



IBM DS8870 (Machine type 2396, 2397, 2398, and 2399) Function Authorizations for Multiple Target Peer-to-Peer Remote Copy

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At a glance

New Licensed Function indicator, Multiple Target Peer-to-Peer Remote Copy (PPRC) feature number 7025, is available for IBM® System Storage® DS8870 (Machine types 2396, 2397, 2398, and 2399) high-performance flagship Model LFA.

Overview

The IBM System Storage DS8000® series Function Authorizations are for billing purposes only and establish the extent of IBM authorization for use of the licensed functions on an IBM DS8870 (IBM 2421, 2422, 2423, or 2424). The following Licensed Function Indicators are being introduced:

- 2396 Model LFA: IBM Multiple Target PPRC indicator (feature number 7025)
- 2397 Model LFA: IBM Multiple Target PPRC indicator (feature number 7025)
- 2398 Model LFA: IBM Multiple Target PPRC indicator (feature number 7025)
- 2399 Model LFA: IBM Multiple Target PPRC indicator (feature number 7025)

Key prerequisites

All features and functions in this announcement are supported on the IBM DS8870 and require DS8000 Licensed Machine Code (LMC) 7.7.40.xx.xx (bundle version 87.40.xxx.xx), or later.

Planned availability date

December 5, 2014

Description

The following licensed functions are available on IBM DS8870 (Machine type 2421, 2422, 2423, and 2424):

Licensed function	Description
Encrypted Drive Activation	Encrypted Drive Activation Indicator

Operating Environment	IBM System Storage DS® Operating Environment
Thin Provisioning	IBM System Storage Thin Provisioning
Database Protection	IBM Database Protection Feature License
IBM System Storage Easy Tier®	IBM System Storage Easy Tier
Easy Tier Server	IBM System Storage Easy Tier Server
z/OS® Distributed Data Backup	IBM System Storage z/OS Distributed Data Backup
FICON® Attachment	IBM System Storage FICON Attachment
High Performance FICON	IBM System Storage High Performance FICON for System z
FlashCopy®	IBM System Storage FlashCopy
Space Efficient FlashCopy	IBM System Storage Space Efficient FlashCopy
Metro/Global Mirror	IBM System Storage Metro/Global Mirror
Metro Mirror	IBM System Storage Metro Mirror IBM System Storage Global Copy
Global Mirror	IBM System Storage Global Mirror IBM System Storage Global Copy
Multiple Target PPRC	IBM Multiple Target Peer-to-Peer Remote Copy
z/OS Global Mirror	IBM System Storage z/OS Global Mirror
z/OS Metro/Global Mirror Incremental Resync	IBM System Storage z/OS Metro/Global Mirror Incremental Resync
Parallel Access Volumes	IBM Parallel Access Volumes
I/O Priority Manager	DS8000 I/O Priority Manager
HyperPAV	IBM HyperPAV

All DS8870 licensed functions are enabled, authorized, managed, activated, and enforced based upon the physical capacity contained in a 242x system. In the context of licensed functions, these terms are defined as follows:

- "242x system" refers to the 242x base unit and all physically attached 242x expansion units:
 - A 242x base unit refers to the Model 961
 - A 242x expansion unit refers to the Model 96E

For Multiple Target PPRC functionality, there is no requirement to activate this licensed function as long as the required license size for Metro Mirror, Global Mirror, and Metro/Global Mirror are ordered and activated.

Enablement refers to the selection of a 242x licensed function indicator feature number to technically activate the associated licensed function.

Authorization refers to the acquisition of a DS8000 series Function Authorization (IBM 239x) feature number to establish the extent of IBM authorization (license size in terms of physical capacity) for use of an associated licensed function. This is also referred to as the *authorization level*.

Management refers to client use of the Disk Storage Feature Activation (DSFA) application to select the license scope, assign the license value, and deactivate a licensed function.

