Commercial Satellite Communications Service

The EIS Commercial Satellite Communications Service (COMSATCOM) offers mobile and fixed satellite services to provide secure communication to and from points on land, at sea, or in the air. COMSATCOM also allows users a method to extend network reach and access via commercial satellite services.

The Commercial Mobile Satellite Service (CMSS) delivers voice, data and Internet services to land-based, maritime, or aeronautical users using one- or two-way communications via satellite. CMSS provides an end-to-end connection between CMSS users, or between CMSS and wireline and wireless users via the contractor's network and gateway(s).

The Commercial Fixed Satellite Service (CFSS) provides satellite capacity that can be used to deliver communications and applications at a customer-specified throughput between two or more specified end points. This service can be used for applications such as distance learning, continuity of operations, broadcast video and associated audio, including encrypted communications.

The two services include, but are not limited to, the following items: (1) Satellite Bandwidth, (2) Satellite Service Plans, (3) Contractor Provided Earth Terminals, (4) Radio Frequency Equipment, (5) Satellite Phones, and (6) Interfaces and Support Services. COMSATCOM can be delivered over any commercially available communications satellite frequency band including, but not limited to: S-, C-, L-, X-, Ku-, Ka- and UHF bands. The specific combination of services and frequency bands needed by an agency should be specified in the task order solicitation.

Category: Satellite Service

Complementary Services Needed: In order to use COMSATCOM, the agency may need one or more of the following EIS services or equivalent: Access Arrangements (AAs), or Private Line Service (PLS).

Definitions: Please see EIS contract Section J.12 Glossary of Terms for clarification of technical terms and acronyms.

