

Appropriate Filtering for Education settings

November 2023



Filtering Provider Checklist Responses

Schools (and registered childcare providers) in England and Wales are required “to ensure children are safe from terrorist and extremist material when accessing the internet in school, including by establishing appropriate levels of filtering”. Furthermore, it expects that they “assess the risk of [their] children being drawn into terrorism, including support for extremist ideas that are part of terrorist ideology”. There are a number of self-review systems (eg www.360safe.org.uk) that will support a school in assessing their wider online safety policy and practice.

The Department for Education’s statutory guidance ‘Keeping Children Safe in Education’ obliges schools and colleges in England to “*ensure appropriate filters and appropriate monitoring systems are in place and regularly review their effectiveness*” and they “*should be doing all that they reasonably can to limit children’s exposure to [Content, Contact, Conduct, Contract] risks from the school’s or college’s IT system*” however, schools will need to “*be careful that “over blocking” does not lead to unreasonable restrictions as to what children can be taught with regards to online teaching and safeguarding.*”

By completing all fields and returning to UK Safer Internet Centre (enquiries@saferinternet.org.uk), the aim of this document is to help filtering providers to illustrate to education settings (including Early years, schools and FE) how their particular technology system(s) meets the national defined ‘appropriate filtering standards. Fully completed forms will be hosted on the UK Safer Internet Centre website alongside the definitions

It is important to recognise that no filtering systems can be 100% effective and need to be supported with good teaching and learning practice and effective supervision.

Company / Organisation	E2BN Protex Ltd
Address	Unit 1, Saltmore Farm, New Inn Road, Hinxworth, SG7 5EZ
Contact details	Kathy@e2bn.org
Filtering System	E2BN Protex
Date of assessment	08/09/2023

System Rating response

Where a supplier is able to confirm that their service fully meets the issue identified in a specific checklist the appropriate self-certification colour for that question is GREEN.	
Where a supplier is not able to confirm that their service fully meets the issue identified in a specific checklist question the appropriate self-certification colour for that question is AMBER.	

Illegal Online Content

Filtering providers should ensure that access to illegal content is blocked, specifically that the filtering providers:

Aspect	Rating	Explanation
<ul style="list-style-type: none"> Are IWF members 		E2BN and E2BN Protex are long standing members of the IWF. We attend the funding council and help shape the IWF's work. (IWF – The Internet Watch Foundation – an organisation that finds and takes down child abuse materials as well as providing advice to central government.
<ul style="list-style-type: none"> and block access to illegal Child Abuse Images (by actively implementing the IWF URL list) 		E2BN Protex blocks access to Child Abuse Images by actively implementing the CAIC list. The list is update twice a day and distributed to all E2BN Protex systems overnight. The list is hidden from all Protex users (including system administrators) and cannot be overridden.
<ul style="list-style-type: none"> Integrate the 'the police assessed list of unlawful terrorist content, produced on behalf of the Home Office' 		E2BN Protex implements the latest Home Office counter terrorist list as part of our support for 'PREVENT'.
<ul style="list-style-type: none"> Confirm that filters for illegal content cannot be disabled by the school 		The list is hidden from all users (including system administrators) and cannot be overridden.

Inappropriate Online Content

Recognising that no filter can guarantee to be 100% effective, providers should both confirm, and describe how, their system manages the following content

Content	Explanatory notes – Content that:	Rating	Explanation
Discrimination	Promotes the unjust or prejudicial treatment of people on the grounds of race, religion, age, or sex.		E2BN Protex filters discriminatory content through its 'intolerance' category.
Drugs / Substance abuse	displays or promotes the illegal use of drugs or substances		E2BN Protex filters illegal drug use and substance abuse through its 'Drugs' category.
Extremism	promotes terrorism and terrorist ideologies, violence or intolerance		E2BN Protex filters extremist content through its 'Extremism' and 'Violence' categories. Where a site is blocked because of its inclusion in the Home Office counter terrorist list, its URL is redacted from all logs and reports.
Gambling	Enables gambling		E2BN Protex filters gambling sites via the Gambling category.

