Good afternoon, everyone. I’m 姜子玥 from group one. And my teammate is 岑惠儿. Today, I’m going to talk about web hosting service.

My presentationn is divided into four parts. What is web hosting service? The classifications of web hosting service, implemention of web hosting services , the security and some famous web hosts.

Fistly, let’s understand what is web hosting. In this part, I will tell you the definition of web hosting, including what it can do and the advantages of it.

Anyone who has ever written a web page knows that web pages such as HTML files and xml files can be opened directly by a browser installed on your local computer, but if you want everyone in the world to see this interface, should everyone have this file on their computers?Obviously not ! So how can a website or web page be seen all over the world? The answer is web hosting.

So we can understand that web hosting or web hosting service is a type of Internet hosting service which allows individuals and organizations to make their website accessible via the World Wide Web.

It has a lot of advantages, which can be concluded into these three parts. First, convenience,

Clients don't need to own the necessary infrastructure required to operate the website.Because web hosts provide the technologies and services needed for the website or webpage to be viewed in the Internet. Websites are hosted, or stored, on special computers called servers. When Internet users want to view your website, all they need to do is type your website address or domain into their browser. Their computer will then connect to your server and your webpages will be delivered to them through the browser.Most hosting companies require that you own your domain in order to host with them. If you do not have a domain, the hosting companies will help you purchase one.

Secondly, reliablity. Web hosts have their ways to protect your website from being attacked, which I will introduce in part four.

Lastly, data storage. As mentioned, web hosts can also provide data center space and connectivity to the Internet for other servers located in their data center, which you dont’need have data stored in your local computer.

Web hosting service varies a lot. In this part, I will introduce four of them in detail.

Firstly, shared web hosting service. It refers to a web hosting service where many websites reside on one web server connected to the Internet. This is generally the most economical option for hosting, as the overall cost of server maintenance is amortized over many customers. By choosing shared hosting, the website will share a physical server with one or different other websites. With shared hosting, a server will store different other files and would be responsible for serving up the information about them.

Then dedicated hosting, in this hosting environment, you have the entire web server to yourself. This allows for faster performance, as you have all the server’s resources entirely, without sharing with other website owners. However, this also means that you will be responsible for the cost of server operation entirely. This is a good choice for websites that requires a lot of system resources, or need a higher level of security.

Having multiple servers hosting the same content for better resource utilization, clustered servers are a perfect solution for high-availability dedicated hosting, or creating a scalable web hosting solution. A cluster may separate web serving from database hosting capability. (Usually web hosts use clustered hosting for their shared hosting plans, as there are multiple benefits to the mass managing of clients).

As for cloud hosting, it is a new type of hosting platform based on clustered load-balanced servers and utility billing.Other computers in the cloud can compensate when a single piece of hardware goes down. Also, local power disruptions or even natural disasters are less problematic for cloud hosted sites, as cloud hosting is decentralized. Cloud hosting also allows providers to charge users only for resources consumed by the user, rather than a flat fee for the amount the user expects they will use, or a fixed cost upfront hardware investment.

In this part, I will present two of the hottest web hosting implementations.

Shared hosting has two implementations. IP-based or name-based

In IP-based virtual hosting, each virtual host has a different IP address. The web server is configured with multiple physical network interfaces or virtual network interfaces on the same physical interface. The web server software uses the IP address the client connects to in order to determine which website to show the user.

In name-based virtual hosting, the virtual hosts serve multiple hostnames on a single machine with a single IP address. The server uses this information to determine which website to show the user

Cloud hosting providers offer their "services" according to different models, of which the three standard models are Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS). These models offer increasing abstraction; they are thus often portrayed as layers in a stack: infrastructure-as-a-service, platform-as-a-service and software-as-a-service, but these need not be related. For example, one can provide SaaS implemented on physical machines (bare metal), without using underlying PaaS or IaaS layers, and conversely one can run a program on IaaS and access it directly, without wrapping it as SaaS.

(IaaS) refers to online services that provide high-level APIs used to dereference various low-level details of underlying network infrastructure like physical computing resources, location, data partitioning, scaling, security, backup etc.

PaaS vendors offer a development environment to application developers.In the PaaS models, cloud providers deliver a computing platform, typically including operating system, programming-language, database, and web server. Application developers develop and run their software on a cloud platform instead of directly buying and managing the underlying hardware and software layers. With some PaaS, the underlying computer and storage resources scale automatically to match application demand so that the cloud user does not have to allocate resources manually.[72][need quotation to verify

SaaS is sometimes referred to as "on-demand software" and is usually priced on a pay-per-use basis. In the SaaS model, cloud providers install and operate application software in the cloud and cloud users access the software from cloud clients. Cloud users do not manage the cloud infrastructure and platform where the application runs. This eliminates the need to install and run the application on the cloud user's own computers, which simplifies maintenance and support. Cloud applications differ from other applications in their scalability—which can be achieved by cloning tasks onto multiple virtual machines at run-time to meet changing work demand. Load balancers distribute the work over the set of virtual machines.

In the last part, I will present some ways web hosts use to guarantee the satefy of web hosting and the current market of web hosting service.

There are often four ways.

Since free hosting accounts are often attacked by hackers ,a host that offers cost-free promotional hosting do so only for known clients, and it is kept on a separate network to prevent users from setting up malicious sites.

Moreover, they will use reliable firewall, specific software and limit the use of executable commands to keep safe.

According to WHTop, here list top five best hosting companies worldwide and their locations.