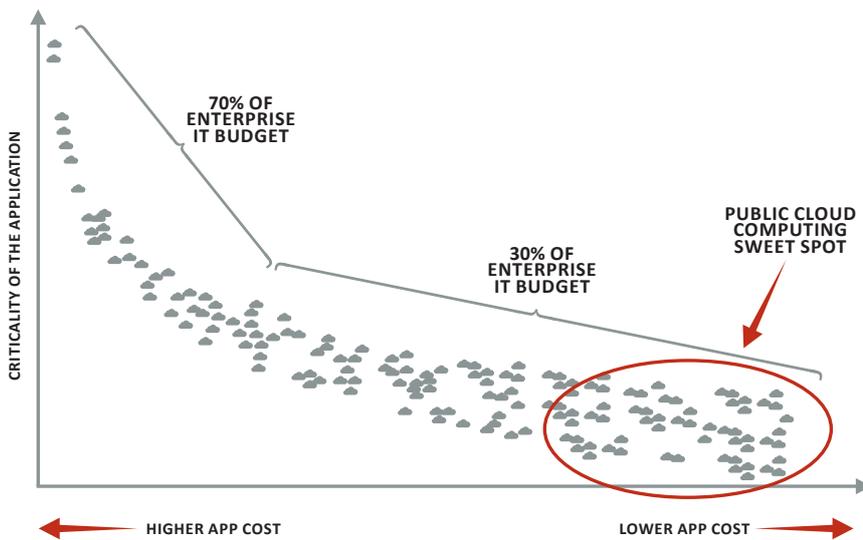


Cloud computing's greatest wins in the enterprise continue to be in non-mission critical areas of the business. SaaS is dominating in the area of lower application costs and high user counts, which is the Public Computing Sweet Spot in the following graphic (originally created by Gartner in 2012):

