IBM System Storage DS8700 delivers z/OS Distributed Data Backup and new functional capabilities for machine types 2421, 2422, 2423, and 2424

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At a glance

New capabilities for the IBM® System Storage® DS8700 deliver a greater choice in price and performance, include:

- IBM z/OS® Distributed Data Backup

- z/OS FICON® Discovery and Auto Configuration (zDAC)

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

Overview

New functional capabilities for the DS8700 machine types 2421, 2422, 2423, and 2424 include:

- z/OS Distributed Data Backup - Allows reliable backup of open data via a System z® host

- z/OS FICON Discovery and Auto Configuration (zDAC) - Automatically discover new or updated devices and propose channel configurations based on high availability best practices and existing configurations

Key prerequisites

All features and functions in this announcement are supported on the IBM System Storage DS8000™ series, and require DS8000 licensed machine code level 6.5.15.xx (bundle version 75.15.xx.xx), or later.

Planned availability date

August 6, 2010

Description

z/OS Distributed Data Backup

This provides the capability to perform reliable backup of open systems data from distributed server platforms via a System z host. The open systems data will be transferred to the System z host via the fixed block command set used for the 3880 control unit, allowing backup of open data on distributed servers that are not formatted for mainframe System z I/O commands. Currently, customers are not able to effectively use System z I/O commands to backup open data along with their mainframe data. This will provide a multi-platform backup capability from System z.

Innovation Data Processing application will issue commands from z/OS to read/write data to LUNs. Support for IBM z/OS Distributed Data Backup is an optional feature of the DS8700 model 941. It is available with the z/OS Distributed Data Backup licensed feature indicator, feature numbers 7094 and 0714, and corresponding DS8700 function authorization (239x-LFA) z/OS Distributed Data Backup, feature number 7094.

The IBM System Storage DS8700 now supports z/OS FICON Discovery and Auto Configuration (zDAC). This allows a IBM System z controller channel to request control unit information that identifies the logical paths that can be established by the channel with the connected control unit. This request returns information for all Logical Control Units configured, accelerating the system configuration process.

zDAC can help simplify the configuration and reduce the complexity and setup time for new and changed disk and tape I/O configuration changes. zDAC is designed to automatically perform a number of I/O configuration definition tasks for new and changed disk and tape control units connected to a switch or director when attached to FICON channel. zDAC can save time by discovering new and changed fabric-attached devices, and suggesting configurations aligned with best practices for availability and with the I/O policies that you define in the Hardware Configuration Dialog (HCD).

z/OS support of z/OS FICON Discovery and Auto Configuration is available on z/OS V1.12 with PTFs, or later.

Accessibility by people with disabilities

A U.S. 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

Section 508 of the U.S. Rehabilitation Act

The IBM System Storage DS8700 and IBM System Storage DS8700 Expansion Unit are capable, as of November 6, 2009, when used in accordance with IBM's associated documentation, of satisfying the applicable requirements of Section 508 of the Rehabilitation Act, provided that any assistive technology used with the product properly interoperates with it. A U.S. Section 508 Voluntary Product Accessibility Template (VPAT) can be requested via IBM's Web site at

   http://www.ibm.com/able/product_accessibility/index.html

Reference information

For more information, refer to the following announcements:

- Hardware Announcement 109-702, dated October 20, 2009, IBM System Storage DS8700 (Machine type 2421) high-performance flagship high-end disk, one-year warranty model addresses your business and financial needs.

- Hardware Announcement 109-289, dated October 20, 2009, IBM System Storage DS8700 (Machine type 2422) high-performance flagship high-end disk, two-year warranty model addresses your business and financial needs.
- Hardware Announcement 109-756, dated October 20, 2009, IBM System Storage DS8700 (Machine type 2423) high-performance flagship high-end disk, three-year warranty model addresses your business and financial needs.
- Hardware Announcement 109-757, dated October 20, 2009, IBM System Storage DS8700 (Machine type 2424) high-performance flagship high-end disk, four-year warranty model addresses your business and financial needs.
- Software Announcement 209-017, dated February 10, 2009 (IBM Tivoli® Key Lifecycle Manager for z/OS V1.0)
- Hardware Announcement 110-092, dated April 13, 2010, IBM System Storage DS8700 (M/T 242x) delivers new Easy Tier solid-state storage optimization, advanced business continuity features, and new drive options.

