McAfee Web Gateway

Organizations can do more over the web today than ever before. Today’s web offers a dynamic, real-time user experience. However, the web has also become a more dangerous place, with increasingly sophisticated attacks released every day. McAfee® Web Gateway is a critical defense for any organization to protect against emerging malware threats. It empowers organizations with secure Internet access while greatly reducing risk through an advanced security approach that combines powerful, local intent analysis with cloud-based protection powered by McAfee Labs.

As Internet use and sophistication increases, so does the need for advanced web security. Even seemingly ‘safe’ sites can be targeted for malware distribution.

In today’s world, simply blocking known viruses or restricting access to ‘known bad’ websites is not enough. Reactive techniques, such as signature-based antivirus and category-only URL filtering—while necessary—are insufficient to protect access to cloud applications or combat today’s exploits.

Since these solutions focus on known content and malicious objects or executables, they can’t prevent today’s attacks that hide malicious code within seemingly trustworthy HTTP or HTTPS traffic, or provide protection against unknown or emerging threats. The ability to enable secure, granular access to cloud applications, while proactively blocking unknown as well as known threats, is crucial.

Comprehensive Inbound and Outbound Protection

McAfee Web Gateway delivers comprehensive security for all aspects of web traffic in one high-performance appliance software architecture. For user-initiated web requests, McAfee Web Gateway first enforces an organization’s Internet use policy. For all allowed traffic, it then uses local and global techniques to analyze the nature and intent of all content and active code entering the network via the requested web pages, providing immediate protection against malware and other hidden threats. And, unlike basic packet inspection techniques, McAfee Web Gateway can examine SSL traffic to provide in-depth protection against malicious code or control applications that have been hidden through encryption.
Inbound protection also mitigates risks for organizations hosting websites that accept data or document uploads from external sources. In reverse-proxy mode, McAfee Web Gateway scans all content before it is uploaded, securing both the server and the content.

To secure outbound traffic, McAfee Web Gateway uses industry-leading Intel® Security Data Loss Protection technology to scan user-generated content on all key web protocols including HTTP, HTTPS, and FTP. It also protects against loss of confidential, sensitive, or regulated information leaking from the organization through social networking sites, blogs, wikis, or online productivity tools such as web-based mail, organizers, and calendars. McAfee Web Gateway further safeguards against unauthorized data leaving the organization through ‘bot-infected’ machines attempting to phone home or transmit sensitive data.

**McAfee Web Gateway Delivers the Industry’s Best Protection**

As the number one-rated web security solution in malware protection, McAfee Web Gateway uses a patented approach to signatureless intent analysis with the McAfee Gateway Anti-Malware Engine. Proactive intent analysis filters out previously unknown, or zero-day malicious content from web traffic in real time. By scanning a web page’s active content, emulating and understanding its behavior, and predicting its intent, McAfee Web Gateway prevents the delivery of zero-day malware to endpoints, dramatically reducing the costs associated with system cleanup and remediation.

We combine this analysis with Intel Security antivirus and global reputation technologies from McAfee Labs to quickly block known malware and malicious sites. Use of multiple technologies enables McAfee Web Gateway to provide greater protection while optimizing security on a single platform with different, yet complementary, technologies—something many organizations demand for their defense-in-depth security approaches.

- **McAfee Antivirus with real-time McAfee Global Threat Intelligence (McAfee GTI) file reputation**: Cloud-based McAfee GTI file reputation look-up closes the gap between virus discovery and system update/protection.

- **McAfee GTI web reputation and web categorization**: McAfee Web Gateway delivers web filtering functionality and protection through the powerful combination of both reputation and category-based filtering. McAfee GTI creates a profile of all Internet entities—websites, email, and IP addresses—based on hundreds of different attributes gathered from the massive, global data-collection capabilities of McAfee Labs. It then assigns a reputation score based on the security risk posed, enabling administrators to apply very granular rules about what to permit or deny.

- **Geolocation**: McAfee Web Gateway features geolocation, enabling geographic visibility and policy management based on the web traffic and user’s originating country.

For both web categorization and web reputation, organizations can choose between on-premises and cloud lookups, or a combination of both. Cloud lookups eliminate protection gaps between discovery/change and system updates, along with delivering broad coverage through data on hundreds of millions of unique malware samples.

