THE END-USER'S VISION IS OUR MISSION

GAMMA NEWSLETTER Q1/2011
Dear Customers,

Our 2011 newsletters show a range of selected equipment from Gamma Group's capabilities in the fields of Tactical & Strategic Surveillance and Monitoring Systems, which can operate independently or within a system design. The equipment can be tested and demonstrated upon request. We look forward to hearing from you.

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GAMMA GROUP
Gamma Group is an international manufacturer of surveillance systems based in Germany and the United Kingdom, providing advanced technical surveillance, monitoring solutions and advanced government training as well as international consultancy to National and State Intelligence Departments and Law Enforcement Agencies. Since it was founded in 1990, the group has expanded and now has four separate companies under its wing: GammaTSE, Gamma International GmbH, G2 Systems and Gamma International UK. In 2005, Gamma opened a company in the UK specializing in CBRN and VIP security, and in 2006 opened a partner office in Singapore called Global Surveillance Systems.

GAMMA GROUP OF COMPANIES

GAMMA
Professional Surveillance Systems Audio / Video Monitoring Product Surveillance Vehicles
Sales & Consulting Provision of Services Communications Monitoring
The Enduser's Vision is Our Mission

GAMMA TSE

G2 SYSTEMS

IT Intrusion, Sales & Projects Technical Installations
Providing Highest Quality of Operational & Technical Training

Group Alliance
The Group alliance of companies consists of:
GammaTSE
Gamma International UK
Gamma International GmbH
G2 systems
Elaman GmbH
GSS Singapore
CBRN Team Limited
TS Comms
Fink Secure Communications

GROWING GAMMA TEAM
In 2005, Thomas Fisher joined Gamma International GmbH as the IP Monitoring Specialist and the company has recently released the FinFly ISP system.

Gamma Group was fortunate to add Mr. Carlos Gandini to its growing team of experts in 2010. Carlos joined Gamma International GmbH in October, and is based in Munich, where he heads the Sales Department for our exclusive FinFisher II Intrusion Portfolio. Since Carlos is fluent in Spanish, Portuguese, Italian, English and German, we plan to expand Gamma’s reach, specifically to South America, in the coming years.

EXHIBITIONS IN 2010
Gamma Group had a busy 2010 and exhibited at all the ISS Telestrategies exhibitions, which included, Dubai, Washington, Prague and Kuala Lumpur. Gamma also had a strong presence at Milipol Qatar and at the HOSDB in the UK. Gamma plans to attend all the exhibitions again in 2011. Should you require any further information about Gamma or its products please contact: info@gammagroup.com
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<td>Feb. 2011</td>
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Partner Companies

- trovicor
- MICRO SYSTEMATION
- COBHAM
- L3 communications
- Polaris Wireless
- XAD COMMUNICATIONS LTD
- utimaco®
- Defica
- VASSTech
FINFISHER IT INTRUSION SEMINARS

It is with pleasure we are able to offer our services and provide your esteemed department with its own exclusive 2-day IT intrusion seminar. The idea behind the seminar is to introduce the latest techniques in IT intrusion, which will be presented by our own team of IT experts.

The 2-day seminar will cover all the theory and live practical demonstrations as well as discussions on building up your own IT intrusion team. On the second day, we will also give a full demonstration of the FinFisher Intrusion and Hacking Portfolio and review the entire range of training courses our company offers.

We attach the following documentation:
• Seminar Invitation
• Seminar Agenda

If this seminar is of interest to you, we would like to agree on the following points:
• Location of the seminar
• Date of the seminar
• Number of Personnel attending from your side
• Any required security clearance for our personnel

It would be a pleasure to speak with you at your convenience and discuss any issues related to this seminar and provide more information.

Day 1
• What is IT Intrusion?
• Recent Cases (Attacks on Networks, Cybercrime and more)
• Common Techniques (Samples on Intrusion to Infrastructures and Systems)
• Intrusion Techniques

Day 2
• Common Techniques continued
• Government IT Intrusion Solutions
• Real life Intrusion Operations
• FinFisher Portfolio
FINFISHER - THE ULTIMATE INTRUSION PORTFOLIO

FinFisher is the cutting-edge offensive IT Intrusion portfolio on the market today. With this portfolio, Gamma provides complementary solutions, products, and advanced training capabilities to government and users who are seeking world-class offensive techniques for information gathering from suspects and targets.

FinFisher combines specialized areas into one comprehensive IT Intrusion Portfolio. This provides the Law Enforcement and Intelligence Communities with access to an all-encompassing range of intrusion capabilities, which can be used effectively from starting up a new Intrusion Department to providing world-class solutions and training to enhance existing resources.

The FinFisher Portfolio is based on the following products:

**FinFisher Tactical IT Intrusion Portfolio**
- FinUSB Suite: Covertly extracts data from a computer system
- FinFireWire: Unlocks a running computer system for instant access
- FinIntrusion Kit: Professional tactical IT Intrusion Kit

**FinFisher Remote Monitoring & Infection Solution**
- FinSpy: Remote monitoring solution for computer systems and mobile phones
- FinFly USB: Infection USB device for physical access
- FinFly LAN: Tactical infection proxy for local area networks
- FinFly ISP: Strategic infection proxy for ISP networks
- FinFly Web: Infection website generation for remote use

**IT Intrusion Training Program**
- FinTraining: Training Program for IT Intrusion and CyberWar Teams

PRODUCTS PORTFOLIO

**FININTRUSION KIT**

FinIntrusion Kit was designed and developed by world-class IT Intrusion specialists that have over 10 years of experience from working in several Tiger Teams (Red Teams) in the private and government sector assessing the security of different networks and organizations. The FinIntrusion Kit is the result of creating an up-to-date and covert operational kit that can be used for most common IT Intrusion Operations in defensive and offensive areas. Current customers include Military CyberWar Departments, Intelligence Agencies, Police Intelligence and other Law Enforcement Agencies.

**FINUSB SUITE**

The FinUSB Suite is a flexible product that enables Law Enforcement and Intelligence Agencies to quickly and securely extract forensic information from computer systems without the requirement of IT-trained Agents. It has been used successfully in operations around the world where valuable intelligence has been found about Targets in covert and overt operations.

**FINFIREWIRE**

FinFireWire is a tactical kit that enables the operator to quickly and covertly bypass the password-protected Login Screen or ScreenSaver and access the Target System without leaving a trace or harming essential forensic evidence.

**FINSPY**

FinSpy is a field-proven Remote Monitoring Solution that enables Governments to face the current challenges of monitoring Mobile and Security-Aware Targets that regularly change location, use encrypted and anonymous communication channels and reside in foreign countries. When FinSpy is installed on a computer system or mobile phone, it can be remotely controlled and accessed as soon as it is connected to the internet/network, no matter where in the world the Target System is based.
FINFLY

FinFly is a set of products that is used for easy local network and remote infection of target systems. Its main features include on-the-fly infection of executable and screensaver downloads, triggering software updates for well known software and infection through visited websites. After infection, the target system is fully accessible to Law Enforcement and Intelligence Agencies.

FinFly USB
The FinFly USB provides an easy-to-use and reliable way of installing Remote Monitoring Solutions on computer systems when physical access is possible.

FinFly LAN
FinFly LAN was developed to covertly deploy the Remote Monitoring Solution on target systems in Local Area Networks (Wired and Wireless/802.11). It is able to infect files that are downloaded by the Target on-the-fly, or infect the Target by sending fake Software Updates for popular Software.

FinFly Web
FinFly Web is designed to help Law Enforcement and Intelligence Agencies to covertly install FinSpy on Target Systems through Websites which install the software by using the Web-browser module functionalities. The product can generate a wide-range of attack codes that can be implemented into any given Website and which will infect the Target System when the website is visited.

FinFly ISP
In order to achieve greater performance and enhanced reliability, the FinFly ISP product has been completely redesigned and developed from scratch, which resulted in major changes:

- The software has been rewritten from scratch and offers a more intuitive interface and more flexibility
- The existing hardware has been replaced by high performance servers with programmable network cards

NEW TRAINING COURSES
As part of our FinFisher Training Program, we have created a set of new cutting-edge IT Intrusion courses to cover more topics requested by our clients over the past few months.

