

Transfer to the cloud

With the 'Transition Framework'

Cloud transition: A clear choice and approach in three phases

New technology-driven possibilities put enormous pressure on modern organisations and 'business' and IT must be carefully aligned to enable those possibilities to be optimally utilised. Designing and deploying a matching IT environment requires a similar kind of teamwork.

Often, the basis for a new IT environment is a cloud solution: the inherent advantages of cloud computing often mean that using the cloud is a precondition for digital transformation. However, the transition to the cloud is a serious challenge for many organisations. To tackle such an undertaking, Solvinity uses the Cloud Transition Framework. In this article, you can read how this framework enables you to make a comprehensive transition to the cloud in three phases, from decision to eventual transition.

Introduction: why the Cloud?

Since infrastructure (IaaS), platforms (PaaS) and software (SaaS) are available in the cloud as a service, the need to invest in capital goods such as servers and data centres disappears as a result of cloud computing. IT services can be upscaled and downscaled almost limitlessly, and can be purchased and paid for according to your needs. The cloud not only offers flexibility both in terms of cost and capacity, but also relieves the organisation of many of the maintenance and management problems on which the IT department currently spends most of its time. Furthermore, cloud computing provides IT with the freedom to reposition itself, from a department that places restrictions on the organisation to a department that opens up new opportunities and inspires the business to explore new options.

Needs and limitations

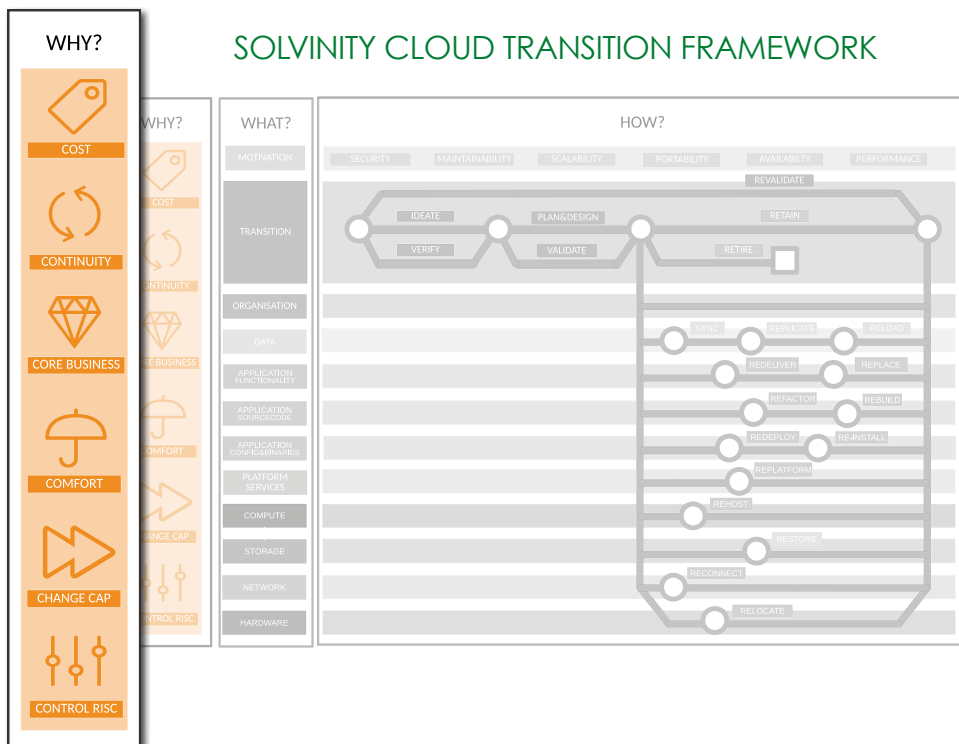
Transition to the cloud is often not that easy.

The applications that an organisation runs at present cannot always be migrated as-is to the new cloud model. A good example of this is an old client/server application that is slated to be replaced by a web-based variant in the future, but must still be used for the time being. In some cases, it can be profitable to opt for new cloud-specific solutions. In other cases, it makes more sense to keep using the old 'legacy' applications for a while.

