U2LO77

File Server

What is a server?

Server

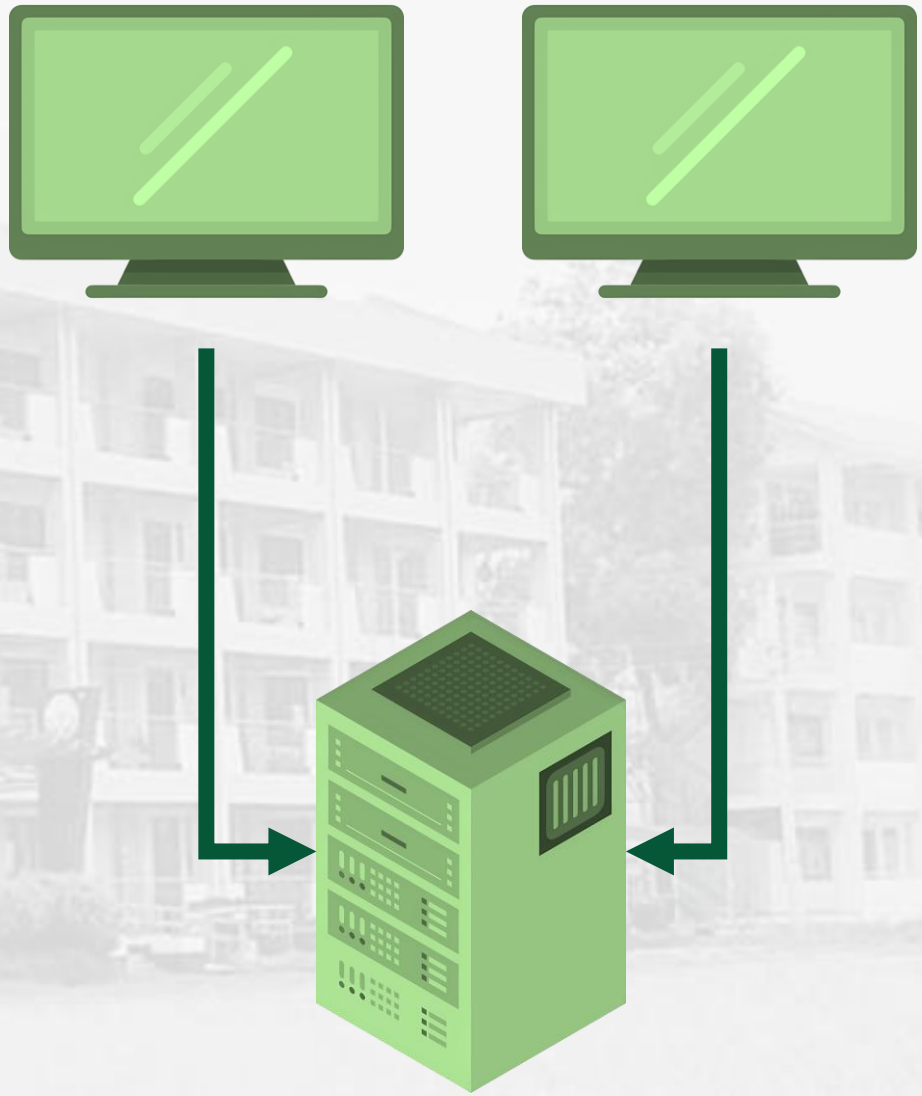
A server is a specialized computer or software system designed to provide services, data, or resources to other computers, known as clients, over a network.

Server

These services can range from delivering web pages and email to storing and managing files or running applications. These machines run on a client-server model, where clients request specific services or resources, and the server fulfills these requests.