PRACTICAL SOFTWARE EXPLOITATION
Outline: This course offers practical training on using exploits for IT Intrusion purposes, e.g. using the latest Adobe Acrobat exploits to hide FinSpy inside PDF files, as well as using software vulnerabilities to break into secure computer networks, and more.
Duration: 5 days (Basic) or 10 days (Full)
Pre-Requirements:
- Basic Software Development Knowledge
- Basic Windows/Linux Knowledge
- Basic IT Intrusion Knowledge

PRACTICAL WEB APPLICATION EXPLOITATION
Outline: This course focuses on Web Application Security and shows many different ways how to analyze them for security issues, and also to use them to get remote access to web-servers.
Duration: 5 days (Basic) or 10 days (Full)
Pre-Requirements:
- Basic Web Application Knowledge

PRACTICAL PENETRATION TESTING
Outline: This course covers a wide-range of penetration testing examples, which are conducted through several practical examples.
Duration: 5 days (Basic) or 10 days (Full)
Pre-Requirements:
- Basic IT Intrusion Course
FINSPY MOBILE

FinSpy Mobile is an advanced Intrusion system which once implemented into a Target Phone guarantees full access to the communication and built-in features.

Key Features:
- Stealth: Hides software deep inside infected phone
- Communication: Full monitoring of all activity
- Location Tracking: Via GPS and Cell-ID
- Remote Audio Surveillance: Implemented through silent calls
- Supports all major phones: New Systems are permanently added

FINSPY MOBILE SETUP

The FinSpy Mobile server is connected by infected Target Phones over the Internet (GPRS / UMTS / Wi-Fi) or through the PRI Cards (SMS / Phone Calls).

The Whole System is controlled through the Graphical User Interface.

Intercepted SMS

<table>
<thead>
<tr>
<th>Mobile Time</th>
<th>Server Time</th>
<th>Type</th>
<th>Location</th>
<th>Originating</th>
<th>Destination</th>
<th>Contact Name</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009-12-30 12:30:30</td>
<td>2009-12-30 12:30:30</td>
<td>SMS</td>
<td>Location</td>
<td>Originating</td>
<td>Destination</td>
<td>Contact Name</td>
<td>Message</td>
</tr>
</tbody>
</table>

GPS Tracking

The infected Target Phone communicates through GPRS/UMTS/WiFi or SMS/voice-calls.

The FinSpy Mobile Master accepts the connections and stores the data inside the database.

USER INTERFACE
MONITORING CENTER FOR LAWFUL INTERCEPTION

Gamma Group International is a reputable monitoring system integrator for GSM/3G networks. Its Monitoring Center (MC) is a system designed to enable Law Enforcement Agencies (LEA) and government agencies to perform Lawful Interception (LI) monitoring in an auditable, secure and reliable manner. It handles intercepts of voice and data in fixed and mobile networks, on the internet or other IP networks. Within the two general forms of intercept, voice and data, it manages a wide range of communication methods.

The system installations can vary in size from a few computers to an extensive system of many recorders, data collectors, system servers and clients, depending on the application. Its complexity ranges from simple passive connection, to a single trunk line, to being responsible for monitoring an entire country’s fixed, mobile, NGN and internet networks.

Sophisticated user-rights and access control mechanisms have been designed to meet the organizational needs of Law Enforcement and Government Agencies. The implementation is not rigid and these mechanisms can be used to suit most organizational structures and variations within the ETSI standards. The mechanisms also build upon the MS Windows environment to offer a secure but flexible application.

The system performs these monitoring and management tasks from a scalable, distributable and reliable platform with facilities to ensure the security of the system and intercepted data. Its architecture is modular, which allows systems to be built and scaled as appropriate to the customer’s needs.

The Monitoring Center supports a wide-range of fixed and mobile switches, internet ISP and backbone interception points, NGN networks and mobile IP. It can decode fax and local loop internet from circuit switched networks and all popular internet protocols from IP networks.

Through add-on product interfaces, the MC offers its data for further analysis and intelligence extraction. It is currently in use in more than 60 countries.
The FinFly ISP System is designed to remotely install the Remote Monitoring Solution (e.g., FinSpy) on selected Target Computer Systems by integrating the system into an ISP's IP-network infrastructure. Optional FinFly ISP Addons include IP Shaping and Blocking.

A FinFly ISP System typically consists of the following Appliances and Functional Groups:

A) Target Infection Server(s)
   - FinFly ISP Infection Proxy Server

B) Target Identification Server(s)
   - FinFly ISP Target Identification Probe / RADIUS / DHCP Probe

C) Management System
   - FinFly ISP Management Server
   - FinFly ISP Management Workstation

D) Network Equipment
   - Bypass Switch Function, Switches, Passive Taps, 19" Server Rack(s), UPS etc.

The FinFly ISP System is managed centrally from the LEA's premises using the FinFly ISP Management System. The user will administer targets for infection by entering the appropriate target data via the easy-to-use GUI on the Management Workstation. The Management Server will distribute the necessary commands to the FinFly ISP RADIUS Probes and Infection Proxies deployed in ISP's network. A Target is added to the FinFly ISP system using its access data-like "dial-in phone no." or "username." In case the target has a fixed IP-Address this IP-Address will be entered into the system. In this specific case the RADIUS Probes are not involved in the Target Identification process.
IP MONITORING

FinLI is a Front-End system to capture IP data from IP networks according to the requirements of Lawful Interception (LI) or Intelligence Monitoring (IM). It provides the captured IP data to the Law Enforcement Monitoring Facilities (LEMF) – Monitoring Center – according to several international standards like ETSI and CALEA (and some other formats).

The IP Probe components are based on high-end standard server technology and are deployed in the IP network (ISP network) using passive tapping devices to ensure working with a 100% copy of the complete IP traffic without interfering with the network itself. This last point is always a major concern for network operators.

By using a wide range of sophisticated filtering methods, realized with Deep Packet Inspection, FinLI can provide the target and/or application data needed. LI implements many different Target Identification procedures, like RADIUS dialog sniffing or active communication with the AAA-Servers in the access network to identify the targets of interest currently active in the network.

For Intelligence Monitoring, which is not target based, but related to Application Monitoring (e.g. identifying and recording of Webmail traffic or specific files transferred via the Internet), the Target Identification is not an issue. In this case, the IP Probes will inspect the traffic bit by bit to identify applications and files and then will provide the data, in addition to the source and destination addresses, to the Monitoring Center for storage, archiving and evaluation.
LAWFUL INTERCEPTION

Lawful Interception (LI) is the legally approved surveillance of telecommunications services, and has become an important tool for law enforcement agencies (LEAs) around the world for investigating and prosecuting criminal activities and terrorism. Most countries have passed laws that require telecommunications service providers to support LEAs with duly authorized requests to identify, monitor, and deliver all electronic communications of specified individuals and groups. While regulations and requirements vary from country to country, international and American standardization bodies like ETSI or ANSI have developed technical standards for LI that will facilitate the work of LEAs and help operators and service providers to minimize their costs. Although various standards for LI use different terminology, the basic functional model applies to all LI standards and to all network and service types.

The main functions of any LI solution are to access Interception-Related Information (IRI) and Content of Communications (CC) from the telecommunications network and to deliver the information in a standardized format via the handover interface to one or more monitoring centers of law enforcement agencies. Of course, before surveillance can take place, interception requests must be approved and appropriately provisioned to the Interception Access Points within the service provider's network, and they must be carefully and accurately terminated after the interception authorization expires. In addition, high security requirements for LI systems are essential to prevent possible manipulation and misuse.
DATA RETENTION SYSTEM

Data Retention System refers to the process of storing call detail records and subscriber data for various telecommunications services for a period of several months and years. Law Enforcement Agencies and intelligence services regard the access to retained telecoms data as an important pillar of criminal investigation and the prevention of terrorism. The common objective is to use the data to identify and trace suspects, uncover social networks among terrorists, or to collect admissible evidence for court proceedings.

KEY FEATURES:

- Collects communications data (CDR, IPDR) and subscriber data from any telecommunications network
- Retains large amounts of data in a powerful and secure data warehouse
- Provides very fast search and analytics in billions of data records
- Automates request processing and delivers data to authorized agencies by fax, e-mail, or secure IP interfaces
COMMAND CONTROL CENTER, CENTRAL CONTROL ROOMS, CRISIS MANAGEMENT CENTER

Today's complex control centers consist of many individual components. The System is able to cover all of the core tasks of a control center with a variety of specific products. These products are, of course, fully comparable within the system. Moreover, they are fitted with highly flexible interfaces. Thus, in addition to the core tasks of a control center, also all other tasks and functions can be executed and integrated under one user interface – integrated Command Control Centers.

When it comes to the core technologies of a modern command center for public authorities and organizations with security tasks, the system provides all the necessary features and elements. These include:

- Host computer software
- Geographical information system (GIS)
- Switching technology (radio and emergency calls)
- Integrating and interfacing of various systems (communication-Tetra and Monitoring systems-Audio-Video-data-Telco, etc.)

The System’s core offerings are complemented by special software for the smooth operation of technical administration in a command center, as well as the functional and ergonomically designed command center desk.
Easy recording of incidents, recommends resources to the dispatcher and can be used for automatic warning processes. Appropriate interfaces for numerous interesting control variants.

