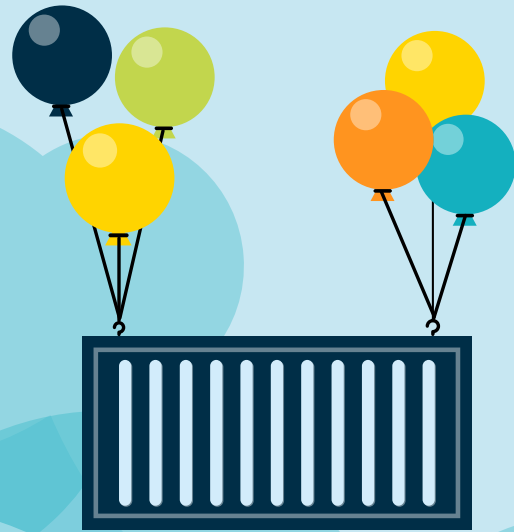


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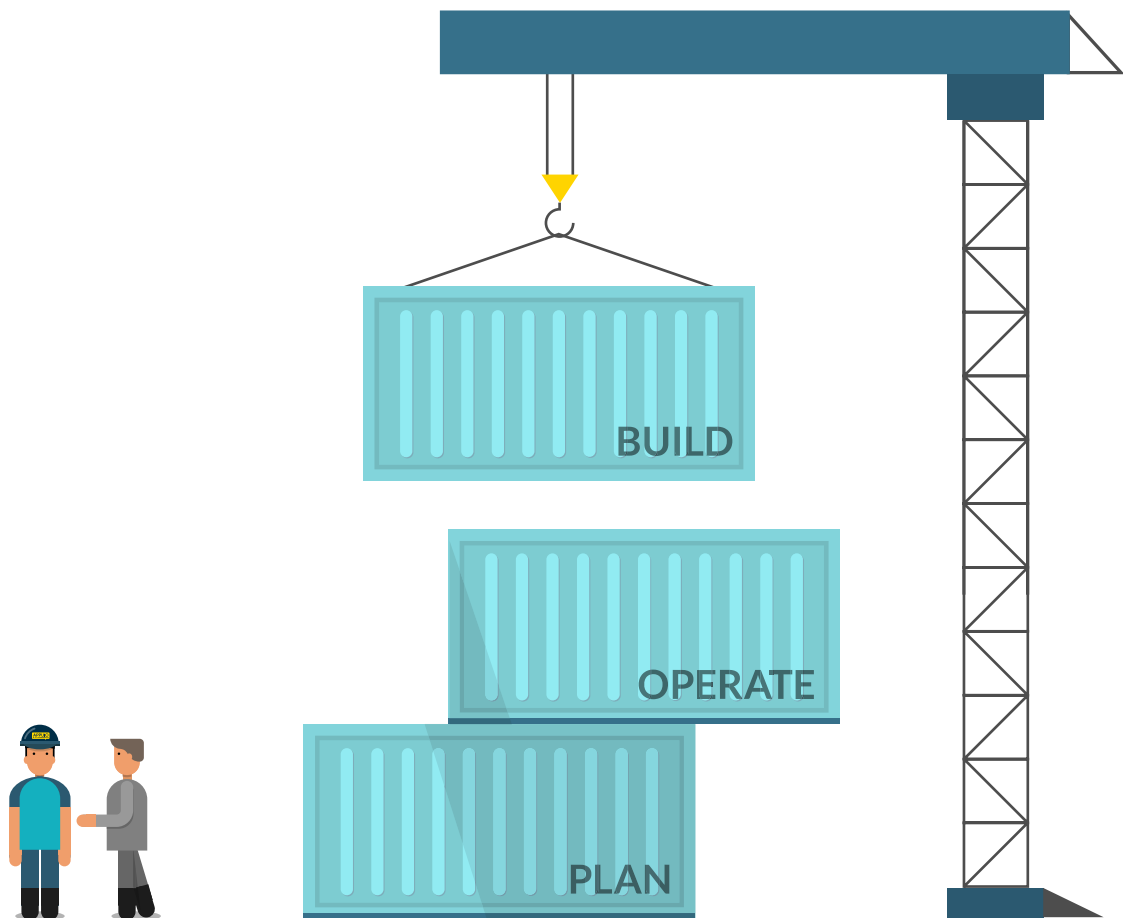
STEPS OF MOVING YOUR APPLICATIONS TO THE CLOUD

