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IDC
ANALYZE THE FUTURE

The Impact of Cloud in South Africa

Executive Summary

Organizations in South Africa are looking beyond macroeconomic challenges to leverage emerging technologies and invest in modernization and digital transformation initiatives.

Recent years have seen a rise in adoption by South African organizations of 3rd Platform and innovation accelerator technologies like cloud, the Internet of Things (IoT), artificial intelligence (AI), machine learning (ML), Big Data analytics, and robotic process automation (RPA). As the fourth industrial revolution (4IR) gains pace, organizations in South Africa are poised to drive innovation using disruptive technologies.

The launch of Microsoft datacenters in Cape Town and Johannesburg in early 2019 has accelerated innovation by start-ups and micro and small businesses. Cloud solutions offer these firms opportunities to reduce costs and improve efficiency, scalability, and business agility.

The growing number of cloud solutions providers is enabling customers to choose hybrid or multi-cloud models that provide business and operational benefits. Cloud enables organizations to drive innovation in a secure environment, in compliance with government regulations and industry standards.

In-country datacenters are enabling regulated sectors like government, healthcare, and finance to migrate critical workloads to public cloud environments. This indicates that local datacenter investments by global cloud solution providers (e.g., Microsoft) have started to pay dividends.

This IDC White Paper examines trends and developments in the South African cloud market and provides insights into cloud adoption in the country.

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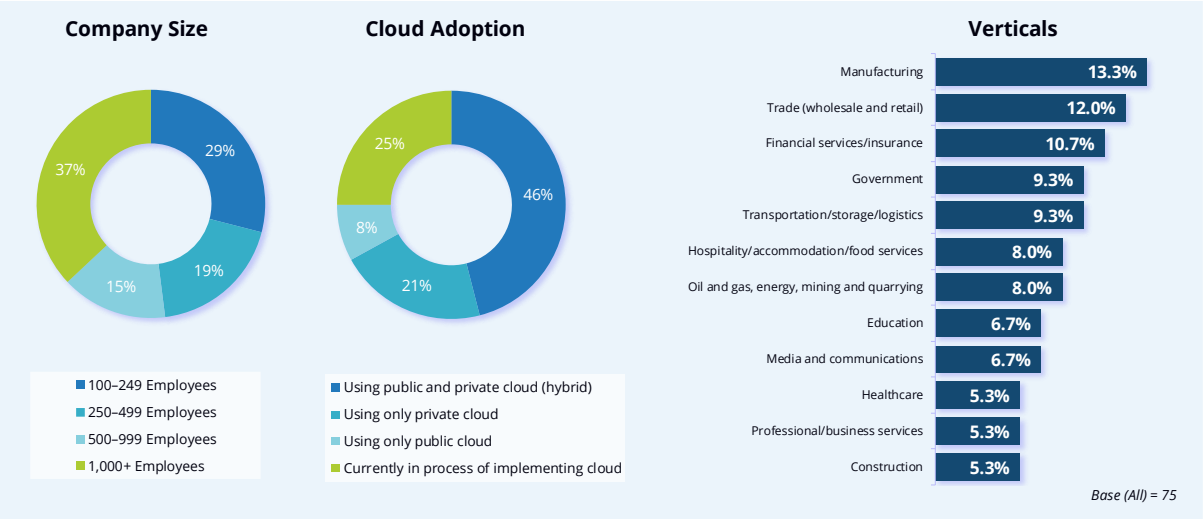
Methodology

This document relies on IDC's research into the impact of cloud adoption in South Africa. Interviews were conducted with CIOs, heads of IT, and IT directors from 75 large enterprises across sectors including manufacturing, finance, trade (retail and wholesale), government, and oil and gas. IDC conducted three in-depth customer interviews to obtain insights about using Microsoft Azure. The goal of the survey was to understand the emerging trends and factors driving and inhibiting cloud adoption in South Africa.



