

Enhancing Your  
Connectivity

with Universat Italia Services



(Developed by AST)

# INTEGRA<sup>®</sup> | the world's first real-time application control for satellite communications

by Universat





# INTRODUCING INTEGRA

## TODAY'S CHALLENGE

Trying to manage your satellite communications traffic is becoming increasingly difficult, particularly in today's BYOD (bring-your-own-device) world. It's not always possible to detect which devices are connecting to the satellite network, which applications they're running, how much data they're generating and how frequently they're being updated.

Traditional firewalls are no longer effective at blocking the growing number of encrypted applications. Undetectable applications not only eat into your bandwidth allowance, but pose a potentially significant threat to your cybersecurity.

A lack of detailed, real-time reporting makes it difficult to see exactly how much traffic is passing over the satellite connection, until you get the bill. Or to ease congestion, bandwidth is suddenly throttled back and the user experience is poor.

Existing traffic management solutions for satellite communications struggle to handle these challenges.

## INTEGRA IS DIFFERENT

È It's a complete solution that delivers the first real-time application control for your satellite communications and the easiest on-board traffic management. Running over a next-generation ground network that delivers reliable, end-to-end connectivity with multi-layered cybersecurity controls and optimised performance.

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

## CREATED BY A SATELLITE COMMUNICATIONS SPECIALIST

Universat have 20 years' experience in satellite communications.

We sell services from all the major network operators and equipment from all the leading manufacturers. We're dedicated to providing our customers impartial advice on satellite communication solutions they can rely on. Based on this in-depth experience in the application of satellite technologies, we have adopted the INTEGRA solution.

### INTEGRA Control



Real-time application control

### INTEGRA Edge



On-board traffic management

### INTEGRA Network



Intelligent global IP network

### My Portal



Online management



# INTEGRA CONTROL

## REAL-TIME APPLICATION CONTROL

Block the traffic you don't want. Save money and use your bandwidth more efficiently. Instantly.

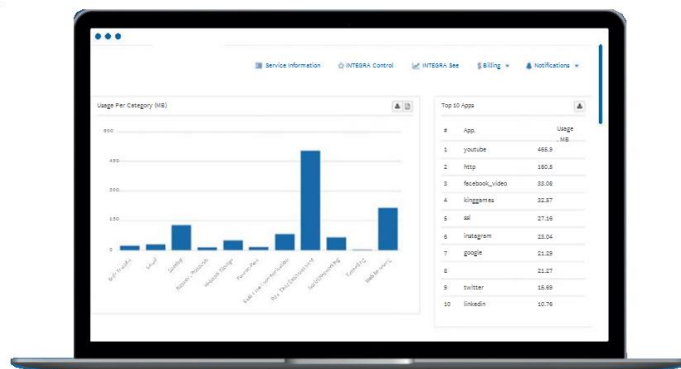
INTEGRA Control delivers the first realtime application control for your satellite communications. It gives you more visibility and control of the applications used over your satellite connection than ever before.

## SEE MORE

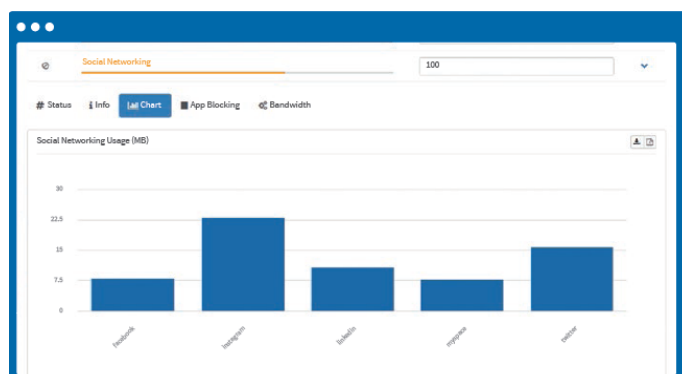
INTEGRA Control identifies individual applications being used over your satellite connection – even encrypted ones that bypass standard firewalls. It gives you precise, real-time visibility of your IP traffic.

See traffic volumes by application category for each of your Universat services.

See the top 10 individual applications being used in real-time.



See traffic for individual applications per category.





