

# NPM Product Family Specifications

NPM product components include:

- Riverbed AppResponse
- Riverbed NetProfiler
- Riverbed Flow Gateway
- Riverbed NetIM
- Riverbed Portal
- Riverbed Transaction Analyzer
- Riverbed Packet Analyzer Plus

## Riverbed® AppResponse

### Model Specifications

#### AppResponse xx80 Appliances

| Model                                   | 2180  | 4180  | 8180   |   | Storage Units (for Model 8180)         |                     |
|---|---|---|--|---|--|---------------------|
|   |   |   | 8180   | 8180 Plus   | 48 TB Storage Unit                     | 120 TB Storage Unit |
| Product SKU                             | SCAN-02180  | SCAN-04180  | SCAN-08180   |   | SCAN-SU-4                              | SCAN-SU-10          |
| Storage                                 | 12 TB raw<br>10 TB usable   | 48 TB raw<br>40 TB usable (RAID 0)  | None   |   | 48 TB                                  | 120 TB              |
| Supported Storage Units                 | N / A   |   | 1  | Up to 16 <sup>5</sup>   | N / A                                  |                     |
| Maximum Storage Capacity                | 12 TB raw<br>10 TB usable   | 48 TB raw<br>40 TB usable (RAID 0)  | 120 TB   | 1.92 PB   | 48 TB                                  | 120 TB              |
| Storage Disk Capacity <sup>1,2</sup>    | 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 RAID 0 (default), 5, 6 <sup>6</sup> |                     |
| Data Encryption at Rest                 | N / A   |   |  |   |  | Yes                 |
| System and Data Capacity <sup>3,4</sup> | 4 TB usable (2 x 4 TB)  | 8 TB usable (4 x 4 TB)  | 16 TB usable (8 x 4 TB)  |   | N / A                                  |                     |
| System and Data Disk Redundancy         | Yes (RAID 10)   |   |  |   | N / A                                  |                     |
| Operating System                        | Customized Linux-based OS   |   |  |   | N / A                                  |                     |
| RAM (GB)                                | 32  | 64  | 128  |   | N / A                                  |                     |
| Available Network Interface Card Slots  | 1   | 2   |  |   |  | N / A               |
| Available Capture Ports                 | One of the following NICs:<br>- 4 x 1 GbE Copper<br>- 4 x 1 GbE Fiber<br>- 2 x 10 GbE Fiber | Up to two of the following NICs:<br>- 4 x 1 GbE Copper<br>- 4 x 1 GbE Fiber<br>- 2 x 10 GbE Fiber<br>- 4 x 10 GbE Fiber | Up to two of the following NICs:<br>- 4 x 1 GbE Copper<br>- 4 x 1 GbE Fiber<br>- 2 x 10 GbE Fiber<br>- 4 x 10 GbE Fiber<br>Or one of the following NICs:<br>- 2 x 40 GbE Fiber | Up to two of the following NICs:<br>- 4 x 1 GbE Copper<br>- 4 x 1 GbE Fiber<br>- 2 x 10 GbE Fiber<br>- 4 x 10 GbE Fiber<br>Or one of the following NICs:<br>- 2 x 40 GbE Fiber<br>- 2 x 100 GbE Fiber | N / A                                  |                     |
| Management Port (10/100/1000 RJ45)      |   |   | 2  |   | N / A                                  |                     |

1. Raw Disk Capacity. 1 TB = 10<sup>12</sup> Bytes. It does not take into account disk formatting or RAID overhead.
2. Storage Disks store packets, and in addition can be configured to store performance metrics data.
3. Raw Disk Capacity. 1 TB = 10<sup>12</sup> Bytes. It does not take into account disk formatting or OS usage.
4. System and Data Disks store performance metrics data in addition to Operating System data.

5. 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.
7. 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).