Geographics Information System (GIS) that visualizes the position of the place of incident/operation/etc. GIS-Data turns into images.
NEW PORTABLE REMOTE THURAYA MONITORING SYSTEM (TMS)

A new TMS Portable Remote L-band system has been launched which can be used with the existing strategic TMS for increased coverage of the Thuraya network. Each Remote system can monitor up to 7 additional spotbeams – expanding the monitoring capability of your existing strategic system for increased coverage of a selected area of interest; a single Remote System could double the area of coverage. Designed for maximum portability and rapid deployment, the Remote System is encased in a ruggedized, modular casing which can be broken down into 4 individual components for safe transportation. The portable design enables the system to be easily relocated in response to changing targets and areas of interest. Users can assemble the system and it can be fully operational in 30 minutes.

INMARSAT/1-SAT MONITORING

Inmarsat is the most experienced and widely used satellite in the air sector, sea sector and is gaining more and more interest in the land sector. The number of subscribers has increased in the last year and new services have been introduced like ISAT-Phone. Due to these effects the monitoring of Inmarsat has become important for Lawful authorities.

ISMS (IsatPhone Monitoring System) offers a complete solution for the passive monitoring and interception of the IsatPhone in the air, sea and land network on both a strategic and tactical level. Using C-band and L-band monitoring, the ISMS can provide national and regional coverage for the monitoring of IsatPhone, FleetPhone and LandPhone terminals. In addition to call content, the ISMS solution can provide information on the date and time of call, the numbers dialled, as well as the call originator. The system can also provide the interception of fax and data transmissions.
PASSIVE A-INTERFACE MONITORING FOR GSM NETWORKS, PASSIVE MONITORING OF ENTIRE GSM NETWORK

The A interface between the MSC (Mobile Switching Center) and BSC (Base Station Controller) consists of E1 or STM-1 trunks. The System solution monitors TDM.

A-Interface links between BSCs and an MSC. It detects calls and text messages on these links and captures IRI and uncompressed G.711 A-Law or µ-Law audio associated with the intercepts. Monitoring of A-Interfaces may be implemented with PDH (64 duplex E1) or SDH gateways (2 x STM-1). In future, we will also support direct Ethernet interfaces. A deployment unit may be used to monitor more than one A-Interface and a number of SS7 links at the same time. The A-Interface solution assumes that TMSIs are also unique within the context of a Location Area Code (LAC) and that the LACs are unique with the context of the PLMN identity. In cases where TMSIs are not unique, different name spaces can be configured. It may not be necessary to monitor all links between an MSC and its sub-tended BSCs.

The A-Interface monitoring solution is illustrated in the following diagram.

With the A-Interface Monitoring System either specific GSM-cells can be monitored or an entire GSM network. The system works completely passive and provides mass-storage capabilities and powerful analysis tools for post processing of huge amounts of data.
WIRELESS LOCATOR SYSTEM (WLS) FOR GSM/UMTS NETWORKS
WLS is the only technology that provides high-accuracy mobile location across all types of environments in a highly scalable and cost-effective way. The easy-to-deploy, easy-to-manage solution provides L1 applications with the precise location of mobile devices to accuracy within 50 meters, and gives Law Enforcement Agencies (LEAs) real-time, post-event, geo-fenced and even predictive intelligence using mass location capabilities.

The Wireless Locator has the following applications:

TARGET-BASED LOCATION INTERCEPTION
Adding high-accuracy location information to target-based interception allows LEAs to monitor fleeing suspects in real-time and track a historical “bread-crumb trail” of the wireless activity of a specific user. The highly-accurate WLS solution can pinpoint the location of mobile devices to the exact building.

MASS LOCATION INTERCEPTION
WLS is the only location technology that enables accurate mass location of all devices on a mobile network. Mass location is especially helpful for post-event analytics based on historical archived data, identifying all wireless activity in an area over a set period of time. This gives LEAs critical investigative information about suspects after an event - such as a bomb going off - including who was present, who they were talking to and what they did in the immediate aftermath.

BORDER-ZONE LOCATION INTERCEPTION
Border-zone location interception allows an electronic virtual fence to be set up around a high security area or an international border, allowing LEAs to track the location of wireless devices that travel in and out of the area. The accuracy of the WLS solution ensures that precise locations are identified along the border zone, preventing even marginal incursions.
3GN IMSI CATCHER

3G Blind Call is a new software feature for the 3GN UMTS system. It allows 3G phones to be locked to the 3GN and placed in a UMTS blind/silent call for tracking purposes. This is the only way to establish blind calls to phones that are set in "3G only" mode, and it removes the reliance on passing the 3G phone to a GSM system for tracking – the target phone stays on 3G frequencies at all times. The 3G-DF can detect and track the signal from a 3G phone in a blind call, allowing the DF operator to locate it.

Blind Call Features:
- New Acquisition mode for the 3GN and DF target status for 3G phones makes operation simple
- Multiple 3G blind calls can be supported by each 3GN Node B
- Automatic 3G power control ensures that Node B and phone TX power are continually adjusted to optimal levels to maintain the blind call
- The 3GN can continue to take registrations from other 3G phones whilst maintaining a blind call to the target phone

3G Direction Finder Features:
- Provides indication of target RSCP (Received Signal Code Power) to enable operator to judge distance and bearing to target
- Features graphical and audio feedback of current target RSCP level for ease of use in challenging operational scenarios
- Quick and simple to use with minimal configuration required
XPZ WIRELESS IP

The XPZ is normally controlled by a Cat 5 cable that connects the laptop to the XPZ. We can provide you with our secure wireless IP connection instead of the cable connection, enabling remote controlling of the XPZ from a safe remote location.

This is possible in different ways:

- **RF units**
  - Four channels enabling four links to operate in the same area
  - Secure wireless Link
  - Output power of 100mW
  - Simple to deploy and contains a battery (typically last for 2 hours)
  - Range extensions by deploying additional units

- **High Powered Wi-Fi units**
  - Longer range
  - High output 10-20W
  - Incorporate 3G Router

- **COFDM MESH units**
  - Diversity reception to greatly enhance the range; copes better with multi path conditions
  - MESH Network could be linked to www by secure 3G router/VPN or satellite connection

The Cat 5 cable can be replaced by a secure wireless link. The RF units only have an output power of 100mW so the range is limited but may be more than adequate in some operational scenarios. Naturally, the range can be extended with the use of the appropriate aerials and choice of frequency band. The units are very simple to deploy and contain a battery which would typically last for two hours.
GSM OFF-AIR TACTICAL SYSTEM INTEGRATION EXAMPLES
CELL ANALYSIS FOR INTELL OPERATORS

The cell analysis system is an advanced Network Survey Tool that delivers a comprehensive set of accurate measurements on GSM/PCN/UMTS and 802.11 wireless Networks. The cell analysis is supplied with software tools designed to collect off-air data relating to network coverage. The package provides the accurate RF measurements needed for digital investigation or forensic examination, whether in real-time or for historical analysis. This is specifically important for intell operators to technically analyze the network for optimizing the use of Off-Air GSM monitoring systems.

VERSATILE HANDHELD MEASUREMENT PLATFORM

The unit Pocket 9.0 is a versatile handheld measurement platform that both engineers and nontechnical staff can easily use to collect network measurements to enable intell operators to optimize the use of Off-Air GSM monitoring systems, whenever and wherever the need arises.

A compact, lightweight, and robust measurement application, the unit 9.0 runs on various Nokia devices, enabling tests of GPRS/EDGE/WCDMA networks in virtually any location.

This simple, yet powerful tool, provides users with engineering trace records and a real-time visualization of the measured data on the display screen. Users can set-up any desired connection, such as speech calls or video telephony, exactly as a subscriber would. The important radio trace and Layer 3 information is then recorded during the connection sequence. Trace and logfiles are always recorded, but no test scripts are executed.

GIS MAPPING FOR OFF-AIR GSM MONITORING

When using Off-Air GSM Monitoring system linked to directional findings, one of the critical requirements is for the mapping systems with high resolution details and updated Map data to provide accurate readings during the Endusers intell operations. With the support of our Mapping partners, we are able to provide exactly this technology, to enable Geo-locate targets down to street levels. For further information on our mapping facilities please kindly contact us.
**TACTICAL GSM OFF-AIR MONITORING (PASSIVE)**

**WIDEBAND PASSIVE GSM/GPRS OFF-AIR INTERCEPTION SYSTEM**

**APPLICATION**
The system is an advanced multi-band (900, 1800, 450, 850, full rate, half rate Ext. GSM, etc.) fully passive GSM interceptor designed to intercept the entire bidirectional traffic (GSM, GPRS, voice, data, MMS, SMS, EMS) occurring between Base Transmitting Stations (BTS) and Mobile Stations (MS) and located within the system operational range.

