

AS/400e



Logical Partitions: Troubleshooting

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Part 1. Troubleshooting logical partitions

When you encounter problems on a partitioned AS/400, first try to determine whether they are general AS/400 problems, or problems specific to logical partitions. Go to the articles under Getting started with system troubleshooting to determine whether or not your problem is a general AS/400 problem.

If you unexpectedly return to the Work with System Partitions display when performing configuration changes, check the Licensed Internal Code log. This log is available from the Start a Service Tool display in dedicated service tools (DST) or system service tools (SST). Check for logs with a major code of 0C00 and minor code of C9FF. Contact your service representative concerning these errors. For more information on the Licensed Internal Code log, you can purchase *AS/400 Licensed Internal Code Diagnostic Aids*.

You can print everything in this topic by following the instructions in Print these topics. To find out what has changed in this troubleshooting topic, look at What's New for V4R5.

For other partition-specific problems you can do any of the following:


- Use the new logical partition troubleshooting advisor to find out what a specific system reference code (SRC) or error message means. The advisor gives instructions about what you can do to correct the SRC or error message.
- Find out how to determine whether the server having problems has logical partitions.
- Learn about SRCs and how to identify them.
- Learn what the product activity log (PAL) is and how to use it.
- Resolve logical partition SRCs that appear in the PAL, on the system console, and on DST or SST displays.
- Learn about the logical partition error messages and reports that appear on your console.
- Work with and restore logical partition configuration data.
- Perform main storage dumps.
- Use remote services to get service on your server through a modem.
- Read how to use the Power off domain and Power on domain options.
- Find out when you need to reset a disk unit IOP.



Chapter 1. Logical partition troubleshooting advisor

Welcome to the logical partition troubleshooting advisor!

This advisor helps you find answers and solutions for error messages and system reference codes (SRCs) that relate to logical partitions.

This advisor only finds solutions for problems that relate to logical partitions. If the problem is not related to logical partitions, you can consult one of the following documents:

- Getting started with system troubleshooting
- AS/400 Basic System Operation, Administration, and Problem Handling 

Note: This advisor requires a Web browser that supports JavaScript 1.2, such as Netscape Navigator 3.0 (available from Netscape ) or Internet Explorer 4.0 (available from Microsoft ) and above browsers.

[Click here to start the advisor.](#)

Chapter 2. Determining whether the server has logical partitions

Starting with Version 4 Release 4 (V4R4) of OS/400, all servers ship with one partition, the primary partition. However, this does not mean that the load source disk unit has partition configuration data from creating other partitions.

You can find out whether a server has logical partitions from the console of the primary partition. This is the main console if there are not any other partitions. The primary partition must be running V4R5 of OS/400.

1. Start dedicated service tools (DST) or system service tools (SST) from the primary partition
2. From DST, select option 11 (Work with system partitions). From SST, select option 5 (Work with system partitions). Press Enter.
3. The Work with System Partitions display shows the number of partitions on the server.
 - If the number of partitions is 0 and no asterisk (*) appears by the word "PRIMARY", no partitions have been created yet.
 - If the number of partitions is 0 and an asterisk appears by the word "PRIMARY", some hardware has been removed from the primary partition. This may have happened to make the hardware available for other partitions. The number of partitions could change at the next restart of the server.

Chapter 3. Learning about system reference codes (SRC) for logical partitions

System reference codes (SRCs) can appear on the control panel, the product activity log (PAL), the Main Storage Dump Manager display, or on various displays within DST or SST.

SRCs consist of nine "words" that you can view by accessing the control panel function that corresponds to that word. A word usually consists of 8 hexadecimal characters (0-9 and A-F). The function corresponds to the function on the control panel that would show the specific word of the SRC.

V4R4 and earlier

For V4R4 and earlier hardware and software, the word number is the same as the function number to which it corresponds. For example, word 11 of the SRC appears in function 11.

In the PAL and other software displays, the SRC appears as nine rows of hexadecimal data. Each row represents a function, and the word number displays in front of the hexadecimal data.

The complete list of words and functions for V4R4 and earlier releases are as follows:

Function	Word
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19

V4R5

The new V4R5 servers have a larger control panel that can display up to four words at the same time. In addition, the first word of the SRC can be any ASCII character. The other eight words of the SRC still consist of hexadecimal data.

Function 11 still displays the first word of the SRC. However, the first word can contain 8 to 32 characters.

Since you can display up to 4 words of the SRC at a time, the function you use to see the word is different for V4R5. Functions 11 through 13 show all nine words of the SRC. Functions 14 through 19 are not available.

In the PAL and other software displays, the SRC appears much like it does for earlier releases. One difference is that the first word will have up to 32 characters of text. Another difference is that the word will be a number from 1 to 9 instead of 11 to 19. This helps to avoid confusing the word number with the function number used to find it.

| The SRCs for V4R5 display as follows:

Function	Word
11	1
	expanded word 1
	expanded word 1
	expanded word 1
12	2
	3
	4
	5
13	6
	7
	8
	9

Chapter 4. Viewing the product activity log (PAL) for logical partitions

The PAL contains a log of the system reference codes (SRCs) within a logical partition.

Most SRCs display in the PAL for the logical partition that caused the SRC to appear. However, some SRCs may only appear in the PAL for the primary partition since it has the controlling authority over all other partitions. For example, SRCs resulting from processor or main storage problems appear in the PAL of the primary partition.

You can view the product activity log (PAL) from dedicated service tools (DST) or system service tools (SST) in the desired partition:

- From DST, perform the following steps:
 1. Select option 7 (Start a service tool).
 2. Select option 6 (Product activity log).
- From SST, perform the following steps:
 1. Select option 1 (Start a service tool).
 2. Select option 1 (Product activity log).

Note: Make sure that you choose to display *ALL entries.

More information about the PAL is available in the OS/400 Communications Management  book.

Chapter 5. Resolving system reference codes for logical partitions

This page covers system reference codes (SRC) and problems with the logical partition configuration data. You can also use the logical partition troubleshooting advisor to find answers to logical partition problems that report as SRCs.

If a server with logical partitions experiences a configuration data error, the following indications will occur:

- When you perform a normal mode IPL, the system reference codes 1 A600 5090 and 3 0026 0000 display on the control panel. Restart the server by using a manual mode IPL. Check the product activity log (PAL) for specific SRCs.
- When you perform a manual mode IPL, the following messages appear:
 - The message Unit has incorrect logical partition configuration appears instead of the sign-on display for dedicated service tools (DST).
 - The message Configuration data errors detected - see Product Activity Log appears at the bottom of the Work with System Partitions display.

Check the product activity log for specific system reference codes (SRCs).

System Reference Codes (SRCs)

The following list contains the common SRCs that the PAL could report. Suggested corrective actions follow each SRC. If an SRC is not listed, it may not be related to logical partitions. You should consult other Troubleshooting documentation or your next level of service.

Learning about system reference codes (SRC) for logical partitions explains what SRCs are and how to identify them.

1 B2pp 1230 (pp equals the partition ID)

Cause: The secondary partition could not perform the IPL. The IPL is ended. An example of what causes this SRC to appear is not assigning the correct amount of processors or memory to a secondary partition.

Recovery: From the Work With System Partitions display, correct the configuration problem based on the reason code, then retry the secondary partition's IPL. If it continues to fail, contact your service provider.

Problem analysis procedure: Identify the reason code from word 3 of the SRC. Possible reason code values are the following:

- 000000A2: Insufficient amount of interactive performance
- 000000A3: Insufficient number of processors
- 000000A4: Insufficient main storage size

For any other reason code, contact your service provider.

B2pp 1310 (pp equals the partition ID)

Cause: No alternate (D-mode) IPL device IOP selected. The IPL will attempt to continue, but there may not be enough information to find the correct D-mode load source.

