Custom supplement to Federal Computer Week

The Sky's No Limit

Upcoming SATCOM II award sets stage for next-generation satellite applications

Hollywood loves a good sequel. So does the federal government, which is preparing SATCOM II, a follow-on satellite communications contract that paves the way for a new generation of satellite applications.

Although the General Services Administration (GSA) has yet to name SATCOM II contract award winners, an announcement with that information is expected within the next few weeks, according to several sources at prominent integrators and communication companies.

SATCOM II's development comes at a critical time for federal agencies and their IT partners. Indeed, the GSA's existing Satellite Services contracts are set to expire on January 27, 2007.

Tony Bardo, associate vice president for Government Markets at Hughes Network Systems, Germantown, MD

To be sure, the existing SATCOM contracts served their purpose. However, federal agencies will likely welcome the imminent transition to SATCOM II. Indeed, many federal employees continue to use antiquated dial-up network connections that don't support video, voice and other modern applications. And some agencies have antiquated contingency plans that rely too heavily on land-based computer networks, which can wash away during a hurricane, melt in a fire or vaporize during a terrorist attack. "We've come a long way in the five or six years since the original SATCOM contract," said Tony Bardo, associate vice president for Government Markets at Hughes Network Systems in Germantown, Md.

"Agencies used the original SATCOM for boutique applications like distance learning and telemedicine," he continued. "These were important but not mainstream applications. SATCOM II gives vendors the flexibility and creativity to offer and propose a variety of services such as international coverage, application support, engineering and maintenance."

Kay Sears, senior vice president of sales, marketing and business development at Intelsat General Corp., of Bethesda, Md., agrees. "When [GSA] wrote the original SATCOM contract they weren't thinking about network and data security. It was a different time in terms of technology and priorities. The world has changed a great deal."

Kay Sears, senior vice president of Sales, Marketing & Business Development, Intelsat General Corp., Bethesda, MD

Indeed, the GSA has designed SATCOM II with six core goals in mind, including everything from service continuity to service quality (see "SATCOM II's Six Core Goals" on page s5). SATCOM II also covers four service types: satellite transport; applications; design, engineering and maintenance

The Sky's No Limit

Continued

services; and professional support, as the small-business set-aside. Each service type will run for three years with three additional one-year options. Moreover, SATCOM II was designed with specific applications in mind, including emergency response and continuity of operations, distance learning, telemedicine, streaming video and broadcast satellite services, according to John Johnson, the GSA's Federal Acquisition Services assistant commissioner for Integrated Technology Services.

SATCOM II's parameters weren't designed in a vacuum. The program's components were developed through work with the Satellite Agency Working Group. The group is comprised of representatives from the Department of Defense, the Federal Aviation Administration, NASA, the Department of Justice and Health and Human Services, to name a few, Johnson added.

Although GSA has not disclosed the value of the SATCOM II contract, Federal Sources Inc. of McLean, Va., estimates the total contract will be worth about $175 million.

Carefully Planned Progress

Still, the SATCOM II awards remain a work in progress. The GSA in February 2006 posted the original SATCOM II solicitation and also held a pre-proposal conference to answer questions from interested parties. Johnson explained that vendor proposals were due March 14 and the GSA originally hoped to make contract awards in mid-2006. However, the GSA adjusted its plan on June 2, requesting revisions from all submitting vendors by June 14.

"The award announcements were expected in August but did not come through," said a spokesperson from one submitting vendor who requested anonymity. "Word on the street is that GSA was inundated with submissions by various satellite communications and service providers, thus causing delays in making a decision."

GSA officials decline to speculate when the contracts will be awarded. However, the existing GSA FTS Satellite Services contracts expire on January 27, 2007. Assuming GSA doesn't extend the original contracts, it's highly probable SATCOM II awards will be announced within the next few weeks.

Separated at Birth?

While many vendors await the GSA's SATCOM II contract announcement, some observers wonder how, or if SATCOM II is related to other federal contracts involving wireless technology.

SATCOM II is not to be confused with the Army's Worldwide Satellite Systems (WWSS) contract, NASA's recent award to Assurance Technology Corp. (ATC) or the pending Networx contracts, Bardo explained.