Many business managers have no idea how many different applications are used both within and outside the scope of their IT department. Ideally, each IT department should regularly make an inventory to restrain so-called 'shadow IT' or to gain insight into its use and its impact on performance, security and data integrity.

Furthermore, not all options that the cloud has to offer, match the current state of the organisation or deliver the instant savings that the organisation expects. Solvinity uses the Cloud Transition Framework to jointly explore the best cloud solution for your organisation.

Phase 1: The “Why”



Business decisions require a sound business case. Why do we need a change? What is forcing us to change? Sometimes, new IT investments are necessary because the equipment is old and therefore slow, or because certain application versions are no longer supported by the supplier. Sometimes, change is desirable to be able to optimally compete, renew existing business models and accelerate processes. The most urgent question that all IT departments have to answer these days is: what is the most effective and efficient IT environment for our new digital organisation?

Therefore, for us, the transition to the cloud always begins with an orientation process, which we undergo together with our clients. We look to answer the question of why change is necessary or desirable. We call the desires behind this question the 'transition drivers', which we summarise with the six Cs: cost, comfort, core, continuity, control & change. Together with the client, we assess each component to carefully map the points of departure.

Cost:

Most organisations want to do away with large capital investments (capex) and expect the transition to cloud services to generate not only more flexibility (opex) but also demonstrable savings. However, the cloud is not necessarily cheaper. Without the right preparation, cloud computing can turn out to be more expensive than expected. The reason for this can be an incorrect assessment of the required resources (over or under-provisioning), retaining services that are no longer required or opting for cheap services that become expensive as soon as higher demands are made. Troubleshooting and management are also costs that have to be considered before a decision can be made whether a cloud solution will provide the best value for money (P:Q) for your organisation. To clarify that price in a pay-per-use model, a reliable and experience-based assessment must be made of the variable costs, which will subsequently be communicated in practice by means of clear dashboards and timely alerts.

Comfort:

Digital transformation is not only disruptive and challenging for the business, it also poses similar challenges to the IT side of things. Furthermore, it is not self-evident that organisations have the right in-house knowledge and experience at their disposal to adequately guide the transition. For these reasons, more and more organisations opt to outsource these tasks to an experienced and trusted specialist that constantly monitors the latest developments, and interprets to what extent these have a bearing on your organisation.

Core:

Cloud computing itself is in continuous flux. Maintenance and management of these increasingly complex environments are simply not part of the core activities of most organisations. Furthermore, most clients find it impossible to maintain the level of IT expertise that guarantees the best possible service provision. By outsourcing these 'matters of secondary importance' to a specialist, the available manpower can be better deployed to reinforce the distinctive capabilities of the organisation in the market.

Continuity:

In a digital world in which organisations are increasingly dependent on the availability of data and data-based services, reliability is of crucial importance to the continuity and the image of the organisation. The ability to deliver an uninterrupted and smooth provision of service is a key element in your reputation with clients and users. This places serious demands on both the underlying infrastructure and the provision of services. Examples of this are 24/7 availability and 'disaster recovery', i.e. how quickly is information accessible again after a disruption? In 2017 alone, various international enterprises hit the headlines in a very negative way because of major disruptions to their IT systems: Delta Airways in January, Amazon S3 in February, and British Airways and Starbucks in May. By clearly mapping which part of the infrastructure, applications and data must always be available for the primary business process, the organisation can be effectively shielded against the potentially disastrous consequences of disruptions as a result of power outages, hardware failures and ransomware, among other things.

Azure

Solvinity is 'cloud agnostic' as regards public cloud solutions. This means that we can handle Microsoft Azure just as well as Amazon Web Services (AWS), Google Cloud Platform (GCP) or the services of other public cloud suppliers. We do have a preference, however. Microsoft Azure has developed strongly as a platform in recent years and offers, in our view, the best foundation for a future-proof organisation. This is why Solvinity is a Microsoft Gold Cloud Partner since May 2017. Our people are continuously upskilled with the latest developments within the Azure cloud. This means that you can always have access to the latest insights and techniques, as well as a direct line of communication to Microsoft, ensuring uninterrupted, optimal support.

