SUPERSTACK® 3 SWITCH 3870 FAMILY MANAGEMENT QUICK REFERENCE GUIDE
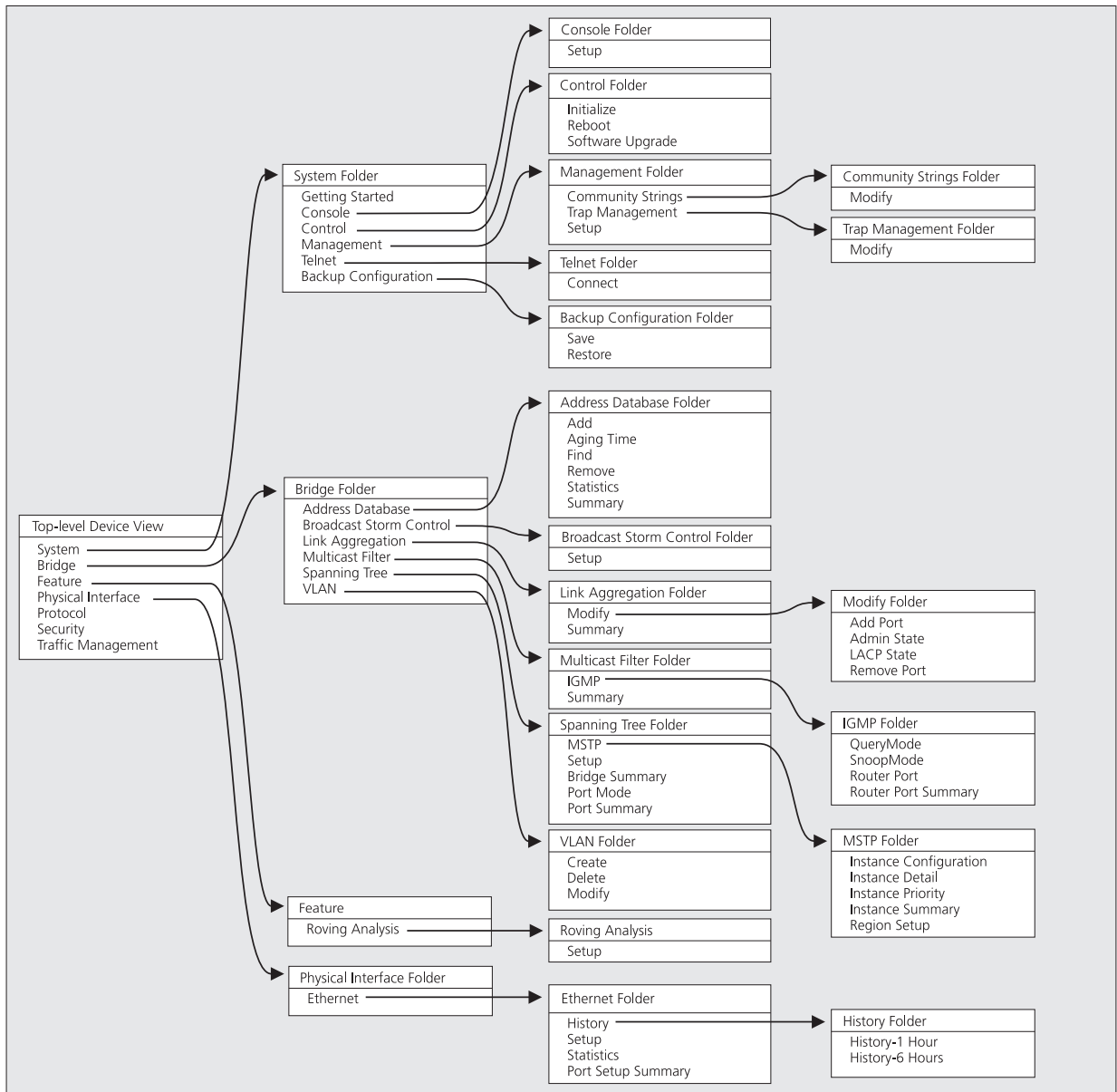
Summary of Software Features

