## **Features**

#### Professional LEA Edition

In close cooperation with Law Enforcement Agencies, Semptian has devoted 6 years of time to develop this powerful device which is intended for day to day use by law enforcement. Includes features such as:

- A professional Law enforcement interface.
- Multilayer information filtration processing workflow.
- Aids law enforcement in effectively picking out useful information as well as concealed information.
- A Specially designed User IP Shield, (provides a dynamic IP address to avoid detection hiding the POMS user's actual IP and location from the target)

#### **Professional Probing Technology**

POMS-SNS uses non-crawling technology, utilizing the Accurate Node Path Extraction technology, which can imitate the users browser mode to get the node paths with effective probing. Thus:

- Accurately collects any worldwide webpage or any data format
- Extracts the hidden data like texts ,images, videos, URLs, etc.
- Supports any type of website: such as Facebook, Twitter, Image database, Video, Microblog, Blog.

# An eagle's view with Facebook and Twitter

# **The POMS-SNS Monitoring System**



# Summary

The London riots, "Arab Spring", and Moscow Gathering staged by the Opposition Parties demonstrates the omnipresence and power arising from the new generation of social networks, such as Facebook and Twitter.

The SempScope™ "POMS(Public Opinion Monitoring System)", culminating from six years of extensive development, is a professional public opinion monitoring system that contains specialized technology customized for law enforcement use.

With the world's leading extraction technology, POMS-SNS can automatically extract & monitor critical information from high traffic Social Network such as Facebook, Twitter.

The power of POMS-SNS will significantly strengthen the capability of LEAs to monitor networks. This is reflected in progressively effective surveillance, timely acquisition of developing social networks, and guaranteeing social stability and national security. POMS-SNS monitors any activity of groups of individuals of interest to the government, political party networks or potential terrorist social networks.









In the era of mass communication, emerging media such as Facebook, Twitter, have become powerful tools to disseminate public information.

#### POMs Mechanism Internet Collect Social Microblogs Search Blogs Forums Networks Engines News Picutures Videos Transform Extract Title & Body Extract Extract Abstract Keywords Classify Automatically Filter Data Join Natural Language Sentiment Analysis Processing Scoring Preparing Deliver Topic Details **Authors Details** Extract Abstract Alerts Report Data Visulization Operation Analysis Executives

Figure 1:POMS Data Process

Figure 1 shows the process used by the software. POMS-SNS uses advanced extraction technology to automatically extract critical information from massive websites.

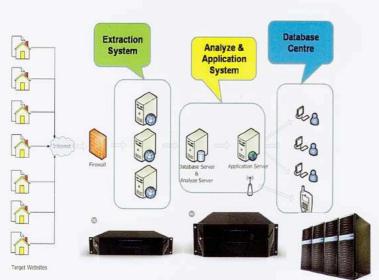


Figure 2: POMS Network Architecture

Figure 2 shows the architecture of POMS .And it consists of four sub systems, extraction subsystem, database subsystem, analysis subsystem, application subsystem. The extraction subsystem put some information into some area in the sub database system according to search words and core words. The analysis subsystem analyzes the information in the analysis subsystem according to configuration. The analysis subsystem puts data information back to another area in the database subsystem after it analyzes and the application subsystem directly browses through information that the analysis subsystem finishes analyzing.

#### **Features**

#### **Powerful Intelligence Analysis**

POMS-SNS Classifies SNS information Automatically into 11 parts: Overall Ranking, Group Author List, Group Relationship Analysis, Group Mention Analysis, Group Messages List, Group Content Analysis, Personal Profile, Personal relationship Analysis, Personal Mention Analysis, Personal Messages List, Personal Content Analysis.

#### **Professional Search Engine**

The collected information is automatically saved to the database. When scanning, time periods, source, and key words, are all supported in rapid search and advanced search modes. The search engine includes both accurate and "fuzzy" search functions and can also search by class and source.

#### Multiple languages

POMS-SNS supports English, Chinese, Russian, Arabic, Japanese, French, German, any language for data mining.

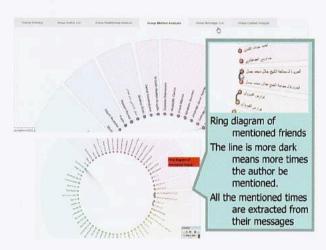
#### Flexible presentation

From top 10 most mentioned people, videos to hot topics etc. The administrator can be alerted by SMS or Email triggered by the monitoring of certain key words.

