

Delivering Secure Satellite Communication Solutions

YahService^{*}



- Mubadala is the strategic investment arm of the Emirate of Abu Dhabi. The company manages a multi-billion dollar portfolio of projects in sectors



- The impact of Mubadala's investment is currently evident in sectors such as:

- Energy
- Aerospace
- Healthcare
- Real Estate
- Technology
- Infrastructure
- Services



Yahsat

- Yahsat is a regional satellite operator with focus on Africa, Middle East and South & Central Asia based in Abu Dhabi, United Arab Emirates
- Our mission is to be the leading satellite communications operator in the region through our optimum users' solutions and partnership approach
- With two GEO satellites planned for launch in Q1 2011 and Q4 2011, Yahsat brings much-needed satellite capacity to Africa and the Middle East
- Project is a \$1.66 billion turnkey contract with EADS/Thales Alenia Space for two satellites (Y1A and Y1B)
- Yahsat will bring to the market significant connectivity solution C band and Ku band, as well as both commercial and government Ka band.



Project Milestones



Our Satellites

● Currently Under Construction



Y1A

Contractor: EADS Astrium & Thales Alenia
Planned Launch: Q1 2011
Orbital Location: 52.5° E
Lifetime: 15 Years
Launcher: Ariane 5
Capacity/Payload:

C-band: 8 of 36-MHz transponders and 6 of 54-MHz Transponders

Ku BSS: 25 of 33-MHz transponders

Ka-band Government: all secure transponders used for military

Y1B

Contractor: EADS Astrium & Thales Alenia
Planned Launch: Q4 2011
Orbital Location: TBD
Lifetime: 15 Years
Launcher: ILS-Proton
Capacity/Payload:

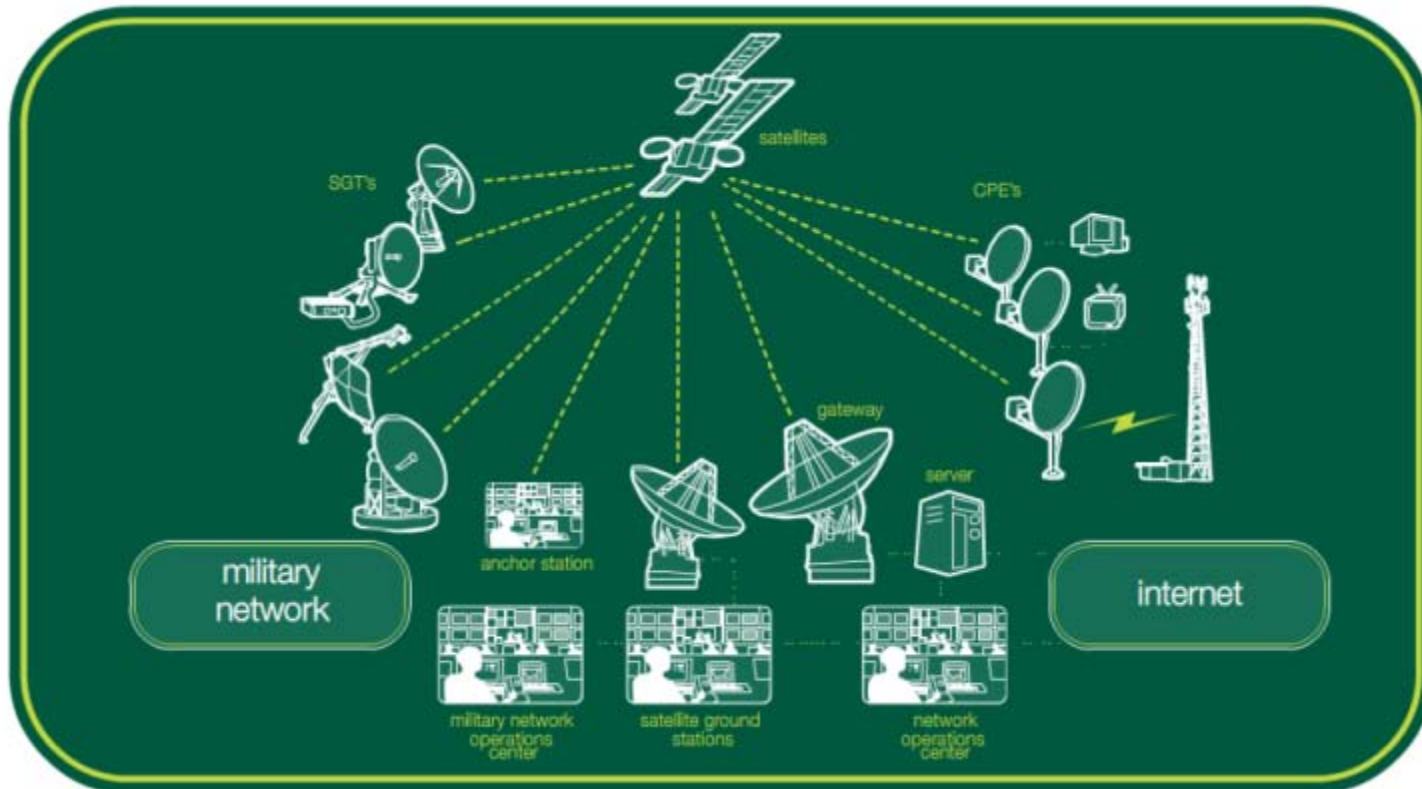
Ka-band Government: all secure transponders used for military

