



Imperva SecureSphere Appliances

DATASHEET

Scalable. Reliable. Flexible.

Imperva SecureSphere® appliances provide superior performance and resiliency for demanding data center environments. With fail open interfaces, SecureSphere platforms offer fast and cost-effective fail over. Out-of-band management enhances security, while front panel status messages and network interfaces improve manageability. SecureSphere appliances deliver a scalable, reliable and flexible platform to power Imperva's web, database, and file security solutions.

Supporting multi-gigabit throughput and tens of thousands of transactions per second, low latency SecureSphere appliances can manage heavy traffic loads without impacting application or network performance.

High Performance Architecture

SecureSphere appliances offer exceptional performance, allowing organizations to consolidate device management and address future bandwidth requirements. Supporting multi-gigabit throughput and tens of thousands of transactions per second, low latency SecureSphere appliances can manage heavy traffic loads without impacting application or network performance.

Fault Tolerant System Design

To maximize system uptime, SecureSphere appliances offer redundant, hot-swappable components including redundant power supplies and hard drives. In the event of a hardware failure, the redundant component will automatically take over, providing continuous system operations.

Expansion Options to Address Unique Business Needs

SecureSphere appliances can be extended to provide remote, out-of-band management and monitoring, performance acceleration, and more with expansion modules.

Options include:

- Intelligent Platform Management Interface (IPMI)
- Hardware Security Module (HSM)
- SSL acceleration
- Fibre Channel interfaces

Flexibility for High Throughput Environments

The X8510 and X10K appliances provide ultra-high performance by offering 5Gbps and 10Gbps throughput, respectively. These appliances are built on a common hardware platform with flexibility in mind. SecureSphere customers that start with an X8510 have the ability to later upgrade their appliance software, transforming the platform into an X10K with up to 10Gbps throughput. No matter how demanding of a data center you're running, Imperva has a high-performing platform to power SecureSphere Web, Database, and File Security solutions.

SecureSphere Virtual Appliances

SecureSphere Virtual Appliances deliver the complete SecureSphere product line in a software-only form factor. Expanding customers' deployment options, SecureSphere Virtual Appliances provide a cost effective and flexible way to deploy SecureSphere's data security solutions and align with organizations' data center virtualization strategies.

SecureSphere for Amazon Web Services

Imperva SecureSphere for Amazon Web Services (AWS) delivers the benefits of the renowned SecureSphere Web Application Firewall (WAF), Database Activity Monitoring (DAM) and Database Firewall (DBF) while natively leveraging important AWS features like VPC, CloudFormation, CloudWatch, and Elastic Load Balancing.

SecureSphere for Microsoft Azure

SecureSphere for Azure protects business-critical applications hosted in the Microsoft Azure cloud from advanced web attacks and audits/monitors access to sensitive data in Azure. It streamlines deployments and extends scalability and disaster recovery in the cloud, by leveraging the built-in features in Azure.

SecureSphere appliances can be extended to provide remote, out-of-band management and monitoring, performance acceleration, and more with expansion modules.

