



HOB RD VPN

Centrally stored Data and Applications, Anytime and Anywhere

Secure Remote Access – The Challenge

The permanent and performant availability of applications and company data on an ever increasing number of different mobile appliances – this will be a challenge for many companies in the near future. Worldwide, a growing number of employees are becoming more mobile and increasingly access data and applications from different places, at different times, and often from flexible workplaces.

In times of dramatically increasing cyber-crime, the balance act between the flexibility of work – anytime and anywhere – and the high security demands is one of the biggest challenges which companies have to face. Furthermore, the fast and easy networking with partners, suppliers and service providers must lead to new strategies for corporate IT. Trends like outsourcing to public clouds or Bring-Your-Own-Device require new concepts. Mostly, conventional solutions have difficulties to implement the new requirements for a flexible, granular and secure remote access solution. With HOB RD VPN you will easily meet all these needs.

HOB RD VPN – The Comprehensive Solution

HOB RD VPN is the comprehensive solution which provides you with remote access to your centrally stored data and applications – at any time and from any place – with almost any device. As a purely software-based solution, HOB RD VPN is highly scalable and supports many different platforms. Thus, your existing investments will be protected even in the event of new demands on corporate IT. HOB RD VPN is designed in order to fulfill your individual needs for a secure solution. You can easily administrate the access to data and applications, as well as the different roles and rights of the users. HOB RD VPN is multi-tenancy capable and provides the freedom to flexibly connect different users, e.g., partners, customers and suppliers, with a complete separation of these tenants.

Advantages at a Glance

- Comprehensive Secure Remote Access solution which optimally fulfills all your company requirements
- No client side installation or administration rights required – giving you the most cost effectiveness and flexibility
- User-friendly construction for a higher user acceptance
- Integrated, web-based Voice-over-IP client – in this way you can communicate more economically
- Consistently optimized for applications – enhance your productivity
- Usage of modern encryption technologies provides you high security
- Authentication with secure and flexible methods
- Easy and secure single sign-on with Kerberos to enhance your security
- More flexibility through the easy connection of various tenants and domains
- Allocation of roles and rights enables you a differentiated implementation of your security requirements
- Highest possible scalability and flexibility provides you with an easy implementation
- Integrated clustering solution ensures you a high availability and a high business continuity

Beyond the access control, all communication will be strongly encrypted, so you have a secure and confidential flow of information at the end of the whole concept. Further, HOB RD VPN is certificated by the German Federal Office for Information Security according to the Common Criteria EAL 4+ (Certificate # BSI-DSZ-CC-0832-2014).

Especially the independency of the users is emphasized. Your application, server, desktops and data will be connected very quickly and easily. This advantage provides higher user acceptance, and the task is carried out with higher agility and speed. Thus, the productivity of your company will be improved.

New technologies and optimizations like the HOB VNC-Bridge, Kerberos single sign-on and End-to-End Flow Control allow fast access to diverse target systems, simple authentication, and a fast and efficient workflow. These facts will increase employee satisfaction and enable them to focus only on essential tasks.

