

SYS Messages

The following are operating system messages.

Error Message

%SYS-3-ABRUPTTERM: Abrupt termination of tty session for [chars] [t-line]

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-ALREADYFREE: Buffer [hex] already in free pool [chars]

Explanation A block of memory at the specified location is corrupt.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-BAD_BM_ARG: Invalid BM index boolean used as argument ([dec])

Explanation An illegal boolean manager index argument was referenced by the system.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-BAD_RESET: Questionable reset of process [dec] on tty[t-line]

Explanation A process has been reset before the process was complete.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-BADBLOCK: Bad block pointer [hex]

Explanation A block of memory at the indicated location is corrupt.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-BADBUFFER: Attempt to use [chars] buffer as [chars], ptr= [hex], pool= [hex]

Explanation An internal software failure has occurred during an attempt to process a buffer. This message occasionally indicates a hardware problem.

Recommended Action Verify that the hardware installed in the router is supported by the Cisco IOS image. Look for other log messages that might indicate a hardware failure, such as parity errors. If these messages are absent, this is probably a software failure. To take advantage of recent fixes, upgrade your system to the latest Cisco IOS software release in your release train. If the problem persists, copy the error message text exactly as it appears on the console or in the system log, enter the **show log** and **show tech-support** commands, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-BADDISP: Bad disposal code [hex] in [chars]

Explanation A buffer deletion routine has received an invalid status code. The buffer memory will be correctly returned to the free pool, but it will not be correctly counted in the per-protocol statistics.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-BADFREEMAGIC: Corrupt free block at [hex] (magic [hex])

Explanation A block of memory at the indicated location is corrupt.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-BADFREETRS: Bad [chars] pointer [hex] at [hex] ([chars] = [hex])

Explanation There is a corrupt pointer in the block header at the indicated location.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-BADLIST: Regular expression access check with bad list [dec]

Explanation A software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-BADMAGIC: Corrupt block at [hex] (magic [hex])

Explanation The free memory pool is corrupted.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-BADPARAM: Function [chars]: value [hex] passed in parameter [chars]

Explanation A software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-BADPID: Bad pid [dec] for tty [t-line]

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-BADPOOL: Attempt to use buffer with corrupt pool pointer, ptr= [hex], pool= [hex]

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-BADPOOLMAGIC: Attempt to use pool pointer with corrupt header, pool= [hex]

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-BADPRINT: Process has no associated tty (in [chars]).

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-BADPROCESS: Bad process ID ([dec]) when [chars] process table

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-BADREFCOUNT: Bad reference count at [hex] (refcount [hex])

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-BADRESID: Clock hardware returned bad residual [dec].

Explanation A software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-BADSHARE: Bad refcount in [chars], ptr=[hex], count=[hex]

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-BADTREEPARAM: Bad parameter for [chars] passed to tree library function.

Explanation A pointer that was passed to a tree library function is invalid.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the **show tech-support** command to gather data that might help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the **show tech-support** command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%SYS-6-BLKINFO: [chars]blk [hex], words [int], alloc [hex], [chars], dealloc [hex], rfcnt [hex]

Explanation This is an auxiliary message that is generated by one of several memory-related messages. This message provides a formatted display of some of the information in the header of a corrupted data block. This message provides additional information only.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-BLOCKHUNG: Task hung with blocking disabled, value = [hex].

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-6-BOOT_MESSAGES: Messages above this line are from the boot loader.

Explanation At least one informational or error message has been printed by the boot loader.

Recommended Action If the system image has been loaded, no action is recommended. If the system image did not load as configured, send a log file and the configuration information to your Cisco technical support representative.

Error Message

%SYS-6-BOOTTIME: Time taken to reboot after reload = [dec] seconds

Explanation This informational message provides the time taken for the router to come up after a reload or crash. The time is actually the difference between the last crash and a successive boot. If autoboot was not set, and the router is in ROM Monitor mode for a long time, the reload time shown could be a large number.

Recommended Action No action is required.

Error Message

%SYS-3-CACHE_DIRTY_ADR: cache line [hex] dirty, task: [chars]

Explanation This error message reports the address at which a scan cache operation detected that the cache had not been flushed as expected.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-6-CACHE_DIRTY_MSG: [chars][chars]

Explanation This message provides additional information about the CACHE_DIRTY_ADR message.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-CACHED_PAGE_ADR: Uncached page pointer [hex] in call to return_page_inline

Explanation The pointer to a page being returned to the page pool was a cached address.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-CCA_INT_ERR: CCA Detected Logic Error, code = [dec]

Explanation CCA has detected a severe internal logic error. This condition is usually caused by one of the components using CCA or by the interaction among components using CCA.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-1-CCA_SYS_ERR: CCA Detected System Error, code = [dec]

Explanation CCA has detected a severe system software error. This condition is usually caused by one of the components using CCA or by the interaction among components using CCA.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-CERF_ABORT: [chars]

Explanation A cache error has occurred, but an attempt to recover has been aborted.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-CERF_RECOVER: [chars]

Explanation There has been a full recovery after a cache error.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-CFG_AT_RELOAD: System reloading, unable to complete startup configuration update

Explanation The startup configuration update is already in progress. System reload has been called either from an interrupt level or with all interrupts disabled. The reload cannot suspend execution to allow the startup configuration to complete. The startup configuration can become corrupted.

Recommended Action This is a notification message only. No action is required.

Error Message

%SYS-2-CFORKBADFUNCT: Can't create process with start address = [hex]

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-CFORKLEV: Process creation of [chars] failed (at level [dec]).

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-CFORKMEM: Process creation of [chars] failed (no memory).

Explanation Because a software error has occurred, no memory is available to create a process.

Recommended Action To take advantage of recent fixes, upgrade your system to the latest Cisco IOS software release in your release train. If the problem persists, copy the error message text exactly as it appears on the console or in the system log, enter the **show log** and **show tech-support** commands, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-CHUNK_NO_EXMEM: No handler to [chars] external memory.

Explanation An attempt was made to allocate or free a chunk of external memory, but no handler for managing external memory was registered.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-CHUNKBADELESIZE: Chunk element size is more than 64k for [chars]

Explanation The chunk manager cannot function properly with big chunk elements.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-CHUNKBADFREEMAGIC: Bad free magic number in chunk header, chunk [hex] data [hex] chunk_freemagic [hex]

Explanation A software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-CHUNKBADMAGIC: Bad magic number in chunk header, chunk [hex] data [hex] chunkmagic [hex] chunk_freemagic [hex]

Explanation A software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-CHUNKBADPOOLSIZE: Bad poolsize returned by the system : [int]

Explanation The system has returned an inappropriate pool size.

Recommended Action Ensure that the pool sizes are changed. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-CHUNKBADREFCOUNT: Bad chunk reference count, chunk [hex] data [hex].

Explanation A software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-CHUNKBOUNDS: Could not find the sibling to allocate memory from. Chunk [chars], total free [dec] inuse [dec].

Explanation A software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%SYS-2-CHUNKBOUNDSIB: Error noticed in the sibling of the chunk [chars], Chunk index : [dec], Chunk real max : [dec]
```

Explanation An internal software failure has occurred.

Recommended Action Since this message is software-related, consider upgrading your system to the latest Cisco IOS software release in your release train to take advantage of recent fixes. If the problem persists, copy the error message text exactly as it appears on the console or in the system log, enter the **show log** and **show tech-support** commands, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%SYS-2-CHUNKEXPANDFAIL: Could not expand chunk pool for [chars]. No memory available
```

Explanation There is not enough processor memory left to expand this chunk pool.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%SYS-2-CHUNKFREE: Attempted to free nonchunk memory, chunk [hex], data [hex].
```

Explanation A software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%SYS-2-CHUNKINCONSIS: Inconsistent counters for chunk : [chars]total free [dec]/[dec], total sibs [dec]/[dec], total alloc [dec]/[dec]
```

Explanation The system has returned an inappropriate pool size.

Recommended Action Ensure that the pool sizes are changed. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-CHUNKINVALIDHDR: Invalid chunk header type [dec] for chunk [hex], data [hex]

Explanation A software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-CHUNKNOROOT: Root chunk need to be specified for [hex]

Explanation A software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-CHUNKPARTIAL: Attempted to destroy partially full chunk, chunk [hex].

Explanation A software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-CHUNKSIBLINGS: Attempted to destroy chunk with siblings, chunk [hex].

Explanation A software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-5-CONFIG: Configured from [chars]

Explanation The router configuration has been changed.

