



# Communications and Information Technology Commission

## AWARENESS PLAN

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## **1. PURPOSE OF THIS DOCUMENT**

The purpose of this document is to develop an education and awareness plan as part of the Anti-SPAM Policy Framework. Awareness of SPAM among end users and service providers is significantly low in the Kingdom. The awareness plan aims ultimately at educating and raising the awareness of different stakeholders to help them understand:

- The SPAM problem and its impact,
- How to deal with SPAM,
- How to avoid being SPAMmed,
- How to evade originating SPAM,
- How to report SPAM or take action against SPAMmers.



## **2. OUR APPROACH**

The methodology used to develop the awareness plan is to identify the key stakeholders and the key areas of focus related to each one of them. The document describes the action plan such as the Workshops, Media Campaign, and the Awareness Website.



### **3. EXECUTIVE SUMMARY**

Although having a legislative framework and technical infrastructure is fundamental in the battle against SPAM, increasing education and awareness is a crucial part of a comprehensive anti-SPAM strategy. Anti-SPAM regimes have set up their anti-SPAM awareness plans to educate users about illegitimate messages. Moreover, anti-SPAM international bodies consider awareness and education as one of the critical components to fight against SPAM.

As part of the Anti-SPAM Policy Framework developed for Saudi Arabia, the awareness plan aims at developing an education and awareness plan. It was noticed that awareness of SPAM among end users and service providers is significantly low in the Kingdom.

The awareness plan aims at educating and raising the awareness of different stakeholders in the Kingdom to help them understand SPAM in terms of its related-laws in the Kingdom, its impact, how to deal with it, how to report, etc.

In order to ensure effective awareness plan, stakeholders were identified such as service providers and enforcement agencies (CITC, MOI, SPAM victims, etc), where the areas of focus for each of them is specified and targeted. Moreover, an action plan was suggested such as conducting regular workshops and having a Website with up-to-date information.

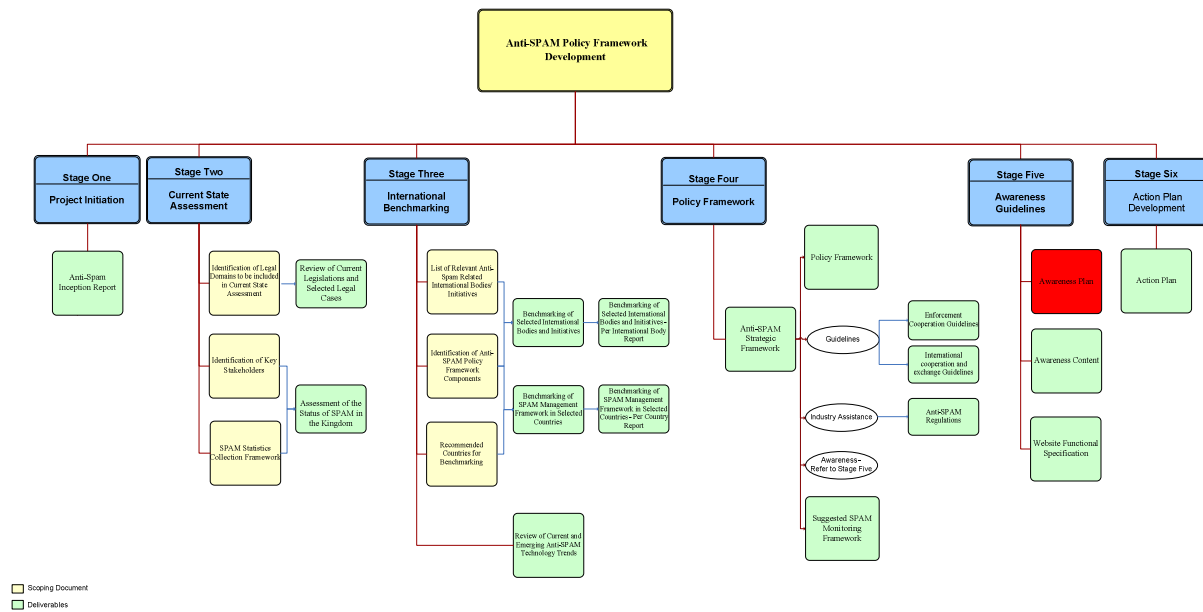


## 4. BACKGROUND

This document covers the awareness plan aspects of the Anti-SPAM Policy Framework for the Kingdom in terms of key stakeholders and the key areas of focus related to each one of them. It also includes details about the awareness action plan such as the Workshops, Media Campaign, and the Awareness Website.