Malware / Hacking	promotes the compromising of systems including anonymous browsing and other filter bypass tools as well as sites hosting malicious content		E2BN Protex filters malware and hacking sites through its 'File Hosting', 'Illegal Hacking' and 'Proxy' categories using the methods described above.
Pornography	displays sexual acts or explicit images		E2BN Protex filters pornography and other explicit sexual content through its 'Pornography' and 'Violence' categories using the methods described above. (Illegal sexual content is blocked via the IWF list mentioned above)
Piracy and copyright theft	includes illegal provision of copyrighted material		E2BN Protex filters content against the PIPCU (Police Intellectual Property Crime Unit) list provided by the Metropolitan Police.
Self Harm	promotes or displays deliberate self-harm (including suicide and eating disorders)		E2BN Protex filters 'self-harm', 'pro-an', suicide and other pages depicting or promoting self-harm are filtered through its 'Post-18' category using the methods described above. This categorisation means that the pages are available via the Staff profile in order to allow school Staff to access these sites for research purposes or through guided whole-class teaching in PSHE
Violence	Displays or promotes the use of physical force intended to hurt or kill		E2BN Protex filters violent content through its 'Violence' category.

This list should not be considered an exhaustive list. Please outline how the system manages this content and many other aspects

E2BN Protex manages all content in real time. First, the URL of the requested page is compared to the URL lists above. All content on the above lists are blocked to all users. A Protex 'page disallowed' screen will be served instead of the requested page. If the page URL is not referenced on the above URL lists, the URL is compared to other 'allowed' and 'disallowed' URL lists created by our filtering teams and amended to the needs of individual school policies.

If the page is on a 'disallow' list, the page is not served and the Protex 'page disallowed' screen is displayed. If the URL of the page does not result in the page being blocked, Protex analyses the page content. Page content is analysed for banned and weighted words and phrases, advertisements and other triggers. In this way, Protex is able to filter pages that contain inappropriate content whether or not they fall into one of the categories below.

Page content is also assessed in the context of who the user is and where and when the user is accessing the content. For more information about how Protex does this see the section on Contextual Content Filtering below.

- There are various other categories of content checking and URL lists for other content. For example, "onlinegames" and "kidstimestwasting" are generally blocked to students but not staff.

- For specific installations this default may be modified. For example, a Library may not want “onlinegames” blocked.
- A school’s Protex system administrators may exert more control over the way these categories are applied to their own users if they wish(i.e. they can create school specific profiles for particular groups of users applied via integration with, for example, their Active Directory).
- A school’s Protex system administrators (either school staff or as a service delegated to E2BN Protex) can modify the filtering by adding specific URLs to the set of Local Lists available on each Protex installation.
- E2BN Protex provides training and support for schools wishing to manage their own filtering categories and profiles.
- Alternatively they can apply any of the age-appropriate defaults profiles we supply.
- Application of the “Porn”, “illegalDrugs”, “illegalHacking” and “Proxy” categories cannot be overridden.

Use of search engines – Protex scans the submitted search and blocks unsuitable search terms as well as content checking the results page of each search

Image searches - Image searching is a very powerful tool but some schools have had to ban it because of the nature of some of the thumbnail images displayed to the unwary. E2BN Protex addresses this problem by enforcing safe search for all pupil filtering profiles when common search engine are accessed.

Regarding the duration and extent of logfile (Internet history) data retention, providers should outline their retention policy, specifically including the extent to the identification of individuals and the duration to which all data is retained.

End User Data

- E2BN does not centrally retain logs of end users or their internet activity
- Logfiles are stored on the school’s Protex instance.
- For the purpose of The Data Protection Act and GDPR this data is the school’s responsibility.
- The log files are typically stored for a period of 6 to 9 months then older logs are overwritten as new logfiles are generated.

System Admin - Self-managed systems

(Self-managed system are deployments of Protex where system management has been delegated to School or Trust staff)

Protex admins’ username and email address along with a record of every change made to the local URL lists and profiles, are held on the school’s Protex instance and E2BN’s central control server. E2BN retains this data for 20 years for safeguarding, auditing and technical reasons. When a school admin is deleted from the school’s Protex box, the username and email details are automatically deleted from the E2BN central system. However, the log of changes to whitelists and profiles made by the school admin is maintained.

