

Domain name industry and Domain Life Cycle

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Content

- **Role and Responsible of DNS Industry players**
- **Domain Industry Structure**
- **Domain Life Cycle**
- **About WHOIS**

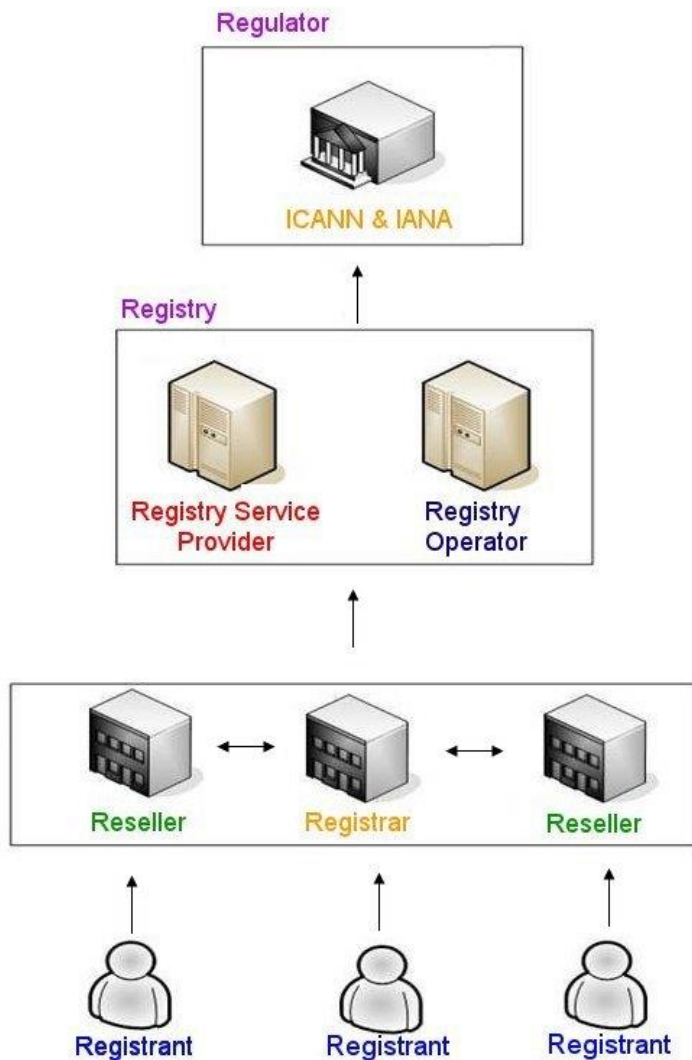
The 5 R's

Explains the roles of:

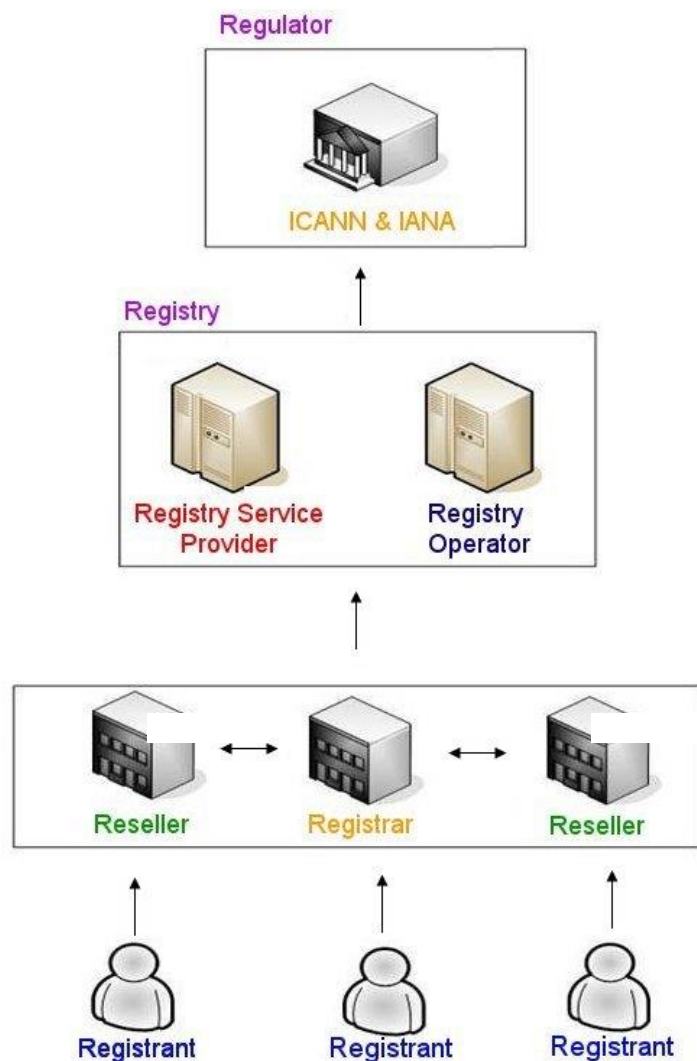
1. Registrant
2. Reseller
3. Registrar
4. Registry, including:
 - a) Registry Sponsor
 - b) Registry Operator
 - c) Registry Service Provider
5. Regulator

