08

Technology leadership in network and IT

How this supports our purpose

We invest in modern digital systems to connect our customers for a better future while also leveraging our experience in the latest technologies to drive accessibility and inclusive growth. Our Big Data capabilities drive intelligent decision-making, solutions and operations. We explore alternative energy options in our move towards greater energy efficiency while also expanding our coverage and platforms to connect more people for a better future.

CASE STUDY

Embedding IT governance across our business

Technology is core to Vodacom's business and – considering the rapid technological advances in recent years, along with increasing regulations associated with the use of data – we ensure IT governance is embedded as an integral part of the Group's business processes to ensure we deliver on our system of advantage.

We have a dedicated framework and charter in place to ensure end-to-end technology governance, which is overseen by the Group's Chief Technology Officer. The objectives of the technology governance framework and charter are constantly reinforced in the organisation, and each element is supported by fit-for-purpose processes to align technology strategy and business needs, deliver value and manage performance, and strengthen information security management, information management, risk management and business continuity. We have a Capital Expenditure Review Board that reviews and considers investment in technology. A summary of these considerations is reviewed by the Group's ARCC. Our Group Board considers the need to obtain independent assurance on the effectiveness of Vodacom's technology arrangements, including outsourced services, as and when needed.

The protection of customer data is paramount to Vodacom. Our Chief Information Officer, Chief Officer: Commercial Operations and Chief Officer: Legal and Compliance are responsible for information governance, and focus on formulating and implementing policies, processes and systems to ensure compliance with the POPI Act and European Union General Data Protection Regulation.

South Africa

Further expanding our best gigabit networks with voice and high-speed data coverage

- We extended our 4G and 3G population coverage to 97.94% and 99.88%, respectively, while 2G population coverage remains steady at 99.9%. We also increased our outdoor 4G coverage despite not having access to the dedicated sub-1GHz 4G spectrum.

- We extended our 5G footprint beyond Johannesburg, Cape Town and Durban and now have a 5G presence in all nine provinces. Due to increased customer interest, the number of 5G capable devices active on our network surpassed 684 550 units.

- The modernisation of our network ensured we could efficiently and effectively deploy temporary spectrum while ensuring better usage and optimal performance of our existing spectrum. We utilised the temporary 5G spectrum assigned by ICASA to roll out over 600 sites, addressing the demand for connectivity for fixed wireless products. In March 2022, we acquired 110MHz of HDS.

- On 10 November 2021, we announced a major step forward in scaling our fibre offering in South Africa. By proposing the acquisition of an initial 30% stake in CIVH fibre assets – subject to competition commission approval – Vodacom will gain exposure to highly attractive and fast-growing businesses such as Vumatel and DFA.

✓ Value created   ✗ Value eroded   ═ Value sustained

The pandemic significantly increased the demand for connectivity. In response, Vodacom invested R14.6 billion in its network and implemented several transformative propositions to revolutionise how data is consumed. This includes the new Everyday-ta bundles in South Africa, which provide significant value to customers by delivering 7.5GB over 30 days at R99. We also refreshed our mobile contract packages, increasing data across the portfolio with up to 100GB of monthly data.

Extending our capabilities in modern digital IT

We continued to embed Agile and DevOps practices into our way of working, focusing on faster time to market, improved customer experience and increased stability. By focusing on a smaller but increased number of releases per month, we can deliver more quickly and continue to offer an enriched customer experience.

Our cloud journey remains key, delivering significant cost savings and increased efficiencies. We transitioned selected analytical workloads to the public cloud to deliver analytics at scale. In doing this, we could steer investments into beneficial channels, price plans and devices. The AWS cloud programme completed 564 migrations for cloud-native application workloads. We also successfully migrated six contact centres to the cloud, along with merchant agents – including VodaPay Chat.

Vodacom maintained its lead in the independent IT4C benchmark exercise conducted by Gartner, which compares the IT capabilities of South Africa's largest mobile operators. We increased our lead by 133 points, showcasing significant improvements in our retail channels and contact centre. We believe this achievement reflects our continued investment in technology across customer touchpoints.

Reducing our environmental impact and delivering technology efficiencies

Expansions and upgrades to our network infrastructure – as well as fuel, electricity, inflation and other contractual increases – place pressure on Vodacom's opex. Through our Fit4Growth programme, we focus on implementing initiatives to optimise these costs and, over the past year, saved over R800 million.