Recovery: Go to the Work With System Partitions display and configure an alternate IPL IOP for the secondary partition. Then, retry the secondary partition IPL. If it continues to fail, contact your service provider.

Problem analysis procedure: Collect the detailed hexadecimal data from the product activity log (PAL) for this problem for your service provider.

B2pp 1320 (pp equals the partition ID)

Cause: No default load source IOP selected for an A-mode or a B-mode IPL. The IPL will attempt to continue, but there may not be enough information to find the correct load source.

Recovery: Go to the Work With System Partitions display and configure a load source IOP for the secondary partition. Then, retry the secondary partition IPL. If it continues to fail, contact your service provider.

Problem analysis procedure: Collect the detailed hexadecimal data from the product activity log (PAL) for this problem for your service provider.

B2pp 3110 (pp equals the partition ID)

Cause: All load source candidates have been scanned for valid secondary partition code. However, in all cases, errors were encountered that prevented each from being used as a load source candidate for the IPL. The IPL is ended.

Recovery: Address each problem found, and then retry the secondary partition's IPL. If it continues to fail, contact your service provider.

Problem analysis procedure: Scan the secondary partition's SRC history list for prior B2ppxxxx failure SRCs to pinpoint the source of the problem.

B2pp 3125 (pp equals the partition ID)

Cause: Memory allocation for early IPL objects failed. The primary is low on memory. The IPL sequence will be retried to the same device.

Recovery: If the primary partition does not have enough main storage, remove some main storage from one or more secondary partitions, then add it to the primary partition. If the primary partition does have enough main storage, retry the IPL. If it continues to fail, contact your service provider.

Problem analysis procedure: Ensure that the primary partition has an adequate amount of main storage available to perform the IPL of the secondary partition.

B2pp 3200 (pp equals the partition ID)

Cause: The command (Initiate Self Load) sent to the IOP telling it to locate the selected load source device and load or reset itself has failed. The IPL will attempt to continue, and depending on the type of failure, the load source device may be retried or skipped.

Recovery: Look for SRCs in the PAL relating to the device location specified in words 3-6. Follow the recovery actions for problems found. Then, retry the secondary partition IPL. If it continues to fail, contact your service provider.

Problem analysis procedure: The values for words 3-6 are as follows:

- Word 3: Bus address information
- Word 4: Board address information
- Word 5: Card address information
- Word 6: Unit address information

These values can help you to identify the hardware that caused the error.

B2pp 5106 (pp equals the partition ID)

Cause: Creation of main storage dump-temporary segment has failed. An example of what causes this failure is running out of memory in the primary partition. The IPL will be retried to the same device unit address, under the assumption that this is a temporary condition.

Recovery: If the primary partition does not have enough main storage, remove some main storage from one or more secondary partitions, then add it to the primary partition. If the primary partition does have enough main storage, retry the IPL. If it continues to fail, contact your service provider.

Problem analysis procedure: Ensure that the primary partition has an adequate amount of main storage available to perform the IPL of the secondary partitions.

B2pp 5117 (pp equals the partition ID)

Cause: An MSD or CPM IPL has occurred, but the current information cannot be written to the load source device because a valid dump already exists. The current MSD or CPM information is lost, and the IPL is ended.

Recovery: Perform the IPL of the secondary partition past dedicated service tools (DST) to invalidate the old MSD or CPM information on the load source. Then, subsequent MSD or CPM dumps can be saved.

Problem analysis procedure: Identify the partition that has the problem through the partition identification number (pp) given in the SRC.

B2pp 6015 (pp equals the partition ID)

Cause: Getting the partition's load data area failed. The IPL will attempt to continue by skipping this device, and trying a subsequent load source candidate device.

Recovery: This is likely a problem with the load source media being corrupt or invalid. A re-installation of the Licensed Internal Code of the secondary partition is probably required to recover. If it continues to fail, contact your service provider.

Problem analysis procedure: Collect the detailed hexadecimal data from the product activity log (PAL) for this problem for your service provider.

B2pp 6025 (pp equals the partition ID)

Cause: Invalid memory for loading into the load ID. The IPL will attempt to continue by skipping this load source device candidate and trying the next candidate.

Recovery: This is likely a problem with the load source media being corrupt or invalid. A re-installation of the Licensed Internal Code of the secondary partition is probably required to recover. If it continues to fail, contact your service provider.

Problem analysis procedure: Collect the detailed hexadecimal data from the product activity log (PAL) for this problem for your service provider.

B2pp 6027 (pp equals the partition ID)

Cause: A low memory condition in the primary partition is the most likely cause of this SRC. The entire IPL sequence to the same unit address will be retried.

Recovery: If the primary partition does not have enough main storage, remove some main storage from one or more secondary partitions, then add it to the primary partition. If the primary partition does have enough main storage and there are no memory leaks, retry the operation.

Problem analysis procedure: Ensure that the partition was allocated enough main storage, verify that no memory leaks are present, and then retry the operation.

B2pp 7115 (pp equals the partition ID)

Cause: Removing an IOP hardware driver (not the load source for the current IPL) from the primary partition failed. The IPL will continue, but the secondary partition will most likely not be able to establish connections to this IOP.

Recovery: You may need to perform another IPL of the secondary partition to recover the specified IOP for use by the secondary partition. If it continues to fail, contact your service provider.

Problem analysis procedure: Identify the values for words 3-5 to determine the cause of the error. The values for the words are as follows:

- Word 3: Bus address information
- Word 4: Board address information
- Word 5: Card address information

B2pp 8105 (pp equals the partition ID)

Cause: Initialization of secondary partition main storage data structures failed. The IPL is ended.

Recovery: This is likely a problem with the load source media being corrupt or invalid. A re-installation of the Licensed Internal Code of the secondary partition is probably required to recover. If it continues to fail, contact your service provider.

Problem analysis procedure: Collect the detailed hexadecimal data from the product activity log (PAL) for this problem for your service provider.

B2pp 8107 (pp equals the partition ID)

Cause: Failed to allocate main storage for Licensed Internal Code event messages. This indicates that free main storage is low in the primary partition. The IPL is ended.

Recovery: If the primary partition does not have enough main storage, remove some main storage from one or more secondary partitions, then add it to the primary partition.

Problem analysis procedure: Ensure the primary partition has an adequate amount of main storage to IPL the secondary partition.

B2pp 8115 (pp equals the partition ID)

Cause: The opening Licensed Internal Code Session Manager connections failed for some or all of the connections. The IPL will continue, but some connections will not be functional.

Recovery: You may need to perform another IPL of the secondary partition to recover the Licensed Internal Code Session Manager connections. If it continues to fail, contact your service provider.

Problem analysis procedure: Collect the detailed hexadecimal data from the product activity log (PAL) for this problem for your service provider.

1 B600 5310

Cause: Logical partition configuration data has a consistency error. The server cannot find a working copy of the configuration data for the logical partition.

Recovery: Contact your service provider. The server will not continue its IPL past dedicated service tools (DST) until the problem is corrected.

Problem analysis procedure: Collect the detailed hexadecimal data from the product activity log (PAL) for this problem for your service provider.

1 B600 5311

Cause: Logical partition configuration data does not match the current server configuration. Possible causes include:

- A nonconfigured disk unit which was previously a load source for a logical partition.
- Load source configuration data does not match the logical partition for which it is being used.
- Load source configuration data does not match the server serial number for which it is being used.
- Load source configuration data is newer than the primary partition configuration data.

