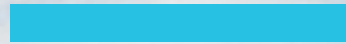


**BOUNDLESS CONNECTIVITY**



**Corporate Presentation on Growth Drivers & Business Prospects**

Updated as at 14<sup>th</sup> December 2020



## Our Core Mission



**To optimise customers' real business potentials  
by their harnessing of products & services offered by us**

# Our Business Pillars

| Business Pillar   | Target Application/Industry   |
|---|---|
| <b>1 Inter-Satellite Data Relay System (“IDRS”)-Related Business</b>  | <ul style="list-style-type: none"><li>• For Low-Earth-Orbit space industry</li></ul>  |
| <b>2 Integrated Products &amp; Services (“IPS”)-Related Business</b> <ul style="list-style-type: none"><li>• Via Vessel Monitoring System (“VMS”) solutions (in compliance with fisheries laws)</li><li>• Via Internet-of-Things (“IoT”)/Machine-to-Machine (“M2M”) connectivity</li></ul>          | <ul style="list-style-type: none"><li>• For fisheries sustainability</li><li>• For environmental sustainability</li><li>• For disaster response</li><li>• For governmental programs</li></ul> |
| <b>3 Reconfigurable Embedded System (“RES”)-Related Business</b> <ul style="list-style-type: none"><li>• Via Software Defined Radio (“SDR”) in catering to increasing need for agile communications</li><li>• Via FPGA/System-on-Chip (“SoC”) in catering for Edge Computing applications</li></ul> | <ul style="list-style-type: none"><li>• For government organizations</li><li>• For commercial enterprises</li></ul>   |
| <b>4 Design-cum-Supply Business</b>   | <ul style="list-style-type: none"><li>• For design &amp; supply contracts aiming at global industrial movements for digital connectivity &amp; applications</li></ul>                         |

# Our IDRS-Related Business

## THE WORLD'S FIRST

and presently the only communications system relayed through a GEO satellite constellation system for commercial Low-Earth-Orbit ("LEO") satellite operators

