IBM Security QRadar
Version 7.2.2

Hardware Guide
Note

Before using this information and the product that it supports, read the information in Notices.
SAFETY INSTRUCTIONS

This section includes safety guidelines to help ensure your own personal safety and protect your system and working environment from potential damage.

Systems are considered to be components in a rack. Thus, the term component refers to any system, various peripherals, or supporting hardware.

Observe the following precautions for rack stability and safety:

• System rack kits are intended to be installed in a rack by trained service technicians. Before working on the rack, make sure that the stabilizers are secured to the rack, extended to the floor, and the full weight of the rack rests on the floor. Install front and side stabilizers on a single rack or front stabilizers for joined multiple racks before working on the rack.

• Installing systems in a rack without the front and side stabilizers installed could cause the rack to tip over, potentially resulting in bodily injury under certain circumstances. Therefore, always install the stabilizers before installing components in the rack. After installing system/components in a rack, never pull more than one component out of the rack on the slide assemblies at one time. The weight of more than one extended component could cause the rack to tip over and may result in serious injury.

• Your system is safety-certified as a free-standing unit and as a component for use in a rack cabinet using the customer rack kit. The installation of your system and rack kit in any other rack cabinet has not been approved by any safety agency. It is your responsibility to ensure that the final combination of system and rack complies with all applicable safety standards and local electric code requirements. IBM disclaims all liability and warranties in connection with such combinations.

CAUTION

Do not move racks by yourself. Due to the height and weight of the rack, a minimum of two people should accomplish this task.

• Always load the rack from the bottom up and load the heaviest item in the rack first.

• Make sure that the rack is level and stable before extending a component from the rack.

• Use caution when pressing the component rail release latches and sliding a component into or out of a rack; the rails can pinch your fingers.
• Do not overload the AC supply branch circuit that provides power to the rack. The total rack load should not exceed 80 percent of the branch circuit rating.
• Ensure that proper airflow is provided to components in the rack.
• Do not step on or stand on any component when servicing other components in a rack.
SAFETY INSTRUCTIONS

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ABOUT THIS GUIDE

The IBM® Security QRadar® Hardware Installation Guide provides information about G2 Series QRadar SIEM, QRadar SIEM, IBM Security, QRadar Vulnerability Manager, QRadar Risk Manager, and QRadar Network Anomaly Detection appliances. For information about how to install your appliances in a rack mount, see the documentation that is shipped with your appliance.

Version 7.2.2 introduces the G2 Series of QRadar appliances. Previous generation appliances are still available in Version 7.2.2. for information about previous appliances, see http://www-01.ibm.com/support/docview.wss?uid=swg27040321.

Intended Audience

The IBM Security QRadar Hardware Installation Guide is intended for operations, data center, or system administration personnel.

Technical Documentation

To find IBM® Security QRadar® product documentation on the web, including all translated documentation, access the IBM Knowledge Center (http://www.ibm.com/support/knowledgecenter/SS42VS/welcome).

Contacting Customer Support

For information about contacting customer support, see the Support and Download Technical Note. (http://www.ibm.com/support/docview.wss?rs=0&uid=swg21612861)

Statement of good security practices

IT system security involves protecting systems and information through prevention, detection and response to improper access from within and outside your enterprise. Improper access can result in information being altered, destroyed, misappropriated or misused or can result in damage to or misuse of your systems, including for use in attacks on others. No IT system or product should be considered completely secure and no single product, service or security measure can be completely effective in preventing improper use or access. IBM systems, products and services are designed to be part of a comprehensive security approach, which will necessarily involve additional operational procedures, and may require other systems, products or services to be most effective. IBM DOES NOT WARRANT THAT ANY SYSTEMS, PRODUCTS OR
SERVICES ARE IMMUNE FROM, OR WILL MAKE YOUR ENTERPRISE IMMUNE FROM, THE MALICIOUS OR ILLEGAL CONDUCT OF ANY PARTY.

QRadar Appliance Overview

Review this overview of IBM® Security QRadar® appliances, including capabilities, and license limitations.

IBM Security QRadar QFlow Collector 1201

The QRadar QFlow Collector 1201 appliance provides high capacity and scalable Layer 7 application data collection for distributed deployments. The QRadar QFlow Collector 1201 also supports external flow-based data sources.

The QRadar QFlow Collector 1201 supports:

- 1 Gbps of network traffic
- Five 10/100/1000 Base-T network monitoring interfaces
- Two 10 Gbps SFP + ports
- One 10/100/100 Base-T QRadar management interface
- One 10/100 Base-T integrated management module interface
- Memory: 16 GB, 4 x 4GB 1600 MHz RDIMM
- Storage: 2 x 2.5 inch 600 GB 10 K rpm SAS, 600 MB total (Raid 1)
- Dual Redundant 550 W AC Power Supply
- 28.9 inches deep x 16.9 inches wide x 1.7 inches high
- Included components:
  - QRadar QFlow Collector

For diagrams and information about the front and back panel of this appliance, see QRadar 2100, QRadar Event Collector 1501, and all QRadar Flow Processor Appliances.

QRadar QFlow Collector 1202

The QRadar QFlow Collector 1202 appliance provides high capacity and scalable Layer 7 application data collection for distributed deployments. The QRadar QFlow Collector 1202 also supports external flow-based data sources.

The QRadar QFlow Collector 1202 supports:

- 3 Gbps of network traffic
QRadar QFlow Collector 1301

The QRadar QFlow Collector 1301 appliance provides high capacity and scalable Layer 7 application data collection for distributed deployments. The QRadar QFlow Collector 1301 also supports external flow-based data sources.