## CONTROL MORE

Take real-time control of the applications using your satellite connection.

Set traffic volume limits by application category or block some completely, to prioritise bandwidth for business-critical applications or stop your usage allowance being eaten up by the wrong things. Allow your staff to access social media on their own devices, but make sure it doesn't get out of control..

Block specific applications per category.

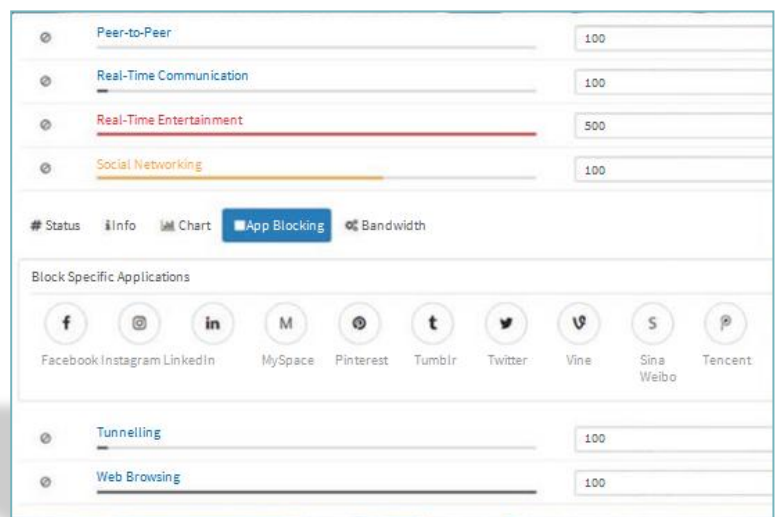
Shape bandwidth by application category to preserve bandwidth or ease congestion and provide more consistent performance over time. As usage levels pass certain thresholds, select lower bandwidth levels for the download and upload.

## SAVE MORE

Manage your data far more efficiently with INTEGRA Control to make immediate savings.

Make sure you don't go over your monthly allowance with detailed, real-time reporting and alerts based on IP packets as traffic flows. Not the traditional practice after a data session is finished.

Save your bandwidth for the applications you really want it for and make best use of what's available



## INTEGRA SEE

To give you a glimpse of the power of INTEGRA Control, we're giving INTEGRA See to all your satellite terminal. Totally free. See the breakdown of your satellite communications traffic by application category and the top 10 individual applications used – for each of your Universat services during the current month.

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. Save money and use your bandwidth more efficiently. Instantly.





# INTEGRA EDGE

## ON-BOARD TRAFFIC MANAGEMENT

Edge makes the task of managing your traffic on board a lot easier, using a hardwarebased solution that's purposely designed for the maritime environment. This comprehensive solution allows you to control all your on-board communications through one simple interface – not two or three – so it's a lot easier to get more from it. And a lot easier to save money.

## SEE MORE

Instantly view all your connectivity options – satellite, cellular and WiFi – in one clear, intuitive dashboard, with their currently availability, signal strength and usage.

Monitor your vessel traffic in real-time.

See which users and devices are connected and how much traffic they each generate.



See all your on-board networks in a simple graphical view.





## CONTROL MORE

Switch smoothly and quickly between available connectivity options from the INTEGRA Edge dashboard or the information panel on the hardware.

Restrict which data is allowed on and off the vessel through an integrated firewall, web and content filtering.

Safeguard your network on board with anti-virus controls.

Manage the crew's internet access efficiently and securely through a captive portal. Block individual devices and users with one click.

## SAVE MORE

Manage your data on board more easily with INTEGRA Edge to make immediate savings.

Instantly switch to the most cost-efficient connectivity option at any point in time. Set up a standard failover sequence, with the ability to manually intervene if required.

Block unwanted traffic to and from the vessel, and from individual devices on board.



