

A Method to Access a Decimal Network (IPV9) Resource

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Abstract—Network security is highly valued by world leaders. The current Internet technology core is IPv4, IPv6, completely controlled by the United States. On December 14, 2017, the US Federal Communications Commission (FCC) formally abolished the net neutrality law. At that time, the Internet took on an obvious political color and posed a serious threat to Internet applications in various countries. China's economy is already highly dependent on the Internet, and if the network is disrupted, the whole country will suffer heavy losses. The decimal Network Standard working Group of The Ministry of Industry and Information Technology of China and The Decimal Network Information Technology Co., LTD of Shanghai have been researching on the future network for more than 20 years. Developed a complete set of decimal network framework system, completed the future network series research and development with China's independent intellectual property rights, and built the second Internet network system besides the United States. The technology has been fully tested in many places and achieved good results, truly achieving the goal of "autonomy, safety, high speed and compatibility". This paper will introduce the method of accessing decimal network resources in the current network environment.

Keywords-Decimal Network; CHN; Domain Name; Network Resources

Decimal network is a complete independent intellectual property rights based overall decimal digital code, the establishment of 2^{256} times of cyberspace sovereignty. It includes 13 root domain name servers from the parent root, the primary root, and the zero-trust security mechanism for communication after verification. Compatible with current Internet systems, it has a future Internet architecture that overlaps geographical location and IP address space. Most Internet applications today are based on IPv4 environments. In the context of the existing Internet network, the IPV9 .chn domain name network can be accessed by setting up the existing computer or terminal. Most current computer browsers and mobile browsers support access. For example, Firefox, Google Chrome, Microsoft Edge, 360 speed browser and so on are common on computers. Safari and Baidu browser commonly used on mobile phones need to set the network DNS and point to the IPV9 DNS server before using the browser to open the website. The addresses are: 202.170.218.93 and 61.244.5.162. Once set up, you can access the resources of the decimal network in the current Internet environment.

Before visiting, a few typical IPV9 sites are recommended, as shown in Table 1. Here are the steps to accessing the .C web site on your PC and mobile phone.

TABLE I. TYPICAL CHN DOMAIN NAME WEBSITES

Website domain name	Web resources	Resource management	Resources to address
http://www.v9.chn	.chn portal website	Decimal Network Standard Working Group	Shanghai
http://em777.chn	Decimal technology introduction website	Shanghai Decimal Network Information Technology Co. LTD	Shanghai
http://www.xav9.chn	Xi 'an Decimal System portal	Xi 'an Decimal Network Technology Co. LTD	Xi 'an
http://www.xa.chn	V9 Research Institute portal	Xi 'an Weijiu Research Institute Co. LTD	Xi 'an
http://www.hqq.chn/	The red Flag Canal craftsman	Xi 'an Decimal Network Technology Co. LTD	Xi 'an
http://www.zjsjz.chn	Zhejiang Decimal System portal website	Zhejiang Decimal Network Co. LTD	Hangzhou
http://www.zjbdth.chn	Beidou day draw	Beidou Tianhua Information Technology Co. LTD	Hangzhou

I. COMPUTER ACCESS. CHN WEBSITE SETTINGS
 Introduce with Windows10 system settings (PC).

1) First click the "Network" icon on the desktop and select the "Properties" option. The interface appears as shown in Figure 1.



Figure 1. Network and share Center setup interface

2) Click the "Connection: Ethernet" option in the network and Sharing Center setting interface. The interface appears as shown in Figure 2.



Figure 2. Ethernet status interface

3) In the Ethernet status interface, click the "Properties" button. The dialog box appears as shown in Figure 3.



Figure 3. Ethernet property interface

4) In the Ethernet property interface, double-click the option "Internet Protocol Version 4 (TCP/IPv4)". The dialog box appears as shown in Figure 4.

Setting the preferred DNS and alternate DNS and finished setup.

