

GAN

Global Area Network

Your Mobile Office Online

Introduction

Congratulations from Xantic on becoming a Global Area Network (GAN)user. This guide will introduce you to the GAN service and explain how to operate and get the most out of the system.

Manual, Version 2.0

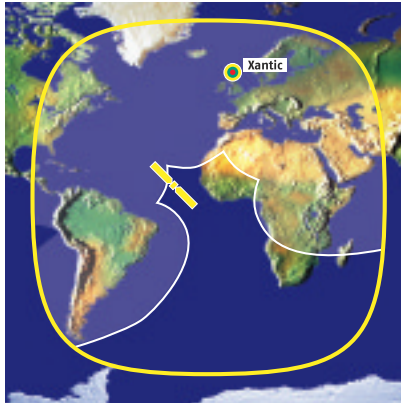
Your guide to the Xantic Global Area Network

See backside for Coverage Maps >

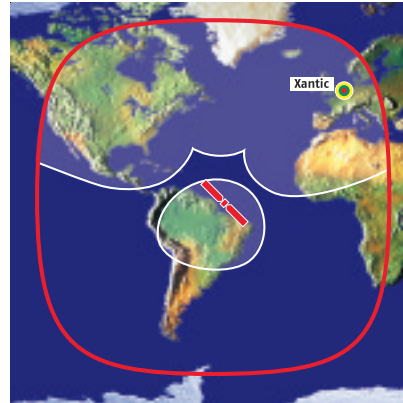


Coverage Maps

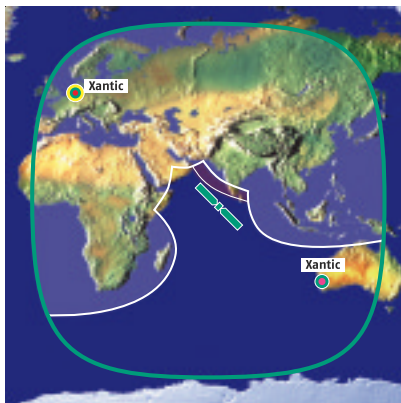
Spotbeams coverage areas



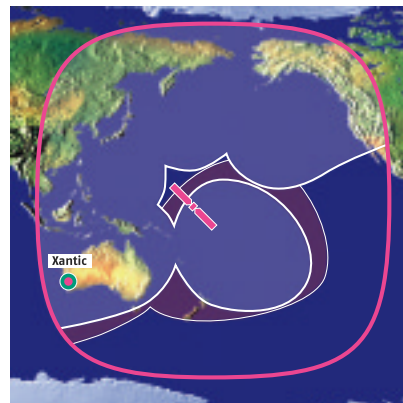
Atlantic Ocean Region East
15.5° W
telephone 871 / 870



Atlantic Ocean Region West
54.0° W
telephone 874 / 870



Indian Ocean Region
64° E
telephone 873 / 870



Pacific Ocean Region
178° E
telephone 872 / 870

Safety Warnings

Radiation warning

Keep well clear of the front of the antenna

The terminal operator should always keep the front-end of the antenna a minimum of two metres clear of other people during transmission. Direct exposure to the radio frequency waves emitted during transmission can be harmful to anyone too close to the antenna.

Equipment warning

Keep away from live circuits

Do not remove equipment covers, as high voltage may be present.
Seek expert advice if the equipment malfunctions.

Content

1	Support	2
2	GAN terminals	3
3	The big picture	4
3.1	Inmarsat Satellite Network and Coverage	4
3.2	Land Earth Station (LES)	4
3.3	The Xantic GAN service	5
3.4	SIM Card	7
4	Access to the satellite network	8
4.1	Service Activation	8
4.2	Activation scheme	9
4.3	Which IMN numbers do I receive?	9
5	PIN and PUK codes for your SIM card and GAN terminal	10
5.1	SIM Card roaming and Prepaid cards	10
5.2	SIM Card PIN and PUK codes	10
5.3	Terminal PIN code	11
6	Preparing for your first call	12
6.1	Making your first call	13
6.2	Making an MPDS connection	14
6.3	Making service calls	14
6.4	Calls to other Inmarsat satellite phones	14
7	How people contact your GAN terminal	16
7.1	Two Stage Access	16
7.2	PhoneConnect (for voice calls only)	16
7.3	AmosConnect	17
8	Questions and answers	18
9	Useful web links	21
10	Customer Services	22
11	Abbreviations	23

1 Support

Should you have any problems, please call our Customer Services department – available free of charge from your GAN terminal – 24 hours a day, 365 days a year.