Recommended Action This is an informational message only. No action is required.

Error Message

%SYS-2-CONFIG_DOWNFAIL: Generated configuration not backward compatible

Explanation The router has been configured to generate nonvolatile memory using the commands of an older software version. The current configuration of the router contains a command that cannot be saved using only the older command set.

Recommended Action Allow the router to save the configuration using the command set of the current software version, or remove the commands that cannot be saved using the older command set.

Error Message

%SYS-5-CONFIG_I: Configured from [chars] by [chars]

Explanation The router configuration has been changed.

Recommended Action This is a notification message only. No action is required.

Error Message

%SYS-4-CONFIG_NEWER: Configuration from version [dec].[dec] may not be correctly understood

Explanation The software has detected that the configuration saved in memory was written by a newer version of software. There might be commands saved in memory that are not implemented by the older software version.

Recommended Action Examine all the messages printed while the router was booting. For each message about an unknown command, determine whether that feature is required. If any of the unknown command features is required, upgrade to a newer version of software that supports the required feature.

Error Message

%SYS-4-CONFIG_NOLOCK: The configuration could not be locked

Explanation A software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-CONFIG_NO_PRIVATE: No space remaining to save private config

Explanation A software or hardware error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-5-CONFIG_NV: Nonvolatile storage configured from [chars]

Explanation The configuration was written successfully.

Recommended Action This is a notification message only. No action is required.

Error Message

%SYS-3-CONFIG_NV_DATA: Variable [chars] not set properly in the routine [chars].

Explanation A write error has occurred to a nonvolatile configuration because an internal variable was not set properly.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-CONFIG_NV_ERR: Nonvolatile storage write error; configuration failed

Explanation A write error has occurred for a nonvolatile configuration.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-5-CONFIG_NV_I: Nonvolatile storage configured from [chars] by [chars]

Explanation The configuration has been written successfully.

Recommended Action This is a notification message only. No action is required.

Error Message

%SYS-4-CONFIG_NV_NEED_OVERRUN: Non config data present at the end of nvram needs to be overwritten to fit the configuration into nvram

Explanation The software has detected that the nonconfiguration data files occupying the end of NVRAM need to be overwritten to allow the configuration to fit. Typically, these files are used by SNMP to store and retrieve nonconfiguration persistent data across a system reload.

Recommended Action Compress and store the configuration, or copy the configuration to Flash memory as appropriate.

Error Message

%SYS-4-CONFIG_NV_NEED_TRUNCATE: Configuration needs to be truncated to fit into nvram

Explanation The software has detected that the configuration is to be truncated to fit into the NVRAM. Not enough space was available to save the compressed configuration.

Recommended Action Save the configuration to Flash memory if the platform supports the **boot config nvbypass** command.

Error Message

%SYS-4-CONFIG_NV_OVERRUN: Non config data present at the end of nvram is corrupted

Explanation The software detected that the configuration saved into NVRAM has overlaid a part of the NVRAM that is occupied by nonconfiguration data files. Typically, these files are used by SNMP to store and retrieve nonconfiguration persistent data across a system reload.

Recommended Action Compress the configuration, and copy to Flash memory.

Error Message

%SYS-4-CONFIG_NV_TRUNCATE: Truncated configuration to [dec] bytes from [dec] bytes

Explanation The software has detected that the configuration that was saved into NVRAM has been truncated. There was not enough space to save the compressed configuration.

Recommended Action Save the configuration to Flash memory if the platform supports the **boot config** command.

Error Message

%SYS-4-CONFIG_RESOLVE_FAILURE: System config parse from ([chars]) failed

Explanation The configuration file at the URL specified in the error message could not be read.

Recommended Action Enter the **no service config** command to disable the autoloading of configuration files or investigate why the TFTP load is failing.

Error Message

%SYS-3-CONFIG_SYS_ERR: System running-config write error; configuration failed

Explanation The write of the running configuration of the system has failed.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%SYS-3-CPUHOG: Task ran for [dec] msec ([dec]/[dec]), process = [chars], PC = [hex].
```

Explanation The indicated process has run for too long a period of time without relinquishing the processor. The process is a “CPU hog.”

Recommended Action If this message appears during startup or during OIR of a card, no action is required. If this message appears when accessing a Flash memory device, consider replacing the affected Flash memory device. If this message occurs during normal router operation, it is most probably caused by a software failure. To take advantage of recent fixes, upgrade your system to the latest Cisco IOS software release in your release train.

Error Message

```
%SYS-3-CRASHINFOINITFAIL: Crashinfo subsystem initialization did not add registry crashinfo_get_default_file_name.
```

Explanation The crashinfo subsystem does not have the correct registry.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%SYS-3-DMPMEM: [hex]: [hex] [hex] [hex] [hex] [hex] [hex] [hex]
```

Explanation A software or hardware error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%SYS-4-DUAL_MESSAGE: SNMP system message request [dec] denied because of pending job
```

Explanation A software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-DUP_TIMER: Same tty[t-line] in linewatch_timers, type [dec]

Explanation A tty has appeared twice in a timer list in which it should have appeared only once.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-EXCEPTIONDUMP: System Crashed, Writing Core....

Explanation The system has crashed because of an exception. A core dump is being generated.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-FREEBAD: Attempted to free memory at [hex], not part of buffer pool

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-FREEFREE: Attempted to free unassigned memory at [hex], alloc [hex], dealloc [hex]

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-FW_UNCOMPRESS_FAILURE: Fail to decompress FPGA/W image: [chars]

Explanation The software has failed to decompress the given FPGA or firmware image.

Recommended Action Ensure that the specified FPGA or firmware image is in a compressed format in the Cisco IOS software.

Error Message

```
%SYS-2-GETBUF: Bad getbuffer, bytes= [dec]
```

Explanation The software has requested a buffer that is larger in size than the largest configured buffer size, or the software has requested a sized buffer with a size less than zero.

Recommended Action Check the minimum memory requirements for your system configuration. If your system meets those requirements, this message is probably caused by a software failure. To take advantage of recent fixes, upgrade your system to the latest Cisco IOS software release in your release train. If the problem persists, copy the error message text exactly as it appears on the console or in the system log, enter the **show log** and **show tech-support** commands, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%SYS-2-GETBUFFFFAIL: [chars] buffer allocation ([dec] bytes) failed from [hex]
```

Explanation An operation could not be accomplished because of a low memory condition. The router memory has been exhausted or fragmented. This condition may be caused by the current system configuration, the network environment, or a software error.

Recommended Action Check the minimum memory requirements for your system configuration. If your system meets those requirements, this message is probably caused by a software failure. To take advantage of recent fixes, upgrade your system to the latest Cisco IOS software release in your release train. If the problem persists, copy the error message text exactly as it appears on the console or in the system log, enter the **show tech-support**, **show log**, **show process memory** and **show memory summary** commands, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%SYS-3-HARIKARI: Process [chars] top-level routine exited
```

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%SYS-3-IMAGE_TOO_BIG: '[chars]' is too large for available memory ([dec] bytes).
```

Explanation The allocated memory for the image is too small to hold the image file.

Recommended Action Increase the amount of memory available in the router by booting with a smaller image, disabling nonessential subsystems, or upgrading the installed memory. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-INLIST: Buffer in list, ptr= [hex]

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-INLIST1: Buffer in list, ptr= [hex], caller= [hex]

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-INPUTQ: INPUTQ set, but no IDB, ptr=[hex]

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-INSCHED: [chars] within scheduler

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-INTPRINT: Illegal printing attempt from interrupt level.

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-INTSCHED: '[chars]' at level [dec]

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-INUSEFREE: Block [hex] on free list [dec] in use

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-4-INVALID_IMAGE: Running invalid image for platform!

Explanation The software image that is being run is intended for a different hardware architecture. This problem can occur on a Cisco 1003, Cisco 1004, or Cisco 1005 router. The Cisco 1003 and Cisco 1004 routers use a different image from the Cisco 1005 router.

Recommended Action Install the correct software image.

Error Message

%SYS-3-INVMEMINT: Invalid memory action ([chars]) at interrupt level

Explanation An interrupt handler has attempted to allocate or deallocate memory.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-LINEPROCDEAD: Killing process [chars], associated with line [dec]

Explanation A process associated with a tty line was killed by another process. The line may become dead.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-LINKED: Bad [chars] of [hex] in queue [hex]

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-LOGGER_COUNT_STOP_CHUNK: System cannot release chunk memory.\n

Explanation The system was not able to destroy a previously allocated chunk of memory.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-LOGGER_DROPPED: System dropped [dec] console debug messages.

