Welcome To The 2021 .ng Entrepreneurship Reseller Programme

INTRODUCTION TO .NG RESELLER ENTREPRENEURSHIP PROGRAMME (REP)

Introduction

- Who is an entrepreneur?

  - a person who sets up a business or businesses, taking on financial risks in the hope of profit
  - An entrepreneur is a person who starts a new business and usually risks his own money to start the venture.
  - M. K. O. Abiola, Mike Adenuga,Taiwo Afolabi,Ganiyu Akanbi Bello, Demola Aladekomo, Folorunsho Alakija, Tonye Briggs-Oniyide, Tonye Cole – co-founder of Sahara Group, Founders of Jobberman, WHOGOHOST, etc.
  - Examples of well-known entrepreneurs include **Bill Gates**, **Steve Jobs**, **Mark Zuckerberg**, **Pierre Omidyar**, **Arianna Huffington** and **Caterina Fake**.

- Many Entrepreneurs see potential in this market
- NiRA provides opportunities for entrepreneurs

Lessons learnt from Jack Ma.

Lessons learnt from Jack Ma.

- To succeed, you must

  - Work Hard

  - Be Persistence

  - Have good understanding of Financial management

  - Be a Problem solver

  - Use your Imagination and be creative

NiRA's 3-R Operating Model

- NiRA operates the 3-R Model

- Registry/Registrar/Registrant

- Reseller role is not part of NiRA's model but NiRA accepts that Registrars will appoint/provide for Resellers.

- Resellers are the foot soldiers, closer to the community and registrants.

WHY BECOME A RESELLER

- Opportunity provided by Registrars
- Alternative source of income
- No investment required
- No infrastructure required
- Tools required are available (Device, Internet access)
- Earn an income
- Be a service provider
- Be an employer
- Feel good about yourself

Traits of a Successful Entrepreneur

- Passion
- Commitment
- Research
- Personal belief
- Network
- Hard work
- Innovative

GLOBAL DIGITAL POPULATION FEB 2021

- World population is over 7.9 Billion people

- About 5.22 Billion Mobile Users.

- About 4.66 Billion Internet Users

- About 4.20 Billion Active Social Media Users

STATISTICS FOR NIGERIA

	MAY 2020	JAN 2021
Total Population	206.14 million	209.81 million
Active Internet Users	128.72 million	151.30 million
Mobile Users	186.02 million	200.21 million

PERCENTAGE OF NIGERIANS (INTERNET USERS) ON SOCIAL MEDIA

86.2%

73.1%

61.4%

56.3%

32.8%

81.6%

67.8%

93%

.NG RESELLER ENTREPRENEURSHIP PROGRAMME (REP)

- The .ng Resellers Entrepreneurship Programme is an empowerment programme aimed at developing and training entrepreneurs and aspiring entrepreneurs about the Domain Name Industry.

- This training would provide insight into the vast opportunities that exist within the Domain Name Industry.

BENEFITS OF REP

- Start or grow businesses within the Domain Name Industry with minimum capital requirement

- Knowledge and skills on how to run a business online and tap from the vast opportunities in the cyberspace

- A unique opportunity to network with professionals within the Domain Name Industry

- Income generation Business

FINALLY......

- It's amazing that people want a better today/tomorrow/future but do not prepare for it. They don't sow the seeds, they don't invest in their future, they don't plan but expect a bright future. They believe somehow that things would get better tomorrow.
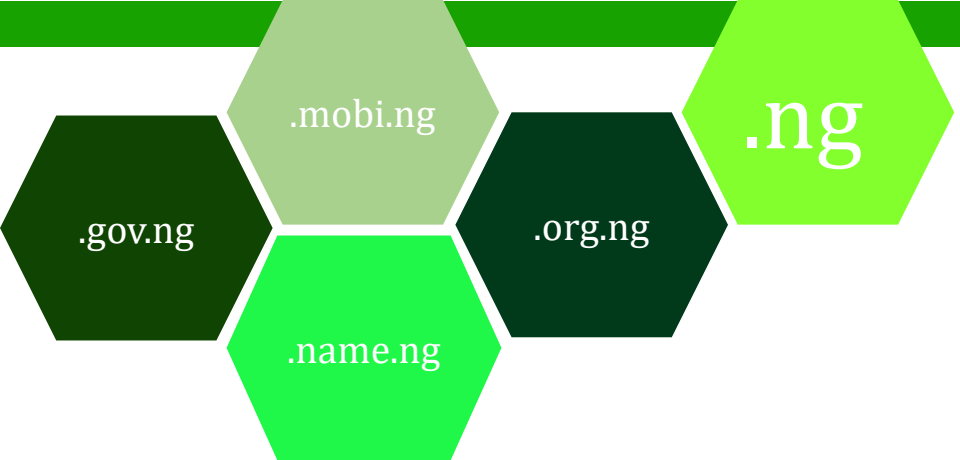
STOP MISSING OPPORTUNITIES; STOP THE EXCUSES

- Learn as much as possible

- Make a conscious decision today to start the business **TODAY**

- Partner and Network with Industry Players

- Research and Carve a **NICHE** for **YOURSELF**

- Provide **OUTSTANDING SERVICE**

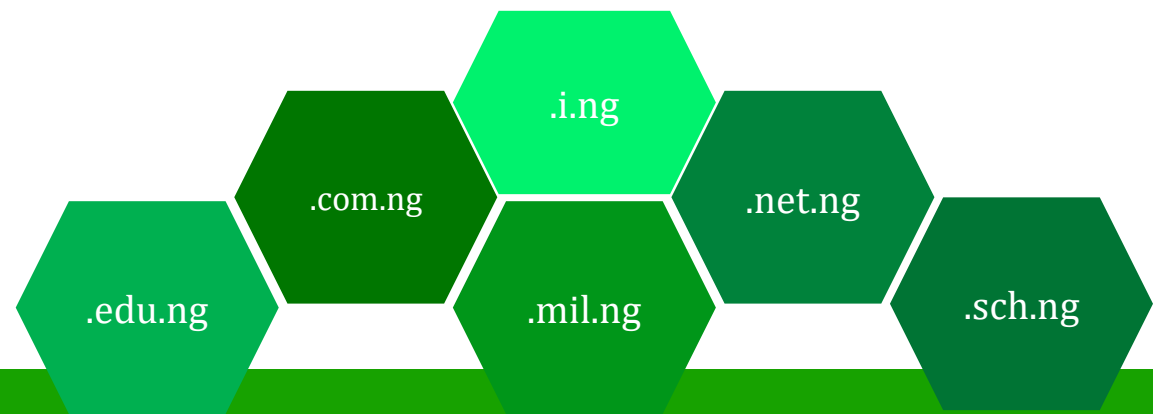You're an **INCH** away from **SUCCESS!!!**

Thank you!

.ng
Your Nigerian Identity online

We **connect**
you to the world
the **.ng** domain registry

www.nira.org.ng

INTRODUCTION

- The rapid outbreak of the COVID-19 presents an alarming health crisis that the world is grappling with. In addition to the human impact, there is also significant economic, business and commercial impact being felt globally.

- Yet this same pandemic has put e-commerce and other online businesses at the forefront of retail.

- Organizations are taking their business online and require brandable names with competitive advantage

- A lot of Micro, Small and Medium Enterprises (MSMEs) in Nigeria are not online, this is an opportunity to provide such service and make money from it.
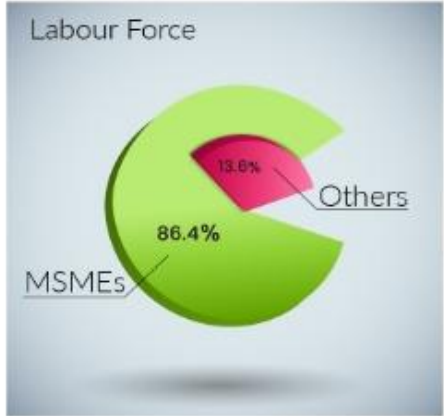
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INTRODUCTION (MSMEs in Nigeria)

41,543,028
Total number of MSMEs
in Nigeria

69.09 Million
Total number of
employed Nigeria

Labour Force

13.6% Others

86.4%

MSMEs

86.4%
Percentage of Nigeria labour force
Employed by MSMEs

59,647,954
MSMEs Contribution to the
Nigerian workforce

49.78%
MSMEs contribution to the
National GDP

.ng

What are the ways to use a domain name

1.) Email Account

ike@gmail.com

OR

ike@smartbiz.ng

2.) Website

smartphone.ng

3.) Forwarding to existing site and social media business page

smartphone.ng → **smartbiz.ng**
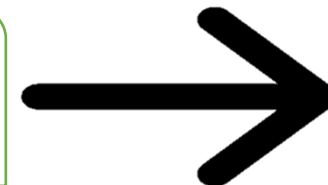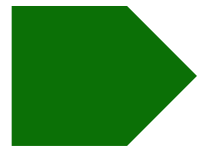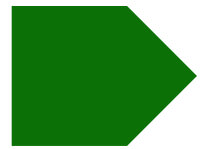
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Who we are: About NiRA
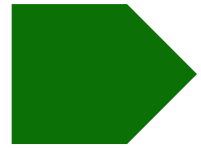
▶ Charged with the management of the .ng country code Top Level Domain Name (ccTLD)

