

# vGUARD — SECURE ALL-IN-ONE SOLUTION FOR YOUR DATA CENTER

- + **Highest security for cloud computing and data center environments**
- + **Unique and scalable platform based on leading security, network, server and storage technology**
- + **Tested and optimized solution improves operational efficiency**
- + **Modular extensions for additional perimeter protection and connectivity**

Are you on the lookout for a secure and reliable data center infrastructure that can be adapted and upgraded quickly and easily? vGuard from InfoGuard provides state-of-the-art security, network, server and storage technologies on a single system platform. The secure all-in-one solution can be installed immediately and enables companies to get data center projects up and running quickly. At the same time, the platform offers sufficient flexibility to take care of all the needs of a modern and secure data center environment.

## vGuard — Secure infrastructure solution for virtualization

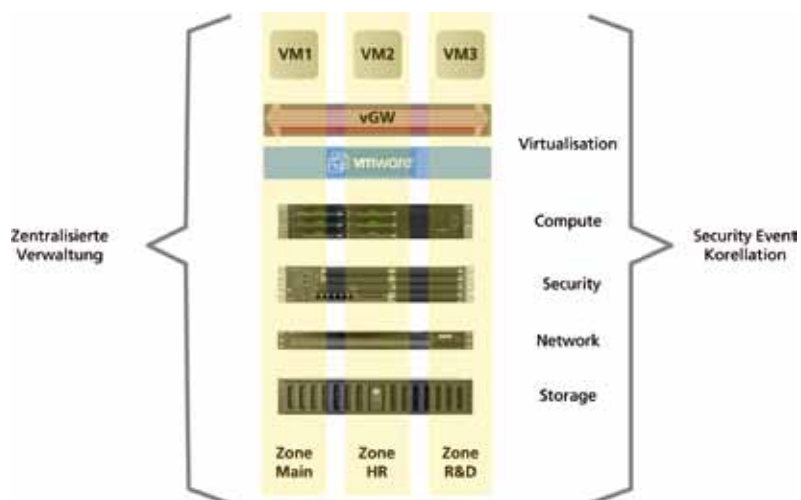
The vGuard platform is based on reliable technologies and scalable technologies of leading security, network, server and storage manufacturers. These include secure connectivity from Juniper Networks, x86 servers from Fujitsu, storage systems from NetApp and VMware virtualization software, configured as a flexible and fully-integrated solution for your data center. Thanks to our unique approach the security zones can be implemented with stack consistently throughout all data centers, this offers you the highest level of security



The Juniper switches and firewalls, Fujitsu's blade and rack servers, plus the NetApp FAS storage systems, enable customers to scale performance and capacity quickly and at reasonable cost to take account of the corresponding needs. They receive a perfect, tailor-made solution to satisfy the high demands placed on the data center.

### Maximum security in the data center

Our reference architecture fulfils the highest demands in terms of security and reliability.

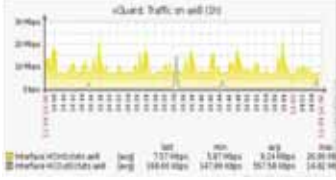


The Juniper firewalls ensure that the VLANs for the different security zones can be properly separated from one another. At the same time, they act as **IPS sensors** to identify and suppress any dedicated attacks. With the help of NetApp's vFiler technology each security zone is equipped with its own virtual storage environment. This enables an integrated active directory with file storage, an NFS for Unix-based systems or a generic iSCSI storage facility to be deployed for each zone.

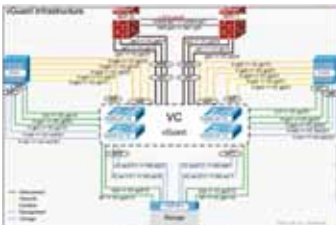
Juniper's (vGW) virtual gateway monitors the virtual environment and also ensures optimal performance of the VM host whilst ensuring the required hypervisor **visibility**. The vGW incorporates a powerful hypervisor-based **stateful firewall**, an integrated **intrusion detection service (IDS)** and special **antivirus protection** for virtual environments. The zone information provided by the physical Juniper **firewall** is synchronised with the vGW so that the security zones can be managed, even in the virtual world, via granular control rules.

