

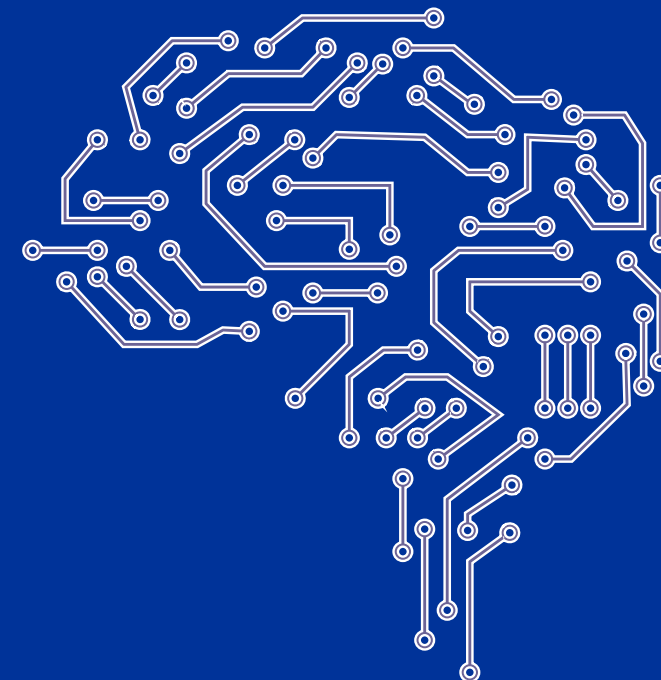
RWANDA

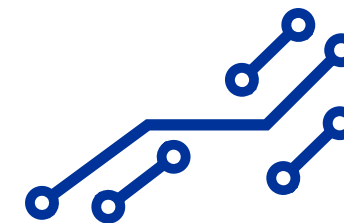
DATA CENTER MARKET BRIEFING

A strategic overview of the data center
investment opportunity in Rwanda

A Xalam Analytics Country Report

July 2025



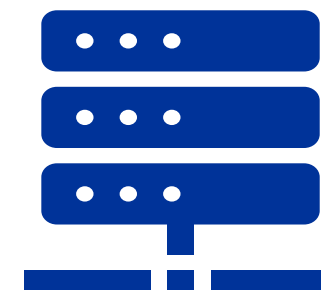


This report is part of a series of market briefs developed by Xalam Analytics at the behest of Digital Investment Facility (DIF) under the Data Governance in Africa Initiative, on the data center market opportunity in sub-Saharan Africa (“SSA”). This analysis aims to provide key insights into market demand and supply patterns for data center markets, business landscape, regulatory impact and investment returns. The research aims to provide potential investors and stakeholders with the latest information on the data center market in the SSA region.

This country review is based on our assessment of information and data as available to our research. It is further underpinned by our understanding of the marketplace along with market data and insights collected through continuous research. The numbers and estimates in this report are derived from a mix of sources, including estimates from Xalam Analytics’ economic models, data providers, regulator data and other sources as may be indicated.

This report is prepared with funds from the [Data Governance in Africa Initiative](#), a project financed by the European Union, Germany, Belgium, Estonia, Finland and France under the [Digital for Development \(D4D\) Hub](#). Its contents are the sole responsibility of Xalam Analytics and do not necessarily reflect the views of the funders.

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The Rwanda data center investment case

Despite limited scale, an opportunity to support accelerated digitization in one of the more stable and dynamic economies in Sub-Saharan Africa



THE OPPORTUNITY

- The Rwandan government aims to reach middle-income status by 2035 and high-income status by 2050.
- Rwanda has one of the **most stable and dynamic economies in the region**. Economic growth has averaged ~7-10% over the past four years.
- The ICT services sector is liberalized and generates around **\$400m in annual service revenue**.
- **Data regulations favor local hosting**.
- Excellent nationwide fiber transmission infrastructure.
- ICT sector growth has been steady, around 10-12% over the past two years.

