PLAYBOOK

PLATFORM TERACO

CONSUMER RETAIL

DIGITAL INFRASTRUCTURE & CONNECTIVITY GUIDE

in association with datacentrix

TERACO®
A DIGITAL REALTY COMPANY

EXECUTIVE SUMMARY

The retail industry is undergoing a seismic shift. No longer confined to selling products, retailers are transforming into digital-first businesses, embedding omnichannel experiences, advanced data analytics, and financial services into their ecosystems.

Consumers expect seamless interactions across physical stores, e-commerce platforms, mobile apps, and social commerce, driving the need for a robust, scalable, and interconnected IT infrastructure. Delivering frictionless shopping experiences, real-time inventory updates, and secure financial transactions requires a resilient digital platform.

A colocation data centre with a rich ecosystem provides the ideal foundation for retailers to scale, innovate, and interconnect with essential partners in the retail value chain.

This guide is brought to you by Teraco, in association with **Datacentrix.**

TERACO® A DIGITAL REALTY COMPANY

datacentrix

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CHAPTER 1

THE DIGITAL TRANSFORMATION OF RETAIL

Retailers are rapidly evolving to meet consumer demands in an increasingly digital world. No longer confined to bricks and mortar, retail today is driven by data, powered by technology, and scaled through resilient digital infrastructure.

OMNICHANNEL RETAILING

Shoppers move seamlessly between physical and digital touchpoints, expecting real-time access to inventory, unified payment options, and consistent branding across channels. The ability to deliver a frictionless, connected customer experience, regardless of platform or device, is now a baseline expectation. Meeting this demand requires not just smarter applications, but backend infrastructure that is integrated, high-performing, and scalable.

> **Digital infrastructure impact:** Edge computing and interconnection-rich data centre ecosystems enable fast, localised processing and low-latency connections to cloud services and partners which are vital for omnichannel responsiveness.

AI-DRIVEN PERSONALISATION

Data analytics and AI power next-level customer engagement. From dynamic pricing and recommendation engines to real-time chatbot support, retailers are using intelligent systems to anticipate shopper needs and tailor their experience.

> **Digital infrastructure impact:** These AI workloads require high-performance computing, secure data storage, and real-time analytics ideally housed in a hybrid environment that combines the scalability of public cloud with the control of colocation.

SUPPLY CHAIN OPTIMISATION

IoT, automation, and robotics are transforming the supply chain. Real-time tracking, predictive inventory management, and automated fulfilment processes are improving efficiency, reducing waste, and accelerating delivery times.

> **Digital infrastructure impact:** A smart supply chain needs seamless integration with logistics providers, ERP platforms, and fulfilment systems which are best enabled by carrier-neutral, interconnected digital ecosystems.

RETAIL FINTECH

As retailers evolve to offering end-to-end financial experiences, the convergence of commerce and fintech is accelerating. From digital wallets and buy-now-pay-later (BNPL) to embedded finance and loyalty-linked payment systems, financial services are now key to any retail strategy.

While the potential is significant, so are the operational and technological challenges: integrating fintech partners, securing sensitive data, and ensuring uptime for financial transactions all require enterprise-grade infrastructure and compliance-ready environments.

