

The logo for ARIN (American Registry for Internet Numbers) is displayed in white serif font. A horizontal blue line with a slight gradient passes through the middle of the letters. The background features a blue grid pattern and a stylized globe showing the Americas.

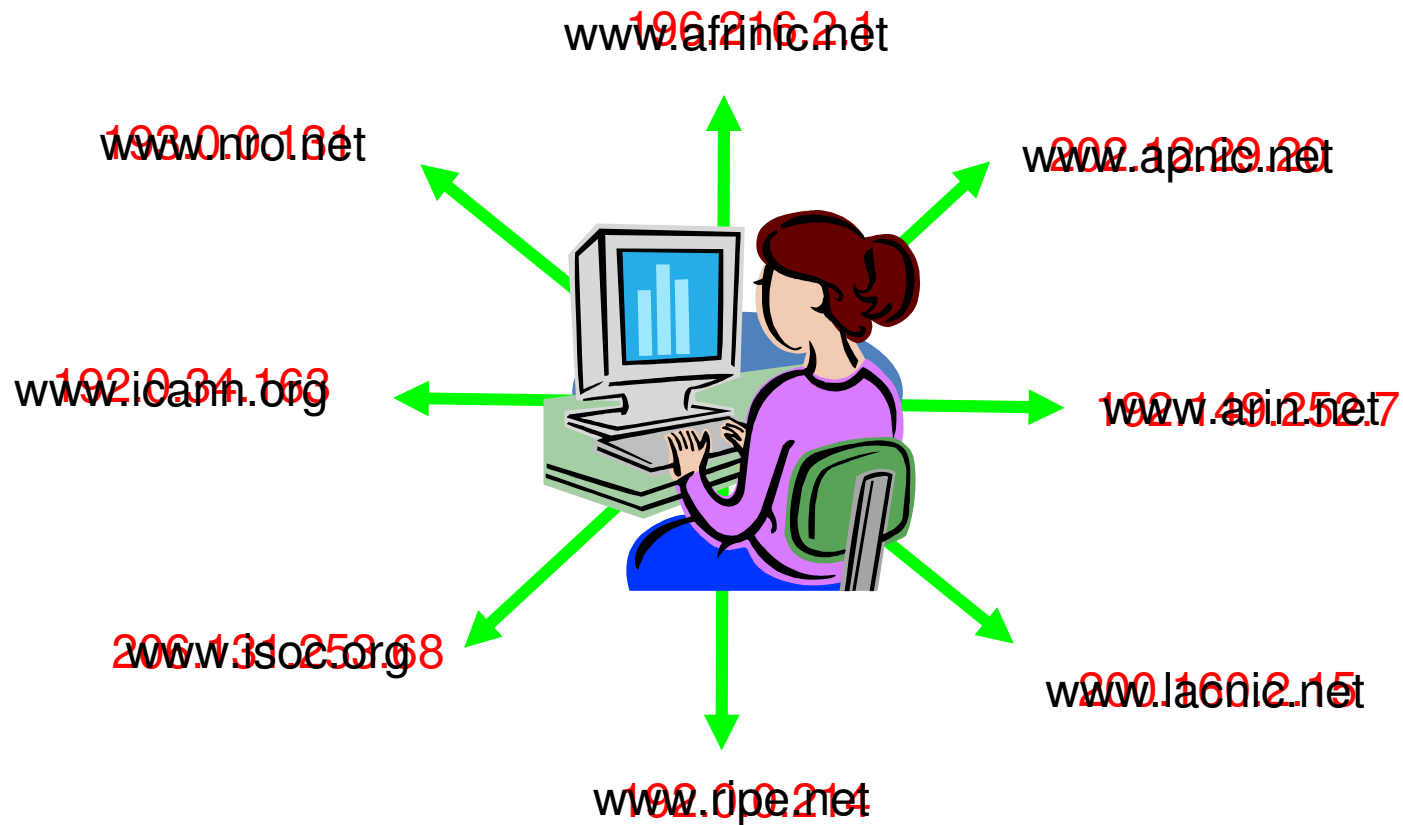
ARIN

American Registry for Internet Numbers

Internet Numbering & Names

Richard Jimmerson

On the Internet, domain names and IP address work together



What is an IP Address?

An *Internet Protocol (IP) address* is a number that identifies a device on a computer network.

What is an IP Address?

An IP address is a number.

Every device directly connected to the Internet needs a unique IP address.

There are two types of IP addresses – IPv4 and IPv6.

About IPv4 and IPv6

	Internet Protocol version 4 (IPv4)	Internet Protocol version 6 (IPv6)
Deployed	1981	1999
Address Size	32-bit number	128-bit number
Address Format	Dotted Decimal Notation: 192.149.252.76	Hexadecimal Notation: 3FFE:F200:0234:AB00:0 123:4567:8901:ABCD
Prefix Notation	192.149.0.0/24	3FFE:F200:0234::/48
Number of Addresses	$2^{32} =$ ~4,000,000,000	$2^{128} =$ ~340,000,000, 000,000,000,000,000, 000,000,000,000,000

IP Addresses Are:

- Necessary for Internet routing
- A finite common resource
- Not dependent upon the DNS

What is a Domain Name?

A *domain name* is label that a person uses in place of an IP address to locate a site on the Internet, like *www.arin.net*.