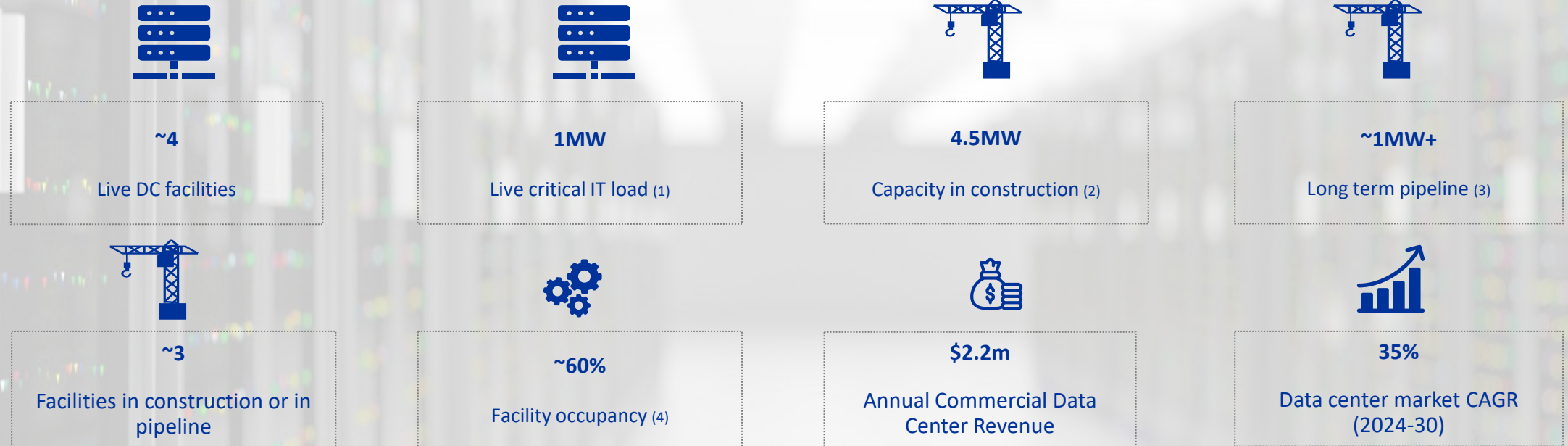


CHALLENGES & RISKS

- Rwanda's Internet adoption levels are still relatively low.
- **One of the smallest economies** in the eight-member East African Community (EAC) trade block.
- **Power prices are relatively high**.
- Rwanda's landlocked geography constrains wholesale connectivity diversity.
- **Scale of demand is relatively small, <10MW**.
- **Some geopolitical uncertainty**, with armed conflict on the border with DRC.

Rwanda data center market overview

Estimates as of 2024



(1) Capacity that is active, under lease or readily available for lease by third-party customers.

(2) IT load capacity from facilities currently in construction; construction has broken ground; ongoing civil works, installation and commissioning phases are in progress.

(3) Facilities explicitly announced or listed as in development. Some execution phases have been initiated (e.g. land control, energy supply commitments, etc.), but no actual civil works have been undertaken. Capacity expected to be available by the end of 2030.

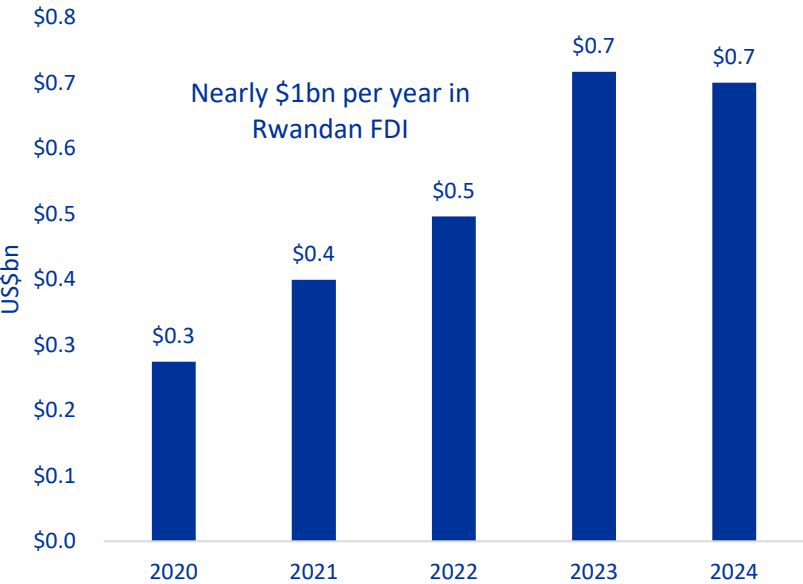
(4) Percent of available capacity that is effectively being used by third party customers.

