E²BN Protex

Web Filtering System – Freedom to Explore, Create, Share and Learn in a Safe and Secure Environment

ProtexHA – DATASHEET   http://protex.e2bn.org/protexha

Note: This data sheet describes Protex version 3.

High Availability Web Filtering and Caching for Providers of Internet services to Schools and Libraries

Description	
The E2BN **ProtexHA** is a High Availability managed web filtering and caching service designed to meet the demanding requirements of local authorities and other organisations providing web services to schools, libraries and sites caring for young people. Using extremely reliable and proven hardware it offers a highly resilient and scalable solution designed to run 365 x 24 x 7.	

System	
Data centre located	ProtexHA array consists of a pair of load balancers and suitably sized arrays of filtering and caching units installed in your data centre in order to make optimum use of the upstream bandwidth.
Installation	All **ProtexHA** installation is carried out by E2BN Engineers after local physical and networking requirements have been met.
System Management	System and local list management is done via an easy to use web interface. No direct access to, or knowledge of, the operating system is required. While not part of the standard service E2BN will, if requested, make local list changes on behalf of the client as required.
System Updates	**Protex** software updates and central list changes are automatically applied throughout the subscription period.
Remote maintenance	All remote maintenance of **ProtexHA** servers is performed over SSH from the E2BN management servers and a defined range of IP addresses within the client's network.
Upgradeable without loss of service	Extra capacity can be added and bought into use without any disruption to the existing service. Similarly individual servers can be maintained or replaced without loss of service.
Flexible Filtering Policies	
Age appropriate profiles	There are currently 15 standard filter profiles provided which are suitable for a range of age groups from Primary to Sixth form level and staff. All the profiles have been developed in partnership with schools and libraries to be appropriate for the user group in question. There is more detail about the filter profiles in the E2BN filtering policy at http://protex.e2bn.org/policy
Bespoke Local profiles	You can generate your own bespoke profiles to meet your specific requirements
Standard Profile Assignment	
Port Based	Filter profiles are assigned to a particular ports. In a Windows environment, for example, a Group Policy or other mechanism can then be used to direct users' browsers to the appropriate port.
Location based	Filter profiles can be applied to a range of IP addresses.

Optional Advanced User Authentication Module [1]	
The Protex Advanced User Authentication Module (AUAM) has been specifically developed to provide a standard method for implementing individual user logging and filter profile mapping for multiple authentication mechanisms.	
Status Box	An important feature of the AUAM is the colour coded Status Box. This window provides users and staff with valuable information about the filter profile in use and indicates which major categories of web sites are available or blocked to the user.
Active Directory	With Protex's AUAM filter profiles can be assigned to an Active Directory group. This will add network user names to the Protex logs and allow filter profile changes to be made in real time by changing users AD group membership (for example banning a user by putting them in a "sin-bin" group).
Other user authentication systems	Protex AUAM modules for other authentication mechanisms – Shibboleth, LDAP, etc. – will developed as required and the flexibility of the AUAM allows bespoke authentication methods to be catered for.
Teacher switch option	Teachers can switch filtering level, so that they can check the filtering experience of their students
AD Group prioritization	The filter profile a user is assigned will depend upon the order of the groups as specified within the Protex web-interface. If, for example, the **sixth form** group is assigned a higher priority than the **all-students** group then sixth form pupils will have the correct profile by virtue of being in this higher priority group.
Time-based policies	AUAM also allows filter profiles to be varied on a time basis allowing, for example, student access to games sites during break times.
Editable AUP	Protex provides a sample Acceptable Use Policy which can be edited via the web interface for displaying to all users when they start a session.
AUP display option	Whether the AUP is displayed to users is optional.

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1   Requires ProtexHA Authentication Service option.

Log in on demand	This option allows all users including "guests" to browse at a default level without authentication. Access at a higher level is granted via a login.

Filter Management

Local List updates	Changes to the lists can be made through the web interface and can be applied instantly. While not part of the standard service E2BN will, if requested, make local list changes on behalf of the client as required.
Central lists	The central lists are updated and distributed overnight to all Protex servers.
Central lists changes	Changes to the central lists made during the day are distributed every 15 minutes during the day. So, if an inappropriate site is discovered and the central lists modified all **Protex** systems will be blocking the site within 30 minutes. The same will also apply to sites which are **unblocked** centrally.
Automatic distribution of extreme sites	URLs added locally to some special categories (Porn for example) are automatically distributed to all **Protex** systems within 30 minutes to provide near realtime blocking of such sites found by local **Protex** administrators.
URL Filtering	Extensive lists of URLs are used to allow or block sites. The central lists are distributed to all **Protex** servers while local lists allow you to modify these central lists to tailor the filtering to your needs. Any local URLs override the central ones.
"Trusted" URLs	Allow sites to be completely unfiltered so that no further actions take place and all files types can be downloaded. By default all **.sch.uk** and **.gov.uk** sites are trusted.
Content Filtering	If a page is not blocked by URL and is also not explicitly trusted then the content of the page is scanned and either blocked or sent to the user based on the result. The content is compared to a large set of word and phrase combinations extensively and continuously tuned by E2BN to provide a robust mechanism for categorising and blocking inappropriate pages and sites not in the URL lists.
IWF	Internet Watch Foundation block lists are applied and cannot be overridden.
Search Words filtering	Individual or combinations of search words can be blocked for all major search engines.
URL pattern matching	In addition to standard URL blocking **Protex** also applies pattern matching rules to URLs.
Safe search	'Safe search' rules on various search engines can be enforced.
Image Safe Search	Enforces "safe search" rules on various image search engines and also blocks the thumbnails of images from sites which are in the block lists.
Referrer Allow	Allow pages to be displayed from sites which are normally blocked depending upon the "Referrer" header.
File type blocking	Depending upon the profile in use certain file types can be prevented from being downloaded from sites which are not explicitly trusted.
Proxy bypass filtering	Extensive lists of Proxy URLs and various other methods are employed by **Protex** to prevent access to Proxy bypass sites.
IP Block	Access to sites by using their IP address can be blocked.
IP Allow	Specific IP addresses can be added to the lists as required to override a general IP block.
HTTPS block	Access to non-trusted sites by https can be blocked
YouTube for Schools	The E2BNProtex YouTube for Schools service is activated by default on student profiles. If you wish to control your own YouTube playlists you can register with YouTube and activate it by filling in a simple form and Protex will do all the complex rule changes for you.

Monitoring & Logging

List change logging	All changes to the URL lists, both centrally and locally, are logged. This offers an off-site and independent audit trail in case of problems as well as providing E2BN with the option of applying centrally changes made locally.
Offsite backup	Protex system configuration and local lists are backed up centrally every night. If reinstallation is required, in case of hardware failure for example, then this backup will be used to restore the configuration and local lists automatically.
Proactive system monitoring	All servers in the **ProtexHA** arrays are proactively monitored with automated alerts sent to E2BN staff on loss of service and potentially poor performance. Historical data is held by E2BN on all HA systems.
Performance Monitoring	10-hour and 30-day performance graphs of each server in the **ProtexHA** array are available from the web interface.
Access reporting	Flexible analysis of all user web access including daily/weekly summary and ad hoc reports is provided via a dedicated log server.

Support

Documentation	Here: http://protex.e2bn.org/protexdoc/
Support	Email and telephone support is available for an agreed list of contacts.
Training	Initial training for local administrators will be given to selected staff at or soon after installation. Further training can be arranged for other staff as required.

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