## Secure operation and simple administration

The integrated **security incident and event management facility** provided by Juniper rounds off the complete security package. Security messages from different sources can be correlated allowing security problems to be identified and eliminated quickly. The **audit function** offers the security officer the possibility of generating compliance compliant reports (e.g. PCI DSS, HIPAA, etc.).



The entire administration is based on integrated management consoles. The dedicated monitoring solution is responsible for the availability and capacity management. The open interface, moreover, permits simple integration into existing management tools.

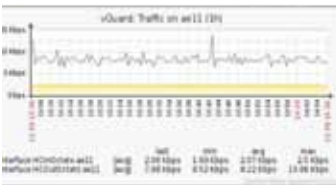


## Convincing upgrades for your specific requirements

### Perimeter Options

InfoGuard's vGuard reference architecture can be upgraded with a powerful perimeter protection service. This can be adapted to your requirements in a granular manner and is equipped with a dual firewall stack. The next generation firewall from Juniper acts as a VPN head-end as do the DMZ switches for terminating internet services. The users access the data center infrastructure conveniently and securely via the integrated **SSL-VPN** and a **two-factor authentication system**.

If required, Microsoft Services can be terminated in the perimeter via a **load balancer** from Kemp. The SSL off-loading function ensures that malicious attacks are identified and blocked so that only authorised users are able to access the internal zones and resources such as Exchange.



### Campus Options

whether the connection **is wired or via WLAN. The entire campus can be managed** via the Junos Space **on the management console**. To guarantee security the InfoGuard reference architecture also incorporates a **network access control** solution. This authenticates and authorises the user and only approves defined services for the person in question.

If you would like to construct your data center in a geo-redundant manner our vGuard environment can be easily upgraded with a **DNS load balancer, encryption or WDM systems**.

In combination with bespoke services provided by InfoGuard, vGuard is the optimal IT solution for your company. Thanks to consolidation in the data center IT operations will become more efficient and operating costs can be reduced.

# vGuard incorporates state-of-the-art and scalable technologies

InfoGuard's Entry Level vGuard is designed for redundant operation of 32 Windows servers, and can be expanded up to 192 servers.

## Juniper SRX550 next gen firewall

- + All-in-one security solution with routing, switching and WAN connectivity capabilities
- + Firewall cluster with 5.5Gbps firewall, 1Gbps IPSec VPN and 800Mbps IPS throughput
- + Unified Threat Management (UTM) incorporates antivirus/anti-spam, application security, IPS and web-filtering
- + Fixed WAN/LAN ports: 6x 10/100/1000 Base-T and 4x SFP



## Juniper EX4550 IP switch & router

- + Scalable, compact high-performance switching platform
- + Simplified management thanks to virtual chassis
- + High port density, up to 64x wire-speed 100/1000/10GbE ports



## Fujitsu PRIMERGY RX300 S7 rack servers

- + Dual socket rack server
- + Provides optimal balance of process performance, storage and E/A capacity
- + Supports up to 16 hard disks, 7 PCIe Gen 3 cards and 768 GB RAM (128GB RAM / vGuard Entry Level server version)



## NetApp FAS2240-4 storage systems

- + 10 GE fabric for all storage, computer and network resources
- + Cluster-capable, scalable unified storage system up to 432TB
- + 50% less storage requirement in virtual server environments



## VMware vSphere standard

- + One of the world's leading virtualization platforms for building cloud infrastructures
- + Uniform high performance for all virtualized application

## Optional extensions

### Perimeter

Juniper SSL-VPN  
SSH two-factor authentication  
Kemp Load-Balancer

### Campus

Juniper Network Access Control  
Juniper EX-Switches  
Juniper WLAN

Regardless or whether you want to find a secure and reliable solution for your data center, virtualize branches or consolidate and optimise application environments: our **vGuard** is the solution you are looking for.

## InfoGuard AG

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