

## Motorola 68030

The Motorola 68030 is a 32-bit microprocessor in Motorola's 68000 family. Released in 1987, the 68030 was the successor to the Motorola 68020, and was followed by the Motorola 68040. In keeping with general Motorola naming, this CPU is often referred to as the 030. The 68030 features an on-chip split instruction and data cache of 256 bytes each. It also has an on-chip memory management unit. The 68881 and the faster 68882 FPU (floating point unit) chips could be used with the 68030.



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### TECHFOCUS

# Keep cyber annoyances at bay

EDWARD APURBA SINGHA

THE popularity of the Internet has dramatically changed our lifestyle and gradually increased our dependency on it. Today Internet is a virtual world where we get almost everything essential to our daily life activities.

But Internet is not a safe harbour of resources and surprisingly we usually pay little attention on security issues when we browse the web.

For instance, in many cases we are reluctant to update our anti-virus software regularly as well as not aware of spam and spyware. In this article I tried to disclose some essential information regarding virus, spam and spyware in order to create awareness so that you will take adequate measure to protect yourself from cyber annoyances.

#### Electronic Infection

The term 'electronic infection' apparently refers to the viruses or other malicious programs that are spread over the Internet or LAN (Local Area Network) and by portable devices such as flash memory, floppy disk etc.

Virus in general is an executable computer code that is designed to reproduce itself in the infected devices. Viruses are created in order to attack particular organisation or disrupt the function of specific computer program.

Virus is a generic name and it can be subdivided as follows:

#### Boot sector virus

A boot sector virus affects the boot sector of your hard disk and floppy disk. A tiny program resides in the boot sector that helps to load the operating system. By putting its code in the boot sector, a virus can guarantee its execution. It can load itself into memory immediately and it is able to run whenever the computer is on.

Introduction of compact disc



(CD) obstructed wide spread infection of boot sector virus. Nowadays almost all software distribute on a compact disc. Data on compact discs cannot be modified, and that makes viral infection of a CD almost impossible.

The age of boot sector viruses is at the brink of end because modern operating system has mechanism to protect the boot sector. Examples of boot viruses are Polyboot.B and AntiEXE.

#### Multipartite virus

A virus that is capable of attacking both the boot sector and the executable, or programmes and files at the same time. When the virus attaches to the boot sector, it will in turn affect the system files, and when the virus attaches to the files, it will in turn infect the boot sector. This type of virus can continue its replication if all parts of the virus is not eradicated.

#### Macro virus

Files that are created using certain applications or programs that contain macros are vulnerable to macro viruses. These include Microsoft Office documents such as Word documents, Excel

spreadsheets, PowerPoint presentations, Access databases and other similar application files such as Corel Draw, AmiPro etc. Macro viruses tend to be surprising but relatively harmless. A macro virus is often spread as an email virus.

The first macro virus was written for Microsoft Word and was discovered back in August 1995. Today, there are thousands of macro viruses in existence some examples are Relax, Melissa.A and Bablas.pc.

#### Stealth virus

In computer security, a stealth virus is a computer virus that uses various mechanisms to avoid detection by antivirus software. Typically, when an antivirus program runs, a stealth virus hides itself in memory, and uses various tricks to also hide changes it has made to any files or boot records. The virus may maintain a copy of the original, uninfected data and monitor system activity. When the program attempts to access data that's been altered, the virus redirects it to a storage area maintaining the original, uninfected data. A good antivirus program should be able to find a stealth virus by looking for evidence in

memory as well as in areas that viruses usually attack.

**Email virus**  
As the name implies email viruses spread by the email message. As soon as this virus infected a computer it automatically searches address book and sends its copy to the people listed in the address book.

#### Logic bomb

A bomb is a program that camouflages its existence and outbreaks by a particular condition, such as a date.

**Two other types of malware that intimidate the cyber world are Trojan horse and Worm often classified as virus.**

**Trojan horse:** A Trojan horse is a malicious program that passes itself off as a benign application; it cannot reproduce itself and, like a virus, are distributed by diskette or electronic mail.

**Worm:** A worm is a destructive program that propagates itself over a network, reproducing as it goes. Mydoom and ILoveYou are two examples of worms.

#### Spam

Suppose you are planning to launch a business. So first of all you require

a good campaign to promote your products. Due to moderate investment you avoid expensive advertisement and deliberately choose the internet to promote your products. You select hundred email IDs of your friends and well-wishers. Then you send information to them regarding your products. If few of them respond to your request you will earn some money. This is a smart way without any expense.

Many people and business organisations follow this scheme to expand their business. As a result, you often encounter some unsolicited email in your inbox. Microsoft, which operates internet service provider MSN plus e-mail service Hotmail, says it blocks an average of 2.4 billion spams per day.

Spammers collect your email ID from websites as well as some professional organisations that collect email IDs and sell them on compact disc (CD). There are tens of millions of websites, and spammers can create search engines that spider the web specifically looking for the telltale "@" sign that indicates an e-mail address. The programs that do the spidering

are often called spambots.