Read: The Growing Role of Financial Services in Retail

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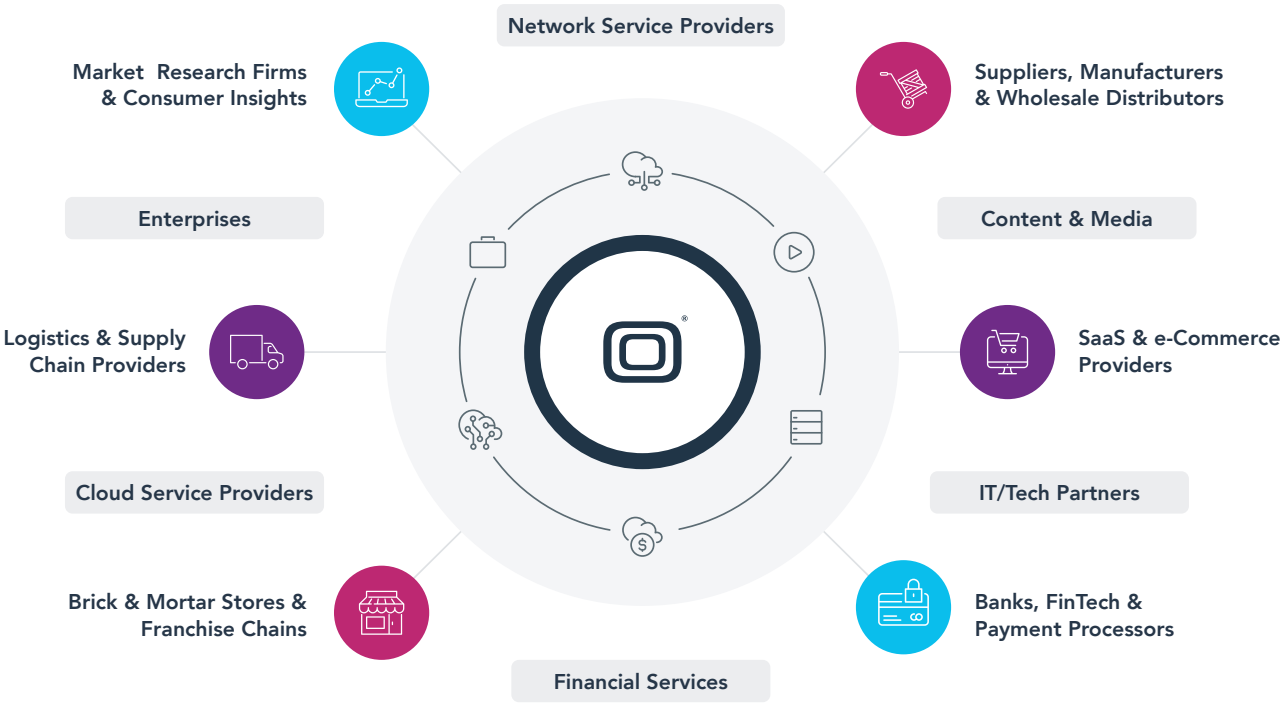
THE DIGITAL RETAIL ECOSYSTEM

The digital retail ecosystem has undergone a major transformation, driven by shifting consumer behaviours and rapid advances in digital technology. What began as a move toward e-commerce has evolved into a fully integrated, omnichannel experience, where customers expect seamless interactions across physical stores, mobile apps, social platforms, and online marketplaces.

To deliver on these expectations, retailers have had to digitally transform their operations, from supply chains and payment systems to customer engagement and fulfilment.



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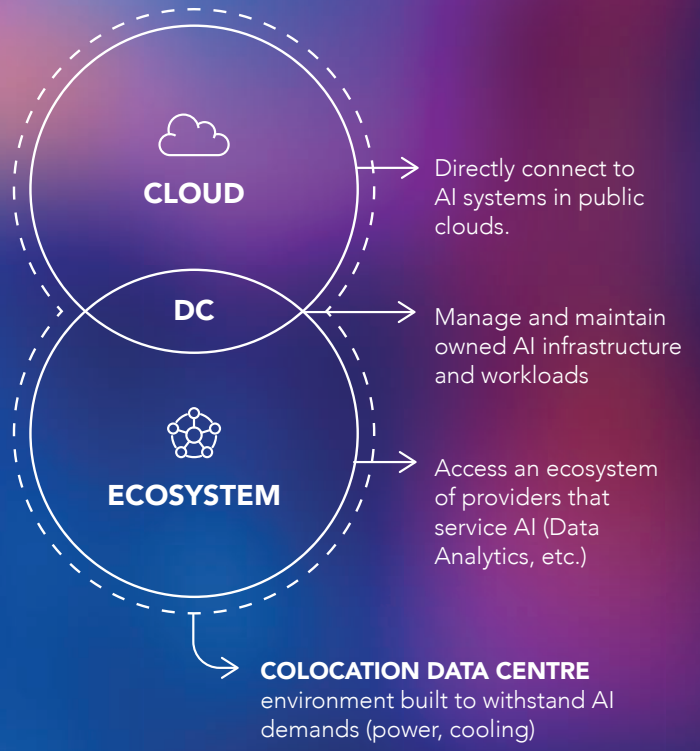
TECH SPOTLIGHT

THE HYBRID AI MODEL

Hybrid AI breaks barriers by integrating cloud networks, private data repositories, and external AI ecosystems.

Ecosystem rich colocation data centres like Teraco are specifically equipped with power and cooling systems designed to handle the intense demands of AI workloads, ensuring continuous and efficient operation.



