

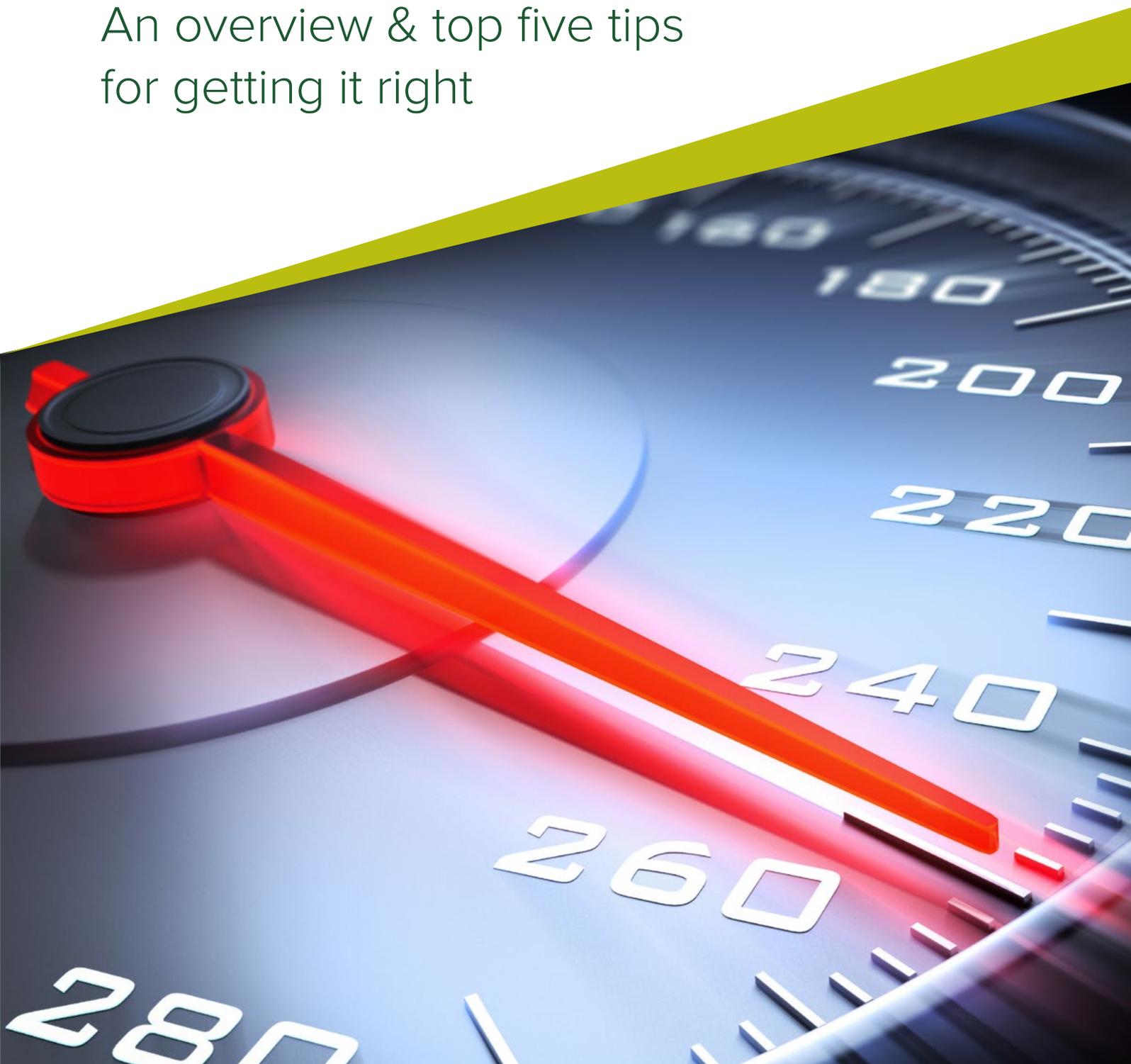


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OAKLIN INSIGHTS

Curious about DevOps?

