

Alluvio[™] NPM Product Family Specifications

NPM product components include:

- · Alluvio AppResponse
- Alluvio NetProfiler
- · Alluvio Flow Gateway
- · Alluvio NetIM
- · Alluvio Portal
- · Alluvio Transaction Analyzer
- · Alluvio Packet Analyzer Plus

Alluvio[™] AppResponse

Model Specifications

AppResponse xx80 Appliances

	0100	4100	81	80	Storage Units (f	or Model 8180)	
Model	2180 4180		8180	8180 8180 Plus		120 TB Storage Uni	
Product SKU	SCAN-02180	SCAN-04180	SCAN-	-08180	SCAN-SU-4	SCAN-SU-10	
Storage	12 TB raw 10 TB usable	48 TB raw 40 TB usable (RAID 0)	No	one	48 TB	120 TB	
Supported Storage Units		N / A	1	Up to 16⁵	N /	A	
Maximum Storage Capacity	12 TB raw 10 TB usable	48 TB raw 40 TB usable (RAID 0)	120 TB	1.92 PB	48 TB	120 TB	
Storage Disk Capacity ^{1,2}	2 x 6 TB	8 x 6 TB	N	/ A	12 x 4 TB	12 x 10 TB	
Storage Disk Redundancy	SW RAID level 0	HW RAID 0 (default),5, 6	N	/ A	HW RA (default		
Data Encryption at Rest			N/A			Yes	
System and Data Capacity ^{3,4}	4 TB usable (2 x 4 TB)	8 TB usable (4 x 4 TB)		usable 4 TB)	N /	A	
System and Data Disk Redundancy		Ye	N / A				
Operating System		Customize	ed Linux-based OS		N / A		
RAM (GB)	32	64	12	28	N/A		
Available Network Interface Card Slots	1		2		N / A		
Available Capture Ports	One of the following NICs: -4x1GbE Copper -4x1GbE Fiber -2x10 GbE Fiber	NICs: NICs: -4x1GbE Copper -4x1GbE Copper -4x1GbE Fiber -4x1GbE Fiber		Up to two of the following NICs: -4x1 GbE Copper -4x1 GbE Fiber -2x10 GbE Fiber -4x10 GbE Fiber Or one of the following NICs: -2x40 GbE Fiber -2x10 GbE Fiber -2x40 GbE Fiber -2x40 GbE Fiber -2x10 GbE Fiber -2x40 GbE Fiber		А	
Management Port (10/100/1000 RJ45)			2		N /	A	

- $1. \quad \text{Raw Disk Capacity.} \ 1\,\text{TB} = 10\,^{\circ}12 \ \text{Bytes.} \ \text{It does not not take into account disk formatting} \\ \quad \text{or RAID overhead.}$
- $2. \quad \text{Storage Disks store packets, and in addition } can be configured to store performance metrics data.$
- $3. \quad \text{Raw Disk Capacity.} \ 1\,\text{TB} = 10\,^{\hat{}}12\,\text{Bytes.} \ \text{It does not not take into account disk formatting or OS usage.}$
- $4. \quad \text{System and Data Disks store performance metrics data in addition to Operating System data}.$
- All Storage Units on an individual model 8180 must be of the same capacity. With no Storage Units attached, available storage is limited to system and data capacity.
- 6. RAID 6 is not an option for the model 8180 when metrics priority storage mode is selected.
- Supported inserts 100 G Fibre ports are available with SR and LR QSFP28 inserts. 40 G Fibre ports
 are available with SR4, LR4, and LM4 QSFP inserts. 10 G Fibre ports are available with SR and
 LR SFP+ inserts (LC connectors). 1 G Fibre ports are available with SX and LX SFP inserts (LC connectors).