CHAPTER 2

THE GROWING ROLE OF FINANCIAL SERVICES IN RETAIL

Retailers are no longer just sellers of goods. They're also becoming providers of financial services —loyalty-linked wallets, buy-now-pay-later (BNPL), store credit, and even insurance or savings features are now part of the experience.

As the retail sector embraces digital transformation, financial services have emerged as a strategic pillar in delivering richer, more integrated customer experiences. Whether through embedded payment solutions, loyalty-linked financial products, or digital wallets, retailers are redefining how value is delivered — and captured.

Trends driving retail-fintech growth include:

CASHLESS ECONOMY

Consumers are moving away from cash in favour of digital payments, a trend especially pronounced in emerging markets like Africa, where mobile money and QR-based transactions are leapfrogging traditional banking.

MOBILE-FIRST BANKING

Retailers are launching app-based banking services that allow customers to shop, pay, and manage finances all in one place. This mobile-first approach increases engagement and opens the door to more personalised, data-driven financial products embedded within the shopping experience.

AI-POWERED FINANCIAL SERVICES

Artificial intelligence is enabling smarter decision-making in fintech. Retailers are using AI to assess creditworthiness in real-time, detect fraudulent activity, and tailor financial product offerings based on individual shopping behaviour, creating more relevant and secure user journeys.

CROSS-BORDER PAYMENTS & REMITTANCES

Global e-commerce and international customer bases are pushing retailers to offer cross-border payment and remittance services. This not only drives new revenue but also strengthens customer loyalty across geographies.

BLOCKCHAIN & TOKENISATION

Some retailers are exploring blockchain to enable secure digital transactions, automate rewards programs through tokenisation, and build trust through transparent record-keeping. This trend is still maturing but holds long-term potential for retail-fintech convergence.

> **40%** of consumers prefer retailers that offer embedded finance options.
>
> ACCENTURE, 2024

INFRASTRUCTURE THAT ENABLES INNOVATION

This transformation is enabled by robust, agile infrastructure — and this is where colocation and digital ecosystems become critical.

Retailers expanding into financial services need to process vast amounts of sensitive data in real time, ensure uptime and availability, and connect seamlessly with banking partners, fintechs, payment processors, and cloud platforms. By leveraging colocation facilities, retailers can interconnect with key service providers in low-latency environments that are built for compliance, resilience, and scale.

Colocation also supports edge computing strategies, vital for services like real-time payment authentication and fraud detection, enabling processing closer to where customers transact.

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CHAPTER 3

CHALLENGES RETAILERS FACE

Retailers are balancing innovation with stability. Digital expansion increases exposure to security threats, operational strain, and customer dissatisfaction if systems falter.

As retailers expand their digital services, they face growing infrastructure challenges that impact scalability, security, and efficiency. The move to hybrid commerce, blending in-store and online experiences, places enormous pressure on IT systems to be flexible, secure, and always available. To stay competitive, retailers must address these challenges while optimising costs and adopting sustainable, scalable IT solutions.

REGULATORY COMPLEXITY

Compliance with consumer protection, privacy, and financial laws is crucial for omnichannel operations, especially when offering embedded finance. Regulations differ across regions, and managing compliance across platforms, while maintaining customer experience, requires adaptable systems and secure data environments.

> **Solution insight:** Colocation and cloud-adjacent infrastructure help ensure access to compliance-certified environments with local and regional data sovereignty controls.

SECURITY & FRAUD RISKS

The rise of digital payments, customer data collection, and personalisation strategies makes retailers prime targets for cybercrime. Breaches can erode trust and cause significant financial loss.

> **Solution insight:** Hosting infrastructure within highly secure, certified colocation facilities provides an extra layer of defence, including physical security, access controls, and 24/7 monitoring.

LATENCY & TRANSACTION SPEED

From mobile payments and real-time support to last-minute delivery changes, customers expect near-instant processing. Lag in any touchpoint (checkout, returns, customer service) can lead to churn.

> **Solution insight:** Interconnected data centres located close to key markets ensure ultra-low latency for real-time transactions and critical business applications.

INFRASTRUCTURE COSTS

Building and maintaining on-premise data centres is expensive and often inefficient, especially for retailers needing to scale quickly during peak periods.

> **Solution insight:** Colocation reduces capital expenditure while offering flexibility, uptime guarantees, and direct access to major cloud and connectivity partners.

SCALABILITY & PERFORMANCE MANAGEMENT

Retailers experience unpredictable traffic spikes—think Black Friday, holiday seasons, flash sales—and need the ability to scale up without delay or downtime.