Source: Cloud Services Impact in South Africa, Microsoft, 2019

Situation Overview

New and emerging technologies are dramatically transforming the way organizations do business. Mobile, social, Big Data analytics, and cloud technologies are changing how customers and end users interact with product and service providers across the range of touch points. Cloud computing plays a foundational role in enabling 3rd Platform and innovation accelerator technologies like AI, RPA, machine learning, IoT, blockchain, and analytics. Cloud provides organizations with a platform to deploy and/or access agile, scalable, and mobile solutions. Importantly, cloud offers the prospect of greater transparency, lower costs, and reduced capex.

Despite ongoing macroeconomic challenges (e.g., currency instability), organizations in South Africa are pushing forward with digital transformation initiatives. Organizations are optimizing their IT environments and improving business processes and standards to ready themselves for regional and global competition. Cloud services are enabling organizations to meet the transformational goals of improved cost control, lower total cost of ownership, and improved ROI.

IT and the South African Economy

South Africa, the largest IT market in the wider Middle East and Africa region, recorded total IT spending of $14.86 billion in 2019. The IT industry is a key driver of the South African economy and a cornerstone of the government's national transformation initiatives.

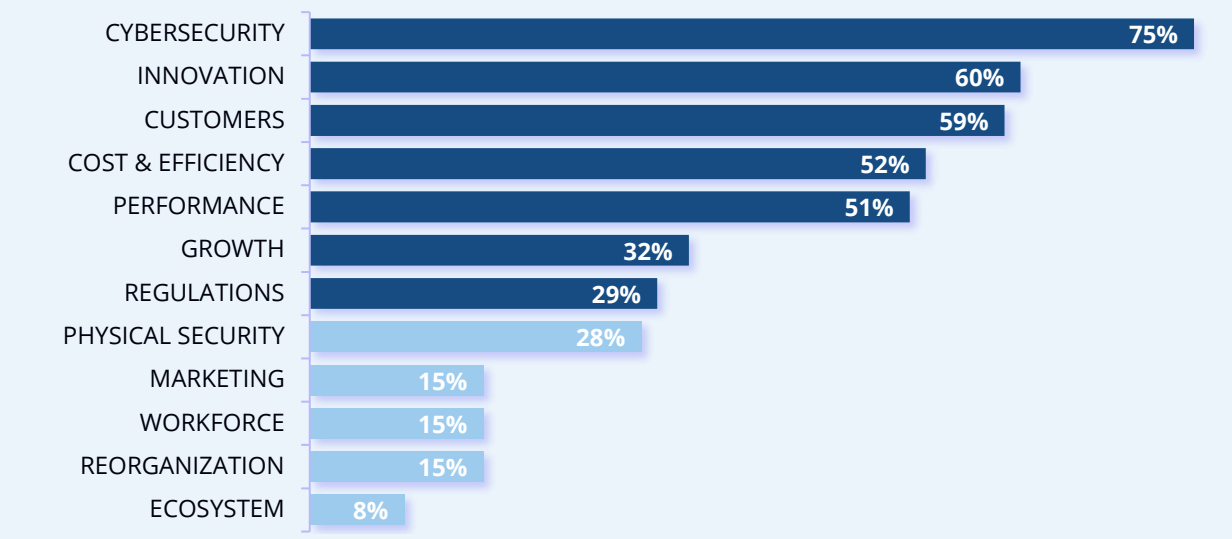
The government has embraced the 4IR[1] concept and is investing in establishing a digital economy and transforming South Africa into a major ICT player. The Small Enterprise Development Agency has announced plans to develop the biggest tech hub in Africa to support small, micro, and medium-sized digital enterprises[2]. Organizations across industries are leveraging AI, mobility, IoT, analytics, and cloud to drive innovation in their operational, product, service delivery, and customer engagement models.

Business Priorities for South Africa-Based Organizations

South Africa-based companies understandably list cybersecurity as a top business priority. Like businesses in other countries, South African organizations lose millions of dollars annually due to cyberattacks.

South African organizations are also eager to harness the benefits of operating in one of Africa's most innovative business ecosystems. IDC's survey showed that innovation was the second most important business priority overall, and the top priority for small and medium-sized businesses (100–249 employees).