System Admin - Managed Systems

(Managed systems are deployments where E2BN Protex managed the filtering system on behalf of the school or Trust)

All web requests for changes to local URL lists, profiles and blocking require the person making the request to provide a school email address. This information is retained by E2BN for safeguarding, auditing and technical reasons.

All changes made by a school's Protex admin are logged on the school's Protex instance and backed up to E2BN central system.

Data is held for 20 years

E2BN technical staff (all holders of enhanced DBS certificates and trained on GDPR and Data Protection) can only access user logfile data for the purpose of technical support.

Providers should be clear about how their system does not over-block access so it does not lead to unreasonable restrictions

Over-blocking

We have various feedback mechanisms in place to avoid over blocking.

Each blocked URL generates a page displayed to the user. This page's wording and the information returned is age related. This page includes the option for the user (or their teacher) to fill in a simple form with a request for the page to be unblocked. These requests are centrally reviewed by authorised E2BN DBS cleared personnel. Changes are made (or not) as appropriate. Where the user has provided an email address the user is notified of the change. Sites/URL/Pages that belong to a blocked category or reach the Page Value threshold for a profile can be accessed by adding them to a "whitelist". Schools that opt for self-management can whitelist sites/pages. We will whitelist sites/pages on behalf of schools that have opted for us to manage their filtering. Whitelisting requests can be made from the blocked page (see above) or by contacting the E2BN office.

Block request

An online form is used to make requests for pages to be blocked. Again these are centrally managed with an emailed reply on the action taken.

An emergency block request can also be made phoning the E2BN office.

There is a dedicated email address for all other filtering queries.

When changes are made locally by a self-managed school or requested by a centrally managed school, we assess the change and consider if it is a change that we should "adopt" and distribute across all Protex systems. For example, an individual school may discover an unblocked games site add it to the 'onlinegames' category. A member of our team will be notified to the change, assess the site and, if it meets the criteria for a non-educational game, add it to the central Protex 'onlinegames' category. Once changed centrally all Protex systems will be updated within about 15 minutes.

Safeguarding

Changes made by a system administrator (either School or E2BN staff) are logged centrally for audit, monitoring and review purposes. We can provide details of the changes made by local system administrators upon request.

Filtering System Features

How does the filtering system meet the following principles:

Principle	Rating	Explanation
<ul style="list-style-type: none"> Context-appropriate differentiated filtering, based on age, vulnerability and risk of harm – also includes the ability to vary filtering strength appropriate for staff 		<p>Protex uses multiple age-related filter settings or profiles, each tailored to the specified age-group including one for Adults/Staff. The profiles available include: Primary, Middle, Secondary, 6th Form, and Staff. Each of the pupil profiles is available with or without access to 'social' sites such as Facebook, YouTube and Twitter and with or without access to games sites</p> <p>By customising our default profiles schools can vary the strength of the filter for groups, classes and even individuals with specific vulnerabilities. Self-managed schools can carry out the customisation for more/less vulnerable groups and individuals themselves. Schools that do not self-manage can request us to customise the filter via our helpdesk.</p> <p>All schools can whitelist sites and pages from otherwise blocked categories (except where the site or page is listed on the IWF, Home Office or PIPCU lists or is categorised as 'illegal hacking', 'Pornography', 'Illegal Drugs', or 'Proxy'.</p> <p>Similarly, schools can request us to block particular sites or pages on their behalf.</p>
<ul style="list-style-type: none"> Circumvention – the extent and ability to identify and manage technologies and techniques used to circumvent the system, specifically VPN, proxy services and DNS over HTTPS. 		<p>E2BN Protex subscribes to various commercial lists that list Proxy IPs, VPN application URLs. E2BN Protex also its own audits into web filtering avoidance services that are being accessed and blocks these for all users. New methods continue to be blocked as they become apparent. With the Protex service (which includes a firewall as well as web filtering) ports that may be used in an attempt to bypass the web filtering are blocked at the firewall level.</p>
<ul style="list-style-type: none"> Control – has the ability and ease of use that allows schools to control the filter themselves to permit or deny access to specific content. Any changes to the filter system are logged enabling an audit trail that ensure transparency and that individuals are not able to make unilateral changes 		<p>Schools can modify the lists and create specific collections of list categories for their users via a simple to use web-interface (except where the site or page is listed on the IWF, Home Office or PIPCU lists or is categorised as 'Illegal Hacking', 'Pornography', 'Illegal Drugs', or 'Proxy').</p> <p>The administration portal is accessible anytime, anywhere via the web interface.</p> <p>System Admin - Self-managed systems (Self-managed system are deployments of Protex where system management has been delegated to School or Trust staff)</p>

