Enhancing Your
Connectivity
with Universat Italia Services

IRIS
(Developed by AST)

IRIS | Remote Monitoring and Control

by Universat

UNIVERSAT
ITALIA SERVICES
GLOBAL SATELLITE COMMUNICATIONS

AST

iridium CONNECTED®

inmarsat CERTIFIED

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About IRIS

IRIS is an award winning, cost-efficient remote monitoring and control application for IoT over satellite, enabling users to unlock the true potential of IoT and M2M.

IRIS is versatile and customisable and is suitable for a wide range of uses from, pressure and sensor monitoring to animal and personnel tracking.

Increase your operational efficiency by significantly reducing the need for site visits to locations that are often difficult and time consuming to reach.

Quickly identify issues, improve your decision

making and speed up your response through real-time intelligence on your remote assets.

IRIS reduces the cost of remotely controlling your BGAN M2M devices.

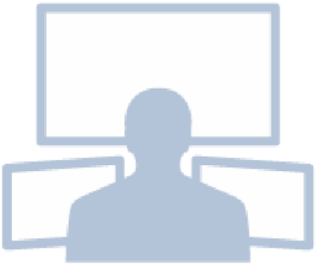
Send your corporate data more securely with end-to-end AES 256 encryption

Host the IRIS application in your own network environment with no third party access for complete control over your data.

IRIS monitors assets connected via satellite, but also supports GSM and fixed network devices – therefore is also suitable for IoT deployments where satellite communications are used as resilience or backup.

IRIS supports a diverse range of satellite IoT applications, from asset tracking, pipeline management and environmental monitoring to smart grids and agri-tech. Developed by AST's in-house team, it can be easily customised to meet your unique requirements for rapid implementation of new IoT use cases.

IRIS is approved and certified by both Inmarsat and Iridium.



COMMAND

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

CONTROL

Mobile data and tracking solutions to meet your needs, either on land, at sea or in the air.

OPTIMISE

Diagnostic solutions and cost effective remote monitoring via satellite.

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Increase operational efficiency

Command

IRIS gives you real-time visibility of all your assets in remote locations, wherever they are in the world – from ships, vehicles, cargo and people to wildlife and hot air balloons.

Collect data on key operational parameters such as location, pressure & flow, temperature, speed, altitude and battery life.

IRIS is primarily for monitoring assets connected via satellite, but also supports GSM and fixed network devices, therefore is an ideal solution where satellite is either the primary or secondary network.

Two -way messaging allows secure, low-cost communications with devices and lone workers in the field.

Control

Real-time visibility of your remote assets is totally dependent on the M2M terminal functioning properly.

IRIS enables real-time remote control of your satellite M2M terminals for all key tasks including; firmware upgrade, start/stop data session, retrieve network information and reset password.

It gives you more control over your corporate data with secure transmission using AES 256, the highest commercial grade of end-to-end encryption.

The application can be white labelled, hosted in your own network environment with no third-party access – giving you complete, secure control over your own data.

Monitor and locate your assets globally using geo-fences, panic alerts and secure messaging.

Built-in reporting tools allow you to analyse historical data.

Optimise

IRIS improves your operational efficiency with real-time intelligence on remote assets to quickly identify issues, improve decision making and speed up your response.

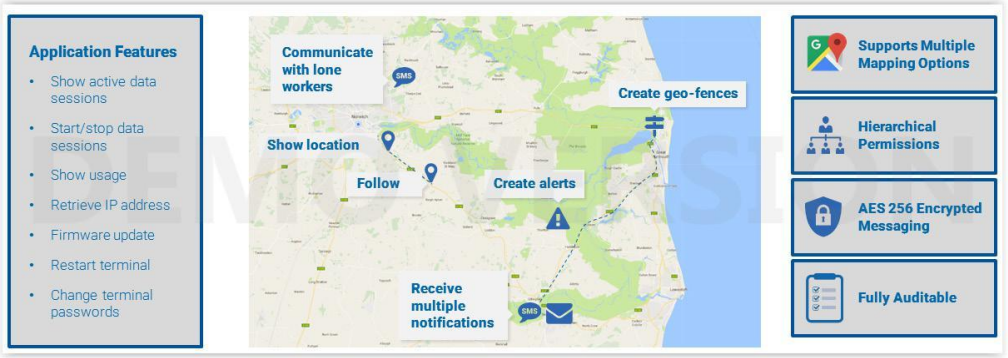
IRIS significantly reduces the need for site visits to locations that are often hard to reach – saving both cost and time, which may be critical where safety is concerned.

