Airband: Connecting the world’s unconnected

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July 2018
Microsoft Mission

“Empower every person and every organization on the planet to achieve more.” - Satya Nadella
Solving Big Problems

Internet Access
49% of the world is offline.

Energy Access
1.3 billion people worldwide lack access to electricity.

“With no Internet access, there is no cloud access.” - Satya Nadella
Microsoft Airband Initiative Overview

**Mission**
In partnership with Internet access providers, energy access providers and other local entrepreneurs, deploy technologies and business models that reduce the cost of access, grow the overall market, and help billions more customers affordably get online.

**Objectives**
- Develop a pipeline of new partnerships and projects to **incubate new approaches**
- Commercialize, grow, and **scale** existing engagements
- Develop **affordable Internet** access, **energy access**, and other enabling ecosystems

**Areas of Focus**
- Internet Access
- Energy Access

**How**
- **Commercial Partnerships**
  - Rural America
  - International
  - Hardware innovation
- **Grant Fund**
  - Annual grant awards
- **Focus on Key Enabling Verticals**
  - Education
  - Healthcare
  - Agriculture
  - Small business
Airband Projects around the World
The US Broadband Challenge

US broadband access by county
(Average percentage)
- 0% - 32%
- 33% - 66%
- 67% - 100%

Data source: FCC website, February 2016
### Rural areas without access to fixed broadband by state

<table>
<thead>
<tr>
<th>State</th>
<th>Rural Area Population without Access to Fixed Broadband</th>
<th>% of Rural Area Population without Access to Fixed Broadband</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona</td>
<td>523,766</td>
<td>66%</td>
</tr>
<tr>
<td>New Mexico</td>
<td>278,623</td>
<td>57%</td>
</tr>
<tr>
<td>Wyoming</td>
<td>118,432</td>
<td>55%</td>
</tr>
<tr>
<td>Alaska</td>
<td>138,966</td>
<td>54%</td>
</tr>
<tr>
<td>California</td>
<td>1,213,379</td>
<td>54%</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>723,881</td>
<td>54%</td>
</tr>
<tr>
<td>Missouri</td>
<td>915,922</td>
<td>51%</td>
</tr>
<tr>
<td>Mississippi</td>
<td>759,210</td>
<td>50%</td>
</tr>
<tr>
<td>Nevada</td>
<td>92,371</td>
<td>47%</td>
</tr>
<tr>
<td>Louisiana</td>
<td>539,619</td>
<td>43%</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>748,277</td>
<td>43%</td>
</tr>
<tr>
<td>Arkansas</td>
<td>588,620</td>
<td>42%</td>
</tr>
<tr>
<td>Indiana</td>
<td>759,230</td>
<td>42%</td>
</tr>
<tr>
<td>Montana</td>
<td>193,194</td>
<td>41%</td>
</tr>
<tr>
<td>Hawaii</td>
<td>47,887</td>
<td>37%</td>
</tr>
<tr>
<td>Illinois</td>
<td>537,778</td>
<td>37%</td>
</tr>
<tr>
<td>Alabama</td>
<td>724,548</td>
<td>36%</td>
</tr>
<tr>
<td>Oregon</td>
<td>292,848</td>
<td>36%</td>
</tr>
<tr>
<td>Nebraska</td>
<td>175,662</td>
<td>35%</td>
</tr>
<tr>
<td>Kansas</td>
<td>251,502</td>
<td>34%</td>
</tr>
<tr>
<td>Michigan</td>
<td>855,702</td>
<td>34%</td>
</tr>
</tbody>
</table>
The Airband Offering for Commercial Partners

### Airband Offering

<table>
<thead>
<tr>
<th>Expertise</th>
<th>Funds</th>
<th>Azure</th>
<th>Low Cost TV White Spaces Equipment</th>
<th>Digital Skills &amp; Educational Content</th>
<th>Microsoft Reseller Programs</th>
<th>Advocacy &amp; Industry Outreach</th>
<th>PR &amp; Marketing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network design</td>
<td>Co-investment in network deployments</td>
<td>IoT</td>
<td>Basic digital literacy</td>
<td>Cloud Solution Provider Program</td>
<td>Cloud Solution Provider Program</td>
<td>Direct advocacy at both state and federal levels</td>
<td>Microsoft sponsored PR</td>
</tr>
<tr>
<td>TV white spaces</td>
<td>State &amp; federal loan and grant consultation</td>
<td>Data Warehouse</td>
<td>Computer science</td>
<td>Authorized Device Reseller Program</td>
<td>Authorized Device Reseller Program</td>
<td>Connect Americans Now</td>
<td>Co-marketing of products &amp; services</td>
</tr>
<tr>
<td>Cloud solution architecture</td>
<td></td>
<td>Apps</td>
<td>Workforce development</td>
<td>Cloud</td>
<td></td>
<td>Voices for Innovation</td>
<td>Microsoft-branded marketing assets and share of voice</td>
</tr>
</tbody>
</table>

### Feedback Loop & Peer-Based Mentorship

- Note: 1. Coming Soon
### TV White Spaces: one tool in the Connectivity Toolkit

**What is TV white space?**

- Unused spectrum such as traditional UHF and VHF broadcast spectrum
- Regulators allow wireless access devices to transmit on these unoccupied channels as long as they do not interfere with TV broadcasters and other licensed users.

**Who does it benefit?**

- Seniors
- Librarians
- Families
- Teachers
- Students
- Business Owners
- Executives
- Farmers
- Entrepreneurs

**How does it work?**

- Network operators can cost-effectively deploy wireless networks that deliver fast, reliable, and affordable Internet access in rural and underserved communities
- Leverage schools, libraries, or other anchor institutions with high-capacity connections to extend broadband solutions
- TVWS signals can travel over long distances, and penetrate natural and man-made obstacles to cover entire rural communities
- TVWS signals penetrate through more walls and obstacles, enabling whole home media distribution
Equip People of all Ages to be Future Ready

Digital skills programs aligned to local needs with an aim of increasing agriculture, healthcare, education, and small business outcomes.

From basic digital literacy to advanced computer science, digital skills are often out of reach for the people who need them most.
Packerland Announcement

Strategic communications that reaches targeted audiences. Microsoft and Packerland worked collaboratively on an integrated plan using earned and owned channels to secure regional, tech/telecom, and business media coverage.

The results:

- **41 pieces of coverage**, including 28 broadcast pieces reaching ~120K TV viewers and ~334K radio listeners in Michigan and Wisconsin
- **570 organic tweets & retweets**
- **277 press release reposts** on sites including RFD-TV, Yahoo Finance, Markets Insider, etc.
Strategic communications that reaches targeted audiences. Microsoft and Declaration Networks worked collaboratively on an integrated plan using earned and owned channels to secure regional, tech/telecom, and business media coverage.

The results:

• **201 outlets**, including Yahoo!, MarketWatch, RFD-TV, and NBC 12 (VA).

• **80 organic tweets & retweets** from 75 contributors on Twitter reaching 8.4M
Appendix
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