Alluvio[™] AppResponse

Power and Physical Specifications

AppResponse

			8	3180	Storage Units (for Model 8180)		
Model	2180	4180	8180	8180 Plus	48 TB Storage Unit	120 TB Storage Unit	
Product SKU	SCAN-02180	SCAN-04180	SCA	N-08180	SCAN-SU-4	SCAN-SU-10	
Dual Power Supplies (redundant)			✓				
Power [Watts] (typical)	132	308		408	150	170	
ВТИ	450	1,050	1	,391	512	580	
Line Power Requirement	100V to 240V 50Hz to 60Hz	100V to 127V and 200V to 240V 100V to 240V 50Hz to 60Hz 50Hz to 60Hz					
Operating Temperature ¹		10 to 35°C (50 to 95°F)					
Humidity (shipping)		50 to 90	0%, non-condensing with (at temperatures f	a maximum wet bulb of 28° rom 25 to 35°C)	°C		
Rack Size	10			2 U			
System Dimensions (LxWxH) ²	645 mm (L) X 436 mm (W) X 43.6 mm (H) 25.4" (L) X 17.2" (W) X1.72" (H)	700 mm (L) X 440 mm (W) X 87 mm (H) 27.56" (L) X 17.32" (W) X 3.43" (H) 27.56" (L) X 17.2" (W) X 3.5" (H)					
Packaging Dimensions (LxWxH) ³		914.4 mm (L) X 609.6 mm (W) X 304.8 mm (H) 876 mm (L) X 678 mm (W) X 290 mm (H) 34.5" (L) X 267" (W) X 12" (H) (L) X 26.7" (W) X 11.4" (H)					
Max Weight (without packaging) ⁴	47 pounds	68 pounds 62 pounds 75 pounds					
Rail Information	Mounting Rail Kit Included. Orderable Spare Part Number: RMK-4-1U	Mounting Rail Kit Included. Critical Mounting Rail Kit Included. Critical Mounting Rail Kit Included. Orderable Spare Part Number: RMK-4-2U RMK-4-JBOD					
RoHS Compliant		✓					

^{1.} Operating altitude up to 10,000 feet except in China 6,562 feet (2,000m).

 ${\tt Note: The\ availability, export\ or\ re-export\ of\ these\ products\ or\ specific\ features\ are\ subject\ to}$ the export laws and regulations of the U.S. and the laws and regulations of any applicable foreign $\,$ agency or authority.

Alluvio™ AppResponse

Model Specifications

AppResponse Virtual				AppResponse Cloud			
Model	VSCAN-00100 VSCAN-00500 VSCAN-02000 VSCAN-FLOW		VSCAN-AWS-SUB-010	VSCAN-AZR-SUB-010			
Secondary Storage	Up to 100 GB Up to 2 TB Up to 8 TB Up to 100 GB		ST1,7 TiB (minimum)	E60, 8 TiB (minimum)			
Hypervisor	VMware ESXi 6.5, 6.7 and 7.0			•	AWS EC2	Azure Virtual Machines	
vCPU	4				16 (c5n.4xlarge)	16 (F16s_v2)	
Memory	12 GB				42 GiB (c5n.4xlarge))	32 GiB (F16s_v2)	
System Disk Space	100 GB				2 TB		
Capture Ports	Up to 8				1 (shared mgmt/capture port)		
Management Ports		2			1 (shared mgmt/capture port)		

^{2.} Length is without bezel or cables.

 $^{3. \}quad \text{Packaging dimensions do not include the pallet on which the unit might be shipped.} \\$

^{4.} Weight does not include rails and front bezel.

Alluvio[™] NetProfiler

Product Specifications

	NetProfiler Supports up to 40 million de-duplicated flows per minute⁵				
Model	SCNP-04280 ^{4,5}) ^{4,5} Expansion			
	SCNP-04280	SCNP-04280-EX	SCNP-04280-DP		
De-duplicated Flow Capacity (flows per minute) ¹	100,000 to	1,500,000	N / A		
Raw Flow Capacity (flows per minute) ⁷	7.5	5M	N/A		
Raw Flow Capacity with Advanced Security Module (FPM) ⁸	7.5	N / A			
Raw Disk Capacity ²	52	4 TB			
Usable Disk Capacity ⁸	20	N / A			
Optional 10 GB LAN Support ⁷	N /	✓			
Optional Fibre Channel SAN Support ⁶	٧	/	N / A		
RAID	RAID1/	RAID 10	RAID1		
Hard Disk Drives	3	3	2		
Solid State Drives	6	N / A			
RAM	256	96 GB			
Serial Port (DB-9)	✓				
Primary Cascade Management Port ³ (10/100/1000 RJ45)	✓				
Flow as Data Source ⁹		N/A			

