

New and promising future

Empower analysts with efficient tools

Meet ETI Group around the globe

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Meet ETI Group around the globe

New and promising future

Editorial



BAE SYSTEMS

Detica



BAE SYSTEMS PURCHASE OF ETI COMPLETED

The ETI Group is pleased to announce that the acquisition from BAE Systems has been successfully completed. The acquisition reinforces BAE Systems position as premier global defence and security provider.

The acquisition of ETI Group supports BAE Systems' strategy to accelerate international growth, and follows the acquisition of Detica and other companies to strengthen its security services business in cyber and intelligence.

ETI will integrate with Detica, a successful company which specialises in collecting, managing, and exploiting information to reveal actionable intelligence. Detica uses this capability to help government and commercial clients reveal intelligence, maintain security, and strengthen resilience in today's complex operating environment. Detica was acquired by BAE Systems in 2008 and is headquartered in the UK. Detica has 1,750 employees.

ETI and Detica products complement each other, and the combination of Detica and ETI will provide an extremely attractive proposition to existing and potential new customers worldwide.

THE NEXT STEP

ETI Group looks forward to present future opportunities to our valued customers, and more about how ETI and Detica products can help existing and new customers overcome the complex challenges they face.

It is still too early in our cooperation to present specific plans and new products. At this point in time, we can inform you that existing contracts will not be affected by the change, and ETI business and project management will continue. It is important to ETI that our trusted relationship with customers continues. Consequently, ETI will continue as a separate security cleared company, keeping our existing security measures and procedures. Sensitive project information will not be shared with any other company.

NEW PRODUCTS

This newsletter presents some of the important tools, ETI offers today to investigating analysts to stay efficient even with large amounts of IP data.

ETI solutions focus on our customers' needs to achieve results based on dedicated selection, high quality processing, and analysis tools which simplify the analyst's job. To extract the maximum amount of intelligence from communication and other data sources, monitoring solutions require a comprehensive suite of tools and working with Detica will provide new possibilities.

From 2011, ETI and Detica will work together to enhance existing capabilities and explore new opportunities to the benefit of existing and potential new customers. A promising future lies ahead of us, and the next ETI Group News will include a more detailed update.

Operate efficiently

Achieve results with ETI

ETI customers have diverse requirements for their monitoring solutions. However, common for all is the need to empower the intelligence and case analysts with tools that give them the best conditions for achieving results. The analyst ultimately decides what is relevant or not. Nevertheless, the ETI solution helps you achieve results faster. The analyst can apply his or her case and domain knowledge using available tools in the system and find the information that could make or break the case.

This article explores some of the features that ETI currently offers in the X-Stream solution, to assist the analyst in making timely conclusions. It also presents some of the roadmap topics that ETI plans to implement in 2011.

FIND RELEVANT INFORMATION

Versatile communication platforms provide the freedom to communicate in multiple ways at any time. Each of us are able to generate communication 24/7 using phone calls, E-mails, Twits, Facebook, etc. The freedom to communicate is constantly extended and sharing status between friends and peers have become just as natural as picking up the phone.

To law enforcement and intelligence agencies, this represents a challenge, as a lot of information is accumulated within a short period of time. Analysing target communication often needs to be done much faster than real time, and the analyst tasked with monitoring target communication still has to produce conclusions and input to ongoing investigations based on the collected information. Therefore, the natural question is: *how can the monitoring solution help me form timely conclusions, so that I do not have to read through or listen to everything in my initial analysis phase?*

In addition, parts of intercepted information are sometimes irrelevant to an investigation. Consequently, the next question is; *how do I weed out the irrelevant information and find the valuable information to my case, and how quick can I find it?* The answer to both questions lies in the synergy between the monitoring system and the analyst.

SEARCH FOR EVIDENCE

The outcome of an analysis relies on the analyst's ability to identify the information that could be useful evidence in a case. To help the analyst in his or her work, search functionality is one of the fastest tools available, and the result quickly reduces the amount of information that needs viewing or listening.

Searching in specific cases or across cases, enables the analyst to apply his or her own domain or case knowledge in the search for finding relevant information. This could otherwise be a tedious procedure.

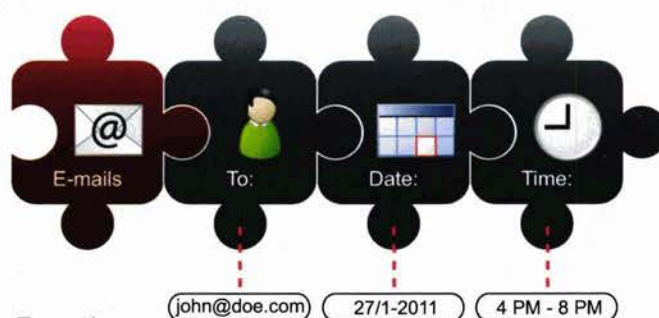
Searching can either be done mechanically in the ETI X-Stream system by searching the entire database for indexed

words, or by applying a large variety of operators for more advanced searches. The ETI search system gives the analyst free hands to look for information, either in specific cases or across cases, depending on legislation and permissions. A search result can narrow down hundreds of interceptions to a few. Search operators help the analyst in case that, e.g. the spelling is unclear, or specific word combinations are required.