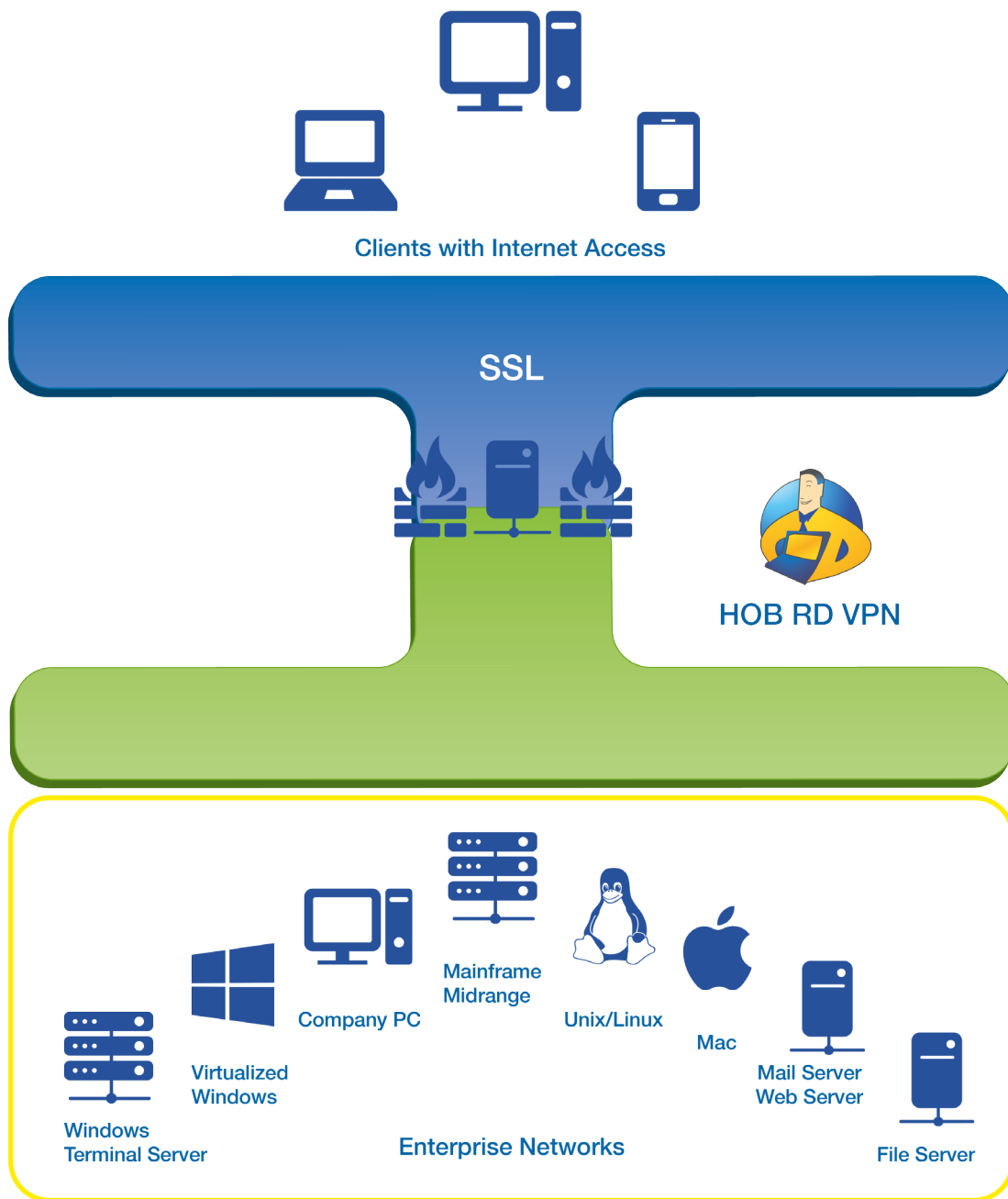
Cost reductions can be achieved even with a low IT budget. IT administrators can work more comfortably with HOB RD VPN. As a comprehensive, purely software-based solution, HOB RD VPN will support you with its easy implementation in existing IT infrastructures. HOB RD VPN offers you various functions from central configuration, support of different directory services, and the usage of one-time-password solutions to the highest degree of fail-safe operation through clustering, in order to cleverly solve existing problems with old solutions. The opportunity of individual adjustment to new environments and requirements of the corporate IT, within the maintenance of your existing investments, will help your decision to choose HOB RD VPN.

Strong Performance with RDP

RDP is the leading industry standard for the transmission of graphical user interfaces. RDP is very powerful and offers a multitude of useful functions. In a large-scale benchmark test, none of the many other protocols being tested against the latest version of RDP were superior or even comparable in functionality or performance.

In realistic benchmark tests between RDP and VNC protocol (RFB – Remote Framebuffer Protocol), VNC exchanged seven-times the amount of data. Also the comparison of RDP to the proven X-Protocol (X11, MIT) delivered results of a similar magnitude. The comparison of the exchanged data volume corresponds approximately to the ratio of the response-times, i.e., the amount of time the user waits, e.g., for the image to be refreshed.

HOB Remote Desktop Virtual Private Network



Flexible, secure and successful in the future

Here we go: HOB RD VPN

Your users only need a Java-enabled web browser to access centrally stored data and applications. In this way they can access, via the internet, all their applications, desktops and servers. After the analysis of the device, you will receive your individual access rights and settings from the user configuration, in accordance with the role defined for you. HOB RD VPN offers you a number of integrated access mechanisms to legacy applications, or to Remote Desktops on Windows, Apple Mac OS or Linux/Unix systems. These applications can run on physical servers as well on virtualized servers – depending on your demand.