For IBM statement on compliance with European Union Directive on Restriction of the use of certain Hazardous Substances in Electrical and Electronic Equipment (2002/95/EC) (RoHS), visit

http://www.ibm.com/ibm/environment/products/rohs.shtml

Product number

Description	Machine type	Model	Feature
DS8700	2421	941	
Licensed Function Indicators: - z/OS Distributed Data Backup indicator			0714
Administrative Indicators: - IBM System z Business Class indicator			0951
Function Authorization indicators: - z/OS Distributed Data Backup indicator			7094
DS8700	2422	941	
Licensed Function Indicators: - z/OS Distributed Data Backup indicator			0714
Administrative Function Indicators: - IBM System z Business Class indicator			0951
Function Authorization indicators: - z/OS Distributed Data Backup indicator			7094
DS8700	2423	941	
Licensed Function Indicators: - z/OS Distributed Data Backup indicator			0714
Administrative Indicators: -IBM System z Business Class indicator			0951
Function Authorization indicators: - z/OS Distributed Data Backup indicator			7094
DS8700	2424	941	
Licensed Function Indicators: - z/OS Distributed Data Backup indicator			0714
Administrative Indicators:			

```
-IBM System z Business Class indicator                    0951

Function Authorization indicators:
- z/OS Distributed Data Backup indicator                  7094
```

Model conversions

There are no new model conversions with this announcement. This is a reminder that model conversions are disruptive. In addition, data may not be preserved during the model conversion.

DS8100, DS8300 to DS8700 model conversions can be done using the DEX Program. With this program, disruptive upgrades are avoidable. Data migration can be done side by side to minimize implementation time and reduce cost. Returned hardware will be assigned value according to condition. De-installation will be paid by IGF.

For more information on the DEX offering, use the following link:

http://www-03.ibm.com/financing/us/lifecycle/acquire/diskx.html

Feature conversions

Feature conversions for machine types 2421, 2422, 2423, and 2424 model 942: No conversions

Business Partner information

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=110-168

Publications

The IBM System Storage DS8000 Introduction and Planning Guide (GC35-0515) has been updated to reflect this announcement and will be available by July 30, 2010.

The following publications are shipped with the DS8000 series:

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Title                                      Order number

IBM System Storage DS8000 Introduction and  GC35-0515
 Planning Guide

IBM System Storage DS8000 Host Systems      SC26-7917
 Attachment Guide

IBM System Storage DS® Command-Line         GC53-1127
 Interface User's Guide

IBM System Storage DS Open Application      GC35-0516
 Programming Interface Referee

