Introducing
M2sat KaSatPro

"and how you can benefit from the opportunities of the next generation satellite services in Europe"
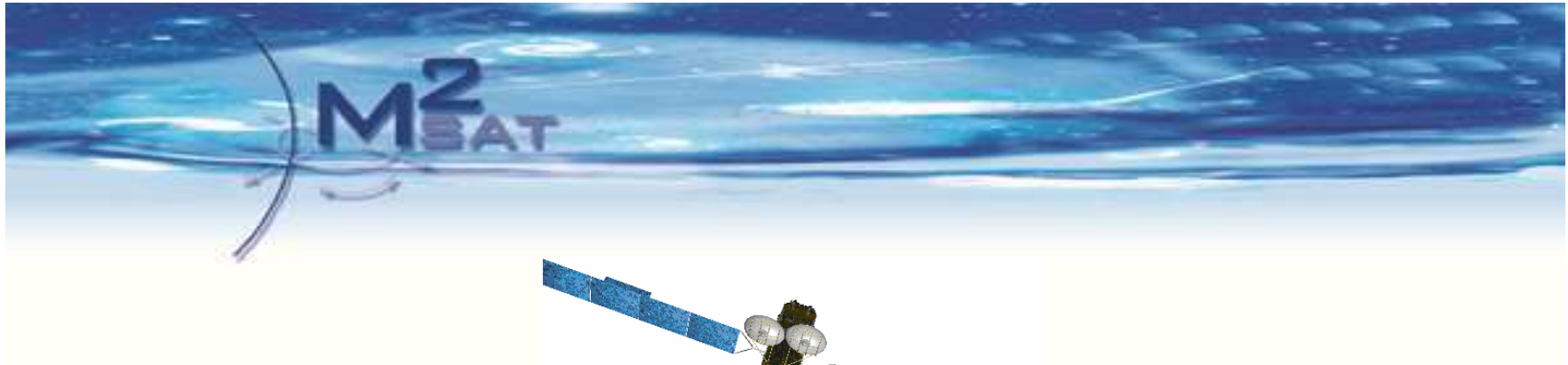
- Ka-band overview
- Eutelsat Ka-Sat satellite presentation
- M2sat KaSatPro Services & Equipment
- Market Solutions

- Ka-band satellites changing the worldwide satellite market, bringing more capacity and lower prices

- Features of NextGen professional satellite services

- Introducing Eutelsat Ka-Sat

- M2sat KaSat Pro: basic services and equipment

- Professional Application & Life Cycle support

- Market Opportunities

Ka band
Satellite Overview

M²SAT

L-BAND S-BAND C-BAND X-BAND KU-BAND K-BAND KA-BAND

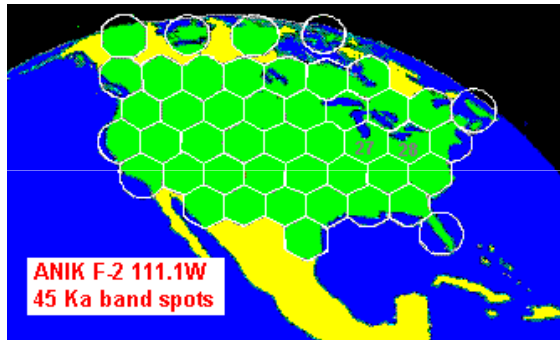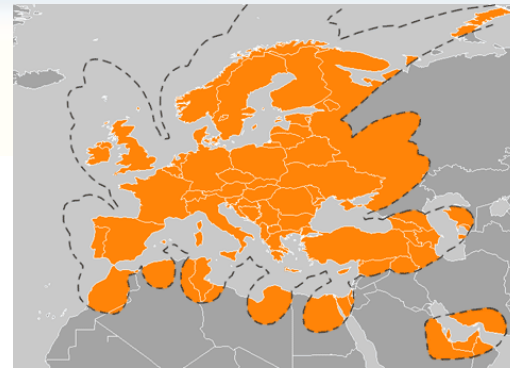0   4   8   12   16   20   24   28   32   36   40

GHz

Ka-band satellites are a game changer in the worldwide satellite market, bringing double the capacity at lower (half!) the price

ANIK F-2 111.1W
45 Ka band spots

Yahsat
Ka-Band
(52,5° East)