Sources: Xalam Analytics estimates, provider data

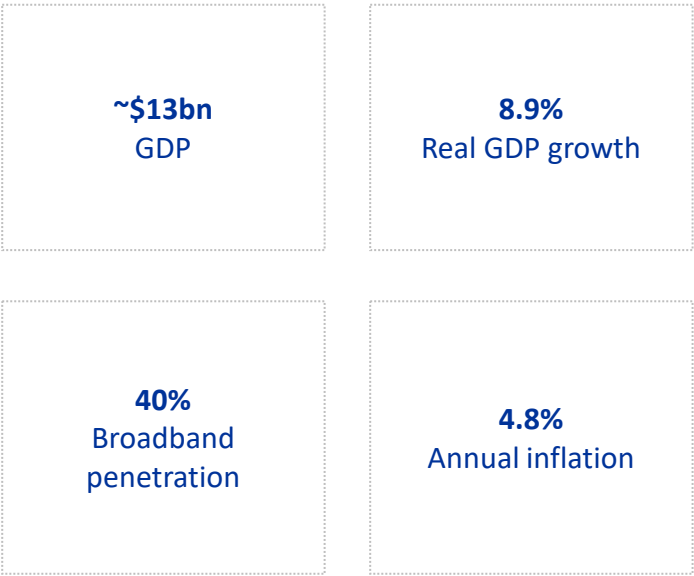
Key drivers of demand for data centers

Robust economic growth, increased FDI and improved access to connectivity are boosting Rwandan demand for hosting capacity

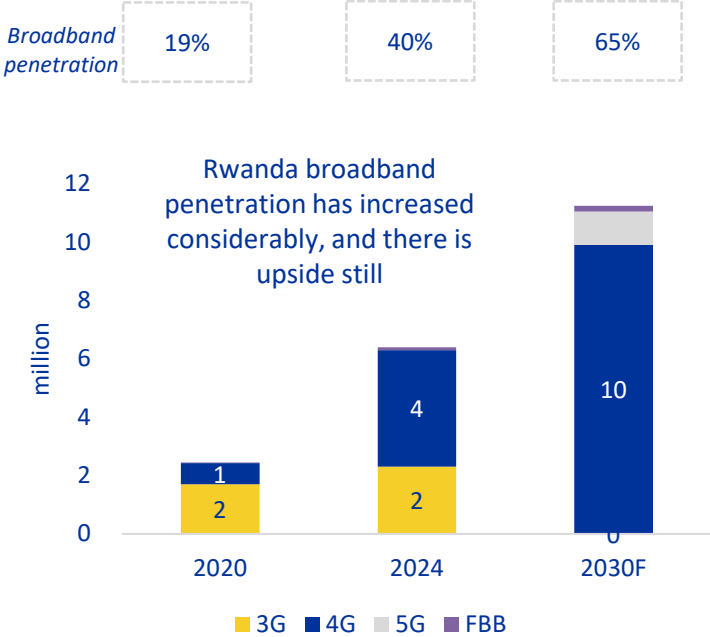
A spike in investment inflows – Rwanda FDI
US\$bn



Robust economic growth (1)
Sample Rwanda economic indicators - 2024



A growing digital customer base
Rwanda broadband connections by type - million



(1)Based on GDP calculation, September 2024
Sources: IMF, Rwanda Development Board, RURA, Xalam Analytics estimates

Data center market conditions

Rwanda's enabling environment for data centers is increasingly flexible – but constraints remain

Data privacy, hosting & environmental regulations



- Sector governed under 2021 Law on Data Privacy and Protection (DPP).
- No blanket localization requirement; some data must be stored locally, depending on the circumstances, and upon certification by the National Cyber Security Authority.
- Public sector data must be hosted in the government data center, or in facilities meeting standards set by the Rwanda Development Board (RDB).

Electricity & Fiber Markets



- Overall generation capacity of ~350MW, a relatively small base.
- Rwanda generates ~50%+ of its energy from renewables sources; mostly hydro-based, but extensive solar deployments.
- The country aims to increase the contribution of renewables to ~60% by 2030.
- Power sourced from electric utility EUCL, with strong presence of off-grid systems, mostly solar-based.
- Relatively high electricity prices - \$0.14/kWh.

Investment Incentives



- Considerable efforts to improve the investment climate – investment promotion and facilitation law is in place.
- Preferential income tax and tax holidays for investors in the ICT sector.
- Considerable investments in infrastructure – ~10% of annual budget.
- Digital Acceleration project aimed at accelerating country-wide digital transformation, focusing on critical digital enablers. Focus on access to affordable smart devices, digital literacy, last mile connectivity access and building institutional capacity for the broadband market.

Fiber Markets



- Excellent nationwide fiber transmission infrastructure.
- Landlocked market – connecting to international cables through Kenya, Tanzania, at relatively high cost; but providers have flexibility in sourcing international capacity.
- Diversity of metro fiber is excellent within the capital-city of Kigali.