Figure 1—A Fixed Satellite, which provides Commercial Fixed Satellite Service (CFSS), can be used to deliver communications and applications between two or more specified end points.
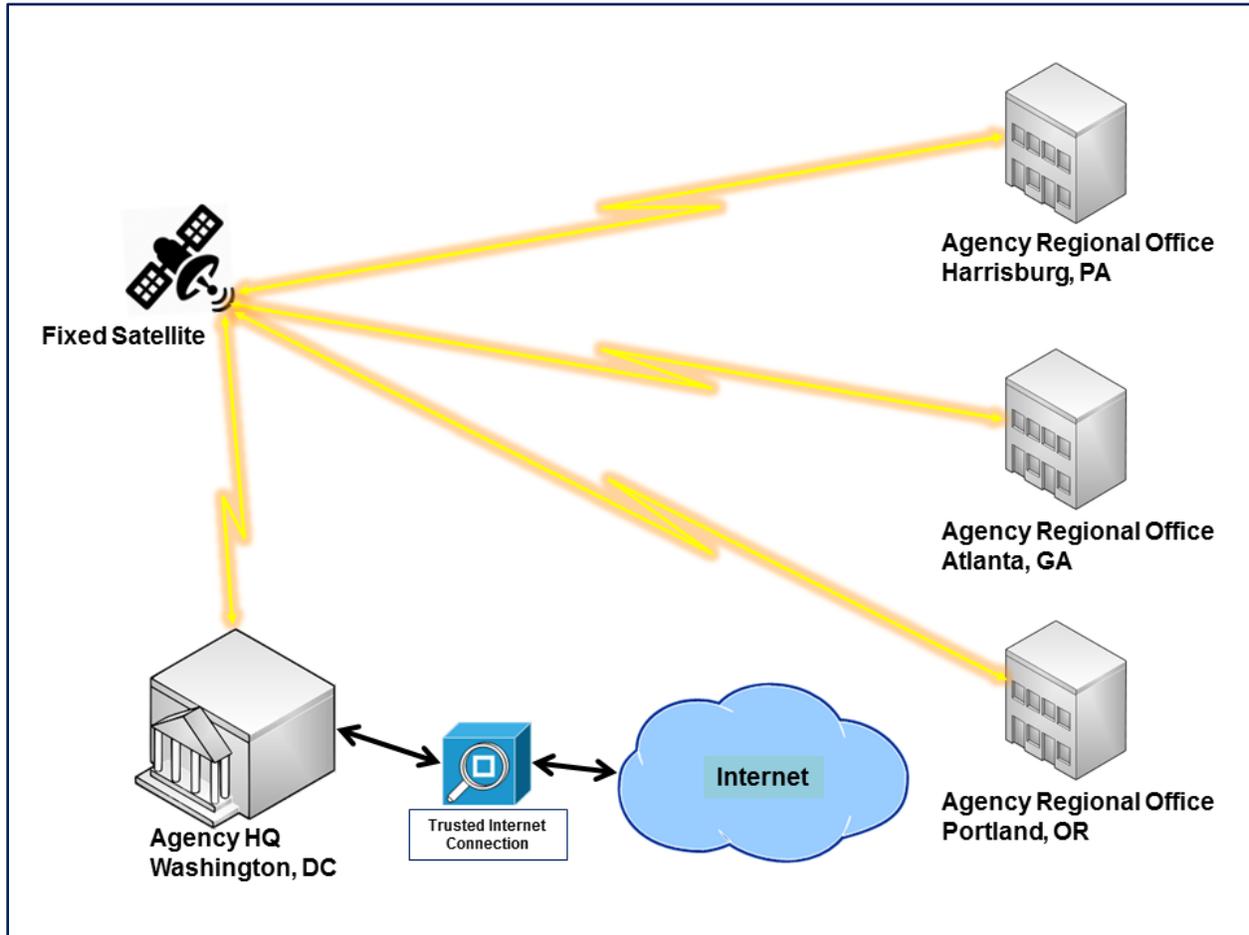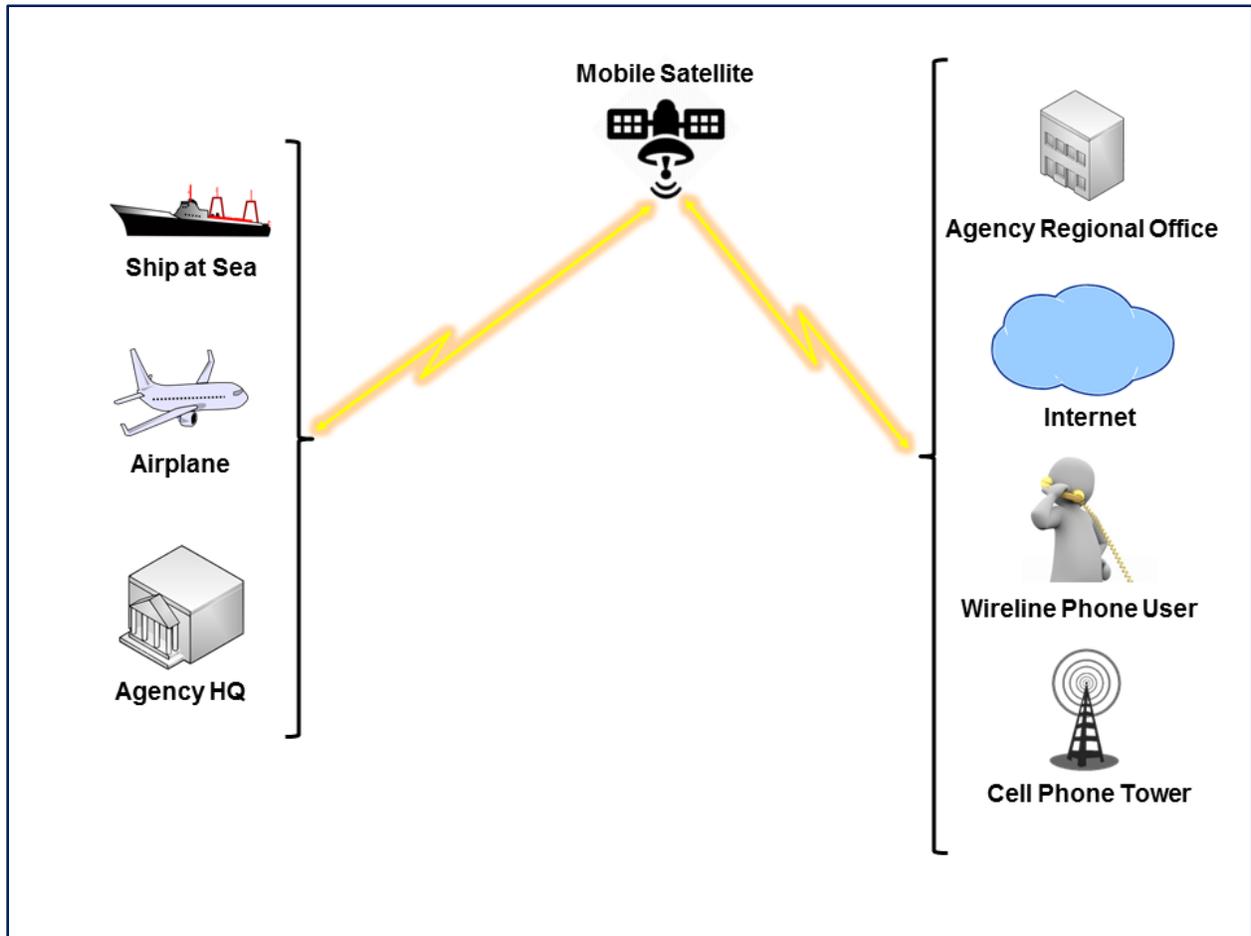
Figure 2—A Mobile Satellite, which provides Commercial Mobile Satellite Service (CMSS), delivers voice, data and Internet services to land-based, maritime, or aeronautical users using one- or two-way communications via satellite. CMSS can provide connections to wireline and wireless users.

