**DevOps帮助数字化转型的10个方式**



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**从模式识别到新收益流的发现，DevOps 在数字化转型过程中扮演着必不可少的角色。事实上，专家们总是说缺一不可。**

弹性伸缩的DevOps并不是功绩，因为当你的Devops之旅停滞不前时，那么数字化转型也就没什么希望了。专家们说这两者之间有着内在的联系。

DevOps通过转变企业的文化倾向，打破危险壁垒，为持续改变和快速实验铺平道路，从而帮助企业成功实现数字化转型。Conflux咨询主管、团队拓扑的合著者Matthew Skelton说：所有这些要素不但有助于企业满足不断变化的客户需求，而且有助于企业“自我引导”朝着更好的解决方案持续改进。

**[欲知更多，请查看关联文章:**[**为什么DevOps和云平台对数字化转型如此重要？**](https://enterprisersproject.com/article/2017/4/why-devops-and-cloud-are-essential-digital-transformation?sc_cid=70160000000h0aXAAQ)**. ]**

Skelton说：“如果不能在构建和运行IT系统中的不同团队之间进行良好的协作，数字化转型几乎不可能成功。现在的技术变革是如此之快，以至于不能期望一个单独的团队能够了解所有的技术细节，所以我们需要团队能够关注与一个较小的问题领域。如果没有基础设施自动化和精心挑选的团队，数字化转型的步伐将停滞不前。”

**DevOps影响数字化转型的10个方式**

哪一种方式能够帮助你所在的企业在数字化转型的目标上取得更大的成就？

**DevOps有助于改变企业在文化上的思维倾向**

来自[Harness](https://harness.io/" \t "_blank)的CI/CD & DevOps传道者 Steve Burton说：“DevOps应该被称为加速任何现代化企业转变的催化剂，不管你是叫它数字化转型、云原生还是鲍勃的甜甜圈。DevOps主要是讲述一种商业理念并帮助企业尽快实现这一理念；它并不是一种技术或者流行语。

企业文化是许多大型组织或企业无法转型的原因，他们太固守于他们这25年来如何开发、运输和运营软件的方式了。DevOps 是一种文化上的思维倾向的转变，归根结底它是想要创建一种没有繁文缛节和官僚主义的环境。”

**2. DevOps有助于团结人、流程和技术**

来自[Perfecto](https://www.perfecto.io/" \t "_blank)的CI/CD & DevOps传道者Eran Kinsbruner说: “evOps让组织更快的向客户发布新的价值，从而促使这些组织成熟并改变数字面貌。Devops团结人、流程和技术：当这三者协调一致朝着同一个目标时候，就是更快的引入变革的时候。

DevOps通过聚焦于数字化变革需要做的事，避免人力和工具的内部浪费，这本身就释放的更多的资源，这些资源要么隐藏，要么浪费在更低优先级的事务上，这样团队就能处理最重要和最关键的特性。

没有DevOps，新技术不能在足够短的时间内更快的发布以跟上竞争响应市场事件和满足客户需求；没有Devops，也无法保证发布的质量和发布流程的自动化，而软件的拓展革新也变得更加困难。”

**3. DevOps 有助于发现利于组织改善的模式**

来自[Ranger4](https://www.ranger4.com/" \t "_blank) 的Devops专家Helen Beal说：“evOps在数字化转型中的作用是帮助组织了解模式与实践，从而提高在面对数据混乱情况下的性能进而改善竞争态势。 从分级指挥控制的传统企业转变成权力分散、自治和平衡的数字化公司，需要所有人的付出，并做出重大的行为上的转变。

DevOps 方法有助于我们理解为什么优化从理念到价值实现的流程不仅仅只是构建一个pipeline，更重要的是从文化角度为我们提供了框架和模型。”

**4. DevOps 有助于团队自我引导**

来自Conflux的咨询主管Matthew Skelton说: “DevOps使得IT基础设施更易于测试，更具弹性，更易于观察，动态且按需配置。这使得数字转型能够更安全、快速的更改处于支撑地位的IT基础设施，从而实现对软件和服务更安全、快速的更改。我们还可以更快的发现操作需求，提高可操作性。DevOps在数字转型中的作用还在与确保所有构建、部署和基础设施的更改都是版本控制的，不仅消除了手动配置的模糊性，而且还可以追溯历史版本。

当与现在丰富的监测且可观测的数字遥测工具相结合的时候，我们最终对于我们的系统有了更为全面的认知，这有助于降低平均恢复时间（MTTR），使得团队真正能够拥有生产服务。这样反过来又有助于企业对不断变化的市场环境作出更快的反馈，从而自我引导出更好的解决方案。”

**5. DevOps将自动化作为优先事项**

来自DevOps培训机构的CEO，Jayne Groll说：“DevOps 制造了一个企业可以用来指定数字化转型战略的聚焦点。DevOps 增加流量、缩短反馈回路、鼓励持续学习和实验的原则是实现数字化转型的种子。IT一直忙于自动化这个世界，我们几乎忘记了自动化自己劳动的优势。DevOps提倡自动化并使之焕发新生。