Activation refers to the client retrieval and installation of the feature activation code into the 242x system. The feature activation code is made available by IBM and obtained using the DSFA application.

Enforcement refers to logic and other technology within the 242x's Licensed Machine Code to maintain compliance with established IBM authorization levels.

Enablement

Each licensed function is enabled for a 242x system through the selection of the appropriate licensed function indicator feature number on the 242x base unit.

Licensed function	Licensed function indicator
Encrypted Drive Activation	242x feature number 1750
Operating Environment	242x feature numbers 0700 and 70xx
Thin Provisioning	242x feature numbers 0707 and 7071
Database Protection	242x feature numbers 0708 and 7080
IBM System Storage Easy Tier	242x feature numbers 0713 and 7083
Easy Tier Server	242x feature numbers 0715 and 7084
FICON Attachment	242x feature numbers 0703 and 7091
High Performance FICON	242x feature numbers 0709 and 7092
z/OS Distributed Data Backup	242x feature numbers 0714 and 7094
FlashCopy	242x feature numbers 0720 and 72xx
Space Efficient FlashCopy	242x feature numbers 0730 and 73xx
Metro/Global Mirror	242x feature numbers 0742 and 74xx
Metro Mirror	242x feature numbers 0744 and 75xx
Multiple Target PPRC	242x feature number 0745 and 7025
Global Mirror	242x feature numbers 0746 and 75xx
z/OS Global Mirror	242x feature numbers 0760 and 76xx
z/OS Metro/Global Mirror	242x feature numbers 0763 and 76xx
Incremental Resync	
Parallel Access Volumes	242x feature numbers 0780 and 78xx
I/O Priority Manager	242x feature numbers 0784 and 78xx
HyperPAV	242x feature numbers 0782 and 7899

Each licensed function indicator feature selected on a 242x base unit enables that function at the system level. These features are not selected on any attached 242x expansion units.

Authorization

The extent of IBM authorization for the use of a licensed function on a 242x system is established by acquiring 239x function authorization models and feature numbers for the 242x base unit.

Licensed function	Function authorization
Encrypted Drive Activation	239x Model LFA feature number 1750
Operating Environment	239x Model LFA feature number 7030-7065
Thin Provisioning	239x Model LFA feature number 7071
Database Protection	239x Model LFA feature number 7080
IBM System Storage Easy Tier	239x Model LFA feature number 7083
Easy Tier Server	239x Model LFA feature number 7084
FICON Attachment	239x Model LFA feature number 7091
High Performance FICON	239x Model LFA feature number 7092
z/OS Distributed Data Backup	239x Model LFA feature number 7094
FlashCopy	239x Model LFA feature number 7250-7260
Space Efficient FlashCopy	239x Model LFA feature number 7350-7360
Metro/Global Mirror	239x Model LFA feature number 7480-7490
Metro Mirror	239x Model LFA feature number 7500-7510
Multiple Target PPRC	239x Model LFA feature number 7025
Global Mirror	239x Model LFA feature number 7520-7530
z/OS Global Mirror	239x Model LFA feature number 7650-7660
z/OS Metro/Global Mirror	239x Model LFA feature number 7680-7690
Incremental Resync	
Parallel Access Volumes	239x Model LFA feature number 7820-7830
I/O Priority Manager	239x Model LFA feature number 7840-7850

Each function authorization acquired for a 242x base unit establishes the authorization level for the 242x system. For example, a system with Model 961 and two Model 96E expansion units requires only one operating environment (239x Model LFA feature numbers 70xx) function authorization. The authorization levels established by acquiring one or more function authorizations for the Model 961 must also cover the physical capacity of the attached Model 96E expansion units.

The authorization level provided by each feature number is stated within the feature number description. The unit represents physical capacity, where a terabyte (TB) equals one trillion bytes. A 242x system's total authorization level for a given licensed function is the sum of the units (TB) associated with all the acquired feature numbers.