1. Why an Agency Might Select this Service

- COMSATCOM enables the deployment of interactive voice, video, or data networks for applications such as distance learning and telemedicine.

- Network diversity/continuity of operations (COOP) networks can be set up using COMSATCOM.

- COMSATCOM can link any two wireless telephone sets at any time, no matter where in the world they are located since the CMSS systems are interconnected with land-based cellular networks.

- COMSATCOM can provide a commercial service supplement to military satellite communications that are critical components of the global communications grid and essential for national security.

NOTE: Agencies may also want to consider complementing this service with Managed Mobility Service and Managed Wireless Service.

2. Examples of How COMSATCOM Could be Used

- **Continuity of Operations and Disaster Recovery:** Agencies could use COMSATCOM as a standard set of Continuity of Operations (COOP) and Disaster Recovery services that could meet emergency communication needs. The U.S. Federal Emergency Management Agency (FEMA) uses satellite services as part of its Continuity of Operations planning to rapidly assist disaster areas in restoring communications to coordinate assistance to disaster victims.[1]

- **Rural Broadband Solution:** In rural areas where it is not economically viable for service vendors to lay miles of cable, an agency could use COMSATCOM to obtain satellite-delivered broadband Internet.

- **Secure Warfighter Communications:** The Department of Defense uses fixed and mobile satellite services to provide Warfighters with access to SBU IP Data, Secret IP Network Data, TS/SCI IP Data, SBU Voice and Multilevel Secure Voice to meet their voice and data requirements.[2]

- **Providing Distance Learning to Remote Areas:** An agency could use COMSATCOM to securely deliver critical distance learning courses to agency personnel operating in rural areas within and outside of the U.S.

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[1] Berlocher, Greg. July 1, 2013. "Disaster Recovery: Satellite More Prominent than Ever." Via Satellite.
[2] Defense Information Systems Agency. Commercial Satellite Service.

