Infratel

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INFRASTRUCTURE SHARING

How Shared Towers and Fibre backbones unlock connectivity in underserved areas

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Executive Summary

Infrastructure sharing has emerged as one of the most effective strategies to accelerate digital inclusion, especially in underserved and rural areas. By leveraging shared towers and fibre backbones, service providers can significantly lower capital and operational expenditures, minimize environmental impact, and deliver faster, more reliable connectivity. For Zambia, where rural connectivity remains a challenge, infrastructure sharing holds the key to bridging the digital divide, enhancing affordability, and supporting socio-economic development.

This white paper explores the business case for infrastructure sharing, the role of INFRATEL as a national provider, and actionable steps for government, enterprises, and operators to accelerate universal connectivity.

INTRODUCTION

Despite Zambia's progress in digital transformation, rural and underserved regions still struggle with limited access to reliable internet and mobile connectivity. High infrastructure deployment costs and duplication of assets have slowed network expansion. Infrastructure sharing offers a sustainable solution to extend digital infrastructure coverage while optimizing resources.

THE CASE FOR INFRASTRUCTURE SHARING

- Cost Optimization – Building independent towers and fibre backbones for each operator is financially unsustainable. Sharing infrastructure reduces duplication, spreads costs across multiple operators, and enables faster ROI.

- Faster Roll-Out – With shared infrastructure, telecom operators can enter underserved markets quickly without the burden of heavy upfront investment.

- Environmental Benefits – By minimizing duplicate tower construction and fibre trenches, infrastructure sharing reduces land use, power consumption, and overall carbon footprint.

- Regulatory Alignment – Zambia's digital strategy emphasizes collaboration and efficient use of resources. Infrastructure sharing aligns with this vision, fostering healthy competition and innovation while ensuring connectivity for all.

INFRATEL'S ROLE IN DRIVING INFRASTRUCTURE SHARING

INFRATEL, as Zambia's premier digital infrastructure provider, has strategically invested in shared towers and a nationwide fibre backbone. By offering neutral-host infrastructure, INFRATEL provides a platform for operators, ISPs, and enterprises to scale quickly and efficiently.
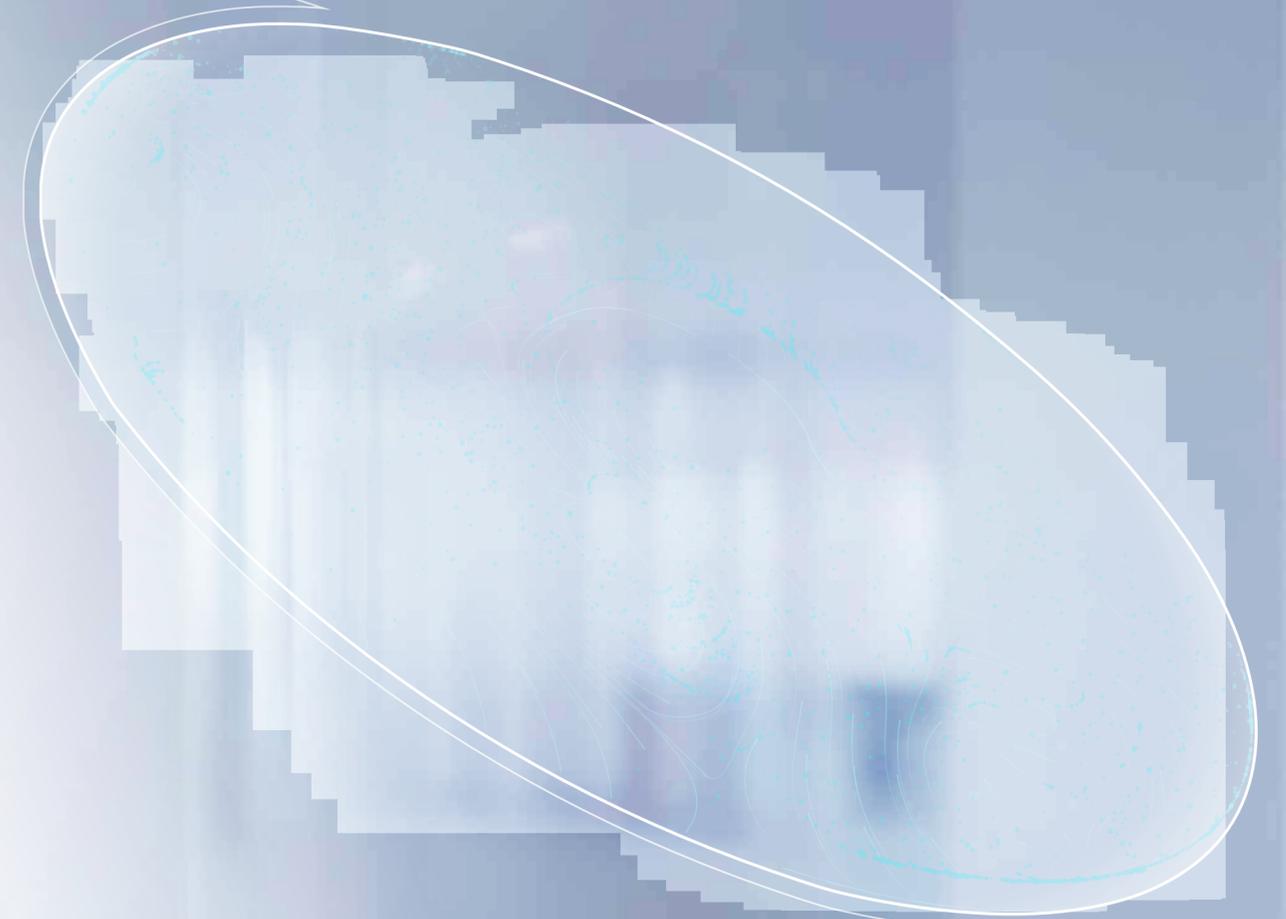
Towers: Over 1,253 towers strategically located across Zambia to support mobile operators and ISPs.