**Advanced Threat Defense integration**

McAfee Web Gateway integrates with McAfee Advanced Threat Defense—the advanced malware detection technology from Intel Security that combines customizable sandboxing with in-depth static code analysis. Advanced Threat Defense together with the in-line scanning capabilities of the Gateway Anti-Malware Engine in McAfee Web Gateway provide the strongest protection solution available for Internet-delivered threats.
**Threat Intelligence sharing**
Today, many organization's security architecture exists in silos, not built to share threat intelligence between each other despite key intelligence existing at the endpoint, network, security information and event management (SIEM) solution, gateway, and more. When shared, this intelligence can be utilized for better protection against threats, detection of existing breaches, and efficient correction of compromised systems. However, through McAfee Threat Intelligence Exchange, Intel Security solutions—including McAfee Web Gateway—share intelligence with each other to bridge these gaps. McAfee Web Gateway delivers immense value in this process by creating and sharing new file reputations for zero-day malware discovered by the Gateway Anti-Malware engine, allowing, for example, endpoint devices to be protected before a new DAT is released. Additionally, more threats are stopped by McAfee Web Gateway with expanded threat intelligence delivered from McAfee Threat Intelligence Exchange.

**Protection for encrypted traffic**
Sophisticated cybercriminals have turned to SSL traffic (HTTPS) as a back door through the enterprise security barrier. Ironically, a protocol designed to provide security must also be assessed for risk. McAfee Web Gateway is the first security product to fully integrate malware detection, SSL inspection, and certificate validation. There's no need to route encrypted traffic to a separate box for SSL inspection. McAfee Web Gateway directly scans all SSL traffic to ensure the complete security, integrity, and privacy of encrypted transactions.

**Data loss prevention**
McAfee Web Gateway protects organizations from outbound threats—such as leakage of confidential information—by scanning outbound content over all key web protocols, including SSL. This makes it a powerful tool for preventing intellectual property loss, ensuring and documenting regulatory compliance, and providing forensic data in the event of a breach.

Leveraging the power of the McAfee Data Loss Prevention (DLP) solution set, McAfee Web Gateway includes built-in, predefined DLP dictionaries and enables custom dictionaries to be created through keyword matching and/or regular expressions.

For organizations that utilize cloud-based storage, built-in file encryption protects data that is uploaded to file sharing/collaboration sites against unauthorized access. Users cannot retrieve and view the data without going through the Web Gateway.

**Protection for off-network users**
As the workforce becomes more distributed and mobile, the need for web filtering and protection while seamlessly transitioning from the office to the road becomes increasingly important. McAfee Client Proxy, a tamper-resistant client agent, enables roaming users to seamlessly authenticate and redirect to either an on-premises Web Gateway located in a DMZ or the McAfee Web Gateway Cloud Service. This enables Internet access policy enforcement and full security scanning to be applied to roaming or remotely located users, even if their Internet access is via a public portal, such as at a coffee shop, hotel, or other Wi-Fi hotspot.

McAfee Web Gateway also allows enterprises to extend and enforce their security policies on mobile devices by directing web traffic to McAfee Web Gateway. Through standard device management and security controls, Web Gateway ensures that mobile devices are secured with advanced anti-malware protection and corporate web filtering policies. It also extends protection to mobile devices accessing content that is traditionally available on internal corporate servers such as intranets, wikis, Microsoft SharePoint servers, and other web-based solutions. While this information is generally not made available to certain mobile devices due to security concerns, McAfee Web Gateway deployed as a reverse proxy can enable controlled and secure access to these internal resources.
Ultimate Flexibility with McAfee Web Gateway

McAfee Web Gateway features a powerful, rules-based engine for policy flexibility and control. To streamline policy creation, McAfee Web Gateway offers an extensive prebuilt rules library with common policy actions. Organizations can pick and choose various rules, easily modify these rules, and share their own rules through an online community. For advanced administration, a unique combination of context-based rule criteria and shared lists opens the door to unlimited possibilities for problem solving and web security optimization. Interactive rules tracing simplifies rules debugging.

McAfee Web Gateway extends control to cloud applications, enabling granular, proxy-based control over how web applications are used. Organizations can apply over 1,600 controls to cloud applications, enabling or disabling specific functionality as needed, controlling who uses a web application and how it is used. Do you want to enable access to Dropbox but not allow uploads? No problem.