This table summarizes the software features that are supported by the Switch 3870 (24-port, Managed 10/100/1000 and 48-port, Managed 10/100/1000) Management Software Version 2.5.
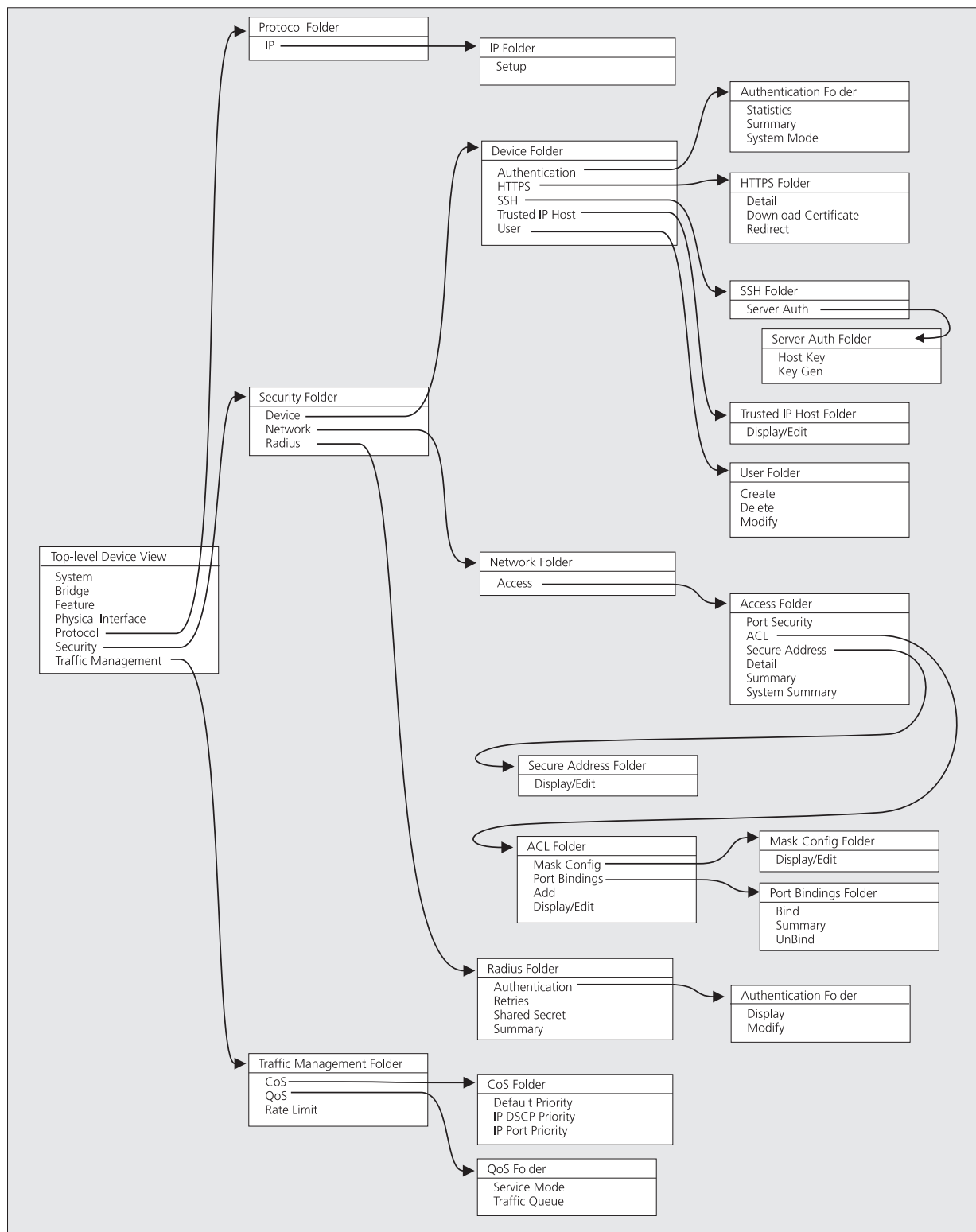
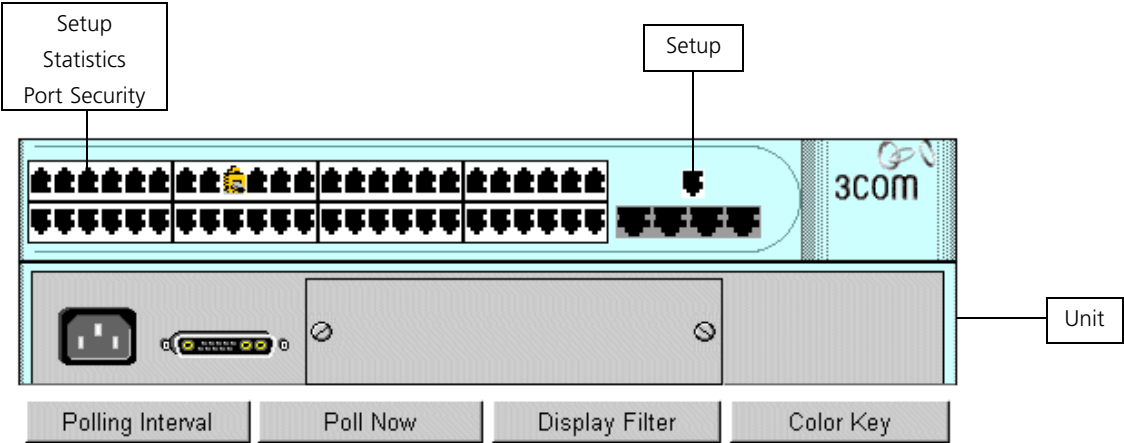| Feature	Switch 3870
IP Configuration	Manual or Automatic using DHCP
Aggregated Links	Supported on 10/100/1000 and SFP ports
Link Aggregation Control Protocol (LACP)	Supported using the IEEE Std 802.3-2002 (incorporating 802.3ad)
Broadcast Storm Control	Supported
Virtual LANs (VLANs)	Support for up to 255 VLANs using the IEEE Std. 802.1Q-1998
	Automatic VLAN assignment supported
Multicast Filtering	■ 64 Multicast filter groups supported
	■ IGMP querying and IGMP snooping v1/v2 supported
Rapid Spanning Tree Protocol	Supported using the IEEE Std. 802.1w-2001 (compatible with STP)
	Multiple Spanning Tree Protocol (MSTP) supported
Traffic Prioritization/Classification	■ IEEE Std 802.1p supported
	■ DiffServ CodePoint (DSCP) based CoS supported
	■ TCP/UDP Control supported
	■ NBX supported
RMON	Four groups supported: Statistics, History, Alarms, Event
Management	■ Web interface (HTTP and HTTPS)
	■ Command line interface (serial, Telnet and SSH)
	■ SNMP v1/v2
Security	■ MAC port security
	■ Network login (IEEE802.1X)
	■ RADIUS supported
	■ Radius Authenticated Device Access (RADA) supported
Configuration Save and Restore	Supported
Roving Analysis	Port mirroring supported
Bandwidth Management	Rate limiting (1 Mbps resolution)

i *For further information on how each of these features operates on your Switch please refer to the Implementation Guide which is supplied on the CD-ROM that accompanies your Switch.*

