

## IBM RDX removeable cartridge USB hard drives deliver daily backup capability for System x servers and BladeCenter S

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### At a glance



The new IBM® RDX removable disk backup solution can cost-effectively address your growing capacity and shrinking backup window requirements, while alleviating the deployment and management complexity of traditional tape drives.

Features include:

- Affordable capacity: 160 GB, 320 GB, and 500 GB disk cartridges<sup>1</sup>.
- Simplicity: With only the native OS, RDX provides random access to data and the convenience of drag and drop functionality through persistent drive letter access. It can also be addressed like traditional removable tape media, when used in conjunction with any of the supported backup applications.
- Flexibility: Internal and external RDX installation alternatives.
- Plug-and-Play connectivity: USB 2.0 interface for increased ease of use.
- Inexpensive performance: USB sustained transfer rate of up to 25 MB/s.
- Portability and durability: RDX Disk Cartridges are shock-resistant, rugged, and removable for transporting safely offsite.
- Investment protection: Carrier will support next-generation capacities of cartridges.
- Effortless ordering: Internal and external single cartridge bundles by capacity, additional cartridges can be ordered separately.
- Powerful and intuitive backup application: Standard Yosemite Backup Basic with Disaster Recovery.
- Secure: Cartridges can be password protected and software encrypted for extra security.

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## Overview

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The new IBM RDX removable disk backup solution is designed to reliably and cost-effectively help protect your business's valuable assets. It uses a rugged removable disk cartridge and docking station to provide an easy-to-use, highly secure, fast and portable answer to your data protection concerns.

IBM RDX features high-capacity shock-resistant 160 GB, 320 GB, and 500 GB cartridges, making your storage options extremely flexible. The RDX USB docking stations are offered in external standalone as well as internal 5.25-inch half height units to seamlessly integrate into your System x<sup>tm</sup> or BladeCenter® S environment. The USB interface ensures a simple installation while providing high performance, with sustained transfer rates of up to 90 GB an hour.

The standard Yosemite Backup Basic with DR for IBM RDX application provides a powerful and intuitive wizard-based management approach to backup and recovery. Simplified process management should also come with a full-feature set and Yosemite Backup Basic with DR for IBM RDX, providing such advanced functionality as bare metal disaster recovery and cartridge encryption features.

- Cost-effective and highly secure removable disk technology
- Up to 25 MB/s native USB transfer rate
- Up to 500 GB<sup>1</sup> native capacity
- Standard Yosemite Backup Basic with DR for IBM RDX application
- Hot-plug capability
- 5.25-inch Internal form factor, convertible to 3.5-inch form factor in certain configurations
- External USB standalone offering or internal docks that can be used with external enclosures

### Warranty:

- Internal Dock: One-year customer replaceable unit (CRU) limited warranty, or when installed in an IBM System x Server or IBM external tape enclosure, the internal dock would assume your system's or enclosure's base warranty and any ServicePac® upgrade.
- External Dock: Three-year customer replaceable unit (CRU) limited warranty<sup>2</sup>.
- Cartridges: RDX cartridges come standard with a one-year limited warranty, or assume your IBM System x server's, IBM external tape enclosure's, or IBM external RDX dock's base warranty and warranty ServicePac upgrades during the base warranty period. RDX cartridges are not covered under post-warranty maintenance contracts.

<sup>1</sup> When referring to HDD or tape backup capacity, GB stands for 1,000,000,000 bytes and TB stands for 1,000,000,000,000 bytes. User capacity may vary depending on operating environments.

<sup>2</sup> For information on the IBM Statement of Limited Warranty, contact your IBM representative or reseller. Copies are available upon request.

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## Key prerequisites

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None

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## Planned availability date

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January 30, 2009

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## Description

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The IBM RDX solution provides all the benefits of disk, with fast random access to data and drag and drop functionality, and all the historic portability and durability benefits of tape. Designed for portability and longevity, the rugged RDX cartridges are engineered to be durable so you can safely transport off-site while providing the shelf life required for archival requirements.

Whether you are in a System x tower, rack optimized, or BladeCenter S environment, IBM provides simple and flexible RDX installation alternatives. RDX drives are offered as external standalone units as well as internal 5.25-inch half height drives, which can easily mount in any standard half height bay or when combined with an IBM 1U Enclosure can quickly be converted into an external rack mountable solution, containing up to two RDX internal installations. The internal installations can also be installed internally in select IBM System x rack optimized servers by leveraging an optional enablement kit (43V5959).

IBM RDX installations come with a USB 2.0 interface allowing for plug and play internal or external connectivity for simplified out of the box setup. The native USB interface not only delivers a fast and easy installation, but ensures that ports are widely available. This provides for a lower-cost implementation by eliminating the need for an additional host-bus-adapter. This interface also allows for the performance you desire, with USB sustained native transfer rates of up to 25 MB/s.

