Applied Satellite Technology Ltd

iCSA | Integrated Communications & Situational Awareness

About The AST Group

AST is a worldwide company with a distribution network, offices and warehousing facilities in Australasia, Asia, Europe, Africa and the Americas. AST has specialist companies providing satellite solutions sales direct to vertical markets including NGOs, Government, Maritime, Fisheries, Emergency Services, Energy and Oil.

AST is a Tier 1 provider of L Band and Ka Band satellite airtime, a VNO for VSAT Services, a GX Partner with Inmarsat (Enterprise, Maritime and Government) and a Distribution Partner for satellite and radio equipment throughout the world. AST is uniquely positioned to offer independent, unbiased advice to ensure customers receive the right communication solution to meet their business needs, and at a competitive price.

With a proven track record in delivering high profile projects, AST is committed to ensuring customers are well informed and provide many Value Added Services, such as airtime bandwidth, cost control and dynamic firewall security management.

AST takes pride in being at the forefront of satellite communications technology and has access to a full Point-of-Presence (PoP) in Australia, UK and others worldwide enabling the ability to provide secure, last mile reliable communication links for customers requiring a high level of security anywhere.

AST can package any terminal with flexible innovative airtime options, as well as providing on-going after sales service and support from its highly trained, experienced engineering team. High quality pre and post sales customer support has always been an important factor in ensuring customer confidence in our provision of large integrated satellite solutions.

The business operates a Quality Management System that meets the requirements of ISO 9001:2008 to ensure that quality standards are constantly met and improved. A recent addition to this accreditation is ISO 14001, an internationally accepted standard awarded to companies that can demonstrate a proven Environmental Management System.

LAND

Remote, mobile connectivity for media, government, NGO, utilities, oil & gas and leisure users.

MARINE

Mobile voice, data and tracking solutions to meet the needs of any mariner.

M2M

Diagnostic solutions and cost effective remote monitoring via satellite.

Why AST?

A global VSAT provider but with a local presence, perfectly positions AST to provide service and support to any regional or global vessel operator.
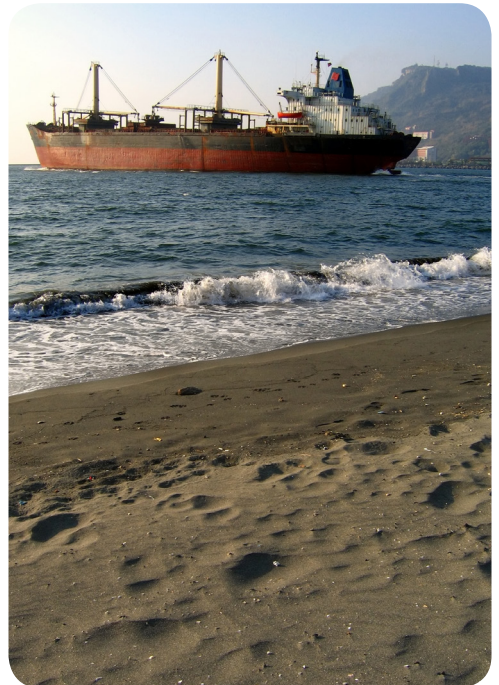
AST is an appointed Service Centre for major manufacturers, which means that all equipment can be repaired directly ensuring quick turnaround times and more flexibility when repairs of equipment are required.

Full Turn-Key Solutions

We don't just sell a box! AST provides customers with a tailored solution to meet their requirements. With our vast knowledge and experience in the industry we can deliver a full end-to-end solution ensuring reliability and performance.

We address the three major VSAT challenges; bandwidth, last mile connectivity and installation. AST has global VSAT agreements with various teleports worldwide allowing us to deliver global VSAT coverage to our customers.

Experienced Field Engineers

All AST service engineers have received extensive training and are certified to work on all systems provided.

Monitoring and Reporting

Detailed monitoring and reporting is available through an easy-to-use online portal allowing customers to have control of their own systems.

Last Mile Connectivity

This is arguably the biggest challenge faced by many organisations when it comes to satellite communications.