> **Solution insight:** Digital ecosystems within colocation environments allow rapid deployment and resource flexibility, ensuring performance is maintained when demand surges.

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TODAY

CURRENT CHALLENGES

Retail organisations today often operate within complex digital environments shaped by years of rapid transformation. In many cases, technology choices have evolved organically, leading to a patchwork of point solutions that can limit agility and scalability. As a result, IT architectures may become fragmented, creating operational friction and increasing maintenance overhead.

Cloud connectivity, while essential, is not always optimised, reducing the full potential of both cloud-based applications and the value of data generated locally.

Similarly, data storage environments continue to grow in complexity, often influenced by the need to balance cost efficiency with regulatory compliance.

Perhaps most importantly, data silos remain a common challenge. When data is distributed across disparate systems, it can limit the effectiveness of analytics, slow innovation, and create barriers to unlocking new revenue opportunities.

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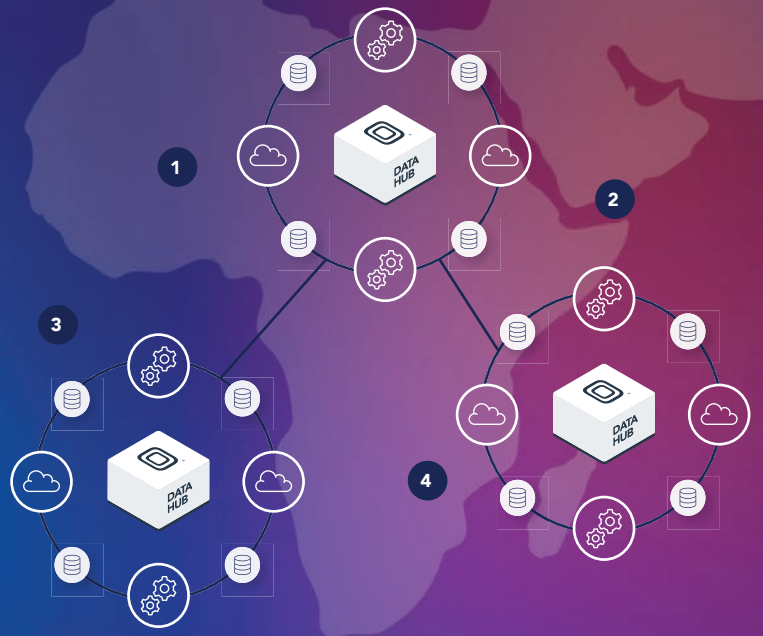
TOMORROW

FUTURE CAPABILITIES

Siloed data | Data | Cloud service provider | Data processing

1. Distributed data for optimal exchange
2. Regionalised data storage for compliance
3. Integrated public and private data
4. Distributed business intelligence unlocking new opportunities



In the modernised retail infrastructure landscape, digital ecosystems are strategically designed to bring compute, storage, and users closer to centres of data exchange. This proximity significantly enhances workflow efficiency, reduces latency, and improves customer experience across digital touchpoints.

Capacity planning becomes more intelligent—aligned to cloud regions and key markets to support elasticity, ensure compliance, and uphold data sovereignty requirements. This alignment empowers retailers to scale on demand without compromising performance or regulatory integrity.

Crucially, public and private data sources are seamlessly integrated, enabling access to real-time intelligence that informs everything from personalised customer journeys to dynamic supply chain decisions. With greater control over the entire data estate, retailers can also unlock new business models, including secure and scalable B2B data exchange, transforming data from a challenge into a strategic asset.

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CHAPTER 4

THE COLOCATION ECOSYSTEM ADVANTAGE

Colocation is more than just rack space, it's the centre of the digital ecosystem. Retailers benefit from strategic proximity to partners, carriers, digital e-commerce providers, fintechs, and cloud providers — all within the same physical facility.