# Riverbed® AppResponse

## Power and Physical Specifications

### AppResponse

| Model                                       | 2180   | 4180   | 8180       |           | Storage Units (for Model 8180)  |                     |
|---|--|--|------------|-----------|---|---------------------|
|   |  |  | 8180       | 8180 Plus | 48 TB Storage Unit  | 120 TB Storage Unit |
| Product SKU                                 | SCAN-02180   | SCAN-04180   | SCAN-08180 |           | SCAN-SU-4   | SCAN-SU-10          |
| Dual Power Supplies (redundant)             | ✓  |  |            |           |   |                     |
| Power [Watts] (typical)                     | 132  | 308  | 408        |           | 150   | 170                 |
| BTU   | 450  | 1,050  | 1,391      |           | 512   | 580                 |
| Line Power Requirement                      | 100V to 240V<br>50Hz to 60Hz   | 100V to 127V and 200V to 240V<br>50Hz to 60Hz                                    |            |           | 100V to 240V<br>50Hz to 60Hz  |                     |
| Operating Temperature <sup>1</sup>          | 10 to 35°C (50 to 95°F)  |  |            |           |   |                     |
| Humidity (shipping)                         | 50 to 90%, non-condensing with a maximum wet bulb of 28°C<br>(at temperatures from 25 to 35°C) |  |            |           |   |                     |
| Rack Size                                   | 1 U  | 2 U  |            |           |   |                     |
| System Dimensions (LxWxH) <sup>2</sup>      | 645 mm (L) X 436 mm (W)<br>X 43.6 mm (H)<br>25.4" (L) X 17.2" (W)<br>X 1.72" (H)               | 700 mm (L) X 440 mm (W)<br>X 87 mm (H)<br>27.56" (L) X 17.32" (W)<br>X 3.43" (H) |            |           | 647 mm (L) X 437 mm (W)<br>X 89 mm (H)<br>25.5" (L) X 17.2" (W)<br>X 3.5" (H) |                     |
| Packaging Dimensions (LxWxH) <sup>3</sup>   | 914.4 mm (L) X 609.6 mm (W) X 304.8 mm (H)<br>36" (L) X 24" (W) X 12" (H)                      |  |            |           | 876 mm (L) X 678 mm (W) X 290 mm (H) 34.5"<br>(L) X 26.7" (W) X 11.4" (H)     |                     |
| Max Weight (without packaging) <sup>4</sup> | 47 pounds  | 68 pounds  | 62 pounds  |           | 75 pounds   |                     |
| Rail Information                            | Mounting Rail Kit Included.<br>Orderable Spare Part Number:<br>RMK-4-1U                        | Mounting Rail Kit Included.<br>Orderable Spare Part Number:<br>RMK-4-2U          |            |           | Mounting Rail Kit Included.<br>Orderable Spare Part Number:<br>RMK-4-JBOD     |                     |
| RoHS Compliant                              | ✓  |  |            |           |   |                     |

1. Operating altitude up to 10,000 feet except in China 6,562 feet (2,000m).
2. Length is without bezel or cables.
3. Packaging dimensions do not include the pallet on which the unit might be shipped.

4. Weight does not include rails and front bezel.

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.

# Riverbed® AppResponse

## Model Specifications

| AppResponse Virtual |  |             |             |              | AppResponse Cloud   |                              |                        |
|---------------------|--|-------------|-------------|--------------|---|------------------------------|------------------------|
| Model               | VSCAN-00100  | VSCAN-00500 | VSCAN-02000 | VSCAN-FLOW   | VSCAN-05000   | 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 | Up to 8 TB  | ST1, 7 TiB (minimum)         | E60, 8 TiB (minimum)   |
| Hypervisor          | VMWare ESXi 7.0 and 8.0<br>Nutanix AOS 6.5.5 with AHV hypervisor<br>Microsoft Hyper-V running on Windows Server 2019 and 2022                    |             |             |              | VMWare ESXi 7.0 and 8.0   | AWS EC2                      | Azure Virtual Machines |
| vCPU                | 4  |             |             |              | 16  | 16 (c5n.4xlarge)             | 16 (F16s_v2)           |
| Memory              | 12 GB  |             |             |              | 32 GB   | 42 GiB (c5n.4xlarge)         | 32 GiB (F16s_v2)       |
| System Disk Space   | 100 GB   |             |             |              | 2 TB  | 2 TB                         |                        |
| Capture Ports       | VMware: up to 8 virtual NICs or 1 physical NIC<br>using VMDirectPath I/O passthrough <sup>2</sup><br>Hyper-V: up to 4<br>Nutanix: 1 <sup>1</sup> |             |             |              | VMware: up to 8 virtual<br>NICs or 1 physical NIC<br>using VMDirectPath I/O<br>passthrough <sup>2</sup> | 1 (shared mgmt/capture port) |                        |
| Management Ports    | VMware: 2<br>Nutanix: 1 (shared mgmt/capture port)   |             |             |              | 2   | 1 (shared mgmt/capture port) |                        |

