The Very Very Short ccTLD Overview

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ICANN

Haiti

DNS

- The DNS is a hierarchical database used to translate "names" as used by you and I into "numbers" as used by computers.

- www.icann.org. > 208.77.188.103

  - Can also be used in reverse
  - 103.188.77.208.in-addr.arpa. > www.icann.org

Levels in the DNS tree

. (Root)

Top Level Domain (TLD)

ORG, UK, INT

Second Level Domain (SLD)

ICANN, CTU

…….. (Other levels)

Hostname

WWW, NEWS

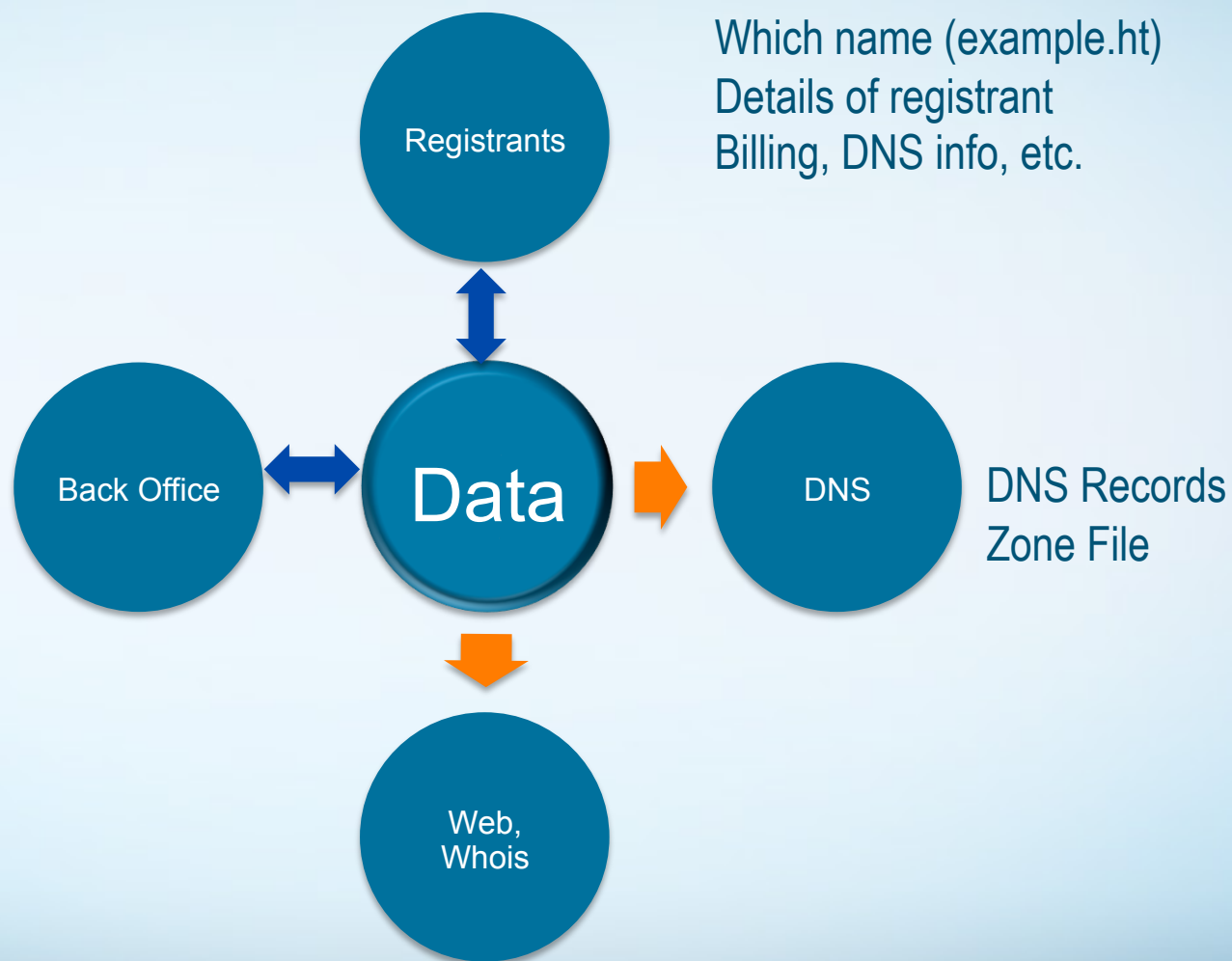(FQDN) Fully Qualified Domain Name includes all layers (www.icann.org.)

TLDs

- Top Level Domains are the level directly under the "root".

- ccTLD stands for Country Code Top Level Domain.
  - ISO-3166-1 defines those codes
    - Maintained by International Organization for Standards (www.iso.org)
    - Two letter codes are used for ccTLDs: HT = Haiti

www.nic.HT

- Architecturally all levels of the DNS hierarchy (except hostname) are very similar

- They vary in complexity and size but the fundamentals remain the same!

A dataset

Registrants

Which name (example.ht)
Details of registrant
Billing, DNS info, etc.

Back Office

Data

DNS

DNS Records
Zone File

Web,
Whois

Operational vs Policy (simplified)

- Operational:
  - The people, systems and tools needed to collect, store and manage the zone and related data.
    - Do you have engineers
    - What Database software shall we use?

- Policy:
  - The rules under which the data is collected, stored and managed.
    - Who can register a name?
    - Who can access the data?

Operational Needs

- Facilities:
  - Buildings, Power, Connectivity
- People:
  - Engineers, Lawyers, Administrative staff.. Etc.. Etc.
- Systems:
  - Routers, Switches, PCs, Servers, Software...

All the things any modern business needs but with focus on databases and DNS

Policy needs

- A mechanism to make policy decisions
  - Some way to decide issue such as
    - Who can buy a domain name?
    - How much does it cost?
    - How do you settle an argument about a name?

- "Le bon Dieu est dans le detail"
  - Gustave Flaubert (1821-80)

- "The Devil is in the detail"
  - Ludwig Mies van der Rohe (1886-1969)

  - We will get into more detail during the week!