Technical Notification

This document fully replaces former TN: 95-125031

Date: February - 2007

Document No.: *95-125053* Page<1/12>

EXPLORER™ SIM Lock feature_Rev_2

Subject:

This technical notification describes the new SIM lock software feature and how it can be configured for the EXPLORER™ terminals with software version 2.00 or later.

Priority:

• LOW: For information purpose only - no direct action needed!

Identification:

The EXPLORER[™] terminal must have or be upgraded with firmware 2.00 or later and with bootloader version 5.00 or later in order to be able to activate the SIM Lock feature.

Action:

The SIM Lock PIN can be ordered from the Thrane & Thrane order office using part number TT-3650A-004.

SIM Lock PIN can be ordered to all EXPLORER[™] terminals delivered in the past simply by forwarding the IMEI number and serial number of the EXPLORER[™] terminal to which the SIM Lock PIN must apply. The distributor will then receive a SIM Lock PIN code and can manually SIM Lock the EXPLORER[™] terminal to any desired IMSI, DP or ISP using the built-in web interface.

The DP and ISP codes are supplied by the Airtime Provider.

SIM Lock PINs can also be purchased together with EXPLORER[™] terminals and the EXPLORER[™] terminals will then be SIM locked in the production line to a specific DP or ISP specified by the distributor upon order. The EXPLORER[™] terminals are then SIM locked when shipped from Thrane & Thrane.

Document No.: *95-125053* Page<2/12>

How to install the BGAN-E Flash Utility

The BGAN-E Flash Utility is the tool for upgrading the bootloader.

- 1. Download the "bootloader_500.zip" from eSupport download centre.
- 2. Install and run the BGAN Explorer (TM) Bootloader Flasher program named "BGAN-E_Flash_setup.exe"

Pc must run Windows XP sp II.

3. Install the program by following the wizard

🔂 Setup - BGAN-E Flash Utilit	у
	Welcome to the BGAN-E Flash Utility Setup Wizard
	This will install BGAN-E Flash Utility 1.0 on your computer.
	It is recommended that you close all other applications before continuing.
	Click Next to continue, or Cancel to exit Setup.
	Next > Cancel

Document No.: *95-125053* Page<3/12>

Select Destination Location Where should BGAN-E Flash Utility be installed?
Setup will install BGAN-E Flash Utility into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\Program Files\Thrane\BGAN-E Flash Utility Browse
At least 18,0 MB of free disk space is required.
< Back Next > Cancel
BGAN-E Flash Utility
Which additional Lasks should be performed?
Select the additional tasks you would like Setup to perform while installing BGAN-E Flash Utility, then click Next.
Select the additional tasks you would like Setup to perform while installing BGAN-E Flash Utility, then click Next. Additional icons:
Select the additional tasks you would like Setup to perform while installing BGAN-E Flash Utility, then click Next. Additional icons:
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Select the additional tasks you would like Setup to perform while installing BGAN-E Flash Utility, then click Next. Additional icons:

4. Do not create a desktop icon.

Document No.: *95-125053* Page<4/12>

🚏 Setup - BGAN-E Flash Utility	<u> </u>
Ready to Install Setup is now ready to begin installing BGAN-E Flash Utility on your computer.	
Click Install to continue with the installation, or click Back if you want to review or change any settings.	
Destination location: C:\Program Files\Thrane\BGAN-E_Flash Utility	*
Start Menu folder: Thrane\BGAN-E Flash Utility	
	× ×
< <u>B</u> ack	Cancel

📅 Setup - BGAN-E Flash Utility	
Information Please read the following important information before continuing.	
When you are ready to continue with Setup, click Next.	
 BGAN Explorer (TM) Flash Utility is used to upload and flash a new bootloader or Main software image into the BGAN Explorer UT family from Thrane & Thrane. This particular distribution includes the bootloader code needed in order to use the Ver. 2.0 software relase which incorporates SIM LOCK functionality. Simple flash procedure to upload new bootloader code: Connect the PC with the UT using the LAN interface. Power ON the UT Run the "BGAN-E Flash 5.00" shortcut which was created during installation Wait for the message **** Bootloader code flashing succeeded! WARNING: Power must NOT be removed from the UT while flashing is in progres as this may cause unrecoverable damage to the UT. 	s •
<u>N</u> ext >	



5. Installation is finished. The program is now located in "Programs\Thrane\BGAN-E Flash Utility

Document No.: *95-125053* Page<6/12>

Upgrading to Bootloader: 5.00 build 731

NOTE: It is NOT recommended to upgrade bootloader if SIM Lock feature are NOT to be used!!

Before upgrading the bootloader, check that the firmware is version 2.00 or higher. If not, update the firmware to latest version. This is mandatory!!

Power must NOT be removed doing the upload.

- 1. Connect to the Explorer[™] terminal via the Ethernet interface. Run the BGAN Flash Utility, located in "Programs\Thrane\BGAN-E Flash Utility"
- 2. Check main software version by selecting "File-Check"



3. IF the main software version IS NOT 2.00 or higher, upload to latest version of main software.

If main software version is 2.00 or higher go to section 7.