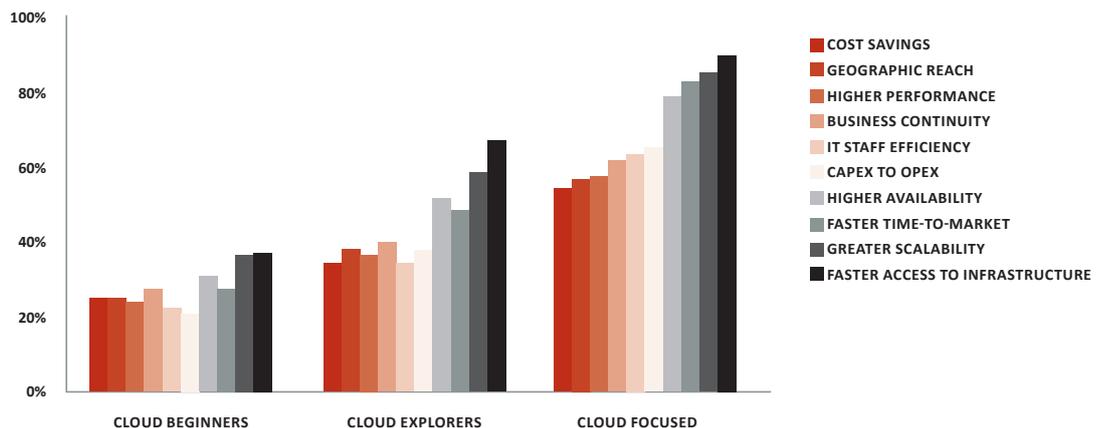


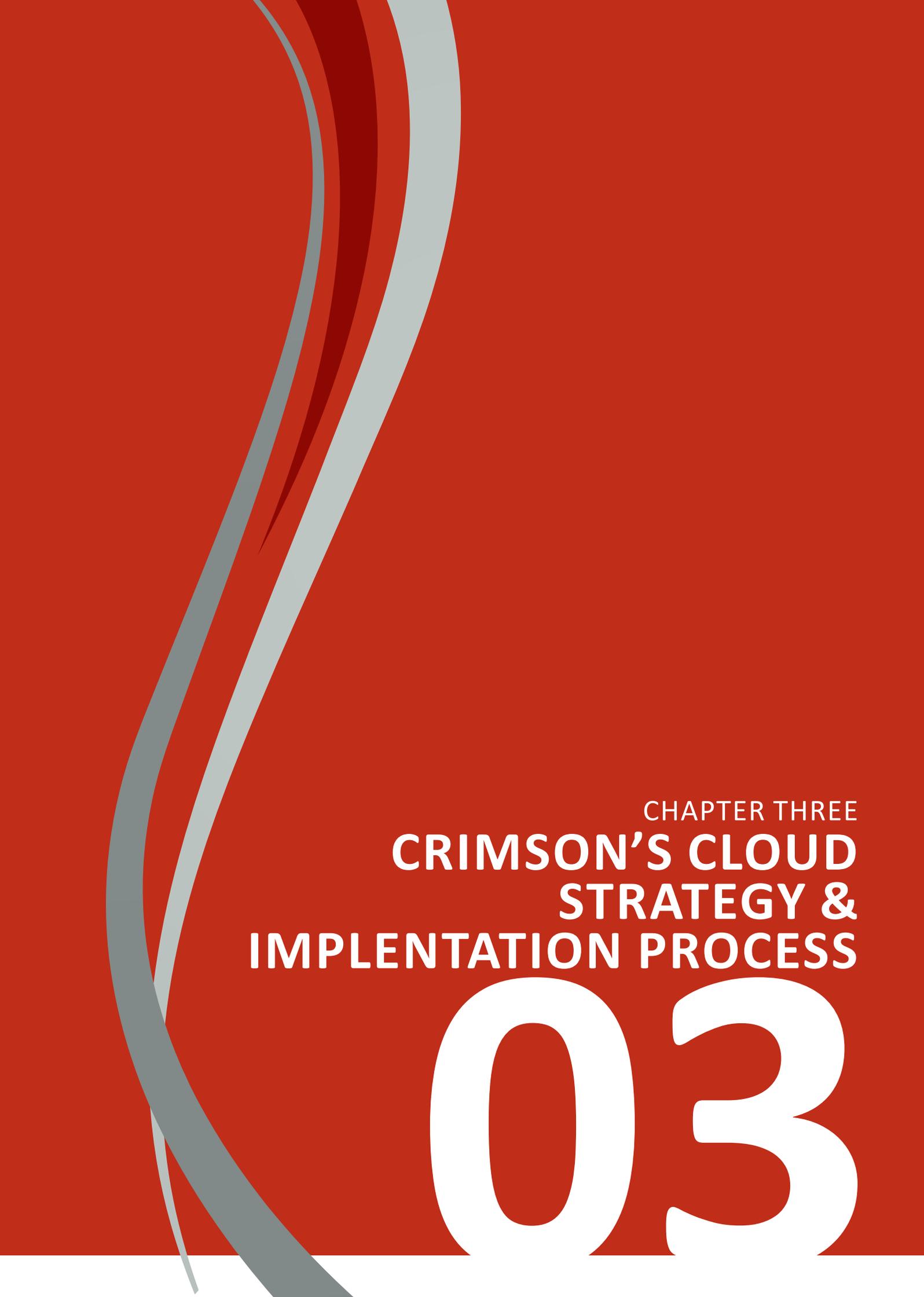
Louis Columbus
 First Steps to Creating a Cloud Computing Strategy for 2013.
 Forbes.com. <http://onforb.es/1UxILcg>

Economics Of IT & Cloud Computing



Benefits Of Growth With Cloud Maturity
 % OF RESPONDENTS REPORTING THESE BENEFITS





CHAPTER THREE
**CRIMSON'S CLOUD
STRATEGY &
IMPLEMENTATION PROCESS**

03

CRIMSON'S CLOUD STRATEGY & IMPLEMENTATION PROCESS



Louis Columbus
First Steps to Creating a Cloud Computing Strategy for 2013.

Recruiting, training and retaining cloud architects, developers, engineers, support and service professionals will be a challenge even for the largest enterprises. There isn't enough talent to go around for all the projects going on and planned right now.



ASSESS TO PROGRESS IS A FREE SIX-HOUR WORKSHOP

Crimson's leading business consultants visit your business and work with your senior team to explore the challenges your business has, establish your ambitions, and examine your systems structure. Stepping away from technology and instead focusing on your business and its people first, Crimson's team will bring a fresh approach, dynamism, and lessons learnt from engaging with hundreds of other organisations. We provide:

- A fresh perspective on what growth opportunities exist within your business.
- A re-examination of the obstacles within the company.
- A view of what 'good' can look like for your firm and an explanation of how the cloud can support your ambitions.
- Following the workshop your team will receive a review of findings, a set of strategic recommendations, and a road map based on best practice.

Our leading IT consultants, some of whom have more than 25 years' industry experience, have put together a tried and tested process for determining the cloud technology needs of an organisation and a road map for implementing change.

Establishing the Cloud Strategy

- 1. INITIAL CONTACT:** In most cases, a potential client who has recognised a need to move to the cloud approaches Crimson for a quote and an initial assessment.
- 2. ASSESS TO PROGRESS:** Crimson then go into the Client's business and run our 'Assess To Progress' programme. This process helps us understand the client's business, look for quick wins, and determine a long-term strategic direction.
- 3. PILOT STAGE:** Following the workshop we embark on a series of pilot engagements and proof of concepts, examining your organisations infrastructure requirements, applications estate, and in-house skillsets.