The cost of remotely controlling your BGAN M2M devices using IRIS is significantly reduced compared to other solutions.

IRIS can be customised to suit your particular requirement by our own in-house development team.

Application features

- Fully auditable reporting with historic and interactive functionality
- Panic alerts, audible and by SMS and e-mail
- Geo-fencing is user definable and free-form



Flexible implementation

Our in-house development team can provide custom integration and API development to meet individual requirements for implementation of new IoT use cases.

Customer instance
Host in your own network environment for complete control over your own data.

Per device licence
For smaller IoT deployments or in-house control of data is less critical.

White labelled
for rebranding by channel partners or enterprise and government customers.

We can host for you, providing 24/7 access and support. Hardware, airtime and engineering services. Consultancy and training.

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Unlock the true potential of IoT....

IRIS remote monitoring and control supports a diverse range of IoT applications to improve operational efficiency and safety.

Utilities

Monitor energy flows at the farthest points on the grid: power produced, remote substations, customer smart meter readings, remote fault detection.

Oil & gas

Real-time visibility of assets in remote locations: vehicle and vessel tracking, remote workers, situational awareness, livestock and wildlife.

Agri-tech

Monitor soil conditions, crop volumes, farm machinery, water levels, livestock and collect regulatory compliance data.

Environmental

Monitor tank levels, well site equipment, toxic liquid and gas levels, pressure, temperature, vibrat ion, levels and flow, remote workers and site security.

....and many mo re

Track; valuable equipment, vehicles, wildlife, p ersonnel.

Message & Alert; remote lone-workers, terminals and devices.

Monitor; river levels, autonomous surface vehicles, water levels in boreholes, meter readings, etc...

Utilities	Oil & Gas	Agri-Tech	Environmental	And Many more..
Electricity Smart Grids Gas Water Mining	Pipeline Monitoring Well Sites Asset Control	Soil Conditions Crop Volumes Livestock Regulatory Data Collation	Weather Air Water/Flooding Soil Forests	Autonomous Surface Vehicles Lone Worker Safety Meter Readings Humanitarisan Aid Anti-poaching

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Additional services

Developed by AST's in-house team, IRIS can be customised to meet individual requirements for rapid implementation of new IoT use cases.

Our engineers are able to provide the technical support you need to deliver solutions and meet your goals. You can be assured you are never far away from any expertise you may need.

IRIS training is available to suit your requirements; on site at our premises, via WebEx, or custom training at your premises dependent upon needs and complexity requirements.

24/7 support
AST not only have a dedicated in-house team of developers, but also have a manned 24/7 customer support desk available to assist at any time of the day or night.

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Case study | IRIS TM

Flood monitoring in Asia

While some areas are more prone to flooding than others, the establishment of reliable flood warning monitoring systems on any major dam or body of water provides critical information that can protect property and save lives....

IRIS effectively provides early warning alerts and continuous monitoring, therefore enabling personnel to predict when a flood maybe expected, when it will occur, and how severe it will be, by integration with sensors placed on location.
[5]

ALERT based applications such as IRIS can utilise radio, GSM or satellite options, whether for primary or secondary/fail-over use, depending on location and requirements. IRIS provides continuous real-time data to any computer or mobile device, ensuring that control measures or emergency actions can be implemented immediately if parameter limits are exceeded.

The majority of sensors deployed to collect weather monitoring data are destroyed during crisis situations, and terrestrial operators are forced to close down cellular towers - the primary telemetry option for transmitting weather monitoring data back to headquarters for analysis and decision making purposes.