Energy savings initiatives include electricity utilisation and billing optimisation, generator fuel fraud detection and runtime reduction. We installed Ruraflex time-of-use meters in over 1 072 base stations using electricity from Eskom, which led to an average reduction in electricity costs of 20%. We plan to install an additional 140 Ruraflex conversions and 750 Miniflex conversions in FY2023.

IoT.nxt's raptor technology implemented at our sites ensure we optimise air-conditioning runtime. The raptor can support energy savings of up to 25% per site. Furthermore, we can monitor and manage energy consumption remotely. Vodacom is exploring energy wheeling opportunities from independent renewable sources.

### Maintaining technology resilience

We implemented a technology resilience programme to ensure all technical recovery plans are reviewed and maintained as needed. All critical systems are tested annually to provide auditable proof of recovery capabilities, while also ensuring the right plans – including geo-resilient architectures and capabilities – are in place to meet the prescribed recovery time and recovery point objectives.

Sporadic vandalism and battery theft at our network sites continue to impede business continuity, network quality and overall customer experience. This is further exacerbated by Eskom's load shedding. We continue to drive investment to mitigate this risk – for example, through our Energiser project, we are deploying four-hour and eight-hour battery vaults to all sites to maintain network availability and connectivity, along with enhanced security measures. During FY2022, we invested R683 million in this project.

International operations

Expanding our best gigabit networks

All markets apart from Lesotho and Mozambique were first in network NPS and the Umlaut benchmarking drive test. Lesotho continues to expand its 4G population coverage and in Mozambique we continued to improve our network by deploying an additional 464 4G sites. Vodacom Tanzania upgraded 143 4G sites, improving our download speed and latency positioning from third to second. We continue to implement network improvement plans across all markets, analysing network NPS detractors to identify areas with degradation.

We expanded our network coverage across our international operations, to 8 430 2G sites, 6 694 3G sites and 4 521 4G sites added across Tanzania, Mozambique, the DRC and Lesotho.

In line with our Tech2025 strategic goals, our core focus has been on accelerating 4G coverage. Vodacom exceeded its 4G rollout ambitions in Mozambique despite procurement-related delays brought on by COVID-19, deploying over 464 4G sites during the year. Tanzania completed 105% of its 4G rollout objectives, while Lesotho reached 100% completion. In the DRC, we experienced delays in receiving equipment due to a customs embargo imposed by the government.
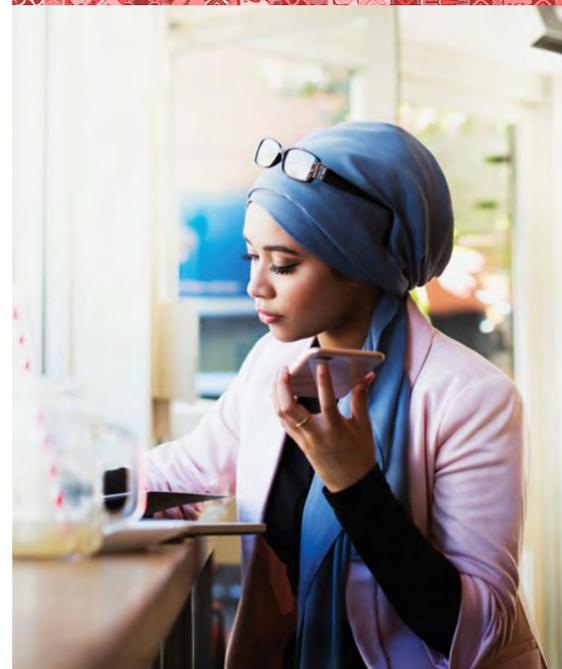
- Across all our markets, Vodacom engages with regulators to obtain spectrum to deploy 5G. All international markets are proactively executing their 5G readiness plans by ensuring that our network is 5G-ready.

- To manage the potential risk of vendor dependency over the medium term, Vodacom DRC is trialling alternative network technologies such as OpenRAN.

Extending our capabilities in modern digital IT

- We implemented Agile SAFe practices across our markets to ensure customer-focused delivery. Programme Increment (PI) is part of SAFe – a timebox during which an Agile Release Train (ART) delivers incremental value in the form of working, tested software and systems – and helps teams collaborate and align on workflows. PI improved the visibility of all work, enabling improved prioritisation and effective use of resources. We have plans in place to establish the Group Lean Portfolio Management capability, whereby we will be able to leverage PI to manage demand across our markets.