▶ Founded in March 23rd, 2005 as a Stakeholder-led Organization

▶ Accredited Registrars from all over the world
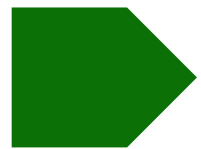
▶ Operates a 3R model of operation (Registry/Registrar/Registrant)

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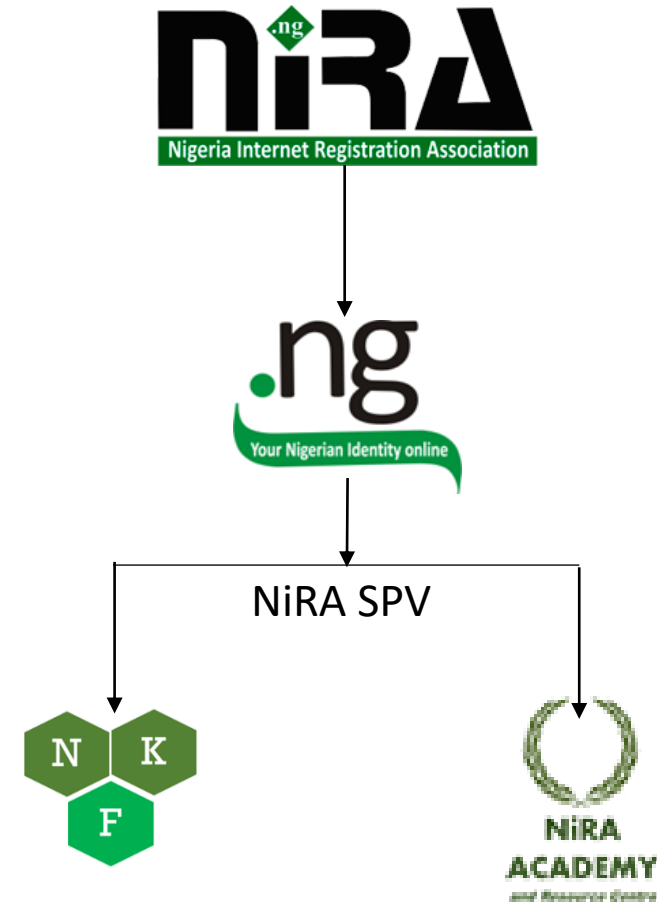
The 3R Model

➢ **Registrant**:

The organization or person responsible for a domain

➢ **Registrar**:

The middlemen who interact with registries on behalf of registrants

➢ **Registry**

The organization which maintains the register and publishes the zone (Register: The data that is maintained by the registry)

➢*Reseller*

A reseller is a third-party company that offers domain name registration services through an Accredited Registrar

Registry

Registrar

Registrant

Reseller

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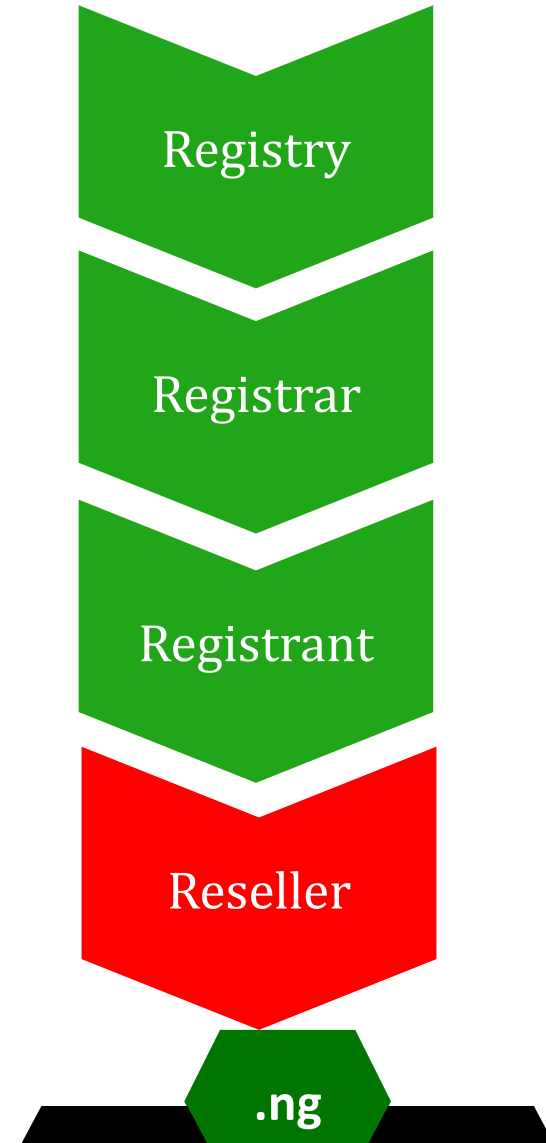
NIRA's Responsibility

- Maintain the Register of the .ng domain names

- Manage the .ng internet name space (ensure consistency in the registration, transfer and renewal)

- We run the technological infrastructure of the .ng registry

- We engage and certify Registrars.

- We offer trainings through NiRA Academy

- We provide .ng domain name look-up services (Whois).

- We offer Dispute Resolution Process.

- Offer NiRA Membership

- Give back to the society through CSR programs
  - Ndukwe Kalu Foundation (NKF)
  - .ng Awards
  - Free training

.ng

.ng Domain names

.ng
.ng is the ccTLD for Nigeria
Classification: Open

.com.ng
For commercial entities and purposes
Classification: Open

.org.ng
org.ng domain name for organisations and Not-for-profit entities
Classification: Open

.edu.ng
For Higher Institutions, Universities, Polytechnics and research institutions
Classification: Closed

.mobi.ng
For mobile devices, mobile lite content and applications
Classification: Open

.sch.ng
For schools including but not limited to colleges, Secondary schools, Primary schools and Kindergartens
Classification: Closed and at regional level

.ng

.ng Domain

.gov.ng
For Federal, State and Local Government bodies and agencies in Nigeria only
Classification: Closed

.mil.ng
For Military and related purposes only
Classification: Closed

.net.ng
For Internet service providers and Telecoms infrastructure providers
Classification: Closed

.i.ng
For all purposes and innovative domain names
Classification: Open

.name.ng
Your domain name just got a little more personal with .name.ng domain names. This is unique to you for your email address and website.
Classification: Open

.ng

Ten benefits of .ng domain name

1 Domain Name for maximum SEO

2 .ng Domain name are Brandable domain names

3 Geo-targeting benefits

4 ccTLDs such as .ng provides more opportunities

5 Availability of name on the .ng string

6 Consumer Recognition and trust

7 Less bandwidth usage especially when hosted locally

8 Support the Nigerian economy

9 Provide Jobs for local IT Professionals

10 Because you are a Nigerian

.ng

Opportunities in the .ng domain name space

NiRA has over the years encouraged and developed programs that facilitates the breeding of Entrepreneurs within the DNS industry in Nigeria. Under the .ng platform, several opportunities exists. They are:

1 NiRA Accredited Registrar

2 Reseller for NiRA Accredited Registrar

3 Website Hosting, Developer and Application Development

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BECOMING AN ACCREDITED REGISTRAR FOR .NG

1

NiRA Accredited Registrar

An Accredited Domain Registrar is an entity that is accredited to register Domain Names and administer providing Domain services to the public. In simple terms NiRA Accredited Registrar acts as the interface between Registrants and NiRA.

Benefits of becoming a NiRA Accredited Registrar:
- Financial reward
- Gaining the competitive advantage
- Building your brand and brand awareness;
- Offering reseller program and identifying yourself with a Nigerian presence.

The list of requirements for becoming a NiRA Accredited Registrar can be accessed on
www.nira.org.ng/become-a-registrar

.ng

BECOMING A RESELLER FOR A NIRA ACCREDITED REGISTRAR

2

Reseller for
NiRA Accredited
Registrar

Reseller programs are offered by Registrars. As a reseller, very minimal requirement and financial commitment is needed. The reseller basically acts like the middleman between the Registrar and Registrant.

Summary of the benefits of being a reseller include
- Immediate financial benefits
- Low financial investment
- Minimal company requirement
- High Returns
- Opportunity to become a Registrar

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WEBSITE HOSTING, DEVELOPER AND APPLICATION DEVELOPMENT

3

Website Hosting, Developer and Application Development

The Domain Name Business Space is limitless and highly lucrative. Other opportunities that can be explored are:

- Web development: content management sites like WordPress, Wix, Shopfinity etc.

- Web Hosting Partners for wholesalers or resellers of webhosting packages for retailers.

- Though application development still require some technical experience, the financial reward & benefits score above all else.

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DNS Business- Ancillary Opportunities

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Interesting knowledge:

- Fund.com – $9.9 million (2008)
- Fb.com – $8.5 million (2010)
- Insurance.com – $35.6 million (2010)
- Privatejet.com – $30.1 million (2012)
- Internet.com – $18 million (2009)
- Hotels.com – $11 million (2001)

- Blogger.com.ng – N1,5000,000.00 (2011)
- Blogspot.com.ng – N1,500,000.00 (2011)
- Bills.ng – N600,000.00 (2018)
- Bus.ng – N600,000.00 (2018)
- Honeywell.ng – N1,500,000.00 (2018)
- News.ng – N600,000.00 (2018)

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Thank you
Questions

Introduction to Domain Name System (DNS) and Management
Virtual Training for Domain Resellers

Olusegun Akinwunmi

Web Services Administrator, NiRA

NiRA Academy March 2021

Training Overview

- A Brief History of the Domain Name System (DNS)

- What is DNS?

