

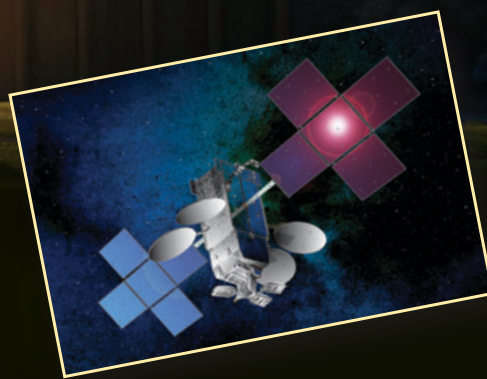
# Channels

A publication of  
**HUGHES**  
 An EchoStar Company

## EchoStar XVII with JUPITER High-Throughput Technology Lifts Off!

**O**n July 5, 2012 at 5:36 p.m. eastern time, EchoStar® XVII, the Hughes next-generation Ka-band satellite with JUPITER™ high-throughput technology, was successfully launched and placed into geostationary transfer orbit by Arianespace from Europe's Spaceport in Kourou, French Guiana.

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Mike Cook shares his insight on launching another major step forward in satellite broadband.

### 3 Camelot: At the Top of Its Game

Leading U.K. gaming company transforms lives.



### 4 The Easy Path to Convergence

How distributed enterprises get the best of both worlds.

### 8 Leading the Future of Satellite Broadband

Seminar and workshop series around the world.



## Executive Corner

# Unleashing Another Game Changer

By Mike Cook, Senior Vice President, North America Division



In July, Hughes introduced another game changer to the satellite broadband marketplace. The successful launch of our EchoStar® XVII satellite with JUPITER™ high-throughput technology brings well over 100 Gbps of capacity to our satellite fleet—approximately 14 times that of SPACEWAY® 3, and translating to roughly 140 times the capacity we had only a few short years ago to deliver high-speed HughesNet® satellite Internet service in North America.



## Another Major Step Forward in Satellite Broadband

But technology is only as good as what you do with it. That's why we are unleashing our new HughesNet Gen4 service, which will leverage the considerable capabilities of both EchoStar XVII and SPACEWAY 3 to deliver more choices and greater speeds to consumers and small businesses everywhere in North America. People are using the Internet more and more every day—more apps, more bandwidth, more rich media. And in a typical household they're increasingly using multiple devices, such as tablets and smart phones, in addition to laptops and PCs. HughesNet Gen4 is all about providing a powerful and flexible service platform that supports these trends.

## The Digital Divide

Closing the digital divide is an important part of our mission, and HughesNet Gen4 will enable us to accomplish that. Our goal is to bring high-quality broadband Internet access to people everywhere, no matter where they may live or work, focusing particularly on those who don't have adequate coverage from terrestrial broadband. Estimates show that number to be somewhere in the region of 14 million households, of which nearly 5 million still use dial-up for Internet access today. Just consider trying to access today's rich media content on dial-up; you could easily take a walk and return to find that photo or video download still not completed! HughesNet Gen4 will deliver the same high quality of service whether inside or outside urban America, with a portfolio of offerings to suit every budget.

## New Opportunities

HughesNet Gen4 also offers us a tremendous opportunity for growth. New distribution agreements we've recently signed with leading providers such as DISH and Xplornet Canada position us well to rapidly expand our existing base of over 640,000 HughesNet subscribers to an additional 1.5 million or more. HughesNet Gen4 is a robust, high-speed Internet service, which many communities can't get today, and we anticipate that it will further drive growth of our consumer business, and indeed that of the company.

## Leading the Way

Hughes has always been the leader in broadband satellite. We invented commercial VSAT technology, and started the satellite enterprise business back in the mid-80s, and since then have not only spearheaded its growth across the globe to over 100 countries, but also created the consumer sector. A key aspect of our

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### About Hughes Network Systems

Hughes Network Systems, LLC (HUGHES) is the world's leading provider of satellite broadband for home and office, delivering innovative network technologies, managed services, and solutions for enterprises and governments globally. HughesNet® is the #1 high-speed satellite Internet service in the marketplace, with offerings to suit every budget. To date, Hughes has shipped more than 2.8 million systems to customers in over 100 countries, representing over 50 percent market share. Its products employ global standards approved by the TIA, ETSI, and ITU organizations, including IPoS/DVB-S2, RSM-A, and GMR-1.

