

Targeted attacks, malware, Vulnerability - Trends

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Indian Computer Emergency Response Team (CERT-In)

Ministry of Communications and Information Technology

Department of Information Technology

Government of India

- About CERT-In
- Incident trends
- Targeted attack trends
- Mitigation actions

[Section 70B, Information Technology Act 2000](#): Designates CERT-In as the National nodal agency to serve as the national agency to perform the following functions in the area of cyber security:

- Collection, analysis and dissemination of information on cyber incidents
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- Issue guidelines, advisories, vulnerability notes and whitepapers relating to information security practices, procedures, prevention, response and reporting of cyber incidents
- Such other functions relating to cyber security as may be prescribed

National level

- Cyber Terrorism
- Attacks on Critical Infrastructure
- Web defacement
- Website intrusion and malware propagation
- Malicious Code
- Scanning and probing
- Denial of Service & Distributed Denial of Service
- Cyber espionage

Organisational level

- Website intrusion/ defacement
- Domain stalking
- Malicious Code
- Scanning and probing
- Denial of Service & Distributed Denial of Service
- Targeted attacks
- Phishing
- Data theft
- Insider threats
- Financial frauds

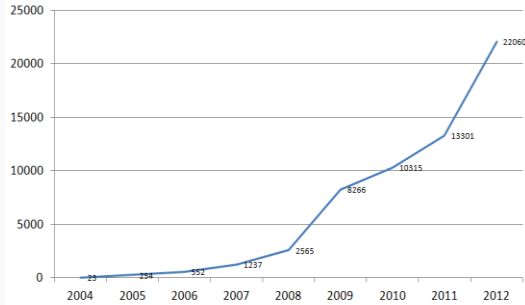
Individual level

- Social Engineering
- Email hacking & misuse
- Identity theft & phishing
- Financial scams
- Abuse through emails
- Abuse through Social Networking sites
- Laptop theft