Recovery: Perform one of the following tasks:

- If the load source has been replaced inadvertently, return the original and restart the server.
- If the load source is for the primary partition, recover the logical partition configuration data.
- If the specified load source is for a secondary partition, accept the disk as a load source for that secondary partition.
- If the specified disk unit is not configured, clear the nonconfigured load source to use the new disk unit in the server.
- If a load source disk unit has been moved from a server that has logical partitions, but the current server should not have logical partitions, clear all partition configuration data. This will delete all secondary partitions.

- If the load source came from a partitioned server and was inadvertently used to perform a partition IPL, do not take any action. The initialize disk process during installation clears existing configuration data.

The logical partition will not continue its IPL past DST until the problem is corrected with one of the above actions.

Problem analysis procedure: Collect the detailed hexadecimal data from the product activity log (PAL) entry for this problem for your service provider.

1 B600 5312

Cause: Informational indication that the server detected and corrected a configuration data inconsistency on a logical partition without any loss of data.

Recovery: None.

Problem analysis procedure: None unless a significant number of errors occur. Collect the detailed hexadecimal data from the product activity log (PAL) entries for these problems for your service provider.

1 B600 5313

Cause: The server detected a configuration data inconsistency for a logical partition and could not correct it without loss of the last configuration data update.

Recovery: Manually validate configuration data and repeat any missing configuration actions.

Problem analysis procedure: None unless a significant number of errors occur. Collect the detailed hexadecimal data from the product activity log (PAL) entries for these problems for your service provider.

1 B600 5340

Cause: A logical partition is running with less than the requested number of processors.

Recovery: Perform recovery for the processor-specific errors that are logged in the primary partition.

Problem analysis procedure: Check the product activity log (PAL) in the primary partition for SRCs that indicate hardware errors that should be corrected.

1 B600 5341

Cause: A logical partition is running with less than the requested amount of main storage.

Recovery: Perform recovery for the main storage-specific errors that are logged in the primary partition.

Problem analysis procedure: Check the product activity log (PAL) in the primary partition for SRCs that indicate hardware errors that should be corrected.

1 B600 5350

Cause: A logical partition software version is outside of the supported secondary partition release delta.

Recovery: Perform one of the following:

- Install a supported operating system version in the logical partition that has the problem.
- Install an operating system version in the primary partition that supports the version in the offending logical partition.

Problem analysis procedure: Display the logical partition release level and check the logical partition release delta.

1 B600 5380

| **Cause:** An unexpected event occurred in the logical partition management code that was
| recovered.

| **Recovery:** Contact your service provider if a significant number of these errors have occurred.

| **Problem analysis procedure:** Collect the detailed hexadecimal data from the product activity log
| (PAL) entry for this problem.

| **1 B600 5390**

| **Cause:** An unexpected event occurred in the logical partition management code which could not
| be recovered. Further changes to the logical partition configuration may not be possible.

| **Recovery:** Contact your service provider. The server might not IPL past DST until the problem is
| corrected.

| **Problem analysis procedure:** Collect the detailed hexadecimal data from the product activity log
| (PAL) entry for this problem.

Chapter 6. Understanding logical partition error messages and reports

If the server experiences logical partition errors, it will notify you in one of the following ways:

- An error message appears at the bottom of the display.
- The Logical Partitioning Error Report display appears on the system console.

Logical partition error messages at the bottom of the display

This list contains error messages that are specific to logical partitions. These messages generally appear near the bottom of the display.

For information about error messages that are not related to logical partitions, see AS/400 Basic System Operation, Administration, and Problem Handling .

You can also use the Logical Partition Troubleshooting Advisor to find solutions to error messages related to logical partitions.

The following information lists each error message and a reason why the error occurred. Recovery actions, if appropriate, are included.

A console resource must be selected before an alternate console resource

You need to select the main console resource before you can proceed with selecting the alternate console resource. Main and alternate consoles can be the same resource.

Accept load source disk unit failed

An internal error has occurred in the logical partition configuration manager during a configuration data recovery action. Contact your service provider.

Accept load source disk unit failed - no data found

No logical partition configuration data exists. No one has altered the server yet by removing resources from the primary partition and assigning them to new secondary partitions. The server did not perform the requested action.

Accept load source disk unit not performed - data not protected

The server does not detect a problem with the logical partition configuration data saved on this partition's load source disk unit. There is no reason to perform the accept operation.

Activate remote service failed

The panel task has experienced a failure. Try the request again. If it continues to fail, contact your service provider.

Add I/O resource failed

An internal error occurred. The server did not find the IOP you are adding as an available resource. It is not currently allocated to the relevant partition. Contact your service provider.

Alternate console IOP selection failed

An internal error occurred. The server could not correlate the IOP with the list of resources that are assigned to the partition. Check the Licensed Internal Code logs for a 0C00 C9FF entry.

Alternate console IOP selection successful, no console IOP selected yet

This is a warning message. You need to select the console IOP for this partition. For more help, contact your service provider.

Alternate IPL IOP selection failed

An internal error occurred. The server could not correlate the IOP with the list of resources assigned to the partition. Check the Licensed Internal Code logs for a 0C00 C9FF entry.

Alternate IPL IOP selection successful, but optical not supported

You have successfully selected an alternate IPL IOP for a secondary partition. That kind of resource does not support optical devices. A tape device may be available for use.

Alternate IPL IOP selection successful, but tape not supported

You have successfully selected an alternate IPL IOP for a secondary partition. That kind of resource does not support tape devices. A CD-ROM device may be available for use.

Bus xxx already allocated

The partition is already using the bus. If you want to change the ownership type of the bus, select option 5 (Change bus ownership type) from the Work with Partition Configuration display.

Bus xxx not allocated

You cannot remove or change the bus. Or you cannot add the IOP since the partition does not currently own the bus. No other logical partition currently owns the bus.

Bus xxx not available

Another partition already owns the bus in shared mode that you attempted to add. You can choose to use the bus instead of own the bus.

Bus xxx ownership type cannot be changed

The bus is a special type that prevents it from being changed to shared. The virtual OptiConnect bus or the primary bus that contains the service processor falls into this category.

Bus requires allocation

A partition must own the bus before another partition can use it in shared mode. Add the bus to a partition with the status of own shared before attempting to use it in another partition.

Bus xxx requires an owner

Before you can select the IOP, you need to assign the bus to a partition.

Cannot change bus xxx ownership while it is in use by another partition

Cannot change the status of the bus while it is in use by another partition. Remove usage of the bus before proceeding with the current requested action.

Cannot perform requested panel function 22 during system MSD IPL

This partition is currently going through a main storage dump. You cannot do another one yet.

Cannot perform requested panel function at this time

The server is performing internal processing (such as an early-stage IPL of a secondary partition) and cannot accept the requested panel function. Try the request again at a later time.

Cannot perform requested panel function, partition must be in manual mode

This error will occur if you attempt to use option 10 on the Work with Partition Status display on a partition that is not set to manual mode. To perform option 10, first set the partition to manual mode and restart the partition.

Cannot perform requested panel function while system is in secure mode

This error will occur if you attempt to use panel functions on the Work with Partition Status display on a secondary partition set to secure mode. When a secondary partition is set to secure mode, you can only perform its panel functions from the primary partition Work with Partition Status display from a DST console. When you change a secondary partition mode from secure to another mode, you can use panel functions on that secondary partition.

Cannot use reserved primary partition name

You tried to use the word "PRIMARY" for the name of a secondary partition. This name is reserved for the primary partition only. Enter a different name.

Change bus ownership type failed

The information on the server indicates that the partition does not own or use the bus, so the change ownership type has failed. Refresh the list of resources by exiting and entering the screen again. Try the request again if logical partition really owns or uses the bus. If the request fails again, contact your service provider.

Clear configuration data failed

An internal error has occurred in the logical partition configuration manager during a configuration data recovery action. Contact your service provider.

Clear configuration data failed - no data found

No logical partition configuration data exists. No one has altered the server yet by removing resources from the primary and assigning them to new secondary partitions. The server did not perform the requested action.