3. Key Technical Specifications

NOTE: This portion of the service guide has been abridged due to space considerations. For full technical details on COMSATCOM, please refer to EIS contract <u>Section C.2.7 Commercial Satellite Communications Service</u>.

Table 1—COMSATCOM Technical Capabilities

Capability	Description
Space Segment and Bandwidth	Provides space segments needed to meet the requirements specified in the agency task order, and, at a minimum, the performance requirements specified in EIS contract <u>Section C.2.7.3 Performance Metrics</u>. For dedicated capacity requirements, provides satellite bandwidth on a non-preemptable basis.
Ground Segment	Contractor-operated and -maintained leased earth terminal services as specified in individual task orders. Earth terminals provided by the contractor will be certified as acceptable for service by the operator of the earth satellite system that will use the terminals.
CFSS Satellite Internet Service (SIS)	Provides Internet access as well as domestic and international voice service.
CMSS additional capabilities	Internet access, voice calling, SMS texting, fax, streaming services, and machine-to-machine (M2M).

Table 2—COMSATCOM Features

Feature	Description
Capacity	Scalable capacity in any available COMSATCOM frequency band in support of US Government COMSATCOM requirements, subject to the availability of satellite resources.
Coverage	Coverage anywhere worldwide in any available COMSATCOM frequency band, including, but not limited to, L-, S-, C-, X-, Ku-, extended Ku-, Ka-, and UHF. Specific pre-defined coverage may be negotiated and defined in the task order (TO).
Network Monitoring (Net OPS)	Capability to electronically collect and deliver near real-time monitoring, fault/incident/outage reporting, and information access to ensure effective and efficient operations, performance, and availability, consistent with commercial practices.
EMI/RFI Identification, Characterization, and Geo-location	Capability to collect and electronically report in near real-time Electro-Magnetic Interference (EMI) / Radio Frequency Interference (RFI) identification, characterization, and geo-location, including the ability to identify and characterize sub-carrier EMI/RFI being transmitted underneath an authorized carrier, and the ability to geo-locate the source of any and all EMI/RFI.
Interoperability (Net Ready)	Capability to access and/or interoperate with government or other commercial teleports/gateways and provide enterprise service access to or among networks or enclaves.
Information Assurance	The contractor will meet the following standards as applicable: a) The Committee on National Security Systems Policy (CNSSP) 12, "National Information Assurance Policy for Space Systems used to Support National Security Missions," or b) DODI 8581.1, "Information Assurance (IA) Policy for Space Systems Used by the Department of Defense."

4. Pricing Basics for COMSATCOM

Please visit the EIS Resources Listing and locate the Basic EIS Pricing Concepts Guide to gain an understanding of EIS pricing fundamentals.

4.1 Access Arrangements

Appropriate access arrangements must be selected for each endpoint. Please visit the EIS Resources Listing and locate the Access Arrangements Guide for more detailed information.

4.2 Service Related Equipment (SRE)

- SRE must be chosen based on equipment required at each location. NOTE: SRE uses catalog-based pricing.

- Request that contractor provide pricing for any SRE that would be required, in addition to the agency's existing infrastructure, to deliver the service.

- Please visit the EIS Resources Listing and locate the Service Related Equipment Service Guide for more detailed information.

4.3 COMSATCOM Price Components

The price structure for COMSATCOM consists of the components shown in *Table 3* below.

Table 3—COMSATCOM Pricing Components

Components	Charging Unit
CMSS Voice (Usage)	Minute
CMSS Voice (Text Usage)	Message
CMSS Voice (Monthly Recurring Charge [MRC])	Line
CMSS Data (MRC)*	Line
CMSS Data (Usage)*	MB
CFSS Installation (Non Recurring Charge [NRC])**	Terminal
CFSS Bandwidth (MRC)**	KB
CFSS Satellite Internet (MRC)	Line
CFSS Satellite Internet Data Overage (Usage)	GB
CFSS Satellite Internet Unlimited Voice - Domestic or International (MRC). **(NOTE: May not be offered by all contractors.)**	Line
CFSS Satellite Internet Installation (NRC). **(NOTE: May not be offered by all contractors.)**	Line

*CMSS Data pricing is catalog-based and priced on an Individual Case Basis (ICB).
**Charges for these items are computed by the contractor as ICB.

