

# Scalable, Reliable, Flexible,

Imperva Hardware appliances deliver a hardened, scalable, reliable and flexible platform to power Imperva Web Application Firewall and Database Security solutions. With multigigabit throughput, fail open interfaces, secure out-of-band management, and low latency, Imperva appliances are high assurance, fast, cost-effective, and easy to manage.

## **High Performance Architecture**

Imperva Hardware Appliances offer exceptional performance, allowing organizations to consolidate device management and address future bandwidth requirements. Imperva appliances can manage heavy traffic loads without impacting application or network performance. Appliances come in two form factors, 1U and 2U, depending on the model.

# Fault Tolerant Hardware Design

To maximize system uptime, Imperva 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.



# FLEXIBLE DEPLOYMENT OPTIONS:

Imperva Hardware Appliances can manage heavy traffic loads without impacting application or network performance. For customers who prefer a software-only form factor, Imperva provides a cost effective and flexible virtual appliance option to deploy Imperva security solutions on an enterprise virtualization platform or in an Infrastructure as a Service (laaS) cloud environment.

## Flexible Expansion Options to Address Unique Business Needs

The appliances are built on a common hardware platform with flexibility in mind. Imperva 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

The high-end X8520 and X10K2 appliances provide ultra-high performance by offering 5Gbps and 10Gbps throughput, respectively. Customers that start with an X8520 have the ability to later upgrade their appliance software, transforming the platform into an X10K2 with up to 10Gbps throughput. No matter how demanding your data center needs are, Imperva has a high-performing platform that can scale to your requirements.

IMPERVA HARDWARE APPLIANCE SPECIFICATIONS - 2U FORM FACTOR					
SPECIFICATIONS	X10K2	X8520	X6520	X4520	X2520
SUPPORTED ON- PREM GATEWAYS	Web Application Firewall	Web Application Firewall	Web Application Firewall  Database Activity Monitoring  Database Firewall  Security for SharePoint	Web Application Firewall  Database Activity Monitoring,  Database Firewall  Security for SharePoint	Web Application Firewall  Database Activity Monitoring,  Database Firewall  Security for SharePoint
WAF GATEWAY SPECIFICATIONS					
THROUGHPUT (WAF GATEWAY ONLY)	10 Gbps	5 Gbps	2 Gbps	1 Gbps	500 Mbps
RSA/SEC (2048 BIT) (WAF GATEWAY ONLY) <sup>1</sup>	30,000	30,000	22,000	14,000	7,500
LATENCY (WAF GATEWAY ONLY) <sup>2</sup>	< 5ms	< 5ms	< 5ms	< 5ms	< 5ms
DATA SECURITY GATEWAY SPECIFICATIONS					
DAM IPU (DATA SECURITY GATEWAY SIZING ONLY) <sup>3</sup>	Not Available	Not Available	18,000 IPU	9,000 IPU	5,000 IPU
DATABASE AGENTS INCLUDED	Not Available	Not Available	100	50	25
DATABASE VULNERABILITY ASSESSMENTS INCLUDED	Not Available	Not Available	400	200	100

<sup>1.</sup> Measured with 'high performance' SSL card.

<sup>2.</sup> SSL traffic latency measured with SSL card.

<sup>3.</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 Imperva 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.

APPLIANCE PHYSICAL SPECIFICATIONS						
SPECIFIC	ATIONS	X10K2	X8520	X6520	X4520	X2520
FAULT TOLE	ERANCE	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
INTERFACE MODULE - SLOT 1	DEFAULT	2 × 10G SR	8 Copper	8 Copper	8 Copper	4 Copper
	OPTIONAL	2 × 10G SR OR 4 × 10G SR	8 Copper OR 4 × 1G OR 2 ×1 0G SR OR 4 × 10G SR	8 Copper OR 4 × 1G OR 2 ×1 0G SR OR 4 × 10G SR	8 Copper OR 4 × 1G OR 2 ×1 0G SR OR 4 × 10G SR	4 Copper OR 4 × 1G OR 2 ×1 0G SR OR 4 × 10G SR
INTERFACE MODULE SLOT 2	DEFAULT	N/A	N/A	N/A	N/A	N/A
	OPTIONAL	2 × 10G SR OR 4 × 10G SR	8 Copper OR 4 × 1G OR 2 ×1 0G SR OR 4 × 10G SR	8 Copper OR 4 × 1G OR 2 ×1 0G SR OR 4 × 10G SR	8 Copper OR 4 × 1G OR 2 ×1 0G SR OR 4 × 10G SR	4 Copper OR 4 × 1G OR 2 ×1 0G SR OR 4 × 10G SR
MAX NETWO	ORK	Bridge (4), Reverse Proxy (9), Non-Inline	Bridge (8), Reverse Proxy (17), Non-Inline	Bridge (8), Reverse Proxy (17), Non-Inline	Bridge (8), Reverse Proxy (17), Non-Inline	Bridge (4), Reverse Proxy (9), Non-Inline
INLINE FAIL (BRIDGING		Up to 4 Bypass Segments	Up to 8 Bypass Segments	Up to 8 Bypass Segments	Up to 8 Bypass Segments	Up to 4 Bypass Segments
INTELLIGEN PLATFORM MANAGEME INTERFACE	ENT	1 Copper IPMI	1 Copper IPMI	Optional RJ45 Port	Optional RJ45 Port	Optional RJ45 Port
HARD DRIVE	<b>E</b>	3 × 2TB RE4 (RAID 5)	3 × 2TB RE4 (RAID 5)	3 × 2TB RE4 (RAID 5)	2 × 2TB RE4 (RAID 1)	2 × 2TB RE4 (RAID 1)
MEMORY		128 GB DDR3	128 GB DDR3	64GB DDR3	32GB DDR3	16GB DDR3
SERIAL POR	т	Console RJ45	Console RJ45	Console RJ45	Console RJ45	Console RJ45
USB PORT		2 Ports	2 Ports	2 Ports	2 Ports	2 Ports
OUT-OF-BA MANAGEME		2 × 100/1000 Copper	2 × 100/1000 Copper	2 × 100/1000 Copper	2 × 100/1000 Copper	2 × 100/1000 Copper
SSL ACCELE	ERATION	Optional SSL High Performance	Optional SSL High Performance	Optional SSL High Performance	Optional SSL High Performance	Optional SSL High 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 SUP	PPLY	Dual 600W	Dual 600W	Dual 600W	Dual 420W	Dual 420W
AC POWER		100-240V	100-240V	100-240V	100-240V	100-240V
HEAT OUTP TYPICAL (B		663.21	684.78	434.86	321.99	284.72
POWER CON	NSUMPTION W)	193.95	200.23	127.15	94.15	83.25
FORM FACT	OR	2U	2U	2U	2U	2U
DIMENSION	S	88 × 438 × 562.3mm	88 × 438 × 562.3mm	88 × 438 × 562.3mm	88 × 442 × 513.3mm	88 × 442 × 513.3mm
WEIGHT		16.83Kg	17.25Kg	17.01kg	13.66kg	13.16kg
OPERATING ENVIRONME		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 ENVIRONME	ENT	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 AG	ENCY	CE, TUV, FCC, CB, VCCI, RCM, CCC, KCC	CE, TUV, FCC, CB, VCCI, RCM, CCC, KCC	CE, TUV, FCC, CB, VCCI, RCM, CCC, KCC	CE, TUV, FCC, CB, VCCI, RCM, CCC, KCC	CE, TUV, FCC, CB, VCCI, RCM, CCC, KCC

