Assalam-u-alaikum

BILAL KHAN

This is my 8th video of DevOps

HTTP(Hypertext Transfer Protocol)

HTTP is a stateless protocol. It means that the server does not store the information of client.

What is World Wide Web?

Any web page you see online that contains documents, images, videos, audios is called world wide web. It’s a collection of web pages.

HTTP Methods

Method is a way that tells the server what to do.

- GET Method
- POST Method
- PUT Method
- DELETE Method

When you send a request to the server, how would you know that the request has failed or passed?

Status Codes

1xx → Informational codes
2xx → Success codes
3xx → Redirection codes
4xx → Client error
5xx → Server error

If the HTTP is a stateless protocol then how the browser know if a user is logged in or not?

Cookie: It is a unique string stored in the client browser.
If you visit a website for the first time or send a first request, the server will send a cookie to the browser. After you send a second request. The request header will contain that cookie and it will be identified by the server database and get the relevant status code from it.

What is third party cookie?

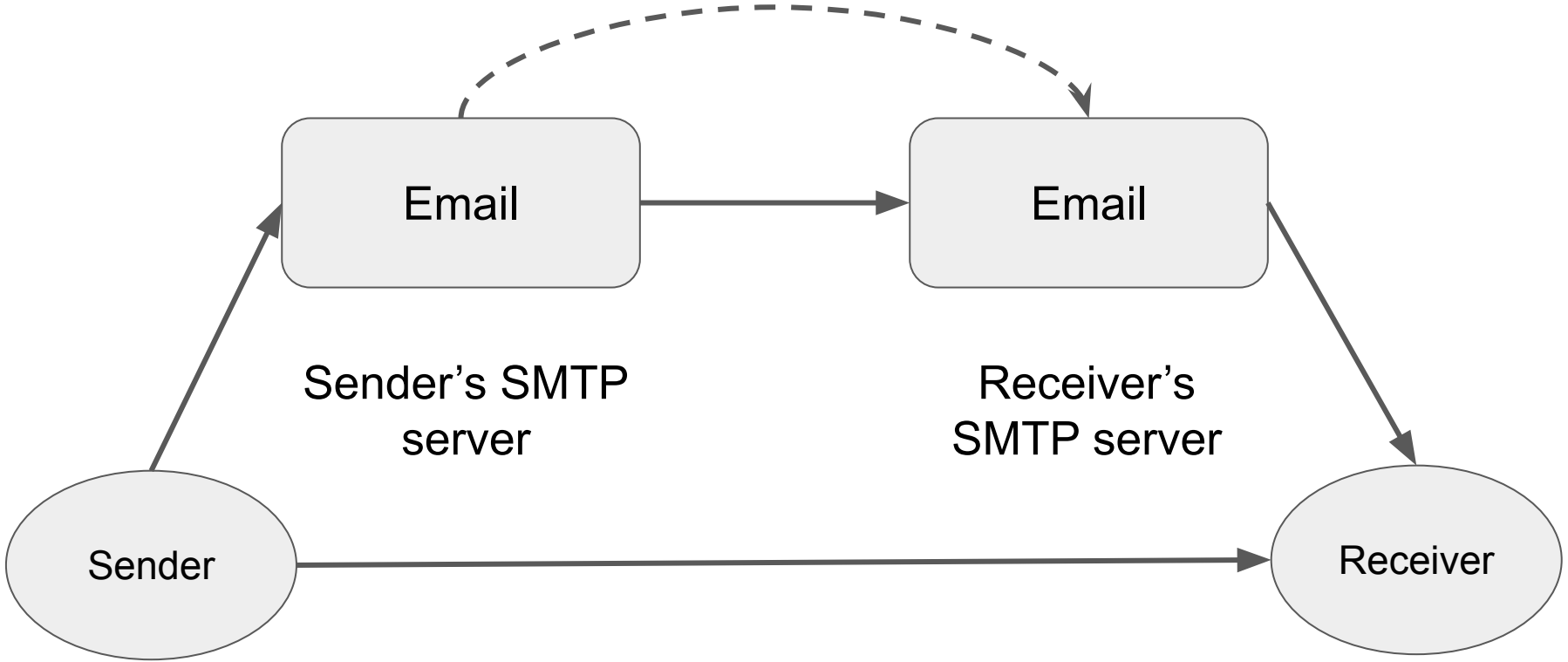
It is commonly used for advertisements. Let’s say you visit a website A.com and it contains an Ad. Keep in mind that this Ad is from another server. There are two servers. One is loading the website and that is the first party cookie and another has no access to the website directly and it is third party cookie.