### 4.1 DOCUMENT MAP

The following diagram shows where this document fits in the project:







## 5. WHY DO WE NEED EDUCATION AND AWARENESS?

Although having the legislative framework and technical infrastructure is fundamental in the battle against SPAM, increasing education and awareness is a crucial part of a comprehensive anti-SPAM strategy. According to OECD, awareness and education is one of the critical components to fight against SPAM. Having an education and awareness plan in place will:

- **Educate users not to respond to SPAM messages:**
  - One of the reasons why SPAMmers are successful is that a certain number of e-mail recipients are still responding to SPAM, purchasing advertised products or services, visiting websites advertised by SPAMmers, or being tricked into submitting personal information in ‘Phishing’ scams. Considering the low cost of sending SPAM, it is sufficient that even a very small percentage of users respond by purchasing from SPAMmers to allow them to make a profit, and therefore to provide an incentive to continue SPAMming. Most of the developed countries have recognized through their discussions that part of the solution to eradicate SPAM consists in reducing the SPAM revenue flow. Increasing education and awareness is therefore an important part of a comprehensive anti-SPAM strategy as it helps in reducing the potential “market” of SPAMmers and consequently their financial incentives.
- **Provide clear distinction between legitimate online marketing and SPAM:**
  - Education and awareness-raising can also help reduce SPAM which is sent by legitimate online users and direct marketers who are unaware of laws and regulations regarding unsolicited electronic communications. This can be done by providing a check list clearly identifying which types of electronic communications are illegal, while at the same time underlining the sanctions that may be applied for breaching the law.
- **Increase the level of security awareness in general:**
  - Education and awareness-raising in the context of SPAM is a broader concept than just dealing with the purchase of goods and/or services advertised in SPAM. The issue also deals with information security in general, to educate users on how to protect their computers and their personal information, and avoid being the victims of computer crimes as further explained in the next bullet point.
- **Educate users on improving their computer security:**
  - An increasing number of unsolicited messages are being transmitted through intermediaries who are unaware that this is taking place. This could take place through open relays and open proxies which allow a computer to route e-mail to other Internet mail addresses, or through “zombie computers”, i.e. machines which have been infected by Trojans programmers, and are under the control of a malicious hacker without the knowledge of the computer owner. Zombies can be used to send SPAM messages or launch Denial of Service (DoS) attacks. In this context education and awareness needs to cover individuals, corporate users, computer administrators in universities, companies, Internet Cafes, etc.



