NETWORKING – PART 3

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It is a server where static files are being saved, stored and accessed inside a network.

It especially works in a client-server network model.

File server are flexible and accessible in terms of keeping important static files.

file server is used for efficient data storage such as text files, spreadsheets, graphs, videos, pictures and any kinds of media.

FILE SERVER

FILE SERVERS

- File servers are dedicated to storing and sharing files within a network. They provide centralized file storage and access control, making it easy for users to collaborate and share documents. Examples include Windows File Server and network-attached storage (NAS) devices.

ADVANTAGES OF FILE SERVER

📂 Easy organization of the entire file inventory

✔️ High degree of clarity

👤 Convenient file sharing

🤝 Collaboration without version conflicts

💾 Relief of client computers (almost unlimited storage possible)

📱 Remote access via WebDAV, (S)FTP, or SCP possible

🔒 Data protection and security in your own hands

It is a special kind of server that holds all the printers inside a network.

provides authority for people whether what printers they can access anytime given that printer is inside the network.

PRINT SERVER

FILE SERVER AND PRINT SERVER IN A NETWORK

If there are many files that needs to be stored in a file server it is also logical to think that there are also many files that needs to be printed and analyzed.

PRINT SERVER BENEFITS

Receives and organizes print requests across a range of client devices and systems

Processes requested data, including file data, print specifications, and printer location

Manages multiple printers for location-based clients and large networks

Improves efficiency by balancing network workloads for printing and office machines

Fit for enterprises and large organizations with expansive networks and print queues