Whether protecting a static data set or trying to plan and manage for growth, IBM offers 160 GB, 320 GB, and 500 GB RDX cartridge capacity points to meet your requirements. RDX installations offer greater compatibility, so your base investment is protected when you are ready to adopt tomorrow's higher capacities.

Providing that additional peace of mind, your RDX purchase is covered under IBM warranty.

Internal installations carry a base one-year, customer replaceable (CRU), limited warranty<sup>2</sup> or when installed in a System x server or external enclosure these units assume your system's or enclosure's base warranty and any ServicePac upgrade.

External installations carry a three-year limited warranty<sup>2</sup>.

Warranty, cartridges: RDX cartridges come standard with a one-year limited warranty<sup>2</sup>, or assume your IBM System x server's, IBM external tape enclosure's, or IBM external RDX dock's base warranty and warranty ServicePac upgrades during the base warranty period. RDX cartridges are not covered under post-warranty maintenance contracts.

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## Product positioning

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Ideal for small and medium business or distributed System x and BladeCenter S environments, the new IBM RDX removable disk backup offerings deliver the flexibility, simplicity, performance, and capacities you require in a data protection solution.

Includes:

- Affordable capacity: 160 GB, 320 GB, and 500 GB disk cartridges
- Increased performance over entry tape offerings with up to 25 MB/s native transfer rate
- Easier deployment and management over entry tape
- Yosemite Backup Basic with Disaster Recovery

The RDX USB backup/restore solution is recommended in low-range System x servers and BladeCenter S installations. They are an excellent solution for customers who want a cost-effective and easy-to-use alternative to tape backup/restore.

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## Reference information

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### *TPRSS information*

The following new part numbers are to be placed in TPRSS machine type 9299 (3625).

- IBM RDX 160 GB External USB Drive (362516X)
- IBM RDX 320 GB External USB Drive (362532X)
- IBM RDX 500 GB External USB Drive (362550X)
- IBM RDX 160 GB Internal USB Drive (46C5364)
- IBM RDX 320 GB Internal USB Drive (46C5387)
- IBM RDX 500 GB Internal USB Drive (46C5388)
- IBM RDX 160 GB Cartridge (46C5366)
- IBM RDX 320 GB Cartridge (46C5367)
- IBM RDX 500 GB Cartridge (46C5368)

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## Product number

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Description	Order number
IBM RDX 160 GB External USB Drive	362516X
IBM RDX 320 GB External USB Drive	362532X
IBM RDX 500 GB External USB Drive	362550X

### Options

Description	Order number
IBM RDX 160 GB Internal USB Drive	46C5364
IBM RDX 320 GB Internal USB Drive	46C5387
IBM RDX 500 GB Internal USB Drive	46C5388
IBM RDX 160 GB Cartridge	46C5366
IBM RDX 320 GB Cartridge	46C5367
IBM RDX 500 GB Cartridge	46C5368

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## Publications

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Installation publications are shipped with the announced products.

The following publications are available immediately. To order, contact your IBM representative.

Title	Order number
System x Family Brochure	GM13-0128
BladeCenter Solutions	GM13-0173

The IBM Documentation CD contains documentation for the RDX drive in Portable Document Format (PDF) and includes the IBM Documentation Browser to help you find information quickly.

Use the Documentation Browser to browse the contents of the CD, read brief descriptions of the documents, and view documents, using Adobe® Acrobat Reader or xpdf. The Documentation Browser automatically detects the regional settings in your server and displays the documents in the language for that region (if available). If a document is not available in the language for that region, the English-language version is displayed.

Software CD (49Y0792)

User Guide CD (46M9265)

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### IBM Publications Center Portal

<http://www.ibm.com/shop/publications/order>

The Publications Center is a worldwide central repository for IBM product publications and marketing material with a catalog of 70,000 items. Extensive search facilities are provided, as well as payment options via credit card. A large number of publications are available online in various file formats, which can currently be downloaded free of charge.

#### Displayable softcopy publications

- Software CD (49Y0792)
- User guide CD (46M9265)

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## Services

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### Global Technology Services

IBM services include business consulting, outsourcing, hosting services, applications, and other technology management.

These services help you learn about, plan, install, manage, or optimize your IT infrastructure to be an On Demand Business. They can help you integrate your high-speed networks, storage systems, application servers, wireless protocols, and an array of platforms, middleware, and communications software for IBM and many non-IBM offerings. IBM is your one-stop shop for IT support needs.

For details on available services, contact your IBM representative or visit

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

For details on available IBM Business Continuity and Recovery Services, contact your IBM representative or visit

<http://www.ibm.com/services/continuity>

For details on education offerings related to specific products, visit

<http://www.ibm.com/services/learning/index.html>

Select your country, and then select the product as the category.