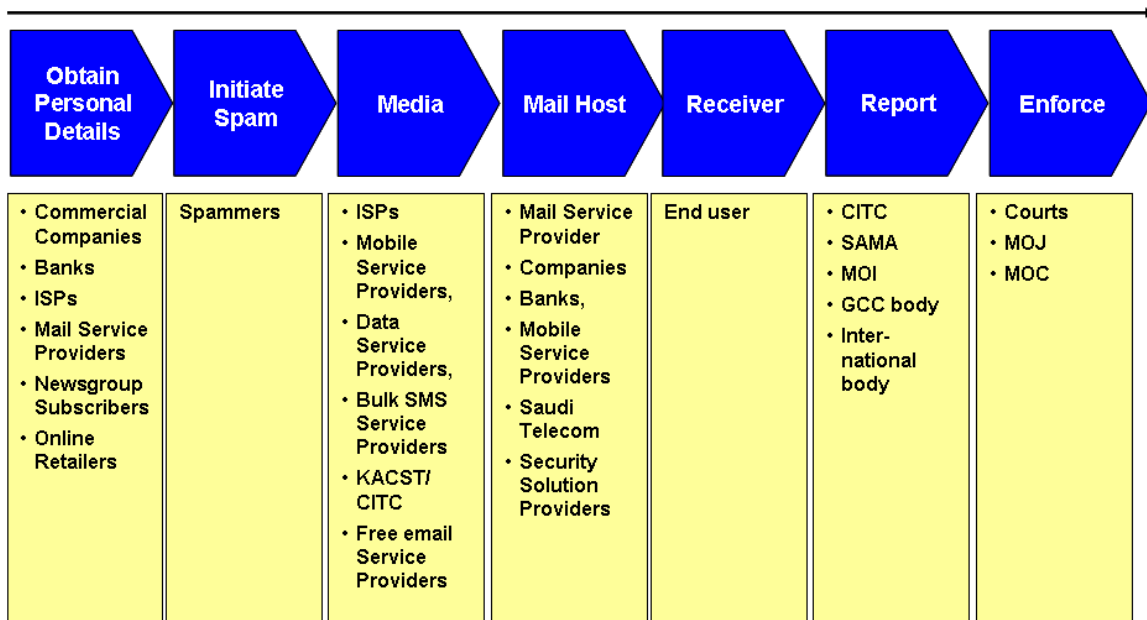
## 6. IDENTIFICATION OF STAKEHOLDERS

### 6.1 SPAM ACTIVITY LIFECYCLE AND STAKEHOLDERS INVOLVED

This analysis goes through a typical SPAM activity lifecycle, where:

- 1) The recipient address (email, fax number, mobile number) is captured and stored in a repository for a specific purpose
- 2) The SPAMmer harvests specific address details, which is then used for SPAMming activities
- 3) The SPAM message is carried by certain media (ISPs, Mobile service providers etc)
- 4) The message is received by a mail host (mail service provider, banks, etc)
- 5) The end-user (receiver) receives the message
- 6) If required, the receiver reports the SPAM to the appropriate authority
- 7) The designated authority enforces the applicable laws (prosecution and sentencing)

Key stakeholders involved in each of the SPAM Activity Lifecycle stages are shown in the 7 stages depicted below:



### 6.2 DESCRIPTION OF STAKEHOLDERS

**ISPs:** ISPs provide Internet connections to corporations, individuals, governmental agencies, and hence, they are the carriers of electronic communications, mainly emails. ISPs provide the infrastructure through which Internet traffic flows. ISPs can deploy filters that reduce SPAM and can block well-known origins of SPAM using black/white lists. Moreover, ISPs may have a role in raising the awareness on SPAM, receiving complaints from victims, and taking remedial actions against SPAMmers.

**Mobile Service Providers:** As SMS/MMS can be used as another form of SPAM to promote goods and services, MSPs play an important role as they provide the backbone for all Bulk SMS licensees in the Kingdom and can filter the messages and block SPAMmers.

**Bulk SMS service providers:** Bulk SMS is a major form of SPAM. Bulk SMS service providers are licensed by CITC and they send SMS in bulk to users. This service can be used to promote goods and services, sales, etc. More than 90 bulk SMS licenses have been granted by CITC to Bulk SMS providers in the Kingdom.



**CITC:** The CITC is the commission regulating the telecommunications sector in the Kingdom. It enjoys the juridical personality and financial independence to achieve its objectives stipulated in the Telecommunications Act, its Bylaw and the Ordinance of the Communications and Information Technology Commission. CITC is entitled to protect the interests of users in respect of public telecommunications services and the Internet and propose regulations related to the telecommunications sectors. CITC administratively manages the telecommunication spectrum in the whole Kingdom. All internet content viewed from the country goes through extensive filtering for content that contradicts the national values or laws of the Kingdom of Saudi Arabia. Access to pornography, gambling, and drugs related sites is strictly prohibited and always filtered out by CITC. CITC, as the agency regulating the telecommunication sector in the Kingdom, receive complaints from SAMA and companies. CITC, as part of its CERT initiative, will be monitoring the Internet in Saudi Arabia to ensure that the users receive early notices when a security threat is identified.

#### **Companies:**

Most companies receive massive advertisements emails of products and services. As a result, companies are most likely to be a victim of SPAM messages including fax. Their heavy use of email makes them more vulnerable to SPAM threats. On the other side, companies networks might be used to send SPAM as well. Having filters, policies and awareness programs is critical to reduce the amount of SPAM sent and received.

**Banks:** The Banks are commercial enterprises, which, in addition to what all companies go through in terms of email SPAM, are also subject to phishing attacks. Phishing emails can cause a potentially huge damage to the bank's revenues and reputation if they weren't addressed promptly.

**Security Solution Providers:** Solution providers play an important role in the battle against SPAM. They provide the technical solutions that are critical to reduce SPAM. Security Solution Providers provide filtering tools and awareness material in order to filter out SPAM at the gateways and end user levels. Filtering tools should keep in pace with SPAMmers' new techniques especially when SPAM is used as a vehicle to send viruses, malware and Phishing attacks.

