FlashConsole™

Available in five models, FlashConsole provides centralized storage management with remote access and real-time e-mail notification to reduce downtime and increase data availability.

FlashConsole Advantages

- Centralized access to all FlashDisk RAID arrays
- Event logging and e-mail notification speeds trouble-shooting
- FlashAlert™ automated "call home" support service to eliminate downtime
- Remote management over the Internet with Secure Shell (SSH) provides secure communications
- No host software needed
- Increase data availability by reducing downtime.
- Web-based interface for easy set up and configuration
- Supports all standard network protocols

Centralized FlashDisk® Management Appliance

FlashConsole is a powerful and flexible management appliance for monitoring high-performance FlashDisk OpenRAID storage products. Whether you are a corporate IT manager or system administrator, you can keep a close eye on all your storage from anywhere on the network. FlashDisk storage systems can be configured from one central location, saving you precious storage management time. Optimum system performance and data availability is maintained with FlashConsole features like remote management over the Internet, event logging and notification, and constant FlashDisk monitoring.

Secure Remote Management
Using your existing IP network, FlashConsole provides unlimited remote access to your storage system via an easy-to-use web-based browser interface. FlashConsole allows you to centrally control FlashDisk parameters for up to 32 RAID arrays such as partition size, mapping, and drive rebuilds. With typical storage systems, remote management software resides on the host servers connected via SCSI or Fibre Channel to the storage devices. Both the data flow and the management of the data is "in-band." As a result, if the host goes down, storage management cannot be achieved. Unlike competitive products, Secure FlashConsole works "out-of-band" over the internet, using Secure Shell (SSH) that safeguards login passwords and in-transit data through encryption resulting in a storage management system that is still working even if the server is down.

Constant FlashDisk Monitoring
FlashConsole is constantly checking each individual FlashDisk for connectivity loss. It also checks the FlashDisk heartbeat to insure the controller is working properly. If a connectivity problem is detected or if FlashDisk detects a component failure, an e-mail notification is automatically sent and the failure information is captured in an event log. FlashConsole keeps constant vigil over your valuable information when you're not around, saving you time for more productive tasks.

Event Logging & Notification
FlashConsole provides an event log with the time and date synchronized from an NTP (Network Time Protocol) server. Each FlashConsole port can be individually configured to store messages and to alert a network manager or system administrator of a potential problem. If a problem occurs, FlashConsole sends an e-mail notification to "e-mail enabled" cell phones, pagers, or PDAs based on specific user-defined criteria to multiple recipients per FlashDisk. For example, one FlashDisk could be configured to e-mail only the technician on call while another e-mails to a list of multiple recipients. This alert notification system eliminates threats to your data availability by allowing the right individuals to react to potential problems immediately.

FlashAlert™ "Call Home" Service
As part of our continuing effort to provide the best customer service, Winchester Systems has an optional e-mail service that sets a plan in motion immediately to eliminate costly downtime. The alert is e-mailed directly to us for fast resolution.

www.winsys.com

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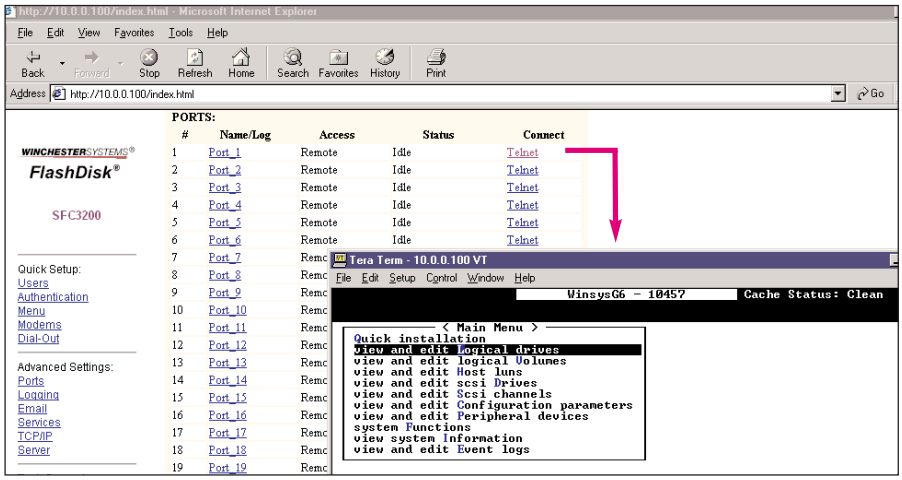
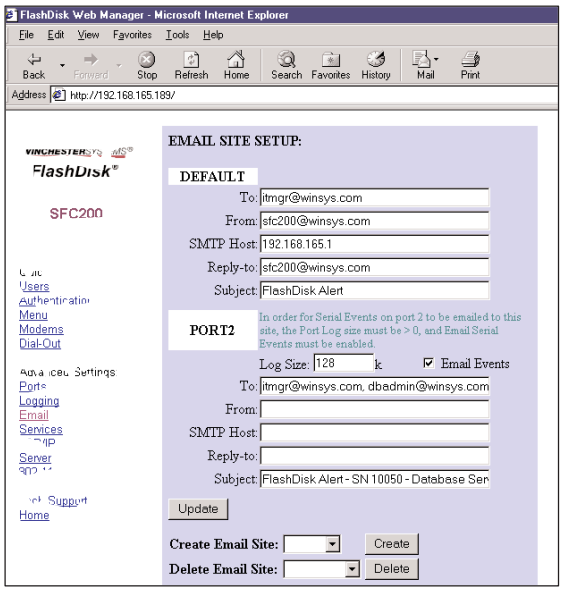


