Web-based real time meteorological lightning tracking, monitoring and alert management system – subscription service for a region of 10,00,000 sq km centered at TERLS, VSSC *(8.5301833 ⁰N, 76.869650 ⁰E)* for a period of one year

<u>Detailed Specifications:</u>

(1) The web based real-time meteorological lightning monitoring system should use Lightning Data from network of ground based lightning sensors / high precision lightning detection network to provide alerts in any location around the specified area.

(2) The web based application should be able to access via desktop or mobile device using any modern web browser from any location with internet access. Automated alerts can be sent by email, SMS to multiple email addresses, devices, or phone numbers.

(3) Minimum 10 numbers of login IDs and passwords should be provided for accessing the data.

(4) The display options should have cloud-to-ground, ground-to-cloud, inter-cloud/intra-cloud lightning representation on a map.

(5) The real time lightning information should be updated every 30 seconds.

(6) Display should include lightning polarity, magnitude of each strike, latitude and longitude of each strike and a color-scaled time stamp to visualize storm path.

(7) The web based subscription should include: Time discrimination of lightning to determine previously occurred lightning stroke through color coded symbols:
   - 0 to 25 minutes, 5 minute increments
   - 0 to 120 minutes, 15 and 30 minute increments

with display of coordinates that follow the cursor Zoom and Pan with dedicated zoom area selection

(8) The system should have the ability to measure distance between two points (e.g. between strike location and asset), and the ability to measure time of occurrence, the amplitude (unit: kA) with polarity, latitude and longitude of each lightning strike.

(9) Provision for replaying the lightning data for past 150 hours or more should be provided.

(10) Alarm radius at 8 km, caution radius at 24 km and information radius at 48 km centered at TERLS should be provided.

(11) Alert notification table should be provided (for alarm, caution and information radius) for the last one month with alert notification information (such as first and last lightning time & duration of the event etc.)

(12) The web based subscription should have multiple alert setting options, including additional alert sites, levels of alerts (Information, Warning, and Alarm) depending on the distance to the site, optional custom alert-area shape, choice of alert-triggering criteria, up to a 30-day alert history and all clear alert notification.

General Terms and Conditions:

- The supplier must give complete technical catalogue. Offers with no technical catalogue are liable to be rejected. Also the supplier must provide a demo username and password/ screen shots for the web based subscription if required for any clarification.
- The party should provide a demo subscription for the required region at least for a period of one month if requested by VSSC for validation purposes.
- The party should start the subscription within one month from the date of receipt of the Purchase Order.
- The bidders shall submit a detailed item wise compliance statement with remarks to each specifications / requirement in the tender document along with original brochure of their proposed system.