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Identifying servers & site registration information– Diego RIVERO

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BTSF Identifying servers & operators

➤ What are servers?

➤ Registration of Internet domains

➤ WHOIS searches

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More on servers: A virtual landlord

- Servers are just large computers
- Always on, always accessible and anywhere in the World
- Website owners rent virtual space to store their data
- The server that stores the website is called the host/web server
- The host will have an IP address
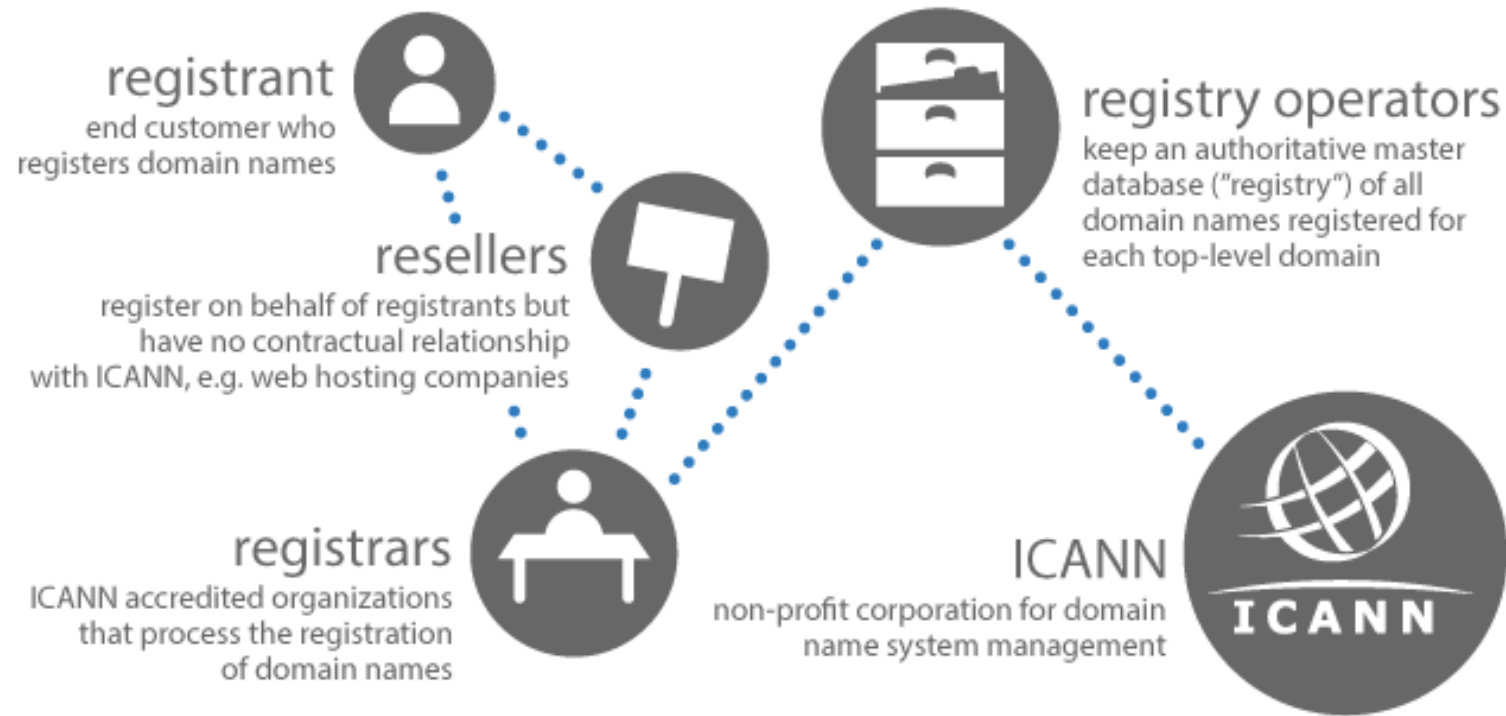
More on servers: A virtual landlord

- Virtual servers – one physical machine tens of logical servers
- Sharing resources we can get access to high computational machines at reasonable cost
- Hosting is very cheap (more since Cloud is here)
- The Cloud – a new era in servers configuration, access and maintenance

BTSF Registration information (domains)

- ICANN (https://www.icann.org/) coordinates the assignment of unique identifiers for use on the Internet (domain names, Internet Protocol (IP) addresses, application port numbers in the transport protocols, and many other parameters).