IBM System Storage Statement of            GC26-7919
 Limited Warranty

IBM System Storage Licensed Machine         GC26-7918
 Code Agreement
```

For DS8000 publications, visit

http://www-1.ibm.com/servers/storage/support/disk/index.html

Publications can be ordered from your IBM representative, by direct order, or through the Publications Center Web site at

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

The DS8000 information center is designed to provide comprehensive, browser-based information. It can help provide easy access to tasks, concepts, referee information, tutorials, code samples, scenarios, and other product information. It contains assistance for the tasks that users must perform and links to additional information. To find information, users can search, browse the contents, use the index, follow links from one topic to related topics, and print the topics they want to read offline.

The information center is available at

http://www.ibm.com/support/publications/us/library/

The IBM System Storage DS8000 Information Center allows you to browse and search documentation for the DS8000 series.

The IBM System Storage DS8000 Information Center is at

http://publib.boulder.ibm.com/infocenter/dsichelp/ds8000ic/index.jsp

Services

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.

Technical information

Specified operating environment

Hardware requirements

Licensed Machine Code

All features and functions in this announcement are supported on the IBM System Storage DS8000 series and require DS8000 licensed machine code level 6.5.15.xx (bundle version 75.15.xx.xx), or later.

Some DS8000 series features and functions may not be available or supported in all environments. Current information on supported environments, prerequisites, and minimum operating system levels is available online at

http://www-03.ibm.com/systems/support/storage/config/ssic

Planning information

Customer responsibilities

Physical configuration planning

Physical configuration planning is a customer responsibility. Your disk marketing specialist can help you plan and select the DS8000 series physical configuration and features. Introductory information, including required and optional features, can be found in the *IBM System Storage DS8000 Introduction and Planning Guide (GC35-0515).*

Capacity and performance planning assistance is also available. Through the use of Disk Magic, your disk marketing specialist can help you plan and anticipate performance characteristics for specific workloads by modeling proposed configurations.

Installation planning

Installation planning is a customer responsibility. Information about planning the installation of your DS8000 series, including equipment, site, and power requirements, can be found in the *IBM System Storage DS8000 Introduction and Planning Guide (GC35-0515).*

Logical configuration planning and application

Logical configuration planning is a customer responsibility. Logical configuration refers to the creation of RAID ranks, volumes, or LUNs, and the assignment of the configured capacity to servers.

Application of the initial logical configuration and all subsequent modifications to the logical configuration is a customer responsibility. The logical configuration can be created, applied, and modified using the DS Storage Manager, DS CLI, or DS Open API.

IBM Global Services (IGS) will also apply and/or modify your logical configuration (fee-based services).

Licensed Machine Code planning and application

IBM may release changes to the DS8000 series Licensed Machine Code. IBM plans to make most DS8000 series Licensed Machine Code changes available for download by the DS8000 series system from the IBM System Storage technical support worldwide Web. Note that not all Licensed Machine Code changes may be available via the support Web site. If the machine does not function as warranted and your problem can be resolved through your application of downloadable Licensed Machine Code, you are responsible for downloading and installing these designated Licensed Machine Code changes as IBM specifies. IBM has responsibility for installing changes that IBM does not make available for you to download. The DS8000 series includes many enhancements to make the Licensed Machine Code change process simpler, quicker, and more automated. If you would prefer, you may request IBM to install downloadable Licensed Machine Code changes; however, you may be charged for that service.

Calculating physical and effective capacity

Refer to the *IBM System Storage DS8000 Introduction and Planning Guide (GC35-0515)* for capacity calculation guidelines.

Encryption planning

Encryption planning is a customer responsibility. There are three major planning components to the implementation of an encryption environment. Review all planning requirements and include them in your installation considerations.

- Key Server Planning
- Tivoli Key Lifecycle Manager Planning
- Full Disk Encryption Activation Review Planning

Key server planning

Key server planning is a customer responsibility. Introductory information, including required and optional features, can be found in the *IBM System Storage DS8000 Introduction and Planning Guide (GC35-0515).*

The DS8700 requires at least two key servers and associated software for each site which has one or more encryption-enabled DS8000 systems. One server must be isolated and the others can be of any supported key server configuration. Any site that operates independently of other sites must have key servers for the encryption enabled DS8000 systems at that site.

An isolated key server is a separately purchased hardware product (using System Storage Productivity Center, machine type 2805 MC3 or MC4) for the DS8700 (#0021). Isolated key servers will not support any additional hardware or software beyond supported key management software. An isolated server must only use internal disk for the operating system and for all files required for key management operation. An isolated key server can be attached to multiple DS8000 systems. IBM requires at least two key servers to be configured to each DS8000 that is encryption enabled. At least one isolated key server must be attached to each encryption enabled DS8000. DS8000 Encryption environments are recommended to configure external Laptop HMC for high availability (#1130 or #1131). It is the customer's responsibility to replicate any key labels across all key servers attached to a given encryption-enabled DS8000 before configuring that key label on the DS8000.

Dual platform key server planning

DS8000 supports the ability to configure two independent key labels for each encryption-enabled DS8000. This capability allows the use of two independent key server platforms when one or both key server platforms are using secure-key mode key stores. This allows the isolated key server platform to be used in conjunction with a second key server platform that is operating with a secure-key mode key store.

For customers needing dual platform key server support on DS8000, the installation of TKLM IFIX 2 (TKLM Version 1.0.0.2) is recommended to support displaying both key labels in the GUI. Additionally, for customers who intend to replicate keys between separate sysplexes using ICSF with the JCECCARACFKS key store in secure key mode and with the secure key configuration flag set in TKLM, TKLM Fix Pack 3 (TKLM Version 1.0.0.3) is required.

Tivoli Key Lifecycle Manager planning

The DS8000 series supports:

- IBM Tivoli Key Lifecycle Manager V1.0

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Program
number     VRM     Program name

5724-T60   1.0.0   IBM Tivoli Key Lifecycle Manager
5608-A91   1.0.0   IBM Tivoli Key Lifecycle Manager (distributed
                    for non-Passport Advantage)
                   IBM Tivoli Key Lifecycle Manager for z/OS V1.0
5698-B35   1.0.0   IBM Tivoli Key Lifecycle Manager for z/OS
```

Isolated key servers ordered with feature number 0021, (machine type 2805 Model MC3 or MC4) will have a Linux® operating system and TKLM software preinstalled. Customers will need to acquire a TKLM license for use of the TKLM software, ordered separately from the standalone server hardware.