Figure 1: The Top Business Priorities of South African Organizations



Source: Cloud Services Impact in South Africa, Microsoft, 2019 (n=75)

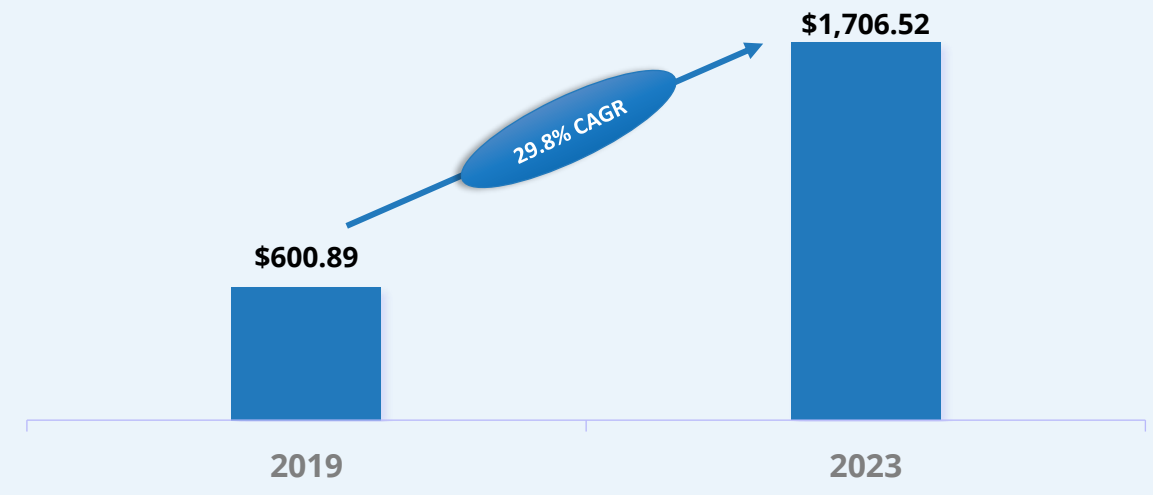
Attracting new customers and retaining existing ones is the third most important business priority of South African organizations.

Current Adoption of Cloud in South Africa

Cloud provides an agile, scalable, and robust platform for AI, IoT, analytics, and mobility deployments, enabling organizations to effectively use these tools to achieve business objectives. Organizations in South Africa are increasingly using hybrid cloud and multi-cloud models. According to a 2019 IDC survey, almost 75% of organizations have deployed either public or private cloud and/or a combination of both models. One-quarter of organizations are in the process of implementing cloud services.

[1] https://www.csir.co.za/south-africa-and-world-economic-forum-announce-intention-establish-4ir-affiliate-centre
[2] https://businesstech.co.za/news/technology/301502/south-africa-to-develop-africas-largest-tech-hub/

Figure 2: Public Cloud Services Growth in South Africa, 2019–2023 ($M)



Source: IDC's Worldwide Semiannual Software & Public Cloud Services Tracker, Nov 2019

IDC research shows that total spending on public cloud services in South Africa in 2019 was more than $600 million. Total spend is expected to rise to $1,706 million by the end of 2023, representing a compound annual growth rate of 29.8% for the five-year period. Software as a service accounted for more than 60% of the public cloud market in 2019 (a value of $367 million). Infrastructure as a service accounted for 28% of the market ($170.2 million).

Public cloud uptake will accelerate as service providers invest in in-country datacenters. In March 2019, Microsoft launched datacenters in Cape Town and Johannesburg. Another global cloud service provider launched datacenters in the country in April 2020. The availability of in-country datacenter capacity will bolster confidence in cloud technology and help resolve data governance and resiliency concerns in highly regulated areas like the public sector, banking and finance, and healthcare.

Factors Driving the Adoption of Cloud Services

IDC's survey showed that key business priorities are driving cloud adoption in South Africa. Cloud technology enables new functionalities and facilitates access to the latest workloads and technologies. The survey found that 80% organizations decided to adopt cloud to gain access to these innovations.