		<p>Protex admins' username and email address along with a record of every change made to the local URL lists and profiles, are held on the school's Protex instance and E2BN's central control server. E2BN retains this data for 20 years for safeguarding, auditing and technical reasons.</p> <p>When a school admin is deleted from the school's Protex box, the username and email details are automatically deleted from the E2BN central system. However, the log of changes to whitelists and profiles made by the school admin is maintained.</p> <p>System Admin - Managed Systems (Managed systems are deployments where E2BN Protex managed the filtering system on behalf of the school or Trust)</p> <p>All web requests for changes to local URL lists, profiles and blocking require the person making the request to provide a school email address. This information is retained by E2BN for safeguarding, auditing and technical reasons.</p> <p>All changes made by a school's Protex admin are logged on the school's Protex instance and backed up to E2BN central system.</p> <p>Data is held for 20 years</p>
<ul style="list-style-type: none"> Contextual Content Filters – in addition to URL or IP based filtering, the extent to which (http and https) content is analysed as it is streamed to the user and blocked, this would include AI generated content. For example, being able to contextually analyse text on a page and dynamically filter. 		<p>In addition to URL or IP based filtering Protex provides Contextual Content Filtering.</p> <p>If a page is not blocked by its URL, the default is to check its content by comparing it against our phraselists: the HTML of the page is scanned for a variety of phrases and patterns. There are two types of phrases: those that are weighted and those that are banned.</p> <p>As a page is requested all words and phrases on a web page are compared to the phraselist. A page containing a phrase from the banned list will be blocked.</p> <p>For all other pages a negative or positive value assigned to the phrases. The values of the words and phrases found on a page are totalled to give the page a Page Value. Each profile has a Page Value Threshold set to reflect the age group of the profile. If a page exceeds the Page Value</p>

		<p>Threshold for the user's profile the page is blocked.</p> <p>Because Protex applies positive and negative values to words in the phraselist Protex not only assesses the user context i.e. the age of the user but also examines the context of the content. A simple example would be the word 'breast'. The word 'breast' would add to a page's weighting potentially causing the page to be blocked. However, 'breast' used in association with 'robin red', 'plumage', 'plate' or 'cancer' would reduce the page's weighting.</p>
<ul style="list-style-type: none"> Filtering Policy – the filtering provider publishes a rationale that details their approach to filtering with classification and categorisation as well as over blocking 		<p>E2BN Protex provides details of its policy and approaches to filtering on the website. These policies have been developed in conjunction with users and local authorities over the past 12 years. The E2BN Protex filtering policy can be seen at: http://protex.e2bn.org/cms/policy.html</p>
<ul style="list-style-type: none"> Group / Multi-site Management – the ability for deployment of central policy and central oversight or dashboard 		<p>Protex is a managed filtering service with centralised policy management specifically designed for schools. Schools can opt for a fully managed service or self-management. Multi-site management of a group of schools, federation or trust from a single interface is available.</p> <p>As a managed service, we also will make changes across any groups of schools, federations or trusts on request.</p>
<ul style="list-style-type: none"> Identification - the filtering system should have the ability to identify users 		<p>Protex systems log the user associated with every request in two ways.</p> <p>Where Active Directory has been implemented on the school's system, all activity is logged against the users AD identity.</p> <p>On school systems where AD integration is not desirable or possible users can be identified by IP Address if the school has a suitable identification system in place. It is also possible to insert the user's identity in the logs without using AD integration.</p>
<ul style="list-style-type: none"> Mobile and App content – mobile and app content is often delivered in entirely different mechanisms from that delivered through a traditional web browser. To what extent does the filter system block inappropriate 		<p>E2BN Protex is device agnostic: any device making requests using standard web protocols (including http and https) and being directed to the Protex filtering server will be filtered.</p> <p>Applications using proprietary protocols and/or proprietary encryption methods cannot be</p>

