

# Crossroads ReadVerify Appliance ( IBM 3222 RV1) for tape library environments

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## At a glance



Crossroads ReadVerify Appliance allows users to maximize utilization of existing drive resources, correlate reported errors to pinpoint suspect media or degrading tape drives, and share existing resources to automatically validate readability of long-idle or suspect media.

For ordering, contact your IBM® representative, an IBM Business Partner, or IBM Americas Call Centers at 800-IBM-CALL (Reference: YE001).

## Overview

Crossroads' ReadVerify Appliance (RVA), offered through IBM as 3222 RV1, provides visibility into the utilization, performance, and health of the tape drives and media in a tape library environment. The detailed insight provided by RVA can lead to operational improvements, such as completing backup jobs on time, minimizing purchases of unnecessary resources, and preventing premature wear of over-used resources. RVA collects data directly from the tape drives and library during data transactions, without impacting the storage applications. This 1U RVA is rack installable in a customer supplied rack and includes ReadVerify functionality for the first 500 tape cartridges in an IBM TS3500 or IBM TS3310 Tape Library. Additional ReadVerify tape capacities are supported with additional feature codes.

RVA also supports an optional feature called ArchiveVerify which offers the fully automated ability to verify readability of long-idle or suspect media, providing an audit trail which could be used for regulatory compliance policies. The ArchiveVerify function is available as additional feature codes.

The RVA can be ordered at the time of purchase of new TS3500 or TS3310 Tape Libraries, for already installed IBM TS3500 or TS3310 Tape Libraries, or as a standalone solution.

Although the Crossroads ReadVerify Appliance 3222 Model RV1 is available through IBM, product fulfillment, service, maintenance, and support will be provided by Crossroads.

ReadVerify enables the RVA to monitor the specified total number of cartridges situated within the library or libraries. The cartridge count is not associated with specific tape bar codes; it is measured by the total number of occupied tape slots in the library at any given time.

ArchiveVerify enables the RVA to verify the specified number of tapes within a library. Each unique tape bar code gets associated with an ArchiveVerify license at initial verification. Any tape can be verified an unlimited number of times, but once the specified number of tapes have been verified, then additional ArchiveVerify features must be ordered to provide the function for more cartridges.

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## Key prerequisites

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- All tape libraries and drives to be monitored must be connected to a Fibre Channel switch with an available port for the RVA. With the Fibre Channel switch port accessible to the RVA, both LTO™ and 3592 tape drives and tape libraries, including the IBM TS3500 and the IBM TS3310 Tape Libraries can be monitored
- For additional Fibre Channel tape libraries and drives supported visit Crossroads at <http://www.crossroads.com/RVAPlanning/RVACompatibilityMatrix.pdf>
- An open N-port on the SAN switch connecting the tape drives to be monitored, to be allocated to the RVA
- Available 10/100/1000 Ethernet connectivity and provisioned IP address for RVA management interface

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## Planned availability date

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August 19, 2011

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## Description

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Crossroads ReadVerify Appliance, (IBM 3222 RV1), provides a proactive method for monitoring, validating, and reporting on the performance, utilization, and health of the tape library environment. The detailed insight provided by RVA can lead to operational improvements, such as completing backup jobs on time, minimizing purchases of unnecessary resources, and preventing premature wear of over-used resources. RVA collects data directly from the tape drives and library during data transactions, without impacting the storage applications.

RVA also supports an optional feature called ArchiveVerify which offers the fully automated ability to verify readability of long-idle or suspect media, providing an audit trail for regulatory compliance policies. This 1U ReadVerify Appliance is rack installable in a customer supplied rack and includes ReadVerify functionality for the first 500 tape cartridges in an IBM TS3500 or IBM TS3310 Tape Library. Additional ReadVerify tape capacities are supported with additional feature codes. ArchiveVerify functionality is also available as additional feature codes. These functionality features can be ordered at time of purchase, stand alone solution, or for already installed IBM TS3500 or TS3310 Tape Libraries. Although the Crossroads ReadVerify Appliance 3222 Model RV1 is available through IBM, product fulfillment, service, and maintenance, and support will be provided by Crossroads.

ReadVerify license enables the RVA to monitor the specified total number of cartridges situated within the library or libraries. The cartridge count is not associated with specific tape bar codes, it is measured by the total number of occupied tape slots in the library at any given time.

