NEWS RELEASE

Cisco's Space Router Successfully Operates in Orbit

SAN JOSE, Calif. - Jan. 18, 2010 – Cisco announced today that its Internet Routing in Space (IRIS) technology has achieved a major milestone with the successful in-orbit test of the Cisco IOS® Software's networking capabilities and the company's on-board router. This is the first-ever deployment of an Internet Protocol (IP) router aboard a commercial GEO satellite. The technology was launched via Intelsat's IS-14 satellite on Nov. 23, 2009.

Facts:

- IRIS is a program to build a radiation-tolerant IP router for satellite and related spacecraft.
- The IRIS payload will support network services for voice, video and data communications, helping enable government agencies, military units and allied forces to communicate with one another using Internet Protocol and existing ground equipment.
- IRIS offers several enhancements over conventional satellite technology. With IRIS, users will be able to experience a true mobile network — one that helps enable them to connect and communicate how, when and where they want, and that continuously adapts to their needs without a reliance on predefined, fixed infrastructure.
- IRIS can route data to multiple ground receivers in a single step, eliminating the need to double-hop to a teleport and therefore reducing latency and increasing transponder utilization. The software on the Cisco® router and onboard modem can be upgraded in orbit, which increases flexibility and the return on investment.
- The IRIS program is a Department of Defense Joint Capability Technology Demonstration (JCTD) managed by Cisco and Intelsat General Corp. The IRIS payload will convert to commercial use following the three-month JCTD ending in April 2010.
- The in-orbit test was conducted using SEAKR Engineering Inc.'s Application Independent Processor (AIP) which was used to host the router and software-defined radio functions necessary for on-board routing, enabling satellite routing capabilities to be reconfigured and updated dynamically from the ground.
- Cisco will work with satellite manufacturers, system integrators and end users to help enable them to deliver services globally to points outside traditional ground-based networks.
- Intelsat, the world's leading provider of satellite services, will operate the IS-14 satellite carrying the IRIS hosted payload both during the JCTD test period and following the demonstration when the payload converts to commercial use.
- Space Systems/Loral is the world's leading provider of highly reliable commercial satellites enabling ubiquitous communications for the US government, television broadcasters, radio operators, mobile phone providers, and broadband services worldwide. The company integrated IRIS, as a "hosted payload" on a commercial satellite that it provided to Intelsat, the world's largest satellite services operator.
- The Defense Information Systems Agency will have overall responsibility for coordinating the demonstration of the IRIS technology among the government user community and for developing means of utilizing the IRIS capability.

Supporting Quotes:

- "This milestone is another step in our strategy to expand borderless networks into space and redefine how satellite communications are delivered. This technology can help transform satellite communications around the world by reducing latency and increasing the efficiency," said **Steven Boutelle, vice president, Cisco Global Government Solutions Group**.
- "Cisco's IRIS technology has the potential to transform how the government uses satellite services for military and other communications," said **Michael Florio, JCTD operational manager, Space and Defense Battle Lab**. "We are pleased to be working with Cisco and its partners to test and validate this transformational technology."
- "The IRIS demonstration is an important first step toward making Internet routing in space a reality that could ultimately enable the Intelsat system to make more efficient use of bandwidth," said **Kay Sears, president of Intelsat General Corp**. "By eliminating the need for routing at a ground-based teleport, we can dramatically increase the efficiency, flexibility and data throughput of satellite links."
- "Our ability to meet the demanding processing requirements and tight schedule is a testament to the scalability and flexibility of the AIP processing architecture. IRIS represents the most powerful reconfigurable processor ever flown, and was delivered on a time frame consistent with commercial communication satellite procurement," said **Paul Murray, SEAKR's director of IP and Reconfigurable Processors**
- "Commercial satellites offer a best value solution for quickly deploying important and innovative space-related technologies, such as IRIS," said **Arnold Friedman, senior vice president, Sales & Marketing, Space Systems/Loral**. "We have worked with Intelsat for more than four decades, providing a high-reliability platform for their services."

Supporting Resources:

- **See a photo of the Intelsat satellite launch.**
- **See the IRIS modem and the IRIS router.**
- **For a video and more information on the IRIS partnership see:** http://www.cisco.com/web/strategy/government/space-routing.html
- **Review the specifics of IRIS technology and learn more at:** http://newsroom.cisco.com/dlls/2010/ts_011910.html

Technorati Tags: Cisco, IRIS, Router, Routing in Space

About Cisco

Cisco, (NASDAQ: CSCO), the worldwide leader in networking that transforms how people connect, communicate and collaborate, this year celebrates 25 years of technology innovation, operational excellence and corporate social responsibility**.** Information about Cisco can be found at http://www.cisco.com. For ongoing news, please go to http://news.room.cicso.com.

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