Indeed, Networx is designed to provide federal agencies with telecommunications products and services at the best possible price. But while SATCOM II leverages satellite infrastructure,

Built-in Technological Flexibility

When it comes to SATCOM II applications, the government is keeping its technology options open.

Rather than requiring SATCOM II applications to use a specific transmission option, the GSA has requested vendors support full-duplex, half-duplex and simplex (in other words, broadcast) transmissions using C-band, Ku-band, and Ka-band satellites. The government also wants voice, data and video to be supported across highly secure satellite links. In most cases, highly secured links are expected to leverage AES encryption.

The government has also requested Mobile Satellite Services (MSS) such as Iridium, Globalstar, Inmarsat and Thuraya. MSS provides satellite-based full-duplex circuit-switched voice, data and facsimile communications, capable of supporting land, maritime and aeronautical mobile communications for people on the move, according to GSA documents.

The Sky's No Limit
Continued

the Networx Universal contract depends more specifically on traditional telecommunications infrastructure and the Networx Enterprise contract focuses heavily on emerging IP applications.

Big Time Connections

Although SATCOM II has the potential to support rich video applications, many federal agencies will need to upgrade their IT infrastructures to run such applications.

"The difference between SATCOM I and II is the GSA has done a good job of expanding cadre of services that agencies can use," said Sears. "There's a greater emphasis on managed network services for example. Instead of buying a product, per say, agencies will be able to buy managed services off of the menu with various data points and rates."

"With SATCOM II, there's an opportunity to roll out broadband to thousands of small federal offices that have been operating on dial-up until now," Bardo added. "Many small government offices have either lacked or couldn't afford cable or DSL broadband," he continued. "Once broadband satellite connectivity is introduced, you can offer location-indifferent applications to virtually all federal offices."

That type of broadband paves the way for telework. "Teleworking and telecommuting are great buzzwords that have promised to ease road congestion, conserve energy and improve quality of life," said Bardo. But despite these advantages, workers must be able to access the bandwidth-hungry applications that require broadband, he explained.

With SATCOM II, federal agencies can roll out broadband satellite applications that route applications and file updates to specified users. Moreover, satellite systems have network management capabilities that allow federal agencies to reprioritize bandwidth and applications at a moment's notice.

No Need to Panic

SATCOM II will support a range of applications, but continuity of operations is one of its most critical components – with good reason. Many federal agencies worry how they would react if their operations were threatened during a catastrophic event that reached the level of Hurricane Katrina or the September 11th terrorist attacks.

After Katrina, some agencies pursued network redundancy by contracting for two network clouds from two carriers. But if the carriers' systems were located in the same geographic region, a single catastrophic event could knock both systems out of commission, Bardo explained.

SATCOM II's Six Core Goals

Service continuity – The government wants to ensure a smooth transition from existing satellite contracts, which are set to expire January 27, 2007.

Competitive pricing – From the get-go, the government wants all SATCOM II equipment and services pricing to be equal to or less than commercial pricing. Further discounts can be negotiated at the task order level based on volume, the GSA has indicated.

Continuous competition – The government expects to award multiple contracts, although the actual winners have yet to be announced.

Full range of commercial offerings – The government will award contracts that include mobile, fixed and broadcast solutions.

Flexible commercial ordering and billing options – The government will allow multiple ordering and billing options to customers. Similar to the previous satellite contracts, customers can take advantage of direct-order, direct-billed or GSA-assisted ordering and billing options.

Service Quality – The SATCOM II acquisition will include enforceable agreements to ensure high-quality ongoing service.

The Sky's No Limit

Continued

In stark contrast, satellite communications ensure that federal agencies, telecommuters and mobile employees can continue working even if an agency's headquarters and primary network has gone dark. Moreover, satellite communication links can allow an agency to quickly relocate employees during and shortly after a disaster. "If the landline network fails, you can swing to the area and ensure emergency responsiveness," said Bardo.

