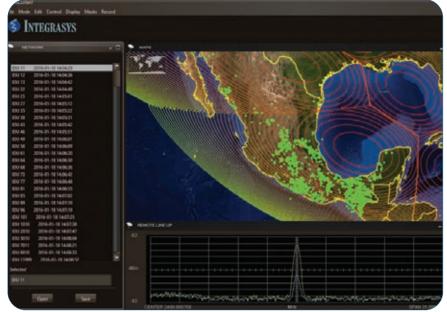


Alusat enables service providers to analyse their networks



Solving industry challenges in a 'cool' way

Integrasys was established in 1990 to provide signal monitoring software solutions for the satellite, broadband and telecommunications market. The company values speed, flexibility, efficiency and scalability in its products. Today, Integrasys is devoted to developing new strategic alliances with manufacturers, integrators and operators in the satellite ground station sector. Amy Saunders spoke with Juan Carlos Sanchez, CEO at Integrasys, about the company's operations, and the ins and outs of the VSAT market.

Question: Can you provide an outline of how Integrasys has developed in the years since its founding?

Juan Carlos Sanchez: Integrasys was founded by Hewlett-Packard engineers with expertise in test and measurements systems, and Telefonica approached them with a contract to enable this business. Since then, Integrasys has been developing the solutions that are required by its customers, partners, and friends. It has been 27 years now, and today we are in one of the most exciting moments of our history.

The product line started as signal monitoring for regulatory institutions, ensuring the quality of communications provided back in 1995. Then, we moved onto enhancing capabilities for satellite operators, where we won a significant market share thanks to our state of the art technology, which had incredible speeds for that time. Today, we still have customers dating back to these times that we have been working with for more than 20 years.

In 2003, Integrasys developed a system for the broadcast industry called Satmotion, which allows the broad-

caster to have all the tools required to access the satellite in their truck. In 2004, this product was migrated to VSATs thanks to a satellite operator who needed to manage a large VSAT deployment. The project was a huge success, and today there are even remotes that remain active from this project.

From 2013, the company has invested significantly in developing new products for new platforms such as Smart phones, watches and glasses, and more intelligent devices. This has provided a key differentiator, as smart phones are used anywhere and every day. In 2014, we received the Most Innovative Product of the Year Award at NAB, Vision Awards, and in 2015, the Most Innovative Product of the Year Award at the VSAT Global event. The industry has recognised that we have very innovative ways of solving industry challenges in a 'cool' way.

Today, we are releasing a new product that enables service providers to be the most efficient and accurate in service delivery and operation, by streamlining the maintenance process.

Question: What are Integrasys' most recent product developments?

Juan Carlos Sanchez: Our newest product is called Alusat (Always Up). Alusat enables service providers to analyse their networks and recover out of service remotes without the need to send someone to the remote site, which requires significant expenditure. Alusat provides a full status of the network; in one view, the operator can see if any remote is misaligned or has any power misconfiguration, and can fix it with a single click. Once again, Integrasys has managed a major challenge with a straight-forward automation solution.

Integrasys has partnered with iDirect to provide Alusat to their customers, enabling a smarter way to maintain and revalidate the remote within the operational thresholds for maximising the SLL compliance and QoS.

Alusat is an evolution of Satmotion Pocket. While Satmotion Pocket automates the deployment face to minimise interference, Alusat automates the maintenance and operational face, detecting any possible interference that the VSAT remote could be generating. Interference is one of the major issues of the satellite industry today, and Integrasys is able to mitigate this by providing tools to service



Always ready, no matter where you business takes you.

When opportunity knocks, you can't wait. Stay ahead of emerging demands and capitalize on new growth opportunities with IntelsatOne® Flex for Enterprise, a managed wholesale service that enables instant access to a global network of high-throughput satellite capacity. Whether you want to jumpstart a new service, expand into new regions or satisfy traffic growth, connect to the only network that delivers simple, seamless and secure broadband connectivity – anytime, anywhere.

Learn more at www.intelsat.com/flex/Sev-2 and visit us at CommunicAsia stand 1S3-01.











providers for a straight-forward solution. Prevention is key.

Question: Where does Integrasys see itself in the market, and how does it stand out from its competitors?

Juan Carlos Sanchez: I see Integrasys as a pretty important company in the satellite industry, not only because of the company growth or the advances in technology, but also because these advances solve major challenges that the industry has had for a number of years.

Integrasys has a unique technology, in both of its latest products; Satmotion is integrated in iDirect, Hughes and Comtech platforms, so it is widely considered a standard for commiss-

ioning and deployment. On the other hand, Alusat is so new that only iDirect customers can benefit from it at this point.

