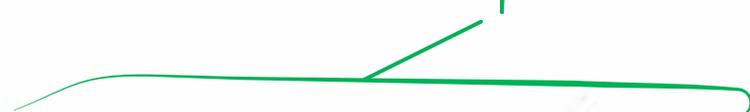Accenture Architecture Services

DEVOPS: INNOVATIVE ENGINEERING PRACTICES FOR CONTINUOUS SOFTWARE DELIVERY
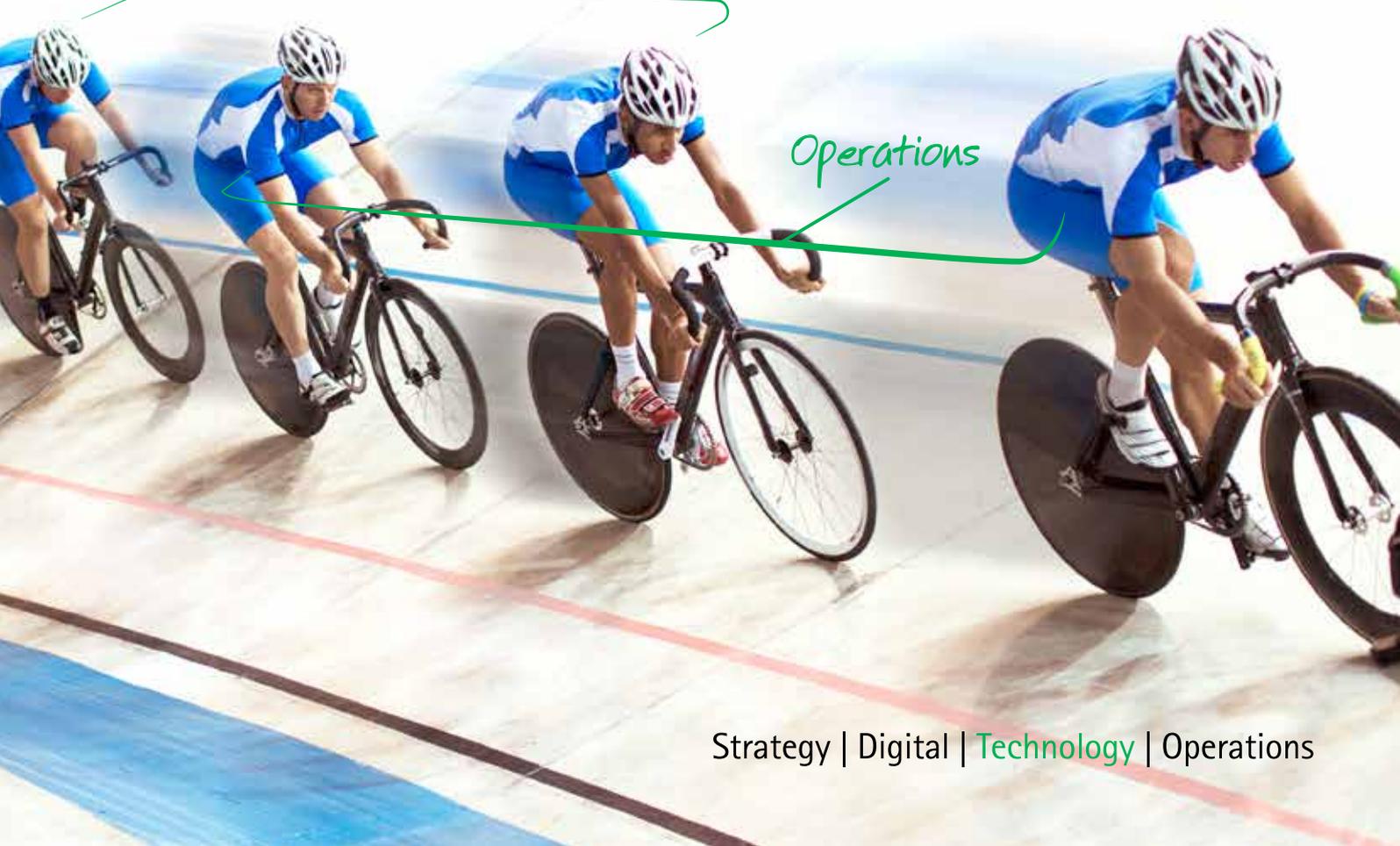
High performance. Delivered.

