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Title of the Invention

OS File Compression System

Description of the Invention

A file compression system, implemented within the operating system, reduces the size of large files for faster transfer over the internet with minimal user involvement.

Problem/Opportunity

Every day, businesses and individuals use the internet to transfer files. A user who has access to several computers may frequently upload and download files for sharing purposes. Large files, such as media files or databases, may take a very long time to upload or download. This can be frustrating and time-wasting for the user. A system is needed that facilitates faster transfer of large files over the internet.

Detailed Description of the Invention

The OS File Compression System implements a file compression scheme within the operating system. Large files are automatically compressed and uncompressed for transfer. This is a simple method for reducing the size of files and therefore reducing upload and download times.

File compression is a method by which the data within a file is simplified in so that the size of the file is decreased, but the original file can be rebuilt using a simple algorithm.

The OS Compression Module manages the compression and decompression of files transfer over the internet. When a file is uploaded to the internet, a simple prompt determines if the user wishes to compress the file. If so, the file is automatically compressed and uploaded. When a machine downloads a file compressed in this format, the OS recognizes the compressed file extension and automatically decompresses the file before and saving the decompressed version, with no user activity required.

Figure 1 diagrams the components of the OS File Compression System.

User Machine 1 is a computing device such as a desktop computer, laptop computer, or mobile device that contains File.xyz to be uploaded to the Internet for download by User Machine 2.

User Machine 2 is a computing device such as a desktop computer, laptop computer, or mobile device that downloads File.xyz from the Internet.

The OS is an operating system on User Machines 1 and 2, such as Linux, that manages hardware, applications, and user interactions.

The User Interface is a part of the OS that manages interactions between the user and the User Machine.

The OS Compression Module is a module within the OS that manages the compression and decompression of files for transfer over the Internet.

File.xyz is a large file intended for transfer from User Machine 1 to User Machine 2 over the internet.

File.xyz.cmp is the compressed version of File.xyz. The file extension is altered to communicate the fact that the file has been compressed.
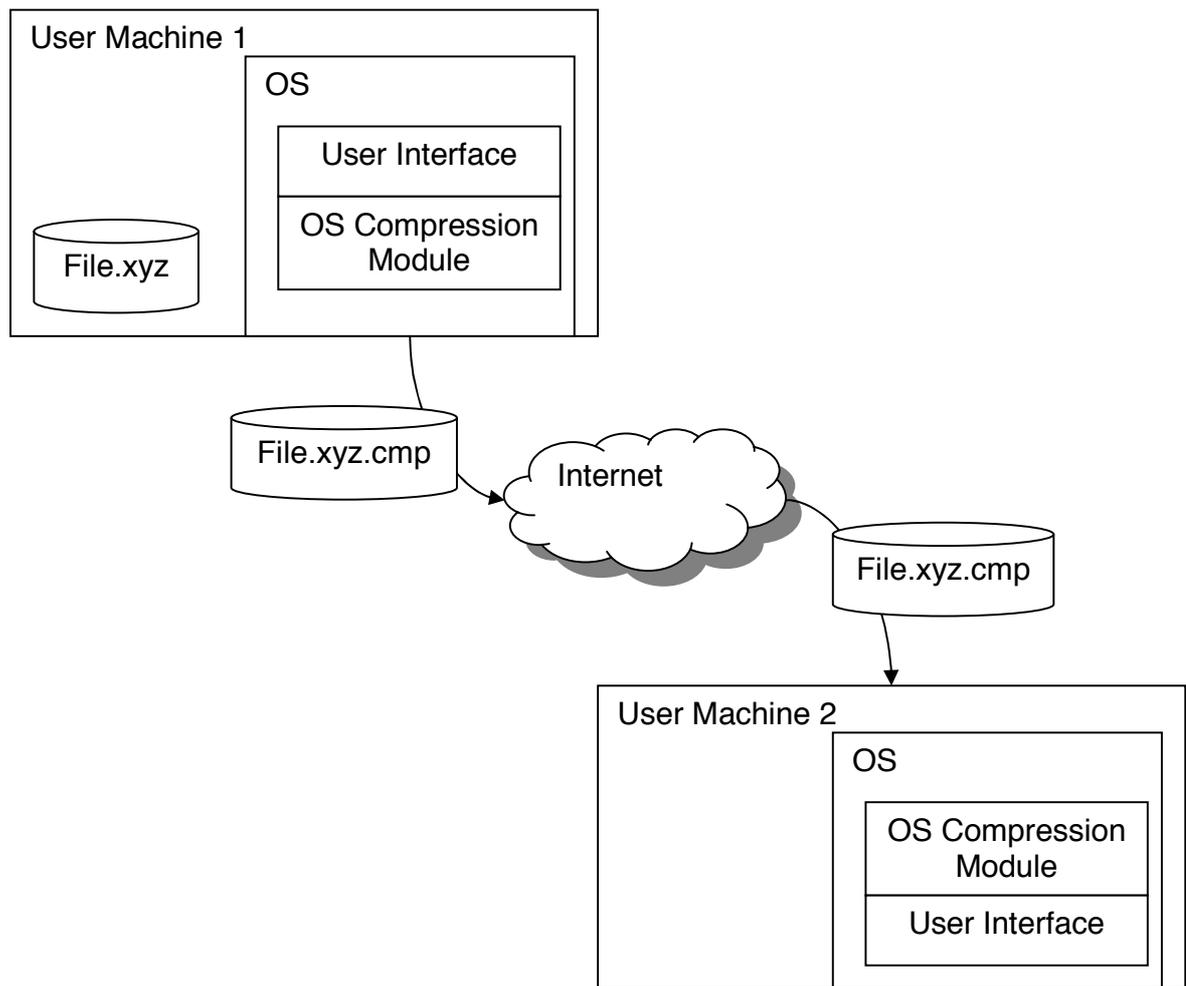
Figure 1. Diagram of the OS File Compression System

Figure 2 outlines the method for transferring a file using the OS File Compression System.