Clear non-configured disk unit configuration data failed

An internal error has occurred in the logical partition configuration manager during a configuration data recovery action. Contact your service provider.

Clear non-configured disk unit configuration data failed - no data found

No logical partition configuration data exists. No one has altered the server yet by removing resources from the primary and assigning them to new secondary partitions, or the disk unit does not contain any configuration data. The server did not perform the requested action.

Clear non-reporting logical partitioning resources failed

An internal error has occurred in the logical partition configuration manager during a configuration data recovery action. Contact your service provider.

Clear non-reporting resources failed - no data found

No logical partition configuration data exists. No one has altered the server yet by removing resources from the primary partition and assigning them to new secondary partitions. The server did not perform the requested action.

Clear non-reporting resources not performed - data protected

The server detected logical partition configuration data problems, so the copy operation cannot proceed. You must perform some other recovery action first. See the Backup and Recovery book

 **Clear reference code history failed**

to find out what recovery action to perform.
Try the task again. If it continues to fail, contact your service provider.

Configuration change successful, but partition will not be functional

The server will allow changes made to the logical partition. However, the logical partition might not restart successfully since it does not meet minimum requirements for processors, main storage, or interactive performance. Add the required resources before restarting the partition.

Configuration data changed during request, try again.

The configuration of the partitions has changed while you were making your request. Wait five minutes and retry the operation. The partition may be restarting or may be finishing its restart process.

Configuration data errors detected - see Product Activity Log

The logical partition configuration data is protected and cannot be changed until you take corrective action. See the product activity log (PAL) for information. Typically, you must use an option on the Recover Configuration Data display to correct the problem.

Configuration data found that is newer

The server found logical partition configuration data on other disk units. The data is newer than the data on this partition's load source disk unit. No other action required.

Configuration data found that is older

The server found logical partition configuration data on other disk units. The data is older than the data on this partition's load source disk unit. No other action required.

Configuration data found that originated from another partition

The server found logical partition configuration data on other disk units. The server has determined

that the configuration data originated on another partition. Clear the configuration data for the disk units which are not configured before using them.

Configuration data found that originated from another system

The server found logical partition configuration data on other disk units. The server has determined that the configuration data originated on another server. Clear the configuration data for the disk units that are not configured before using them.

Console IOP selection failed

An internal error occurred. The server could not correlate the I/O processor (IOP) with the list of resources assigned to the partition. Check the Licensed Internal Code logs for a 0C00 C9FF entry.

Control panel read failed

Try the task again. If it continues to fail, contact your service provider.

Control panel task failed

The virtual service processor task has failed. The use of control panel functions for secondary partitions may not work from the primary partition. Contact your service provider.

Control panel update failed

An internal error occurred that caused the panel request to fail. Try again and if the condition persists contact your service provider. There may be a 0C00 C9FF Licensed Internal Code log.

Copy configuration data to other side failed

An internal error has occurred in the logical partition configuration manager during a configuration data recovery action. Contact your service provider.

Copy configuration data to other side failed - data not valid

This copy of the logical partition configuration data is corrupt or wrong. Try restarting the partition using the other IPL source. If successful, use this function to copy that configuration data to this IPL source. If you cannot fix the problem, contact your service provider.

Copy configuration data to other side failed - no data found

No logical partition configuration data exists. No one has altered the server yet by removing resources from the primary partition and assigning them to new secondary partitions. The server did not perform the requested action.

Copy configuration data to other side not performed - data protected

The server has detected logical partition configuration data problems, so the copy operation cannot proceed. Some other recovery action must be performed first.

Could not start a service tool

A service function could not be started from the Use Dedicated Service Tools menu. If you are attempting to work with server partitions, this error indicates that another user in the same logical partition is currently working with server partitions using SST.

CPM or MSD IPL retry failed

The panel task has experienced a failure. Try the request again. If it continues to fail, contact your service provider.

Data may be incomplete until all partitions are IPLed

The service function has checked if secondary partitions that are represented on the screen where this message appears are all powered on and able to report resources such as I/O adapters and devices. The logical partition configuration manager does not track these types of resources in general. You may only see buses and I/O processors until the partitions are activated.

Data may be incomplete until partition is IPLed

The logical partition is in a state (powered off, for example) where the logical partition configuration manager cannot know for sure what resources are attached to the bus or buses owned or used by the partition. It is possible some resources have physically moved since the last time the partition

restarted successfully. This message is informational. It indicates that the server will not display I/O adapters and devices until you restart the logical partition. Bus resources may have been moved since that last restart.

Data recovery will not be allowed, return code: xxxxxxxx

This message appears when the server experiences an error during a configuration data recovery process. Contact your service provider.

Deactivate remote service failed

The panel task has experienced a failure. Try the request again. If it continues to fail, contact your service provider.

Default electronic customer support IOP selection failed

An internal error occurred. The server could not correlate the IOP with the list of resources assigned to the partition. Check the Licensed Internal Code logs for a 0C00 C9FF entry.

Detailed report does not exist for the problem

This problem does not have any detailed information about it. No other action is required.

Disk unit IOP reset/reload failed

The panel task has experienced a failure. Try the request again. If it continues to fail, contact your service provider.

Display processor status failed, no processors are owned by partition

The selected partition does not have any processors. The requested option cannot be performed.

DST console session required to use panel function while in secure mode

This error occurs in SST when you select a function that must be performed in DST. Use the DST display to perform this function.

Electronic customer support IOP selection successful, async not supported

You have successfully selected a default electronic customer support IOP for a secondary partition. Beware that the asynchronous communications protocol is not supported by that kind of resource.

Electronic customer support IOP selection successful, SDLC not supported

You have successfully selected a default electronic customer support IOP for a secondary partition. Beware that the SDLC communications protocol is not supported by that kind of resource.

Force DST failed

The panel task has experienced a failure. Try the request again. If it continues to fail, contact your service provider.

Function not available due to version/release level of primary partition

The function you tried to perform in the secondary partition is not possible because the primary partition has an earlier version of the operating system. The primary partition must be at the same level or a higher level for you to be able to use this function.

Function not supported in SST, use DST console

The function you tried to perform is only allowed from DST because of the greater security for DST. Start DST and try the function again.

Highest number allowed for partition identifier: xx

This error occurs when you try to give the partition an identifier that is greater than what the server allows. Enter a number that is less than or equal to the highest allowed number.

Incorrect key pressed

An invalid key was pressed. Press a valid function key for this display.

Incorrect resource type selected

You made a request that is not supported by the type of resource you selected. Depending on the display where the error message appears, you may need to select a bus, an IOP, or both.

Interactive feature decreased to xxx % based on number of processors

This is an informational message that the system has adjusted the value. Verify the value and press Enter to accept it. No other action is required.

Interactive feature increased to xxx % based on number of processors

This is an informational message that the system has adjusted the value. Verify the value and press Enter to accept it. No other action is required.

Interactive feature percentage entered is not valid

You entered a value that was greater than 100 % or that was not an integer. Enter a value between 1% and 100% for the partition.

Interactive feature percentage not within minimum and maximum range

You tried to change the value for interactive performance in this partition. However, the value you entered is not between the minimum and maximum values. Either enter a number that is between the minimum and maximum values, or change the minimum and maximum values.

IOP cannot be added or removed due to IOP type

The server cannot add or remove the I/O processor because it is:

- Attached to the virtual bus used for OptiConnect.
- Attached to a bus that is used in a clustered environment.
- The IOP that is used for the primary partition load source or console.

IOP option must match bus option specified

Due to the nature of the request, a bus and an attached IOP cannot have conflicting options taken against them.