Addressing cyber threats to maintain customer security and privacy

- We are implementing a strategy to introduce next-generation security technologies across the Group, which will enhance our current prevention and detection capabilities, provide data insights for real-time detection and response, and introduce a more secure and frictionless employee experience.
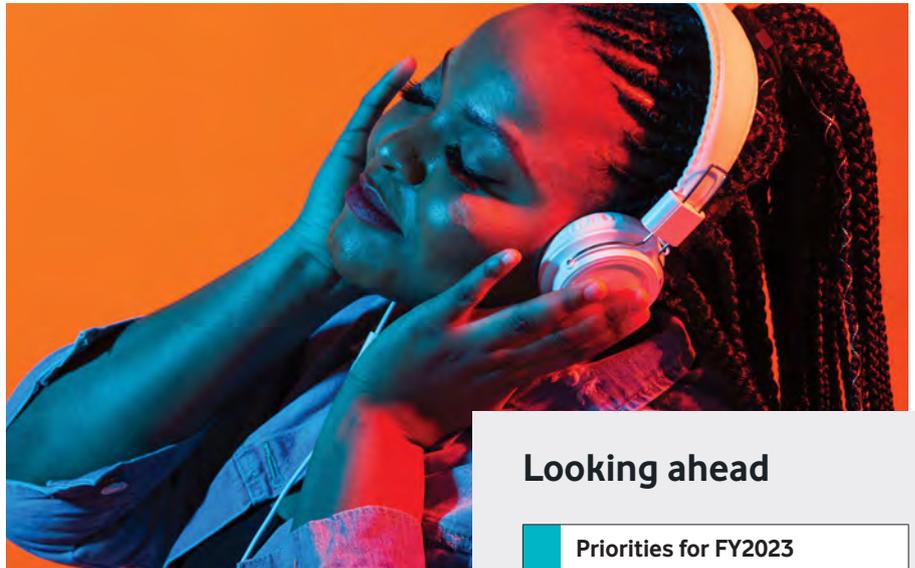
- Vodacom has an extensive set of cyber security baseline and super controls in place, which are consistently measured and monitored to ensure they remain effective and efficient. Furthermore, the Group's incident detection and response capabilities are continually enhanced through security orchestration, data visibility, endpoint detection and response capabilities.

- We strictly adhere to secure-by-design principles and processes as we develop products and services annually.

- We evaluate third-party risks to ensure our vendors and suppliers adhere to Vodacom's minimum security requirements.

CASE STUDY

Elevating cyber security offerings amid a changing threat landscape

As a leading technology provider, we aim to provide solutions that help businesses digitalise effectively while overcoming the complexities of a remote, cloud-based environment. This includes increased cyber threats as criminals become more sophisticated. This year, Vodacom Business expanded its managed security solutions to offer Trend Micro Worry-Free Services to help businesses prevent cyber attacks. Through this partnership with Trend Micro, we offer easy-to-install and simple-to-use security services that eliminate security gaps across user activity from anywhere in any business. Given the speed at which the cyber threat landscape changes, Trend Micro Worry-Free Services were designed to learn, adapt and share intelligence in real time. Furthermore, this solution offers protection against crypto, malware and other advanced threats. And, given the sensitivity of data, the integrated data loss prevention, encryption management and device control capabilities of Trend Micro Worry-Free Services can help data security.

Looking ahead

Priorities for FY2023

SHORT-TERM

- Achieve the best network NPS in every market.
- Integrate Vodacom and CIVH fibre assets post approval from regulatory bodies, and establish a model for expanding our fibre business across our international markets.
- Increase the resilience and quality of the South African network by leveraging newly acquired spectrum.
- Achieve cyber security baseline score across markets.

Vodacom Vision 2025

MEDIUM-TERM

Build new capabilities and develop new skills through insourcing and reskilling.

Enable the evolution of mobile and fixed network access, transport network simplification and TelCo cloud, focusing on making the network smarter through automation and AI.

Develop new capabilities across our network and IT platforms, including increased accessibility to Big Data and ML capabilities.

Embed security and privacy in our projects, products and services throughout their life cycle.

Increase the speed of delivery and leverage economies of scale to reduce our cost of delivery.