Customer Services

For more information about Xantic services:

www.xantic.net

E-mail: service@xantic.net

Access via the Netherlands

Tel: +31 70 343 4543

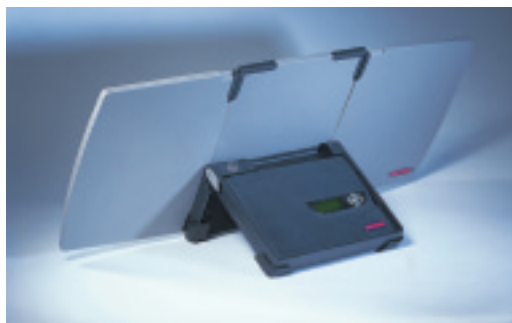
Fax: +31 70 343 4796

Access via Australia

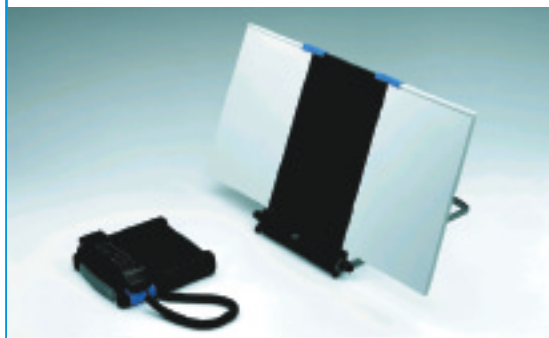
Tel: +61 7 5490 9090

Fax: +61 7 5490 9094

Telex: (71) 22432 TELCSC AA



Nera Worldcommunicator



Thrane & Thrane Capsat Messenger

2 GAN terminals

There are currently a variety of GAN compatible terminals available. Although the terminals have basically the same functionality, there are significant differences in style and operation. Should you require further information about your equipment, please refer to the terminal user manual provided by the manufacturer.



ECI Netlink



Ottercom Storm



Glocom Gemini 128

3 The big picture

3.1 Inmarsat Satellite Network and Coverage

The Inmarsat satellite network consists of satellites, Land Earth Stations (LES) and Mobile Earth Station (MES) also called terminals. The four satellites are in a stationary position above the equator. Each covers roughly a quarter of the world's surface, producing four regions as shown in the coverage maps:

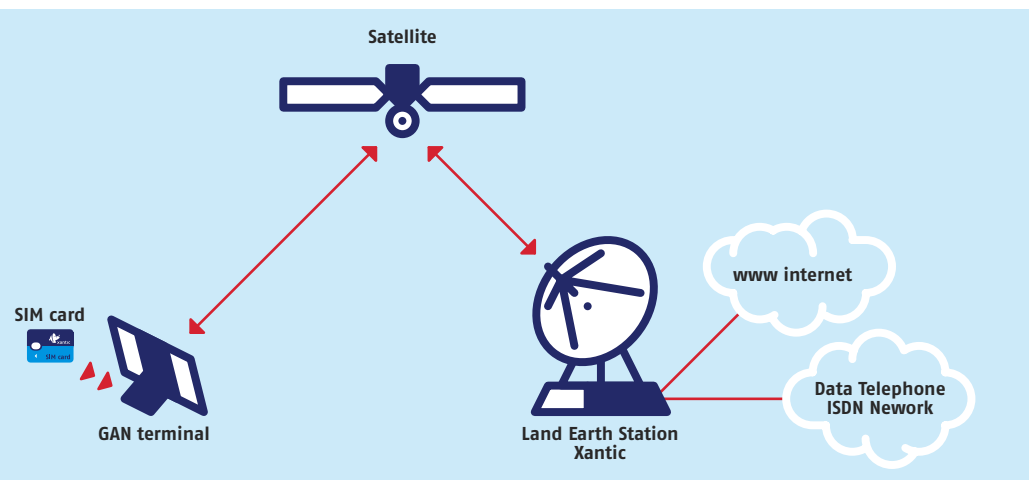
Atlantic Ocean Region East (AOR-E)

Atlantic Ocean Region West (AOR-W)

Indian Ocean Region (IOR)

Pacific Ocean Region (POR)

Xantic covers all regions. This leaves only the Polar Regions north of latitude 80 degrees and south of latitude 80 degrees uncovered. The GAN uses the satellites' high-powered spot beams aimed at the world's landmasses and coastal waters. As a result, the mobile terminal antenna simply needs to be pointed at the satellite covering your area.



3.2 Land Earth Station (LES)

Calls are beamed up to the satellite and back down to earth, where Land Earth Stations (LES) re-route them through the appropriate local or international communication networks. Xantic has its own LES at Burum in the Netherlands and at Perth in Australia.

3.3 The Xantic GAN service

GAN stands for "Global Area Network".