Figure 3: Key Factors Behind Cloud Adoption in South Africa

Source: Cloud Services Impact in South Africa, Microsoft, 2019 (n=75)

Improved security was the second most cited driver of cloud adoption. Organizations must both guard against data security breaches and comply with regulations and legislation. Cloud simplifies and eases the achievement of these obligations. The standardization of workloads (i.e., using similar services across an organization) was the third most popular driver of cloud adoption. Increased agility and efficiency, holistic visibility and management of IT costs, legacy hardware infrastructure, and faster deployment of IT resources are also major drivers.

Business Benefits Achieved or Expected from Cloud

Almost 80% of surveyed organizations believe cloud has enabled them to improve operational efficiency and productivity. This view was most commonly held by the smallest (100–249 employees) and largest (1000+ employees) companies.

Figure 4: Business Benefits Achieved or Expected from Public Cloud

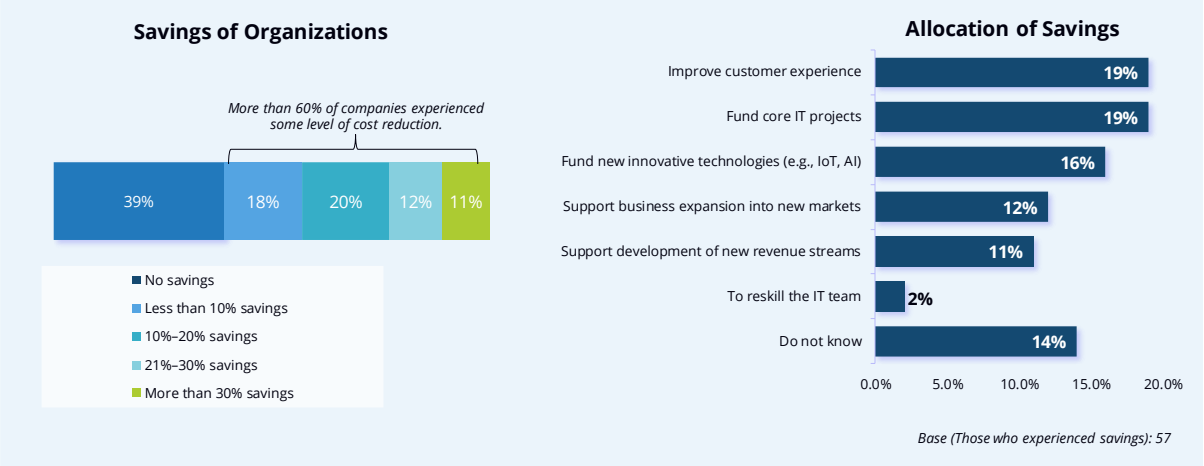
Source: Cloud Services Impact in South Africa, Microsoft, 2019 (n=75)

Improving the overall quality of IT service and productivity was the second most frequently cited benefit, followed by reduction of capex. Cloud services enable organizations to cut down infrastructure costs, optimize resources, and shift expenditure from capex to opex. Cloud helps organizations minimize inefficiencies and drainage, freeing capacity for business innovation and, ultimately, the improvement of customer experience.

Cost Savings from Cloud

IDC's survey found that reducing costs and innovating were the top two business priorities of South African organizations. The survey found that more than 60% of organizations achieved some cost reduction by adopting cloud-based solutions. Within this 60%, almost 23% of organizations were able to reduce costs by more than 20%.