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Moving your applications from legacy infrastructure to the cloud is not an easy task, but the effort will be worth it. Let us give you a jumpstart with this guide to understand what benefits you can expect after migrating to the cloud.

New technology comes and goes, and it can be frustrating. You watch your competitors move to it, your engineers demand it, and your customers mention it. But you never know if it'll go away tomorrow, if there's real benefit to your business, or if it's good enough to justify adding it to your tech stack. That's how moving to the cloud can feel.

Migrating to the cloud is a big business decision, so it's vital to go in with both eyes open. You should also note that the cloud isn't an all or nothing decision—you can choose to only move a few apps over and keep some of your operations on-prem.

In this whitepaper, we'll go over some of the important points and considerations of cloud migration, including the reasons you might want to take the plunge, how your business should approach it, and what the steps in that process are.

Why is cloud good for your business?

The most important question to answer first is this: is it good for your business? Here are a few reasons why other people choose the cloud:

Helps lower people costs

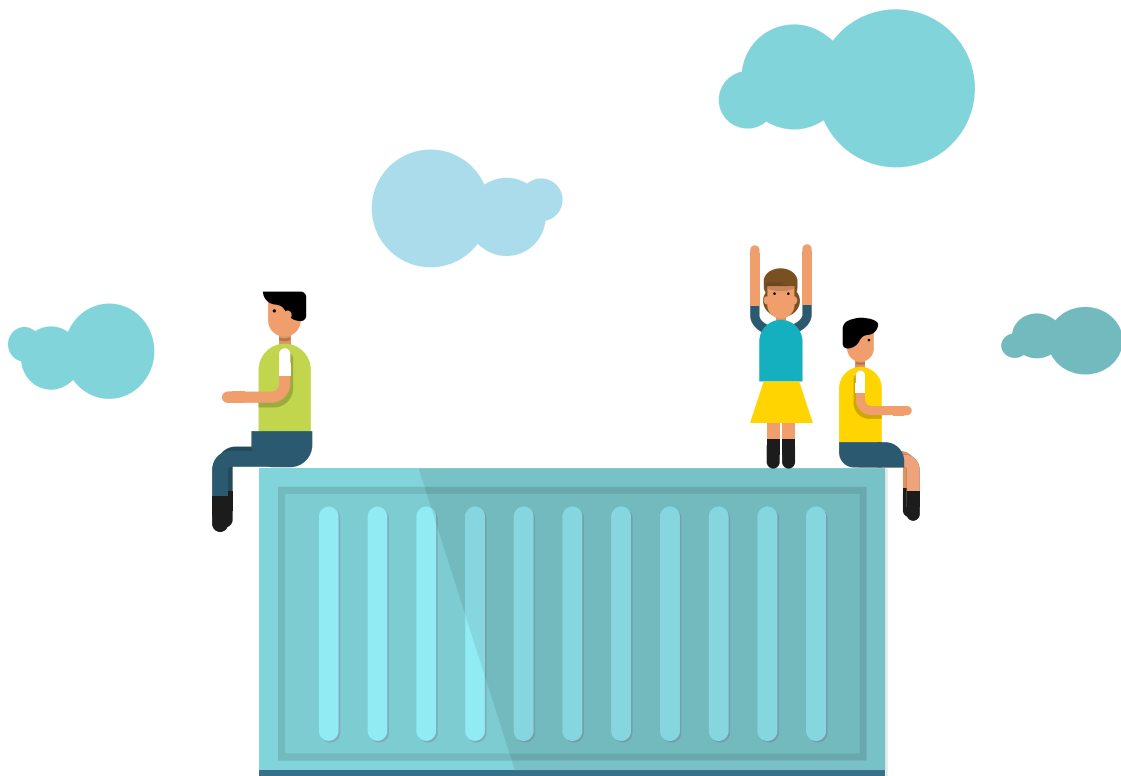
IT is an expensive, but necessary, part of your budget. A large chunk of your IT budget goes into maintaining and running existing systems, and managing software often costs more than the initial purchase. When you switch to the cloud, you no longer need to replace or update software and your IT staff can focus on more important tasks to support your business.