Explanation Debugging or informational messages are being generated faster than they can be displayed on the console. This message replaces the lost messages.

Recommended Action To reduce the number of debugging or informational messages that are displayed, use conditional debugging and turn off console logging. Enter the **no logging console guaranteed** command, or turn off link-state messages for some other interfaces.

Error Message

%SYS-3-LOGGER_FLUSHED: System was paused for [time-stamp] to ensure console debugging output.

Explanation Debugging or informational messages are being generated faster than they can be displayed on the console. To ensure that the messages could be seen, the rest of the system has been paused until the console output could catch up. This condition might cause an interruption in time-critical operations (for example, maintaining an ISDN link).

Recommended Action To reduce the number of debugging or informational messages that are displayed, use conditional debugging and turn off console logging. Enter the **no logging console guaranteed** command, or turn off link-state messages for some other interfaces.

Error Message

%SYS-3-LOGGER_FLUSHING: System pausing to ensure console debugging output.

Explanation Debugging or informational messages are being generated faster than they can be displayed on the console. To ensure that the messages could be seen, the rest of the system has been paused until the console output catches up. This condition might cause an interruption in time-critical operations (for example, maintaining an ISDN link).

Recommended Action To reduce the number of debugging or informational messages that are displayed, use conditional debugging and turn off console logging. Enter the **no logging console guaranteed** command, or turn off link-state messages for some other interfaces.

Error Message

%SYS-2-LOWMEMIO: Low-memory debug exception (limit=[int] free=[int])

Explanation The router is configured to crash when total available I/O memory drops below a specified threshold. That threshold has been reached. This condition may have occurred because of a memory leak or from supporting additional features.

Recommended Action If you suspect a memory leak, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. Otherwise, adding memory or reducing the number of features you are trying to support may be required.

Error Message

%SYS-2-LOWMEMPROC: Low-memory debug exception (limit=[int] free=[int])

Explanation The router is configured to crash when total available processor memory drops below a specified threshold. That threshold has been reached. This condition may have occurred because of a memory leak or from supporting additional features.

Recommended Action If you suspect a memory leak, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. Otherwise, adding memory or reducing the number of features you are trying to support may be required.

Error Message

%SYS-2-MALLOCFAIL: Memory allocation of [dec] bytes failed from [hex], alignment [dec] \nPool: [chars] Free: [dec] Cause: [chars] \nAlternate Pool: [chars] Free: [dec] Cause: [chars] \n

Explanation The requested memory allocation is not available from the specified memory pool. The router memory has been exhausted or fragmented. This condition may be caused by the current system configuration, the network environment, or a software error.

Recommended Action Check the minimum memory requirements for your system configuration. If your system meets those requirements, this condition is probably caused by a software failure. To take advantage of recent fixes, upgrade your system to the latest Cisco IOS software release in your release train.

Error Message

%SYS-6-MEMDUMP: [hex]: [hex] [hex] [hex] [hex]

Explanation This is an auxiliary message that is generated by one of several memory-related messages. This message provides a formatted display of some of the information in the header of a corrupted data block. This message provides additional information only.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. Include the previously printed error message.

Error Message

%SYS-2-MEMTOOSMALL: CIP software requires a minimum of 8MB of DRAM

Explanation The CIP software has become large enough that it will not run with only 2 MB of DRAM.

Recommended Action Contact your Cisco support representative for a free 8-MB upgrade.

Error Message

%SYS-3-MGDTIMER: [chars][chars], timer = [hex].

Explanation A software or hardware error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. Include the previously printed error message.

Error Message

%SYS-3-MGDMRRUN: TTY[t-line]: Managed Timer(s) [chars] still running

Explanation One or more managed timers for a tty that had been deleted are still running.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-MSGLOST: [dec] messages lost because of queue overflow

Explanation A software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%SYS-6-MTRACE: [chars]: addr, pc [hex], [hex] [hex], [hex] [hex], [hex] [hex], [hex] [hex], [hex] [hex], [hex] [hex], [hex] [hex], [hex] [hex]
```

Explanation This is an auxiliary message that is generated by one of several memory-related messages. This message provides the address of the memory block and the calling program counter for the last eight blocks allocated and for the last eight blocks freed. This message provides additional information only.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%SYS-2-NOBLOCK: [chars] with blocking disabled.
```

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%SYS-6-NOBRIDGE: Bridging software not present
```

Explanation An attempt has been made to use bridging software when the system is not configured to be used as a bridge.

Recommended Action Configure the bridging software.

Error Message