As a receive only system, it is totally stealth (no interference with the network) and has high performances thanks to a unique architecture. The System offers real-time communication interception and direct-to-disk recording capabilities. The System is fully programmable and configurable via a user-friendly GUI including filtering and triggering capabilities.

**MAIN FEATURES**
- Voice and data interception (data GSM/GPRS, SMS/EMS/MMS)
- Automatic network and environment analysis for easy system configuration (operators detection, cell detection...)
- Up to 256 full duplex simultaneous communication interceptions (voice and data)
- Real-time listening of 2 full duplex communications per operator workstation

**SYSTEM CAPEABILITIES**
- 2 full duplex (or 4 simplex) bands among GSM450, GSM850, EGSM900, DCS1800, PCS1900
- Full band analysis: Simultaneous acquisition of all channels (374 for DCS1800)
- No limit on frequency hopping
- Up to 64 cells simultaneously under surveillance
- Exhaustive start of communication detection
- Up to 256 full duplex communication interceptions (voice and data)
- Real-time handover management

**FILTERING CAPABILITIES:**
- Service provider selection
- Cell selection: power & quality criteria
- Call selection: uplink power & quality criteria
- Service selection: GSM, GPRS, SMS, In/Out call...
- Target selection: TMSI, IMSI, IMEI, MS-ISDN

**UNIT OPTIMIZED FOR MASSIVE INTERCEPT, FIXED INSTALLATION**
- Real-time up-to 30,000 intercepted communications p/hr
- Can be upgraded to handle 37,500 communications p/hr
- 19” 4U, depth 800 mm
- Weight 32 kg
- Power supply: 110-230 VAC, 600 W
- 1 TB for intercepted traffic storage
PORTABLE UNIT FOR TACTICAL OPERATIONS

- Real-time 15,000 intercepted communications per hour
- 19” 3U, depth 285 mm
- Weight 15 kg
- Power supply: 24-36 VDC, 350 W
- 1 TB for intercepted traffic storage
- Vehicle Integrations: Covert antenna mounting & car installation kit

Mobile Site

PASSIVE System including extended storage capacity
**TACTICAL INTERNET MONITORING SYSTEM**

The System is developed to monitor, capture and evaluate internet traffic on a tactical level. The system does not reduce bandwidth and speed of the target’s connection. It can be connected to any ADSL network. The system supports ADSL and future generation ADSL2 and ADSL2+ protocols. Two ADSL lines can be monitored simultaneously.

**FEATURES OF CAPTURE UNIT:**
- If needed, the system can capture the complete traffic
- MAC address filter options to decrease the data volume
- The Capture Unit is controlled by remote (encrypted)
- From ISP side the Capture Unit is invisible

**FEATURES OF OPERATOR UNIT (LAPTOP):**
- Provides substantial server control functions (maintenance, control of capturing services)
- Download data, sort and filter data, manage targets
- Low weight and easily transported
- Can also be used as normal office laptop
- Support of all modern media and office applications

**ANDROID SURVEY APPLICATIONS**

We have developed a number of applications for the Android operating system as used on the Google Nexus 1 phone.

These application will allow the following:
- Scene of crime survey tool
- Network coverage logging, all networks, GSM and 3G
- Logging of local WiFi access points with GPS position
- Local display of logs on Google Earth
- Display on Google Earth using exported KML files
- Interface to any desired Database
HIGH PERFORMANCE PORTABLE RADIO MONITORING SYSTEM

The unit is housed in a sturdy, high-impact transport case containing one or two receivers with associated antenna interface circuitry, a power management system and a laptop. The built-in power management system allows operation from three sources: mains, vehicle battery or built-in rechargeable battery. The entire system is lightweight and easy to carry. The system can be specified with a single or dual receiver configuration. In a dual receiver setup it is possible to monitor the demodulated audio signal of the received frequency, without any interference, which is inherent to the pseudo-Doppler technique.

The Multichannel Radio Monitoring System is shipped in a specially designed ruggedized 19" rack-mounted chassis with built-in shock absorbers, to ensure safe shipping. The unit can then either be removed from the enclosure, or operated from inside it. This is particularly useful for mobile operation. The system is shown together with a matching antenna distribution unit which is also supplied in a similar protective enclosure. For stationary applications, various rack-mount options are also available, ranging from a single-unit arrangement (pictured) to large-scale installations. For these, we provide complete turn-key solutions, including antennas and antenna distribution units.

The Direction Finding system (DF) employs the proven pseudo-Doppler method, combined with statistical signal processing, to deliver a cost-effective, yet highly accurate, DF solution for government, military, law enforcement and industrial applications. The entire DF system comprises of fully integrated receivers, battery, charging unit and control circuitry in a compact sturdy carry case, ready for quick and easy deployment anywhere, with or without external power sources. The fully weather-proof antenna system comes with a sturdy tripod and employs 8-pole arrays for HF/VHF and UHF frequency bands for maximum accuracy.
SURVEILLANCE VANS

We are a company backed by many years of experience in technical intelligence techniques and equipment.

We work exclusively on behalf of authorized Government Security Departments and Law Enforcement Agencies. As a result of many years of “active service” for clients worldwide, our assistance is highly sought after.

We will individually design surveillance vehicles to your exact requirements, meeting with you at all the major milestones during the design and integration process to ensure that each vehicle, not only meets your current needs, but can also be upgraded in line with future technological developments.

No two surveillance vehicles are alike. These vehicles are especially designed to meet individual needs, such as vehicle type, finish, operational usage, equipment for integration, etc. Whatever you are looking for, from a very basic surveillance, command or communications vehicle, to a complete mobile command and control center, we can provide a complete design and integration service.
VAN CONVERSION

VEHICLE CONVERSION OVERVIEW:

- Includes: floor, walls, and front bulkhead, ceiling framing; minimum of 50-mm polar fiber insulation. The operational area inside the van has 85 percent ECM screening
- Equipment, counters and cabinets, carpeting, Formica finishing, wiring in plastic and flexible conduit and junction boxes are provided
- The interior lighting package includes all necessary equipment and installation
- Air exchange system
- Bench seat with 2 seatbelts (fitted when space allows)
- Storage pockets
- Fixed front bulkhead wall with sliding entry and exit door; side door window disguises video viewing ports, IR Plexiglas inserts and lens boot
- Main operator's control panel controls all surveillance equipment and also monitors the battery status and current draw of the operating equipment
- Operator's chair with adjustable back, 360-degree swivel base, rail mounted
- Auxiliary Power System
- Freon Compressor Powered Low Noise Air Conditioner
- IR Viewing Port Panels

BASIC EQUIPMENT INSTALLATION:

- Video Observation System 360° day and night
- Specialist Audio Receivers (Digital & Analog) with Remote Control
- Video Diversity Receivers plus Outstation Remote Control Links
- Audio Control System
- Video Audio Matrix
- Video and Audio Processing of Targets
- Command and Control Software
- Communications Equipment
- Vehicle Security Alarm System
- Specialist Covert Antenna
COMMUNICATIONS MONITORING VAN INTEGRATION

Model 7007 Communications Monitoring Surveillance Van represents a new era in communications monitoring platforms integrating live off-air monitoring of GSM, UMTS, DF, Thuraya-Satellite Monitoring and IT wireless LAN Intrusion. The Communications Monitoring Surveillance Van also provides links to the enduser's headquarters enabling on-site surveillance operations to be carried out quickly and effectively. The Communications Monitoring Surveillance Van platform can be installed into various vans (i.e. Mercedes Sprinter, Toyota Hiace or GMC Cargo Van) and provides operating areas for up to 3 operators. Included in the van is technical analysis and workshop support areas. The Model 7007 is constructed of high quality material and is built by craftsmen with over 30 years of experience in vehicle design and conversion.

Equipment Installation Options:

- Active Off-Air System Mobile Version
- Active Off-Air UMTS
- GSM Mobile Tracer & Locator
- GSM Vehicle Direction Finder
- Thuraya Satellite Monitoring System
- Wireless LAN Interception
- RF Monitoring
- Passive Monitoring
- Includes floor, walls, and front bulkhead, ceiling framing; minimum of 50mm polar fiber insulation. The operational area inside the van has some ECM screening
- Secure Storage of Equipment
The Remote Video Surveillance Vehicle System is designed to allow covert video and audio surveillance of a target area without detection, allowing greater flexibility during surveillance operations.

The system allows the operator to park the vehicle close to the target's location, house, office, restaurant, etc. and transmit the gathered information back to the command location in a surveillance van, observation point or another support vehicle.

It allows the operational surveillance team to monitor by video, for example, the images of the target location from the four cameras concealed within the vehicle.

It allows the surveillance team to monitor audio transmissions from the target location from room or body-worn equipment, and activate hidden microphones linked to the Remote Case.

