

LPSD Technology Director Report

September 2022 - Sam Rigby

Travel - Schyler and I started the year with a quick meet and greet at the new teacher training in Anchorage. We then headed out to start the second half of our 2022 site visits (Nondalton, Newhalen, Chignik Bay, Chignik Lake, and Levelock). Our August travel ended at Katmai Lodge for teacher in-service. Schyler wrapped up our 2022 site visits with late September travel to Kokhanok and Port Alsworth.

DRS at Katmai - Two DRS technicians flew out to Katmai the day before LPSD staff arrived to set up and configure a demo of the OneWeb Low Earth Orbit (LEO) internet service that we have been anxiously awaiting. Our staff was able to test LEO and our existing satellite service side by side over the 3 days. The LEO connection did offer higher bandwidth than the 25mbps max currently subsidized by the BAG grant. The LEO service performed well and the lower latency was a positive improvement.

E-Rate - Our current internet contract with DRS expires at the end of FY23 so we are required to send our E-Rate eligible services out for bid this fall. A new contract will be awarded for services starting on July 1, 2023.

- Window to submit FCC Form 470 opens in October. We will request bids for the baseline 25mbps subsidized by the BAG grant and options for increased bandwidth
- Bids will be evaluated and scored as they are received
- No less than 28 days after posting our form 470, we can select a service provider and sign contracts. Multiple providers can be used.
- Starting in January we send our final contracts to USAC to request E-Rate funding and begin the application approval process

This is a consolidated list of bids received during our last E-Rate application. Two services were bid, Geostationary Satellite Service (GEO) and Terrestrial Fiber/Microwave (TERRA). Both services are offered at the same bandwidth (capacity) levels. TERRA offers lower latency and less weather interference than GEO. TERRA's biggest disadvantage is the notably higher cost and it is not available to all schools. Priority Class is generally considered guaranteed bandwidth and Normal Class is a best-effort. Our current service with DRS is GEO Normal Class.

| ISP | Location | Service Type | Bandwidth Down | Bandwidth Up | Monthly Cost | Term |
|-----|------------------|--------------------|----------------|--------------|--------------|--------|
| DRS | All LPSD Schools | GEO Normal Class | 1 | 0 | \$520.04 | 3 Year |
| DRS | All LPSD Schools | GEO Normal Class | 0 | 1 | \$520.04 | 3 Year |
| GCI | All LPSD Schools | GEO Normal Class | 0 | 1 | \$877.00 | 3 Year |
| GCI | All LPSD Schools | GEO Normal Class | 1 | 0 | \$912.00 | 3 Year |
| GCI | All LPSD Schools | GEO Priority Class | 1 | 0 | \$1,350.00 | 3 Year |
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|------------|-------------------------|-------------------------|-----------|----------|--------------------|---------------|
| GCI | PTA - LEV | TERRA Normal Class | 1 | 1 | \$1,805.00 | 3 Year |
| ACS | All LPSD Schools | GEO Normal Class | 25 | 6.25 | \$11,006.00 | 3 Year |
| DRS | All LPSD Schools | GEO Normal Class | 25 | 7 | \$16,641.28 | 3 Year |
| GCI | All LPSD Schools | GEO Normal Class | 25 | 6 | \$28,590.00 | 3 Year |
| GCI | All LPSD Schools | GEO Priority Class | 25 | 6 | \$41,850.00 | 3 Year |
| GCI | PTA - LEV | TERRA Normal Class | 25 | 25 | \$44,205.00 | 3 Year |
| DRS | PTA - LEV | TERRA Normal Class | 25 | 25 | \$57,827.75 | 3 Year |

We are anticipating receiving bids again for both GEO and TERRA internet services, but also for LEO and MEO (Medium Earth Orbit). MEO is a new service to be offered exclusively by DRS. The LEO service is delivered via OneWeb's satellite network but is being offered and sold by multiple ISPs including DRS, ACS, and more.

We received preliminary pricing from ACS and Microcom last year for LEO service.

| <i>Preliminary LEO Pricing</i> | | | | | |
|--------------------------------|-------------------------|---------------------|-----------------------|---------------------|---------------------|
| ISP | Location | Service Type | Bandwidth Down | Bandwidth Up | Monthly Cost |
| <i>ACS</i> | <i>All LPSD Schools</i> | <i>LEO Premium</i> | <i>25</i> | <i>5</i> | <i>\$22,050.00</i> |
| <i>ACS</i> | <i>All LPSD Schools</i> | <i>LEO Premium</i> | <i>50</i> | <i>10</i> | <i>\$44,100.00</i> |
| <i>ACS</i> | <i>All LPSD Schools</i> | <i>LEO Standard</i> | <i>25</i> | <i>5</i> | <i>\$5,291.00</i> |
| <i>ACS</i> | <i>All LPSD Schools</i> | <i>LEO Standard</i> | <i>50</i> | <i>10</i> | <i>\$10,583.00</i> |
| <i>Microcom</i> | <i>All LPSD Schools</i> | <i>LEO Standard</i> | <i>25</i> | <i>5</i> | <i>\$3,430.00</i> |
| <i>Microcom</i> | <i>All LPSD Schools</i> | <i>LEO Standard</i> | <i>50</i> | <i>10</i> | <i>\$6,858.00</i> |