

# 3 Key trends driving enterprise software innovation in 2019

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In South Africa, savvy business leaders are looking to embrace leading-edge technology as a way to drive growth and innovation. Importantly, this requires a fresh and brave approach to traditional processes - with investment into new solutions.



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With regards to software, the massive amount of data now being processed daily is altering the way in which businesses use and interact with enterprise software.

We look at the key shifts taking place and consider what C-Suite executives and other decision makers should be exploring as they enter 2019...

## 1. Widespread shift to the cloud environment

As businesses look to move towards more agile, cost-efficient and responsive operating models, their approach to enterprise software is becoming fundamentally different. Instead of running on-site servers with licensed software, business leaders are increasingly embracing full cloud solutions.

Instead of paying for expensive software licences as well as the hefty maintenance costs of on-premise servers, businesses can leverage agile Software-as-a-service (SaaS) solutions and enjoy far greater flexibility. This model eliminates the need for experienced internal IT teams, as the business essentially works with dedicated specialists at the platform level.

Arguably, the SaaS model enables businesses to install, adapt and configure solutions far more efficiently, and to thereby keep up with the rapid pace of innovation and change that affects every industry today.

In South Africa, businesses are following the global shift towards cloud-based software models, with research by World Wide Worx indicating that nine out of ten (90%) companies had increased spending on cloud computing last year. Broken down by industry, the highest proportion of increased budgeting for 2018 was reported by IT software and services companies. On the global front, Forbes has reported that 83% of enterprise workloads will be in the cloud by 2020.

## **2. Internet of Things & AI moving software ‘to the Edge’**

While ‘line of business’ applications are moving to the cloud, there is an important trend happening adjacent to this: a growing need for Edge computing and Edge devices. With this model, computing gets physically closer to devices.

Why? Because with the speedy growth of the Internet of Things (IoT) and increasing automation, there are millions of connected devices that are generating huge volumes of data and processing it in real-time. All of this requires massive computing power and an alternative solution to simply sending all of this data back to a cloud environment.

Edge computing, as a result, “is a new paradigm in which substantial compute and storage resources are placed at the edge of the Internet, in close proximity to mobile devices or sensors” (from On Edge Deep Learning with Aran Khanna). For software developers, there is growing consensus that they can improve upon application performance and deliver an enhanced end-user experience by allowing for dynamic content to be generated for each end user at the Edge.

This, for example, will allow for Augmented Reality applications whereby a digital image and digital information is superimposed upon the physical environment. Looking ahead, the global edge computing market size is projected to reach US\$3.24bn by 2025, with North America leading the market owing to the increasing penetration of IoT devices. This shift will have major implications for specialist software development – particularly as the adoption of AI and automation grows.

## **3. Embracing low code development**

With so much innovation and technology development happening across industries and sectors, there is a massive need for quick and agile software development. As it stands, this need is not being fulfilled, as there is a limited pool of software developers across the markets that require them. Indeed, there are currently mammoth demands on software developers to create custom applications in volume - tailoring them to unique needs within enterprise environments.

In response to this challenge, low code development platforms have been and are developed as a way to enable quick creation and use of working applications ‘that can address the specific process and data needs of the organization’ (Wikipedia). According to Forrester Research, the total market for low-code development platforms will grow to \$15.5 billion by 2020. The growth is being fuelled by the need for flexibility and ease within the coding environment, while still allowing for the ability to add in custom code when needed.

Although the concept is still fairly new around the world, there is growing interest in low code development in South

Africa – where the shortage of IT skills and experience has been well documented.

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