

A hand holding a large gear against a blue background. The gear is black and has a complex, multi-lobed design. The hand is dark and is positioned as if it is holding or turning the gear. The background is a solid blue color.

# DevOps: A New Hope for Software Industry

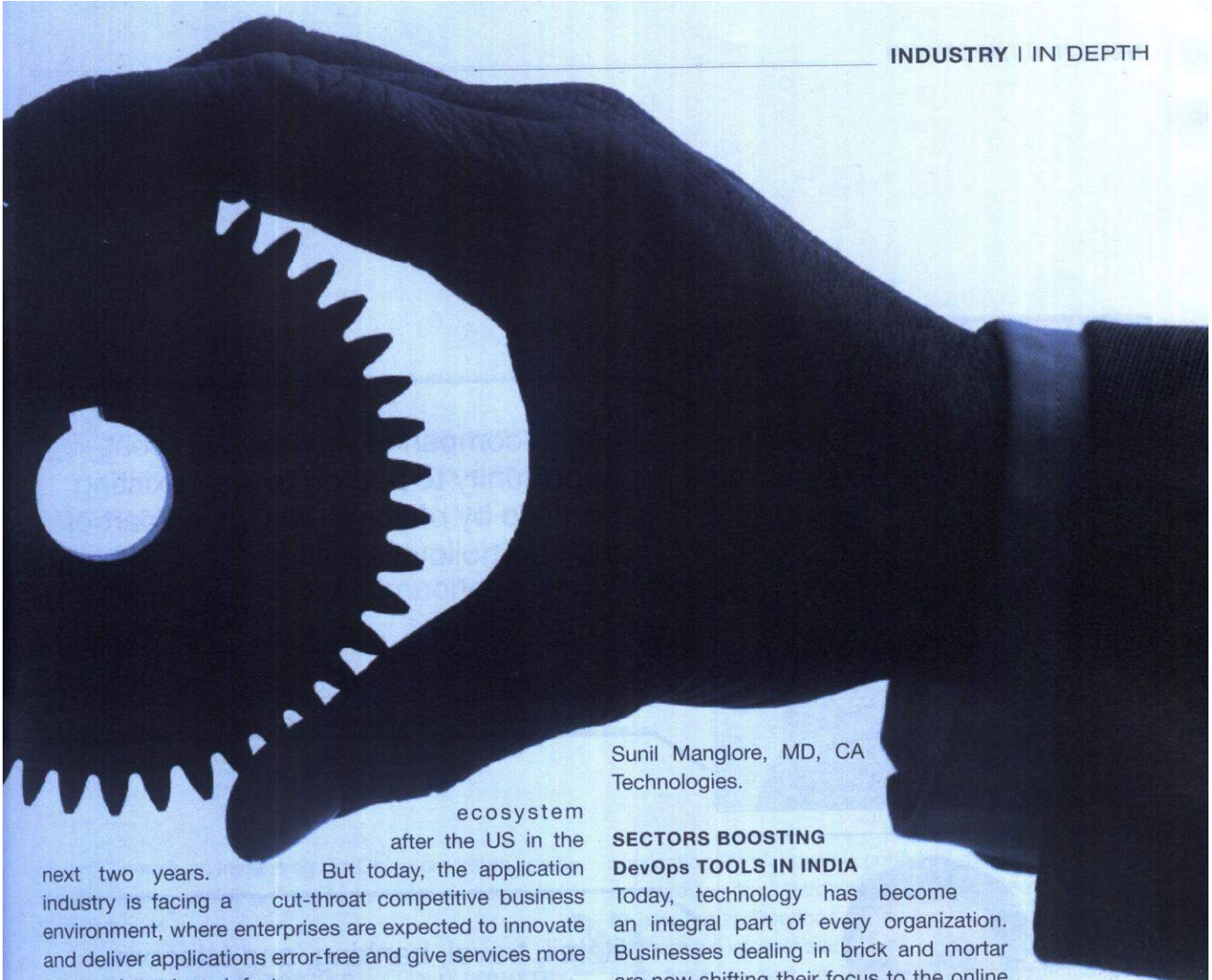
With DevOps movement gaining ground, India is on the cusp of a major opportunity to significantly improve its expertise in handling software development and operations

**N**ot so long ago, the development and operations teams were operating in silos, having major communication gaps, and hunting for better performing applications. This was leading to major delays in software development. However, the emergence of DevOps has changed the rules of the game—focusing more on the collaboration of various IT domains, accelerating the

software development process, and improving the overall quality of the product/service.