Headquartered outside Washington, D.C., in Germantown, Maryland, USA, Hughes maintains sales and support offices worldwide, and is a wholly owned subsidiary of EchoStar Corporation (NASDAQ: SATS), a premier global provider of satellite operations and digital TV solutions.

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### Hughes Social Media



Now it's even easier to stay in touch with Hughes. Follow us on Facebook and Twitter to see what we're doing and get the very latest information about our innovative broadband products, services, and solutions.

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# Camelot:

## At the Top of Its Game

**C**amelot U.K. Lotteries plays to win. Indeed, that's how the U.K. gaming company has made a winning business of running one of the world's most successful lotteries. Licensed operator of the U.K. National Lottery, Camelot prides itself on transforming the lives of its many winners as well as the countless individuals and communities that benefit from lottery funding.

Running the most cost-efficient lottery in Europe, Camelot spends only around four percent of total revenue on operating costs—enabling it to raise over £30 million for National Lottery Good Causes each week. To date, it has raised over £28 billion for these Good Causes, with more than 380,000 individual awards made across the U.K. Camelot also achieved its target of raising £750 million for the London 2012 Olympic and Paralympic Games from sales of specially designated lottery games. This formed part of an overall National Lottery contribution of up to £2.2 billion towards the cost of the Games.

### Rapid-Fire Transactions

Connecting over 30,000 National Lottery outlets throughout the U.K. requires a highly reliable, highly available network supporting tens of thousands of simultaneous, rapid-fire transactions. The Hughes Managed VPN solution for Camelot has proven to be just that since 2007, when the decision was made to select this comprehensive offering following a thorough evaluation of different vendors and technologies, including terrestrial fixed, wireless, and satellite

alternatives. Besides provisioning all networking equipment and ongoing maintenance and support, the contract calls for extremely high-quality levels of service connectivity which Hughes has consistently met or exceeded throughout the past five years.

A typical National Lottery transaction takes about 1.2 seconds, including the time to go through the Hughes satellite network to the Camelot host system and back to the retail site again. Using the continent-wide Hughes broadband satellite service, Hughes satellite terminals interface with Camelot's lottery equipment at each site, including point-of-sale digital media screens used to display a wide range of announcements, such as jackpots and rollover news.

Camelot recently announced an initiative to deliver some £1.7 billion in additional lottery funding to U.K. society in the period leading up to 2023, for which it is carrying out a multi-million pound investment to expand to 37,000 outlets. Hughes has been contracted to connect all sites, over 33,000 of which will employ its satellite technology.

### A Critical Role

"Everything that runs through the retail side of our business—which represents about \$160 million a week—runs through the Hughes network," said Neil Kellar, Camelot's IT Director. "Hughes plays an absolutely critical role in making those systems high in availability, and enabling us to conduct lottery transactions while at the same time raising millions



of pounds for National Lottery Good Causes every day."

"Providing a very strong consumer experience is absolutely sacrosanct to our business and how we run it," added Kellar. "Hughes spent a lot of time with us ensuring this positive customer experience. Our goal is to reach four 9s of availability end-to-end on our VSAT network, and we're now approaching that."

"We chose Hughes because they have a proven track record in the lottery sector," said Kellar. "It's been a very strong partnership that has enabled us to improve the availability, as well as value, of our service."