Web Interface Map – Device View

Console Folder
- Setup

Control Folder
- Initialize
- Reboot
- Software Upgrade

Management Folder
- Community Strings
- Trap Management
- Setup

Community Strings Folder
- Modify

Trap Management Folder
- Modify

System Folder
- Getting Started
- Console
- Control
- Management
- Telnet
- Backup Configuration

Telnet Folder
- Connect

Backup Configuration Folder
- Save
- Restore

Address Database Folder
- Add
- Aging Time
- Find
- Remove
- Statistics
- Summary

Bridge Folder
- Address Database
- Broadcast Storm Control
- Link Aggregation
- Multicast Filter
- Spanning Tree
- VLAN

Broadcast Storm Control Folder
- Setup

Top-level Device View
- System
- Bridge
- Feature
- Physical Interface
- Protocol
- Security
- Traffic Management

Link Aggregation Folder
- Modify
- Summary

Modify Folder
- Add Port
- Admin State
- LACP State
- Remove Port

Multicast Filter Folder
- IGMP
- Summary

IGMP Folder
- QueryMode
- SnoopMode
- Router Port
- Router Port Summary

Spanning Tree Folder
- MSTP
- Setup
- Bridge Summary
- Port Mode
- Port Summary

VLAN Folder
- Create
- Delete
- Modify

MSTP Folder
- Instance Configuration
- Instance Detail
- Instance Priority
- Instance Summary
- Region Setup

Feature
- Roving Analysis

Roving Analysis
- Setup

Physical Interface Folder
- Ethernet

Ethernet Folder
- History
- Setup
- Statistics
- Port Setup Summary

History Folder
- History-1 Hour
- History-6 Hours

Protocol Folder
- IP

IP Folder
- Setup

Authentication Folder
- Statistics
- Summary
- System Mode

Device Folder
- Authentication
- HTTPS
- SSH
- Trusted IP Host
- User

HTTPS Folder
- Detail
- Download Certificate
- Redirect

SSH Folder
- Server Auth

Server Auth Folder
- Host Key
- Key Gen

Security Folder
- Device
- Network
- Radius

Trusted IP Host Folder
- Display/Edit

User Folder
- Create
- Delete
- Modify

Top-level Device View
- System
- Bridge
- Feature
- Physical Interface
- Protocol
- Security
- Traffic Management

Network Folder
- Access

Access Folder
- Port Security
- ACL
- Secure Address
- Detail
- Summary
- System Summary

Secure Address Folder
- Display/Edit

ACL Folder
- Mask Config
- Port Bindings
- Add
- Display/Edit

Mask Config Folder
- Display/Edit

Port Bindings Folder
- Bind
- Summary
- UnBind

Radius Folder
- Authentication
- Retries
- Shared Secret
- Summary

Authentication Folder
- Display
- Modify

Traffic Management Folder
- CoS
- QoS
- Rate Limit

CoS Folder
- Default Priority
- IP DSCP Priority
- IP Port Priority

QoS Folder
- Service Mode
- Traffic Queue

Web Interface Device Mimic

(Switch 3870 48 port device mimic shown)

A Quick Guide to the Web Interface Operations

This table describes the operations that are available in the Web Interface.

Operation	What does the Operation do?
System Getting Started	Guides you through the initial configuration of the unit.
System Console Setup	Configures the speed of a console port.
System Control Initialize	Initailizes the unit to factory default settings.
System Control Reboot	Resets the unit.
System Control Software Upgrade	Upgrades the software on the unit.
System Management Community Strings Modify	Changes current SNMP Community Strings.
System Management Trap Management Modify	Adds or removes a Trap Receiver.
System Management Setup	Changes information for the unit.
System Telnet Connect	Starts a Telnet session to the unit in a separate window.
System Backup Configuration Save	Saves the current configuration to a file.
System Backup Configuration Restore	Restores the configuration from a file.
Bridge Address Database Add	Adds an address to the database.
Bridge Address Database Aging Time	Configures the aging period for the address database.
Bridge Address Database Find	Displays the location of a MAC address.
Bridge Address Database Remove	Deletes an address from the database.
Bridge Address Database Statistics	Displays a summary of the address database.
Bridge Address Database Summary	Views all addresses that are stored against a particular port or aggregated link.
Bridge Broadcast Storm Control Setup	Configures Broadcast Storm Control parameters for the stack.
Bridge Link Aggregation Modify Add Port	Adds a port to an aggregated link.
Bridge Link Aggregation Modify Admin State	Changes the state of an aggregated link.