How NIXI fits within the industry

Domain Industry Structure



Domain Industry - Overview



Four basic levels

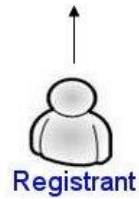
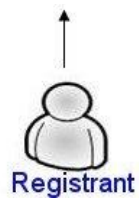
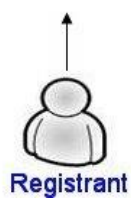
- **Registrant** buys domains from Registrar (or reseller)
- **Registrar** purchases name from the Registry (NIXI)
- **Registry** enters name in whois and publishes location of name to DNS
- Registries and Registrars are authorized to do business by the **regulator** ICANN

A logo consisting of four overlapping squares: yellow (top-left), red (top-right), blue (bottom-left), and blue (bottom-right). A black crosshair is centered over the squares.

Registrant

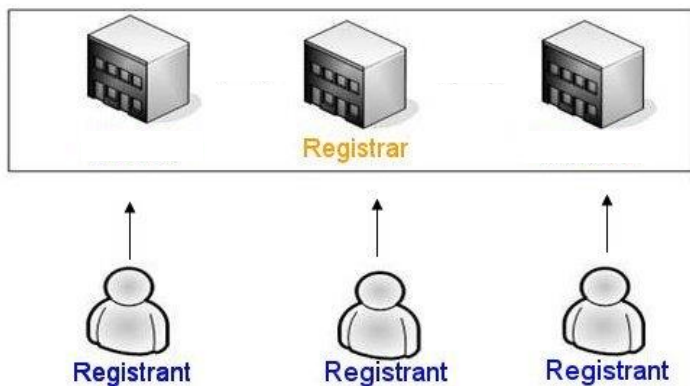
Registrant

- The person or organization registering a domain name
- The recorded legal owner of the domain name





Registrar



Registrar

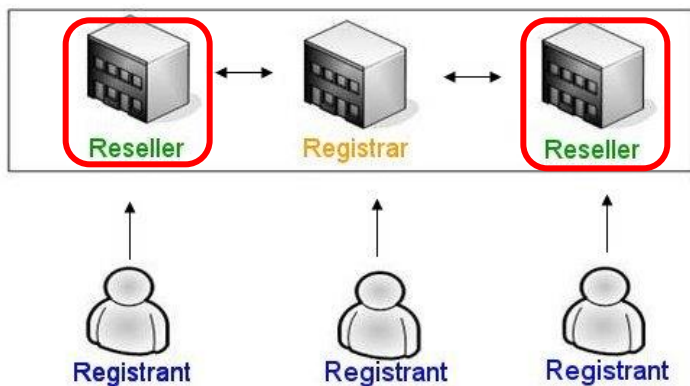
- Domains can be registered through many different companies (known as “registrars”) that compete with one another
- Offers domain names at retail prices
- e.g., Go Daddy, BigRock, etc
- Must be accredited to sell Top Level Domain (TLD)



Reseller

Reseller

- A reseller has a partnership with an accredited registrar and will purchase domain names through them
- It is the registrar who must be accredited to sell each Top Level Domain in this case and not the reseller
- This is preferable for many top-level domains where the accreditation requirements to become a registrar are very complex and/or expensive