Refer to the following publications:

- IBM Tivoli Key Lifecycle Manager Quick Start Guide (GI11-8738)
- IBM Tivoli Key Lifecycle Manager Installation and Configuration Guide (SC23-9977)
- IBM Tivoli Key Lifecycle Manager Program Directory (for z/OS) (GI11-4300)

Full Disk Encryption Activation review planning

Full Disk Encryption Activation is a customer responsibility. IBM Full Disk Encryption offerings must be activated prior to use. This activation is part of the installation and configuration steps required for use of the technology. This installation and activation review is performed by the IBM Systems and Technology Lab Services group.

Send e-mail to

storsvcs@us.ibm.com

Visit the Web site below and click on "Contact now" to submit your inquiry or request.

http://www-03.ibm.com/systems/services/labservices/

You are responsible for downloading or obtaining from IBM, and installing designated Machine Code (microcode, basic input/output system code (called BIOS), utility programs, device drivers, and diagnostics delivered with an IBM machine) and other software updates in a timely manner from an IBM Internet Web site or from other electronic media, and following the instructions that IBM provides. You may request IBM to install Machine Code changes; however, you may be charged for that service.

Model conversions

DS8100, DS8300 to DS8700 model conversions are disruptive. In addition, data may not be preserved during the conversion. Data migration or backup/restore is a customer responsibility. Fee-based data migration services are available from IGS.

For more information on the DEX offering use the following link:

http://www-03.ibm.com/financing/us/lifecycle/acquire/diskx.html

Implementation can be done using the DEX Program. With this program, disruptive upgrades are avoidable. Data migration can be done side by side to minimize implementation time and reduce cost. Returned hardware will be assigned value according to condition. De-installation will be paid by IGF.

The conversion of a Turbo Model 931 to a DS8700 Model 941 (2-way) may require the purchase of additional features including, but not limited to:

- An upgrade to 32 GB of processor memory (#4xxx) if the Turbo Model 931 has 16 GB of processor memory (#4xxx)
- An upgrade to POWER6™ 2-way processor card (#43xx)
- Additional cable and infrastructure features
- Additional Licensed Microcode features (referred to as advanced function)

The conversion of a Turbo Model 932 to a DS8700 Model 941 (4-way) may require the purchase of additional features including, but not limited to:

- An upgrade to POWER6 4-way processor card (#43xx)

- Additional cable and infrastructure features
- Additional Licensed Microcode features (referred to as advanced function)

You are responsible for downloading or obtaining from IBM, and installing designated Machine Code (microcode, basic input/output system code (called BIOS), utility programs, device drivers, and diagnostics delivered with an IBM machine) and other software updates in a timely manner from an IBM Internet Web site or from other electronic media, and following the instructions that IBM provides. You may request IBM to install Machine Code changes; however, you may be charged for that service.

Cable orders

Cables are required to connect DS8000 series 4 Gb FCP/FICON host adapters ports to server or fabric ports.

Cables can be purchased using DS8000 series feature numbers. Additional cable options, along with product support services such as installation, is offered by IBM Global Services' Networking Services.

Fibre Channel/FICON (shortwave): Shortwave Fibre Channel and FICON ports on the DS8000 series require a 50-micron (multimode) fiber optic cable terminated with an LC connector.

Fibre Channel cables can be purchased using feature numbers 141x for 50-micron cables.

Fibre Channel/FICON (longwave): Longwave Fibre Channel and FICON ports on the DS8000 series require either a 9-micron (singlemode) or 50-micron (multimode) fiber optic cable terminated with an LC connector. A 50-micron cable is required when the longwave port is operating at a 4 Gb per second transfer rate.

Fibre Channel cables can be purchased using feature numbers 141x for 50-micron cables and numbers 142x for 9-micron cables.

Security, auditability, and control

This product uses the security and auditability features of the host hardware, host software, and/or application software to which it is attached.

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

You are responsible for downloading or obtaining from IBM, and installing designated Machine Code (microcode, basic input/output system code (called BIOS), utility programs, device drivers, and diagnostics delivered with an IBM machine) and other software updates in a timely manner from an IBM Internet Web site or from other electronic media, and following the instructions that IBM provides. You may request IBM to install Machine Code changes; however, you may be charged for that service.