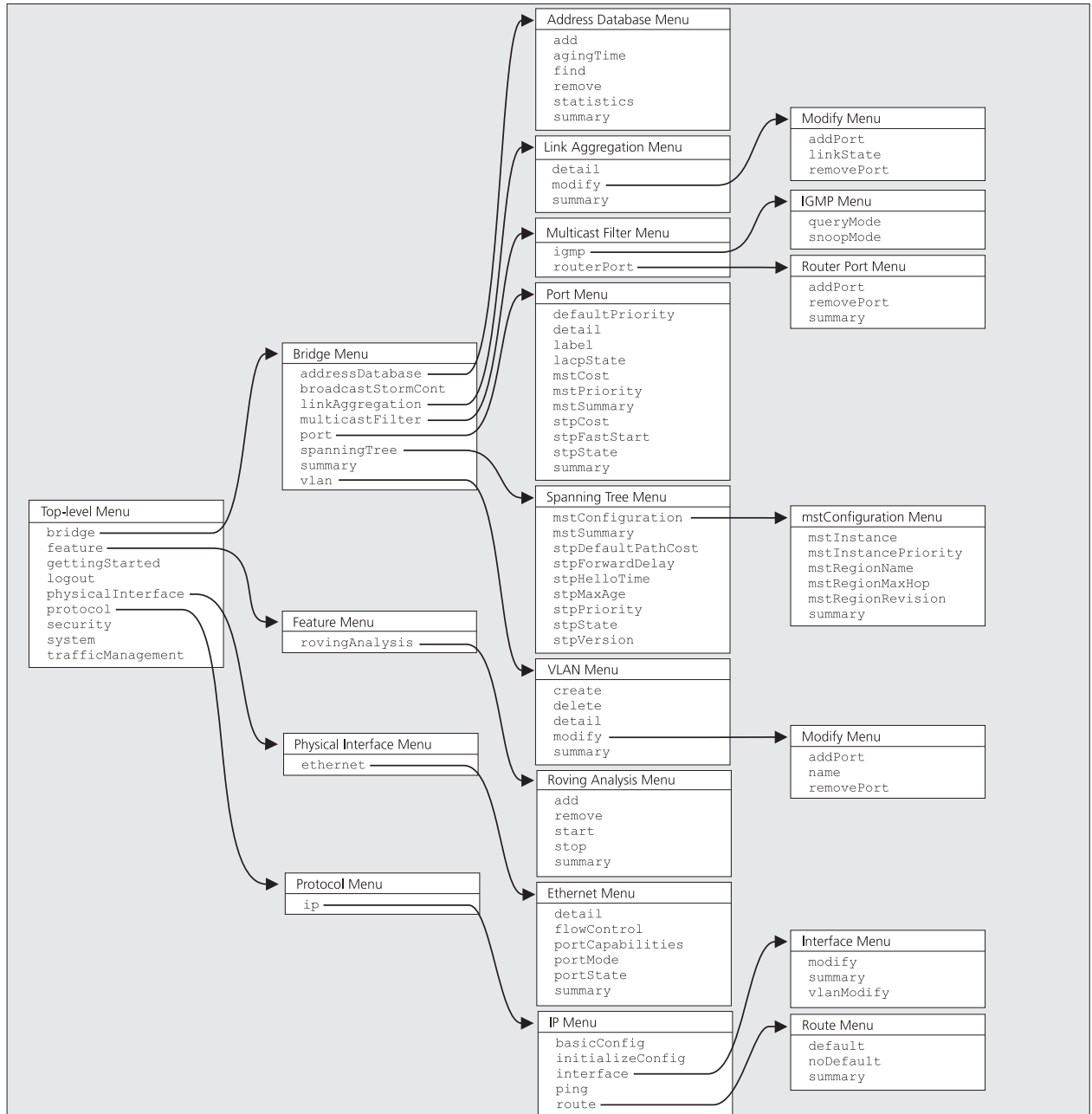| Operation (Continued)	What does the Operation do?
Bridge Link Aggregation Modify LACP State	Enables or disables LACP on a port.
Bridge Link Aggregation Modify Remove Port	Deletes a port from an aggregated link.
Bridge Link Aggregation Summary	Lists all of the aggregated links on the unit.
Bridge Multicast Filter IGMP QueryMode	Configures the unit to be an IGMP querier.
Bridge Multicast Filter IGMP SnoopMode	Configures IGMP multicast learning for the unit.
Bridge Multicast Filter IGMP Router Port	Configures ports to router ports.
Bridge Multicast Filter IGMP Router Port Summary	Displays the ports by which multicast routers can be reached.
Bridge Multicast Filter Summary	Lists currently active filter groups.
Bridge Spanning Tree MSTP Instance Configuration	Sets the members of MST instances.
Bridge Spanning Tree MSTP Instance Detail	DIsplays detailed summary information for a single MST instance.
Bridge Spanning Tree MSTP Instance Priority	Sets the MSTP priority for each MST instance.
Bridge Spanning Tree MSTP Instance Summary	Displays summary information for all MST instances.
Bridge Spanning Tree MSTP Region Setup	Names and changes the size of MST regions.
Bridge Spanning Tree Setup	Configures spanning tree parameters.
Bridge Spanning Tree Bridge Summary	Lists a summary of bridge configurations.
Bridge Spanning Tree Port Mode	Allows you to enable and disable spanning tree on each port.
Bridge Spanning Tree Port Summary	Lists a summary of port configurations.
Bridge VLAN Create	Creates a new VLAN.
Bridge VLAN Delete	Deletes an existing VLAN.
Bridge VLAN Modify	Modifies the port membership of an existing VLAN.
Feature Roving Analysis Setup	Configures the Roving Analysis feature.
Physical Interface Ethernet History History-1 Hour	Displays packet activity for all ports on a unit over the previous hour.
Physical Interface Ethernet History History-6 Hours	Displays packet activity for all ports on a unit over the previous 6 hours.
Physical Interface Ethernet Setup	Sets up single or multiple Ethernet ports.
Physical Interface Ethernet Statistics	Displays statistics for packet and error traffic on one or more ports.
Physical Interface Ethernet Port Setup Summary	Displays summary information for the unit.
Protocol IP Setup	Configures the IP information for the unit.
Security Device Authentication Statistics	Lists the number of contacts made to RADIUS servers.
Security Device Authentication Summary	Displays details of RADIUS servers being used for authentication.
Security Device Authentication System Mode	Switches between local and RADIUS authentication.
Security Device HTTPS Detail	Displays the SSL certificate used for HTTPS management.
Security Device HTTPS Download Certificate	Downloads a new SSL certificate.
Security Device HTTPS Redirect	Redirects HTTP accesses to HTTPS accesses.
Security Device SSH Server Auth Host Key	Displays the SSH key.
Security Device SSH Server Auth Key Gen	Generates the SSH key.
Security Device Trusted IP Host Display/Edit	Restricts management access to specific IP addresses.
Security Device User Create	Creates a user.
Security Device User Delete	Deletes a user.
Security Device User Modify	Modifies an existing user.