The Implementation Stages

- 4. BUILD STAGE:** All systems enhancements and integrations are built and we place software, and infrastructure into the cloud. During the building process our Managed Services team will ensure that your operational processes will not be disturbed whilst your chosen systems and data is moved into the cloud.
- 5. ADOPTION:** Knowledge plays a huge role in the cloud implementation process. At this stage we allocate roles and responsibilities for the new systems, share programme documents, and create a detailed road map, which includes solution architecture agenda,

a deployment model, and engagement plan. We also organise a range of workshops to continually update, document and transfer knowledge to users.

- 6. TRANSITION:** Our consultants set-out discrete measurable milestones that establish the path to achievement and clarify the business case for adoption within the business. These are achieved as the adoption process is rolled out across the organisation.
- 7. AFTER CARE:** Post implementation we may work as an external partner to an organisation or within their team to deliver what's required, or we may implement the entire project if necessary. We will establish a work package alongside the IT team, up-skilling and recommending additional appointments as required.

Crimson's clients use the cloud in a variety of ways including; email, Microsoft Office 365, backing-up, unified communications, disaster recovery, surge capacity, new applications, and CRM. When looking to transition to the cloud, we advise our clients to focus their strategy on achieving business objectives rather than simply improving upon IT operational efficiencies.

Every organisation experiences a different journey to the cloud because every organisation has its own unique structures, challenges and requirements.



CHAPTER FOUR
CLOUD FEARS

04

CLOUD FEARS

Many organisations are scared about moving their vital systems and data silos into the cloud. As with every game-changing technology that is introduced to the market, organisations have a fear of investing in the unknown and unproven. They worry about losing control of their most valuable technological assets, and they're concerned about becoming obsolete.

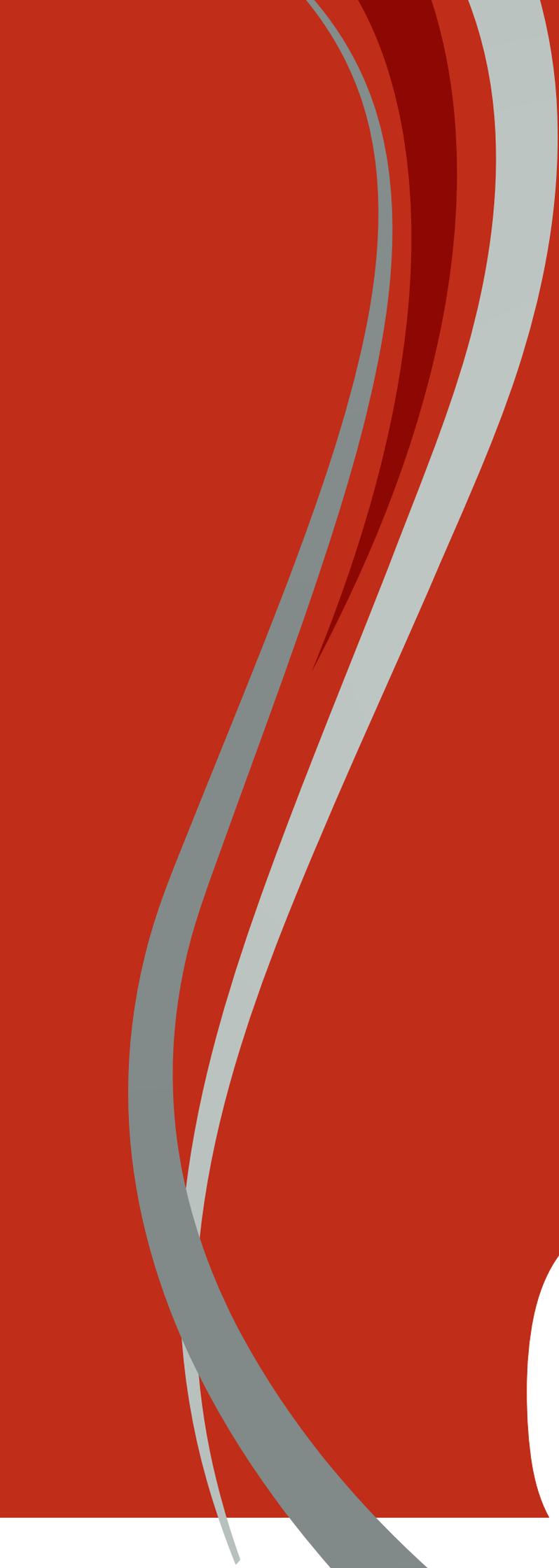
However, a well-planned cloud adoption strategy can allay these worries and reward the initial outlay with noticeable ROI.