A SATCOM Refresher Course

Satellite service providers for the original SATCOM contract include:

- Atlas Telecom
- AT&T Government Solutions
- COMSAT General Corp.
- Electronic Data Systems
- General Dynamics
- G2 Satellite Solutions
- Intelsat Government Solutions
- Marshall Communications
- Telenor Satellite Services

Current SATCOM services include:

- Mobile services from Iridium, Inmarsat, Globalstar, Aeronautical Inmarsat and Thuraya;
- Fixed satellite services, such as ad hoc and dedicated bandwidth, Direct TV, DirecWay, Dish Network, Starband/Gilat, Connexstar and VSAT;
- Solutions encompassing distance learning, training, telemedicine support, COOP, emergency response and streaming video; and
- Design and engineering support and operations maintenance.

Source: GSA

Picture Perfect

Meanwhile, broadband and video enhancements set the stage for improved distance learning, telemedicine, streaming video and broadcast satellite service.

Although telemedicine isn't a new technology, it's evolving rapidly and requires modern infrastructure. Many telemedicine applications from the 1990s are antiquated because of bandwidth and user interface limitations. A scanned image or video feed, for instance, may suffer from low resolution or choppy frame progression. Those limitations can hinder a doctor from making a timely and accurate decision or diagnosis while viewing patient data remotely.

"If you're not sure what you're viewing in a video feed how can you possibly make a decision based on that feed?" asked Edison Peres, vice president and chief go-to-market officer for worldwide channels at Cisco in San Jose, Calif.

Eager to address that shortcoming, integrators and networking companies have developed so-called telepresence technology. Think of telepresence as next-generation, high-definition videoconferencing. Telepresence technology, which is available from companies such as Cisco, Hewlett-Packard Co., and Polycom Inc., typically includes 65-inch plasma TVs and 'surround sound' systems that vastly improve spoken, and unspoken, communications between videoconferencing participants. Indeed, participants can even make eye contact with life-size images of each other. The vivid video feeds also allow participants to closely study images, such as CAT scans, for example, and study each participant's body language.

Before SATCOM II, telepresence applications weren't an option for many federal agencies. "Some agency offices simply couldn't find or afford the bandwidth that telepresence requires," said Ed Golod, president of Revenue Accelerators Inc., a technology consulting firm in New York. "SATCOM II will change all that by making broadband more broadly available."

Indeed, the march toward ubiquitous broadband, highly available contingency systems and next-generation video applications should begin with SATCOM II.

The Military Gets The Message

Satcom enhances U.S. troop morale in the Middle East

How will emerging satellite applications benefit the federal government? Instead of probing Washington, D.C., for answers it may be easier to check out the progress on the other side of the globe.

Indeed, many U.S. military units throughout Iraq, Afghanistan and the Middle East depend on satellite-based systems for secure Internet access, email, video, voice over IP and other broadband services. This is not referring to highly confidential satellite systems that assist troop deployments and military strategy. Rather, these particular satellite systems enhance morale by improving communications between troops and their friends and family members back home.

Just ask Art Newsome, a Signal Corps technician in the 101st Airborne division. Newsome investigated multiple satellite options before recommending HughesNet (formerly known as DirecWay) from Hughes Network Systems.

While pricing for HughesNet varies based on the type of services deployed, the 101st Airborne determined that the commercial-based service was less expensive than traditional government-based satellite services. “Basically, it’s like buying an everyday Jeep instead of a military Jeep with all the fancy military add-ons,” noted Ed Golod, president of Revenue Accelerators, a technology consulting firm in New York. “Sometimes, the good old commercial option is just fine for the military.”

Newsome’s unit ultimately set up more than 40 cybertents, each housing roughly 20 Internet-enabled PCs. Each tent contains an adhoc network that links the PCs to a HughesNet satellite dish. The satellite connections provide soldiers with more than military e-mail access. Troops can also use the system to access personal e-mail accounts managed by Yahoo, Google and other major Internet portals. In some cases, troops even manage their financial accounts and make stock trades over the satellite links, which offer broadband connections of up to two megabits per second (2Mbps), according to a spokesperson for Hughes.

By communicating frequently with friends and family, the 101st soldiers are able to deal more effectively with high-stress missions throughout the Middle East. The division has conducted numerous security operations against terrorist cells throughout the region. The 101st has also constructed and renovated schools, clinics, police stations and other landmarks in civilian communities from Turkey to Baghdad and from the Syrian border to the Iranian border, according to Wikipedia.