2012

IP
> 16 Mbps (OB)
> 4 Mbps (IB)
75 cm
90 cm
Middle-East
Africa

The NextGen professional satellite services

- Latest addition to the multi network environment
- Corporate solutions require professional grade satellite service, equipment and support
- Eutelsat brings a new level of price/quality in Ka-Sat equipment and satellite services
- M2sat provides support for professional services and applications based on year long experience
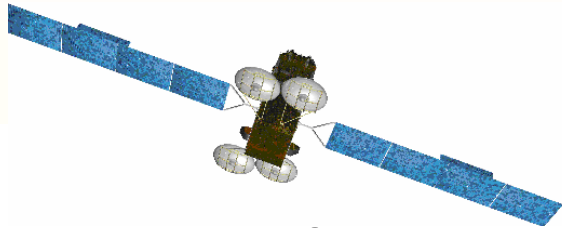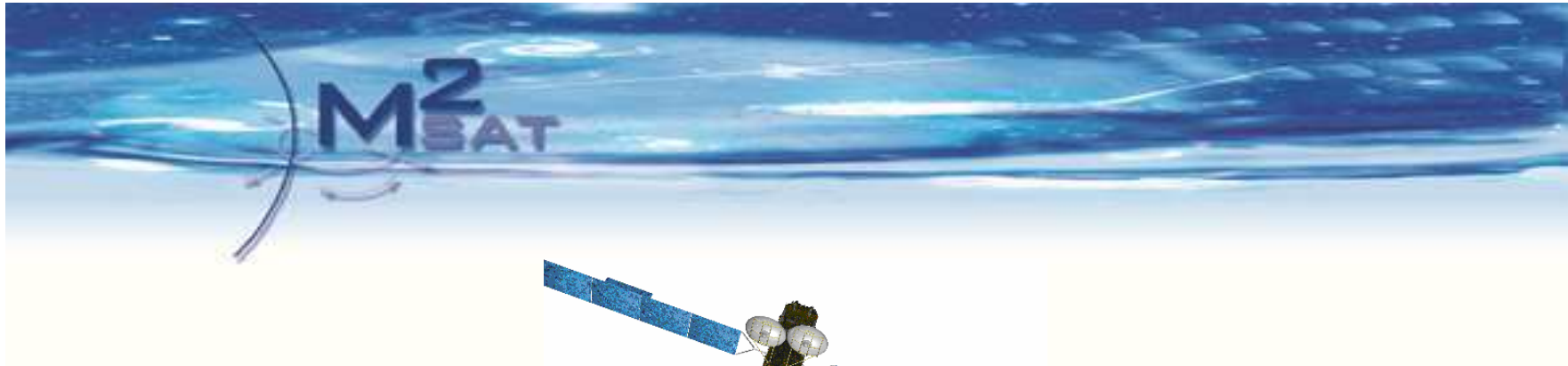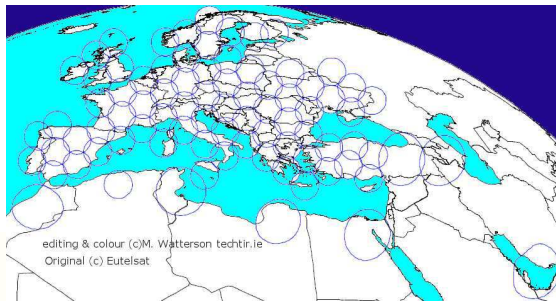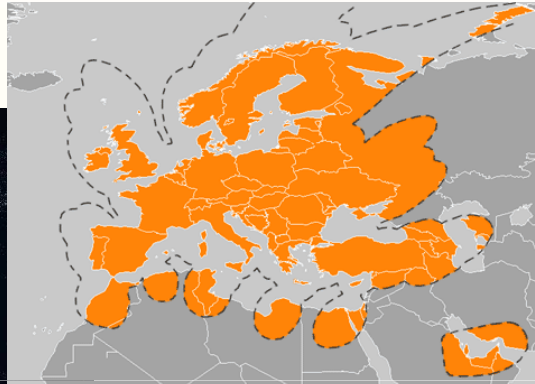
Eutelsat

Ka-Sat

Ka-Sat
- Launched End 2010
- Operational since May 2011
- Started with Consumer Service
- Professional Services since 2013
- Orbital position: 9°E
  (near Hotbird at 13°E !)
- Frequency band: Ka
- Lifetime: 16 years

