Iridium Certus℠ from BLUESAT

Iridium Certus℠ is the new multi-service platform powered by the $3 billion Iridium NEXT satellite system. With uncompromising coverage and a range of speeds up to 1.4 Mbps, it delivers global, reliable, enterprise-grade services while redefining the capabilities of mobile satellite communications. Through Iridium Certus, we're making broadband truly mobile.

For decades, the maritime industry lacked truly global coverage and had only one real choice for L-band connectivity at sea. With the introduction of Iridium Certus℠, a cutting-edge alternative has arrived.

Iridium Certus, a new mobile broadband capability offered by BLUESAT, delivers the most reliable service, combines the highest L-band speeds, to any place on earth – finally offering a real choice and superior connectivity alternative regardless of location, terrain or weather.

Available as a standalone broadband solution or as a VSAT companion, Certus is compatible with BLUESAT's intelligent global IP network and value added services including the INTEGRA suite of application control and data management capabilities.

Offering a high-performing, competitively priced solution that features state-of-the-art technology, Iridium Certus is designed to meet the needs of the 'connected ship.' Operating on small form factor terminals with solid-state, active-array antennas, the service enables more efficient business operations, cost-effective crew welfare solutions and safety communications, while providing a pole-to-pole, truly global grid for Internet of Things (IoT) applications.

www.bluesat.com

Improve operations with greater value and better coverage than any other mobile wireless network.

Iridium Certus℠ is being built to support an innovative portfolio of partner products and satisfy a wide-ranging set of aviation, maritime and land mobile communication needs. The multi-service platform will provide users with the voice, data and broadcast options they need to meet the ever increasing demands of field communications. Whether your application is large or small, high-speed or low-speed, Iridium Certus℠ can be used to deliver the right service for your business needs.

Iridium Certus℠ will provide peace of mind that your operational needs will always be met. With exceptional availability and fully scalable high-performance solutions, Iridium's reliable, global network will ensure that your mission- and business-critical capabilities are supported. Iridium's service offerings will also grow with your business over time.

Through an array of best-in-class terminals, Iridium Certus℠ will accommodate a full range of services – streaming data, high-quality voice, data broadcast and safety services – all built on a single platform. If you expand into new regions, increase your volume of users, or need higher data speeds to support your applications, Iridium Certus℠ will scale with your enterprise to ensure you have the right solution at the right time.

Features & Benefits

GLOBAL COVERAGE - the overlapping mesh architecture of the network provides **uniform coverage across the globe**, including the polar regions.

FASTEST L-BAND SPEEDS - with speeds of up to 704kbps (increasing to 1.4Mbps), the service delivers the **highest L-band speeds available**, ideal as a standalone solution or VSAT companion.

RELIABLE SERVICE - satellites are in Low-Earth Orbit (800 km), so signals travel in 1/40 the time of geostationary satellites, resulting in **low-latency, high-speed, always-on connections**.

COST EFFECTIVE - **lower cost** equipment and **better value** airtime without long contracts and high-cost services. Save even more when combined with the power of INTEGRA Control.

SCALABLE - whether used as a standalone service or as part of an overall satellite communications solution, Iridium Certus can be scaled **to meet the growing needs of your business**.

MOBILE - small, **lightweight solutions** from Thales and Cobham SATCOM combined with truly global coverage keep you connected on the go, anywhere in the world.

ROBUST TERMINALS - rapidly deployable terminals feature simple, reliable omni-directional antennas that provide service anywhere on the planet in all weather conditions.

GMDSS READY - launching in early 2020, the new GMDSS voice and data solutions will provide improved Search & Rescue (SAR) functionalities enabled by our dependable, global network.

iridium®
connected

Redefining mobile communications at sea

With low-cost yet highly robust equipment and truly global coverage to any sea, Iridium Certus brings you the ideal platform for operational communications and safety services across all maritime market sectors and geographies.

Cobham SATCOM SAILOR 4300 L-band

SAILOR 4300 L-band is the first in Cobham's Iridium Certus℠ Connected range of terminals. It is the perfect choice as either a high-performance, standalone terminal to upgrade your vessel communications, or as a dependable backup solution for your existing VSAT system. The terminal minimises total cost of ownership with low hardware costs and no scheduled service requirements, and is fully supported through Cobham SATCOM's Global Service Network.

