



# **Introduction to Technology and Internet**



**Paiboon Amonpinyokeat**

The background of the slide features a dense array of fiber optic cables. The cables are dark, and their ends are illuminated, creating a bright, starburst effect of light points. The overall color palette is a cool blue, with the light from the fibers providing a contrast. The text is centered horizontally and overlaid on the middle of the image.

# Introduction to Internet

# Internet Definition

**The Internet is a global system of interconnected computer networks that use the standard Internet protocol suite to serve billions of users worldwide.**

**The Internet carries an extensive range of information resources and services, such as the inter-linked hypertext documents of the World Wide Web (WWW) and the infrastructure to support email.**

*Reference: <http://en.wikipedia.org/wiki/Internet>*

# Birth of the internet

The Internet grew out of an experiment in the 1960s by the U.S. Department of Defense. The DoD wanted to create a computer network that would continue to function in the event of a disaster, such as a nuclear war. If part of the network was damaged or destroyed, the rest of the system still had to work. That network was ARPANET, (Advanced Research Projects Agency Network) which linked U.S. scientific and academic researchers. It was the forerunner of today's Internet.



**ARPANET Computer**

# Internet Anatomy

The Web physically consists of your personal computer, web browser software, a connection to an Internet service provider, computers called servers that host digital data, and routers and switches to direct the flow of information.



# Benefits of Internet

- Search and Online Knowledge
- E-Mail
- Online Video
- Live Video Conference
- Etc.





# Internet Protocol Stack

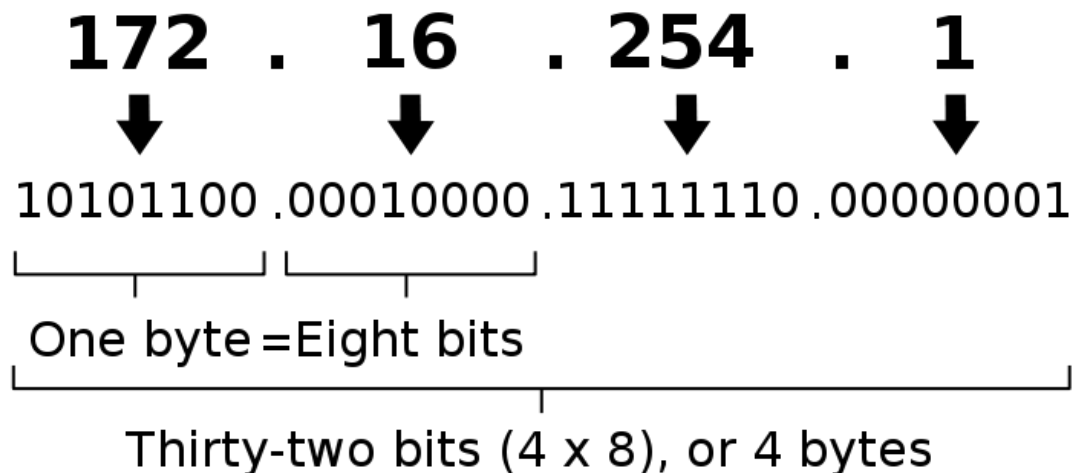
TCP/IP (Transmission Control Protocol/Internet Protocol) is the basic communication language or protocol of the Internet. It can also be used as a communications protocol in a private and public network. When you are set up with direct access to the Internet, your computer is provided with a copy of the TCP/IP program just as every other computer that you may send messages to or get information from also has a copy of TCP/IP.