PRINT SERVER PROS

Central control of print operations

More equipped for large print volume

Enhances security for printer devices

Load-balancing is cost-effective

PRINT SERVER CONS

Print network
vulnerability point

Upfront investment
for capabilities

Requires maintenance

Physical print
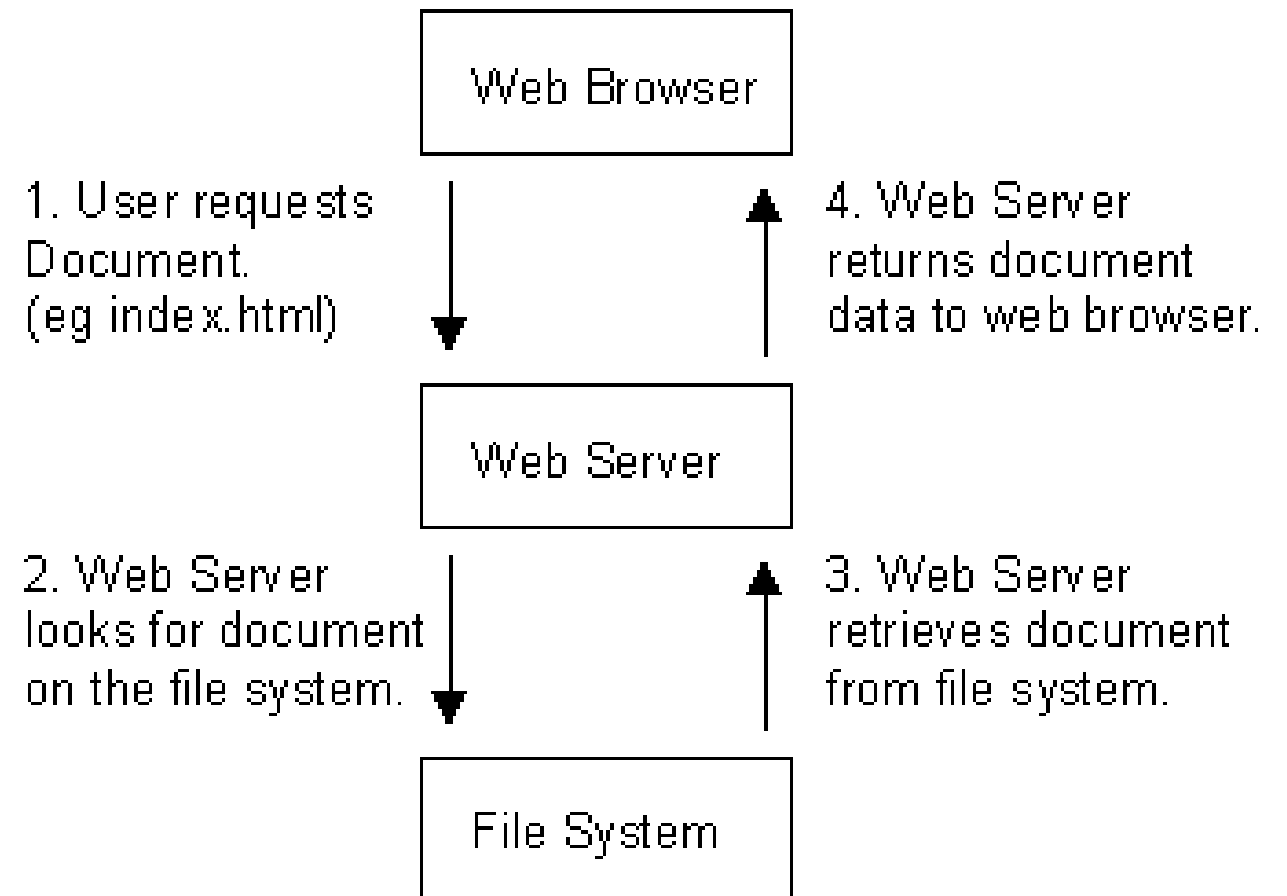servers on the decline

WEB SERVERS

Web servers are software or hardware (or both together) that stores and delivers content to a web browser at a basic level.

The servers communicate with browsers using Hypertext Transfer Protocol (HTTP).

Web servers can also support SMTP (Simple Mail Transfer Protocol) and FTP (File Transfer Protocol).

It is used for hosting websites and data for web applications.

HOW DOES A WEB SERVER WORK?