IDENTIFY PATTERNS

The ETI X-Stream system offers multiple approaches to visualising structures. It can be chronological using classical event-based viewing. However, the list grows long very quickly. By sorting the event list the analyst can quickly narrow down the amount to specific communication types, dates, recipients, etc. Consequently, the analyst can quickly find one relevant event among hundreds, based on metadata and process it.

The analyst can identify patterns by simply organising interceptions according to all metadata available in the list and structure according to his or her own preferences, e.g. sender/receiver information, time, location, protocol, etc. Combinations of categories enables the analyst to quickly see:



Example.

Consequently, in a case including both web content, telephony, etc. you can quickly single out a specific event occurring between two parties at a specific point in time.

These parameters can be applied with a few mouse clicks and provide valuable information about, e.g. a target's activity at a certain point in time or illustrate when a target is most often communicating, using e-mails.

PRIORITISE ACCORDING TO RELATIONS

Another powerful way of focusing on communication between two parties, is relational display. The X-Stream system can display cases, searches, filters, etc. in a relational grid, which shows the analyst who has been communicating with whom. By selecting the line between two people in the grid, these events are presented to the analyst, who can then analyse the content and prioritise them. Consequently, the analyst can quickly single out important relations to the case and deprioritise other connections.



ETI can provide you with the right tools to identify unknown communicators, find relevant information, and make timely conclusions.

ETI wants to add more dimensions to relations in the X-Stream solution and plans to release temporal views in 2011. This will enable the analyst to get a visual presentation of how events unfold over time.

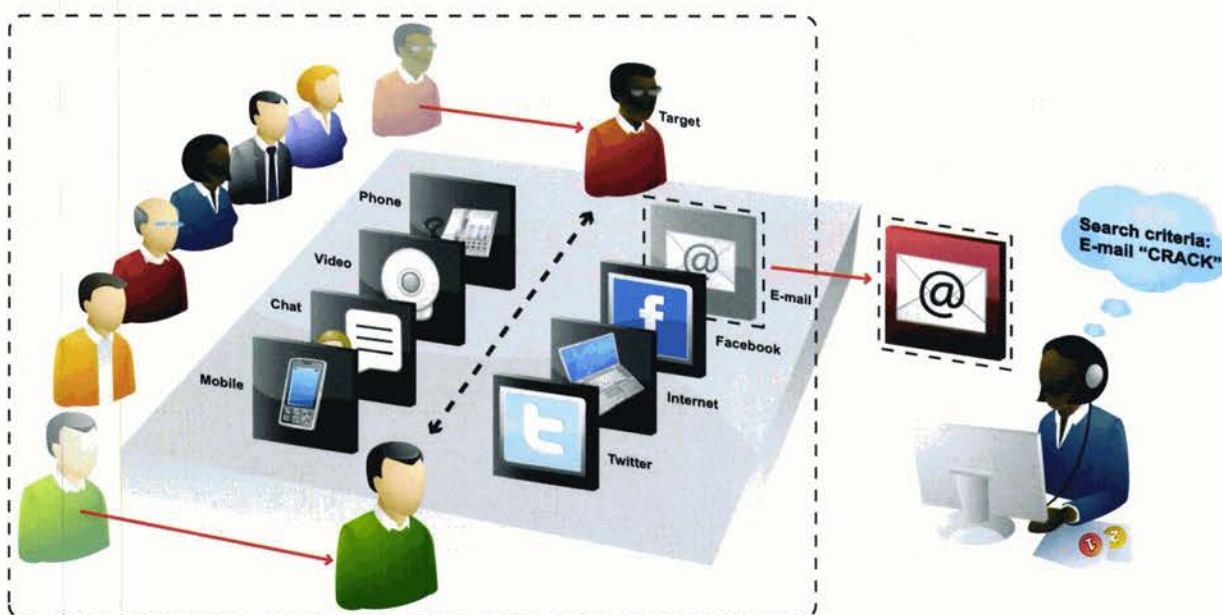
SEARCH BASED ON VOICE

Another way of finding relevant information in large amounts of irrelevant information is to analyse the characteristics of the human voice. During 2011-2012 ETI will introduce new features relating to voice analysis. These features will help the analyst sort large amounts of content based on the characteristics of a person's voice. Thus, the X-Stream system will speed up the process of finding specific events and help the analyst in

identifying the presence of a specific speaker across multiple recordings.