MULTI-SERVICES PLATFORM
▶ 352/176 data speeds
   (upgradeable to 704/176)
▶ 3 high quality voice lines
▶ Built-in GNSS

FEATURES
▶ Multiple satellite tracking with no moving parts
▶ Bulkhead and 19" rackmount configuration
▶ Easy configuration via web and built-in API for 3rd party integration
▶ Single cable (ADU/BDU - 75m coax) for easy installation
▶ No scheduled service necessary

Thales VesseLINK

VesseLINK utilising Iridium Certus℠ gives your critical marine operation global communications coverage. It is the solution to depend on for essential communications whenever and wherever you are at sea. Whether you operate a large fleet or a single vessel, this commercialised, military-grade solution is designed to meet your unique challenges through a simple, adaptable and robust design.

MULTI-SERVICES PLATFORM
▶ IP data sessions up to 704kbps
   (down) /352kbps (up)
▶ Streaming up to 256kbps
▶ 3 high quality voice lines
▶ Location tracking

ADDITIONAL FEATURES
▶ Easy to use interface, all functionality available at a distance
▶ Ruggedised Android tethered handset
▶ IP67 rated single cable antenna
▶ Rack or hull mounted installation
▶ 4G LTE ready, softphone capable
▶ Embedded 802.11b/g Wi-Fi access point
▶ Multiple user capability, up to 12 connected devices
▶ Application enabled functionality for Android and iOS

CERTUS MARITIME AIRTIME PLANS
▶ 3 month minimum contract term
▶ Dynamic Shared Group for plans 100MB+ (≥5 vessels)
▶ Ideal VSAT companion 300MB plan
▶ Prepaid chat cards available

0 MB	50 MB	100 MB	250 MB	1 GB	5 GB	10 GB	VSAT COMPANION 300 MB

Reliable communications wherever you need it

Iridium Certus extends the reach of terrestrial and cellular infrastructure like never before with truly mobile communications capabilities, making it ideal for supporting critical connectivity needs regardless of location, terrain and weather events.

Thales MissionLINK

MissionLINK utilising Iridium Certus^{SM} gives your critical operation global communications coverage regardless of the landscape. It is the solution to depend on for essential communications wherever your mission ta you. Whether you operate as part of a deployed force or an individual user, this commercialised, military-grade solution is designed to meet your unique challenges through a simple, adaptable and robust design.

MULTI-SERVICES PLATFORM
▶ IP data sessions up to 704kbps (down)/352kbps (up)
▶ Streaming up to 256kbps
▶ 3 high quality voice lines
▶ Location tracking
▶ PTT ready

SOLUTION READY FEATURES
▶ Easy to use interface, all functionality available at distance
▶ Ruggedised Android tethered handset
▶ 4G LTE ready, Softphone capability
▶ Application enabled functionality for Android and iOS
▶ Embedded 802.11b/g Wi-Fi access point
▶ Multiple user capability
▶ Lightweight IP66 rated single cable ADU Antenna

CERTUS LAND AIRTIME PLANS
▶ Flexible airtime plans
▶ 3 month minimum contract term
▶ Dynamic Shared Group (DSG) for plans 30MB+ (≥5 SIMs)
▶ Prepaid chat cards available

0 MB	10 MB	30 MB	150 MB	500 MB

INTEGRA

Leverage the full benefit of Iridium Certus^{SM} with INTEGRA. INTEGRA is a complete solution that delivers the first real-time application control for your satellite communications and the easiest on-board traffic management system.

Block unwanted traffic. Save money and use your bandwidth more efficiently. Instantly.

Iridium Certus^{SM} and BLUESAT INTEGRA
The smartest way to manage your data

INTEGRA takes a new approach to managing satellite communications. Running over an intelligent global IP network, INTEGRA offers a suite of enabling capabilities designed to manage your satellite communications more effectively and save you money. Instantly.

INTEGRA Network
Intelligent global IP network

AST's intelligent global IP network provides the quality of service expected of a trusted Tier 1 global provider. INTEGRA Control and INTEGRA Edge run over a next-generation ground network that delivers **reliable, end-to-end connectivity** with **multi-layered cybersecurity** controls and **optimised performance**.