### Playing to Win

By continuing to put its players first, Camelot has achieved an unparalleled track record in innovation and long-term, responsible growth in the lottery industry. And, with the help of its network powered by Hughes, it's fair to say that Camelot will stay at the top of its game—and continue to transform millions of lives—for many years to come. ♦



VOICE

VOICE

VIDEO

# The Easy Path to *Convergence* for Distributed Enterprises



ACTIVECompression™  
ACTIVEQoS™



**D**istributed enterprises such as retail, restaurant, and retail petroleum are constantly looking for ways to cut operational costs and improve efficiencies. One strategy that holds great promise to achieve both goals is to implement robust networks capable of facilitating the convergence of data, voice, and video applications. But to realize the benefits of convergence, networks require strong quality of service (QoS) levels for reliable transmission, and greater bandwidth in particular for media-rich and video content. In the past, that has meant choosing an MPLS network for branches—an automatic deal-breaker for many enterprises because of the high costs involved.

Today, thanks to the Converged Broadband Architecture™ (CBA) from Hughes, distributed enterprises can have the best of both worlds—MPLS-like network quality and performance from broadband IP networks, such as DSL and cable, at a much lower price point. The new Hughes HS1200 Broadband Optimization Appliance, a key component of CBA, enables this by delivering MPLS-like, end-to-end

QoS, coupled with advanced data reduction and TCP optimization on qualified private IP broadband networks.

## Bandwidth Acceleration and Optimization

Designed for acceleration and optimization of bandwidth from the branch, the HS1200, in conjunction with a data center acceleration gateway, automatically classifies and prioritizes real-time traffic, such as voice or video, over less critical traffic types, such as file transfers or Web browsing. At the same time, it also transparently compresses the data traversing the network, effectively expanding the available bandwidth for applications sharing the network. To accomplish this, the HS1200 relies on two groundbreaking, patent-pending technology components—Hughes ActiveQoS™ and Hughes ActiveCompression™.

## End-to-End Quality of Service

Hughes ActiveQoS employs active network capacity monitoring, smart application classification, dynamic rate limiting, and prioritization to automatically classify real-time traffic, reduce packet loss and jitter, and ensure that critical traffic receives priority on the network. The result is that even stringent, real-time applications, such as business-grade voice, can be supported with the required QoS across ordinary broadband networks despite dynamically changing available network capacity. Hughes ActiveQoS also encompasses split-tunnel configurations, such as for Guest Wi-Fi traffic destined to the Internet from branch locations, providing QoS in the outbound direction. With built-in ActiveQoS technology, the HS1200 uniquely provides true, end-to-end QoS over a standard affordable broadband connection.



VIDEO

DATA

## Powerful Two-Stage Adaptive Compression

Another HS1200 performance feature is Hughes ActiveCompression, which increases virtual throughput via a two-stage adaptive compression process that dynamically selects the best combination of compression technologies based on the type of traffic. A long-range compression algorithm looks across multiple packets and data flows from multiple users to eliminate coarse-grained, large, redundant data streams, replacing them with tokens in a process known as de-duplication. In conjunction, a short-range compression algorithm provides the best data reduction for shorter streams of highly compressible data such as text. In real time, ActiveCompression adaptively determines the combination of the two algorithms that provides the best overall compression.

For example, when multiple users at a branch are browsing the same Web site, the long-range compression algorithm

removes the duplicated data, reducing bandwidth used. The short-range compression algorithm then picks up the remaining data and compresses it further. The net result is up to six times reduction in traffic, creating virtual bandwidth perceived to be from two to three times greater than the original bandwidth.

**The net result is up to six times reduction in traffic, creating virtual bandwidth perceived to be from two to three times greater than the original bandwidth.**

By using less bandwidth per transaction, session, or application, actual performance is often increased. In addition, the user perceives increased speed even though the actual speed of the WAN connection has not changed. ActiveCompression optimizes how bandwidth is used so that enterprises get superior virtual bandwidth, enabling them to con-

nect more users, run more sessions, or add more applications—with no need to pay for higher speeds.

## The Branch of the Future Is Here Today

“Our vision is to deliver the technology solutions our customers need to provide the best customer and employee experience possible as part of our ‘Branch of the Future’ concept,” said Doug Medina, senior director of enterprise marketing at Hughes. “The HS1200 continues that effort by enabling distributed enterprises to cost-effectively converge their voice, video, and data applications on a single IP network.”

