



CrucialLogics

consulting with a conscience™

Cutting Costs with Cloud Technology:

How CFOs Can Leverage the Cloud For Any Budget



What is Consulting with a Conscience™?

After being in consulting for the majority of our careers, there was a nagging feeling in the back of our minds that something was missing. This feeling of something missing just would not go away. Was it money? No, we were making great money. Was it job satisfaction? No, we've had great careers thus far. Was it the people we worked with? No, we've been fortunate to work with some of the most talented people in North America as our peers, managers and teams at companies on the Fortune 100 and Fortune 500 lists.

It finally dawned on us, what was missing was conscience. Let us explain what we mean by that. As consultants in large organizations where we gained our experience, we were driven quarterly by signings, revenue and profit, and we lived quarter to quarter – resurrected at the beginning of the quarter and died at the end of it. There are deals won, deals lost, solutions delivered, and the cycle continued, but very few stopped to think if these deals had the heart to meet the clients' objectives.

We loved consulting; we loved working with a myriad of different organizations across many sectors, meeting new people and solving some of the most complex operational and security problems. We realized that we wanted to continue doing this but we wanted to work with clients delivering solutions with a conscience, and we would never be able to do that as long as we were reporting revenues and profits to a large corporation's bottom line.

Nim Nadarajah, Partner, Advisory Services

That's when the idea of 'Consulting with a Conscience™' was conceived. We formed CrucialLogics with the philosophy of 'Consulting with a Conscience' to do what is ultimately right for our clients. This philosophy translates into our commitment to our operating principles:

1. Understand our clients' needs and why they are engaging with us and commit to delivering to meet or ultimately exceed their expectations.
2. Complete transparency in every aspect of our business from client engagement to our promise to our employees.
3. Govern ourselves to always do the right thing for our clients and employees. Doing the right thing versus profit always wins.
4. Value people and our relationships with them above all else.
5. Always ask if what we are doing for the client follows 'Consulting with a Conscience', and the answer will be obvious.

Our goal at CrucialLogics is to advise our clients on how technology can help them achieve their goals and drive successful business outcomes through a well-defined and well-planned strategy. That is the reason why we've set ourselves up as an advisory company first. We have the experience, the team and the technical prowess to make that a reality for our clients.

Amol Joshi, Partner, Enterprise Solutions

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Introduction — Cutting Costs with Cloud Technology

You've heard of the cloud. Everyone has. It promises to save you money while boosting productivity. For a CFO, it sounds like a dream come true. A real win-win.

The cloud truly is powerful. Migrating and operating securely are serious tasks that require a good investment of time and resources, but in many cases, the money saved and the revenue-driving value it enables you to create is so very worth it.

This eBook should empower CFOs and other budgeting experts with a strong baseline of cloud knowledge you can directly apply to creating your cloud migration strategic plan.

We'll start by talking Digital Transformation, the trend sweeping companies looking to cut legacy costs by moving to a cheaper, more flexible technological future. Then, we'll talk cloud migration in detail, before ending with a little on cloud security, to help assure you and other business leaders that cloud technology can certainly meet industry safety standards.

Ready to dive in?



Are You Ready for a Digital Transformation?

The time has never been better for a business to explore how a robust IT strategy can change everything. Whether you last updated your hardware and software a decade ago or are fighting to keep abreast of dozens of new services, the modern IT landscape has a lot to offer.

High-performing IT is within the grasp of any business, with more advice and technology tailored to optimize more processes than ever. Today's solutions bring advanced capabilities at any scale, meaning you can get industry standard IT at a price that fits your budget — and still have resources left to produce the innovation that will drive your company forward.

The Cloud is More Than Just a Trend

More and more companies are moving to the cloud. With benefits like the ability to seamlessly access files wherever you are, the removal of large upfront software price tags in favour of cheaper, scalable costs, and better reliability, the choice is attractive.

If you're not already on the cloud, or especially if you're only halfway there and tied down by aging legacy platforms, the cloud offers more efficient IT operations all-round. You might be a decades-old massive company with entrenched existing infrastructure and processes that really should be retired. It's also not uncommon for a growing company to have started with a couple of cofounders and an old Microsoft Office license. But what's enough to get work done in the early stages and what's been patched on top to keep it going doesn't compare with a strategized productivity solution for multiple offices with more employees each year.