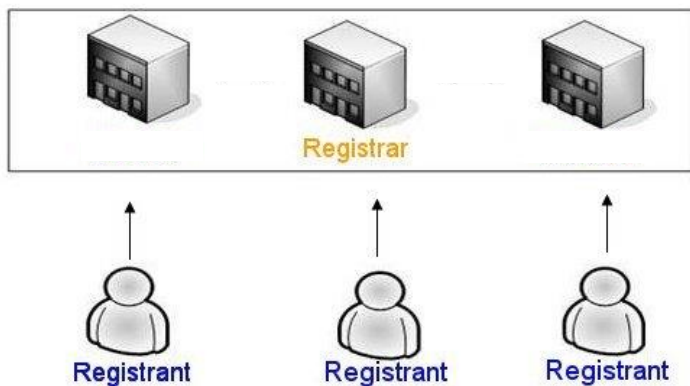




Registrar

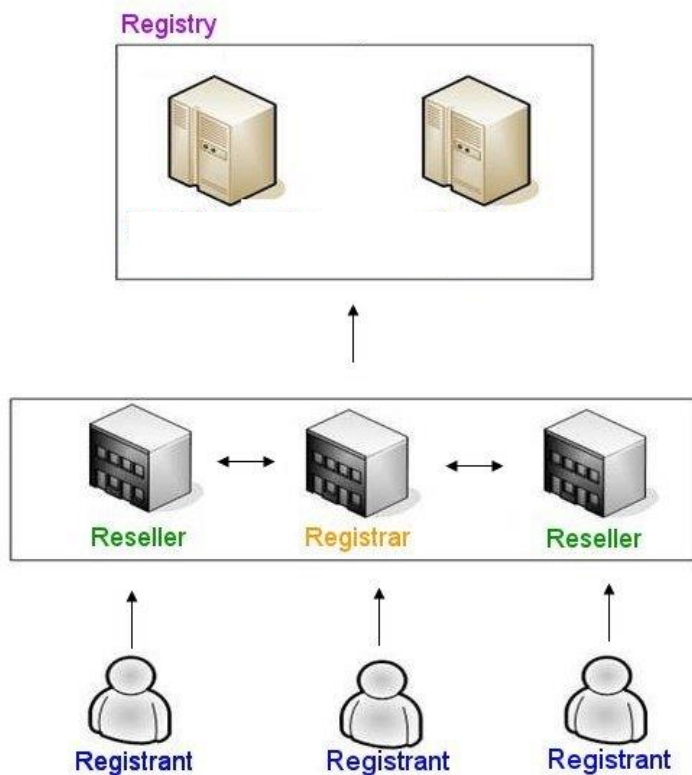
Registrar

- The registrar will ask the registrant to provide various contact and technical information that makes up the domain registration
- The registrar will then keep records of the contact information and submit the technical information to a central directory known as the “registry”





Registry

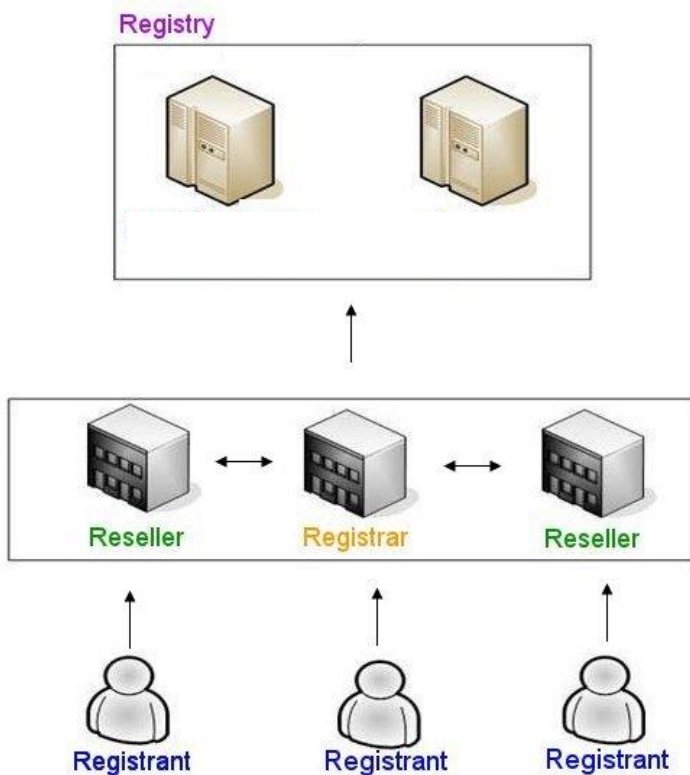


Registry

- Offers domain names to registrars at wholesale prices
- Is the authoritative, master database of all domain names registered in each top-level domain
- Provides other computers on the Internet the information necessary to send the registrant email or to find the registrant's website