The Xantic's GAN service supports:

- Full mobile ISDN service (64 Kbit/s),
- Mobile Packet Data service "MPDS" (up to 64 Kbit/s)
- Mobile voice (4.8 Kbit/s), fax and low speed data (2.4 Kbit/s)

GAN ISDN

Operating the ISDN 64 Kbit/s service is very similar to an ISDN connection at home or in the office.

Most EURO-ISDN equipment with a RJ-45 connector can be connected to the GAN terminal. Analogue equipment can be connected through an ISDN Terminal Adapter (sometimes called an analogue-to-ISDN converter). For detailed information, please refer to the GAN user manual provided by the manufacturer.

GAN MPDS

Since September 2001, MPDS has been added.

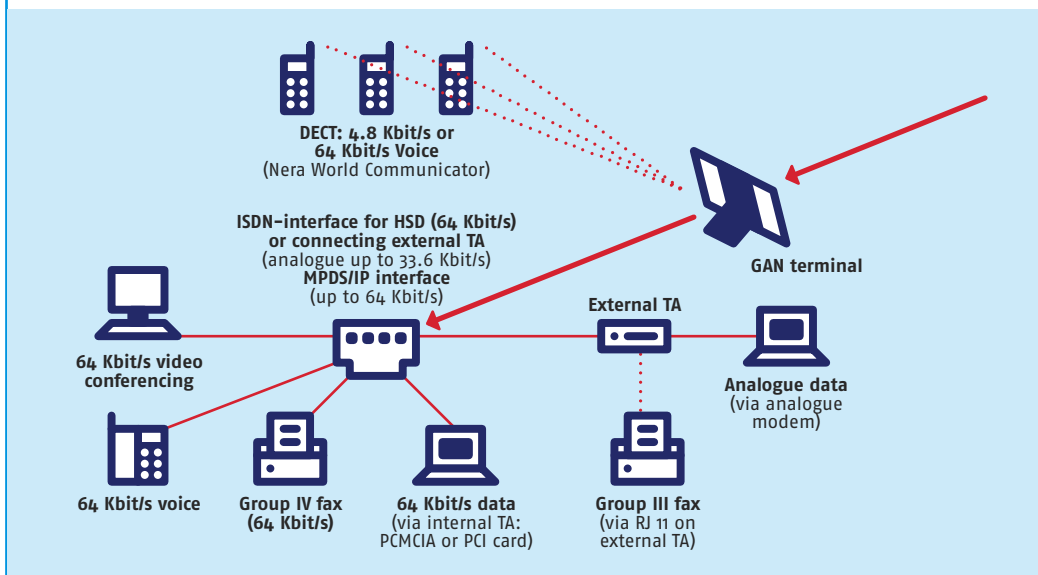
MPDS stands for Mobile Packet Data Service and is an overlay service over the Inmarsat GAN and -Fleet services. It adds the possibility of packet data connections to the circuit switched ISDN connection already offered on GAN terminals. The advantage of packet data over circuit switched connections, is a more efficient use of the available satellite capacity which leads to a different cost pattern.

The user pays "per bit" when using the MPDS service which in many cases is more efficient and cost effective than "paying per second". Applications that have "time wasters" are good MPDS candidates. Each user has a maximum available capacity of 64 Kbit/s, which is similar to the circuit switched GAN service. However, MPDS is a "best effort service", which means that the capacity is divided by all users using the same channel: E.g. if there is only one user per channel, he can make use of the entire 64 Kbit/s channel. If other users come online, the data rate will be lower, as they have to share the capacity of the channel.

GAN MPDS has the same coverage as GAN ISDN, which means it can be used on almost all landmass and in most ocean areas. The user only needs an upgraded GAN terminal.

Most terminal manufacturers will equip their new GAN terminals with MPDS by standard. Terminals that are already in use will require a software upgrade and in some cases also a hardware upgrade.

MPDS is an IP based (Internet Protocol) packet data transmission, specially designed for Internet access, e-mail and other IP connections like corporate Intranets, extranets and VPN's (Virtual Private Networks). The Mobile Packet Data allows you a cost effective "always online" standard IP connection to other IP networks, like Internet and corporate (LAN) networks. With MPDS private networks can be accessed by setting up a Virtual Private Network (VPN). A VPN is a private network that uses public networks (typically the Internet) maintaining privacy through the use of tunneling and security protocols. This completely portable office supports applications such as e-mail, Internet, Intranet, group 3 and 4 fax, file-transfer, store & forward, audio/video, remote LAN access, video conferencing and high quality voice.



The GAN Mobile Voice service offers all features of Inmarsat mini-M, namely a low cost option for voice at 4.8 Kbit/s, fax and data at 2.4 Kbit/s.

