DIFI

Digital Ground
Use Case

VIRTUALIZING SITE DIVERSITY

Making Ka-Band Work in a Weather-Challenged Region

The higher the radio frequency, the more challenging it becomes to deliver satellite services in the parts of the globe where heavy rains and massive storms can block signals. Can digital IF offer a solution?

The Hardware Burden

In weather-challenged regions, site diversity is essential to maintain service. But hardware-based modems and other ground segment technology is far from ideal at meeting the diversity goal. Managing and maintaining redundant hardware at multiple sites is expensive, complicated and inflexible in the face of change.

Virtual Solution

A new satellite operator in the Asia-Pacific Region needed five gateways in three countries to ensure that its HTS satellite could provide constant uptime. Service needed to be switched between them automatically and immediately in the case of service interruption. When a hardware-based design proved too costly and complex to justify, the company turned to digital. It installed digitizers at each gateway location that provided unlimited RF transport among them and to the network operations center located in yet another country. Managing the systems in software reduced initial investment and ongoing costs. It also provided the flexibility to adapt to rising demand as the company expanded its services across the APAC region.

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Enabling the enable the digital transformation of space, satellite and related industries

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