### TRADITIONAL

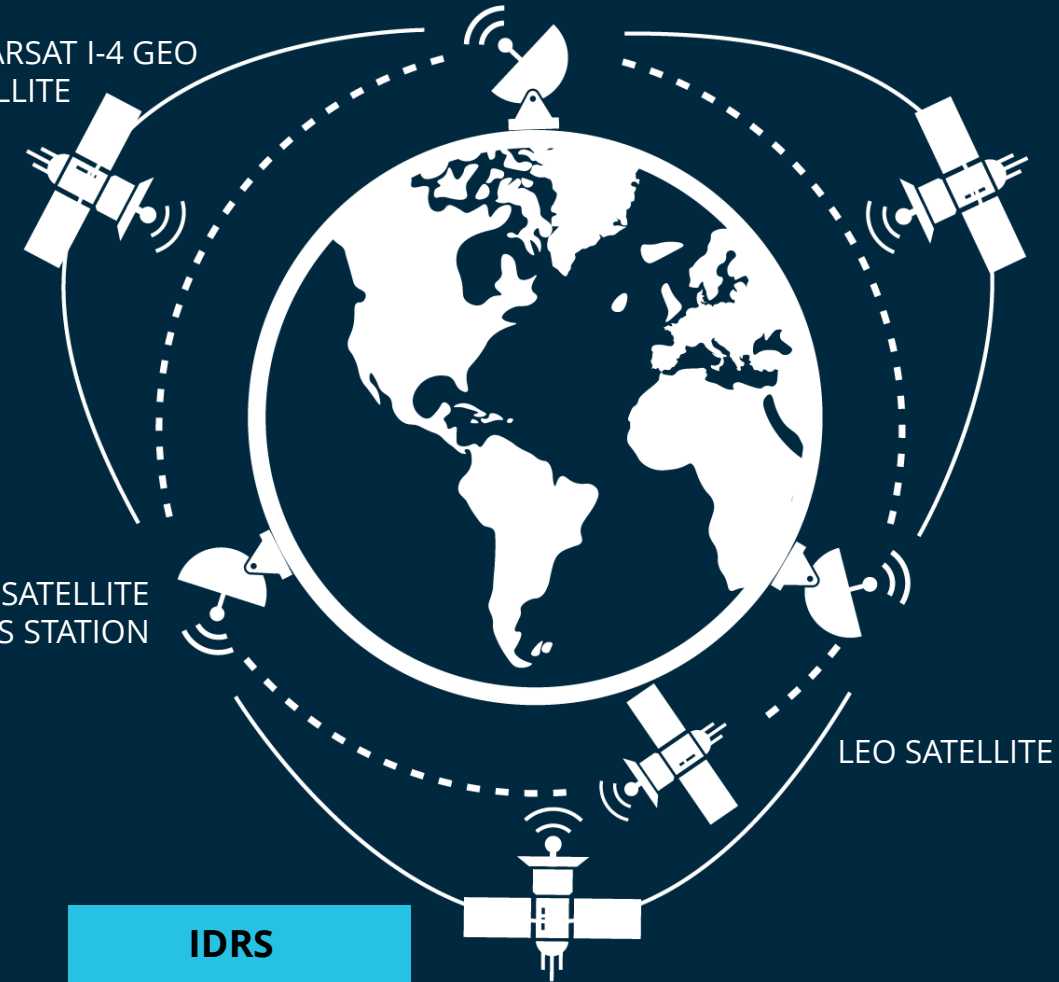
GROUND STATION



LEO SATELLITE

INMARSAT I-4 GEO SATELLITE

INMARSAT SATELLITE ACCESS STATION



LEO SATELLITE

### IDRS

**GLOBAL coverage**

Builds on use of INMARSAT-4 constellation

**GLOBAL connectivity**

Builds on use of BGAN ground infrastructure

# Our IDRS-Related Business

- Allows 24 x7 continuous monitoring and control
- Increase connection time with LEO satellites by up to **2375%**
- Revenue to be generated from:
  - Sales of flight equipment
  - Engineering service for ground test support
  - Data connectivity service, including provision of solution/airtime

TRADITIONAL



Communication with LEO satellite is around 4% of the orbit

WITH IDRS



Communication with LEO satellite is up to 99% of the orbit

# Our IDRS-Related Business - Key Diverse Growth Drivers

- **LEO satellite market to reach US\$3.6 billion by 2026 from US\$1.97 billion in 2020 at a CAGR of 10.5% p.a.\***
- **LEO satellite industry now experiences a space race for many enterprise, government & consumer activities**
- **Potential IDRS customers from the LEO satellite industry include:**
  - All sorts of earth observations mission providers (be it Optical-based or Synthetic Aperture Radar ("SAR")-based)
  - Satellite manufacturers
  - Hosted payloads service providers
  - Remote IoT sensing operators
  - Ground station service providers
  - Special missions such as space debris disposal, shooting stars shows
- **Addvalue now stands ready to offer commercial IDRS service in partnership with Inmarsat**
  - World's first and currently the only IDRS commercial service available globally

*\*Based on Industry Research*

# Our IDRS-Related Business - Business Prospects

- **Secured 3 clients (including Capella Space (“CS”)) to date**
  - First commercial satellite (embedded with our IDRS terminal) successfully launched to orbit on 31 Aug 2020
  - IDRS service commissioned in Nov 2020 for “Sequoia”, the first of CS’s constellation of 36 SAR satellites
  - Airtime revenue to follow suit soon; such will grow in tandem with the built-up of full satellite constellation
  - Additional IDRS terminals shipped to CS for imminent launches
  - A total of 7 IDRS terminals delivered so far for clients’ launch missions
  - In excess of 120 satellites to be deployed in accordance with existing 3 clients’ constellation plans
- **Sales pipeline comprises space industry heavy weights, established players & well-funded start-ups**
  - More than 30 potential customers at various stages of discussion, representing an aggregate of at least 700 satellites
  - Expect to sign at least 2 new accounts by end FY2021 for an aggregate of at least 49 additional satellites

