

## Viruses

A virus is a piece of programming code usually disguised as something else that causes some unexpected and usually undesirable event. A virus is often designed so that it is automatically spread to other computer users, for example as an e-mail attachment, as a file download, or on floppy disk or CD. The sender of the e-mail is often unaware that they have sent a virus. Some viruses become active as soon as their code is executed; other viruses will lie dormant until circumstances cause their code to be executed by the computer. If a virus attacks a computer, it can corrupt or delete all stored information from the hard drive, including system software. Schools should guard against viruses by installing anti-virus software. This, coupled with education of pupils and staff as to responsible use of e-mail, attachments and downloads (where permitted), will help to prevent viruses within the school environment.

CERT, the Computer Emergency Response Team, provides a wealth of information on viruses, and recommends a simple five-stage test to avoid viruses that schools may wish to use, or adapt for their own use:

- The **Know** test: Is the e-mail from someone that you know?
- The **Received** test: Have you received e-mail from this sender before?
- The **Expect** test: Were you expecting e-mail with an attachment from this sender?
- The **Sense** test: Does e-mail from the sender with the contents as described in the subject line and the name of the attachment(s) make sense?
- The **Virus** test: Does this e-mail contain a virus? Always check it using anti-virus software.

Further information on protecting against viruses is available on the CERT web site [<http://www.cert.org>].

The ICT advice site also provides information on viruses [<http://ictadvice.org.uk/index.php?pagetype=service&service=howto&rtypeid=67>].

## Anti-Virus Software

Anti-virus software is a program that searches e-mail messages, hard drives and floppy disks for any known or potential viruses, and either deletes or repairs the problem. Some anti-virus software is free of charge and can be downloaded directly via the web, while others are available for purchase. Anti-virus software offers different levels of protection and the level of protection required by the school should be a key consideration when implementing.

Details of free and priced anti-virus software are included at the end of this document, but general information is available from:

### *CERT*

Computer Emergency Response Team is a centre for information about new viruses and how to deal with them.

<http://www.cert.org>

### *Network Security Buyer's Guide*

Provides information about network security, utilities and virus protection. Offers a searchable database of products, links to vendor sites and a library of white papers, press releases and product presentations.

<http://www.netsecurityguide.com>

### *TruSecure*

TruSecure is an information security company. Its ICSA Labs division hosts an anti-virus site providing virus alerts, certified products and test reports.

<http://www.trusecure.com>

<http://www.icsalabs.com>

## **Integrating anti-virus practices into the school ICT policy**

While using virus scanning software is an important part of limiting the spread of viruses and the damage caused, it can not offer complete protection. Protection against viruses in schools will be far more effective when combined with an acceptable use policy (AUP) which is understood and adhered to by all users, whether staff or pupils. AUPs should be written in a way that is understandable for the age ranges using the computers, and should be displayed prominently near any computer with e-mail or Internet access.

Viruses are activated when the program or attachment in which they are contained is opened. The main cause of virus outbreaks is by users opening attachments from e-mails which have not been scanned and where the source has not been verified. By ensuring that all users follow an agreed acceptable use policy, the risk from viruses can be significantly reduced.

An AUP should state the following:

- If you receive an e-mail with an attachment from someone you do not know and it is not expected, the e-mail must be deleted.
- Attachments on e-mails will not be opened until they have been scanned for viruses.
- Where e-mail applications act in an unusual way, such as multiple copies of the same message being received, or there is any suspicion that a computer is not operating as normal, technical support staff should be notified in order to check for viruses.
- Users must not send anonymous e-mails to other users.
- Attachments (where authorised) must not be sent with e-mail messages unless it is clearly stated on the e-mail what the attachment is and the purpose for sending it.
- Files from the Internet must not be downloaded without the approval of the network manager / teacher. Files that are downloaded must be saved to the computer's hard drive and scanned before opening.
- Pupils and staff must not run or install programs from their own floppy disks or CD-ROMs without the permission of technical staff or before ensuring that the disks have been scanned for viruses.
- Where a message board or similar is available on a school or LEA-wide intranet, alerts and information can be posted by technical staff about viruses and any actions required to be undertaken.

Further information on developing an **acceptable use policy** is available on this site.

## **Priced anti-virus software**

### *F-Prot*

F-Prot can remove viruses from your computer system and protect data from new viruses.

<http://www.frisk.is/f-prot/products/>

### *McAfee VirusScan Online*

McAfee VirusScan Online provides anti-virus software via a subscription service.

<http://www.mcafee.com/anti-virus/>

### *Norton AntiVirus*

Norton AntiVirus software is a range of anti virus products. Details of each product are available from the Symantec web site.

<http://enterprisesecurity.symantec.com/content/productlink.cfm#0>

### *Sophos*

Sophos provide anti-virus products for business. In addition to product information, the site contains an explanation of viruses, virus analysis and articles.

<http://www.sophos.com/virusinfo/>

## **Free anti-virus software**

### *AVG Anti-Virus*

AVG Anti-Virus will remove files that have been infected by viruses. It contains an e-mail scanner and free monthly updates. A professional multi-license edition is also available for purchase.

<http://www.grisoft.com>

### *Trend HouseCall*

HouseCall is an on-line anti-virus service provided by Trend Micro, which will scan and clean the computer. The site also contains a virus encyclopaedia, and anti-virus tips.

<http://www.trendmicro.com>

### *Quick Heal*

Quick Heal detects viruses from floppy disks, Internet, downloads, e-mail attachments, networks, intranets, shared files, CD-ROMs and on-line services. An evaluation copy is freely available for 30 days.

<http://www.quickheal.com>

### *SurfinGuard Pro*

SurfinGuard Pro monitors downloaded files and contains any viruses that it finds.

<http://www.finjan.com/products/surfinguard.cfm>

### *VCatch*

VCatch checks files sent or downloaded to your computer via e-mail and web applications. If a file contains a virus, it is deleted and a notification sent to the user. A premium edition is also available for purchase.

<http://www.vcatch.com>

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