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A RESEACH STUDY ON ANALYSIS OF COMPUTER VIRUSES IN JALNA DISTRICT INSTITUTE AND ORGANIZATION

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ABSTRACT

Computer virus is self executable code able to reproduce itself. It area of pure programming and like other computer programs they have totally different. They have to fight for survival in complex conditions of conflicting computer system. The purposes of the research is to expore the impact of computer virus attack and provide guidelines on how individuals can protect their personal computer against virus attack. It is important to address the virus attack and preventive mechanism among the personal computer users in these electronic global worlds.

KEYWORDS: Virus, Warm, Trojan.

1.INTRODUCTION:

A computer virus [1] is similar to the biological viruses that cause disease on a daily basis. Just as a biological virus is a small strand of packaged DNA that's sole purpose is to invade a host body and use it to replicate itself, so too a computer virus invades a host computer and then replicates itself. Often viruses do damage, slowing down a computer, erasing files, and even damaging computer hardware. It is an executable code able to reproduce itself. Viruses are an area of pure programming, and, unlike other computer programs, carry intellectual functions on protection from being found and destroyed. They have to fight for survival in complex conditions of conflicting computer systems. That is why they evolve as if they were alive. Yes, viruses seem to be the only alive organisms in the computer environment, and yet another main goal is survival [2]. That is why they may have complex crypting /decrypting engines, which is indeed a sort of a standard for computer viruses nowadays, in order to carry out processes of duplicating, adaptation and disguise [3,4]. It is necessary to differentiate between reproducing programs and Trojan horses. Reproducing programs will not necessarily harm your system because they are aimed at producing as many copies or somewhat-copies) of their own as possible by means of so-called agent programs or without their help. In the later case, they are referred to as "worms". Meanwhile Trojan horses are programs aimed at causing harm or damage to PC's. Certainly it's a usual practice, when they are part of "tech-organism", but they have completely different functions. That is an important point. Destructive actions are not an integral part of the virus by default. However virus writers allow presence of destructive mechanisms as an active protection from finding and destroying their. The term "virus" is a catchall term that actually applies to three different kinds of malicious programs: Viruses Worms, Trojan, Horses.

2 TEN TRADITIONS TO KEEP AWAY FROM VIRUSES AND SPYWARE

To have a fighting chance against today's rampant security threats, end users have to be informed and proactive. Here are some practical guidelines they can follow to minimize the risk of infection and attack. 3 types of viruses

2.1: Install quality antivirus

Many computer users believe free antivirus applications, such as those included with an Internet service provider's bundled service offering, are sufficient to protect a computer from virus or spyware infection. However, such free anti-malware programs typically don't provide adequate protection from the ever-growing list of threats.

2.2: Install real-time anti-spyware protection

Many computer users mistakenly believe that a single antivirus program with integrated spyware protection provides sufficient safeguards from adware and spyware. Others think free anti-spyware applications, combined with an antivirus utility, deliver capable protection from the skyrocketing number of spyware threats.

2.3: Keep anti-malware applications current

Antivirus and anti-spyware programs require regular signature and database updates. Without these critical updates, anti-malware programs are unable to protect PCs from the latest threats.

2.4: Perform daily scans

Occasionally, virus and spyware threats escape a system's active protective engines and infect a system. The sheer number and volume of potential and new threats make it inevitable that particularly inventive infections will outsmart security software. In other cases, users may inadvertently instruct anti-malware software to allow a virus or spyware program to run.

2.5: Disable autorun

Many viruses work by attaching themselves to a drive and automatically installing themselves on any other media connected to the system. As a result, connecting any network drives, external hard disks, or even thumb drives to a system can result in the automatic propagation of such threats.

2.6: Disable image previews in Outlook

Simply receiving an infected Outlook e-mail message, one in which graphics code is used to enable the virus' execution, can result in a virus infection. Prevent against automatic infection by disabling image previews in Outlook.

2.7: Don't click on email links or attachments

It's a mantra most every Windows user has heard repeatedly: Don't click on email links or attachments. Yet users frequently fail to heed the warning.

2.8: Surf smart

Many business-class anti-malware applications include browser plug-ins that help protect against drive-by infections, phishing attacks (in which pages purport to serve one function when in fact they try to steal personal, financial, or other sensitive information), and similar exploits. Still others provide "link protection," in which Web links are checked against databases of known-bad pages.