# Our IPS (VMS)-Related Business – Key Diverse Growth Drivers

- **Increasing global awareness of sustainable fishing**
  - Push by global governments for law enforced measures in monitoring fishing activities
- **Global gravitation towards digital-driven economy**
  - Accelerated adoption of digital platforms by fishing industries
- **Riding on high growth addressable market now standing at > 1,500,000 vessels\* globally:**
  - Vessel length > 24m                      50,000 vessels\*
  - Vessel length 12–24m                      154,000 vessels\*
  - Vessel length < 12m                      1.385 million vessels\*

*\*Based on survey by Inmarsat*



# Our IPS (VMS)-Related Business – Business Prospects

- **Our VMS solutions (embedded in our iFleetOne terminals) were duly certified by :**

- United States National Marine Fisheries Services, USA (“NMFS”) a.k.a. National Oceanic and Atmospheric Administration, USA (“NOAA”) Fisheries
- Pacific Islands Forum Fisheries Agency (“FFA”)
- Western and Central Pacific Fisheries Commission (“WCPFC”)

- **Partnership/Agent forged to date:**

- CTTIC Shanghai Co Ltd, an affiliate of China Ministry of Transport
- Pivotel, USA
- Mackay Communications, USA

- **Targeted operating sea region:**

- Pacific Ocean, East Asia, SEA & South Asia sea regions
- South east of USA & the Gulf of Mexico sea regions
- North America, the Gulf of Mexico & Pacific Ocean sea regions

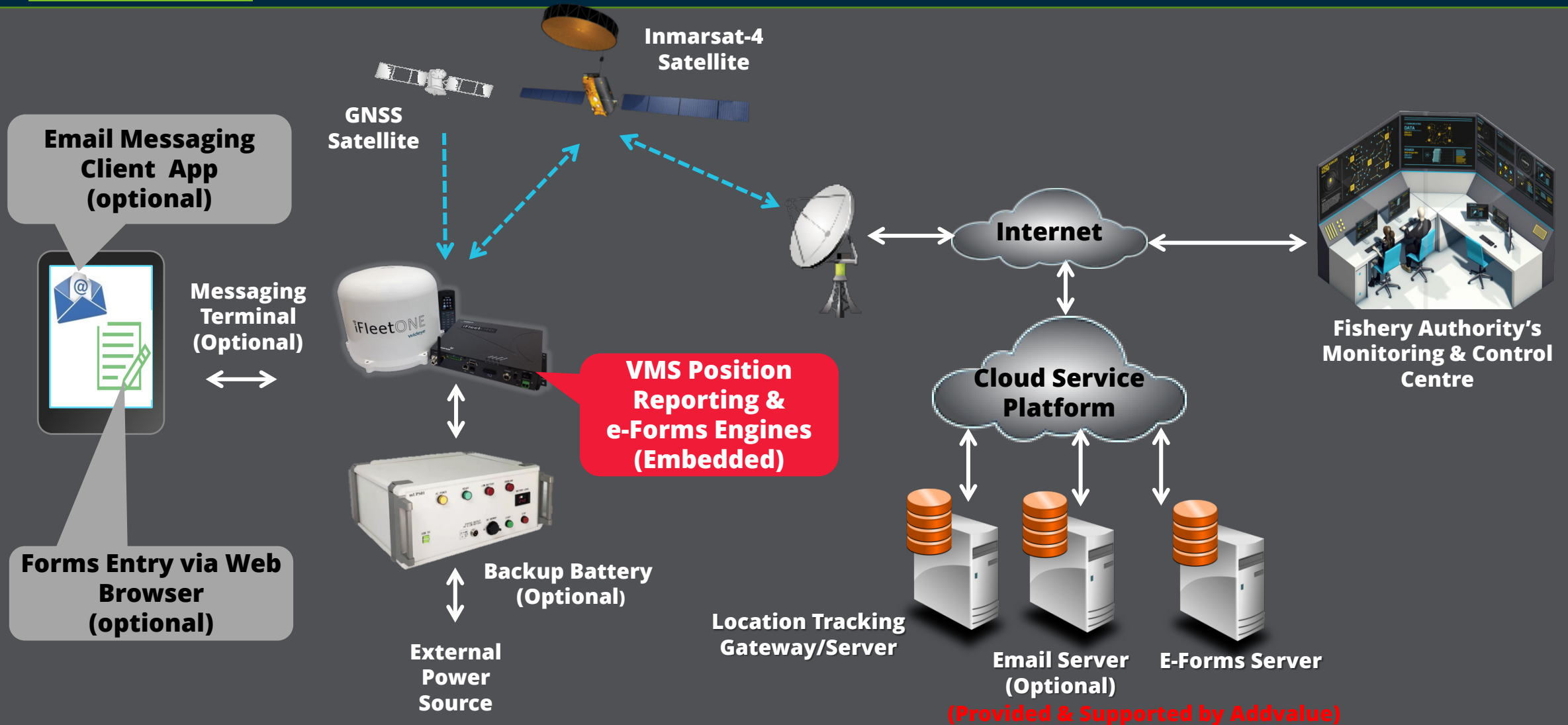
- **A combined target of more than 20,000 vessels in respect of the mandatory tracking and fishing trip declaration reporting market in the North America & Pacific Ocean sea regions**