Ka-band Commercial: 60 spot-beams



Satellite Ground Segment

- Yahsat will make the investments in all the ground segment and network operation center and provide its service partners with access to the system through a web interface. The Satellite Ground Segment will have the followings:



Yahsat's Current Product Portfolio

YahClick^{*}



Yahsat offers a wide range of satellite services to meet all the major market requirements

YahLink^{*}



YahSecure^{*}



YahService^{*}



YahClick Coverage

- Broadband offered in 26 countries located in Middle East, Africa and South & Central Asia. 60 active spot beams with EIRP up between 58 - 66 dBW. Yahsat is deploying 4 commercial gateways in: Malta, Luxembourg, Spain and Greece

South & Central Asia

- Turkey
- Afghanistan
- Pakistan
- Iran
- Cyprus
- Azerbaijan
- Armenia

Middle East

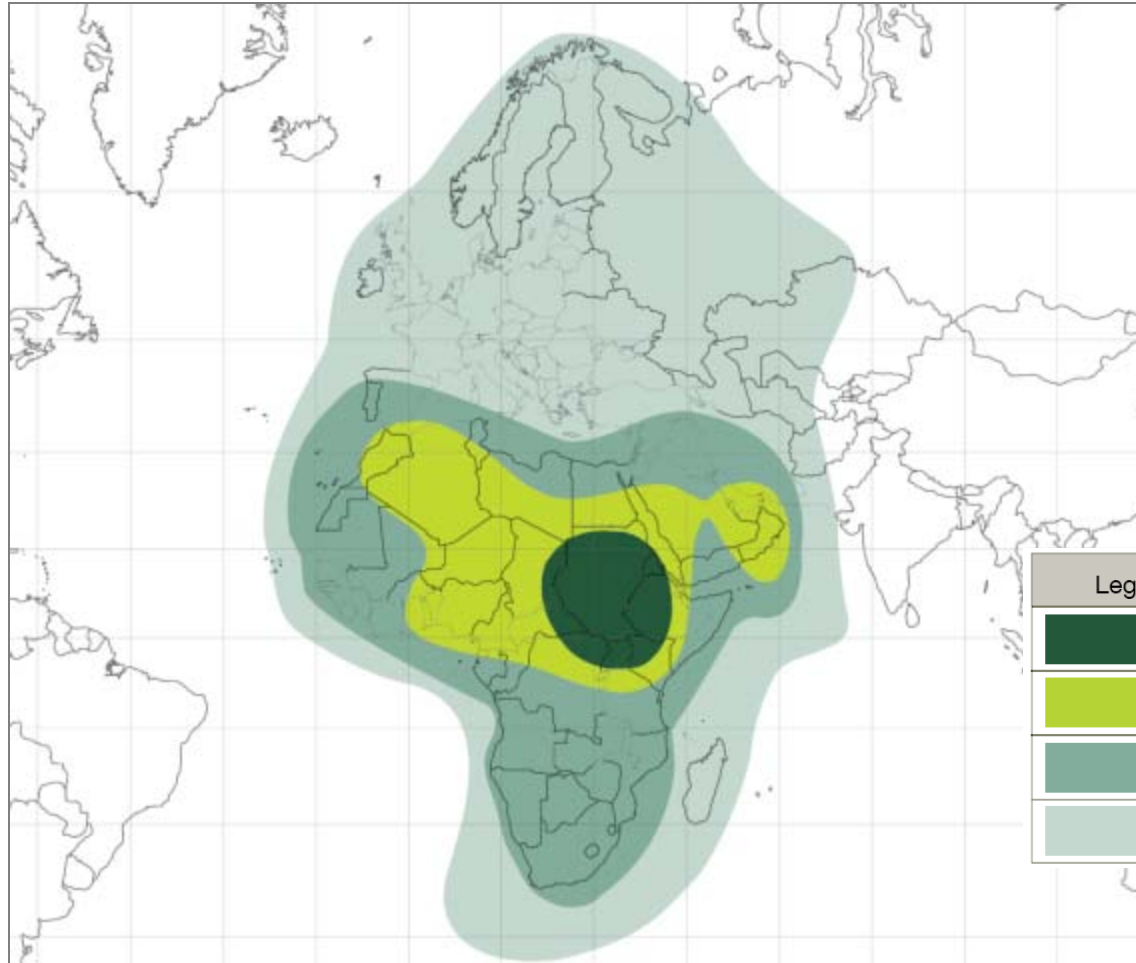
- UAE
- Saudi Arabia
- Kuwait
- Qatar
- Bahrain
- Oman
- Yemen
- Jordan
- Syria
- Lebanon
- Iraq