Development

Operations

Strategy | Digital | Technology | Operations

WHAT IS DEVOPS?

IT delivery supporting the new pace of business

Over the last 10 years, the nature of IT delivery has shifted from large-scale, project-based system implementations and follow-on maintenance to a continuous evolution of IT systems.

DevOps is one of the leading software engineering innovations that makes this shift possible, bringing business, development and operations stakeholders together to streamline IT delivery. Leveraging a powerful combination of complex delivery experience and proprietary tools, Accenture's DevOps services helps organizations define, implement and run DevOps to compete successfully in today's high-velocity business world. DevOps represents both a technology and a culture change. In the DevOps environment, no longer are applications "built" as one distinct activity and "maintained" as another. DevOps uses automation techniques for deployment, environment set-up, configuration, monitoring and testing. This accelerates the interaction between development teams, which focus on building applications, and operations teams, which are accountable for releasing and maintaining those applications. The result: faster, more predictable deployments to market, performed with radically greater efficiency, to enable companies to sustain their competitive edge, enter new markets and scale their business.

DevOps: A matter of survival in the digital age

The ability to roll out business capabilities continuously will be the difference between companies that can evolve and ones that stagnate.

Development   Operations

WHY NOW?

Addressing the need for agility

Today, every company is also a software company. Software is a key driver of differentiation and business innovation. It's a gateway to new services and revenue streams, seamless customer experiences and expansion into new markets. In this world, companies must fundamentally change the way they build and deliver applications to support dynamic business needs. Innovative engineering practices such as DevOps can help companies deliver applications faster and more flexibly, and operate in a more streamlined way. DevOps allows companies to shift from traditional phased delivery models to a continuous delivery mindset, made possible by better integrating teams within IT and employing more automated processes. For the software-driven business, the ability to roll out business capabilities continuously will be the difference between companies that can evolve and ones that

stagnate. Every company today should consider making DevOps part of their operating model.

DevOps and related principles such as agile, continuous delivery and lean principles support the new reality that IT has to deal with increasing speed and complexity. Customer-facing digital and mobile applications require rapid change without compromising quality in order to respond to very short feedback cycles from customers. Enterprise systems call for more efficient and automated development and deployment approaches to keep pace with business. DevOps supports the requirement for greater efficiency and speed in both digital and enterprise applications, making it a key enabler in today's high velocity business environment.

DevOps and Agile

Agile and DevOps are best used together but provide independent value. Agile focuses on development methodology along with the cultural alignment between business and IT. DevOps focuses on engineering and automation practices for development and operations and the cultural alignment between those teams. While organizations can maximize the value they get from their DevOps adoption by also using Agile, they can extract a large proportion of the benefits even if Agile development is not suitable in their environment.

Accenture has created a defined end-state for how organizations can make DevOps and Agile work together at enterprise scale, which our clients can use to jumpstart their adoption journey. Additionally, our Agile development methods and delivery techniques help clients shift to frequent releases and adopt a responsive approach to scope management.
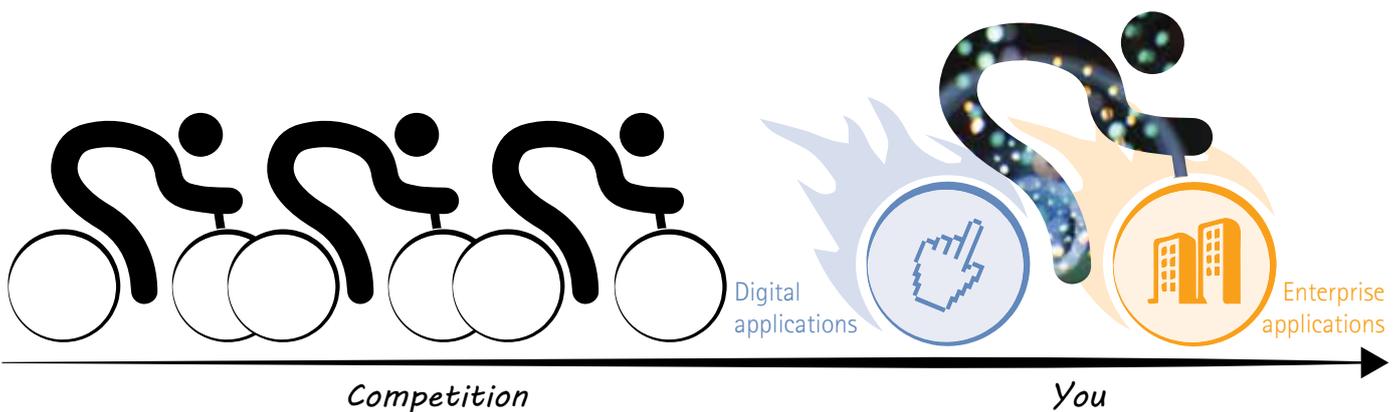
Improve competitiveness with accelerated application delivery