#### **KACST:**

KACST is a world-class research organization vital to Saudi Arabia's future and a vital source of science and technology for the Kingdom. The Internet Service Unit (ISU) is a department at KACST which currently provides Internet service to academic and research institutions in the Kingdom.

KACST is carrying out its mission in the promotion of science and technology in the Kingdom by coordinating and cooperating with various universities, agencies and institutions concerned with research and technology, and encouraging the Saudi experts to undertake research that will help the development and evolution of the society. KACST was used to regulate and supervise the Internet before it moved to CITC. KACST is still in charge of controlling the Internet traffic the goes to and from universities, research centers, and governmental agencies.

**Ministry of Interior (MOI):** MOI is the owner of the Anti e-Crime Act. As SPAM messages might contain objectionable content, MOI will be involved as the Anti e-Crime Act covers such violations. MOI plays an important role in combating SPAM. MOI has recently established a new division in charge of investigating eCrimes.



**Marketing Agencies (E-Marketers):** Those agencies help companies to market their products and services by using electronic media such as the Internet and wireless marketing for marketing purposes.

**Data Service Providers:** Data Service Providers (DSPs) provide Internet Connectivity and act as gateways for ISPs and some corporations to connect to the Internet. They are mandated to implement filters to block unwanted traffic.

**MOC:** The Anti-Commercial Fraud Law provides the Ministry of Commerce (MOC) with the main responsibility of encountering all kinds of consumer-related commercial fraud.

**End user:** The end user receives and sends messages. He might be the victim receiving SPAM or the SPAMmer sending SPAM.

**The Educational Institutes and Universities:** Some universities in the Kingdom, such as King Fahd University of Petroleum and Minerals (KFUPM), King Saud University, King Faisal University and others rely heavily on Internet and email as a way of communication between management, instructors and students. University networks are generally vulnerable to hackers using the universities' machines as botnets. As such, universities computers become zombies where SPAMmers find it attractive to launch their attacks.

### 6.3 ANTI-SPAM SLOGAN

The Anti-SPAM Awareness slogan is an important element of identification in the public's perception of the initiative of the Anti-SPAM awareness campaign. Having a slogan in place reflects the high level aim of developing this framework and what are the key messages needed to be delivered to the audience.

The Slogan will be used with general Public, students, public and private Employees, IT Professionals, and SMEs (Subject Matter Experts) such as: ISPs, Bulk SMS Providers, E-Marketers(Bulk Emails).

The Slogan has to be launched in the beginning of the campaign and will be updated annually depending on the message to be delivered to the audience.

### 6.4 STAKEHOLDERS' GUIDELINES - KEY AREAS OF FOCUS

The main areas of focus for each stakeholder are clarified in the following table:

	Stakeholder Name	Stakeholders' Guidelines- Key Areas of Focus
Service Providers	ISPs	<ul style="list-style-type: none"> <li>• Having the appropriate anti-SPAM measures (SPAM filters) in place to protect their servers and subscribers from incoming SPAM and preventing their subscribers from sending SPAM through their servers</li> <li>• Complying with the Anti-SPAM Regulations</li> <li>• Supporting their Subscribers through AUPs, education and anti-SPAM tools</li> <li>• Protecting their subscribers' contact details stored in their databases</li> <li>• Publicly publishing their privacy policy.</li> <li>• Educating their staff on dealing with SPAM</li> <li>• Assisting the enforcement agencies when required</li> <li>• Considering and implementing best-practice actions that</li> </ul>