Together with the highspeed data ISDN and MPDS/Internet connection, an online mobile office environment is offered.

Note: not all GAN terminal manufactures support low speed fax and data.

3.4 SIM Card

With a SIM card inserted, the terminal takes the identity of the SIM card and all outgoing calls will be charged to the SIM card owner's account. People can contact the terminal via the number of both the SIM card and the terminal.

If a terminal is activated for receiving calls only, removing the SIM card provides extra security. No (unauthorised) outgoing calls can be made but the terminal can still receive calls on its own number.

4 Access to the satellite network

To be able to communicate you need:

- An activated GAN terminal
- An activated SIM card (optional)
- Equipment with standard ISDN and Internet interface
- Analogue equipment with a terminal adapter

4.1 Service Activation

More details on service activation and forms can be found on the Xantic website (www.xantic.net).

After receipt of your completed activation form, Xantic's Activations Services department will perform the following actions:

- Supply you with the Inmarsat Mobile Numbers (IMN) for your terminal and SIM card.
- Inform all Land Earth Stations of your Inmarsat Mobile Numbers, so that your GAN terminal can be reached from almost every country in the world.
- Supply you with a password for connection to the internet via MPDS.

(Note: to enable MPDS you have to apply for this separately on the activation form or change request. You can choose your own username (filled in on the form). Your MPDS user name should be 6 to 15 characters long. Only letters, numbers, the dot and the underscore character are allowed)

Now your terminal is activated and operational.

Additional numbers can be activated upon request if other ISDN devices are connected via a splitter. To direct an incoming call to a particular device you will need a Terminal Originating/Destinating ID (DID/OID) from Xantic. If not programmed properly all devices will respond to the incoming call.

For detailed information about the use of extra numbers and how to use and configure them, please consult the manufacturer's user manual.

4.2 Activation scheme

Options	Remarks
1 SIM cards are default activated for making and receiving calls (code 8012 or 8020 on the activation form)	<ul style="list-style-type: none"> • SIM cards can be used in any terminal: outgoing calls are always billed to the SIM card owner • the terminal can be contacted on both the SIM card and terminal number
2 the terminal can be activated for receiving calls only (code 8026 on the activation form)	<ul style="list-style-type: none"> • a SIM card is necessary for making calls • unauthorised use of the terminal for outgoing calls is prevented although the terminal can still be reached on its own number
3 the terminal can be activated for making and receiving calls (code 8012 or 8020 on the activation form)	<ul style="list-style-type: none"> • no SIM card is necessary for outgoing calls. while the terminal can still be operated by any SIM card on the account of the SIM card owner
4 SIM cards can be activated for prepaid usage (code 8025 on the activation form)	<ul style="list-style-type: none"> • a SIM and prepaid card is necessary for making calls • unauthorised use of the terminal for outgoing calls is prevented although the terminal can still be reached on its own number

Note: Prepaid is only available for the low speed services voice (4.8 Kbit/s), fax and data (2.4 Kbit/s)

4.3 Which IMN numbers do I receive?

IMN numbers Inmarsat Mobile Numbers		Default DID/OID number
For the Low-speed GAN/mini-M service:		
Voice 4.8 Kbit/s	76 0/5	01
Fax 2.4 Kbit/s (if applicable)	76 1/6	11
Data 2.4 Kbit/s (if applicable)	76 2/7	21
2nd voice 4.8 Kbit/s	76 3/8	02
3rd voice 4.8 Kbit/s	76 4/9	03
For the High-speed GAN ISDN service (for highspeed data this schedule might be subject to change)		
64 Kbit/s data	60 0	51
56 Kbit/s data	60 1	71
64 Kbit/s 3,1 kHz Audio	60 2	61
64 Kbit/s speech	60 3	91
MPDS	60 4	A1

5 PIN and PUK codes for your SIM card and GAN terminal

Your SIM card provides features such as enhanced security and an electronic phone book.

When you insert your SIM card in a GAN terminal and enter your PIN code, the terminal takes the identity of that SIM card. Now calls can only be made on your account, although the terminal can be reached by the numbers of both the inserted SIM card and the terminal.

Xantic is offering one SIM card for mini-M and GAN. In order to use your SIM for high speed services (GAN), you have to make sure that the high speed numbers have been activated.

5.1 SIM Card roaming and Prepaid cards

You may use your GAN SIM and prepaid card in a mini-M terminal to make voice, fax or data calls.

Mini-M SIM cards and Prepaid cards can be used in a GAN terminal only for low-speed voice services and, depending on the terminal type, for fax and data calls. Mini-M SIM cards will not work for the 56/64 Kbit/s ISDN services.

