Mid-Willamette Valley Broadband Consortium
Polk County Presentation
Broadband Survey and School Hotspot Analysis

Why we are doing this
Identify areas where students need better broadband service
Support grant applications for broadband projects
Ensure funding is prioritized to focus on areas of need

Constraints
Data Comes from Diverse Sources
Data was Collected for Varying Purposes
Some of the Data is Proprietary
Geographic Information System (GIS) Data & Tools

**Inputs**
- Past School Surveys/Hotspot Requests
- Other Local Surveys (i.e. Polk County)
- US 2020 Census Data (ESRI)
- Speed Tests?

**Tools**
- Data Sharing (Google Drive)
- Geocoding Services (GIS-ESRI)
- Data Analysis (GIS-ESRI)
- Web Publishing Tools (GIS-ESRI)

**Process Used**
1. Created & Signed Data Sharing Agreements (Dallas SD & Dayton SD)
2. Shared Data using Google Drive
3. Standardized Data
4. Geocoded Addresses
5. Intersected Geocoded Addresses with Census Blocks
6. Built Census Block Statistics
7. Analyzed Data
8. Shared Results – Power Point
1. Created & Signed Data Sharing Agreements

Inter Government Agreement
Between Polk County ("Polk") and Dayton School District ("District")

Whereas, Polk and District are members of the Mid Willamette Valley Broadband Consortium (Consortium) and wish to share data and technical support. This agreement will be executed on 7-6-20.

Whereas, Polk desires to access District data for the purposes of furthering their work for supporting Mid Willamette Valley Broadband Consortium.

Therefore, it is agreed as follows:

1. The District will provide Polk school based internet access data via a private google drive folder.
2. Polk recognizes that the data to which they are accessing is confidential under both state and federal law. Polk agrees to not permit any third party access to such data. Polk shall not disseminate or otherwise publish raw or site specific data.
3. Polk agrees to implement safeguards internally to protect the data from unauthorized access. Such safeguards shall be those generally accepted in the industry.
4. In the event that data from District is somehow breached, accessed or otherwise disseminated in contravention with this agreement, Polk shall notify District as soon as practicable but no longer than 48 hours from the detection of the breach/dissemination.
5. Polk agrees to defend, indemnify and hold harmless District, its agents and officials from any and all liabilities related to Polk’s possession and use of District data. Such indemnity shall survive the length of this agreement.
6. The District agrees the Polk may publish data aggregated to US Census Geographic Units after review and approval by the District. Approvals will be given via email.
7. When the data is longer needed to support Consortium objects or when this agreement is terminated, it shall be destroyed and Polk will provide evidence of such destruction to the satisfaction of Polk.
8. Either party to this agreement may terminate this agreement upon 30 days written notice of termination. In the event of breach of this agreement, it either party may terminate the agreement immediately.

Dated this:

Polk County

[Signature]
Gregory Hanson
Name (print)
Admin, Officer
Title

Dayton School District

[Signature]
Stevens Sugg
Name (print)
Title
2. Collected Data from Participants

(Share spreadsheets on Google Drive)

Dayton School District Hotspots

<table>
<thead>
<tr>
<th>Address</th>
<th>City</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>4285 Broadway</td>
<td>Dayton</td>
<td></td>
</tr>
<tr>
<td>10000 SE Naug Rd</td>
<td>Dayton</td>
<td></td>
</tr>
<tr>
<td>88450 SE Goat Island Loop</td>
<td>Dayton</td>
<td></td>
</tr>
</tbody>
</table>

Dallas School District Hotspots

If needing a hotspot: Physical Address

2301 NW 7th St NW
1015 SW 6th St NW
Salem, OR

If needing a hotspot: Physical Address

9000 SE Hower Rd
10040 SE Goat Island Loop
Dallas, OR

Polk County Survey

<table>
<thead>
<tr>
<th>SurveyID</th>
<th>Use</th>
<th>Speed</th>
<th>Reliable</th>
<th>Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>349408</td>
<td>(Personal,Friends)</td>
<td>Light</td>
<td>BLANK</td>
<td>Cost25</td>
</tr>
<tr>
<td>289265</td>
<td>(Commercial,Employment)</td>
<td>Broadband</td>
<td>3</td>
<td>(NothingBetter, Cost50)</td>
</tr>
<tr>
<td>276115</td>
<td>(Employment,Education)</td>
<td>Light</td>
<td>1</td>
<td>NothingBetter, Cost50</td>
</tr>
<tr>
<td>213859</td>
<td>(Employment,Entertainment)</td>
<td>Moderate</td>
<td>5</td>
<td>None</td>
</tr>
</tbody>
</table>

