Cyfin® System Requirements

Wavecrest's Cyfin employee Web-use monitoring and analytics solution provides detailed, drill-down reporting analysis, forensic data tools, bandwidth monitoring, cloud service analytics, and more. Cyfin supports virtually all commonly used log file formats, such as Forcepoint, IronPort, Palo Alto Firewall, SonicWall, WatchGuard, and Check Point. Its built-in syslog server can manage the syslog data from any syslog-enabled device.

Wavecrest wants to ensure that your Cyfin user experience is seamless and that you have the necessary system requirements for optimal performance of the product. It is important to note that disk I/O is the biggest bottleneck in processing log files. The following information is presented to help you make system requirement decisions appropriate for your environment.

Log File Size

Cyfin's system requirements have more to do with the size of log files than number of users. The daily log file size is an indicator of how much storage and memory you will need. In addition, the generated report database .war file is approximately 1/7 of the size of its associated log file, so you will need to take the .war files into consideration for storage purposes.

Log File Format

Cyfin needs certain log file fields to process your logs. The following log file fields are required:

- Date/Time
- URL - If the file contains the protocol, domain/host name, and path separately, the URL can be created from these fields.
- IP Address

In addition, the following optional fields are optimal for more detailed reporting:

- User
- Size/Bytes
- Reason/Status

Syslog Log Files

Cyfin Syslog Server can receive syslog data from various firewalls, proxies, and gateway devices or from many of the same syslog-enabled device simultaneously. Each different device would have its own log file configuration and listening port. For many of the same device, you would use one log file configuration with one listening port and point each device to the same listening port. See ***Managing Your Syslog Data With Cyfin Syslog Server*** at https://www.wavecrest.net/products/cyfin/reporter/include/CyfinSyslogServer.pdf.

Memory

CPU memory is used primarily when running low-level reports and importing data. You will want to ensure that sufficient memory is available to process large amounts of data in report generation.

Storage Type

As shown in the table below, the traditional hard disk drive (HDD) is sufficient for daily logs of less than 250 MB. The solid-state drive (SSD) is faster in booting up, launching and running apps, and transferring files. The SSD is suitable for larger log files and is available in all different sizes.

Operating System

The following operating systems are supported:

- Windows Server 2016, 2012, 2008, and 2003

- Windows 10, 8, and 7

- Linux: Red Hat, Fedora, CentOS, and Ubuntu

- Chrome OS 57

It is your preference as to which operating system you use as there will not be any performance difference. In addition, Cyfin can be installed in a VM environment.

Dashboard Database

The default Dashboard (high-level) database is Derby. However, if you have over 2,500 users, we recommend that you use SQL Server. The latest version, SQL Server 2016, is supported.

Testing

Wavecrest recommends that you run the Cyfin trial version for a few days to accumulate log files and determine the average log file size. From there, estimate how much storage you will need for a month, a year, and so on. If you have syslog-enabled devices, configure your devices to send logs directly to the Cyfin syslog server and determine your storage needs.

Next, with the Report Database enabled, run a User Audit Detail report to determine the time it takes for the report to complete. Increase the memory requirement if the speed at which the data is imported is not optimal. As expected, performance can be improved by increasing the system resources.

System Requirements

Log File Tier	Daily Log File Size	Minimum Memory	Storage Type
Low	Less than 250 MB	4 GB	HDD
Medium	250-500 MB	6 GB	SSD
High	Greater than 500 MB	8 GB	SSD

Array Configuration Considerations

Cyfin offers an array configuration option for those organizations that need to manage large amounts of log file data. If your volume of data is reaching 2 GB per day, your log files are not importing within the required time frame, or the import process is degrading product performance, an array is recommended. The benefits of an array include the following:

- The array can consist of multiple VMs or physical servers.

- Both Windows and Linux operating systems will work.

- The processing of log file data is spread over several servers, off-loading the importing of the data.

- The array implements distributed processing using the secondary servers.

- All reports and administrative functions are managed from one location, i.e., the primary server.

- The amount of time it takes to process a large number of log files is greatly reduced.

About Wavecrest Computing

Since 1996, Wavecrest Computing has provided business and government clients with reliable, accurate employee Web-access security, monitoring, and analytics solutions. IT specialists, HR professionals, and business managers trust Wavecrest's Cyfin and CyBlock products to manage employee Internet usage with today's distributed workforce in mind–monitoring VPN use, following roaming and remote users, managing and monitoring Web usage for hybrid work environments, comprehensive reporting on Microsoft 365 use, and more. Focused on our customer's needs–reducing liability risks, improving productivity, managing cloud services, saving bandwidth, and controlling costs.

Wavecrest has clients worldwide, including Canadian National Railway, Johns Hopkins, Goodyear, USPS Office of Inspector General, Chevron, Health Choice Network, and a growing list of enterprises and government agencies. For more information on our company, products, and partners,visit www. wavecrest.net.

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