The technology that is employed nowadays to stop spam is spam-filtering software. More advanced filters, known as Heuristic filters and Bayesian filters, statistically identify spam based on word patterns or word frequency. But there are still ways to get around them (mainly by using short messages).

Large ISPs tried blocking multiple e-mails with the same subject line or message body. This had the unwanted side-effect of blocking email newsletters, so ISPs made "white lists" to identify legitimate newsletter senders. Then spammers sidestepped the issue by inserting different random characters into each subject line and message body. That's why you get email messages with subject lines.

#### Spyware

Spywares are computer programmes that attach itself to the operating system in nefarious way. Some people contradict spyware with virus. But they behave differently. A virus accomplishes destructive activities whereas a spyware just collects information without notifying people.

In a spyware infected machine users frequently notice unwanted behavior and degradation of system performance. A spyware infestation can create significant unwanted CPU activity, disk usage, and network traffic, all of which slow the computer down. Stability issues, such as application system-wide crashes, are also common. Spyware, which interferes with networking software commonly, causes difficulty connecting to the internet.

The best way to eliminate spyware is to use spyware scanner and pop-up blocker. In addition take some precautions such as disable Active X, avoid unknown software installation and use "X" to close pop-up windows.

References: wikipedia.org, howstuffworks.com

Ahmed.

"We may also claim that the ISP industry in the nation is a local industry built by hard-working youngsters and they are the only ones that played the strongest role in developing the Internet Protocol (IP) platform and all related platforms in Bangladesh for over ten years now," said Ahmed.

"We also believe that due to the lack of presence of a trouble-free submarine bandwidth at present time, the VoIP licensing should not be delayed any further and should be allowed through the VSAT network, as the present capacity of SEA-ME-WE-4 is limited and may not fulfill the bandwidth capacity requirement once VoIP is legalised," said Ahmed.

Ahmed also stated how the investments in the local telecommunication sectors have made a revolution inside the telecommunications industry, allowing it to boom at an exponential rate, "but like it or not, the telecommunication industry is largely a multinational industry in our country and it will be these foreign companies who will be benefited if they are the ones to be awarded with the VoIP license," he said.

"If we look at the recent bust-ups of illegal VoIP businesses, we will notice that the mobile phones are the ones who have had a huge profit earned from these illegal practices, while that have offered thousands of SIMs, E1 lines along with BTS supports to these illegal operations as part of special packages, and then earned millions from these calls," Ahmed continued, "therefore it is only fair that once the technology is legal only to our population, the past offenders do not get any extra benefit from it."

### TECHNEWS

## Ispab insists on giving VoIP licenses only to local ISPs

RIDWAN A KABIR

THE Internet Service Providers Association of Bangladesh (Ispab) has insisted on legalisation of the Voice-over-Internet-Protocol (VoIP) only to the local licensed ISPs, and repudiated Bangladesh Telecommunication Regulatory Commission's (BTRC) most current plan on issuing VoIP license also to the mobile phone operators and the Public-switched-telephone-network (PSTN).

"We all know that the reason behind the government stalling the issuing of VoIP license is because of its concern regarding how to ensure their share of the revenue," said Russell T Ahmed, secretary general, Ispab, further continuing on how through only allowing the local ISPs to handle the international call traffics, it will be easier for the government to monitor these calls and hence earn their fair share of the revenue, while the whole procedure remains in accordance with the global practice where the international operators are separated from the local operators.

These views were shared at a press conference organised by Ispab in association with Bangladesh Computer Samity (BCS) and Bangladesh Association of Software and Information Services (Basis), held at a city hotel on February 19.

"Among the three companies queued for giving out the license to, the ISPs are the only ones who do not have their own last-mile phones, and as such, if the ISPs are allowed to attain VoIP, they will receive voice traffic from overseas and will terminate those calls to any of the mobile/ PSTN network; and hence, the government may verify the call traffic through two sources, the ISPs themselves, and the telephone company from which the 'E1 line' is taken," said

would cost in "Home."

The games are part of a companywide push that Tokyo-based Sony calls "Game 3.0." Sony's second virtual world for PlayStation users is called "LittleBigPlanet" and allows players to build obstacle courses, puzzles and other games for avatars that resemble beanbag characters Sony dubs "sack boys."

The game, which requires a combination of cooperation and competition, will debut early next year. A sample version will be available in the fall.