- 1. Flow capacity can be expanded up to the amount listed.
- 2. Raw Disk Capacity does not take into account disk formatting, RAID overhead, software installation, or OS usage.
- 3. Each Flow Gateway model can report to up to two NetProfilers and forward flow to five third-party flow collectors.
- 4. SCAN-04280-xxx and SCNP-04280-EXP equipped with RAID 10 (48 TB) and RAID10 (3.8 TB SSDs).
- Up to 32 SCNP-04280-EXP expansion modules may be added to each SCNP-04280 system.
 Each additional SCNP-04280-EXP enables up to 1.5M de-duplicated FPM. A maximum of 40M de-duplicated flows/min supported. SCNP-04280-DP is required with addition of sixth SCNP-04280-EXP after more than 10M FPM.
- 6. Requires compatible SFPs.
- 7. A flow reported by a single network interface is a raw flow. NetProfiler will de-duplicate up to 10 individual interfaces reporting the same flow into 1 de-duplicated flow.
- Disk capacity available for storage of data.
- Accepts NetFlow (V1, V5, V7, and V9), Enhanced NetFlow, IPFIX, cFlow, Cisco NBAR and NBAR2, Cisco MediaNet, Cisco ASA NSEL, Citrix AppFlow, sFlow V2 and V5, J-Flow, Packeteer FDR, Palo Alto Networks, Alluvio NPM Flow from Azure NSG Flow Logs and AWS VPS Flows.

Alluvio[™] NetProfiler

Power and Physical Specifications

<u>-</u>					
	NetProfiler				
Model	SCNP-04280 SCNP-04280 E		0 Expansion		
	SCNP-04280	SCNP-04280-EX	SCNP-04280-DP		
Dual Power Supplies (redundant)		✓			
Power [Watts] (typical)	26	58	232		
BTU	91	13	791		
Operating Temperature ¹		10 to 35°C (50 to 95°F)			
Relative Humidity (shipping)	50 to 90%, non-condensing with a maximum wet bulb of 28°C (at temperatures from 25 to 35°C)				
Rack Size	2	U	1U		
System Dimensions (LxWxH) ²	700 mm (L) x 440 n 27.56" (L) x 17.32	645 mm (L) x 436 mm (W) x 43.6 mm (H) 25.4" (L) x 17.2" (W) x 1.72" (H)			
Packaging Dimensions (LxWxH) ³	914.4 mm (L) x 609.6 n 36" (L) x 24"	645 mm (L) x 436 mm (W) x 43.6 mm (H) 25.4" (L) x 17.2" (W) x 1.72" (H)			
Weight (without packaging) ⁴	61	44 lb			
Rail Information	Mounting rai Orderable spar RMK-	Mounting rail kit included. Orderable spare part number: RMK-4-1 U			
RoHS Compliant	✓ ·				

- $1. \quad \hbox{Operating altitude up to 10,000 feet except in China 6,562 feet (2,000 m)}.$
- 2. Length is without bezel or cables.

- ${\tt 3.} \quad {\tt Packaging \ dimensions \ do \ not \ include \ the \ pallet \ on \ which \ the \ unit \ might \ be \ shipped.}$
- 4. Weight does not include rails and front bezel.

Alluvio[™] NetProfiler Virtual

System Requirements

NetProfiler Virtual Base / Expansion Supports up to 40 million de-duplicated flows per minute⁵

Model	SCNP-VE-BASE / SCNP-VE-EXP						
De-duplicated Flow Capacity (flows per minute)	Up to 10,000	20,000 to 100,000	110,000 to 500,000	510,000 to 1,000,000	1,010,000 to 1.500,000		
Raw Flow Capacity (flows per minute)	Up to 50,000	100,000 to 500,000	550,000 to 2,500,000	2,550,000 to 5,000,000	5,050,000 to 7,500,000		
Hypervisor			VMWare ESXi 6.7 and 7.0				
vCPU ⁶	4 vCPUs minimum 4 vCPUs recomm 12 vCPUs recomm		8 vCPUs minimum / 16 vCPUs recommended	12 vCPUs minimum/ 24 vCPUs recommended	16 vCPUs minimum / 32 vCPUs recommended		
	2.6 GHz recommended						
RAM	8 GB minimum / 32 GB recommended	16 GB minimum / 64 GB recommended	32 GB minimum / 96 GB recommended	64 GB minimum / 128 GB recommended	96 GB minimum / 256 GB recommended		
System Disk Space			450 GB				
Flow Storage Space	500 GB minimum / 1 TB recommended	1 TB minimum / 2 TB recommended	2 TB minimum / 4 TB recommended	4 TB minimum / 10 TB recommended	5 TB minimum / 20 TB recommended		
	50 TB maximum ⁸						
Flow Cache Space (optional) ⁷	Not recommended (500 GB minimum)	Not recommended (500 GB minimum)	500 GB (optional)	500 GB minimum / 1 TB recommended	500 GB minimum / 2 TB recommended		
Flow Storage IOPS (primary data storage)	150 minimum / 500+ recommended	500 minimum / 2,000+ recommended					
Flow Cache IOPS (optional) ⁹	300 minimum / 1,000+ recommended	1,000 minimum / 4,000+ recommended	3,000 mi 8,000+ reco		4,000 minimum / 9,000+ recommended		