IOP selected lacks capabilities to support requested function

When resource capability is being filtered on a tagged resource selection screen this message will appear if the server determines that the resource cannot support the requested capability selection. Tagged resources are ones that have special meaning for secondary partitions, such as the load source IOP or console IOP. Press F9 on the selection displays to turn filtering off. This will allow the selection if you still want to use the resource.

I/O resources differ from system, adjust configuration after recovery

This is a warning message. Some resources in the server are not originally part of the configuration. Perform recovery actions for the partition configuration data.

IPL restart failed

The panel task has experienced a failure. Try the request again. If it continues to fail, contact your service provider.

Load source and console IOPs will be required to continue with create

There are no available IOPs to add to this partition. Go back and remove the required IOPs from another partition that does not need them, then continue with creating this partition.

Load source IOP selection failed

An internal error occurred. The server could not correlate the IOP with the list of resources assigned to the partition. Check the Licensed Internal Code logs for a 0C00 C9FF entry.

Logical partitioning configuration data error detected

Logical partition configuration manager checksum failed. You cannot trust the configuration data to be valid. Contact your service provider.

Logical partitioning configuration data is not valid

Logical partition configuration management did not detect logical partition data on the current IPL source of the load source disk unit (source A or source B). Contact your service provider.

Logical partitioning configuration data not found

No logical partition configuration data exists. No one has altered the server yet by removing resources from the primary partition and assigning them to new secondary partitions. The server did not perform the requested action.

Make a valid selection

You entered input that is not valid for this selection. Enter valid input for this selection.

Maximum interactive performance set to xxx % based on maximum processors

The server has 100% interactive performance available to split between partitions. However, the allowable ranges for each partition depend on how the server processors are split. For example, if one partition has only 10% of the server's processors, then it would not be possible for that partition to use 99% of the interactive performance available to the server. These error messages will appear when the interactive performance settings are outside of a practical range, and the server has made the adjustment for you.

Maximum value entered is not valid

The value you entered is incorrect. Either it is greater than what this server allows, or it is not an integer. Enter a different value.

Minimum interactive feature set to xxx % based on minimum processors

The server has 100% interactive performance available to split between partitions. However, the allowable ranges for each partition depend on how the server processors are split. For example, if one partition has 90% of the server's processors, then it would not be possible for that partition to use 1% of the interactive performance available to the server. These error messages will appear when the interactive performance settings are outside of a practical range, and the server has made the adjustment for you.

Minimum value cannot be greater than the maximum value

The value you specified for the minimum is greater than the value for the maximum. Either make the maximum value greater or enter a value for the minimum that is less than the current maximum.

Minimum value entered is not valid

The value you entered is incorrect. Either it is less than what this server allows, or it is not an integer. Enter a different value.

Multiple interactive feature values adjusted based on processor values

This is an informational message that the system has adjusted the values. Verify the values and press Enter to accept them. No other action is required.

New interactive performance percentage entered is greater than available

Not enough interactive performance is available to allow you to add the amount that you requested. Either add less interactive performance or free the interactive performance from another partition.

New number of processors entered is greater than available

Not enough processors are available to allow you to add the amount that you requested. Either add fewer processors or free processors from another partition.

New partition name entered is not valid

The partition name must conform to the following rules: Characters can be any letter (A-Z) and any number (0 - 9). Name cannot be all blanks. Name cannot be PRIMARY. Name cannot be the same as an existing secondary partition.

New partition name entered is not valid - name already exists

The name you entered for this partition is already being used by another partition on the server. Enter a different name for this partition.

New size of main storage entered is greater than available

Not enough main storage is available to allow you to add the amount that you requested. Either add less main storage or free the main storage needed from another partition.

No alternate IPL device is currently attached to IOP selected

This is a warning message. The server cannot identify any alternate IPL devices attached to this IOP. If no devices are attached, make sure you attach one before trying to use the IOP in a partition.

No change made, the new name is the same as the existing name

This is an informational message. You choose to change the name of the partition. However, the name you selected is the same as it was previously. No other action is required.

No console device is currently attached to IOP selected

This is a warning message. The server cannot identify any console devices attached to this IOP. If no devices are attached, make sure that you attach one before trying to use the IOP in a partition.

No electronic customer support resource is attached to IOP selected

This is a warning message. The server cannot identify any electronic customer support devices attached to this IOP. If no devices are attached, make sure that you attach one before trying to use the IOP in a partition.

No load source capable disk unit is currently attached to IOP selected

This is a warning message. The server cannot identify any load source disk units attached to this IOP. If no devices are attached, make sure that you attach one before trying to use the IOP in a partition.

No non-configured disk units found that have configuration data

This message appears on the Select Non-Configured Disk Unit for Configuration Data Clear display. The disk units you selected do not contain any partition configuration data.

No service printer specified. Print request failed

This message appears in DST or SST when you do not select a printer and exit the prompt. If you meant to select a printer, try the request again.

Not able to start Work with system partitions

This message appears in SST and indicates that another user on the server is currently working with logical partitions in either DST or SST.

Not enough interactive performance percentage available

You requested to add more interactive performance than is available. Either add less interactive performance or remove what you need from other partitions.

Not enough main storage available

You requested to add more main storage than is available. Either add less main storage or remove what you need from other partitions.

Not enough processors available

You requested to add more processors than are available. Either add fewer processors or remove what you need from other partitions.

Number of processors not within minimum and maximum range

You tried to change the value for processors in this partition. However, the value you entered is not between the minimum and maximum values. Either enter a number that is between the minimum and maximum values, or change the minimum and maximum values.

Number of processors entered is not valid

The value you entered is incorrect. Either it is less than or greater than what is allowed for this server or it is not an integer. Enter a different value.

Only one partition may be selected

You tried to perform an action on more than one partition. This display can only handle one request at a time. Repeat the action separately for each partition.

Only one resource may be selected

You tried to perform an action on more than one resource. This display can only handle one request at a time. Repeat the action separately for each resource.

Only one resource of a specific type may be selected

You tried to perform an action on more than one type of resource. This display can only handle one request at a time for each type of resource. Repeat the action separately for each type of resource.

Option is allowed only from primary partition

You can perform options 13 and 14 to change the System IPL Action from the primary partition. The server does not allow the displaying or changing of that value in secondary partitions. Or the secondary partition is in secure mode. You must therefore go to the primary DST console to change the mode to a value other than secure mode.

Option not allowed during system MSD IPL

When the server is performing a main storage dump (MSD), you cannot perform many of the logical partition configuration options that alter the logical partition configuration data. For example, you cannot perform recovery actions or create a new secondary partition.

Option not allowed for new partition until next system IPL

This partition was recently created. You cannot perform any actions from it until after you restart the server. Once you restart the server, you can attempt this option.

Option not allowed for primary partition

Some options do not make sense when issued against the primary partition. For example you cannot change the primary partition's name, delete the primary partition, or select a tagged secondary resource like a load source IOP or a console IOP.

Option not allowed for resource chosen

The option you entered is not valid on this display. See the display for a list of allowed options.

Option not allowed while partition is in secure mode, use primary DST

This error will occur if you attempt to use panel functions on the Work with Partition Status display on a partition set to secure mode. When a partition is set to secure mode, you can only perform its panel functions from the primary partition Work with Partition Status display from a DST console. When you change a partition mode from secure to another mode, you can use panel functions on that secondary partition.

Panel function failed - keylock is not in control panel

The key for the server is not in the control panel. Insert the key and try the request again.

Partition already powered off

You selected to power off this partition. However, the partition is already off.

Partition already powered on

You selected to power on this partition. However, the partition is already on.

Partition create failed - maximum number of partitions already exist

The server already has the maximum allowed number of logical partitions allowed for the release. You cannot create another one.