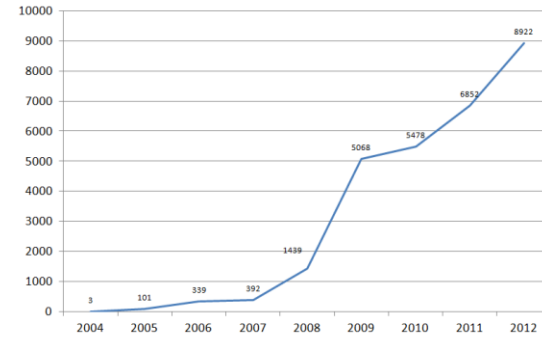
Threat Trends



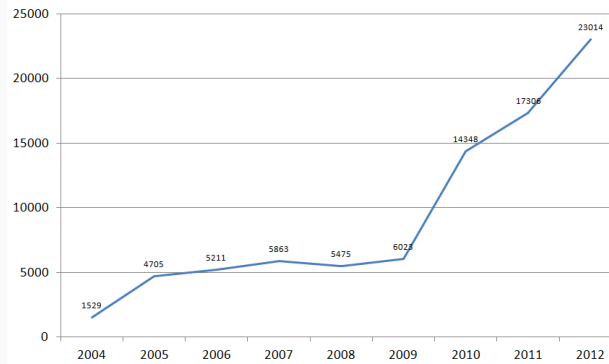
Incidents



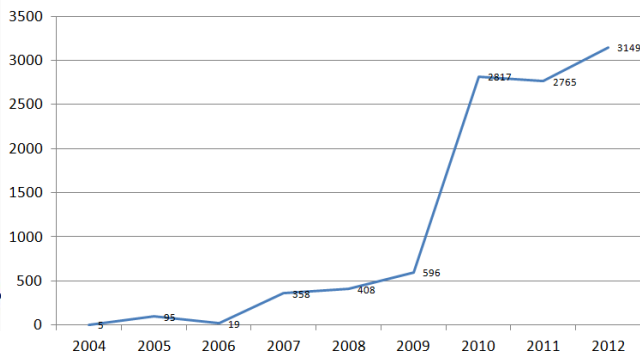
Phishing and Malicious URLs



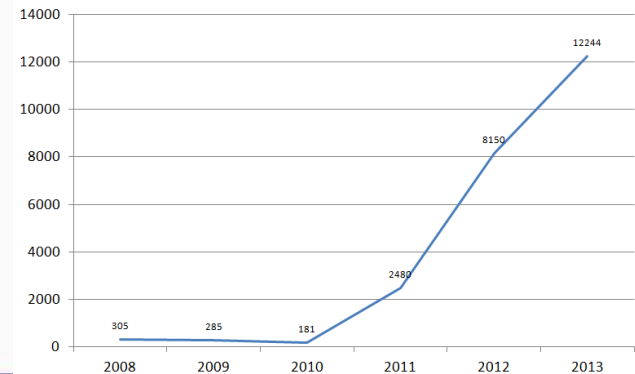
Indian Website Defacements



Virus / Malicious Code Propagation



Spam



- Stuxnet, Duqu, Flame, Gauss, MiniDuke
- Rimecud (Mariposa)
- Conficker
- Zbot (ZeuS)
- ZITMO
- Geinimi
- Pushdo
- Cutwail
- Bohu
- Zero-Access
- Koobface...


- Usually refers to a group, with both the capability and the intent to persistently and effectively target a specific entity
- Advanced – Criminal operators behind the threat utilize the full spectrum of computer intrusion technologies and techniques. Combine multiple attack methodologies and tools in order to reach and compromise their target
- Persistent – Operators give priority to a specific task, rather than opportunistically seeking immediate financial gain
- Threat - there is a level of coordinated human involvement in the attack

- Spear phishing – emails
- Malicious office/pdf documents
- Pre-malware loaded USB (pen) drives
- Malicious websites hosted by exploit kits
- Watering hole
- Social networking

- Doc.media.newPlayer()in Multimedia.api
 - CVE-2009-4324
- Microsoft Office RTF File Stack Buffer Overflow Vulnerability
 - CVE-2010-3333
- Microsoft Windows MSCOMCTL.OCX ActiveX control
 - CVE-2012-0158
- Adobe flash player code execution vul
 - CVE-2011-0611
- Adobe Acrobat and Reader PDF LibTiff Integer Overflow Code Execution Vulnerability
 - CVE-2010-0188
- Adobe Reader SING Table Parsing Vulnerability
 - CVE-2010-2883

Subject: **Japan nuclear progress as toll up**
To:

Date: 03/22/11 07:48 AM
From:

 Fukushima_updat... (283kB) ▾

The United Nations nuclear agency (IAEA) says there have been positive developments in Japan's efforts to tackle a nuclear emergency after the 11 March quake.
But it said the overall situation remained very serious.
The overall death toll has now risen to 8,450, with 12,931 people missing.
Electricity has been restored to three reactors at the crippled Fukushima nuclear power plant - this should allow the use of on-site water pumps soon.
Engineers have been spraying fuel rods with salt water to try to cool them enough to avert radiation leakage.
"We consider that now we have come to a situation where we are very close to getting the situation under control," Deputy Cabinet Secretary Tetsuro Fukuyama said.
What situation Japan has come to? What influence the contamination will make to Japan and furthermore the whole world? Here we also provide an attached file to elaborate to specifics. Please kindly check it on behalf of you and your br-loved ones. Thanks.

Indian Computer Emergency Response Team



Department of Information Technology
Ministry of Communications & Information Technology
(Government of India)



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CURRENT ACTIVITIES

Propagation of malware through Makar Sankranti Greetings

Original Issue Date: January 14, 2011

It has been observed that malicious emails with subject "Happy Makar Sankranti" is circulating. The mail body includes Makara Sankranti related texts/SMS and urging the user to open the attached pdf file (more_Makar_Sankranti_Wishes.pdf) for more SMS.

See the shot below:

 more_Makar_Sankranti... (138kB) ▾

Happy Makar Sankranti!

This day is considered auspicious and marks the beginning of a phase in Hindu culture when all kinds of auspicious rituals can be performed. This occasion is celebrated all over the country in various forms; however the spirit of the festival remains the same everywhere. People exchange gifts, greeting, sweets and good wishes on this occasion. Here are few good SMS that would be useful for you on the occasion of Makar Sankranti.