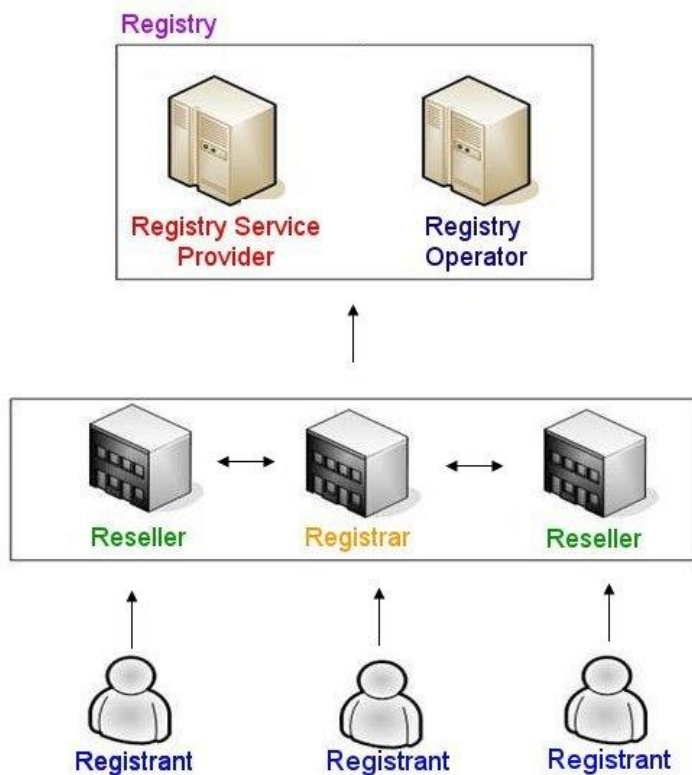
Registry



Registry responsibilities include:

- Management of the registration of domain names within the top level for which it is responsible
- Development, management, and implementation of policies
- Technical operations of the top-level domain

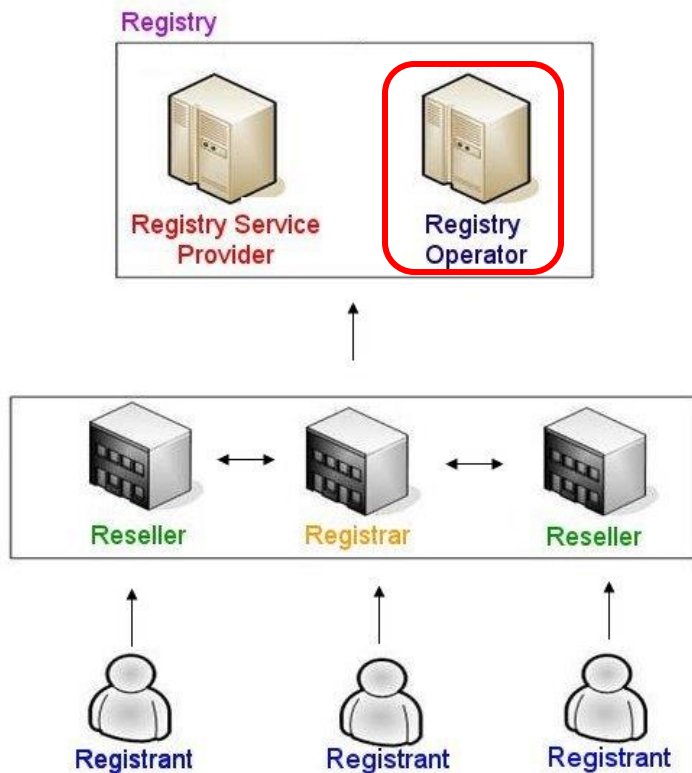
Service Provider & Operator



Registry

- Can be operated by more than one organization including the:
 - Registry Service Provider
 - Registry Operator

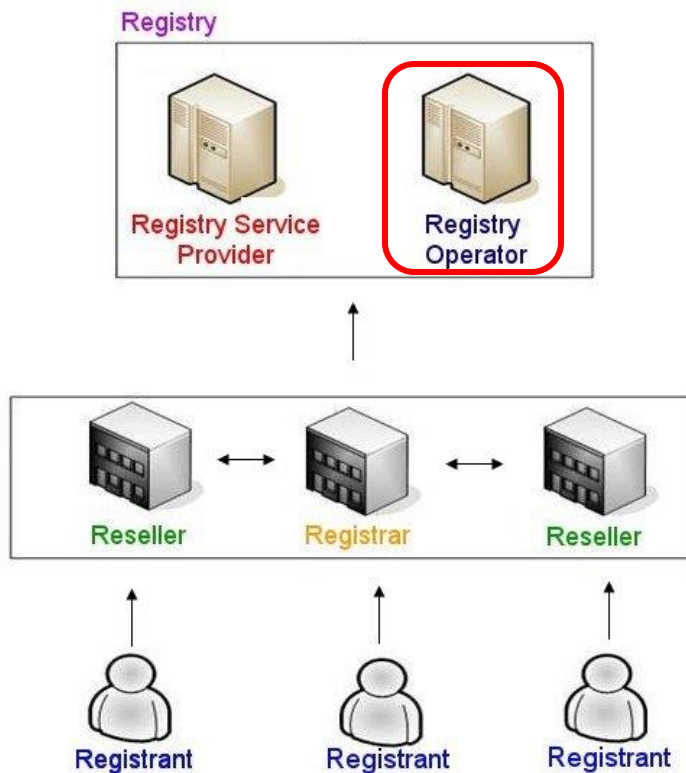
Registry Operator



Registry Operator

- Creates and enforces registry operator Policies (e.g., grace periods, subnet access)
- Charges registrars wholesale prices for domain names