	Stakeholder Name	Stakeholders' Guidelines- Key Areas of Focus
		<p>can be taken to assist in the reduction of Spam. The methods of generating and delivering Spam are constantly changing and therefore the best practices for dealing with Spam are also constantly changing.</p> <ul style="list-style-type: none"> <li>Abiding by the Regulations document.</li> </ul>
	Mail & Web Services Providers	<ul style="list-style-type: none"> <li>Having the appropriate anti-SPAM measures in place</li> <li>Educating System(email) administrators about SPAM</li> <li>Protecting their customers' databases</li> <li>Publicly publishing their privacy policy</li> <li>Having SPAM compliant procedures in place</li> <li>Having customer support units</li> <li>Educating their staff on dealing with SPAM</li> <li>Supporting their Subscribers through education and anti-SPAM tools</li> <li>Assisting the enforcement agencies when required</li> </ul>
	Mobile Service Providers / Bulk SMS Providers	<ul style="list-style-type: none"> <li>Conforming to their license requirements</li> <li>Adhering to the Anti-SPAM Regulations and any applicable Regulations.</li> <li>Having SPAM complaints procedures in place</li> <li>Honouring users' consent and requests for unsubscribing</li> <li>Keeping the consent records as per Saudi laws</li> <li>Educating their subscriber about SPAM</li> <li>Assisting the enforcement agencies when required</li> <li>Abiding by the Regulations document.</li> </ul>
	Data Service Providers	<ul style="list-style-type: none"> <li>Having the appropriate filters in place</li> <li>Assisting the enforcement agencies when required</li> </ul>
	Marketing agencies	<ul style="list-style-type: none"> <li>Adhering to the Anti-SPAM Regulations.</li> <li>Adopting any privacy and licensing requirements in the Kingdom</li> <li>Protecting their customers' databases</li> <li>Considering users' consent and requests for unsubscribing</li> <li>Keeping the consent records as per Saudi laws</li> <li>Having SPAM complaints procedures in place</li> <li>Assisting the enforcement agencies when required</li> </ul>
	Security Solution Providers	<ul style="list-style-type: none"> <li>Keeping their solutions up-to-date</li> <li>Providing solutions for service providers and end users</li> <li>Educating their customers about SPAM</li> </ul>
Enforcement Agencies	CITC	<ul style="list-style-type: none"> <li>Enforcing the Anti-SPAM related laws in coordination with the MOI.</li> <li>Coordination with other agencies for dealing with violations not falling under the jurisdiction of either CITC or MOI. For instance, violations of fraudulent and misleading nature are addressed by the anti-commercial fraud law which falls under the jurisdiction of MOC.</li> <li>Enhancing their complaint handling processes</li> <li>Providing SPAM victims with easy to report mechanisms</li> <li>Employing the appropriate anti-SPAM measures on the Internet gateway</li> </ul>



	<b>Stakeholder Name</b>	<b>Stakeholders' Guidelines- Key Areas of Focus</b>
		<ul style="list-style-type: none"> <li>• Auditing service providers' adherence with the granted licenses</li> <li>• Raising awareness</li> </ul>
	Ministry of Interior (MOI)	<ul style="list-style-type: none"> <li>• Enforcing the Anti-SPAM related laws under its jurisdiction and in coordination with CITC</li> <li>• Raising awareness</li> <li>• Having easy and quick procedures in place to investigate, prosecute and sue SPAMmers</li> <li>• Facilitating the SPAM reporting and having a complaint handling procedures in place</li> <li>• Effective communications channels with CITC</li> </ul>
	MOC	<ul style="list-style-type: none"> <li>• Ensure proper coordination with other enforcement agencies, in particular, CITC and MOI</li> <li>• Raising awareness among citizens about fraud and commercial SPAM sent be email</li> <li>• Having complain handling procedures in place</li> <li>• Effective communications channels with CITC</li> </ul>
	KACST	<ul style="list-style-type: none"> <li>• Employing the proper anti-SPAM measures on the Internet gateway</li> <li>• Coordination with other agencies</li> </ul>
<b>End User</b>	End user	<ul style="list-style-type: none"> <li>• Educating the end user in terms of available anti-SPAM tools, responding to SPAM, reporting SPAM, etc</li> </ul>
<b>Universities</b>	The Educational Institutes and Universities	<ul style="list-style-type: none"> <li>• Protecting universities' computers, mailing systems and networks</li> <li>• Raising student's awareness on general security issues and SPAM.</li> </ul>
<b>Financial Institutions</b>	Banks	<ul style="list-style-type: none"> <li>• Protecting their customers' contact details from unauthorised access</li> <li>• Providing their customers with awareness material, security tools, and reporting methods</li> <li>• Raising the awareness of Banks employees</li> <li>• Email systems that should have filters/anti SPAMming tools</li> </ul>



## 6.5 CHANNELS OF COMMUNICATIONS WITH DIFFERENT STAKEHOLDERS

The following table shows the various channels that might be used to raise awareness among different stakeholders.