Sony Computer Entertainment America has not released pricing for "LittleBigPlanet." Executives would not discuss how much virtual T-shirts, sofas, televisions or media downloads

### TECHNEWS

## Sony to launch virtual universe

AP, San Francisco

CAPITALISING on the popularity of social networks and online worlds, Sony will launch its own virtual universe and another 3-D game built almost entirely by players. "Home" is a real-time, networked world for the PlayStation 3 in which players create human-looking characters called avatars. They can buy clothing, furniture and videos to play on a virtual flat-screen television in their virtual apartments. The concept is strikingly similar to Linden Lab's "Second Life," a Web-based phenomenon with nearly 4.5 million residents. But Sony's world will feature heavy doses of video games for

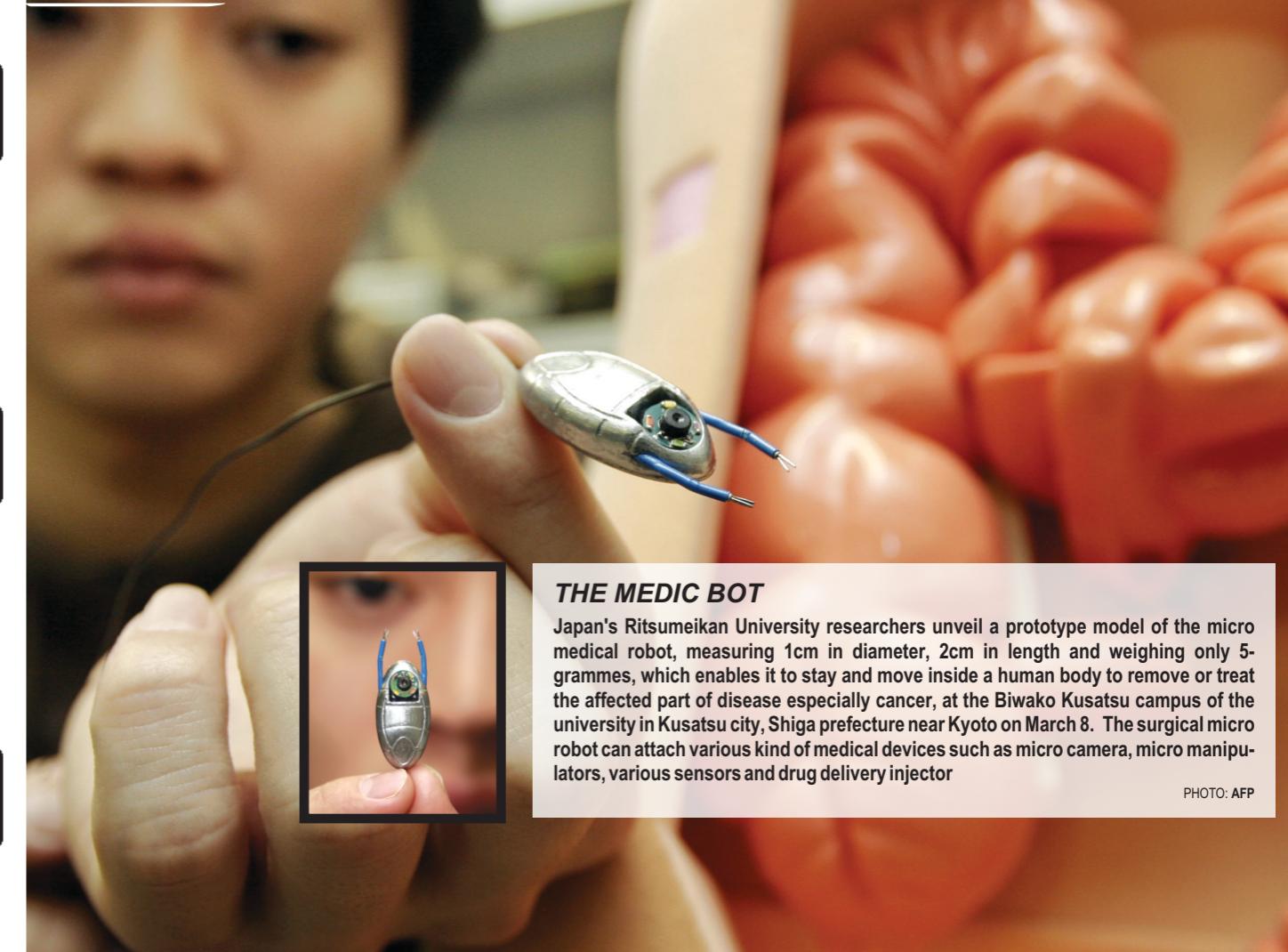
avatars to play, as well as virtual arcades, music, movies and



Phil Harrison, president of worldwide studios for Sony Computer Entertainment

other Sony-approved media downloads.

### PHOTOTECH



#### THE MEDIC BOT

Japan's Ritsumeikan University researchers unveil a prototype model of the micro medical robot, measuring 1cm in diameter, 2cm in length and weighing only 5-grammes, which enables it to stay and move inside a human body to remove or treat the affected part of disease especially cancer, at the Biwako Kusatsu campus of the university in Kusatsu city, Shiga prefecture near Kyoto on March 8. The surgical micro robot can attach various kind of medical devices such as micro camera, micro manipulators, various sensors and drug delivery injector

PHOTO: AFP