



Windows[®] in a Browser **Secure Remote Access with HOB RD VPN**

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Introduction

This white paper describes the possibilities of "Secure Remote Access" for server-based computing environments with the Web-based secure remote access solution HOB Remote Desktop Virtual Private Network (HOB RD VPN). HOB RD VPN is a pure software solution that makes the world your office. Secure access to critical data and applications is guaranteed, from anywhere, at anytime, from any standard Web browser with a Java Virtual Machine. HOB RD VPN goes far beyond the classical IPSec VPN and SSL VPN approaches.

HOB RD VPN simply gives you ...Windows[®] in a Browser!

The Market – IPSec VPN's vs. SSL VPN's

IPSec VPN's require a manual installation of local client software. There are three types of VPN: Remote-access VPN's to connect telecommuters and mobile users to the enterprise WAN, Intranet VPN's, to connect branch offices and home offices within an enterprise WAN and Extranet VPN's, to give business partners limited access to the corporate WAN.

SSL VPN's use a combination of SSL encryption and proxy technologies to provide access to Web and corporate applications. They provide client and server authentication and data encryption between Web servers and Web browsers. An SSL VPN sits closer to the application layer than IPSec does, which means it can more easily enable the fine-grained access control necessary for remote access and extranet VPN's. Actually, an SSL VPN is easier than an IPSec VPN to use, set up, and support end users.

When it comes down to server-based computing environments, the main problem is that SSL VPN's basically were not designed for application connectivity, for example, with Terminal Services. Also, the promise to fully replace existing IPSec VPN environments just by using a SSL VPN gateway still cannot be kept.

Solution

HOB RD VPN goes far beyond the IPSec and SSL VPN approaches because it is especially designed for server-based computing environments and secure remote access to Windows[®] applications on Windows[®] Terminal Servers. HOB RD VPN can be used to replace IPSec VPN's, but it is seen more as an extension. In addition to providing Terminal Services, HOB RD VPN can also provide access to mainframes (TN3270E) and midrange systems like Unix/Linux and ISeries (Telnet and TN5250).



Not a Device – A Pure Software Solution

HOB RD VPN is not a device; it was deliberately designed as a pure software solution, and usually is installed on a Windows[®] server in the corporate DMZ. Tests in the lab have shown that HOB RD VPN allows up to 10,000 simultaneous connections over a standard 32-bit Windows[®] server with two 2.86 GHz processors and 2 GB RAM, whereas only 512 MB RAM was used.

Web Server on Board

For security reasons, administration facilitation and server consolidation, HOB RD VPN comes with an integrated Web server that hosts the Java applet used to connect to Windows[®] applications running on Windows[®] Terminal Servers from any standard Web browser on the client device.

Cross-Client Platform Support

Regardless of the local operating system, RD VPN can be used to access data and applications from any client operating system, such as Windows[®], Mac, Linux/Unix, even from PDA's.

HOB RD VPN – The Possibilities

HOB RD VPN gives you 3 secure remote access options: Windows[®] Terminal Server Computing (WTS), Desktop-on-Demand (DOD) and HOB VDI Business (VDI).

Windows[®] Terminal Server Computing

Windows[®] applications running on Windows[®] Terminal Servers (Windows Server 2008, Windows Server 2003 and Windows 2000 Server) can be easily accessed from anywhere, anytime just by using a Web browser with a JVM on the client device.

