Remote monitoring over standard telephone lines

▶Ensure your phones are operational

▶Plan maintenance and repair work

▶Streamline manpower

▶Generate automatic reports

▶View at a glance status information

▶Establish comprehensive database

Whether you have 1, 5 or 5,000 telephones installed outside, how do you know what's happening out there without physically travelling out to check them? Your maintenance teams have more important things to do with their time so why incur increased costs for doing something that can be done from the office?

Knowing that the telephone is working at all times is imperative where they are safety-critical or providing a customer interface. Has someone left the handset off-hook? Has your roadside telephone been knocked over? Has there been a problem connecting to the phone due to a line fault? How do you know?

For customer service phones - do you have to justify their usage, need to keep a log of all call data, regularly change the memory numbers or send reports to other managers?

GAI-Tronics' SMART (*Self Monitoring And Reporting Technology)* phones are rugged, line powered analogue telephones offering TMA compatibility, including powerful remote monitoring facilities, as standard. They can also include enhanced features such as activating external equipment, restricting keypad access and enabling remote PIN code door entry.

TMA - *Telephone Management Application* is a Windows® based software package that allows you to remotely monitor the health status of your SMART telephones, program their functions and log and report on their stats - all over a standard telephone line. These features ensure that your SMART phones remain operational with minimal manpower.

TMA not only checks the telephone status but also highlights possible problems across the network as it works over the telephone line. Reports from TMA can be used to highlight areas where vandalism or network problems exist and help you plan work on areas that need to be enhanced, maintained or linked into other security measures such as CCTV.

SMART and TMA provide measurable results. In addition, you have the safety of knowing your system works and you have effective management of your network and manpower.

TMA… KEEPING YOUR COSTS DOWN…

HEALTH AND STATUS MONITORING

**TMA remotely monitors the health-status of SMART telephones from a control centre.**

▸ **Can poll up to eight phones simultaneously** with up to 8 modems per PC

▸**Automatic poll maintenance checks** can be configured to perform non-stop, daily, or weekly.

▸ TMA **checks that the phone is contactable** and then **retrieves identifying information,** such as the telephone serial number and software version, as well as **faults and sensors** including stuck buttons, handset integrity, phone tilt, line conditions (current levels) and call-in progress interrupted.

▸ '**At a glance' health status** on TMA - telephones will show a yellow '**X**' for a fault exception and a red '**X**' for inactive phones. You will also hear an audio alert.

TMA can be sited on a PC (using Microsoft® Windows XP® , Windows 2000® or Windows 7 operating system) anywhere in the world as the SMART phones work over a standard telephone line

Can use up to 8 modems per machine

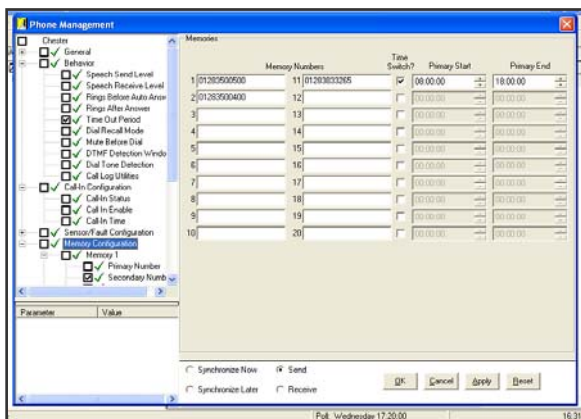*Remote Programming Screen on TMA*
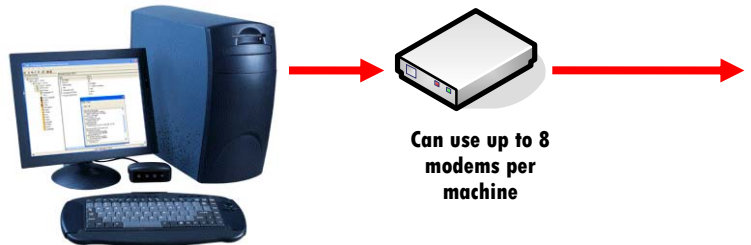
REMOTE PROGRAMMING

TMA allows you to remotely adjust the settings in the SMART telephones enabling stored information in the telephone to be instantly updated at any time.