It also allows the operational surveillance team to connect external video and audio equipment to allow long range observation of a target in a difficult environment or remote location.

Control of the system is by a digital telemetry link, which allows full control of the camera selection, pan, tilt, zoom functions, as well as repeat incoming video and audio signals from the room or body-worn systems used by the undercover surveillance team.

These remote systems are usually fitted into vehicles (saloon cars, 4x4s) that can then be left unattended in the surveillance area, transmitting the intelligence information required to the Command Surveillance Vehicle COFDM/IP MESH/3G.

Using our unique Motorbike Remote System, as part of the total surveillance operation, allows even greater flexibility in the covert surveillance operation. The Motorbike Remote System allows the surveillance team to link several video/audio remote systems into the total surveillance concept.
COVERT SPEED CONTROL AND SURVEILLANCE SYSTEM

The Speed Control and Enforcement System is the world's leading mobile surveillance and speed enforcement brand. The modular design of the speeding system allows for a full range of system and upgrade options depending on budget, ranging from a simple non-video speed measurement system to solutions encompassing multiple cameras, MPEG4/H.264 video recording, radar system integration and Automatic Number Plate Recognition (ANPR).

The System consists of four main components:
- Front 10x zoom camera with integral microphone (18x zoom camera option)
- DVR with Optional 3G
- Remote Control Unit (RCU)

Upgrade options may include:
- Up to 3 additional cameras
- GPS antenna, providing vehicle tracking, speed log and other meta-data information
- Live video streaming via GPRS / 3G
- Remote microphones
- Up to 500 hours of recording
Mesh node position on High Rise building will substantially improve the coverage of the network.

All these locations have MESH nodes and thus secure data can be exchanged between each location whether it be streaming video, VoIP, general data such as emails and photographs.

A Wireless IP network would enable all of these deployments to be monitored and controlled from a PC terminal in the HQ building.
Mesh Network

Networked Work Stations can monitor and control equipment connected to MESH nodes

Analogue camera

Video QIP

IP link to MESH: 3G, Wi Max etc

Any 3G network can be used

Mobile MSC

3G link to www/server

3G PDA

Broad Band Provider

Fixed IP address

Quick Deployment Video Package

3G Router link to WWW

Smart Phone link to Server

MESH network linked to WWW by secure 3G router/VPN

Networked PCs have access to the NVR

Clients Server

Quick Deployment Video Package

GAMMA NEWSLETTER 01/2011
SECURE MOBILE NETWORKING

This unit provides communications solutions for scenes without infrastructure or where infrastructure has been destroyed. It is flexible, broadband, secure and versatile, covering a wide-area and dynamically optimizes a communications solution. It is designed for mobile users, for mobile use in vehicles as well as being a fixed or portable communications solution. It allows transmission data rates of up to 6.5 MBit/sec for mobile and up to 16 MBit/sec for stationary use. The unit provides sufficient throughput for applications such as audio, video and data transmissions. The unit relay feature allows unproblematic implementation of even broader ranges. It ensures the confidentiality, integrity and authenticity of the transmitted data at all times, and uses powerful, officially approved security mechanisms (in accordance with BSI guidelines). The use of amplification mechanisms ensures a range of typically 2 km between two devices.
LONG-RANGE AUDIO CAPTURING & RECORDING SYSTEM

The Model 6309 Audio Scope System is a high-performance audio capturing and recording system customized for the intelligence end-users. The unit allows an operator to zoom in on a particular object and record required sound in much the same way as a camera zooms in a picture. This makes the unit an ideal solution for separating out conversations in noisy environments. There is both fixed and mobile solution. The core component of the unit is a microphone array composed of 285 individual microphones integrated in a slim 1.5-meter dish.

The exact direction for sound pickup is steered from the video screen without any physical movement of the dish. The advanced signal processing makes the targeted sound source clearly audible, even in a noisy environment.

ZOOM IN ON SOUND SOURCES POST RECORDING

Any audio missed in real-time can be captured later in replay. This unique function is ideal for crowded places where the operator does not know from whom or where he would like to separate the sound until later.

INTUITIVE USER INTERFACE

The system's very intuitive user interface offers fast, accurate operation of the unit. The operator monitors the live on-screen view from the camera, and simply moves the cursor to capture selected audio. The trackball is used to follow moving objects and the jog wheel to go back in time for replay. The system supports multiple output channels and the operator can select up to five listening zones simultaneously – both in real-time and in replay. The operator can also choose to select filters to eliminate undesirable sound and noise.

Mobile System installed in a car tire

Fixed System installed in a room ceiling

Mobile Configuration

Fixed Configuration
COMPACT AUDIO SURVEILLANCE FLUORESCENT LIGHT SYSTEM

The unit is a unique audio surveillance device capable of operating in hostile environments where the target utilizes TSCM sweep teams to clear the area of "bugs". It utilizes a unique optical communications link capable of standoff distances of 100m/109yds. Installation merely requires the insertion of the surveillance lamp in the target room. With power applied via the lamp's socket, it collects room audio and transmits it via the optical link to the remote optical receiver. Typical 100m/109yds operating range is limited only by line of sight conditions and environmental ambient lighting such as sun light or bright street lighting next to the target window.

MINI CAMERA

Available in two versions: vehicle or bodyworn, producing a 400 x 400 pixel image. The camera is capable of 30 fps, but the actual fps will be determined by the recorder. It has autogain. The lens will have a 90 degree viewing angle, and ± 90 degrees for the field of view. Generally 75 degrees is enough to see everyone in the front and back seats of a car if the camera is mounted in or near the rear view mirror. The lens is designed to be in focus about 3 feet from the camera, but will have a large depth of field. Passengers in the back seat will be in focus if the camera is mounted in the rear view mirror.

IPHONE RECORDER

Fitted inside the new IPhone 3GS or 4 is a digital audio recorder quite simply giving excellent audio recording for up to 54 hours.

The IPhone can be used with or without the headphones without any interruption of the audio.

Recording Time No Compression: 27 hours
Recording Time 2-1 Compression: 54 hours
Battery Life: 11 hours standard battery
Download software is to forensic specifications
Records encrypted and "hidden" within the IPhone.
GSM/GPS TRACKING SYSTEM A8

The Model 7312 Tracking System A8 is a GSM audio Transmitter with an Integrated GPS module, data logger, movement sensor, switched output and the option of Audio recording. Transmission of position data occurs via SMS, CSD and GPRS connection. The internal data logger uses micro SD card to store the traces. These data can be also received via CSD, GPRS or USB Connection. The control and the configuration of the A8 Tracking device is also possible via SMS, CSD, GPRS and USB Connection.

3G, GSM, VOIP CALL DIVERTER

Deployed in situations where a users true mobile number needs to be withheld. The Model 4016-2 3G is a convenient means of providing untraceable communications for Voice, Text and Pictures and is ideal for:

- Law Enforcement Informant and Operative Management
- Intelligence and Counter Intelligence work
- Hostage/Kidnap communications
- Witness relocation/protection communications
- Providing undercover operatives a covert comms recording facility
- Countermeasures against GSM/3G location services

The unit is a self-contained remote call diverter for use with GSM and/or 3G networks. It allows calls to a given mobile to be diverted to another mobile or to a VoIP terminal, thereby, ensuring the anonymity of the called or calling party. Where an incoming call has to be monitored e.g. kidnap scenarios, it offers digital recording and live monitoring on all diverted calls.

Key features of the system are:

- Receive and transmit text messages from any GSM/3G network
- Automatically redirect text/picture messages and audio
- Make a VoIP call from anywhere, and appear to be a local Mobile
- Internal logging of all received and transmitted messages
- Screen and keyboard user interface
- Redirect to a predetermined number or VoIP terminal
- Change predetermined number via text message
- Operates with any 3G/GSM network provider (including pre-paid)
- Totally under the control of the operator. No network involvement
- Compact system, totally portable (12v dc power requirement)
DIGITAL STEREO RECEIVER INC. IP

The Model 1031 Stereo Receiver is a handheld unit providing digital wireless microphone systems, which offer extremely high quality audio output. It is a true dual diversity receiver designed to counteract multiple reflections in difficult radio frequency environments. Dual antennas and receiver channels operate in parallel with proprietary circuitry to identify and select the better input. Modern Digital Signal Processing is also employed to achieve the best possible results.

DIGITAL STEREO AUDIO TRANSMITTER INC. IP

Smaller than ¼ the size of a credit card and only 4 mm thick. The tiny transmitter can fit into practically any concealment. The low power consumption combined with outstanding stereo or mono audio (up to 8000 Hz response) makes this transmitter an outstanding performer. The ultra miniature positive lock connectors allow flexibility for microphone interchangeability and the connections will not come apart. A milled aluminum case provides exceptional durability.