- DNS components

- How the DNS (resolution) works

- DIG Command

- DNS Software

- DNS Security

- WHOIS

A Brief History of the Domain Name System (DNS)

The idea of mapping human-readable hostnames to numerical addresses originated in the 1970s, with **Advanced Research Projects Agency Network** (ARPANET), the predecessor of the modern Internet.

- 1970's ARPANET

- 1980's NSFNET
  - Host.txt maintained by the SRI-NIC
  - pulled from a single machine
  - Problems
    - traffic and load
    - Name collisions
    - Consistency

Early 1980s
Jon Postel and Paul Mockapetris

The DNS was created in 1983 and became one of the original Internet Standards in 1986 (After the creation of the Internet Engineering Task Force IETF). The two documents that marked the start are RFC 1034 and RFC 1035. They describe the whole protocol functionality and include data types that it can carry.

The Birth of DNS

Before working on the ARPANET, Mockapetris said that he was already developing the idea of efficient file systems for computers. However, his work was limited due to "small machine" available during his days at MIT.

So he took this opportunity to transform his concepts into reality. With the help of Jon Postel and Zaw-Sing Su, he proposed a new nomenclature for websites in 1983.

He suggested that host names should include:

- Name – for example, "NIRA"

- Categories/Purpose – for example, ".com – for commercial purposes"

After a year, the categories (or generic Top-Level Domains – gTLDs) were created. They included familiar extensions such as .com, .edu, .net, .org, .int, .gov and .mil. Before the end of 1985, there were six new names with .com. The first one ever registered, Symbolics.com, still exists today.

Old solution: hosts.txt

- A centrally-maintained file, distributed to all hosts on the Internet
- This feature still exists

/etc/hosts [Unix]

c:\windows\system32\drivers\etc\hosts [Windows]

192.168.11.25   nira.org.ng

196.216.149.45   Print-server

42.222.2.2   File-server

What is the Domain Name System (DNS)?

The Domain Name System (DNS) is the Internet's system for mapping alphabetic names (like www.nira.org.ng) to numeric Internet Protocol (IP) addresses (like 192.168.1.23).

The mapping is like how a mobile device user maps a person's name to a phone number in the phone book.

DNS is a global system for translating IP addresses to human-readable domain names. When a user tries to access a web address like "*www.register.ng*", their web browser or application performs a DNS Query against a DNS server, supplying the hostname. The DNS server takes the hostname and resolves it into a numeric IP address.
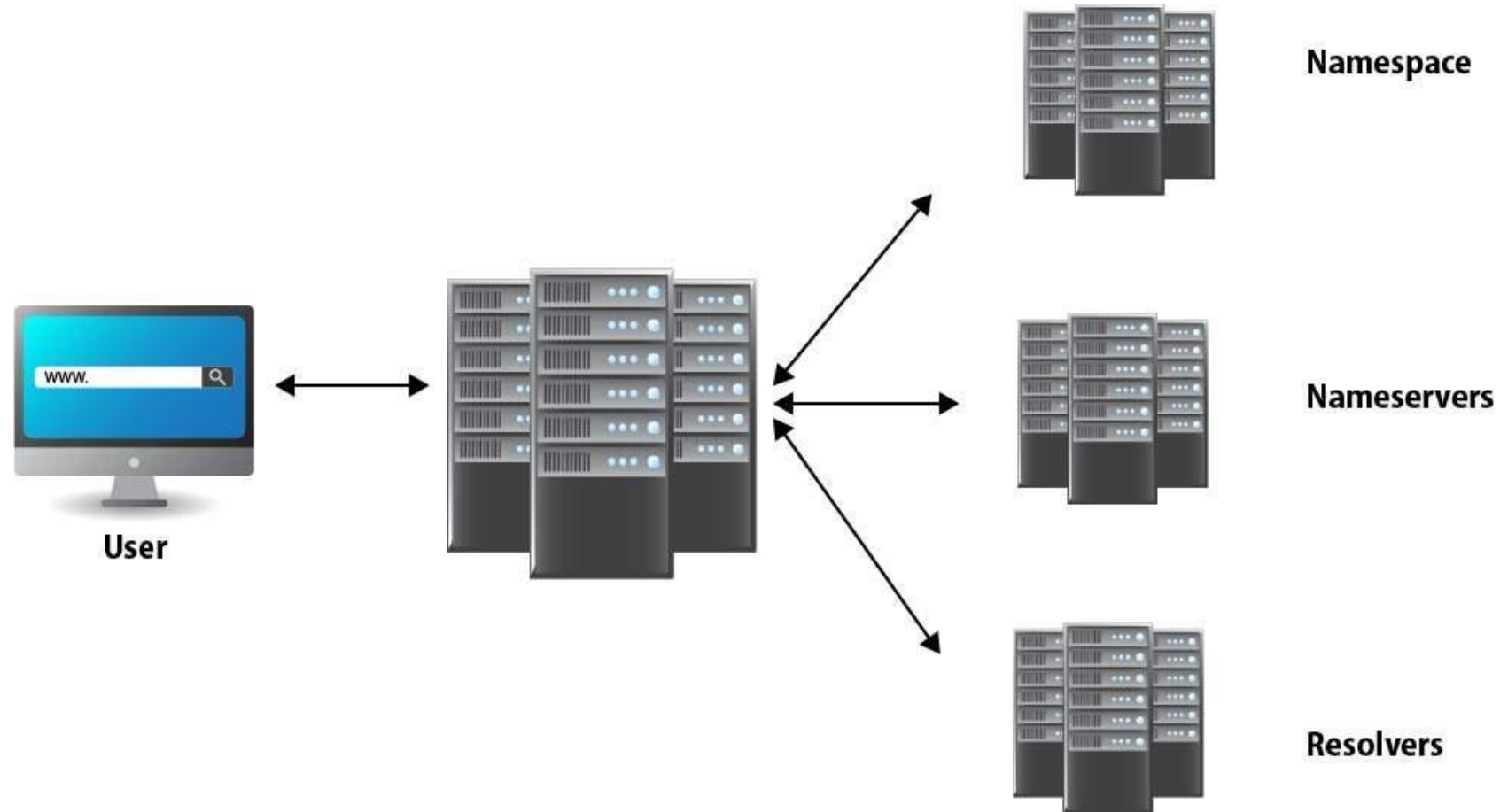
DNS Features

- Global Distribution

- DNS Scalability

- DNS Reliability

- DNS Dynamicity

Three components of DNS

1. A "name space"
2. Servers making that name space available
3. Resolvers (clients) which query the servers about the name space
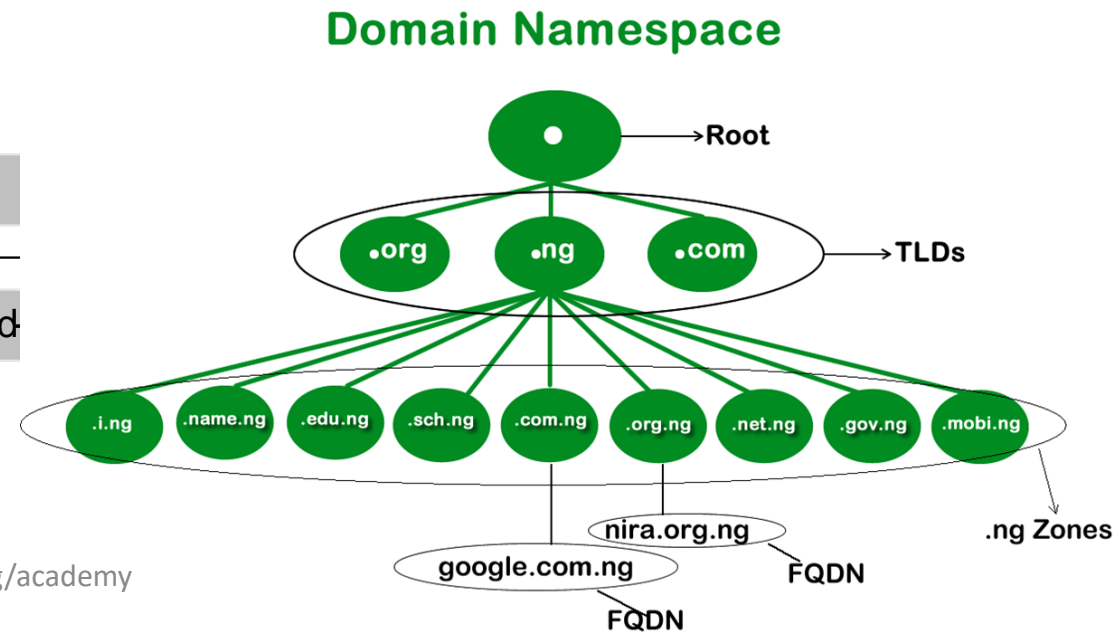
The DNS components

User

Namespace

Nameservers

Resolvers

The Name Space

- The *name space* is the structure of the DNS database
  - An inverted tree with the root node at the top