Control:

The growing dependency on data and IT systems also means an increasing need for control and insight. Where the integrity of data can make or break an organisation, IT has the responsibility to retain control on what is going on within the company systems, even if the management of these systems has been outsourced. Cloud computing has the advantage that it becomes easier to upscale and downscale: more storage, more virtual machines (VMs). Having the right insight into the consequences those adaptations will have for IT, the costs and for company processes is a precondition for success. A partner that helps to make the right assessments ensures that the new options that are made available to you truly result in more control over your IT systems.

Change:

Renewal requires organisations to flexibly adapt to change by innovating quickly, failing quickly, switching quickly and learning quickly. As soon as new innovations become available, the (IT) organisation must be capable of incorporating them without damaging the existing business, while retaining the flexibility to amend or reverse the choices made, should the market require it.

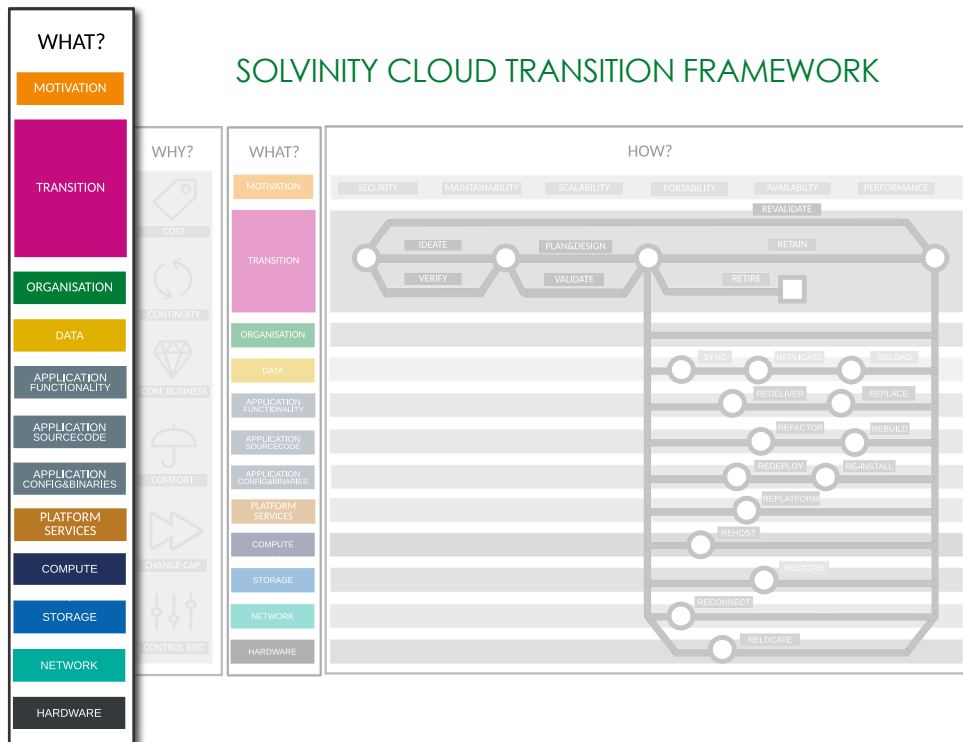
“IT departments need to balance their technical capabilities and redefine their operating models in order to become coleaders in the digitalization process”

[Arthur D. Little: Digital Transformation - How to Become Digital Leader](#)

The Cloud Specialist

Theo van Drimmelen, Cloud Specialist at Solvinity: “Some clients still run solutions that depend on ancient ADSL lines. Or they run outdated operating systems that are not supported by the cloud. Or they have specific demands that are not a standard feature of the public cloud. Sometimes these solutions can be upgraded. If not, then often we can solve the problem by moving the application to our own data centres. If that is not an option either, you will simply have to decide to keep running certain legacy applications on-premises for the time being. And that is the challenge. Which decisions do you dare to take and which ones will you postpone for the time being? Do you want to migrate from your old file and e-mail servers to Office 365 and OneDrive? Is your organisation ready to do that? Are you prepared to adapt your service provision? Does migration to Unified Communications make sense for the organisation? These are often radical decisions for which we want to retain an overview of the entire IT landscape to enable us to make the best choices.”