Management

Licensed functions are managed using the DSFA application at

<http://www.ibm.com/storage/dsfa>

To access DSFA, you will be required to enter information about your 242x machine. You can find this information on the Storage Unit General Properties page in the IBM System Storage DS8000 Storage Manager application.

Management activities include:

- Selection of a license scope
- Assignment of a license value
- Deactivation of a licensed function

License scope: Licensed functions are activated and enforced within a defined license scope. License scope refers to the type of storage, and therefore the type of servers, that the function can be used with.

- Fixed Block (FB): This function can be used only with data from Fibre Channel-attached servers.
- Count Key Data (CKD): The function can be used only with data from FICON-attached servers.
- Both FB and CKD (ALL): The function can be used with data from all attached servers.

Selected licensed functions have multiple license scope options, while other functions have only a single license scope.

Licensed function	License scope options
Encrypted Drive Activation	ALL
Operating Environment	ALL
Thin Provisioning	FB
Database Protection	FB, CKD, or ALL
FICON Attachment	CKD
High Performance FICON	CKD
IBM System Storage Easy Tier	FB, CKD, or ALL
Easy Tier Server	FB, CKD, or ALL
z/OS Distributed Data Backup	CKD
FlashCopy	FB, CKD, or ALL
Space Efficient FlashCopy	FB, CKD, or ALL
Metro/Global Mirror	FB, CKD, or ALL
Metro Mirror	FB, CKD, or ALL
Multiple Target PPRC	FB, CKD, or ALL
Global Mirror	FB, CKD, or ALL
z/OS Global Mirror	CKD
z/OS Metro/Global Mirror	CKD
Incremental Resync	
Parallel Access Volumes	CKD

If a licensed function has multiple license scope options, you will be required to select a license scope during the initial retrieval of the feature activation code. This activity is performed using the DSFA application.

The license scope is not selected while ordering function authorization feature numbers. The feature numbers only establish the extent of IBM authorization in terms of physical capacity, regardless of the storage type.

You can also change the license scope using the DSFA application after a licensed function has been activated. A new feature activation code will be generated and when you install it into the machine, the function will be activated and enforced using the newly selected license scope. Only an increase in the license scope (changing FB or CKD to ALL) is a nondisruptive activity. A lateral change (changing FB to CKD or changing CKD to FB) or a reduction of the license scope (changing ALL to FB or CKD) is a disruptive activity and requires a machine IML.

License value: Licensed functions are activated and enforced based upon an assigned license value.

License value refers to extent of IBM authorization and is referenced as physical capacity (TB).

On Model 961, license value assignment is an optional activity that can be performed using the DSFA application.

On these models, the feature activation codes will always be generated using the total license value for each licensed function, unless a license value of zero (0.0 TB) has been assigned.

Deactivation: Assigning a license value of zero (0.0 TB) provides the ability to deactivate (disable) a licensed function. A new feature activation code will be generated and when installed into the machine, the function will be deactivated during the next IML of the machine.

A deactivated licensed function can be reactivated by changing the license value to a nonzero value. A new feature activation code will be generated and when installed into the machine, the function will be activated. Reactivation is a nondisruptive activity.

When a licensed function is deactivated using the DSFA application, the installed function authorization feature numbers remain on the machine record. The function authorization feature numbers do not need to be reacquired to reactivate the licensed function at a future date.

Activation

Licensed functions are activated by the installation of feature activation codes into the 242x system. The feature activation codes are made available by IBM and are obtained using the DSFA application.

Enforcement

The 242x Licensed Machine Code contains logic and other technology to maintain compliance with established authorization levels. The physical capacity for each storage type can be logically configured up to the given authorization level. If there are multiple licensed functions with the same license scope, the extent of IBM authorization is defined by the licensed function with the lowest license value.