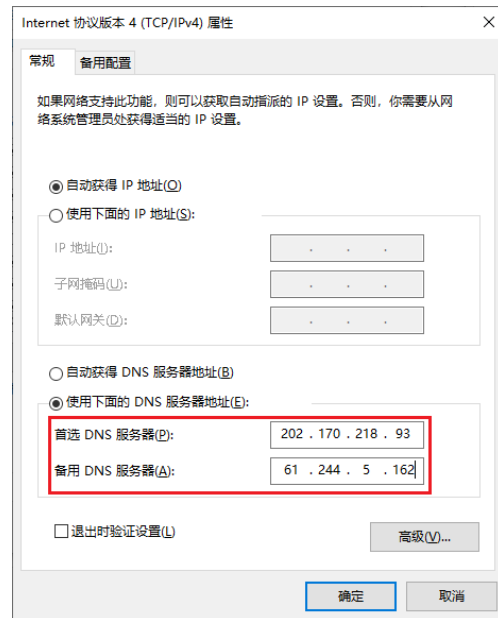


Figure 4. Internet Protocol version 4 (TCP/IPv4) properties

5) Open a browser. Firefox or Google Chrome is recommended. Enter <http://www.hqq.chn> in the browser address bar to access the IPV9 site, as shown in Figure 5.

II. MOBILE ACCESS .CHN WEBSITE

At present, there are many types of mobile phones, but the setting method is similar. Android mobile phone can download the plug-in (download address: <https://www.dtgy.com/HomeSearch>) by flow direct access. But in most cases, access to .chn resources will be more convenient over local Wi-Fi. It can also be accessed through mobile hotspots, with the same Settings as Wi-Fi and mobile hotspots. Take Huawei (Android system) mobile phone and iPhone (iOS system) mobile phone as an example to introduce the setting method of mobile DNS.

A. Huawei Mobile Phone setting

The phone type is HUAWEI Mate 20, Android 10 and EMUI 10.1.0.

1) Click "Settings" on the desktop of the mobile phone to display the setting interface, as shown in Figure 6.



Figure 5. Access the IPV9 site



Figure 6. Mobile phone Setting Interface



Figure 7. Wireless connection setting interface

2) Click "Wireless LAN" in the interface, and the interface appears as shown in Figure 7.

3) Press on the connected network name for a while, and additional menu options appear, as shown in Figure 8. Click "Modify Network" menu, the interface of network parameter setting appears, and select "Display Advanced Options", as shown in Figure 9. Select the "Static" option, as shown in Figure 10.



Figure 8. Modification of network Interface

Figure 9. Parameter setting interface

4) Modify DNS according to the parameters in the figure. After modification, click "Save" button to complete the setting.



Figure 10. Modification of network Interface



Figure 11. Parameter setting interface

5) Return to the main interface of the mobile phone and enter <http://www.xand.chn> in the browser

(Firefox or Google Chrome) to browse the overseas study service website for testing, as shown in Figure 11.

The rest are Xiaomi phones, Vivo phones and so on. You can access IPV9 network resources by simply setting the DNS Settings for the connection network.

B. iPhone parameter setting

Mobile phone model: iPhone XR, system: IOS13.5.

1) Click "Settings" on the desktop of the mobile phone to appear the setting interface. Click "Wireless LAN" in the interface. The interface appears as shown in Figure 12.

2) Click the icon ⓘ on the right of the connected WLAN, and the network setting interface appears, as shown in Figure 13.



Figure 12. Interface of wireless LAN Figure

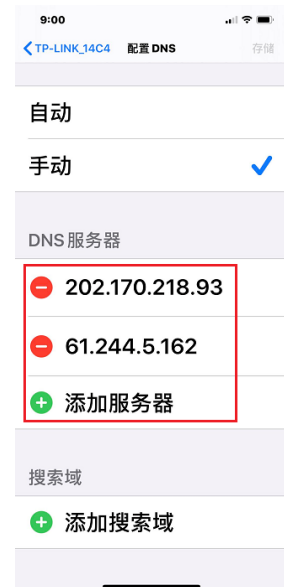


Figure 13. Interface of wireless connection parameters

Figure 14. DNS Setting Interface

3) In the setting interface, select "Configure DNS" and the DNS setting interface appears, as shown in Figure 14. Select the Add Server option and enter the DNS address shown in the figure. Click the "Save" command in the upper right corner of the interface to complete the setup.