## FEATURES AND SPECIFICATIONS

- Least cost routing: switching between satellite, cellular and WiFi
  - Priority-based failover with automated or manual intervention
  - Configurable timed and duration-based failover
- Dashboard with key traffic metrics
- Fully managed firewall service
- Firewall policy control with global or device-specific rules
- Virtual LANs
- Web surfing with compression and acceleration
- Block access to websites using white and blacklisting (full wildcard support)
- Advanced content filtering: white and blacklisting downloaded files
- Anti-virus scanning on web downloads with detection notifications
- Controlled authenticated access per network with captive portal
- Real-time traffic reporting and analysis
- Real-time and historical audit trails
- Crew internet service and management
- IoT gateway-ready/compatible
- Vessel positioning using on-board NMEA feeds or integrated GPS receiver
- Authentication and access control with hierarchical levels of access and auditing
- Seamlessly integrated with the INTEGRA Network and dedicated customer Portal for remote management
- Local backup and restore of data and configuration settings
- OTA updates
- System rebuild in the event of a failure
- Hardware information panel

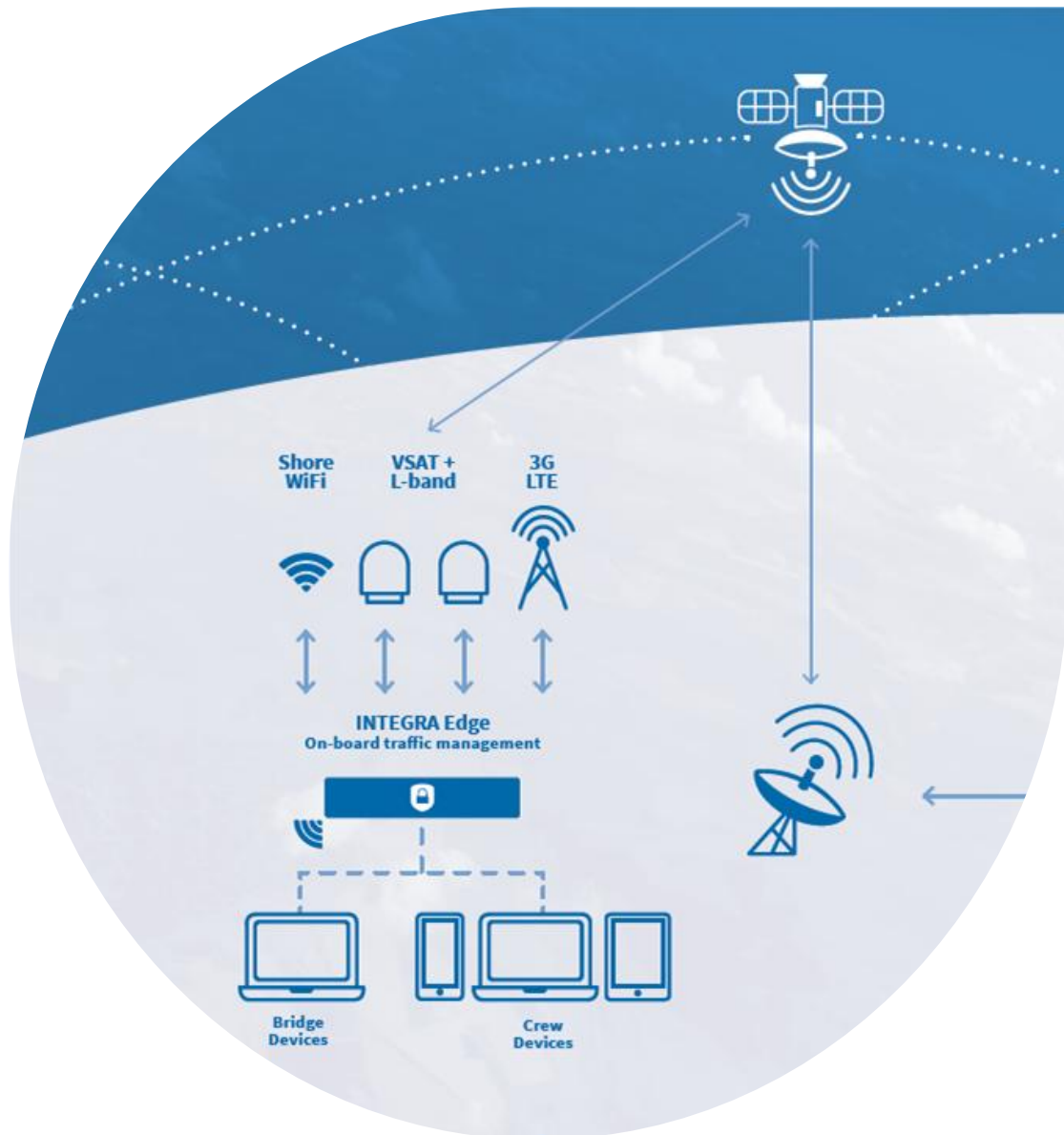
<b>Case</b>	1U Rack Mount
<b>CPU</b>	Dual core ARM v7-Cortex-A9
<b>Memory</b>	2GB
<b>Storage</b>	2 x 120GB SSD (RAID 1)
<b>Connectivity</b>	Integrated 2/3/4G 8 x LAN NMEA 0813 (Serial) NMEA 2000
<b>WiFi</b>	Integrated WiFi supporting 6 access-points
<b>Power</b>	12V-32V D.C