Available in Q4/2012 as part of Hughes Managed Network Services, the HS1200 Broadband Optimization Appliance will enable enterprises to enjoy true, business-grade voice, video, and data convergence over affordable broadband—with no need for an expensive MPLS network. ♦

## OPTIMIZING THE CUSTOMER EXPERIENCE

**A**t some companies, customer support seems almost like an afterthought. At Hughes—whether serving businesses, governments, or consumers—customer support is fully focused on the customer experience and built into every customer touch point.

### Serving Businesses and Governments

Hughes customer call centers serve companies, government agencies, and organizations of all types and sizes, from global distributed enterprises, to the largest government agency, to the small-to-medium business or franchisee. More than 250 highly trained technicians in Fort Lauderdale, Florida and Germantown, Maryland handle a wide range of technical, billing, and administrative inquiries. Technical support calls cover a range of transport technologies, including satellite, DSL, cable, and T1, as well as services such as digital media, guest Wi-Fi, and VoIP. Call center technicians receive specialized training not only in products and services, but also in business, franchisee, and installer support.

Hughes offers several levels of service to meet business customers' needs, ranging from Basic Enterprise Support for customers that have their own help desks, to Premium Support in which Hughes monitors customer alarms and performs basic triage, to Platinum Support for customers who prefer that Hughes does it all.

### A Day in the Life

On a typical day, the support team tracks multiple queues, monitoring and assessing the progress of open tickets, including both new and pending tickets. While one group is managing calls, another manages Web tickets, and yet another makes outbound calls to network access providers, service technicians, and customer help desks to ensure that all bases are covered.

When a site is under installation or loses service, for example, the support team handles inquiries, troubleshoots issues, and resolves problems, dispatching an onsite repair technician when required. As part of ticket resolution, Hughes also validates the restoration of service. In addition, Hughes hosts a customer care forum and a quarterly WebEx™ session for key members of the call center to work directly with customers.

### The Customer Gateway

When customers need service, they have the option to call the Help Desk or use the ticketing system through the Hughes Customer Gateway, a secure Web-based portal that provides a single interface to monitor and manage their landline and satellite broadband technology. Customers use this important tool to keep track of network activity and reduce the time and challenges associated with monitoring multiple systems.





The goal is always to handle each inquiry as professionally, quickly, and efficiently as possible; however, if escalation becomes necessary, multiple communication methods are available—phone, text message, or Web—and management is just a step away from every escalation point.

“We know that the support and services we provide are critical to our customers’ operations,” said Demetric Anamateros, assistant vice president, Customer Service at Hughes. “That’s why Hughes support technicians have such a high level of expertise, constantly learning about new products and services and fully committed to resolving problems.”

## HughesNet—The Consumer Side of the House

In North America, Hughes operates the world’s largest high-speed satellite Internet service, HughesNet—currently serving over 640,000 subscribers. The consumer business, which has earned an A+ rating from the Better Business Bureau, is supported by more than 500 agents at call centers in India, the Philippines, and Brownsville, Texas.

As in business customer support, HughesNet consumer support agents are 100 percent dedicated to Hughes, undergoing an extensive training curriculum of up to 12 weeks in order to master products, services, and processes. In addition, agents in call centers based outside the U.S. receive extra training in working with North American customers.

## Universal Agents

In the past, support agents were trained for specific skill sets, which sometimes resulted in transferring calls to multiple agents depending on the type of problem. Over the past year, Hughes has trained all agents to support multiple call types. Today, universal agents work with customers regarding a host of issues, including account management, billing, technical support, and general customer care. Agents also make value-added outbound calls such as contacting customers to follow up on customer satisfaction survey responses.

## Lower Call Rates. Faster Incident Resolution.

The re-engineering has paid off with an 18 percent reduction in call transfers and a 70 percent reduction in transfers for basic support. During the period of January through May 2012, the number of consumers contacting call centers was about 8 percent lower than the same period last year, while success in resolving issues was up 4 percent as measured by customer satisfaction surveys. Technical support calls were down

16 percent from the same period last year.