The publisher/person places a code script/snippet on his website to display ads. When you call A.com, your browser will make a request to the server and get back a response by rendering a website, the browser will request the ad server to request an ad. The server will respond with a third party cookie.

When you visit B.com, the browser send the third party cookie along with a request. The website server will identify your profile and make a unique browsing profile for you.

How to send an email?

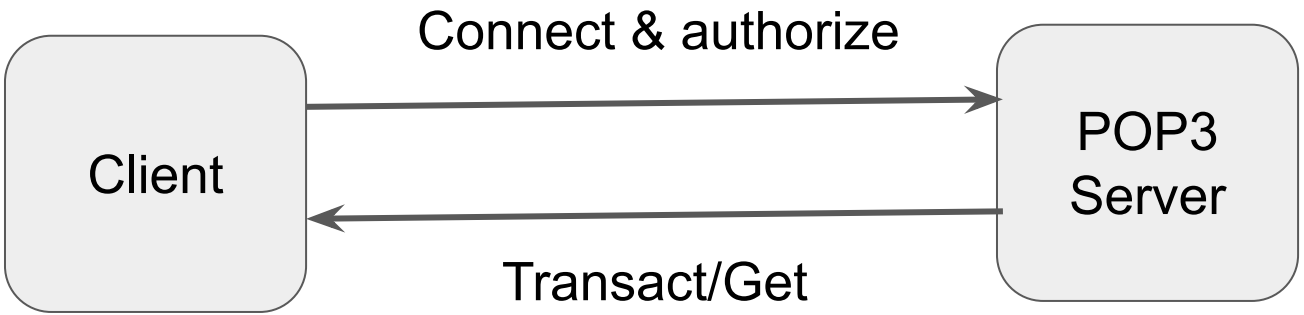
Email uses TCP to send the whole data. Let's say you are sending email from Yahoo to Gmail.



How to receive an email?

Email uses POP3 and IMAP to receive an email. The client connects to the POP3 server using the port number 110 and then the client asks for emails from the server.

POP3(Post Office Protocol)



With POP3, the emails are only present in one device. They are not present in other devices.

IMAP(Internet Message Access Protocol)

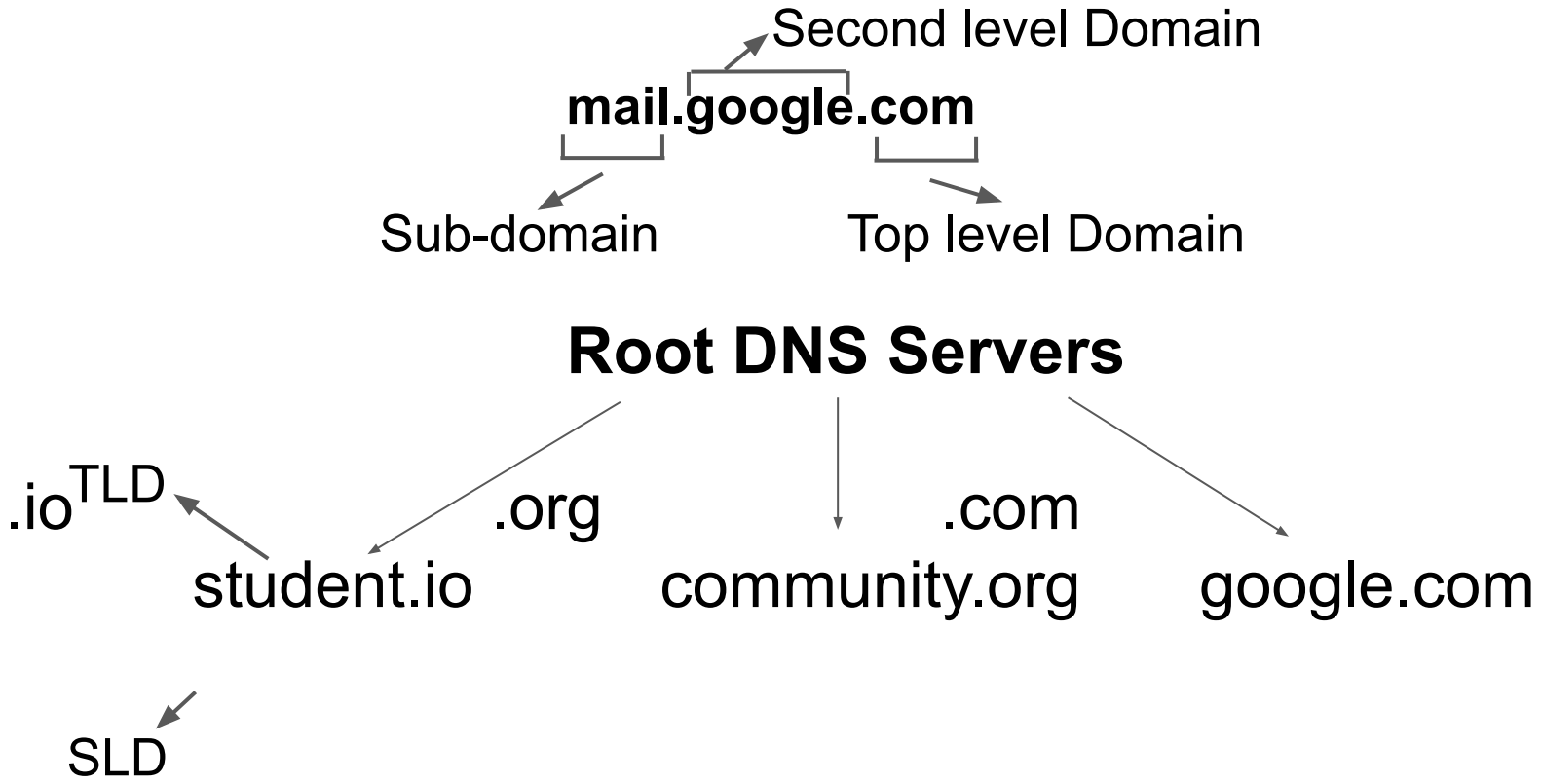
It allows you to view your email on multiple devices. The emails will be kept in the server unless you delete it manually. Local copies will be divided in various devices and they will be synced together.