Decrease IT infrastructure costs

Buying and maintaining servers isn't cheap. By moving to the cloud, you can lower your expenses and only pay for what you use.

Increase security

If done right, most experts are certain that the cloud provides more sophisticated security than self-hosted or inhouse solutions, where your data is more prone to outages or human errors.



Backups and Disaster Recovery

With cloud computing, you can always retrieve the latest versions of your data in a short period of time and even have it backing up automatically. Providers can also host your data at multiple data centers in case of a total system failure or a whole site going down through comprehensive Disaster Recovery scenarios which will normally also include faster recovery times to restore your data.



Scale your business easier

If you own your own storage and computing power, growing your business means having to invest upfront in expensive hardware and the talent to maintain it. Instead, with the cloud, you can pay for what you use thanks to economies of scale and increase it as you use it.

Modernize your IT assets and infrastructure to prepare for future needs

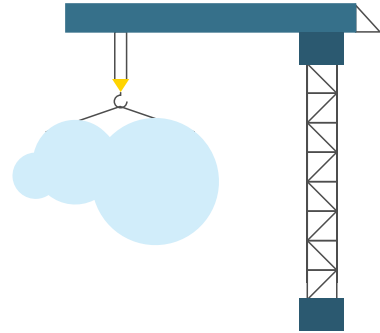
The world of tech is ever-changing, and adding new features and capabilities such as machine learning and big data analytics can be much easier if your storage and computing is on the cloud.

Increase business agility & flexibility

Even when you have legacy systems that are harder to move to the cloud or you've invested a large amount upfront for your existing infrastructure, you can consider a hybrid approach and move to the cloud step-by-step.

The cloud is a great fit for many companies because it lets them focus on what they're setting out to do, rather than spend time bogged down in servers and IT. According to a [Rackspace](#) survey of 1,300 companies, 88% of cloud users experience cost savings - and 56% of those users even see increased profits. Red Hat OpenShift, a container platform that works with Kubernetes' cloud and on-prem offerings, says their customers have seen [66% faster application cycles](#) and [38% lower infrastructure costs](#).

How to move to the cloud



After you've decided that moving to the cloud is the right decision for your business, here are the five steps to successfully plan and achieve a cloud migration:

1

ASSESS THE TECHNICAL ENVIRONMENT OF YOUR APPLICATIONS

Map out the state of your technology by gathering information about your existing environment and your requirements. This includes charting out all of your business processes, itemizing your applications and identifying the workloads that can easily be migrated without a replatform or refactor. Many companies already have an inventory of deployed software and interfaces, which is a good starting point.

Doing this will help determine what applications to move first and how quickly it can happen. For example, if you're already using containers-as-a-service like Docker with the open source Kubernetes or OpenShift, getting up and running in the cloud will be even faster.

You'll also want to calculate your current operational costs and your ROI/TCO (to compare them with cloud options) and put together your security and compliance requirements (such as geography, certifications).

2

TRAIN YOUR TEAM AND FIND A PARTNER IF NEEDED

Educate your team on how the cloud works and why you're moving. Your developers, managers, and administrators will all need to know the new technologies and processes. Customer success will need to be on board to help educate customers about what the change means for them. The key to a successful migration is education. Also, be aware that a cloud migration will mean a change in philosophy for your team.