content via mobile and app technologies (beyond typical web browser delivered content). Providers should be clear about the capacity of their filtering system to manage content on mobile and web apps		<p>content filtered by this or any other filtering engine.</p> <p>Devices accessing content via the school network are filtered. Content accessed on devices such as phones and BYOD via the device's 3G or 4G or 5G service are only filtered if the school has the addition Protex4Home subscription.</p> <p>Content that sits within a mobile app will not be filtered by Protex or Protex Home</p>
<ul style="list-style-type: none"> Multiple language support – the ability for the system to manage relevant languages 		<p>The Protex filtering engine itself can handle any well formatted URL and content checking in multiple languages. Currently Protex supports content checking of English language text with some support for foreign languages.</p>
<ul style="list-style-type: none"> Network level - filtering should be applied at 'network level' ie, not reliant on any software on user devices whilst at school (recognising that device configuration/software may be required for filtering beyond the school infrastructure) 		<p>All web-traffic is filtered when directed via the Protex filters.</p> <p>Protex4Home is an app that is installed on individual mobile devices that may now access the internet via the schools broadband service</p>
<ul style="list-style-type: none"> Remote devices – with many children and staff working remotely, the ability for school owned devices to receive the same or equivalent filtering to that provided in school 		<p>This feature is now available via our Protex4Home service.</p>
<ul style="list-style-type: none"> Reporting mechanism – the ability to report inappropriate content for access or blocking 		<p>Managed system users complete our online forms to report sites that are not blocked and to make requests for blocked sites to be unblocked. Users can also report sites for an 'emergency' block by telephone during office hours.</p> <p>Local managed system users manage blocking and unblocking via the system admin interface in line with the school's own policies and procedures. All such changes are logged centrally providing a complete record of who, when and what changes are made</p>
<ul style="list-style-type: none"> Reports – the system offers clear historical information on the websites users have accessed or attempted to access 		<p>All web requests, search terms and page visits are logged by user and time stamped. The system produces a range of standard reports on activity – for example for the most visited sites, most blocked categories, most blocked user/ group, most frequent search terms, activity by user or</p>

		group etc. Additional bespoke reports can also be produced. All access to the admin interface is logged. Logs are typically held for between 6 & 9 months depending on volume.
<ul style="list-style-type: none"> • Safe Search – the ability to enforce ‘safe search’ when using search engines 		Protex enforces ‘safe search.’

Filtering systems are only ever a tool in helping to safeguard children when online and schools have an obligation to *“consider how children may be taught about safeguarding, including online, through teaching and learning opportunities, as part of providing a broad and balanced curriculum”*.¹

Please note below opportunities to support schools (and other settings) in this regard

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¹ <https://www.gov.uk/government/publications/keeping-children-safe-in-education--2>

PROVIDER SELF-CERTIFICATION DECLARATION

In order that schools can be confident regarding the accuracy of the self-certification statements, the supplier confirms:

- that their self-certification responses have been fully and accurately completed by a person or persons who are competent in the relevant fields
- that they will update their self-certification responses promptly when changes to the service or its terms and conditions would result in their existing compliance statement no longer being accurate or complete
- that they will provide any additional information or clarification sought as part of the self-certification process
- that if at any time, the UK Safer Internet Centre is of the view that any element or elements of a provider's self-certification responses require independent verification, they will agree to that independent verification, supply all necessary clarification requested, meet the associated verification costs, or withdraw their self-certification submission.

Name	Mr Philip Pearce
Position	Technical Director
Date	06/11/2023
Signature	