SecureSphere Hardware Appliances

| SPECIFICATION | X10K | X8510 | X6510 | X4510 | X2510 | |
|---|---|--|---|--|--|-------------------------------------|
| Fault Tolerance | Triple hot-swap hard drives Dual hot-swap power supplies | Triple hot-swap hard drives Dual hot-swap power supplies | Triple hot-swap hard drives Dual hot-swap power supplies | Dual hot-swap hard drives Dual hot-swap power supplies | Dual hot-swap hard drives Dual hot-swap power supplies | |
| Throughput | 10 Gbps | 5 Gbps | 2 Gbps | 1 Gbps | 500 Mbps | |
| DAM IPU, for sizing ¹ | 72,000 IPU | 36,000 IPU | 18,000 IPU | 9000 IPU | 5000 IPU | |
| RSA/Sec (2048bit) ² | 27,500 | 27,500 | 13,500 | 3,000 | 2,500 | |
| Latency ³ | < 5ms | < 5ms | <5 ms | <5 ms | <5 ms | |
| Interface Module Slot 1 | Default | 2 x 10G SR | 4 Copper | 4 Copper | 4 Copper | 4 Copper |
| | Optional | 4 Copper OR 4 x 1G OR 2 x 10G SR/LR | 4 Copper OR 4 x 1G OR 2 x 10G SR/LR | 4 Copper OR 4 x 1G OR 2 x 10G SR/LR | 4 Copper OR 4 x 1G OR 2 x 10G SR/LR | 4 Copper OR 4 x 1G OR 2 x 10G SR/LR |
| Interface Module Slot 2 | Default | N/A | 4 Copper | 4 Copper | 4 Copper | N/A |
| | Optional | 4 Copper OR 4 x 1G OR 2 x 10G SR/LR | 4 Copper OR 4 x 1G OR 2 x 10G SR/LR | 4 Copper OR 4 x 1G OR 2 x 10G SR/LR | 4 Copper OR 4 x 1G OR 2 x 10G SR/LR | 4 Copper OR 4 x 1G OR 2 x 10G SR/LR |
| Max Network Segments | Bridge (4), Reverse Proxy (9), Non-Inline | Bridge (4), Reverse Proxy (9), Non-Inline | Bridge (4), Reverse Proxy (9), Non-Inline | Bridge (4), Reverse Proxy (9), Non-Inline | Bridge (4), Reverse Proxy (9), Non-Inline | |
| Inline Fail Open (bridging only) | Up to 4 Bypass Segments | Up to 4 Bypass Segments | Up to 4 Bypass Segments | Up to 4 Bypass Segments | Up to 4 Bypass Segments | |
| Intelligent Platform Management Interface (IPMI) Port | 1 Copper IPMI | 1 Copper IPMI | Optional RJ45 Port | Optional RJ45 Port | Optional RJ45 Port | |
| Hard Drive | 3 x 2TB RE4 (RAID 5) | 3 x 2TB RE4 (RAID 5) | 3 x 2TB RE4 (RAID 5) | 2 x 2TB RE4 (RAID 1) | 2 x 2TB RE4 (RAID 1) | |
| Memory | 128 GB DDR3 | 128 GB DDR3 | 64GB DDR3 | 32GB DDR3 | 16GB DDR3 | |
| Serial Port | Console RJ45 | Console RJ45 | Console RJ45 | Console RJ45 | Console RJ45 | |
| USB Port | 2 ports | 2 ports | 2 ports | 2 ports | 2 ports | |
| Out-of-Band Port Management | 2 x 100/1000 Copper | 2 x 100/1000 Copper | 2 x 100/1000 Copper | 2 x 100/1000 Copper | 2 x 100/1000 Copper | |
| SSL Acceleration | Optional SSL High performance | Optional SSL High performance | Default SSL Standard performance Optional SSL high performance | Optional SSL standard performance | Optional SSL standard performance | |
| Add-Ons | Default: IPMI // Optional: Fiber Channel, HSM | Default: IPMI // Optional: Fiber Channel, HSM | Optional: Fiber Channel, HSM, IPMI | Optional: Fiber Channel, HSM, IPMI | Optional: Fiber Channel, HSM, IPMI | |
| Power Supply | Dual 600W | Dual 600W | Dual 600W | Dual 400W | Dual 400W | |
| AC Power | 100-240V | 100-240V | 100-240V | 100-240V | 100-240V | |
| Typical Consumption (W) | Idle: 185.11, Full: 206.55 | Idle: 187.53, Full: 209.73 | Idle: 117.72, Full: 133.07 | Idle: 93.11, Full: 108.28 | Idle: 55.52, Full: 79.41 | |
| Typical Heat Output (BTU) | Idle: 633.07, Full: 706.40 | Idle: 641.34, Full: 717.29 | Idle: 402.60, Full: 455.09 | Idle: 318.42, Full: 370.33 | Idle: 189.88, Full: 271.58 | |
| Form Factor | 2U | 2U | 2U | 2U | 2U | |
| Dimensions | 88 x 446 x 645mm | 88 x 446 x 645mm | 88*446*645mm | 88*442*513mm | 88*442*513mm | |
| Weight | 18.95Kg | 19.25Kg | 18.45kg | 14.75kg | 14.45kg | |
| Operating Environment | Temperature: 5° - 40°C Relative Humidity: 20 - 90% | Temperature: 5° - 40°C Relative Humidity: 20 - 90% | Temperature: 5° - 40°C Relative Humidity: 20 - 90% | Temperature: 5° - 40°C Relative Humidity: 20 - 90% | Temperature: 5° - 40°C Relative Humidity: 20 - 90% | |
| Storage Environment | Temperature: 0° - 70° C Relative Humidity: 20 - 90% | Temperature: 0° - 70°C Relative Humidity: 20 - 90% | Temperature: 0° - 70°C Relative Humidity: 20 - 90% | Temperature: 0° - 70° C Relative Humidity: 20 - 90% | Temperature: 0° - 70° C Relative Humidity: 20 - 90% | |
| Safety Agency Approval | CE, TUV, FCC, CB, VCCI, RCM | CE, TUV, FCC, CB, VCCI, RCM | CE, TUV, FCC, CB, VCCI, RCM, KCC | CE, TUV, FCC, CB, VCCI, RCM, KCC | CE, TUV, FCC, CB, VCCI, RCM, KCC | |
| Supported SecureSphere Products | Web Application Firewall Database Activity Monitor Database Firewall File Firewall | Web Application Firewall Database Activity Monitor Database Firewall | Web Application Firewall Database Activity Monitor Database Firewall SecureSphere for SharePoint | Web Application Firewall Database Activity Monitor Database Firewall SecureSphere for SharePoint File Firewall | Web Application Firewall Database Activity Monitor Database Firewall SecureSphere for SharePoint File Firewall | |
| Database Agents Included | 100 | 100 | 100 | 50 | 25 | |
| Database Vulnerability Assessments Included | 1600 | 800 | 400 | 200 | 100 | |