```
%SYS-3-NOELEMENT: [chars]:Ran out of buffer elements for enqueue
```

Explanation The process has run out of buffer elements and is unable to enqueue data.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show buffers** command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the **show buffers** command output, call your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%SYS-2-NOMEMFRGIO: Memory fragmentation check debug exception (fragment size [int])

Explanation The router is configured to crash when the largest available contiguous I/O memory block drops below a specified threshold. That threshold has been reached. This condition might have occurred because of excessive memory thrashing or from supporting additional features.

Recommended Action If you suspect memory thrashing, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. Otherwise, adding memory or reducing the number of features you are trying to support may be required.

Error Message

%SYS-2-NOMEMFRGPROC: Memory fragmentation check debug exception (fragment size [int])

Explanation The router is configured to crash when the largest available contiguous processor memory block drops below a specified threshold. That threshold has been reached. This condition may have occurred due to excessive memory thrashing or from supporting additional features.

Recommended Action If you suspect memory thrashing, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. Otherwise, adding memory or reducing the number of features you are trying to support may be required.

Error Message

%SYS-2-NOMEMORY: No memory available for [chars] [dec]

Explanation An operation could not be accomplished because of a low memory condition. The current system configuration, network environment, or possibly a software error might have exhausted or fragmented the router memory.

Recommended Action Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message

%SYS-2-NOPROCESS: No such process [dec]

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-NOTDEAD: Killing process [chars], pid [dec] again

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-NOTQ: [chars] didn't find [hex] in queue [hex]

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-NULLCHUNK: Memory requested from Null Chunk

Explanation The chunk manager cannot allocate memory from null chunks

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-NULLIDB: Null IDB in [chars]

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-7-NV_BLOCK_INIT: Initialized the geometry of nvram

Explanation The NVRAM block geometry, which is a part of the NVRAM used to host nonconfiguration data files, was initialized. Typically, these files are used by SNMP to store and retrieve nonconfiguration persistent data across a system reload.

Recommended Action No action is required.

Error Message

%SYS-4-NV_BLOCK_INITFAIL: Unable to initialize the geometry of nvram

Explanation The software failed to initialize the NVRAM block geometry, which is a part of the NVRAM used to host nonconfiguration data files. Typically, these files are used by SNMP to store and retrieve nonconfiguration persistent data across a system reload. This failure may occur when the entire NVRAM is packed with the configuration, and the version of software that supports this feature could not find the minimum room in the NVRAM to initialize the block file system.

Recommended Action Reduce the configurations in the NVRAM by at least by 2K.

Error Message

%SYS-4-NV_CHKSUM: An nvram checksum is already in progress

Explanation The user has attempted to perform multiple NVRAM operations at the same time. If the interrupt is not set, the system will attempt the NVRAM operation again.

Recommended Action No action is required unless the command fails. If the command fails, reset the interrupt.

Error Message

%SYS-4-NV_CHKSUM_INTR: An nvram checksum is already in progress; the interrupt cannot be serviced

Explanation An interrupt service routine has attempted to perform a checksum on the NVRAM contents. The interrupt service found that the resource was in use.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-4-NV_NOLOCK: Failed to acquire an nvram lock

Explanation An interrupt service routine has attempted to acquire a semaphore lock. The attempt has failed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-4-NVLOG: Failed to automatically save system configuration to NVRAM as system configuration is being updated

Explanation System could not save the system configuration.

Recommended Action Copy the message exactly as it appears on the console or in the system log. Research and attempt to resolve the issue using the tools and utilities provided at <http://www.cisco.com/tac>. With some messages, these tools and utilities will supply clarifying information. Also perform a search of the Bug Toolkit <http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl>. If you still require assistance, open a case with the Technical Assistance Center via the Internet <http://tools.cisco.com/ServiceRequestTool/create>, or contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%SYS-3-NZREFCNT: Block [hex] on free list [dec] with refcount [dec]

Explanation A block of memory that is in the free pool is in use by a process. The message will indicate the number of processes using the memory block.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-5-OUTSETUP: Configuration file [chars] accepted, aborting setup

Explanation The system has accepted a configuration over the network. The setup session will be aborted. This is an informational message only.

Recommended Action No action is required.

Error Message

%SYS-3-OVERRUN: Block overrun at [hex] (red zone [hex])

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-1-OVERTEMP: System detected OVERTEMPERATURE condition. Please resolve cooling problem immediately!

Explanation The environmental monitor has detected a high-temperature condition.

Recommended Action Ensure that the room temperature is not too high and that air flow to the card is not blocked. If this condition persists, the environmental monitor might shut down the system. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-OVFPRINT: Overflow in [chars], chars [dec], buffer size [dec]

Explanation A software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Recommended Action representative and provide the representative with the gathered information.

Error Message

%SYS-2-P2_CRIT: 1/Path directory errors detected on chip [dec], count=[dec]. Use 'show test switch-memory' to see details

Explanation The path directory entry programming in hardware does not match in software. This situation usually indicates a hardware problem.

Recommended Action Copy the message exactly as it appears on the console or in the system log. Enter the **show test switch-memory** command to display the results of ongoing memory diagnostics. Contact your technical support representative at <http://www.cisco.com/tac>, and replace the supervisor engine as soon as possible.

Error Message

%SYS-4-P2_WARN: 1/Filtering Ethernet MAC address of value zero Problem

Explanation The switch is generating Filtering Ethernet MAC address of value zero messages. This is an example of the syslog output that you see when this error occurs: %SYS-4-P2_WARN: 1/Filtering Ethernet MAC address of value zero from agent host table interface %SYS-4-P2_WARN: 1/Filtering Ethernet MAC address of value zero from agent host table interface The Filtering Ethernet MAC address of value zero syslog message is generated when the switch receives packets with a source MAC address

of 00-00-00-00-00-00, which is an invalid source MAC. The syslog message indicates that the switch refuses to learn the invalid address. However, the switch forwards traffic sourced from an all-zeros MAC address.

Recommended Action The workaround is to try to identify the end station that is generating frames with an all-zeros source MAC address. Typically, such frames are transmitted from a traffic generator (for example, Spirent SmartBits), certain types of servers (such as load-balancing IBM WebSphere servers), a misconfigured router or end station (for example, a device transmitting all-zeros broadcasts), or a faulty NIC.

Error Message

%SYS-2-PAK_SUBBLOCK_ALREADY: [dec]

Explanation An error in attempting to allocate a packet subblock has occurred. A subblock was already associated with the packet.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, include the stack trace, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-PAK_SUBBLOCK_BADSIZE: [dec]

Explanation An error in attempting to allocate a packet subblock has occurred. The requested size is larger than the maximum registered subblock size.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, include the stack trace, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-PAK_SUBBLOCK_SETSIZE: [dec]

Explanation An error has occurred in the startup code to register a packet subblock size. An attempt was made to register a size after the subblock chunk pool had been initialized. This problem is caused by the software initialization order.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, include the stack trace, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-6-PROCINFO: Process [chars] just finished executing

Explanation This message is an auxiliary to the SYS-3-OVERRUN and SYS-3-BADMAGIC messages. This message identifies the process or process fragment that was executing when the error occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. Include the information gathered with the SYS-3-OVERRUN and SYS-3-BADMAGIC messages.

Error Message

%SYS-2-QCOUNT: Bad [chars] [hex] count [dec]

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-6-READ_BOOTFILE_FAIL: [chars] [chars].

Explanation A configured boot system command has failed.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-6-READ_BOOTFILE_SKIP: boot system [chars] command is skipped

Explanation A configured boot system command is skipped. Either the system experienced a crash while loading this image in the most recent attempt, or the filename is not properly specified. Subsequent boot system commands will be tried. This specified image could have failed for a variety of reasons; for example, the image might contain a bad checksum.

Recommended Action Replace the failed boot system image with a valid one.

Error Message

%SYS-4-REGEXP: [chars].

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-5-RELOAD: Reload requested[chars]

Explanation A reload or restart has been requested.

Recommended Action This is a notification message only. No action is required.

Error Message

%SYS-4-RELOAD_ATTEMPT: Attempt via SNMP failed, system shutdown not configured

Explanation An attempt to reload the router has failed because SNMP reloads are not currently configured on the router. SNMP cannot be used to reload the router unless this functionality has been previously configured.

Recommended Action This is an informational message only. No action is required.

Error Message

%SYS-5-RESTART: System restarted -- [chars]

Explanation A request to reload or restart the system has been made.

Recommended Action This is an informational message only. No action is required.

Error Message

%SYS-5-SCHEDULED_RELOAD: Reload requested for [chars]

Explanation A scheduled reload has been requested for the router.

Recommended Action No action is required.

Error Message

%SYS-5-SCHEDULED_RELOAD_CANCELLED: Scheduled reload cancelled at [chars]

Explanation A scheduled reload that was requested for the router has been canceled.

Recommended Action No action is required.

Error Message

%SYS-2-SELFLINKED: Buffer [hex] linked to itself in free pool [chars]

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-SHARED: Attempt to return buffer with sharecount [dec], ptr= [hex]

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-SHARED1: Attempt to return buffer with sharecount [dec], ptr= [hex], caller= [hex]

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-SIGNAL: Process aborted on invalid signal, signum = [dec].

Explanation An attempt has been made to send an invalid signal to another process.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-SIGPENDING: Multiple Signals are sent to a process [dec]

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-SNMP0IDX: Attempt to [chars] snmpidb with if_index of 0

Explanation A software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-4-SNMP_HOSTCONFIGSET: SNMP hostConfigSet request. Loading configuration from [IP_address]

Explanation SNMP is reading the host configuration from a network host.

Recommended Action This is an informational message only. No action is required.

Error Message

%SYS-4-SNMP_NETCONFIGSET: SNMP netConfigSet request. Loading configuration from [IP_address].

Explanation SNMP is reading the network configuration from a network host.

Recommended Action This is an informational message only. No action is required.

Error Message

%SYS-4-SNMP_WRITENET: SNMP WriteNet request. Writing current configuration to [IP_address]

Explanation SNMP is writing the current configuration to a network host.

Recommended Action This is an informational message only. No action is required.

Error Message

%SYS-3-SOCKUNKN: Unknown socket protocol [dec]

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-2-SPEC: Trying to set unknown special character [dec] to [dec]

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-6-STACKLOW: Stack for [chars] [chars] running low, [dec]/[dec]

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-SUP_MODNONSBY: Module [dec] is present but not in standby mode

Explanation This message appears only when using Supervisor Engine II modules and only on the active Supervisor Engine III module. That is, this message occurs only with systems containing redundant supervisor engines when one of the Supervisor Engine III modules has a problem booting up and is sent out to the ROM-based monitor (ROMMON). [dec] is the module number.

Recommended Action From the redundant supervisor engine console, boot the redundant supervisor engine manually. If this message recurs, copy the message exactly as it appears on the console or in the system log. Research and attempt to resolve the issue using the tools and utilities provided at <http://www.cisco.com/tac>. With some messages, these tools and utilities will supply clarifying information. Also perform a search of the Bug Toolkit <http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl>. If you still require assistance, open a case with the Technical Assistance Center via the Internet <http://tools.cisco.com/ServiceRequestTool/create>, or contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

%SYS-3-SYS_RMONMEMLOW: Fail to allocate memory for RMON. System memory usage excess [dec]

Explanation This message indicates that the RMON facility is requesting memory from the system, and the system memory usage exceeds or will exceed the preset threshold.

Recommended Action This is an informational message. No action is required.

Error Message

%SYS-5-TABLEERR: [chars] table [chars] damaged: [chars].

Explanation An internal table entry has become corrupt.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-6-TESTINFO: Scheduler test [hex] (for [chars]) just executed

Explanation This is an auxiliary message to the SYS-3-OVERRUN and SYS-3-BADMAGIC messages. This message identifies the process or process fragment that was executing when the error occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information. Include the information that was gathered with the SYS-3-OVERRUN and SYS-3-BADMAGIC messages.

Error Message

%SYS-3-TIMERHOG: Timer callback ran long, PC = [hex].

Explanation The indicated callback routine has run for too long a period of time without relinquishing the processor.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-TIMERNEG: Cannot start timer ([hex]) with negative offset ([dec]).

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYS-3-URLWRITEFAIL: redirection url write failed '[chars]'

Explanation The system failed to redirect the output to a URL.

Recommended Action Check for free space on the destination URL and retry the operation.

Error Message

%SYS-2-WATCHDOG: Process aborted on watchdog timeout, process = [chars].

Explanation The indicated process has run for too long a period of time without relinquishing the processor. The system has shut down the indicated process.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%SYS-3-WRONGFREELIST: Block [hex], size [dec], on wrong free list ([dec], [dec])
```