To be competitive, companies need to accelerate the delivery of both digital and enterprise applications.

Competition

Digital applications

Enterprise applications

You

COMPREHENSIVE DEVOPS SERVICES FROM ACCENTURE

Accenture offers DevOps services across the lifecycle from assessment to implementation to operations and can be used for any application from digital customer-facing systems to large scale enterprise products such as SAP and Oracle. Our services include:

Assessment & strategy

We assess the maturity of your development and operations teams and then create an implementation strategy and roadmap which sets the course for DevOps execution.

Application architecture

We define an architecture that supports automated releasing, scalability, feature control, automated testing, instrumentation and operability.

DevOps implementation

We provide implementation services to design and build a tooling platform to support DevOps practices from development to production. We institute version control for all production artifacts and treat the entire data-center infrastructure as code. As a result, servers and even entire datacenters can be consistently recreated, whether they are on premise or in a public or private cloud. Additionally, we define the right governance and implement key lifecycle practices:

Continuous integration

Allows for code to be integrated frequently and in small increments. As code changes are made, they are compiled and tested automatically.

Continuous testing

Uses techniques such as test automation, and service virtualization to allow comprehensive testing to be performed on every change made. The same tests can be run perpetually in production to provide semantic monitoring of application functionality and performance.

Continuous delivery

Helps IT shift from batch to real time releases where small changes (for example, a single fix or enhancement) are made, assured and deployed individually, potentially even to production. System change becomes the norm.

Organizational change

We help organizations change their IT operating model and implement DevOps behaviors. DevOps is only possible if the development and operations teams work together to achieve it. It also requires multi-disciplinary skills which transcend application, infrastructure and support teams – skills often siloed in traditional organizations. Accenture provides learning and performance support, allowing those impacted by the change to develop the requisite knowledge, skills and abilities required to deliver the change.
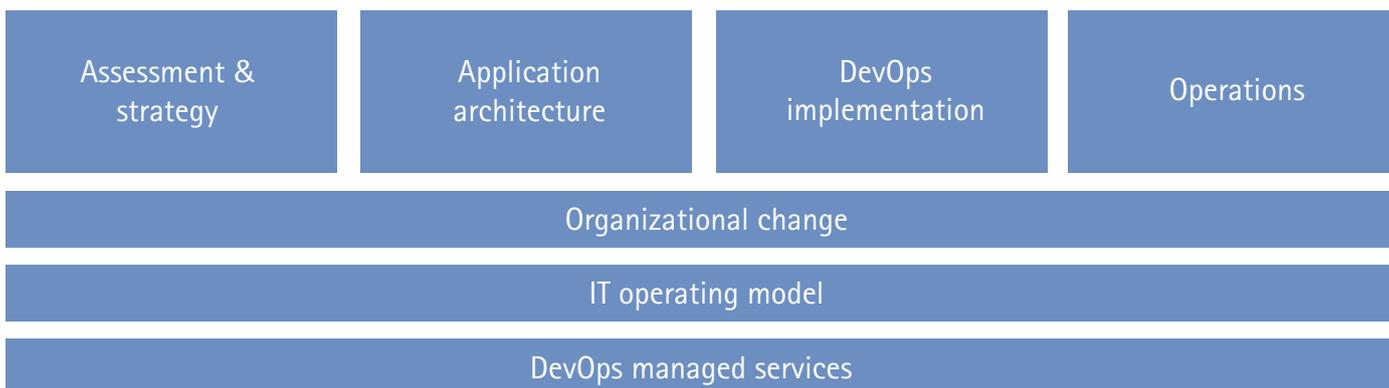
IT operating model