Phase 2: “What”



The architecture and the design of the entire IT stack and all separate components will be represented in the framework. We use this model to not only map the IT environment but to also verify whether, in case of the migration of a single environment, all child and parent components and architectural aspects have been taken into account. The architectural layers are divided in such a way that clear arrangements can be made about the management responsibilities.

We opt for a setup in which the basic infrastructure and surrounding services (IaaS), platform and services (PaaS) and application and software services (SaaS)

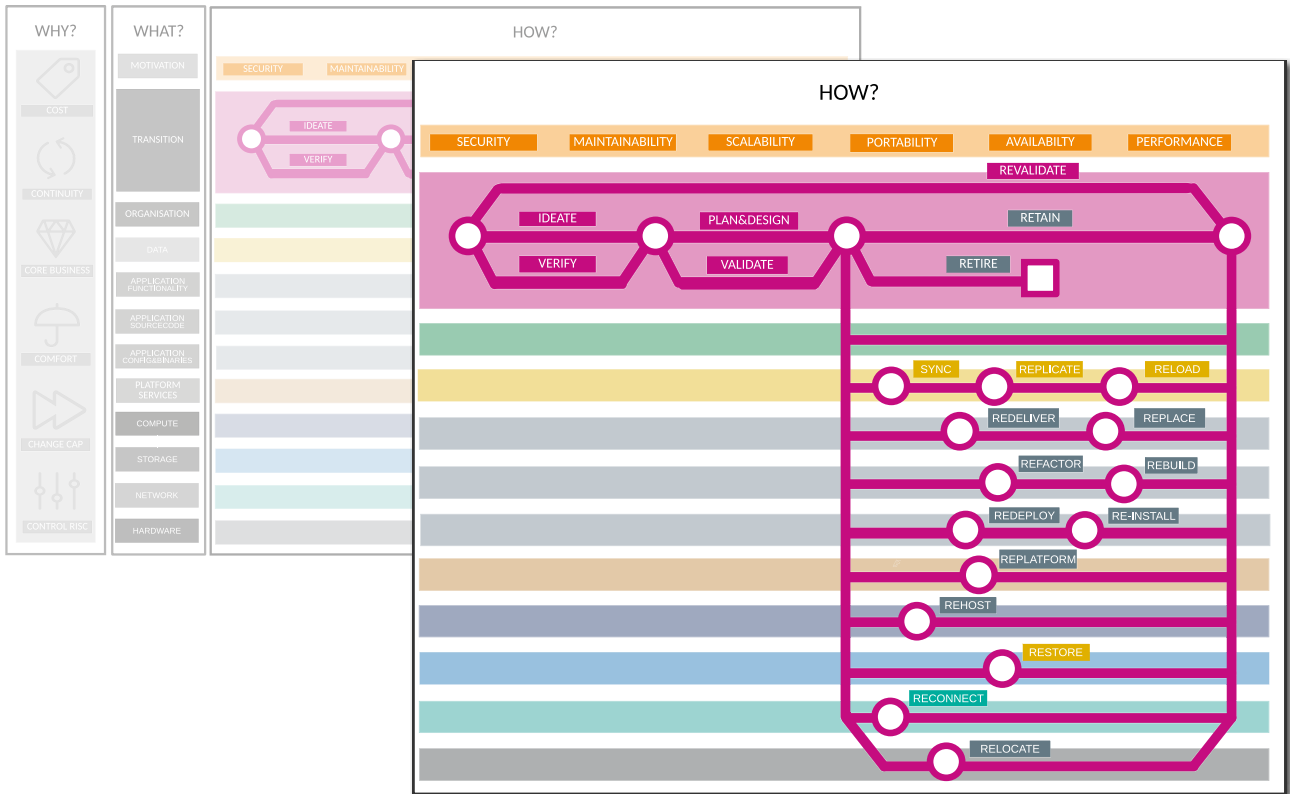
are our points of departure. The demarcation points are important because every IT infrastructure is made up of equipment, applications and services provided by various suppliers. This constitutes a complex ecosystem and requires handovers and management arrangements to be clearly aligned. Data is the most proprietary component, as it serves as the umbrella for all details and information regarding production, services, clients and administration, among other things. Each type of data can be subject to a different strategy or different prerequisites, such as retention obligation or availability.