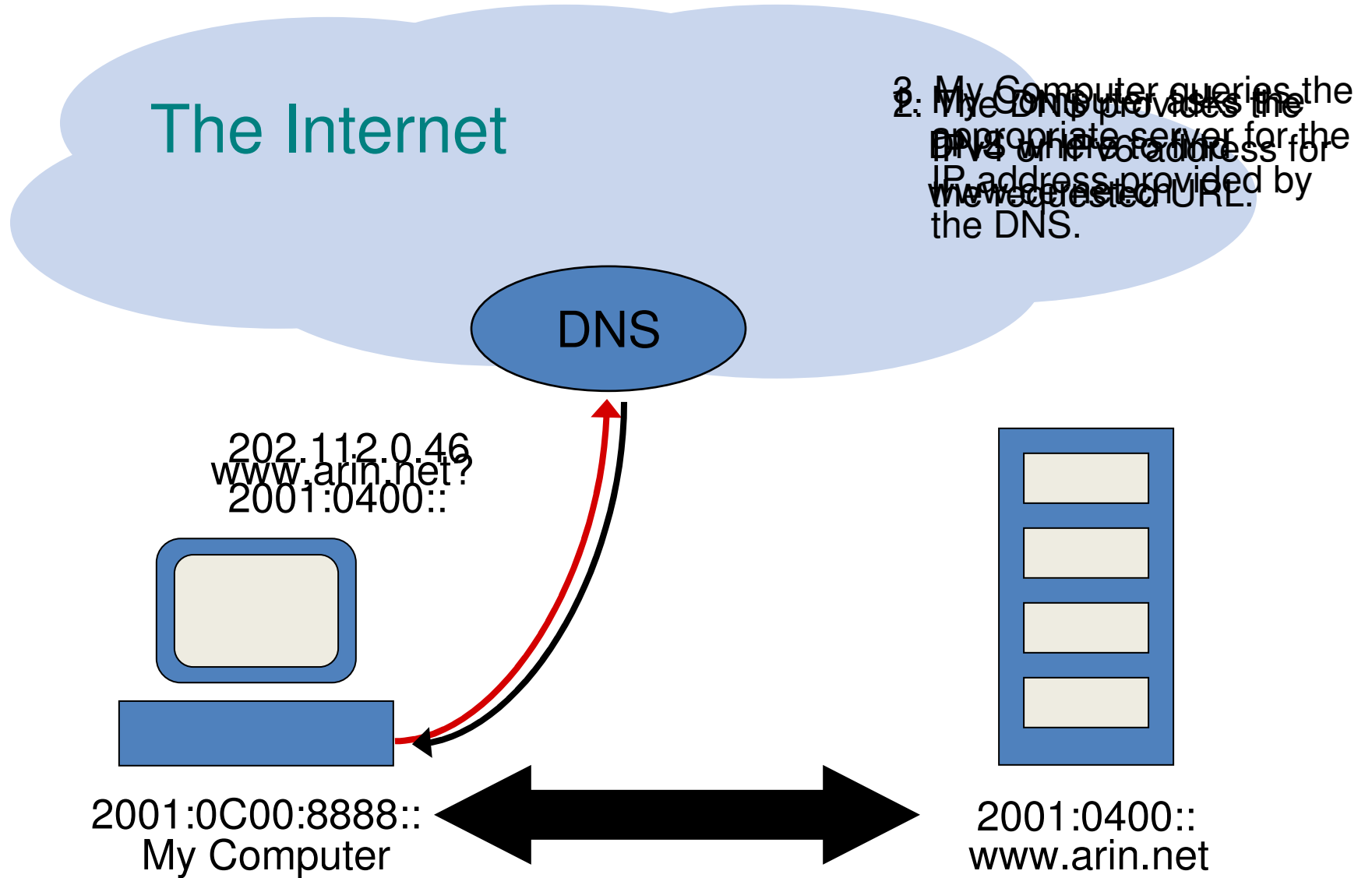
What is the Domain
Name System (DNS)?

The *Domain Name System (DNS)* is a way to store and retrieve information about domain names and IP addresses.

IP Addresses and Domain Names are Different

IP Address	Domain Name
192.149.252.76 *or* 3FFE:F200:0234:AB00: 0123:4567:8901:ABCD	www.arin.net
Locator	Label
Identifies Point	Identifies IP Address
Computer-friendly	Human-friendly
Used to Move Information	Used to <i>Store</i> Information

Using Domain Names



IP Addresses != Domain Names

"A name indicates what we seek.

An address indicates where it is.

A route indicates how we get there."

- RFC 791, Internet Protocol

(September 1981), Editor: Jon Postel

Participation Process for Domain Name Policies

- Open community participation inside ICANN processes
- Anyone may participate in the process
- <http://www.icann.org>

RIR Policy Development Processes for IP addresses

- The regional community of each RIR decides how their RIR will manage and administer Internet number resources.
- Anyone may participate in the process.

RIR Policy Development Processes for IP addresses

- **Participation includes:**

- Subscribing to the Policy Mailing List (PPML) and joining in the discussions
- Attending Public Policy Meetings or participating remotely through meeting webcasts
- Submitting a policy proposal to create new policy or revise current policy



CARIBBEAN ICT Roadshow





CARIBBEAN **ICT**
Roadshow

RIR Participation Information

ARIN

<http://www.arin.net/participate/>

LACNIC

<http://lacnic.net/en/politicas/>

ARIN
American Registry for Internet Numbers

The background of the slide features a dark blue grid pattern. On the right side, there is a stylized globe in shades of blue, showing the Americas. A thick, light blue curved line separates the top section from the bottom section.

ARIN

American Registry for Internet Numbers

Thank You
