Zimbabwe opportunity brief

Giga: An initiative to connect every young person in the world to information, opportunity and choice

October 2020
"It is envisaged that all sectors of the economy and society at large will harness the power of ICT for the development of our nation"

- His Excellency President Emmerson Mnangagwa, President of the Republic of Zimbabwe
Over the last 10 years significant progress has been made to reach the government’s 2020 universal access target

The Government of Zimbabwe is aiming to drive economic growth through digitization, with universal access to connectivity in 2020. Zimbabwe hopes to achieve this target through the following internet connectivity and education policies:

- **Zimbabwe National Policy for ICT 2016**: Set the country on a path to become a knowledge-based society targeting ubiquitous connectivity by 2020. Strategic focus included: closing the digital divide through rural coverage, improved electricity access, ICT skills development and policy streamlining. The policy also includes a target that 30% of applications used by government are developed locally. ICT usage in primary and secondary schools is flagged as a policy priority.

- **Education Sector Strategic Plan (2016-2020)**: Concurrently a major pillar of the education sector plan put ICT at the center of the curriculum and placed an emphasis on the provision of specialist equipment/rooms. The plan also emphasizes the importance of ICT to improve institutional management and administration.

In the last 10 years mobile connectivity has expanded, use has steadily increased

Broadband coverage and internet penetration, % of population. (ITU, 2020)

Note: Figure refers to 4G and broadband networks.
Current status

National Coverage and Connectivity

The country's National Broadband Backbone (NBB) has three international connections. The transmission network has over 9,500km of fiber interconnecting major cities and towns across the country.

<table>
<thead>
<tr>
<th>Subscriptions per 100 inhabitants</th>
<th>Mobile</th>
<th>Fixed</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-year CAGR</td>
<td>52</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>+4%</td>
<td>+4%</td>
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Continued efforts to increase coverage and affordability can help achieve digitally enabled growth for all

Current mobile internet coverage and usage demonstrating the gap

Increase coverage

15.8%

+1 million Zimbabweans
The government targets 100% coverage with at least 3G by 2025.\(^1\)

Increase affordability

47.1%

- $12/GB (-81%)\(^*\)
The average Zimbabwean would pay 10.4% of income for a gigabyte, well above the Broadband Commission’s target of 2%

Increase electrification

37.1%

Power 8.6m off-grid users
Electricity penetration in Zimbabwe is 41%. In rural areas, only 20% of inhabitants have access to power and 85% in urban areas.

Achieve digitally enabled growth for all

80% Internet geographical coverage
Expanding internet penetration to all geographies is seen as a key step to close the digital divide and build an inclusive foundation for national innovation and entrepreneurship

Notes: *Mobile internet prices have fluctuated within the last 12 months, in part due to price increase by POTRAZ but also due to unstable domestic currency. Some sources quote much higher prices, up to $75 (Cable, 2019). 2% GNI per capita is the Broadband Commission’s global recommendation. Note that individuals in remote locations will likely spend a higher proportion due to lower income levels.
Source: ITU (2020) World Telecommunication/ICT Indicators Database
The Giga Solution

School Coverage and Connectivity

Approximately 31% of Zimbabwe’s primary and secondary schools have internet access. In rural areas the vast majority are connected by ADSL or VSAT. Primary schools form the bulk (75%) of the country’s 6,611 unconnected schools.

<table>
<thead>
<tr>
<th>School type</th>
<th>Total</th>
<th>With</th>
<th>Without</th>
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</thead>
<tbody>
<tr>
<td>Primary</td>
<td>6,671</td>
<td>1,751</td>
<td>4,920</td>
</tr>
<tr>
<td>Secondary</td>
<td>2,954</td>
<td>1,263</td>
<td>1,691</td>
</tr>
<tr>
<td>Total</td>
<td>9,625</td>
<td>3,014</td>
<td>6,611</td>
</tr>
</tbody>
</table>


Note: From the 2017 Census to the more recent education statistics report school without internet connectivity actually increased for both primary schools (4,683 to 4,920) and secondary schools (1,499 to 1,691).
Schools present an opportunity to target investment, reach unconnected communities, and enable economic growth.

