DIFI

Digital Ground
Use Case

GROUND SEGMENT AS A SERVICE
Supporting All The Modems That Customers Require

Ground segment as a service (GSaaS) providers face a challenge in winning business from earth observation and other occasional-use customers. Can digital IF offer a solution?

High Cost, High Maintenance

Managing modems for customers has always been a headache for teleport operators. For GSaaS providers, the headaches multiply. They typically operate dozens of sites and need to ensure that every site hosts all the modems their customers require, even if the requirement is intermittent or short-term. Meeting that need in hardware has high initial costs, made worse by continuing costs for maintenance and lack of flexibility to handle changing requirements.

Virtual Modems

GSaaS providers are meeting the challenge by adopting interoperable digital IF and software-based modems. They equip antennas with digitizers at their gateways, which route digital RF-over-IP traffic to software modems running on generic compute. The RF-over-IP solution enables the companies to install, configure and operate modems through their global operating systems and swap between modems automatically based on each customer's service profile. In addition to slashing costs, the digital design let the companies allocate bandwidth among their sites through software updates instead of hardware replacements. The new flexibility and efficiency make the companies more competitive while savings millions in capex and opex.

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