Additionally, you'll want to find the people on your team you want to run the migration (someone with experience in technical project delivery and different cloud environments is probably best).

This might also be the step to bring in a cloud consultant who can help you run the process and even assist with the vendor selection process.

If you choose to use a migration partner, look for a project management framework and agile focus that matches your company's, as well as technical expertise and experience in the cloud platform you want, if you've already chosen one.

3

SELECT THE RIGHT CLOUD PLATFORM/PROVIDER

Popular options include Azure by Microsoft, Amazon Web Services (AWS) and Google Cloud. There are also local and regional providers of cloud services such as Cloudscale.ch, Cyberlink.ch, Exoscale.ch, Netstream.ch and Swisscom.

To choose the right option for your business, compare the requirements for geographic location, certifications, scalability, and services offered, in addition to pure infrastructure - with the level of service you need and model out what the cost of your cloud environment will be, including hidden costs such as for example API calls and bandwidth or traffic.

Each cloud platform has its own set of integrations, tools and options - so compare those as well. For example, the Microsoft Azure Cloud offers Azure Integrated Services, Red Hat on Azure, and Linux on Azure, while AWS has several storage options, such as SimpleDB, RDS, S3, and Cloudfront.

4

DESIGN THE MIGRATION

Develop a comprehensive project plan with your team and educate everyone on it. This includes operational schedules and contingency plans for any what-ifs.

If you have self-contained or tightly coupled applications, you can move them all at once. If you're moving a larger system with lots of applications, you might want to use a hybrid strategy, which might be time-consuming but will also reduce risk. However, the first applications you move to the cloud should be the easiest, least critical ones.

You'll also want to choose a migration strategy for each of your applications, which could be live migration, host cloning, app containerization, data migration, or virtual machine (VM) conversion.

Create a detailed roadmap for updating code, troubleshooting, and performance measurement. As the migration will bring new experiences, many of your development processes may change in the process. Make sure your developers and DevOps team (if you have one) are up to speed.

5

MIGRATE YOUR SYSTEM AND MAINTAIN

Before you migrate to the cloud, make sure you have working backups of your legacy systems in case of anything goes wrong during the migration.

Execute your project plan with your team and your partner. Make notes on any complications or unplanned events for any future migrations you might do.

Afterwards, check that everything moved over okay. Set up an automated test (if possible) that checks if all of your data made it, if your users can access it, if all the internal pieces are communicated properly, and if your admin tools can monitor what's in the cloud.

You should also make plans to maintain your cloud environment, which can include monitoring, patching, and capacity planning and optimize it on a regular base.

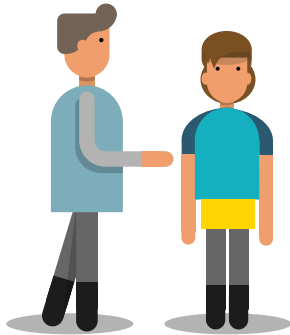
Improve customer experience and satisfy your employees



In the end, there's a reason why the cloud has been on everyone's lips and stayed there - it scales, it's more secure, it's less taxing on engineers, and it helps your bottom line.

Migrating to the cloud doesn't need to be painful or time-consuming for your company. By choosing a vendor that fits your needs and educating your team during the adoption process, you'll put yourself on a path to success and set yourself up for cloud usage that lasts as long as you want it to.

Done right, a migration to the cloud won't negatively affect your business at all. Instead, it will improve the experience of your customers by minimizing downtime and lag and satisfy your employees by freeing them from IT and system administration.



To learn more about containerization and cloud migration, and how APPUiO - the Swiss Container Platform - can support you, register for our free webinar:

Migrate applications to the cloud with Docker and container technology using DevOps principles.

Join in and increase your agility and safety by automating tasks, so that you can finally focus on your work - developing the applications.

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