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 2256 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.

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	

 TABLE I.
 TYPICAL CHN DOMAIN NAME WEBSITES

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.

💺 网络和共享中心		– 🗆 X
← → 丶 个 💆 > 控制面板 >	所有控制面板项 > 网络和共享中心	∨ ひ 搜索控制… ♪
文件(E) 编辑(E) 查看(V) 工具(I)		
控制面板主页	查看基本网络信息并设置连接	
更改适配器设置	查看活动网络	
更改高级共享设置	TP-LINK_14C4	访问类型: Internet
媒体流式处理选项	专用网络	连接: 🖳 以太网
	更放网络设置 设置新的连接或网络 设置宽带、拨号或 VPN 连接;或设置路 问题经理解答 诊断并修复网络问题,或者获得经难解留	由聲或渡入点。 "信息。
另请参阅 Internet 选项 Windows Defender 防火墙		

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.

🏺 以太网 状态		×
常规		
连接		
IPv4 连接:	In	ternet
IPv6 连接:	无网络访问	可权限
媒体状态:	i	已启用
持续时间:	10	:02:49
速度:	1.0	Gbps
详细信息()	
活动 ————		_
	exis — 💐 — e	己接收
字节:	252,147,437 445,55	i8,891
♥属性(₽)	♥禁用(D) 诊断(G)	
		关闭(C)

Figure 2. Ethernet status interface

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

网络 共享
连接时使用:
🚽 Realtek PCIe GbE Family Controller
配置(C)
此连接使用下列项目(Q):
✓ 早Microsoft 网络客户端
☑ 🦫 Microsoft 网络的文件和打印机共享
☑ 🥊 QoS 数据包计划程序
☑ _ Internet 协议版本 4 (TCP/IPv4)
□ _ Microsoft 网络适配器多路传送器协议
☑ ▲ Microsoft LLDP 协议驱动程序
☑ _ Internet 协议版本 6 (TCP/IPv6)
☑ ● 链路层拓扑发现响应程序 ✓
< >>
安装(<u>N</u>) 卸载(<u>U</u>) 属性(<u>R</u>)
描述
传输控制协议/Internet 协议。该协议是默认的广域网络协议,用 于在不同的相互连接的网络上通信
福宁 即当
WHAE *KVH

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.

Internet	协议版本 4 (TCP/IPv4) 属性		×
常规	备用配置		
如果M 络系約	网络支持此功能,则可以获取自动指 \$管理员处获得适当的 IP 设置。	派的 IP 设置。否则,你需要从网	
۲	自动获得 IP 地址(<u>O</u>)		
01	使用下面的 IP 地址(S):		
IP	地址(1):		
子	网掩码(U):		
課	认网关(D):		
0	自动获得 DNS 服务器地址(<u>B</u>)		
	使用下面的 DNS 服务器地址(E):		
首	选 DNS 服务器(<u>P</u>):	202 . 170 . 218 . 93	
备)	用 DNS 服务器(<u>A</u>):	61 . 244 . 5 . 162	
	退出时验证设置(L)	高级(⊻)	
		确定 取消	

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.dtgty.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 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



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 ⁽¹⁾ 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



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.

	From about:preferences 😰 III\ 🗉 🖷 🦷
	○ 在选项中查找
☆ 常规	① 此设置将影响使用这份 Firefox 程序的所有 Windows 账户及 Firefox 配置文件。
 ① 主页 Q 搜索 	✓ 使用一项系统服务以静默安装更新(B)
● 隐私与安全	11-65
8 同步	11日日 ✓ 使用推荐的性能设置(U) 详细了解 自动图率适合的电脑截置的设置。
	(史用目初始年(A) ✓ (使用平清論动(M)
	✓ 在需要的显示触摸键盘(K) ─ 律傅田糠食方向糠训资网页(键盘训资模式)(C)
	若在文本框外输入,则在页面中查找文本(2)
	 ✓ 启用画中画视频控件(E) 详细了解 ✓ 在您浏览时推荐扩展(E) 详细了解
	✓ 在您浏览时推荐新功能(f) 详细了解
♣ 扩展和主题	网络设置
⑦ Firefox 帮助	配置 Firefox 如何连接互联网。详细了解 设置…(E)

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.

