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DevOps:
Getting started on your journey

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What is DevOps? The answer to this question seems to vary depending on who you ask. One reason behind this could be that because it is so inclusive, it therefore includes the perspectives of many people. So, to be clear on what DevOps is, we'll start by talking about what it isn't.

DevOps is often used to define automation tools and infrastructure, and is also used by many organisations when dictating to the developers to be responsible for their support and infrastructure management. However, this is not DevOps. There are many terms to describe the previous scenarios, none of which fit into the scope of this white paper.

DevOps is not the provisioning of infrastructure

Often we hear people talk about DevOps as something that provides infrastructure to developers. If you build infrastructure and then tell a developer, "Here it is, it's up to you now"—then what you are actually doing is performing a SysOps role. Who then is responsible for what goes wrong in production?

DevOps is not tools

The tools for automation are only enablers, as are Cloud technologies like Amazon Web Services. Implementing automation tools, and then expecting everyone in your organisation to use them correctly, creates a dangerous pattern. We start to see people taking shortcuts, or bypassing the job of the tools. This may eventually create a whole lot of other processes or result in the introduction of other new tools. When this happens, it can make using the original automation tools almost impossible.

Developers alone do not make up DevOps

Developers may know how to script an environment and how to fix certain issues, but if we look just under the surface, we find immediate security holes, manual processes that are simply not needed and often poorly designed infrastructure. Additionally, we see developers expected to not only perform their tasks during the day, but to also provide after-hours support, either because shortcuts have been taken in the infrastructure design or their role has expanded to "always on call".

DevOps is about working together—it's about culture

So what is DevOps? DevOps is a work culture. There is no single definition of what it is, but rather, it's what you make of it. So the situation and the people involved will require variants—the last thing needed here is a rigid singular version of the change.

For success, the work culture itself does require some fundamental agreements that everyone on the team MUST adhere to:

- Break down the Silos—no longer hand things over the fence
- Have empathy for the different skills each person brings to the table
- Increase accountability on doing things right in the development for both the Dev and Ops skill sets
- Encourage change to happen as often as it needs to
- Only deliver small changes, but deliver them often
- Integrate Systems into Development
- The right culture is a requirement for survival and success at web scale!

Can you outsource DevOps?
No, not really—not successfully. It would be like trying to outsource your culture.
What you can do though is augment and empower your team with the people (or a
company) that will work with you to:

- Develop the processes
- Work within your team to continuously improve performance (but not as
  consultants or contractors)
- Stabilise development so that you have less problems in production—making sure
  everything can be tested first and deployed when ready
- Challenge the team to eliminate production issues
- Take on the tooling (yes, tooling makes up an important part of DevOps but it is
  NOT DevOps)
- Challenge your thinking, and introduce new ways of doing things
- Encourage you to do the things you thought you never had time for
- Free you to focus on building the business functions and ensure the
  infrastructure fits nicely with what you are doing
- Have the skills already developed so you hit the ground running and can focus on
  developing the culture
- Have the team that knows the development side so production support is easier
  and taken away fro m you
- Fixed costs—whether you hire in or hire a company all costs are fixed

So why not just managed services?
Managed services are a great way to reduce risk of your application having issues in
production. If you have a problem the managed services provider can be called in (at
a fee).

Managed services providers manage the infrastructure only, so if an issue occurs
with the application, they will not pick this up if the infrastructure is still OK. You will
need to have the right monitoring in place for your application.

You cannot leverage a managed services provider to do your DevOps. DevOps is
about the team working together to achieve a goal. It's not enough if you have good
development practices in place and use the term DevOps to promote your team—if
your production is then down. Good DevOps practices look at how to manage this
side of the business for the benefit of the organisation as a whole.

The pitfalls of DevOps
DevOps delivers more results, with more investment, if you decide to hire internally.
To be able to deliver in a DevOps culture, you need to ensure your team is large
enough to do both Dev and Ops tasks in a way that ensures everything is coded and
that the support is also taken care of.

Externalising part of your DevOps team can give you more reach for a lower
investment. It can also help you accelerate your journey, because you can leverage
experience (ideally in a non-prescriptive form). To avoid pitfalls with an external team
you must ensure:

- That you own all the code produced
- • That interaction happens often, if not all the time at least daily
- That any tools used are yours, even if you have to pay for licenses
- Knowledge sharing is always happening, and it's constant
- It's not static and rigid, it grows and improves your teams capability
- They have enough people to solve the after-hours issues when they arise, while also being available to work with your team during the day
- They provide the right security
- Together you offer something that enables the business
- Handing over the fence is not accepted
- You are all on the one team!

Defining the blueprint for DevOps success
As with any new venture in an organisation, it's important that all the people involved, the stakeholders and (sometimes) the customer, are working towards a common goal and have the desire to succeed.

Define and agree on desired outcomes. Understand why you are moving to a DevOps strategy. Is it time to market? ROI? Culture or technology improvements?

Communicate the common goal. Bring the teams together and avoid separation in the departments. Ensure that the teams understand the common goal and who is responsible for what. For example, developers may be responsible for developing a new feature while Ops will be responsible for developing the measurement and scalability of the new feature.

Identify key people to drive the strategy. Ensure you have good talent in all areas. Bring on the right people and the right organisations to achieve this and identify responsibilities within the team. Each person or party needs to have key people to leverage when needed for a task.

Build the process. Start with identifying the process you want for development and deployment. Define your goals and where you want to get to before deciding on the tools.

Define the measures of success. Will this be by number of deliverables achieved, cost savings or reduced downtime in production? These measures will constantly change and evolve as you progress on your journey. Metrics matter.

Prepare for ongoing improvements. When you hire consultants for a short period to build toolsets, define the strategy or take ownership, you will find very quickly that the process breaks apart once they have gone. Make the decision to have ongoing improvements and only hire in talent that you believe will stick around for a good period of time. Also only hire in external companies that will be there for the journey and will take on accountability.

Do it together. Make sure that whatever you define your journey to be that it is a journey that is done with you and not to you.

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Bottom line on DevOps

We've looked at here what DevOps is not. It's not tools, the provisioning of infrastructure, or developers alone. DevOps is a culture – it's about working together and agreeing on a way of doing things that includes breaking down silos, having empathy for other roles, and encouraging change to happen.

By defining and agreeing on desired outcomes, identifying key stakeholders, and building processes, you're much more likely to nurture a successful DevOps culture in your organisation.

Looking for an expert?

If you are considering migrating to cloud technology, have experienced issues in the cloud or have concerns regarding the best solution for you, we can help. We take the complexity out of cloud technology, regardless of your experience or capabilities.

Our team is one of the industry's best and readily available to assist with every stage of your integration and cloud adoption process. Our "Disruptive Workshops" ensure that you receive the advice you need to move your business forward.

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BASE2 Services is a global leader in Cloud Delivery, Operations and Management. Specialising in DevOps, AWS and cloud-native computing.

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