Integrasys dominates the VSAT market in terms of monitoring systems, commissioning and remote maintenance, and each day we become stronger in the legacy markets such as broadcast and regulatory.

Question: VSAT terminals are a great solution for providing connectivity to the unconnected in emerging and rural markets. How big an impact are rapid-deployment tools such as Satmotion Pocket having on the installation of these systems, and what challenges remain that restrict more widespread roll-out?

Juan Carlos Sanchez: There is no greater solution than VSAT to connect the unconnected in emerging and rural markets, but when there is an alternative solution, VSAT is the most complicated option, due to the installation and maintenance of the terminals. That is exactly what Satmotion solves, making VSAT an easy proposition.

We have had numerous projects in every area in the world, wherein our customer service providers and satellite operators have been able to minimise the time of deployment, interference, and skills required.

The latest challenge that we must address is training. Even the simplest tool requires training. We have partnered with SatProf and the GVF for this purpose, launching the CVF514 certification programme for Satmotion Pocket.

We saw one pending challenge; VSATs are left for years operating in remote environments, with animals around, extreme weathers, temperatures, and the tendency to break from time to time. There are multiple pieces that can cause malfunctions or interference, such as the BUC, LNB, cables and modem. The industry required a way to analyse whether a VSAT was saturating a network, creating ASI or Crosspol interferences, sweeping in frequency, or even retransmitting a GSM signal. We are very pleased that today we have Alusat, which enables satellite operators and service providers to solve interference challenges before they become unmanageable.

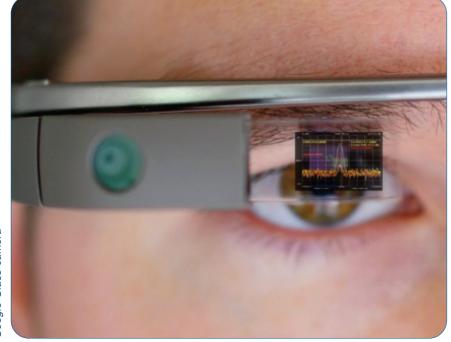
Question: While the Capex of VSAT systems has fallen rapidly, Opex has remained remarkably stable – how can operators bring down prices to make VSAT installations more affordable?

Juan Carlos Sanchez: Opex is becoming an issue in our industry. Previously, the satellite launch was more expensive, remotes were more expensive, even BUCs and LNBs were more expensive. Nowadays, these services and products are more reliable and less expensive. Adding the complexity that HTS brings to the table, the companies working in this new evolution of the industry are required to hire more qualified personnel and train them to support these complex systems.

In our opinion, the more automated processes we can provide our partners, the more cost-effective Opex will become. Simplicity is at the heart of the systems we build at Integrasys; by simplifying the systems, we manage to require a lower skills and knowledge set for completing complex tasks.

One example of this that we are very proud of is that Integrasys has developed a new interface that allows connectivity customers to install the antenna themselves, without the need to understand anything about satellite. This is unprecedented in the satellite industry, and represents a 100 percent saving in VSAT deployment.

Maintaining the network is not cheap, and this is where Alusat comes in; delivering savings in unnecessary



Google-Glass camera

GaN BUCs

for your mission-critical applications



The last word in GaN BUCs from the first name in HPAs.

CPI GaN BUCs are an excellent choice for maritime, oil and gas, milsatcom, IFE, SOTM, and other uplink applications. Built in lighter and smaller packages than comparable GaAs-powered BUCs, CPI GaN BUCs run cooler and consume less power, resulting in longer life and a better ROI. Whether your system is radome-based, exposed to the elements or is in an air-conditioned shelter, our GaN BUCs are a reliable, efficient solution.

Call CPI today or visit **www.cpii.com/buc** to learn more about our GaN BUC product line, and how we are uniquely qualified to provide you with the most appropriate technical solution for your desired frequency range, power level and bandwidth.



Low Power Transceiver

High Power BUC



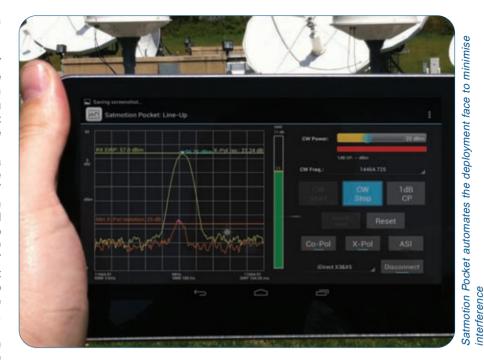


revisits to the remote sites, which can be extremely costly operations.

Question: As more and more VSAT terminals are installed across the world, interference is becoming an ever-greater concern. Carrier ID is a great solution for broadcast transmissions, but where are we headed for VSAT networks?