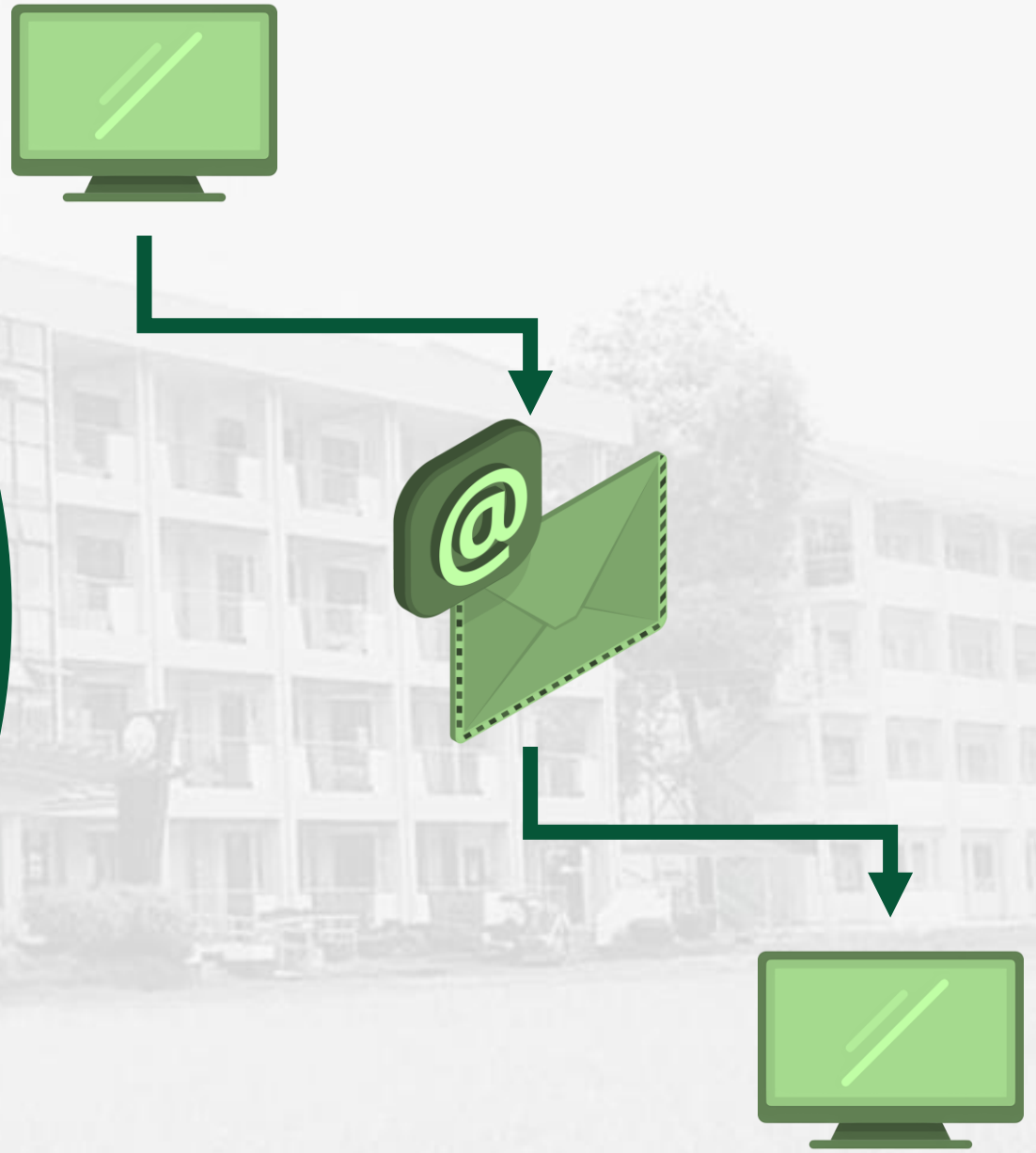
What does a server do?