- 5. Up to 32 SCNP-VE-EXP expansion modules may be added to each SCNP-BASE-VE system. Each additional SCNP-EXP-VE enables up to 1.5M de-duplicated FPM.A maximum of 40M de-duplicated flows/min is supported. SCNP-DP-VE is required after more than 10 million FPM.
- We require this range of CPUs to be provisioned to the virtual machine, and ensure this is the number of CPU cores or threads available on the hypervisor.
- Only provision flow cache storage if it is on separate, significantly faster datastore. Additionally, it should be only a fraction (i.e 10%) of the primary storage. Further, it should always be a smaller size than the primary flow storage, they should not be the exact same size.
- 8. NetProfiler support a 50 TB maximum disk volume size.
- 9. The optional Flow Cache disk can be used to store the most recently collected data on a faster storage tier to make reporting on the more recent data faster. We recommend provisioning $\ensuremath{\mathsf{SSD}}$ storage which is 10% the size of the primary flow storage.

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Alluvio[™] NetProfiler Virtual

System Requirement

NetProfiler Virtual Dispatcher

Model	SCNP-VE-DP
De-duplicated Flow Capacity (flows per minute)	0 to 30,000,000
Raw Flow Capacity (flows per minute)	0 to 150,000,000
Flow Capacity beyond which DP is required	10,000,000
Hypervisor	VMWare ESXi 6.7 and 7.0
vCPU	16 vCPUs minimum / 24 vCPUs recommended 2.1 GHz minimum / 2.6 GHz recommended
RAM	32 GB minimum / 64 GB recommended
System Disk Space	120 GB

Alluvio™ NetProfiler Cloud

Model Specifications

NetProfiler Cloud Base/Expansion

Model		SCNP-VE / SCNP-VE-EXP							
De-duplicated Flow Capacity (flows per minute)	Up to 100,00	110,000 to 375,000	385,000 to 750,000	760,000 to 1,500,000					
Raw Flow Capacity (flows per minute)	Up to 500,000	550,000 to 1,875,000	1,925,000 to 3,750,000	3,800,000 to 7,500,000					
AWS Instance Type	r4.xlarge	r4.2xlarge	r4.4xlarge	r4.8xlarge					
Azure Instance Type	E4s_v3	E8s_v3	E16s_v3	E32s_v3					
System Disk Space	450 GB								
System Disk Type		AWS (GP2 SSD recommended), Az	rure (Premium SSD recommended)						
Flow Storage Space	500 GB minimum / 2 TB recommended	2 TB minimum / 4 TB recommended	4 TB minimum / 10 TB recommended	5 TB minimum / 20 TB recommended					
	50 TB maximum²								
Flow Storage Type		AWS (GP2 SSD recommended), Az	zure (Premium SSD recommended)						
Flow Cache Space (optional) ¹	Not recommended								
Flow Storage Cache Type	AWS (GP2 SSD minimum/ io1 SSD recommended), Azure (Premium SSD recommended)								
Management Ports		1	I						

Only provision flow cache storage if its on a separate, significantly faster datastore. Additionally, it should only be a fraction (i.e. 10%) of the primary Flow Storage. Further, it should always be a smaller size than the primary flow storage, they should not be the exact same size.

Alluvio[™] NetProfiler Cloud

Model Specifications

NetProfiler Cloud Dispatcher

Model	SCNP-VE-DP					
De-duplicated Flow Capacity (flows per minute)	0 to 10,000,000 10,010,000 to 30,000,000					
Raw Flow Capacity (flows per minute)	0 to 50,000,000 50.050,000 to 150,000,000					
AWS Instance Type	r4.8x	klarge				
Azure Instance Type	E32s_v3					
System Disk Type	120GB					
System Disk Space	AWS (GP2 SSD recommended), Az	zure (Premium SSD recommended)				

^{2.} While NetProfiler supports 50 TB maximum, disk volume size is limited to 16T on AWS and 32T on Azure.

