Why Blue Coat for Mobile Operator Content Filtering?

The Blue Coat Mobile Operator Content Filtering solution is a carrier-class, flexible solution allowing mobile service providers to provide Internet communications, while giving the service provider complete control of the data, including:

- Control subscriber access to mobile web content based on user profile;
- Significantly accelerate web content delivery to subscribers; and
- Log and report on web usage down to the individual subscriber.

The Blue Coat Mobile Operator Content Filtering solution uses one of the industry’s most comprehensive URL filtering databases; Blue Coat WebFilter, in conjunction with the market-leading ProxySG proxy appliance to deliver the comprehensive control that mobile service providers require.

Flexible Control – Robust authentication and policy support allows ProxySG to use various attributes to define a subscriber’s profile, and to apply a default policy for users who cannot be authenticated or authorized. ProxySG even supports single sign-on, based on the Mobile Station Integrated Services Digital Network (MSISDN) number for the WAP gateway, or the RADIUS accounting message for 3G and GPRS users. ProxySG’s Visual Policy Manager (VPM) provides an intuitive, graphical interface to define and manage a wide range of policy rules, based on the subscriber’s profile. This allows operators to both implement safeguards to help prevent children from being exposed to inappropriate or illegal content, as well as increase revenues by offering subscribers access to premium Internet content.

For added content relevance, ProxySG can enrich HTTP requests with customer-specific information, eliminating the need for users to re-authenticate when visiting a partner website and providing valuable billing information to the mobile operator regarding individual user activity. Blue Coat’s comprehensive policy controls extend the functionality of standalone URL filtering products by adding content inspection and native proxy functionality for the most popular Web protocols.

Comprehensive URL Filtering – The Blue Coat WebFilter database contains nearly nine million websites, published in more than 50 languages, organized into 58 comprehensive categories, and updated daily. The WebFilter database is driven by the actual web usage patterns of customers, which drives the relevance and accuracy of its contents. As a result, WebFilter has an average 94% coverage range of requested sites in customer deployments, coupled with an extremely low rate of false-positives. In addition to allowing or blocking access to already categorized websites, Blue Coat WebFilter’s optional WebPulse service enables mobile operators to contend with the rapidly changing Internet by actually categorizing unrated URLs “on the fly” as a user attempts to access them.

Scalable Performance – Located directly in the data path of the mobile network operator’s core network, the Blue Coat solution removes one of the biggest barriers to greater adoption of mobile Internet use: poor network performance. At the heart of the Blue Coat Mobile Content Filtering solution is Blue Coat ProxySG. ProxySG is a purpose-built appliance that uses SGOS, a secure, object-based operating system specifically designed to handle web content. SGOS combines patented proxy caching technology with an optimized TCP stack for efficient web content acceleration. SGOS’s intelligent use of its integrated cache allows up to 50% of an application’s web objects to be cached and served directly to users, further enhancing site performance and scalability. The result – “on-proxy” URL filtering that is up to ten times faster than filtering products running on standalone servers.

Mobile Operator Content Filtering

![Deployment architecture: Blue Coat Mobile Operator Content Filtering](Image)

Blue Coat ProxySG is the most powerful content control solution for mobile service providers. Operators can implement policies across an entire network; for example, they can block the use of unauthorized VoIP applications. They can also correlate policy with their customer databases in order to restrict access based on the user’s age, premium-content subscriber, country of residence, location at the time the request for access was made, and a range of other parameters.

To manage their mobile Internet subscriber bases in
a cost-effective and scalable manner, operators can enable users to self-select their access options via a simple web front-end. This allows subscribers to opt-in to premium content services, and provides parents with a straightforward mechanism to prevent their children from accessing adult-only content.

Blue Coat’s caching, compression and bandwidth controls enable mobile operators to accelerate web content delivery while saving substantial network bandwidth. ProxySG can compress or decompress HTTP and HTTPS content and cache the response in various forms (e.g., content can be retrieved by ProxySG in uncompressed form, and delivered to the client in compressed form – or vice versa). And both compressed and uncompressed forms can be stored on the ProxySG for future use, further improving network performance. Bandwidth management controls allow mobile operators to classify, control, and if required, limit the amount of bandwidth used by a class of network traffic flowing in or out of ProxySG.

For high-performance, low-latency virus scanning of web downloads, mobile operators can also choose to deploy Blue Coat ProxyAV. ProxyAV is a purpose-built appliance designed for scalable performance and simple integration with ProxySG, with a choice of antivirus engines from Kaspersky (who have specific support for mobile operating systems), Sophos, Panda Software, and McAfee. Blue Coat is the leading provider of proxy appliances. Blue Coat’s Mobile Content Filtering solution integrates granular web access controls, comprehensive URL filtering, and accelerated web content delivery in a scalable, centralized proxy architecture that simplifies operations while significantly enhancing network performance.

Blue Coat Mobile Operator Content Filtering enables network operators to:

- Maximize ARPU by offering access to premium Internet content while earning data access revenues
- Protect their infrastructure investments by blocking non-standard, unauthorized applications and websites
- Set and enforce granular access policies for web content based on subscriber profile
- Implement safeguards to help prevent children from being exposed to inappropriate or illegal content
- Safeguard their subscribers and network infrastructure from viruses, worms, and Trojans with high-performance, low-latency AV scanning of all downloaded content
- Accelerate delivery of approved web applications and content to mobile devices through a proven proxy architecture with integrated compression and intelligent caching
- Allow customers to register themselves for premium content
- Authenticate subscribers using the existing security framework, including LDAP, RADIUS and MSISDN number.
- Receive 3rd party revenue by enriching HTTP requests with customer-specific information
- Comply with laws and regulations in operating company countries regarding Internet content

Key Features and Benefits:

Flexible Control

- Controls user access with robust authentication and policy rules
- Enables mobile operators to apply a default policy for users who cannot be authenticated or authorized
- Supports single sign-on, based on the Mobile Station Integrated Services Digital Network (MSISDN) number or RADIUS accounting message
- Enables mobile subscribers to easily self-select their mobile Internet access options via a web front-end
- Allows operators to classify, control, and throttle bandwidth used by a class of network traffic flowing in or out of ProxySG

Comprehensive URL Filtering

- Uses Blue Coat WebFilter, a highly relevant, accurate, and dynamic database of nearly nine million classified URLs
- Classifies uncategorized web pages in real-time using our WebPulse service

Scalable Performance

- Built from the ground-up for service provider scalability and performance
- Rapidly filters mobile Internet content accessed through handsets and data cards, including WML, HTML and xHTML pages
- Intelligent cache allows up to 50% of an application’s web objects to be cached and served directly to mobile users
- HTTP compression reduces required bandwidth, conserves CPU resources, and delivers previously compressed pages faster