Flexibility and control also extend to user authentication and access. McAfee Web Gateway supports numerous authentication methods, including NTLM, RADIUS, AD/LDAP, eDirectory, cookie authentication, Kerberos, or a local user database. The McAfee Web Gateway authentication engine allows administrators to implement flexible rules, including the use of multiple authentication methods. For example, McAfee Web Gateway can try to transparently authenticate a user and, based on the result, prompt the user for credentials, use another authentication method, apply a restrictive policy, or simply deny access.

McAfee Web Gateway Identity, an optional add-on, includes single sign-on (SSO) connectors for hundreds of popular cloud-based applications. McAfee Web Gateway Identity provides the ability to improve security and reduce password-related help desk calls using an SSO launch pad where users can access authorized cloud applications with a simple click. Support for both HTTP POST and Security Assertion Markup Language (SAML) connectors provide coverage for a wide range of applications. Provisioning connectors enable system administrators to create and terminate user accounts on select Software-as-a-Service (SaaS) applications.

McAfee Web Gateway extends access control to streaming content through native streaming proxy support as well, providing bandwidth savings and reduced latency. Additional bandwidth controls can be set to enforce minimums, maximums, and prioritization for defined classes of traffic, allowing organizations to optimize use of their available bandwidth.

Agile Infrastructure and Performance with McAfee Web Gateway

McAfee Web Gateway is a high-performance, enterprise-grade proxy offered in a scalable family of appliance models with integrated high availability, support for virtualized machines, and hybrid deployment with McAfee Web Gateway Cloud Service. McAfee Web Gateway delivers deployment flexibility and performance, along with the scalability to easily support hundreds of thousands of users in a single environment.

You can mix deployment options as well. For example, you can route all web traffic to the on-premises appliance for on-network users, and route all off-network users to the cloud service, eliminating the cost of backhauling traffic over MPLS lines or VPN. Automated policy synchronization and reporting for hybrid on-premises and cloud deployments help streamline management, ensure consistent policy enforcement, and simplify reporting, tracking, and investigation.

McAfee Web Gateway offers numerous implementation options—from explicit proxy to transparent bridge and router modes—to ensure that your network architecture is supported.

With support for numerous integration standards, McAfee Web Gateway is designed to work in your unique environment. From the web cache communication protocol (WCCP), Internet content adaptation protocol (ICAP/
ICAPS), WebSocket protocol, to the socket secure (SOCKS) protocol, McAfee Web Gateway efficiently communicates with other network devices and security appliances.

Additionally, McAfee Web Gateway offers IPv6 support, helping larger organizations and federal institutions comply with regulations. McAfee Web Gateway bridges the gap between internal IPv4 and external IPv6 networks and applies all available security and infrastructure features and functions to the traffic.

**Unified Platform for the Future**

McAfee Web Gateway combines and integrates numerous protections that would otherwise require multiple standalone products. URL filtering, antivirus, zero-day anti-malware, SSL scanning, data loss prevention, and central management—all are unified in one appliance software architecture. Managing deployments is unified across all form factors, so one policy can be extended to on-premises appliances, clusters of appliances, virtual appliances, and the cloud service all from one single management console.

**Security Risk Management and Reporting**

The popular and respected security management technology, the McAfee ePolicy Orchestrator® (McAfee ePO™) platform, is supported by McAfee Web Gateway as a single source for all security reporting.

McAfee ePO software delivers detailed web security reporting through the McAfee Content Security Reporter extension. McAfee Content Security Reporter gives you information and forensic tools to understand how your organization is using the web, identify instances of unknown or rogue ‘shadow IT’ applications, comply with regulations, identify trends, isolate problems, and tailor your filtering settings to enforce your web security policies. McAfee Content Security Reporter offers an external, standalone reporting server designed to offload resource-intensive data processing and storage from the existing McAfee ePO server, enabling it to scale to meet the reporting needs of even the largest global corporations.

**Licensing**

For the ultimate in deployment flexibility and to help future-proof your investment, Intel Security offers all features of the McAfee Web Gateway and McAfee Web Gateway Cloud Service in a single suite: **McAfee Web Protection**. Deploy on-premises, in-the-cloud, or both for added flexibility and high availability—the choice is yours. You’ll find award-winning Intel Security anti-malware protection and comprehensive web filtering with either option.

McAfee Web Gateway hardware is sold separately.

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**Footnote:**

1. In tests conducted by AV-TEST, McAfee Web Gateway detected 94.5% of zero-day malware, 99.8% of malicious Windows 32 portable executable (PE) files, and 98.63% of non-PE files. **“McAfee Web Gateway Security Appliance Test,” AV-TEST GmbH.**

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