Universal expansion to all schools provides a gateway to community connectivity.

**Target schools**

- 6,611 Schools targeted for connectivity

**Broadband users**

- 2.6M Students & teachers
- 3.5M Local community members within 1 km

**Economic impact**

- +0.6 billion (1.4%) GDP growth
  Estimated potential rise in domestic production from new broadband connections

Notes: Economic impact calculation assumes that school connectivity is comparable to gaining access to a fixed line connection in a middle/lower income country in terms of reliability, bandwidth, use etc. Assume middle income fixed broadband which is a conservative assumption when compared to low income mobile broadband.

80% of educational institutions state that equipment costs are a barrier to connectivity, 67% cite high internet service fees

A 2017 census of Zimbabwe’s ICT use and internet connectivity indicates the importance of reducing equipment costs and services fees and to a lesser extent empowering usage.

Education institutions without access to the Internet (n=6182)

- **Cost of the equipment is too high**: 80%
- **Cost of the service is too high**: 67%
- **Internet service is not available in the area**: 37%
- **Lack of confidence or skills to use the Internet**: 7%
- **Privacy or security concerns**: 3%
- **Have access to the Internet elsewhere**: 3%

Source: Dalberg Analysis (2020); Information And Communication Technology (ICT) Census (2017) - Access And Use By Education Institutions Report
Giga has started to engage with the Government of Zimbabwe (GoZ)

**Key Stakeholders:**
- The Government of Zimbabwe;
  - Ministry of Information Communication Technology, Postal and Courier Services
  - Ministry of Primary and Secondary Education
  - Ministry of Finance and Economic Development
  - Information Communication Technology, Postal and Courier Services regulators and service providers

- High level support from His Excellency President Emmerson Mnangagwa and line Ministers
- A focal point established at the Ministry of Information Technology and Courier Services
- School mapping data shared with Project Connect Team
- Completion of an upfront assessment to identify priorities, opportunities and initiatives to leverage

### The Value of Giga

“Access to affordable ICTs including the right virtual platforms will make it possible for many learners to achieve their educational goals in an increasingly connected world.”

- Hon. Jenfan Muswere, Minister of Information Communication Technology, Postal and Courier Services in Zimbabwe
An initial analysis has identified several activities to support the cost-effective connection of 6,611 schools and broader digital growth

### Map
A. Use Project Connect mapping to identify schools and refine the investment needs for unconnected schools
B. Utilize ongoing school internet service monitoring and surveys to identify schools that could be well placed for improved connectivity
C. Augment existing service providers programing with real-time monitoring to confirm service levels and report on ongoing internet service coverage

### Connect
A. Work with ISPs and MNOs to identify opportunities to reduce data costs for schools and students
B. Work with providers on developing models for improving speeds/quality of service for schools that are already connected
C. Estimate capex and ongoing opex costs for connecting all schools
D. Support the design of policies and regulatory strategies for affordable last mile access technologies & connectivity options, specifically those applied to school usage, including enabling licensing regime, effective and efficient spectrum management, infrastructure sharing and open access

### Finance
A. Define a partnership and fund strategy and mobilize financing to connect the 6,611 schools that currently lack connectivity
B. Potential to learn lessons and expand on the ongoing school connectivity project and existing processes
C. Co-develop sustainable models for improving affordability of connectivity along with potential incentives for successful public-private partnerships
D. Support the design of policies and regulatory strategies for affordable last mile access technologies & connectivity options, specifically those applied to school usage, including enabling licensing regime, effective and efficient spectrum management, infrastructure sharing and open access

### Empower
A. Work with the Ministries of Education and ICT to explore opportunities for DPGs to play a role alongside other emerging private e-learning platforms
B. Link with UNICEF digital education team on digital curricula, content and teacher training
C. Leverage the Digital Public Goods Alliance to adapt global DPG resources and scale up use
D. Strengthen the entrepreneurial ecosystem to build a pipeline of locally developed digital public services and goods (e.g., link to venture funding and acceleration content for public goods creation)