Traditionally, India has always been strong in software development owing to the ever-increasing supply of knowledgeable young workforce. According to Nasscom, 800 new technology start-ups have set up their shops in India over the last three quarters of the current fiscal. Also, India is expected to become the second biggest start-up





ecosystem  
after the US in the  
next two years. But today, the application  
industry is facing a cut-throat competitive business  
environment, where enterprises are expected to innovate  
and deliver applications error-free and give services more  
frequently and much faster.

Sridhar Iyengar, Vice President, Product Management, ManageEngine, says, "India has a big opportunity to consolidate its expertise in handling software development as well as operations. With the prospect of improving the quality of IT service and better service levels delivered to the end-user, Indian companies now have a great opportunity to add on to their existing portfolio by offering DevOps as part of their portfolio of services."

Experts also believe that some of the emerging technologies are also giving a push to this upgrowing industry. India is today at the cusp of a mobile revolution with large number of employees adopting smartphones at their workplace. As a result, every business is being rewritten by software and hence, applications is at the heart of this change.

Today, every enterprise faces the pressure to churn out better performing applications at a faster rate. A delay in doing so can cost enterprises dearly. This is where DevOps comes into the picture as a saviour. "Further, the explosion of cloud and other virtualized technologies have changed the role of the CIO who now acts a broker between IT and businesses to develop applications that address customer needs in a cost effective way," adds

Sunil Manglore, MD, CA Technologies.

#### SECTORS BOOSTING DevOps TOOLS IN INDIA

Today, technology has become an integral part of every organization. Businesses dealing in brick and mortar are now shifting their focus to the online space. Sectors such as financial, banking, eCommerce and transportation require high uptime for their applications, which in turn, is increasing the demand for DevOps tools in India.

"The fortunes of an eCommerce company like Flipkart rely heavily on the high uptime of its website. If the site takes time to load or if the customer is delayed during the payment process, it will have a negative impact on the company's image. The same applies for a travel booking site—if the site is not reliable and keeps crashing while you book tickets, it can lead to a very poor end-user experience," asserts Iyengar.

"DevOps practices are also re-architecting marketing automation processes. For example, traditional webpages are being replaced by interactive, visual experiences with robust social components built-in," adds Karthik Padmanabhan, Executive, Cloud Ecosystem, Cities, BizDev & Cloud ISVs, AP, GCG & Japan, IBM.

Currently, businesses such as BFSI, retail, telecom, and healthcare as well as the media industry are showing potential for the growth and adoption of DevOps. These verticals reflect that the need of this strategy as Dev + Ops is their crux of operations. The CIOs from these





“Indian companies now have a great opportunity to add on to their existing portfolio by offering DevOps as part of their portfolio of services

—Sridhar Iyengar  
VP, Product Management, ManageEngine



“Retail, travel, banking, and telecom sectors are emerging as the early adopters of DevOps

—Subrato Bandhu  
Managing Director, AppDynamics

verticals need to be more innovative through application innovation to cater to the changing business needs and it is the right time for them to speed up the overall software development life cycle.

“These verticals demand strategic business qualities: Business agility and IT alignment, which only DevOps can offer. DevOps can improve their unified business process, regardless of the organizational structure,” states Manglore.

The upgrowing demand of mobility is considered as a natural adopter of DevOps as mobile apps and new

functionalities are built on the precepts of lean and agile that underpin multiple DevOps concepts and processes.

“Right from bank transactions or buying insurance policies to making reservations in a restaurant, software is empowering consumers to directly interact with machines and generate revenue for organizations. For example, booking a taxi was a time consuming job but now, we book cabs using mobile and browser-based applications,” says Subrato Bandhu, Managing Director, AppDynamics.

While start-ups have been early adopters, there has been an increase in interest from established industries



“DevOps practices are also re-architecting marketing automation processes. For example, traditional webpages are being replaced by interactive, visual experiences with robust social components built-in

—Karthik Padmanabhan

Executive, Cloud Ecosystem, Cities, BizDev & Cloud ISVs, AP, GCG & Japan, IBM



as well. There is an increasing DevOps momentum across supply chains, enabling them to innovate and transform their business.