# Internet Address

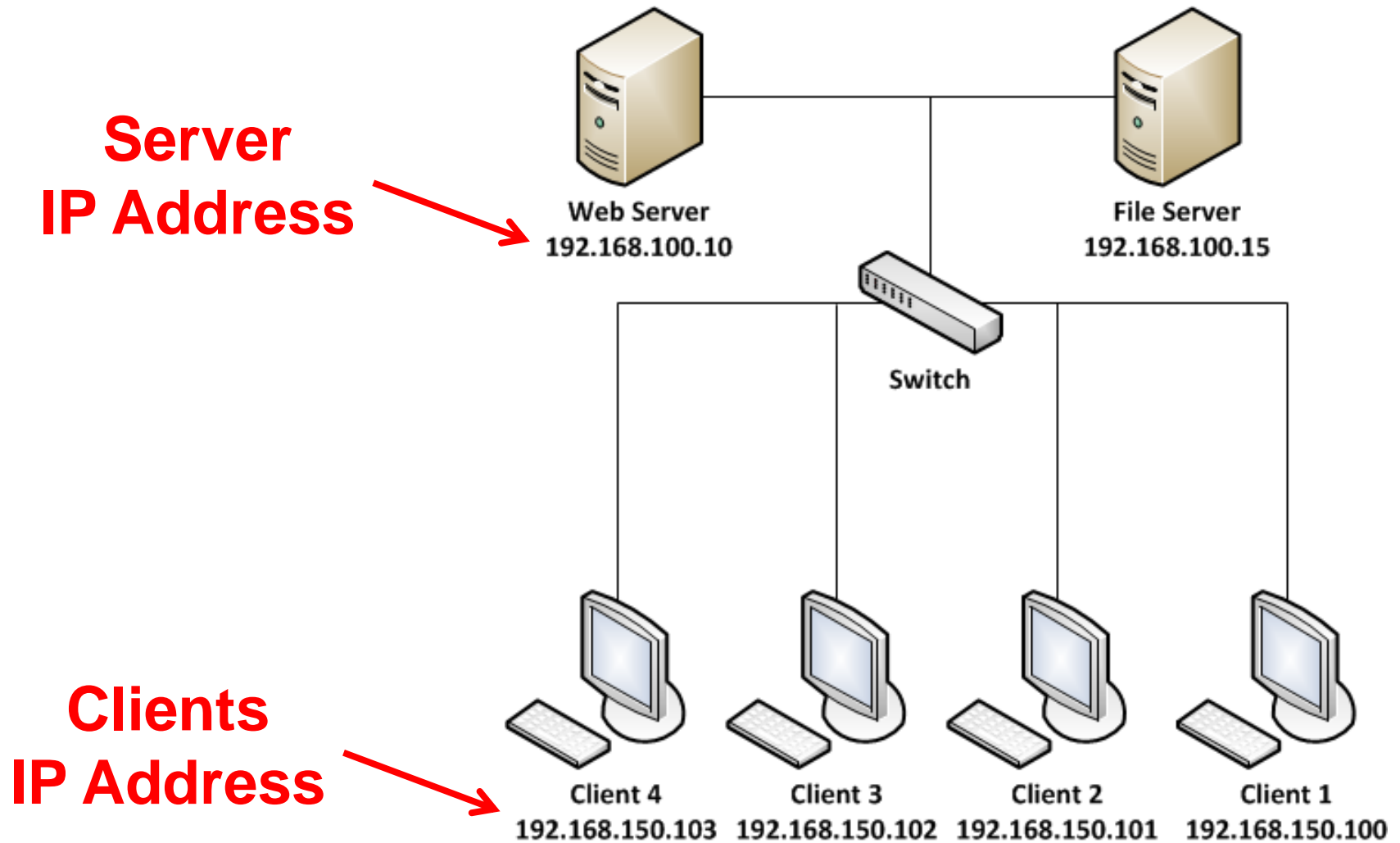
An Internet Protocol address (IP address) is a numerical label assigned to each device (e.g., computer, printer) participating in a computer network that uses the Internet Protocol for communication.