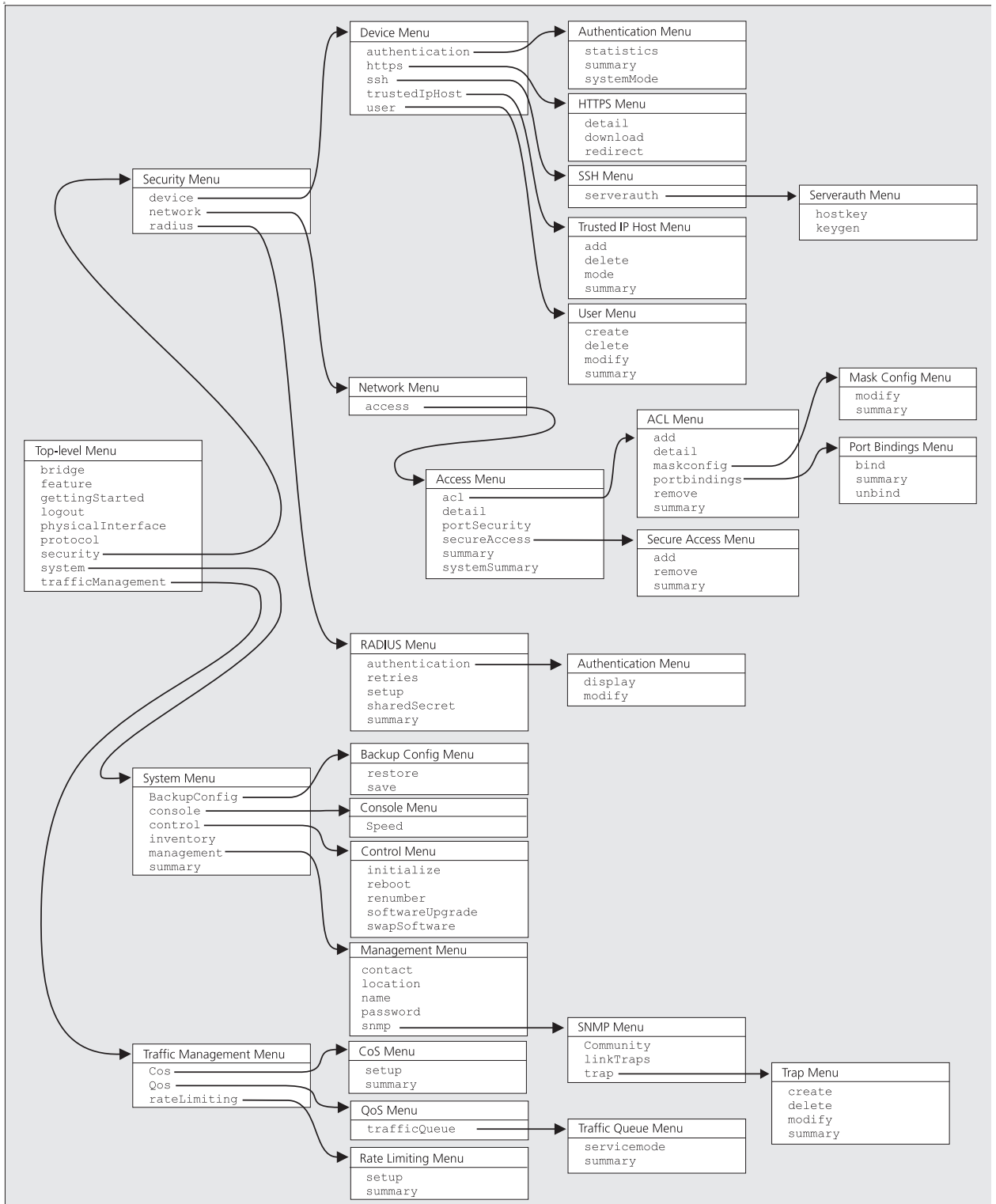| Operation (Continued)	What does the Operation do?
Security Network Access Port Security	Sets the security mode of single or multiple ports on a unit.
Security Network Access ACL Mask Config Display/Edit	Displays and edits subnet masks used in Access Control Lists.
Security Network Access ACL Port Bindings Bind	Binds one or all ports to a specific Access Control List.
Security Network Access ACL Port Bindings Summary	Lists ports bound to Access Control Lists.
Security Network Access ACL Port Bindings Unbind	Removes a port from an Access Control List.
Security Network Access ACL Add	Creates or edits an Access Control List.
Security Network Access ACL Display/Edit	Displays and edits an Access Control List.
Security Network Access Secure Address Display/Edit	Displays and edits the list of secure MAC addresses.
Security Network Access Detail	Displays summary information on port users.
Security Network Access Summary	Lists the security settings for each port.
Security Network Access System Summary	Displays details of RADIUS servers being used for authentication.
Security Radius Authentication Display	Displays a summary of RADIUS authentications.
Security Radius Authentication Modify	Changes the RADIUS server information.
Security Radius Retries	Changes the timeout and number of retries used when accessing a RADIUS server.
Security Radius Shared Secret	Creates or edits the shared secret used to authenticate with RADIUS servers.
Security Radius Summary	Displays a summary of RADIUS authentications.
Traffic Management CoS Default Priority	Sets the default priority for each port.
Traffic Management CoS IP DSCP Priority	Edits the relationships between DSCP and CoS priorities.
Traffic Management CoS IP Port Priority	Edits the relationships between IP port numbers and CoS priorities.
Traffic Management QoS Service Mode	Enables selection of QoS service mode type.
Traffic Management QoS Traffic Queue	Displays a summary of the QoS traffic queues.
Traffic Management Rate Limit	Limits the rate of traffic to or from a port.