# INTEGRA CONTROL AND EDGE IN THE NETWORK

## NEXT GENERATION GROUND NETWORK

Block INTEGRA Control and Edge run over a next-generation ground network that delivers reliable, end-to-end connectivity with multi-layered cybersecurity controls and optimised performance.







## INTEGRA CONTROL

INTEGRA Control allows real-time application control for traffic initiated from the satellite terminal at the point it reaches our ground-based INTEGRA Network.

It's accessible via dedicated customer Portal on a laptop, tablet or smartphone – either by staff in head office or those in remote locations using the satellite communications terminal.

INTEGRA Control is available exclusively to Universat airtime customers.

## INTEGRA Edge

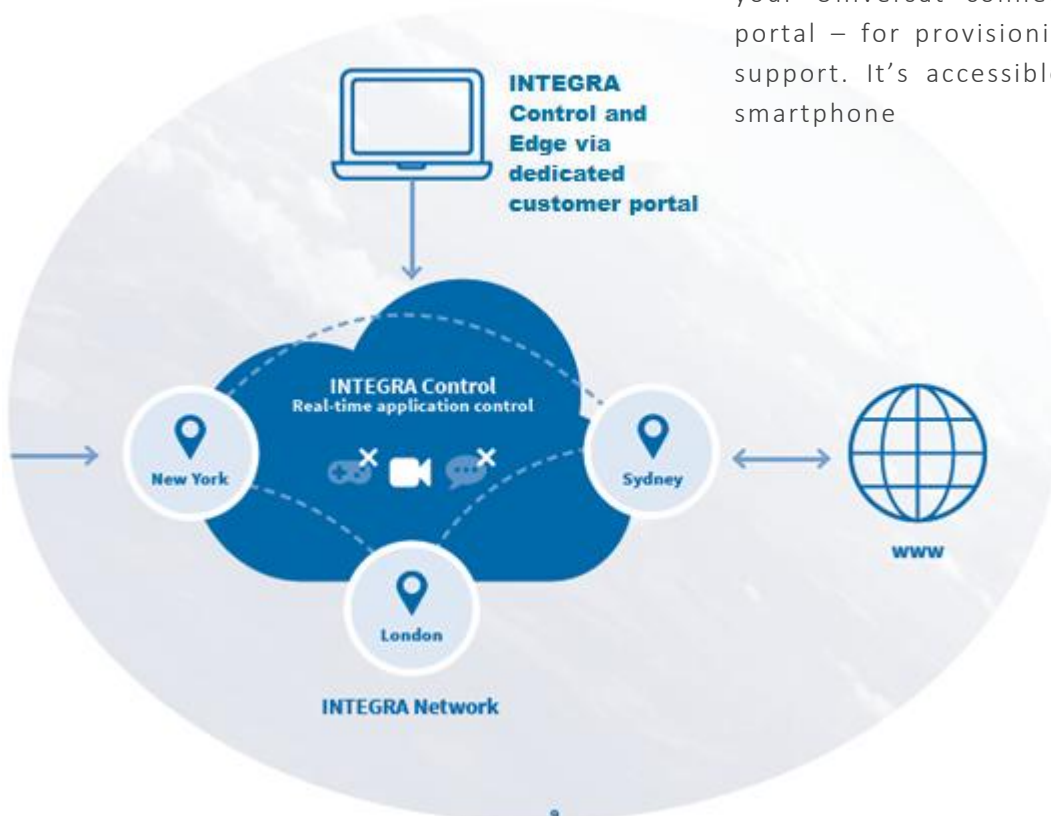
INTEGRA Edge enables easier traffic management on board a vessel, with plug-and-play installation via wizard-driven setup and auto-detection of connected devices. It can be managed on board via the INTEGRA Edge web interface or remotely via dedicated customer Portal.