“Giving the customer the best support, on time, is critical for us,” added Anamateros. “We wanted to optimize the customer experience by providing a skilled, knowledgeable agent who can resolve most of the customer’s problems in one place. We also consolidated partners, initiated new programs, and changed the way we think about training and preparing trainees to help customers.”

Now Hughes is seeing the benefits in lower call rates and faster incident resolution—and customers are seeing the benefits in an optimized customer experience. ◆

## Executive Corner

*continued from page 2*

leadership is to listen very carefully to our customers. After all, connecting customers is what our business is all about—and we work hard to earn their trust and loyalty, counting them from among the world’s best known major brands to the smallest shop owners and individual residences. Our goal is the same for all: to deliver high-quality technology and services that enable them to do more in the broadband world of the future.

## What’s Ahead

Looking forward, the one certainty in this broadband world is growing demand for higher speeds and more Internet-based applications, which means more and more bandwidth. In fact, the Internet is becoming the enabler for a technology revolution in the home and a future of smart devices—from kitchen and laundry appliances, to security systems, to energy management systems—all connected to the Internet. We’ll see the use of rich media continue to soar. The game will constantly be changing, and Hughes will continue to bring innovative technology and services to market, which will further unleash the many benefits of HughesNet Gen4 for our valued customers. We welcome you to join us on this exciting journey. ◆

# HITS

HUGHES INSTALLERS TEAM SEMINAR  
2012  
HEAR • INTERACT • TALK • SHARE

# Hear. Interact. Talk. Share.

It was an enthusiastic crowd that gathered at the 2012 Hughes Installer Team Seminar, also known as HITS. Held in June in Baltimore's scenic Inner Harbor, the conference drew more than 200 attendees, including installers, distributors, dealers, and Hughes delegates and presenters. True to the HITS theme, attendees came prepared to Hear, Interact, Talk, and Share.

## Groundbreaking New Satellite and Services

Leading this year's hot topics was the launch of the Hughes EchoStar XVII satellite with JUPITER high-throughput technology. Boasting over 100 Gbps of Ka-band capacity, EchoStar XVII sets the stage for HughesNet Gen4 services, which will further expand Hughes leadership in satellite broadband and make a significant positive impact on the installer business.

## Streamlined Process

A new and exciting capability was introduced called OASIS (Onsite Accelerated Service Installation System), a mobile app that eliminates the need for a laptop and streamlines the installation process. OASIS enables installers to use their PDAs, tablets, or smartphones to manage schedules, commission service, and update the Hughes system remotely. Using OASIS, installers will save an estimated 40 minutes to an hour on a typical job.

## The Branch of the Future

For enterprise installers, the conference included a landline refresher as well as training in the latest Hughes products and services for rich media installations, such as Digital Signage, Guest Wi-Fi, VoIP, and Breakroom TV, which are enabling the "Branch of the Future" for today's distributed businesses.

## Open Forum

The Engineering Forum, always a popular feature of the conference, brought installers together with senior Hughes staff representing operations, product line management, program management, and quality in an open forum to share experiences, discuss issues, and brainstorm ideas.

## Awards and Feedback

Rounding out the event, the Awards Dinner and Reception honored top installers—always a difficult choice among so many superior candidates. This year, Brad's Electronics in Pontotoc, Mississippi was selected as the consumer Dealer of the Year for consistent outstanding performance and willingness to go the extra mile to maintain the highest levels of customer satisfaction.

Hughes distributor CITS, Inc. in Gibson City, Illinois was chosen as the Distributor of the Year for outstanding service to Hughes enterprise customers.



Selected for consistent outstanding performance, CITS, Inc. is one of the many companies working with Hughes that go out of their way to make sure the job is done right and to the customer's satisfaction.

Feedback after the event was overwhelmingly positive. According to Ron Maddox of Professional Technical



Services in Clanton, Alabama, "The information exchanged between dealers offered different perspectives on how to market HughesNet, providing others the ability to capitalize on best practices. I have already applied some new marketing tactics that I learned at the conference to start making our phones ring."