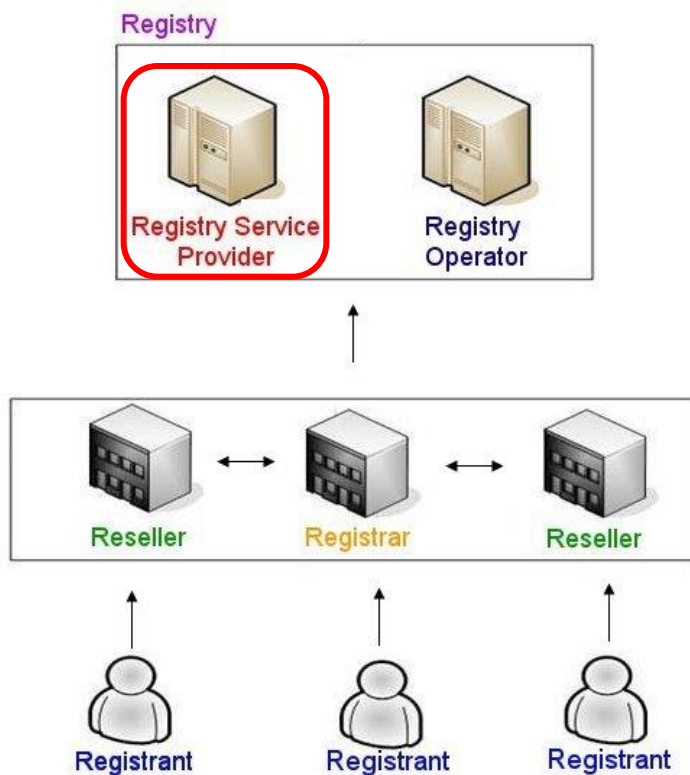
Registry Operator



Specifically, the Registry Operator will:

- Determine registration eligibility requirements
- Decide which registrars should become accredited to sell domains
- Set wholesale prices for registrars
- Provide reserved, restricted, and premium names
- Structure the domain space at 2nd / 3rd levels
- Establish dispute policies

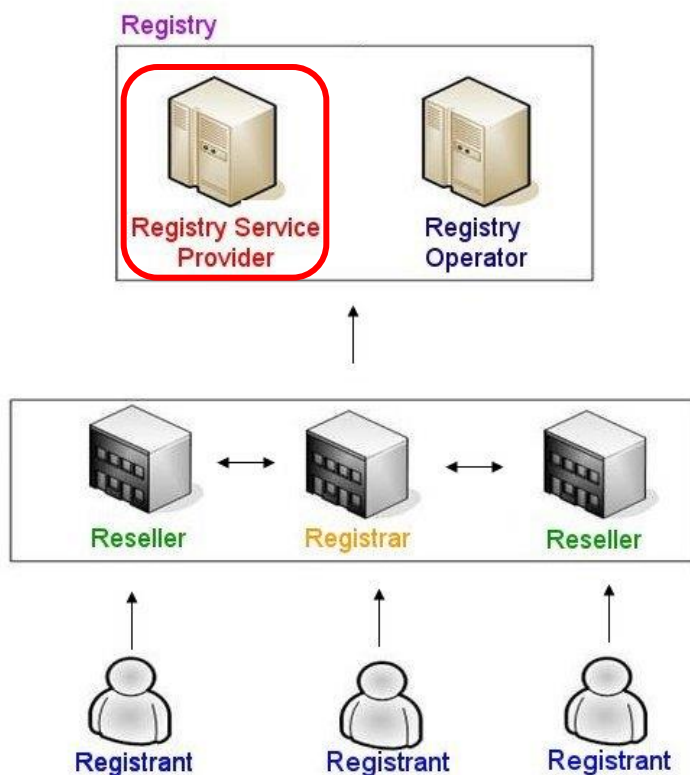
Registry Service Provider



Registry Service Provider

- Maintains the master database of domain names for a particular top level domain (TLD)
- Operates on “thin” (domain and nameserver information) or “thick” (technical and social information) registry model
- Communicates to registrars using a specific protocol i.e. Extensible Provisioning Protocol (EPP)