▸**Remote telephone configuration -** settings such as auto-dial numbers can be remotely altered through TMA. This is useful where numbers may change frequently or where you need the auto-dial button to dial a different number for day and night.

▸**Interrogation automatically undertaken by PC or on demand -** changes can be made automatically during the routine monitoring polls where TMA will send the requested changes to the telephones. Alternatively, you can manually poll into the telephone at any time to alter the settings. This enables changes to be made one at a time or as a batch update.

▸**Incoming calls logged automatically over 24 hours** - works constantly to give you uninterrupted monitoring of the telephones.

▸**Priority for outgoing calls** - if an auto-dial button is pressed on the SMART telephone (or handset lifted) during a poll, the poll will disconnect to allow the call to be made - essential if your number is linked to emergency services.

CALL LOGS AND REPORTS

SMART telephones store call data which can be accessed automatically or manually, on demand, for on-screen or printed reports.

▸Several different types of reports are collected in TMA during maintenance calls. These are particularly useful where the telephone is safety critical and records need to be available or where records of telephone usage or specific number (button) usage or call length/time is important for future planning.
Examples of reports are:

- **Inactive phone reports** - which phones could not be accessed
- **Call usage reports** - including time, date, length of call, memory number dialled and termination reason[1]
- **E**xception reports - only reports calls where a sensor or fault condition exists on polling or call-in
- **Maintenance call reports** - all maintenance call attempts to the phone, (both call-ins and poll calls)
- **Call-in report lists with call-in records** - all attempted call-ins initiated by the phone

▸**Comprehensive Database** TMA stores all information on each telephone. This enables you to access historical records of every change on each telephone

[1] Called Party Answered signalling (CPA), ie a reversal of line polarity when an outgoing call is answered, is required to ensure accurate recognition of call connection and answer delay times. CPA is a telephone line service and may not be available from all telecom service providers.

SMART… THINK YOU KNOW YOUR PHONE?
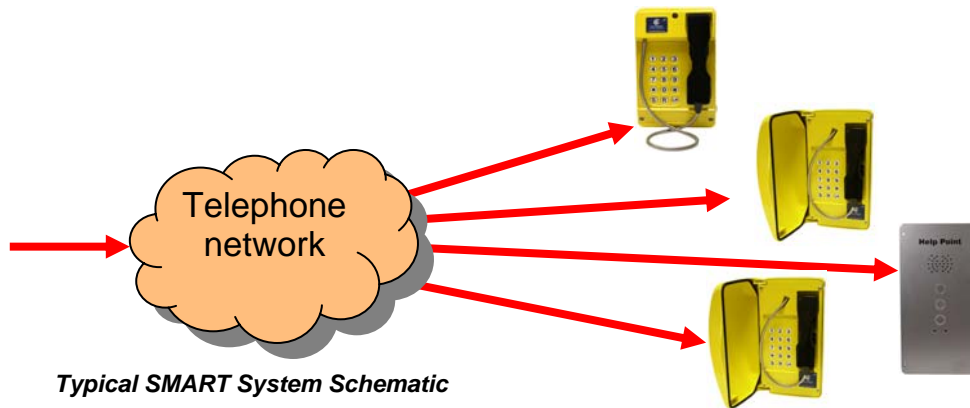
SMART telephones give you increased options for flexibility on your system. Make the most of your phone by linking them into your other security features…

Ask us if you have a specific application -we can probably provide a solution!