The QRadar QFlow Collector 1301 supports:

- 3 Gbps of network traffic
- Napatech Network Adapter, providing four 1 Gbps 1000 Base SX Multi-Mode Fiber network monitoring interfaces
- Two 10 Gbps SFP + ports
- One 10/100/100 Base-T QRadar management interface
- One 10/100 Base-T integrated management module interface
- Memory: 16 GB, 4 x 4GB 1600 MHz RDIMM
- Storage: 2 x 2.5 inch 600 GB 10 K rpm SAS, 600 MB total (Raid 1)
- Dual Redundant 550 W AC Power Supply
- 28.9 inches deep x 16.9 inches wide x 1.7 inches high

Included components:
- QRadar QFlow Collector
- Napatech Network Adaptor

For diagrams and information about the front and back panel of this appliance, see QRadar 2100, QRadar Event Collector 1501, and all QRadar Flow Processor Appliances.
QRadar QFlow Collector 1310

The QRadar QFlow Collector 1310 appliance provides high capacity and scalable Layer 7 application data collection for distributed deployments. The QRadar QFlow Collector 1310 also supports external flow-based data sources.

The QRadar QFlow Collector 1310 supports:

- 3 Gbps of network traffic
- One 10/100/100 Base-T QRadar management interface
- One 10/100 Base-T integrated management module interface
- Memory: 16 GB, 4 x 4GB 1600 MHz RDIMM
- Storage: 2 x 2.5 inch 600 GB 10 K rpm SAS, 600 MB total (Raid 1)
- Napatech Network Adapter for fiber, providing two 10 Gbps SFP + network monitoring interfaces
- Two 10 Gbps SFP + ports
- Dual Redundant 550 W AC Power Supply
- 28.9 inches deep x 16.9 inches wide x 1.7 inches high
- Included components:
  - QRadar QFlow Collector
  - Napatech Network Adaptor

For diagrams and information about the front and back panel of this appliance, see QRadar 2100, QRadar Event Collector 1501, and all QRadar Flow Processor Appliances.

QRadar 1400 Data Node

The QRadar Data Node 1400 appliance provides scalable data storage solution for QRadar deployments. The QRadare Data Node enhances data retention capabilities of a deployment as well as augment overall query performance. The QRadar Data Node supports the following specifications:

**When used with xx05**

- Two 10/100/1000 Base-T network monitoring interfaces
- One 10/100/100 Base-T QRadar management interface
- One 10/100 Base-T integrated management module interface
- Two 10 Gbps SFP + ports
- Storage: 9 x 3.5 inch 1 TB 7.2 K rpm NL SAS, 9 TB total, 6.2 TB usable (Raid 5)
- Memory: 64 GB 8x 8 GB 1600 MHz RDIMM
- Dual Redundant 750 W AC Power Supply
• 29.5 inches deep x 17.7 inches wide x 2.4 inches high

When used with xx28

• 40 TB or larger dedicated event storage
• One 2-port Emulex 8Gb FC
• Two 10/100/1000 Base-T network monitoring interface
• One 10/100/100 Base-T QRadar management interface
• One 10/100 Base-T integrated management module interface
• Two 10 Gbps SFP + ports
• Memory: 128 GB, 8 x 16 GB 1866 MHz RDIMM8
• Storage: 12 x 3.5 inch 4 TB SAS 7.2 K rpm, 48 TB total, 40 TB usable (Raid 6)
• Dual Redundant 900 W AC Power Supply
• 29.5 inches deep x 17.7 inches wide x 2.4 inches high

IBM Security QRadar Event Collector 1501

The QRadar Event Collector 1501 appliance is a dedicated event collector. By default, a dedicated event collector collects and parses event from various log sources and continuously forwards these events to an event processor. You can configure the QRadar Event Collector 1501 appliance to temporarily store events and only forward the stored events on a schedule. A dedicated event collector does not process events and it does not include an on-board event processor.

The QRadar Event Collector 1501 appliance supports:

• 1 Gbps of network traffic
• Five 10/100/1000 Base-T network monitoring interfaces
• Two 10 Gbps SFP + ports
• One 10/100/100 Base-T QRadar management interface
• One 10/100 Base-T integrated management module interface
• Memory: 16 GB, 4 x 4GB 1600 MHz RDIMM
• Storage: 2 x 2.5 inch 600 GB 10 K rpm SAS, 600 MB total (Raid 1)
• Dual Redundant 550 W AC Power Supply
• 28.9 inches deep x 16.9 inches wide x 1.7 inches high
• Included components:
  - Event Collector

For diagrams and information about the front and back panel of this appliance, see QRadar 2100, QRadar Event Collector 1501, and all QRadar Flow Processor Appliances.
IBM Security QRadar Event Processor 1605

The QRadar Event Processor 1605 appliance is a dedicated event processor that you can use to scale your QRadar deployment to manage higher EPS rates. The QRadar Event Processor 1605 appliance includes an on-board event collector, event processor, and internal storage for events.

The QRadar Event Processor 1605 is a distributed event processor appliance and requires a connection to a IBM Security QRadar 3105 or QRadar 3128 appliance.

The QRadar Event Processor 1605 appliance supports:
- Basic license: 2,500 EPS. Up to 20,000 EPS with license upgrade
- Two 10/100/1000 Base-T network monitoring interfaces
- One 10/100 Base-T QRadar management interface
- One 10/100 Base-T integrated management module interface
- Two 10 Gbps SFP + ports
- Memory: 64 GB 8x 8 GB 1600 MHz RDIMM
- Storage: 9 x 3.5 inch 1 TB 7.2 K rpm NL SAS, 9 TB total, 6.2 TB usable (Raid 5)
- Dual Redundant 750 W AC Power Supply
- 29.5 inches deep x 17.7 inches wide x 2.4 inches high
- Included components:
  - Event Collector
  - Event Processor

For diagrams and information about the front and back panel of this appliance, see QRadar Appliances.