Taa pan dya tiche pan ghya, ghen denan ch wadhat
Makar Sankranti lach tar ghyaw dyaw lagat

- Flash exploits
 - Adobe Flash Integer Overflow in AVM2 - [CVE-2009-1869](#)
 - Adobe Flash Integer Overflow in Flash Player [CVE-2007-0071](#)
- PDF exploits
 - Adobe Reader CollectEmailInfo Vulnerability [CVE-2007-5659](#)
 - Adobe Reader Collab GetIcon Vulnerability [CVE-2009-0927](#)
 - Adobe Reader LibTiff Vulnerability [CVE-2010-0188](#)
 - Adobe Reader newPlayer Vulnerability [CVE-2009-4324](#)
 - Adobe Reader util.printf Vulnerability [CVE-2008-2992](#)
- Internet Explorer Exploits
 - IE MDAC Vulnerability [CVE-2006-0003](#)
 - IE SnapShot Viewer ActiveX Vulnerability [CVE-2008-2463](#)
 - IE iepeers Vulnerability [CVE-2010-0806](#)
- Java Exploits
 - JAVA HsbParser.getSoundBank Vulnerability [CVE-2009-3867](#)
 - Java Development Kit Vulnerability [CVE-2008-5353](#)

- Identify target
- Determine browsing habits
- Select favorite website
- Compromise and host exploits
- Drop malware
- Determine target profile
- Further compromise

- Security policies and procedures
- CSIRT/CISO/Administrator/Users
- Building Human defense
- Multi-layered defense mechanism
 - Network behavior analysis
 - Proxy logs
 - Perimeter Defense
 - Security Information and Event Management
 - Database Activity Monitoring
- Updated/Patched applications
- Host based Intrusion Prevention System
- Content inspection systems/DPI at perimeter, DLP
- Pre defined procedures for information sharing
- Authentication of emails (Digital signatures)
- User awareness

- Awareness! Awareness! Awareness!
- Install and enable :
 - Personal firewall
 - Anti-spyware
 - Anti-phishing controls and HIPS
- Keep up-to-date patches and fixes on the operating system and application software
- Enable/Install anti phishing toolbars such as “Phishing Filter”, “Web Forgery” etc.
- Use latest Internet Browsers having capability to detect phishing/malicious sites.
- Exercise caution while opening unsolicited emails and do not click on a link embedded within
- Only open email attachments from trusted parties
- Practice limited account privilege.
- Report suspicious emails/system activities to CERT-In



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RELATED LINKS

- World CERTs
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- FAQ

Performance Management



Welcome to CERT-In

CERT-In is operational Since January 2004. The constituency of CERT-In is the Indian Cyber Community. CERT-In is the national nodal agency for responding to computer security incidents as and when they occur.

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Latest Security Alert

- CERT-In Vulnerability Note CIVN-2014-0008** **NEW**
(January 17, 2014)
Multiple Remote Code Execution Vulnerabilities in Adobe Reader and Adobe Acrobat
- CERT-In Vulnerability Note CIVN-2014-0007**
(January 17, 2014)
Multiple Vulnerabilities in Google Chrome
- CERT-In Advisory CIAD-2014-0003**
(January 16, 2014)
Multiple Vulnerabilities in Oracle Products



Current Activities

- Attacks through SSHD root kit targeting Linux Systems** **NEW**

(March 11, 2013)

It has been reported that a USER-mode root kit is in the wild targeting major Linux flavors (majorly RPM based) which logs user_names and password pairs that are sent to the

[More >>]

[MORE](#)



IT News

- National Cyber Security Policy**
(<http://pib.nic.in>) - July 02, 2013



Virus Alerts

- Point of Sale (POS) Systems Malware** **NEW**
(January 16, 2014)



Top Download

- Stuxnet malware exploiting Windows Shell vulnerability and targeting SCADA systems

Thank you

Incident Response HelpDesk

Phone: 1800 11 4949

FAX: 1800 11 6969

e-mail: incident *at* cert-in.org.in

<http://www.cert-in.org.in>