Web Browser

1. User requests Document.
(eg index.html)

4. Web Server returns document data to web browser.

Web Server

2. Web Server looks for document on the file system.

3. Web Server retrieves document from file system.

File System

GOALS OF A WEB SERVER

Uptime

Speed

Concurrency

Scalability

Ease of set up

Developer support
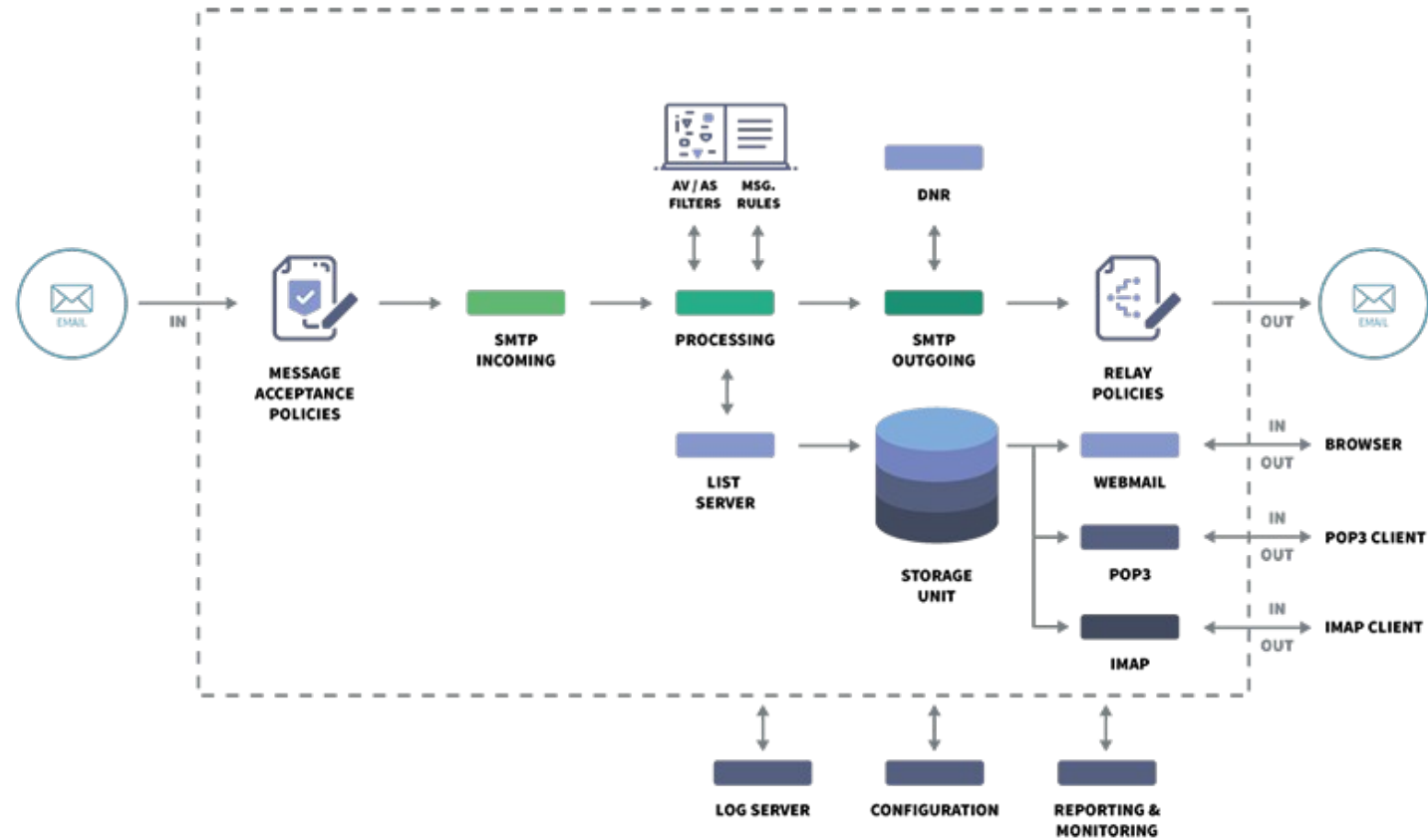
Community support

Documentation

EMAIL SERVER

It is also called a mail server, is essentially a computer system that sends and receives emails.

the email server is a computer or machine that has a complete system with different applications or services.

HOW DOES AN EMAIL SERVER WORK?

AAA SERVERS

AAA server (authentication, authorization and accounting).

It is server program that handles user requests for access to computer resources and, for an enterprise, provides authentication, authorization, and accounting (AAA) services.

Authentication is the process of identifying an individual, usually based on a username and password.

Authorization is the process of granting or denying a user access to network resources once the user has been authenticated through the username and password.

Accounting is the process of keeping track of a user's activity while accessing the network resources, including the amount of time spent in the network, the services accessed while there and the amount of data transferred during the session.

NETWORK MONITORING SERVERS
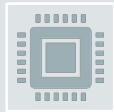
Network monitoring systems include software and hardware tools that can track various aspects of a network and its operation, such as traffic, bandwidth utilization, and uptime.

These systems can detect devices and other elements that comprise or touch the network, as well as provide status updates.
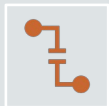
PROTOCOLS FOR NETWORK MONITORING

Protocols are sets of rules and directions for devices on a network to communicate with one another.

Network hardware must use protocols in order to transmit data.

Network monitoring systems use protocols to identify and report on network performance issues.

BENEFITS OF NETWORK MONITORING

Clear visibility into the network

Increasing complexity

Better use of IT resources

Early insight into future infrastructure needs

The ability to identify security threats faster

NETWORK MONITORING

- https://youtu.be/ppKqAjBB714?si=Y0O7JjAoIOZs8VNN

THE END