QRadar Event Processor 1628

The QRadar Event Processor 1628 appliance is a dedicated event processor that you can use to scale your QRadar deployment to manage higher EPS rates. The QRadar Event Processor 1628 appliance includes an on-board event collector, event processor, and internal storage for events.

The QRadar Event Processor 1628 is a distributed event processor appliance and requires a connection to a IBM Security QRadar 3128 Console appliance.

The QRadar Event Processor 1628 appliance supports:
- Basic license: 2,500 EPS. Up to 40,000 EPS with license upgrade
- One 2-port Emulex 8Gb FC
- Two 10/100/1000 Base-T network monitoring interface
- One 10/100 Base-T QRadar management interface
- One 10/100 Base-T integrated management module interface
- Two 10 Gbps SFP + ports
• Memory: 128 GB, 8 x 16 GB 1866 MHz RDIMM
• Storage: 12 x 3.5 inch 4 TB SAS 7.2 K rpm, 48 TB total, 40 TB usable (Raid 6)
• Dual Redundant 900 W AC Power Supply
• 29.5 inches deep x 17.7 inches wide x 2.4 inches high
• Included components:
  - Event Collector
  - Event Processor

For diagrams and information about the front and back panel of this appliance, see QRadar Appliances.

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IBM Security QRadar Flow Processor 1705

The QRadar Flow Processor 1705 appliance is a flow processor that you can deploy with the QRadar 3105 appliance to increase storage. The QRadar Flow Processor 1705 includes an on-board event processor, and internal storage.

The QRadar Flow Processor 1705 appliance supports:
• Basic license: 100,000 Flows per Minute (FPM). 600,000 FPM, depending on traffic types
• 1,000 network objects
• Two 10/100/1000 Base-T network monitoring interfaces
• One 10/100/100 Base-T QRadar management interface
• One 10/100 Base-T integrated management module interface
• Two 10 Gbps SFP + ports
• Memory: 64 GB 8x 8 GB 1600 MHz RDIMM
• Storage: 9 x 3.5 inch 1 TB 7.2 K rpm NL SAS, 9 TB total, 6.2 TB usable (Raid 5)
• Dual Redundant 750 W AC Power Supply
• 29.5 inches deep x 17.7 inches wide x 2.4 inches high
• Included components:
  - Flow processor

For diagrams and information about the front and back panel of this appliance, see QRadar Appliances.

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QRadar Flow Processor 1728

The QRadar Flow Processor 1728 appliance is a flow processor that you can deploy with the QRadar 3128 appliance to increase storage. The QRadar Flow Processor 1728 includes an on-board event processor, and internal storage.
The QRadar Flow Processor 1728 appliance supports:
- Basic license: 100,000 FPM, 1,200,000 FPM with license upgrade
- 1,000 network objects
- One 2-port Emulex 8Gb FC
- Two 10/100/1000 Base-T network monitoring interface
- One 10/100/100 Base-T QRadar management interface
- One 10/100 Base-T integrated management module interface
- Two 10 Gbps SFP + ports
- Memory: 128 GB, 8 x 16 GB 1866 MHz RDIMM8
- Storage: 12 x 3.5 inch 4 TB SAS 7.2 K rpm, 48 TB total, 40 TB usable (Raid 6)
- Dual Redundant 900 W AC Power Supply
- 29.5 inches deep x 17.7 inches wide x 2.4 inches high
- Included components:
  - Flow processor

For diagrams and information about the front and back panel of this appliance, see QRadar Appliances.

IBM Security QRadar 1805

The QRadar 1805 appliance is a combine Event Processor and Flow Processor that you can use to scale your QRadar deployment to manage more event and flows. The QRadar 1805 includes an on-board Event Processor, and internal storage.

The QRadar 1805 appliance supports:
- Basic license: 25,000 FPM, up to 200,000 FPM with license upgrade
- Basic license: 1,000 EPS, up to 5,000 EPS with license upgrade
- 1,000 network objects
- 750 log sources
- Two 10/100/1000 Base-T network monitoring interfaces
- One 10/100/100 Base-T QRadar management interface
- One 10/100 Base-T integrated management module interface
- Two 10 Gbps SFP + ports
- Memory: 64 GB 8x 8 GB 1600 MHz RDIMM
- Storage: 9 x 3.5 inch 1 TB 7.2 K rpm NL SAS, 9 TB total, 6.2 TB usable (Raid 5)
- Dual Redundant 750 W AC Power Supply
- 29.5 inches deep x 17.7 inches wide x 2.4 inches high
- Included components:
- Event Processor
- Flow Processor

For diagrams and information on the front and back panel of this appliance, see QRadar Appliances.

**QRadar Flow Processor 1828**

The QRadar Flow Processor 1828 appliance is a flow processor that you can deploy with the QRadar 3128 appliance to increase storage. The QRadar Flow Processor 1828 includes an on-board event processor, and internal storage.