"Hughes has always been a great business partner," added Maddox. "With the changes occurring in the satellite-delivered Internet environment today, HughesNet is definitely the brand where dealers can achieve their greatest financial potential."

## The Customer Relationship

"Because the installer is a key component in a customer's relationship with Hughes, it's critical that there be a strong first impression and demonstrated professional quality of service, along with the knowledge and expertise to quickly resolve any issues," said Cliff Rees, senior director of Field Services for Hughes.

The annual HITS conference is an important opportunity to forge strong relationships between Hughes and its installers, ultimately helping to ensure the highest quality of service to Hughes customers. ♦



# Why Should You Join HUG?

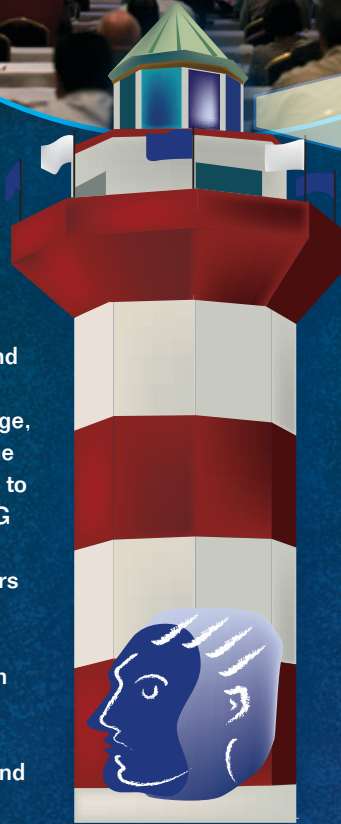


The theme of the Hughes User Group, fondly known as HUG, is “Talk, Listen, Learn.” And that’s exactly what happened at the HUG 2012 conference, recently held with record attendance on Hilton Head Island in South Carolina.

Designed to keep Hughes and its enterprise and government customers in close collaboration, HUG is all about leveraging customer knowledge, ideas, and experience to help customers get the most out of Hughes products and services and to help Hughes better meet customer needs. HUG discussions often stimulate creative problem solving and help prioritize issues that customers want Hughes to work on.

But no one knows the value of HUG better than the people who attend year after year:

- ◆ “At the roundtables, we discuss concerns and challenges, as well as things that we would like to see done,” said Jonathan Farley, CKE Restaurant manager of telecommunications. “And we see a lot of those changes implemented, typically by the next HUG meeting.”



2 0 1 2  
**HUG**  
 talk. listen. learn.

- ◆ “I always like to say all of us are smarter than one of us,” added Mark Davis, Sonic senior director of enterprise technologies. “We began talking with peers and they were easily able to provide us with solutions that we otherwise would have spent a significant amount of time and expense to come up with on our own.”
- ◆ “It’s invaluable,” finished Tom Peake, director and senior technology officer of Springleaf Financial. “It’s experience that customers are missing if they don’t collaborate with other customers and the Hughes management team. This is an opportunity for them to meet face to face with any Hughes executive.”

Today’s network environment is more complex and challenging than ever, and participating in HUG is the best way for Hughes enterprise and government customers to exchange information, solve problems, prepare for network upgrades, and explore service expansion.

For more information about participating in HUG, contact your Hughes program manager. ◆

## Tomsk Satellite Technology Center First Graduating Class

Just six months after its official opening in December 2011, Russia’s first Satellite Technology Education Center at Tomsk Polytechnic University (TPU) (*See Channels Story, Spring 2012*) proudly celebrated its inaugural graduating class, which included students from leading Russian operators RTComm and Rostelecom and the university itself. Organized as a collaborative initiative between TPU, the Scientific Industrial Center (STRELA) in Tomsk, Siberia and Hughes, curriculum topics range from satellite broadband network design and operations to terminal performance/installation,

based on in-depth study and hands-on training using the industry-leading Hughes HX System operating at TPU.