An overview & top five tips
for getting it right



If you are interested in how DevOps can help your business deliver better and faster change, you are not alone.

In the first of a series of insights on this topic, Oaklin's Chris Tuck discusses what DevOps is, why it's worth attention, and the top tips to getting it right.

CURIOUS ABOUT DEVOPS?

What is DevOps?

In simple terms, DevOps is a way of working. It is a metaphor for breaking down the ‘wall’ that exists between software development and operations teams. That is, the imaginary ‘wall’ that programmes have traditionally thrown developed product over for operations teams to support.

Underpinned by a set of principles and practices, both technical and cultural, it can help organisations deploy better software, faster. While it is not a fixed methodology, automation and a collaborative culture are the foundation for accepted DevOps practices, which include:

- Measuring the things that have an impact on your organisation’s goals
- Making those measurements visible to everyone
- Using a shared set of tools
- Including all teams in the software delivery process from the earliest planning stages¹

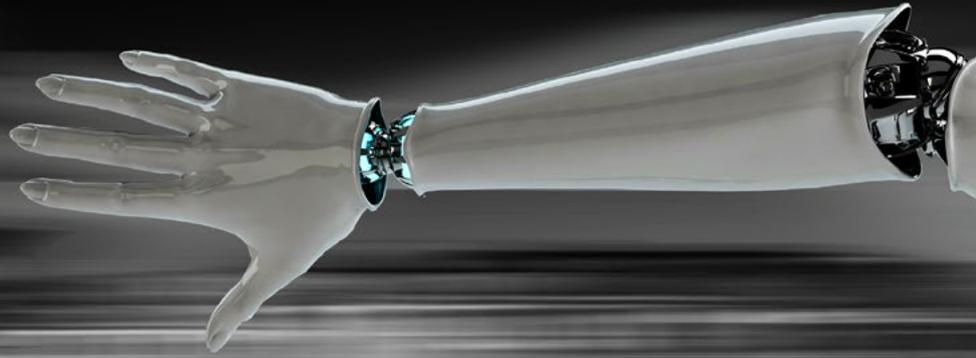
In summary: measure, share, and collaborate. This aligns very closely to the CAMS definition of culture, automation, measurement, and sharing². Culture being significant as people determine what ways of working are acceptable and championed within an organisation, whilst automation introduces a technology aspect.

Lastly, and perhaps key, Gene Kim wrote in *The Phoenix Project* that DevOps was about the ‘three ways’; systems thinking, feedback loop, and experiment and iterate³. Not only does this draw on Agile philosophy, it states that DevOps can only be successful when you apply it to an end-to-end process or the whole of an organisation.

¹ Puppet.com

² IT Revolution (John Willis & Jez Humble)

³ The Phoenix Project (Gene Kim et al.)



Why consider it?

Firstly, let us consider Digital Transformation.