需要注意的是自动化本身并不是DevOps和数字化转型的神药。自动化必须由人编写，并由过程和文化支撑。没有CI/CD/SRE的自动化，数字化改造更加困难而且竞争优势也有限。”

**6. DevOps打破壁垒**

来自[InterSystems](https://www.intersystems.com/" \t "_blank)的产品总监Jeff Fried说：“开发团队往往是数字化改造方案背后的策划者，他们构建并支持在企业范围内实现数字化改造的体系结构，无论是开发远程协作的应用程序还是维护基础设施以确保成功的数据存储和共享。任何成功数字转型的推出都伴随着创新步伐的加快，以及对按需更新和开发新工具的要求。因此开发必须适应Devops心态，这有助于团队成员加速测试和排除故障、跨组织合作、拥抱实验，最终推动创新，从而为他们的数字转型计划提供动力。

Devops增强数字化转型的一种强有力方式是打破壁垒。成功的数字化转型主动要求整个组织采取行动，但更常见的是传统商业做法，例如年度周期计划或者缓慢的流程体系。通过打破壁垒，开发团队可以更好的洞察整个组织中的哪些工作可行，哪些工作不可行，从而能够更快地改进并创建一种包含数字化转型带来的变化的文化。”

**7. DevOps 提炼新的财源**

[BMC](https://www.bmc.com/)的数字业务自动化总裁Gur Steif说：“在速度是市场生存需求的大气候中，Devops是技术战略必须考虑的一部分。Devops极大的提高了企业的灵活性，使之能对不断变化的需求和市场条件做出快速响应。

无论你如何定义数字化转型，数字是基础。No matter how you define 'digital transformation,' the 'digital' is fundamental, meaning the transformation relies on leveraging technology in new and/or more effective ways to achieve business goals. DevOps represents an evolved way of working, across the entire value chain, for organizations to bring new services to the market and to extract efficiencies – and even entire new revenue streams – that previously were inconceivable。”

## ****8. DevOps enables continuous and reliable change****

**Dave Ehringer,** **senior** **architect,** **secure DevOps** **platforms,**[**Liberty Mutual**](https://www.libertymutual.com/)**:** "As we look at most digital transformations, they’re driven by many things such as the desire to enable the business to learn, iterate and move faster. They look to embrace the cloud and to modernize their architectures with approaches such as microservices. They look to reach broader user bases and achieve greater scale. If you don’t have process, culture, and discipline that allows you to continually and reliably introduce change, which is what DevOps can help enable, it isn’t possible to achieve these goals. There is a lot of complexity that comes along with cloud and with operating [microservices](https://enterprisersproject.com/tags/microservices). If you don’t have strong or shared alignment across development and operations, your chances of success is limited. DevOps principles and culture are the fuel for enabling these types of transformations for most organizations."

## ****9. DevOps makes customers happier****

**Mirco Hering,** **global DevOps** **practice** **lead,** [**Accenture**](https://www.accenture.com/us-en)**:** "Large-scale manual efforts and fragmented delivery teams optimized for cost worked when systems evolved slowly and the systems themselves were large applications. In the new digital world, speed and reactiveness is more important than control. DevOps creates the capabilities both from a technology perspective as well as an organizational perspective to deal with the increasing demands in regards to speed and complexity.

There are three main ways that DevOps enables digital transformation. The first one is that it makes the delivery of systems more reliable, cheaper, and faster. This allows organizations to evolve their systems quicker and reduce the waste in the process. Second, it improves the overall service quality to stakeholders. Advanced monitoring and remediation methods mean that problems are often found before the customer notices or that the system degrades in a way that only marginally impacts the customer. The third and perhaps most profound way is that it allows organizations to build better systems.

DevOps organizations are structured for speed with product teams able to react quickly to new information. This new information can come directly from production through telemetry systems that allow organizations to evaluate their functional experiments. And because of the speed of delivery and the decoupled digital architecture, we can run many experiments at the same time, creating systems that make customers happier and happier."

## ****10. DevOps supports rapid experimentation****

**Ben Grinnell, managing director and global head of technology & digital,**[**North Highland**](http://www.northhighland.com/)**:** "A big aspect of digital transformation is transforming into a company that gains competitive advantage by experimenting on its customers in the market, learning from their engagement and revising the services they interact with faster than their competition. As customer interactions and learning from them is increasingly digitally enabled, the key enablers of competitive advantage become:

* The ability for the business to understand/interpret feedback from digital interactions quickly,
* The ability to design changes based on this feedback to improve the product / service,
* The speed at which the business can reliably implement those ideas and get them out to market to start learning again.

Essentially, DevOps enables the three bullets above, which enables digital transformation. Often this happens in pockets in large companies, so the ability to truly transform depends on the ability to scale."