School Technical Security Policy Template (including filtering and passwords)

Suggestions for Use

Within this template sections which include information or guidance are shown in BLUE. It is anticipated that schools would remove these sections from their completed policy document, though this will be a decision for the group that produces the policy.

Where sections in the template are written in italics it is anticipated that schools would wish to consider whether or not to include that section or statement in their completed policy.

Where sections are highlighted in BOLD text, it is the view of the SWGfL Online Safety Group that these would be an essential part of a school online safety policy.

The template uses various terms such as school; students/pupils. Users will need to choose which term to use for their circumstances and delete the other accordingly.

Introduction

Effective technical security depends not only on technical measures, but also on appropriate policies and procedures and on good user education and training. The school will be responsible for ensuring that the *school infrastructure/network* is as safe and secure as is reasonably possible and that:

- users can only access data to which they have right of access
- no user should be able to access another's files (other than that allowed for monitoring purposes within the school's policies).
- access to personal data is securely controlled in line with the school's personal data policy
- logs are maintained of access by users and of their actions while users of the system
- there is effective guidance and training for users
- there are regular reviews and audits of the safety and security of school computer systems
- there is oversight from senior leaders and these have impact on policy and practice.

If the school has a managed ICT service provided by an outside contractor, it is the responsibility of the school to ensure that the managed service provider carries out all the online safety measures that might otherwise be carried out by the school itself (as suggested

below). It is also important that the managed service provider is fully aware of the school Online Safety Policy/Acceptable Use Agreements). The school should also check other relevant body policies/guidance on these technical issues.

Responsibilities

The management of technical security will be the responsibility of (insert title) (schools will probably choose the Network Manager/Technical Staff/Head of Computing or other relevant responsible person)

Technical Security

Policy Statements

The school will be responsible for ensuring that their infrastructure/network is as safe and secure as is reasonably possible and that policies and procedures approved within this policy are implemented. It will also need to ensure that the relevant people receive guidance and training and will be effective in carrying out their responsibilities:

- school technical systems will be managed in ways that ensure that the school meets recommended technical requirements (if not managed by the Local Authority, these may be outlined in Local Authority/other relevant body technical/online safety policy and guidance)
- there will be regular reviews and audits of the safety and security of school technical systems
- servers, wireless systems and cabling must be securely located and physical access restricted
- appropriate security measures are in place to protect the servers, firewalls, switches, routers, wireless systems, work stations, mobile devices etc from accidental or malicious attempts which might threaten the security of the school systems and data
- responsibilities for the management of technical security are clearly assigned to appropriate and well trained staff (this may be at school, local authority or managed provider level)
- all users will have clearly defined access rights to school technical systems. *Details of the access rights available to groups of users will be recorded by the network manager/technical staff/other person and will be reviewed, at least annually, by the online safety group.*
- users will be made responsible for the security of their username and password, must not allow other users to access the systems using their log on details and must

immediately report any suspicion or evidence that there has been a breach of security *(see password section below)*

- (insert name or role) is responsible for ensuring that software licence logs are accurate and up to date and that regular checks are made to reconcile the number of licences purchased against the number of software installations (Inadequate licencing could cause the school to breach the Copyright Act which could result in fines or unexpected licensing costs)
- *mobile device security and management procedures are in place* (where mobile devices are allowed access to school systems). (schools/colleges may wish to add details of the mobile device security procedures that are in use).
- *school /local authority/managed service provider/technical staff regularly monitor and record the activity of users on the school technical systems and users are made aware of this in the acceptable use agreement.* (schools/colleges may wish to add details of the monitoring programmes that are used)
- *remote management tools are used by staff to control workstations and view users activity*
- *an appropriate system is in place* (to be described) *for users to report any actual/potential technical incident to the online safety co-ordinator/network manager/technician (or other relevant person, as agreed)*
- an agreed policy is in place (to be described) for the provision of temporary access of "guests", (e.g. trainee teachers, supply teachers, visitors) onto the school system
- *an agreed policy is in place* (to be described) *regarding the downloading of executable files and the installation of programmes on school devices by users*
- *an agreed policy is in place* (to be described) *regarding the extent of personal use that users (staff/learners/community users) and their family members are allowed on school devices that may be used out of school*
- an agreed policy is in place (to be described) regarding the use of removable media (eg memory sticks/CDs/DVDs) by users on school devices (see school personal data policy template in the appendix for further detail)
- the school infrastructure and individual workstations are protected by up to date software to protect against malicious threats from viruses, worms, trojans etc.