Ka-Sat
Multispot Coverage
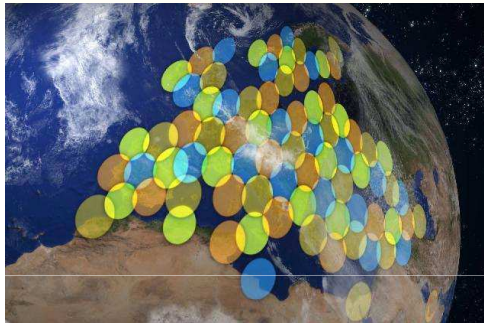
Europe, Mediterranean Basin & Persian gulf coverage

Ka-Band

Twice more frequency band
No interference
Small size antennas
Optimized for data and IP traffic

Multispot

82 beams of 250 km give full
European Coverage
Frequencies reused 20 times
Mhz 8 times more cost-effective

Providing a huge capacity

Capacity per spot 475Mbps
Total capacity: beyond 90 Gbps

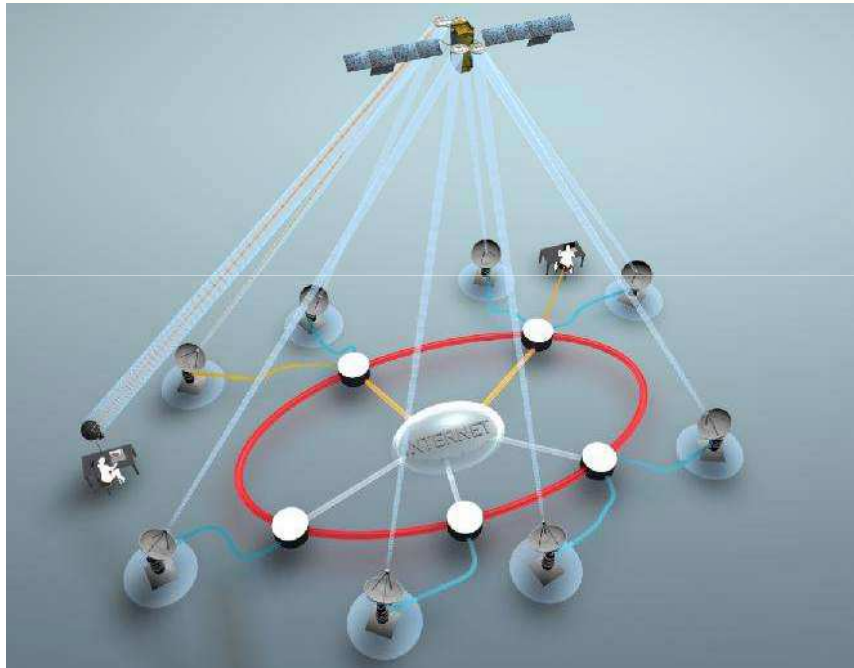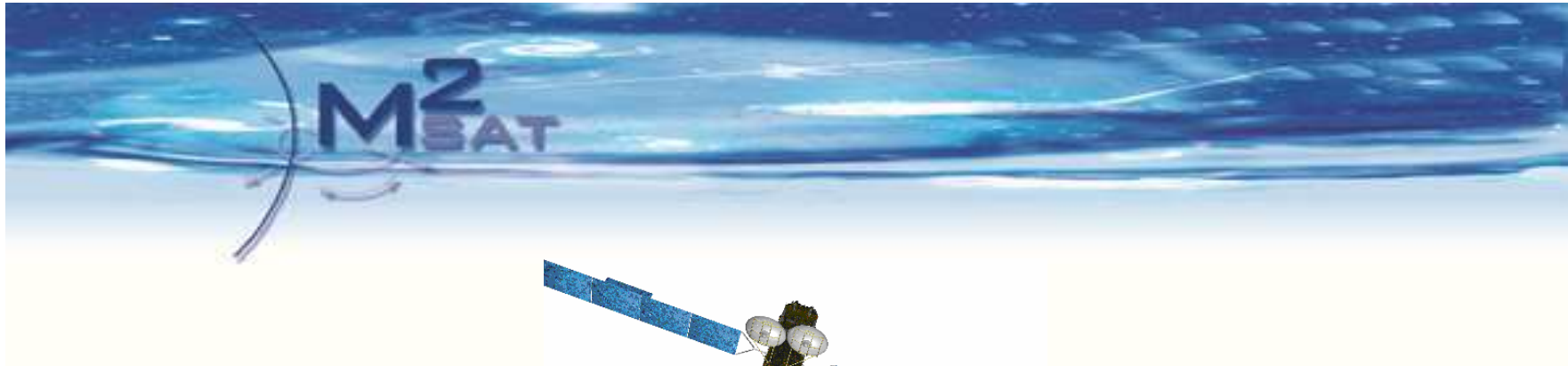Dedicated Ground Infrastructure