- Expect to capture at least 1,000 vessels (in generating a combined revenue equivalent to about US\$2 million) within the next 12 months
- Expect to generate at least US\$2 million in recurring solution/airtime subscription income annually upon the garnering of a market share of 30% of the target market

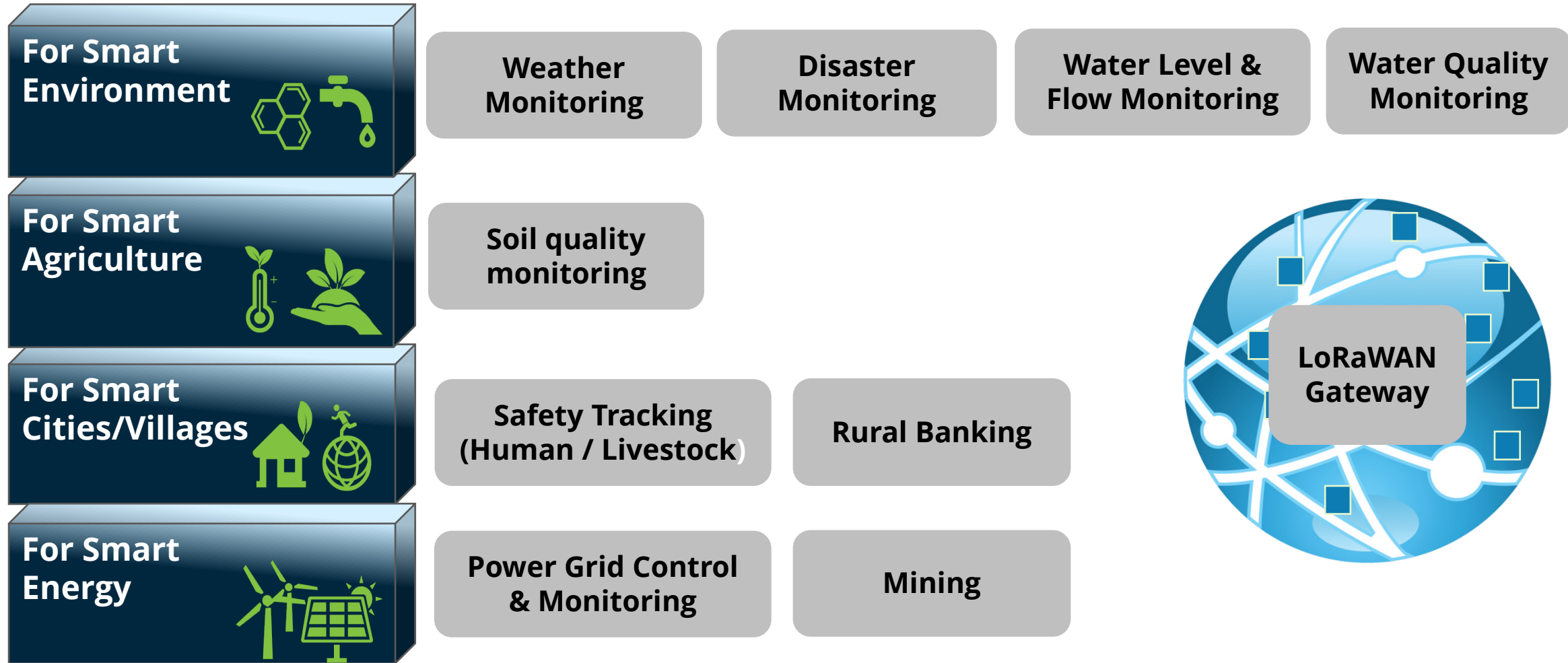
- **Other target fishing vessel opportunities:**