The 101st Airborne’s success with HughesNet isn’t unique. Other satisfied adopters include the 82nd Airborne, 1st Armored Division, 4th Infantry and the Coalition Provisional Authority, according to HughesNet deployment references approved by the U.S. military.

In fact, Hughes estimates that more than 1,000 HughesNet dishes operate in the Middle East, backed by network operating centers (NOCs) in Dubai, the United Arab Emirates and Griesheim, Germany.

Sources say the U.S. military is also exploring HughesNet as a possible option for domestic applications, including telecommuting and branch office communications.

Frequently Asked Questions

About the GSA's next-generation satellite contract

Government request for proposals (RFPs) and related federal documents can get pretty dense. Just in case any readers feel bogged down by all the jargon, they can use this quick FAQ to understand key points and opportunities related to SATCOM II.

Q: What is SATCOM II?
A: The GSA's Satellite Services II (SATCOM II) program will provide an expanded range of end-to-end satellite solutions for government agencies, and will serve as the primary replacement vehicle for the existing GSA Satellite Services contracts.

Q: What are SATCOM II's goals?
A: The contract has six goals, including service continuity, competitive pricing, continuous competition, a full range of commercial offerings, flexible commercial ordering and billing options and service quality assurances.

Q: What applications does SATCOM II cover?
A: It includes distance learning, emergency response/continuity of operations, telemedicine, streaming video and broadcast satellite service.

Q: Why is there an emphasis on emergency response and continuity of operations?
A: The world has changed quite a bit since the original SATCOM contract was awarded. The terrorist attacks of September 11, 2001 and the more recent damage inflicted by Hurricane Katrina has forced the federal government to enhance its emergency response systems and carefully address disaster recovery.

Q: After initial SATCOM II contracts are awarded, what processes will be used to announce and compete task orders?
A: Task orders will be issued by individual agencies, providing each awardee a fair opportunity to be considered for each order exceeding $2,500. The Task Order Contracting Officer may exercise broad discretion in development appropriate order placement procedures.

Q: What bands is the government considering for SATCOM II commercial satellite service?
A: The service may use any available satellites operating in C-band, Ku-band, Ka-band and other commercial bands. Specific usage of these bands will depend on user agencies' requirements on a task order basis.

Q: Will all SATCOM II contracts require two-way satellite transmissions?
A: No. They can include full-duplex, half-duplex and simplex transmission service of voice, data and video traffic for point-to-point and point-to-multipoint configurations.

Q: If a solution provider doesn't initially bid on a section of the RFP such as, for example

SATCOM II: At a Glance

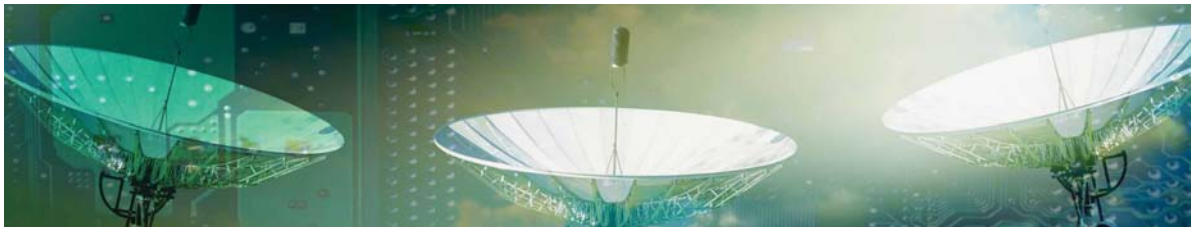
Contract:	SATCOM II
Estimated Value:	$175 million
More information:	www.gsa.gov/satcom www.sia.org
Background:	The primary replacement vehicle for the existing GSA FTS Satellite Services contracts, which expire Jan. 27, 2007.