4) Open the browser. Enter http://www.xav9.chn in the address bar to open the main interface of Xi 'an Future Network, as shown in Figure 15.

III. METHOD OF ACCESSING IPV9 WEBSITE WITH CHINESE DOMAIN NAME

In addition to accessing network resources through character domain names, the decimal network system can also use Chinese domain names to access, in the format: http:// Chinese.****, but before access to the following Settings. Take the Firefox browser, for example.

1) Open the Firefox browser and click the menu button in the upper right corner to open the browser Settings menu, as shown in Figure 16.

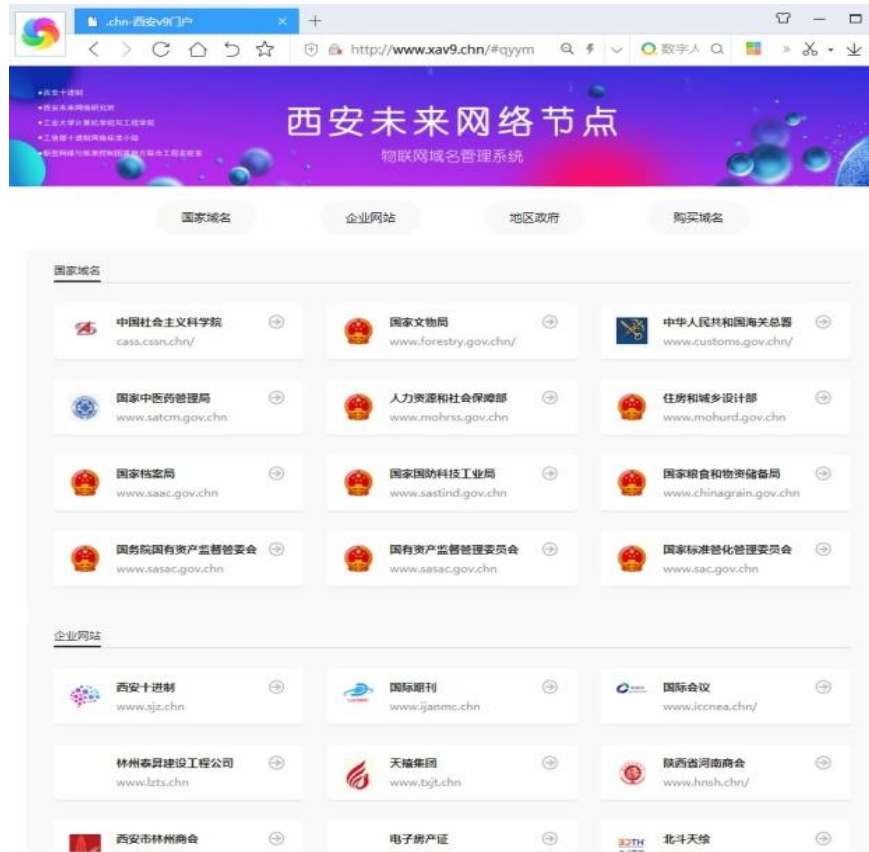


Figure 15. Xi 'an Future Network main interface

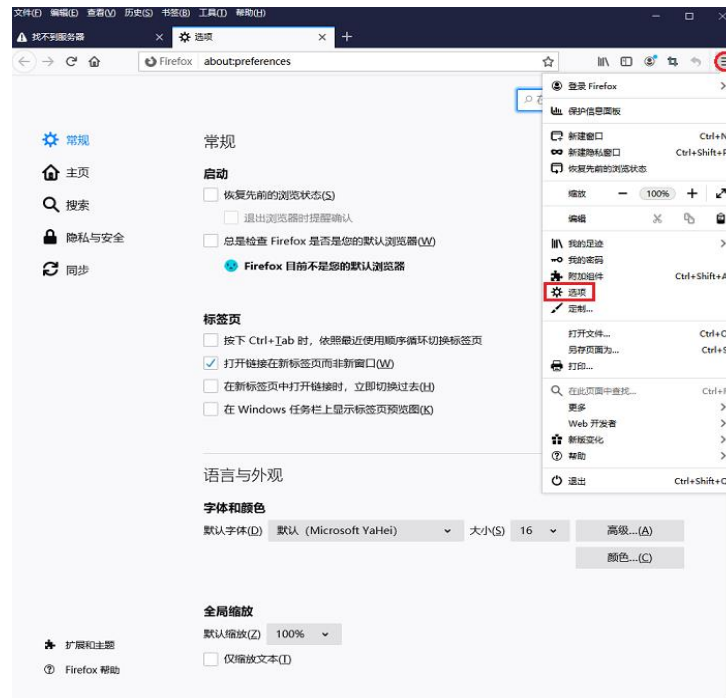


Figure 16. Firefox menu Settings screen

2) Click the "Options" command, drag the right scroll bar to the bottom of the page, and network Settings appear, as shown in Figure 17.



Figure 17. Firefox menu options screen

3) Click the "Settings" button in network Settings, and the "Connection Settings" dialog box appears, as shown in Figure 18. In the Configure Proxy Server to Access the Internet option, select Do not Use proxy Server (Y), and then select Enable HTTPS DNS at the bottom of the screen. Finally enter `https://doh.zsw9.cn/dns.query` in the "custom" edit box.

4) After setting, click "OK" button to complete setting. Enter the Chinese domain name "China Micro Nine Research Institute" into the Firefox browser to access Chinese website resources. This is shown in Figure 19.

To facilitate test access, several typical IPV9 sites are recommended, as shown in Table 2.



Figure 18. Firefox connection Settings screen



Figure 19. Website of Xi'an V9 Research Institute

TABLE II. TYPICAL CHINESE DOMAIN NAME WEBSITES

Character of the domain name	Web resources	Chinese domain name	Resource management
http://www.ijanmc.chn	New online international journals	http:// in China. New network and detection control	Xi'an Technological University
http://www.iccnea.chn	ICCNEA International Conference Website	http:// in China. The international conference on	Xi'an Technological University