- South East Asia sea regions with a fishing fleet size of more than 180,000 vessels
- South Asia sea regions with a fishing fleet market size of more than 140,000 vessels
- EU fisheries industry

# Our IPS (VMS)-Related Business – For End-to-End Solutions



# Our IPS (IoT/M2M)-Related Business – Key Diverse Growth Drivers

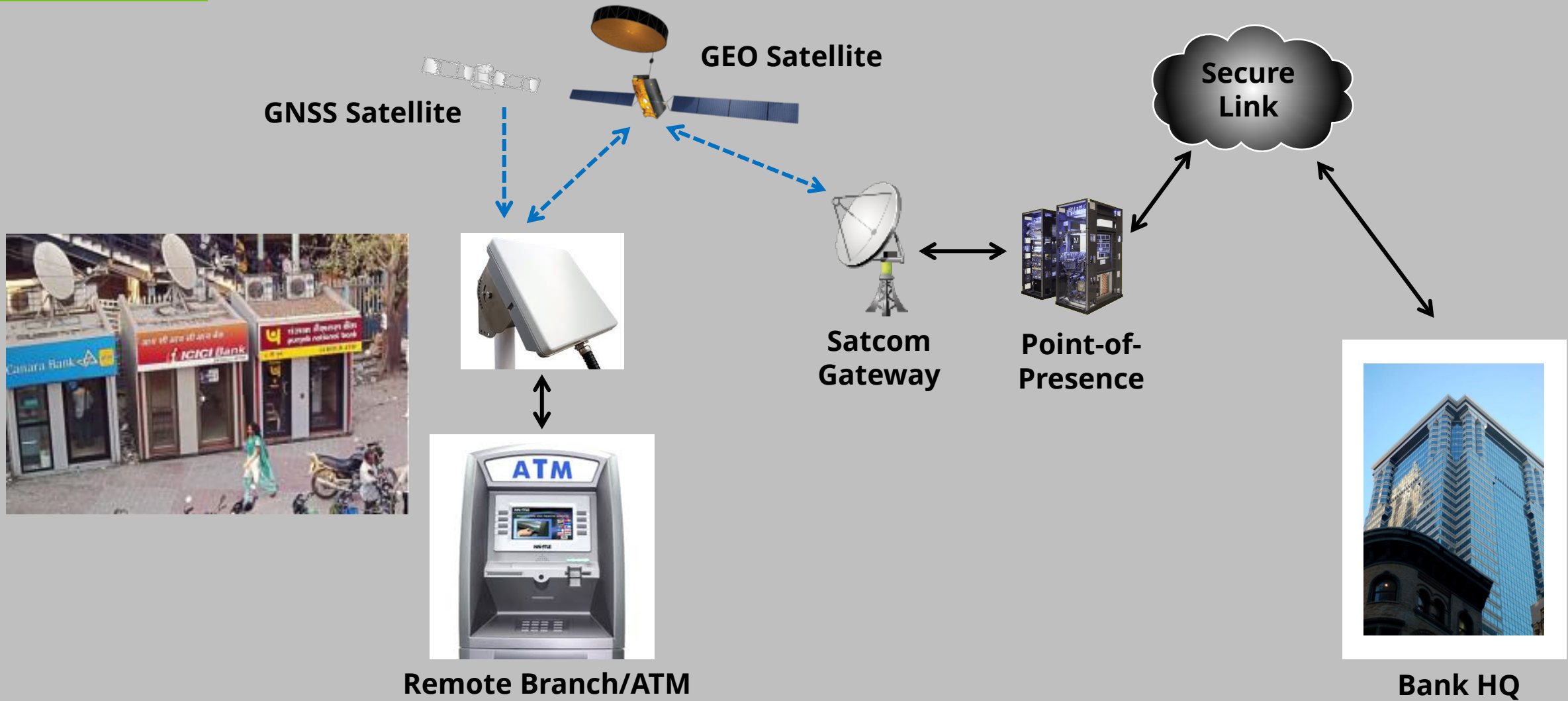


## Our IPS (IoT/M2M)-Related Business - Business Prospects

- **Powerline Management in Indonesia**
  - 2,000 sites to be managed over 3 years from now
- **Weather Monitoring & Animal Tracking in Chile**
  - 60 sites to be monitored by 2021
- **ATMs & Points of Sales in developing countries**
  - In bridging the digital economic gaps
- **Indonesia Financial Inclusion Initiatives**
  - CAGR of 7.8% p.a. between 2018 and 2026\*
  - Collaboration with 2 leading banks for trials
  - Addressable market of > 10,000 ATMs over 3 years

*\*Based on Persistence Market Research in 2018*

# Our IPS (IoT/M2M)-Related Business – For Rural ATM & Point of Sale Applications



# Our RES-Related Business – Key Diverse Growth Drivers

## Highly Integrated & Flexible RES (based on State-of-the-Art FPGA/DSP) in high demand for:

- **Software Defined Radio (“SDR”) Market**