- Each node has a label
  - The root node has a dot label, written as .
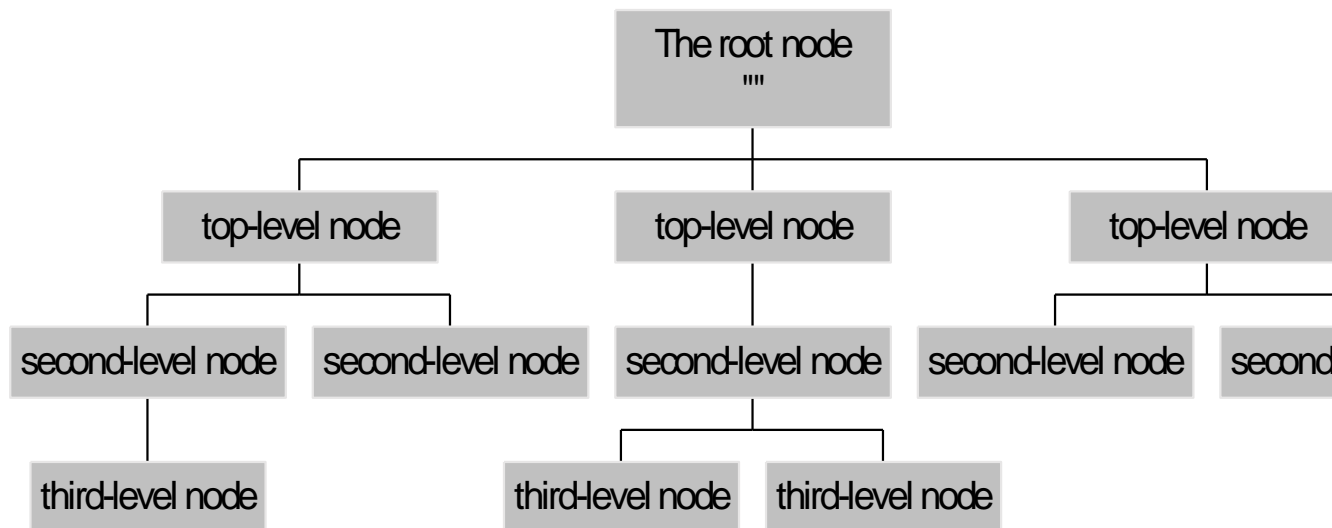
Name Servers

Nameserver is a server on the internet specialized in handling queries regarding the location of a **domain** name's various services.

Nameservers are a fundamental part of the **Domain** Name System (**DNS**).

Nameservers define your domain's current DNS provider. Most domain name registrars provide default DNS service.

There is also a Free DNS service. Free DNS is a DNS hosting service provided to help people whose domain registrars do not include DNS hosting with domain registrations.

Types of Name Servers

- Two main types of servers
    - Authoritative – maintains the data
        - Master – where the data is edited
        - Slave – where data is replicated to
    - Caching – stores data obtained from an authoritative server
    - The most common name server implementation (BIND) combines these two into a single process

- Other types exist…

- No special hardware necessary

DNS Query

DNS queries can be classified according the manner in which a complete request is processed.

Generally queries can be classified as follows.

There are three types of queries in the DNS system:

1. Recursive Query
2. Iterative Query
3. Non-Recursive Query

Recursive Query

In a recursive query, a DNS client provides a hostname, and the DNS Resolver "must" provide an answer—it responds with either a relevant resource record, or an error message if it can't be found.

A recursive query is a kind of query, in which the DNS server, who received your query will do all the job of fetching the answer, and giving it back to you. During this process, the DNS server might also query other DNS server's in the internet on your behalf, for the answer.

Suppose you want to browse www.example.com, and your resolve.conf file has got the following entry.

On linux - [root@myvm ~]# cat /etc/resolv.conf

nameserver 192.16.200.30

nameserver 192.16.200.31

On window - C:\Users\shigo>ipconfig /all

The above resolve conf entry means that, Your DNS servers are 192.16.200.30 & 31. Whatever application you use, the operating system will send DNS queries to those two DNS servers.

Iterative Query

In an iterative query, a DNS client provides a hostname, and the DNS Resolver returns the best answer it can. If the DNS resolver has the relevant DNS records in its cache, it returns them.

If not, it refers the DNS client to the Root Server, or another Authoritative Name Server which is nearest to the required DNS zone. The DNS client must then repeat the query directly against the DNS server it was referred to.

Non-Recursive Query

A non-recursive query is a query in which the DNS Resolver already knows the answer.

It either immediately returns a DNS record because it already stores it in local cache, or queries a DNS Name Server which is authoritative for the record, meaning it definitely holds the correct IP for that hostname.

In both cases, there is no need for additional rounds of queries (like in recursive or iterative queries). Rather, a response is immediately returned to the client.

Root DNS server

Iterative Query

2

3

Local DNS server
dns.nyu.edu

4

5

TLD DNS server

1

8

7

6

Requesting host
cse.nyu.edu

Authoritative DNS server
dns.umass.edu

gaia.cs.umass.edu

Root DNS server

Recursive Query

2

7

6

3

Local DNS server
dns.nyu.edu

TLD DNS server

5

4

1

8

Requesting host
cse.nyu.edu

Authoritative DNS server
dns.umass.edu

gaia.cs.umass.edu

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3 Types of DNS Servers

The following are the most common DNS server types that are used to resolve hostnames into IP addresses.

1. DNS Resolver

2. DNS Root Server

3. Authoritative DNS Server

DNS Resolver

A DNS resolver (recursive resolver), is designed to receive DNS queries, which include a human-readable hostname such as "www.register.ng", and is responsible for tracking the IP address for that hostname.

DNS Root Server

The root server is the first step in the journey from hostname to IP address. The DNS Root Server extracts the Top Level Domain (TLD) from the user's query — for example, www.example.ng —… provides details for the .ng TLD Name Server. In turn, that server will provide details for domains with the .ng DNS zone, including "register.ng".
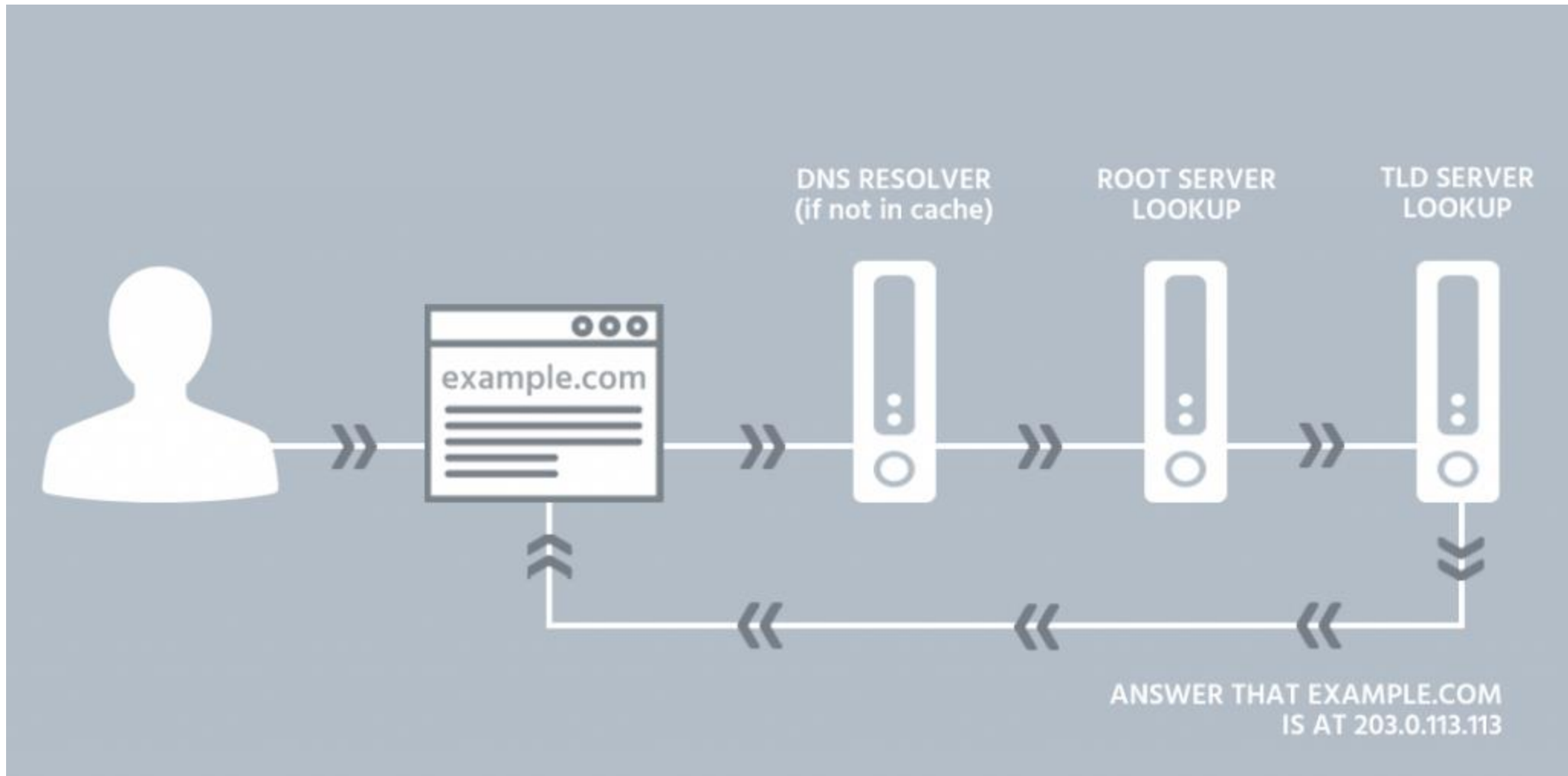
There are 13 root servers worldwide, indicated by the letters A through M, operated by organizations like the Internet Systems Consortium, Verisign, ICANN, the University of Maryland, and the U.S. Army Research Lab.