ArchiveVerify license enables the RVA to verify the specified total number of tapes within a library. Each unique tape bar code gets associated with an ArchiveVerify license at initial verification. Any tape can be verified an unlimited number of times, but once the tape is retired, the associated license is consumed.

### **Accessibility by people with disabilities**

A US Section 508 Voluntary Product Accessibility Template (VPAT) containing details on accessibility compliance can be requested at

[http://www.ibm.com/able/product\\_accessibility/index.html](http://www.ibm.com/able/product_accessibility/index.html)

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### **Product number**

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Description	Machine type	Model	Feature number
Crossroads ReadVerify Appliance	3222	RV1	
ReadVerify for 501 to 1,500 Cartridges	3222	RV1	3661
ReadVerify for 1,501 to 7,500 Cartridges	3222	RV1	3662
ReadVerify for 7,501 to 20,000 Cartridges	3222	RV1	3663
ReadVerify for 20,001 to 50,000 Cartridges	3222	RV1	3664
ReadVerify for 50,001 to 100,000 Cartridges	3222	RV1	3665
Archive Verify for 1 to 500 Cartridges	3222	RV1	3670
Archive Verify for 501 to 1,500 Cartridges	3222	RV1	3671
Archive Verify for 1,501 to 7,500 Cartridges	3222	RV1	3672
Archive Verify for 7,501 to 20,000 Cartridges	3222	RV1	3673
Archive Verify for 20,001 to 50,000 Cartridges	3222	RV1	3674
Archive Verify for 50,001 to 100,000 Cartridges	3222	RV1	3675
Crossroads RVA Appliance	3222	RV1	3680
One year maintenance renewal including up to 500 cartridges			
Crossroads RVA Appliance	3222	RV1	3681
One year maintenance renewal up to 1,500 cartridges			
Crossroads RVA Appliance	3222	RV1	3682
One year maintenance renewal up to 7,500 cartridges			
Crossroads RVA Appliance	3222	RV1	3683
One year maintenance renewal up to 20,000 cartridges			
Crossroads RVA Appliance	3222	RV1	3684
One year maintenance renewal up to 50,000 cartridges			
Crossroads RVA Appliance	3222	RV1	3685
One year maintenance renewal up to 100,000 cartridges			
Crossroads Archive Verify	3222	RV1	3686
One year maintenance renewal			
2.8M Power® Cord 125V US/Canada	3222	RV1	9800(1)
2.8M Power Cord 250V France/Germany	3222	RV1	9820(1)
2.8M Power Cord 250V Denmark	3222	RV1	9821(1)
2.8M Power Cord 250V UK	3222	RV1	9825(1)
2.8M Power Cord 250V Switzerland	3222	RV1	9828(1)
2.8M Power Cord 250V Italy	3222	RV1	9830(1)
2.8M Power Cord 250V US/Canada	3222	RV1	9833(1)

<sup>1</sup> This feature has been previously announced on other machine type and models, but the description has changed.

## **Business Partner information**

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If you are a Direct Reseller - System Reseller acquiring products from IBM, you may link directly to Business Partner information for this announcement. A PartnerWorld® ID and password are required (use IBM ID).

<https://www.ibm.com/partnerworld/mem/sla.jsp?num=111-130>

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## **Publications**

The following Crossroads publication is shipped with the product. It is also available at

<http://www.crossroads.com/RVAPlanning/RVASitePlanning.pdf>

Title

RVA Quick Start Guide

The following Crossroads publications are available to registered customers at

<https://register.crossroads.com/Registration/Content/RVA.asp>

Title

RVA - Configuration Guide

Description: Provide procedures for config/setup needed for day-to-day use

RVA - Help Set

Description: Provide task-specific help

RVA - Quick Start Guide

Description: Provide setup/hardware info through IP setup and UI access; gives instructions on how to access Config Guide or Online Help

RVA - Release Notes

Description: Release Notes provide information on a particular release of a Crossroads product that include, but are not limited to, product enhancement, known issues, system requirements, and resolved issues.

RVA - Pre-Configuration Worksheet

Description: Complete the form and email to support at least 4 business hours prior to the scheduled RVA Remote Configuration.