How Can The Cloud Transform a Company?

Enterprise-grade legacy IT can hold a company back just as a patchwork collection of misaligned software can — indeed, that might be the enterprise IT in the first place. Consolidating to Office 365 means condensing to a single login per user, dealing with a low, scalable, monthly subscription cost, and gaining access to SharePoint collaboration tools that make remote work with colleagues simple.

And that's just one suite of cloud tools.

If you need better computing power, Microsoft Azure has you covered. If you need to securely store tons of information, put it in the cloud and forget about running an expensive local data centre. You'll be more nimble, agile, flexible, and productive.

Anticipate The Unexpected: Cybersecurity and Disaster Recovery

Malicious actors don't just go for the big guys: 1 in 5 small to mid-sized businesses are targeted in cyberattacks. And it's not just hackers on the outside: it can take a company weeks to fully recover from an inside attack.

Cybersecurity ought to be a crucial part of any digital transformation strategy. Luckily, a smart approach is possible regardless of company size. Cloud solutions are often now more secure than traditional internal systems, and while the pressure might be on in light of high profile public breaches, a proactive treatment of security can minimize harm inflicted by a leak.

Likewise, taking some simple precautions with backup management and planning your architecture with swift recovery in mind make it so that you now suffer minimal downtime if something catastrophic does happen your IT. With the right set up, you should be back up and running with nothing missing.

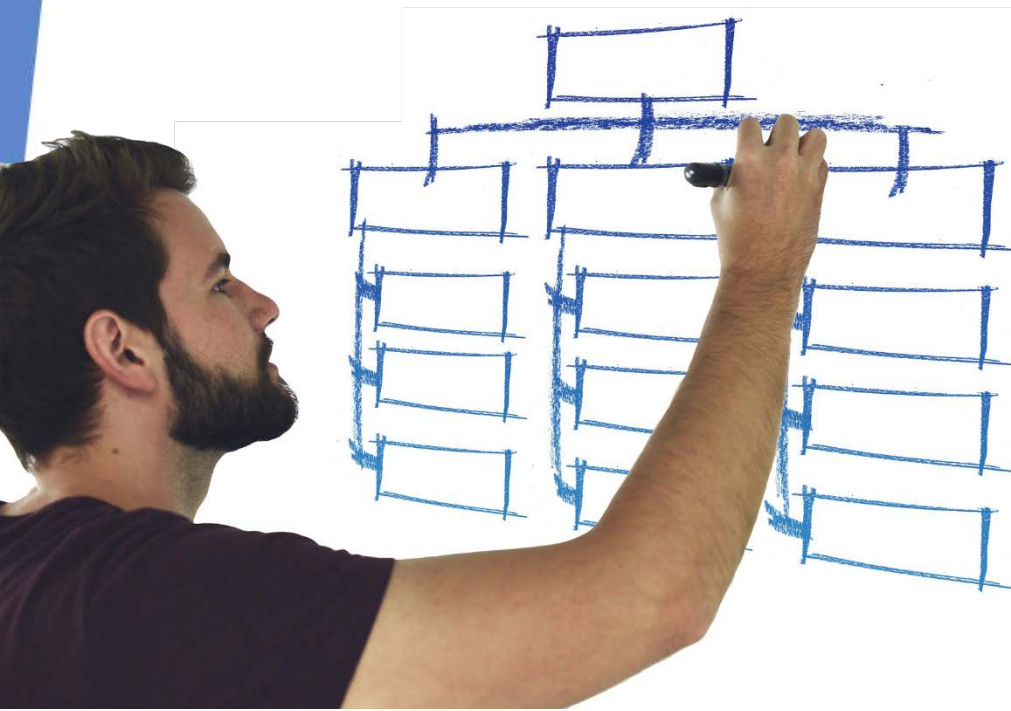
Budget, Planning, Strategy

Above all, your digital transformation relies on smart, effective budgeting, planning, and strategizing. A business needs to understand what it needs, and IT must understand where it can do the most good with the resources it has available.

What are the problems you're actually facing with your digital strategy? What works well, and what's fallen behind? How do you parse all the available technologies and implement change? How does the cloud factor in?

The best way to understand what your business needs from an IT perspective is to inquire with the people who rely on the IT department to serve them. A digital transformation in response to pointed real-world feedback beats a haphazard stumble through irrelevant technologies.