Own ring with 10 Gateways all over Europe
Typically with 9m antenna & 500 Watt Earth Stations
Operated by the Italian Subsidiary Skylogic
Fiber ring fully redundant (20 GB + 20 GB)
Ka-Sat Backbone accessible via Network POPs

- **Quick installation and activation**
  - Available anywhere in satellite service area
  - No need of PC software
  - Fast & easy installation

- **Total independence from terrestrial infrastructure**
  - No telephone line required

- **High quality services**
  - High upload and download speeds
  - Flexibility and scalability
  - VPN pass-through

- **Standard Broadband SLA**
  - 24/7/365 monitoring to detect/correct potential problems preventively
  - 24/7/365 NOC service at Turin
  - 99,5% Beam Yearly Service Availability excluding unavailability due to events such as Maintenance, Force Majeure…

M2sat KaSatPro overview

KaSatPro is a professional grade satellite service package:

- Consultancy & network design

- Installation / configuration service

- Professional terminal equipment

- KaSatPro Data Services

  – Broadband Business Access Services

  – Dedicated IP-Connect Services

  – Video Contribution & Distribution Services

  – Telemetry and M2M Services

- KaSatPro Network Management Services via Web Portal

- Professional Customer Support (7*24 h)

M2sat KaSatPro

- Based on 20 years of M2sat experience in satellite market

- Includes full life cycle support

- Includes full IP and Application support

- Giving you a new level of price/quality

M2sat KaSatPro

Services

KaSatPro IP Services

- Pro-grade Internet Access:
  - Broadband Business Internet Access (pro-grade shared access)
  - Secure Intranet Access (incl. VPN)
- IP-Connect Services (dedicated broadband connections, incl . VPN)
- Video Services (contribution and distribution)
- Telemetry and M2M Services

Broadband Internet Access

KaSatPro Broadband Internet Access :
- Business Grade Internet Access service by satellite in Europe
- Increased service availablity with professional grade terminal
- One static IP address
- Minimum guaranteed bandwidth
- Specialised Technical Premium Support
- Options: Volume Booster, National IP's, VOIP, Traffic Prioritisation, Traffic Management
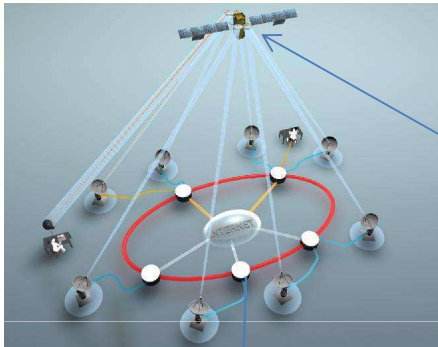
The main advantages of this service:
- Professional grade internet access
-Back up solutions
- Off load solutions