personal data cannot be sent over the internet or taken off the school site unless safely encrypted or otherwise secured. (see school personal data policy template in the appendix for further detail)

Password Security

A safe and secure username/password system is essential if the above is to be established and will apply to all school technical systems, including networks, devices, email and learning platform). You can find out more about passwords, why they are important and how to manage them in our blog article. You may wish to share this with staff members to help

explain the significance of passwords as this is helpful in explaining why they are necessary and important. Where sensitive data is in use – particularly when accessed on mobile devices – schools may wish to use more secure forms of authentication e.g. two factor authentication.

Further guidance can be found from the National Cyber Security Centre and SWGfL "Password Management & Security Guide"

Policy Statements

- These statements apply to all users.
- All school networks and systems will be protected by secure passwords.
- All users have clearly defined access rights to school technical systems and devices. Details of the access rights available to groups of users will be recorded by the Network Manager (or other person) and will be reviewed, at least annually, by the online safety group (or other group).
- All users (adults and students/pupils) have responsibility for the security of their username and password, must not allow other users to access the systems using their log on details and must immediately report any suspicion or evidence that there has been a breach of security.
- Passwords must not be shared with anyone.
- All users will be provided with a username and password by xxxxx (insert name or title) (see section on password generation in technical notes) who will keep an up to date record of users and their usernames.

Password Requirements

- Passwords should be long. Good practice highlights that passwords over 12 characters in length are considerably more difficult to compromise than shorter passwords. Passwords generated by using a combination of unconnected words that are over 16 characters long are extremely difficult to crack. Password length trumps any other special requirements such as uppercase/lowercase letters, number and special characters. Passwords should be easy to remember, but difficult to guess or crack.
- Passwords should be different for different accounts, to ensure that other systems are not put at risk if one is compromised and should be different for systems used inside and outside of school
- Passwords must not include names or any other personal information about the user that might be known by others
- Passwords must be changed on first login to the system

- *The school may wish to recommend to staff and students/pupils (depending on age) that they make use of a 'password vault' these can store passwords in an encrypted manner and can generate very difficult to crack passwords. There may be a charge for these services.*
- *Passwords should not be set to expire as long as they comply with the above, but should be unique to each service the user logs into.*

Learner Passwords

Primary schools will need to decide at which point they will allocate individual usernames and passwords to pupils. They may choose to use class logons for younger children (under 9) - though increasingly children are using their own passwords to access programmes out of school. Schools need to be aware of the risks associated with not being able to identify any individual who may have infringed the rules set out in the policy and the Acceptable Use Agreement (AUA). Use by students/pupils in this way should always be supervised and members of staff should never use a class log on for their own network/internet access. Schools should also consider the implications of using whole class logons when providing access to learning environments and applications, which may be used outside school.

- Records of learner usernames and passwords for younger students/pupils can be kept in an electronic or paper-based form, but they must be securely kept when not required by the user. *Password complexity in foundation phase should be reduced (for example 6-character maximum) and should not include special characters. Where external systems have different password requirements the use of random words or sentences should be encouraged.*
- Password requirements for older students/pupils and should increase as students'/pupils progress through school.
- Users will be required to change their password if it is compromised. Some schools may choose to reset passwords at the start of each academic year to avoid large numbers of forgotten password reset requests where there is no user-controlled reset process. (Note: passwords should not be regularly changed but should be secure and unique to each account.)
- Students/pupils will be taught the importance of password security, this should include how passwords are compromised, and why these password rules are important.

Schools/colleges may wish to add to this list for all or some students/pupils any of the relevant policy statements from the staff section above.