Case: Faster Forward

Jochem Blok, Senior Web Application Engineer at [Faster Forward](#): “To us, security is very important within the hosting solution. Financial service provision demands excellent security. Since our clients want to retain their data and data processing in the Netherlands for legal reasons, we wanted to find a purely Dutch, SOC 2-certified supplier that would instil the confidence in our clients to purchase our SaaS-application.”

Phase 3: “How”

SOLVINITY CLOUD TRANSITION FRAMEWORK



Once the points of departure and the IT environment have been mapped, the transition phase emerges. There is no one ideal scenario for transition to the cloud. During a so-called 'Ideation' session, we assess, together with our clients, which solution will suit the organisation best. We ask the following five questions for that purpose:

1. In which direction is the business going, and what does IT have to deliver to remain competitive there? Is it necessary, for instance, to be able to deploy and adapt applications flexibly? Where can we expect peak loads? Which markets does the client want to access and which partners are being targeted for cooperation?
2. What are the non-functional requirements, such as costs, speed, flexibility, security, availability and scalability? And what is their importance to the organisation? What technical and organisational impact will these requirements have? Which demands and limitations are set by legislation and regulations?
3. What does the current infrastructure look like? How can we restructure the infrastructure in such a way that services are optimally divided across a combination of public, private or hybrid cloud services?
4. What does the application landscape look like? Which applications are already running in the cloud, which services can we possibly cluster to migrate them to the cloud as an entity, and which solutions would be better off running on-premises? Which gains, in terms of efficiency, costs, speed, scalability etc., can be achieved by placing the services in the cloud?

5. How is the organisation connected to the rest of the world? Which connections exist? Will they perform similarly in a cloud environment? Or are alternative solutions possible?

Based on the insights that we gained during this phase, an image emerges that is unique to the organisation. This helps us to determine, together with

the client, which solutions will result in the most effective and efficient IT environment for the organisation, now and in the future.

In workshops and quickscans we work with the client (both business and IT) to create a roadmap which we will assess and, if necessary, adapt at least twice each year.

CI/CD and Integrated Delivery

Close cooperation with software suppliers is a prerequisite to making sure that quality applications also properly connect with the infrastructure. Solvinity works according to the [CI/CD method \(Continuous Innovation/Continuous Development\) and Integrated Delivery](#). By going through the code together and brainstorming from the perspective of the infrastructure, the effectiveness of applications can be improved (faster loading time, faster data processing), and better security and management settings can be utilised right from the source. A good example of this is the collaboration between [Zig Software and Solvinity](#).

The Project Manager

Henrik Bor, Projects Manager at Solvinity: "Guiding a successful cloud transition requires patience, experience, and up-to-date knowledge. Azure, for instance, is not always cheaper or suitable, but undergoes constant development: only if you are well informed and have short lines of communication with its developers can you be sure that you are using the most optimal solution. Moreover, we always encounter specific or unusual situations at our clients. Once, a client's data centre had not only reached its capacity limit but also had to be quickly cleared out as part of a relocation. As a solution, we first added our own hardware on-site and then executed the migration to the Solvinity Private cloud there. Subsequently, we moved the whole physical stack to our own data centre.

"You have to be flexible and be prepared to deliver customised solutions. Whatever the solution, good preparation is the key to success. If a client has taken the trouble to assess its application landscape and to determine which (outdated) applications can be discarded, you can save a lot of time, money and effort. Also, it is wise to take the time to execute the changes in phases. Making too many changes at once makes it difficult to find the causes if problems arise, resulting in the solution taking longer to find as well. Finally, it is sensible to take external interfaces into account because often you depend on external parties, such as telecom providers. If they don't deliver on time or they supply the wrong product, the whole project will be delayed. Therefore, at Solvinity we pay a lot of attention to a proper preparation."