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## Technical information

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### Specified operating environment

#### *Physical specifications*

IBM RDX USB Disk Drives

	Internal RDX drive	External RDX drive	RDX media
Form Factor	5.25-inch half-high internal	External	Removable cartridge

Height	41.4 mm (1.63 in)	51.8 mm (2.04 in)	23.7 mm (0.93 in)
width	146.0 mm (5.75 in)	109.8 mm (4.32 in)	86.6 mm (3.41 in)
Depth	171.9 mm (6.77 in) including bezel	177.5 mm (7.00 in) including bezel	119.2 mm (4.69 in)
weight	635 g (1 lb 6.4 oz)	540 g (1 lb 3.0 oz)	173 g (6.08 oz)

### **Ambient temperature and relative humidity**

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Operational:

- Temperature: 10 to 40 deg (C) (50 to 104 deg (F))
- Relative humidity: 20% to 80% (non-condensing)

Non-operational:

- Temperature: 40 to 65 deg (C) (-40 to 149 deg (F))
- Relative humidity: 10% to 90% (non-condensing)

### **Power requirements**

	Internal RDX drive	External RDX drive
voltage tolerance	5.00 v dc +/- 5%	12.00 v dc +/- 10%
Typical power consumption	7.5 w	6.6 w
Peak power consumption	13.0 w	13.0 w
AC adapter		Universal adapter 100 - 240 v ac, 50 - 60 Hz input

### *Regulatory agency approvals*

- Safety:
  - UL-60950
  - CSA C22.2 No. 60950
  - NOM-018
  - IEC-60950
  - TUV-GS (EN60950/IEC60950/ZH-618)
  - CB Certificate and CB Test Report
  - CCC China

### **Hardware requirements**

The new RDX USB disk drives should be configured with IBM System x servers and BladeCenter S systems.

### **Software requirements**

Software compatibility:

- Symantec Backup Exec
- CA ArcServe
- Yosemite Backup

OS compatibility:

- SUSE Linux®
- Red Hat Linux
- Microsoft® Windows® 2003
- Microsoft Windows 2008

### **Compatibility**

The IBM RDX removable disk drives are compatible with IBM System x server and BladeCenter S systems.

### **User group requirements**

This announcement satisfies or partially satisfies the requirements from one or more of the worldwide user group communities. Groups include COMMON, COMMON Europe, Guide Share Europe (GSE), InterAction (Australia/New Zealand), Japan Guide Share (JGS), and SHARE Inc.

### **Planning information**

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#### **Customer responsibilities**

The IBM RDX USB internal and external disk drives are designated as customer setup. Instructions are provided in the *User's Guide*.

#### **Cable orders**

Cables are required dependant on the Voltage/Country for 362516X, 362532X, or 362550X.

#### **Packaging**

Product	Shipment group	Number of boxes
3625	IBM RDX External USB Hard Disk Drives	1

#### **Shipment group**

One box

Retail only

#### **Dimensions and weight**

- RDX external USB disk drive (3625):
  - Width: 51.8 mm (2.04 in)
  - Height: 109.8 mm (4.32 in)
  - Depth: 177.5 mm (6.99 in)
  - Weight: 540 g (2.2 lb)
- RDX internal USB disk drive:
  - Width: 41.4 mm (1.63 in)
  - Height: 146.0 mm (5.75 in)
  - Depth: 171.9 mm (6.77 in)
  - Weight: 635 g (2.5 lb)
- RDX cartridge:
  - Width: 23.7 mm (.933 in)
  - Height: 86.6 mm (3.41 in)
  - Depth: 119.2 mm (4.71 in)
  - Weight: 173 g (.65 lb)

### *Shipment groups*

- External RDXs:
  - One external carrier/dock
  - One cartridge (either 160 GB, 320 GB, or 500 GB capacity)
  - Documentation CD
  - Software CD
  - Power adaptor
  - External USB cable
- Internal RDXs:
  - One internal carrier/dock
  - One cartridge (either 160 GB, 320 GB, or 500 GB capacity)
  - Documentation CD
  - Software CD
  - Four internal USB cables (system specific)
  - Mounting screws
- RDX cartridges:
  - One cartridge (either 160 GB, 320 GB, or 500 GB capacity)

### **Supplies**

**For end users:** IBM RDX USB disk drives and cartridges can be purchased through the dealers around the world.

For information about Priority Fulfillment Services distribution channels, call +81-3-3808-8486 in Japan or 1-972-881-0733 outside of Japan.

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

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This product uses the security features of the host hardware, host 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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## **IBM Electronic Services**

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IBM has transformed its delivery of hardware and software support services to help you achieve higher system availability. Electronic Services is a Web-enabled solution that offers an exclusive, no-additional-charge enhancement to the service and support available for IBM servers. These services are designed to provide the opportunity for greater system availability with faster problem resolution and preemptive monitoring. Electronic Services comprises two separate, but complementary, elements: Electronic Services news page and Electronic Services Agent.