3. Standardized Data

(Match Columns & Standardize Addresses)
4. “Geocoded” Addresses

(Match addresses to streets with address ranges to create points)

Dayton SD

<table>
<thead>
<tr>
<th>Address</th>
<th>City</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000 E 12th Street</td>
<td>Dayton</td>
</tr>
<tr>
<td>2000 E 12th Street</td>
<td>Dayton</td>
</tr>
<tr>
<td>3000 E 12th Street</td>
<td>Dayton</td>
</tr>
</tbody>
</table>

Dallas SD

<table>
<thead>
<tr>
<th>Street</th>
<th>City</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000 N 12th Street NW</td>
<td>Salem</td>
</tr>
<tr>
<td>2000 N 12th Street NW</td>
<td>Salem</td>
</tr>
<tr>
<td>3000 N 12th Street NW</td>
<td>Salem</td>
</tr>
</tbody>
</table>

Dayton SD: 67 Points
Dallas SD: 209 Points
5. Intersected Geocoded Addresses with Census Blocks

<table>
<thead>
<tr>
<th>Match_addr</th>
<th>GEOID20</th>
</tr>
</thead>
<tbody>
<tr>
<td>48135 SE Turner Creek Rd, Dayton, Oregon, 97114</td>
<td>410710309002024</td>
</tr>
<tr>
<td>10030 SE Watson Rd, Dayton, Oregon, 97114</td>
<td>410710309002024</td>
</tr>
<tr>
<td>4211 SE Webster Rd, Dayton, Oregon, 97114</td>
<td>410710309002032</td>
</tr>
<tr>
<td>45720 SE String Town Rd, Dayton, Oregon, 97114</td>
<td>410710309002024</td>
</tr>
<tr>
<td>16040 SE String Town Rd, Dayton, Oregon, 97114</td>
<td>410710309002024</td>
</tr>
<tr>
<td>16940 SE String Town Rd, Dayton, Oregon, 97114</td>
<td>410710309002025</td>
</tr>
</tbody>
</table>
6. Built Census Block Statistics

(Frequency Count of Hotspots Per Census Block)

- Number of Hotspots Requested Per Census Block

<table>
<thead>
<tr>
<th>GEOID20</th>
<th>Hotspot</th>
</tr>
</thead>
<tbody>
<tr>
<td>410710309002024</td>
<td>4</td>
</tr>
<tr>
<td>410710309002025</td>
<td>1</td>
</tr>
<tr>
<td>410710309002025</td>
<td>1</td>
</tr>
</tbody>
</table>
Geocoded Points & Census Block Statistics

Geocoded Points (Dallas SD, Dayton SD)

Number Hotspots per Census Block
7. Analyzed Data
(Spatial Analysis & Integration with Demographic Data)
7. Analyzed Data
(Compare Counts per Census Block with Other Survey Data)

Barriers to Better Service Exist

Hotspots Requested (Dallas SD)

(Polk County 2021 Survey)
7. Analyzed Polk County Data
(Compare Counts per Census Block of Respondents Regarding Speed)

No Service

< 25Mbps

> 25Mbps

Level Of Services (Polk Co 2021 Survey)
7. Analyzed 2021 Polk County Survey Data to Identify Priority Areas

Polk County Priority Areas and Broadband Projects

IN PROCESS

IN PROCESS

IN PROCESS
# Process Review

## Current Process
1. Created and Signed Data Sharing Agreement
2. Shared Data using Google Drive
3. Standardized Data
4. Geocoded Addresses
5. Intersected Geocoded Addresses with Census Blocks
6. Built Census Block Statistics
7. Analyzed Data
8. Shared Results – Power Point

## Future Process
1. Standardize Survey / Collection Process (*easier to do it first*)
2. Collect Data
3. Get Data Sharing Agreements in Place
4. Share Data
5. Geocode Addresses
6. Intersect Geocoded Addresses with Census Blocks
7. Build Census Block Statistics
8. Analyze Data To Identify Priority Areas
9. Share Results – Web Based Page