AST addresses the issue of last mile connectivity by having Point-of-Presence (POPs) connected to our global network (INTEGRA) which allows end-to-end private connectivity to the clients head office as required.

Finally, installation of VSAT antennas present further considerations that customers need to address. AST has redefined the entire VSAT installation process in order to provide customers with the most effective and efficient installation process.

Global Customer Support

Through 24/7 customer support and service level agreements (SLAs) AST is able to offer unparalleled, ongoing service and support to all our customers regardless of where in the world they are.

AST understands that reliable satellite communication is mission-critical to many organisations.

AST delivers high levels of satellite-based communication services which guarantee a level of service that provides you with peace of mind.

- Access to 24/7 support with defined response times
- Access to AST's Network Operations Centre (NOC) advanced reporting and monitoring software. Dedicated Account Manager and Service Engineer
- Out-of-Band Management (OBM) service

AST is **ISO 9001 accredited** and implements a quality management system to the highest ISO standards.

Corporate Experience

AST has undertaken many satellite communication projects in both land and maritime sectors. Solutions have been delivered to many large corporate customers.

Out-of-Band Management (OBM)

OBM allows AST to utilise any WAN interface (a FleetBroadband Terminal (FBB) or similar is usually provided as part of the solution) to effectively remotely manage and help customers control and troubleshoot both hardware and network issues, thereby reducing the cost and complexity of supporting the network.

Remote locations and difficult transportation to a vessel can impede a quick response when communications are compromised.

OBM enables AST technical staff to act quickly and proactively to detect, analyse and repair possible disruptions to customer's communications services.

In addition, optional on-board spare parts kits can be provided so that AST can diagnose a hardware issue and get the vessel engineer to replace faulty modules without the need to send a Satellite Engineer on-board. This allows the customer to get up and running again quickly and economically.

GSM Connectivity

AST's GSM solution allows vessels to connect to GSM networks when in range to ensure the best value for money and to enhance customer experience.

The on-board device enables switching between networks and the specially selected AST antennas provide a broad frequency range offering the highest levels of connectivity.

INTEGRA

Traffic Management

With the increase in smartphone/tablet usage with satellite communications, alongside the increase in encrypted applications which cannot be blocked by standard firewalls, AST provide a Traffic Management solution to assist in eliminating potential bill shock. Traffic Management utilises deep packet inspection to identify this encrypted traffic and subsequently manage it.

Application Category Allow/Block

- Users can specify whether traffic should be allowed or blocked by application category
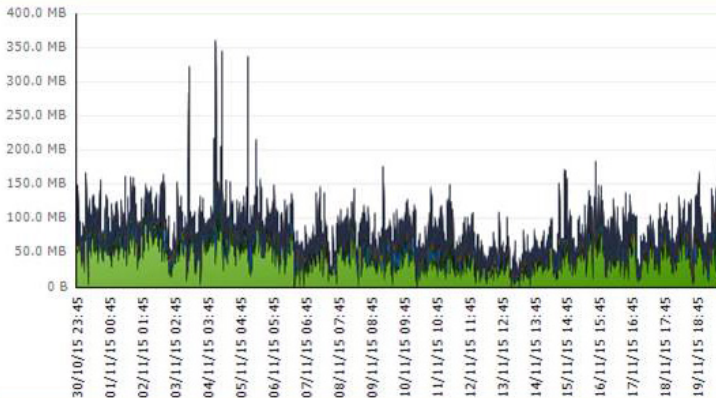
Display IP Total Usage

- Users see the IP Data Total usage for a SIM/Terminal

Application Category Usage Control – Total

- Users can set the total usage per application category & be notified by email when pre-defined thresholds are reached

Application Category Usage Control – Shape

- Users can apply additional limited bandwidth to an application once the total usage allocated to that application has been reached