For a 242x machine with Standby Capacity on Demand (CoD) disk drives (#5xx9 features), activation (logical configuration) of CoD disk drives may exceed the extent

of IBM authorization for a licensed function, in which case an increased authorization level must be acquired.

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

Reference information

For additional information on the DS8870 and licensed functions, refer to the following announcements:

- Hardware Announcement [AG12-0166](#), dated October 03, 2012, IBM System Storage DS8870 (Machine type 2421) high-performance Flagship one-year warranty model addresses your business and financial needs
- Hardware Announcement [AG12-0190](#), dated October 03, 2012, IBM System Storage DS8870 (Machine type 2422) high-performance Flagship two-year warranty model addresses your business and financial needs
- Hardware Announcement [AG12-0188](#), dated October 03, 2012, IBM System Storage DS8870 (Machine type 2423) high-performance Flagship three-year warranty model addresses your business and financial needs
- Hardware Announcement [AG12-0189](#), dated October 03, 2012, IBM System Storage DS8870 (Machine type 2424) high-performance Flagship four-year warranty model addresses your business and financial needs

Product number

Description	Machine	Model	Feature
DS8000 series Function Authorization	2396	LFA	
Operating Environment (OEL) License: - Multiple Target PPRC indicator			7025
Description	Machine	Model	Feature
DS8000 series Function Authorization	2397	LFA	
Operating Environment (OEL) License: - Multiple Target PPRC indicator			7025
Description	Machine	Model	Feature
DS8000 series Function Authorization	2398	LFA	
Operating Environment (OEL) License: - Multiple Target PPRC indicator			7025
Description	Machine	Model	Feature
DS8000 series Function Authorization	2399	LFA	
Operating Environment (OEL) License: - Multiple Target PPRC indicator			7025

Publications

No publications are shipped with the DS8000 series Function Authorizations.

IBM Knowledge Center provides you with a single information center where you can access product documentation for IBM systems hardware, operating systems, and server software. Through a consistent framework, you can efficiently find information and personalize your access. IBM Knowledge Center is located at

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

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.

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/ites.wss/zz/en?pageType=tp_search_new

Technical information

EMC conformance

Electromagnetic Compatibility (EMC) Conformance: Not applicable.

The DS8000 Series Function Authorizations are for billing purposes only.

Specified operating environment

Hardware requirements

Each DS8000 series Function Authorization (IBM 239x) establishes the extent of IBM authorization for one or more licensed functions acquired for an IBM DS8870 (IBM 242x). Each 239x function authorization is applicable only for the specific 242x machine (by serial number) for which it was acquired and is not transferable to another serial numbered 242x machine.

Each 239x function authorization requires a corequisite licensed function indicator feature number on the 242x machine for which it was acquired:

Licensed function	IBM 242x	IBM 239x
	Indicator Feature number	Function Authorization Models and feature numbers
Encrypted Drive Activation	1750	Model LFA 1750
Operating Environment	0700 and 70xx	Model LFA 7030-7065
Thin Provisioning	0707 and 7071	Model LFA 7071
Database Protection	0708 and 7080	Model LFA 7080
IBM System Storage Easy Tier	0713 and 7083	Model LFA 7083
Easy Tier Server	0715 and 7084	Model LFA 7084
FICON Attachment	0703 and 7091	Model LFA 7091
High Performance FICON	0709 and 7092	Model LFA 7092
z/OS Distributed Data Backup	0714 and 7094	Model LFA 7094
FlashCopy	0720 and 72xx	Model LFA 7250-7260
Space Efficient FlashCopy	0730 and 73xx	Model LFA 7350-7360
Metro/Global Mirror	0742 and 74xx	Model LFA 7480-7490
Metro Mirror	0744 and 75xx	Model LFA 7500-7510
Multiple Target PPRC	0745 and 7025	Model LFA 7025
Global Mirror	0746 and 75xx	Model LFA 7520-7530
z/OS Global Mirror	0760 and 76xx	Model LFA 7650-7660
z/OS Metro/Global Mirror	0763 and 76xx	Model LFA 7680-7690
Incremental Resync		
Parallel Access Volumes	0780 and 78xx	Model LFA 7820-7830
I/O Priority Manager	0784 and 78xx	Model LFA 7840-7850
HyperPAV	0782 and 7899	Model LFA 7899