#### WHAT DevOps MEANS FOR THE INDIAN IT INDUSTRY

Breaking down the silos between the development and the operations teams, and involving them through all stages of the application cycle is the ideology on which DevOps is based. DevOps is making a big impact in bringing the developers and IT operations teams closer in start-ups and SMBs.

However, making that partnership work in a large-scale enterprise IT organization is a whole new issue. “This is where the opportunity lies for most IT services organizations that are already embedded in large enterprises—bridging the gap in evangelizing the value of the DevOps role and giving the services organizations an opportunity to provide more value to their customers,” states Sriram Chakravarthy, Founder and Chief Technology Officer, Avaamo.

It offers the Indian IT industry an exciting opportunity to transform the way IT services are developed, deployed, and managed. What DevOps does quite effectively is achieving efficiency in software development (by improving quality, speeding up the process, cutting costs, and eliminating redundant tasks) and offering flexibility in the face of evolving business demands.

Also, it would result in a team that is fully aware of the

application lifecycle and is confident of addressing issues or improving application performance based on feedback on how the applications perform in live production.

“From a customer standpoint, it reduces the turnaround time for resolution of incidents. This creates a huge demand for products that monitor applications and pinpoint errors in coding that will make the life of the DevOps team much easier,” points out Iyengar.

#### VENDORS' STRATEGIES

Though, the DevOps market is faced with issues related to investments, security, organization complexity, etc, but the vendors are continuously bringing various solutions to overcome these hiccups. *Dataquest* takes a look at the products and services of the major players in the space.

#### CA TECHNOLOGIES

On the software front, CA Technologies has built in advanced capabilities to automate the delivery of IT services for faster time-to-market, optimal cost, and performance. Such solutions include software, services, and best practices which support DevOps. The company has recently introduced new DevOps solutions which includes a new CA Mobile App.

CA Service Virtualization and CA Release Automation products claim to improve service delivery cycle time by 20-22%, reduce bugs by approximately 30-35% in production, and 25-30% in the overall development cycle time.





Newly released connectivity between CA Service Virtualization 8.0 and CA's industry-leading API Management brings APIs into the DevOps process, and delivers improved time-to-market and quality for customers. CA Service Virtualization 8.0 improves the speed of error and defect detection and resolution, and provides more powerful and automated simulated test environments with CA Release Automation 5.5.

#### IBM

IBM UrbanCode Deploy is a tool for automating application deployments through organization environments. It is designed to facilitate rapid feedback and continuous delivery in agile development while providing the audit trails, versioning, and approvals needed in production.

IBM UrbanCode Release is a collaborative release management tool that helps you handle the growing number and complexity of releases. One can plan, execute, and track a release through every stage of the delivery lifecycle. UrbanCode Release is aimed at reducing errors, while making large releases faster, and more agile. IBM UrbanCode Build is a continuous integration and build management server optimized for the enterprises.

#### MANAGEENGINE

ManageEngine has two solutions for the DevOps team: Applications Manager and Site24x7. Site24x7 monitors cloud applications and gives feedback on their

performance. It helps identify performance issues in the production and gives an easy interface for developers to check and fix bottlenecks and zero down on errors causing latency issues in the application, thus enabling DevOps team to quickly solve problems.

While ManageEngine Applications Manager helps custom application metrics to merge with the traditional systems and app metrics. This enables the DevOps team to better understand how custom applications behave and gain additional insights.

#### THE ROAD AHEAD

It is a mistake to dismiss DevOps as an IT specific movement, or one about specific technologies. It is nothing short of an innovative disruption which is bound to take enterprises by storm. In the years to come, DevOps impact will not be relegated to IT alone.

"Each and every department in an organization needs to be aware of its functions. Sales must be aware so they can understand the delivery schedule and manage customers' expectations. Product development must be aware of how DevOps helps with implicit requirements such as stability and reliability. There will also be times when infrastructure improvements must be planned into the product backlog to leverage the benefits of DevOps," emphasizes Manglore.

Given this scenario and the competitive Indian business landscape, DevOps has a plethora of opportunities to thrive and survive in this application-driven economy.