¹ The Imperva Performance Units (IPU) is a proprietary metric that represents the maximum recommended load on a gateway, and is a number used for sizing and load balancing SecureSphere appliances in a given deployment. IPU is computed based on a number of metrics including, but not limited to, the total number of database servers, the total number dB cores, and type of dB used in the deployment.

² Measured with 'high performance' SSL card.

³ SSL traffic latency measured with SSL card.

SecureSphere Hardware Appliances

| SPECIFICATION | X2020 | X1020 |
|--|--|---|
| Fault Tolerance | Not available | Not available |
| Throughput ⁴ | 500 Mbps | 100 Mbps |
| RSA/Sec (2048bit) ⁵ | 6000 | 1200 |
| Latency | Sub-millisecond | Sub-millisecond |
| Interfaces | 4 x 1G Copper 2 x 1G Copper (for management) | 4 x 1G Copper 2 x 1G Copper (for management) |
| Max Network Segments | (2) Bridge; (5) Proxy, Non-inline | (2) Bridge; (5) Proxy, Non-inline |
| Inline Fail Open (Bridging only) | 2 bypass segments | 2 bypass segments |
| Hard Drive | 2 TB | 2 TB |
| Memory | 16 GB | 16 GB |
| Serial Port | RJ45 connector | RJ45 connector |
| USB Port | 2 | 2 |
| SSL Acceleration | Optional | Optional |
| Power Supply | 220 W | 220 W |
| AC Power | 100-240V, 50-60 Hz | 100-240V, 50-60 Hz |
| Typical Consumption | 106.7 W | 106.7 W |
| Typical Heat Output | 364 BTU/Hr | 364 BTU/Hr |
| Form Factor | 1U | 1U |
| Dimensions | 17.25 x 16.38 x 1.73 inches 438 x 416 x 44 mm | 17.25 x 16.38 x 1.73 inches 438 x 416 x 44 mm |
| Weight | 13.65 lbs (6.2 kg) | 13.65 lbs (6.2 kg) |
| Operating Environment | Temperature: 5° - 40°C Relative Humidity 20 - 90% | Temperature: 5° - 40°C Relative Humidity: 20 - 90% |
| Storage Environment | Temperature: 0° - 70°C Relative Humidity 20 - 90% | Temperature: 0° - 70°C Relative Humidity: 20 - 90% |
| Safety Agency Approval | CE/FCC/cTUVus/VCCI/CCC/KCC/CB | CE/FCC/cTUVus/VCCI/CCC/KCC/CB |
| Supported SecureSphere Products | Web Application Firewall Database Assessment | Web Application Firewall Database Assessment |
| Database Vulnerability Assessments Included ⁶ | 100 | 25 |