Explanation A free buffer has been placed in a list of free buffers that was not the correct list for the indicated buffer.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%SYS-2-WRONGPOOL: Buffer [hex] found in pool [hex], should be in pool [hex]
```

Explanation A software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

SYSCTLR Messages

The following are system controller subsystem messages.

Error Message

```
%SYSCTLR-5-AUTH_FAILED: MD5 digest does not match, SDP packet received from,  
[IP_address] rejected
```

Explanation A SDP hello packet has been received from a shelf that is not trusted.

Recommended Action Either specify the correct SDP password or specify the correct destination on the shelf from which this message was received.

Error Message

```
%SYSCTLR-3-BAD_CALL: Invalid parameter/mangled pointer  
routine: [chars], file: [chars], line: [dec]
```

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%SYSCTLR-6-BAD_IP_ADDR: Found Shelf [dec] with an invalid IP address [chars]
```

Explanation The system controller has found a shelf that has an invalid IP address.

Recommended Action Configure a valid IP address for the shelf that has an invalid IP address.

Error Message

%SYSCTLR-3-DISCOVER_SOCKET_BIND: socket bind failed

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYSCTLR-3-DISCOVER_SOCKET_OPEN: socket open failed

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYSCTLR-3-DUPLICATE_SHELF: SDP packet with duplicate shelf-id [dec] received from [chars], already discovered shelf located at [chars]

Explanation A shelf has been configured to use a shelf ID that is already in use by another shelf. Two shelves cannot be configured to use the same shelf ID.

Recommended Action Change the shelf ID for one of the two shelves.

Error Message

%SYSCTLR-4-HMON_POLL: Local time [chars] [chars] on shelfid [dec] is not active, resetting monitor_type [dec]

Explanation Health monitor setup commands poll the system for information. If this message is displayed every 10 minutes, the health monitor has been unable to set the corresponding entry on the shelf.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYSCTLR-3-HMON_SETUP_FAILED: Health monitoring setup failed on shelf_id [dec]

Explanation The health monitor has failed to set up the monitoring command on the specified shelf.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYSCTLR-3-INVALID_SDP_VERSION: SDP packet received by system controller contained invalid version number.

Explanation The system has received an SDP packet that contains an invalid version number.

Recommended Action Ensure that the shelf is running a compatible version of SDP. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYSCTLR-4-SDP_TIMEOUT: Hello packet from shelf [dec] not received, shelf removed.

Explanation No SDP hello packets have been received from the specified router shelf. That shelf could be down or misconfigured.

Recommended Action Verify the status of the router and the router configuration. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYSCTLR-3-SDP_TIMER_ERROR: No context associated with the expired SDP timer

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYSCTLR-6-SHELF_ADD: Shelf [dec] discovered located at address [IP_address]

Explanation SDP on a system controller has detected a particular shelf.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYSCTLR-4-SHELF_CONF_CHANGED: Configuration for the shelf [dec] located [IP_address] changed

Explanation SDP on a system controller has detected that a particular shelf configuration has changed.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYSCTLR-3-SHELF_MSGFAIL: Unable to send message [dec] to process with pid [dec].

Explanation The system is unable to send a message to a specific process because the performance collector process has terminated.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYSCTLR-3-SHELF_PROTO: Shelf id protocol error

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYSCTLR-4-SHELF_RELOAD: Shelf [dec] located [IP_address] reloaded

Explanation A system controller that is using SDP has detected that a particular shelf has reloaded.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYSCTLR-4-SHELF_REMOVE: Shelf [dec] located at address [IP_address] removed.

Explanation A system controller that is using SDP has not received hello packets from a particular shelf.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYSCTLR-6-SHELF_RESTORED: Communication with shelf [dec] located at address [IP_address]

Explanation SDP on a system controller has detected a particular shelf.

Recommended Action No action is required.

Error Message

```
%SYSCTLR-4-SNMP_NOT_RESPONDING: Shelf [dec] not reachable via SNMP
```

Explanation The shelf that is specified in this error message is not responding to SNMP requests.

Recommended Action Verify that the SNMP configuration for the shelf that is indicated is correct. Also verify that the correct community string has been specified in the configuration command `system-controller community` on the system controller.

SYS-DFC3 Messages

The following are System DFC3 messages.

Error Message

```
%SYS-DFC3-2-MALLOCFAIL: Memory allocation of [int] bytes failed from [hex],  
alignment [dec]  
Pool: [chars] Free: [int] Cause: [chars]  
Alternate Pool: [chars] Free: [int] Cause: [chars]
```

Explanation The requested memory allocation is not available from the specified memory pool. The current system configuration, network environment, or possibly a software error might have exhausted or fragmented the router's memory.

Recommended Action Copy the message exactly as it appears on the console or in the system log. Research and attempt to resolve the issue using the tools and utilities provided at <http://www.cisco.com/tac>. With some messages, these tools and utilities will supply clarifying information. Also perform a search of the Bug Toolkit <http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl>. If you still require assistance, open a case with the Technical Assistance Center via the Internet <http://tools.cisco.com/ServiceRequestTool/create>, or contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

```
%SYS-DFC3-5-RESTART: System restarted -- [chars]
```

Explanation A request to reload or restart the system has been made.

Recommended Action Informational message only. No action is required.

SYS-DFC7 Messages

The following are System DFC7 messages.

Error Message

%SYS-DFC7-5-RESTART: System restarted -- [chars]

Explanation A request to reload or restart the system has been made.

Recommended Action Informational message only. No action is required.

SYSLOG_SERVER Messages

The following are syslog-server file system routines messages.

Error Message

%SYSLOG_SERVER-3-CREATE_ERR: Failed to create a Syslog file.

Explanation The system has failed to create a syslog file. This condition occurs if there is not a PCMCIA disk in slot0 of the system controller.

Recommended Action Verify that the PCMCIA disk is properly installed.

Error Message

%SYSLOG_SERVER-4-DUP_FILE: Syslog file [[chars]] exists.

Explanation An attempt has been made to use a directory name that already exists on the PCMCIA disk.

Recommended Action Verify that the name that was supplied already exists on the PCMCIA disk and enter a new directory name.

Error Message

%SYSLOG_SERVER-4-FILE_CORRUPTED: syslog records do not appear to be timestamped.

Explanation The system has been unable to detect a time stamp on a system log. This error might be the result of not using the **service timestamp log datetime** command.

Recommended Action Use the **service timestamps log datetime** command on your router. This command will tell the system to time-stamp both debugging and logging messages. To use this function, the date and time must be set.

Error Message

%SYSLOG_SERVER-3-ILLEGAL_FS: Illegal file system [chars].

Explanation The system has detected an illegal file system.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYSLOG_SERVER-3-MFS_MAX: Failed to add Syslog file [chars], maximum Syslog files [dec].

Explanation The system was unable to add a syslog file because the system has already exceeded the maximum number of syslog files allowed.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYSLOG_SERVER-4-NO_CONFIG_CHANGE: No configuration change.

Explanation No configuration change to the syslog server has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYSLOG_SERVER-4-NO_MEM: No memory left.

Explanation No more memory is available for the system controller.

Recommended Action Provide the system controller with more memory. Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message

%SYSLOG_SERVER-4-NO_MOBIUS: No syslog file.

Explanation There is no syslog file.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYSLOG_SERVER-3-OPEN_FILE_ERR: Failed to open [chars].[dec] syslog file.

Explanation The system has failed to open a syslog file. This condition might have occurred because one or more subfiles have been deleted or because there is no PCMCIA disk in slot0. If one or more subfiles are missing, the subfiles will be automatically restored when the current file reaches its capacity and is archived.

Recommended Action Verify that there is a PCMCIA disk in slot0.

Error Message

%SYSLOG_SERVER-3-PARSING_ERR: Parsing file error.

Explanation The router is not configured to time-stamp all of the log messages.

Recommended Action Configure your router to time-stamp the log messages by entering the **service timestamps** command.

Error Message

%SYSLOG_SERVER-3-READ_ERR: Failed to read a file.

