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## Hughes SPACEWAY® Crypto Kernel Achieves Advanced Cryptographic Security Validation

### Enhances Security and Reliability of Inter-Government Crisis Network

GERMANTOWN, Md., June 26, 2012 /PRNewswire/ -- Hughes Network Systems, LLC (HUGHES), the global leader in broadband satellite solutions and services, today announced that its Hughes SPACEWAY Crypto Kernel (HCK) has achieved Federal Information Processing Standards (FIPS) 140-2 Security Level 1 validation, a cryptographic hardware and software accreditation given by the National Institute of Standards and Technology (NIST). The HCK is a common cryptographic engine employed by the Hughes HN9500 satellite terminal and the SPACEWAY 3 Access Gateway for secure communications.

(Logo: <http://photos.prnewswire.com/prnh/20110112/NE29456LOGO> )

Tony Bardo, assistant vice president for government solutions at Hughes commented, "This important cryptographic accreditation further leverages the advanced capabilities of our award winning SPACEWAY 3 satellite system and associated Inter-Government Crisis Network (IGCN) to deliver highly reliable and secure broadband connectivity—which is particularly important for government disaster communications. Utilizing SPACEWAY 3's unique on-board switching and routing, the Hughes IGCN solution is designed to help agencies meet their emergency communications needs for Continuity of Operations planning and emergency preparedness."

SPACEWAY 3 operates in the Ka-band and today provides broadband connectivity to well over 500,000 subscribers in North America, including consumers, enterprises, and government agencies, making it the world's largest Ka-band satellite network. Optimized for broadband IP services, the Hughes SPACEWAY 3 system supports a wide variety of applications, from high-speed Internet/Intranet access, to distance learning, video conferencing and emergency preparedness/response. The HCK cryptographic engine enables secure communications through the following elements:

- Hughes SPACEWAY 3 Access Gateway, which manages uplinks to the satellite and Internet interconnection, employing a proprietary encoding protocol for the outbound channel received by all HN9500 satellite terminals. These terminals then communicate in a single hop back to the Access Gateway or to each other.
- HN9500 satellite terminal/router at the customer site delivers carrier-grade broadband IP connectivity with enhanced security, acting as the local access point to the satellite system and overall network infrastructure.

The HCK provides the following basic functionalities:

- Creation of dynamically-generated shared session keys using Internet Key Exchange
- Establishment and tear down of IP security tunnels between two or more hosts
- Advanced Encryption Standard (AES) 128- or 256-bit encryption on all data transfer within the IP security tunnel
- Message authentication and integrity using Keyed-Hash Message Authentication Code

In order to expedite the FIPS 140-2 validation process, Hughes partnered with Corsec Security, Inc., a validation consulting firm with over 14 years of validation experience. "Hughes has a track record of incorporating proven, advanced encryption capabilities into their satellite products," said John Morris, President of Corsec. "We are pleased to have worked with Hughes on this latest FIPS 140-2 validation of the HCK."

For more information on FIPS 140-2, or to view the HCK's validation certificate, click [here](#).

#### 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 operates 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. For additional information about Hughes, please visit [www.hughes.com](http://www.hughes.com).

**About Corsec Security, Inc.**

Corsec Security, Inc. specializes in helping companies navigate through the complex process of achieving FIPS 140-2, Common Criteria (CC), and UC APL certifications. Corsec delivers unmatched expertise in the areas of security consulting, document creation, and project management, which can be leveraged to streamline the validation process. Corsec partners with companies around the world to achieve U.S. and international certification on a wide range of products. Corsec minimizes the time, effort, and money a vendor needs to invest in validation, and performs its services at a firm, fixed price, ultimately maximizing the return on that investment. For further information, please visit [www.corsec.com](http://www.corsec.com).

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