Figure 5: Savings Made Through Cloud Adoption and Utilization of Savings



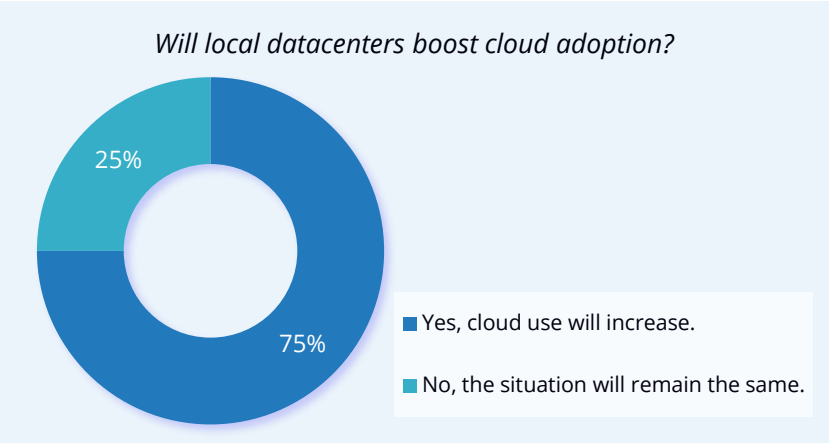
Note #1: Base (All – Don't Know excluded) = 61
Note #2: Base (Those who experienced savings) = 57
Source: Cloud Services Impact in South Africa, Microsoft, March 2019

Close to 20% of organizations said they utilized the savings to improve customer experience and/or to fund other core IT projects. Savings were also used to fund investments in AI, ML, and IoT.

Impact of Local Datacenter Availability

The establishment of local datacenters makes cloud services much more usable by South African organizations. In-country datacenters resolve the data residency issue, helping to keep organizations in compliance with government and industry regulations.

Figure 6: Impact of Local Datacenters on Cloud Adoption



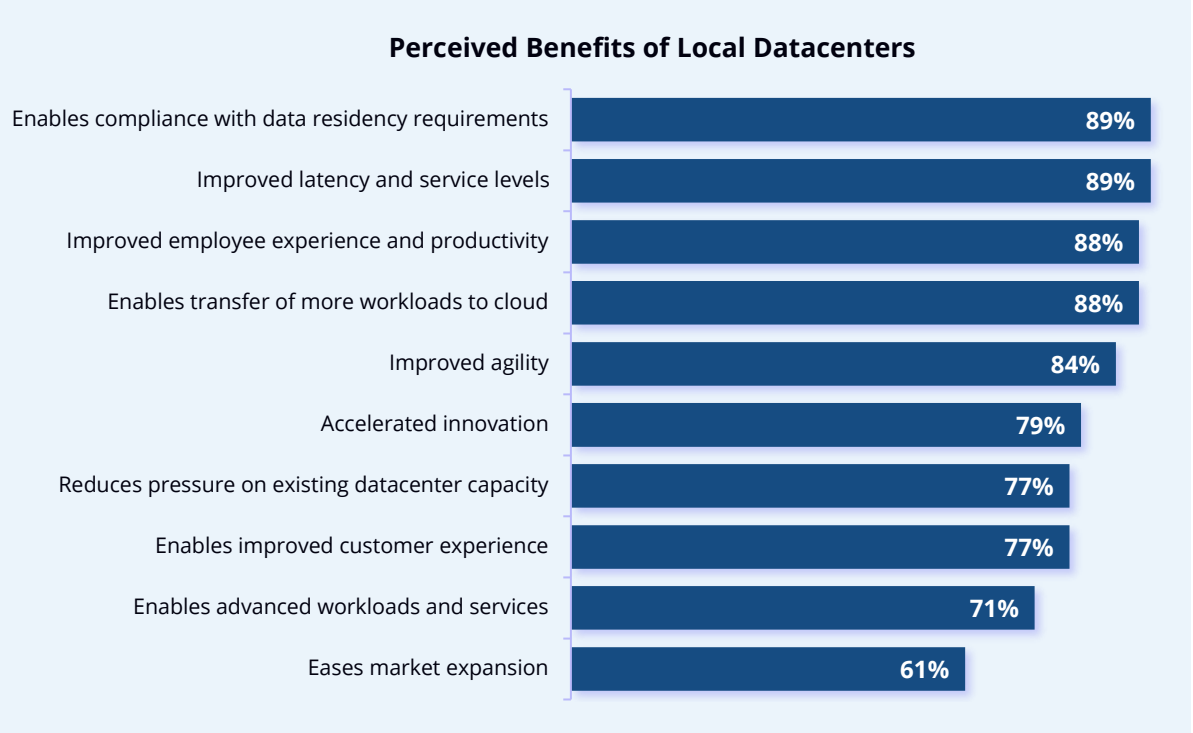
IDC's survey found that almost 75% of organizations believe the existence of local datacenters will accelerate the use of cloud technology.