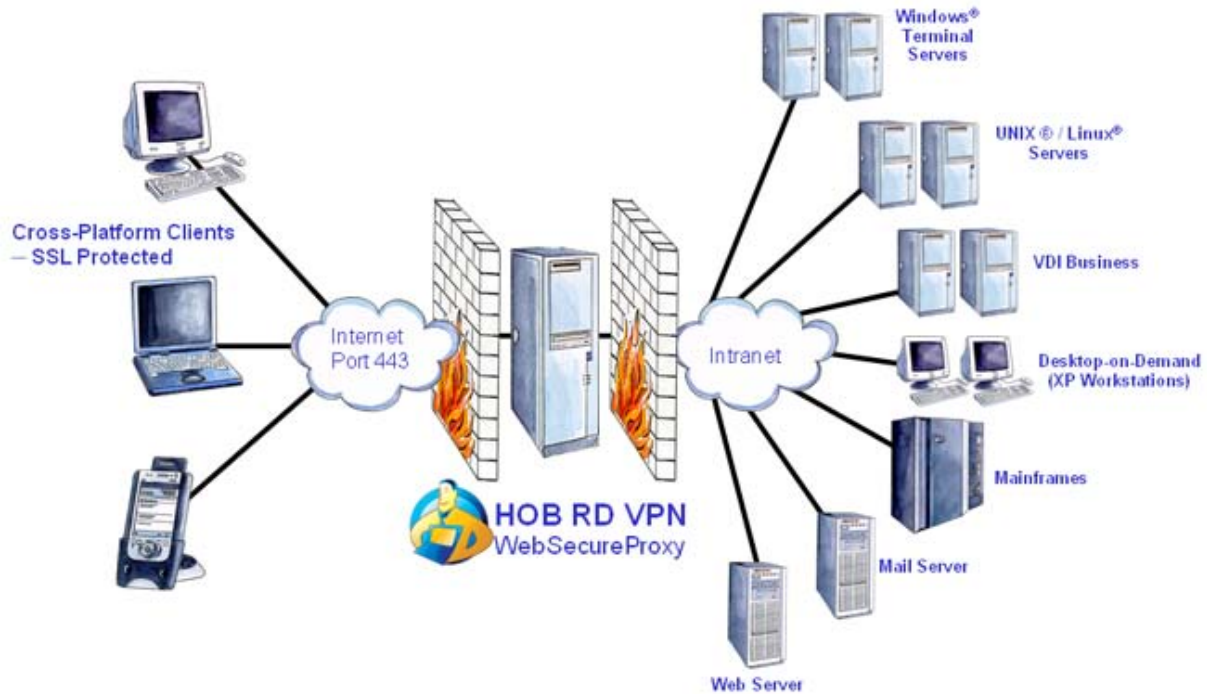
HOB Desktop-on-Demand

Besides Windows[®] Terminal Server computing, HOB RD VPN also enables you to remotely access your Windows XP Professional or Windows Vista desktop in the corporate network – even if you had shut it down when you left.

HOB VDI Business

With HOB VDI Business, single-user operating systems such as Windows XP or Windows Vista no longer run on the user's desktop PC, but in the computer center. These operating systems and the applications running with them then run in the computer center as virtual machines. VDI, as compared with WTS (Windows Terminal Services), has the advantage that applications can be used that are not WTS-capable. Also, the individual VDI users are more isolated from each other, which is often a desirable security advantage.

Solution Graphic



Administration

From the administrator perspective there two major advantages: There is no installation on the local client necessary AND the user does not need administrative rights to get **Windows® in a Browser**.

HOB RD VPN offers a transparent and easy-to-use administration, which allows fast session configuration and a reliable user and rights management.

Security

Authentication

There are numerous technologies that can be used for strong client authentication like Radius, Tokens, Smart Cards, Certificates with or without using OCSP.

Encryption

HOB RD VPN provides strong data encryption: up to 256-bit AES with DH (Diffie-Hellman) RSA (Rivest, Shamir and Adleman) encryption methods. In addition to this, RC2, RC4, DES and 3DES encryption algorithms are supported. Message digests like MD5, SHA-1 and RIPEMD160 round out the security mechanisms.

Protection of server environment



The heart of HOB RD VPN is a security gateway named WebSecureProxy, which allows only SSL communication between the client and the DMZ and protects your server environment, data and mission-critical applications.

No viruses

Occasionally, users need access to their local drives even when they are working in a server based-computing environment. Therefore, they are mapping one or more of their local drives to the server, which is dangerous because, potentially, a virus could be transferred to the server and could then infect the whole environment. HOB RD VPN supports anti-virus protection with an additional software component, HOB Enhanced Local Drive mapping, which resides on Windows[®] Terminal Servers. The data transfer between client and server is scanned and, in case a virus is detected, file access is blocked.

Certified Security

The security component "WebSecureProxy" has been evaluated at an accredited and licensed evaluation facility using the Common Methodology for IT Security Evaluation for conformance to the Common Criteria for IT Security Evaluation. The security assurance package is Common Criteria Part 3 conformant EAL2.

HOB RD VPN is currently undergoing CC certification for the level EAL4+.

Conclusion

Secure Remote Access in server-based computing environments

HOB RD VPN goes far beyond the classical IPsec and SSL VPN approaches and gives you remote access and **Windows[®] in a Browser** – with all the necessary security! It easily fits into existing enterprise architectures and provides maximal functionality with transparent and easy-to-use administration. It dramatically reduces the administration expenses. HOB RD VPN is more powerful because it is a pure software solution and not a device. It avoids the "classical" issues, such as the necessity of administration rights on the client computer, large bandwidth requirements, local software installations, and multiple key exchanges. And last but not least, HOB RD VPN is 64-bit compliant and supports IPv6.

It simply gives you **Windows[®] in a Browser** – Anywhere and Anytime.

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