In step 1, the user of User Machine 1 attempts to upload File.xyz to the internet via the User Interface of the OS.

In step 2, the OS of User Machine 1 recognizes that File.xyz is a large file and prompts the user, with a dialog box in the User Interface, to compress the file. If the user chooses to compress the file, the method proceeds to step 4. Otherwise, the method proceeds to step 3.

In step 3, the user chooses not to compress the file, the file transfer process proceeds with no compression, and the method ends.

In step 4, the OS Compression Module on User Machine 1 compresses File.xyz and changes the file extension (File.xyz.cmp).

In step 5, User Machine 1 uploads the compressed File.xyz.cmp to the internet.

In step 6, User Machine 2 downloads the compressed File.xyz.cmp from the internet.

In step 7, the OS Compression Module on User Machine 2 decompresses File.xyz.cmp and changes the file extension (File.xyz).

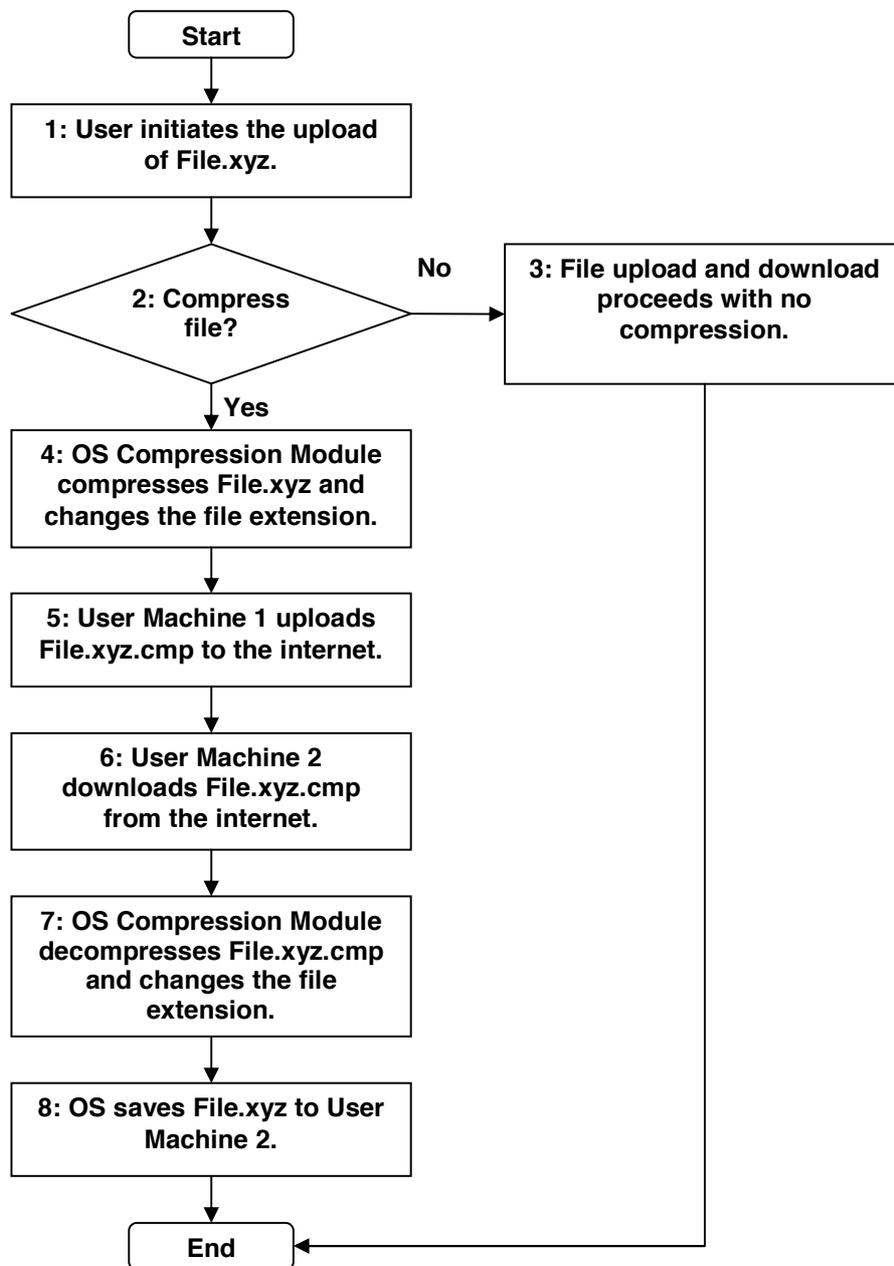In step 8, the OS saves the uncompressed File.xyz to User Machine 2.

Figure 2. Method of transferring files with the OS File Compression System.