⁴ Throughput figures represent layer 7 Web application firewall performance

⁵ Measured with standard SSL card

⁶ Database vulnerability assessments only included with Database Assessment

Ultra High Bandwidth

SecureSphere, in conjunction with our network visibility partners, delivers a scalable, high-performance data center security solution for your bandwidth-intensive applications. Leveraging solutions from Net Optics, an Ixia company, and Gigamon, SecureSphere deployments easily scale to meet the needs of high bandwidth and cloud deployments. These network visibility solutions distribute your high volume of inbound traffic across multiple SecureSphere gateways, ensuring only relevant protocols are sent to SecureSphere web, database, and file security gateways.

SecureSphere Management Appliances

Imperva's SecureSphere management products deliver superior performance, scalability and unified management capabilities for any size deployment. Whether you're managing a small data center, or a large number of business units, data centers, or customers, SecureSphere products give you the visibility and control to minimize administrative overhead and ensure a strong data security posture. Management appliances support the SecureSphere Manager and SecureSphere Manager of Managers products.

| SPECIFICATION | M160 | M120 |
|---|---|---|
| Fault Tolerance | Dual hot-swap hard drives Dual hot-swap power supplies | Not Available |
| Memory | 32GB DDR3 | 16 GB |
| Hard Drive | 2 x 500GB 10K RPM (RAID 1) | 2 TB |
| Serial Port | RJ45 connector | RJ45 connector |
| USB Port | 2 ports | 2 ports |
| Intelligent Platform Management Interface (IPMI) Port | Optional RJ45 Port | Not Available |
| Fibre Channel | Optional | Not Available |
| Management Port | 2 x 100/1000 Copper | 2 x 100/1000 Copper |
| Power Supply | Dual 400W | 220 W |
| AC Power | 100-240V | 100-240V, 50-60 Hz |
| Typical Consumption | Idle: 80.40 Full: 94.71 | 98.7 W |
| Typical Heat Output | Idle: 274.98 Full: 323.89 | 337 BTU/Hr |
| Form Factor | 2U | 1U |
| Dimensions | 88 x 442 x 513 mm | 438 x 416 x 44 mm |
| Weight | 14.15kg | 13.43 lbs (6.1 kg) |
| Operating Environment | Temperature: 5° - 40°C Relative Humidity 20 - 90% | Temperature: 5° - 40°C Relative Humidity 20 - 90% |
| Storage Environment | Temperature: 0° - 70° C Relative Humidity 20 - 90% | Temperature: 0° - 70° C Relative Humidity 20 - 90% |
| Safety Agency Approval | CE, TUV, FCC, CB, VCCI, RCM, KCC | CE, FCC, cTUVus, VCCI, CCC, KCC |
| Supported SecureSphere Products | MX, SOM | MX |

SecureSphere Virtual Appliances

SecureSphere Virtual Appliance provides the complete SecureSphere product line in a cost effective, simple, and easy to install virtual appliance. IT organizations can choose between physical or virtual SecureSphere deployments depending on their datacenter virtualization strategy. With SecureSphere Virtual Appliances, customers can leverage existing hardware for appliance consolidation, maximize the utilization of their servers and network infrastructure and cut power, cooling and support costs. The simplicity and flexibility of SecureSphere Virtual Appliances enable organizations of any size to quickly provision new security services as requirements change. Within a VMware ESX server environment, SecureSphere Virtual Appliances can inspect inter-VM traffic and support disaster recovery and workload migration requirements.