Alluvio[™] Flow Gateway

Product Specifications

Model	Flow Gateway				
Model	SCFG-02280 Series				
De-duplicated Flow Capacity (flows per minute) ¹	100,000 to 8,000,000				
Raw Flow Capacity (flows per minute) ⁸	40M				
Raw Flow Capacity with Advanced Security Module (FPM) ⁸	20M				
Raw Disk Capacity ²	4TB				
Usable Disk Capacity ⁹	1TB				
Optional 10 GB LAN Support ⁷	✓				
Optional Fibre Channel SAN Support ⁷	N/A				
RAID	RAID1				
Hard Disk Drives	2				
Solid State Drives	N/A				
RAM	64 GB				
Serial Port (DB-9)	✓				
Primary Cascade Management Port ⁴ (10/100/1000 RJ45)	✓				
Flow as Data Source ¹⁰	✓				

Alluvio[™] Flow Gateway

Power and Physical Specifications

	Flow Gateway				
Model	SCFG-02280 Series				
Dual Power Supplies (redundant)	✓				
Power [Watts] (typical)	200				
BTU	682				
Operating Temperature ¹	10 to 35°C (50 to 95°F)				
Relative Humidity (shipping)	50 to 90%, non-condensing with a maximum wet bulb of 28°C (at temperatures from 25 to 35°C)				
Rack Size	10				
System Dimensions (LxWxH) ²	645 mm (L) x 436 mm (W) x 43.6 mm (H) 25.4" (L) x 17.2" (W) x 1.72" (H)				
Packaging Dimensions (LxWxH) ³	645 mm (L) x 436 mm (W) x 43.6 mm (H) 25.4" (L) x 17.2" (W) x 1.72" (H)				
Weight (without packaging) ⁴	43 lb				
Rail Information	Mounting rail kit included. Orderable spare part number: RMK-4-1 U				
RoHS Compliant	✓				

- 1. Flow capacity can be expanded up to the amount listed.
- 2. Raw Disk Capacity does not take into account disk formatting, RAID overhead, software installation, or OS usage.
- Each Flow Gateway model can report to up to two NetProfilers and forward flow to two third-party flow collectors.
- SCAN-04280-xxx and SCNP-04280-EXP equipped with RAID 10 (48 TB) and RAID10
- Up to 32 SCNP-04280-EXP expansion modules may be added to each SCNP-04280 system. Each additional SCNP-04280-EXP enables up to 1.5M de-duplicated FPM. A maximum of 40M de-duplicated flows/min supported. SCNP-04280-DP is required with addition of sixth SCNP- $\,$ 04280-EXP after more than 10M FPM.
- 7. Requires compatible SFPs.
- 8. A flow reported by a single network interface is a raw flow. NetProfiler will de-duplicate up to 10 individual interfaces reporting the same flow into 1 de-duplicated flow.
- 9. Disk capacity available for storage of data.
- 10. Accepts NetFlow (V1, V5, V7, and V9), Enhanced NetFlow, IPFIX, cFlow, Cisco NBAR and NBAR2, Cisco MediaNet, Cisco ASA NSEL, Citrix AppFlow, sFlow V2 and V5, J-Flow, Packeteer FDR, Palo Alto Networks, Alluvio NPM Flow from Azure NSG Flow Logs and AWS VPC Flows.

Alluvio[™] Flow Gateway Virtual

System Requirements

Flow Gateway Virtual

Model	SCFG-VE						
De-duplicated Flow Capacity (flows per minute)	Up to 10,000	20,000 to 100,000	110,000 to 1,000,000		1,010,000 to 2,000,000	2,010,000 to 4,000,000	4,010,000 to 8,000,000
Raw Flow Capacity (flows per minute)	Up to 50,000	100,000 to 500,000	550,000 to 5,000,000		5,050,000 to 10,000,000	10,050,000 to 20,000,000	20,050,000 to 30,000,000
Hypervisor	VMWare ESXi 6.7 and 7.0						
vCPU	2 vCPUs recommended	2 vCPUs minimum / 4 vCPUs recommended	4 vCPUs minimum / 6 vCPUs recommended		6 vCPUs minimum / 8 CPUs recommended	8 vCPUs minimum / 12 vCPUs recommended	12 vCPUs minimum / 18 vCPUs recommended
				2.6 GHz r	recommended		
RAM	2 GB minimum / 4 GB recommended	4 GB minimum / 8 GB recommended	8 GB minimum / 16 GB recommended	16 GB minimum / 24 GB recommended	24 GB minimum / 32 GB recommended	32 GB minimum / 48 GB recommended	48GB minimum / 64 GB recommended
System Disk Space	120 GB						
Flow Storage	500 GB minimum / 2 TB maximum						
Management Ports					2		