The QRadar Flow Processor 1828 appliance supports:

- Basic license: 25,000 FPM, up to 300,000 FPM with license upgrade
- Basic license: 1000 EPS, up to 15,000 EPS with license upgrade
- 1,000 network objects
- 750 log sources
- One 2-port Emulex 8Gb FC
- Two 10/100/1000 Base-T network monitoring interface
- One 10/100/100 Base-T QRadar management interface
- One 10/100 Base-T integrated management module interface
- Two 10 Gbps SFP + ports
- Memory: 128 GB, 8 x 16 GB 1866 MHz RDIMM8
- Storage: 12 x 3.5 inch 4 TB SAS 7.2 K rpm, 48 TB total, 40 TB usable (Raid 6)
- Dual Redundant 900 W AC Power Supply
- 29.5 inches deep x 17.7 inches wide x 2.4 inches high
- Included components:
  - Event Processor

For diagrams and information about the front and back panel of this appliance, see QRadar Appliances.
QRadar 2100

The QRadar 2100 appliance is an all-in-one system that combines Network Behavioral Anomaly Detection (NBAD) and Security Information and Event Management (SIEM) to accurately identify and appropriately prioritize threats that occur on your network.

The QRadar 2100 appliance supports:
- 100 network objects
- Basic license: 25,000 FPM, up to 50,000 FPM with license upgrade
- 1000 EPS
- 750 log sources
- Memory: 32 GB, 4 x 8GB 1600 MHz RDIMM
- Storage: 6 x 2.5" 500 GB 7.2K rpm SATA, 3 TB total, 1.5 TB usable (Raid 10)
- External flow collection
- Five 10/100/1000 Base-T network monitoring interfaces
- One 10/100/100 Base-T QRadar management interface
- One 10/100 Base-T integrated management module interface
- Two 10 Gbps SFP + ports
- 28.9 inches deep x 16.9 inches wide x 1.7 inches high
- Included components:
  - Event Collector
  - Event Processor
  - Single QRadar QFlow Collector

NOTE
Additional QRadar QFlow Collectors are sold separately.

For diagrams and information about the front and back panel of this appliance, see QRadar 2100, QRadar Event Collector 1501, and all QRadar Flow Processor Appliances.

QRadar 3105 (All-in-One)

The QRadar 3105 (All-in-One) appliance is an all-in-one QRadar system that can profile network behavior and identify network security threats. The QRadar 3105 includes:
- Event Collector
- Event Processor for processing events and flows
- Internal storage for events and flows

The QRadar 3105 appliance supports:
- Up to 1000 network objects, depending on license
QRadar 3105 (Console)

You can expand the capacity of the QRadar 3105 (All-in-One) beyond license-based upgrade options by upgrading to the QRadar 3105 (Console) appliance and adding one or more of the following appliances:

- IBM Security QRadar Event Processor 1605
- IBM Security QRadar Flow Processor 1705
- IBM Security QRadar 1805

The QRadar 3105 (Console) appliance you can use to manage a distributed deployment of Event Processors and Flow Processors to profile network behavior and identify network security threats.

For diagrams and information about the front and back panel of this appliance, see QRadar Appliances.
QRadar 3128 (All-in-One) appliance is an all-in-one QRadar system that can profile network behavior and identify network security threats. The QRadar 3128 (All-in-One) appliance includes the following components:

- Event Collector
- Event Processor for processing events and flows
- Internal storage for events and flows

The QRadar 3128 (All-in-One) appliance supports:

- Up to 1,000 network objects, depending on license
- Basic license: 25,000 FPM, up to 300,000 FPM with license upgrade
- Basic license: 1000 EPS, up to 15,000 EPS with license upgrade
- 750 log sources (more devices can be added with licensing option)
- One 2-port Emulex 8Gb FC
- Two 10/100/1000 Base-T network monitoring interface
- One 10/100/100 Base-T QRadar management interface
- One 10/100 Base-T integrated management module interface
- Two 10 Gbps SFP + ports
- Memory: 128 GB, 8 x 16 GB 1866 MHz RDIMM8
- Storage: 12 x 3.5 inch 4 TB SAS 7.2 K rpm, 48 TB total, 40 TB usable (Raid 6)
- Requires external QRadar QFlow Collectors for layer 7 network activity monitoring
- Dual Redundant 900 W AC Power Supply
- 29.5 inches deep x 17.7 inches wide x 2.4 inches high

For diagrams and information about the front and back panel of this appliance, see QRadar Appliances.

QRadar 3128 (Console) appliance can expand the capacity of the QRadar 3128 (All-in-One) appliance beyond license-based upgrade options by upgrading to the QRadar 3128 (Console) appliance and adding one or more of the following appliances:

- QRadar Event Processor 1628
- QRadar Flow Processor 1728
- QRadar Flow Processor 1828

The QRadar 3128 (Console) appliance you can use to manage a distributed deployment of Event Processors and Flow Processors to profile network behavior and identify network security threats.
For diagrams and information about the front and back panel of this appliance, see QRadar Appliances.

**QRadar Log Manager 1605**

The QRadar Log Manager 1605 appliance is a dedicated Event Processor that you can use to scale your QRadar deployment to manage higher EPS rates. The QRadar 1605 appliance includes an on-board Event Collector, Event Processor, and internal storage for events.

The QRadar 1605 is a distributed Event Processor appliance and requires a connection to a QRadar Log Manager 3105 appliance.

The QRadar 1605 appliance supports:
- Basic license: 2,500 EPS, up to 20,000 EPS with license upgrade
- Two 10/100/1000 Base-T network monitoring interfaces
- One 10/100/100 Base-T QRadar management interface
- One 10/100 Base-T integrated management module interface
- Two 10 Gbps SFP + ports
- Memory: 64 GB 8x 8 GB 1600 MHz RDIMM
- Storage: 9 x 3.5 inch 1 TB 7.2 K rpm NL SAS, 9 TB total, 6.2 TB usable (Raid 5)
- Dual Redundant 750 W AC Power Supply
- 29.5 inches deep x 17.7 inches wide x 2.4 inches high
- Included components:
  - Event Collector
  - Event Processor

For diagrams and information about the front and back panel of this appliance, see QRadar Appliances.