An IPv4 address (dotted-decimal notation)





# Internet Address



# Checking IP Address

## Windows Command Line

ping <<domain name>>

```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Forensics>ping www.google.co.th

Pinging www-cctld.l.google.com [209.85.175.94] with 32 bytes of data:
Reply from 209.85.175.94: bytes=32 time=47ms TTL=51
Reply from 209.85.175.94: bytes=32 time=47ms TTL=51
Reply from 209.85.175.94: bytes=32 time=47ms TTL=51
Reply from 209.85.175.94: bytes=32 time=51ms TTL=51

Ping statistics for 209.85.175.94:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 47ms, Maximum = 51ms, Average = 48ms
```

# Checking Network Route

```
C:\Users\Forensics>tracert 209.85.175.94
```

```
Tracing route to nx-in-f94.1e100.net [209.85.175.94]  
over a maximum of 30 hops:
```

```
  1      3 ms      2 ms      2 ms      192.168.150.1  
  2      *        *        *        Request timed out.  
  3     20 ms     19 ms     19 ms     10.169.212.177  
  4     19 ms     19 ms     19 ms     119-46-78-141.static.asianet.co.th [119.46.78.141]  
  5     19 ms     18 ms     19 ms     203-144-193-75.static.asianet.co.th [203.144.193.75]  
  6     19 ms     20 ms     20 ms     58-97-38-118.static.asianet.co.th [58.97.38.118]  
  7     20 ms     21 ms     21 ms     58-97-38-113.static.asianet.co.th [58.97.38.113]  
  8     48 ms     35 ms     21 ms     61-91-210-5.static.asianet.co.th [61.91.210.5]  
  9     22 ms     27 ms     24 ms     tig-net25-45.trueintergateway.com [122.144.25.45]  
 10     24 ms     35 ms     23 ms     TIG-Net241-241.trueintergateway.com [113.21.241.241]  
 11     47 ms     47 ms     46 ms     72.14.215.181  
 12      *        *        *        Request timed out.  
 13     47 ms     48 ms     46 ms     209.85.241.173  
 14     52 ms     53 ms     53 ms     66.249.94.186  
 15     47 ms     47 ms     47 ms     nx-in-f94.1e100.net [209.85.175.94]
```

```
Trace complete.
```

# Web Address

World Wide Web is a network of electronic files stored on millions of computers all around the world. Hypertext links these resources together. Uniform Resource Locators (URL) are the addresses used to locate the files. Every URL is and identifies one specific file.

## Example

[www.google.co.th](http://www.google.co.th), [www.chula.ac.th](http://www.chula.ac.th), [www.mthai.com](http://www.mthai.com)

# Domain Name System (DNS)

The **Domain Name System (DNS)** is a hierarchical distributed naming system for computers, services, or any resource connected to the Internet or a private network. It associates various information with domain names assigned to each of the participating entities. A Domain Name Service resolves queries for these names into IP addresses for the purpose of locating computer services and devices worldwide.