See https://www.iana.org/domains/root/servers for mere details on root servers

Authoritative DNS Server

Higher level servers in the DNS hierarchy define which DNS server is the "authoritative" name server for a specific hostname, meaning that it holds the up-to-date information for that hostname.

The Authoritative Name Server is the last stop in the name server query—it takes the hostname and returns the correct IP address to the DNS Resolver (or if it cannot find the domain, returns the message NXDOMAIN).

DNS RESOLVER
(if not in cache)

ROOT SERVER
LOOKUP

TLD SERVER
LOOKUP

example.com

ANSWER THAT EXAMPLE.COM
IS AT 203.0.113.113
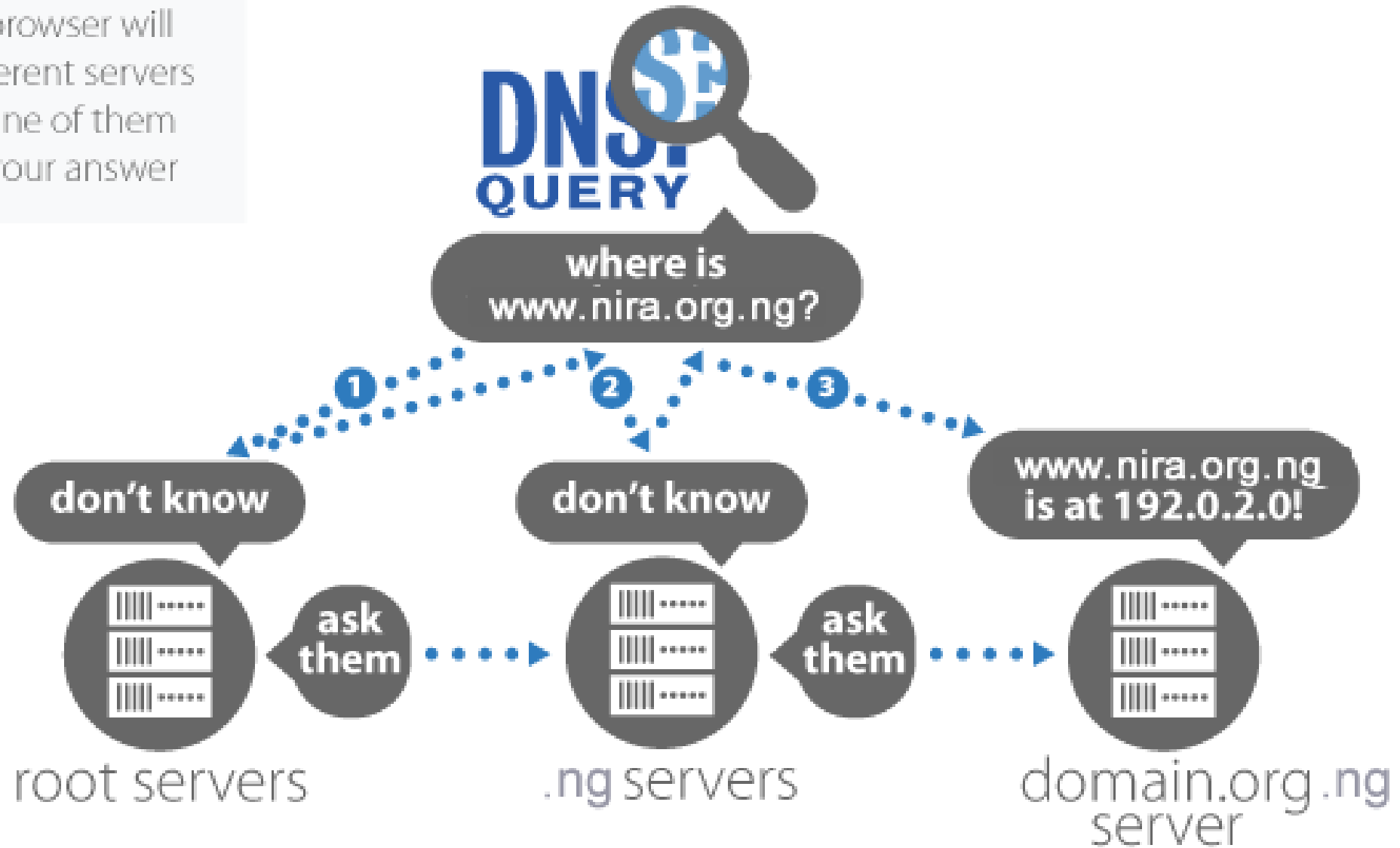
DNS query what happens when you enter a domain name into your browser?

DNS Resource Record Types

DNS servers create a DNS record to provide important information about a domain or hostname. The most common DNS record types are:

- Address Mapping record (A Record)—also known as a DNS host record, stores a hostname and its corresponding IPv4 address.

- IP Version 6 Address record (AAAA Record)—stores a hostname and its corresponding IPv6 address.

- Canonical Name record (CNAME Record)—can be used to alias a hostname to another hostname. When a DNS client requests a record that contains a CNAME, which points to another hostname, the DNS resolution process is repeated with the new hostname.

- Mail exchanger record (MX Record)—specifies an SMTP email server for the domain, used to route outgoing emails to an email server.

DNS Record Types

- Name Server records (NS Record)—specifies that a DNS Zone, such as "register.ng" is delegated to a specific Authoritative Name Server, and provides the address of the name server.

- Text Record (TXT Record)—typically carries machine-readable data such as opportunistic encryption, sender policy framework, DKIM, DMARC, etc.

- Start of Authority (SOA Record)—this record appears at the beginning of a DNS zone file, and indicates the Authoritative Name Server for the current DNS zone, contact details for the domain administrator, domain serial number, and information on how frequently DNS information for this zone should be refreshed.

Domain Name

- Domain name is the address of a website that people type in the browser URL bar to visit a website. For example: www.nira.org.ng

- No two organization can have same domain name on same top level domain.

- A domain name always consists of two or more component separated by dots (.). Example: www.register.ng

Top Level Domain

A top-level domain is the domains at the highest level in the hierarchical Domain Name System of the Internet.

IANA distinguishes the following groups of top-level domains:

- infrastructure top-level domain (ARPA). arpa
- generic top-level domains (gTLD). .com, .net, .org etc.
- generic-restricted top-level domains (grTLD)
- sponsored top-level domains (sTLD). museum, aero, etc.
- country code top-level domains (ccTLD). .ng, .gh, .rw etc.
- New generic top level domains (ngTLD)
- test top-level domains (tTLD)

.ng Domain Zones

.ng
.ng is the ccTLD for Nigeria
Classification: Open

.com.ng
For commercial entities and purposes
Classification: Open

.org.ng
org.ng domain name for organisations and Not-for-profit entities
Classification: Open

.mobi.ng
For mobile devices, mobile lite content and applications
Classification: Open

sch.ng
For schools including but not limited to colleges, Secondary schools, Primary schools and Kindergartens
Classification: Closed and at regional level

edu.ng
For Higher Institutions, Universities, Polytechnics and Research Institutions
Classification: Closed

.gov.ng
For Federal, State and Local Government bodies and agencies in Nigeria only
Classification: Closed

