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WhitePaper

HOB WSP Web-Server-Gate

Secure Access for Mobile Users and
Business Partners to Enterprise Web Servers

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HOB WSP Web-Server-Gate

With the HOB WSP Web-Server-Gate (WSG), HOB provides secure remote access over the Internet to enterprise Webpages behind the firewall. This gives employees the opportunity to remotely access Web-based enterprise services. For example, salespeople can remotely query customer data in the central office, work with their SAP system over a Web browser or retrieve new information from the Intranet. E-mail queries via the Outlook Web Access front end of the MS Exchange Server are also possible. The Web-based software design from HOB makes this possible from all Internet-capable computers, without the need of any local installation.

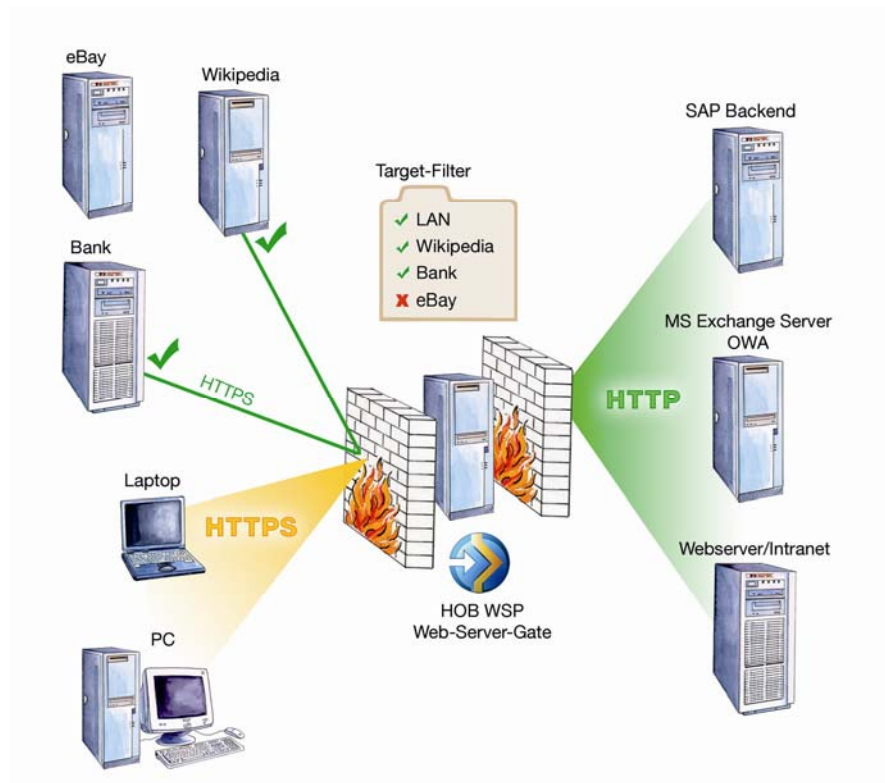
Security

The WSG supports a variety of authentication methods for different security requirements:

- User name / Password
- Token-based authentication (One Time Password)
Strong authentication via a small hardware token, e.g., RSA SecurID, Vasco DIGIPASS
- Certificate-based authentication
Strong authentication via a client-side certificate, preferably stored on a SmartCard

The HOB WSP Web-Server-Gate supports any authentication server that uses RADIUS.

The WSG is best placed behind the first firewall, in the DMZ. External access to internal enterprise Web- or application-servers can be carried out only over the WSG. Therefore, these servers are protected from anonymous access. The connection between users and the WSG is also usually secured via HTTPS; hereby HTTPS need not be available on the target system. Of course, HTTPS-capable target systems can also be accessed. An included target filter can be used to limit access to particular internal or external Websites, or to specifically enable them. This is done using either the domain name or the target IP address. In addition to accessing internal enterprise Websites, employees can, for example, access authorized external Websites, e.g., a bank for accounting purposes.



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Method of Operation

Distinguishing itself from other proxy solutions on the market, HOB's WSG is easy to configure. The WSG performs a complete analysis of the HTML and JavaScript source codes. To initiate access to an enterprise-internal Website, the user connects to the WSG's publicly available target address (e.g.: <https://www.my-company.tld>). After successfully logging in, the user can either access bookmarked target addresses in the browser window, or enter an address in the URL input field.



Input interface in Web browser

After making your selection, the desired Website opens in the browser window. The browser's address bar displays the URL as follows:

```
https://www.my-company.tld/http://www.target-address.tld  
(tld = Top level domain)
```

The segment of the address appended to "... my-company.tld/" is the actual target address. As you can see from the URL, the data exchange between the user and WSG is encrypted with HTTPS. Further functionalities of the Website require that the WSG alter the links contained therein. The following URL must be prefixed to every link:

```
https://www.my-company.tld/http://www. target-address.tld/
```

For example:

```
<a href="http://www. target-address.tld/link.html">Link</a> or  
<a href="link.html">Link</a> (relative link within the target page)
```

becomes:

```
<a href="https://www.my-company.tld/http://www. target-  
address.tld/link.html">Link</a>
```

In the simplest case (when HTML links are being used), this does not create much of a problem. Here, only the assignment of "href" need be found and altered. Finding links is more difficult when JavaScript is being used. In such cases, links may be dynamically generated in the Web browser. The example below shows the JavaScript code of a popular Internet news service. The HTML link is generated in the browser after the JavaScript code is interpreted:

```
document.write('<a href="/page/2_05.html?mod='+Random+'"  
class="text">Test</a>')
```

The variable "Random" is filled during the JavaScript runtime in the user's browser. If the value of this variable depends on client-specific factors (e.g., screen resolution, OS, etc.), then the HOB WSP Web-Server-Gate cannot ascertain the value. This represents a limit to the link finding capability.

The HOB WSP Web-Server-Gate provides users with easy and secure access to enterprise-internal Web pages and browser-based services. On the user's end, no installation of additional software is required. A plus for administrators, HOB WSP Web-Server-Gate requires very little administrative work and provides great freedom in the selection of the operating system, as it is available for numerous platforms:

- Microsoft Windows (x86, EM64T, Itanium)
- Linux (x86, EM64T, Itanium)
- Sun Solaris (Sparc, EM64T)
- HP-UX (PA-Risc, Itanium)
- IBM AIX

The easy configurability of the HOB WSP Web-Server-Gate results from its ability to interpret standard HTML- and JavaScript-code in Web pages.

Further information on HOB RD VPN and/or HOB WebSecureProxy can be found on the HOB Website (www.hobsoft.com).

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