**www.chula.ac.th**  **161.200.192.248**

# Domain Name System

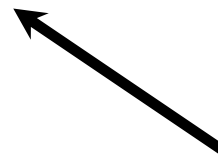
**www.google.co.th**



**DNS Server**

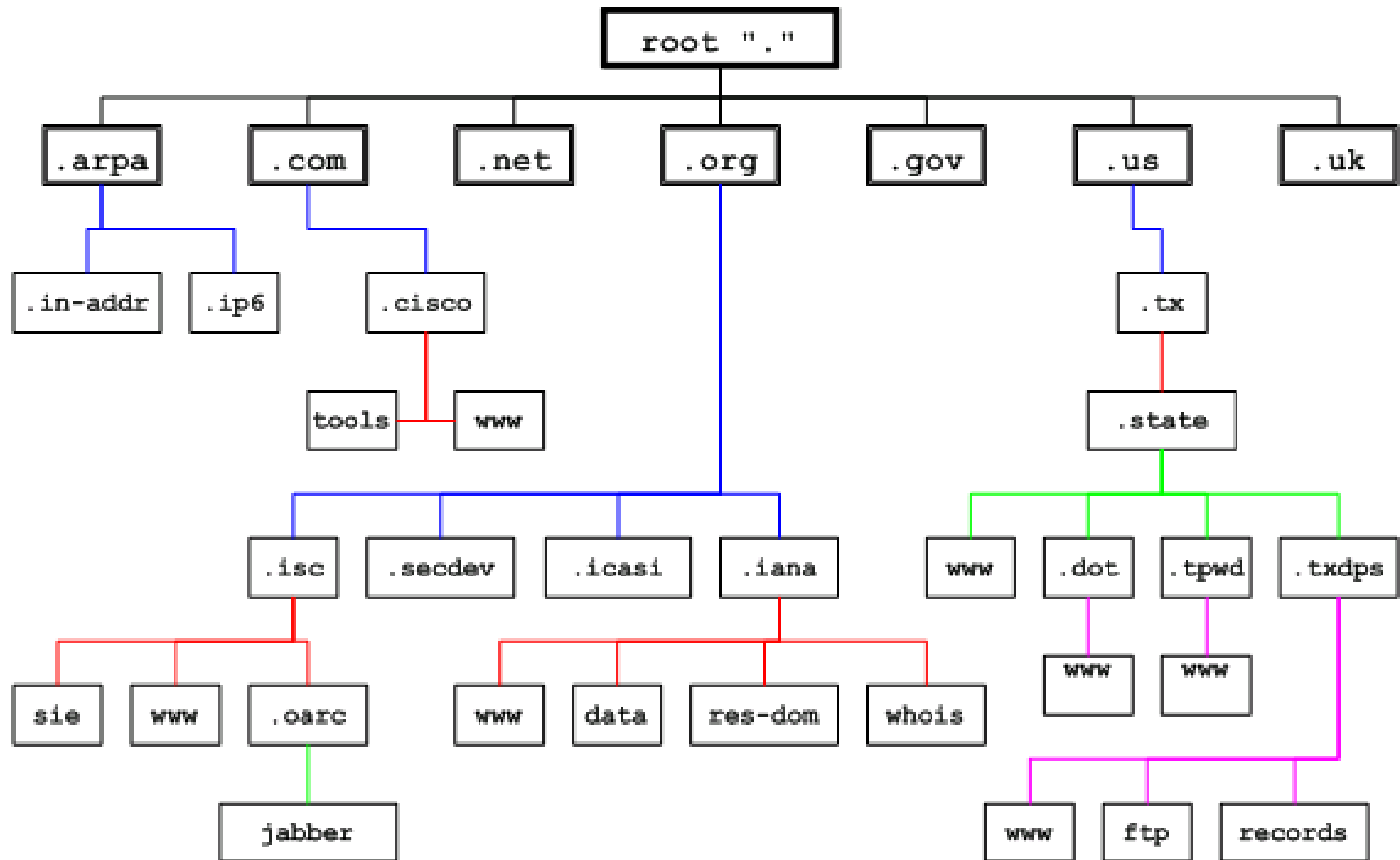


**Google**  
ประเทศไทย



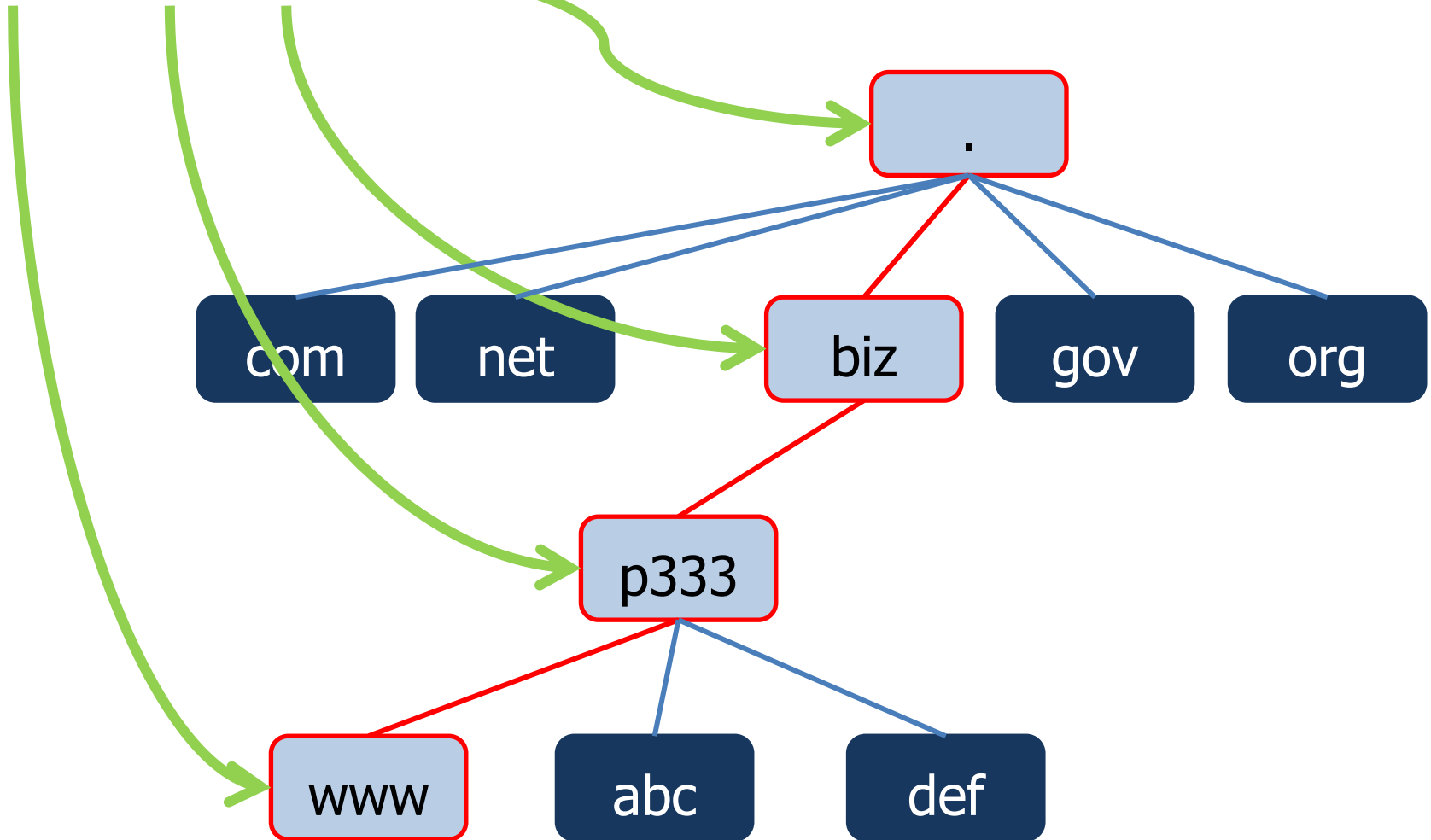
**209.85.175.94**

# Domain Name System hierarchy





www. p333. biz



# What is Registrar

- A domain name registrar is an organization or commercial entity to manage