



zGuard

Security for IBM e-server zSeries and IBM S/390

www.zGuard.de



Internet-Security Solution for IBM e-server zSeries und S/390

In the age of e-business, decentralized Client/Server-Systems are melting together with the mainframe to a unit of co-operation. This "interaction" of so-called e-Servers will lead to the fact, that the security-requirements of your company are strongly affected by your internet and or intranet-driven processes.

In most cases decentralized systems (PC-Servers, unix-based..) are protected by an enterprise-wide security-solution (e.g. multi-staged firewall) and DMZs (demilitarized zones).

A lot of attacks to your computers are realized from within, that means from any system behind the firewall, inside your company's-network.
Considering the size of such corporate-networks, an absolutely threat to your Super-Server.

The Mainframe remains unprotected !

In order not to impair the almost 100% availability of your applications on IBM e-server zSeries or S/390 and to build up additional protection against attacks that have conquered the enterprise-firewall

zGuard **Security for IBM e-server zSeries and IBM S/390**

has been developed.

Using zGuard

zGuard runs on every IBM e-server zSeries and IBM S/390 (G5/G6-CPU).

zGuard can be used either „native“ or in a logical partition (LPAR-mode).

zGuard installed as a VM-Guest takes advantage of the flexible administration possibilities of the VM-operating system. Using these VM-features, setting up a demilitarised zone' (DMZ) is an easy procedure.

zGuard is the overall protection for your Mainframe-Sever !

Networking-Support

zGuard supports all zSeries and S/390 network-connections, available at the moment.

- OSA-2
- OSA-Express Fast Ethernet und Gigabit
- PCI (Multiprise 3000)

Running in LPAR-mode and/or within a VM-System the following additional connections are available

- ESCON-CTC (Hardware Channel-to-Channel Connection)
- VCTC (virtual Channel-Connection, up to 1,9 Gbit/s)
- IUCV (esp. VM, up to 2,7 Gbit/s)

zGuard supports *HiperSockets* (internal IP-network „in the box“, zSeries-Hardware only) as well as *virtual LANs* in z/VM (VM-GuestLAN-Support, Ver. 4.2 and up) which makes it possible to use the *HiperSockets*-function (virtualised) on the S/390-Plattform (G5/G6-CPU).

Protection mechanism

Today attacks on your mainframe-systems are not recognised and therefore not logged and reported.

zGuard offers you an overview about attacks on your zSeries- or S/390-system and the successful defense of these attacks.

zGuard's purpose, is to additionally preserve the high-availability of your operating-systems on your e-server zSeries or S/390. Well-known attacks are already implemented and updated continuously.

zGuard offers extended protection to your business data, databases and mission-critical applications by means of individual configurable filters.

Functions of Protection

zGuard includes a complete Internet-Security-Solution for your e-server zSeries or S/390 consisting of the following components

Firewalling

- Protection for your e-server zSeries or S/390 against the intra/internet
- Logging and reporting of attempts to attack your system
- Denial of attacks
- Update of well-known attacks

Proxy-Server

- Restrict access to your e-server zSeries or S/390, user-based or system-based
- Restrict access to the internet, user-based or system-based
- Restrict access to unproductive websites („Garbage Filter“)
- HTTP and FTP Cache, which means less access to the Internet is necessary
- Optional: DNS-Server

VPN

- Access your e-server zSeries or S/390 via VPN-functions (Virtual Private Network) from nearly every location.
- ISP-Connection (Internet Service Provider) available
- Access your corporate network through a „secured tunnel“, over the internet.
- encrypted access to your company's LAN

Virus-checking

- Virus-scanning to control your network-traffic
- Integrated zSeries-/ S/390-function is in development
- already available as an Add-On-Feature

Statistics

- Used services and ports
- All access to the web
- Transparency about cost of computing and distribution
- Graphical diagram of your network-utilisation

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Linux-based

zGuard is a complete standalone Linux-distribution for IBM e-server zSeries and S/390.

No Linux-distributions from other vendors are necessary to run **zGuard**.
All **zGuard**-components are included on the installation media kit.

Choices of Installation

- IPL-able 3480 / 3490-Cartridge (LPAR)
- VM-Minidisk
- CD (Multiprise 3000 or HMC, Host Management Console)

The preferred installation method, according to your company's needs, will be determined in teamwork with the customer.

zGuards stability is based on the usage of high-level-quality open source software and extensions added to these programs.

For several years, the core-functions of **zGuard** are set up in business and frequently used as a security-solution in the Linux-Intel-market.

zGuard is an adaptation of this proven Internet-Security-Solution, optimized for use on IBM e-server zSeries or S/390.