Explanation The system has failed to read a file.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYSLOG_SERVER-3-UNKNOWN_NAME: Unknown command or device name, or unable to find device address.

Explanation The system could not find a device address, or an unknown command or device name has been used.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYSLOG_SERVER-3-WRITE_ERR: Failed to write a syslog file.

Explanation The system has failed to write a syslog file.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

SYSMGT_RPC Messages

The following are system management messages.

Error Message

%SYSMGT_RPC-3-ERROR: Error detected ([chars])

Explanation A system error involving the system management RPC operation has been detected.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYSMGT_RPC-3-IPC_ERROR: SYSMGT RPC - IPC [chars] [chars] failed ([chars])

Explanation A system management RPC operation failure has occurred. The request for information from the CIP card will not be processed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYSMGT_RPC-3-NETMGT_EVENT: SYSMGT RPC - NETMGT Event: [chars] ([dec])

Explanation An RPC network management event error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%SYSMGT_RPC-3-NOMEM: [chars]

Explanation The channel adapter system management subsystem could not be initialized because of lack of memory available on the channel adapter. Because the channel adapter SYSMGT component was unable to be initialized, most **show extended channel** command information and all channel adapter event notifications will be unavailable to the user.

Recommended Action Upgrade the channel adapter with more memory.

Error Message

```
%SYSMGT_RPC-3-RPC_ERROR: SYSMGT RPC - RPC [chars] [chars] failed ([chars] [dec])
```

Explanation An RPC operation failure has occurred. The request for information from the CIP card will not be processed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the **show tech-support** command to gather data that might help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the **show tech-support** command output, contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

```
%SYSMGT_RPC-6-STATE_CHANGE: System Management [chars]
```

Explanation The channel adapter system management subsystem has changed state.

Recommended Action No action is required.

Error Message

```
%SYSMGT_RPC-4-UNKNOWN: [chars] request for class [dec] contains unknown [chars] [dec]
```

Explanation The channel microcode has received a system management request (clear or query) on this port with an unknown code.

Recommended Action Check your microcode version to ensure that it is compatible with the installed version of Cisco IOS software.

SYS-SP

The following are System SP messages.

Error Message

```
%SYS-SP-2-INPUTQ: INPUTQ set, but no IDB, ptr=[hex]
```

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the message exactly as it appears on the console or in the system log. Research and attempt to resolve the issue using the tools and utilities provided at

<http://www.cisco.com/tac>. With some messages, these tools and utilities will supply clarifying information. Also perform a search of the Bug Toolkit

<http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl>. If you still require assistance, open a case with the Technical Assistance Center via the Internet

<http://tools.cisco.com/ServiceRequestTool/create>, or contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message

```
%SYS-SP-2-MALLOCFAIL: Memory allocation of [int] type failed from [hex],  
alignment [dec]  
Pool: [chars] Free: [int] Cause: [chars]  
Altrnate Pool: [chars] Free: [int] Cause: [chars]
```

Explanation The requested memory allocation is not available for the specified memory pool. The current system configuration, network environment or possibly a software error might have exhausted or fragmented the router's memory.

Recommended Action If you suspect a software error, copy the message exactly as it appears on the console or in the system log. Research and attempt to resolve the issue using the tools and utilities provided at <http://www.cisco.com/tac>. With some messages, these tools and utilities will supply clarifying information. Also perform a search of the Bug Toolkit <http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl>. If you still require assistance, open a case with the Technical Assistance Center via the Internet <http://tools.cisco.com/ServiceRequestTool/create>, or contact your Cisco technical support representative and provide the representative with the gathered information.

T1E1SUNI Messages

The following are messages associated with the PAM port driver.

Error Message

```
%T1E1SUNI-1-NOMEMORY: Unit [dec], no memory for [chars]
```

Explanation The unit described has a memory error for the IDB structure.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

TAC Messages

The following are Terminal Access Controller Access Control System (TACACS) protocol messages.

Error Message

```
%TAC-4-NOTIMEOUT: Warning: This command has been deprecated in favor of the  
line-command "timeout login response"
```

Explanation This command has been phased out and should no longer be used.

Recommended Action You can use the **timeout login response** command. The **timeout login response** command now provides the required functionality.

Error Message

%TAC-3-PICKCTX: No pick-context

Explanation The context for picking the next server has disappeared.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TAC-6-SENDTMO: Send type [dec] to [IP_address] timed out

Explanation A background TACACS notification (enabled with the **tacacs notify** command) has not been acknowledged by the TACACS server processor within the 5-minute timeout period. The information contained in that notification was lost. This loss of information might interfere with accounting or auditing on the server. This condition occurs when the TACACS server is misconfigured, has crashed, or has become unreachable through the network.

Recommended Action Ensure that the TACACS server is correctly configured. Also verify that the network attached to the TACACS server is not causing this condition to occur.

Error Message

%TAC-4-SERVREF: Warning: Server [IP_address]:[dec] is still referenced by server group.

Explanation The server that is being removed is still being referenced by a server group.

Recommended Action Remove the server from the server group configuration as soon as possible.

Error Message

%TAC-3-XTACACL: [chars]: accesslist [hex] out of range for "[chars]"

Explanation The TACACS facility has created a message that contains an invalid access list (out of bounds).

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

TAGCON Messages

The following are tag distribution and control messages.

Error Message

%TAGCON-4-ADDR_PROC: Can't create tagcon addr proc

Explanation When a new IP address for a TDP peer is added to the system, it may be necessary to update the TFIB for any routes for which the new address is a next hop. The address process determines whether it is necessary to update the TFIB. The system will regularly attempt to create the address process.

Recommended Action This is an informational message only. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TAGCON-4-ADDRQ: Can't alloc work item for [IP_address]

Explanation When a new IP address for a TDP peer is added to the system, it may be necessary to update the TFIB for any routes for which the new address is a next hop. The address process determines whether it is necessary to update the TFIB. The system will regularly attempt to queue the necessary work item.

Recommended Action This is an informational message. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TAGCON-3-ALLOC: Cannot alloc [chars]

Explanation An attempt to allocate a tag-switching data structure has failed because of a low memory condition.

Recommended Action Reduce other system activity to ease memory demands. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TAGCON-3-BUFFERBIND: unexpected error [dec]; peer [chars]; [chars]

Explanation An unexpected failure has occurred during the building of a TDP PIE for transmission to a TDP peer. This condition occurred while the system was attempting to add a tag binding or an address to the PIE.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TAGCON-4-CFGD_LBL_REGION: Adjusting configured label range to default range

Explanation The saved configuration has been ignored, and the default label range is being used.

Recommended Action Reconfigure the label range to a valid range using the **mpls label range** *min max* configuration command.

Error Message

%TAGCON-3-CONSISTENCY: [chars]

Explanation An action attempted by the tag control process has encountered an unexpected condition.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TAGCON-3-DEADADJ: [IP_address]/[IP_address], [chars]

Explanation A problem has occurred in cleanup following termination of a TDP session.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TAGCON-3-DEFCASE_BINDING_PIE: Unexpected blist_type ([dec]) for [chars] PIE from peer [chars]

Explanation A TDP PIE that was received from a TDP peer contained an unexpected binding list type. The PIE will be ignored.

Recommended Action Disable dynamic tag switching at the chassis level by entering the **no tag-switching ip** command. Wait 15 to 20 seconds and enable dynamic tag switching using the **tag-switching ip** command. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TAGCON-3-DIRADJTREE: [IP_address]/[IP_address]; [chars]

Explanation An operation on the TDP directed adjacency data structure has failed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TAGCON-3-DUP_ADDR_RCVD: Duplicate Address [IP_address] advertised by peer [chars] is already bound to [chars]

Explanation An address message advertisement has been received from a TDP or LDP peer. The address is rejected because it has already been advertised by another peer. This condition indicates that the rejected IP address has been configured on both peers in error.

Recommended Action Correct the configuration by changing the IP address on one of the peers.

Error Message

%TAGCON-3-EVENTQ: Can't alloc work item for [chars]

Explanation When a process such as the TDP process must request that the tag distribution and control process take some action, a work item is queued for the tag distribution and control process. This message is generated when an attempt to queue work for the tag distribution and control process fails. The failure can occur if the system is unable to allocate memory to hold the work request or if the process has stopped processing requests on its work queue.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TAGCON-3-INIT: process cannot initialize

Explanation The tag distribution and control process have failed to initialize. The condition has most likely occurred because of a low memory condition.