- This role distinguishes it as perhaps the only central coordinating body for the global Internet.

- **ICANN resources** (https://www.icann.org/resources) such as:

  - Registry operators information
  - Information to Domain Name registrants
    - Rights and responsibilities
    - Whois
  - Complaints office
 - Glossary

BTSF Registration information (domains)

registrant
end customer who registers domain names

resellers
register on behalf of registrants but have no contractual relationship with ICANN, e.g. web hosting companies

registrars
ICANN accredited organizations that process the registration of domain names

registry operators
keep an authoritative master database ("registry") of all domain names registered for each top-level domain

ICANN
non-profit corporation for domain name system management

ICANN

domain registry process

BTSF Registration of Internet domains

THE DOMAIN NAME INDUSTRY
RESPONSIBILITIES
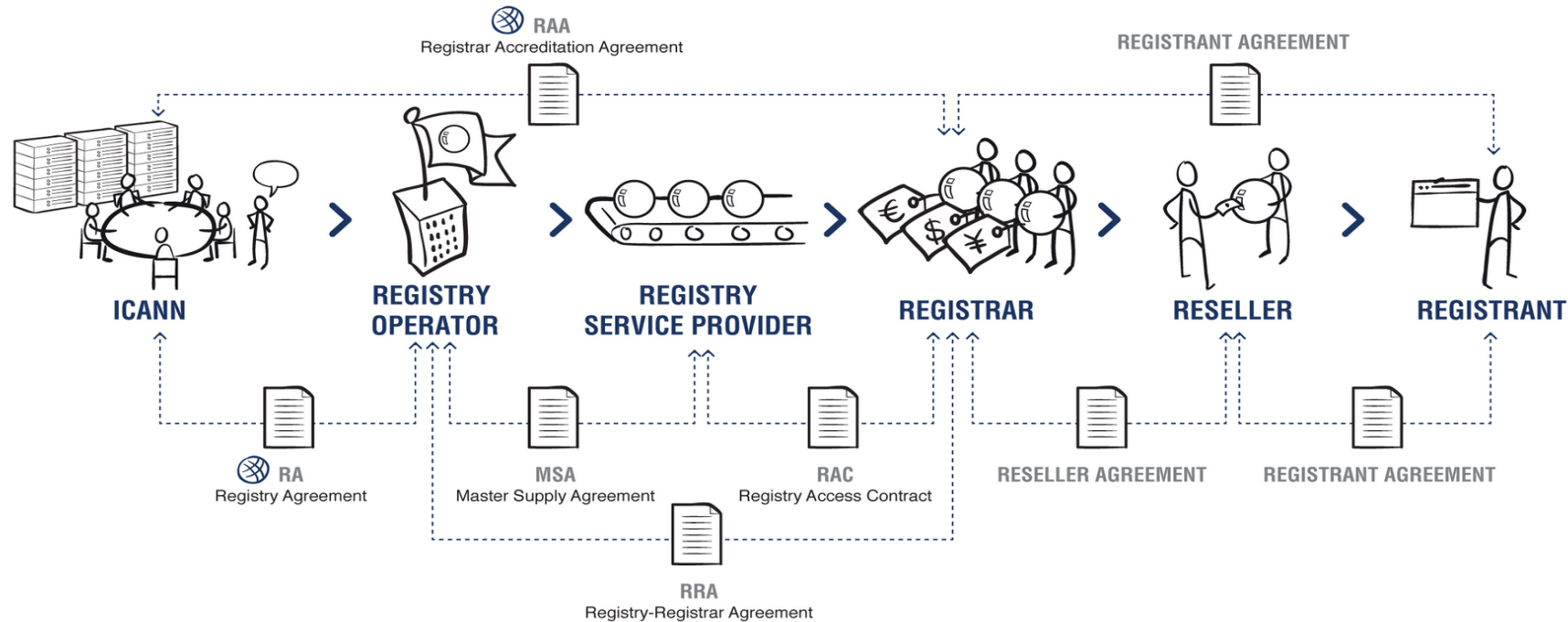
Registering Internet domains
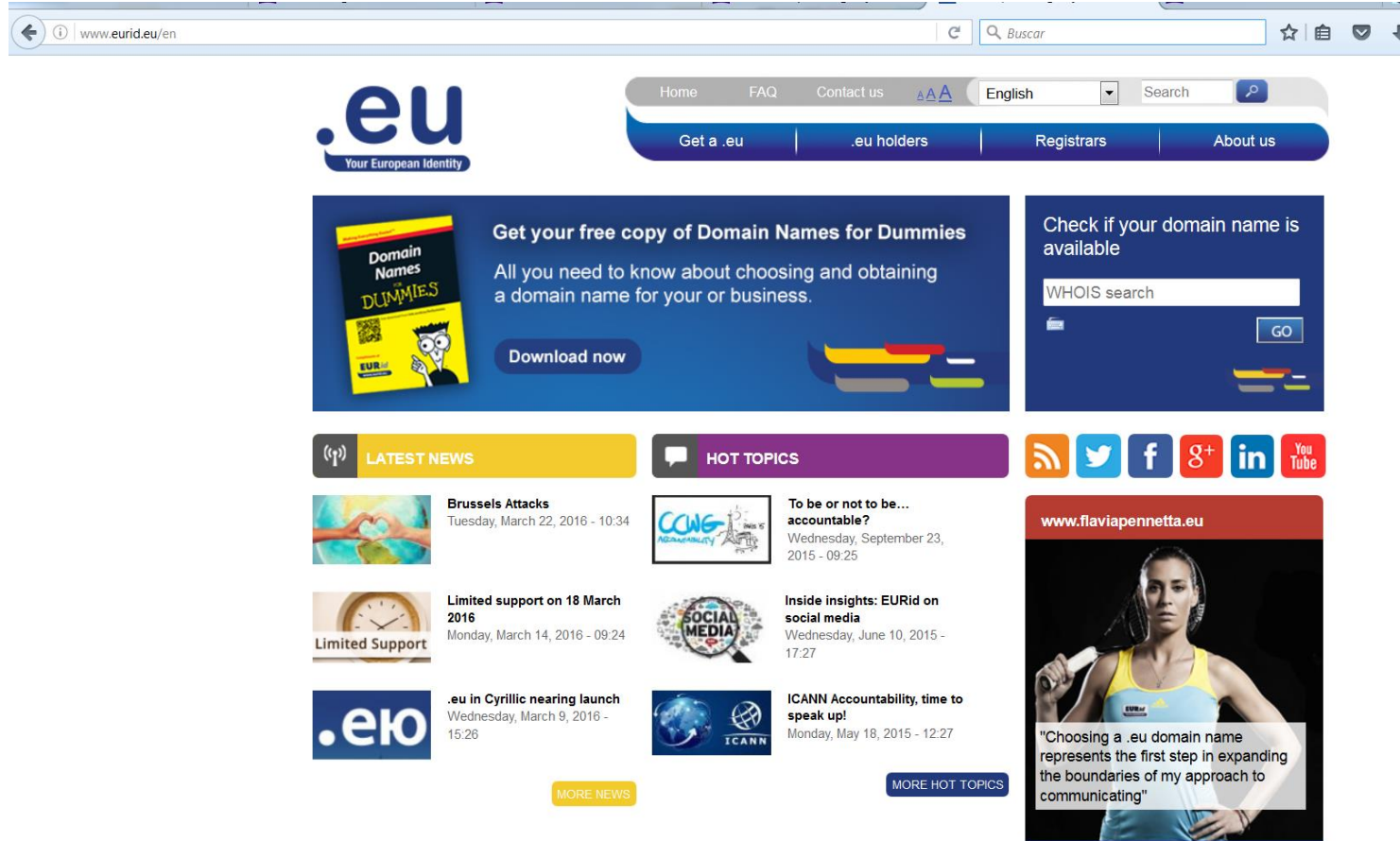
- IANA: affiliate of ICANN responsible of allocation of globally unique names and numbers that are used in Internet protocols.

