

# Appropriate Monitoring for Schools



June 2016

## Provider Checklist Responses

Schools 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”<sup>1</sup>. Furthermore, the Department for Education published the revised statutory guidance ‘Keeping Children Safe in Education’<sup>2</sup> in May 2016 (and active from 5<sup>th</sup> September 2016) for schools and colleges in England. Amongst the revisions, schools are obligated to “ensure appropriate filters and appropriate monitoring systems are in place. Children should not be able to access harmful or inappropriate material from the school or colleges 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](mailto:enquiries@saferinternet.org.uk)), the aim of this document is to help monitoring providers to illustrate to schools how their particular technology system(s) meets the national defined ‘appropriate monitoring’ standards. Fully completed forms will be hosted on the UK Safer Internet Centre website alongside the definitions

The results will help schools better assess, in conjunction with their completed risk assessment, if the monitoring system is ‘appropriate’ for them.

Company / Organisation	Fortinet	
Address	Gainsborough House 2 Manor Park, Manor Farm Road, Reading, Berkshire, United Kingdom, RG2 0JH	
Contact details	+44 20 3752 6880	
Filtering System	Fortiguard Web Content Filtering	
Date of assessment	Nov 11 <sup>th</sup> 2016	

### 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.	

<sup>1</sup> Revised Prevent Duty Guidance: for England and Wales, 2015, [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/445977/3799\\_Revised\\_Prevent\\_Duty\\_Guidance\\_England\\_Wales\\_V2-Interactive.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/445977/3799_Revised_Prevent_Duty_Guidance_England_Wales_V2-Interactive.pdf)

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

## Monitoring Content

Monitoring providers should ensure that they:

Aspect	Rating	Explanation
<ul style="list-style-type: none"> <li>Are IWF members</li> </ul>		Fortinet is a member
<ul style="list-style-type: none"> <li>Work with CTIRU 'the police assessed list of unlawful terrorist content, produced on behalf of the Home Office'</li> </ul>		The list is part of Fortiguard Web Filtering Service.

## Inappropriate Online Content

Monitoring providers should both confirm, and describe how, their system monitors/manages the following content

Content	Explanatory notes – Content that:	Rating	Explanation
Illegal	content that is illegal, for example child abuse images and unlawful terrorist content		<p>There are number of categories that block illegal content, activities and object, covered in the following categories. These categories can be both blocked and/or reported/alerted upon.</p> <p><b>Category – E.G. Drug Abuse, Extremist Groups, Hacking, Pornography, Explicit Violence, Explicit Violence</b></p>
Bullying	Involve the repeated use of force, threat or coercion to abuse, intimidate or aggressively dominate others		<p><b>Category - Explicit Violence</b></p> <p>This category includes sites that depict offensive material on brutality, death, cruelty, acts of abuse, mutilation, etc.</p> <p>These categories can be both blocked and/or reported/alerted upon.</p> <p>This combined with the ability to monitor HTTPS and use Application Control to inspect communication channels such as Instant Messaging if permitted.</p>
Child Sexual Exploitation	: Is encouraging the child into a coercive/manipulative sexual relationship. This may include encouragement to meet		<p><b>Category – Child Abuse</b></p> <p>Websites that have been verified by the Internet Watch Foundation to contain or</p>

			<p>distribute images of non-adult children that are depicted in a state of abuse. Information on the Internet Watch Foundation is available at <a href="http://www.iwf.org.uk/">http://www.iwf.org.uk/</a>.</p> <p>This combined with the ability to monitor HTTPS and use Application Control to inspect communication channels such as Instant Messaging if permitted.</p>
Discrimination	Promotes the unjust or prejudicial treatment of people on the grounds of race, religion, age, sex, disability or gender identity		<p><b>Category - Discrimination</b></p> <p>Sites that promote the identification of racial groups, the denigration or subjection of groups, or the superiority of any group.</p> <p>These categories can be both blocked and/or reported/alerted upon.</p>
Drugs / Substance abuse	displays or promotes the illegal use of drugs or substances		<p><b>Category - Drug Abuse</b></p> <p>Websites that feature information on illegal drug activities including: drug promotion, preparation, cultivation, trafficking, distribution, solicitation, etc.</p> <p>These categories can be both blocked and/or reported/alerted upon.</p>
Extremism	promotes terrorism and terrorist ideologies, violence or intolerance		<p><b>Category - Extremist Groups</b></p> <p>Sites that feature radical militia groups or movements with aggressive anti-government convictions or beliefs.</p> <p>These categories can be both blocked and/or reported/alerted upon.</p>

<p>Pornography</p>	<p>displays sexual acts or explicit images</p>	<p><b>Category - Pornography</b></p> <p>Mature content websites (18+ years and over) which present or display sexual acts with the intent to sexually arouse and excite.</p> <p><b>Category - Nudity and Risque</b></p> <p>Mature content websites (18+ years and over) that depict the human body in full or partial nudity without the intent to sexually arouse.</p> <p>These categories can be both blocked and/or reported/alerted upon.</p>
<p>Self Harm</p>	<p>promotes or displays deliberate self harm</p>	<p><b>Category - Explicit Violence</b></p> <p>This category includes sites that depict offensive material on brutality, death, cruelty, acts of abuse, mutilation, etc.</p> <p>These categories can be both blocked and/or reported/alerted upon.</p> <p>This combined with the ability to monitor HTTPS and use Application Control to inspect communication channels such as Instant Messaging if permitted.</p>
<p>Suicide</p>	<p>Suggest the user is considering suicide</p>	<p><b>Category - Explicit Violence</b></p> <p>This category includes sites that depict offensive material on brutality, death, cruelty, acts of abuse, mutilation, etc.</p> <p>These categories can be both blocked and/or reported/alerted upon.</p>