After the workshops and the roadmap, we draft a proposal, in which choices are made for SaaS, PaaS or IaaS solutions in a private, public or hybrid cloud construction. The design can be validated by using a business case and this is provided in advance via a proof of concept (PoC) demonstration. The business case can also result in a phased approach, in which smaller projects that show the most promise are initiated.

If the proposal is approved and the business case and/or PoC is accepted the actual transition to the cloud will follow. The framework will indicate which transaction and transformation activities are possible. Based on what the business demands, the scope and the architectural demands, the best solution per application is decided on. After each migration, an assessment is made whether the original objectives

are actually met. In the model, the transition activities can be found to the left of the transformation activities. In practice, many clients opt to first execute a relatively rapid lift&shift (rehost), and then later switch to the use of platform services (PaaS) or software services (SaaS). Thanks to the framework, these activities can be indicated really well.

Companies for which we execute the transition, work with a permanent team of Solvinity Engineers and have a single contact person. The engineers develop the solution but are also responsible for managing it. The teams are composed of experienced and multidisciplinary specialists. This composition and approach prevent inefficient handovers from one team to the other, and ensure that the engineers are knowledgeable about the entire environment.

Outsourcing? And what about our own people?

Our recommendations will differ, as each organisation is different. Solvinity is capable of taking over the entire IT stack, from the local firewall to your IT staff (full managed outsourcing). This can be an attractive solution for many reasons: it is a solution that allows employees with specific IT knowledge who risk becoming redundant due to the outsourcing to be given a new position. At the same time, it safeguards the knowledge of your organisation and systems in your outsourcing process. For Solvinity, experienced and motivated IT specialists with knowledge of client processes are a valuable addition.