State of data center supply

Rwanda is the smallest colocation market in East Africa; available data center supply is sub-scale – but more capacity is coming

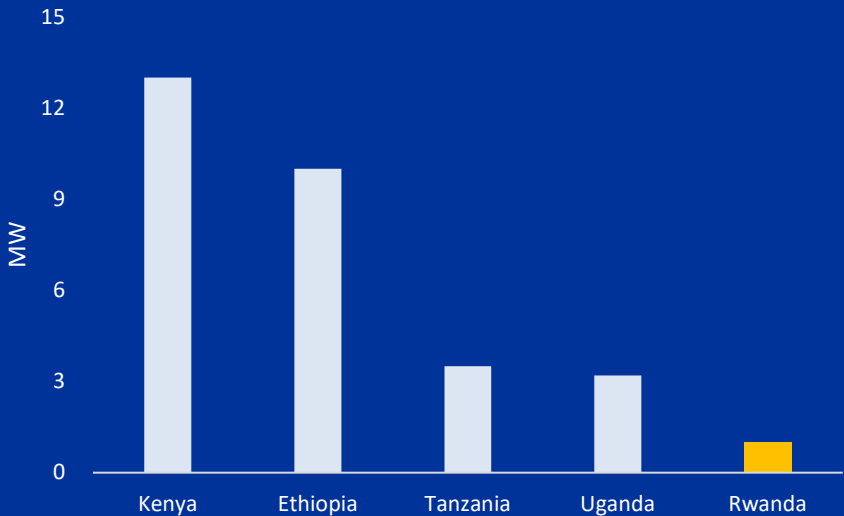
Rwanda data center supply – 2024E

Sample market indicators (1)

~4 Live commercial DC facilities	~1MW Live IT load
1MW Potential/Full-build IT load (2)	~0% % of supply that is carrier-neutral

Rwanda vs. SSA peers

Critical IT load – MW



- Rwandan facilities are typically small – 20-80 racks.
- Facilities are mostly hybrid – used for internal purposes that also lease excess capacity to external, mostly enterprise, customers.

(1)Numbers are rounded up (2) Potential/Full-build load is facility capacity assuming that all phases of development have been completed. Additional CapEx would be needed to make the residual capacity operational.
Sources: Xalam Analytics estimates, provider data

Rwanda facility mapping – Kigali metro

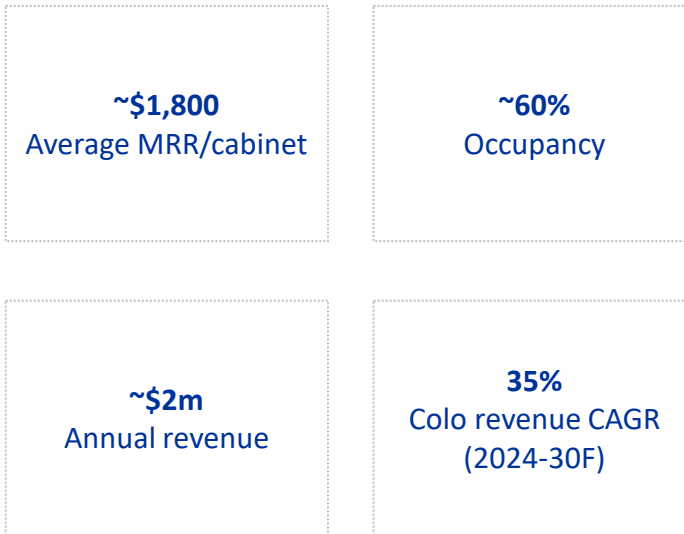


Data center market outlook

The Rwandan data center market is at emerging stage, with relatively high prices and scarce high-quality capacity. The outlook is strong, with market size set to grow 6x from 2024 levels

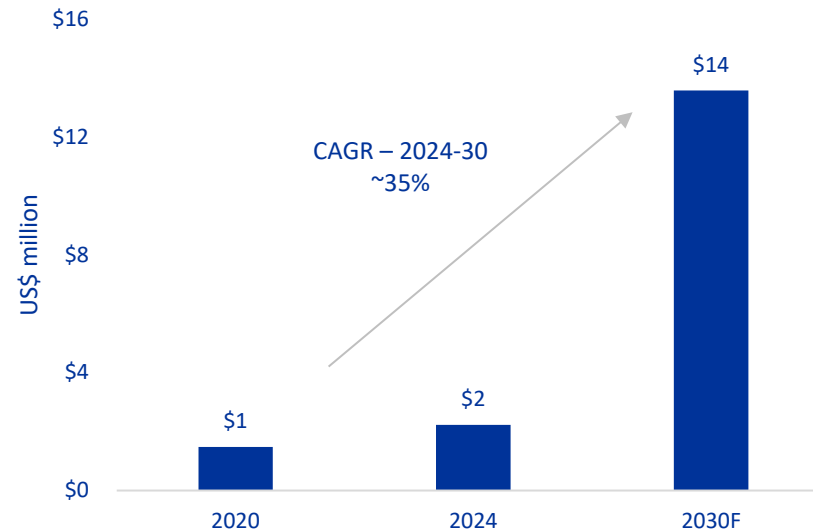
Rwanda – Data center market economics – 2024