Alluvio[™] Flow Gateway Virtual

System Requirements

Flow Gateway Virtual with Advanced Security Module

Model		SCFG-VE					
De-duplicated Flow Capacity (flows per minute)	Up to 10,000	20,000 to 100,000	110,000 to 1,000,000		1,010,000 to 2,000,000	2,010,000 to 4,000,000	4,010,000 to 8,000,000
Raw Flow Capacity (flows per minute)	Up to 50,000	100,000 to 500,000	550,000 to 5,000,000		5,050,000 to 10,000,000	10,050,000 to 20,000,000	Up to 20,000,000
Hypervisor		VMWare ESXi 6.7 and 7.0					
vCPU	4 vCPUs recommended	4 vCPUs minimum / 6 vCPUs recommended	6 vCPUs minimum / 8 vCPUs recommended		8 vCPUs minimum / 12 vCPUs recommended	12 vCPUs minimum / 16 vCPUs recommended	16 vCPUs minimum / 24 vCPUs recommended
				2.6 GHz r	recommended		
RAM	2 GB minimum / 4 GB recommended	4 GB minimum / 8 GB recommended	8 GB minimum / 16 GB recommended	16 GB minimum / 24 GB recommended	24 GB minimum / 32 GB recommended	32 GB minimum / 48 GB recommended	48GB minimum / 64 GB recommended
System Disk Space	120 GB						
Flow Storage	500 GB minimum / 2 TB maximum						
Management Ports					2		

Alluvio[™] Flow Gateway Cloud

Model Specifications

Model	SCFG-VE					
De-duplicated Flow Capacity (flows per minute)	Up to 100,000	110,000 to 1,000,000	1,010,000 to 3,000,000	3,010,000 to 8,000,000		
Raw Flow Capacity (flows per minute)	Up to 500,000	550,000 to 5,000,000	5,050,000 to 15,000,000	15,050,000 to 30,000,000		
AWS Instance Type	r4.large or m4.large	r4.xlarge or m4.xlarge	r4.2xlarge or m4.2xlarge	r4.4xlarge or m4.4xlarge		
Azure Instance Type	E2s_v3 or D2s_v3	E4s_v3 or D4s_v3	E8s_v3 or D8s_v3	E16s_v3 or D16s_v3		
System Disk Space		120	GB			
System Disk Type		AWS (GP2 SSD recommend	ded), Azure (Premium SSD)			
Flow Storage	500 GB minimum / 2 TB maximum					
Flow Storage Type	AWS (GP2 SSD recommended), Azure (Premium SSD recommended)					
Management Ports		Up	to 2			

Alluvio[™] Flow Gateway Cloud

Model Specifications

Flow Gateway Cloud with Advanced Security Module

Model	SCFG-VE					
De-duplicated Flow Capacity (flows per minute)	Up to 100,000	110,000 to 1,000,000	1,010,000 to 3,000,000	3,010,000 to 8,000,000		
Raw Flow Capacity (flows per minute)	Up to 500,000	550,000 to 5,000,000	5,050,000 to 10,000,000	Up to 10,000,000		
AWS Instance Type	r4.xlarge	r4.2xlarge	r4.4xlarge	r4.8xlarge		
Azure Instance Type	E4s_v3	E8s_v3	E16s_v3	E32s_v3		
System Disk Space		120	GB			
System Disk Type		AWS (GP2 SSD recommended), Az	zure (Premium SSD recommended)			
Flow Storage	500 GB minimum / 2 TB maximum					
Flow Storage Type	AWS (GP2 SSD recommended), Azure (Premium SSD recommended)					
Management Ports		Upt	to 2			

Alluvio[™] NetIM

Model Specifications

NetIM Manager (Virtual and Cloud Images)

Devices ¹	up to 1K	2.5K	5K	10K	15K	20K	25K	30K
Interface Count ²	40k	100K	200K	400K	600K	800K	1M	1.2M
Polled Interface Count	20k	50K	100K	200K	300K	400K	500K	600K
vCPUs		4	•	6		8	1	0
Memory	16 GB	20 GB	24 GB	28 GB	32 GB	40 GB	48 GB	56 GB
OS Storage	75 GB							
App Storage	500 GB	1TB		2	ТВ		3.	ТВ
Hypervisor ^{5,6}	VMware ESXi 7.x, ESXi 8.x ⁷ , Azure Hypervisor, AWS Hypervisor, Microsoft Hyper-V 2019, Microsoft Hyper-V 2022, Nutanix AOs 6.5.2 LTS (AHV versions 20220304.342)							
Managers	1							