Consider administering a survey to key stakeholders to begin a more quantitative evaluation of what you're currently doing. Then, work from there to strategize appropriate solutions that will demonstrate value and drive business satisfaction. But if you want to know how to plan your cloud migration, read on.



Building Your Cloud Migration Strategy

“Why Haven’t We Moved to The Cloud Yet?”

That’s the question many companies are asking. The power of the cloud comes from shifting to secure off-site data storage and accessing software and hardware on-demand rather than having to make up-front purchases that may not align cost with actual usage.

The potential benefits are huge when the cloud is the right fit. Scalability, lower cost, more reliability, access to enterprise-level service, portability, and more effective use of employee time are some of the reasons why many companies either switched to or started on the cloud.

But like everything, it all depends on what your company is currently doing and how well it’s doing it. Some tools have near-universal applicability, but it could be that certain applications will perform better on-premises for now. Or the cost of migrating a large datacentre might work best as a gradual process as part of an existing hardware upgrade cycle rather than immediately.

These limitations can be overcome with proper planning, and in time, you should be able to migrate enough processes to the cloud to make meaningful gains in productivity and cost savings.

Who Needs to Get On Board?

With any big change, there are various stakeholders you may need to convince, and it's not just the C-level executives. One of the biggest roadblocks to change that CIOs frequently encounter is the company culture's inertia, so a cloud strategy needs to account for this.

To ensure your migration is successful in practice, you need to consider those whose workflows will be significantly impacted. They'll be far more likely to embrace the change and use the new cloud systems to their fullest potentials if they understand why the change is good for the business and good for their roles.

You may also encounter outright cloud skeptics who point to some of the drawbacks as being insurmountable. While every company's needs are different, compared to current cloud capabilities, their concerns are possibly outdated, and the problems are often not as unsolvable as they think.

What Can You Move?

Smaller, newer companies have the benefit of having little to nothing to migrate: and may be able to get going as a total cloud native. Older companies, with existing hardware and software assets, perhaps accumulated over years or even decades, will have a lot more work to do.

You may be able to consolidate much of what you do under single platforms such as Microsoft Office 365 and Azure, but if mission-critical processes rely on custom or lesser-known, older applications, it may not be so simple. Some applications need considerable re-architecting to work within the cloud.

A service like Microsoft Azure can give you access to enterprise-level hardware as you need it, but you will need to understand which workloads bring the most business value to your stakeholders by being in the cloud and create a prioritized roadmap to pave the way to get along your cloud journey.

A full inventory of your systems and business processes will make selection easy in understanding what's possible to migrate, what may need to wait until later, and what might require a detailed rethink.

How Does The Cloud Meet Regulation Requirements?

Shared responsibility in a public cloud means you have a partner that hosts resources on a cloud service provider's infrastructure. The partner is then responsible for the security that depends on the cloud service model you use (IaaS/PaaS/SaaS). With IaaS, the cloud service provider is responsible for the core infrastructure security, which includes storage, networking and computing — at least at the physical level.

As you progress from IaaS, to PaaS, and then to SaaS, you'll find that as a company using the service, you're progressively responsible for less and the cloud service provider takes on more responsibility.

Figure 1. describes how shared responsibility works across the cloud service models.

Who Will Help You?

Even if you can't fully migrate right now, getting to the cloud should be a priority for any company looking to modernize and adopt best practices. It's a project that likely requires more resources than any time-pressed IT department has on-hand, and you may find that working with a group of experts is helpful.

These dedicated cloud migration professionals have access to deep technical knowledge of cloud systems and know how to leverage these technologies in ways that are beneficial to specific business challenges. If you're ready to transform yourself and jump to the cloud, [contact CrucialLogics](#) to get there safely.

How seriously do we take security? You're about to read our full playbook.

Responsibility	On-Prem	IaaS	PaaS	SaaS
Data classification & accountability	Cloud Customer	Cloud Customer	Cloud Customer	Cloud Customer
Client & end-point protection	Cloud Customer	Cloud Customer	Cloud Customer	Cloud Provider
Identity & access management	Cloud Customer	Cloud Customer	Cloud Customer	Cloud Provider
Application level controls	Cloud Customer	Cloud Customer	Cloud Customer	Cloud Provider
Network controls	Cloud Customer	Cloud Customer	Cloud Provider	Cloud Provider
Host infrastructure	Cloud Customer	Cloud Customer	Cloud Provider	Cloud Provider
Physical security	Cloud Customer	Cloud Provider	Cloud Provider	Cloud Provider



 Cloud Customer
  Cloud Provider

Figure 1. Microsoft Azure Security & Compliance MSDN

Four Steps to Reliable Cloud Security

The cloud offers companies real value. That much is indisputable. Access and direct business operations from anywhere. Share and collaborate on documents with built-in version control. Reduce your physical IT architecture requirements.