Recommended Action Reduce other system activity to ease memory demands. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TAGCON-4-INIT_TAG_ALLOC: Failure to initialize tag allocation pool [dec]

Explanation The system has been unable to initialize the data structure that is used to support the allocation of tags for tag switching, and the system proceeds by ignoring the event. Because the system cannot allocate tags from the tag pool, the system will not advertise the tags to peers. Because the system advertises no tags, the system will not be able to receive any tagged packets or forward any tagged packets that are received.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TAGCON-3-LABEL_REGION: Platform specified information for label region [chars] is invalid.

Explanation A platform service routine provides label region information about all label regions it supports. This error message is displayed when the service routine does not specify its label region information correctly.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TAGCON-3-LATREVNUMWRAP: Tag Local Address Table revision number wrapped

Explanation The revision number that is used to manage the advertisement of interface addresses to TDP peers has overflowed. This condition will cause faulty advertisements of interface addresses to TDP peers and faulty tag switching on those peers.

Recommended Action Reboot the system to correct the faulty interface address advertisements. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TAGCON-3-LCLTAG_ALLOC: Cannot allocate local tag

Explanation An attempt to allocate a local (incoming) tag has failed. This condition should occur only when the system has allocated all available local tags.

Recommended Action The number of tags available for allocation can be changed by entering the **tag-switching tag-range** configuration command. Consult with your Cisco technical service representative to determine whether you should use this command to increase the number of available tags.

Error Message

%TAGCON-3-NOTIMPL: peer [chars]; [chars] not implemented

Explanation A TDP peer has requested an action that is not currently implemented by the tag distribution and control subsystem. The request will be ignored.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TAGCON-3-PEERSM: TDP peer [IP_address]([chars]): [chars]

Explanation An operation involving the state machine for a TDP peer has failed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TAGCON-3-PROCESS: process not created

Explanation An attempt to create the tag distribution and control process has failed. This error is most likely caused by a low memory condition.

Recommended Action Reduce other system activity to ease memory demands. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TAGCON-3-RADIXTREE: TIB walk failed ([chars])

Explanation Some TIB maintenance operations involve a complete scan (walk) of the TIB radix tree data structure. This message is generated when a TIB walk encounters an unexpected failure.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TAGCON-5-SEND: cannot queue TDP [chars] pie for [IP_address]([chars])

Explanation An attempt to queue a TDP PIE for transmission to a TDP peer has failed. This failure should occur only when the TDP session with the peer no longer exists. The system should recover from this condition by discarding the TDP session and establishing a new session.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TAGCON-3-SM: Unexpected event; state=[chars], event=[chars]

Explanation An operation on the state machine for the tag distribution and control process has failed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%TAGCON-3-TDPID: peer [chars], TDP Id/Addr mapping problem ([chars])
```

Explanation The tag distribution and control process maintains a data structure used to convert between the TDP identifier for a TDP peer and the IP addresses of that peer. This message is generated when an internal inconsistency is discovered in that data structure.

Recommended Action Disable dynamic tag switching at the chassis level by entering the **no tag-switching ip** command. Wait 15 to 20 seconds, and enable dynamic tag switching by entering the **tag-switching ip** command. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%TAGCON-3-TDPID_ADDR_TBL: [chars] sort bad; item [dec]
```

Explanation The tag distribution and control process maintains a data structure used to convert between the TDP identifier for a TDP peer and the IP addresses of that peer. This message is generated when an internal inconsistency is discovered in that data structure.

Recommended Action Disable dynamic tag switching at the chassis level by entering the **no tag-switching ip** command. Wait 15 to 20 seconds, and enable dynamic tag switching by entering the **tag-switching ip** command. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

TAGCOS Messages

The following are tag switching class of service messages.

Error Message

```
%TAGCOS-3-MEMORY_EXHAUST: [chars]
```

Explanation Insufficient memory was available for the cos-map operation.

Recommended Action Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

Error Message

```
%TAGCOS-3-PREFIX: [chars] [IP_address][IP_netmask]
```

Explanation Insufficient memory was available for the prefix operation.

Recommended Action Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

TBRIDGE Messages

The following are transparent bridging messages.

Error Message

```
%TBRIDGE-4-BAD_ENCAP: Unexpected encapsulation received on [chars] [chars]
```

Explanation The transparent bridging driver has received a packet with encapsulation that is not recognized. The packet has been discarded. This condition might indicate that a network media error has occurred or a protocol that is not supported by this version of the Cisco IOS software is being used.

Recommended Action If the dropped packets are data from a valid protocol, upgrade to a newer version of the Cisco IOS software that supports the protocol.

Error Message

```
%TBRIDGE-4-BADXMAC: XMACACCESS: Invalid extended access list [dec]
```

Explanation This condition is caused by a configuration problem. The specified extended access list either does not exist or contains an error.

Recommended Action Correct the configuration problem.

Error Message

```
%TBRIDGE-4-BTELIMITREACHED: MAC-address table size limit ([int] entries) reached
```

Explanation The total number of bridge MAC address table entries across all bridge groups has reached the maximum limit.

Recommended Action Check the bridge tables to determine the origin of the bridge MAC address table entries. Check the network configuration and ensure that the entries are correct. Use the **bridge mac-address-table limit <n>** configuration command either to increase the maximum limit or to disable limit checking.

Error Message

```
%TBRIDGE-4-GIANT: Giant received on [chars], [dec] exceeds [dec]  
DA [enet] SA [enet] [[hex]]
```

Explanation A packet was received that exceeds the expected MTU length for the receiving interface. The first four bytes of the packet that follow the source address are also provided to help diagnose the problem.

Recommended Action Use the address and packet information to trace the source of these packets. Configure the MTU at the source to conform to the standard size for the given media.

Error Message

%TBRIDGE-4-INVALIDMEDIA: [chars] received on [chars] - invalid media for transparent bridging

Explanation An attempt has been made to configure transparent bridging on an interface that does not support it.

Recommended Action Remove transparent bridging from the configuration on the specified interface.

Error Message

%TBRIDGE-4-NOVCDROP: Destination VC unknown for packet

Explanation A transparent bridged packet that is destined for an ATM interface cannot be completely addressed.

Recommended Action Clear the bridge table to force the system to relearn all the addresses.

Error Message

%TBRIDGE-4-NOVCFLOOD: No VC's configured for bridging on [chars]

Explanation An ATM interface was configured for transparent bridging without specifying the associated VCs.

Recommended Action Configure the required VCs on the specified interface.

Error Message

%TBRIDGE-4-SMF_ACTION: invalid action found for [enet] on [chars] - [hex]

Explanation A software or hardware has error occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TBRIDGE-4-VCPAKDROP: Subscriber SA [enet] moved or loop between circuits [dec] and [dec]

Explanation A subscriber-bridged packet has been dropped because of a potential circuit loop or a roaming host at the subscriber end of the network.

Recommended Action Clear the bridge table. If this error recurs, the error is not caused by a roaming host. This condition might indicate a loop between VCs at the subscriber end of the network. Take looping VCs out of service or shut down the software interface they are on while the subscriber is contacted and asked to remove the loop condition at the subscriber end of network.

TCATM Messages

The following are ATM TAG control messages.

Error Message

```
%TCATM-3-BADINSERT: [IP_address][IP_netmask] x[hex] to [hex]
```

Explanation An attempt has been made to insert an item on a list, and an internal inconsistency has been detected.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%TCATM-3-BADSTATE: [IP_address][IP_netmask] [chars] [chars]->[chars]
```

Explanation ATM tag control uses a table-driven state machine to keep track of and transition TVCs through various states. A state transition occurs when a TVC receives one of many possible events. When this error occurred, the TVC has received an event that it did not expect while in this state.

Recommended Action The system can continue, but the system might lose the TVC that generated this error. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%TCATM-4-HOPCOUNT_EQUALLED: Maxhop=[dec] hopcount=[dec] for  
[IP_address][IP_netmask] on [chars]
```

Explanation A loop has been discovered in the network.

Recommended Action Check the configuration and network path for the relevant prefix.

Error Message

```
%TCATM-4-INTERFACE: Request bind interface [chars] same as output interface for  
[IP_address][IP_netmask]
```

Explanation The incoming interface of a request bind PIE is the same interface as the next hop for the prefix. This condition might be caused by a transient routing loop that has occurred during a routing protocol convergence or a permanent routing loop that was caused by a configuration error. As a result of this condition, the TVC requests to the upstream neighbor will remain in a BIND_WAIT state until this condition clears.