For detailed descriptions of the Web interface operations and the command line interface (CLI) commands that you require to manage the Switch please refer to the Management Interface Reference Guide supplied in HTML format on the CD-ROM that accompanies your Switch.

Command Line Interface Map

- **To display sub-menus:**
  At the *Select menu option* prompt, enter the name of the menu or menus.

- **To display parent menus:**
  At the *Select menu option* prompt, enter `quit`.

- **To display the Top-level menu:**
  Press the [Esc] key.

- **To obtain help:**
  At the *Select menu option* prompt, enter `?`.

Top-level Menu
```
bridge
feature
gettingStarted
logout
physicalInterface
protocol
security
system
trafficManagement
```

Bridge Menu
```
addressDatabase
broadcastStormCont
linkAggregation
multicastFilter
port
spanningTree
summary
vlan
```

Feature Menu
```
rovingAnalysis
```

Physical Interface Menu
```
ethernet
```

Protocol Menu
```
ip
```

Address Database Menu
```
add
agingTime
find
remove
statistics
summary
```

Link Aggregation Menu
```
detail
modify
summary
```

Multicast Filter Menu
```
igmp
routerPort
```

Port Menu
```
defaultPriority
detail
label
lacpState
mstCost
mstPriority
mstSummary
stpCost
stpFastStart
stpState
summary
```

Spanning Tree Menu
```
mstConfiguration
mstSummary
stpDefaultPathCost
stpForwardDelay
stpHelloTime
stpMaxAge
stpPriority
stpState
stpVersion
```

VLAN Menu
```
create
delete
detail
modify
summary
```

Roving Analysis Menu
```
add
remove
start
stop
summary
```

Ethernet Menu
```
detail
flowControl
portCapabilities
portMode
portState
summary
```

IP Menu
```
basicConfig
initializeConfig
interface
ping
route
```

Modify Menu
```
addPort
linkState
removePort
```

IGMP Menu
```
queryMode
snoopMode
```

Router Port Menu
```
addPort
removePort
summary
```

mstConfiguration Menu
```
mstInstance
mstInstancePriority
mstRegionName
mstRegionMaxHop
mstRegionRevision
summary
```

Modify Menu
```
addPort
name
removePort
```

Interface Menu
```
modify
summary
vlanModify
```

Route Menu
```
default
noDefault
summary
```

Device Menu
- authentication
- https
- ssh
- trustedIpHost
- user

Authentication Menu
- statistics
- summary
- systemMode

HTTPS Menu
- detail
- download
- redirect

SSH Menu
- serverauth

Serverauth Menu
- hostkey
- keygen

Trusted IP Host Menu
- add
- delete
- mode
- summary

User Menu
- create
- delete
- modify
- summary

Security Menu
- device
- network
- radius

Network Menu
- access

Mask Config Menu
- modify
- summary

ACL Menu
- add
- detail
- maskconfig
- portbindings
- remove
- summary

Port Bindings Menu
- bind
- summary
- unbind

Top-level Menu
- bridge
- feature
- gettingStarted
- logout
- physicalInterface
- protocol
- security
- system
- trafficManagement