Telephone network

Typical SMART System Schematic

**In addition to GAI-Tronics Industrial Telephone features,
SMART offers the following enhancement options**

▶ **1 & 2 digit auto-dial**	Auto-dial allows you to restrict access on the keypad. SMART telephones can be programmed to auto-dial on button press - either 1 button or 2 digits. This increases the number of memory buttons to 99
▶ **Keypad disable/enable function**	Enables use of the full keypad only after the memory dial number has connected. This would give the user full functionality to key in e.g. bank details but would prevent misuse of the telephone. A key security feature
▶ **PIN code door entry through telephone**	This unique door opening feature allows the telephone to be used remotely and securely as a door entry phone. When the caller dials through to the pre-programmed number (e.g. security office) the operator can qualify the call and then dial a security PIN to release the door or gate (or any other action required). This feature can be activated from anywhere in the world over a standard telephone line. You will need an external power supply for this option
▶ **4 inputs**	These can be used to remotely activate the phone. This works where an action (such as an overflow or fire detection) automatically triggers a call from the phone back to the call centre. The inputs can also be remotely monitored using TMA.
▶ **2 volt-free contact outputs**	Allow you to activate external equipment e.g. CCTV, door release or beacons. These can be set to activate either on the phone being picked up, ringing, on call connecting, or several other options. You will need an external power supply for this option
▶ **Cascade dialling**	In the event of a number not connecting (busy or call fail) the call would automatically work through a pre-programmed list of alternate numbers until it rings
▶ **Time-switch dialling**	Two telephone numbers can be set against each auto-dial number to work at different times such as day/night. This is useful where there is an out of hours number for security or to transfer to a different call centre for example
▶ **Volume Control option**	Volume control is programmable
▶ **Onboard real-time clock**	Ensures that the phones call-in to TMA at the right time - this avoids any time overlap and therefore TMA not being able to access the phone

SMART and TMA
Self Monitoring And Reporting Technology

GAI-Tronics industrial telephone range includes standard analogue, SMART and VoIP. Built to withstand weather and vandal abuse, these telephones are approved for use in the toughest environments. SMART phones are used in many different sectors, from trackside telephones in the rail industry to customer service phone in the banking sector. GAI-Tronics - Communication you can depend on

Irish Rail has in excess of 2,000 SMART line-side signal post telephones with TMA. These are used mainly for driver to signalman communications. Kyran Gavin, Senior Systems Specialist at Irish Rail comments:
"Prior to the purchase of SMART and TMA, Irish Rail were unaware when a line-side phone was out of order until someone tried to use it. Now, each phone is polled daily and we know immediately and can send someone out to test or repair it. These phones are placed on all the stop signals so when these are out we can now contact the driver and signalman to make alternative communication arrangements. It does exactly what we need."

Abbey National uses SMART telephones in its banks for customers to dial through to various banking facilities such as insurance, mortgages and bank loans. These are monitored and maintained by GAI-Tronics where Alan Grigg, Aftercare Co-ordinator, explains *"We have been maintaining the phones for Abbey for over 10 years. These phones provide a customer interface so it is important that they're operational. We are on a next day response contract and using TMA to clear faults has reduced actual call outs by up to 10%. We often know the phone has a problem (and have fixed it) before the branch does. Abbey National receives reports on a monthly basis to find out which banking options are most popular and to study call usage."*

Our Norwegian distributor Norex supplied Norwegian Rail and Norwegian Road with TMA/SMART systems. **Norwegian Rail** has over 1,500 trackside and level crossing telephones installed along railway lines over long distances with several km walk to reach a phone. Since using SMART in some of these areas, Norwegian Rail have seen clear advantages in the system. The TMA operator in the maintenance department was trained by Norex on how to get maximum benefit from the system. He told Willy Hauge at Norex *"If only we'd known about this product before - it would have saved us a lot of walking in the snow"* He continues *"TMA saves a lot of time - since we have had this we never go to a site without first checking on TMA. Now we only do a manual check of each phone yearly as part of routine maintenance instead of every week as before."*

With regards to the roads, Willy Hauge says *"With their SOS roadside telephones **Norwegian Road Authority** needed to have confidence that the phones were working at all times. They still do physical inspections of telephones when traffic is shut down in the tunnels for general inspection and maintenance, but TMA polls each telephone daily so that any problems are picked up immediately. The phone can be re-tested from the office and then if necessary, the maintenance crew can go out to check on the roadside. Depending on what is indicated, they might not always have to go out straight away but TMA allows them to plan their route ahead and to go straight to the right phone."*

If you don't have the facilities to monitor your SMART telephones, or only need a small number of phones, GAI-Tronics can monitor them on your behalf, either as part of a maintenance package or as a stand-alone service. Interested? E-mail: sales@gai-tronics.co.uk

Telephones Available as SMART

T: 01283 500500 or E: sales@gai-tronics.co.uk

MORE INFORMATION

Description	Brochure Number
Commander	B009
Titan	B024
Public Access Help Point	B177
VR	B153
VoIP/Analogue Comparison	B184
PHP400	B189