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## **Services**

### **Crossroads ReadVerify Appliance**

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#### **Support services**

- **Appliance maintenance**

Crossroads ReadVerify Appliance support and warranty is provided directly by Crossroads Systems, Inc. For more information, contact their help desk at

<http://www.crossroads.com/CustomerSupport/HelpDesk.asp>

Email [support@crossroads.com](mailto:support@crossroads.com)

Or call 1-800-417-2082 or 1-512-928-7777

- **Remote configuration at time of installation support**

Crossroads ReadVerify Appliance remote configuration support provided directly by Crossroads Systems, Inc. Remote sessions are required to be scheduled with Crossroads support. For more information, contact their help desk at

<http://www.crossroads.com/CustomerSupport/HelpDesk.asp>

Email [support@crossroads.com](mailto:support@crossroads.com)

Or call 1-800-417-2082 or 1-512-928-7777

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## Technical information

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### Specified operating environment

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#### *Physical specifications*

##### **3222-RV1**

The 3222-RV1 is a 1U appliance that should be installed in a customer-provided rack.

- Width: 426 mm (16.8 in).
- Depth: 358 mm (14.1 in).
- Height: 43.1 mm (1.72 in, 1U).
- Weight: 10.4 kg (23 lbs).

For more detailed information concerning physical specifications of the 3222 RV1, visit

<http://www.crossroads.com/Products/RVA.asp>

#### *Operating environment*

- Temperature: 10° to 40° C (50° to 104° F)
- Relative humidity: 20 to 80%
- Wet bulb (caloric value): 564 kcal/hour or Btu
- Electrical power: AC power 100-240 VAC auto-sensing 50/60 Hz, 4.0 Amps

#### *Hardware requirements*

For a complete list of hardware requirements, cross-product requirements prerequisites, and product dependencies, visit

<http://www.crossroads.com/RVAPanning/RVASitePlanning.pdf>

<http://www.crossroads.com/RVAPanning/RVACompatibilityMatrix.pdf>

<http://www.crossroads.com/Products/RVA.asp>

#### *Software requirements*

The RVA comes completely installed with operational firmware. Customers must register their units upon receipt and installation. Customers can register their units and gain access to product documentation and firmware updates at

<http://register.crossroads.com>

For a complete list of software requirements, cross product requirements prerequisites, and product dependencies, visit

<http://www.crossroads.com/RVAPanning/RVASitePlanning.pdf>

<http://www.crossroads.com/RVAPanning/RVACompatibilityMatrix.pdf>

<http://www.crossroads.com/Products/RVA.asp>

### **Compatibility**

For a list of supported tape libraries, tape drives, and web browsers, visit

<http://www.crossroads.com/RVAPanning/RVACompatibilityMatrix.pdf>

RVA does not interact with storage applications, so a compatibility matrix for applications is not required.

### **Limitations**

- In order for the RVA to collect data, the tape library or libraries and tape drives must be connected to the host applications servers via a Fibre Channel SAN switch
- There must be an N-port available on the SAN switch for RVA attachment, and the RVA must be added to the zones, or new zones created, that includes the devices to be monitored
- There must also be 10/100/1000 Ethernet connectivity provided and an IP address provisioned for the RVA management interface
- The RVA will not operate in Fibre Channel environments where the tape drives are directly attached to the host application servers. The RVA will not operate in environments that are SCSI-only (no Fibre Channel)
- Crossroads RVA Appliance is not supported for TS3500 logical libraries being used as the back-end tape storage for the IBM TS7740 Virtualization Engine™ and 3592 FICON® Tape Controllers

### **Planning information**

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#### **Customer responsibilities**

Planning information, including customer responsibilities, physical planning, and installability is available in the specific product planning manuals at the following websites

<http://www.crossroads.com/RVAPanning/RVASitePlanning.pdf>

<http://www.crossroads.com/RVAPanning/RVACompatibilityMatrix.pdf>

Customer is responsible for registering the product and obtaining the appropriate license keys from the Crossroads registration site ([register.crossroads.com](http://register.crossroads.com)). You will have access to product documentation and product firmware updates from the registration website as well. You may request Crossroads to assist installing firmware updates; however, you may be charged for that service.