When this happens, with little or no data available,environmental/government agencies are left unable to forecast and predict water levels at the dams and rivers, and are unable to react to the situation accordingly; evacuating and re-locating residence in affected areas in a timely manner.

IRIS, integrated with specialist sensor equipment, provides real time, resilient monitoring and alerting for all types of environmental uses, from providing flood warnings, forest fire alerting, air quality and glacier movement.

Case study | IRIS LBS

Animal tracking

Custom designed solutions for tracking and monitoring of wildlife however remote the location.

IRIS provides the ability to track wildlife throughout the remotest parts of the globe.

Data, once decoded and converted can be forwarded onto customers via e-mail to provide vital information on projects designed to protect animals in their natural habitat.

Collars, incorporating Iridium SBD technology, have been designed to provide scientists and conservationists with a flexible solution to wildlife monitoring and studies in areas where GSM coverage is unreliable or non-existent.

Transmitting collars have been fitted on a wide ranging spectrum of wildlife including; brown bears in Greece, red deer in Germany, lions in Kenya, caribou's in Greenland and cheetahs in South Africa.

IRIS has been used in many scenarios where poaching is a real and challenging threat to endangered species. IRIS can provide alerting for wildlife which has not moved, has moved outside of a specified zone (by geo-fencing an area).

Location Based Services (LBS) provided via IRIS can also be used for remote personnel, providing tracking, lone worker safety and SOS/alert functions for market sectors such as; Humanitarian Aid, security, government, utilities and environmental.

IRIS LBS can also be utilised for tracking valuable machinery and assets such as; mining equipment, vehicles, ships, vessels, sub-sea tractors, glaciers and rigs.

We understand the complications

You know what you want to do..... but how can you make it happen?..... Open up the conversation with us and the possibilities are endless.

We all have to start somewhere....

Our dedicated development team know how to deliver in time, on budget, business critical solutions.

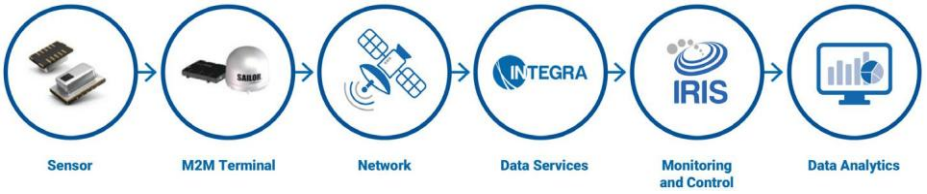
We make things happen.... fast! Once our team understand your needs and requirements we have the ability to realise your big ideas.

So..., what type of customer can benefit from IRIS?

There are too many to mention, and a few more!

Hopefully by now, you get the picture. IRIS is an expansive, yet easy to use application. It can be used for a wide-range of uses, from Location Based Services (LBS) to Terminal Management (TM) and integrating sensor information.....

The possibilities really are endless and we are here to help, at every step of the way...



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Specifications

Location Based Services (LBS)

- Geo-fencing
- Multiple mapping options
- Alerts
- SMS and email notifications
- Reporting

Supported networks & devices Iridium

- 9575
- NAL Shout NANO
- NAL Shout GSM
- NAL 9602 GSM

Terminal Management (TM)

- Request terminal information
- Show active data sessions
- Start/stop data sessions
- Show usage
- Retrieve IP address
- Show location
- Firmware update
- Retrieve terminal log files
- Restart terminal
- Change terminal passwords

Inmarsat

- Cobham SAILOR FBB 150, 250, 500
- Cobham SAILOR Fleet One
- Cobham EXPLORER BGAN 325, 510, 700, 710, 727
- Cobham EXPLORER BGAN 540
- Hughes 9502
- AddValue Ranger M2M

Other features

- Encrypted messaging (AES 256)
- Secure installation and hosting
- Supports satellite & cellular devices
- Customisable & white labelled

GSM

- Piccolo
- NAL Shout GSM
- NAL 9602 GSM

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