More than an Application Access

HOB Desktop-on-Demand enables you with Wake-on-LAN, to externally start your workstation, e.g., in your office. You will efficiently save energy, since the desktops do not need to be switched on all the time. With the integrated remote desktop client from HOB – HOBLink JWT – you will be provided with a purely web based client with various functions. Based on HOB RD VPN, the transmitted data can be scanned for viruses within the remote desktop session. This feature will close the gap and increase the security for your corporate network. Currently, this function is not offered by any other solution in the market yet.

Flexible and worldwide Information Exchange with Verbal Communication

HOBPhone is a purely web-based Voice-over-IP client. This solution enables you and all your employees to make phone calls comfortably via your remote workstation. Thus, this supports the company to save cost for additional telephone lines. Moreover, the existing corporate telecommunication infrastructure can be connected very easily.

Comfortable Implementation of Corporate Requirements

Central installation and configuration – these are a matter of course for you within the usage of HOB RD VPN. You keep your control over the external user access to your corporate network. You lay down the rules and easily implement your corporate policies. The connection of different users and configuration with various domains is no longer a problem. The HOB tenant concept enables you an independent configuration. Whether the settings will be stored in the respective directory services or central in HOB RD VPN – you have the freedom to choose.

High Availability from the very Beginning

A further and special concept for an increased failure security will be provided with the clustering solution. You do not need any additional hardware or licenses for the construction of cluster nodes. Unique: all cluster nodes are on equal terms and synchronize even over great distances. Performing maintenance on cluster nodes is fast, without influencing running operations. Therefore, the implementation of business continuity can as well easily come to life in your company.

The Key to fulfill your Needs

HOB RD VPN offers you a granular configurable solution for remote access. The corporate requirements can be implemented more cost efficiently and more easily. You are provided a number of key functions – ideally for the realization of your individual requirements.

HOB RD VPN – Key Components for Remote Access

HOB RDS Computing – Access to Remote Desktop Services

HOB RDS Computing enables you an access to Microsoft Windows Remote Desktop Services (RDS) simply via browser and internet. With this platform-independent solution, you can use all Windows applications on the RDS server, regardless of the equipment of the client PCs – all you need is a Java-enabled web browser.

HOBPhone – Browser-based Voice-over-IP Solution

The Java-based SIP client registers with your corporate VoIP telephone system and enables you to make phone calls anytime and from anywhere in the world.

HOB Web File Access – Data Access via Web Browser

Regardless from which client platform access is being made: With this functionality, files can be exchanged with the enterprise network over a web browser. Windows or Samba shares can be accessed.

HOB Web Server Gate – Access to the Corporate Intranet

With HOB Web Server Gate (WSG) internal company web servers and web services can be securely accessed from outside. The company's internal web servers are thus protected. Access to these servers can only be granted after successful authentication with HOB RD VPN.

The target filter integrated into the HOB WSP Web Server Gate allows users to access only those web servers for which they are authorized. To increase security, caching data in the browser cache can be blocked.

HOB PPP Tunnel – Access to the Corporate Network

This HOB solution combines the advantages of IPsec VPN access with the simplicity of an SSL-VPN. The new procedure (patent pending) developed by HOB on the basis of the Point-to-Point-Protocol (PPP) enables complete network access over all protocols, such as TCP, UDP, and ICMP, to all resources in the internal network. Neither drivers nor any other additional software need be installed on the client device in order to get this access.

The PPP Tunnel is currently available for clients running Microsoft Windows Vista, Windows 7, Linux/Unix, Mac OS X, FreeBSD and Solaris.

Universal Client – Access with locally installed “3rd Party Applications”

HOB WebSecureProxy Universal Client (HOB WSP UC) is a gateway. It enables locally installed third party applications, e.g., SAP-GUI, to exchange data securely (SSL-encrypted) over the Internet.

HOB Desktop-on-Demand – Access to the Personal Desktop PC

HOB Desktop-on-Demand stands for access to Windows XP/Vista/Windows 7 workstations over the Internet – the ideal solution for remote users wanting to securely access data and applications in the office, whether from a home office or anywhere else with an Internet connection. A computer can even be accessed if it is shut off. To do this, the Windows PC's “Wake-on-LAN” function is called into action, enabling a remote booting.