Operating environment

A per TB unit operating environment license and a value unit operating environment license are required on every 242x base unit (Model 961). The extent of IBM authorization acquired through the 239x Model LFA feature numbers must cover the physical capacity and the value units required for each acquired drive set of the 242x system, where system is defined as the base unit and all physically attached expansion units (excluding Standby CoD capacity).

Feature	Description	Corequisite
7030	OEL - inactive indicator	Model LFA feature #7030
7031	OEL - 1 TB unit indicator	Model LFA feature #7031
7032	OEL - 5 TB unit indicator	Model LFA feature #7032
7033	OEL - 10 TB unit indicator	Model LFA feature #7033
7034	OEL - 25 TB unit indicator	Model LFA feature #7034
7035	OEL - 50 TB unit indicator	Model LFA feature #7035
7040	OEL - 100 TB unit indicator	Model LFA feature #7040
7045	OEL - 200 TB unit indicator	Model LFA feature #7045
7050	OEL - inactive indicator	Model LFA feature #7050
7051	OEL - 1 Value Unit indicator	Model LFA feature #7051
7052	OEL - 5 Value Unit indicator	Model LFA feature #7052
7053	OEL - 10 Value Unit indicator	Model LFA feature #7053
7054	OEL - 25 Value Unit indicator	Model LFA feature #7054
7055	OEL - 50 Value Unit indicator	Model LFA feature #7055
7060	OEL - 100 Value Unit indicator	Model LFA feature #7060
7065	OEL - 200 Value Unit indicator	Model LFA feature #7065

Feature number	Size	Drive type	Drive speed	Encryption drive	Value Units required
1506	400 GB (16 cards)	Flash	N/A	Yes	36.4
1508	400 GB (14 cards)	Flash	N/A	Yes	31.8
6106	400 GB	SSD	N/A	No	18.2
		(half drive set)			
6108	400 GB	SSD	N/A	No	36.4
2208	146 GB	SAS	15K rpm	No	4.8
2708	600 GB	SAS	10K rpm	No	11.5
2758	900 GB	SAS	10K rpm	No	16.0
2858	3 TB	NL SAS	7.2K rpm	No	13.5
		(half drive set)			
2990	N/A	N/A	N/A	No	11.5
5108	146 GB	SAS	15K rpm	Yes	4.8
5308	300 GB	SAS	15K rpm	Yes	6.8

5618	600 GB	SAS	15K rpm	Yes	11.5
5708	600 GB	SAS	10K rpm	Yes	11.5
5758	900 GB	SAS	10K rpm	Yes	16.0
5768	1.2 TB	SAS	10K rpm	Yes	20.0
5858	3 TB	NL SAS	7.2K rpm	Yes	13.5
		(half drive set)			
5868	4 TB	NL SAS	7.2K rpm	Yes	16.2
		(half drive set)			
6058	200 GB	SSD	N/A	Yes	21.6
6156	400 GB	SSD	N/A	Yes	18.2
		(half drive set)			
6158	400 GB	SSD	N/A	Yes	36.4
6258	800 GB	SSD	N/A	Yes	64.0
6358	1.6 TB	SSD	N/A	Yes	125.0

The value unit operating environment licenses (Model LFA 7050-7065) are required in addition to the per TB unit operating environment licenses (feature numbers 7030-7045). For each drive set listed above, the corresponding number of value units must be purchased. This is required for the operating environment and for a valid system configuration.

The per TB unit operating environment license feature activation code can be retrieved and activated by using the DSFA application. The value unit operating environment licenses are mainly a pricing mechanism, so there will not be any feature activation code to be retrieved and activated by using the DSFA application.