| PERFORMANCE | V6500 | V4500 | V2500 | V1000 | VM150 |
|---|---|--|--|--------------------------|---|
| Throughput (Web, Database and SharePoint security products ⁷) | Up to 2 Gbps | Up to 1 Gbps | Up to 500 Mbps | Up to 100 Mbps | Not applicable |
| Throughput (File Activity Monitor and File Firewall) | Not applicable | Up to 4 Gbps | Up to 2 Gbps | Not applicable | Not applicable |
| Supported SecureSphere Products | Database Activity Monitoring, Database Firewall | Web Application Firewall Database Activity Monitor Database Firewall File Firewall SecureSphere for SharePoint | Web Application Firewall Database Activity Monitor Database Firewall File Firewall SecureSphere for SharePoint | Web Application Firewall | Manager Manager of Managers |
| MINIMUM REQUIREMENTS PER PHYSICAL HOST | | | | | |
| VMware Hypervisor | ESX/ESXi 4.x/5.x/6.x | | | | ESX/ESXi 4.x/5.x/6.x |
| Hyper-V Hypervisor | Microsoft Hyper-V 2012/2016 | | | | Microsoft Hyper-V 2012/2016 |
| Processor | Dual core server Intel VTx or AMD-V | | | | Dual core server Intel VTx or AMD-V |
| Memory | 16 GB | 8 GB | 4 GB | 4 GB | 8 GB ⁹ |
| Hard Drive | 250 GB | | | | 250 GB |
| Network Interface | Hypervisor-supported network interface card | | | | Hypervisor-supported network interface card |
| MINIMUM REQUIREMENTS FOR EACH GUEST SECURESPHERE VIRTUAL APPLIANCE | | | | | |
| CPU | 8 | 4 | 2 | 2 | 4 ¹⁰ |
| Memory | 16 GB | 8 GB | 4 GB | 4 GB | 8 GB ^{8,9} |
| Disk Space | 250 GB | 160 GB | 160 GB | 160 GB | 160 GB |

⁷ SecureSphere for SharePoint not supported on V1000.

⁸ Expandable to 32GB for SecureSphere V11.0 and above.

⁹ 4 GB memory required for SecureSphere V11 and V12; 8 GB memory required for SecureSphere V13 and above.

¹⁰ 2 CPUs required for SecureSphere V11 and V12; 4 CPUs required for SecureSphere V13 and above.

SecureSphere for Amazon Web Services

SecureSphere for Amazon Web Services (AWS) protects applications and data in the Amazon cloud from attack, while also streamlining compliance. SecureSphere for AWS is specifically designed to leverage native AWS infrastructure capabilities, such as AWS CloudFormation, so it delivers superior capabilities and uniquely addresses the security needs of AWS applications.

SecureSphere Web Application Firewall is also available on AWS GovCloud, to enable government agencies to quickly and easily migrate sensitive apps/workloads to the cloud, with a peace of mind that comes from knowing the data and applications are protected.

| PERFORMANCE | AV6500 | AV2500 | AV1000 | AVM150 |
|---|--|--|--|----------------------|
| Supported SecureSphere Product | Database Activity Monitor ¹⁴ Database Firewall ¹⁴ | Web Application Firewall ¹¹ Database Activity Monitor ¹² Database Firewall ¹² | Web Application Firewall ¹¹ | MX Management Server |
| Throughput | Not applicable | Up to 500 Mbps | Up to 100 Mbps | Not Applicable |
| MINIMUM REQUIREMENTS FOR EACH SECURESPHERE FOR AWS INSTANCE | | | | |
| Minimum AWS Instance Type | R4 2x Extra Large | M4 Extra Large | M3 Large | M3 Extra Large |
| SECURESPHERE FOR AWS TECHNICAL DETAILS | | | | |
| AWS Service Integration | EC2, CloudFormation, CloudWatch, VPC, AutoScale (WAF only) | | | |
| SecureSphere Operating System | CentOS version 6.3 | | | |
| Delivery Method | 64-bit Amazon Machine Image (AMI) | | | |