HOB VDI-Business – Access to virtualized Windows Desktops

HOB VDI provides the user with access to a virtualized remote Windows Desktop. The user can work with all applications installed on the virtual Windows machine. If a connection is inadvertently interrupted, the OS remains for a specified time in a “disconnected” state and when the connection is re-established, the user is returned to the same session. Supported VMware guest systems include Windows XP, Windows Vista and Windows 7.

This solution also enables you to run applications that require enormous resources or that can't run on the WTS itself, for example, CAD applications. Differently than with the WTS, the user always has 100% of the virtual machine's capacity at his/her disposal.

Optional products

Legacy Access – Access to dialogue oriented Applications

HOB RD VPN offers you the option to safely access legacy applications due to SSL connections. Following protocols are supported by HOB RD VPN: TN3270, TN5250, VT-Telnet, HP-700, Siemens 9750, Siemens 97801, and SSH.

Remote Desktop Enhanced Services

HOB Remote Desktop Enhanced Services (HOB RD ES) are HOB-own software components that can be installed on a Windows Server using Remote Desktop Services. Therefore, the functionality of Remote Desktop Sessions will be improved in various points:

- True Windows
- Enhanced Load Balancing
- Enhanced Local Drive Mapping

True Windows

True Windows allows the full integration of remote applications in the local desktop. End users cannot identify any differences between local applications and windows terminal server applications.

HOB VNC-Bridge – Easy, Secure and Fast Remote Maintenance

HOB VNC Bridge enables you a performant access to all your VNC server targets. The solution is using HOBLink JWT for remote desktop connections. Here, a VNC client is not required anymore, instead, you only need a Java-enabled web browser. The main advantage is that you are using the fast RDP protocol for your slow internet connection.

Citrix Support– Access to further Applications

HOB RD VPN as well supports your access to Citrix XenApp or XenDesktop. The Citrix Receiver for Java will be supported for your clientless remote access.

Even user-specific tray icons are displayed on the client side. Additionally, session sharing is supported, enabling you to use your resources carefully, so that multiple WTS applications of a server can run on just one work session.

With the use of the True Windows Application Manager, all applications of a WTS-farm can be shown and ended, similar to the Windows Task Manager.

Due to Application Serving, when logging on to the terminal server, only a given application will be started automatically and not the entire Windows desktop will be available for the user.

Application Publishing allows you to “publish” certain applications and make them accessible for all users. The various Windows Terminal Servers can still be configured differently.

Enhanced Load Balancing

The load balancing function included in the standard scope of delivery distributes the load evenly to all machines in a server farm. With the “Enhanced Load Balancing” component, the administrator can more finely distribute the load and set criteria with which the load is calculated, e.g., CPU and network load, swap activity and memory utilization, or the number of active sessions.

Enhanced Local Drive Mapping

With Local Drive Mapping, Terminal Server applications can access the client’s local drives. Access can be made to local drives such as hard disks, memory cards, CD ROM drives, USB storage devices, etc. To protect the remote system from being contaminated by a virus from the client, HOB RD VPN also has an interface to a virus scanner.

HOB SCS – Unix-based operating system

HOB SCS (Secure Communications Server) is a hardened, stable Unix-based operating system using tried and proven Open Source Technology. When used as the platform for HOB RD VPN, HOB SCS is a full-fledged software appliance. Installation, maintenance and administration are minimal. When used as a software appliance in conjunction with the HOB SCS platform, HOB RD VPN benefits from real advantages in security, stability, performance and scalability.

HOB X11 Gate – Gateway for Access to Graphical Unix/Linux Applications

Up until now, X11-based applications could only be used remotely with restricted functionality and under considerable performance limitations. The HOB X11 Gate revolutionizes remote access to graphical Linux and Unix applications. The HOB X11 Gate, in connection with the Remote Desktop Protocol (RDP), enables full web-based access over a lean protocol with maximum performance.

HOB MacGate – Access to Apple Mac OS X

With the HOB MacGate users can easily and securely remotely access an Apple Mac desktop, even over the Internet. This can be done over any Java-capable browser, even when the connection is started from a Windows PC.