5.2 SIM card PIN and PUK codes

When you insert the SIM card in the terminal you will be prompted to enter the SIM PIN code. This secret code is printed on the sealed letter you received with the SIM card.

If you have lost the PIN code you can unlock the SIM card with the PUK (Pin Unblocking Key) code given to you in the same letter.

For security reasons you may only make three PIN attempts. After the third wrong entry the card is blocked and the terminal will require the unblocking (PUK) code.

After you have entered the correct PUK code the terminal will ask you to enter a new PIN code or reset the PIN to 1234 depending on the terminal type. You may enter the PUK code 10 times. After 10 incorrect entries the card is terminated and impossible to unblock. A new SIM card has to be activated.

Note: Take good care of your PIN and PUK codes by noting them in a safe place. Experience teaches us that the majority of problems are associated with lost PIN and PUK codes.

5.3 Terminal PIN code

For security reasons you may find it necessary to block your terminal with a PIN code. Some terminal types already contain a PIN code pre-programmed in by the manufacturer, while others allow the user to activate the PIN code. Consult the manufacturer's terminal user manual for instructions.



6 Preparing your First Call

Once you are registered with Xantic and have received your IMN number and (if applied for) MPDS password you can prepare for your first call.

Step 1

Use your internal battery or an external power source

New batteries are always uncharged so they need to be fully charged before you can use your GAN terminal. New batteries should be charged for several hours, depending on the terminal type.

Step 2

Connect an ISDN phone, PC/laptop or other device to your GAN Terminal

The GAN terminal will recognise a single piece of ISDN equipment without any prior programming. Connecting more than one device will require programming of the terminal.

If using a PC/laptop for setting up an MPDS (Internet) connection:

- a) The terminal should be configured for MPDS usage.
- b) The terminal should be made known to the PC/laptop operating system (Windows) as a "standard" modem for MPDS.
- c) A "Dial-up connection" should be set up in the Windows environment.

Step 3

Point the antenna at the satellite

- Be sure there are no obstacles between the antenna and the satellite.
- Determine which satellite covers your current location (use the coverage maps).
- If your location allows contact with more than one satellite, choose the nearest one with the strongest signal. Selecting this satellite will lower the power consumption from the battery.
- Unfold your antenna and point it at the satellite.

Step 4

Switch on your terminal and search for maximum signal strength

Enter the phone PIN code if necessary. Now the terminal will search for the satellite signal. The signal strength can be monitored in the display or by acoustic beeps. By gently moving the antenna

horizontally and vertically you can adjust the antenna for maximum signal strength. If no spot beam is found from the current satellite, try another Ocean Region.

Step 5

Initialise the GAN terminal with the displayed satellite

When the signal strength is sufficient press 'ok'.

For detailed information about these steps consult the manufacturer's manual.

6.1 Making your first call

Once all the above steps have been successfully completed the terminal display will show the Ocean Region and 'ready for call' or a similar wording. Now you can make your first call.

Operating with SIM Card

Operating the terminal without SIM Card

Step 1

Insert the activated Sim card, wait for the PIN prompt and enter the PIN code.

If no PIN prompt appears check if the SIM Card is properly inserted or clean the golden contacts with a dry cloth.

If your terminal is already preset to Xantic as the default Land Earth Station or Net Provider, continue with Step 2. If not, follow the instructions below.

Step 1

In the menu find 'Set default Net' (Nera) or 'Default LES' (T&T). Select 'Xantic' and press 'ok' or 'save' to enter this choice. The selection of Xantic as default has to be repeated for every Ocean Region in which you travel.

Step 2

Making a ISDN call

To call a subscriber always dial 00 and the country code, followed by the area code (without the first 0) and subscriber number. To start the call press #.

Example:

Call subscriber 0255 (area code) 545111 (local number) in the Netherlands (country code 31)



You will hear a normal ringing tone or a busy tone if the number is engaged. On completion of the call replace the handset or use an appropriate key to clear the call and return your terminal to 'ready for call' status.

6.2 Making an MPDS connection

This is very similar to connecting to the Internet via a normal line, using Windows 95,98, 2000.

From your PC/Laptop Windows environment use the "dial-up connection" for MPDS. Enter the username and Password and connect. Wait for establishing a connection, (similar to dialing in the the internet via a normal line). Wait for the PC/Laptop to negotiate on IP address and validate the username and password.

You can start your (internet) application (FTP, e-mail, browsing, VPN connect) as soon as the Internet access is available (Dial-up icon will disappear into the icon tray).

To close your MPDS session disconnect via the "Dial-up" option (icon in your task bar).