INTEGRA Edge and dedicated customer Portal are constantly synchronised over the INTEGRA Network using minimum bandwidth to provide an integrated solution.

INTEGRA Edge is packaged with INTEGRA Control, which is available exclusively to Universat airtime customers.

## Dedicated customer portal

Manage INTEGRA Control, INTEGRA Edge and all your Universat connections via a simple web portal – for provisioning, billing, reporting and support. It's accessible via a laptop, tablet or smartphone







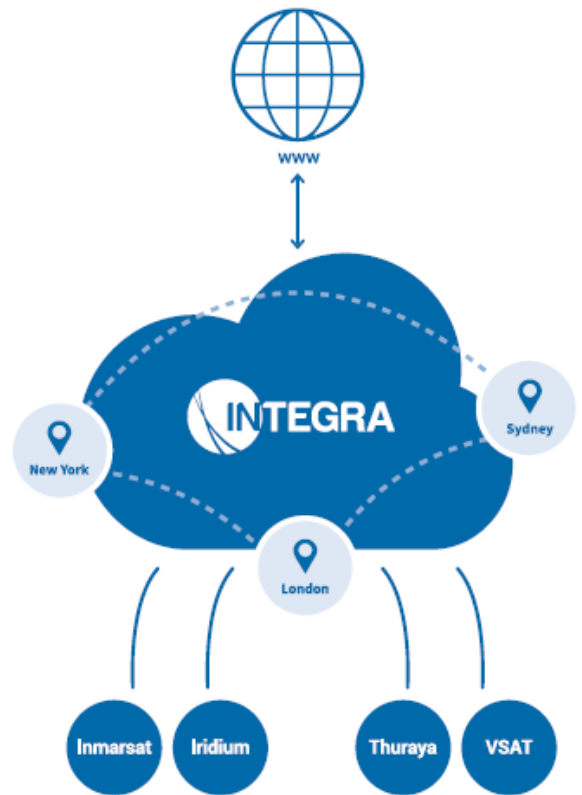
# INTEGRA NETWORK

## INTELLIGENT GLOBAL IP NETWORK

The ground segment is fundamental to delivering secure, end-to-end reliable, high performance for satellite communications. INTEGRA Network is based on the latest technologies available:

- Carrier-grade leased lines from satellite operators'
- gateways to the internet
- Global IPVPN, which operates at 99.999% availability
- Optimised internet routing
- Data centres built to the highest industry standards
- POPs in New York, London and Sydney
- Redundant links for resiliency.

The INTEGRA Network can support connectivity to any satellite IP network and communications equipment. It currently supports connectivity to the satellite networks of Inmarsat, Iridium, Thuraya, Telenor and VSAT services.



## MORE MULTI-LAYERED CYBERSECURITY

The INTEGRA Network has multiple layers of cybersecurity controls to maximise protection against threats. The first layer, an advanced firewall, controls traffic and blocks abnormal connections. The second layer is web filtering with anti-malware and anti-virus protection, and a

default block on software updates. And the third layer is intrusion prevention. This provides near 'zero-day' protection against known and emerging threats, which can generate additional unwanted traffic.



## END-TO-END RELIABILITY

INTEGRA Network delivers carrier-class connectivity from your satellite provider's gateway into New York, London and Sydney POPs and onwards to the internet. It operates at 99.999% availability, with POP diversity and redundant links for greater resiliency. We have partnered with best-in-class data centres and terrestrial network providers to provide a trusted, reliable end-to-end connection.

## OPTIMISED PERFORMANCE

INTEGRA Network uses optimal routing to select the best possible path across an increasingly complex internet – taking latency, packet loss, route stability and congestion into account – to deliver improved, consistent performance than via standard internet carriers.