



BACK TO BASICS

Cloud computing

According to research bureau IDC, 60% of organisations around the world use cloud computing or are planning to do so. In the Benelux, some 57 per cent of companies are already at least partly in the cloud. The analysts at Gartner have included the cloud in their trend overviews for years, with promises of lower costs and greater operating efficiency. But does the cloud make sense? Or more accurately: does it make sense for everyone? In this document, Cheops looks at cloud back-to-basics and a number of four-letter words, such as SaaS and hype.

Like water from a tap

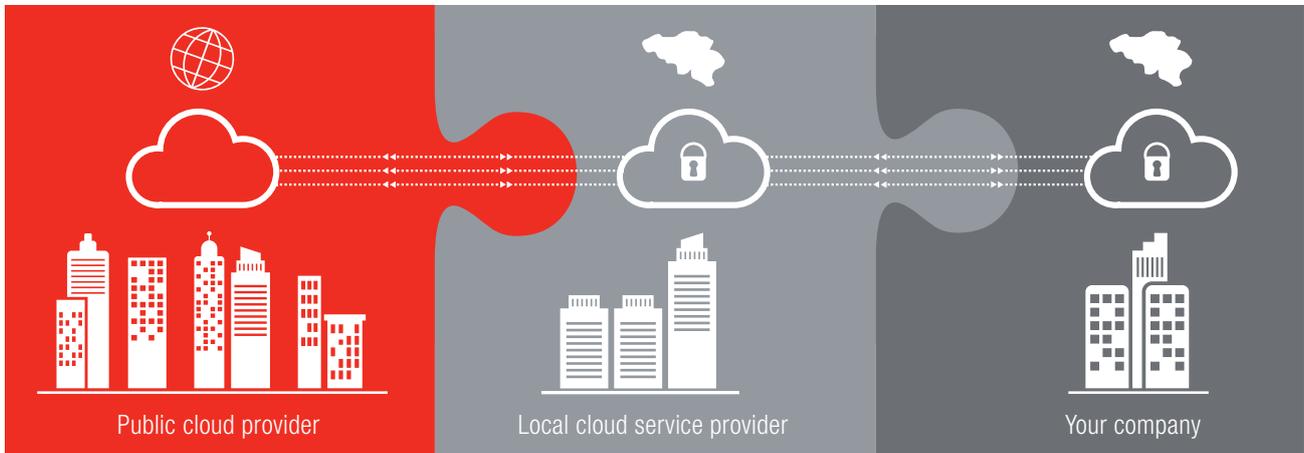
The cloud is best compared with water, gas or electricity. No one expects you to supply your home or business with water yourself – the costs for building and maintenance would be far too high. And so we share the cost of managing the drinking water network with everyone else, including treating the water and delivering it right to your home or office. Because we are connected to the network, we always have access to water and the price we pay for it is based on the quantity we consume. Cloud computing follows exactly the same principle.

The hybrid that's not a car

As a consumer, you are probably already in the cloud – and may have been for as long as ten years. In fact, there's a good chance that your personal e-mail goes via Gmail, or you may store your external photos on Microsoft OneDrive or DropBox. Possibly you already send large files via WeTransfer.com. And it wouldn't be unusual to make arrangements with friends via Doodle. Probably, like almost every office employee in Belgium, you have a LinkedIn account. These are all forms of cloud computing.

3 types of cloud computing

For businesses, there are three forms of cloud computing: private cloud, public cloud or a combination of the two. We call that the 'hybrid' cloud. Allow us to explain the difference, in brief.



Public Cloud

With the public cloud, the infrastructure or software is housed in an external datacentre, very often in another country. Usually you don't even know where. A public cloud is easily available to virtually any company and is simple to set up. Access to computer data and applications is via the public Internet.

This model is often chosen by smaller businesses because the cost to use it is extremely low, the technology is always available and the volume required depends on your needs. The disadvantage of the public cloud is that it is not always clear where your data is and, in certain cases, there can be a lack of clarity regarding regulations.

Although public cloud services are relatively cheap in general, the cost of managing and keeping your data secure can easily mount up for businesses.