The Electronic Services news page is a single Internet entry point that replaces the multiple entry points traditionally used to access IBM Internet services and support. The news page enables you to gain easier access to IBM resources for assistance in resolving technical problems.

The Electronic Service Agent<sup>™</sup> is no-additional-charge software that resides on your server. It monitors events and transmits system inventory information to IBM on a periodic, client-defined timetable. The Electronic Service Agent automatically reports hardware problems to IBM. Early knowledge about potential problems enables IBM to deliver proactive service that may result in higher system availability and performance. In addition, information collected through the Service Agent is made available to IBM service support representatives when they help answer

your questions or diagnose problems. Installation and use of IBM Electronic Service Agent for problem reporting enables IBM to provide better support and service for your IBM server.

To learn how Electronic Services can work for you, visit

<http://www.ibm.com/support/electronic>

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## Terms and conditions

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To obtain copies of the IBM Statement of Limited Warranty, contact your reseller or IBM.

### Warranty period

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- Three year - 3625 - RDX External USB drives
- One year - RDX Internal USB drives and cartridges

**Note:** RDX cartridges come standard with a one-year limited warranty, or assume your IBM System x server's, IBM external tape enclosure's, or IBM external RDX dock's base warranty and warranty ServicePac upgrades during the base warranty period. RDX cartridges are not covered under post-warranty maintenance contracts.

Optional IBM features initially installed in an IBM machine carry the same warranty period as the machine. If installed after the initial machine installation, they carry the balance of the machine warranty or the optional feature warranty, whichever is greater.

### Warranty service

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If required, IBM provides repair or exchange service depending on the type of warranty service specified below for the machine. IBM will attempt to resolve your problem over the telephone or electronically by access to an IBM Web site. You must follow the problem determination and resolution procedures that IBM specifies. Scheduling of service will depend upon the time of your call and is subject to parts availability. Service levels are response-time objectives and are not guaranteed. The specified level of warranty service may not be available in all worldwide locations. Additional charges may apply outside IBM's normal service area. Contact your local IBM representative or your reseller for country- and location-specific information.

### **Customer Replaceable Unit (CRU) Service**

IBM provides a replacement CRU (for example, keyboard, mouse, speaker, memory, or hard disk drive) to you for you to install. CRU information and replacement instructions are shipped with your machine and are available from IBM at any time on your request. Installation of a Tier 1 CRU is your responsibility. If IBM installs a Tier 1 CRU, at your request, you will be charged for the installation.

Based upon availability, a CRU will be shipped for next business day (NBD) delivery. IBM specifies in the materials shipped with a replacement CRU whether a defective CRU must be returned to IBM. When return is required, return instructions and a container are shipped with the replacement CRU, and you may be charged for the replacement CRU if IBM does not receive the defective CRU within 15 days of your receipt of the replacement.

The following have been designated as a Tier 1 (mandatory) CRU:

- Cartridges
- USB cables
- Power adaptor
- Bezel
- Carrier/docks

Visit the following Web site for your local country phone number

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

### **International Warranty Service**

International Warranty Service (IWS) is available in selected countries or regions.

The warranty service type and the service level provided in the servicing country may be different from that provided in the country in which the machine was purchased.

Under IWS, warranty service will be provided with the prevailing warranty service type and service level available for the IWS-eligible machine type in the servicing country and the warranty period observed will be that of the country in which the machine was purchased.

To determine the eligibility of your machine and to view a list of countries where service is available, visit

<https://www-304.ibm.com/systems/support/>

For more information on IWS, refer to Services Announcement [AA01-3100](#), dated September 28, 2001.

### **Licensing**

Programs included with this product are licensed under the terms and conditions of the License Agreements that are shipped with the system.

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

One

### **Field-installable features**

Yes

### **Model conversions**

No

### **Machine installation**

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

### **Graduated program license charges apply**

No

### **Licensed internal code and licensed machine code**

These products do not contain Licensed Internal Code or Licensed Machine Code.

### **Educational allowance**

None

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## **Pricing**

For all local charges, contact your IBM representative.

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## AP distribution

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Country/Region	Announced
AP IOT	
ASEAN*	Yes
India/South Asia**	Yes
Australia	Yes
People's Republic of China	Yes
Hong Kong S.A.R of the PRC	Yes
Macao S.A.R of the PRC	Yes
Taiwan	Yes
Korea	Yes
New Zealand	Yes
Japan IOT	
Japan	Yes

\* Brunei Darussalam, Indonesia, Cambodia, Lao People's Democratic Republic, Malaysia, Philippines, Singapore, Thailand, and Vietnam

\*\* Bangladesh, Bhutan, India, Sri Lanka, Maldives, Nepal, and Afghanistan

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