Sample market indicators



Rwanda annual commercial colocation revenue

US\$ million



Strong upside potential



- Scarcity market data center economics; mid-level to high colocation prices (\$1,800+ per rack).
- Moderate occupancy rates propped up by relatively small facility size.
- Annual revenue estimated at \$2m.
- Baseline commercial revenue projected to grow by 6x by 2030, from a low base.

Sources: Xalam Analytics estimates, provider data

Key data center market players

The Rwandan data center market mix is primarily comprised of hybrid facilities; more carrier neutral players are coming

Telcos & Fiber Infracos



Focused on mobility and fiber - colocation is an adjacent opportunity.

New entrants/data center specialists



Carrier-neutral data center colocation pure plays

IT/Cloud/MSP



State agency offering a range of IT services, including colocation

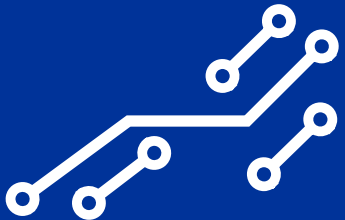
A diverse landscape



- A landscape still dominated by hybrid facilities.
- No pure-play carrier-neutral providers in Rwanda in 2024.
- Facilities are predominantly telco-hybrid facilities, more exchanges and server rooms than pure data centers.
- The arrival of ADC and PAIX will bring the first built-for-purpose, carrier-neutral facilities to the country.



GLOSSARY & KEY DEFINITIONS



Key definitions

Data center	While there are a variety of definitions for data centers, this market review is focused on commercial facilities , that is, facilities that lease colocation white space and power capacity to third-party customers on open, commercial terms, and in exchange for a fee. Captive facilities (bank data centers, telco switch sites and similar) are excluded from this assessment. Estimates focus on facilities at Tier II standard and above, unless otherwise indicated. Where applicable, these estimates include cloud hyperscaler self-built facilities.
Live critical IT load	Capacity that is active, under lease or readily available for lease.
Full build capacity	Data center facilities are typically built in phases; the full-build capacity is capacity assuming all potential phases of build have been completed and are live.
Capacity in construction	Facilities that have broken ground; ongoing civil works, installation and commissioning phases.
Pipeline	Facilities explicitly announced or listed as in development. Some execution phases have been initiated (e.g. land acquisition, power supply commitments, etc.), but no actual civil works have been undertaken.
Carrier-neutral	Facilities not specifically affiliated to a connectivity or cloud vendor, with capacity available to all third-party customers, on equal commercial terms, without explicit or implicit constraints or favoritism. This market review uses a loose definition for carrier-neutral, referring to facilities that are purely carrier-neutral, recognized by the market or effectively managed as such.

Glossary

Below are some of the key abbreviations used in this report

AI	Artificial Intelligence
ASN	Autonomous System Number
bn	billion
CAGR	Compound Annual Growth Rate
CapEx	Capital Expenditures
CDN	Content Delivery Network
Colo	Colocation
DC	Data Center
DIF	Digital Investment Facility
EAC	East African Community
EU	European Union
F	Forecast
FBB	Fixed Broadband
FDI	Foreign Direct Investment
FX	Foreign Exchange
GDP	Gross Domestic Product
GDPR	General Data Protection Regulation
ICT	Information, Communications and Technology
ISP	Internet Service Provider
IPP	Independent Power Producer
IT	Information Technology

kW	Kilowatt
kWh	Kilowatt Hour
LLM	Large Language Models
m	million
MNC	Multinational Corporation
MNO	Mobile Network Operator
MRR	Monthly Recurring Revenue
MSP	Managed Service Provider
MW	Megawatts
NDC	National Data Center
OEM	Original Equipment Manufacturer
POP	Point of Presence
PUE	Power Usage Effectiveness
RFS	Ready For Service
SEZ	Special Economic Zone
SSA	Sub-Saharan Africa
USD	US dollar
PUE	Power Usage Effectiveness
RFS	Ready For Service
SSA	Sub-Saharan Africa
YE	Year end



Learn more:

<https://d4dhub.eu/initiatives/data-governance-in-africa>