What is DNS?

The Domain Name System (DNS) turns domain names into IP addresses. A DNS server is a computer with a database containing the public IP addresses associated with the names of the websites. DNS acts like a phonebook for the internet.

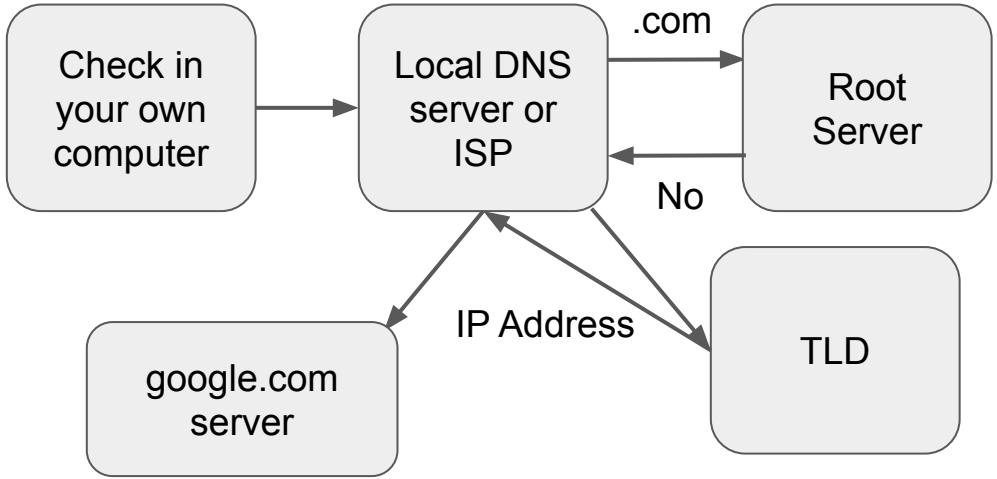
Whenever people type domain names, like Fortnet.com or Yahoo.com, into the address bar of web browsers, the DNS finds the right IP address relevant to that domain name and give the access to that web page.

DNS Classes



These things are managed by ICANN(Internet Corporation for Assigned Names and Numbers)

What happens when you visit a website for the first time?



1. First it will check the value of ip address in your local cache.
2. If it is not found then it will check it in the local DNS server or ISP.
3. If it is not found then it will check it in the root server.
4. If the root server does not have .com then it will send the response to ISP, the ISP will check it in the top level domain.
5. Top level domain will give the ip address to the ISP.
6. Now the ISP will be connected to the google.com server

What we have learned?

HTTP methods, Status codes, Cookies

Third party cookie, POP3, IMAP

DNS, DNS classes

Process of visiting a website for the first time

That’s It

I hope you will like this video.

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Ask questions in the comment section