A carrier-neutral colocation data centre provides an interconnected ecosystem, offering:

- **AI-ready infrastructure:** Support high-density workloads with the power, cooling, and scalability needed to run advanced analytics, personalisation engines, and AI-driven operations.
- **Cloud-adjacent architecture:** Gain low-latency access to leading cloud providers (AWS, Azure, Google Cloud), enabling faster deployment and scaling of digital retail applications.
- **Edge computing for real-time retail:** Leverage edge nodes in strategic locations to power instant pricing updates, inventory visibility, customer insights, and smart in-store experiences.
- **Interconnected ecosystem:** Colocation enables direct interconnection with logistics partners, payment processors, banks, fintech platforms, and SaaS providers, supporting seamless, secure transactions and services.
- **Omnichannel resilience:** Ensure always-on infrastructure across all retail channels with high availability, built-in resilience, and disaster recovery to avoid downtime and lost sales.
- **Seamless integration of legacy and cloud:** Connect legacy retail systems to cloud-native platforms via hybrid infrastructure, supporting innovation without disruption.
- **Compliance and data security:** Certified data centres (PCI-DSS, ISO 27001, ISAE 3402 Type II) help retailers meet strict financial and consumer data protection requirements.
- **Fraud and cybersecurity protection:** Robust physical and digital security controls safeguard customer data, payment flows, and backend systems against growing threats.
- **Scalable infrastructure without the CapEx:** Avoid the high cost and complexity of building private data centres while retaining full control, flexibility, and room to scale during peak trading periods.

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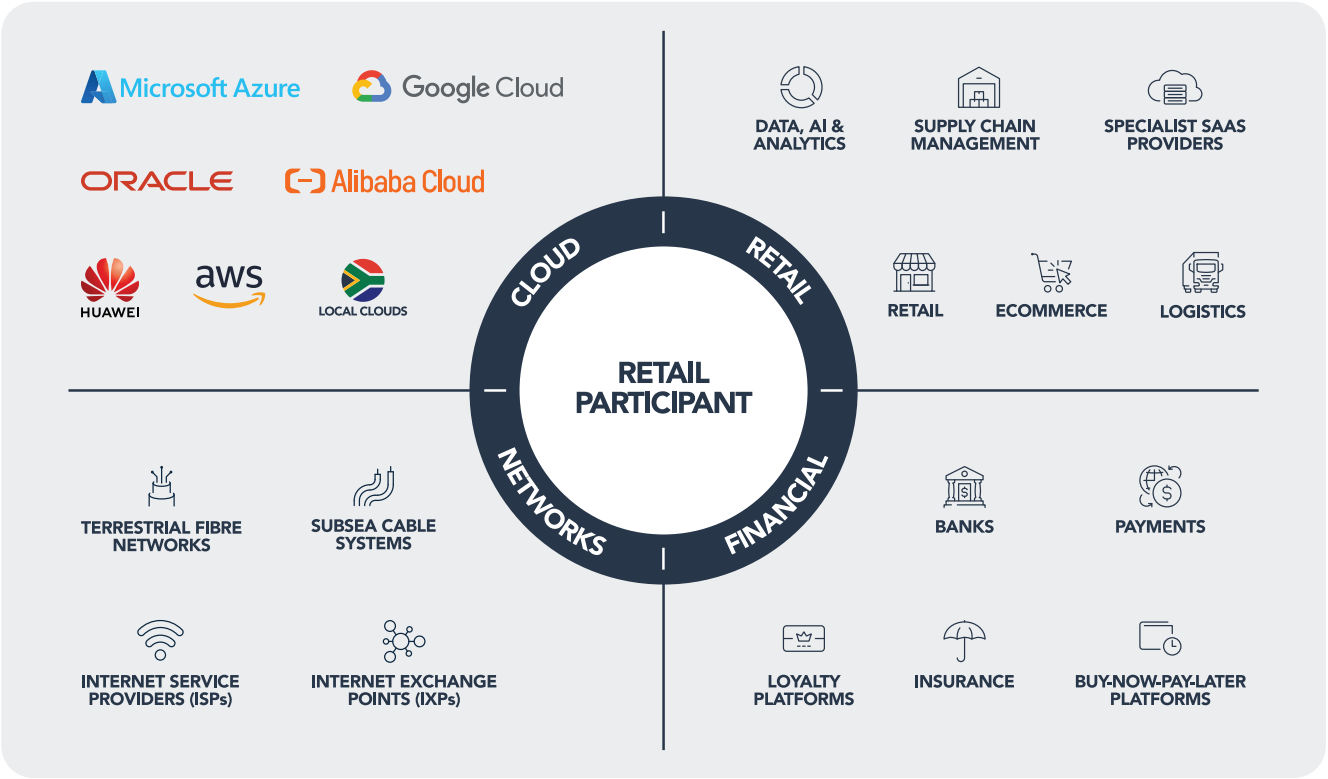
LEVERAGING AFRICA'S LARGEST ECOSYSTEMS FOR RETAILERS

Simplify your connectivity strategy by securely interconnecting within Africa's largest ecosystem.