Cloud Concerns Addressed

Cloud Concern	Concern Addressed
<p>ACCESSIBILITY</p> <p><i>"I won't be able to access all of my data and systems from wherever I want and whenever I want."</i></p>	<p>You can scale the capabilities of your organisation's cloud to suit your specific accessibility requirements. As mentioned earlier, most software and services can now be accessed via public cloud from anywhere using an internet enabled device.</p>
<p>SECURITY</p> <p><i>"If my critical programmes and information are easily accessible from anywhere will they be safe from theft or attack?"</i></p>	<p>Similarly, your organisation can create a cloud strategy that works for your needs. You can create a cloud package that is a combination of public, private and hybrid cloud. Software that is not a security risk, and needs to be accessed by a large number of users, can be placed in your organisations public cloud. Systems and data that you want to protect can be given restricted access and shielded within a private cloud.</p>
<p>LACK OF CONTROL</p> <p><i>"I wouldn't feel comfortable having all my organisation's vital systems and data stored in an external data centre."</i></p>	<p>Cloud data centres are designed and built with security in mind and may actually be much safer than storing your critical systems on your premises. For example Microsoft Azure Trust Centre was built to ensure users trust in their cloud provider. Organisations use 'Trust Centre' to manage and control user access, encrypt communications and operations, secure networks, and protect against online threats.</p>
<p>PERFORMANCE</p> <p><i>"I'm worried that cloud based systems won't run as quickly as our current on premise solution."</i></p>	<p>In any IT project proper planning and implementation are required to ensure the highest quality of system performance. In many cases, performance can be improved by moving to the cloud. A large number of servers and networks combine to make a public cloud, which means if there is any failure of individual components that it is less likely that performance will be interrupted.</p>

Cloud Fears Addressed continued...

Cloud Concern	Concern Addressed
<p>SUPPORT</p> <p><i>"It may take a cloud service provider a long time to sort out any problems that I may be experiencing."</i></p>	<p>As with all businesses, different suppliers provide different levels of services. What's more, complex IT issues will take a long time to sort out no matter who is attempting to resolve the problem. It is your responsibility to establish a strong contract with your provider which allocates you appropriate compensation for any interruption in service.</p>
<p>KILLING THE NEED FOR IN-HOUSE IT</p> <p><i>"Putting my organisation's most valuable assets into the cloud could put me out of a job!"</i></p>	<p>Moving forward all IT teams will need the skills to work in the cloud. When Crimson work on cloud implementation programmes we work alongside the in-house IT team and transfer our knowledge to them, as well as key stakeholders, so our client will have the skills they need for a future in the cloud.</p>
<p>COST</p> <p><i>"We don't have the budget to move to the cloud."</i></p>	<p>Moving to the cloud is a trade-off for many organisations. Depending on your agreement, you may be spending less on capital expenditures such as hardware but more on operating expenditures with monthly cloud billing. Working with a cheaper provider may also save you a significant amount of money BUT a higher quality provider is more likely to give you better service and more support. If moving to the cloud can actually streamline your operations whilst reducing your hardware costs then it is worth the initial investment. The key is to get your cloud strategy aligned with your business strategy before your business makes the transition.</p>



CONCLUSION
**BLUE PRINT
FOR ACTION**

05

CONCLUSION - BLUE PRINT FOR ACTION

So now you have an idea what cloud solutions are available to your organisation, you know that they can be as secure as you require whilst not impeding the speed of your operations, and that they can be tailored to meet your specific requirements. We believe there are a number of actions that your company can do to take your organisation's cloud process to the next stage:

- **JOIN THE DIGITAL DISCUSSION:** If you want to expand your knowledge of cloud transition projects further by hearing real life case studies and discussing ideas with genuine experts attend one of Crimson's latest events. These events are FREE to attend and informal in nature. Each event has a

topic and speaker and a few drinks thrown into the bargain. To find out more visit www.crimson.co.uk/events.aspx

- **ASSESS TO PROGRESS:** If you want a clear understanding of your organisation's options and requirements when it comes to the cloud, sign up for one of Crimson's Assess To Progress sessions. Our consultants will come into your business for FREE, learn about your operations and systems, and provide you with a report of recommendations and a road map for action. You have no obligation to implement our recommendations and you will receive a bespoke cloud strategy for your business.

Contact us to find out more. via 01675 466 477 or email marketing@crimson.co.uk.

ABOUT CRIMSON

Crimson is an IT consultancy, an IT solutions provider, an IT recruitment agency, and a Microsoft Gold Partner with offices in Birmingham and the City of London.

We have worked with the likes of Arriva Group, Palmer & Harvey, Next, Eddie Stobart, House of Fraser, Severn Trent Water, Ideal Shopping Direct, Dunelm, United Utilities, Matalan, MISSGUIDED, and Lloyds Pharmacy.

As a Microsoft Gold partner and technology consultancy we are proficient in creating IT strategies, bespoke integrations, managed services solutions, and CRM products.

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