Document No.: *95-125053* Page<7/12>

- 4. Uploading main software can be done from the BGAN-E Flash utility, by selecting "File-Flash"
- 5. Locate the main software on the HD (in this case EXP_2_00B.dl)

Choose a bootle	ader or main sof	tware image file (.dl)			? ×
Look in	: 🗀 2.0		•	+ 🗈 💣 🎟+	
My Recent Documents Desktop My Documents My Computer	EXP_2_008.d				
My Network	File name:	EXP_2_008		•	Open
Places	Files of type:	.dl files (*.dl)		•	Cancel

6. Select "Open", and wait for the software to be uploaded.



Document No.: *95-125053* Page<8/12>

7. To upload the Bootloader open BGAN-E Flash Utility, select "File-Flash", and locate the bootloader. C:\Program Files\Thrane\BGAN-E Flash Utility

Choose a bootlo	ader or main software image file (.dl)	? ×
Look in:	: 🗀 BGAN-E Flash Utility 💽 🔶 🖻 💣 🖽	-
My Recent Documents	Explorer_bootloader-5.00-763.dl	
My Documents		
My Computer		
My_Network	File name:	Open
Places	Files of type: .dl files (*.dl)	Cancel

8. Select the Explorer_bootloader-5.00-763.dl and "Open"

BGAN Explorer (TM) Flash Utilit	y 🗙
WARNING: Power must NOT be removed fro while flashing is in progress as thi cause unrecoverable damage to l	m the UT is may the UT.
Press OK to start flashing proced	ure
OK Cancel	

9. Select "OK"

Document No.: 95-125053 Page<9/12>

10. Wait for the bootloader to be uploaded.



11. The bootloader has been uploaded and the terminal is now ready for the SIM Lock function.

Document No.: *95-125053* Page<10/12>

How to SIM lock EXPLORER™ from the built-in web interface:

- 1) Connect a PC with a LAN cable to the EXPLORER[™] LAN interface.
- 2) Boot up the PC and EXPLORER[™]
- 3) Open a web browser and enter the built-in web interface of the EXPLORER™. IE: <u>http://192.168.0.1</u>
- 4) Go to the ADMINISTRATION menu and login. Default: User: admin Pass: 1234
- 5) Go to the SIM Lock menu and enter the SIM Lock PIN code to get access to the SIM lock function, see below screen shot:

Thrane & Thrane	
BATTERY: SIGNAL: 0000000	≪ 몲 BT 🗊
HOME PHONE BOOK MESSAGES CALLS CALLS SETTINGS PROPERTIES ADMINISTRATION Profiles Call charges Log handling Traffic flow templates	Enter SIM Lock Code 4f3044d3c239380add2e64cd8430fb38
SIM Lock	

Document No.: 95-125053

Page<11/12>

6) Below screen will now be visible and the SIM Lock function can be configured.

BATTERY: BIGNAL: DODODOD	≪ 몲 ₿ Т	
HOME PHONE BOOK MESSAGES CALLS SETTINGS	SIM LOCK C Lock to SIM inserted C Lock to DP code of SI C Lock to ISP code of S C Lock to SIM	M inserted IM inserted IMSI
PROPERTIES	C Lock to DP	DP code
Profiles Call charges Log handling Traffic flow templates	C Lock to ISP C Unlock Apply Cancel	DP code ISP code

NOTE: Remember to reboot the EXPLORER[™] in order for the new settings to take effect.

How to validate if EXPLORER™ is SIM locked correct:

USING THE WEB INTERFACE:

Insert the SIM card in the EXPLORER[™]. Connect a PC to the LAN interface of the EXPLORER[™]. Power up the PC and EXPLORER[™] and go in to the built-in web interface. If the SIM card is valid the normal web interface will appear. If the SIM card is Invalid then the web interface will show a limited menu and write the message "Illegal SIM". See below picture:

Document No.: *95-125053* Page<12/12>

Thrane &	Thrane
BATTERY:	
SIGNAL:	
ADMINISTRAT	ION

USING THE LCD MMI:

Insert the SIM card in the $\mathsf{EXPLORER}^{\mathsf{I}\mathsf{M}}$ and power it up.

Using the LCD MMI, there are two diffent procedures to validate if the EXPLORER™ is SIM locked correctly. The procedures depends on if the PIN for SIM is enabled or disabled in the the EXPLORER™.

If PIN is disabled (default from factory), it is necessary to point the EXPLORER™ towards an Inmarsat I4 satellite and press OK to the signal level strength.

If the SIM card is valid the EXPLORER[™] will start registration procedure.

If the SIM card is Invalid the LCD will show the text "ILLEGAL SIM". See below LCD MMI:



If PIN is enabled, it is necessary to enter the 4-8 digit PIN for the SIM.

If the SIM card is valid the LCD MMI will show the signal strength in pointing mode. If the SIM card is Invalid the LCD MMI will show the text "ILLEGAL SIM". See below LCD MMI:



Thrane & Thrane After Sales Service

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