IMPERVA HARDWARE APPLIANCE SPECIFICATIONS - 1U FORM FACTOR				
SPECIFICATIONS	X2020	X1020		
FAULT TOLERANCE	Not available	Not available		
THROUGHPUT <sup>1</sup>	500 Mbps	100 Mbps		
RSA/SEC (2048 BIT) <sup>2</sup>	6000	1200		
LATENCY	Sub-millisecond	Sub-millisecond		
INTERFACES	4 × 1G Copper, 2 × 1G Copper (for management)	4 × 1G Copper, 2 × 1G Copper (for management)		
MAX NETWORK SEGMENT	(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		
HEAT OUTPUT - TYPICAL (BTU)	364 BTU/Hr	364 BTU/Hr		
CONSUMPTION - TYPICAL (W)	106.7 W	106.7 W		
FORM FACTOR	1U	1U		
DIMENSIONS	17.25 × 16.38 × 1.73 inches, 438 × 416 × 44 mm	17.25 × 16.38 × 1.73 inches, 438 × 416 × 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 IMPERVA PRODUCTS	Web Application Firewall, Database Assessment	Web Application Firewall, Database Assessment		
DATABASE VULNERABILITY ASSESSMENTS INCLUDED <sup>3</sup>	100	25		

Throughput figures represent layer 7 Web application firewall performance.
 Measured with standard SSL card.
 Database vulnerability assessments only included with Database Assessment.

### Imperva Management Appliances

Imperva management appliances are required to configure the gateways and provide visibility in to system operations and manage the customer's security and compliance posture. Imperva's management products deliver superior performance, scalability and unified management capabilities for any size deployment. Whether you are managing a small data center, or a large number of business units, data centers, or customers, Imperva products give you the visibility and control to minimize administrative overhead and ensure a strong data security posture. Management appliances support the Imperva MX Manager and Security Operations Manager (SOM) .

SPECIFICATIONS	M170	M120	
FAULT TOLERANCE	Dual Hot-swap Hard Drives Dual Hot-swap Power Supplies	Not Available	
MEMORY	32GB DDR3	16 GB	
HARD DRIVE	2 × 2TB RE4 (RAID 1)	2 TB	
SERIAL PORT	Console RJ45	Console RJ45	
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 × 100/1000 Copper	2 × 100/1000 Copper	
POWER SUPPLY	Dual 420W	220 W	
AC POWER	100-240V	100-240V 50-60Hz	
HEAT OUTPUT - TYPICAL (BTU)	306.74	337.56	
POWER CONSUMPTION - TYPICAL (W)	89.69	98.70	
FORM FACTOR	2U	1U	
DIMENSIONS	88 × 442 × 513.3mm	438 × 416 × 44 mm	
WEIGHT	13.66kg	6.1Kg	
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, CCC, KCC	CE, FCC, cTUVus, VCCI, CCC, KCC	
SUPPORTED IMPERVA MANAGEMENT PRODUCTS	MX - Manager SOM - Security Operations Manager	MX - Manager	

#### ULTRA HIGH BANDWIDTH

Imperva, in conjunction with our network visibility partners, delivers a scalable, highperformance data center security solution for your bandwidthintensive applications. Leveraging solutions from Net Optics, an Ixia company, and Gigamon, Imperva 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 Imperva gateways, ensuring only relevant protocols are sent to Imperva web, database, and file security gateways.

Learn more about Imperva at +1.866.926.4678 or online at imperva.com

Imperva is an analyst-recognized, cybersecurity leader championing the fight to secure data and applications wherever they reside.