East Africa’s digital transformation is entering a new phase as countries move beyond expanding connectivity and focus on the infrastructure needed to power artificial intelligence, cloud services and data-driven businesses.

The region’s next wave of digital growth will depend on more than mobile networks and internet access. It will require large-scale data centres, reliable electricity supplies, high-capacity fibre networks and the supporting infrastructure needed to store and process growing volumes of data.

Kenya is emerging as the region’s main digital infrastructure hub, with Tanzania, Uganda, Rwanda and Ethiopia developing as important markets within a wider East African ecosystem.

For years, East Africa’s technology story was driven by mobile adoption and financial innovation. Kenya’s M-Pesa mobile money platform helped transform access to financial services and created one of Africa’s most advanced digital economies.

Now, demand is shifting toward computing capacity as businesses and governments require more powerful systems to support digital services, artificial intelligence applications and online platforms.

Kenya’s position at the centre of this transition is supported by its established technology sector, international connectivity and renewable energy resources.

According to the Communications Authority of Kenya, mobile penetration reached 149.5% as of Dec. 31, 2025, reflecting widespread use of multiple SIM cards as consumers combine mobile money services with different voice and data offers.

The country is also connected to global digital networks through eight operational subsea cables, strengthening its position as a regional connectivity gateway.

Energy is becoming a major factor in attracting digital infrastructure investment. Kenya generated nearly 90% of its electricity from renewable sources in 2023, according to the International Energy Agency, creating opportunities for companies seeking to develop lower-carbon data centres.

Plans to establish a data centre hub near Naivasha, close to the Olkaria geothermal fields, highlight efforts to link digital infrastructure growth with renewable energy resources.

However, Kenya’s expansion also faces challenges. Investors continue to monitor issues around electricity reliability, transmission capacity and the availability of suitable infrastructure sites.

Regulation has also become a key issue. Kenyan authorities have moved to regulate data centres as network service providers, treating them as active electronic and data-processing infrastructure rather than only physical facilities.

The move has provided greater regulatory clarity, but it has also raised concerns among some investors about increasing compliance requirements. New artificial intelligence legislation covering governance, privacy and public safety is expected to add further obligations for digital infrastructure operators.

Tanzania is taking a different approach, with a regulatory framework that is more closely aligned with international data centre standards.

The country’s Personal Data Protection Act, which came into force in 2023, introduced requirements around the storage and processing of Tanzanian citizens’ personal information, creating a stronger focus on local data management.

Tanzania’s growing renewable energy sector, established financial industry and improving digital market are supporting its potential as a regional technology market.

Beyond Kenya and Tanzania, Ethiopia, Uganda and Rwanda are emerging as markets with different advantages.

Ethiopia offers significant long-term potential because of its large population and market scale, although investors continue to face operational challenges.

Uganda is attracting attention through its carrier-neutral colocation approach, which allows different companies to use shared data centre infrastructure.

Rwanda’s market is smaller, but the country has built a reputation for technology-focused policies and a supportive environment for digital innovation. Its policy-driven approach continues to attract interest from investors looking at East Africa’s expanding digital economy.

Across the region, however, infrastructure challenges remain. Data centre development requires reliable power transmission, adequate water resources for

cooling systems and strong physical security.

In Kenya, infrastructure vandalism has become an additional concern, forcing investors to increase spending on protection and work more closely with security agencies.

Investors must also balance expansion with market demand, particularly in smaller economies where building excess capacity too early could affect financial returns.

Despite these challenges, East Africa’s digital future is increasingly being shaped as a regional opportunity rather than a collection of individual markets.

Kenya’s connectivity, technology ecosystem and energy advantages position it as the main hub, while Tanzania, Uganda, Rwanda and Ethiopia are expected to play complementary roles as demand for computing power continues to grow.

The region’s next digital chapter will depend not only on connecting more people, but on building the infrastructure needed to support the services, businesses and technologies that will define the future economy.