DIRECT ACCESS TO A NETWORK-DENSE ECOSYSTEM

All major Cloud Service Providers

285+ Network Service Providers

50+ Content Providers

160+ IT Service Providers

160+ Enterprise & FSPs, and

Diverse IXPs and Cybersecurity Providers

27,000+
Cross-connects deployed within Teraco Facilities across South Africa.

16,500+
Cross-connects in Isando

7,250+
Cross-connects in Cape Town

3,250
Cross-connects in Durban

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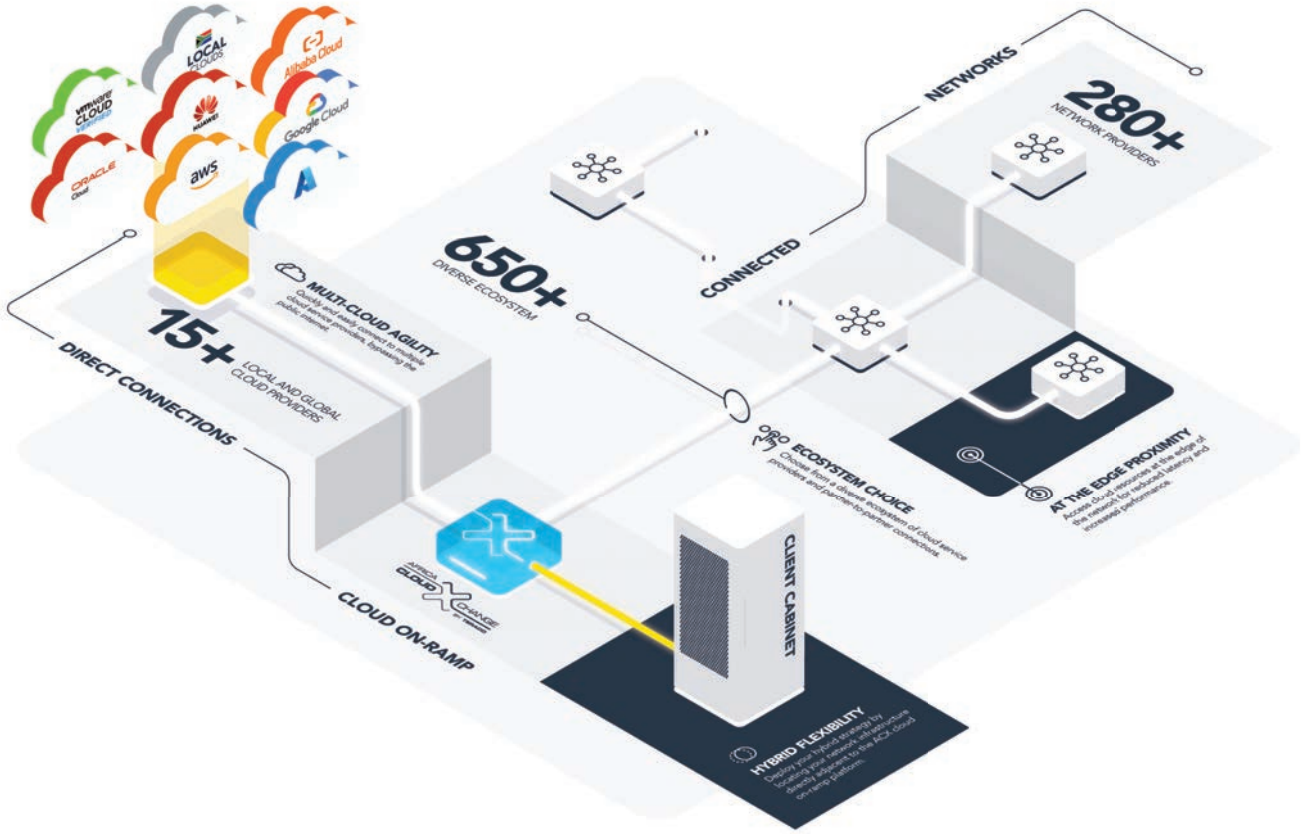
PLATFORM TERACO

POWER YOUR DIGITAL INFRASTRUCTURE

Build and deploy your hybrid IT strategy within Africa's trusted data centre platform. Connect to a diverse ecosystem within a power-resilient, highly secure, and sustainable data centre environment.