Alluvio[™] NetIM

Model Specifications

NetIM Data Manager (Virtual and Cloud Images)

Devices	up to 1K	2.5K	5K	10K	15K	20K	25K	30K
Interface Count	40k	100K	200K	400K	600K	800K	1M	1.2M
Polled Interface Count	20k	50K	100K	200K	300K	400K	500K	600K
vCPUs		N/A				4		
Memory	N/A			16 GB				
OS Storage	N / A			75 GB				
App Storage	N / A		2 TB			3 TB		
Hypervisor ^{5,6}	VMware ESXi 7.x, ESXi 8.x ⁷ , Azure Hypervisor, AWS Hypervisor, Microsoft Hyper-V 2019, Microsoft Hyper-V 2022, Nutanix AOs 6.5.2 LTS (AHV versions 20220304.342)					ns 20220304.342)		
Data Managers ³		0		:	1	:	2	3

Alluvio[™] NetIM

Model Specifications

NetIM Worker (Virtual and Cloud Images)

Devices	up to 1K	2.5K	5K	10K	15K	20K	25K	30K
Interface Count	40k	100K	200K	400K	600K	800K	1M	1.2M
Polled Interface Count	20k	50K	100K	200K	300K	400K	500K	600K
vCPUs		4						
Memory		16 GB						
OS Storage		75 GB						
App Storage	100 GB							
Hypervisor ^{5, 6}	VMware ESXi 7.x, ESXi 8.x ⁷ , Azure Hypervisor, AWS Hypervisor, Microsoft Hyper-V 2019, Microsoft Hyper-V 2022, Nutanix AOs 6.5.2 LTS (AHV versions 20220304.342)							
Workers ⁴	1	1	2	4	6	8	10	12

Alluvio[™] NetIM

Model Specifications

NetIM Core (Virtual and Cloud Images)

Devices	up to 1K	2.5K	5K	10K	15K	20K	25K	30K
Interface Count	40K	100K	200K	400K	600K	800K	1M	1.2M
Polled Interface Count	20K	50K	100K	200K	300K	400K	500K	600K
vCPUs	4	1	6			8		
Memory	16	GB	32 GB	48 GB	64 GB	80 GB	96 GB	112 GB
OS Storage		75 GB						
App Storage	100 GB		200 GB	250 GB	300 GB	350 GB	400 GB	450 GB
Hypervisor ^{5, 6}	VMware ESXi 7.x, ESXi 8.x ⁷ , Azure Hypervisor, AWS Hypervisor, Microsoft Hyper-V 2019, Microsoft Hyper-V 2022, Nutanix AOs 6.5.2 LTS (AHV versions 20220304.342)							
Core		1						

- 1. Manager and Data Manager Application Storage requirements are primarily dependent on metric retention and roll-up settings. For proof-of-concepts, the default $\mbox{\rm App}\,\mbox{\rm Storage}\,\mbox{\rm of}$ 100 GB may be enough if metric retention settings are reduced from the system defaults.
- $\label{thm:continuity} Assuming \ 5-minute \ polling \ and \ minimal \ latency \ between \ workers \ and \ polled \ elements.$ If CoS metrics are polled, each CoS definition applied to a polled interface counts as an additional logical interface, thereby increasing the overall polled interface count).
- 3. Write and query performance may improve with additional Data Manager nodes.
- Use the netimsh "scale" command on the Manager to scale the poller and alerting services to equal the number of deployed Workers. See the NetlM Installation Guide or Upgrade Guide for instructions.
- 5. VMotion should be disabled for all NetIM VMs.
- $6. \quad \mathsf{ESX} \mathsf{i} \, \mathsf{servers} \, \mathsf{must} \, \mathsf{be} \, \mathsf{geographically} \, \mathsf{collocated} \, \mathsf{in} \, \mathsf{the} \, \mathsf{same} \, \mathsf{data} \, \mathsf{center} \, \mathsf{for} \, \mathsf{minimum} \, \mathsf{latency}.$
- The NetIM Virtual Appliance OVA is certified for deployment on VMware ESXi. In many cases, NetIM may be successfully deployed on other major hypervisors (i.e. KVM, AHV); however, these other hypervisors may not have been QAed or certified. Further, Riverbed maintains the right to deny $support\ and\ provide\ support\ only\ on\ a\ best-effort\ basis\ for\ deployments\ on\ uncertified\ hypervisors.$

Alluvio[™] Portal

Model Specifications

Portal³

Product SKU	SCPRTL-FNDTN
vCPUs ¹	4
Memory	16 GB
OS Storage	100 GB
Hypervisor	VMware ESXi 6.7, 7.0
Supported Browsers ²	Firefox ESR 102.10, Chrome 111.0, Edge Browser 112.0

- $1. \quad \text{The host CPUs must support the POPCNT CPU instructions (the Nehalem generation of Xeon CPUs (or later)}.$
- $2. \quad \text{Internet Explorer is not supported. Other versions or browsers may or may not be compatible.} \\$
- Refer to Installation Guide for additional details and recommendations.