Accenture can help clients translate their business and IT strategies into a coordinated set of DevOps processes, roles, governance structures, performance metrics and organization structures. Through our IT Operating Model services, organizations can define, build and deploy a blueprint for DevOps to drive desired change in IT service quality, responsiveness and cost. We address all aspects of an IT operating model, from the upfront planning and strategy work through implementation. And, we assist IT and business leaders in obtaining strong business results from their DevOps investments, balancing cost reduction with support of new business capabilities, growth and globalization.

DevOps managed services

Accenture can provide DevOps services on an ongoing or managed services basis. Our managed services focus on orchestration, test environments, deployments and operations, freeing up client resources for application design, development and testing—enabling you to achieve continuous delivery. We can also help you select the right blend of tools and infrastructure solutions to meet your organization's needs, based on our independent view of the market.

Services to help you shift to a continuous delivery model

Assessment & strategy	Application architecture	DevOps implementation	Operations

Organizational change

IT operating model

DevOps managed services

BENEFITS

Our clients have achieved greater business agility and lower costs by implementing DevOps:

Greater business agility

The ability to make frequent, predictable, low-risk releases to production makes IT departments more agile and decreases deployment times, often by more than 50 percent.

Higher productivity through automated quality

With more frequent deployments, developers receive more frequent feedback about quality and are able to respond immediately, enabling an environment of continuous learning. In addition, automated quality gates provide immediate feedback that prevents problems from leaking into test and production environments and therefore consuming precious capacity in IT.

Faster turnaround time

The wait time between a new system or feature being developed and it being released is greatly reduced using DevOps practices, enabling faster response to business needs. Instead of waiting for a monthly or quarterly production release cycle, features can be made available in days rather than weeks or months.

Increased resiliency

A continuous delivery approach results in systems that are elastically scalable and highly resilient by creating an IT organization that functions well under significant pressure or change. This allows IT organizations to achieve production service levels even in the event of disaster or abnormal demand levels.

Lower operational costs

Through the automation of manual efforts and reduced failures, IT organizations can lower operations cost. For example, using automation and DevOps techniques, an Asian telecom company reduced operational cost of the development support function by over $2M annually.

Increased throughput

By removing bottlenecks such as manual testing from the software lifecycle, teams are more productive and can deliver new functionality faster.

Cost
10% – 20% cost reduction across IT delivery

Speed to market
Up to 50% increase in speed to market through streamlined software delivery

Delivery risk
Reduced defects in later test phases by up to 30% and overall higher quality

Throughput
Teams are more productive and can deliver new functionality faster

WHY ACCENTURE?

Complex delivery experience

We create state-of-the-art technical architectures for DevOps practices backed by over 20 years of experience with automation to support complex delivery across digital and enterprise applications. Accenture has successfully applied DevOps practices to large and small engagements and also to a variety of enterprise products including Oracle and SAP. Although interest in DevOps is rising rapidly, automation practices have been part of the Accenture methodology for over 15 years even before DevOps increased the visibility in the industry. Within Accenture, we have defined career paths for DevOps and Agile practitioners including certifications and a specific training curriculum for each career path.

Comprehensive toolbox

Accenture has an extensive suite of assets for DevOps implementations, which includes maturity assessments, automation blueprints for many popular technologies, connectors for common tool choices and methodology frameworks for all aspects of the adoption. Accenture's tools are preconfigured, providing a capability that clients can leverage to reduce the cost of their DevOps infrastructure and increase the speed of adoption.