			This combined with the ability to monitor HTTPS and use Application Control to inspect communication channels such as Instant Messaging if permitted.
Violence	Displays or promotes the use of physical force intended to hurt or kill		<p><b>Category - Explicit Violence</b></p> <p>This category includes sites that depict offensive material on brutality, death, cruelty, acts of abuse, mutilation, etc.</p> <p>These categories can be both blocked and/or reported/alerted upon.</p>

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

General categorisation is based on an automated categorisation engine which has been developed in-house and which has evolved over more than 13 years since its initial conception. The system uses language dictionaries to allow support in any language. Sites are scanned based on a number of methods:

- new pages on identified popular sites
- URLs which are requested by a user, but which are not rated. Such URLs will go into a queue to be rated based on hit count and the current charge on the system.
- Bulk requests from a specific customer. Such requests are treated case by case, but we generally offer this as a free service.
- Individual requests received from customers or users. These requests can be received in a number of ways (see below) and may be either requests to rate an unrated site, or requests to change the rating of a site.

In general, initial rating is done by the automated rating system. Malicious content (viruses, exploits) is not rated using this system (more details below) because such sites generally have legitimate visible content.

Ratings may also be obtained from third-party feeds, including feeds from governments or other organisations, containing such content as extremism or sexual violence.

Requests to change the rating of an already categorised URL will always be dealt with by a human, to ensure that the request gets the highest level of care and attention.

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

This is covered below, but to summarise:

A flexible hierarchical search system is used which allows ratings to be given to anything from a top-level domain or an IP address, right down to a fully-specified URL. This allows for example a blogging site such as wordpress.com to have a "Personal Websites and Blogs" rating, whilst individual blogs can have a rating based on their actual content. It also ensures that the entire wordpress domain is not blocked just because a single blogger posts inappropriate content.

## Monitoring System Features

How does the monitoring system meet the following principles:

Principle	Rating	Explanation
<ul style="list-style-type: none"> <li>Age appropriate – includes the ability to implement variable monitoring appropriate to age. This will in turn define which alerts are prioritised and responded to</li> </ul>		<p>Rating can be varied depending on a user group profile, and different users can be added to groups depending on their age. Categories are not directly linked to age, due to the subjective nature of deciding what is appropriate. Rather, it is left to the system administrator to decide which categories make sense for the different age groups.</p>
<ul style="list-style-type: none"> <li>BYOD (Bring Your Own Device) – if the system includes the capability to monitor personal mobile and app technologies (ie not owned by the school), how is this deployed and supported?</li> </ul>		<p>Fortinet has a very comprehensive support for BYOD especially when implemented through Fortinet secure WiFi access points. Personal devices can be recognised as such and automatically assigned to a guest zone with a specific set of policies to avoid infections being passed into the school network, and to prevent access to internal systems.</p>
<ul style="list-style-type: none"> <li>Data retention – what data is stored, where and for how long</li> </ul>		<p>All web accesses (as well as any security events such as malware or intrusion detections) can be logged (generally to a centralised customer-owned log server, where log retention is under the complete control of the user. The data stored includes user id (assuming that users are individually authenticated), URL</p>

		visited, the ID of the security device which handled the transaction, as well as low-level addressing information and a timestamp.
<ul style="list-style-type: none"> <li>Flexibility – schools ability to amend (add or remove) keywords easily</li> </ul>		The Fortinet web filter allows complete freedom to add, modify and remove keywords to be checked in web pages. Wildcard matches can be used for more flexible searching and thresholds can be applied to block only if a certain word appears multiple times.
<ul style="list-style-type: none"> <li>Monitoring Policy – How are all users made aware that their online access is being monitored? Is any advice or guidance provided to support schools?</li> </ul>		In general, such communication would be done via training or security awareness sessions. Note that if a user is blocked after accessing a web site which belongs to a blocked category, a customisable block page will be displayed which can contain an explanation for the block, as well as information on whom to contact for more information, or a link to a support website.
<ul style="list-style-type: none"> <li>Multiple language support – the ability for the system to manage relevant languages?</li> </ul>		The Fortinet web filtering solution is completely multilingual, both in the automated rating system, used for the majority of website rating, as well as for the human rating team which contains skills in all major languages to allow for detailed verification of page ratings.
<ul style="list-style-type: none"> <li>Prioritisation – How are alerts generated and prioritised to enable a rapid response to</li> </ul>		Any blocked access will generate a log message,

<p>immediate issues. What operational procedures are in place to facilitate that process?</p>		<p>which may also generate an alert. A log analysis tool such as FortiAnalyzer can generate alerts based on these logs . Such alerts may be generated for every blocked URL, or rules can be specified to limit alerts to specific categories or individual users or groups of users, or even time of day. The alerts can then be sent by a number of means including email, SMS, SNMP traps</p>
<ul style="list-style-type: none"> <li>• Reporting – how alerts are recorded within the system?</li> </ul>		<p>As explained above, all detections of forbidden or suspicious accesses will be logged, either locally in the FortiGate (for very small installations) or to a centralised log manager such as FortiAnalyser. FortiAnalyser include flexible rules for log management including retention times, summarising of older logs, as well as compression and archiving.</p>

Please note below opportunities to support schools (and other settings) with their obligations around Keeping Children Safe in Education?

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## 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.

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Date	1 December 2016
Signature	