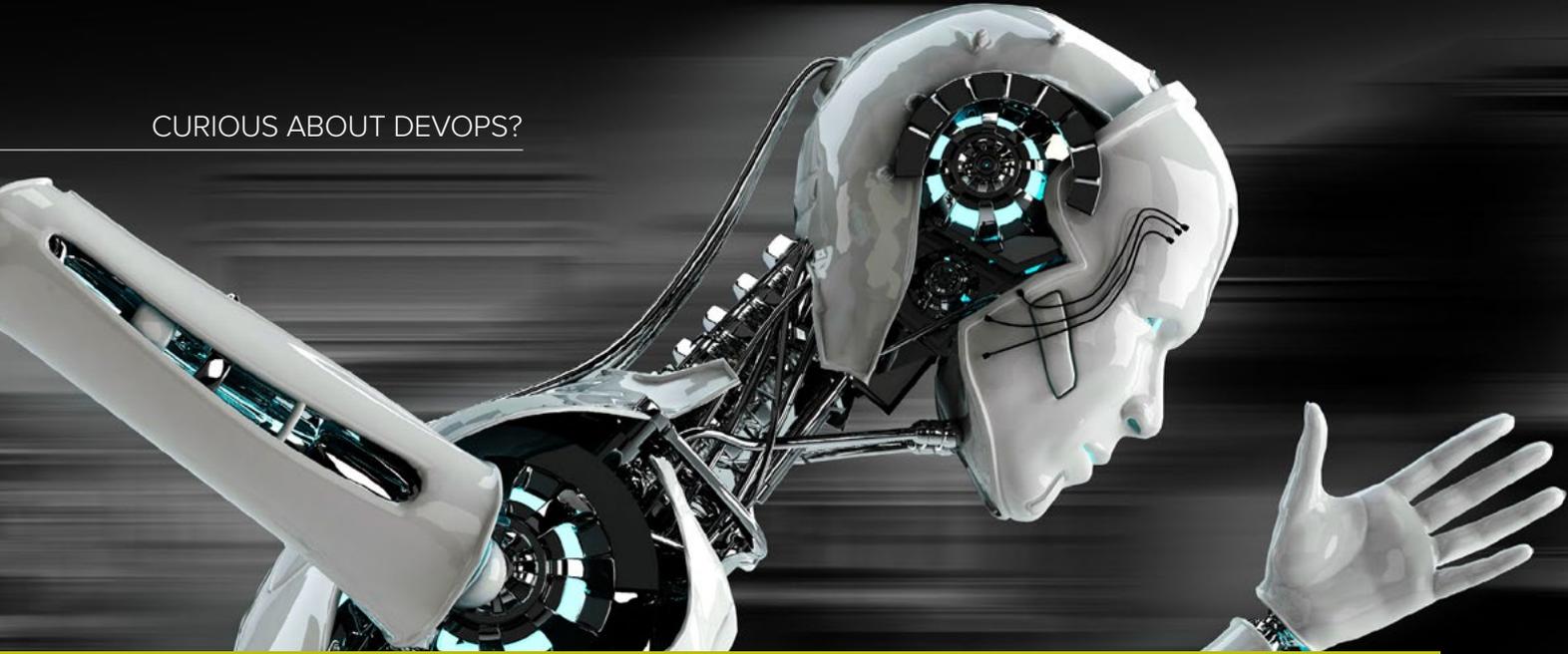
Worldwide spending on digital transformation technologies, encompassing hardware, software, and services, is expected to reach nearly \$1.3 trillion this year, according to forecasts from IDC (International Data Corporation). This forecast is expected to grow year-on-year and nearly double to \$2.1 trillion in 2021⁴. However, 84% of companies embarking on this digital journey will fail, resulting in up to \$6 trillion available for those who succeed⁵. Success for any enterprise must be viewed therefore as mandatory and DevOps, a way of delivering change in a digital era, can help you take advantage.

The annual 'State of DevOps' report quantifies the role DevOps can play in digital transformation with staggering statistics; high performing DevOps teams deploy 46x faster, enjoy 440x faster lead time for changes, recover on average 96x faster, and suffer 5x fewer change failures⁶. Organisations with these teams are more than twice as likely to benefit from higher quality and quantity of products and services, better operating efficiency, and higher customer satisfaction.

⁴. www.idc.com

⁵. www.forbes.com

⁶. State of DevOps Report 2017



Top five tips for getting it right

There is no doubt these statistics are tempting, but delivering the change in mindset needed for DevOps is by no means easy. It requires sponsorship, thought, orchestration, and evangelisation characterised by repeated communication and reinforcement.

However, there are some typical 'gotchas' that can be avoided if you follow our top tips to getting DevOps right.

1. Articulate a coherent vision.

Lack of a clear transformational strategy was cited by 35% of executive leaders as a barrier to companies achieving their full digital potential⁷. Whilst a CIO may view DevOps as a key enabler to achieving digital transformation and driving operational efficiency, a CMO may fail to see the link between DevOps and boosting customer

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engagement, with workers on the ground feeling DevOps is simply the latest poster boy for how to deliver projects. Organisations will benefit from articulating a coherent vision that is relentlessly communicated, repeated, and reinforced.

