



CacheOS™ Version 2.0

CacheOS, the patent-pending operating system embedded within CacheFlow's family of Internet Accelerators, is the industry's only proven solution for delivering content to end-users fast and fresh.

- **Fast.** CacheFlow products are renowned for delivering Web pages extraordinarily faster than the nearest competitor.
- **Fresh.** Only CacheFlow products measure and report the actual freshness of content delivered to end-users.

CacheFlow improves Internet QoS through a technical focus on algorithms designed to attack the latency of the Internet. With CacheFlow, network administrators can be confident that their end-users are receiving the fastest response time for the same content that exists on the Internet at the moment the users request it.

Unlike previous generations of caching software, CacheOS delivers complete, up-to-date Web pages out of cache to end-users immediately upon their request. This is achieved through the use

of adaptive algorithms that actively maintain the freshness of objects in the cache. By contrast, previous generations of technology do not deliver the requested pages to browsers until first communicating with the origin server to ensure object freshness, thereby inducing significant performance delays for end-users.

Because the Adaptive Refresh algorithms are highly selective regarding which objects to refresh and when, CacheOS makes extremely effective use of existing bandwidth. Typically, CacheOS provides 20-50% bandwidth gain during normal traffic loads, and has amplified bandwidth as much as 400% at peak traffic loads caused by "hot content" spikes.

CacheOS is uniquely designed for the purpose of eliminating the latencies that cause the Internet to be slow for end-users. It is proven to deliver the fastest Web page response time in the industry, without forcing the "content freshness" tradeoffs of other solutions.

CacheOS Version 2.0 Features

Response Time

- Pipeline object retrieval algorithm
- Automatic asynchronous refresh on a per-object basis
- Automatic adaptive refresh, based on behaviors of both users and servers
- RAM cache for hot content
- High-performance disk-based object cache

CacheOS Features (continued)

Content Freshness

- Automatic measurement and reporting of content freshness
- Desired freshness control
- Forced freshness check option

Storage System

- Object retrieval in single disk I/O
- Self-optimizing disk performance manager
- Fault tolerant to one or more disk failures

High Availability

- Automatic fast restart (7-30 seconds, depending upon hardware configuration)
- Redundant copies of CacheOS across disks
- Automatic remap of URLs for hot-swap disks
- Integration with Layer 4 switches for failover

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Service Protocols and Network Integration

- HTTP 1.0 and 1.1
- Transparent HTTP Caching
- Simultaneous support of transparent and explicit proxy modes
- Proxy-level name imputing
- Cookies
- SSL tunneling

- FTP
- RIP 2.0
- SNMP
- ICP
- NTP time synchronization
- SOCKS gateway support

Cache Control Settings

- URL filter list
- URL bypass list
- Hierarchical caching support
- Advanced Forwarding
- Source IP access restriction

Management

- Command line interface
- Telnet
- Java-based, password protected console
- Performance statistics
 - Cache hit rate
 - Disk usage
 - Object distribution
 - Access patterns
 - Usage summaries
 - Object history
- Access logs with FTP push
- User-specifiable logfile format
- Squid logfile format
- Event logging with automatic E-mail alerts
- Assistance configuring browsers
- Online help system
- Downloadable CacheOS upgrades



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