

Riverbed® Steelhead® Product Family

Model Specifications: Riverbed Steelhead xx50 Series Appliances

Steelhead Appliances are available in a range of different models to suit the needs of any office.

Model	Small Office Steelhead			Mid-Size Office Steelhead									
	250 Series			550 Series		1050 Series				2050 Series			
Configurations	L	M	H	M	H	U	L	M	H	L	M	H	
Profile	Desktop			Desktop		1U				1U			
Upgradeable to	250-M/H	250-H	-	550-H	-	-	1050-M/H	1050-H	-	2050-M/H	2050-H	-	
Total Throughput Capacity ^a	1 Mbps	1 Mbps	2 Mbps	2 Mbps	4 Mbps	4 Mbps	8 Mbps ^o	10 Mbps ^o	20 Mbps ^o	45 Mbps ^o			
Optimized TCP and UDP flows ^d	30	125	200	300	600	600	800	1,300	2,300	2,500	4,000	6,000	
Raw Capacity	120 GB			160 GB		250 GB	250 GB		500 GB	1 TB			
Data Store Capacity	40 GB			80 GB		100 GB	100 GB		200 GB	400 GB			
RSP Partition ^k	55 GB			55 GB		100 GB	100 GB (Default) 200 GB (RAID)		200 GB	75 GB			
RSP 64 Bit Packages	No			No		Yes				Yes			
Storage Fault Tolerance	-			-		-	Optional RAID				RAID		
Front Swappable Drives	-			-		1	1 (default) 4 ^g (RAID)		2 (default) 4 ^g (RAID)	4 ^g			
RAM ^m	1 GB			2 GB		2 GB	2 GB	2 GB	4 GB	6 GB			
Expansion Slots (PCI-e) ^h	-			-		1							
Onboard Bypass ports (Copper)	2			2		4							
Max # of Bypass Ports	2			2		8							

Model	Large Office or Data Center Steelhead						Management		
	5050			6050	7050		INT 9350	CMC 8150	SMC 8650
Configurations	L	M	H		L	M			
Profile	3U			3U	3U		3U	1U	1U
Upgradeable to	5050-M/H	5050-H	-	-	7050-M		-	-	-
Total Throughput Capacity ^a	90 Mbps ^{b, o}	90 Mbps ^{b, o}	155 Mbps ^b	310 Mbps	1 Gbps ^{b, c, n}		40 Gbps ^p	NA	NA
Optimized TCP and UDP flows ^d	7,500	10,000	18,000	50,000	75,000	100,000	1,000,000	-	-
Raw Capacity	2 TB	2 TB	3 TB	8 TB	2.8 TB	5 TB	-	1 TB	1 TB
Data Store Capacity	600 GB	600 GB	800 GB	3.5 TB	2.2 TB SSD	4.4 TB SSD	-	NA	N/A
RSP Partition ^k	100 GB ^e	100 GB ^e	150 GB ^e	150 GB ^e	100 GB ^e	100 GB ^e	-	-	-
RSP 64 Bit Packages	Yes			Yes	Yes		-	-	-
Storage Fault Tolerance	RAID			RAID	RAID ^f		RAID	-	-
Front Swappable Disks	8 ^g	8 ^g	12 ^g	16 ^g	16 ^g	30 ^g	3 ^g	2	2
RAM ^m	8 GB			24 GB	32 GB	48 GB	8 GB	6 GB	6 GB
Expansion Slots (PCI-e) ^h	4	4	4	4	4	4	4	-	-
Onboard Bypass ports (Copper)	4	4	4	4	4	4	4	-	-
Max # of Bypass Ports	20	20	20	20	20	20	20	-	-

(a) Inbound (WAN to LAN) Steelhead capacity is unrestricted; outbound WAN capacity can be expected up to the amount listed.

On the 2050, 5050, and 6050, total WAN capacity equals inbound traffic + outbound traffic

(b) No enforced optimized WAN bandwidth limit

(c) For Data Center to Data Center workloads, WAN capacity is up to 1 Gbps. For DC to remote office workloads, recommended WAN capacity is up to 622 Mbps

(d) TCP and UDP flows can be expected up to the amount listed

(e) No PFS support

(f) Data store uses fault tolerant striped configuration

(g) Hot swappable disks

(h) Optional Network Bypass cards: Dual and Quad LX and SX GigE Fiber GigE, Quad Copper GigE, Dual 10GbE SR/LR

(k) Raw disk capacity allocated to the RSP partition. About 7GB is used by RSP package and filesystem. Partner packages need additional storage (based on the size of the package)

(m) RSP requires additional 2GB of memory. 6050 requires 4GB, 7050 requires 8GB. RSP packages on the 550 are limited to 1.5GB memory since the software is unable to use the full 2GB of additional memory.

(n) Over 4Gbps of LAN performance with 2.5X data reduction when configured to use jumbo Ethernet frames.

(o) The 5050L and the 1050 B/W increases require BIOS 5.5.7 or 6.0.2 onwards

(p) Multiple inpath interfaces were used to achieve this throughput. Up to 40Gbps throughput (rx+tx traffic).

Requires version INT 3.0 with XBridge enabled. WCCP and PBR configurations are not supported when XBridge is enabled.