Figures 3 and 4 below show how the Commercial Mobile Satellite Service (CMSS) pricing components in *Table 3* are combined to produce the total cost for the service.

Figure 3—Commercial Mobile Satellite Service (CMSS) Charges: This figure shows how the various pricing components in Table 3 would be combined to calculate the total CMSS charges. NOTE: One or more of these components may not be needed to price a particular CMSS package.

Figure 4—Commercial Fixed Satellite Service (CFSS) Charges: This figure shows how the various pricing components in Table 3 would be combined to calculate the total CFSS charges. NOTE: One or more of these components may not be needed to price a particular CFSS package.
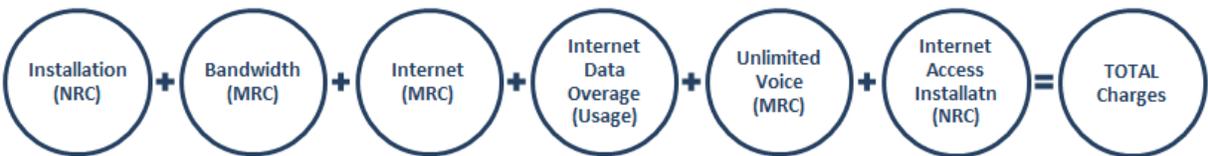
The charges for the different components in *Figures 3 and 4* above are calculated using details provided in the pricing tables in EIS contract Section B.2.7 Commercial Satellite Communications Service. (Please see the EIS Basic Pricing Concepts Guide for instructions on using the pricing tables to compute the cost of a service.)

NOTE: A contractor may offer a custom variation of the service to meet an agency's unique requirements. Such a customization would be identified with a Task Order Unique CLIN (TUC), and would include charges that would have to be added to the components in *Figures 3 and 4* to determine the total cost of the service.

4.4 COMSATCOM Pricing Examples

Example 1: CMSS Voice; 50 Lines; 100-Minute Plan

Service CLINs

- Choose CLIN CM00005 "100 Minute Plan" from EIS contract table *B.2.7.1.2—CMSS Voice Pricing Instructions Table*.

- Multiply the price found above by 50.

- For each line, the price of each minute above 100 is found in CLIN CM00020 "Voice Usage Overage" from EIS contract table *B.2.7.1.2—CMSS Voice Pricing Instructions Table*.

- Recall that CMSS data is catalog priced and ICB.

Example 2: CFSS Satellite Internet Service, 50 GB per Month, Unlimited International Voice, 10 Lines

Service CLINs

- Choose CLIN FS00004 "50 GB per month" from EIS contract table *B.2.7.2.4—Satellite Internet Pricing Instructions Table*.

- Choose CLIN FS00030 "Unlimited International Voice" from EIS contract table *B.2.7.2.4—Satellite Internet Pricing Instructions Table.*

- Multiply the sum of the prices found above by 10.

- For each line, the price of each gigabyte above 50 is found in CLIN FS00010 "Data Overage" from EIS contract table *B.2.7.2.4— Satellite Internet Pricing Instructions Table*.

5. References and Other Sources of Information

- For more technical details and information on COMSATCOM, please refer to EIS contract Section C.2.7; for pricing details, Section B.2.7.

- For more information on service-related items, please see:

  - EIS contract Section B.2.10 Service Related Equipment

  - EIS contract Section B.2.11 Service Related Labor

- Please refer to a contractor's individual EIS contract for specifics on the contractor's COMSATCOM offerings.

- For additional EIS information and tools, visit the EIS Resources Listing.

- For guidance on transitioning to EIS, please visit EIS Transition Training where you'll find several brief video training modules.