Data storage and retrieval

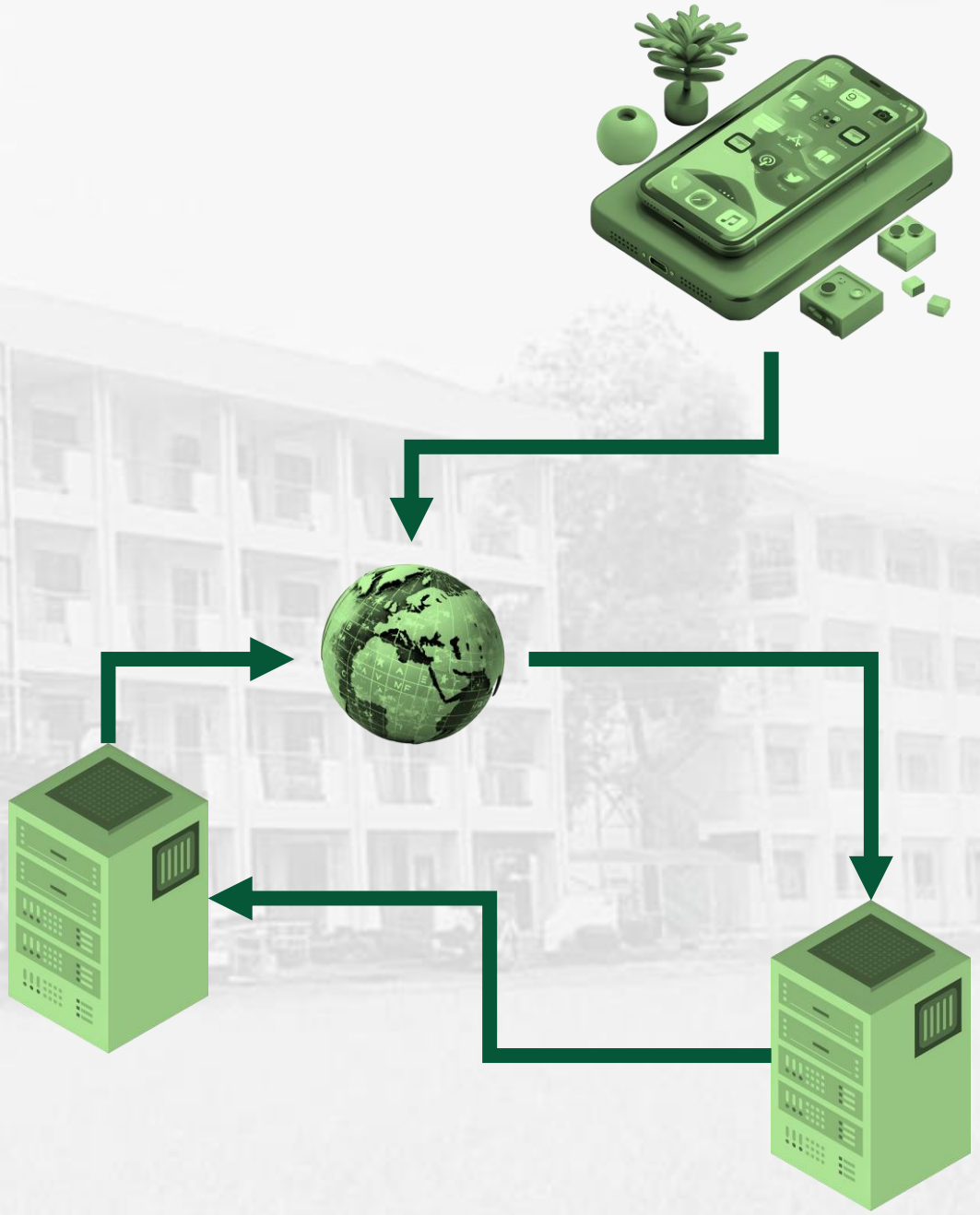


Website hosting

Email services



Application Hosting



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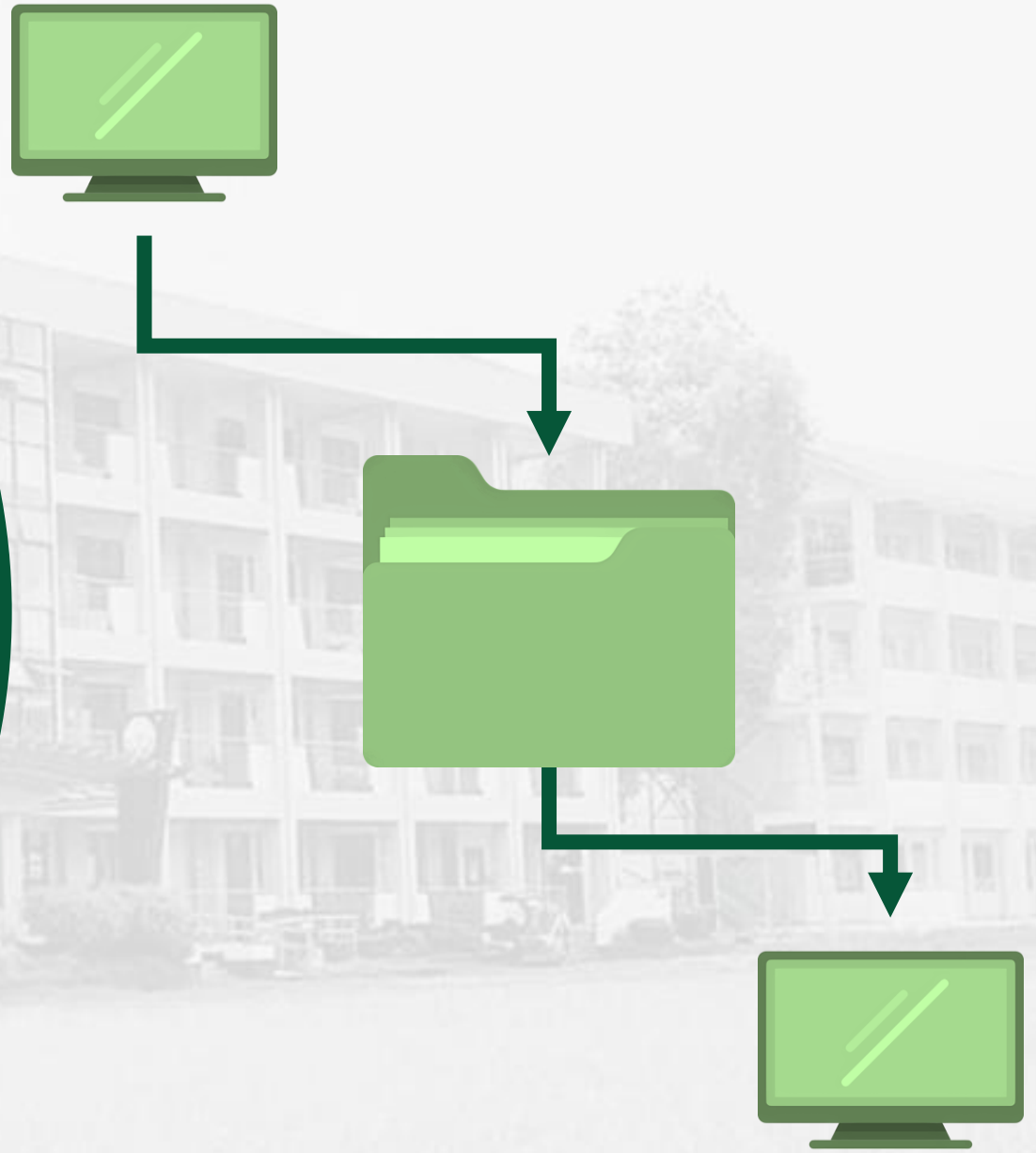
File Sharing



Authentication and Authorization

Authentication and Authorization

Types of Server

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Web Server

A web server powers the site you're looking at right now. This genre of server focuses on serving web content to clients.

Web servers simply take "GET" and "POST" requests from clients (among other verbs).

Web Server

A “GET” request is when a client simply wants to retrieve information and doesn’t have any information to submit to the server.

Web Server

A “POST” request on the other hand is when a client does have information to share with the server and expects a response back. For example, filling up a form on a web server and clicking the submit button is a “POST” request from the client to the server.

Database Server

A database server typically operates in tandem with another type of server. This kind of server simply exists to store data in groups.

Database Server

There are countless methods of keeping data that operate on different theories. One of the more common types is known as “SQL” or “Structured Query Language”.

Database programmers can create databases on these servers using scripting in the language of the database.