▶ Carrier-grade leased lines from satellite operators' gateways to the internet

▶ Redundant links for resiliency

▶ Global IPVPN from Centurylink/Level 3, which operates at 99.99% availability

▶ Optimised internet routing

▶ Data centres built to the highest industry standards

▶ POPs in London, Sydney and New York

INTEGRA See
Real-time visibility of IP traffic

INTEGRA See gives you precise, real-time visibility of your IP traffic at the application level, even when it's encypted. **Identify the top 10 individual applications by usage** and **monitor the volume of traffic** used for each of your BLUESAT IP services during the current month.
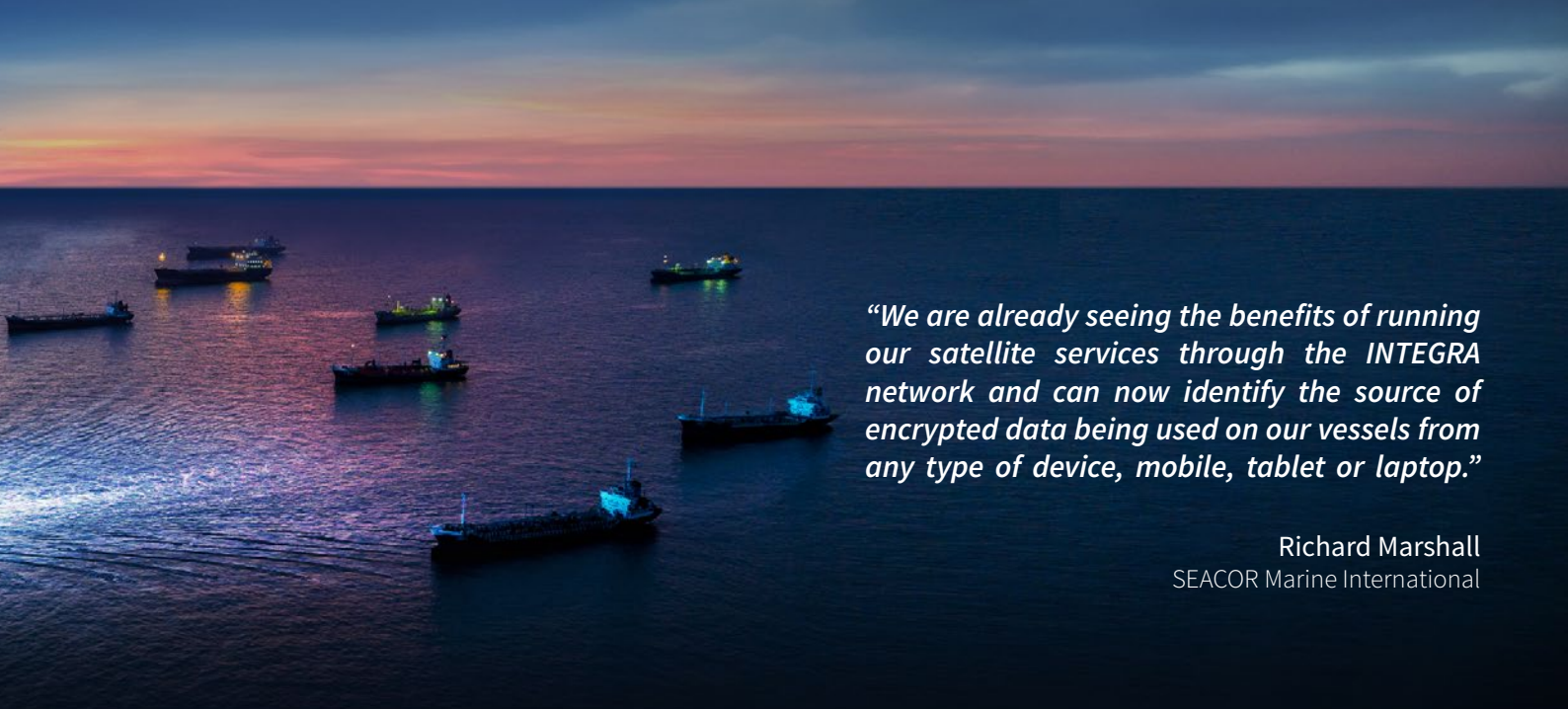
To give you a glimpse of the power of INTEGRA Control, we provide INTEGRA See completely **FREE** to all of its customers. If you're shocked by what you see, then sign up to INTEGRA Control so you can set traffic limits or block unwanted applications altogether.