.mil.ng
For Military and related purposes only
Classification: Closed

.name.ng
Your domain name just got a little more personal with .name.ng domain names. This is unique to you for your email address and website.
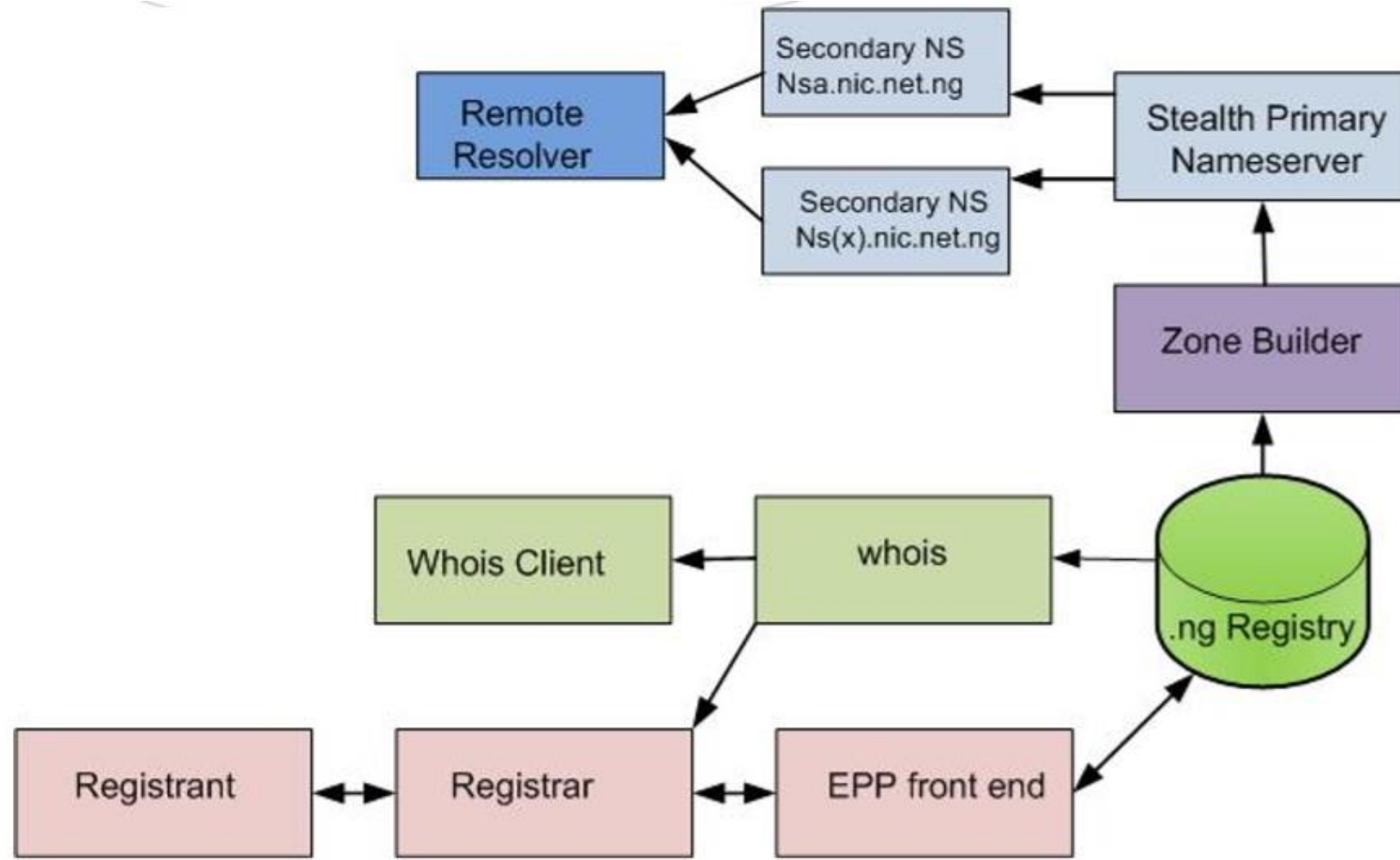Classification: Open

.i.ng
For all purposes and innovative domain names
Classification: Open

.net.ng
For Internet service providers and Telecoms infrastructure providers
Classification: Closed

Registry System

THE DIG COMMAND

dig is a network administration command-line tool for querying the Domain Name System.

Dig stands for (Domain Information Groper) is a network administration command-line tool for querying Domain Name System (DNS) name servers.

It is useful for verifying and troubleshooting DNS problems and also to perform DNS lookups and displays the answers that are returned from the name server that were queried. dig is part of the BIND domain name server software suite. dig command replaces older tool such as nslookup and the host. dig tool is available in major Linux distributions.

Testing DNS with "dig"

"dig" is a program which just makes DNS queries and displays the results

• Better than "nslookup", "host" because it shows the raw information in full

dig nira.org.ng.

    -- defaults to query type "A"

  dig nira.org.ng mx

   -- specified query type

  dig @128.223.157.19 nira.org.ng mx

   -- send to particular cache (overrides

   /etc/resolv.conf)

The Trailing Dot

```
# dig nsrc.org.
```

- Prevents any default domain being appended

- Always use it when testing DNS
  - only on domain names, not IP addresses or e-mail addresses

nslookup Command & Dig Command For DNS Check Test

Dig (on Mac OS X and Linux) and ***nslookup*** (on Microsoft Windows) are the primary command-line tools for troubleshooting DNS issues.

Using nslookup on Microsoft Windows

- Open a DOS command window. To do this, click Start, click Run, type cmd, and then press Enter.

- At the command prompt, type the following command. Replace example.com with the domain that you want to test:

    nslookup example.com

Using dig on Apple Mac OS X and Linux

To run the dig program on Mac OS X and Linux, follow these steps:

1. Open a terminal window. The procedure to do this depends on the operating system and desktop environment:
   - On Mac OS X, click Applications, click Utilities, and then click Terminal.
   - On Linux, open a terminal window.

2. At the command prompt, type the following command. Replace example.com with the domain that you want to test:

   dig example.com

Understanding Output from dig

STATUS

– NOERROR: 0 or more RRs returned

– NXDOMAIN: non-existent domain

– SERVFAIL: cache could not locate answer

– REFUSED: query not available on cache server

- FLAGS

– AA: Authoritative answer (not from cache)

– You can ignore the others

  - QR: Query/Response (1 = Response)

  - RD: Recursion Desired

  - RA: Recursion Available

- ANSWER: number of RRs in answer

```
[sakinwunmi@registry_bck ~]$ dig mydomain.com.ng

; <<>> DiG 9.9.4-RedHat-9.9.4-51.el7_4.2 <<>> mydomain.com.ng
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 5528
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; QUESTION SECTION:
;mydomain.com.ng.                    IN      A

;; ANSWER SECTION:
mydomain.com.ng.         14399   IN      A       164.160.128.107

;; Query time: 224 msec
;; SERVER: 8.8.8.8#53(8.8.8.8)
;; WHEN: Sun Jun 21 23:16:19 WAT 2020
;; MSG SIZE  rcvd: 60
```

DNS Software

Most of the recommended DNS server software solutions are distributed under the GNU license, i.e. free of charge. The most widely used DNS software on the Internet today is BIND for Unix based platforms.

Currently, the BIND DNS server software is the industry standard and also ranks in the top 3 of the most used DNS software platforms with its 3 different versions BIND 9, BIND 8 and BIND 4, taking first, second and third place, respectively.

The second popular open-source DNS server application is Djbdns, boasting fast modular components and high security levels.

Other open-source DNS software solutions also worth mentioning are NSD - an authoritative server, the easy-to-use MaraDNS server, the C++ written Posadis, Unbound - a high-performance, validating, recursive and caching DNS server, and many more.

DNS Security

DNS Security is the generic concept of securing the DNS services, this includes securing the service, the protocol itself, and other precautions and measures.

A secure DNS is essential for an organization's online presence as well as for its applications on the internal private network. DNS attacks are becoming more frequent and sophisticated, so securing the DNS layer is essential to protecting revenue, users and brand reputation.

Why is DNS security important?

Standard DNS queries are required for almost all web traffic, this create opportunities for DNS exploits such as:

- DNS hijacking

- Man-in-the-middle attacks

- Domain Poisoning

These attacks can redirect a website's inbound traffic to a fake copy of the site, collecting sensitive user information and exposing businesses to major liability. One of the best known ways to protect against DNS threats is to adopt the DNSSEC protocol.

Common DNS At

- Flood Attack

- Random Subdomain Attack

- Cache Poisoning

- DNS Protocol Attacks

- BGP Hijacking Attack

- DNS Tunneling

- DNS Hijacking (Credential Theft)

- Domain Theft

DNSSEC

The DNS Security Extensions (DNSSEC) is a security protocol created to mitigate DNS security problem.

DNSSEC uses digital signatures to validate the authenticity of DNS responses.

DNSSEC prevents attacks that inject false information into DNS resolvers, such as DNS spoofing, cache poisoning and man in the middle attacks. When DNSSEC is enabled, resolvers look for a valid digital signature in the DNS record provided by authoritative DNS servers. Attackers are not able to forge this signature, protecting users from being misdirected to fake of malicious websites.

WHOIS Lookup

WHOIS is a query and response protocol that is widely used for querying databases that store the registered users or assignees of an Internet resource, such as a domain name, an IP address block or an autonomous system.

A WHOIS lookup is a way for you to search the public database for information about a specific domain, such as the expiration date, current registrar, registrant information, etc.

The WHOIS **protocol** is a **TCP**-based **protocol** designed to work on the port 43

whois.nic.net.ng/whois.jsp

whois.nic.net.ng

WHOIS Search

What is WHOIS data used for?

- To determine whether or not a given domain is available.

- To contact network administrators for resolution of technical matters related to networks associated with a domain name

- To diagnose registration difficulties. WHOIS queries provide information that is often useful in resolving a registration ownership issue, such as the creation and expiration dates and the identity of the registrar.

- To obtain the real world identity, business location and contact information of an online merchant or business, or generally, any organization that has an online presence.

- To associate a company, organization, or individual with a domain name.

What is WHOIS data used for?

- To contact a domain name registrant for the purpose of discussing and negotiating a secondary market transaction related to a registered domain name.

- To notify a domain name registrant of the registrant's obligation to maintain accurate registration information.

- To contact a domain name registrant on matters related to the protection and enforcement of intellectual property rights.

- To establish or look into an identity in cyberspace, and as part of an incident response following an Internet or computer attack

- To investigate spam, law enforcement agents look to the WHOIS database to collect information on the website advertised in the spam.

Some Domain name Troubleshoot Website

- http://leafdns.com

- https://intodns.com

- https://www.ultratools.com/tools/dnsTraversalResult

- https://gwhois.org

Regulatory Body of the Internet

- Internet Assigned Numbers Authority (IANA) https://www.iana.org/

- Internet Corporation for Assigned Names and Numbers (ICANN) https://www.icann.org/

Questions?

Nigeria Internet Registration Association (NiRA)

Email: academy@nira.org.ng

Web: www.nira.org.ng/academy

.NG Domain Name Policies and Naming Convention

Presentation Outline

- Domain Names and Levels

- NiRA Domain Name Policy

- Disallowed Names

- Nigerian SLDs

- Allowed Characters

- Character Combinations

- Specific Restrictions

- Best Practices

Domain Name and Levels

A domain name is made up of several levels. Levels being separated by . (dot).