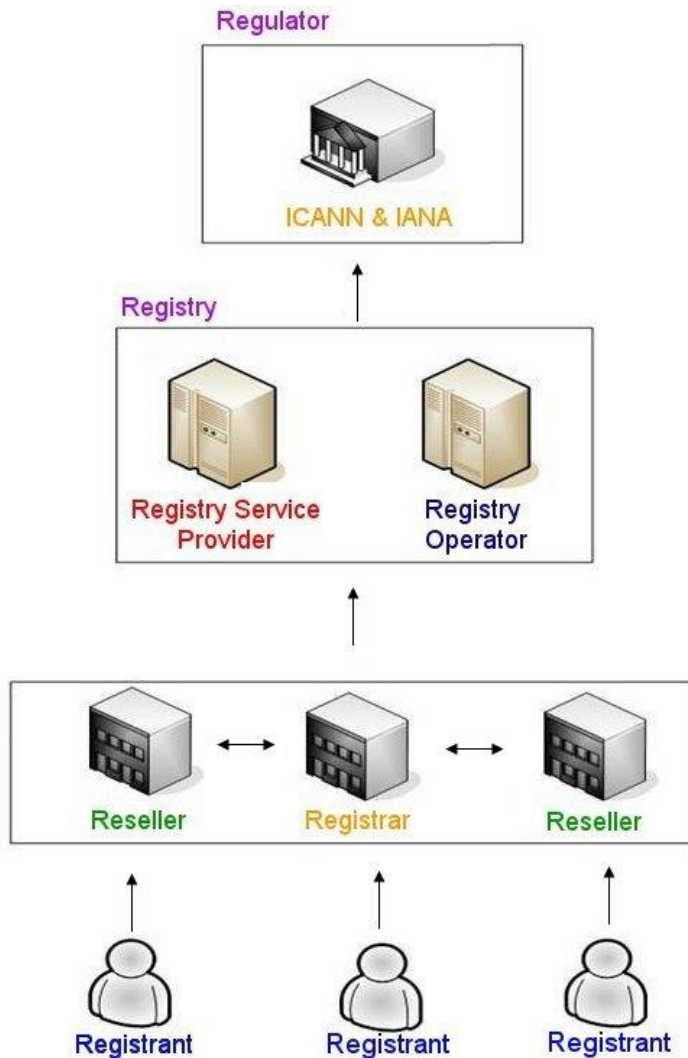
Registry Service Provider



Specifically, the Registry Service Provider will:

- Provide the shared registry system (SRS), the registry database, and access mechanisms
- Provide Domain Name System (DNS) services and generating and distributing zone files
- Create operational policies
- Develop new functionality and services
- Provide registrar support services, including tech support

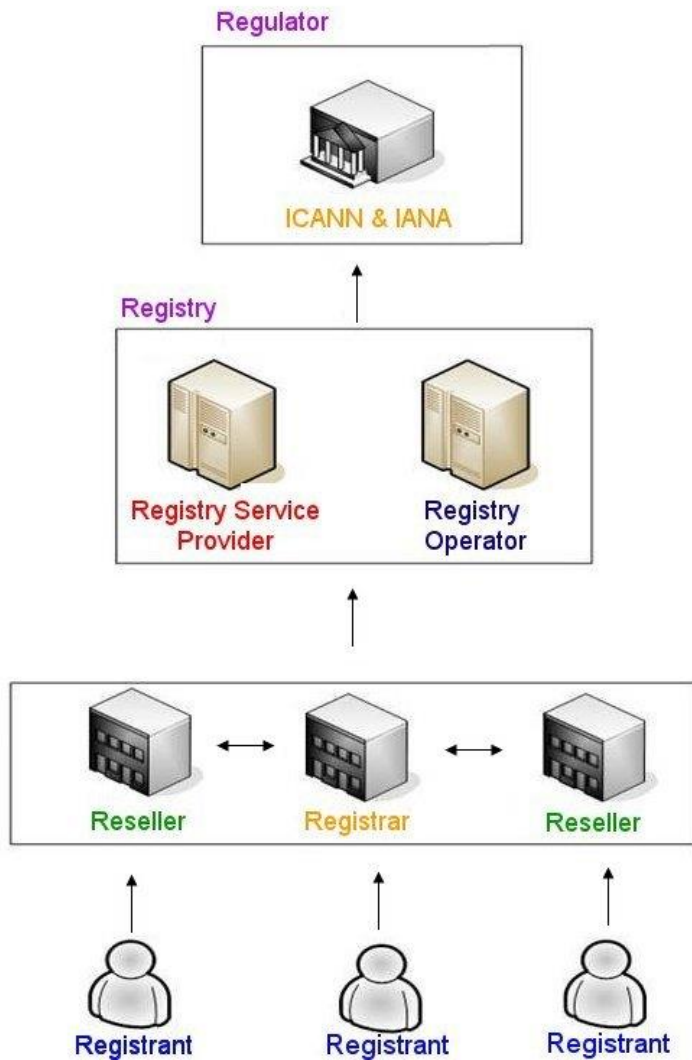
Regulator



Regulator is responsible for:

- Establishing Registrar Accreditation, Reserved Names
- Operating Uniform Domain Name Dispute Resolution (UDRP)