MULTI-TASK WHILE KEEPING FOCUS

Automated prioritisation during investigations is useful to ensure that certain behaviour and activities are not missed. For ongoing investigations the analyst may expect a certain activity to occur which will confirm a suspicion. To facilitate this task, ETI will extend our capabilities for live notification in 2011, including rules which can be applied to trigger on certain behaviour. The analyst will also be able to set different criteria for notification method. In brief, this empowers the analyst to work on multiple tasks, without missing a prioritised activity.



Facilitates your work process: One of the most important features of ETI's products, is their ability to search for relevant information in huge amounts of irrelevant information.

Voice analysis

Use voice as an identifier

EFFICIENT TOOLS

During the investigation of organised crime and analysis of complex criminal networks, massive volumes of voice streams need to be analysed to identify target conversations that are of vital importance. Identifying the languages that are spoken, the speaker's gender, and possible target voices, can be used as a chain of parameters to minimise the number of voice recordings that are to be processed.

With all this in mind, ETI has partnered with a leading voice specialist. The goal with the partnership is to introduce voice analysis tools as add-on features to the X-Stream solution. Voice analysis can help sorting large amount of content based on the characteristics of the person's voice and in other scenarios.

NEW CHALLENGES - EFFECTIVE SOLUTIONS

In a rapidly changing IP environment there are several challenges to communications monitoring:

- Multiple communication devices used (IMEI codes, etc.)
- Different caller identifiers used (SIM cards, etc.)
- Anonymous prepaid SIM cards
- Technologies like VoIP, etc.

Despite technical progress and multiple means of electronic communication, one thing remains the same - the target's voice. The task of identifying speakers based on their voice patterns has normally been done by analyst who know the target's voice from listening to existing target voice recordings. Due to automatic speaker identification, this process can be facilitated, and a significant number of man-hours can be saved. When using existing voice samples, the analyst will make voiceprints of known speakers that will help identify them in future communication.

VOICE ANALYSIS

Voice analysis tools allow Intercept Related Information (IRI), i.e. source, destination, time, duration of a call, etc. to be supported by information from speakers' voices and speech content. When combined with IRI, intelligence technologies allow for the creation of sophisticated queries that are able to help identifying the communications that are most likely to be relevant to an investigation.

IDENTIFICATION AND FILTERING

Voice analysis tools have multiple functions, they:

- Perform identification on a selected number of lines/calls, also for PBXs
- Identify a target no matter what device is used (prepaid GSM, VoIP, POTS, etc.)
- Exclude/tag people who use the same phone line as the target (filtering)

FIVE KEY ANALYSIS FEATURES

Voice technologies have many purposes; whether you would like to identify a speaker, rule out people due to their gender, identify which language they speak, or search for keywords.



- 1 Speaker Identification**
Language and channel independent speaker identification and speaker verification



- 2 Gender Recognition**
For call filtering and prioritisation - separates voice transmissions



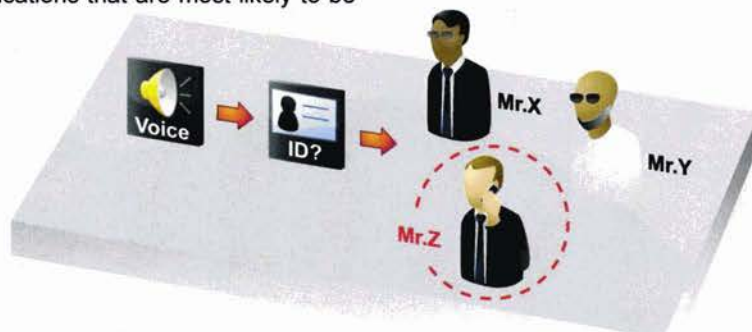
- 3 Language Identification**
Can detect languages/dialects and indicate possible non-native speakers



- 4 Keyword Spotting**
To spot calls where pre-defined words are said



- 5 Tone Detection**
Interprets DTMF codes and deletes telephone tones that could jeopardise the recognition results



Search for evidence

ETI Content Search

TIMELY CONCLUSIONS

A search feature is basic to any operation, where the analyst wants to look for information across all the intercepted material or across cases. Nevertheless, this basic feature improves the analyst's ability to work efficiently, as it reduces the amount of time it would otherwise take to find specific intercepts that match certain criteria.

The analyst can use searches to find specific events based on metadata, i.e. time, date, recipient, sender, etc. or the actual content communicated. As the analyst learns more during an investigation, he or she can apply new knowledge to already intercepted communication.

