

Press release

Microsoft, SES and GRC Showcase Azure Cloud for Remote Missions via Secure GovSat Connectivity Service

• Microsoft Azure at the Edge: Microsoft, SES and GRC demonstrate the power of combining Microsoft's Azure and secure MilSatCom to bring Artificial Intelligence and Machine Learning to in-theatre operations

• Operating in both connected and disconnected modes, this demonstration showcased the Cloud capability available to the most remote missions

Luxembourg, 30 June 2021 – Microsoft and SES, in partnership with GovSat and UK-based solutions provider GRC, came together to demonstrate how Microsoft Azure Machine Learning (ML) and Artificial Intelligence (AI) capabilities can be brought directly to end-users deployed globally in a highly secure, reliable way while maintaining network sovereignty - allowing users to exploit key Azure workloads regardless of location and drastically boosting the efficiency of critical missions.

In these demonstrations the Azure Stack Mini R device was connected to a quick deployable tactical satcom terminal from GRC through the secure SATCOM connection on GovSat-1 satellite, and sent directly to Azure UK via the SES <u>Cloud Direct</u> service, giving connected and disconnected access to Azure services.

The first demonstrations of its kind highlighted how this technology could be used in a number of scenarios such as a remote disaster relief operation, collecting information for analysis, at any given classification, allowing AI and ML models to be used to categorise and assess the information locally before using the available SATCOM to update the overall situational awareness picture and, if required, updating the AI and ML models via hyperscale Azure DevOps processes.

"SES's high-performance satellite network enables an important demonstration of secure cloud computing at the edge," said Tom Keane, Corporate Vice President, Azure Global, Microsoft. "Together with our technology partners, Microsoft is bringing mission-driven customers the latest services they require in a secure and reliable way, regardless of the infrastructure available. This approach empowers mission owners and operators in both connected and disconnected environments, while giving governments total flexibility and control over their data."

"Governments are looking to accelerate cloud adoption and extend it to the edge bringing its advantages to the end-users anywhere. We are proud that through our partnerships with Microsoft and GovSat, we have managed to demonstrate the security and performance of the network, alongside the required high degree of flexibility for the government customers," said JP Hemingway, CEO of SES Networks. "Similarly, the same secure high-performance cloud

SES^{*}

communications services can be achieved on our MEO satellites, independent of the internet and other publicly accessible networks."

"Utilising single-hop secure cloud communication between the headquarters and deployed teams, which is closed to publicly accessible ground stations and internet touchpoints, opens multiple opportunities for governments. The GRC's solution together with the Microsoft Azure cloud service and SES's secure resilient satellite networked connectivity makes the future of cloud-enabled government communications a reality already today," said Steve Slater, Managing Director at GRC.

The demo is highly scalable thanks to the Azure Edge capability, as well as the wide array of SES's satellite communications capabilities, including next-generation O3b mPOWER system that is capable of providing from Mbps to multiple Gbps connectivity for land, air and maritime government missions.

Further Information

The first demonstration showcased one-hop connectivity that enables cloud workloads to run at the edge and seamlessly connect back to hyperscale Azure in both connected and disconnected modes via the Azure Stack Edge Mini R.

For this demonstration, the companies leveraged multiple satellite terminals from GRC's 6-SAT solution, GovSat's dedicated Military Ka-band beam onboard its satellite and GovSat's secure Mission Operations Centre in Luxembourg.

The second demonstration was performed with GRC's deployable Satellite Ground Station (SGS), showcasing in-theatre connectivity as well as backhaul of data from in-theatre headquarters to the home country with no public internet touchpoints. The first satellite link was securely connecting a deployed terminal with the in-theatre headquarters terminal, and anchored directly to the deployable, private SGS hub. The second satellite link connecting the deployable SGS hub was anchored in the GovSat Mission Operations Centre, demonstrating backhauling to a home country.

The SES Cloud Direct service was delivered via a dedicated Microsoft ExpressRoute connection directly from the end-users to Azure data centres, enabling the cloud agility and performance via a dedicated MilSatCom GEO capability. For low-latency applications, SES can also bring the data from the edge to the cloud in a safe, secure and efficient way through its high-throughput low-latency O3b satellite network and its upcoming next-generation cloud-scale O3b mPOWER system, both operating in medium earth orbit (MEO).

For further information please contact:

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About SES

SES has a bold vision to deliver amazing experiences everywhere on earth by distributing the highest quality video content and providing seamless connectivity around the world. As the leader in global content connectivity solutions, SES operates the world's only multi-orbit constellation of satellites with the unique combination of global coverage and high performance, including the commercially-proven, low-latency Medium Earth Orbit O3b system. By leveraging a vast and intelligent, cloud-enabled network, SES is able to deliver high-quality connectivity solutions anywhere on land, at sea or in the air, and is a trusted partner to the world's leading telecommunications companies, mobile network operators, governments, connectivity and cloud service providers, broadcasters, video platform operators and content owners. SES's video network carries over 8,400 channels and has an unparalleled reach of 361 million households, delivering managed media services for both linear and non-linear content. The company is listed on Paris and Luxembourg stock exchanges (Ticker: SESG). Further information is available at: www.ses.com.

About GRC

GRC is a Hereford (UK) based company delivering fully managed, Satcom as a Service (6-SAT), RF, cloud and IP connectivity solutions to Defence, Government, Emergency Response and Commercial sectors. Its partnerships and Tier-1 VAR (Value-Added Reseller) status with leading hardware and airtime providers ensure cost-effective, intelligently integrated solutions, backed up by through life support and training.

About GovSat

GovSat is a public private partnership between the Government of Luxembourg and the world-leading satellite operator SES. GovSat's mission is to provide secure, reliable and accessible governmental satellite communication services to address the demand resulting from defence and institutional security applications. The company's first satellite GovSat-1 is a multi-mission satellite that will use X-band and Military Ka-band frequencies on high-power and fully steerable mission beams to support multiple operations. For more information visit: www.govsat.lu