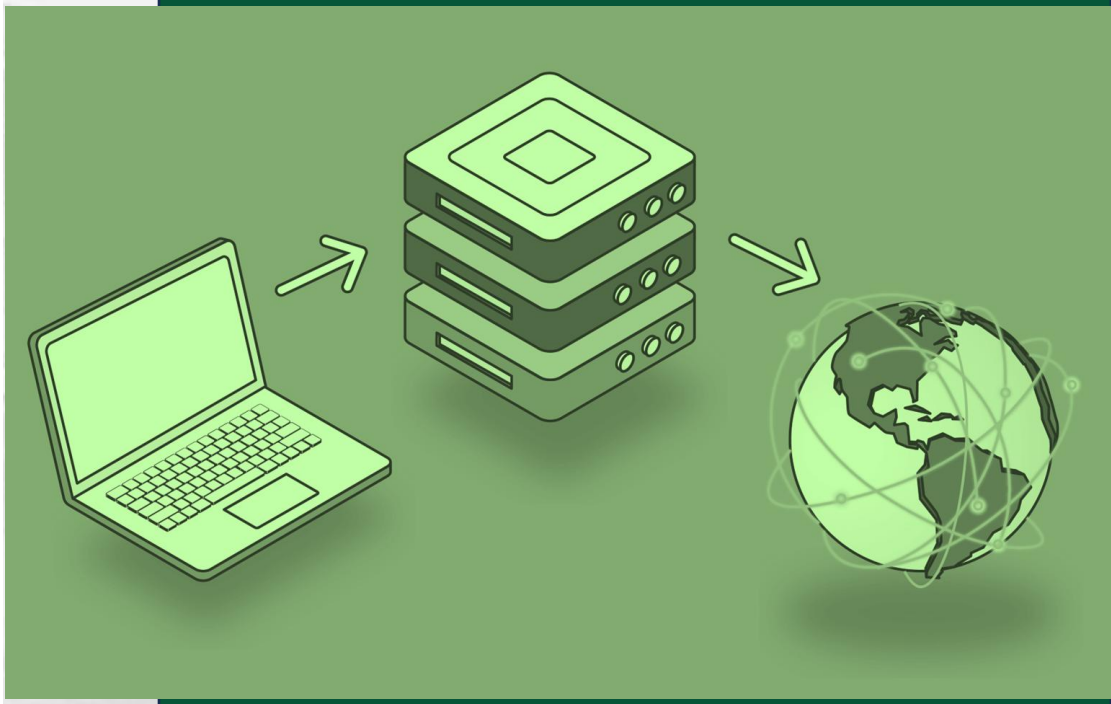
eMail Server

An email server typically runs on “SMTP” or “Simple Mail Transfer Protocol”. There are other possible protocols that newer mail servers operate on, but SMTP remains the dominant protocol.

Proxy Server

A web proxy server can run on one of many protocols, but they all do one thing in common.

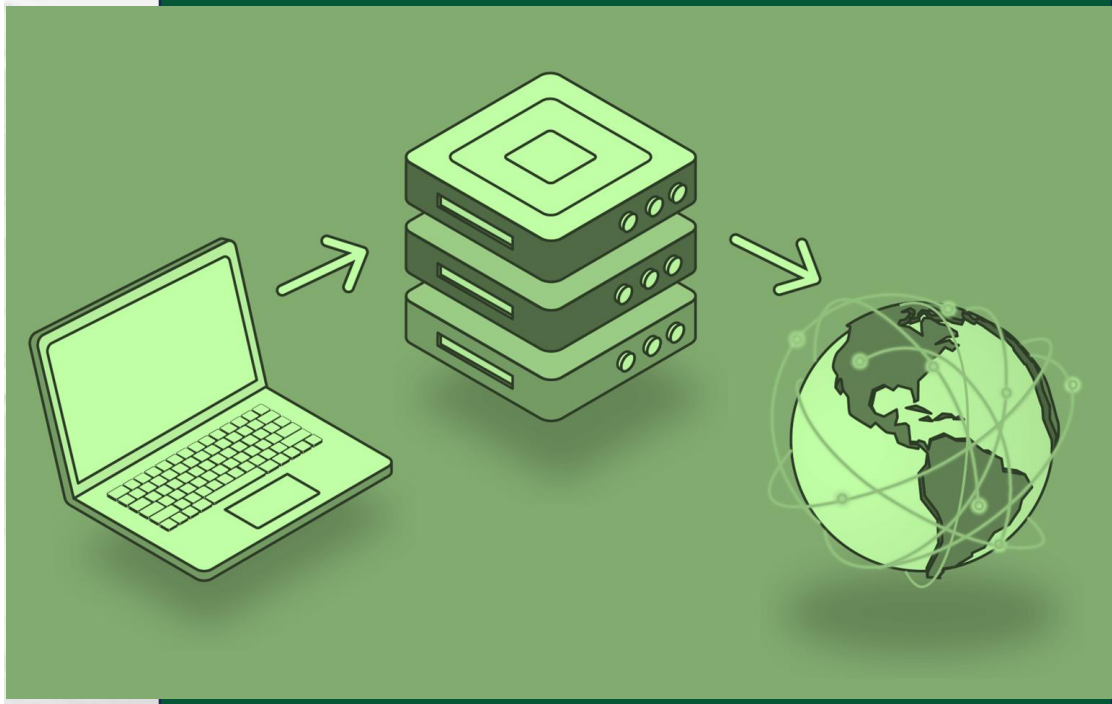
They take in user requests, filter them, and then act on the user's behalf. The most popular type of web proxy server is designed to get around school and organizational web filters.