BLUETOOTH AUDIO SURVEILLANCE

The Model 6411 is a multipurpose audio surveillance system based on Bluetooth wireless technologies. It can be used for live surveillance or as a recording device for audio or GPS tracking data or as a combination of the two. Applications:
1. Combined Tracking and Audio Surveillance
2. Simultaneous Live Tracking of Multiple Targets
3. Officer Safety (Force Protection)
4. Room Audio Surveillance

ADVANCED DIGITAL STEREO/AUDIO SURVEILLANCE SYSTEM

This 6100 system is a full-featured, portable digital audio listening and recording solution for Law Enforcement Agents, Intelligence Services and the Military. The system provides 57 RF channels and 8 RF repeater channels and is extremely suitable for multi-location surveillance operations. The 6100 Series receives, records, and plays audio from their transmitters.
MOBILE ROUTER

The Model 104 Mobile Router is an ideal solution for providing secure global communications to your systems, machines or remote networks. Using our mobile router there are no distance limitations, for remote site monitoring! All you need to get connected is our Mobile Router and a SIM Card from your mobile internet service provider. Router includes quick and easy configuration wizard. The step by step wizard will help to set up 3G settings and create a local wireless network within minutes. Built-in firewall protects the local network PC's from intruders.

MICRO RECORDER KIT

The Model 6518 Micro Recorder Kit consists of 2 Micro Recorders, small enough for easy concealment, and with capabilities ideal for multiple scenarios. To accompany the Recorders are multiple power sources of different sizes, length of operation life, and power input. The Kit also comes with multiple rechargeable LiPo batteries, ranging from 250mAh up to 1Ah, compatible with non-rechargeable 19Ah batteries and also a mains power supply.

AUDIO CONCEALMENT KIT

The 6517 kit includes:
- 1 body-worn recorder
- 1 covert belt recorder
- 1 covert watch recorder
- 1 covert lighter recorder
- 1 covert keyfob recorder
- 1 GSM/recorder for rooms or cars
- 1 covert harness
- 1 set of batteries

VIDEO RECORDER CONCEALMENT KIT

The 5626 kit includes:
- 1 body-worn
- 1 video/audio keyfob
- 1 video/audio covert earphone
- 1 video/audio coffee cup
- 1 video/audio smoke detector
- 1 covert video/audio PCB
- Accessories
- 1 set of batteries
MODEL 5610 COVERT VIDEO AUDIO RECORDERS OPTIONS

Model 5610-3
5MP - 8 GB
Recording Time: over 100 minutes

Model 5610 - Pen
2MP - 512 MB
Recording Time: Over 2 hours

Model 5610 - Pen Kit
2MP
Recording Time: Over 2 hours

Model 5610 - Set Kit
5MP - 8 GB
Recording Time: Over 2 hours
VIDEO OBSERVATION CONCEALMENT EXAMPLES
WITH OR WITHOUT TRANSMISSION
MINI TRANSMITTER
The Model 7320-22 transmitter fits into every jacket pocket because of its incredibly small dimensions. It has an extremely robust, but nonetheless very lightweight housing made of aluminum, and is therefore suitable for almost all applications. Specially protected connectors avoid accidental disconnections during operation. The device has 100mW transmission power but you can increase this power by connecting gain antennas. The transmitter is available as 1.4 GHz, 2.3GHz and 2.4 GHz device so that you have a reliable transmission, even if you do not have a line-of-sight connection between transmitter and receiver.

DIGITAL COFDM RECEIVER
The Model 7320-24 Mobile video transmission plays an important role nowadays. But also stationary applications are becoming more advanced, so many users are now looking for new possibilities. Long-range, reliability and better video quality – are what the digital COFDM receivers stand for, from the standard desktop device to the complex 8 antenna diversity system.

MOBILE DIVERSITY RECEIVER
The Model 7320-23 diversity receiver offers flexible operation and more. Integrated state-of-the-art batteries guarantee long running time of the receiver without mains power supply, so that you can operate the receiver independently without cables and without installation.

- mobile diversity receiver
- perfect for broadcasters
- for use with V-mount batteries
- MRC - maximum ratio combining
- configuration via OSD
- ear phone connectors

MOBILE MINI DIVERSITY RECEIVER
Model 7320-10, with its small and handy case with integrated 2-channel diversity receiver, brilliant TFT display and strong batteries, is the ideal solution for mobile applications. Available in 230MHz, 1.4, 2.4, 4.4 and 5.8 GHz, our diversity systems use a special technique for the interpretation of unequally received antenna signals. The “Maximum Ratio Combining” (MRC) procedure evaluates signals and combines the best parts in order to obtain a high-quality, failure free signal.
FLYING PLATFORM FOR VIDEO SURVEILLANCE

The Model 5030 is an extremely lightweight and quiet flying surveillance platform. Due to the electronic position control the AirRobot can be flown without any pilot experience. The flying surveillance platform can be in the air manually controlled or is fully programmable. If it receives no commands, it remains at its height and direction, GPS or optical position system (OPS) controlled. This allows the pilot to concentrate fully on his surveillance mission. Different Cameras for video surveillance operations are available (Daylight colour sensor, night vision, digital and Thermal).

ADVANCED LONGJOHN SYSTEM

Designed specifically for professional surveillance, Model 5122 uses the latest series of ultra low light (0.00003 lux) with ‘Night Mode’ cameras to produce unbeatable images in day and night conditions. The flexible 6 to 100 x optical zoom and pan and tilt system allows targets to be monitored at long distances and tracked using the proportional pan, tilt and zoom system. Deployable in minutes and powered by battery or mains, this rapid deployment system is a powerful tool for any serious surveillance operation.

HIGH PERFORMANCE MINIATURE THERMAL CAMERA

The Model 5214 unit is a high-performance, miniature thermal imager for real-time imagery in the 7–14 μm spectral range (Long-Wave Infra-Red, LWIR). This extremely small and lightweight camera delivers images of outstanding quality, at very low power consumption. The unit can be used for both standalone applications and for integrated multi-sensor systems.

INFINITY LENS

The Model 5215 Infinity Lenses are the only lenses in the world that stay in focus throughout the entire image. Conventional lenses have a limited depth of field, which means they can only focus on either the foreground or the background of an image at one time - never both. The Infinity Lens defies this tradition. Employing revolutionary optics technology that can focus on objects both in the foreground and background, the Infinity Lens offers massive depth of field (MDF) meaning the foreground and background of a shot are in focus simultaneously.
CEILING-MOUNT DIRECTIONAL MICROPHONE ARRAY

Performs audio collection from a spot directly underneath system, which has been installed in a drop/suspended ceiling grid. Covertly collects intelligible audio, even whispers, in noisy environments. Self-contained system installs quickly. Wired or wireless operation. Example usage: Interview/interrogation room, booking desk, prison meeting room, security vestibule, cafeteria.

COVERT NIGHT VISION SYSTEM

The Model 5210 is a powerful, multi-purpose pocket-sized monocular night scope. The pocket scope is designed to be used either as a stand-alone night vision device or in combination with a wide variety of standard video, still photo, CCTV equipment and spotting scopes. It is ideally suited for covert night-time observation and intelligence-gathering purposes using standard photographic media, as well as an effective aid to night-time field missions. The Model 5210 employs a choice of image intensifier tubes characterized by high resolution and a clear, bright image including auto gated types.

COVERT UHF DUPLEX VIDEO LINK SYSTEM WITH OPTIONAL IP LINK

Model 5824 consist of a digital audio and analog video Transmitter. Remote control allows the transmitter and voltage supply to the camera to be switched on/off from the receiver’s controls. It is possible to connect 3 cameras to one transmitter and remotely select between them. A unique audio encryption key for the digital audio transmission is available. The receiver can handle up to 100 transmitters and each transmitter is identified by its own serial number.

MULTISTREAM PORTABLE INTERVIEW RECORDING SYSTEM

The Model 5616-2 portable DVD MultiStream Interview Recording system is designed specifically for portable use. It is housed within a lightweight but robust metal cabinet and is further protected by a purpose-made carrying bag. The bag contains all necessary accessories for portable interview applications including a stereo table microphone, dual-view camera, full height extending tripod and accessories.
GOVERNMENT KEY COPYING SYSTEM

With the Model 2021 profile cutting system you can easily produce key blanks yourself. You can also produce a key from a photograph from the original key or lock. This system is foremost developed to make keys for master lock systems and for lock cylinders with special profiles. The Profile Cutting System is divided into two parts:

1. Cutting Program with Speed Profile: This program calculates the key profile and is absolutely required for the functioning of the profile cutting system. As a service for you the program is already installed in the case from the mechanic manufacturer, although not activated.