In-country datacenters also create opportunities for both technology buyers and suppliers, including systems integrators and other ecosystem partners.

Key Benefits of In-Country Datacenters

South Africa's Protection of Personal Information Act is due to come into force in 2020. In-country datacenters will likely see increased demand as organizations move to comply with the new laws concerning data residency and security. Local datacenters enable organizations to deploy critical workloads in the cloud, freeing them to innovate with enhanced security (and with some aspects of regulatory compliance handled by cloud providers). Local datacenters also help organizations minimize challenges posed by high latency and low quality of service, boosting employee experience and productivity.

Figure 7: Perceived Benefits of Local Datacenters



Source: Cloud Services Impact in South Africa, Microsoft, March 2019 (n=75)

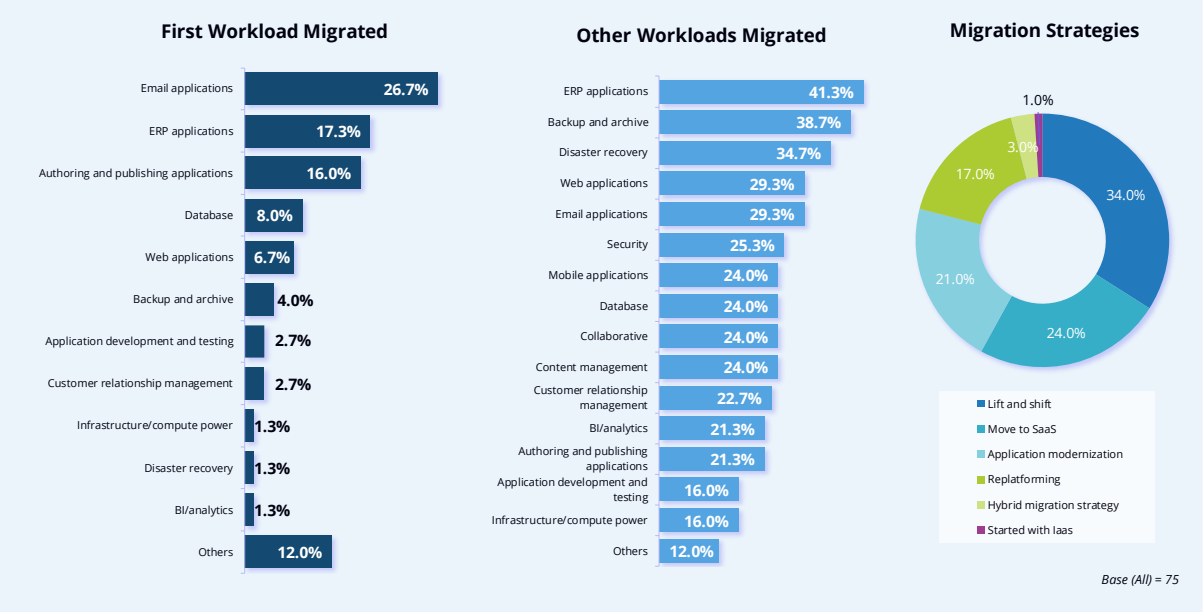
Workload Migration to Cloud

IDC's survey found that the top three workloads that organizations migrate first to any cloud environment are email applications (27%), enterprise resource planning (ERP, 17%), and authoring and publishing (16%). The rate of migrating email applications to cloud was much higher among small and medium-sized organizations (100–499 employees).