Proxy Server

Because web traffic is all through one IP address and website that isn't yet blocked, users can gain access to sites that are forbidden through these filters.

The less popular type is an organizational proxy server. This has the same effect, but it's typically authorized by an organization.



DNS Server

A DNS server, or “Domain Name Service” server, is used to translate domain names to their corresponding IP addresses.

This server is what your browser references when you type in a domain name and press Enter. The idea is that users don’t have to memorize IP addresses and organizations can have a fitting name.

FTP Server

FTP servers, or “File Transfer Protocol” servers, have a single purpose: to host a file exchange among users.

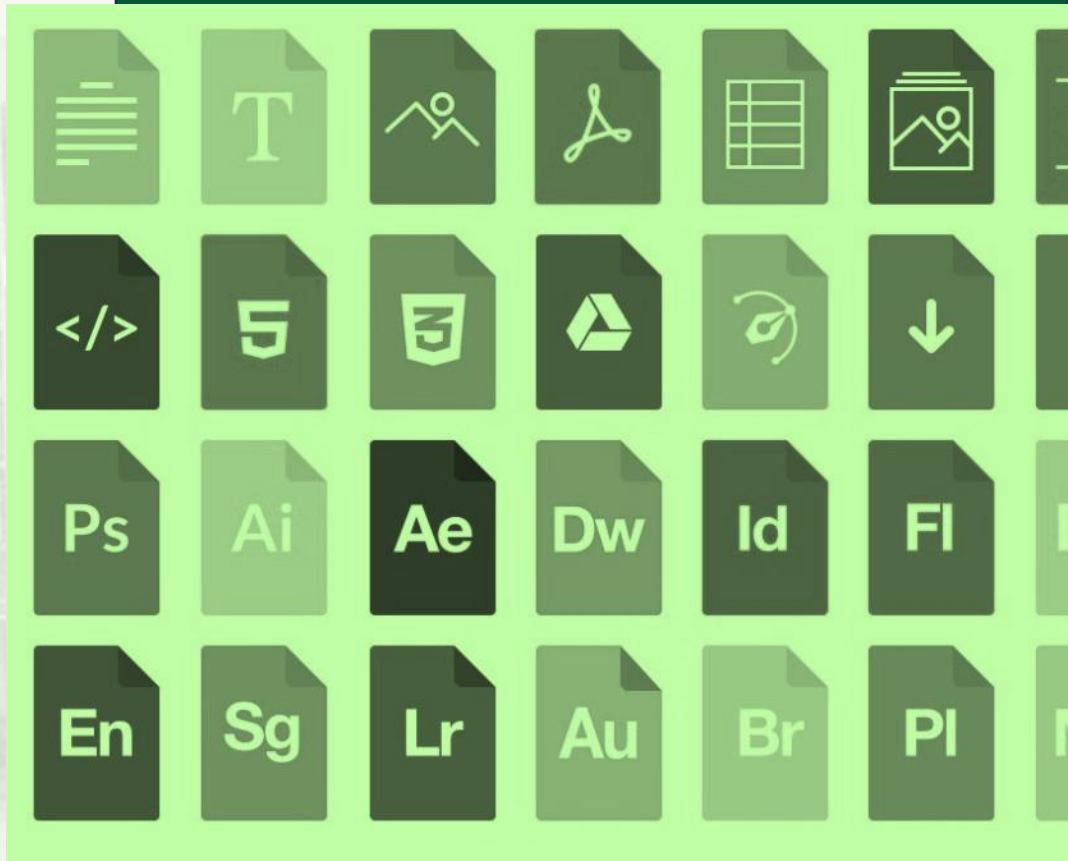
These servers do not provide any type of encryption by default, so there are a number of secured versions of the protocol that are often used in its place (such as sFTP which is FTP over secure SSH protocol).