**IBM Security QRadar Log Manager 1628**

The QRadar Log Manager 1628 appliance is a dedicated Event Processor that you can use to scale your QRadar Log Manager deployment to manage higher Event Per Second (EPS) rates. The QRadar Log Manager 1628 appliance includes an on-board Event Collector, Event Processor, and internal storage for events.

The QRadar Log Manager 1628 is a distributed Event Processor appliance and requires a connection to a QRadar Log Manager 3128 appliance.

The QRadar Log Manager 1628 appliance supports:
- Basic license: 20,000 EPS, up to 40,000 EPS with license upgrade
- 40 TB or larger dedicated event storage
• One 2-port Emulex 8Gb FC
• Two 10/100/1000 Base-T network monitoring interface
• One 10/100/100 Base-T QRadar management interface
• One 10/100 Base-T integrated management module interface
• Two 10 Gbps SFP + ports
• Memory: 128 GB, 8 x 16 GB 1866 MHz RDIMM8
• Storage: 12 x 3.5 inch 4 TB SAS 7.2 K rpm, 48 TB total, 40 TB usable (Raid 6)
• Dual Redundant 900 W AC Power Supply
• 29.5 inches deep x 17.7 inches wide x 2.4 inches high
• Included components:
  - Event Collector
  - Event Processor

For diagrams and information about the front and back panel of this appliance, see QRadar Appliances.

QRadar Log Manager 2100

The QRadar Log Manager 2100 appliance is an all-in-one system that provides Security Information and Event Management (SIEM) to accurately identify and appropriately prioritize threats that occur on your network.

The QRadar Log Manager 2100 appliance supports:
• Up to 1,000 EPS, depending on license
• 750 log sources
• Memory: 32 GB, 4 x 8GB 1600 MHz RDIMM
• Storage: 6 x 2.5" 500 GB 7.2K rpm SATA, 3 TB total, 1.5 TB usable (Raid 10)
• External flow collection
• Five 10/100/1000 Base-T network monitoring interfaces
• One 10/100/100 Base-T QRadar management interface
• One 10/100 Base-T integrated management module interface
• Two 10 Gbps SFP + ports
• 28.9 inches deep x 16.9 inches wide x 1.7 inches high
• Included components:
  - Event Collector
  - Event Processor

For diagrams and information about the front and back panel of this appliance, see QRadar 2100, QRadar Event Collector 1501, and all QRadar Flow Processor Appliances.
QRadar Log Manager 3105 (All-in-One)

The QRadar Log Manager 3105 (All-in-One) appliance is an all-in-one system that you can use to manage and store events from various network devices. The QRadar Log Manager 3105 (All-in-One) appliance includes the following components:

- Event Collector
- Event Processor
- Internal storage for events

The QRadar Log Manager 3105 (All-in-One) appliance supports:

- Up to 200,000 FPM
- Up to 5,000 EPS, depending on license
- 750 log sources (more log sources can be added with licensing option)
- Two 10/100/1000 Base-T network monitoring interfaces
- One 10/100/100 Base-T QRadar management interface
- One 10/100 Base-T integrated management module interface
- Two 10 Gbps SFP + ports
- Memory: 64 GB 8x 8 GB 1600 MHz RDIMM
- Storage: 9 x 3.5 inch 1 TB 7.2 K rpm NL SAS, 9 TB total, 6.2 TB usable (Raid 5)
- Requires external QRadar QFlow Collectors for layer 7 network activity monitoring
- Dual Redundant 750 W AC Power Supply
- 29.5 inches deep x 17.7 inches wide x 2.4 inches high

**NOTE**
You can upgrade your license to migrate your QRadar Log Manager 3105(Base) to QRadar 3105 (Base). For more information about migrating QRadar Log Manager to QRadar SIEM, see the [Migrating QRadar Log Manager to QRadar SIEM Technical Note](#).

For diagrams and information about the front and back panel of this appliance, see [QRadar Appliances](#).

QRadar Log Manager 3105 (Console)

You can expand the capacity of the QRadar Log Manager 3128 (Base) appliance beyond license-based upgrade options by upgrading to the QRadar Log Manager 3128 (Console) appliance and adding one or more of the following appliances:

- QRadar Log Manager 1605
- IBM Security QRadar Log Manager 1628

The QRadar Log Manager 3105 (Console) appliance manages a distributed deployment of Event Processors to collect and process events.
**NOTE**
You can upgrade your license to migrate your QRadar Log Manager 3105 to QRadar 3105. For more information about migrating QRadar Log Manager to QRadar SIEM, see the *Migrating QRadar Log Manager to QRadar SIEM Technical Note*.

For diagrams and information about the front and back panel of this appliance, see *QRadar Appliances*.

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**QRadar Log Manager 3128 (All-in-One)**

The QRadar Log Manager 3128 (All-in-One) appliance is an all-in-one system that you can use to manage and store events from various network devices. The QRadar Log Manager (All-in-One) appliance includes the following components:

- Event Collector
- Event Processor
- Internal storage for events

The QRadar Log Manager 3128 (All-in-One) appliance supports:

- Up to 15,000 EPS, depending on license
- 750 log sources (more devices can be added with licensing option)
- One 2-port Emulex 8Gb FC
- Two 10/100/1000 Base-T network monitoring interface
- One 10/100/100 Base-T QRadar management interface
- One 10/100 Base-T integrated management module interface
- Two 10 Gbps SFP + ports
- Memory: 128 GB, 8 x 16 GB 1866 MHz RDIMM8
- Storage: 12 x 3.5 inch 4 TB SAS 7.2 K rpm, 48 TB total, 40 TB usable (Raid 6)
- Requires external QRadar QFlow Collectors for layer 7 network activity monitoring
- Dual Redundant 900 W AC Power Supply
- 29.5 inches deep x 17.7 inches wide x 2.4 inches high

**NOTE**
You can upgrade your license to migrate your QRadar Log Manager 3128 (Base) appliance to QRadar 3128 (Base). For more information about migrating QRadar Log Manager to QRadar SIEM, see the *Migrating QRadar Log Manager to QRadar SIEM Technical Note*.