- Global SDR market size estimated at US\$20.4 billion in 2019\*
- Anticipated to grow at a CAGR of 8.7% p.a. from 2020 to 2027\* due to increasing need for agile communication driven by:
  - The Defence industry
  - The Space industry

- **Edge Computing Market**

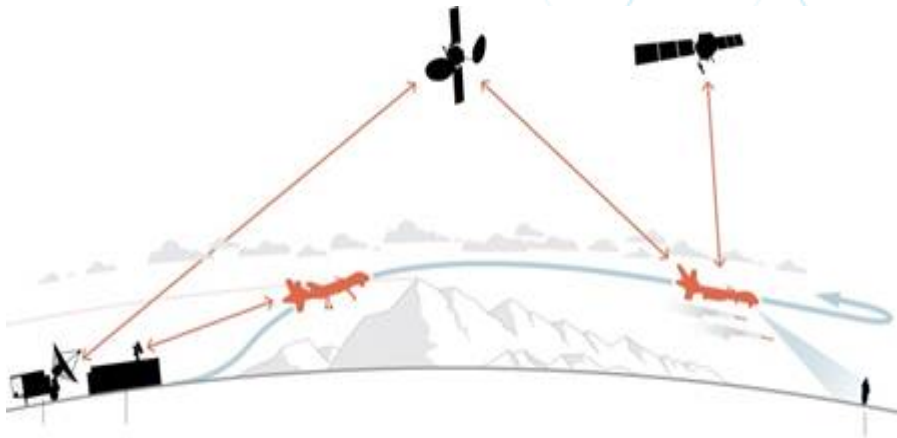
- Edge computing market valued at US\$1.75 billion in 2019+
- Expected to reach US\$8.29 billion by 2025 at a CAGR of 29.4% p.a. from 2020 to 2025+ as:
  - Enterprises across all industries are adopting digital innovations, such as artificial intelligence, data analytics & block chain, to drive performance

\*Based on Grand View Research – <https://grandviewresearch.com/industry-analysis/software-defined-radio-sdr-market>

+Based on Mordor Intelligence - <https://www.mordorintelligence.com/industry-reports/edge-computing-market-industry>

## Our RES-Related Business - Business Prospects

For Agile Communication Applications



- Sole developer & supplier of a proprietary customised SDR module & various RF modules in meeting wide ranging governmental requirements
- Aggregate sales of more than US\$2.5 million generated since 2019
- Potential orders for mass deployment of modules to exceed US\$2 million within the next 12 months