1. On Nutanix platform, traffic is received through a VxLAN or GRE tunnel on the primary interface. There are no dedicated capture ports.
2. The following NICs are supported with VMDirectPath I/O:
  - a. Intel 82599 10 Gigabit Dual Port Network Connection
  - b. Intel Ethernet Controller X710 for 10GbE SFP+
  - c. Broadcom BCM57412 NetXtreme-E 10Gb RDMA Ethernet Controller
  - d. Intel Ethernet Controller E810-XXVDA2

# Riverbed® NetProfiler

## Product Specifications

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

- Flow capacity can be expanded up to the amount listed.
- 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 five third-party flow collectors.
- 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.

- Requires compatible SFPs.
- 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, Riverbed NPM Flow from Azure NSG Flow Logs and AWS VPS Flows.

# Riverbed® NetProfiler

## Power and Physical Specifications

| Model                                     | NetProfiler   |  |  |
|---|---|--|--|
|   | SCNP-04280  | SCNP-04280 Expansion   |  |
|   | SCNP-04280  | SCNP-04280-EX  | SCNP-04280-DP  |
| Dual Power Supplies (redundant)           | ✓   |  |  |
| Power [Watts] (typical)                   | 268   | 232  |  |
| BTU                                       | 913   | 791  |  |
| Operating Temperature <sup>1</sup>        | 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   | 1 U  |  |
| System Dimensions (LxWxH) <sup>2</sup>    | 700 mm (L) x 440 mm (W) x 87 mm (H)<br>27.56" (L) x 17.32" (W) x 3.43" (H)                  | 645 mm (L) x 436 mm (W) x 43.6 mm (H)<br>25.4" (L) x 17.2" (W) x 1.72" (H) |  |
| Packaging Dimensions (LxWxH) <sup>3</sup> | 914.4 mm (L) x 609.6 mm (W) x 304.8 mm (H)<br>36" (L) x 24" (W) x 12" (H)                   | 645 mm (L) x 436 mm (W) x 43.6 mm (H)<br>25.4" (L) x 17.2" (W) x 1.72" (H) |  |
| Weight (without packaging) <sup>4</sup>   | 61 lb   | 44 lb  |  |
| Rail Information                          | Mounting rail kit included.<br>Orderable spare part number:<br>RMK-4-2 U                    |  | Mounting rail kit included.<br>Orderable spare part number:<br>RMK-4-1 U |
| RoHS Compliant                            | ✓   |  |  |

1. Operating altitude up to 10,000 feet except in China 6,562 feet (2,000m).
2. Length is without bezel or cables.

3. Packaging dimensions do not include the pallet on which the unit might be shipped.
4. Weight does not include rails and front bezel.

# Riverbed® NetProfiler Virtual

## System Requirements

NetProfiler Virtual Base / Expansion  
Supports up to 40 million de-duplicated flows per minute<sup>5</sup>