Partition create failed - not enough system resources available

You cannot create another partition. The maximum number of partitions that this server supports have already been created.

Partition delete failed - partition must be powered off

You cannot delete a partition while it is still powered on. Power off the partition, then perform the delete operation for that partition.

Partition identifier entered is already in use by another partition

This error occurs when you try to give the partition an identifier that is already used by another partition on the server. Enter a different identifier.

Partition identifier entered is not valid

You entered an identifier that was not between 1 and 24 or that was not an integer. Enter a value that is between 1 and 24.

Partition install may be needed after recovery due to version/release level

This is a warning message. The system found what appears to be an unsupported software version in one of the secondary partitions. The identified release cannot support the current server

hardware. If the secondary partition does have an unsupported release, install a supported OS/400 version after you finish recovering the primary partition.

Power off domain failed

The panel task has experienced a failure. Try the request again. If it continues to fail, contact your service provider.

Power on domain failed

The panel task has experienced a failure. Try the request again. If it continues to fail, contact your service provider.

Primary partition configuration data recovery failed

An internal error has occurred in the logical partition configuration manager during a configuration data recovery action. Contact your service provider.

Primary partition configuration data recovery failed - no data found

No logical partition configuration data exists. No one has altered server yet by removing resources from the primary partition and assigning them to new secondary partitions. The server did not perform the requested action.

Primary partition configuration data recovery failed - no new data found

No further action is necessary. The server did not find any logical partition configuration data on other disk units that is different than what is currently saved on this logical partition's load source disk unit.

Print request failed with unknown error

An unknown error has occurred. Contact your service provider.

Print request not submitted, no entries listed to print

You tried to send a print request without selecting anything to print, or, this display does not allow printing. Try to print from a display that allows you to select entries.

Print request submitted to service printer with one or more errors

This is an informational error. Although the print request had some errors, the print request was successful. You may want to contact your service provider to determine the nature of the problem.

Problem resolution failed

A problem selected to be accepted is not currently in the list of known problems for the logical partition, or another internal error occurred. Contact your service representative.

Problem resolution failed, unable to clear attention errors

A problem selected to be accepted is not currently in the list of known problems for the logical partition, or another internal error occurred. Contact your service representative.

Problem resolution failed, unable to clear informational errors

A problem selected to be accepted is not currently in the list of known problems for the logical partition, or another internal error occurred. Contact your service representative.

Problem resolution failed, unable to clear severe errors

A problem selected to be accepted is not currently in the list of known problems for the partition, or another internal error occurred. Contact your service representative.

Remove I/O resource failed

An internal error occurred. The server did not find that the IOP is currently owned by the relevant partition and is not already an available resource. Contact your service provider.

Requested panel function not currently enabled

The server has not enabled the panel function at this time. Wait and try the request again. For instance, if panel function 21 is attempted against a partition that is restarting and not quite to dedicated service tools (DST) yet, then 21 will not be enabled until DST is reached.

Request failed, bus xxx not in use

The partition does not currently use the bus, so it cannot own it.

Request failed, bus xxx not shared

The bus is in a special state that prevents it from being changed to shared (such as being used in a cluster). Or, the IOP being removed does not belong to a bus that is in shared mode.

Request failed, configuration data protected - see Product Activity Log

The logical partition configuration data is protected for some reason, and cannot be changed until corrective action is taken. See the product activity log (PAL) for information on what action to take. Typically, you must use an option on the Recover Configuration Data display to correct the problem.

Request failed due to the state of one or more partitions

Depending on the requested function, either all the secondary partitions must be powered off or powered on to continue.

Request failed, errors reported were not handled

An error report screen was previously displayed and either the user canceled without allowing the server to recover from the problems listed or the server failed to perform the recovery action.

Request failed, return code: xxxxxxxx

This message will appear for an error that does not have a message description associated with it. The hex return code will tell you what has happened.

0xFFFFFFFF8

The I/O configuration has changed while the current action was being performed. Depending on the display you were on resources may refresh automatically. If so just retry the request. You may have to exit and enter the display again to retry the request.

Request failed - see Product Activity Log

An internal error has occurred in the logical partition configuration manager during a configuration change request. See the product activity log (PAL) for information. Contact your service provider.

Resources requested greater than is allocated to the partition

The partition may have been restarted with fewer processors, main storage, or interactive performance than requested (but within the minimum allowable limit). The attempt to remove these resources exceeds what the partition is currently using.

Size of main storage entered is not valid

The value you entered for the main storage is not a valid integer. Enter an integer.

Size of main storage not within minimum and maximum range

You tried to change the value for main storage in this partition. However, the value you entered is not between the minimum and maximum values. Either enter a number that is between the minimum and maximum values, or change the minimum and maximum values.

Smallest minimum main storage size is xxxxxxxx for maximum entered

The server must enforce a range of reasonable values for the minimum and maximum main storage values relative to each other. This is because a certain amount of fixed storage is allocated for server use based on the maximum size specified. The fixed storage required by the server cannot be smaller than the minimum value specified. Adjust your minimum value to be at least as large as the value in the message. Or, adjust the maximum size to some value that is smaller.

System IPL required to activate changes

Changes have been made to the logical partition configuration that require a server restart to activate. Examples are partition create, delete, recovery, bus ownership type change, or changing the primary partition's processors, main storage, or interactive performance values.

Unit has incorrect logical partition configuration

The logical partition configuration data is protected for some reason, and cannot be changed until corrective action is taken. See the product activity log (PAL) for information on what action to take. Typically, you must use an option on the Recover Configuration Data display to correct the problem.

Unknown error in service function

An unexpected condition occurred in the licensed code that either manages the logical partition configuration data or the logical partition service function. Check the Licensed Internal Code logs for a 0C00 C9FF entry. Contact your service provider.

Update configuration data failed

An internal error has occurred in the logical partition configuration manager during a configuration data recovery action. Contact your service provider.

Update configuration data failed - no data found

No logical partition configuration data exists. The server has not been altered yet by removing resources from the primary and assigning them to new secondary partitions. The server did not perform the requested action.

Value entered for Level of detail is not valid

The value you supplied for this field is incorrect. Enter a valid value for the Level of detail.

Value entered for Number of reference codes is not valid

The value you supplied for this field is incorrect. Enter a valid value for the Number of reference codes.

Value entered for Secondary partition(s) is not valid

The value you supplied for this field is incorrect. Enter a valid value for the Secondary partition.

Value entered for System partition(s) is not valid

The value you supplied for this field is incorrect. Enter a valid value for the System partition.

Logical partition error messages in the error report

When the logical partitioning configuration manager must report multiple errors, the Logical Partitioning Error Report display appears. This display contains a summary of errors with details available by using option 5 on the particular error.

From this display, you may cancel the current request and return to the previous display by selecting F3 (Exit) or F12 (Cancel). You can also accept the error and continue by selecting option 1 (Accept problem) or F10 (Accept all problems and continue). However, you should fully understand these errors before taking any actions like option 1 or F10.

The logical partition troubleshooting advisor can help you find solutions to these errors.

The report groups error messages by category as follows:

- **Informational-** A recoverable error occurred that did not prevent the requested operation.
- **Attention-** An error occurred which prevents the requested operation. Details describe the cause of the failure, but do not tell you which operation failed. See any **severe** errors to determine which operation failed.
- **Severe-** An operation could not complete successfully. See any previous **attention** messages to determine reasons for the failed operation.

The following list gives attention message and severe message summaries, why the error may have occurred, and recommended actions.

Bus not removed


A severe message indicating that a bus remove operation failed. Correct previous attention errors listed in the error report and try the operation again.

Bus ownership type change failed


A severe message indicating that a change bus ownership type operation failed. Correct previous attention errors listed in the error report and try the operation again.