Stakeholder Name	Events					
	Web Site	Slogan	Workshops	TV	Brochures/Flyers	CDs/DVDs
ISPs	X	X	X			
Mail & Web Services Providers	X	X	X			
Bulk SMS Providers	X	X	X			
Data Service Providers	X	X	X			
Marketing agencies	X	X	X			
Security Solution Providers	X	X	X			
CITC	X	X	X			
Ministry of Interior (MOI)	X	X	X			
MOC	X	X	X			
KACST	X	X	X			
End user	X	X	X	X	X	X
The Educational Institutes and Universities	X	X	X	X	X	X
Banks	X	X	X			



## 7. ACTION POINTS

### 7.1 WORKSHOP

The workshops is one of the main ways of spreading the awareness by conducting presentations, distributing videos or DVDs materials in order to deliver the message of this awareness plan.

#### 7.1.1 WHO IS THE TARGETED AUDIENCE?

The workshop might target different audiences such as:

- MOI
- Service Providers such as: ISPs, Mobile Service Providers, Bulk SMS Providers, E-Marketers (Bulk Emails).
- University Students.
- Public and private Employees.
- IT Professionals.
- Others.

#### 7.1.2 FREQUENCY

The workshop will be held twice a year. Additional workshops could be held depending on the type of events such as “Saudi Computer Exhibition”.

#### 7.1.3 CONTENT

The content will be in a form of power point slides “presentation” so it can be customized later on to fit the type of audience.

### 7.2 MEDIA CAMPAIGN

Anti-SPAM media campaign is a multi-dimensional effort to educate and empower the people to learn and avoid falling into the SPAM trap and it can be published in a form of TV programmes, flyers, etc.

#### 7.2.1 WHO IS THE TARGETED AUDIENCE?

- General Public (Students, Lawyers, etc);
- Public and Private Employees;
- IT Professionals; and
- Service Providers: ISPs, Mobile Service Providers, Bulk SMS Providers, E-Marketers(Bulk Emails).

#### 7.2.2 CHANNELS OF COMMUNICATION

The media coverage can play an important role in raising awareness and providing links to informative cyber security websites. The media campaign can be delivered in more than one form such as:

1. TV Programmes
2. Brochures
3. flyers
4. CDs/DVDs
5. Posters
6. Instant Questioners





### 7.2.3 FREQUENCY

Depends on the type of media channel.

### 7.2.4 CONTENT (DELIVERED MESSAGES)

The content has been developed separately in the Awareness Content document. However, this content should be reviewed and updated regularly to reflect any changes in terms of technology, rules and regulations, enforcement, etc.

## 7.3 WEBSITE

One of the CITC aims is to create an on-line repository (webpage) for a range of resources and education and awareness publications that have been or are being developed across a range of languages (Arabic, English), targeted at educating and raising awareness about SPAM and related topics.

### 7.3.1 WHO IS THE TARGETED AUDIENCE?

- General Public (Students, Lawyers, etc);
- IT Professionals; and
- Service providers (ISPs, MSPs, DSPs, etc).

### 7.3.2 GENERAL CHARACTERISTICS

The Anti-SPAM Awareness website should be designed carefully to support the initiatives of the Anti-SPAM Awareness Campaign. Mainly it covers:

- Definition and background papers about SPAM, including customized or original articles on SPAM published by international bodies or related parties, subject to copyright laws
- SPAM Statistics.
- Users guides to protect from SPAM
- Tools and new technologies that are used to control SPAM
- Note on what to do when you are SPAMmed
- General information related to awareness issue
- Mailing lists management
- Links to similar sites.

A full functional description of the website is detailed in the “Website functional specifications” document.



### 7.3.3 CONTENT

Some of the Web site content can be found in the Awareness Content report. The content will be updated taking the following into consideration:

- **Responsibility:**
  - This includes identifying the department/personnel at CITC responsible for maintaining the awareness website, uploading updates, reviewing the contents and updating them periodically.
- **Frequency:**
  - Typically, the awareness website will be updated quarterly unless there is an urgent request for update.
- **What to update:**
  - New information published by international bodies and best practices
  - New SPAM-related Saudi rules or regulations
  - Recent information about new types and media used for SPAMming, new technologies to combat SPAM, etc
  - Statistics data provided by CERT-SA every month, SPAM alerts which would be based on updates provided by CERT as soon as they come up, Anti-SPAM technology alerts on an "as available" basis - but preferably once every quarter, etc.