- Regional/national bodies administers domain names, normally supported by agents (private companies that offer the domain registry service)

https://www.iana.org/

(let's go there)

BTSF Exercise: how to register an Internet domain

WHOIS Searches

➢ WHOIS is a query and response protocol 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

➢ The protocol stores and delivers database content in a human-readable format.

WHOIS Searches – Live practice

There are many websites that offer the WHOIS service.

Web browsers have also add-ons, plug-ins or extensions that provide whois searches.

Let's take a look at http://whois.domaintools.com

* Domaintools and other whois services have limits on the number of queries from the same IP

WHOIS Searches – Live practice

There are different online whois services:

- https://www.whois.net/
- https://www.whois.com/
- https://who.is/

And more complete services which also provide whois information:

- https://centralops.net/co/
- https://mxtoolbox.com/Whois.aspx

WHOIS Searches – Note - GDPR

A key piece of information on the WHOIS platform is the REGISTRANT - the person or organisation that owns a domain. However, since the introduction of the EU General Data Protection Regulation in May 2018, details of the REGISTRANT on WHOIS services are now in most cases **NOT** available. These details are deemed to be private data under GDPR.

ICANN and the EU remain in discussions over the impact of the new rules.

It is likely to take some time to develop protocols that will allow Registrant information to be disclosed (for legitimate reasons) to consumer protection authorities.

EU consumer protection authorities may have to contact registrars for that information in the meantime and the outcome of such a request will depend on the particular registrar's policies. Some member state REGISTRIES have already made provision for law enforcers to accessing ccTLD registration details.

See more at ICANN: Whois compliance with GDPR

BTSF WHOIS Searches

BTSF WHOIS Searches

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BTSF However… it is not always that easy