Notes for Technical Staff/Teams

- Each administrator should have an individual administrator account, as well as their own user account with access levels set at an appropriate level. Consideration should also be given to using two factor authentication for such accounts.
- An administrator account password for the school systems should also be kept in a secure place e.g. school safe. This account and password should only be used to recover or revoke access. Other administrator accounts should not have the ability to delete this account. *(A school should never allow one user to have sole administrator access)*
- Any digitally stored administrator passwords should be hashed using a suitable algorithm for storing passwords (e.g. Bcrypt or Scrypt). Message Digest algorithms such as MD5, SHA1, SHA256 etc. should not be used.
- *It is good practice that where passwords are used there is a user-controlled password reset process to enable independent, but secure re-entry to the system. This ensures that only the owner has knowledge of the password.*
- Where user-controlled reset is not possible, passwords for new users, and replacement passwords for existing users will be allocated by xxxxx (insert title) (schools may wish to have someone other than the school's technical staff carrying out this role e.g. an administrator who is easily accessible to users). Good practice is that the password generated by this change process should be system generated and only known to the user. This password should be temporary and the user should be forced to change their password on first login. The generated passwords should also be long and random.
- *Where automatically generated passwords are not possible, then a good password generator should be used by* xxxxx (insert title) *to provide the user with their initial password. There should be a process for the secure transmission of this password to limit knowledge to the password creator and the user. The password should be temporary and the user should be forced to change their password on the first login.*
- *Requests for password changes should be authenticated* by (the responsible person) *to ensure that the new password can only be passed to the genuine* user (the school will need to decide how this can be managed – possibly by requests being authorised by a line manager for a request by a member of staff or by a member of staff for a request by a learner)
- Suitable arrangements should be in place to provide visitors with appropriate access to systems which expires after use. *(For example, your technical team may provide pre-created user/password combinations that can be allocated to visitors, recorded in a log, and deleted from the system after use.)*

- In good practice, the account is "locked out" following six successive incorrect log-on attempts.
- Passwords shall not be displayed on screen, and shall be securely hashed when stored (use of one-way encryption).

Training/Awareness

It is essential that users should be made aware of the need for keeping passwords secure, and the risks attached to unauthorised access/data loss. This should apply to even the youngest of users. It is also essential that users be taught how passwords are compromised, so they understand why things should be done a certain way. Please see our blog for more details on this.

Members of staff will be made aware of the school 's password policy

- at induction
- through the school 's online safety policy and password security policy
- through the acceptable use agreement

Students/pupils will be made aware of the school's/college's password policy

- in lessons (the school should describe how this will take place)
- through the Acceptable Use Agreement

Audit/Monitoring/Reporting/Review

The responsible person (insert title) will ensure that full records are kept of:

- User Ids and requests for password changes
- *User logons*
- *Security incidents related to this policy*

Filtering

Introduction

The filtering of internet content provides an important means of preventing users from accessing material that is illegal or is inappropriate in an educational context. The filtering system cannot, however, provide a 100% guarantee that it will do so, because the content on the web changes dynamically and new technologies are constantly being developed. It is

important, therefore, to understand that filtering is only one element in a larger strategy for online safety and acceptable use. It is important that the school has a filtering policy to manage the associated risks and to provide preventative measures which are relevant to the situation in this school.

Many users are not aware of the flexibility provided by many filtering services at a local level for schools. Where available, schools should use this flexibility to meet their learning needs and reduce some of the frustrations occasionally felt by users who wish to maximise the use of the new technologies.

Schools need to consider carefully the issues raised and decide:

- Whether they will use the provided filtering service without change or to allow flexibility for sites to be added or removed from the filtering list for their organisation
- Whether to introduce differentiated filtering for different groups/ages of users
- Whether to remove filtering controls for some internet use (e.g. social networking sites) at certain times of the day or for certain users
- Who has responsibility for such decisions and the checks and balances put in place
- What other system and user monitoring systems will be used to supplement the filtering system and how these will be used

Guidance on "appropriate filtering". can be found on the UK Safer Internet Centre site.