Africa

- Nigeria
- Sudan
- Egypt
- Kenya
- Tanzania
- Uganda
- South Africa
- Angola
- Benin



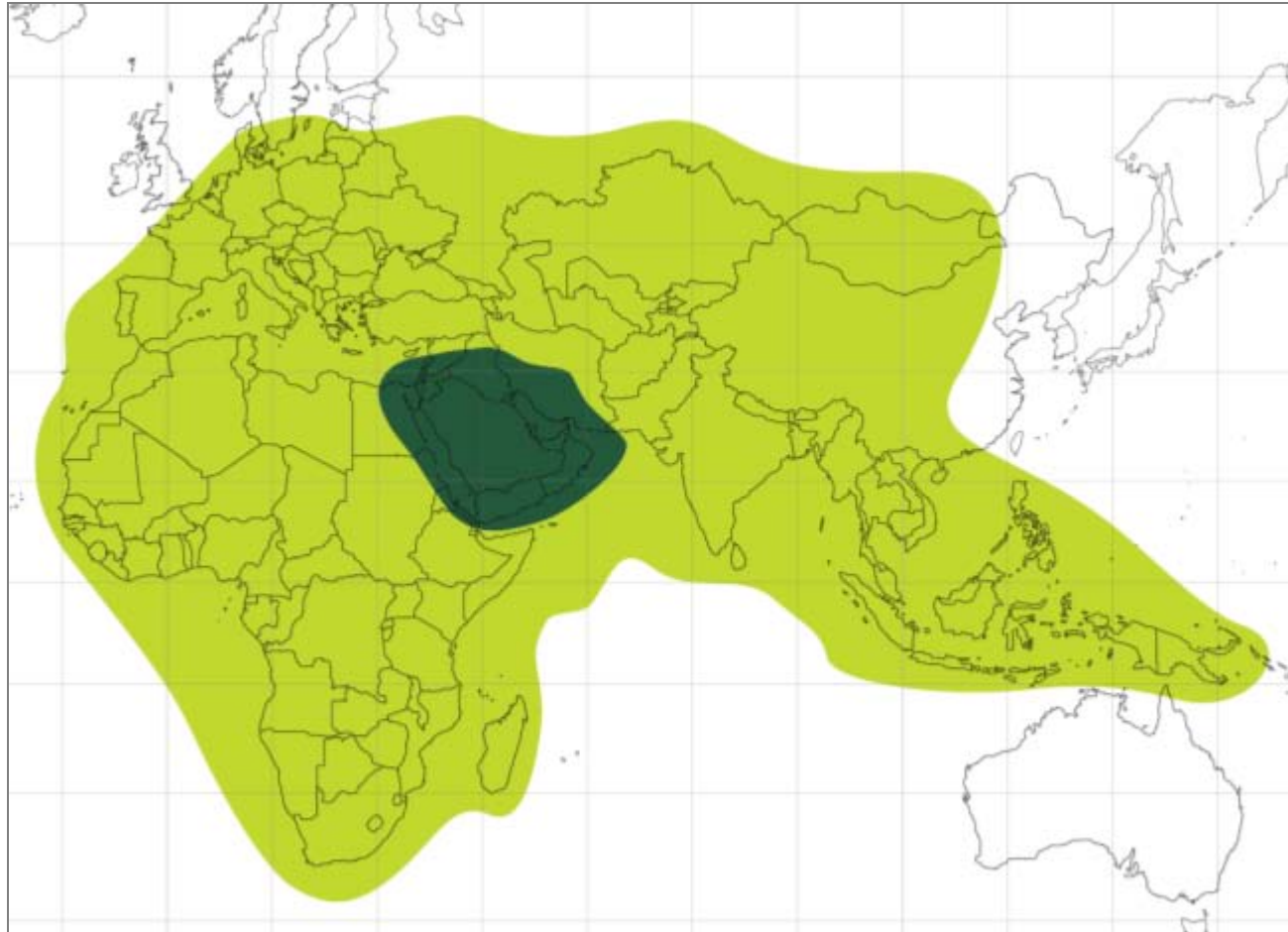
Coverage



(EIRP)



YahSecure Coverage Map



YahService Introduction

- YahService offers end to end, managed services to the UAE Government and GCC military entities.

Military: Consultancy, design, procurement, and implementation services for satellite-based military networks, including operations and maintenance, if required

Government: National and international consultancy and full delivery of managed private satellite network solutions for government entities. Applications include mission-critical data transfer, border control, disaster recovery, and backup for key data networks.

Enterprise: Connectivity and managed private satellite network solutions for enterprises. Thorough understanding of client requirements to help them procure and implement the most cost-effective combination of satellite solutions throughout Yahsat's coverage area and beyond.