Finally, public cloud services come without any frills and can be less flexible to adapt to your own needs.

Hybrid Cloud

This is a combination of internal (private) and external (public) clouds. Perfect for organisations that want to maintain part of their infrastructure themselves and at the same time want to use public cloud services for certain applications – such as Microsoft Office 365 – or to accommodate spikes in usage, or to increase storage capacity on a short-term basis. A hybrid cloud environment can be constructed very flexibly to meet the needs of the business it is serving.

What should the **average Belgian company** choose?

A recent survey by Interxion and IDG Connect forecasts that this year, 56% of Belgian companies will use a hybrid cloud solution. Indeed, the hybrid model offers the best of both worlds: sufficient control and peace of mind, as well as the flexibility to switch quickly without having to make significant investments.

Private Cloud

With private cloud computing, your applications and data are available centrally via a business network and a web link – i.e. from anywhere. That's how the cloud differs from conventional computer use. Private clouds work on infrastructure that is not shared 'publicly'. For instance, a private cloud is very often set up on servers within the company premises, which are then linked between departments and locations as part of a network. Another, more recent, type of 'private cloud' is where the infrastructure is purchased 'as a service' from an external cloud service-provider. This provider handles the hardware, sets up a secure location, provides connectivity and manages the infrastructure.

In a private cloud, you as a company have more control over what happens to your data than you do with the public cloud. If you use the infrastructure and management services of a Belgian external provider, in addition to having fewer IT worries, you also have the reassurance that your data remains within Belgium. For some users, this peace of mind is important.

Hire software, hardware or both

In addition to the three types: private, public and hybrid cloud, there are also three categories of services. This means you can hire software, hardware or both, depending on usage:

Software -as-a-Service (SaaS)

This is clearly the most popular form of cloud computing these days. SaaS makes it possible to use applications via the Internet. There's a fixed price per month, per user, or a one-off charge that covers the licence cost, updates and maintenance by the provider.

Examples of this are Salesforce.com and Microsoft Office 365, as well as HR applications from companies such as SD Worx. Cheops also offers IT monitoring software in an SaaS model.

Platform -as-a-service (PaaS)

With PaaS, organisations do not use any preconfigured applications via the web; they build them themselves. The development and testing of the new software takes place entirely online. Software developers need neither development software nor infrastructure. However, they can totally gear the underlying infrastructure to the application so that it functions exactly as they want.

Examples are Microsoft Azure, Google Cloud Platform and Amazon Web Services.

Infrastructure -as-a-Service (IaaS)

With IaaS, you hire the total IT infrastructure, including servers, storage and network devices where you can run the applications you have developed yourself or have them managed for you. What for many companies requires a significant or non-feasible investment in technology and expertise, becomes an affordable and reliable service thanks to IaaS. You then have an effective, scalable and ultra-secure IT infrastructure in the cloud at a predetermined cost per month. The provider can also take on full management.

The cloud is used strategically for innovation. Solutions are chosen on the basis of added value for business and corporate objectives.

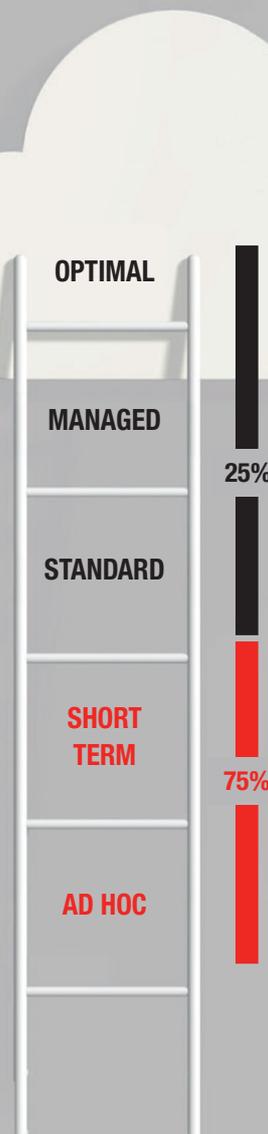
The use of cloud computing is structured across the whole organisation and integrated via various channels and tools.