2.9: Use a hardware-based firewall

Technology professionals and others argue the benefits of software- versus hardware-based firewalls. Often, users encounter trouble trying to share printers, access network resources, and perform other tasks when deploying third-party software-based firewalls. As a result, I've seen many cases where firewalls have simply been disabled altogether.

2.10: Deploy DNS protection

Internet access introduces a wide variety of security risks. Among the most disconcerting may be drive-by infections, in which users only need to visit a compromised Web page to infect their own PCs (and potentially begin infecting those of customers, colleagues, and other staff).
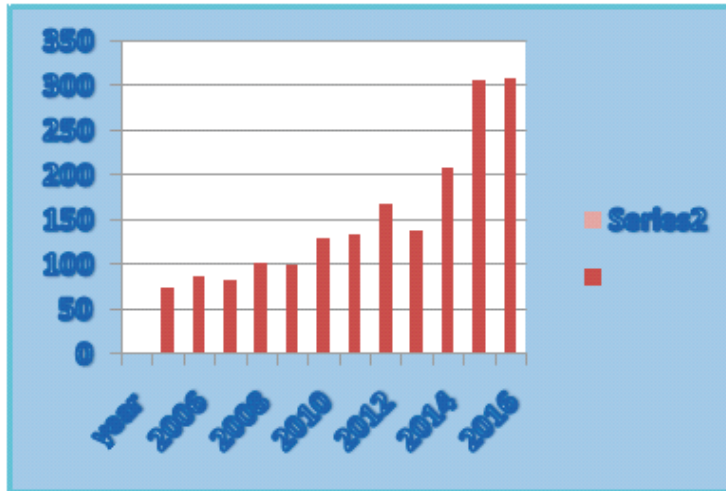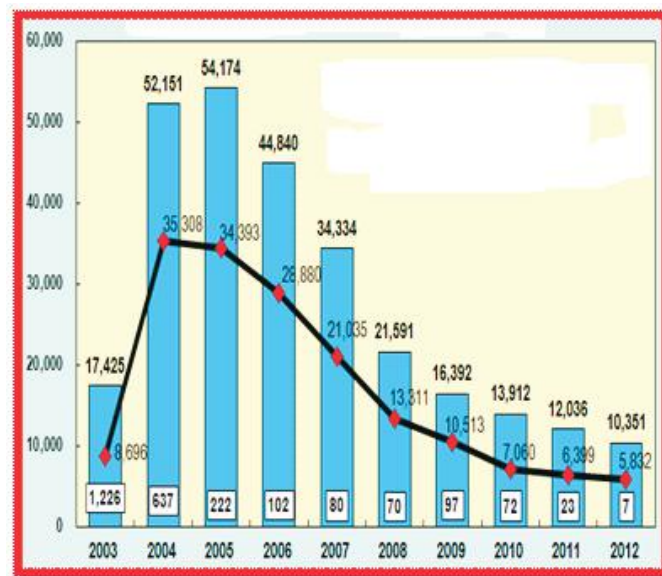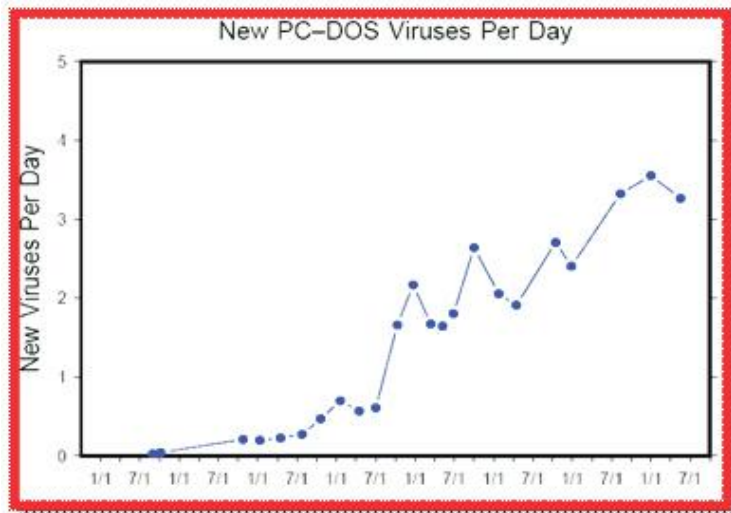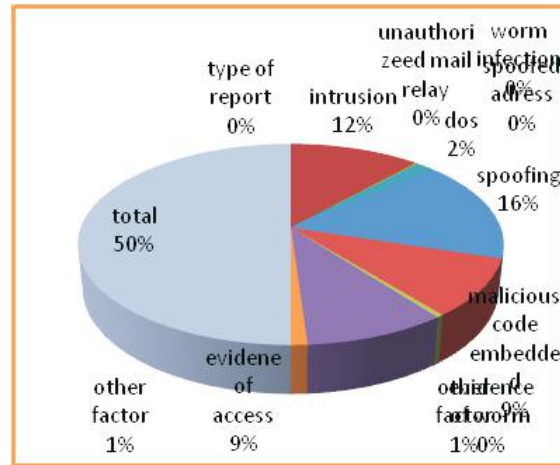
3 YEAR WISE GRAPHS OF VIRUS