the internet

KaSatPro Business Intranet Access :
• Business Intranet Access service by satellite in Europe
• Increased service availability with professional grade terminal
• One static IP address
• VPN connectivity with additional Accelerator
• Minimum guaranteed bandwidth
• Specialised Technical Premium Support
• Options: Volume Booster, National IP's, VOIP,
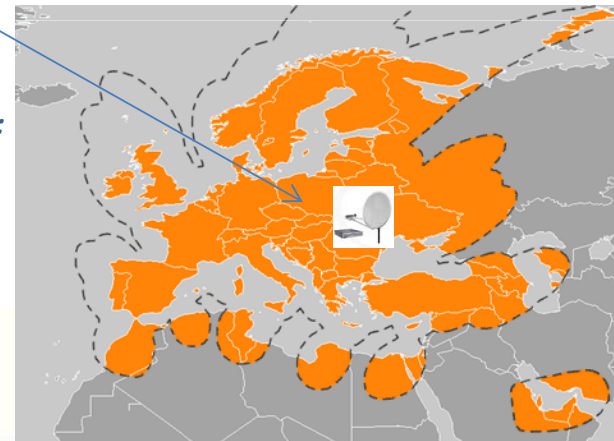 Traffic Prioritisation, Traffic Management
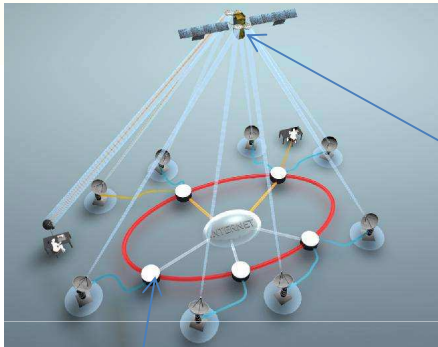
Intranet

The main advantages of this service:
- Professional intranet access
- Secure connection
- LAN interconnection
-Back up solutions
-Off load solution
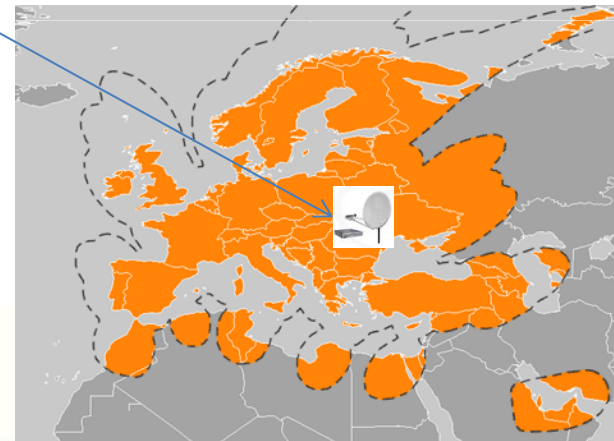
KaSatPro pricing

M2sat KaSat Pro services May 1st 2015

Professional Satellite IP Connectivity & Networks

B2B Enterprise Services – Retail Sale Price list   (all prices in Euro ex VAT)

KaSat Pro Standard packages	Telemetry		Business 25		Business 40		Business 100		Business 200	
Monthly volume allowance GB (*)	2		25		40		100		200	
Service speed										
Download speed:	*Min**	*Max*	*Min*	*Max*	*Min*	*Max*	*Min*	*Max*	*Min*	*Max*
Before exceeding volume allowance	N/A	2000	N/A	22000	N/A	22000	256	22000	256	22000
After exceeding volume allowance	N/A	256	N/A	256	N/A	256	N/A	256	N/A	256
Upload speed	*Min**	*Max*	*Min*	*Max*	*Min*	*Max*	*Min*	*Max*	*Min*	*Max*
Before exceeding volume allowance	N/A	2000	N/A	6000	N/A	6000	128	6000	128	6000
After exceeding volume allowance	N/A	256	N/A	256	N/A	256	N/A	256	N/A	256
IP-Adresses / Support										
Packages include:										
•Public IP for Internet (Fixed IP address by DHCP)	1		1		1		1		1	
•For VoIP (as a separate option)	1		1		1		1		1	
Additional IP Address per terminal per month	10		10		10		10		10	
Retail Pricing										
Setup fee €/ account	50		50		50		50		50	
relocation fee €/ account	25		25		25		25		25	
Retail Price € / Month	45		65		106		228		439	
Retail Price € / Year	540		780		1272		2736		5268	

M2sat KaSat Pro Options May 1st 2015

Volume Booster	Volume Booster 1 GB	Volume Booster 10 GB	Volume Booster 20 GB	Volume Booster 50 GB	Volume Booster 100 GB
Retail price	10	90	140	290	460

Night time Profile (per terminal per month)	25

CIR Profiles	Retail price
Standard CIR Profile 128/128 kbps (default)	0
CIR Profile 256/256	124
CIR Profile 512/256	248
CIR Profile 512/512	372
CIR Profile 1024/256	620
CIR Profile 1024/512	930
CIR Profile 1024/1024	1860

(*) without SKL stringent rule: total upload and download traffic
(**) Min Upload Kbps in KA-SAT infrastructure before exceeding volume allowance

KaSatPro unlocks unprecedented extra (satellite) capacity and performance for your enterprise network.