Juan Carlos Sanchez: Carrier ID is a very good initiative headed by iRG. We are starting to see an effect in TV distribution, and we have customers in the USA that have minimised broadcasting interference thanks to Carrier ID detection. However, this ID codification is not present in VSAT terminals. Therefore, we have built Alusat, which allows our partners to actively monitor every remote site periodically, and if any issue is detected, they can solve it themselves.

The VSAT market has grown significantly in the last ten years. In the last five years, HTS has enabled an industry 'facelift' for connectivity on the move, with large numbers of antennas, both the traditional parabolic and innovative flat panel antennas, being manufactured to take advantage of these new capabilities. Flat panel antennas, in particular, are being manufactured to be extremely costeffective. Costs fall with economies of scale, new markets such as the connected car are enabled, and maritime and aviation connectivity booms. It's likely that, at some point in the future, consumers will be able to connect with a backpack in the same



way that satellite phones are used today.

The number of these devices is predicted to be huge, and the smaller the antenna, the wider the beam, and the more interference it creates. Thus, we see a need to allow users to access the satellite in a simple and secure way.

Question: Which emerging trends and challenges do you think will have the biggest impact on Integrasys' business in the coming years, and how will the company respond?

Juan Carlos Sanchez: We work closely with satellite and network manufact-

urers to define our roadmap to address the needs of satellite communications in the future.

HTS is having a tremendous impact on our business; we've been working on projects with a variety of satellite operators, including Yahsat, which have adopted our technology.

At Integrasys, we see that new types of MEO and LEO satellites and terminals will enable us to grow our business even more by solving the challenge of these future payloads.

Question: What's on the horizon for Integrasys for the rest of 2017 and beyond?

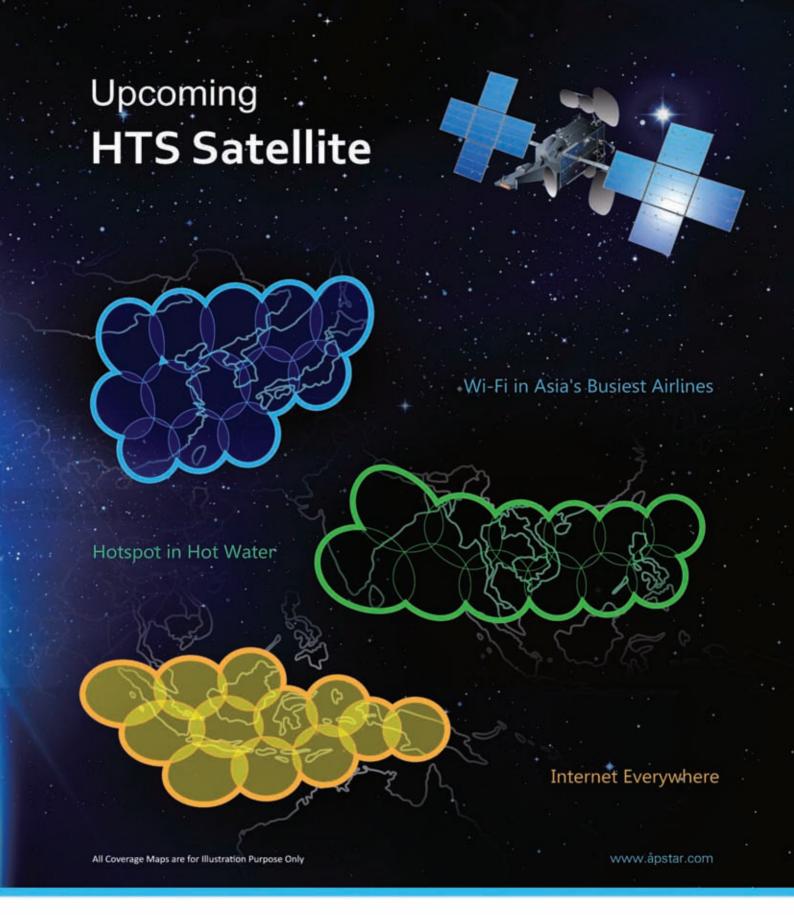
Juan Carlos Sanchez: We consider 2017 as our year. Integrasys has been growing significantly in the past few years, and there is more to come, so stay posted.

On the project side, we have an exciting new project just starting up with Velocity Networks adding new capabilities to our existing product line, as well as scaling it to a large number of beams.

Another exiting example is the development of a scalable HTS Controlsat that allows monitoring and detection of any possible interference at any remote beam from the main NOC, in a cost-effective manner.

And to conclude, our latest product Alusat is expected to be the most popular of our 2017 offerings, with multiple customers planning to benefit from it during 201







23-25 May 2017 Marina Bay Sands - Singapore Visit us at 1N2-01 sales@apstar.com

