Every1Online (Meta Mesh) Update

February 11, 2021
What is Meta Mesh?

- Originally founded in 2012 as PittMesh LLC
- Non-profit Internet Service Provider
- Goal is to bridge the digital divide by getting broadband internet service to people who need it without burdening them with a monthly bill
- Mission: To bridge the Digital Divide in a meaningful and permanent way by building Community Wireless Networks in Pittsburgh and around the world
Partnership

- Carnegie Mellon University
  - CS Pathways Outreach Program
- University of Pittsburgh
  - Graduate School of Public and International Affairs
  - Pitt IT
  - School of Computing and Information
- Meta Mesh Wireless Communities (WISP)
- KINBER (Pennsylvania’s Statewide network)
Funding Model

- Donations
  - Pitt IT Funded the fiber connection to KINBER
- Grant Funded through CS Pathways program at CMU
  - Hopper Dean Foundation - $200,000
  - R.K. Mellon Grant - $100,000
- Neighborhood Partners

- Funding is used for Infrastructure
  - Antenna on Cathedral of Learning
  - Relay Towers in the Communities
  - End user equipment based on need
Meta Mesh Installation

Repeater Tower

Coraopolis

New Kensington

Homewood

Household Receiver
Initial Communities

- New Kensington
  - AM Radio Tower (WMNY)

- Coraopolis
  - Water Tower

- Homewood
  - Duquesne Light Pole
  - Possible Second Location (Church Tower)
New Kensington (WMNY)
Coraopolis Water Tower
Customer Premise Equipment (CPE)
Current Status

• Coraopolis
  • Waiting for final approval from Water Authority

• New Kensington
  • Secured a tower climber
  • Engineering drawings are approved
  • In process of scheduling a date with Radio Station

• Homewood
  • Working through last few issues with Duquesne Light regarding power

• Allentown (Pittsburgh) Test Site
  • Adjusted aiming on Cathedral of Learning
  • Obtaining between 500 and 600 Mbps
  • Working with RF Engineer to fine tune for more bandwidth
# Bandwidth

<table>
<thead>
<tr>
<th>Affordable options</th>
<th>The Meta Mesh Network</th>
<th>Verizon: Fios Internet Only Plan</th>
<th>Comcast: Internet Essentials Plan</th>
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</thead>
<tbody>
<tr>
<td><strong>How it works</strong></td>
<td>We work with you to come up with a plan that works for your neighborhood and your wallet. The Meta Mesh Network is installed and maintained by Meta Mesh’s local network team. As a non-profit, we secure grants and fundraise to pay for projects. Upgrades are written into the initial grant.</td>
<td>Verizon does not offer a need-based affordable plan. Rather, their Fios Internet Only Plan is the cheapest option for all patrons.</td>
<td>To qualify for the cheapest plan, users must be eligible for public assistance programs such as the National School Lunch Program, Housing Assistance, Medicaid, SNAP, SSI and others. Users cannot be an existing Xfinity Internet customer and have not subscribed to Comcast Internet within the last 90 days. Users must have no outstanding debt to Comcast that is less than one year old.</td>
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<tr>
<td><strong>Download Speed</strong></td>
<td>50 Mbps</td>
<td>200 Mbps</td>
<td>25 Mbps</td>
</tr>
<tr>
<td><strong>Upload Speed</strong></td>
<td>25 Mbps</td>
<td>200 Mbps</td>
<td>3 Mbps</td>
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<tr>
<td><strong>Monthly Service Cost</strong></td>
<td>$10/month (per household) suggested donation for maintenance costs.</td>
<td>$39.99/month, plus taxes.</td>
<td>$9.95/month, plus taxes.</td>
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<tr>
<td><strong>Hardware Cost</strong></td>
<td>Equipment and installation are fully funded</td>
<td>Rent a modem/router for $15/mo. or purchase it for a one-time price of $199.99.</td>
<td>No activation fees and no equipment rental fees</td>
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• Coordinated the Installation of Antennas on Cathedral of Learning

• Funded the connection to KINBER for Internet access

• Consulting on network design

• Supporting through the Community Help Desk

• Installation Technician Volunteers