Device in use

An attention message indicating that a particular resource is in use by the server, its owning IOP, or bus while someone attempted to remove it from a partition. If this resource is a disk unit, you must remove it from its current auxiliary storage pool (ASP) before removing it from the IOP or bus.

- For a disk unit, see the Working with Auxiliary Storage Pools chapter in the book, Backup and Recovery , for information on how to remove a disk unit from an ASP.
- For all other resources, perform the following steps:
 1. Write down the logical address of the resource that you need to vary off. You can find this information when you display the allocated resources for the partition.
 2. From OS/400, use the Work with Configuration Status (WRKCFGSTS) command to find the resource name based on the logical address. From DST, go to Hardware Service Manager.
 3. Vary off any devices or controllers that are active on the resource.

For more information on ending jobs refer to the Tips for Customizing Your System chapter of

AS/400 Basic System Operation, Administration, and Problem Handling .

IOP not removed

A severe message indicating that an IOP remove operation failed. Correct previous attention errors listed in the error report and try the operation again.

IOP requires reallocation

An attention message indicating that you attempted to change bus ownership type from shared to dedicated. However the bus contains IOPs currently unassigned to any logical partition. Use the add I/O resources procedure to assign the available IOPs to the same partition as the bus owner. Then, repeat the change of bus ownership type.

I/O resource not updated

A severe message indicating that an I/O resource could not be updated in the configuration data. Correct previous attention errors listed in the error report and try the operation again.

State of IOP is unknown

An attention message indicating a particular IOP cannot be located in the partition from which it is being removed.


If the owning partition is currently powered off, you can ignore this error if you know the IOP and its resources are available. If the owning partition is currently powered on, this error may indicate that the owning IOP was recently added to the partition but is not yet active.

Wait five minutes and retry the operation. If the failure persists or if the IOP was not recently added to the owning partition, contact your service representative.

Chapter 7. Working with configuration data for logical partitions

You may sometimes need to work with logical partition configuration data. Typically, you will need to do so in order to recover from hardware failures, to correct errors, or to perform maintenance after hardware movement.


The server maintains the configuration data for all logical partitions on the load source of each logical partition. The configuration data maintained on the primary partition is considered the master copy. Problems can occur when the configuration information on the primary partition and a secondary partition conflicts, or after you initialize disk units during an installation.

If you are migrating data (saving it, then restoring it somewhere else) or recovering a server with logical partitions, see the Backup and Recovery book .

The following information describes how to recover from errors and work with the configuration data:


- Recovering your configuration data after initializing the primary partition.
- Clearing your configuration data for a disk unit or an entire server.
- Updating your configuration data.
- Clearing the configuration data from a nonconfigured disk unit.
- Clearing resource references for hardware that no longer resides on the server.
- Accepting a disk unit as load source for an existing logical partition.
- Copying configuration data between IPL sources (A to B, or B to A).
- Deleting your logical partitions in order to have a server without any logical partitions.

Recovering logical partition configuration data

The following information applies only to **primary partitions**. This procedure is part of a full server recovery, as directed by the Backup and Recovery book .

After reinstalling the Licensed Internal Code on the primary partition, stop at the IPL or Install the System display. Select option 3 (Use Dedicated Service Tools [DST]) in order to recover the logical partition configuration data:

1. Before changing your disk configuration or recovering your user ASPs, select option 11 (Work with system partitions).
2. Select option 4 (Recover configuration data).
3. Select option 1 (Recover primary partition configuration data). The server locates a nonconfigured disk unit that contains the most recent configuration data for your server. If the message No units found with more current configuration data displays instead of a list of resources, then no unassigned disk units contain any appropriate configuration information. Consult a service representative for assistance.
4. Verify that the date and the time fall within a valid time frame for the configuration.
5. Confirm your selection by pressing the Enter key.
6. The server copies the new configuration data to the primary partition's load source and automatically restarts the primary partition.
7. When you next perform an initial program load (IPL) for the secondary partitions, the server updates their logical partition configuration data.

8. Once the primary partition completes its IPL, continue with any further recovery steps as outlined in the Recovery section of your Backup and Recovery book  .

Clearing partition configuration data for logical partitions

You can clear the configuration data for the following:

- All logical partitions (delete all logical partitions).
- Nonconfigured disk units (delete old configuration data on a disk unit).

Updating partition configuration data on all logical partitions

Note: You should only perform these steps when instructed to do so by a service representative.

You can update the configuration data for every active logical partition by copying it manually from the primary partition to all active logical partitions.

Perform this procedure from the dedicated service tools (DST) or system service tools (SST) menu:

1. From DST, select option 11 (Work with system partitions). From SST, select option 5 (Work with system partitions). Press Enter.
2. Select option 4 (Recover configuration data).
3. Select option 2 (Update configuration data).

Attention: Using this function when the configuration data on the primary partition is incorrect ruins your existing configuration.

4. Confirm your choice by pressing the F10 key.
5. Service may ask you to restart your server in order to apply any changes.

Clearing partition configuration data from nonconfigured disk units

When you move disk units between logical partitions or servers, you may need to erase any old configuration data before the server can use the logical partition again.

You need to clear the configuration data when the disk unit has all of the following characteristics:

- A system reference code (SRC) of B600 5311 displays in the product activity log (PAL) against a nonconfigured disk unit.
- It is no longer a load source in its own logical partition.
- It is originally from a different logical partition where it was a load source, or it is from a different server that had logical partitions.

Perform this procedure from a dedicated service tools (DST) display:

1. Go to the DST menu.
2. Select option 11 (Work with system partitions).
3. Select option 4 (Recover configuration data).
4. Select option 3 (Clear non-configured disk unit configuration data).
5. Select the disk unit with the configuration data you want to erase. Type a 1 in the Opt field to the left of the disk unit listing.
6. Press the Enter key.
7. Confirm that you truly do want to erase the configuration data.
8. The changes take effect immediately.

Clearing nonreporting resources on logical partitions

Attention: Do **not** run this procedure if ANY hardware is marked as failed. Only run this procedure when all server hardware is completely operational.

After you add, remove, or move hardware within a server with logical partitions, you may have resources that are no longer available, that are listed twice, or that are no longer on the server.

You can clean up these listings so that all nonreporting resources are erased from the configuration data for the logical partition. You do this from a dedicated service tools (DST) display in the primary partition:

1. After making all your hardware changes, restart your server in manual mode. Get to a DST menu in the primary partition.
2. Select option 11 (Work with system partitions).
3. Restart all secondary partitions in normal mode. Stop at the sign-on display for the operating system. Wait until all secondary partitions complete their IPL before you continue to the next step.
4. From the primary partition's console, select option 4 (Recover configuration data).
5. Select option 4 (Clear non-reporting logical partitioning resources).
6. To confirm the deletion of nonreporting resources, press the F10 key.

Accepting a disk unit as load source for a logical partition

When configuration data on the load source of a logical partition is different from what the server expects, an error displays in the product activity log (PAL). A reference code of B600 5311 occurs against the load source disk unit.

If you have recently moved or added disk units either within the server or from another server, they may still contain configuration data. If you do not want to use one of them as the load source, you need to clear the configuration data before proceeding.

Otherwise, if you do want to use one of the new disk units as your new load source on the logical partition, follow these steps from the dedicated service tools (DST) menu:

1. At the DST menu, select option 11 (Work with system partitions).
2. Select option 4 (Recover configuration data).
3. Select option 5 (Accept load source disk unit).
4. Confirm that you really do want to use the disk as a load source in the logical partition by pressing the F10 key. The server replaces the configuration data on the load source disk unit with the current configuration data.
5. The logical partition may now continue its IPL with the new load source disk unit.