Schools may wish to test their filtering for protection against illegal materials at: SWGfL Test Filtering

Responsibilities

The responsibility for the management of the school's filtering policy will be held by (insert title). They will manage the school filtering, in line with this policy and will keep records/logs of changes and of breaches of the filtering systems.

To ensure that there is a system of checks and balances and to protect those responsible, changes to the school filtering service must (schools should choose their relevant responses):

- be logged in change control logs
- be reported to a second responsible person (insert title):
- *either… be reported to and authorised by a second responsible person prior to changes being made* (recommended)

- *or… be reported to a second responsible person* (insert title) *every X weeks/months in the form* of *an audit of the change control logs*
- *be reported to the Online Safety Group every X weeks/months in the form of an audit of the change control logs*

All users have a responsibility to report immediately to (insert title) any infringements of the school's filtering policy of which they become aware or any sites that are accessed, which they believe should have been filtered.

Users must not attempt to use any programmes or software that might allow them to bypass the filtering/security systems in place to prevent access to such materials.

Policy Statements

Internet access is filtered for all users. Differentiated internet access is available for staff and customised filtering changes are managed by the school. Illegal content is filtered by the broadband or filtering provider by actively employing the Internet Watch Foundation CAIC list and other illegal content lists. Filter content lists are regularly updated and internet use is logged and frequently monitored. The monitoring process alerts the school to breaches of the filtering policy, which are then acted upon. There is a clear route for reporting and managing changes to the filtering system. Where personal mobile devices are allowed internet access through the school network, filtering will be applied that is consistent with school practice.

- *Either - The school maintains and supports the managed filtering service provided by the Internet Service Provider* (or other filtering service provider)
- *Or – The school manages its own filtering service* (N.B. If a school decides to remove the external filtering and replace it with another internal filtering system, this should be clearly explained in the policy and evidence provided that the Headteacher/Principal would be able to show, in the event of any legal issue that the school was able to meet its statutory requirements to ensure the safety of staff/students/pupils)
- *The school has provided enhanced/differentiated user-level filtering through the use of the* (insert name) *filtering programme. (allowing different filtering levels for different ages/stages and different groups of users – staff/pupils/students etc.)*
- *In the event of the technical staff needing to switch off the filtering for any reason, or for any user, this must be logged and carried out by a process that is agreed by the Headteacher/Principal (or other nominated senior leader).*

- *Mobile devices that access the school internet connection (whether school or personal devices) will be subject to the same filtering standards as other devices on the school systems*
- *Any filtering issues should be reported immediately to the filtering provider.*
- *Requests from staff for sites to be removed from the filtered list will be considered by the technical staff (*insert name or title) (N.B. an additional person should be nominated – to ensure protection for the Network Manager or any other member of staff, should any issues arise re unfiltered access). *If the request is agreed, this action will be recorded and logs of such actions shall be reviewed regularly by the Online Safety Group.*

Education/Training/Awareness

Pupils/students will be made aware of the importance of filtering systems through the online safety education programme (schools may wish to add details). They will also be warned of the consequences of attempting to subvert the filtering system.

Staff users will be made aware of the filtering systems through: (amend as relevant)

- the Acceptable Use Agreement
- induction training
- staff meetings, briefings, Inset.

Parents will be informed of the school's filtering policy through the Acceptable Use Agreement and through online safety awareness sessions/newsletter etc. (amend as relevant)

Changes to the Filtering System

In this section the school should provide a detailed explanation of:

- how, and to whom, users may request changes to the filtering (whether this is carried out in school or by an external filtering provider)
- the grounds on which they may be allowed or denied (schools may choose to allow access to some sites e.g. social networking sites for some users, at some times, or for a limited period of time. There should be strong educational reasons for changes that are agreed).

- how a second responsible person will be involved to provide checks and balances (preferably this will be at the time of request, but could be retrospectively through inspection of records/audit of logs)
- any audit/reporting system

Users who gain access to, or have knowledge of others being able to access, sites which they feel should be filtered (or unfiltered) should report this in the first instance to (insert title) who will decide whether to make school level changes (as above).