But while it's definitely possible to exist securely on the cloud, as with any IT environment, it takes work and a comprehensive security approach to get there when you're faced with a variety of security threats:

- Data breaches
- Poor identity and access management
- Insecure interfaces and system vulnerabilities
- Shared technology vulnerabilities
- Advanced persistent threats
- Non-malicious data loss

We recommend a four-pronged approach to producing a secure, cloud-friendly IT department.

Security Design Assessment

The first thing you need to do is check your security design — and if you don't have it written up, get to work on that. How will the cloud service fit into your security design? Does the design mandate specific features that a cloud service provider must deliver, or would the reality of a cloud-based approach require changes in your design?

The assessment itself must be capable of identifying the security gaps in your existing system, the gaps that may exist in the cloud system, and show a way forward. You'll need to consider the possible vulnerabilities of the system and its interfaces given that you won't have this technology in-house under your control. Understanding who should have access to what and how their access is protected is also key. If you're hosting your data

remotely, you'll also need to consider the possibility of a breach or loss beyond your control and have a plan for damage mitigation and data recovery.

Configuration Assessment

Is everything set up correctly? With a myriad of services available, even platforms as monolithic as Microsoft and Azure can be complicated to configure securely. Your configuration assessment is a chance to map your implementation against the design to ensure your security intentions are reflected in practice. A hole in your configuration could be the entry point for an advanced persistent threat. If the attackers have a chance to establish a foothold, they could covertly extend their access over time and disrupt operations or take control.

This is also a prime place for a shared technology issue to creep in. Cloud services are able to offer benefits due to the scales they operate at, but it's possible that some technologies they're using were never intended for a multi-tenant environment. If you're one of many on a platform that's not built for that capability, be aware that you may be at risk. Have an expert review all your configurations and get the understanding you need to ask a service provider the right questions.

Cloud Controls Baseline Assurance

Regulations are in place to lift everyone up to a secure baseline. Complying to regulations is a task that differs by industry, geographic region, and the type of data you're handling. Between NIST CSF, NIST800.53, ISO27001, and PCI standards, there are a lot of letters to consider. You'll need to understand how your Microsoft Cloud Technologies live up to these standards, and the same goes for any other cloud service providers you use.

Failing to meet requirements could mean an upfront fine, but the standards are in place to make IT more secure, and that does mean that meeting them isn't a guarantee that an intruder will be locked out. If you are falling short, it should tell you that there are some serious security risks to take care of.

Pentest and Vulnerability Testing

The last part of evaluating your security should be a Pentest and Vulnerability Test. This will simulate the kinds of threats you're trying to protect against by working vulnerabilities and testing the limits of your security. You may get an idea of how much damage a rogue account could cause before it's caught, or the scale of a data breach made possible through a software exploit.

These ethical hacking methods are the measure of how good your security is. While, again, nothing is a 100 per cent guarantee as attackers discover new exploits, and human error in your users is always a concern, it will offer a level of assurance that you've done your due diligence, have adopted best practices, and are compliant with relevant regulations.



Taking You Beyond The Cloud

The cloud is transformative, but it takes planning to migrate, expertise to do so seamlessly — and as with all IT, a watchful eye to ensure security.

And when you're done? You need to know you're actually using it properly. You need someone on your side to enable the growth, success, and savings promised by the cloud.

If you're ready to move more onto the cloud, bolster existing security, or just want to know what your options are, CrucialLogics is waiting to hear from you to help build the IT infrastructure that will give you a competitive edge. As business and IT experts, we're familiar with the realities budgeting works under, and have a knack for fitting complex IT operations into all situations. [Contact us to get started.](#)

Already on Office 365? [Our Office 365 Security package](#) was created to help design and maintain your configuration. We'll help you break down the complicated question of security and provide ongoing support to keep you in top shape.





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