Fibre Backbone: Extensive fibre network connecting major towns, cities, and rural regions.

Neutral Host Model: Ensures a fair, transparent, and cost-effective framework for all operators to benefit.

Business and Social Impact

Telecom Operators – Reduced CAPEX and OPEX, allowing focus on customer acquisition and service quality.

Enterprises – Improved business continuity, cloud access, and reliable connectivity for operations in remote areas.

Government – Increased digital penetration, enhanced service delivery (e-health, e-education, e-agriculture).

Communities – Affordable and reliable connectivity, unlocking economic opportunities and improved quality of life.

Global Best Practices in Infrastructure Sharing

- India: Tower sharing led to exponential growth in mobile penetration.
- Kenya: Shared fibre backbones reduced broadband costs by over 30%.
- Nigeria: Infrastructure sharing accelerated rural mobile connectivity.

These case studies demonstrate the scalability and sustainability of shared models for developing economies.
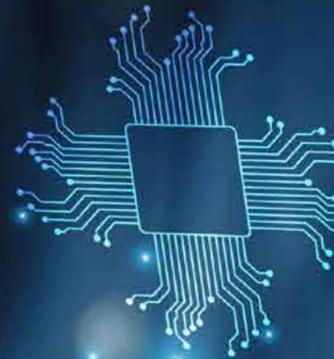
RECOMMENDATIONS FOR ZAMBIA

- Policy Support – Strengthen regulatory incentives for operators to embrace shared infrastructure.

- Public-Private Partnerships – Collaborate with government and donors to extend shared fibre and towers into rural areas.

- Enterprise Engagement – Encourage SMEs and corporates to leverage shared infrastructure for digital transformation.

- Continuous Innovation – Incorporate renewable energy solutions for rural towers to ensure sustainability.

Conclusion

Infrastructure sharing is no longer an option—it is a necessity for Zambia's digital transformation. By embracing shared towers and fibre backbones, the country can ensure affordable, scalable, and sustainable connectivity, particularly in underserved regions. INFRATEL stands at the forefront of this mission, providing the backbone for a truly inclusive digital economy.

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ABOUT INFRATEL

INFRATEL Corporation Limited is Zambia's leading digital infrastructure provider, dedicated to powering digital transformation through Towers, Fibre, Data Centres, and Cloud services. With a focus on innovation, efficiency, and national development, INFRATEL is building Zambia's digital future.

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