- **Colocation Data Centres:** Colocating servers and networking operations within Teraco's carrier-neutral data centre environments provide clients with the widest choice of connectivity, 99.999% SLA guaranteed uptime, stringent security, and optimal operating conditions to support all aspects of critical infrastructure deployment.
- **Cloud On-Ramps:** Teraco's Africa Cloud Exchange (ACX) improves enterprise hybrid and multi-cloud performance through direct interconnection, enabling enterprises to do more in the cloud by providing secure, direct, flexible network connections to a wide range of local and global cloud service providers.
- **Digital Ecosystems:** Teraco is your secure access point into a diverse and dynamic ecosystem of leading services, networks, providers, and partners. Teraco's physical interconnect cabling and virtual interconnection systems allow for the configuration of flexible and scalable interconnections to over 650 networks and upstream service providers.
- **Disaster Recovery:** Teraco's data centre facilities offer disaster-resistant infrastructure and highly resilient IT systems, including reliable power sources, advanced cooling solutions, and robust networking capabilities, ensuring uninterrupted business continuity for clients during challenging situations or unforeseen events.
- **Compliance & Certifications:** Teraco adheres to stringent regulatory requirements, including physical security, data privacy, and environmental standards. Our certifications benefit clients partnering with us directly by providing continuous compliance within our data centre environments, mitigating risk, and reducing vulnerabilities.

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ADHERENCE TO GLOBAL STANDARDS

All our data centres comply with the latest regulatory standards, ensuring the highest level of service. We adhere strictly to international best practices and industry standards to maintain reliability and security. The International Organisation for Standardisation (ISO), the world's largest developer of voluntary international standards, enhances industry efficiency by setting specifications for products, services, and operational practices.

All Teraco facilities are certified under the following standards:

ISO/IEC 27001:2022 CERTIFIED

Information Security Management

ISO 27001 sets standards for managing sensitive company information through a systematic Information Security Management System (ISMS). This framework covers people, processes, and IT Systems.

ISO 9001:2015 CERTIFIED

Quality Management Systems

ISO 9001 verifies that an organisation has a quality management system in place that consistently meets the needs of customers and other relevant stakeholders.

ISO 14001:2015 CERTIFIED

Environmental Management

ISO 14001 verifies that an organisation has a management system in place to improve their environmental performance.

ISO 50001:2018 CERTIFIED

Energy Management

ISO 50001 helps organisations improve their energy performance through a systematic approach. It covers efficiency, use, and consumption, and can be used independently.

ISO 45001:2018 CERTIFIED

Occupational Health & Safety Management System

ISO 45001:2018 provides a framework for organisations to manage risks and improve OH&S performance.

PCI DSS COMPLIANT

PCI DSS 4.0
Payment Card Industry Data Security Standards

Teraco is certified for the physical security requirements of PCI DSS.

ISAE 3402 CERTIFIED TYPE II

ISAE 3402 Type 2 Attestation

For the control principles of availability and security.

BRONZE | Top 35% ecovadis Sustainability Rating NOV 2024

Teraco's sustainability programme is rated by EcoVadis, an objective third-party and the world's largest and most trusted provider of business sustainability ratings.

NVIDIA DGX™-Ready Data Center Partner

NVIDIA DGX-Ready Data Centre

Teraco is equipped to handle AI's complex needs for scalable power, processing, and cooling.

B-BBEE LEVEL 3 Contributor

B-BBEE

Teraco has been certified as a B-BBEE Level 3 contributor, with 110% BEE procurement recognition.

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A SUSTAINABLE FUTURE FOR OUR CLIENTS