Power & Physical Specifications

	Small Office Steelhead				Mid-Size Office Steelhead							
Model	250 Series			550 Series		1050 Series				2050 Series		
Configurations	L	M	H	M	H	U	L	M	H	L	M	H
Profile	Desktop			Desktop		1U				1U		
Dual Power Supplies	-			-		(Optional)				✓		
Power [Watts] (Typical)	40			66.5		138				197		
BTU	135			227		471				672		
Temperature	0 - 45 deg C / 32 - 113 deg F (Operating) -40 - 65 deg C / -40 - 149 deg F (Storage)					10 - 40 deg C / 50 - 95 deg F (Operating) -40 - 65 deg C / -40 - 149 deg F (Storage)						
Relative Humidity ⁱ	20% - 80% non-condensing (Operating) 5% - 95% non-condensing (Storage)											
Operating Acoustic Noise	45 dBA Sound Pressure (Typical)					61 dBA Sound Pressure (Typical)						
System Dimensions (LxWxH) ⁱⁱ	12 x 7.1 x 1.65 in 304.8 x 180.3 x 42 mm					25.4 x 17.2 x 1.71 in 645.4 x 436 x 43.5 mm						
Packaging Dimensions	24.5 x 12 x 4 in 622 x 305 x 102 mm					33.6 x 22.9 x 8.6 in 854 x 582 x 219 mm						
Max Weight (without packaging)	4.7 Lbs / 2.15 Kg					29 Lbs / 13.1 Kg			30 Lbs / 13.6 Kg	35 Lbs / 15.9 Kg		
Rail Information	Mounting ears included. Orderable spare part RMK-001					Mounting rail kit included. Orderable spare part RMK-002						

	Large Office or Data Center Steelhead						Management		
Model	5050			6050	7050	7050	INT 9350	CMC 8150	SMC8650
Configurations	L	M	H		L	M			
Profile	3U			3U	3U		3U	-	-
Dual Power Supplies	✓			✓	✓		✓	-	-
Power [Watts] (Typical)	203	225		352	425	430	320	153	
BTU	693	768		1670	1455	1470	1091	515	
Temperature	10 - 40 deg C / 50 - 95 deg F (Operating) -40 - 65 deg C / -40 - 149 deg F (Storage)						10 - 35 deg C / 50-95 deg F (Operating) -40-70 deg C / -40-158 deg F (Storage)		
Relative Humidity ⁱ	20% - 80% non-condensing (Operating) 5% - 95% non-condensing (Storage)								
Operating Acoustic Noise	61 dBA Sound Pressure (Typical)						Same as 1050		
System Dimensions (LxWxH) ⁱⁱ	25.72 x 17.0 x 5.2 in 653.4 x 431.6 x 131.9 mm						Same as 1050		
Packaging Dimensions	34.1 x 23.7 x 15.9 in 866 x 602 x 403 mm						Same as 1050		
Max Weight (without packaging)	59 Lbs / 26.7 Kg	64 Lbs / 29 Kg	71 Lbs / 32.2 Kg	55 Lbs / 25 Kg	59 Lbs / 25.8 Kg	51 Lbs / 23.2 Kg	30 lbs / 13.6 kg		
Rail Information	Mounting rail kit included. Orderable spare part RMK-003						Mounting rail kit included. Orderable spare part RMK-002		

(i) Operating altitude up to 10,000 feet

(ii) Length is without bezel

The availability, export or re-export of these products or specific features are subject to the export laws and regulations of the U.S. and the laws and regulations of any applicable foreign agency or authority.

Please refer to the xx20 appliances spec sheet for specifications on the other models.

System Requirements: Steelhead Mobile

Steelhead Mobile software optimizes application performance over the WAN for the mobile workforce.

Operating System	Windows 2000 SP4, XP SP2 (32 bit versions only); Vista and Windows 7 (32 bit and 64 bit versions). Mac OSX 10.5 and 10.6 (Intel only)
CPU	Celeron 650 MHz
Memory	256 MB
Disk Store	256 MB free disk space (min. required)
Steelhead Appliance¹	Required
Steelhead Mobile Controller (SMC)	Required: Either Steelhead Mobile Controller Appliance or Steelhead Mobile Controller Virtual Edition

Software Specifications: Steelhead Mobile

Concurrent Clients Supported per SMC	SMC-Appliance: 4000, Virtual SMC: 4000, SMC-Virtual Edition for RSP:100
Concurrent Clients Supported with SMC Cluster²	n x 4000
VPN Compatibility³	Cisco, Juniper, Nortel, OpenVPN, Microsoft, Aventail, Citrix, AT&T Netclient, Array, Check Point, F5, Sonicwall, Fortinet, WatchGuard
Wireless PC Card Compatibility⁴	Verizon, AT&T, Sprint

(1) At least one Steelhead appliance is required running RIOS version 4.x or higher.

(2) SMCs can operate in clustered mode to support additional Steelhead Mobile clients.

(3) Partial listing. VPN compatibility may be impacted by vendor software version, client configuration, and other factors. Refer to detailed VPN specifications at http://www.riverbed.com/products/steelhead_mobile/vpn_specs/ for more information.

(4) Partial listing. Wireless PC Card compatibility may be impacted dependent upon hardware and driver versions, bundled software and other factors. Refer to detailed wireless specifications at http://www.riverbed.com/products/steelhead_mobile/wireless/ for more information.



About Riverbed

Riverbed delivers performance for the globally connected enterprise. With Riverbed, enterprises can successfully and intelligently implement strategic initiatives such as virtualization, consolidation, cloud computing, and disaster recovery without fear of compromising performance. By giving enterprises the platform they need to understand, optimize and consolidate their IT, Riverbed helps enterprises to build a fast, fluid and dynamic IT architecture that aligns with the business needs of the organization. Additional information about Riverbed (NASDAQ: RVBD) is available at www.riverbed.com.



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