For diagrams and information about the front and back panel of this appliance, see *QRadar Appliances*. 
You can expand the capacity of the QRadar Log Manager 3128 (Base) appliance beyond license-based upgrade options by upgrading to the QRadar Log Manager 3128 (Console) appliance and adding one or more of the following appliances:

- QRadar Log Manager 1605
- IBM Security QRadar Log Manager 1628

**NOTE**
You can upgrade your license to migrate your QRadar Log Manager 3128 (Console) appliance to QRadar 3128 (Console). For more information about migrating QRadar Log Manager to QRadar SIEM, see the *Migrating QRadar Log Manager to QRadar SIEM Technical Note*.

The QRadar Log Manager 3128 (Console) appliance manages a distributed deployment of Event Processors to collect and process events.

For diagrams and information about the front and back panel of this appliance, see [QRadar Appliances](#).

---

**IBM Security QRadar Network Anomaly Detection 3105**

The QRadar Network Anomaly Detection 3105 appliance is a QRadar system that integrates with IBM ISS SiteProtector products to provide greater insight to network behaviors and abnormal activities using real-time correlation and behavior analytics.

The QRadar Network Anomaly Detection 3105 appliance supports:

- Basic license: 25,000 FPM, up to 200,000 FPM with license upgrade
- Basic license: 500 EPS, up to 5,000 EPS with license upgrade
- 750 log sources
- Two 10/100/1000 Base-T network monitoring interfaces
- One 10/100/100 Base-T QRadar management interface
- One 10/100 Base-T integrated management module interface
- Two 10 Gbps SFP + ports
- Memory: 64 GB 8x 8 GB 1600 MHz RDIMM
- Storage: 9 x 3.5 inch 1 TB 7.2 K rpm NL SAS, 9 TB total, 6.2 TB usable (Raid 5)
- Requires external QRadar QFlow Collectors for layer 7 network activity monitoring
- Dual Redundant 750 W AC Power Supply
- 29.5 inches deep x 17.7 inches wide x 2.4 inches high
- Included components:
  - Event Collector
The QRadar Vulnerability Manager appliance is a QRadar system that provides seamless integrated network vulnerability scanning and reporting with network context aware vulnerability management workflow that is fully integrated with QRadar SIEM and is available as a software option, appliance, and virtual appliance.

QRadar Vulnerability Manager provides the following capabilities:

- Scans inside and outside your network, network infrastructure, servers and endpoints for bad configurations, weak settings, unpatched products, and other key weaknesses.
- Uses network usage, threat environment, security configuration information, virtual patch and patch availability to bring real context to vulnerability management, which drives efficient remediation processes.
- Integrates all vulnerability information from external systems to provide a single view.
- Full integration with the QRadar asset profile database to provide intelligent event-driven scans.

The QRadar Vulnerability Manager appliance supports:

- Basic license: 255 assets, up to 32,768 with license upgrade
- Unlimited QVM discovery scans
- Use of hosted scanner for DMZ scanning
- Two 10/100/1000 Base-T network monitoring interfaces
- One 10/100/100 Base-T QRadar management interface
- One 10/100 Base-T integrated management module interface
- Two 10 Gbps SFP + ports
- Memory: 64 GB 8x 8 GB 1600 MHz RDIMM
- Storage: 9 x 3.5 inch 1 TB 7.2 K rpm NL SAS, 9 TB total, 6.2 TB usable (Raid 5)
- Requires external QRadar QFlow Collectors for layer 7 network activity monitoring
- Dual Redundant 750 W AC Power Supply
- 29.5 inches deep x 17.7 inches wide x 2.4 inches high

For diagrams and information about the front and back panel of this appliance, see QRadar Appliances.
The QRadar Risk Manager appliance delivers a fully integrated risk management, vulnerability prioritization, and automated configuration solution that is integrated into the QRadar platform. QRadar Risk Manager enables tightly integrated features in QRadar SIEM that enhance incident management, log and network activity searches, threat visualization, and reports.

The QRadar Risk Manager appliance supports:

- Two 10/100/1000 Base-T network monitoring interfaces
- One 10/100/100 Base-T QRadar management interface
- One 10/100 Base-T integrated management module interface
- Two 10 Gbps SFP + ports
- Memory: 64 GB 8x 8 GB 1600 MHz RDIMM
- Storage: 9 x 3.5 inch 1 TB 7.2 K rpm NL SAS, 9 TB total, 6.2 TB usable (Raid 5)
- Requires external QRadar QFlow Collectors for layer 7 network activity monitoring
- Dual Redundant 750 W AC Power Supply
- 29.5 inches deep x 17.7 inches wide x 2.4 inches high

For diagrams and information about the front and back panel of this appliance, see QRadar Appliances.
2

APPLIANCE DIAGRAMS

View the diagrams and descriptions for the back and front panels of your appliance. These diagrams are representations of an IBM® Security QRadar® appliance. Your system might vary, depending on the version of appliance you purchased.

