TELECOMMUNICATIONS IN SUNRIVER

Gathering Input From Owners

Town Hall Meeting

July 21st, July 28th and August 4th, 2020

Telecommunications Task Force Owner Engagement Team

- Keith Kessaris
- John Salzer
- Gerhard Beenen
TELECOMMUNICATIONS TASK FORCE

- Task Force Chartered January 2019
- Members
  - SROA Management (5)
  - SROA Board Members (4)
  - SROA Residents (2)
  - Rental Agencies (2)
IAMP Owner Survey
January 2020

<table>
<thead>
<tr>
<th>Infrastructure Project</th>
<th>Percent Placing in Top Three</th>
<th>#1 Rank</th>
<th>#2 Rank</th>
<th>#3 Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telecommunications Infrastructure</td>
<td>64%</td>
<td>51%</td>
<td>30%</td>
<td>19%</td>
</tr>
<tr>
<td>Public Works Facility</td>
<td>52%</td>
<td>25%</td>
<td>35%</td>
<td>40%</td>
</tr>
<tr>
<td>New Recycling Center</td>
<td>51%</td>
<td>44%</td>
<td>34%</td>
<td>22%</td>
</tr>
<tr>
<td>Restrooms for pathway system and parks</td>
<td>48%</td>
<td>37%</td>
<td>34%</td>
<td>29%</td>
</tr>
<tr>
<td>Sunriver Service District (Police/Fire)</td>
<td>25%</td>
<td>22%</td>
<td>37%</td>
<td>40%</td>
</tr>
<tr>
<td>Cottonwood Road entrance</td>
<td>15%</td>
<td>24%</td>
<td>28%</td>
<td>48%</td>
</tr>
<tr>
<td>Administrative Facilities</td>
<td>6%</td>
<td>10%</td>
<td>28%</td>
<td>62%</td>
</tr>
</tbody>
</table>
A BRIEF HISTORY OF TELECOMMUNICATIONS IN SUNRIVER

- Chambers Cable: 1997 - 2012
  - Cable TV
  - Internet
- Bendbroadband: 2012 - Present
  - Improvements: 2013
  - Cable TV
  - Internet
  - Phone
- Minor Players
  - Verizon, CenturyLink, BendTel
CURRENT STATUS

- 4,175 homes in Sunriver
  - 85% subscribe to Bendbroadband
- Bendbroadband 10-year contract up for renewal in June 2022

- SROA Telecommunications Task Force Objectives
  - Long-Term Vision
  - Services
  - Improvements
TELECOMMUNICATIONS CHALLENGES IN SUNRIVER

- Dynamic network utilization
- Upload Speed vs Download Speed
- Single Supplier
- Service quality
PREPARING FOR THE FUTURE

- Video services migrating to the Internet
  - Netflix, YouTube TV, Hulu, Sling TV, Amazon Prime Video, etc.
- Internet services increasing in popularity / necessity
- Many services require both high-speed download and upload capability

Estimated global IP traffic per month (in exabyte)

- Video
- File Sharing
- Business Data
- Web and Other Data
- Video Communications
- Voice Communications
- Online Gaming

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<th>Year</th>
<th>Video</th>
<th>File Sharing</th>
<th>Business Data</th>
<th>Web and Other Data</th>
<th>Video Communications</th>
<th>Voice Communications</th>
<th>Online Gaming</th>
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<td>2011</td>
<td>30.7</td>
<td>43.5</td>
<td>19.6</td>
<td>19.8</td>
<td>14.0</td>
<td>12.5</td>
<td>6.4</td>
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<tr>
<td>2012</td>
<td>30.7</td>
<td>59.1</td>
<td>19.6</td>
<td>19.8</td>
<td>14.0</td>
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PROPOSED SOLUTION FOR SUNRIVER

- Upgrade Sunriver Network to Fiber-To-The-Home (FTTH)
  - 1Gbps+ upload and download speeds
  - Improved reliability
  - Eliminate congestion
  - Upgradable

Smart Home
CHOICES FOR OWNERS

Two Options for Achieving FTTH in Sunriver

1. Negotiate a new contract with BendBroadband and require they upgrade their network to FTTH
2. Invest in constructing a Sunriver owner financed FTTH network
YOUR FEEDBACK AND QUESTIONS!