Managing multiple FlashDisks is a snap with the Model 3200, saving you valuable time for more productive tasks. The example above shows the flexibility of configuring and managing up to 32 FlashDisk storage systems, via a Telnet session, with the easy-to-use browser interface.



Setting up an e-mail alert configuration is fast and easy with the web browser interface whether you need to notify only one person or multiple recipients of potential threats to your data.

E-Mail example sent to multiple recipients

From: sfc200@winsys.com [mailto:sfc200@winsys.com]
Sent: Wednesday, July 17, 2002 1:33 PM
To: itmgr@winsys.com; dbadmin@winsys.com
Subject: FlashDisk Alert - SN 10050 - Database Server

Wed Jul 17 17:29:04 2002: Peripheral Device ALERT:Power Supply 1 Failure Detected
Wed Jul 17 17:29:11 2002: NOTICE: Power Supply 1 Back On-Line

FlashDisk SFC200 SCS_56010C reports a data event on port 2
Unit IP address: 192.168.165.189
MAC address: 00-80-a3-56-01-0c
Email started: Wed Jul 17 17:29:17 2002
Log file URL: http://192.168.165.189/Port_2.log
Log filename: /ram/Port_2.log Sending 150 of 695 bytes.

This example shows an e-mail failure notification sent to multiple recipients reporting a power supply failure on Port 2.

Port 2 Event Log for FlashDisk SN 10050

Tue Jul 16 17:33:23 2002: Peripheral Device ALERT:Power Supply 2 Failure Detected
Tue Jul 16 17:33:34 2002: NOTICE: Power Supply 2 Back On-Line
Wed Jul 17 13:49:29 2002: CHL:0 ID:5 SCSI Target ALERT: Unexpected Select Timeout
Wed Jul 17 13:49:37 2002: LG:0 Logical Drive ALERT: CHL:0 ID:5 SCSI Drive Failure
Wed Jul 17 13:49:46 2002: CHL:0 ID:5 SCSI Drive NOTICE: Scan SCSI Drive Successful
Wed Jul 17 13:49:54 2002: LG:0 Logical Drive NOTICE: Starting Rebuild
Wed Jul 17 14:12:11 2002: Rebuild of Logical Drive 0 Completed
Wed Jul 17 17:29:04 2002: Peripheral Device ALERT:Power Supply 1 Failure Detected
Wed Jul 17 17:29:11 2002: NOTICE: Power Supply 1 Back On-Line

At the same time, the failure information is placed in a time-stamped event log. Each port can be individually configured to store messages and alert system administrators of a potential problem.

Technical Specifications

Network Protocols
TCP/IP, SNMP, TFTP, FTP, HTTP, RIP and Static Routing

Network Interface
Ethernet 10/100 RJ45

Serial Interface
Model SFC100 - 1 DB9 connector
Model SFC200 - 2 DB9 connectors
Model SFC400 - 4 DB9 connectors
Model SFC1600 - 16 Modular RJ45 connectors
Model SFC3200 - 32 Modular RJ45 connectors

Serial Speed
300 bps to 230 Kbps

PC Card Interface
(Models SFC200 & SFC400 only)
Type I/II PC card interface supporting wireless, modems, and storage cards
Model SFC200 supports 1 PC card
Model SFC400 supports 2 PC cards

Security
Secure Shell (SSH)
Individual username/passwords
Kerberos authorization
SecureID authentication
Radius authentication
Local database
Rules-based filtering

Event Logging
Event buffer 250KB per port
Event e-mail notification to multiple recipients
Event time-stamped using NTP Servers

Management
EZWebCon management software
Web browser (HTTP)
Telnet logins
Serial console port

Physical Dimensions (H x W x D)
SFC100
0.9" x 2.5" x 3.5" Weight - 0.8 lbs

SFC200
1.0" x 5.75" x 7.0" Weight -1.3 lbs

SFC400
1.3" x 9.3" x 5.5" Weight - 1.13 lbs

SFC1600
1.375" x 17" x 12" Weight - 8.2 lbs

SFC 3200
3.5" x 17" x 12" Weight - 8 lbs

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