Access Menu
- acl
- detail
- portSecurity
- secureAccess
- summary
- systemSummary

Secure Access Menu
- add
- remove
- summary

RADIUS Menu
- authentication
- retries
- setup
- sharedSecret
- summary

Authentication Menu
- display
- modify

System Menu
- BackupConfig
- console
- control
- inventory
- management
- summary

Backup Config Menu
- restore
- save

Console Menu
- Speed

Control Menu
- initialize
- reboot
- renumber
- softwareUpgrade
- swapSoftware

Management Menu
- contact
- location
- name
- password
- snmp

SNMP Menu
- Community
- linkTraps
- trap

Trap Menu
- create
- delete
- modify
- summary

Traffic Management Menu
- Cos
- Qos
- rateLimiting

CoS Menu
- setup
- summary

QoS Menu
- trafficQueue

Traffic Queue Menu
- servicemode
- summary

Rate Limiting Menu
- setup
- summary

A Quick Guide to the Command Line Interface Commands

This table describes the commands that are available in the Command Line Interface.

Command	What does the Command do?
`bridge addressDatabase add`	Adds a statically configured address.
`bridge addressDatabase agingTime`	Sets the bridge address aging time.
`bridge addressDatabase find`	Finds an address.
`bridge addressDatabase remove`	Removes an address.
`bridge addressDatabase statistics`	Displays statistical summary information on addresses.
`bridge addressDatabase summary`	Displays summary information on addresses.
`bridge broadcastStormCont`	Enables or disables broadcast storm control.
`bridge linkAggregation detail`	Displays detailed information on an aggregated link.
`bridge linkAggregation modify addPort`	Adds a port to an aggregated link.
`bridge linkAggregation modify linkState`	Enables or disables an aggregated link.
`bridge linkAggregation modify removePort`	Removes a port from an aggregated link.
`bridge linkAggregation summary`	Displays summary information on an aggregated link.
`bridge multicastFilter igmp queryMode`	Enables or disables IGMP query mode.
`bridge multicastFilter igmp snoopMode`	Enables or disables IGMP Multicast learning.
`bridge multicastFilter routerPort addPort`	Adds a statically configured router port.
`bridge multicastFilter routerPort removePort`	Removes a router port.
`bridge multicastFilter routerPort summary`	Displays summary information on a router port.
`bridge port defaultPriority`	Sets the default 802.1D priority for untagged frames.
`bridge port detail`	Displays detailed information on a port.
`bridge port label`	Labels a port with user defined text.
`bridge port lacpState`	Enables or disables LACP on a port.
`bridge port mstCost`	Sets the MSTP cost of a single port.
`bridge port mstPriority`	Sets the MSTP priority of a single port.
`bridge port mstSummary`	Displays a summary for one or more MST instances.
`bridge port stpCost`	Sets the Spanning Tree path cost parameter.
`bridge port stpFastStart`	Enables or disables Spanning Tree fast start.
`bridge port stpState`	Enables or disables Spanning Tree on a port.
`bridge port summary`	Displays summary information on a port.
`bridge spanningTree mstConfiguration mstInstance`	Adds or removes a member of an MST instance.
`bridge spanningTree mstConfiguration mstInstancePriority`	Sets the MST priority for all members of an MST instance.
`bridge spanningTree mstConfiguration mstRegionName`	Names the MST region containing the Switch.
`bridge spanningTree mstConfiguration mstRegionMaxHop`	Defines the size of an MST region by the number of hops to its edge.
`bridge spanningTree mstConfiguration mstRegionRevision`	Changes the MST revision level for a region.

Command (Continued)	What does the Command do?
`bridge spanningTree mstConfiguration summary`	Displays summary information for all MST instances.
`bridge spanningTree mstSummary`	Displays detailed information for a single MST instance.
`bridge spanningTree stpDefaultPathCost`	Sets the bridge Spanning Tree default cost.
`bridge spanningTree stpForwardDelay`	Sets the bridge Spanning Tree forward delay parameter.
`bridge spanningTree stpHelloTime`	Sets the bridge Spanning Tree hello time parameter.
`bridge spanningTree stpMaxAge`	Sets the bridge Spanning Tree maximum age parameter.
`bridge spanningTree stpPriority`	Sets the bridge Spanning Tree priority parameter.
`bridge spanningTree stpState`	Enables or disables Spanning Tree on a bridge.
`bridge spanningTree stpVersion`	Selects the version of Spanning Tree to run on a bridge.
`bridge summary`	Displays bridge information for the unit.
`bridge vlan create`	Creates a VLAN.
`bridge vlan delete`	Deletes a VLAN.
`bridge vlan detail`	Displays detailed information on a VLAN.
`bridge vlan modify addPort`	Adds a port to a VLAN.
`bridge vlan modify name`	Names a VLAN.
`bridge vlan modify removePort`	Removes a port from a VLAN.
`bridge vlan summary`	Displays summary information on a VLAN.
`feature rovingAnalysis add`	Configures the roving analysis port.
`feature rovingAnalysis remove`	Clears the roving analysis port.
`feature rovingAnalysis start`	Starts monitoring the roving analysis port.
`feature rovingAnalysis stop`	Stops monitoring the roving analysis port.
`feature rovingAnalysis summary`	Displays summary information on the roving analysis port.
`gettingStarted`	Guides you through the initial configuration of the stack.
`logout`	Logs out of the Command Line Interface.
`physicalInterface ethernet detail`	Displays detailed information on an Ethernet port.
`physicalInterface ethernet flowControl`	Enables or disables flow control.
`physicalInterface ethernet portCapabilities`	Sets the port capabilities.
`physicalInterface ethernet portMode`	Sets the port speed and duplex mode.
`physicalInterface ethernet portState`	Enables or disables an Ethernet port.
`physicalInterface ethernet summary`	Displays summary information on an Ethernet port.
`protocol ip basicConfig`	Performs basic IP management configuration.
`protocol ip initializeConfig`	Resets IP information to factory defaults.
`protocol ip interface modify`	Modifies IP interface information.
`protocol ip interface summary`	Displays summary information on the IP interface.
`protocol ip interface vlanModify`	Changes the VLAN used to manage the Switch.
`protocol ip ping`	Polls remote devices.
`protocol ip route default`	Defines the default route in the routing table.
`protocol ip route noDefault`	Removes the default route from the routing table.
`protocol ip route summary`	Displays summary information on the routing table.