2. Mechanic Unit with Case and Mains Appliance: This unit is produced by a special mechanic manufacturer and includes the complete mechanic motion built in the case of the unit.

Photo of a lock

Copy of a key made from a photo

Manipulations kit for Dom locks

Dom security locks

EVWA 3KS Lock Decoder

EVWA 3KS sophisticated lock
Forensic data recovery is not to be confused with standard data recovery. Data recovery is the art of retrieving data from a source that is not easily obtainable, (mainly hard disk drives, memory cards, tapes, RAID systems etc). However, Forensic data recovery is different. In standard data recovery, the original data source, (e.g. the dead hard drive) is rebuilt, (if required), then an 'image' is taken, at which point the data recovery technician re-works the data so that it is useable to the client.

Computer Forensics is the function of utilising scientifically proven methods to assemble together and process data found on a digital device, (computer, hard disk drive, mobile phone, memory card etc), and interpret that data for possible use in a court of law or other theatre of investigation. The evidence may assist in the prosecution of a criminal, help in the defense of an accused person, or be of intelligence to an individual who is seeking knowledge for either personal or professional reasons.

Mobile phones are consistently used during many forms of criminal activity, and by performing mobile phone forensics on the cellular network usage of a particular mobile phone it is possible to trace where and when calls were made from. This is particularly useful in stalking type cases, where a mobile phone has been used to harass another individual. A mobile phone forensics firm will be able to trace and quantify phone uses within the cellular network.
To be effective in TSCM it is essential to use trained and qualified people who have solid background knowledge of surveillance techniques and use the proper equipment. Gamma TSE is in a unique position to provide knowledge and equipment to counter threats and offer training in the latest equipment and techniques involved in information gathering and surveillance. The threat level for cables, LAN and Wireless LAN has increased dramatically. Although TSCM are described in more detail in our 2011 catalog, the following is a brief summary of our new products.

**GSM/UMTS DETECTION AND LOCATION SYSTEM**

The Model 7558 system uses active, patented techniques to find any GSM and UMTS devices in the areas to be swept. When devices are found the unit operator can quickly distinguish between legitimate or authorized mobile phones and GSM bugging devices. Automated processes, network surveying, system set up and range selection, device detection and results analysis make the system effective and efficient. The system’s database determines the threat level of a suspect device and is updated on a monthly basis to ensure the very latest threat information is available.

**MICRO VIDEO CAMERA DETECTOR**

The Model 7507-3 is a modern device, whose functions include: video camera detection, security support, etc, designed for quick detection and exact location of secretly installed indoor micro video cameras, including cameras with pin-hole lenses. The unit works on the optical principal and no electromagnetic and extraneous emissions get in its way.

**HANDHELD SPECTRUM ANALYZER**

A handheld RF measurement, the 7554 unit can find radiation sources in any surroundings from 1MHz to 9.4GHz, including their respective frequencies and signal strengths, directly displaying exposure limits. The calculations are performed unnoticed in the background by a high-performance DSP (digital signal processor). This software offers an incredible number of features, such as multi device capability, high-resolution, and a display of channel identifiers, etc.
3D X-RAY SOFTWARE

Model 7539 is used for upgrading mobile X-ray units from 2D to 3D imagery. All common types of X-ray image media can be used, even conventional films and storage foils, in case they need to be scanned later on. The digital 2D images, coming from a scanner or an image converter, can be individually enhanced and processed into 3D visualization by the 3D X-ray software. In the 3D viewing mode, zoom, detail, pan, tilt and rotation of the stereoscopic image is changeable by mouse control.

X-RAY SCANNING SYSTEM

The Model 7557 unit is a lightweight, portable, battery powered x-ray scanning system designed in co-operation with first responders and EOD teams to meet the needs of the field operative. The slim detector panel is positioned behind the target; the generator is placed in front. Quick and simple to deploy, the system produces high quality real-time x-ray images for rapid and accurate decision making.

TSCM PERSONAL KIT

The Model 7605 TSCM Personal Kit is designed to perform Intermediate Level Technical Counter Surveillance Measure operations, and contain equipment used in the 3 main areas of TSCM Sweeps. All concealed in a ‘Cabin Baggage’ approved Laptop Case, the TSCM Personal Kit will not look out of place being carried into a hotel, or into an office ensuring a level of covertness when entering a sweep area.

VIP NON-TECHNICAL TSCM KIT

It is not always possible to have a TSCM Team sweep in an operationally sensitive area. When travelling abroad, a TSCM Team cannot always follow their Key Personnel to ensure their security. When using Hire Cars, Hotels and other publicly accessible areas, Key Personnel cannot ensure the security of their sensitive information. Concealed in a ‘Flight Approved’ Laptop Case, the Model 7604 TSCM VIP Kit contains equipment that any non-technical personnel can operate to provide a basic level of assurance that eavesdropping devices are not present.
PORTABLE SPECTRUM AUDIT
Model 7508 is uniquely different from all other RF detection systems as it uses a more advanced spectrum analyzer with the latest software technologies to provide accurate results. It uses a twin antenna system, whereby one antenna is placed outside the target location and the other inside. Using the software it is able to show all suspicious transmissions that are stronger in the target location than outside. Standard frequencies are up to 6GHz with optional frequencies up to 26GHz.

ADVANCED LAN/WLAN ANALYZER
Our powerful new advanced model 7543 Integrated Network Analyzer gives a clear view of an entire enterprise – providing visibility into every piece of hardware, every application, and every connection on a network. No other portable tool offers this much vision and all-in-one capability to help deploy new technologies and applications, manage and validate infrastructure changes, solve network and application performance issues, and secure networks from internal threats. It shows you where your network stands today and helps you accurately assess its readiness for the changes you need to make.

FAKE CELL MONITORING DETECTOR
The current method for the interrogation of GSM subscriber identities and/or equipment is to use the Model 4050 Fake cell site, and attract the target mobiles over to this Fake Cell. The unit can monitor the LAC, Power levels, and Neighbour lists for GSM and 3G and C1/C2, in the case of GSM. The 3G unit will generate an alarm based on any combination of values monitored.

Key features of the equipment are:
- Detects bogus Cell sites, possibly being used for IMSI capture or Call intercept
- Multilevel alarm/event triggers
- Generates alarms via Internet or text message
- 16 channels
- Constant monitoring of selected GSM sites
- Constant monitoring of selected 3G sites
- Remote connection via web interface
G2 Systems' philosophy is that VIP Security Products should be offered as a whole range, offering everything from standalone products to complete system solutions, including training to support any government agency's goals of achieving successful VIP operations. Our new catalog provides a comprehensive selection of advanced VIP equipment. We have put together a brief selection of products below, but strongly suggest you view the complete 2011 VIP catalog. To order one please contact: info@gammagroup.com

VIP Security Products
VIP Convoy Jammers
VIP Portable Jammers
VIP CBRN Detection
VIP CBRN Protection
VIP Security Screening

VIP CONVOY JAMMERS
The Model 3260-S has been upgraded to cover the 20 to 6000 MHz frequency range. Electronic Counter Measures (ECM) or Jamming Systems provide protection for VIP dignitaries against attacks by radio control. Nobody knows when, where or on which frequency such attacks may occur, therefore, VIP protection must be at a very high sophisticated level. As an optional upgrade we also offer our Hybrid Jammer with free programmable frequencies between 20 to 500 MHz.

PORTABLE BRIEFCASE GSM/UMTS
The Model 3530-1 Portable Covert GSM Jamming System is a 4-Band Jammer covering the frequencies most commonly used by GSM and 3G Cellular Systems. It is designed to be effective within a 25 Meter range within the target area. The system is unique in that it does not require any ventilation, making the unit silent and also covert. As the system does not require ventilation, it can be operated with the case fully closed. This means that it can be placed in any location, be effective and not draw any undue attention.
PORTABLE VIP PROTECTION CASE
Model 3543 Jammers high power covering all frequencies:
- 850-894 CDMA
- 450-470 MHz, 15W
- 825-960 MHz, 16W
- 1805-1980 MHz, 17W
- 2110-2170 MHz, 15W (cover 3G)
- 2400-2500 MHz, 15W (cover WiFi)
- Total Output power: 80W
- Case size: 56 x 42 x 26 cm (pelican case 1560)
- Programming Software

UNDER VEHICLE SURVEILLANCE
The Model 5501 Under Vehicle Surveillance System is designed for temporary deployment and portability between sites. The system comprises:
Galvanized Steel Ramp with integral metal housed cameras and LED illuminators. These can be color cameras and white LED illuminators, or monochrome and IR LED illuminators. Control/ Monitor Pack is housed in a portable rack mount case with removable front and rear protection covers.