Background: Techniques

HOB WebSecureProxy – The central Server Component

Security and Performance

The HOB WebSecureProxy (WSP) is the core security component of the HOB RD VPN solution. It enables the SSL-encrypted client-queries to the servers and applications within the corporate network. All current encryption methods are supported, including AES with up to 256-bit key lengths. The HOB WSP has an integrated web server, which provides browser-based access to all applications. It can be deployed on many platforms, is highly scalable and thus well-suited for small and large installations. Even in very large and comprehensive IT infrastructures only a few performant servers are required. This reduces the susceptibility to failure as compared to conventional SSL appliances and is also cost-effective.

High Performance on Standard Hardware

High performance is guaranteed even for very large numbers of users: Tests with up to 10,000 concurrent sessions on a mid-sized server have proven this.

Supports Tokens for Authentication

Additional security can be achieved through the use of authentication systems, so-called tokens. A system with RADIUS interfaces are supported, e.g., RSA SecurID, SafeWord PremierAccess and Vasco Digipass.

Kerberos Secure Single Sign-on

Due to the Kerberos implementation, a secure Single Sign-on to ensure a secure authentication is provided.

Multi-tenancy - Support of complex Networks

The administrator can define different domains, so that even complex networks, where for example various Active Directory Domains can be found, can also be supported.

Roles for Users

The user receives privileges, which are bound to certain conditions.

Example: Depending on the status of the virus scanner, a user can be assigned different roles with different rights.

High Availability through Clustering

To increase fail-safety, several HOB WebSecureProxies can be grouped into a cluster. Every active session is known to each WSP, so that in the event that one should fail, smooth continued operation is still ensured. To the remote user the cluster appears as a single object.

Increased Performance due to End-to-End Flow Control

To increase the connection quality, optimizations for the whole data flow have been implemented. End-to-End Flow Control brings a higher stability of network connections with it.

SSL-Identifier - User-specific IP Addresses

To better identify users in the internal network, you can define a personal IP address for every user. The personal IP address is utilized for user specific connections to the internal network.

Support of client-side SSL-Certificates, e.g. on Smartcards

HOB RD VPN supports the usage of client certificates, which are read while establishing the SSL connections.

Secure E-Mail on Mobile Devices

The HOB WebSecureProxy can also be used to seal an e-mail server, so it cannot be directly accessed over the internet. The communication between e-mail client and HOB WSP takes place over POP3S, IMAPS and/or SMTPS.

Central Administration over LDAP directories

With the help of user administration, the administrator can centrally manage all configuration data. HOB RD VPN has integrated an internal directory to help manage user administration, and further supports various LDAP directories, e.g. Microsoft Active Directory or Novell eDirectory.

One TCP-Port all you need

All communication to the company network can take place over solely one TCP-Port, commonly over HTTPS-Port 443.

Anti Split Tunneling

With HOB Anti-Split Tunneling you can prevent users from accessing a different network while working with HOB RD VPN. Therefore, a higher safety of the system can be guaranteed.

System Requirements

HOB RD VPN is available for:

- Windows (x86, EM64T)
- Oracle Solaris (Sparc, EM64T)
- IBM AIX (PPC)
- HP-UX (IPF)
- Linux (x86, EM64T, IPF)
- FreeBSD (x86, EM64T)
- Software Appliance: HOB SCS

Clients

On the client side, any browser can be used - with full support of Java (1.5 or higher).

All operating systems are supported, including:

- Microsoft Windows
- Apple MAC OS X
- Linux

Support for IPv6

The HOB WebSecureProxy supports connections to the client using IPv6.

Virus Scan for Remote Desktop Sessions

Using the ICAP- interface in the HOB WebSecure-Proxy, it is possible to scan transmitted data within remote desktop sessions. Therefore, transmitted data will already be tested centrally upon potential safety hazards.

Further Information

- HOB Secure Remote Access
http://www.hobsoft.com/products/secure_remote_access/remote_access.jsp
- HOBLink JWT
<http://www.hobsoft.com/products/connect/jwt.jsp>
- HOBLink J-Term
<http://www.hobsoft.com/products/connect/jterm.jsp>
- HOB SCS
http://www.hobsoft.com/products/connect/HOB_SCS.jsp