INTEGRA
See more | Control more | Save more

INTEGRA See dashboard

INTEGRA Control
Real-time application control

INTEGRA Control allows you to take real-time control of the applications using your satellite connection. **Set traffic volume limits** by application category, **prioritise bandwidth for business-critical applications** and stop your usage allowance from being consumed by unwanted data.

Shaping bandwidth by application category allows you to **preserve bandwidth and ease congestion**, providing more consistent performance over time. Allow your staff to access games, social media and video communications on their own devices, but make sure it doesn't get out of control.

INTEGRA Edge
On-board traffic management

INTEGRA Edge is a hardware-based solution that makes the task of monitoring and managing your traffic on board simple. Instantly view all your connectivity options - satellite, cellular and WiFi - in one clear, intuitive dashboard and **switch to the most cost-effective connection at any point in time**.

Manage your data on board more easily with INTEGRA Edge and **make immediate savings**. Restrict which data is allowed on and off the vessel through an integrated firewall, web and content filtering. Manage the crew's internet access efficiently and securely through a captive portal where you can **block individual devices and users with one click**.
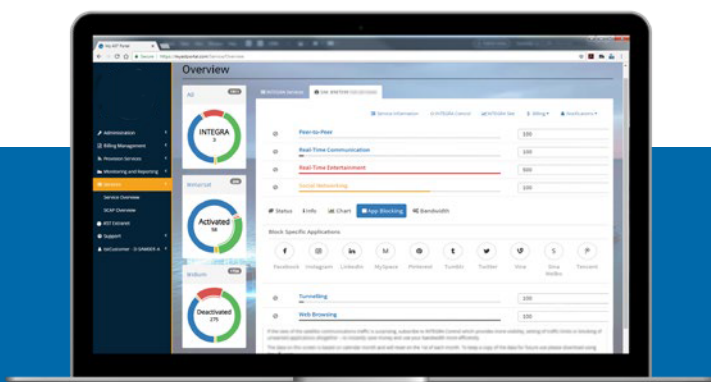
INTEGRA Control dashboard

INTEGRA Edge dashboard

Enabling Global Connectivity

AST offers a range of solutions, services and products enabling greater connectivity and control over satellite and GSM networks, including the fastest, truly global L-band coverage from Iridium Certus℠

One platform for any need

Iridium Certus℠ is designed to support a full range of versatile applications for any market, and any need on the ground, in the air and at sea – all built on a single platform.

Iridium Certus℠ for **Merchant Shipping**

Connected Ship
- Fuel Monitoring
- Engine Monitoring
- Cargo Tracking
- Remote Diagnostics

Satellite
Antenna
Terminal

Crew Communications
- Multiple HD Voice Lines
- Smartphone Access
- Messaging Apps
- Prepaid Platform

Bridge Communications
- Weather Data
- Email & Web Access
- File Transfer
- Database Sync
- Hybrid Cellular/VSAT System

Safety Communications
- GMDSS*
- Safety Alerting
- Safety Calling

Iridium Certus℠ for **Oil & Gas**

Safety Communications
- GMDSS*
- Safety Alerting
- Safety Calling
- VSAT Companion

Satellite
Antenna
Terminal

Bridge Communications
- Weather Data
- Email & Web Access
- File Transfer
- Database Sync

Connected Ship
- Fuel Monitoring
- Engine Monitoring
- Remote Diagnostics

Crew Communications
- Multiple HD Voice Lines
- Smartphone Access
- Messaging Apps
- Prepaid Platform

Iridium Certus℠ for **Humanitarian Aid**

Satellite
Iridium Network Link
Tablet
Antenna
Dash Camera
Wireless
Laptop
Iridium Certus Terminal
PTT*
Diagnostics

Dispatch / Operations Center
- PTT* Voice Communications
- Vehicle Telemetry
- Vehicle Location

Aid Worker
- Tracking
- Vehicle Diagnostics
- Laptop Connectivity
- Wireless Access for PTT* and Tablet Use

Iridium Certus℠ for **Transportation**

Dispatch / Operations Center
- Government Safety Compliance
- Fleet Management Software
- Vehicle Telemetry
- Vehicle Location

Satellite
Iridium Network Link
Wireless
Antenna
Iridium Certus Terminal
Tablet
Diagnostics

Remote Driver
- Government Compliance
- Job Ticketing
- Work Email / Messaging
- Proof of Delivery