Some 12% of respondents ("Others") said the initial workloads they migrated to cloud included site recovery automation, gift card solutions, online induction programs, online shopping experiences, and systems that were in private cloud but were moved to public cloud due to better connectivity.

After the first migrations are complete, organizations focus on migrating workloads like backup and archiving, disaster recovery, web applications, security, and content management and collaboration.

Figure 8: Workload Migration to Public Cloud and Migration Strategy



Source: Cloud Services Impact in South Africa, Microsoft, 2019 (n=75)

Almost one-third of South African organizations choose a lift-and-shift approach to migrate workloads to cloud. This approach is the easiest and simplest to migrate any workload and its related data (i.e., the same applications are replicated in a new environment with minimal or no change). The second most utilized migration method was moving from an on-premises solution to a software-as-a-service subscription model. This was most common among large organizations (1,000+ employees). For more than one-third of organizations (38%), application modernization and replatforming were top migration strategies.

Impact of Microsoft Azure in South Africa

IDC conducted three in-depth interviews with Microsoft Azure customers in South Africa. The interviews enabled IDC analysts to study the benefits customers received from using Azure and other Microsoft technologies. The interviews are summarized in the two following sections.

Azure's Significant Benefits for IT and Business Operations

Organizations using Azure enjoy significant cost reductions on hardware, maintenance, and services. Most customers utilize these savings to enhance product offerings and/or invest in research and development. Customers noted that with Azure, there was no management overhead linked to datacenter maintenance.

Azure is utilized for disaster recovery purposes, enabling organizations to be more prepared for unexpected events and to easily scale business requirements. Microsoft Teams enables employees to collaborate effectively within the organization and outside of it.

Customers, especially in government, say Azure offers strong security and compliance options. It provides proactive alerts to support IT professionals.

Azure's Impact on IT Infrastructure, Staffing, and Productivity

After deploying Azure, customers said they were able to reduce the number of servers they rely on, as well as gain access to an array of new features. One customer said Azure enabled the organization to save around $45,000 because it no longer needed to utilize 20 servers in a third-party datacenter. Thanks to Azure, the customer was also able to avoid database licensing costs of $68,000.

One customer said Azure has dramatically saved the time of IT staff. Upgrades can be tested extremely quickly, and auditing information is readily available. This has made the audit process easier and boosted the ability of auditors to service the entire organization. The provision of mobility tools and multi-factor authentication has improved employee experience and productivity. One customer said Azure has made 50 IT employees 40% more productive and enabled them to focus more on strategic and innovation-linked tasks. Azure's efficiency has helped organizations avoid additional full-time equivalent requirements.

Enhanced organizational productivity enables companies to better pursue business strategies. Managers and employees have more time to concentrate on strategy implementation and to review business concepts and innovation plans.

Azure enables organizations to deliver stable service to external parties, positively impacting productivity. One customer said other products had failed to protect the organization from outages during peaks. The organization was forced to spend large amounts of time troubleshooting, a process that hobbled the entire team. Since moving to Azure, the customer said the organization has not suffered a general failure.

Future Outlook

Digital adoption in South Africa is rapid. Growth in software and cloud usage will accelerate as organizations move to modernize IT systems, optimize costs, deliver innovation, and generate new revenue streams.

Global and local technology providers are aiming to provide expertise to help develop the skills to support cloud deployment in South Africa. Microsoft's 4Afrika Initiative and the Coding for Employment program (cosponsored by the African Development Bank, Microsoft, the Rockefeller Foundation, and Facebook) aim to provide a digital training platform for African youths. Investments to boost local technology partner ecosystems and develop experts will play a key role in supporting public and private cloud initiatives.

Microsoft's new datacenters in Cape Town and Johannesburg are delivering low latencies and high service levels. The availability of these and other local datacenters is enabling state authorities and banks to move critical workloads to public cloud. This is a vote of trust and confidence in the public cloud environment.

Further datacenter investments will be necessary to meet growing demand. Increased utilization of public cloud services and investments in private and hybrid cloud solutions will enable organizations in South Africa to intensify their focus on innovation.

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