KaSatPro Terminal:

Delivers extraordinary throughput, efficiency, flexibility and affordability with new network features:

- *Configurable as a Level 2 or Level 3 networking device for enterprise flexibility*
- *Built-in TCP and web acceleration*
- *Constant Bit Rate (CBR) and Committed Information Rate (CIR) configured on an individual terminal basis*
- *Application-based traffic prioritization for high-quality VoIP and high-speed video conferencing & streaming*

Key applications:

Whether connecting a small remote office or large warehouse with multiple complex networks, establishing a secondary network for business continuity, or backhauling cellular traffic over satellite, KaSatPro delivers the performance and bandwidth you need.

With **IP Connect**, an enterprise can communicate freely and constantly with branch offices, and benefit from a wide range of services such as LAN interconnections, video conferencing, voice and data transmissions, and much more thanks to **dedicated satellite resources**.

Ideal for linking corporate networks and Interconnecting local area networks.

Customer Profile:
* Corporations
* Regional administrations
* Rural Communities
**Educational, governmental
  or health-care institutions*

Key applications:
* LAN interconnection
* Satellite VPN solutions
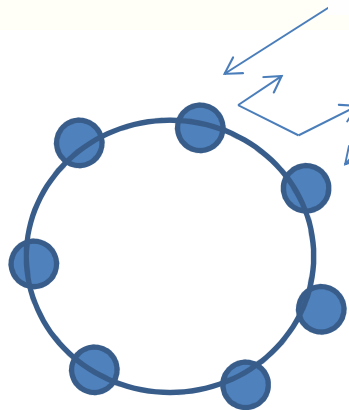* Video conference
* Unified Comms Applications

KaSatPro
IP-Connect
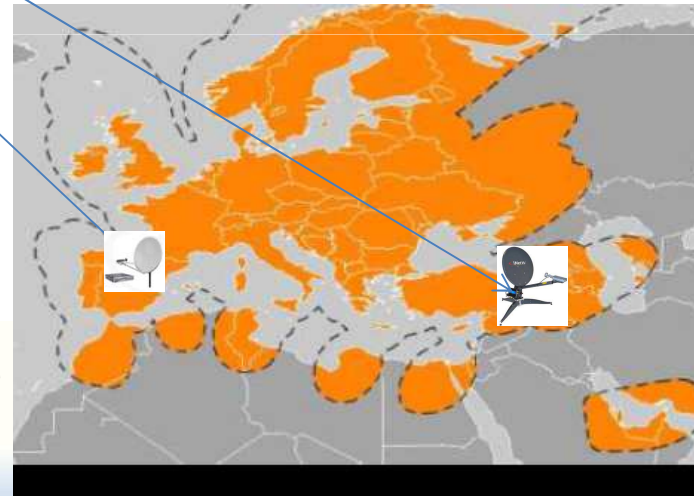## Closed Terminal-2-Terminal VPN

For VPN connections

Inter PoP Backbone

KaSatPro IP-Connect (Terminal-2-Terminal)
eg. From remote office to Headquarters:
• Only available with "Professional Grade" Terminals
• Two-Way IP connection over Satellite and Fiber Backbone
• OneAccess Router manages VPN

M2sat KaSatPro

Terminal Equipment

Fixed antenna

- 71x77cm antenna
- Universal mount
- 1 coax cable from antenna to modem

Fly-away antenna

- 0.75 m flyaway antenna
- IATA compliant cases (< 35kg each)
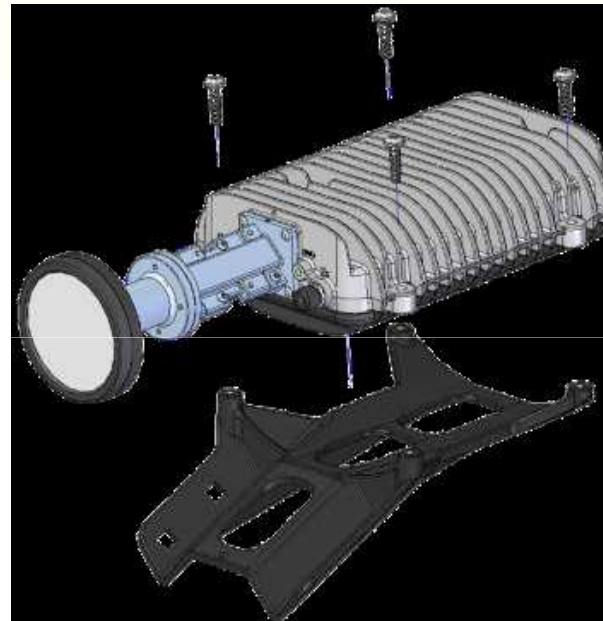- Deployment in 15 min by 1 person