2. Identify the business justification for using DevOps.

Any initiative must focus on business requirements and not on simply 'doing DevOps for the sake of DevOps', wherein the methods and tools become more important than what the business or customers need. Identify a business reason for using DevOps, before launching straight into doing. For example, reduction in capital expenditure enabled through automated pipelines and faster release cycles.

3. Gain executive sponsorship to achieve Dev & Ops.

We've seen projects make very reasonable attempts to work in an agile way, visualise workflow, utilise continuous integration and continuous delivery (CI/CD) pipelines with automated provisioning, testing, and monitoring. However, these same teams have stopped short of progressing their DevOps way of working into the operations space. At its core, this is what DevOps is about, so why the disconnect? The reason is often because operations teams are organisationally separated with different reporting lines. This can present a political (and sometimes financial) barrier, where development teams are geographically separated, boast differing work cultures and carry more budget than operations. In this scenario, executive sponsorship is fundamental to providing a mandate and securing budget, space and time to succeed with applying DevOps across the full length of your delivery lifecycle.

4. Start with something small to gain stakeholder buy-in.

To apply DevOps ways of working will require a shift of mindset compared to traditional working methods. For example, the adoption of new tools, leaner processes, agile methods, greater collaboration and system-thinking (rather than siloed working) will represent significant change. Identifying a single use case as the focus for a pilot or proof of concept phase, delivered by a single team in a safe environment will help to shorten delivery lead times and demonstrate progress. Through demonstration, feedback can be sought and applied to future iterations. In our experience, success is the biggest magnet for support and helps to gain stakeholder buy-in and build momentum without requiring too much investment of time, people or money.

5. Invest time in designing the operating model.

Increases in the availability of cheaper and better tooling means Technology teams have greater access to collaboration tools, code repositories, containers and orchestrators, deployment tools and monitoring (and so on) than ever before. Innovation teams are shrieking with delight as invitations for software summits and hackathons flood their calendar inboxes as a means to hearing about and trialling the latest integration platform, development technique, or programming language. Teams subsequently return to work compelled to think how these new technology skills can be applied to the benefit of their organisation.

This is all great, but it is critical to think beyond development and to the system of people, process, and technology as a whole. Firstly, in terms of the operating model needed to deliver successful change, and secondly, of the target operating model required to endure the change. Gartner refers to the Pace Layering model⁸, which describes altering working methods around systems of innovation and systems of record. The former requiring rapid change characterised by experimentation, fast failure, and lessons learned; the latter more closely aligning to systematic, predictable, safer releases. The two can coincide but in a bimodal framework, where tools and techniques are available to all but separated by trusted and appropriate governance.

Contextually, it is important to consider any other change initiatives that may simultaneously be in progress in the organisation to avoid change fatigue or resistance.



⁸ www.gartner.com

Conclusion

The main reason we are seeing such an opportunity with DevOps is down to enabling technology. Not only do we have an increasing and available set of collaboration, communication, and software-delivery lifecycle (SDLC) tools; our ability to integrate with complex legacy systems and surface the valuable data therein is more possible than ever. Modern APIs*, for example, offer a cheaper, quicker, and smarter mechanism for doing just this, whereas many IT departments were previously restricted to working with point-to-point or monolithic-ESB** integrations.

This means enterprises can re-evaluate their project delivery value chains, to identify cost and time savings, automate previously manual steps and measure the impact. With technology advancing in this way, the main obstacle to taking advantage of DevOps is really people. Hence, DevOps is less a technology challenge, but a people and cultural change one.

* APIs - Application Programming Interface

** ESB - Enterprise Service Bus



In further insights in this series, Chris Tuck discusses the tactical things you can do to apply DevOps in your business and how to tackle the people and cultural change challenges.



Get in touch

Please contact Chris Tuck at Oaklin, if you would like to discuss the issues raised in this Insight, or how DevOps could deliver lasting change in your business.

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