The unconnected and underserved world (1)

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>World Average</td>
<td>53.6%</td>
</tr>
<tr>
<td>Developing Countries</td>
<td>65.9%</td>
</tr>
<tr>
<td>Developed Countries</td>
<td>18.7%</td>
</tr>
</tbody>
</table>

- Figures based on International Telecommunications Union’s estimates for 2015
The unconnected and underserved world (2)

% of unconnected households

- Europe: 17.9
- Americas: 40.0
- CIS: 39.9
- Arab States: 59.7
- Asia & Pacific: 61.0
- Africa: 89.3
- Developed: 18.7
- Developing: 65.9
- World Avg: 53.6

*figures based on 2015 ITU estimates
OneWeb is here to bridge the Digital Divide

- Prohibitive costs to deploy fibre in rural areas
- Satellite solutions are cost effective
World Class Group of Partners and Shareholders
OneWeb’s Global Constellation

- 648 satellites by 2020 - initial deployment
- Low Earth Orbit - altitude of 1,200 km
- 18 orbital planes - 36 satellites per plane
- Ku-band and Ka-band
- Global coverage with high quality broadband
OneWeb orbit is much lower than Geostationary

OneWeb orbit: 1200 km

Geostationary orbit (GEO): 36,000 km
OneWeb’s Broadband Quality

Comparable to terrestrial internet services

**Speed:**
- Download up to 50 Mbps
- Upload up to 25 Mbps

**Volume:**
- 10 to 150+ GB per month

**Latency:**
- Round trip as low as 50 ms

**Coverage:**
- Everywhere thanks to High elevation angles
OneWeb enables Connectivity and Growth

Citizens inclusion in the Digital Economy

- e-Government
- e-Medicine
- e-Learning
- e-Commerce
- e-Office
- Tele-conferencing
- Cloud computing
- e-Games
OneWeb / Intelsat - Hybrid Network

• Launching 6 Epic\textsuperscript{NG} Satellites and counting
<table>
<thead>
<tr>
<th>Satellite Broadband</th>
<th>Cellular Backhaul</th>
<th>Enterprise Vertical Markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Consumer Residential</td>
<td>• Macro-cell</td>
<td>• Trains/Vehicular</td>
</tr>
<tr>
<td>• Corporate Small Enterprise</td>
<td>• Satellite Trunking</td>
<td>• Maritime / Oil&amp;Gas</td>
</tr>
<tr>
<td>• Integrated Small Cells</td>
<td></td>
<td>• Aeronautical</td>
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<td></td>
<td></td>
<td>• Government</td>
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<tr>
<td></td>
<td></td>
<td>• Public Protection &amp; Disaster Relief</td>
</tr>
</tbody>
</table>
Rural Broadband Access for Schools
Coca Cola Kiosk – integrated Wifi and Cellular
Mobile Broadband
First Responder – Emergency Services
Instant and Constant Infrastructure
Small, low cost and quick to build satellites

- High volume production
- Simple satellites
- Size: ~1 cubic meter, ~150 kg
- Lifetime: 7+ years
- De-orbit capability
OneWeb Ground Network

• Hughes developing and deploying network
• Requires 50-70 sites around the world
OneWeb Launch Campaign from 2018

Arianespace / Soyuz Contract

- 21 Soyuz + options
- 3 Separate launch pads
- First Launch 2017
- Campaign from 2018-2019
Launchers – Virgin Galactic

- 39 Virgin Galactic launches
- From authorized space ports
- Immediate space access
OneWeb is a Good Stewards of Space

OneWeb goal is to operate more cleanly and responsibly than current policies require

- Space is a shared, natural resource that must be protected
- Passionate about preventing debris creation
- Respecting existing space assets
- Ensuring a safe and sustainable space environment
Clean Space

OneWeb is Taking Responsible Measures

- Operating at a safe orbit (1200 km)
- Positional knowledge of satellites (by GPS and radars)
- In-orbit flight coordination & Space data sharing
- Maneuverability and deorbiting of satellite
- High reliability of deorbit components
- Spacecraft “designed for demise” at re-entry
Thank you

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