HIGH POWER MOBILE JAMMER FOR JAILS
Model 3533 jammers are based on our long-standing technological leadership and a proven jamming technology for jails. Our widely installed, high-quality product base attests to our determination to provide high-end, quality products to customers around the world.
CDMA, 850 - 890 MHz, Chan. 1: Power 50 Watt
GSM, 920 - 960 MHz, Chan. 2: Power 50 Watt
GSM, 1800 - 1900 MHz, Chan. 3: Power 50 Watt
UMTS/WIFI/GPS

ADVANCED HANDHELD MULTIPURPOSE DETECTOR
The Model 9102 Advanced Handheld Multi-Purpose Detector is designed for use by first responders, homeland security, military soldiers, law enforcement and forensic chemistry personnel. It provides immediate identification of unknown solids, liquids and mixtures, including narcotics, explosives, white powders, chemical weapons, WMDs and toxic industrial chemicals - even through the walls of their containers.
BODY SCANNER
The Model 9140 unit quickly creates a 3-D black and white silhouette of the subject that reveals concealed objects. Operators can locate weapons, explosives, other banned items or even intellectual property. The unit can be upgraded in the field to take advantage of advanced, image-free Automatic Threat Detection software that is enhanced as new threats emerge. The unit allows operators to clearly view objects made of any material including liquid, rubber, wire, plastic, ceramic and metal- weapons, contraband and other objects are quickly and easily located. The system utilizes harmless millimeter waves to generate a clear view in seconds, and is ideal for use anywhere checkpoint security is needed, such as airports, military bases and border crossings, courthouses, embassies, prisons and other government buildings.

ADVANCED EXPLOSIVES TRACE & VAPOR DETECTOR
The Model 3500 is the world’s first explosives trace handheld based on chemiluminescence. It detects military, commercial, even homemade explosives, liquid and powdered, such as TATP and other related peroxides, ICAO taggants, plastics, ammonium nitrate, black powder, and other nitrates. It has high selectivity to explosives and immunity to weather and environmental interference.

PORTABLE WALK THROUGH METAL DETECTOR
The Model 9130 is the world’s most versatile walkthrough metal detector as it can be deployed and transported to virtually any location and be up and running within five minutes by a single operator! The Model 9130 operates from rechargeable sealed batteries, has zone specific detection and is designed for use in demanding environments. It is the only multi-zone metal detector small enough to fit in the boot of a car. The Model 9130 is ideal for sporting events, conferences, schools, VIP security or for any event or location requiring high discrimination metal detection combined with ease of use and total portability.
RADIATION DETECTOR
The Model 9126 is a complete range of smart probes to enhance the detection capabilities of the system.
Different probes associated to the radiation survey meter add:
• gamma and beta/gamma contamination monitoring for vehicles, aircrafts, personnel, ground
• monitoring personnel alpha contamination
• monitoring alpha contamination wounds
• search and management of gamma contamination

FOOD DETECTION KIT
The Model 9113-1 Food Poison Detection Kit comes with a set of three separate detectors and everything needed to analyze a food sample and record the results for future use or as evidence. The Food Poison Detection Kit detects dangerous levels of more than thirty poisons. The detected poisons include compounds containing cyanides, azides, chromates and sulfides (Group I Poisons), thallium, lead, cadmium and mercury (Group II Poisons) and ALL arsenic-containing compounds.

CBRN VAN
The CBRN Support vehicle is designed to bring CBRN supplies to the CBRN incident. The vehicle can be of any variant or type. We will help you to work out the equipment that is required to support a Responders team.
Example:
• Small decontamination equipment
• Spare air cylinders
• Compressor air recharging air cylinders
• Spare CBRN suits/canisters/Boots/Gloves
• Hazard tap/markers
• Spare batteries
• Spare CBRN detectors

EOD VAN
EOD Vehicle is custom-built to incorporate the best available equipment and enables operators to provide a fast response to detect and dispose of terrorist devices. Each bomb disposal vehicle is specially modified and is supplied with an assortment of the most up-to-date IEDD equipment, depending on client requirements. A typical list of components would include the following: Search Equipment, Scene of Crime/ Forensic Equipment, Identification/Analysis Equipment, Protection Equipment.
CBRN THREAT REPORTS – OCTOBER 2010

This report is to help EOD teams that have had no previous experience with chemicals used as terrorist weapons.

This is the latest information on the capability of using chemicals as a weapon. The main hazard is that the chemical can travel down the wind line causing high casualty levels.

This document is for EOD teams. Police forces and intelligence organizations may find this document useful. Not for members of the public or media use.

This report is based on analysis from Gamma subject matter experts and has no warranty.
From Gamma International's regional headquarters in the UK, G2 Systems Ltd provides first-class security training services to governments and related organizations worldwide. Our clients also include security and intelligence organizations recognized by the United Nations, who seek assistance in improving their intelligence gathering capabilities over a variety of disciplines. For a complete 2011 Training Catalog please contact us at: info@gammagroup.com

SURVEILLANCE COURSES
1 - Overt Surveillance Techniques
2 - Covert Surveillance Techniques
3 - Operational Surveillance Methods
4 - Intelligence Analysis and Evaluation
5 - Technical and Engineering Support
6 - Audio and Video Surveillance
7 - Concealment Courses
8 - Photographic Surveillance
9 - Audio/Video Processing
10 - Mobile Phone Forensics

GOVERNMENT TRAINING SOLUTIONS
1 - CMOE
2 - Intelligence Gathering
3 - Technical Surveillance
4 - TSCM
5 - TSCM linked to IT Threats
6 - IT Exploitation Training
7 - Intelligence Analysis
8 - CBRN Threat Awareness

IT EXPLOITATION TRAINING
Our IT intrusion training package provides the government end-user with up-to-date advanced IT intrusion tools and techniques to enable intelligence agencies to obtain information that can only be obtained by using IT Intrusion components.
1 - IT Information Warfare
2 - VoIP Intrusion
3 - Advanced Intrusion Techniques
4 - Exploitation Techniques
5 - Root-kits Training
TECHNICAL SURVEILLANCE COUNTER-MEASURES
The objective of training government TSCM teams is for trainees to be aware of all technical espionage threats and the procedures of search and detection.
1 - Latest TSCM Electronic Threats
2 - Prevention of Bugging/Infiltration
3 - Cable Measurement
4 - Physical Search
5 - RF Measurement
6 - PBX/IT Attacks
7 - Securing IT Facilities and Data

MAGNETIC CARD COPIER
A fast reliable, portable, easy to use system for cloning magnetic stripe cards encoded in any format, such as hotel cards and other access magnetic swipe card. The Model 2009 unit provides fast and efficient access to the data on a magnetic stripe card, for reading, writing, cloning and erasing purposes. The system has two operating modes: field mode and base mode. Field mode is designed for simplicity and speed, whilst base mode is designed for functionality and versatility.

CMOE COURSES
1 - Technical Operations Training
2 - Covert Technical Deployment
3 - Covert CCTV Deployment
4 - Advanced Operational Drilling
5 - Operational Alarm Defeat
6 - Magnetic Hotel Room Lock-Picking
7 - CCTV and PIR Defeat
8 - Safe Manipulation
9 - ‘Silent’ Drilling
10 - Explosive Methods of Entry

IMPRESSIONING KIT
This kit has been thoughtfully put together to include all the essential tools that a CME operative needs in order to undertake standard impressioning tasks. It includes a selection of especially adapted cylinder plugs to assist mark identification and accurate spacing during filing, our designed impressioning handle with a unique in-handle tool set, and a selection of common blanks especially prepared and ready for impressioning.
Our Specialist Video/Audio Concealment Training Courses are designed for Technical Surveillance departments which require their own personnel to be trained on concealment techniques to enable these specialist skills to be used in their own departments. The course starts with the basics of fitting microphones and preamplifiers through to concealment techniques and installing covert devices into everyday objects, rooms and vehicles. Practical exercises also include audio/video transmission, digital audio/video recorders, concealment of antennas and power supplies. As part of the course each student will receive a concealment tool kit as well as a full set of practical manuals. With these skills students will be able to prepare and install covert devices that are more suited to the environment in their own country.

**VIDEO CONCEALMENT SYLLABUS**
1. Fitting covert cameras
2. Producing preamplifiers and microphones
3. Selecting the right power supplies
4. Body-worn concealment techniques
5. Video deployment in cars and rooms
6. Producing concealment installations
7. Integrating video transmitters
8. Practical surveillance exercises
9. Through-the-wall-video surveillance
10. Integrating video GSM Links

**AUDIO CONCEALMENT SYLLABUS**
1. Fitting covert microphones
2. Producing preamplifiers
3. Body-worn concealment techniques
4. Audio deployment in cars
5. Audio deployment in rooms
6. Producing concealment installations
7. Modifying high-tech digital transmitters
8. Practical surveillance exercises
9. Modifying GSM phones
10. Selecting the right power supplies