If the operating environment license has not been acquired and activated on the machine, disk drives installed within the 242x system cannot be logically configured for use. Upon activation of the operating environment, disk drives can be logically configured up to the extent of IBM authorization.

As additional disk drives are installed, the extent of IBM authorization must be increased by acquiring additional 239x Model LFA feature numbers. Otherwise, the additional disk drives cannot be logically configured for use.

For a 242x system with Standby CoD disk drives (feature numbers 5xx9), activation (logical configuration) of CoD disk drives may exceed the extent of IBM authorization for the operating environment, in which case an increased authorization level must be acquired.

Limitations

- Conversions between machine types is not supported.
- The intermix of models and features between machine types is not supported. For example, intermixing of machine type 2396 model LFA and machine type 2398 model LFA is not supported.
- The amount of physical capacity within a 242x system that can be logically configured for use will be enforced by the 242x Licensed Machine Code to maintain compliance with the extent of IBM authorization established for licensed functions activated on the machine. The 242x Licensed Machine Code will not allow the logical configuration of physical capacity beyond the extent of IBM authorization (except when activating Standby CoD capacity).
- A lateral change or reduction in the license scope is a disruptive activity and requires a machine IML (Model 961).
 - A lateral change is defined as changing the license scope from FB to CKD or from CKD to FB.
 - A reduction is defined as changing the license scope from ALL to FB or from ALL to CKD.
 - The deactivation of an activated licensed function occurs at the next machine IML (Model 961).

Planning information

Customer responsibilities

Determining the required extent of IBM authorization

You are responsible for determining the extent of IBM authorization required for each licensed function. Your disk marketing specialist can help you with this activity. Below are some general guidelines:

- The required authorization level depends upon the license scope:
 - If the license scope is FB, the authorization level must be equal to or greater than the total amount of physical capacity within the system that will be logically configured as FB.
 - If the license scope is CKD, the authorization level must be equal to or greater than the total amount of physical capacity within the system that will be logically configured as CKD.
 - If the license scope is ALL, the authorization level must be equal to or greater than the total system physical capacity.
- Standby CoD disk drives (feature numbers 5xx9) can be excluded from the authorization level calculation. However, the authorization levels must be increased as Standby CoD disk drives are activated (logically configured for use).
- Refer to *IBM System Storage DS8000 Introduction and Planning Guide (GC27-4209)* for physical capacity calculation guidelines.

Licensed function management and activation

Licensed function management and activation activities responsibilities:

- Management refers to use of the DSFA application to select the license scope and assign the license value.
- Activation refers to the retrieval and installation of the feature activation code into the 242x system. The feature activation code is made available by IBM and obtained using the DSFA application.

These activities are your responsibility during the initial activation of a licensed function and when you increase the extent of IBM authorization.

DSFA application

To access DSFA, you will be required to enter information about your 242x machine. You can find this information on the Storage Unit General Properties page in the IBM System Storage DS8000 Storage Manager application.

The DSFA application is available at

<http://www.ibm.com/storage/dsfa>

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 website 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.

Direct customer support

Direct customer support for the DS8000 Function Authorization 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 website

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

Security, auditability, and control

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

Electronic Service Agent™ and the IBM Electronic Support web portal are dedicated to providing fast, exceptional support to IBM Systems customers. The IBM Electronic Service Agent tool is a no-additional-charge tool that proactively monitors and reports hardware events, such as system errors, performance issues, and inventory. The Electronic Service Agent tool can help you stay focused on your company's strategic business initiatives, save time, and spend less effort managing day-to-day IT maintenance issues. Servers enabled with this tool can be monitored remotely around the clock by IBM Support all at no additional cost to you.