100% CLEAN ENERGY BY 2035

R3.5BN TO BUILD
200MW
UTILITY-SCALE **SOLAR**

Mitigating over **500,000**
Tonnes CO_2 per annum

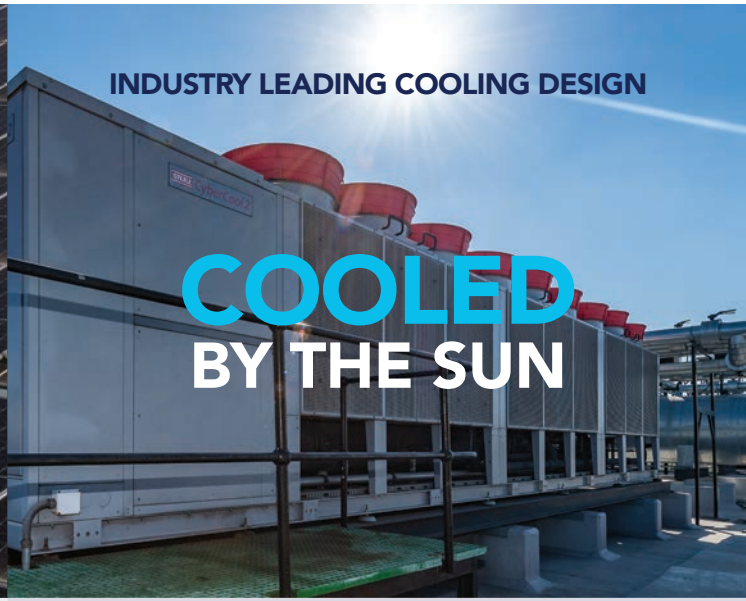
POWERED BY NATURE

10MW
ROOFTOP **SOLAR**

Mitigating over **14,000+**
Tonnes CO_2 per annum*

*By December 2026

INDUSTRY LEADING COOLING DESIGN



COOLED
BY THE SUN

0.1WUE

LESS THAN HALF A CUP OF **WATER**
USED PER IT KWH*

*January to December 2023

3,112,232kWh
ENERGY **SAVINGS**

3,065MtCO_2
AVOIDED **IN 2023**

ZERO WASTE TO LANDFILL BY 2028

40%
OF WASTE
DIVERTED FROM LANDFILL*

*By December 2024

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CONCLUSION

THE FUTURE OF OMNICHANNEL RETAIL RUNS ON COLOCATION

As retailers evolve into digital-first businesses, their IT infrastructure must be secure, agile, and interconnected, capable of handling everything from personalised shopping to real-time financial transactions.

A colocation data centre ecosystem provides the resilience, scalability, and low-latency connectivity required to power the next generation of omnichannel retail.

By partnering with a leading colocation provider, retailers can focus on innovation, customer experience, and business growth, without the burden of managing complex IT infrastructure.

Teraco and Datacentrix have come together to support this evolution by combining world-class data centre infrastructure with trusted IT integration expertise. Through this collaboration, retailers gain access to a robust, interconnected colocation environment alongside comprehensive technology services — empowering them to modernise operations, accelerate digital initiatives, and deliver seamless customer experiences across channels.

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NEXT STEPS

HOW TO GET STARTED WITH RETAIL IT MODERNISATION

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CONTACT US

Get in touch with us to request more information.

Email: cloud.sales@datacentrix.co.za

Web: www.datacentrix.co.za

TERACO DATA CENTRE LOCATIONS

More than 650 organisations including enterprises, Tier-1 carriers, fintech, global and local cloud, content providers, systems integrators, ISPs, security, and storage are colocated within Teraco, providing clients with the greatest connectivity and interconnection choice on the continent.

VIEW OUR LOCATIONS

CONNECTIVITY ROADMAP

Explore the building blocks of a connected enterprise.

DOWNLOAD

AI FOR IT LEADERS

Discover what it takes to build your AI-ready infrastructure strategy.

DOWNLOAD

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About Teraco – a Digital Realty Company

Teraco, a leading carrier-neutral colocation provider in Africa, is the first provider of highly resilient, vendor-neutral data environments in sub-Saharan Africa. With its world-class data centre infrastructure and network-dense ecosystems, Teraco forms a vital part of the African Internet's backbone and is essential to the modern enterprise's digital transformation strategy. Teraco is majority-owned by Digital Realty (NYSE: DLR) – offering customers a global data centre platform designed to enable digital businesses to scale within a highly connected data community across 300+ data centres in 50+ metros and 25+ countries on six continents – together with a continuing interest maintained by a consortium of private equity investors, including Berkshire Partners LLC and Permira.

To learn more about Teraco, please visit **teraco.co.za** or follow us on **LinkedIn** and **X**.

About Datacentrix

Datacentrix is a leading African-born ICT systems integrator and managed services provider that offers high-performance, secure technology solutions to enterprise clients across multiple industries in Africa and the Middle East. With expertise spanning infrastructure, intelligent hybrid cloud solutions, cybersecurity, digital business solutions and managed services, the company helps organisations optimise their IT environments to drive smart operations, resilience and sustainable progress. As a Level One Broad-based Black Economic Empowerment (B-BBEE) Contributor and designated supplier, Datacentrix enables 135% procurement recognition for customers.

To learn more about Datacentrix, please visit **datacentrix.co.za**

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