Copying partition configuration data between IPL sources

Your server may experience a disk read error of logical partition configuration data if the following system reference codes display when you restart from one IPL source but not another:

- 1 B193 4511
- 2 xxxx xxx5D (where x equals any value 0-9 or A-F)
- 3 690A 2060

You can copy the data from the functioning source to the faulty source with this procedure.

Attention: You should only attempt this when you are certain that the logical partition restarts normally when using the other IPL source.

Perform this procedure from a dedicated service tools (DST) display:

1. If you are doing this on the primary partition, power off all secondary partitions. Otherwise, continue to the next step.
2. Restart your server in manual mode with the other IPL source (for instance, source A if source B fails).
3. From DST, select option 11 (Work with system partitions).
4. Ensure that the configuration information contained on this IPL source is correct. Verify this by following the steps in Managing logical partitions for displaying the logical partition's status. A correct configuration would show your most recent configuration of logical partitions. If it is correct, continue to the next step. If the configuration is not correct, **do not** continue. Consult a service representative.
5. Press the F3 key to return to the Work with System Partitions menu.
6. Select option 4 (Recover configuration data).
7. Select option 6 (Copy configuration data to other side).
8. Confirm your choice by pressing the F10 key.
9. Restart the logical partition using the other IPL source (source B, if source A had the correct configuration data you just copied from).
10. If you continue to have problems, contact a service representative.


Deleting all of your logical partitions

There may be a time when you need to erase all your logical partitions to make the server non-partitioned again.

It is possible to return all hardware resources to the primary partition. However, **all** user data contained within the secondary partitions will be lost. Make sure that you have adequate backups prepared for all logical partitions.

Attention: Following these instructions destroys all user data and system data on the secondary partitions.

You can delete all logical partitions from the dedicated service tools (DST) menu:

1. Perform a full server backup (option 21) for each logical partition, as described in Backup and Recovery.
2. Power off all secondary partitions before proceeding.
3. Make sure that you are at the DST menu.
4. Select option 11 (Work with system partitions).
5. Select option 4 (Recover configuration data).
6. Select option 7 (Clear configuration data).
7. Confirm that you really do want to delete all your logical partitions.
8. Restart the server in manual mode for the change to take effect.
9. Perform the steps for clearing configuration data from nonconfigured disk units from DST. Do this once for every former secondary partition load source disk unit.
10. Refer to your Backup and Recovery book  for information on how to restore any user data or system data to the server.


Chapter 8. Performing main storage dumps on servers with logical partitions

When your server performs a main storage dump, **contact your customer support representative.**

When the server has a failure, it may create a main storage dump. A main storage dump copies the contents of the server's main storage to disk. It can be an important tool for problem analysis. On a server with logical partitions, there are two types of failures that may cause main storage dumps: server failure and secondary partition failure.

Failures in the primary partition caused by server processing hardware or main storage hardware will cause the entire server to fail. Software failures in a secondary partition will cause only that logical partition to fail.

A server failure may cause a server main storage dump. A secondary partition failure may cause a main storage dump only on that logical partition.

For more information on main storage dumps refer to the book, AS/400 Basic System Operation, Administration, and Problem Handling .

When you are directed to by customer support, you can force a main storage dump on a server with logical partitions.

Forcing a main storage dump on servers with logical partitions

Under the advice of your service representative, you can perform a main storage dump.


There are two kinds of main storage dumps you can perform:

- A main storage dump of the server.
- A main storage dump of a secondary partition.

Main storage dump of the server

You should only perform a server main storage dump when directed by a service representative.

Note: When you perform a server main storage dump, every active secondary partition will also perform a main storage dump. They will all then restart. This could take a long time.

To perform a server main storage dump refer to the book, AS/400 Basic System Operation, Administration, and Problem Handling .

A Work with Partition Status display will appear on the secondary partition's console unless a main storage dump was already in progress. In that case, a Main Storage Dump display will appear on the secondary partition console.

Main storage dump of a secondary partition

You should only perform a secondary partition main storage dump if under the direction of a service representative. To perform a secondary partition main storage dump, follow these steps:

1. On the partition or the primary partition, go to an SST or DST display.
2. From SST select option 5 (Work with system partitions); from DST select option 11 (Work with system partitions).

- | 3. Select option 2 (Work with partition status).
- | 4. Use the cursor to select the logical partition on which you want to perform a main storage dump.
- | 5. If logical partition is not in manual mode, select option 10 (Mode manual) to place the logical partition in manual mode.
- | 6. Select option 22 (Force Main Storage Dump) or use option 34 (Force CPM or MSD IPL retry) only under the direction of your service representative.
- | 7. Press F10 to confirm your choice.
- | 8. Report and copy the current main storage dump as directed in the Handling and Reporting System Problems chapter of the book AS/400 Basic System Operation, Administration, and Problem Handling



| In the event you cannot perform option 22 (Force main storage dump) on a secondary partition, perform a system main storage dump under the direction of your service representative. When the Main Storage Dump Occurred display appears on the primary partition's console, press Enter, and select option 6 (Dump all partitions).

Chapter 9. Using remote service with logical partitions

Only use this procedure when directed by your service representative

Remote service is a way for a service representative to access your server through a modem.

The logical partition that is using remote service must have an electronic customer support communications IOP with a modem.

If the communications IOP is on a shared bus and is used by another partition, switch the IOP to the partition that needs to use the modem. If this IOP also attaches to Operations Console, the console may be unavailable until the IOP is switched back to the original partition.

Attention: It is a security risk to leave remote service enabled when not in use. This would allow someone to access your AS/400 without your knowledge. Ensure that you deactivate it when your service representative has finished using remote service.

You can perform this procedure from system service tools (SST) or dedicated service tools (DST). To use remote service, follow these steps:

1. Go to SST or DST.
2. From SST select option 5 (Work with system partitions); from DST select option 11 (Work with system partitions).
3. Select option 2 (Work with partition status).
4. Use the cursor to select the logical partition that is going to receive remote service.
5. Select option 66 (Activate remote service).
6. Press Enter.
7. When you have finished using remote service, select option 65 (Deactivate remote service). Failure to do this could create a security risk.

Chapter 10. Powering on and off a domain with logical partitions

Only use this procedure when directed by your service representative

Power off domain and Power on domain are options that you can take when a disk unit input/output processor (IOP) fails. When a disk unit IOP fails, the disk units in the IOP could become unusable, or the server could hang. The domain is a group of hardware resources that the system defines as being related.

When you, under the direction of your service representative, perform a Power off domain, the server shuts down the failed disk unit IOP. You can replace any failed disk units without restarting the logical partition or entire server.

To use Power on domain or Power off domain, follow these steps:

1. From a dedicated service tools (DST) menu, select option 11 (Work with system partitions).
2. Select option 2 (Work with partition status).
3. Use your cursor to select the logical partition with the failed disk unit IOP.
4. Under the direction of your service representative, select option 68 (Power off domain) to power down; or select option 69 (Power on domain).

Chapter 11. Resetting a disk unit IOP with logical partitions

Only use this procedure when directed by your service representative.

Use this function to initiate an I/O processor (IOP) dump and an IOP reset or an IOP reload. This function becomes enabled when certain disk unit SRCs appear and the associated IOP supports a reset or reload function.

Attention: Incorrect use of this function can cause loss of data. It can also cause failures that may be incorrectly diagnosed as expensive hardware failures.

You can perform this procedure from system service tools (SST) or dedicated service tools (DST).

To reset a disk unit IOP follow these steps:

1. Start SST or DST.
2. From SST select option 5 (Work with system partitions); from DST select option 11 (Work with system partitions) and press Enter.
3. Select menu option 3 (Work with partition configuration).
4. Use the cursor to select the logical partition that has the IOP you want to reset.
5. Select option 67 (Disk unit IOP reset/reload).
6. Press Enter.



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