Command Summary for the MSC

Table 4-1 provides an alphabetical list of some of the related commands to configure, monitor, and maintain MSCs on the Cisco 7304 router. For more information about the commands, see Chapter 18, "Command Reference" in this book and the Cisco IOS Release 12.2 command reference and master index publications.

Caution The **debug hw-module subslot**, **debug tcam_mgr**, **test hw-module subslot**, and **test tcam-mgr subslot** commands are not intended for production use and should be used only under the supervision of Cisco Systems technical support personnel. The **test** commands can produce unexpected operation of your SPA. For more information, see Chapter 18, "Command Reference."

Table 4-1 Command Summary

Command	Purpose
Router# **debug hw-module subslot** *slot/subslot* {**all** | **driver** | **fpga** | **if** | **mac** | **phy** | **tcam** | **force-intr**}	Debugs a SPA and all of its interfaces.
Router# **debug tcam_mgr** {**error** | **event** | **profile**}	Debugs the TCAM manager.
Router# **hw-module slot** *slot-number* {**start** | **stop**}	Deactivates or reactivates a line card or MSC, and any installed SPAs in that MSC.
Router# **hw-module subslot** *slot/subslot* {**start** | **stop**}	Deactivates or reactivates a SPA and all of its interfaces.
Router# **show c7300**	Displays the types and status of cards (NSEs, line cards, MSCs, and SPAs) installed in a Cisco 7300 series router.
Router# **show diag** [*slot-number* | **chassis** | {**subslot** *slot/subslot*}]	Displays all hardware and diagnostic information for a line card, NSE, chassis, MSC, or SPA including IDPROM and FPGA version information.
Router# **show environment** [**all** | **last** | **table**]	Displays power supply, fan, voltage, and temperature information for the router.
Router# **show hw-module subslot** *slot/subslot* {**brief** | **config** | **counters** | **errors** | **registers** | **status**} {**fpga** | **mac** | **phy** | **spi4**} *port*	Displays diagnostic information about internal hardware devices for a SPA.

Table 4-1 Command Summary (continued)

Command	Purpose
Router# **show tcam-mgr subslot** *slot/subslot* **inst-info** Router# **show tcam-mgr subslot** *slot/subslot* **region** *region-number* [**config** | **statistics**] Router# **show tcam-mgr subslot** *slot/subslot* {**rx-dest-mac** | **rx-vlan**}{**alloc-mbus** [**summary**] | **table**}	Displays TCAM manager information for a SPA.
Router# **test hw-module subslot** *slot*/*subslot* **c2w** {**read** *device-address port subaddress bytes* | **write** *device-address port subaddress bytes*}	Tests the Cisco 2 wire (c2w) device on a SPA.
Router# **test hw-module subslot** *slot*/*subslot* **failed** *failure-code*	Sends a failed event on a SPA.
Router# **test hw-module subslot** *slot*/*subslot* **mac config** *port* {**1000mbps-gmii** | **1000mbps-rgmii** | **100mbps** | **10mbps**} {**full** | **half**} {**copper** | **fiber**} Router# **test hw-module** subslot *slot*/*subslot* **mac crc** *port* {**enable** | **disable**} Router# **test hw-module subslot** *slot*/*subslot* **mac loopback** *port* {**line** | **none** | **spi3**}	Tests the MAC device on a SPA.
Router# **test hw-module subslot** *slot*/*subslot* **mdio** {**read** *phy-number phy-register-address* | **write** *phy-number phy-register-address*}	Reads or writes to the PHY device registers through the MAC MII data input/output (MDIO) interface on a SPA.
Router# **test hw-module subslot** *slot*/*subslot* **pause** *port* {**disable** | **enable** | **set** { **threshold** {**fpga** *fpga-pause-threshold-value* | **mac** *mac-pause-threshold-value* } **timer** *pause-timer-value*}}	Enables, disables, and sets the pause frame-related configurations on a SPA.
Router# **test hw-module subslot** *slot*/*subslot* **phy config** *port* {**copper** | **fiber**} {**1000mbps** | **100mbps** | **10mbps** | **auto**} {**auto** | **full** | **half**} {**autoneg** | **force**} Router# **test hw-module subslot** *slot*/*subslot* **phy crossover** *port* {**auto** | **mdi** | **mdix**} Router# **test hw-module subslot** *slot*/*subslot* **phy loopback** *port* {**internal** | **line** | **none**}	Tests the physical interface (PHY) device on a SPA.
Router# **test hw-module subslot** *slot*/*subslot* **policyram** {**read** *ram-virtual-address* | **write** {*ram-data* | [{**deny** | **permit**} [**tunnel** [**ignoreda**]}	Tests the policy table used by the Field Programmable Gate Array (FPGA) device for ternary content addressable memory (TCAM) lookup on a SPA.

Table 4-1 Command Summary (continued)

Command	Purpose
Router# **test hw-module subslot** *slot*/*subslot* **tcam insert** *port* {**dmac addr** *hex-mac-address* **mask** *hex-mask* | **vlan** *vlan-id*} {**deny** | **permit**} Router# **test hw-module subslot** *slot*/*subslot* **tcam lookup** *port* {**dmac addr** *hex-mac-address* **mask** *hex-mask* | **vlan** *vlan-id*} Router# **test hw-module subslot** *slot*/*subslot* **tcam read** *tcam-virtual-address* Router# **test hw-module subslot** *slot*/*subslot* **tcam remove** {**dmac addr** *hex-mac-address* **mask** *hex-mask* | **vlan** *vlan-id*} Router# **test hw-module subslot** *slot*/*subslot* **tcam write** {**mask** |**value**} *tcam-virtual-address port lookup-type* {**dmac** *hex-mac-address* | **vlan** *vlan-id*}	Tests the ternary content addressable memory (TCAM) device on a SPA.
Router# **test hw-module subslot** *slot*/*subslot* **temperature** *sensor-number*	Tests a temperature sensor on a SPA.
Router# **test tcam-mgr subslot** *slot/subslot* {**delete | empty | fill**}{**rx-dest-mac | rx-vlan**} *value* Router# **test tcam-mgr subslot** *slot/subslot* **insert** [**bottom** | **top**]{**rx-dest-mac | rx-vlan**} *value* Router# **test tcam-mgr subslot** *slot/subslot* **fulltcam** {**off** | **on**} Router# **test tcam-mgr subslot** *slot/subslot* **off** Router# **test tcam-mgr subslot** *slot/subslot* **read mc-index** *value* **vc-index** *value*	Tests the TCAM manager for a SPA.