On the back panel of each appliance type, the serial connector and ethernet connectors can be managed using the Integrated Management Module (IMM). You can configure the IMM to share an ethernet port with the QRadar management interface; however, you can configure the IMM in dedicated mode to reduce the risk of losing the IMM connection when the appliance is restarted. To configure the IMM, you must access the System BIOS settings by pressing the F1 key when the IBM splash screen is displayed. For further instructions on how to configure the IMM, see the Integrated Management Module User's Guide that is located on the CD that was shipped with your appliance.

Review the information about the front and back panel features for the following appliances:

- QRadar 2100
- QRadar 3105 (All-in-One)
- IBM Security QRadar QFlow Collector 1201
- QRadar QFlow Collector 1202
- QRadar QFlow Collector 1301
- QRadar QFlow Collector 1310
- IBM Security QRadar Event Collector 1501
- QRadar Log Manager 2100
The following figure shows the front panel indicators and features of the IBM Security QRadar Core Appliances 4380.

The following table describes the front panel features.

<table>
<thead>
<tr>
<th>Features</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard Disk Drive Activity LED</td>
<td>Indicates when the hard disk drive is active. This light is green. When this LED flashes, the hard disk is in use.</td>
</tr>
<tr>
<td>Hard Disk Drive Status LEDs</td>
<td>Indicates the status of the drive. This light is amber, and indicates the following statuses:</td>
</tr>
<tr>
<td></td>
<td>• <strong>Lit</strong> - The hard disk drive failed.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Flashing slowly</strong> - When this LED flashes once per second, the hard disk drive is being rebuilt.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Flashing rapidly</strong> - When this LED flashes three times per second, the controller is identifying the hard disk drive.</td>
</tr>
<tr>
<td>video connector</td>
<td>Connect a VGA monitor to this connector. The video connectors on the front and rear of the server can be used simultaneously.</td>
</tr>
<tr>
<td>Drive Bays</td>
<td>Hard disk bays are numbered 0 through 7 starting at the upper left drive bay.</td>
</tr>
</tbody>
</table>
The following figure shows the back panel features of the IBM Security QRadar Core Appliances 4380.

The following table describes the back panel features.

<table>
<thead>
<tr>
<th>Features</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slot 1, PCI Express or PCI-X</td>
<td>Insert a low-profile PCI Express or PCI-X adapter into this slot. You can purchase an optional PCI Express or PCI-X riser card assembly with bracket if you want to install a PCI adapter in this slot.</td>
</tr>
<tr>
<td>Slot 2, PCI Express or PCI-X</td>
<td>Insert a half-length, full-height PCI Express or PCI-X adapter into this slot. Standard models of the server come with one PIC Express riser-card assembly that is installed in this slot. You can purchase an optional PCI-X riser-card assembly with bracket if you want to install a PCI-X adapter in this slot. If your appliance is shipped with an uninstalled Napatech Network Adapter, you can install the adapter in Slot 2. For more information about how to install a Napatech Network Adapter, see the Installing a Napatech Network Adapter Technical Note.</td>
</tr>
<tr>
<td>USB Connectors</td>
<td>Connect a USB device, such as a USB mouse and keyboard to any of these connectors. Two more USB connectors are available on the front panel.</td>
</tr>
<tr>
<td>Power Supplies</td>
<td>Supports two power supplies.</td>
</tr>
<tr>
<td>Power Cord Connectors</td>
<td>Connect the power cord to this connector.</td>
</tr>
</tbody>
</table>

**Note:** Power supply 1 is the default/primary power supply. If power supply 1 fails, you must replace it immediately.
<table>
<thead>
<tr>
<th>Features</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>serial connector</td>
<td>Connect a 9-pin serial device to this connector. The serial port is shared with the integrated management module (IMM). The IMM can take control of the shared serial port to perform text console redirection and to redirect serial traffic, using Serial over LAN (SOL).</td>
</tr>
<tr>
<td>Ethernet Connectors</td>
<td>Use either of these connectors to connect the server to a network. When you use the Ethernet 1 connector, the network can be shared with the IMM through a single network cable.</td>
</tr>
<tr>
<td>System Management Ethernet Connector</td>
<td>Use this connector to connect your management interface.</td>
</tr>
</tbody>
</table>
This section provides information about the front and back panel features for the following appliances:

- QRadar 1400 Data Node
- IBM Security QRadar Event Processor 1605
- QRadar Event Processor 1628
- IBM Security QRadar Flow Processor 1705
- QRadar Flow Processor 1728
- QRadar 2100
- QRadar 3105 (All-in-One)
- QRadar 3105 (Console)
- QRadar 3128 (All-in-One)
- QRadar 3128 (Console)
- QRadar Log Manager 1605
- IBM Security QRadar Log Manager 1628
- QRadar Log Manager 3105 (All-in-One)
- QRadar Log Manager 3105 (Console)
- QRadar Log Manager 3128 (All-in-One)
- QRadar Log Manager 3128 (Console)
- IBM Security QRadar Network Anomaly Detection 3105
- IBM Security QRadar Vulnerability Manager
- IBM Security QRadar Risk Manager

### Table 2-2  Back Panel Features of IBM Security QRadar Core Appliances 4380

<table>
<thead>
<tr>
<th>Features</th>
<th>Description</th>
</tr>
</thead>
</table>
| NMI button     | Use the NMI button to troubleshoot software and device driver errors when you use certain operating systems. \  
Note: Use this button only if directed to do so by qualified support personnel.  
Press this button to force a Non-Maskable Interrupt (NMI) to the microprocessor. Use a pen or the end of a straightened paper clip to press the button. |
The following figure shows the front panel indicators and features of QRadar and all IBM Security QRadar Core Appliances 4379.