#### **Cable orders**

A fiber optic cable is required for attaching the Crossroads ReadVerify Appliance to the Fibre Channel switch that is also connected to the tape drive and the library or libraries to be monitored. The fiber optic cable must be customer supplied, and must meet specifications defined by Crossroads Systems.

In many situations, the required lengths and installation of fiber optic cables will be unique to each customers configuration and facility specifications. Product support services can provide assistance for these unique cabling and installation requirements. Refer to [Cable orders](#) in the [Planning information](#) section or the Crossroads ReadVerify Appliance (machine type 3222) Sales Manual for a list of cables.

### **Security, auditability, and control**

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This product uses the security and auditability features of the host hardware, software, and application software.

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communications facilities.

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## **Terms and conditions**

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### ***IBM Global Financing***

Yes

### ***Warranty period***

Crossroads ReadVerify Appliance: One year

### ***Warranty service***

Service levels are response-time objectives and are not guaranteed. The specified level of warranty service may not be available in all worldwide locations. This product is covered by the following types of service

### ***24x7 Help Desk with Advanced Hardware Exchange***

Crossroads ReadVerify Appliance support and warranty is provided directly by Crossroads Systems, Inc. For more information, contact their help desk at

<http://www.crossroads.com/CustomerSupport/HelpDesk.asp>

Email [support@crossroads.com](mailto:support@crossroads.com)

Or call 1-800-417-2082 or 1-512-928-7777

### ***Warranty service upgrades***

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During the warranty period, warranty service upgrades provide an enhanced level of 24x7 Help Desk for an additional charge. Service levels are response-time objectives and are not guaranteed. Contact Crossroads Systems for additional details.

Crossroads ReadVerify Appliance support and warranty is provided directly by Crossroads Systems, Inc. For more information, contact their help desk at

<http://www.crossroads.com/CustomerSupport/HelpDesk.asp>

Email [support@crossroads.com](mailto:support@crossroads.com)

Or call 1-800-417-2082 or 1-512-928-7777

### ***Usage plan machine***

No

### ***IBM hourly service rate classification***

Not applicable

### ***Maintenance service offerings***

When a type of service involves the exchange of a machine part, the replacement may not be new, but will be in good working order.

### ***Field-installable features***

Yes

**Model conversions**

No

**Machine installation**

Customer setup. Customers are responsible for installation according to the instructions provided with the machine.

**Graduated program license charges apply**

No

**Licensed internal code and licensed machine code**

This product does not contain Licensed Internal Code or Licensed Machine Code.

**Educational allowance**

A reduced charge is available to qualified education customers. The educational allowance may not be added to any other discount or allowance.

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**Pricing**


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**Product charges**

Description	Machine Type	Model	Feature number	Field Install only	Plant Install only
Crossroads ReadVerify Appliance	3222	RV1			
ReadVerify for 501 to 1,500 Cartridges	3222	RV1	3661	N	N
ReadVerify for 1,501 to 7,500 Cartridges	3222	RV1	3662	N	N
ReadVerify for 7,501 to 20,000 Cartridges	3222	RV1	3663	N	N
ReadVerify for 20,001 to 50,000 Cartridges	3222	RV1	3664	N	N
ReadVerify for 50,001 to 100,000 Cartridges	3222	RV1	3665	N	N
Archive Verify for 1 to 500 Cartridges	3222	RV1	3670	N	N
Archive Verify for 501 to 1,500 Cartridges	3222	RV1	3671	N	N
Archive Verify for 1,501 to 7,500 Cartridges	3222	RV1	3672	N	N
Archive Verify for 7,501 to 20,000 Cartridges	3222	RV1	3673	N	N
Archive Verify for 20,001 to 50,000 Cartridges	3222	RV1	3674	N	N
Archive Verify for 50,001 to 100,000 Cartridges	3222	RV1	3675	N	N
Crossroads RVA One year maintenance renewal including up to 500 cartridges	3222	RV1	3680	N	N