Cable orders

No cables required.

Installability

Direct customer support

Direct customer support for the DS8000 series is provided by IBM Operational Support Services - Support Line. This fee service can enhance your productivity by providing voice and electronic access into the IBM support organization. IBM Operational Support Services - Support Line will help answer questions pertaining to product and feature usage (how to), configuration, and product compatibility for eligible products. For a list of the products supported via Support Line, visit the following Web site

For more information on services, call 800-IBM-4YOU (426-4968).

Security, auditability, and control

This product uses the security and auditability features of the host hardware, host software, and/or application software to which it is attached.

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

IBM Electronic Services

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™ 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

Terms and conditions

MES Discount Applicable

No

Field Installable Feature

Yes

Warranty period

Machine type 2421: One year

Machine type 2422: Two years

Machine type 2423: Three years

Machine type 2424: Four years

Customer setup

No

Licensed Internal Code

Same license terms and conditions as designated machine.

Pricing

Description	Machine type	Model	Feature number
System Storage DS8700	2421	941	
Licensed Function Indicators: - z/OS Distributed Data Backup indicator			0714
Administrative Indicators: - IBM System z Business Class indicator			0951
Function Authorization indicators: - z/OS Distributed Data Backup indicator			7094
System Storage DS8700	2422	941	
Licensed Function Indicators: - z/OS Distributed Data Backup indicator			0714
Administrative Indicators: - IBM System z Business Class indicator			0951
Function Authorization indicators: - z/OS Distributed Data Backup indicator			7094
System Storage DS8700	2423	941	
Licensed Function Indicators: - z/OS Distributed Data Backup indicator			0714
Administrative Indicators: - IBM System z Business Class indicator			0951
Function Authorization indicators: - z/OS Distributed Data Backup indicator			7094
System Storage DS8700	2424	941	
Licensed Function Indicators: - z/OS Distributed Data Backup indicator			0714
Administrative Indicators: - IBM System z Business Class indicator			0951
Function Authorization indicators: - z/OS Distributed Data Backup indicator			7094

Feature change options

Description	Feature number	Install type	Feature conversion	Feature exchange	Feature remove
Licensed Function Indicators:					

```
- z/OS Distributed Data          0714    Both       No         No         Yes
    Backup indicator


Administrative Indicators:
- IBM System z
    Business Class indicator     0951    Plant      No         No         No


Function Authorization indicators:
- z/OS Distributed Data          7094    Both       No         No         Yes
    Backup indicator
```

- Feature Conversion: As necessary, IBM service personnel will remove components from the machine and/or install additional components required to complete the conversion.
- Feature Remove: This is an administrative transaction and only updates IBM machine and inventory records, except under the following condition:
  - IBM will remove components from the machine if the Feature Remove is ordered in conjunction with a Feature Add transaction.

Mach Type	Model	Feature	Description	List Price
2421	941	0714	z/OS Distributed Data Backup	$0
2421	941	0951	System z Business Class ind	$0
2421	941	7094	z/OS Distributed Data Backup	$0
2422	941	0714	z/OS Distributed Data Backup	$0
2422	941	0951	System z Business Class ind	$0
2422	941	7094	z/OS Distributed Data Backup	$0
2423	941	0714	z/OS Distributed Data Backup	$0
2423	941	0951	System z Business Class ind	$0
2423	941	7094	z/OS Distributed Data Backup	$0
2424	941	0714	z/OS Distributed Data Backup	$0
2424	941	0951	System z Business Class ind	$0
2424	941	7094	z/OS Distributed Data Backup	$0

MA Pricing:

Mach Type	Model	Feature	Description	TP(A M L)	IOR24
2421	941	7094	z/OS Distributed Data Backup	M	$0
2422	941	7094	z/OS Distributed Data Backup	M	$0

Mach Type	Model	Feature	Description	TP(A M)	Ref	Pr24X7
2423	941	7094	z/OS Distributed Data Backup	M		$0
2424	941	7094	z/OS Distributed Data Backup	M		$0
2421	941	7094	z/OS Distributed Data Backup	M	24X7	$0
2422	941	7094	z/OS Distributed Data Backup	M	24X7	$0
2423	941	7094	z/OS Distributed Data Backup	M	24X7	$0
2424	941	7094	z/OS Distributed Data Backup	M	24X7	$0

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