Now integrated into the base operating system of AIX® 5.3, AIX 6.1, and AIX 7.1, Electronic Service Agent is designed to automatically and electronically report system failures and utilization issues to IBM, which can result in faster problem resolution and increased availability. System configuration and inventory information collected by the Electronic Service Agent tool also can be viewed on the secure Electronic Support web portal, and used to improve problem determination and resolution by you and the IBM support team. To access the tool main menu, simply type "smitty esa_main", and select "Configure Electronic Service Agent." In addition, ESA now includes a powerful Web user interface, giving the administrator easy access to status, tool settings, problem information, and filters. For more information and documentation on how to configure and use Electronic Service Agent, refer to

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

The IBM Electronic Support portal is a single Internet entry point that replaces the multiple entry points traditionally used to access IBM Internet services and support. This portal enables you to gain easier access to IBM resources for assistance in resolving technical problems. The My Systems and Premium Search functions make it even easier for Electronic Service Agent tool-enabled customers to track system inventory and find pertinent fixes.

Benefits

Increased uptime: The Electronic Service Agent tool is designed to enhance the Warranty or Maintenance Agreement by providing faster hardware error reporting and uploading system information to IBM Support. This can translate to less wasted time monitoring the "symptoms," diagnosing the error, and manually calling IBM Support to open a problem record. Its 24 x 7 monitoring and reporting mean no more dependence on human intervention or off-hours customer personnel when errors are encountered in the middle of the night.

Security: The Electronic Service Agent tool is designed to be secure in monitoring, reporting, and storing the data at IBM. The Electronic Service Agent tool securely transmits either via the Internet (HTTPS or VPN) or modem, and can be configured to communicate securely through gateways to provide customers a single point of exit from their site. Communication is one way. Activating Electronic Service Agent does not enable IBM to call into a customer's system. System inventory information is stored in a secure database, which is protected behind IBM firewalls. It is viewable

only by the customer and IBM. The customer's business applications or business data is never transmitted to IBM.

More accurate reporting: Since system information and error logs are automatically uploaded to the IBM Support center in conjunction with the service request, customers are not required to find and send system information, decreasing the risk of misreported or misdiagnosed errors. Once inside IBM, problem error data is run through a data knowledge management system and knowledge articles are appended to the problem record.

Customized support: Using the IBM ID entered during activation, customers can view system and support information in the "My Systems" and "Premium Search" sections of the Electronic Support Web site at

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

My Systems provides valuable reports of installed hardware and software using information collected from the systems by Electronic Service Agent. Reports are available for any system associated with the customer's IBM ID. Premium Search combines the function of search and the value of Electronic Service Agent information, providing advanced search of the technical support knowledge base. Using Premium Search and the Electronic Service Agent information that has been collected from your system, customers are able to see search results that apply specifically to their systems.

For more information on how to utilize the power of IBM Electronic Services, contact your IBM Systems Services Representative, or visit

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

Terms and conditions

Terms and conditions features section

MES discount applicable

Equal to the volume commitment discount

Field installable feature

Yes

Warranty period

Warranty for a DS8000 series licensed function is entitled as a feature of the 242x machine for which the licensed function is authorized, under the terms and conditions associated with that machine.

Customer setup

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

Licensed machine code

IBM Machine Code is licensed for use by a customer on the IBM machine for which it was provided by IBM under the terms and conditions of the IBM License Agreement for Machine Code, to enable the machine to function in accordance with its specifications, and only for the capacity authorized by IBM and for which the customer has acquired.

You can obtain the agreement at

http://www-1.ibm.com/servers/support/machine_warranties/machine_code.html

or by contacting your IBM representative.

DS8000 series Function Authorizations (IBM 239x) are acquired for 242x base unit models and establish the extent of IBM authorization for the licensed function at the 242x system level. A 242x system is defined as the 242x base unit model (Model 961) and any physically attached 242x expansion unit model (Model 96E).

Prices

For all local charges, contact your IBM representative.

AP distribution

Country/Region	Announce
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
South 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

Trademarks

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