Stratos

Overview

The *Stratos* system is designed to maximize "return on mission" of remotely piloted and autonomous vehicles such as aircraft, landcraft and seagoing craft. By "return on mission" we mean the capabilities needed to bring core value to a mission. The core value is dependent on the vehicle capabilities to process data from the mission sensors and payload and store and transmit this data to a mission center in a secure and efficient manner.

There are four key elements that *Stratos* brings to mission success; a) the provision to integrate a vast amount of sensors into the mission application, b) the ability to navigate autonomously and with high precision c) in-vehicle computing power to perform real-time processing of sensor data ("egde-" or "fog-computing") and d) the ability to simultaneously send data over multiple data bearers.

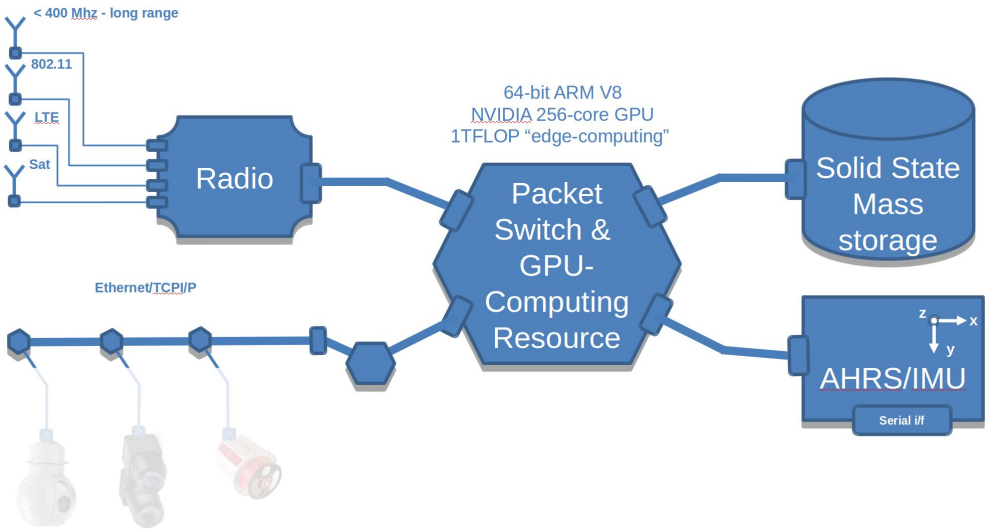
The *Stratos* system consist of four components:

Stratos Pilot delivers the state vector of the vehicle and computes the 6 degrees of freedom control laws for a particular application. Up to 10 actuators can be controlled by the system.*Stratos Pilot* provides an in-vehicle interface to a IEEE802 switched network as well as serial interfaces; SPI, UART, I^2C, RS485 and CAN.

Stratos Oden is a portable command center from which the vehicle and its mission is managed. The *Stratos Oden* has interfaces for connection to any remote command center from which the craft can be monitored and managed.

Stratos Communication provides multiple data streams over several wireless or wired data bearers such as satellite, LTE/4/5G, WiFi, long range radio or Ethernet.

Stratos Edge is a powerful computing node that uses Graphics Processor Units, GPU's to process data in real-time. The ability to process sensors information in the vehicle allows applications to tailor and deliver ready results when the data arrives at the control center, as well as making more efficient use of the datalinks and telemetry. The *Stratos Edge* node is well suited to add Artifical Intellgence functionality to the vehicle capabilities.



The *Stratos* system has been designed with state of the art, commercial-of-the-shelf components from the Information and Communication Technology, ICT industry to provide a high fidelity system at low cost.

See furhter data sheets on Stratos Pilot, -Oden, - Communication and -Edge.