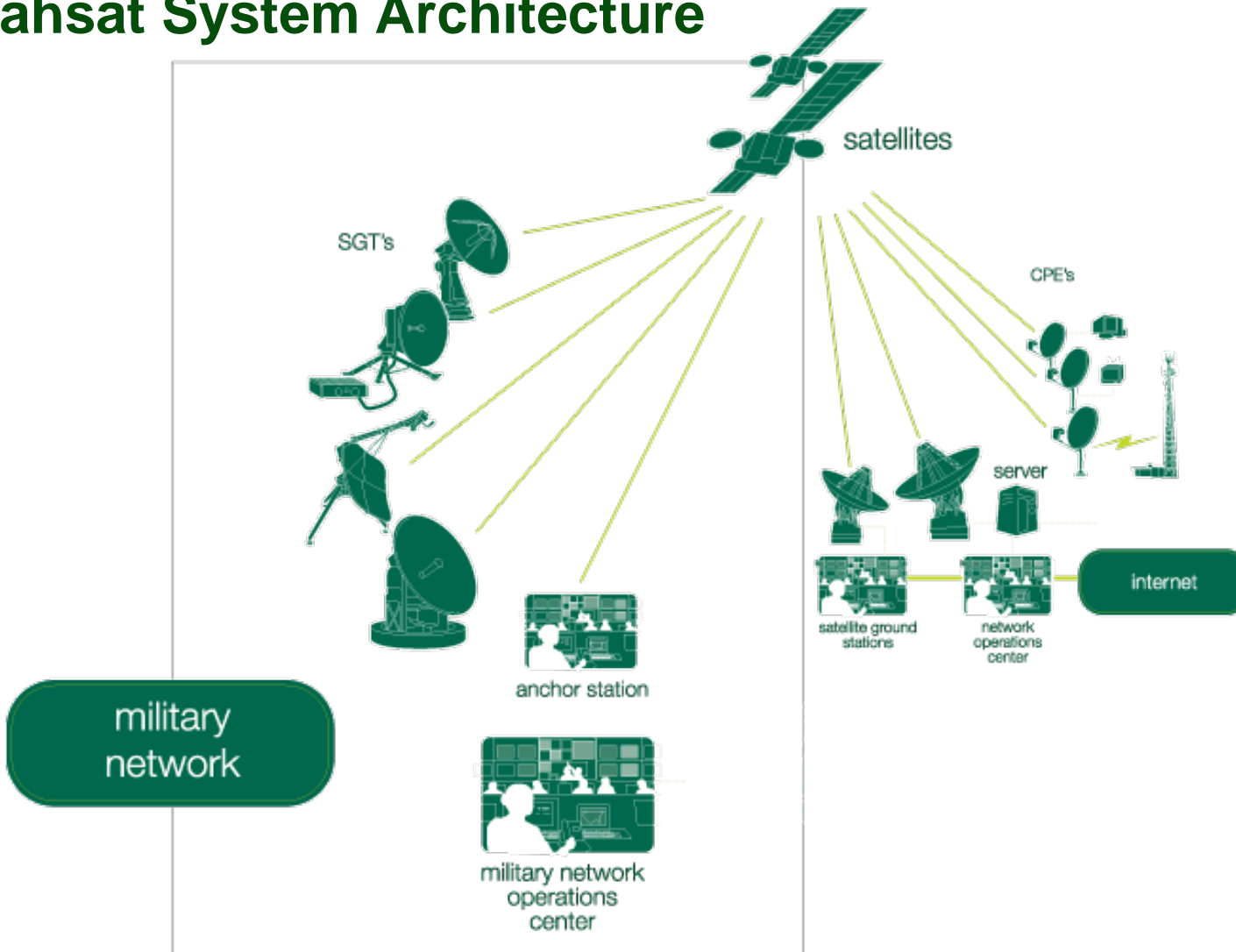
Yahsat Major Subsystem

- Yahsat's military Ka-band satellite system is a turnkey solution providing the following:
 - Redundant satellite bandwidth Primary Anchor station with a fully redundant anchor station at a different site (site diversity)
 - Network Management System
 - Satellite Ground Terminals (SGTs)

Ground facilities are physically separated from any commercial facilities, ensuring military grade security and redundancy.

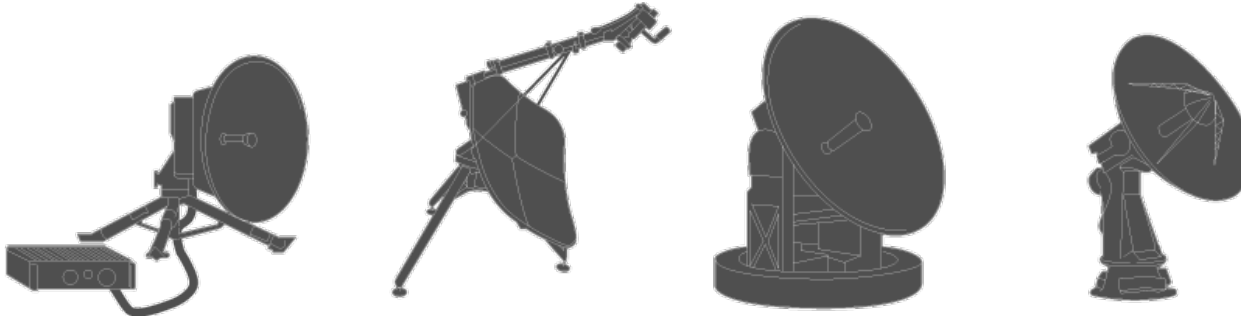


Yahsat System Architecture



Yahsat Main Features

- The Yahsat system provides a network architecture designed to provide military users with:
 - Connectivity for military and commercial users
 - High level of ground station redundancy providing close to a 100% availability
 - Full communication between deployed terminals
 - Multiple security domains
 - Rapidly reconfigurable satellite resource allocation that responds to evolving customer service requests
 - Wide range of satellite ground terminals with differing functionalities and performance



Ground Infrastructure to UAE-AF



Primary Anchor Stations - Sweihan



Fixed Small



Photos of Various SGTs



Transportable



VVIP-OTM



Flyaway



VVIP-OTP



Manpack



Naval



Future Procurement – Airborne Terminals

MRTT330 / C17



Helicopter



UAV



C130



Yahsat Satellite Ground Terminals

- Right Equipment
 - State of the art technology
- Right Place
 - Able to operate in extreme environments
 - Ease of set-up and operation
- Right Time
 - High availability
 - Reliable and robust communications



Yahsat Security – Layered Approach



Defeating a single layer does not enable data access



Security features protect confidentiality, Integrity and availability

Why Choose YahService?

- The YahService provides SATCOM connectivity as:
- Primary mode of operation to exchange communications via:
 - Data
 - Voice
 - Video
- Interface with legacy systems



Services & Applications



Defense



Disaster recovery



Border Control



Connectivity



Conclusion

- Yahsat is a state-of-the-art system that is capable of supporting various SATCOM needs.
- We need to understand the SATCOM requirements
- We can provide a turn key offer by customizing a solution to best fit the needs
- We can integrate the SATCOM element with the various terrestrial networks and legacy systems.



YahService^{*}
can provide end to end **managed services** using **state-of-the-art technology**



THANK YOU