6.3 Making service calls

To call Xantic Customer Services use the two-digit Special Access Code.

For Customer Services key in **68#** (free of charge)

See also section 1.

6.4 Calls to other Inmarsat satellite phones

In most cases mobile-to-mobile communication via Inmarsat-A, -B, -M, -mini-M and -GAN works well, especially for voice services. Fax and data communication may be more difficult in certain situations.

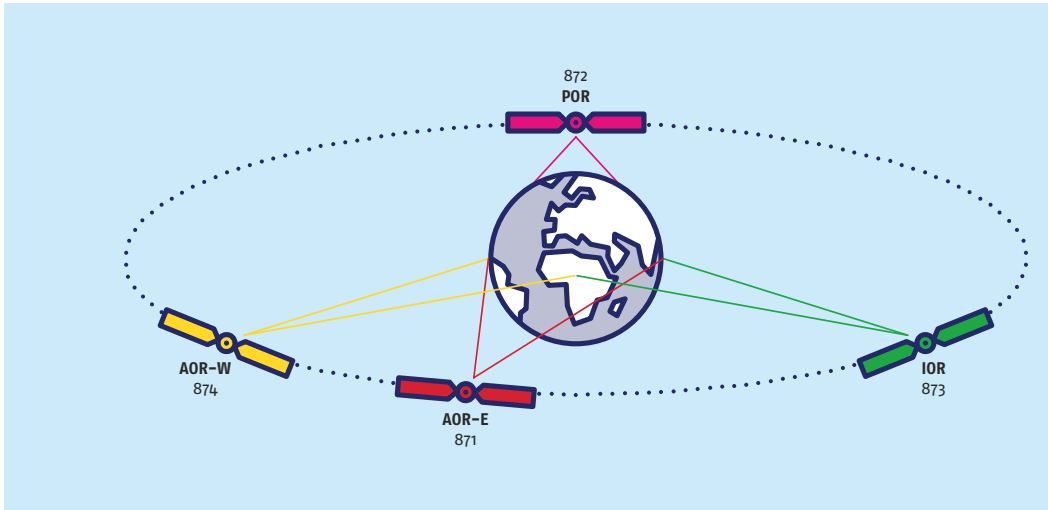
For example:

To call another GAN terminal with number 600084883 in Region Atlantic Ocean Region-East (AOR-E).

Dial the international prefix (00) followed by 870 or 871 for the AOR-E and the IMN number: 00 871 600084883# (-870 can be used for all ocean regions)

The numbers are:

870	All Ocean Regions	
871	Atlantic Ocean Region East	AOR-E
873	Indian Ocean Region	IOR
874	Atlantic Ocean Region West	AOR-W
872	Pacific Ocean Region	POR



7 How people contact your GAN terminal

Normal telephone/ISDN subscribers in most countries can directly dial a GAN terminal. It is important that you instruct your home base about the terminal and/or SIM card ID numbers by which you can be reached and the Ocean Region in which you are travelling. If the home based office doesn't know in which Ocean Region you are traveling they reach you by dialing the universal number for all Inmarsat satellites: 870 followed by INM your number.

For example: you are located in the AOR-E (871) and your office wants to reach you on your 64 Kbit/s data nr. 600084880.

First the national prefix (normally 00) should be dialled followed by **871** (or 870) and 600084880
To reach you the following dial string should thus be used:
00 871 600084880 (or 00 870 600084880)

The numbers are:

- 870 All Ocean Regions
- 871 Atlantic Ocean Region East AOR-E
- 873 Indian Ocean Region IOR
- 874 Atlantic Ocean Region West AOR-W
- 872 Pacific Ocean Region POR

7.1 Two Stage Access

This service enables people to contact your GAN terminal in areas where the local telephone operator cannot access the Inmarsat satellite network or where the service is prohibitively expensive. With a Two Stage Access account the call is routed via the Xantic Land Earth Station. Subscribers simply call up the Two Stage Access number in the Netherlands and then enter their personal PIN code and the mobile Inmarsat number they wish to call.

A direct billing account with Xantic is necessary for Two Stage Access. Please contact Customer Services for more information about this service (see Section 12).

7.2 PhoneConnect (for voice calls only)

The PhoneConnect service is the ideal solution for land-based users making frequent calls to mobile terminals. Xantic offers a private Internet web page showing the terminals that the user regularly wants to contact. A click on the desired terminal number starts the call. Xantic then establishes the connection with the terminal and a few seconds later the user's phone will ring. PhoneConnect can significantly reduce the cost of voice calls. Please contact Customer Services for more information about this service (see Section 12).