the reservation of Internet domain names in accordance with the guidelines of the designated domain name registries and to offer such services to the public.



Okay, cat.com is owned by Bob now.

Pls register "cat.com" for Bob

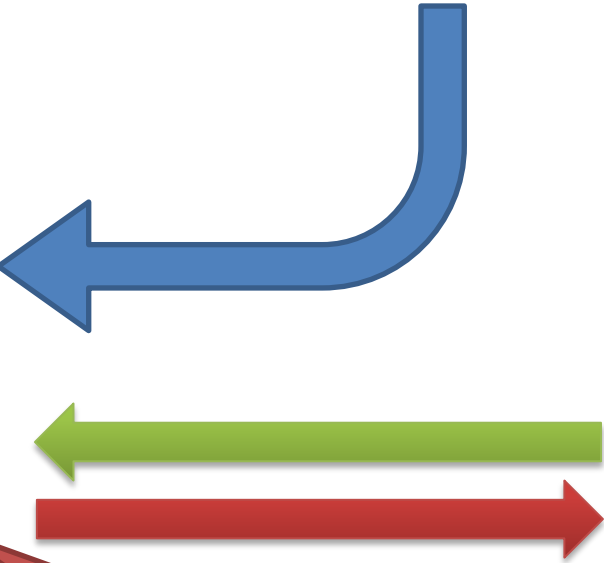
Registrar

A collection of logos for domain registrars: DotAra! (a blue swirl), tucows (a cow's head), and Go Daddy.com (a cartoon character with glasses).