# Our RES-Related Business - Business Prospects

## For Edge Computing Applications

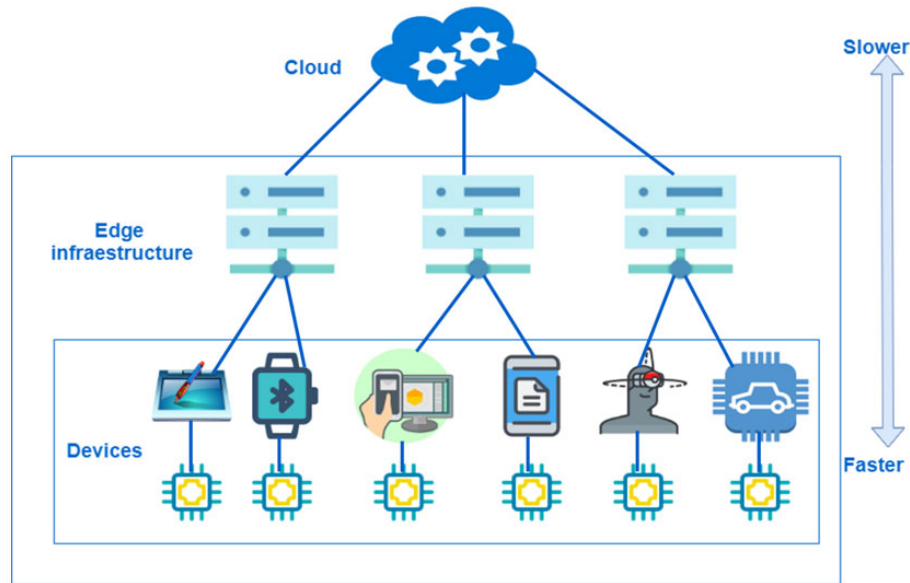


Figure 1: Edge and Cloud Computing.<sup>16</sup>

- Development of high-speed data processing embedded platforms for enterprise data science applications
- Partnership with leading companies in configurable technologies to tap into the rapidly growing market of edge computing applications in every conceivable industry
- Under a funding grant (entitled Eureka Globalstars-Singapore Call), jointly sponsored by Enterprise Singapore and Innovate UK, to jointly develop with SpaceChain and Alba Orbital a decentralised satellite infrastructure that powers a blockchain payload at its core to enable direct tasking of a satellite in real-time to target the fast growing blockchain market in a satellite environment



# Our Design-cum-Supply Business

CONCEPTUALIZATION

SPECIFICATION

DESIGN & DEVELOPMENT

QUALIFICATION & FIELD TRIAL

MASS PRODUCTION

AFTERSALES SUPPORTS

ADDVALUE

ENABLED

With diverse skillsets and deep capabilities, we take a “total solution” approach to develop new products for our valued partners/customers

# Our Design-cum-Supply Business – Business Prospects

- **Existing design-cum-supply contracts**

- For Avionics, a subsidiary of GE Aviation
  - Development of a new generation of Swift Broadband aviation terminal
  - Marked development progress to date
  - Supply revenue expected after completion of development in first half of 2021
- For defense industry
  - Development of various RF modules

- **New design contracts under advanced discussion for kick-off in 2021/22**

- For defense industry in respect of new communication modules
- For a space-based secure cloud data storage and global connectivity service provider in respect of new space-based and terrestrial-based communication devices
- For a satellite operator In respect of a new communication terminal
- For an equipment condition monitoring market leader in respect of a customised industrial IoT solution for predictive and prescriptive maintenance management system

# Revenues to be Generated from our Business Pillars

|   | <b>Business Activity</b>   | <b>Engineering services</b> | <b>Hardware supply</b> | <b>Value added services (including airtime/solution subscriptions)</b> |
|---|----------------------------|-----------------------------|------------------------|--|
|   | <b>Type of Revenue</b>     | <b>Engineering Fee</b>      | <b>Product Sale</b>    | <b>Usage/Subscription Income (Recurring in nature)</b>                 |
| 1 | IDRS-Related Business      | ✓                           | ✓                      | ✓  |
| 2 | IPS-Related Business       | ✓                           | ✓                      | ✓  |
| 3 | RES-Related Business       | ✓                           | ✓                      | ✓  |
| 4 | Design-cum-Supply Business | ✓                           | ✓                      |  |

Based on the aforementioned growth drivers and business prospects, Addvalue is highly confident & optimistic about its performance for the next 18 months, particularly with regard to its IDRS-Related Business

# Thank You

[ADDVALUETECH.COM](https://addvaluetech.com)

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