Factors affecting Internet speed in Iraq and possible solutions to this problem

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Abstract
This study aimed at the problem of the factors affecting the speed of the Internet and addressing the slowness of the Internet. It showed the importance of the Internet at the present time and the extent of its direct impact on the global development in technology, urbanization, electronic commerce and scientific research. And the extent of the importance of the speed of the Internet in the development of technology. The research also targeted the experience of the UAE in how to develop the speed of the Internet and its leadership over the international and Arab countries in the speed of downloading.

1. Introduction

Wireless Internet technology is perhaps one of the most important developments of the last century, as it allows smartphones, computers, and navigation systems to receive data over the air. But internet technology isn't perfect, and it's vulnerable to all kinds of interference, including other wireless signals, solid objects, and even extreme weather. Real world conditions are rarely ideal. Real world conditions are rarely ideal. Electromagnetic waves have a hard time penetrating these things, so the signals skew and break up, causing disturbances such as static electricity in a car radio, or loss of online data. When data is lost, the transmitter sends it again, which slows down the upload speed to the device. When data is lost, the transmitter sends it again, which slows down the upload speed to the device. Bad weather can cause other problems, such as ice building up on a plate, or high winds pushing the plate out of proper alignment. Unfortunately, there isn't much you can do about losing satellite signal during a storm, except wait for it to pass.

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2. Study Problem

The problem of the study is the importance of the Internet in the current development of technology, urban development, trade, industry and all life facilities. As people become completely dependent on the Internet for their work. As people become completely dependent on the Internet for their work. Therefore, the study problem focused on the following questions:

Can countries find patchwork solutions or serious solutions to this problem?

Is it possible to use the expertise of developed countries to solve this crisis in Iraq specifically?

3. Importance of studying

There is no doubt that the current development in information technology, networks, and the rapid completion of research in scientific development is based on electronic exchange.

Represented by the Internet, without it, trade and industry would not have expanded, or what is newly called electronic commerce, which is the modern revolution in the world of technology. It has become the basis for global circulation, so developed countries seek to find the fastest and best solutions to solve all problems, And contribute to providing an ideal Internet service for the community.

4. Objectives of the study

The study aims to give a comprehensive view of the following aspects:

1. Find possible simple solutions to solve the problem of environmental factors.

2. Benefiting from the experiences of Arab countries, especially the UAE, in terms of capabilities, and contracting with reliable companies to improve the quality of the Internet.

5. Environmental influences

Do storms affect cellular communications?

Satellite transmissions, 4G and 5G internet connections can also have a problem with atmospheric moisture penetration. In heavy rain or fog, parts of the signal may be lost, and in rare cases lightning may strike the transmitter itself, damaging it and rendering it offline. When it comes to cellular service, poor reception is likely to be blamed on perennial factors. Objects such as trees and tall buildings can block radio waves. Objects such as trees and tall buildings can block radio waves. The distance to the transmitter is usually the most important factor, and this applies to 5G communications, which have an effective range of only about 457 meters. Cell phone coverage is less likely to be interrupted during a minor rainstorm because cell towers are built below the cloud layer. The weather will not change the wireless signal strength from the router to the device at home. The weather will not change the wireless signal strength from the router to the device at home. Similar to cell towers, walkie-talkies often rely on line-of-sight and distance to the device to provide high-quality communication. A router may emit a strong signal, but the signal will be encountered by several walls in the house and

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will be much weaker. Of course there are times when you may need to place the router outdoors, such as a concert venue or a public park. If there is a problem with wireless interference, a wired connection to the modem can always be used, but this is rarely appropriate because you need to install multiple access points in the house. For a quick and easy solution, you can effectively boost your wireless signal by extending the range of your router.

6. Visual Effects

1. The number of network users and the amount of download on the network

2. A problem with the internet line booth in your area

3. The type of connection, for example, via Wi-Fi or modem

4. The number of network users and the amount of load on the network

5. Slow from the main network due to some problem

6. Modem problem

7. The number of network users and the amount of load on the network

8.Wire and splitter connections

9. Existence of more than one user in the network

10. The presence of more than one program running in the background of the operating system so that it communicates with the servers via the Internet. The main factors affecting the speed of the Internet.

Wi-Fi is one of the most popular internet technologies in home use. And despite the constant endeavor to increase its speed to keep pace with the continuous technological progress, it may be slow for many people, This is because the wireless Internet speed is 866.7MB/s, while you can use the wired connection through Cat-6 Ethernet cable at speeds of up to 10G/s, the difference is quite significant.

Viruses

If the device on the Internet is attacked by some virus or malware, you will definitely notice a slowdown in the speed of the Internet, as many of these malicious programs run in the background and slow down your Internet connection and speed as a result of the increased bandwidth usage.

Router Location

The location of the router is one of the most important things that affect the speed of the Internet It is not well known that the devices surrounding the Internet device can affect the speed by interfering with the waves emitted by the router, and the reason for this is that these devices transmit radio waves similar to those emitted by the router.