.NG.keeps.you.smili.ng is a domain name

Levels are read from right to left.

➢   ng is the top level domain aka (TLD)

➢   Smili is the second level domain aka (SLD)

➢   You is the third level domain aka (3LD)

➢   Keep is the fourth level domain aka (4LD)

➢   .NG is the fifth level domain aka (5LD)

NiRA Domain name Policy

The NiRA Domain Name Policy describes the NiRA rules for the registration and use of domain names within the .ng domain and its sub-domains.

The NiRA Domain name policy and other NiRA policies are available at http://www.nira.org.ng/legal/policy

Privacy Policy/GDPR

The General Data Protection Regulation 2016/679 is a regulation in EU law on data protection and privacy for all individuals within the European Union and the European Economic Area.

- ▶ .NG is in total compliance to the GDPR policy

- ▶ Not applicable to client outside EU

- ▶ Registrant information must not be display for any reason(s)

- ▶ Complainant can send email to the registrant from whois display page

Disallowed Names

NIRA reserves the right to maintain the following list of domains that SHALL NOT be available for registration or can be withdrawn if already registered.

-- **Offensive Names:** Words determined by NiRA to be offensive to the Nigerian Community

-- **Geonames**: Name with geopolitical zone, country, State, Local govt etc

-- **Restricted Names:** Names that will give the wrong impression if used. eg. Military, Government etc.

-- **Premium Names:** These are domains with generic words only, commanding premium value. Eg: **cooki.ng, bi.ng** etc.

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Nigeria: Secondary Level Domains

- .com.ng   -   Commercial (Open)
- .edu.ng   -   Degree Awarding Institutions
- .sch.ng   -   non-Degree Awarding Schools
- .gov.ng   -   Governmental Organizations
- .mil.ng   - Military and related purposes
- .org.ng   -   Non-Gov Organizations (Open)
- .net.ng   -   Networks
- .mobi.ng   - Mobiles (Open)
- .name.ng - Personal Names (open)
- .i.ng   - For all purposes and innovative domain names (open)
- .ng   - Is the ccTLD for Nigeria (open)

Allowed Characters

NIRA currently does not operate Internationalized Domain Names (IDN), which allows domain names in the natural languages of the users.

The following Characters are allowed

-- The Twenty-Six (26) Unaccented Roman Characters, ie a to z, and A to Z.

-- The Ten (10) Western digits 0 to 9

-- Hyphen

Character Combinations

Names must conform to the following rules

❖ Domain names must be a max of 64 Characters for now.

❖ Domains are not case sensitive. AGe and AgE are the same

❖ The first or last character of a domain name may not be a hyphen

❖ There cannot be two hyphens in a name

❖ Single and two character domain is yet to be open to public.

Specific Restrictions

In addition to the generic restrictions, each SLD or 3LD may also have restrictions related to these sub-domains.

For example, **.edu.ng** may have restrictions which are different from those for **.gov.ng.**

Best Practices

Domain Names are more useful if they conform to best practices

▶ Short and popular names are better than long and detailed names

▶ To register any 3LD domain within **.gov.ng,** State Government entities must register the full state name or the official abbreviation of the state name similar to that used in vehicle license plate registration.

▶ States are encouraged to make 4LD available to Local Governments and State Government departments and agencies.

▶ Generic names are not allowed. Eg instead of **shipping.gov.ng** it should be **nsc.gov.ng**

▶ Generic SLDs are not allowed on 3LDs. e.g you cannot register **com.org.ng**, **org.com.ng**, **mil.com.ng** etc.

Best Practices

Domain Names are intended to be human-memorable addresses that direct to online information or services.

❖ Registering **atapatadide.com.ng** will open the name to a lot of misspellings. Better to use a simple name such **ata.com.ng**

❖ Best to use full names when they are short and easily remembered. Registering **federalcapitalterritory.abj.gov.ng** is open to more errors, than using **fct.abj.gov.ng**

❖ Unless it will enhance readability, the hyphen should be used sparingly. Eg: **akwaibomstate.ak.gov.ng** is more desirable than **akwa-ibomstate.ak.gov.ng**

Conclusion

➢ There are rules and conventions that govern the choice and registration of domain names

➢ The naming conventions have been carefully created to avoid confusion and make it easy for users to navigate on the Internet.

➢ NiRA as much as possible abides with global best practices, in the implementation of domain names.

➢ In the near future, NiRA will offer Internationalized domain Names (IDN) that will allow the use of natural language texts, e.g. Arabic, so that more people will have access to the Internet.

Conclusion

▶ Please note that the Registry is entitled to revoke a Domain Name at its own initiative in the event that the Registrant is in breach of the Rules.

▶ Registrar do not have any right to refuse to the transfer of domain initiate from the Registrant.

▶ The domain will be deleted if registrant failed to renew the domain within the grace period

▶ It is not possible to correct a spelling mistake in the Domain Name that is successfully registered

▶ Any complaint about trademark or trade-name should be directed to admin@nira.org.ng

04/04/2012

Read the policies at
http://www.nira.org.ng/legal/policy

Thank You!

DOMAIN + HOSTING RESELLER PROGRAM

March 2021

INTRODUCING garanntor

In just one sentence:

Garanntor is an innovative company founded as a provider of reliable and affordable Hosting Services, consisting of Virtual Private Servers, Email Hosting, Cloud Hosting, Cloud Servers, Storage, Web Hosting, and Domain Registration.

"Home grown hosting of international standards"

What we Offer

Servers
Virtual Servers
Cloud Servers
Private Cloud
Public Cloud
Dedicated Server

Hosting
Shared Hosting
Windows Hosting
Website Builder
WordPress Hosting
Linux Reseller Hosting
Windows Reseller Hosting

Domains
Domain Registration
Domain Transfer

Security
Domain Privacy
SSL Certificate
SiteLock

Storage
Cloud Storage
Global CDN
Website Backup

Networking
AnyCast DNS
Load Balancing
Dedicated IP Addresses

Email & Apps
Garanntor Email
Hosted Exchange

Colocation

24/7 Support

Garanntor Reseller Program

Garanntor Reseller Program is a carefully crafted course, fully supported by the Garanntor to enable individuals and business interested in reselling domain names and hosting can easily learn and startup their web hosting company with less than N2,000.

"Web Hosting Services Market Reaches to USD 154 Billion By 2022 At 16% of CAGR: Industry Affirmations BY MRFR'

How To Choose The Best
Reseller Hosting Company

#1. Support: Before signing up with any hosting company, make sure that the hosting company provides you with 24/7/365 days support.

#2. Uptime: Take into consideration the uptime report of that web hosting company. You also need to make sure of what happens if their service is down, and what is the procedure you have to follow if it's down for a while.

#3. Money Back Policy: Money back guarantee is essential for every reseller hosting business. You need an assurance that you will get your money back if you do not like the service.

#4. Scalability: One cannot simply understand how many clients will they have 2 years down the line. Thus, it's best to book a web host who provides you with scalability option.

#5. Value for money: Considering what you are getting out of the entire deal is something you shouldn't take lightly. While selecting a host you need to figure out what they offer, and also what comes for free.

#6. Minimum Contract period: What is the minimum contract period for your reseller hosting account? And what is the renewal process? You need to ask these questions in order to avoid getting an unwanted shock later on.

#7. Can you turn a profit?: Sure there are a lot of people who are earning well in the reseller hosting business. But, have you considered the fact that maybe they joined the reseller hosting game when there were very few competitors?There is a lot of competition in the reseller hosting business today. Thus, to make a mark in the reseller hosting business you will have to market your website and compete against the well-established brands.

#8. Reseller risks: Starting a reseller hosting business brings in a lot of responsibilities, some of which are –Handling your customer's problems personally.You have to understand that whichever reseller hosting you choose, you will be completely dependent on its stability and success.Staying organized is of utmost importance in administration, accounts and backups.

#9. Server location: Want to host your website closer to the clients? It's a great idea but, will limit your client base. Instead, a better idea is to host from multiple locations around the world. This way you get to serve clients from multiple locations effectively.

WHY SHOULD I RESELL dot NG ?