#### Functiosn

#### **Group Authors Analysis**

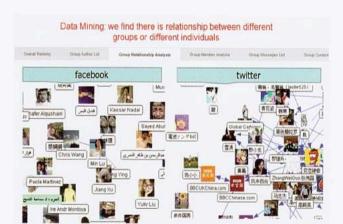
Analyzes the hotspots of the social networks. With these classifications ,the LEA can immediately find out who is active ,who is influential , who is well-known, who has the most friends ,etc. It allows the LEA to better know daily activities in social networks.



#### **Group Content Analysis**

In Group Content Analysis,POMS-SNS provides the professional Analysis like Top 10 Mentioned Authors, Top 10 Mentioned Videos, Top 10 Mentioned images, Top 10 Mentioned URLs, The LEA can discover the hottest authors, the hottest topics, videos, images etc.

It allows the LEA to better understand opinions on the Social Networks.



# **Targeted Authors Analysis**

In Personal Information , POMS-SNS also provides Personal Profile, Personal Relationship Analysis, Personal Mention Analysis, Personal Messages List, Personal Content Analysis. it monitors their public messages, detects new social networks (defines specific words/expressions), and sends alerts to the system administrator.



#### Social Networks Relationships Chart

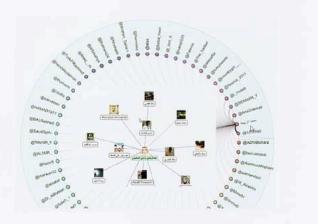
Draws the relationship charts of social networks, and obtains information communicated over social networks.

- · Shows how the group changes by time chart.
- Shows the person's network of friends with icon and name.
- · Shows the person's friends' friends' information.
- · Shows how strong their relationship is by the ring chart.



#### Data Mine the hiding Information

Facing massive and seemingly unrelated groups,
POMS-SNS use the professional data mining technology to
dig up the potential connection between different groups
and individuals ,whether in Facebook or Twitter and shows
the connections visually on a chart.



# System Configuration

Performance Index	POMS300S	POMS500S 1,600,000 pages a day		POMS4000 6,000,000 pages a day	
Max Monitor Speed	800,000 pages a day				
Web Application Response Time	< 1 Second	< 1 Second		< 1 Second	
Max SNS(Facebook + twitter ) Count	300	500		6000(2000 Websites and 4000 SNS)	
Max Keyword Count	200	400		4000	
Max Category Count	10	20	20		
Max User Count	5	10	7.49	60	
Max Schedule Count a day	2400	4800		48000	

# System Architecture

Module	Function	Component	POMS300S	POMS5005
		Switch	2	2
Network Module	Access data from the network, connecting to router and preventing external attack	Router	1	1
		Firewall	1	2
Data Extraction Module	-Webpage Exploer -Web Task Editor -Web Task Executor -Easy Database -Query -Intelligent Content -Extraction -Intelligent Format -Identify	ExtractionServer: IBM SandyBridge E5-2420 1.9GHZ 6C 95W32GB DDR32*1TB HDD RAIDExternal USB DVD driveOr equivalent	1	2
SNS(Facebook/Twitter) Special Analysis Module	-Author Analysis Database analysis application -Social Network -Analysis server; IBM SandyBridge E5-2420 -Small Group -Analysis 1.9GHZ 6C 95W32GB DDR32*1TB -Mention Analysis HDD RAIDExternal USB DVD -Content Alert drive Or equivalent		1	1

Note: POMS300W is positioning for small size country or medium sized government department. We can provide the customized solution besides POMS300S & POMS 500S according to customer's demands.

### System Applications

# **Government Departments**

- · Aids government departments in monitoring sudden events or trending news and immediately discovers changes in public opinion.
- · Aids in perfecting control of policy implementation feedback
- · Provides policy makers with immediate alerts on public opinion.
- · Eliminates potential conflict before it has a chance to fully develop

#### LEA

POMS-WEB can significantly increase law enforcement's internet monitoring ability. Whether government departments sensitive to public opinion , political parties' social networks, or terrorist groups influencing public opinion on social networks, POMS-Web will effectively monitor all of this and quickly identify developing trends in social media and preserve the security and stability of the nation.

# **About Semptian**

Semptian International Limited,. a private company headquartered in Hong Kong. Enabling continuous technical innovation, Semptian is positioned as a cyber monitoring expert, providing the technical LI means to intercept Internet, PSTN fixed telephone, mobile phone networks and Off-Air Solution. With high performance and low cost solutions, Semptian helps Law Enforcement Agencies accomplish their missions such as criminal investigation, counter- terrorism, intelligence gathering and network security.

www.semptian.com.hk