$\textbf{Alluvio}^{^{\tiny{\intercal}}} \textbf{Transaction Analyzer}$

System Requirements

Transaction Analyzer requires, at a minimum, the following

Transaction Analyzer

Operating Systems	Windows 10 Windows 8 (KB2883200 required for Windows 8.1) Windows Server 2012 R2 (KB2883200 also required) Windows Server 2016 Windows Server 2019
Host Hardware	x86 or EM64T (2.0 GHz or better) x86 AMD or AMD64 (2.0 GHz or better)
RAM	4 GB (recommended); 2 GB (minimum)
System File Space	5.5 GB; Up to an additional 2 GB of free disk space may be needed during installation
Working File Space	100 MB or more for temporary and log files
Display	1024 x 768 minimum resolution Video card capable of running Direct X 9
Compatible Software	Wireshark v3.27
Compatible Capture Agent Version	Version 3.10 only

Table 1 System requirement for running Transaction Analyzer.

Alluvio[™] Packet Trace Warehouse

System Requirements

Packet Trace Warehouse requires, at a minimum, the following

Packet Trace Warehouse

Operating Systems	Windows Server 2012 R2 Windows Server 2016 Windows Server 2019			
Host Hardware	x86 or EM64T (2.0 GHz or better) x86 AMD or AMD64 (2.0 GHz or better)			
RAM	2 GB (recommended); 512 MB (minimum)			
System File Space	20 GB (recommended); 10 GB (minimum)			
Display	1280 x 1024 resolution (recommended) 1024 x 768 resolution (minimum)			
Compatible Browsers	Microsoft Edge 86.0.622.38 Firefox ESR 78.3.1 Chrome 85.0.4183.121 and Chrome 86.0.4240.75.			
Compatible Capture Agent Version	Version 3.10 only			

 Table 2 System requirement for running Packet Trace Warehouse.

Alluvio[™] Capture Agents

System Requirements

Capture Agents

Vendor	os	Processor
Apple	Mac OS X 10.7 - 10.13 (32 or 64-bit)	Intel
IBM	AIX 6.1 – 7.2 (64-bit)	PowerPC
Microsoft	Windows 8.1 (64-bit) & Windows 10 (64-bit) Windows Server 2012, 2016, 2019 (64-bit)	Intel, except Itanium
RedHat	RedHat Enterprise Linux 5,6,7 (32 or 64-bit)	Intel, except Itanium

Table 3 System requirements for Capture Agents.

Alluvio[™] Packet Analyzer Plus

System Requirements

Packet Analyzer Plus requires, at a minimum, the following

Packet Analyzer Plus

	Microsoft Windows 8.1, 10, Server 2016 and 2019*			
Operating Systems	Microsoft update https://support.microsoft.com/en-in/kb/2999226			
	Microsoft .NET Framework 4.6 (or later)			
Suggested Hardware Platform	A Dual-core 2.0 GHz CPU or better			
Memory	2 GB or more of system memory			
Disk Space	300 MB of disk space for a base installation; additional space is required to store generated reports or trace files			
Graphics Support	Graphics card with minimum resolution of 1024 x 768			

*Also note: Local System Live Interfaces are not supported in Windows 10 currently.

 Table 4 System requirement for running Packet Analyzer Plus.



Riverbed - Empower the Experience

Riverbed is the only company with the collective richness of telemetry from network to app to end user that illuminates and then accelerates every interaction so that users get the flawless digital experience they expect across the entire digital ecosystem. Riverbed offers two industry-leading solution areas – Alluvio by Riverbed, an innovative and differentiated Unified Observability portfolio that unifies data, insights, and actions across IT, so customers can deliver seamless digital experiences; and Riverbed Acceleration, providing fast, agile, secure acceleration of any app over any network to users, whether mobile, remote, or on-prem. Together with our thousands of partners, and market-leading customers across the world, we empower every click, every digital experience. Learn more at riverbed.com.

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