APPLICATION	INGRESS BYTES	EGRESS BYTES	INGRESS PACKETS	EGRESS PACKETS	PERCENT (UTILIZATION)
⊞ 🟩 🔒 http protocol over TLS/SSL (443)	80.1 Gbytes	24.9 Gbytes	109.6 M	96.68 M	60.48% (11.51%)
⊞ 🟦 🌐 World Wide Web HTTP (80)	23.4 Gbytes	7.6 Gbytes	47.24 M	25.9 M	17.82% (3.39%)
⊞ 🟨 Unmonitored traffic	6.9 Gbytes	2.5 Gbytes	29.97 M	22.8 M	5.43% (1.03%)
⊞ 🟧 IPsec NAT-Traversal (4500)	3.2 Gbytes	2.1 Gbytes	13.11 M	8.09 M	3.07% (0.58%)
⊞ 🟦 Domain Name Server (53)	2.5 Gbytes	1.3 Gbytes	16.51 M	18.54 M	2.14% (0.41%)

Integrated Communications & Situational Awareness (iCSA)

Building on 25 years' experience in the satellite communications business Applied Satellite Technology Ltd (AST) is proud to offer the iCSA suite of products.

Designed to meet the communications needs of Government organisations iCSA addresses the challenges of combining the data, messaging and communications of multi-service operations together and providing command and control visibility of disparate individual radio and communications networks

In addition to a reseller network that covers 5 continents, AST has a strong solutions based philosophy with state of the art network and traffic management tools to compliment communications requirements, enabling customers to receive the voice and data services they need.

As providers of tailored hardware, airtime and network services, combined with selected and integrated third party products and pre/post-sale support, AST is a single source for a complete satellite communications solution.

What is iCSA?

Integrated Communications and Situational Awareness is the seamless unification of radio and IP communications between disparate networks and devices across wide areas of terrain (beyond line of sight).

Why iCSA?

Government organisations' today are challenged with finding the most cost effective solutions that utilise existing investments (for example existing radio and push-to-talk technologies) that can complement new technology and increase capabilities.

Situational awareness of personnel, vehicles, ships and airborne transport; defence units, emergency services and local government organisations, is critical to meeting today's operational and deployment needs.

Unification of communications and operation control centres is an important part of the iCSA capability which recognises the need for:

- One to One communications
- One to Group communications
- One to ALL communications

iCSA enables transmissions across wide terrains and multiple groups, with equipment ranging from radios and IP, to cell/mobile phones and more.

How does iCSA work?

Firstly – we add some sophisticated hardware to integrate and cross-connect audio (radio relay)
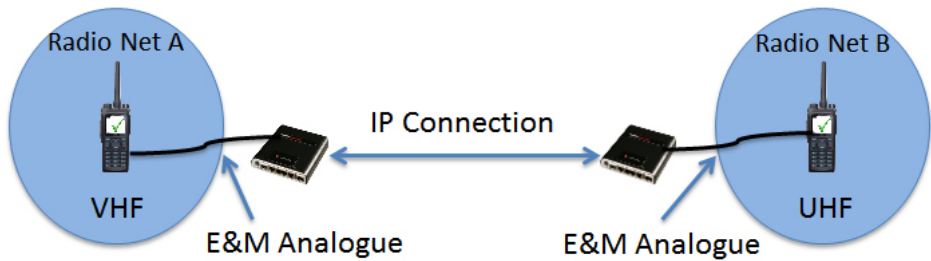
Secondly – we add intelligent software that can control and route these digital audio streams

Thirdly– we add end user applications that allow smart phones, tablets and computers to interact with the digital audio streams and radio networks.

Radio relay

- Extends and integrates disparate radio networks over a wide geographical area using IP as the transport layer

- Interfaces audio from any radio network to an IP infrastructure

- Supports any radio audio that has E&M capability

Intelligent software

End user applications

Software connects your smart phones, computers and radios onto a single IP platform so you can freely communicate and collaborate on the device that suits you best, from virtually any location and integrates with the Radio Relay and Intelligent Software.

Benefits of iCSA and working with AST

- Enables communications to be unified across a variety of equipment types

- Utilisation of existing radios and communications equipment

- Enables control of 'user groups' from central points of command

- Increases security of personnel through greater location base awareness and improved communications

- One point of support for a variety of equipment and capabilities

- 24 x 7 support

- Connects communications on land, sea and sky

- Secure location based services – private network

Contact us

Making sure we are available to help your business grow is important to us. Contact us now and we will direct your enquiry to an appropriate member of our global sales team.

info@ast-uk.com

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