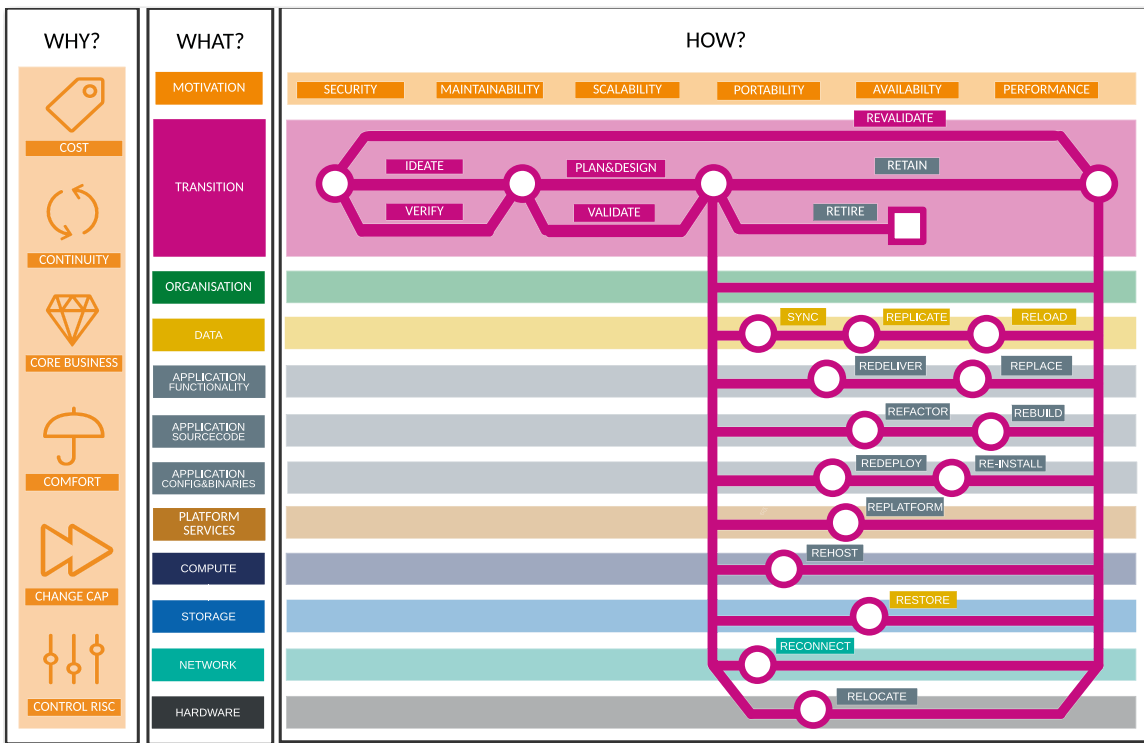
Three phases, one model

Our model has been thoroughly proven in over 15 years of practical experience and hundreds of client projects. Flexibility has been built into the model to allow for new technologies and innovations, in existing IT environments as well. Using this model, companies can make their own first steps while exploring their current and future environment.

Solvinity will be happy to advise you about the solution that will best suit your situation and demands.

We advise both business partners about the business implications of a cloud transition and IT specialists who want to discuss with us the various technical consequences of the transition. In any case, we will provide quality discussion partners who can and want to look at the future of your organisation together with you. We are happy to provide conclusive answers to your questions and demands with regard to the transition to a future-proof IT environment.

SOLVINITY CLOUD TRANSITION FRAMEWORK



Read more:

“Mapping Applications to the Cloud”

This article on the Microsoft Developer Network (MSDN) provides more insight into which types of applications are suitable for the cloud and which are not.

<https://msdn.microsoft.com/en-us/library/dd430340.aspx>

Cloud Computing: 8 Hidden Costs

This article on InformationWeek states 8 hidden costs of Cloud Computing, such as ‘over-provisioning’ or simply forgetting that an environment is still ‘switched on’. Troubleshooting and management are also costs that have to be taken into account when making a comparison.

<https://www.informationweek.com/cloud/platform-as-a-service/cloud-computing-8-hidden-costs/d/d-id/1321375>

For more information about digital leadership, please read this study by Arthur D. Little from 2016

Digital Transformation - How to Become Digital Leader

http://www.adlittle.com/downloads/tx_adlreports/ADL_HowtoBecomeDigitalLeader_02.pdf

In the Platform-as-a-Service for Faster Forward

reference case, you can read more about our experience with cloud computing and financial organisations.

<https://www.solvinity.com/nl/branches/case-studies/faster-forward>

In our **Integrated Delivery** White Paper, we elaborate on Continuous Integration/Continuous Delivery (CI/CD) and the approach that Solvinity chooses to optimally collaborate with you.

<https://www.solvinity.com/nl/actueel/downloads/white-papers>

Would you like to learn more about Integrated Delivery in practice?

Read our **Zig Websoftware** reference case and watch the video.

<https://www.solvinity.com/branches/case-studies/zig-websoftware>

Download the ebook:

“10 Azure questions,
10 Azure answers”



Contact Solvinity
to make an appointment

Call
+31 (0)20-3643600
and ask for
more information
on our Cloud Transition
Framework

About Solvinity

Solvinity develops innovative client-orientated solutions, and provides companies with high security demands secure access to the private, public and hybrid cloud. Solvinity specialises in cloud services for managed hosting, analytics, workplace and security. The company is an expert in hosting critical infrastructures. Under the motto "Secure and compliant by design", Solvinity is certified according to international and Dutch standards such as ISO27001, ISO14001, ISAE3402 type II, SOC2 and NEN7510. Every year, the company participates in the Garte Outsourcing Performance study, in which it has scored above 90% for many years. Clients are very impressed by the company's communications, and appreciate that the company not only listens to feedback, but actually does something with it. Solvinity's clients include the Dutch national government, municipalities, TNO, Trans Link Systems (public transportation smart card), ING Bank, Nationale Nederlanden, Rabobank, Ahold, Aegon and ICS Cards. Its annual turnover in 2016 was €38.5 million. The company has more than 200 employees in the Netherlands. For more information, visit www.solvinity.com, or follow Solvinity on Twitter and LinkedIn.

Postal address
Solvinity B.V.
Hogehilweg 3
1101 AC Amsterdam

T +31 0)20 364 36 00
E cloud@solvinity.com
www.solvinity.com