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● 自动检测化网络的代理设置(W)		
使用系统代理设置(U)		
手动代理配置(M)		
HTTP 代理(X)	端□(P)	0
也将此代理用于 FTP 和 HTTPS		
HTTPS Proxy	端□(<u>O</u>)	0
ETP 代理	;;;□(R)	0
SO <u>C</u> KS 主机	第□□	0
て体用が増かい	重新載入	(E
(BC) () (WE (C))		
例如: .mozilla.org, .net.nz, 192.168.1.0/24 与 localhost、127.0.0.1 和 ::1 的连接永不经过代理。		
例如: .mozilla.org, .net.nz, 192.168.1.0/24 与 localhost、127.0.0.1 和 ::1 的连接永不经过代理。 如果密码已保存,不提示身份验证())		
例如: .mozilla.org, .net.nz, 192.168.1.0/24 与 localhost、127.0.0.1 和 ::1 的连接永不经过代理。 如果密码已保存,不提示身份验证() 使用 SOCKS v5 时代理 <u>D</u> NS 查询		
例如: .mozilla.org, .net.nz, 192.168.1.0/24 与 localhost, 127.0.0.1 和 ::1 的连接永不经过代理。 如果密码已保存,不提示身份验证() 使用 SOCKS v5 时代理 <u>D</u> NS 查询 ✓ 启用基于 <u>H</u> TTPS 的 DNS		
 例如: .mozilla.org, .net.nz, 192.168.1.0/24 与 localhost、127.0.0.1 和 ::1 的连接永不经过代理。 如果密码已保存,不提示身份验证() 使用 SOCKS v5 时代理 DNS 查询 ✓ 启用基于 <u>H</u>TTPS 的 DNS 选用提供简(P) 自定义 		×
 例如: .mozilla.org, .net.nz, 192.168.1.0/24 与 localhost, 127.0.0.1 和 ::1 的连接永不经过代理。 如果密码已保存, 不提示身份验证() 使用 SOCKS v5 时代理 DNS 查询 ✓ 启用基于 <u>HTTPS 的 DNS</u> 选用提供商(P) 自定义 自定义 https://dob.zsw9.cn/dns.query 		•

Figure 18. Firefox connection Settings screen

中国.微九研究院						82
₩究院-西安工业大学						○ 网站首页 更多服务
研究院 ##	8中心 应用中心 5标准 国际交流	网站首页	IPV9技术	t IPV9设备 研究	帘中心 应用中心	国际交流 技术团队
			-			
≫ IPv4/IPv6 与オ	未来网络技术参数比较	合作・交流・沟通・共	* "	未来"已来,	未来网络IF	V9今日亮相高交
10/2/2/4	IPv4/IPv6 2 ¹²⁻¹²⁸	IPV9/未来网络 2 ²³⁶	寄语	2020年未来网络IPV9元 空的主权,更是信息和	元年在现代科技制霸的 网络的主权。现有互…	信息社会,国家主权已不仅仅是 详细>>
根域名服务器	A, B, C, D, E, F, G, H, I,	N. O. P. Q. R. S. T. U. V.	[2]	专家 团队 人级·工	中生	05-02
000010100210984685	CN. JHK. US	CHN, HKG, USA	[E]	2 34 BURN 1 50 - T	TI	05 02
	 、4:点分十进制文本表示 0-255.0-255.0-255.0-255 、6:十六进制文本表示 FP.FFFF.FF 	5 中括号十进制文本表示: 972(6) 12345678	[3]	国外留学		07-07
	沒有國家18週齡土和自己國土公司要素	ALTORATE PARTY FOR THE PARTY OF	[4]	国际合作		07-07
MRURM	9.846562	零信任通讯 先给证后通信	101	100 BTT 144 AM		国际合作
通訊/55法 数字指示放注册	TP SPUISERUMA 有	1941	[5]	国际讲子		L/
			[6]	学术交流		07-07
IPV9与IPv4-6比较.J	IPg	一章一語"与朱未用語(IPV9 9 00 C		国际会议		07.07
- 24						
IPV9技术						更多>>
					í.	
	>> ++5H HARFEER - 1769 - 0040	. 1976B. 1965B				
Real Property lies	AREA DEFE AREA TANK A AREA TAN					
		ALL AND ADDRESS OF A DAMA (TAL)				
States and		en an arange or were some	. 🖮 T (
	And		a 😇 unina 🤨	1920		
Contraction of the local division of the loc						
"未来"已来,未来网	I络IPV9今日 未来	展望 "—	带一路"与河	未来网络 (IPV9)		

Figure 19. Website of Xi 'an V9 Research Institute

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

TADLEII	Turner Commerce and the state of the second
I ABLE II.	I YPICAL CHINESE DOMAIN NAME WEBSITES

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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