Registrar

Owner

Host provider
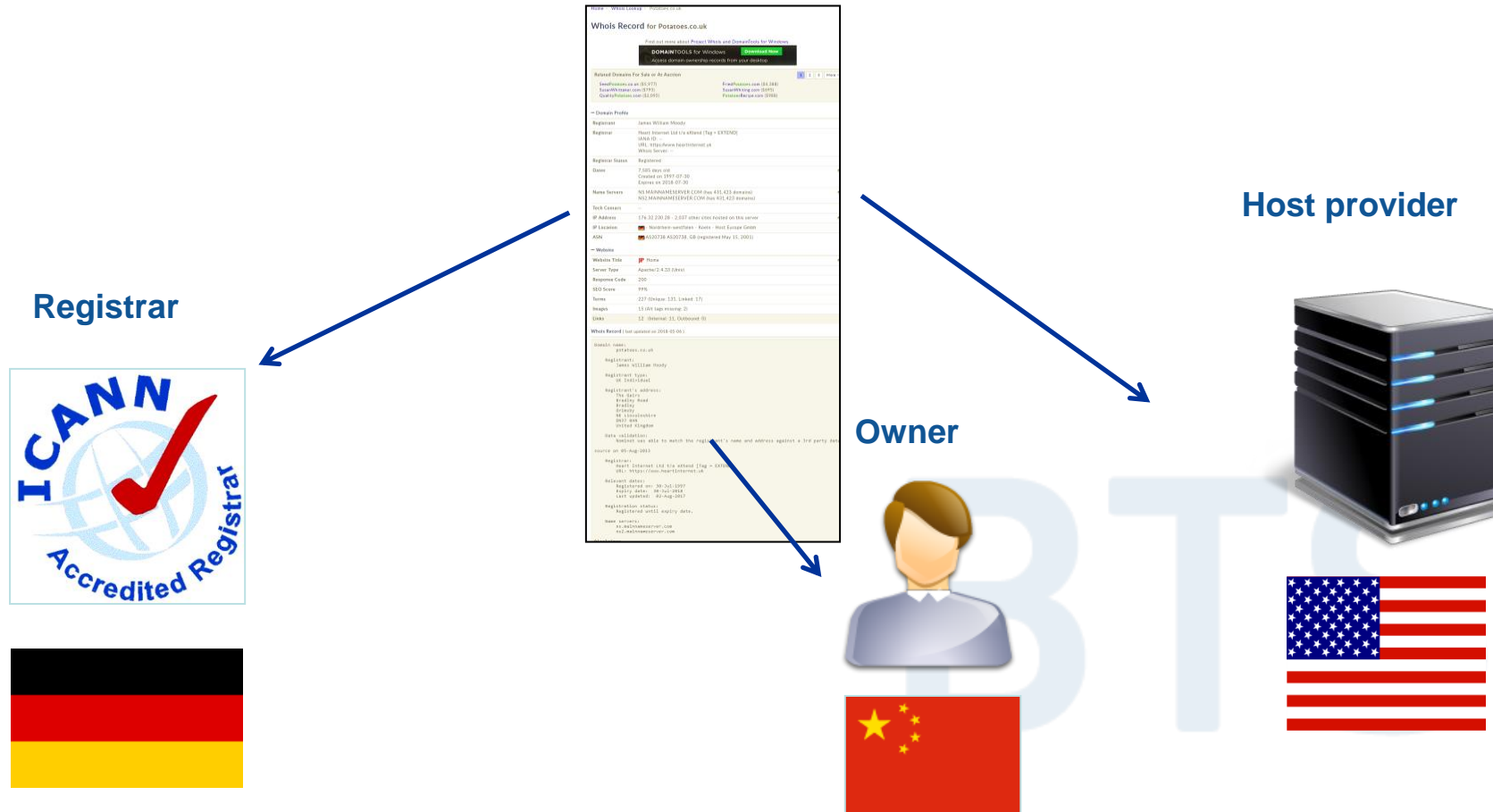
BTSF WHOIS extension program for Chrome

Whois additional features

- Whois History

  - Historical data (especially relevant after GDPR)

- Reverse whois

  - Find other domains registered by the same person/organisation

  - Workaround (sometimes work): Use advanced search in search engine:

    "*PHONE_NUMBER*" site:whois.domaintools.com
    "*STREET_ADDRESS*" site:whois.domaintools.com

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Practice Case

- Collect as much information as you can from websites registration: bio4you.eu / mynutrition.com.mt

  - Date site registered

  - Date site last updated

  - Date site MAY expire

  - Registrant name & contact details

  - Registrar and contact details

  - Top-level/Country domain registry for the TLD

  - URL for WHOIS of top-level/country domain registry

  - Abuse contact

- Indicate the tools used and collect some evidence

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Other sources of information

- Reverse lookup:

    - Domain name/IP server → other sites

    - Whois Database

    - Spyonweb

- Company registration (BRIS/VIES/national registries)

- Companies directories/databases

- Social media

- …

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Things to remember

✓ Servers are just large computers connected to the Internet which commonly provide a service to other connected devices (storage, web hosting, mail service, etc.)

✓ Virtual servers – one physical machine tens of logical servers

✓ Sharing resources we can get access to high computational machines at reasonable cost

✓ The Cloud – a new era in servers configuration, access and maintenance

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Things to remember

✓ Before publishing a website with a domain on the Internet, it has to be officially registered.

✓ The registry information of the property of a web page or Internet domain, is collected in the WHOIS database.

✓ Whois information is good starting point but it can be out of date… moreover the GDPR have reduced the available data

✓ Use other tools that can give you other technical info of the server hosting the site.

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Thank you

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