Drive-away unit

- Up to 10Mbps duplex, Eutelsat approved
- One button, auto-pointing KA-SAT satellite on 360°

4 Watt (Pro)

« TRIA » (Transmit-Receive Integrated Assembly)

**KaSatPro
Advanced Modem**

20 Mbit Tx •50 Mbit Rx

- KaSatPro Advanced Modems have automatically implemented the use of ACM (Adaptive Code and Modulation).

- In case of rain fade, the modem will first of all try to compensate by increasing the transmission power.

- In case the transmission power is not sufficient for compensating the attenuation caused by rain, the system will automatically switch to a more robust Modulation scheme, by playing on different combinations of Modulation (8PSK, QPSK), FEC (from 1/3 to 8/9) and Symbol Rate (from 625 ksps to 20 Msps).

- The system will thus try to keep the Link available, at the expense of the available throughput should weather conditions become extremely severe

Standard Fixed KaSatPro Kits

KaSatPro **KIT-TW PRO**
Professional kit with Advanced
modem, 4 W transceiver & 1,2 mtr antenna
Retail price **Euro 890**
ex VAT, ex transport and ex installation.

KaSatPro **KIT-TW PRO75**
Professional kit with Advanced
modem, 3 W transceiver & 0,75 mtr mid-pole
Retail price **Euro 644**
ex VAT, ex transport and ex installation.

KaSatPro **KIT-TPM PRO75**
Professional kit with Advanced
modem, 3 W transceiver
& 0,75 mtr antenna Top Pole Mount
Retail price **Euro 658**
ex VAT, ex transport and ex installation.

M2st has a rich offer on additional IP and Application
Equipment that can be used in combination with
basic KaSatPro systems including:

- VPN Routers/Accelarators
- Multi Link Gateway
- Voip equipment/service
- Video encoders/decoders

For organisations operating with a geographically dispersed network of offices and business locations, maintaining a high-speed, secure, interbranch communications network is a critical part of the corporate IT infrastructure.

Due to the latency in the satellite connection (ca. 750 uSec) for VPN connections there is a need for acceleration. The OneAccess Router takes care of this.

The system can be configured in a closed user group satellite-only mode, or as an extension to an existing terrestrial VPN system to reach remote locations without access to a broadband service.

OneAccess Router

The combination of KaSatPro and the OneAccess router offers an integrated high-speed satellite IP-VPN solution comparable to existing DSL performance, availability and pricing

Key applications
• Secure LAN extension to remote branch offices, customers and suppliers
• Extension of VPN coverage to regional offices with limited Internet access
• Extension of throughput and performances for existing office connections (offload service)
• Emergency back-up or permanent business continuity solutions

KaSatPro Networks / VNO

- Allows customers to create scalable private networks with different speeds, performance and QOS to satisfy different requirements for different types of end users.

- For web surfing or data connectivity, for Cloud and even for legacy applications, KaSatPro VNO enables operators to partition the satellite network and efficiently allocate resources to specific end customers.

- KaSatPro VNO integrates the latest satellite features and the most advanced technology to provide excellent tailored and reliable services.

- VNOs on KA-SAT can change capabilities easily without altering remote site equipment in both directions.

- A software development kit is available for custom applications

Check file: 5775 Eutelsat Comms Via Satellite Brochure AW.pdf

Professional Customer Support

Web portal tool

• User receives a set of Credentials for connecting to a secured web portal

• This allows the user to get detailed information on his terminals and their status (SNR, connectivity, traffic exchanged and so on).

Life cycle support

• Consultancy

• Installation

• Configuration

• Helpdesk

• Traffic management

Thank you for your attention

in the case of questions
do not hesitate to contact

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