Waves

Using an old internet router may not be able to handle the internet speeds The current and antenna can also be weak which makes your devices unable to make a strong connection to the internet.

Wrong Habits

Consumer habits in using the Internet, such as sites for watching movies Like netflix or other similar websites are causing high speeds to be pulled from the internet.

The web browser itself

Many browsers have different capabilities in the field of Internet speed. Some of the Internet sites have the ability to download heavy files such as images and similar files at a high speed different from other browsers.

Your location on Wi-Fi

Some sites have a faster Internet speed than others based on various factors, including the proximity to the location of the Internet signal, depending on the geographical nature of the place. Some places have a stronger Wi-Fi network than others.

Simple solutions to internet problems:

1.You should always update your router and make sure you have a modern router that is compatible with high speeds.2.

 You must check the telephone wires coming from the box and make sure that they are intact and without connections, because the connections may affect the speed of the Internet.

3.Try to connect through Wi-Fi because the speed of the wireless connection is faster. From time to time, scan your computer with an antivirus program to make sure that the device is free of any malware or malware.

4.While browsing, it is best to open one browser and minimize tabs.

5.Delete temporary files and you can use specialized software such as .

6.ccleaner Try as much as possible to connect the telephone wire directly to the router, as this will greatly help you in speeding up the Internet.

7. Turn off automatic Windows updates and make them manual so that Windows does not consume a lot of the Internet.

7. Internet speed in Arab and international countries: the global average

According to the "Speed Test Global" index, the average speed of downloading files from the "internet" via the mobile network in the UAE increases by 228.7% over the global average of (76.04). Mbps), while the speed of data transmission to the Internet is 102% faster than the global average of (14.28 Mbps). The download speed via the mobile network in Bulgaria reached (249.51 Mbps), ranking second in the world after the UAE, followed by South Korea with a download speed of (236.36 Mbps), Qatar (222.96 Mbps), and Norway fifth in speed. Download (201.50 Mbps.

 Kuwait came sixth with a download speed (198.93 Mbps), then Saudi Arabia seventh with a download speed (187.78 Mbps), followed by Cyprus, which came in eighth place with a download speed (182.31 Mbps), then China ninth with a

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download speed. (177.88 Mbps), while Australia ranked tenth with download speed (168.63 Mbps).

In terms of network and fixed broadband speed, the UAE advanced two places to rank first in the Middle East and 15th globally in the speed of fixed broadband connection, after the average download speed across the network reached (120.41 Mbps), while the speed of data transmission to the network reached (81.34 Mbps). The UAE is at the forefront of the world in terms of penetration of the FTTH network for the third time in a row.

8. An experiment in doubling the internet speed 15 times

This Gulf achievement was not a coincidence. Rather, it was the result of hard work and continuous efforts that lasted for years, in which the Gulf countries devoted their attention to the development of this vital and important sector. The report "Index of Information and Communication Technology Usage in the GCC Countries for 2021" showed the development of mobile phone services and communication technologies in the Gulf countries, with the widespread use of the Internet in the GCC countries.

Mobile phone services and information technologies in the GCC countries have developed rapidly, especially in light of the entry of private sector companies into the market to provide the service, which helped record tangible increases in the number of users, to enhance the foundations of the digital economy in the region, and its contribution to increasing levels of productivity. competitiveness and the development of new mechanisms for accessing government e-services to keep pace with the upcoming industrial revolution, artificial intelligence updates and the Internet of Things.

As for the reasons for the Gulf supremacy in this field, the Gulf countries possess a highly distinguished infrastructure for communications and information, which enabled them to occupy very advanced ranks at the regional and global levels, with indicators of information and communication technologies and digital transformation, thanks to keeping pace with the information and communication revolution that the world witnessed during the nineties of the last century. . And that the development in the use of communications and information technology services was reflected in the way of life, and strengthened the role of the digital economy, to make the Arab Gulf countries pioneers in information and communication technologies, especially with the development of economic strategies stimulating economic diversification in preparation for the post-oil era.

His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, said, "The information and communication technology sector represents a basis for developing our human resources, a basis for the growth of our economy, and a basis for developing the quality of life in our society."

After chairing the cabinet session, Sheikh Mohammed announced that the council had adopted the technology and communications strategy in the UAE until 2021, which included developing 36 performance indicators in the areas of quality,

speed, prices, infrastructure, employment, education and innovation, and raising the country's global ranking.

The strategy includes a wide range of indicators, including an increase in broadband speeds 15 times in the UAE, an increase in the number of secure servers 20 times, and an increase in subscriptions to 5 times, and the sector is expected to generate 45 thousand jobs between 2014 and 2021.

9. Conclusions and recommendations

The previous study showed that all factors, whether environmental or physical factors, affect the speed of the Internet, as well as the companies and servers that provide the Internet.This study recommends contracting with international companies and reputable companies that provide perfect internet and good internet speed to keep pace with global development and information technology such as Verizon Communications, AT&T and NTT. It provides highly efficient Internet services and Internet technologies. And Working in fifth-generation networks raises the level of Internet speed significantly.

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