Table 1.1 virus graph

Virus Name	Type of Report Submitter	Antivirus Software	Infection Route	Infectious Cause	How it was detected	Action taken
W32/Antnny	General corporation	Unknown	A downloaded file	An employee downloading a file by using Winny on his home PC and executing it	Informed by an external party	Disposition of that PC
W32/Palevo	Education institution	Installed (Kept up-to-date)	An external medium	Unknown	Visual confirmation	Unknown
W32/Downad	General corporation	Installed (Not kept up-to-date)	An external medium	The antivirus software's pattern files not updated	By using the antivirus software with its pattern files updated	Initialization of that PC
W32/Fujacks	General corporation	Installed (Kept up-to-date)	Unknown	Unknown	By installing another antivirus software and performing virus scan	Replacement of that antivirus software and detection and cleaning of that virus

Table 1.2 virus and anti virus

4 VIRUS COMPANY

Many companies create software to help combat viruses. Some of the most popular of these companies are Symantec, McAfee, Sepbos, Grisoft, Panda Software, and Trend Micro. Our organization uses Symantec Enterprise Virus detection software. We chose it because it seemed to have the most extensive coverage for the way in which our network is organized. Antivirus clients run on workstations and continually monitor what the computer's doing. When a virus is detected, a warning will appear on the screen, and the software will deal with it. Most software is centrally managed. This means that IT is notified when a virus appears on your screen. Program and virus signature file updates are also handled centrally.

Every antivirus program has a virus signature file. The virus signature file is a database that contains information about viruses and how the antivirus program can detect and resolve the problem. Virus signature files are unique to each antivirus program. You can't share them or read them individually. With dozens to hundreds of new viruses appearing on a daily basis, it's important that you keep this file up to date. Your antivirus program can't detect or defend against a virus that's not in its database. Your antivirus program is only as good as its last update. If a virus appears today and you updated last Monday, you can be vulnerable. IT tries to centrally manage your virus signature file. The file should be no more than one week old. If it's older than that, you stand a greater chance of having an infection. Certain updates to virus signature files and antivirus program updates may require you to reboot your system. If you get a message saying a reboot is necessary, you should do so as soon as possible[13,14].

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5 RECOVERING FROM AN INFECTION

type of report	year 2014	year 2015	year 2016
intrusion	55	60	89
unauthorizeed mail relay	1	1	1
worm infection	0	0	1
dos	8	78	85
spoofed adress	0	0	0
spoofing	77	82	91
malicious code embedded	44	55	77
other factor	2	2	4
evidene of access	44	22	7
evidence of worm	0	0	0
other factor	5	6	9
total	236	306	364

5.2 How to prevent viruses from infecting your computer.
5.1 THERE ARE MANY WAYS THAT A VIRUS CAN INFECT YOUR COMPUTER. IN THIS USERGUIDE, WE HAVE HIGHLIGHTED THE MOST COMMON, BUT THIS IS NOT BY ANY MEANS A DEFINITIVE LIST.

