# 1. <u>Description of Application</u>:

By this filing, and Pursuant to 47 C.F.R. § 25.115, Pacific Dataport, Inc. ("PDI") seeks authority to operate a 9.4 meter gateway-type earth station, at LBISat's Eagle Mountain Teleport in Eagle Mountain, Utah. The gateway earth station will be used to communicate with commercial satellites located in the geostationary arc between 138.9 degrees West Longitude and 163 degrees West Longitude that are included on the FCC's Permitted Space Station List ("Permitted List").

### 2. Background:

PDI, a US Delaware corporation with headquarters in Anchorage, Alaska, whose purpose is to make available high quality, affordable, satellite broadband services to all of Alaska and the surrounding Pacific Ocean Region. PDI's management and strategic partners have extensive expertise in all aspects of satellite system implementation and operation, as well as equally strong market expertise and distribution capability throughout the target service area. The company's founding shareholder, Microcom, has more than 35 years as the leading provider of satellite systems and services throughout Alaska (<a href="www.Microcom.tv">www.Microcom.tv</a>). PDI already holds a blanket earth station license for the provisions of broadband and other types of communications services.

PDI plans initially to acquire satellite capacity from satellites on the FCC's Permitted List, and resell it on a wholesale basis to distribution partners throughout the State and surrounding Pacific Ocean Region. In the near future, PDI plans to procure, own and operate its own satellites for this purpose.

# 3. Public Interest Benefits:

Grant of this application will serve the public interest by enabling PDI to address the shortfall in affordable broadband capacity in rural Alaska and throughout the State, across a range of vertical markets.

There is a significant gap between demand and availability of broadband capacity in Alaska and unless there is a change to the status quo, this gap will continue to widen over the next decade. In many of Alaska's smaller, more remote villages, getting on the Internet at any speed (i.e., not broadband) means a trip to the local school or library. There is significant disparity across Alaska in terms of broadband access. While Anchorage, Fairbanks, and some other Alaskan urban areas have reasonable broadband services (though still expensive by lower 48 State standards), most of the geography of Alaska has no broadband access at all. Specifically, in a State with only 740,000 residents, 143,000 Alaskans have no broadband, or less than 25 Mbps download speed, 127,000 Alaskans are served by only one provider, and 44,000 Alaskans do not have any wired internet providers where they live.

Because of Alaska's vast geographical area, difficult terrain and harsh climate, coupled with very low density populations scattered throughout Alaska's rural areas, High Throughput Satellite ("HTS") is the only cost-effective way to cover all of Alaska with broadband, and the only way to bring essential, high-speed service to consumers, healthcare, schools and businesses throughout the State. HTS technology is an equalizer in Alaska and will allow the most remote locations to access information that would otherwise be unavailable.

# 4. Gateway Antenna:

The proposed gateway earth station will meet the antenna performance mask specified in Section 25.209(a) of the Commission's rules. The off-axis EIRP density levels specified in Section 25.138(a) are met with the 9.4 meter Ka-band ASC Signal antenna type.

Table 1: Gateway Earth Station Site:

- Site Contact Information:
  - LBISat Teleport
  - o Eagle Mountain, Utah
  - o Phone:1 (801) 501 9090
- Antenna Manufacturer: ASC Signal (Kratos)
- Antenna Diameter (meters):9.4
- Latitude (N):40 17' 8.5"
- Longitude (W):112 1'25.8"

### 5. Operating Frequencies:

The earth station will operate in the 18.3-19.3 GHz and 19.7-20.2 GHz downlink frequencies and the 28.35-29.1 GHz and 29.3-30.0 GHz uplink frequencies. The earth station will communicate with satellites on the FCC's Permitted List in the 18.3-18.8 GHz, 19.7-20.2 GHz, 28.35-28.6 GHz and 29.3-30.0 GHz band segments. (*See Exhibit A – Frequency Bands*)

PDI recognizes, in accordance with the FCC frequency allocation tables, that the GSO satellites it plans to communicate with are authorized to operate in the 18.3-18.8 GHz, 19.7-20.2 GHz, 28.35-28.6 GHz, and 29.5-30.0 GHz frequencies on a primary basis.

#### 6. Consistency with Co-Frequency Operations:

The proposed operations are compatible with the operations of adjacent GSO systems, as well as co-frequency NGSO systems, primary terrestrial users, and BSS feeder link Earth-to space transmissions.

Section 25.132(a)(2) provides that earth stations operating in the 18.3-18.8 GHz, 19.7-

20.2 GHz, 28.35-28.6 GHz and 29.5-30.0 GHz band segments must demonstrate compliance with Section 25.138.4. The antenna meets the performance requirements in Section 25.138(a) in the direction of the GSO arc, as well as in all other directions, as illustrated by the Range Test Report, ASC 9.4m Ka Band Antenna filed as [Exhibit B]. PDI also includes a Radiation Hazard Analysis filed as [Exhibit C] developed in accordance with the prediction methods contained in OET Bulleting No. 65, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields," Edition 97-01, pp 26-30.

PDI expects that the power flux-density at the earth's surface produced by emissions from the various satellites with which it will communicate are within the -118 dBW/m2/MHz limit set forth in Section 25.138(a)(6).

When plotted against the current Section 25.209(a) and (b) mask as revised by the Part 25 Second Report and Order, the receive performance complies with the modified mask. Therefore, the earth station would be entitled to protection in the 18.3-18.8 GHz and 18.7-20.2 GHz band segments at levels established in Section 25.209 that is expected to be in effect at the time the requested earth station authorization is issued.

### 7. Radiation Hazard Analysis:

A radiation hazard analysis for the proposed antenna is attached hereto as Exhibit C. As demonstrated by the results of the analysis, harmful levels will not be present in areas occupied by the general population, and the antenna does not present a risk to trained personnel in the controlled area in the immediate vicinity of the antenna.

### 8. FAA Notification:

The proposed 9.4-meter antenna is exempt from notification to the FAA under Section 17.7(e)(1) of the Commission's rules because the antenna is adjacent to structures of greater overall height.

#### 9. Conclusion

For the foregoing reasons, granting PDI's request to operate its gateway at LBISat's Teleport facilities in Eagle Mountain, Utah, to communicate with satellites on the FCC's Permitted List in the range of 138.9 degrees West Longitude to 163 degrees West Longitude, will serve the public interest, convenience and necessity. PDI respectfully requests that the Commission promptly grant this application.