Broadband Deployment in the Caribbean

From strategy to operations: The end-to-end approach to broadband deployment in the Caribbean

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Almost all Caribbean telcos require **faster and more fixed broadband connections for lower OPEX.**

- **Faster**
  - To support rapid growth of:
    - High-quality Video
    - Cloud services
    - eServices
    - Smart homes
  - To support regular speed increases that reduce pressure to decrease prices.

- **More**
  - To connect the unconnected consumers and businesses in remote areas.

- **Lower OPEX**
  - To replace outdated copper infrastructures that require regular preventative and corrective maintenance for high costs.
Broadband networks need to be future-proof to support the evolution towards Gigabit networks.

Nielsen’s law – exponential growth of data usage

(R)evolution towards Gigabit capable networks

- FttX
- GPON
- 10G-PON
- HFC
- DOCSIS3
- DOCSIS3.1
- Copper
- ADSL
- G-Fast
The June 2018 Ookla Speedtest Global index shows there is a long way to go for the Caribbean.

<table>
<thead>
<tr>
<th>#</th>
<th>Country</th>
<th>Speeds (Mbit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Singapore</td>
<td>181</td>
</tr>
<tr>
<td>2</td>
<td>Hong Kong</td>
<td>151</td>
</tr>
<tr>
<td>3</td>
<td>Iceland</td>
<td>149</td>
</tr>
</tbody>
</table>

Regional Broadband speeds (Mbps)

- Barbados (24)
- Trinidad & Tobago (43)
- Puerto Rico (50)
- Panama (52)
- The Bahamas (74)
- Curacao (72)
- Jamaica (76)
- Dominican Republic (97)
- Belize (107)
- Costa Rica (111)
- El Salvador (116)
- Suriname (121)
- Honduras (125)
- Nicaragua (128)
Successful broadband deployment requires an end-to-end approach.
The end-to-end approach should incorporate best practices in each of the steps.

1. Strategy and business case
   - The strategy needs to include the detailed definition of “deployment areas” and the priority of these.

2. Financing

3. Architecture
   - The strategy and architecture might differ between deployment areas, given the difference in income levels, density, overhead/underground and existing infrastructure.

4. Proposition

5. Survey
   - Simplification is key to provide clarity to customers upon new sales and migration and to operational inefficiencies.

6. Design

7. Procurement

8. Deployment
   - Deployment of Homes Passed network should be a smooth running machine that accelerates to the optimum speed and eliminates all inefficiencies to decrease costs.

9. Migration and new sales
   - An in-home strategy is required to address the increasing complexity of the in-home connectivity.

10. Hand-over
Broadband should not stop at the front door! An in-home strategy is required to prevent this.
The strict demarcation is under pressure. Internet providers need to enter and “own” the home

**Customer responsibility**

- Demarcation at the cable entry.
- Advertised speed achieved when connected to modem with network cable.
- Customer needs to solve all in-home issues. Possibly with inferior/mediocre solutions.
- Severe risk of customers having bad customer experience.

**Provider-managed in-home experience**

- Internet provider enters the home, possibly for a recurring premium.
- Multiple (meshed) APs provide WiFi coverage and capacity throughout the home.
- High-quality (4K) IPTV is supported on multiple TVs.
- Customer and provider can monitor and troubleshoot in-home experience.
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