Regulator - ICANN

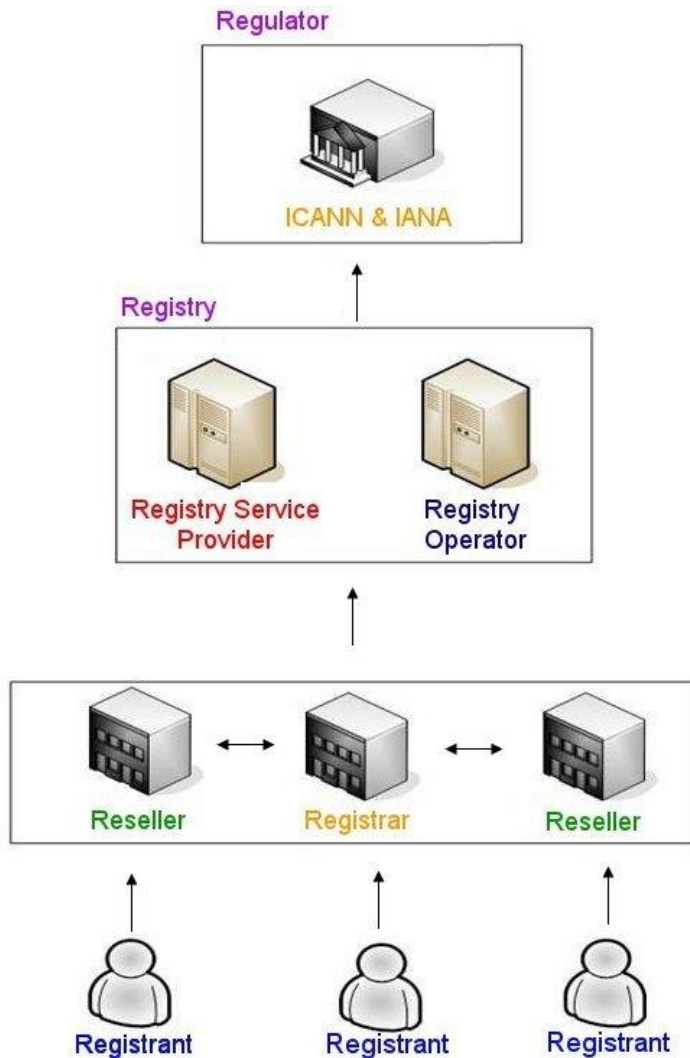


ICANN (Internet Corporation for Assigned Names and Numbers)

- Internationally organized, non-profit corporation



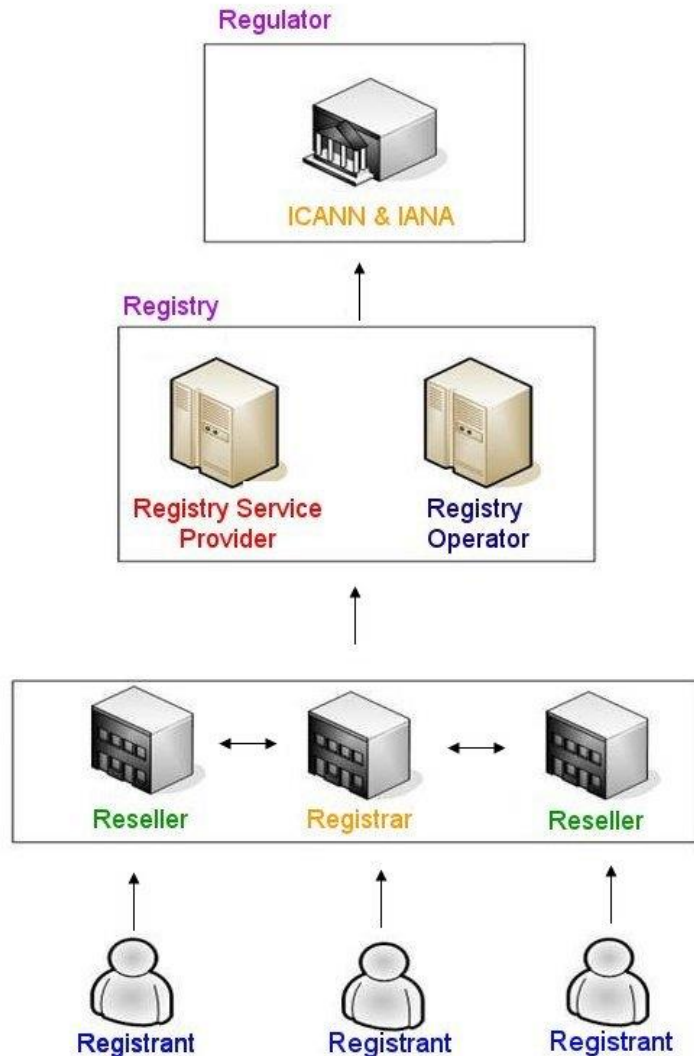
Regulator - ICANN



ICANN

- Responsible for the global coordination of the Internet's system of unique identifiers
 - Internet Protocol (IP) address space allocation
 - protocol identifier assignment
 - generic (gTLD) and country code (ccTLD) Top-Level Domain name system management
 - root server system management functions
- ICANN's global stakeholders meet regularly to develop policies that ensure the Internet's ongoing security, stability and integrity