Through some forms of standardisation it is possible to use cloud solutions flexibly.

Cloud solutions are used in the short term for isolated improvements to the IT environment.

The cloud is used from time to time to remedy emergencies quickly.

(from IDC "The business benefits of achieving greater cloud adoption", IDC, 2015)



Customers can come to Cheops for monitoring, servers, workstations, security, e-mail, messaging, backup and storage capacity in the cloud. Cheops provides a wide range of proactive management services or managed services.

Not everyone is already **high in the clouds**

Not every business is at the same stage in terms of cloud computing. Research agency IDC says that companies use five levels of maturity or strategy. The agency's research also shows that 25% of all companies are at the three highest levels of maturity, although cloud has been generally accepted by most businesses.

Ten advantages of the cloud

1. Access anytime, anywhere

Users enter their login details to access the cloud or their web application wherever they are, whenever they want. Teams that have to work together can often divide their time more efficiently and gear their work accordingly.

2. Easy to scale

If your company is growing quickly, or the business is running less smoothly than before, you can increase or decrease the amount of cloud services you use as the pace of the business evolves.

3. Technology for both small and large companies

Previously, large companies tended to have access to technology that was simply unachievable for small organisations. Having a powerful IT infrastructure – not to mention the right internal knowledge and technical support – used to be impossible for budgetary reasons. But the cloud has made technology available to everyone. An application such as Office 365 looks no different for large companies than it does for an SME with twenty users. Today, any company is able to introduce new technology rapidly, expand existing systems quickly, store information externally, and so on.

4. Fewer risks

Cloud providers all invest significantly in business security, availability and system redundancy. As a result, you as a customer run less risk of downtime and lengthy, painful recovery times.

5. Lower costs

Because the cloud allows you to 'top up' whenever you want, you can start small and grow as your needs dictate. You also no longer have any physical infrastructure on-site, nor any need to recruit specialists.

6. Better security

Fear of data theft is usually the main reason why SMEs seem to be reluctant about switching to the cloud. Yet cloud providers invest a great deal more in expensive security and protection than SMEs. It is now no longer a question of whether organisations may have to cope with a security breach at some stage, but how quickly they can detect the leak and plug it. Professional providers of cloud services monitor the environment constantly and solve problems proactively.

7. Business security

Cloud services for backing up, storing and replicating data are already used actively

by small and medium-sized companies. Many providers offer virtually unlimited storage, automatic synchronisation and backup procedures that limit downtime to a minimum because any data that goes astray can be recovered quickly.

8. Redistribute costs

In practical terms, cloud computing enables you to take some of your major financial investments off the balance sheet. By hiring your IT infrastructure, other significant items and concerns, such as maintenance and security, simply disappear.

9. Get to work quickly

A cloud solution takes no time at all to implement. Certainly not when compared with the weeks or even months it takes to plan and purchase internal infrastructure, not to mention getting it all in place and installing all the applications required.

10. Good for the planet

External providers work with the latest, most energy-efficient technologies. External datacentres often operate with 'clean' energy alone. This also enables you to reduce your carbon footprint as a company.

The smart switch

Cloud computing is definitely on the rise. How can you ensure that your company can become more productive, more customer-focused – and more profitable? How can the cloud help you to achieve your business goals? Switching to the cloud is a different path for every company.

Our detailed cloud report can help you to define the path you take. Download it here and make the smart switch.

Our Cloud Services

We offer a whole range of cloud services through our own, redundant datacentres and public cloud partners. We can provide you with computing power, data storage, backup, security software, e-mail and much more via a range of cloud packages. All for a fixed, transparent monthly charge.

- Cloud Server: Get computing power from the cloud
- Cloud Desktop: Work more securely and be more mobile in the cloud
- Cloud Backup & Business Continuity: Ring-fence your business-critical data
- Cloud Security: Keep malware and viruses out of your network
- Cloud Applications: Bring efficiency to your organisation from the cloud

You'll find all the information you need at www.cheops.be