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The Great Gig in the Sky

By Cara Sievers

When channel partners are seeking a viable networking option for customers, why not go with one that is virtually everywhere? Why not take a customer outdoors and have them gaze up at the great blue yonder that could support not only their backup solutions, but also their entire private network? Now, that's a footprint!

Ubiquity is a key selling point for satellite. In addition to millions of financial transactions being conducted over satellite every day, it is used by wireless and cellular carriers all over the world for backhaul. Of course, it also is the true bypass business-grade solution for disaster recovery, since it can essentially leap over landline outages. And speaking of the sky, satellite now is being used for Wi-Fi on airplanes.

Sam Baumel, assistant vice president of SME sales, North American division, for Hughes Network Systems, believes there are three key satellite offerings agents should consider adding to their portfolios: Internet access, broadband backup and virtual private networks (VPNs). "The advantage of satellite is that it can be used as the primary communications link, backup or fill-in. These options enable an agent to recommend the most efficient and cost-effective solution for their customers," said Baumel. "If they really understand the diversity of broadband satellite services and can relay the benefits of those solutions to clients, the revenue possibilities are endless."

Internet Access. Where DSL cannot reach, or a T1 is too expensive, or as a backup to terrestrial, satellite can provide high-speed Internet access anywhere. Secure connectivity can be provided via a low-cost VPN appliance and can be deployed much more quickly than alternative solutions. Multiple branch locations can be added on an as-needed basis, and set up to connect directly to the satellite (see Figure 1: Internet Access).

According to Baumel, HughesNet Business Internet provides up to 1mbps upstream and up to 5mbps downstream. Ken

Mercer, senior vice president of Telecom Brokerage Inc., which is a master agent for Hughes along with additional satellite service providers, said he believes the service characteristics of satellite are much more substantial than DSL as a backup solution.

And the revenue opportunity is not lost on agents. "This is a residual payout," Mercer explained. "For agents looking for additional commissions, this is a great way to add on to customers who are already under contract with a WAN solution, looking for a backup solution, looking for an alternative access solution. And you'll still make residual commission on it."

Broadband Backup. In its more traditional sense, satellite can be used as a business continuity or disaster recovery broadband backup solution to guard against landline failures. Providing a truly diverse backup path, broadband satellite services provide increased network uptime over other solutions (see Figure 2: Broadband Backup).

"Whether you're talking about a terrestrial wireless or wired solution, ultimately those solutions are going to terminate relatively close to their points of origin," explained Baumel. "So, for any outage that occurs that ultimately affects the central office, major connectivity to the central office, or a wider area — natural disasters, things that fall into that category — satellite provides an ideal path-diverse solution."

Satellite also can be used as an automatic failover via policy-based routing for traffic prioritization, and then in the event of an outage, all applications can run over the satellite network.

Mercer said broadband backup solutions are great door openers for agents. In his experience, he said, it's not unusual for agents to use disaster recover or redundancy to get in the door, only to see the customer upgrade to other satellite solutions over time.

Figure 1: Internet Access

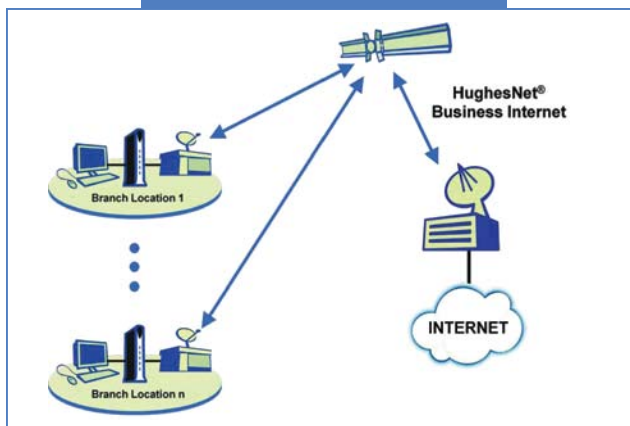
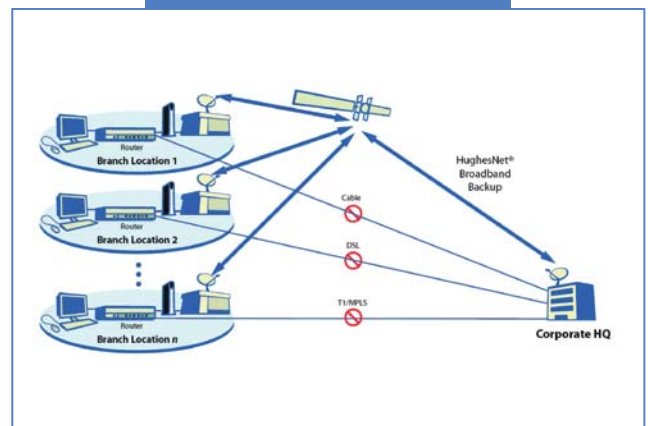


Figure 2: Broadband Backup



Private Networks. Of course broadband satellite is an option for hard-to-reach locations as well as a great way to guard against landline failure, but broadband satellite services also can be used to create secure virtual private networks for larger enterprises in need of any-to-any connectivity. And whether used for primary or secondary communications systems, VPNs can be optimized for low-jitter voice communications.