- ✦ Always install security patches.
- ✦ Use anti-virus and update the virus definition daily.
- ✦ Take care when a website asks you to install a 'plug-in'.
- ✦ Don't open email attachments unless you are sure it is safe.
- ✦ Scan devices before copy / open any files from it.
- ✦ Don't execute programs or files you find on the internet without checking them.
- ✦ Golden Rule - Back up your files

Sr.no.	Institution Name	No of computer	Virus infection days	No of virus	Virus cleaning days	Infection and cleaning days
1	Raj computer institute	34	Daily	W32 SIRCAM, NIMDA, WXY, KLEZ.H STRAIN, OPASERV,M	**21**	**All**
2	LAL BAHDUR SHASTRI SR.COLLGE, PARTUR DIST JALNA	46	monthly	I love you, Trojan , recycle ,w32	33	all
3	LAL BAHADUR SHASTI HIGH SCHOOL, PARTUR DIST JALNA	20	Yearly	Recycle	40	all
4	SHIVRAJ BBA, BCA COLLEGE PARTUR DIST JALNA	56	Daily	NIMDA, WXY, KLEZ.H I love you, Trojan , recycle ,w32	12	all
5	Z.P HIGH SCHOOL PARTUR DIST JALNA	12	yearly	Recycle	19	all
6	VIVEKANANDA HIGH SCHOOL PARTUR DIST JALNA	09	Monthly	I love you, Trojan , recycle ,w32	13	all
7	SHRI SOMESHWAR MAHAVIDYALAY, SHRISHTI TQ PARTUR DIST JALNA	34	Yearly	I love you, Trojan , recycle ,w32	23	all
8	SWAMI VIVEKANAND SR.COLLEGE MANTHA DIST JALNA	22	Daily	recycle ,w32	22	all
9	RENUKA MADHYAMIK VIDYALAYA MANTHA DIST JALNA	13	monthly	w32	22	all
10	LAL BAHADUR SHASTRI MADHYAMIK SCHOOL PARADGAON TQ GHANSAWANGI DIST JALNA	66	Daily	w32, recycle bin	17	all
11	MASTSYODARI SR. COLLEGE, JALNA	207	Monthly	w32, recycle bin	88	ALL
12	MASTSYODARI SR. COLLEGE AMBAD DIST JALNA	165	DAILY	w32, recycle bin	33	all

13	MASTSYODARI , MADHYAMIK VIDYALAYA, AMBAD DIST JALNA	24	monthly	w32, recycle bin	44	all
14	OM SHANTI MADHYMIK VIDHYALAYA, AMBAD DIST JALNA	22	Daily		22	all
15	MORESHWAR ART'S, COMMERCE & SCIENCE COLLEGE BHOKARDHAN DIST JALNA	44	Monthly	w32, recycle bin	44	ALL
16	RASHTRA MATA INDRA GHANDHI MAHAVIDYALAYA, JALNA	55	DAILY		12	ALL
17	SHRI SARASWATI BHUWAN JR. COLLEGE TMBHURNI TQ JAFRABAD DIST JALNA	33	WEEKLY		44	ALL
18	SHRI BADRINARAYAN BARWALE MAHAVIDYALAYA, JALNA	22	Monthly		23	ALL
19	J.E.S. COLLEGE, JALNA	44	WEEKLY		12	ALL
20	ART'S, COMMERCE & SCIENCE COLLEGE, BADANAPUR DIST JALNA	88	Monthly		34	ALL
21	SHRI BHANUDAS CHAVAN SR. COLLEGE PARTUR DIST JALNA	22	Monthly		44	ALL
22	V.S.S. BCA & BBA COLLEGE JALNA	99	WEEKLY		9	ALL
23	RAJKUWAR BCA & BBA COLLEGE JALNA	76	DAILY		76	ALL
24	Raj institute mantha	45	Monthly		54	ALL
25	Super computer partur	66	Monthly		66	ALL
27	Nandini institute and technology, jalna	21	DAILY		12	ALL
28	Param eng.college partur	165	Monthly	Viruses Worms, Trojan, Horses.	15	ALL

6 CONCLUSIONS

Be extremely careful about accepting programs or other files during on-line chat sessions this seems to be one of the more common means that people wind up with virus or Trojan horse problems. If any other family members (especially younger ones) use the computer, make sure they do not know to accept any files while using chat. Further this research addresses the idea and suggestions to prevent the virus attack very extensively. They highlighted the following with respect to installing and updating antivirus (57%), not using pen drive / USB devices (22), do not open unwanted mails / unsecured sites (13%) and do not install malicious programs (8%) are the best preventive mechanisms to reduce the virus attacks.

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