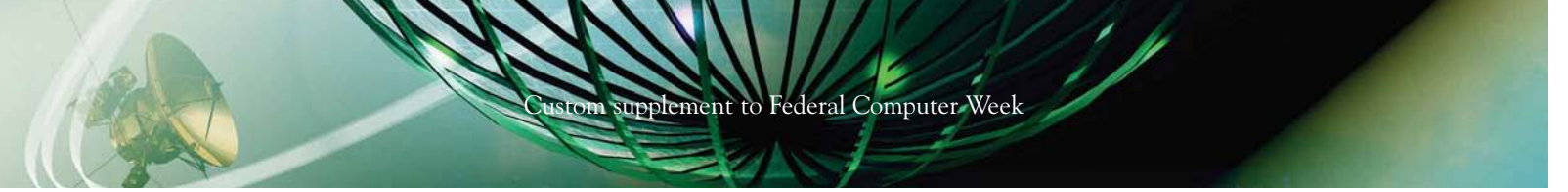
Here's a timeline of key events so far:

- Feb. 8, 2006 – GSA posts SATCOM II solicitation on FedBizOpps;
- Feb. 14, 2006 – Pre-proposal conference held for interested parties;
- March 14, 2006 – Vendor proposals due;
- June 2, 2006 – GSA requests revisions from all submitting vendors;
- June 14, 2006 – Revised vendor submissions due;
- As of mid-Nov. 2006 – SATCOM II contract awards still pending but believed to be imminent.

More Info: www.gsa.gov/satcom; www.sia.org.

Sources: GSA, Federal Sources Inc.





Summing Up SATCOM II

Facts and figures worth noting

As of this writing, the GSA has yet to award SATCOM II contracts. However, technology vendors and IT consultants are keeping close tabs on the pending contracts. Here's the scorecard so far.

Three Names to Know: The key GSA representatives most responsible for managing SATCOM II are John Johnson, assistant commissioner, office of service, development and delivery; Jim Russo, program manager, SATCOM II; and Peggy Van Tassel, contracting officer.

Three Years: The SATCOM II contract will be for three years with three one-year options.

Four Service Types: SATCOM II covers four service types, including satellite transport; applications; design, engineering and maintenance services; and professional support as the small-business set-aside.

Four Winning Factors: The GSA will evaluate SATCOM II proposals using four factors, including technical merit, past performance, management capabilities and price. Each factor has equal weight in the decision process.

Five Application Areas: SATCOM II covers distance learning, emergency response/continuity of operations, telemedicine, streaming video and broadcast satellite service.

The Small Biz Six: The GSA strives to award six percent of its contracts to small, disadvantaged businesses. Small businesses will likely have a strong voice as SATCOM II subcontractors.

The IPv6 Percentage: Nearly 70 percent of government agencies are leaning toward vendors that have IPv6 expertise. The new, more secure Internet protocol is expected to play a role in emerging satellite applications.

The Small Biz Qualifier: Small businesses that work with the GSA are defined as businesses with $13.5 million or less in annual revenue.

Total Contract Value: Although the GSA hasn't discussed the total amount of the contract value for SATCOM II, market research firm Federal Sources Inc. estimates this contract to be worth $175 million.

Sources: GSA, Federal Computer Week

Frequently Asked Questions

Continued

telemedicine, is that solution provider precluded from bidding on telemedicine task orders after GSA awards SATCOM II contracts?
A: In this example, the solution provider is precluded from bidding on telemedicine task orders after award of the contract. However, awardees may propose additional services throughout the life of the contract through the GSA's modification process. However, not all proposed modifications will be accepted.

Q: How many of the contracts will be awarded?
A: There is no set number of awards. The final figure depends on the number and quality of proposals received.

Q: What is the current status of vendor submissions for SATCOM II?
A: The GSA requested revisions from all vendors on June 2, 2006; updated submissions were due on June 14, 2006.

Q: How long will it take for the GSA to evaluate the proposals before awarding contracts?
A: Many vendors expected the GSA to make an award announcement in August, but no such announcement arrived. The GSA has not disclosed an award date and has said only that the timing depends on the number and quality of proposals received. However, the original SATCOM contracts have received short extensions and are now set to expire on January 31, 2007. It's therefore highly likely that the GSA is striving to award SATCOM II contracts before that date. In other words, stay tuned and stay patient.

Sources: GSA, Federal Computer Week