Traditionally, when satellite is used to create customer-dedicated networks, a star topology is used, where the branches connect through the satellite to the network operations center (NOC).

For example, HughesNet NOCs are in Germantown, Md., and Las Vegas. Baumel explained that both of those locations take down the traffic on these large dispersed networks and then either use a backhaul to go to the customer's data center or take traffic out to the Internet, whatever the case might be (see Figure 3: Private Network – Star Topology).

Furthermore, Hughes is providing a new type of satellite private network based on the mesh topology. About a year ago, Hughes launched satellite services over a new satellite called SPACEWAY 3, which is effectively a 10GB router in the sky, Baumel explained. It enhances the traditional benefits of satellite by providing full mesh connectivity, by serving as an MPLS-like cloud in the sky (see Figure 4: Private Networks – Mesh Topology).

“You can deploy a fast, secure VPN with QoS on demand very rapidly,” explained Baumel. “In the past, where you needed to pull a backhaul from one of the satellite provider's primary data centers to the customer's data center for a 100-site network, today, you can install 100 systems at 100 different locations, another system at corporate headquarters and literally establish the mesh network through the sky.”

Mercer likened the newer satellite mesh topology to the overall evolution of telecom sales. “People started with private lines, moved onto frame relay, then onto MPLS, which is inherently meshed,” he explained. “These same mesh advantages are now available in mesh topology satellite networks.”

The additional advantage of the mesh topology is that it provides the ability to maintain a fully private network connection. “Everyone refers to MPLS as a VPN; but satellite is an ‘RPN,’ a real private network — it never touches the Internet,” said Baumel. “It effectively is a sequestered environment.”

Overall, the class of service is also similar to that of MPLS in that traffic prioritization can be adjusted. Baumel said Hughes

>> Satellite Myths

Satellite is a high-latency service that won't support business applications.

False. Built-in WAN optimization technology mitigates effects of latency for high performance.

Virtual Private Networks (VPNs) will not work over satellite.

False. IPsec VPNs can be supported at full broadband speeds.

Satellite is susceptible to weather outages.

False. Satellite typically maintains the same or better availability than wireline.

Satellite is difficult to install and maintain.

False. Satellite has a nationwide footprint with typical install times of less than 30 days. On-site maintenance is available around the clock.

Satellite is too expensive — my target market can't afford it.

False. The total cost of ownership is very competitive with MPLS and T1.

Source: Hughes Network Systems

provides end-to-end class of service for traffic optimization, including high priority for mission-critical applications, and setting voice and video conferencing to a constant bit rate. This is done by creating a low-jitter environment on a demand basis, Baumel explained, allowing the customer to pay only for the bandwidth required when it's required.

Whichever way an agent chooses to position satellite services, Mercer said, the availability of these various solutions and service plans is a key to selling broadband satellite solutions. “If being an agent is all about tailoring solutions for your customer, broadband satellite solutions provide you with an extensive tool chest to do just that,” said Mercer. “And with satellite, you're not dependent on an RBOC's loop, which can take 30 to 60 days to get installed, if indeed it is available. But the deployment of a satellite solution is as simple as installing a dish and a box, and the customer should be good to go. It's unlike any other sale you'll make.”

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Figure 3: Private Network – Star Topology

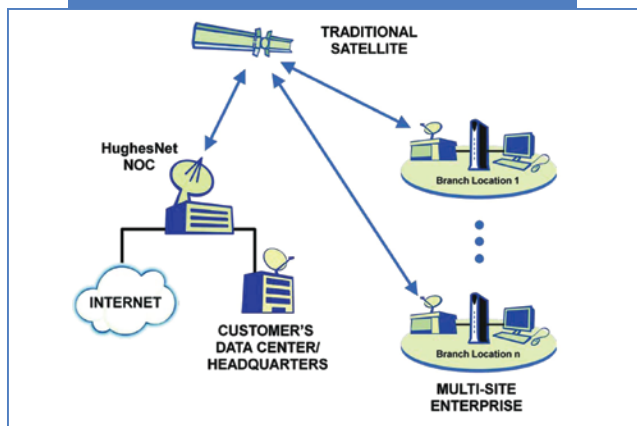
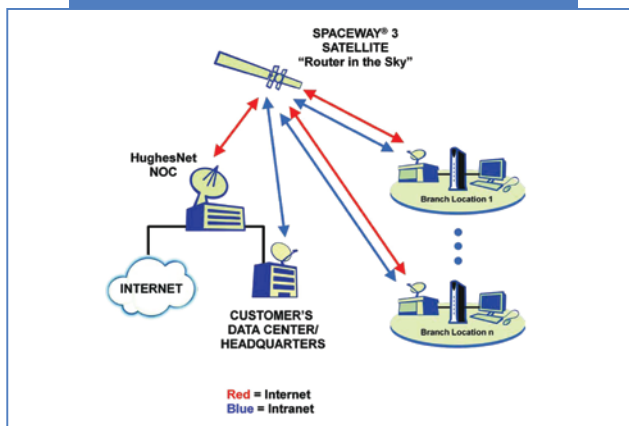


Figure 4: Private Networks – Mesh Topology



Source for all charts: Hughes Network Systems