Crossroads RVA 3222	RV1	3681	N	N
Appliance One year maintenance renewal up to 1,500 cartridges				
Crossroads RVA 3222	RV1	3682	N	N
Appliance One year maintenance renewal up to 7,500 cartridges				
Crossroads RVA 3222	RV1	3683	N	N
Appliance One year maintenance renewal up to 20,000 cartridges				
Crossroads RVA 3222	RV1	3684	N	N
Appliance One year maintenance renewal up to 50,000 cartridges				
Crossroads RVA 3222	RV1	3685	N	N
Appliance One year maintenance renewal up to 100,000 cartridges				
Crossroads 3222	RV1	3686	N	N
Archive Verify One year maintenance renewal				
2.8M Power Cord 125V US/Canada	3222	RV1	9800(1)	N Y
2.8M Power Cord 250V France/Germany	3222	RV1	9820(1)	N Y
2.8M Power Cord 250V Denmark	3222	RV1	9821(1)	N Y
2.8M Power Cord 250V UK	3222	RV1	9825(1)	N Y
2.8M Power Cord 250V Switzerland	3222	RV1	9828(1)	N Y
2.8M Power Cord 250V Italy	3222	RV1	9830(1)	N Y
2.8M Power Cord 250V US/Canada	3222	RV1	9833(1)	N Y

<sup>1</sup> This feature has been previously announced on other models, but the description has changed.

Description	Machine type	Model	MES Feature number
ReadVerify for 501 to 1,500 Cartridges	3222	RV1	3661
ReadVerify for 1,501 to 7,500 Cartridges	3222	RV1	3662
ReadVerify for 7,501 to 20,000 Cartridges	3222	RV1	3663
ReadVerify for 20,001 to 50,000 Cartridges	3222	RV1	3664
ReadVerify for 50,001 to 100,000 Cartridges	3222	RV1	3665
Archive Verify for 1 to 500 Cartridges	3222	RV1	3670
Archive Verify for 501 to 1,500 Cartridges	3222	RV1	3671
Archive Verify for 1,501 to 7,500 Cartridges	3222	RV1	3672
Archive Verify for 7,501 to 20,000 Cartridges	3222	RV1	3673
Archive Verify for 20,001 to 50,000 Cartridges	3222	RV1	3674
Archive Verify for 50,001 to 100,000 Cartridges	3222	RV1	3675
Crossroads RVA Appliance One year maintenance renewal including up to 500 cartridges	3222	RV1	3680
Crossroads RVA Appliance One year maintenance renewal up to 1,500 cartridges	3222	RV1	3681
Crossroads RVA Appliance	3222	RV1	3682

One year maintenance renewal up to 7,500 cartridges			
Crossroads RVA Appliance	3222	RV1	3683
One year maintenance renewal up to 20,000 cartridges			
Crossroads RVA Appliance	3222	RV1	3684
One year maintenance renewal up to 50,000 cartridges			
Crossroads RVA Appliance	3222	RV1	3685
One year maintenance renewal up to 100,000 cartridges			
Crossroads Archive Verify	3222	RV1	3686
One year maintenance renewal			

For current prices visit

<http://www-03.ibm.com/systems/p/>

Or contact us at 1-888-Shop-IBM.

## Pricing terms

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Prices in the following PDF prices link are suggested list prices on day of announcement for the U.S. only. They are provided for your information only. Dealer prices may vary, and prices may also vary by country. IBM list price does not include tax or shipping and is subject to change without notice.

[ENUS-111-130-List\\_prices\\_2011\\_07\\_12.PDF](#)

## IBM Global Financing

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<http://www.ibm.com/financing>

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## Order now

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To order, contact the Americas Call Centers or your local IBM representative, or your IBM Business Partner.

To identify your local IBM representative or IBM Business Partner, call 800-IBM-4YOU (426-4968).

Phone: 800-IBM-CALL (426-2255)  
 Fax: 800-2IBM-FAX (242-6329)  
 Internet: [callserv@ca.ibm.com](mailto:callserv@ca.ibm.com)  
 Mail: IBM Teleweb Customer Support  
 ibm.com® Sales Execution Center, Americas North  
 3500 Steeles Ave. East, Tower 3/4  
 Markham, Ontario  
 Canada

Reference: YE001

The Americas Call Centers, our national direct marketing organization, can add your name to the mailing list for catalogs of IBM products.

**Note:** Shipments will begin after the planned availability date.

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<http://www.ibm.com/legal/us/en/>

For the most current information regarding IBM products, consult your IBM representative or reseller, or visit the IBM worldwide contacts page

<http://www.ibm.com/planetwide/us/>