7.3 AmosConnect

AmosConnect is a high-end e-mail solution that also provides for integration of telex, fax, e-mail, interoffice communication and access for mobile personnel in a single messaging system. By optimally handling all your mobile/office satellite communication, AmosConnect offers substantial cost savings of up to 85%. AmosConnect works in all Ocean Regions via Special Access Code 65 using either LES 12 (Burum) or 22 (Perth).

Also providing:

- automatic mid-message recovery after break, for minimum retransmission;
- delivery, non-delivery, read and unread notifications sent to the mobile's mailbox.

The Internet is open to everyone. To protect you and your users Amos Connect has a range of security features:

- Blacklist/whitelists – you can decide who can or cannot send e-mails to your mobile users.
- Size filters – allow your users to send and receive e-mails of a size limit chosen by you.
- SMTP tunnelling – by installing AMOS Mail Lite in your office, connected to your own existing e-mail system (no need to change), messages from mobile to office (and vice versa) are sent immediately via our own secure AMOS format. Unlike with "normal" Internet messaging, you know for certain whether or not messages have been delivered.

Please contact Customer Services for more information about this service (see Section 12).

8 Questions and answers

A What to do if:

Your terminal or SIM Card is lost or stolen

Inform your Service Provider as soon as possible. Xantic will bar the terminal or SIM card to block all unauthorised communications as soon as we receive the request to do so.

Once sufficient proof is given that the reason for the original barring is solved Xantic will unbar the terminal and/or SIM card. To avoid false unbarring requests, this request must be in writing and undersigned by the terminal owner.

Your SIM card is damaged and no longer works

The SIM card should be replaced by a new one. By filling in a change request form you can ask Customer Service to transfer the existing IMN numbers to the new SIM Card.

If you are too far away to receive a new SIM card and your terminal was activated for receiving calls only you can request that the terminal be activated for outgoing calls.

You lose your PIN/PUK codes

The SIM card becomes worthless when all codes are lost. Only a new SIM card can solve the problem.

B Which applications can be used over the GAN service?

E-mail, Internet, Intranet, fax (group 3 and 4), file transfer, store & forward, audio/video, remote LAN access, video conferencing, high quality voice, etc.

C What equipment can be connected to the GAN terminal?

Almost all equipment that is compatible with or supports EURO-ISDN and is equipped with an RJ-45 connector. Analogue equipment can be connected using converters or a terminal adapter.

D What happens if ISDN is not available on the fixed side when using the GAN ISDN service?

In this case the maximum throughput of 64 Kbit/s will not be reached. Nevertheless, the connection will function properly as is

the case with voice calls from ISDN phones to non-ISDN telephones. The international data switches take care of this conversion.

E Which countries support/allow DECT?

Most European countries support the DECT GAP standard using a frequency of 1880-1900 MHz. For more information please contact your local telephone company or telecommunications ministry. You can also check with the various DECT manufacturers, such as Siemens, Philips, Ericsson or Panasonic.

F How can the terminal be configured to use the proper services and ports?

This can be done either by the GAN terminal itself or via a PC that is connected to the terminal via a RS-232 cable. You should use the installation software (such as VT-Lite for NERA) contained on the CD-ROM provided with the terminal. For details, please see the manufacturer's user manual.

G Is it possible to see on the GAN terminal which service I am using?

No, the display does not show the present service in use. The ability to check the configuration differs per terminal. The NERA World-Communicator has to be connected to a PC, via the RS232 port, using the VTlite configuration software.

The T&T version offers the same via its software programme TT-10226A or by using the handset.

H Can I make and/or receive calls while I have an MPDS session running?

While in MPDS mode you are not able to make or receive any other calls.

I Will I be charged, when being online stand by with MPDS, but not using any application.

When online with MPDS the terminal will communicate with the network to maintain the connection. Herefor only a minimum amount of data will be send and received by the terminal.

K When is best to use ISDN or MPDS?

GAN ISDN remains favorable for the transmission of large files (more than 1 or 2 Mbit). The following table shows the split between ISDN and MPDS for typical GAN applications:

Mobile ISDN	Mobile Packet Data Service
Videoconferencing	Web browsing
Video streaming	E-mail interactive session
Large file transfer	Database queries
Store & forward video	Web mail
Photo transmission	IP/LAN connectivity
High quality audio	Intranet access
Secure voice & data	Secure packet data

The choice between GAN ISDN and MPDS also depends on the transmission protocol:

Protocol	Direction	Mobile Packet Data	Mobile ISDN
FTP	Send	< 50KB	> 50KB
FTP	Receive	< 50KB	> 50KB
SMTP/POP3	Send	All	
POP3	Receive	< 250KB	> 250KB
SMTP/IMAP4	Send	All	
IMAP4	Receive	< 100KB	> 100KB

