



## 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.

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## 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 <sup>1</sup>	72,000 IPU	36,000 IPU	18,000 IPU	9000 IPU	5000 IPU	
RSA/Sec (2048bit) <sup>2</sup>	27,500	27,500	13,500	3,000	2,500	
Latency <sup>3</sup>	< 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	

<sup>1</sup> 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.

<sup>2</sup> Measured with 'high performance' SSL card.

<sup>3</sup> SSL traffic latency measured with SSL card.

### SecureSphere Hardware Appliances

SPECIFICATION	X2020	X1020
Fault Tolerance	Not available	Not available
Throughput <sup>4</sup>	500 Mbps	100 Mbps
RSA/Sec (2048bit) <sup>5</sup>	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 <sup>6</sup>	100	25

<sup>4</sup> Throughput figures represent layer 7 Web application firewall performance

<sup>5</sup> Measured with standard SSL card

<sup>6</sup> 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 <sup>8</sup> )	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					
Hypervisor	ESX/ESXi 4.x/5.x/6.0				ESX/ESXi 4.x/5.x/6.0
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	4 GB
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	2
Memory	16 GB	8 GB	4 GB	4 GB	4 GB <sup>9</sup>
Disk Space	250 GB	160 GB	160 GB	160 GB	160 GB

<sup>8</sup> SecureSphere for SharePoint not supported on V1000.

<sup>9</sup> Expandable to 32GB for SecureSphere V11.0 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	AV2500	AV1000	AVM150
Supported SecureSphere Product	Web Application Firewall <sup>10</sup> Database Activity Monitor <sup>11</sup> Database Firewall <sup>11</sup>	Web Application Firewall <sup>1</sup>	MX Management Server
Throughput	Up to 500 Mbps	Up to 100 Mbps	Not Applicable
MINIMUM REQUIREMENTS FOR EACH SECURESPHERE FOR AWS INSTANCE			
Minimum AWS Instance Type	M3 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)		

<sup>10</sup> SecureSphere WAF for AWS supports SecureSphere OS 10.5 or later

<sup>11</sup> SecureSphere DAM and DBF for AWS support SecureSphere OS 11.5 or later

## 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	MV2500	MV1000	MVM150
SecureSphere Products Supported	Web Application Firewall <sup>12</sup>	Web Application Firewall <sup>12</sup>	Management Server (MX)
Performance: HTTP Throughput	Up to 500 Mbps	Up to 100 Mbps	Not Applicable
MINIMUM REQUIREMENTS FOR EACH SECURESPHERE FOR AZURE INSTANCE			
Minimum Azure Instance Type	A3/D3 for HTTP only D3v2/D4 for HTTPS	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)		

<sup>12</sup> SecureSphere WAF for AWS supports SecureSphere OS 11.5 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
ADC Insights	Pre-packaged reports and rules for SAP, Oracle EBS, and PeopleSoft compliance and security

## 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
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## 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