ETI Content Search

ETI Content Search is a powerful analytical add-on tool for ETI's Investigator application. It enables analysts to query intercepted data for important keywords or word combinations.

KNOWLEDGE AND TECHNOLOGY COMBINED

In essence, ETI Content Search is an index engine, and this is where case and domain knowledge and technology come hand in hand.

The analyst knows best which information is relevant for a specific case, and based on the analyst's case and domain knowledge, the ETI Content Search application enables the analyst to search for words or word combinations, across all indexed data. This is regardless of whether the text is found in metadata, transcriptions, web pages, e-mails, chat sessions, or any other type of data, including matched words or letters in event file names (mail attachments or file transfers).

ETI Content Search optimises analysts' workflow by instantly finding matches across all textual content possibly finding connections between targets.

QUERY CONCEPT

Despite the significant growth of IP-based services, ETI Content Search is a powerful tool which can handle large amounts of IP data. This advanced full-text search tool searches for the words in the Content Search Index Database. The resulting hits are linked to the X-Stream Database, where the original content is placed.

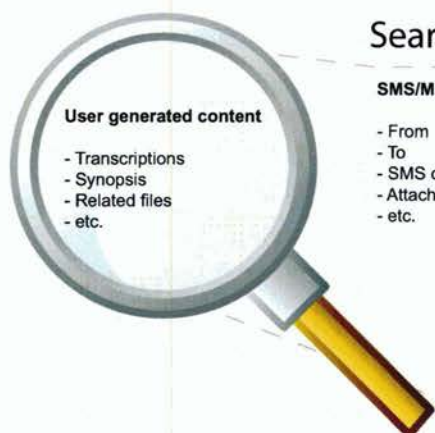
ETI Content Search supports multiple search operators which help the analyst in case that, e.g. the spelling is unclear, or specific word combinations are required. This advanced search functionality can narrow down hundreds of irrelevant interceptions to a few relevant interceptions.

Supported operators*

- AND (&), OR (|)
- ACCUM (.): One of the words must be present
- WITHIN: Restrict the search to look within CONTENT and METADATA or within RELATED MATERIAL
- NEAR (;): Words must appear within 10 words of each other
- NOT (~): Words in front must be present, and the words after must not be present
- MINUS (-): Words in front must be present, and words after should preferably not be present
- FUZZY: Include words that are similarly spelled as the word entered in brackets after

*This is an excerpt of supported operators. Please contact ETI for a complete list.

Search Results



SMS/MMS content & metadata

- From
- To
- SMS content
- Attachments (MMS)
- etc.

Chat content & metadata

- Participants
- Username
- Display name
- Chat messages
- etc.

Peer2peer textual content

- From
- To
- File title
- etc.

Fax metadata

- From
- To
- etc.

Voice metadata

- Called no.
- Calling no.
- Time
- etc.

Video metadata

- From
- To
- File title
- etc.

Web content & metadata

- Languages
- Domain
- etc.

E-mail content & metadata

- From
- To
- E-mail body
- Attachments
- etc.

ETI's tailored personnel training



RETURN OF INVESTMENT

ETI offers a range of training courses that all have the same objective – to help our customers get the most out of their investment in ETI solutions and technology. Even the most efficient tool is not better than the person operating it. ETI understands how skilled and well trained personnel contribute to the results achieved by our customers.

TAILORED TRAINING

ETI has a history of developing and delivering training experiences that are tailored to the specific customer system and experience. ETI believes that it is not limited to the knowledge about how to operate a specific tool that makes the difference – it is the understanding of the underlying concepts and technologies.

The ETI system consultants who perform the personnel training will also deliver and implement the systems. This ensures that the training provided is an exact match to the system implemented for the user. Training is an integrated part of the delivery.

BASIC TO ADVANCED LEVEL

Basic technology courses covering IP fundamentals, advanced protocol understanding, and network infrastructure are combined with specialised courses in third party products such as Storage Management, Oracle Database Management, and Microsoft Server Administration.

MODERN TRAINING FACILITIES

At ETI we offer access to modern training facilities including all necessary technical prerequisites for a memorable learning experience. The training can be conducted at the customer premises or at one of the ETI offices around the world.



ETI EVENTS 2011

| EVENT | DATE | |
|---|-----------------------|------|
| ISS WORLD AMERICAS, WASHINGTON DC, US | OCTOBER 11-13 | 2011 |
| MILIPOL, PARIS, FRANCE | OCTOBER 18-21 | 2011 |
| INTERPOL GENERAL ASSEMBLY (IGA), HANOI, VIETNAM | OCTOBER 31-NOVEMBER 3 | 2011 |
| ISS WORLD APAC, KUALA LUMPUR, MALAYSIA | DECEMBER 6-8 | 2011 |

For further details, log onto our secure area at www.etiglobal.net

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