Command (Continued)	What does the Command do?
`security device authentication statistics`	Displays authentication statistics.
`security device authentication summary`	Displays summary information on authentication.
`security device authentication systemMode`	Modifies the authentication mode.
`security device https detail`	Displays the HTTPS certificate.
`security device https download`	Downloads a new HTTPS certificate.
`security device https redirect`	Sets the unit to always use HTTPS.
`security device ssh serverauth hostkey`	Displays the public host key.
`security device ssh serverauth keygen`	Generates a new key pair.
`security device trustedIpHost add`	Adds a trusted IP host or subnet.
`security device trustedIpHost delete`	Deletes an existing trusted IP host or subnet.
`security device trustedIpHost mode`	Enables or disables trusted IP hosts.
`security device trustedIpHost summary`	Lists trusted IP hosts.
`security device user create`	Creates a user.
`security device user delete`	Deletes a user.
`security device user modify`	Modifies a user.
`security device user summary`	Displays summary information on users.
`security network access acl add`	Adds an Access Control List rule.
`security network access acl detail`	Displays detailed information on Access Control Lists.
`security network access acl maskconfig modify`	Edits subnet masks used in Access Control Lists.
`security network access acl maskconfig summary`	Lists subnet masks available to Access Control Lists.
`security network access acl portbindings bind`	Binds a port to an Access Control List.
`security network access acl portbindings summary`	Lists Access Control Lists in use by port.
`security network access acl portbindings unbind`	Unbinds a port from an Access Control List.
`security network access acl remove`	Removes an Access Control List rule.
`security network access acl summary`	Lists Access Control Lists.
`security network access detail`	Displays summary information on port users.
`security network access portSecurity`	Sets the port security operation mode and options.
`security network access secureAddress add`	Adds a MAC address to the list of secure addresses.
`security network access secureAddress delete`	Removes a MAC address from the list of secure addresses.
`security network access secureAddress summary`	Displays a list of secure addresses.
`security network access summary`	Displays summary information on port security settings.
`security network access systemSummary`	Displays summary information on the system security settings.
`security radius authentication display`	Displays RADIUS authentication statistics.
`security radius authentication modify`	Modifies RADIUS authentication configuration.
`security radius retries`	Modifies RADIUS retry parameters.
`security radius setup`	Performs RADIUS configuration.
`security radius sharedSecret`	Modifies RADIUS security key.
`security radius summary`	Displays summary information on RADIUS.
`system backupConfig restore`	Restores the configuration of the Switch from a file.

Command (Continued)	What does the Command do?
`system backupConfig save`	Saves the current configuration of the Switch to a file.
`system console speed`	Configures the port speed.
`system control initialize`	Resets to factory defaults.
`system control reboot`	Performs a system reboot.
`system control renumber`	Renumbers the unit(s)
`system control softwareUpgrade`	Performs an agent software upgrade.
`system control swapSoftware`	Changes to standby agent software.
`system inventory`	Displays stack information.
`system management contact`	Sets the system contact.
`system management location`	Sets the system location.
`system management name`	Sets the system name.
`system management password`	Sets the system password.
`system management snmp community`	Sets the SNMP community string.
`system management snmp linkTraps`	Enables or disables link up or link down traps.
`system management snmp trap create`	Creates a trap destination.
`system management snmp trap delete`	Deletes a trap destination.
`system management snmp trap modify`	Modifies a trap destination.
`system management snmp trap summary`	Displays summary information on a trap destination.
`system summary`	Displays a summary of system information.
`trafficManagement cos setup`	Starts the CoS configuration wizard.
`trafficManagement cos summary`	Displays CoS summary information.
`trafficManagement qos trafficQueue serviceMode`	Enables selection of QoS service mode type.
`trafficManagement qos trafficQueue summary`	Displays a summary of the QoS traffic queues.
`trafficManagement rateLimiting setup`	Starts the rate limiting configuration wizard.
`trafficManagement rateLimiting summary`	Displays rate limiting summary information.

> **i** *For detailed descriptions of the web interface operations and the command line interface (CLI) commands that you require to manage the Switch please refer to the Management Interface Reference Guide supplied in HTML format on the CD-ROM that accompanies your Switch.*