| 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 7.0, 8.0, Nutanix 6.5.2 LTS, and Microsoft Hyper-V 2022 |   |  |  |  |
| vCPU <sup>6</sup>                              | 4 vCPUs minimum   | 4 vCPUs minimum /<br>12 vCPUs recommended | 8 vCPUs minimum /<br>16 vCPUs recommended<br><br>2.6 GHz recommended | 12 vCPUs minimum /<br>24 vCPUs recommended | 16 vCPUs minimum /<br>32 vCPUs recommended |
| RAM  | 8 GB minimum /<br>32 GB recommended                                 | 16 GB minimum /<br>64 GB recommended      | 32 GB minimum /<br>96 GB recommended                                 | 64 GB minimum /<br>128 GB recommended      | 96 GB minimum /<br>256 GB recommended      |
| System Disk Space                              | 450 GB  |   |  |  |  |
| Flow Storage Space                             | 500 GB minimum / 1 TB<br>recommended                                | 1 TB minimum / 2 TB<br>recommended        | 2 TB minimum / 4 TB<br>recommended                                   | 4 TB minimum / 10 TB<br>recommended        | 5 TB minimum / 20 TB<br>recommended        |
| Flow Cache Space (optional) <sup>7</sup>       | Not recommended<br>(500 GB minimum)                                 | Not recommended<br>(500 GB minimum)       | 500 GB (optional)  | 500 GB minimum / 1 TB<br>recommended       | 500 GB minimum / 2 TB<br>recommended       |
| Flow Storage IOPS (primary data storage)       | 150 minimum /<br>500+ recommended                                   | 500 minimum /<br>2,000+ recommended       | 1,500 minimum /<br>4,000+ recommended                                |  | 2,000 minimum /<br>5,000+ recommended      |
| Flow Cache IOPS (optional) <sup>9</sup>        | 300 minimum /<br>1,000+ recommended                                 | 1,000 minimum /<br>4,000+ recommended     | 3,000 minimum /<br>8,000+ recommended                                |  | 4,000 minimum /<br>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.
6. 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.
7. 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 SSD storage which is 10% the size of the primary flow storage.

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.

# Riverbed® NetProfiler Virtual

## System Requirement

### NetProfiler Virtual Dispatcher

| Model  | SCNP-VE-DP   |
|--|--|
| De-duplicated Flow Capacity (flows per minute) | 0 to 40,000,000  |
| Raw Flow Capacity (flows per minute)           | 0 to 150,000,000   |
| Flow Capacity beyond which DP is required      | 10,000,000   |
| Hypervisor                                     | VMWare ESXi 7.0, 8.0, Nutanix 6.5.2 LTS, and Microsoft Hyper-V 2022              |
| vCPU   | 16 vCPUs minimum / 32 vCPUs recommended<br>2.1 GHz minimum / 2.6 GHz recommended |
| RAM  | 32 GB minimum / 96 GB recommended  |
| System Disk Space                              | 120 GB   |

# Riverbed® 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), Azure (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  |
| Flow Storage Type                              | 50 TB maximum?<br>AWS (GP2 SSD recommended), Azure (Premium SSD recommended) |                                 |                                   |                                   |
| Flow Cache Space (optional) <sup>1</sup>       | Not recommended (500 GB minimum)   | 500 GB (optional)               | 500 GB minimum / 1 TB recommended | 500 GB minimum / 2 TB recommended |
| Flow Storage Cache Type                        | AWS (GP2 SSD minimum/ io1 SSD recommended), Azure (Premium SSD recommended)  |                                 |                                   |                                   |
| Management Ports                               | 1  |                                 |                                   |                                   |

1. 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.

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

# Riverbed® 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                              | r4.8xlarge   |                           |
| Azure Instance Type                            | E32s_v3  | E48s_v3                   |
| System Disk Type                               | 120GB  |                           |
| System Disk Space                              | AWS (GP2 SSD recommended), Azure (Premium SSD recommended) |                           |

# Riverbed® Flow Gateway

## Product Specifications

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

# Riverbed® Flow Gateway

## Power and Physical Specifications

| Model                                     | Flow Gateway  |
|---|---|
|   | SCFG-02280 Series   |
| Dual Power Supplies (redundant)           | ✓   |
| Power [Watts] (typical)                   | 200   |
| BTU                                       | 682   |
| Operating Temperature <sup>1</sup>        | 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                                 | 1 U   |
| System Dimensions (LxWxH) <sup>2</sup>    | 645 mm (L) x 436 mm (W) x 43.6 mm (H)<br>25.4" (L) x 17.2" (W) x 1.72" (H)                  |
| Packaging Dimensions (LxWxH) <sup>3</sup> | 645 mm (L) x 436 mm (W) x 43.6 mm (H)<br>25.4" (L) x 17.2" (W) x 1.72" (H)                  |
| Weight (without packaging) <sup>4</sup>   | 43 lb   |
| Rail Information                          | Mounting rail kit included.<br>Orderable spare part number:<br>RMK-4-1 U                    |
| RoHS Compliant                            | ✓   |

- Flow capacity can be expanded up to the amount listed.
- 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 (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.