Hey!, I want to register domain name "cat.com"

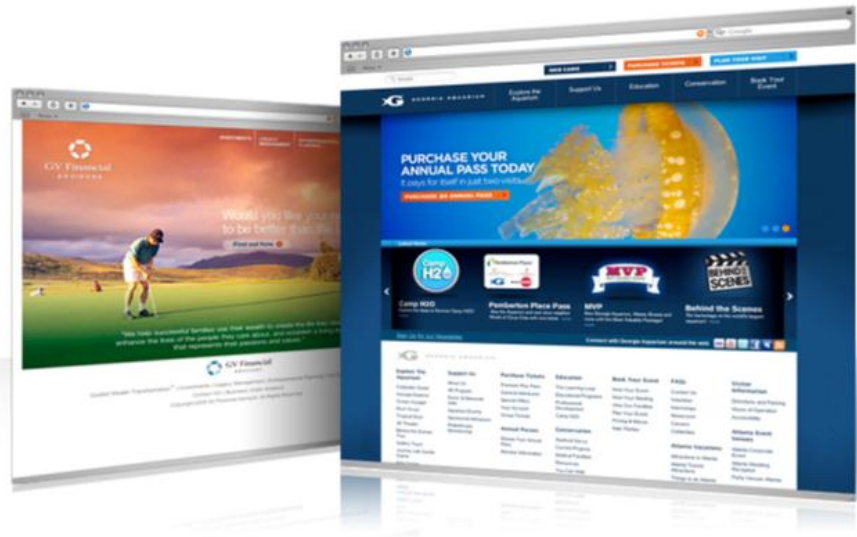


Bob



"cat.com" is yours, Bob

# Web Browsers



A web browser is the software program you use to access the World Wide Web, the graphical portion of the Internet. The first browser, called NCSA Mosaic, was developed at the National Center for Supercomputing Applications in the early 1990s. The easy-to-use point-and-click interface helped popularize the Web. Microsoft Internet Explorer and Netscape Navigator are the two most popular ones.

# Web Browser



Internet Explorer



Google Chrome



Firefox



Safari



Opera



Flock

# Investigate Domain Name

**Whois Lookup**

(I Know a Domain Name)

**Marketplace**

(I Want to Buy a Domain)

**Reverse Whois**

(I Know a Domain Owner)

## Search Domain Ownership Records

Tell us a domain name and we'll tell you all about that domain's ownership. [What's this?](#)

**Search for Domain >**

**Example:** domaintools.com or www.domaintools.com or domain tools or 207.178.4.6



www.domaintools.com

# Investigate Domain Name

[www.chula.ac.th](http://www.chula.ac.th)

Domain: CHULA.AC.TH

Registrar: T.H.NIC Co., Ltd.

Name Server: EXPLORER.NETSERV.CHULA.AC.TH

Name Server: NS.NETSERV.CHULA.AC.TH

Name Server: NS.THNIC.NET

Status: ACTIVE

Updated date: 11 Jan 2012

Created date: 17 Jan 1999

Renew date: 17 Jan 2012

Exp date: 16 Jan 2013

Domain Holder: Chulalongkorn University ( จุฬาลงกรณ์มหาวิทยาลัย )

Chulalongkorn University Phayatai Rd., Wangmai, Pratumwan, Bangkok  
10330

TH

Tech Contact: 98266

จุฬาลงกรณ์มหาวิทยาลัย

ถนนพญาไท เขตปทุมวัน กรุงเทพฯ

10330

TH





# What is Social Media

- A group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user-generated content.



# Top 10 Social Media Threats

1. Social networking worms
2. Phishing bait
3. Trojans
4. Data leaks
5. Shortened links
6. Botnets
7. Advanced Persistent Threats
8. Cross-Site Request Forgery
9. Impersonation
10. Trust

**QUESTION ?**



**THANK YOU!**

