

KSAT and Addvalue join forces to enhance Spacecraft to Ground communication services



*Illustration of Addvalue IDRS in Velox-II orbiting around the earth.
Credit: Addvalue*

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KSAT, the world's leading provider of ground-station-based communications services to low orbiting spacecraft, and Addvalue, the sole provider of IDRS, an on-demand satellite relay based communications service, have entered into a collaboration agreement whereby they agree to work closely together to provide enhanced communications services in support of small low orbiting satellite operations. These satellites have experienced exponential growth due to their uses for earth observation, scientific, surveillance, weather forecasting, and imaging missions

Today KSAT is the world-leading provider of RF based services for communicating to such spacecraft from 20 ground stations. Addvalue has developed the Inter-satellite Data Relay Service (IDRS) that operates across the Inmarsat BGAN system to enable on-demand 24/7 connection to the LEO spacecraft via the Inmarsat-4 GEO constellation. IDRS provides almost continuous, real-time TT&C and Tasking connectivity for such spacecraft, a capability that is not possible with a purely ground-station-based solution.

The KSAT and Addvalue connectivity services complement each other and will enhance the use and the operational efficiency of both spacecraft and constellations. The addition of Inmarsat's GEO satellite relay based IDRS means increased satellite fleet efficiency through real time and enhanced control. Spacecraft that are fitted with IDRS will have access to enhanced TT&C availability, allowing the satellites to be operated with greater agility and flexibility, thus providing increased value from the mission.

The use of these smaller, low orbiting satellites has increased exponentially in recent years due to technological advancements, which have made them progressively cheaper to develop, build and deploy. This growth has led to the market entry of many new satellite operators, deploying satellite constellations offering imaging, Internet of Things, weather data gathering and reporting, mobile asset tracking, surveillance, as well as communications services. The demand for high throughput ground station as well as real-time IDRS services in support of these new satellite based services is projected to grow in parallel with this increase in satellites deployed

KSAT will provide the IDRS service as an integrated element to enhance the current service offering to its customers. The success of this collaboration is expected to lead to further development of the joint capabilities.

Rolf Skatteboe, President of KSAT remarked, “KSAT wants to assure that all communication methods from Space to Ground are provided through KSAT to make space communication simple and affordable. IDRS is already flying and is a perfect match for KSAT.”

Dr Colin Chan Kum Lok, Chairman and CEO of Addvalue added, “We are pleased to partner with KSAT, who is a world leader in providing ground station services to LEO satellite operators, to offer our IDRS service as another value added service that will significantly enhance the operational efficiency of LEO satellites.”

Peter Dingley, Inmarsat’s Vice President of Innovation for Global Government Business commented, “We have been working with Addvalue for over 4 years to bring this game changing capability to market in a reliable and affordable way. Addvalue’s experience and investment in IDRS, including the space heritage they have established, brings these services to the new markets.”

Background statement on the IDRS service offered by Addvalue:

Addvalue Innovation Pte Ltd (“Addvalue”) is presently a leading global developer and supplier of mobile satellite terminals supporting coverage provided by premier mobile satellite communication system operators. These terminals are an ideal choice for communications in areas around the world where terrestrial networks are non-existent, or ineffective.

In August 2017, Addvalue has launched the IDRS service after signing a worldwide airtime distribution agreement with UK-listed Inmarsat, the leading provider of global mobile satellite communications, to jointly offer the world’s first commercial airtime services vis-à-vis the provision of the IDRS service in enhancing Low Earth Orbit (“LEO”) satellite operations globally.

Background statement on ground station communication services offered by KSAT:

KSAT is a leading provider of ground station communication services to LEO satellites with special focus on polar services. Its SvalSat Ground Station located on 78° North is the world’s largest commercial ground station that provides all-orbit support. KSAT operates 20 sites with more than 130 full motion antennas in a global interconnected network. Presently KSAT supports more than 1000 satellite contacts per day supporting over 100 satellite missions. KSAT^{Lite} has become the standard for NewSpace missions that need a cost-effective and reliable ground segment.

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