- Requires compatible SFPs.
- 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, Riverbed NPM Flow from Azure NSG Flow Logs and AWS VPC Flows.

# Riverbed® 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 7.0, 8.0, Nutanix 6.5.2 LTS, and Microsoft Hyper-V 2022 |                                       |                                       |                                      |  |   |                                  |
| 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 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   |                                       |                                       |                                      |  |   |                                  |

# Riverbed® 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 7.0, 8.0, Nutanix 6.5.2 LTS, and Microsoft Hyper-V 2022 |                                       |                                       |  |   |   |                                  |
| 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 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   |                                       |                                       |  |   |   |                                  |

# Riverbed® 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 recommended), 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  |                        |                          |                          |

# Riverbed® 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), Azure (Premium SSD recommended) |                      |                         |                        |
| Flow Storage                                   | 500 GB minimum / 2 TB maximum                              |                      |                         |                        |
| Flow Storage Type                              | AWS (GP2 SSD recommended), Azure (Premium SSD recommended) |                      |                         |                        |
| Management Ports                               | Up to 2  |                      |                         |                        |

# Riverbed® NetIM

## Model Specifications

### NetIM Manager (Virtual and Cloud Images)

| Devices <sup>1</sup>         | up to 1K   | 2.5K  | 5K    | 10K   | 15K   | 20K   | 25K   | 30K   |
|------------------------------|--|-------|-------|-------|-------|-------|-------|-------|
| Interface Count <sup>2</sup> | 40k  | 100K  | 200K  | 400K  | 600K  | 800K  | 1M    | 1.2M  |
| Polled Interface Count       | 20k  | 50K   | 100K  | 200K  | 300K  | 400K  | 500K  | 600K  |
| vCPUs                        | 4  |       | 6     |       | 8     |       | 10    |       |
| 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   | 1 TB  | 2 TB  |       |       |       | 3 TB  |       |
| Hypervisor <sup>5,6</sup>    | VMware ESXi 7.x, ESXi 8.x <sup>7</sup> , Azure Hypervisor, AWS Hypervisor, Microsoft Hyper-V 2019, Microsoft Hyper-V 2022, Nutanix AOs 6.5.2 LTS (AHV versions 20220304.342) |       |       |       |       |       |       |       |
| Managers                     | 1  |       |       |       |       |       |       |       |

# Riverbed® 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 <sup>5,6</sup>  | VMware ESXi 7.x, ESXi 8.x <sup>7</sup> , Azure Hypervisor, AWS Hypervisor, Microsoft Hyper-V 2019, Microsoft Hyper-V 2022, Nutanix AOs 6.5.2 LTS (AHV versions 20220304.342) |      |      |       |      |      |      |      |
| Data Managers <sup>3</sup> | 0  |      |      | 1     |      | 2    |      | 3    |

# Riverbed® 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 <sup>5,6</sup> | VMware ESXi 7.x, ESXi 8.x <sup>7</sup> , Azure Hypervisor, AWS Hypervisor, Microsoft Hyper-V 2019, Microsoft Hyper-V 2022, Nutanix AOs 6.5.2 LTS (AHV versions 20220304.342) |      |      |      |      |      |      |      |
| Workers <sup>4</sup>      | 1  | 2    | 4    | 6    | 8    | 10   | 12   |      |

# Riverbed® 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  |      | 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 <sup>5,6</sup> | VMware ESXi 7.x, ESXi 8.x <sup>7</sup> , 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 App Storage of 100 GB may be enough if metric retention settings are reduced from the system defaults.
2. 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.
4. Use the netimsh "scale" command on the Manager to scale the poller and alerting services to equal the number of deployed Workers. See the NetIM Installation Guide or Upgrade Guide for instructions.