SecureSphere for Microsoft Azure

SecureSphere protects your applications hosted on Microsoft Azure cloud infrastructure from attacks and audits/monitors access sensitive data. SecureSphere is designed to leverage native Azure infrastructure capabilities, such as Azure Resource Manager (ARM) to streamline deployment, and Azure Application Insights to monitor WAF instances.

| MICROSOFT AZURE | MV6500 | MV2500 | MV1000 | MVM150 |
|---|--|--|--|------------------------|
| SecureSphere Products Supported | Database Activity Monitor ¹⁴ Database Firewall ¹⁴ | Web Application Firewall ¹³ Database Activity Monitor ¹⁴ Database Firewall ¹⁴ | Web Application Firewall ¹³ | Management Server (MX) |
| Performance: HTTP Throughput | Up to 2 Gbps | Up to 500 Mbps | Up to 100 Mbps | Not Applicable |
| MINIMUM REQUIREMENTS FOR EACH SECURESPHERE FOR AZURE INSTANCE | | | | |
| Minimum Azure Instance Type | Standard_D8s_v3 | A3/D3 for HTTP only D3v2/D4 for HTTPS Standard_D2s_v3 | A2 for HTTP only A3 for HTTPS | A3 Standard |
| SECURESPHERE FOR AZURE TECHNICAL DETAILS | | | | |
| SecureSphere OS | CentOS version 6.3 | | | |
| Delivery Method | 64 bit Azure Virtual Machine (VM) | | | |

¹¹ SecureSphere WAF for AWS supports SecureSphere OS 10.5 or later

¹² SecureSphere DAM and DBF for AWS support SecureSphere OS 11.5 or later

¹³ SecureSphere WAF for Azure supports SecureSphere OS 11.5 or later

¹⁴ SecureSphere DAM and DBF support both AWS and Azure on SecureSphere OS 13.2 or later

Imperva SecureSphere Cyber Security

Imperva SecureSphere is a comprehensive, integrated security platform that includes SecureSphere Web, Database and File Security. It scales to meet the data center security demands of even the largest organizations, and is backed by Imperva Application Defense Center, a world-class security research organization that maintains the product's cutting-edge protection against evolving threats.



WEB APPLICATION SECURITY PRODUCTS

| | |
|---------------------------------------|--|
| SecureSphere Web Application Firewall | Accurate, automated protection against online threats |
| SecureSphere ThreatRadar | Global, real-time threat intelligence for detection, filtering and blocking of known bad traffic |

DATABASE SECURITY PRODUCTS

| | |
|--------------------------------------|---|
| Database Activity Monitor | Full auditing and visibility into database data usage |
| Database Firewall | Activity monitoring and real-time protection for critical databases |
| Database Assessment | Vulnerability assessment, configuration management, and data classification for databases |
| User Rights Management for Databases | Review and manage user access rights to sensitive databases |

FILE SECURITY PRODUCTS

| | |
|----------------------------------|--|
| File Firewall | Activity monitoring and protection for critical file data |
| User Rights Management for Files | Review and manage user access rights to sensitive files |
| Directory Services Monitor | Audit, alert, and report on changes made in Microsoft Active Directory |

SHAREPOINT SECURITY PRODUCTS

| | |
|-----------------------------|--|
| SecureSphere for SharePoint | Visibility and analysis of SharePoint access rights and data usage, and protection against Web based threats |
|-----------------------------|--|

MANAGEMENT PRODUCTS

| | |
|----------------------|--|
| MX Management Server | Single interface for managing, monitoring, and reporting on the activities of multiple SecureSphere gateways |
| Manager of Managers | Federates multi-domain and multi-tenant environments that are deployed with multiple MX Management Servers |