Recommended Action If this condition recurs, verify that the configuration and network paths for the relevant prefix are correct.

Error Message

%TCATM-4-MALFORMED_PIE: Interface [chars] malformed TDP PIE

Explanation ATM tag control has received a malformed PIE from TDP. This condition does not affect system operation.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TCATM-4-NEWVCINRANGE: VC created on [chars] in range reserved for TC-ATM (VPIs [int]-[int], VCIs [int]-[int])

Explanation A VC has been created with a VPI/VCI that is in the range configured for use by the ATM tag control. The ATM tag control will not be able to create a TVC with that VPI/VCI, and packets that are going to and coming from the corresponding address prefix will be dropped. The new VC might be on a primary interface or a subinterface.

Recommended Action Reconfigure the new VC so that it does not fall into the range reserved for ATM tag control, or reconfigure the reserved VPI/VCI range in the interface configuration to exclude the VPI/VCI of the new VC. Use the **tag-switching atm vpi** and the **tag-switching atm vci-range** commands to reconfigure the interface.

Error Message

%TCATM-4-NOTAGIP: Tag switching disabled on [chars]

Explanation Tag switching is not enabled on the specified interface. This condition will cause tag VCI requests and advertising to be rejected. This condition might also cause VCI requests that are at the upstream device to remain in a BIND_WAIT state until tag switching is reenabled on this interface.

Recommended Action Enable tag switching.

Error Message

%TCATM-3-NOTRUNNING: ATM-TAGCONTROL is not running

Explanation An attempt to request or to create a binding has failed although the ATM tag control system is not initialized. This condition is most likely caused by an incorrect configuration or a low memory condition.

Recommended Action Reduce other system activity to ease memory demands. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%TCATM-3-OFFLIST: [IP_address][IP_netmask] [hex] not on list [hex]
```

Explanation An internal inconsistency has been detected during an attempt to remove an item from a list that was not on the list.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%TCATM-4-OLDVCINRANGE: VC exists on [chars] in range reserved for TC-ATM (VPis [int]-[int], VCIs [int]-[int])
```

Explanation A VC already exists with a VPI/VCI in the range configured for use by the ATM tag control. The ATM tag control will be unable to create a TVC with that VPI/VCI, and packets to or from the corresponding address prefix will be dropped. The existing VC may be on either the primary interface or a subinterface. This message is issued only once, even if there are multiple existing VCs in the reserved range.

Recommended Action Reconfigure the existing VCs so that they do not fall into the range reserved for ATM tag control, or use the **tag-switching atm vpi** and **tag-switching atm vci-range** interface configuration commands to reconfigure the reserved VPI/VCI range so that it excludes the VPI/VCIs of existing VCs.

Error Message

```
%TCATM-3-ONLIST: [IP_address][IP_netmask] [hex] on list [hex]
```

Explanation An internal inconsistency has been detected during an attempt to add an item to a list that is already on the list.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%TCATM-3-PROCESS: process not created
```

Explanation An attempt to create the ATM tag control process has failed. This condition might be caused by low memory.

Recommended Action Reduce other system activity to ease memory demands. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TCATM-4-RESOURCE_LIMIT: VC resource exhausted on [chars]

Explanation The system has run out of VC resources for the specified interface. TVCs for some destination prefixes will not be established, and the result may be degraded network performance.

Recommended Action Check to ensure that the negotiated VPI range is sufficient to permit usage of the maximum number of TVCs available on the hardware. If the negotiated VPI range is sufficient, reconfigure the network so that fewer TVCs are required on this interface.

Error Message

%TCATM-3-UNEXPECTEDBIND: Interface [chars] received unexpected bind for [IP_address] [IP_netmask]

Explanation An unexpected BIND has been received for a prefix. A memory resource allocation failure has prevented this peer from sending a message to the neighbor to release the BIND. The system will continue to function normally, but the downstream neighbor might be holding a binding, for which there is no matching VCI at this end.

Recommended Action Reduce other system activity to ease memory demands. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TCATM-4-XCONNECT_FAILED: [IP_address] [IP_netmask] [chars] [chars] [chars], result: [chars], index: [int]

Explanation The system has run out of resources to set up a switch cross-connect for the interfaces specified in the error message. Tagged virtual circuits for some destination prefixes will not be established. This condition could possibly result in degraded network performance.

Recommended Action Check to make sure that the negotiated VPI range is sufficient to permit usage of the maximum number of tagged virtual circuits available on the hardware. If the negotiated VPI range is sufficient, reconfigure the network so that fewer TVCs are required on this interface.

Error Message

%TCATM-4-XCONNECT_REMOVE_FAILED: Remove XConnect API failed for [chars] [dec]/[dec] -> [chars] [dec]/[dec]

Explanation Removal of a cross-connect has failed. The router will retry to remove the cross-connect, but Tag VCs may still exist for both the input and output legs of the cross-connect. This condition could result in problems for the TDP and LDP in reestablishing adjacencies.

Recommended Action Check the input and output ATM interfaces to verify that the Tag VCs for the specified cross-connect have been removed.

TCP Messages

The following are Transmission Control Protocol messages.

Error Message

```
%TCP-2-ACCEPT: Callback failed to accept connection from [chars]([dec]) to [chars]([dec]) -- discarding
```

Explanation An internal software error has occurred.

Recommended Action If the error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%TCP-6-BADAUTH: [chars] MD5 digest from [chars]([dec]) to [chars]([dec])[chars]
```

Explanation The system received a TCP packet that has an invalid MD5 authentication digest on a connection endpoint. The message ends with the string.

Recommended Action Determine why the source of the packet is not generating correct digests on the connection. This error could be caused by either misconfiguration or security weaknesses.

Error Message

```
%TCP-3-BADMSS: Incorrect mss [dec] observed
```

Explanation The MSS has become incorrect. TCP cannot guarantee further reliable operation for this connection.

Recommended Action Check the interface MTU and increase it accordingly. If increasing the segment size does not help, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%TCP-2-BADQUEUE: Multiple entry for packet [hex]
```

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%TCP-2-BADREFCNT: Tty[t-line]: Bad refcnt for packet [hex] during retransmit,  
[chars]:[dec] to [chars]:[dec], state [dec]
```

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%TCP-2-BADTCBREFCNT: Bad TCB refcount: TCB [hex], refcnt [dec]
```

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%TCP-2-BUFFER: Tty[t-line], buffering bug
```

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

```
%TCP-2-HALFCLOSE: Tty[t-line], tcp_putbyte() write disabled
```

Explanation TCP has received a packet from a user application after the connection was already half closed.

Recommended Action Determine which TCP application is still sending packets after the connection was half closed.

Error Message

```
%TCP-6-INTERCEPT: [chars], count ([dec]/[dec]) 1 min [dec]
```

Explanation The TCP Intercept code has changed state.

Recommended Action This message is for informational purposes, but it may indicate a security problem.

Error Message

%TCP-6-INTERCEPTHASH: Unable to allocate memory for TCP Intercept hash table

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TCP-2-INVALIDTCB: Invalid TCB pointer: [hex]

Explanation An invalid TCB is being used.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TCP-2-INVALIDTCPENCAPS: Invalid TCB encaps pointer: [hex]

Explanation This message occurs when the TCP driver code accesses the TCP encaps structure, which is already freed elsewhere in the code.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TCP-6-NOBUFF: TTY[t-line], no buffer available

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TCP-3-NOTFOUND: Connection info for ([IP_address]:[dec]) => ([IP_address]:[dec]) not found.

Explanation The TCP Intercept code was searching its database for information for a particular connection, but this information was not found.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TCP-2-NOTREADY: [chars] called but TCP not initialized

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TCP-2-PUTBYTE: Tty[t-line], tcp_putbyte() with blocking disabled

Explanation An internal software error has occurred.

Recommended Action If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%TCP-6-TOOBIG: Tty[t-line], too many bytes of options ([dec])

Explanation An internal software error has occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

TCPIP Messages

The following are messages that relate to the TCP/IP protocol.

Error Message

%TCPIP-0-PANIC: panic[[chars]@[dec]] in [chars]: [chars]

Explanation An unexpected internal error has occurred in the TCP/IP stack.

Recommended Action Check to see if there were any special events that coincided with this error message, such as an IPL, a dropped session, channel errors, or any kind of debugging activity. Copy the error message exactly as it appears, issue the **show tech-support** command, and provide the information to your Cisco technical support representative.