“Hughes heartily congratulates the first graduating class and the Satellite Technology Education Center,” said Arunas Sleky, vice president and general manager, Russia & CIS Business at Hughes. “We’re excited to be a part of this important initiative to further the know-how and capabilities in satellite systems by future technology and business leaders from Siberia.” ◆

...which provide +4  
 both Broadcast Satellite  
 Services (BSS) and Fixed  
 Satellite Services (FSS)  
 Provides Ku- and Ka-band  
 transponder capacity to  
 customers including Dish  
 Network and Dish Mexico  
 Provides Tracking,  
 Telemetry, and Control  
 (TT&C) services  
 Controls orbital slots  
 gateways, and other  
 network assets



# LEADING THE FUTURE OF SATELLITE BROADBAND

## 2012 International Seminar and Workshop Series

### From Moscow...

In May, Hughes held its 15th annual Satellite Technology Seminar in Moscow, addressing the global explosion of broadband and its critical importance to economic growth. The event showcased the company's wide range of innovative systems and solutions to an audience of over 100, including major service providers, partners, and media from Russia and the CIS countries.



Hot topics included the comprehensive benefits of the company's new HX System 4.0, which will further strengthen the system's application in specialty markets such as IP trunking, 3G/4G cellular backhaul, Virtual Network Operator (VNO) hosting, and Comms On-The-Move (COTM) for airborne, maritime, and land mobile applications.

### ...To Johannesburg

The 2012 South African seminar took place in May in conjunction with the SatCom Africa 2012 Conference and Exhibition. Highlighting this year's seminar were the latest advances in Ka-band, high-throughput satellite technology with more than 80 times the capacity of conventional Ku-band satellites. Also featured was the recently announced HX System 4.0, which brings a host of technology enhancements for fixed and on-the-move broadband satellite solutions. Discussions included satellite broadband solutions for a range of industries, including the telecom, finance, education, entertainment, retail, government, military, and maritime sectors.



In addition to sponsoring and exhibiting at SatCom Africa 2012, Hughes participated in a panel discussion on "Remote and Rural Access: Key Factors in Sustaining Long-Term Rural Connectivity" and presented "Hybrid Network Delivery—Redundancy, Reliability, and Reach" during a session on last-mile connectivity.

### ...To Singapore

The 2012 Singapore event was held in June in conjunction with CommunicAsia 2012. The hot topic was once again the new HX System 4.0, enabling providers to serve customers in the hardest-to-reach areas with the highest performance and efficiency possible.

New this year was a series of workshops designed to appeal to a wide audience ranging from VSAT service and cellular operators, to VNO and telecommunica-

tions service providers, to enterprise, military, and oil/gas IT staff. A broad array of workshop topics was offered, including high-availability and enterprise networking, Ka-band, cellular backhaul, digital media, and on-the-move applications, to name a few.

"Our international seminar and workshop series provides an excellent opportunity for Hughes to update our business partners on what's new with Hughes from both technology and business perspectives," said Dave Rehbehn, senior director, International Division, Hughes. "It brings together our many customers and candidates to share experiences, discuss issues, and exchange information. The feedback is invaluable in helping us focus on what matters most to them." ♦