A. Get into a growing market

Number of internet users in Nigeria from 2015 to 2025

(in millions)
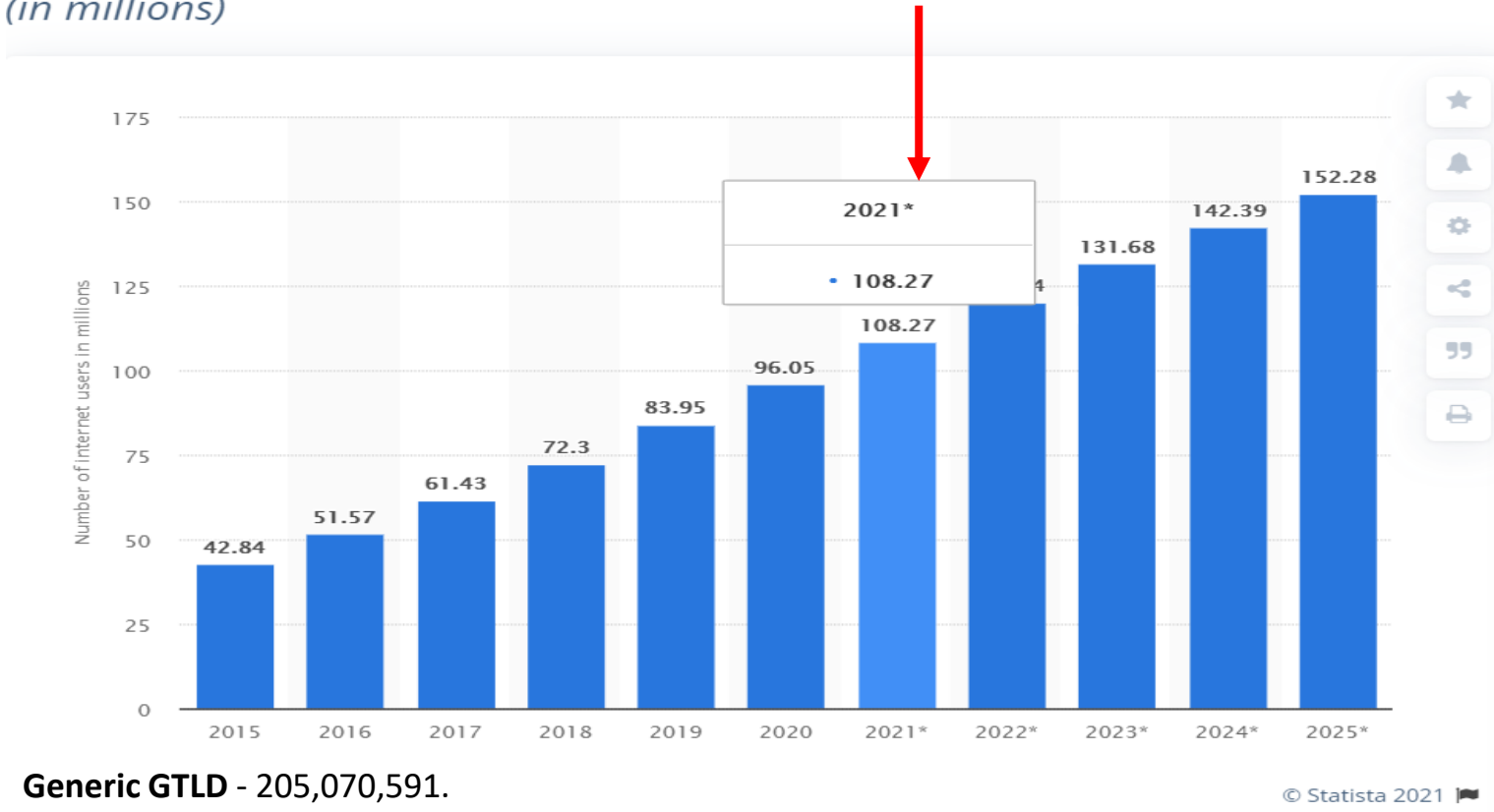
- Nigeria Population is estimated to be 206 Million, and might grow to about 400 Million by 2050.

- Age 0 -14 is 32%

- Age 10 -24 is 32%

- Above 65 > 3%

Nigeria has 108.27 million internet Users

There are only about 300 thousand .ng domain sold

Generic GTLD - 205,070,591.
.com - 174,873,942 > net - 17,302,817 > .org -12,876,917

ccTLD - 216,124,909.
.cn - 25,428,136
.za - 1,644,799 – (South Africa is 58.56 million population)

Source: https://domainnamestat.com/statistics/

WHY SHOULD I RESELL dot NG ?

A. Get into a growing market

B. An Alternative Source of Income

C. Little or No Investment is required

D. Requisite knowledge to kick start is accessible for free

E. Become a boss of your own, by stating an hosting business

F. It's easy to sell online

G. This TIME is better, than later

Benefits of Garanntor Reseller Program

- Generate Recurring Revenue
- White Labeled Reseller Package
- Resell Over 600+ Domain Extensions
- Choose from Windows or Linux Reseller Hostir
- No Technical Knowledge Needed
- Guaranteed Low Prices
- Reseller Setup Assistance
- 24x7 Technical Support

The Market has enjoyed steady growth from several years, future statics is promising
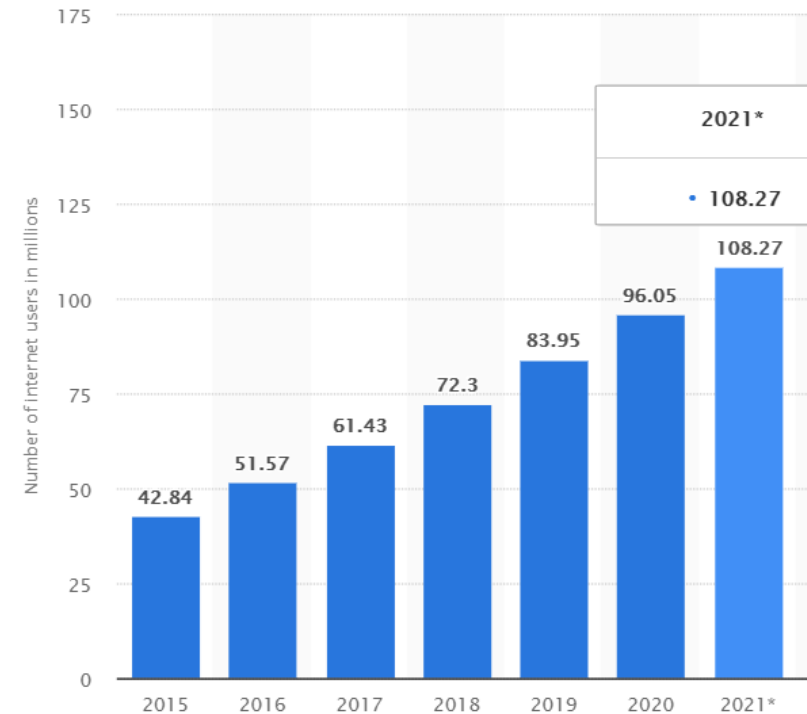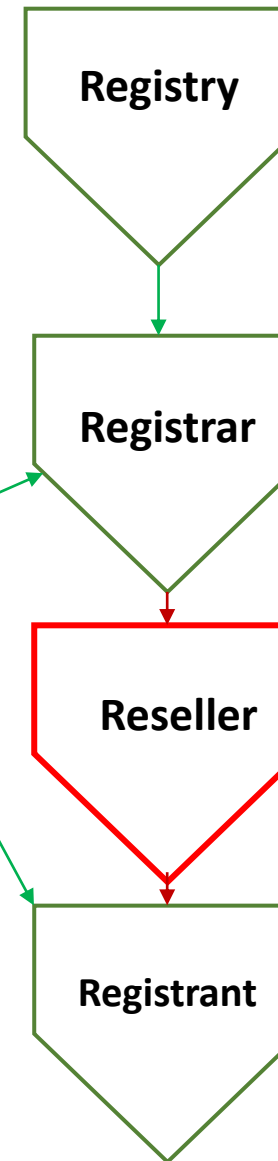
Some Key Industry Terms

- Domain Reseller

- Domain Registry

- Domain Registrar

- Domain Registrant

_____

- TLDs

- DNS

- Propagation

- Nameservers

- Server

- Linux Hosting (WHM/ cPanel)

- Windows Hosting (Plesk)

3R Model

Registry

Registrar

Reseller

Registrant

Tips on Building a Domain & Hosting Business

- **ALWAYS** satisfy your Customers – "Customer is King"
- Start small and scale resources as your client base grows
- Invest your time in understanding the latest trends in the industry
- Build your business with your customer by taking feedback seriously
- Update your customers, communicate value to them
- Find creative ways of bundling your service and pricing
- Focus on growing your customer base at first than making huge profits
- Don't be greedy ☺
- Take advantage of Social Media for Marketing
- Word of Mouth is still the most effective Marketing
- Don't be shy to ask Garanntor or Nira for help or advise

"Customer will always pay more for Quality"

How to Get Started

1. Open an account with Garanntor: https://www.garanntor.com/portal/register.php

2. Purchase a Reseller Plan from Our Website

3. **For Domain Reseller:** Register at least 10 domain name with us or deposit a sum of N10,000 which will be used to register domain up to that tune

4. Send an email to Garanntor Support (support@garanntor.com) informing us that you have meet condition 1 and 2.

OR

   Call Garanntor on
   09060920092
   08085636146

Partner With The Best

NIRA ACCREDITED PLATINUM REGISTRAR

2017 .NG AWARDS WINNER "BEST LOCAL HOSTING COMPANY"

Hands-on Session

NIRA30

- How to Signup on Garanntor Website.

- Domain Name Management

- How to Purchase Reseller Package

- Setting up Reseller Account (WHM)

- Creating Packages

- Creating Accounts

- Managing Accounts

Automation

1. Hosting Website
2. Account + Domain Provisioning & Billing – WHMCS, Belsta, Hostbill

Useful Tools

1. www.garanntor.ng
2. www.intodns.com – DNS Tool
3. www.whatsmydns.net – Checking DNS and Propagation Issues
4. www.nira.org.ng/supports/whois-search - NG Whois Search
5. www.who.is – General Whois Search

Useful Links

https://www.garanntor.com/portal/knowledgebase

Industry News & Forum: www.webhostingtalk.com

NIRA Policy
.gov.ng https://bit.ly/2MpmKXb
.edu.ng https://bit.ly/2Ohuawp

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Domain Life Cycle
https://bit.ly/2M4I8Eg

Questions?

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