9 Useful web links

Satellite Communication

www.xantic.net
www.inmarsat.org

ISDN

www.isdnzone.com/info
www.3com.com/technology/key_net/isdn
www.alumni.caltech.edu/~dank/isdn (Dan Kegel's ISDN page)
www.cnet.com
www.mpds.xantic.net

Digital Enhanced Cordless Telecommunications (DECT)

www.dect.ch

10 Customer Services

Before you call Customer Services about a problem please have the following numbers to hand:

- The ISN (Inmarsat Serial Number). This can be found on your terminal and looks like 76EB72 (NERA terminal) or 76TT72 (Thrane&Thrane terminal), followed by an unique Forward ID consisting of a combination of 6 digits/letters.
- The SSN (SIM Serial Number). This can be found on your SIM card and always begins with 898012 followed by a combination of 6 digits/letters.
- Your IMN's (phone/ISDN) numbers.

For more information on Xantic and GAN Service please contact:

Customer Services
For more information about Xantic services:
www.xantic.net
E-mail: service@xantic.net

Access via the Netherlands
Tel: +31 70 343 4543
Fax: +31 70 343 4796

Access via Australia
Tel: +61 7 5490 9090
Fax: +61 7 5490 9094
Telex: (71) 22432 TELCSC AA

11 Abbreviations

- IMN Inmarsat Mobile Numbers**
9-digit numbers on which the GAN terminal can be contacted. Upon activation Xantic provides you with ISN's for the different services:
76xxxxxxx for low speed voice, fax and data services
60xxxxxxx for high-speed services
- ISN Inmarsat Service number**
The ISN can be found on your terminal.
For Example:
The ISN on a NERA terminal could look like 76EB71 D13F17
76 is for mini-M and GAN mobile terminals
EB or **TT** EB for NERA terminals and TT for Thrane&Thrane terminals
71 or **72** is for the terminal type: Portable Global Area Network
Forward ID consists of a combination of 6 digits/letters that is unique to each terminal
- ISDN Integrated Service Digital Network.**
This is a reliable high-speed digital communications technology that supports a wide range of services including Internet, Intranet, e-mail, data, voice, fax and video.
- MPDS Mobile Packet Data Service**
IP based packet data connection up to 64 Kbit/s.sec, charged per Kbit transmitted rather than the time connected. Particularly interesting for long online interactive connections, burstly traffic with a lot of "dead time" in between. Mainly e-mail, Internet, Intranet and VPN (Virtual Private Network) sessions.
- LES Land Earth Station**
A LES links the Inmarsat satellites with the local or international communication networks. Xantic has its own LES at Burum in the Netherlands and shared facilities in Japan and Australia.
- GAN Global Area Network**

- MES Mobile Earth Station, your GAN terminal**
- MSN Multiple Subscriber Number**
The MSN is programmable by the GAN user and determines which equipment connected to the GAN will be contacted.
- OID/DID Originating/Destinating IDentification**
OID is the ID used in the communication from your terminal.
DID is used for contacting your terminal.
- PIN Personal Identification Number**
Can be used for your terminal and is always used for your SIM card. Provides added security against unauthorised use of your terminal and SIM card.
- PUK Personal Unblocking Key**
Unblocks your terminal or SIM card if the PIN code is lost.
- SIM Subscriber Identity Module**
The SIM card carries subscription information from Xantic and can be used in any GAN terminal. Communication costs will be billed to the SIM card owner.
- SSN SIM card Serial Number**
Can be found on your SIM card.
For Example: 898012 C12A01
898012 Xantic code for SIM cards
Forward ID consists of a combination of 6 digits/letters that is unique to each SIM card
- VPN Virtual Private Network**
Private network that uses public networks (typically the Internet) maintaining privacy through the use of tunneling and security protocols. (f.i. Extranets and Wide Area Intranets)



	Terminal IMN's	SIM MN's		Terminal IMN's	SIM MN's
ISN for terminal only	76		High-speed data service		
SSN for SIM only		898012	64 Kbit/s data	60	60
Low-speed 4.8 Kbit/s	76	76	56 Kbit/s data	60	60
Fax 2.4 Kbit/s (if applicable)	76	76	64 Kbit/s 3.1 kHz audi	60	60
Data 2.4 Kbit/s (if applicable)	76	76	64 Kbit/s speech	60	60
2 nd voice	76	76	MPDS	60	60
3 rd voice	76	76			
			PIN Sim Card	PIN terminal	
			PUK Sim Card	PUK terminal	

Your Key numbers

Note down your numbers here for future reference.
Please keep this form in a secure and separate place.

Customer Services

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