## EchoStar XVII Lifts Off!

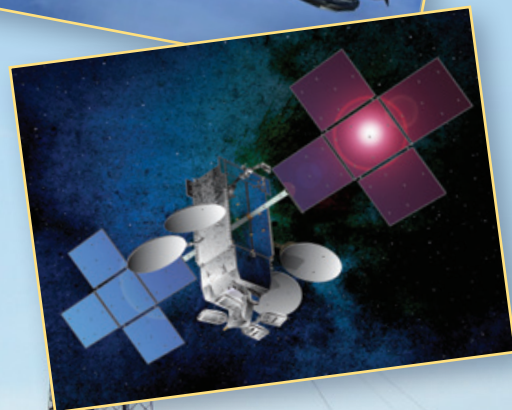
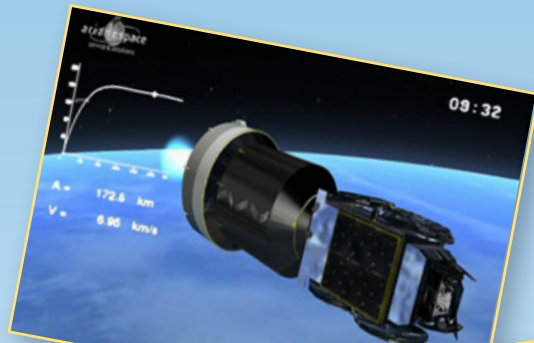
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Built by Space Systems/Loral and designed to deliver well in excess of 100 Gbps throughput, EchoStar XVII sets the stage for HughesNet Gen4—the Hughes fourth-generation satellite Internet service, bringing dramatically increased performance and capacity.

After the satellite was successfully positioned into its geostationary orbital slot 22,300 miles above the equator at 107.1° West longitude, extensive testing commenced on July 23, including satellite bus and payload tests. Hughes will subsequently deploy its JUPITER high-throughput technology, commissioning gateways and test terminals around the U.S., with commercial operations expected to begin this fall.

“The addition of EchoStar XVII with JUPITER high-throughput technology to our existing satellite capacity, ground network, and services takes satellite Internet to the next dimension,” said Pradman Kaul, president of Hughes. “Our HughesNet Gen4 customers will be able to enjoy a media-rich world like never before.” ♦

EchoStar XVII will expand the total capacity for HughesNet service to over 1.5 million new subscribers in North America, building on the current base of more than 640,000 subscribers, which represents both the world’s largest consumer satellite Internet service and the largest Ka-band technology network. Employing a multi-spot beam, bent pipe Ka-band architecture, the new geostationary satellite has a capacity equivalent to approximately 80 conventional Ku-band satellites.



**T**he addition of EchoStar XVII with JUPITER high-throughput technology to our existing satellite capacity, ground network, and services takes satellite Internet to the next dimension. ♦♦

— Pradman Kaul,  
President of Hughes



## Hughes QuickTakes

### A Great Place to Work

Many companies believe they offer employees a great working environment. But it's especially gratifying when an objective third-party agrees. That's why it was such a special honor when Hughes was again recognized in June by the Alliance for Workplace Excellence as one of the Washington, D.C. area's best places to work. At the same time, the Alliance awarded Hughes the EcoLeadership Award and the Health & Wellness Trailblazer Award.

For the past 13 years, the Alliance has recognized the best places to work, honoring organizations that promote professional fulfillment and personal wellness—at work, at home, and in the community, as well as their commitment to environmental sustainability.

Award criteria includes flexible and inclusive corporate culture, family- and employee-friendly programs, strong health and wellness initiatives, growth and learning opportunities,

and a commitment to corporate, social, and civic responsibility.

### Workplace Excellence

Hughes is committed to maintaining the integrity of workplace excellence by offering employees a great place to work through technology; flexible work arrangements; learning, health, and wellness programs; community involvement; diversity; and a positive corporate culture. Here are just a few examples:

The company sponsors an Engineering Mentoring Program that pairs up new engineers with senior engineering staff to enhance the productivity and assimilation of new employees, offer continuous learning, and encourage career growth.

Hughes also hosts a number of sports, health, and wellness programs, including volleyball, cricket, baseball, and tennis tournaments, as well as yoga and other exercise

programs. An onsite nurse from Johns Hopkins Medical Center is also available when needed.

In a positive work environment, there naturally grows a high level of camaraderie between employees. Hughes employees often hike together, bike together, eat together, and socialize together, forming smaller families within the overall Hughes family

In addition, the Alliance's recognition of the Hughes commitment to environmental sustainability reflects many new green initiatives undertaken across the company.

"We recognize that our employees are our most important asset," said Michelle Pearre, vice president of Human Resources at Hughes. "That's why we are committed to providing a positive work environment with a range of wellness resources to ensure they achieve a healthy work-life balance." ■