We will gladly provide you with information dealing with reference customers and product-tests.

zGuard adapts the Linux-System to the hardware of a zSeries or S/390-Systems by integration of the IBM-modules.

To add the functions of high availability of a zSeries or S/390-Server to a Linux-System a special set of modules, so called 'device-drivers' are made available by IBM.

Using and implementing these modules with **zGuard** ensures a smooth communication of the **zGuard**-Linux-System with the high availability components of your IBM e-server zSeries or S/390 hardware.

Support

When using zGuard as your Internet-Security-Solution on your zSeries- or S/390-System, our support can be categorized as follows

Remote-Support and Remote-Configuration

Can be implemented (encrypted) via Internet

Hotline

zGuard-Hotline deals with all problems connected with your zGuard-System.

Updates

zGuard-Updateservices delivers the actual version of virus scan directly to you over the internet. Software-Updates, for security-reasons, will still be done with a CD, for the present.

Configuration

zGuard-Configurationservices help you with the first implementation of individual filters and configuration-variables. When changing your network (IP-addresses, segmenting... these changes will be re-configured within zGuard.

Alarmcenter

zGuard-Alarmcenter evaluates the transferred LOG-Files daily.

All logged attacks to your systems will be commented during evaluation and are shipped daily by e-mail. Additionally, you can monitor the actual status of zGuard and react to any events.

Security-Evaluation

zGuard-Security-Evaluation gives hints for wrongly configured users of your enterprise-network, who are consciously or unconsciously affecting your network-traffic and the stability of your mainframe.

Technical Informations

Internet-Security-Solution for IBM zSeries und IBM S/390 (G5/G6-Processor)

Runs native, LPAR-mode or as a VM-Guest

Supported Network-Interfaces

- OSA-2
- OSA-Express Fast Ethernet
- OSA-Express Gigabit
- PCI (Multiprise 3000)
- ESCON-CTC
- VCTC
- IUCV
- Hiper-Sockets

additional protection for your zSeries (S/390)

- Operating Systems
- Applications
- Data, Databases

linux-based

- Linux for zSeries (S/390)

Firewalling

- Recognition, Logging and notification of attacks

Proxy-Server

- Control of your TCP/IP-traffic
- Integrated Web- and FTP-Cache
- optional: DNS-Server

VPN

- ISP-Connections
(Internet Service Provider) possible
- secured „tunnelled“ connections
- encrypted access

Virus scanning

- Monitoring your network-traffic

Alarm center

- daily evaluation of LOG-files
- Hotline and remote-configuration
- Remote-Support (encrypted) possible
- secured update via Internet



Our Companies

becom Informationssysteme GmbH

In 1994 *becom Informationssysteme GmbH* was founded as a consulting-company. Today more than 90 employees have realised a turnover of more than 120 Mio. DM.

As an IBM Premier Business Partner we are certified for the entire IBM product portfolio.

Entering into partnerships with IT-companies, set up in business, we can profit from a multitude of resources. High qualified staff realises complex IT-infrastructure-solutions for middle- and large-scale enterprises.

We are focussed on

- IT Consulting and Services
- Linux
- e-business
- Server-Consolidation
- High-Availability
- Storage (SAN, NAS, iSCSI)
- Server Based Computing
- Networking
- Hardware Sales (all platforms)
- Software Sales
(IBM, Micorsoft, Lotus, Citrix, etc.)

Together with you we built up your optimal IT-Structure, integrating your existing systems and giving you a long-term protection of investments

The co-operation with *Frank Bernard Informationstechnik GmbH (fbit)* combines the competence of many years in Internet-Security Solutions and the mainframe know-how of *becom's* specialists, to protect your zSeries or S/390.

Frank Bernard IT GmbH (fbit)

Frank Bernard Informationstechnik GmbH is specialised in Internet-Security-Solutions.

Most companies miss special firewall know-how, so we offer complete support for our customers. In addition to classic support for consulting, design, bid-offerings, Update, Hotline, Remote-configuration and training we offer new services in areas like permanent attack-monitoring (alarm-center) and long-term analysis of log-files, regarding attacks, consumption and use of your internet-connection.

For a fast reaction to attacks, the newest software-release and the most actual virus scan is always available by encrypted Update. Our Hotline answers your questions, and takes care of your problems and defense of attacks to offer optimal protection, preventive or reactive.

We are focussed on

- Firewalling
- Cryptography
- VPN for LANs and Laptops
- Virus protection
- Intrusion Detection
- Security management

With zGuard, we shift our experience, for years on our LinuxWall product, to the mainframe and complete our portfolio with the inner security of your enterprise.

With our partner *becom* we use the synergy, resulting in the co-operation of two highly specialised companies, for your advantage.

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