FTP Server

This type of server allows users to upload files to it or download files after authenticating through an FTP client. Users can also browse the server's files and download individual files as they wish.

File Server

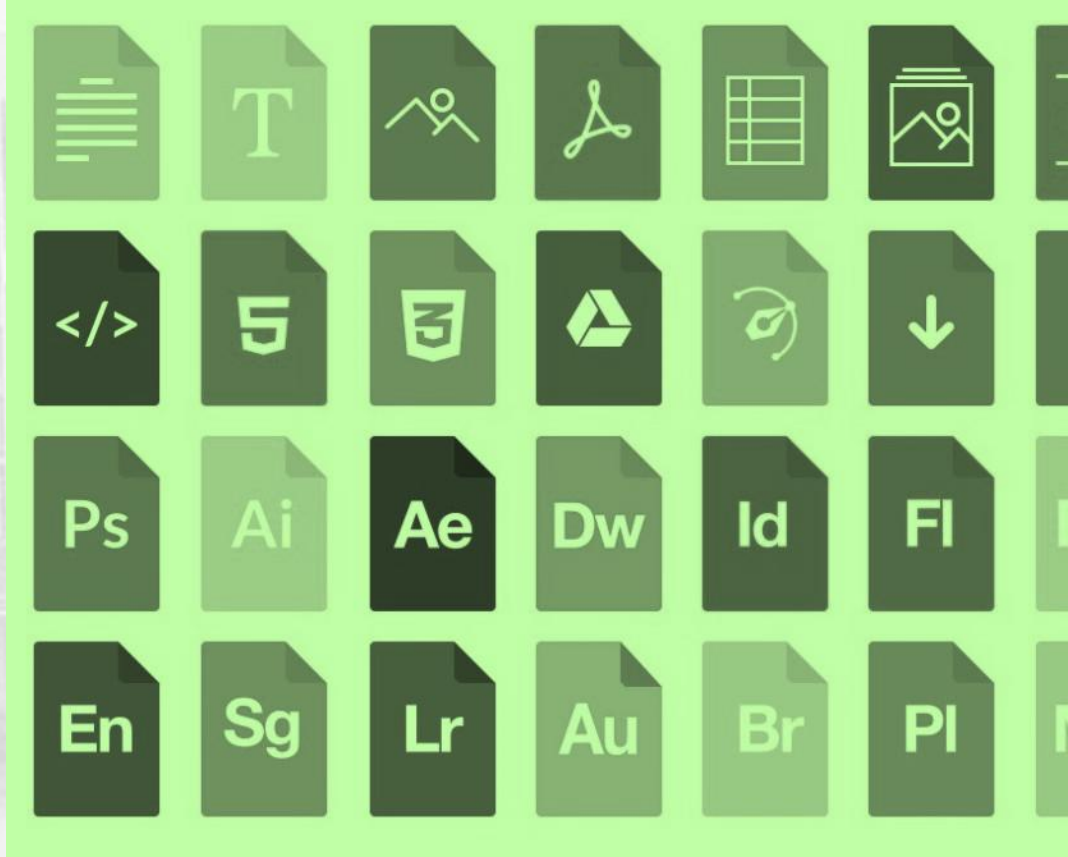
A File Server is different from an FTP server. This type of server is more modern and is typically capable of “mapping” networked files onto drives. This means that users can use their home computer’s file browser to look into folders.



File Server

The main advantage of this form of server is that users can upload and download shared files. Permissions to files are controlled by the administrator.

Usually File Servers exist in corporate networks in a Windows Active Directory environment or in Linux environments.



DHCP Server

A DHCP Server uses the Dynamic Host Communication Protocol (DHCP) to configure the network settings of client computers. Instead of having to manually configure static IP address and other network settings to client computers in a large network, a DHCP server in the network configures dynamically these network settings to LAN computers.