http://www.xa.chn	.chn portal website	http:// in China. Micro Nine Research Institute	Xi 'an Decimal Network Company
http://www.xav9.chn	Xi 'an Decimal System portal	http:// in China. Xi 'an Future Network Portal	Xi 'an Decimal Network Company
http://www.xand.chn	Xi 'an NORTON Study Abroad website	http:// in China. Xi 'an NORTON Study Abroad	Xi 'an Decimal Network Company
http://www.hqq.chn	The red Flag Canal craftsman	http:// in China. The red Flag Canal craftsman	Xi 'an Decimal Network Company
http://www.xazn.chn	The website of Zhengnuo Conference Company	The website of Zhengnuo Conference Company	Xi 'an Decimal Network Company

In addition to accessing network resources through character domain names and Chinese characters, the decimal address can also be used to access resources. A website corresponds to a decimal address. At the same time, we can also realize a decimal address

corresponding to multiple network resources in the way of subdirectory structure. Since decimal address access is bound to the computer in the background, setup is cumbersome, and only a presentation interface is provided here, as shown in Figure 20.



Figure 20. Red Flag Canal Craftsman website

At present the decimal network is in the experimental application stage, although the network resources are less, but the original resources running on the Internet can be completely translated to the decimal network system. With the introduction of national policy, the decimal network of resources will be more and more. The decimal network application of China's independent intellectual property rights is bound to enter thousands of households.

IV. CONCLUSION

This paper introduces the method of using browser to access decimal network resources through personal computer terminal or personal mobile phone under the current Internet environment. A simple DNS setup is required to point to the decimal server to complete resource access. The setup is very simple, which lays

the foundation for a wide range of network applications.

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