Riverside Public Utilities
Dark Fiber Leasing Program

Inland Empire Regional Broadband Consortium
12 October 2017
RPU Dark Fiber Leasing Program

1. Approved by the City Council in July.
   - Rates, terms and policies set.

2. Dark fiber only.
   - No lit transport (e.g. ethernet).
   - No Internet bandwidth – not an ISP.
   - Provide connections between points A and B (and C and D and...).

3. Developing more connections to ISPs, data centers, exchanges.
   - Connected to County of Riverside's RC3 data center.
   - Connected to CENIC, via UCR.
   - Connected to SCE's 5,000 mile southern California network.
   - Charter is on-net.
   - Connection to Level 3 data center in Riverside is under development.
The Big Questions

• What is dark fiber?

• Where is it?

• How much does it cost?
Dark Fiber 101

Pipe = Dark Fiber

Dark fiber is just an empty pipe.
Dark Fiber 101

Pump = Electronics

Pipe = Dark Fiber

Add electronics, and bits are pumped through it.
Dark Fiber 101

Water = Internet Bandwidth
Pipe = Dark Fiber
Pump = Electronics

Connect it to the Internet, and it talks to the world.
Dark Fiber 101

Water = Internet Bandwidth
Pipe = Dark Fiber
Pump = Electronics
Laterals = Drops

Hook it up to customers, and deliver Internet service.
Dark Fiber 101

RPU is just selling dark fiber.
RPU Dark Fiber Network

- 120 route miles
- Near term growth to 150 miles

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RPU Dark Fiber Network

- 120 route miles
- Near term growth to 150 miles
## RPU Dark Fiber Rate Card

**Monthly Lease Rates**

<table>
<thead>
<tr>
<th>Standard Fiber Service</th>
<th>Per Month</th>
<th>With 10 Year Term Discount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strand-mile, first ten (10) strand miles</td>
<td>$125.00</td>
<td>$87.50</td>
</tr>
<tr>
<td>Strand-mile, additional strand-miles</td>
<td>$100.00</td>
<td>$70.00</td>
</tr>
<tr>
<td>Drops/laterals/end points</td>
<td>$150.00</td>
<td>No discount</td>
</tr>
</tbody>
</table>

- Customers responsible for installation and new construction costs.
- Contact Jerry Buydos at GBuydos@riverside.ca.gov or 951-826-5475 to sign up.
Questions?

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Back up slides

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Distance & location matter

- Benicia: $20,500 per Gbps
- Sacramento: $2,500 per Gbps
- Oakland data center: $400 per Gbps
- Santa Cruz: ~$5,000 per Gbps
- San Jose data center: $50,000+ per Gbps, dropped to ~$6,500
- Salinas: Not available
- Los Angeles: $400 per Gbps
- Riverside data center: $6,500 per Gbps
- Reno: $6,500 per Gbps

Typical prices per month for dedicated, unshared Internet bandwidth.

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Fiber brings the Internet closer

- Los Angeles: $400 per Gbps
- Riverside: $3,500 per Gbps
- Barstow: $2,500 per Gbps

RPU Dark Fiber creates competitive data centers and delivers the result throughout the City.