Accenture Delivery Lifecycle Management

An integrated delivery tooling solution that combines Agile delivery tooling with DevOps automation. This out-of the box solution allows projects to get immediate access to pre-configured templates ready for immediate project mobilization.

Tools in the Cloud

Our cloud-based DevOps tooling platform provides DevOps capabilities and is provisioned from a web interface. An on premise solution is available if required and can integrate with client tools. Accenture's tools are preconfigured, providing a capability that clients can leverage to reduce the cost of their DevOps infrastructure and increase the speed of adoption.
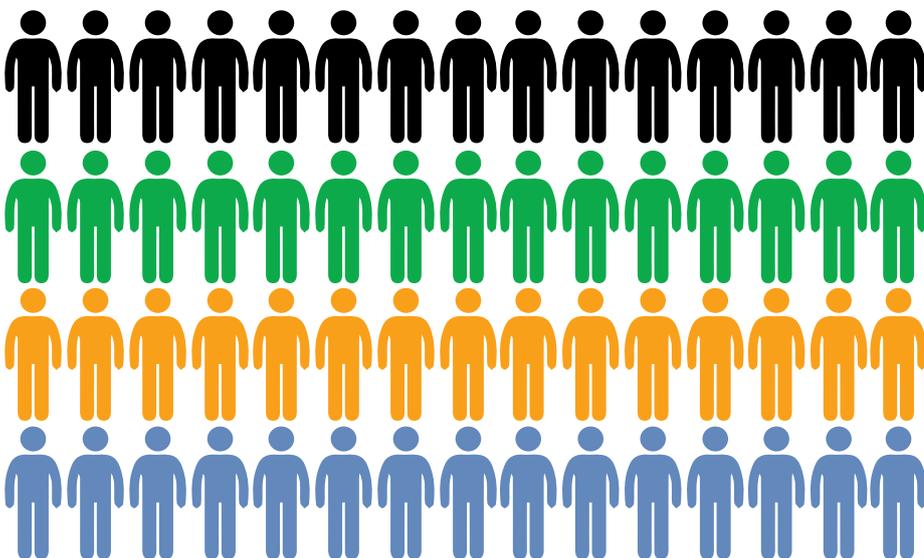
Accenture Cloud Platform

DevOps can be enabled by the Accenture Cloud Platform, which gives you the power and flexibility to manage your organization's workloads simply and securely across both private and public clouds on demand, at speed and from a single point. Our platform supports private and public cloud technology from leading providers such as Amazon Web Services, Cisco, Microsoft Windows Azure, NTT Communications and Accenture Private Cloud.

Proven methods

Accenture Delivery Methods for Agile increase efficiency and repeatability in development while reducing client risk. This industrialized approach guides distributed multidisciplinary teams to achieve a common goal, even for teams with distributed delivery. Our proven methods have helped clients successfully address the challenge of DevOps scalability in projects with over one thousand developers or more.

Tap into our 800 DevOps practitioners and 10,000 trained Agile developers

CLIENT CASE STUDIES

European retailer

The retailer saved over $300,000 in build and deployment efforts, as well as $1M in testing efforts through a program to industrialize delivery. Accenture's DevOps services provided tooling design, support, automated environment creation and ongoing environment support to deliver new applications in a multi-release, multi-production environment project. Accenture helped industrialize delivery from the outset using continuous integration, automatic test environment creation, automated testing and automated quality gates.

Asian telecommunications company

The company saved over 5000 days per year by creating a new delivery model for Siebel, Java and TIBCO development based on Agile and DevOps principles. Lifecycle automation and organizational and process changes significantly reduced effort and led to faster time to market for application releases.

Contacts

To learn more about how Accenture can help you unleash the power of DevOps to optimize application delivery to the pace of business, please reach out to:

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About Accenture

Accenture is a global management consulting, technology services and outsourcing company, with approximately 319,000 people serving clients in more than 120 countries. Combining unparalleled experience, comprehensive capabilities across all industries and business functions, and extensive research on the world's most successful companies, Accenture collaborates with clients to help them become high-performance businesses and governments. The company generated net revenues of US$30.0 billion for the fiscal year ended Aug. 31, 2014. Its home page is www.accenture.com.

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