5. VMotion should be disabled for all NetIM VMs.
6. ESXi servers must be geographically collocated in the same data center for minimum latency.
7. 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.

# Riverbed® Portal

## Model Specifications

### Portal

|                                 | VMware   | AWS                 | Azure                   |
|---------------------------------|--|---------------------|-------------------------|
| Product SKU                     | SCPRTL-FNDTN   |                     |                         |
| Hypervisor                      | ESXi 7.0 or 8.0 and Nutanix AOS 6.5.5 with AHV hypervisor, Microsoft Hyper-V running on Windows Server 2019 and 2022 | AWS EC2             | Azure Virtual Machines  |
| vCPUs <sup>1</sup>              | 4  | 4 (c5.xlarge)       | 4 (Standard B4ms)       |
| Memory                          | 16 GB  | 8 GiB (c5.xlarge)   | 16 GiB (Standard B4ms)  |
| OS Storage                      | 100 GB   | -                   | -                       |
| Instance type                   | -  | C5.xlarge           | B4MS                    |
| System Disk Space               | -  | 100 GB              | 100 GB                  |
| System Disk Type                | -  | GP2 SSD recommended | Premium SSD recommended |
| Supported Browsers <sup>2</sup> | Firefox ESR 128.9.0esr, Chrome 134.0.6998.166, Edge Browser 135.0.3179.54  |                     |                         |

1. The host CPUs must support the POPCNT CPU instructions (the Nehalem generation of Xeon CPUs (or later).
2. Internet Explorer is not supported. Other versions or browsers may or may not be compatible.

# Riverbed® Transaction Analyzer

## System Requirements

Transaction Analyzer requires, at a minimum, the following

### Transaction Analyzer

|                                  |  |
|----------------------------------|--|
| Operating Systems                | Windows 10<br>Windows 8 (KB2883200 required for Windows 8.1)<br>Windows Server 2012 R2 (KB2883200 also required)<br>Windows Server 2016<br>Windows Server 2019 |
| Host Hardware                    | x86 or EM64T (2.0 GHz or better)<br>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<br>Video card capable of running DirectX 9   |
| Compatible Software              | Wireshark v3.27  |
| Compatible Capture Agent Version | Version 3.10 only  |

Table 1 System requirement for running Transaction Analyzer.

# Riverbed® Packet Trace Warehouse

## System Requirements

Packet Trace Warehouse requires, at a minimum, the following

### Packet Trace Warehouse

|                                  |   |
|----------------------------------|---|
| Operating Systems                | Windows Server 2012 R2<br>Windows Server 2016<br>Windows Server 2019                              |
| Host Hardware                    | x86 or EM64T (2.0 GHz or better)<br>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)<br>1024 x 768 resolution (minimum)                           |
| Compatible Browsers              | Microsoft Edge 86.0.622.38<br>Firefox ESR 78.3.1<br>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.

# Riverbed® 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)<br>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.

# Riverbed® Packet Analyzer Plus

## System Requirements

Packet Analyzer Plus requires, at a minimum, the following

### Packet Analyzer Plus

|                             |   |
|-----------------------------|---|
| Operating Systems           | Microsoft Windows 8.1, 10, Server 2016 and 2019*<br>Microsoft update <a href="https://support.microsoft.com/en-in/kb/2999226">https://support.microsoft.com/en-in/kb/2999226</a><br>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.



## About Riverbed

Riverbed, the leader in AIOps for observability, helps organizations optimize their user's experiences by leveraging AI automation for the prevention, identification, and resolution of IT issues. With over 20 years of experience in data collection and AI and machine learning, Riverbed's open and AI-powered observability platform and solutions optimize digital experiences and greatly improves IT efficiency. Riverbed also offers industry-leading Acceleration solutions that provide fast, agile, secure acceleration of any app, over any network, to users anywhere. Together with our thousands of market-leading customers globally – including 95% of the FORTUNE 100 – we are empowering next-generation digital experiences.

Learn more at [riverbed.com](https://riverbed.com).