The following table describes the front panel features.

**Table 2-3**  Front Panel Features of IBM Security QRadar Core Appliances 4379

<table>
<thead>
<tr>
<th>Features</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard Disk Drive Activity LED</td>
<td>Indicates when the hard disk drive is active. This light is green. When this LED is flashing, the hard disk is in use.</td>
</tr>
<tr>
<td>Hard Disk Drive Status LEDs</td>
<td>Indicates the status of the drive. This light is amber, and indicates the following statuses:</td>
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<td></td>
<td>• <em>Lit</em> - The hard disk drive failed.</td>
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<td>• <em>Flashing rapidly</em> - When this LED flashes three times per second, the controller is identifying the hard disk drive.</td>
</tr>
<tr>
<td>Drive Bays</td>
<td>Hard disk bays are numbered 0 through 7 starting at the upper left drive bay.</td>
</tr>
<tr>
<td>video connector</td>
<td>Connect a monitor to this connector. The video connectors on the front and rear of the server can be used simultaneously.</td>
</tr>
<tr>
<td>USB Connectors</td>
<td>Connect a USB device, such as a USB mouse and keyboard to any of these connectors. Two more USB connectors are available on the back panel.</td>
</tr>
<tr>
<td>Power Control Button</td>
<td>Press this button to manually turn on and off the server, or to work the server from a reduced-power state.</td>
</tr>
</tbody>
</table>
Power Supply LED: Indicated the status of the power supply. This light is green and indicates the following statuses:

- **Off** - AC Power is not present, or the power supply or the LED failed.
- **Flashing slowly** - If the light flashes one time per second, the server is turned off and is ready to be turned on. You can press the power-control button to turn on the server. This state lasts approximately 20 - 40 seconds.
- **Flashing rapidly** - If the light flashes four times per second, the server is turned off is not ready to be turned on. The power-control button is disabled.
- **Lit** - The server is turned on.
- **Fading on and off** - The server is an reduced-power state. To wake the server, press the power-control button.

Locator LED: Use this blue LED to visually locate the server among other servers in the rack. You can use the IBM Systems Director to light this LED remotely. This LED is controlled by the IMM.

System Error LED: When this amber LED is lit, a system error occurred. This LED is controlled by the IMM.

<table>
<thead>
<tr>
<th>Features</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Supply LED</td>
<td>Indicated the status of the power supply. This light is green and indicates the following statuses:</td>
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<tr>
<td></td>
<td>- <strong>Off</strong> - AC Power is not present, or the power supply or the LED failed.</td>
</tr>
<tr>
<td></td>
<td>- <strong>Flashing slowly</strong> - If the light flashes one time per second, the server is turned off and is ready to be turned on. You can press the power-control button to turn on the server. This state lasts approximately 20 - 40 seconds.</td>
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<td>- <strong>Flashing rapidly</strong> - If the light flashes four times per second, the server is turned off is not ready to be turned on. The power-control button is disabled.</td>
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<td></td>
<td>- <strong>Lit</strong> - The server is turned on.</td>
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<tr>
<td>Locator LED</td>
<td>Use this blue LED to visually locate the server among other servers in the rack. You can use the IBM Systems Director to light this LED remotely. This LED is controlled by the IMM.</td>
</tr>
<tr>
<td>System Error LED</td>
<td>When this amber LED is lit, a system error occurred. This LED is controlled by the IMM.</td>
</tr>
</tbody>
</table>
The following table describes the back panel features.

**Table 2-4  Back Panel Features of the IBM Security QRadar Core Appliances 4379**

<table>
<thead>
<tr>
<th>Features</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Supplies</td>
<td>Supports two power supplies.</td>
</tr>
<tr>
<td>Power Cord Connectors</td>
<td>Connect the power cord to this connector.</td>
</tr>
<tr>
<td>USB Connectors</td>
<td>Connect a USB device, such as a USB mouse or keyboard, to either of these connectors.</td>
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<td>Ethernet Connectors</td>
<td>Use any of these connectors to connect the server to a network. When you use the Ethernet 1 connector, the network can be shared with the IMM through a single network cable.</td>
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<tr>
<td>serial connector</td>
<td>Connect a 9-pin serial device to this connector. The serial port is shared with the integrated management module (IMM). The IMM can take control of the shared serial port to perform text console redirection and to redirect serial traffic, using Serial over LAN (SOL).</td>
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</table>
Use the NMI button to troubleshoot software and device driver errors when you use certain operating systems.

**Note:** Use this button only if directed to do so by qualified support personnel.

Press this button to force a Non-Maskable Interrupt (NMI) to the microprocessor. Use a pen or the end of a straightened paper clip to press the button.

<table>
<thead>
<tr>
<th>Features</th>
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</tr>
</thead>
<tbody>
<tr>
<td>NMI button</td>
<td>Use the NMI button to troubleshoot software and device driver errors when you use certain operating systems. <strong>Note:</strong> Use this button only if directed to do so by qualified support personnel. Press this button to force a Non-Maskable Interrupt (NMI) to the microprocessor. Use a pen or the end of a straightened paper clip to press the button.</td>
</tr>
<tr>
<td>System Management Ethernet Connector</td>
<td>Use this connector to connect your management interface.</td>
</tr>
<tr>
<td>video connector</td>
<td>Connect a VGA monitor to this connector. The video connectors on the front and rear of the server can be used simultaneously.</td>
</tr>
</tbody>
</table>
A

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What's in this appendix:

• Notices
• Trademarks

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</tbody>
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<table>
<thead>
<tr>
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<tbody>
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</tr>
</tbody>
</table>

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