Regulator – IANA(PTI)



IANA (Internet Assigned Numbers Authority)

- Oversees the global IP address allocation to Regional Internet Registrars (RIRs). ARIN, RIPE, APNIC, LACNIC, Afrinic
- Oversees the DNS root zone management, and other internet protocol assignments

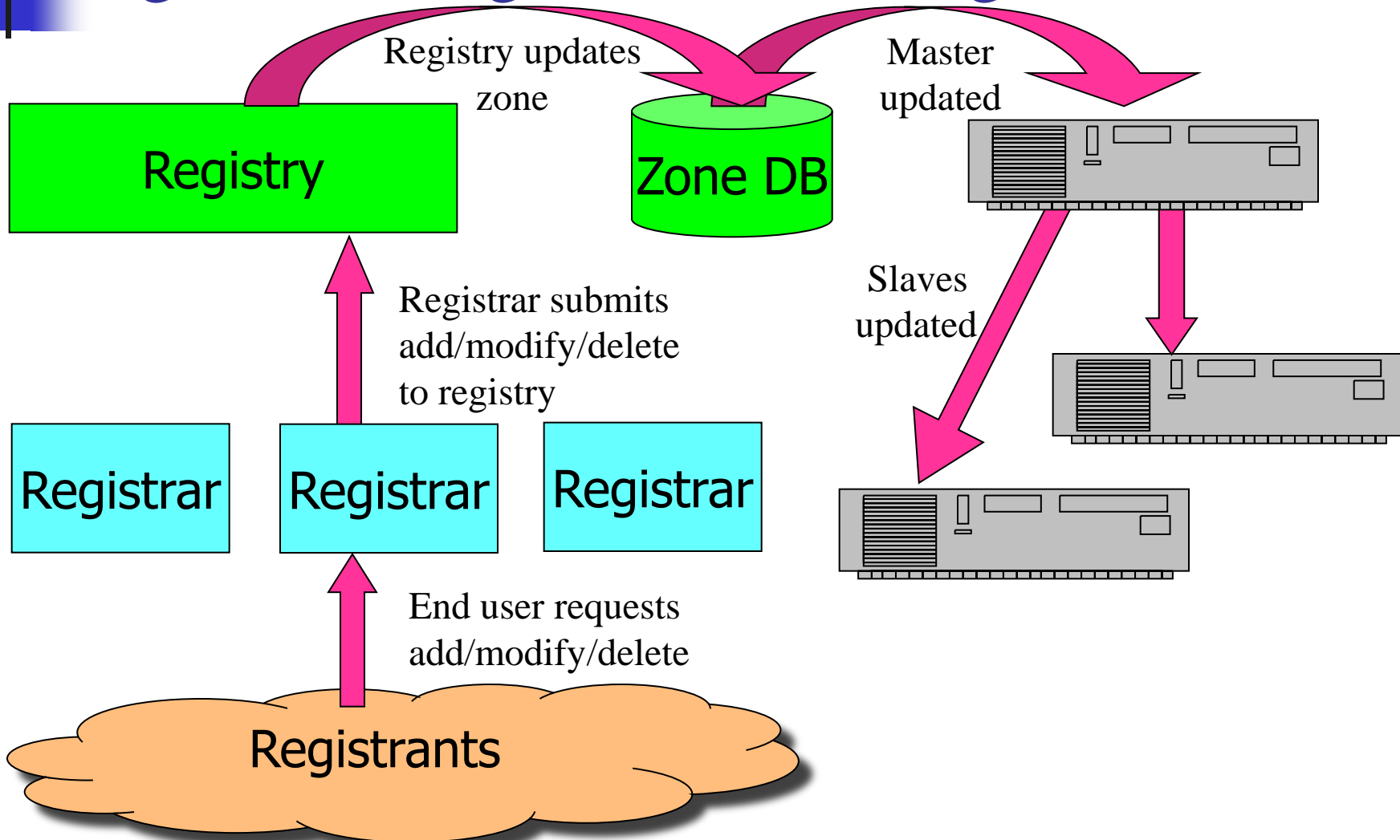




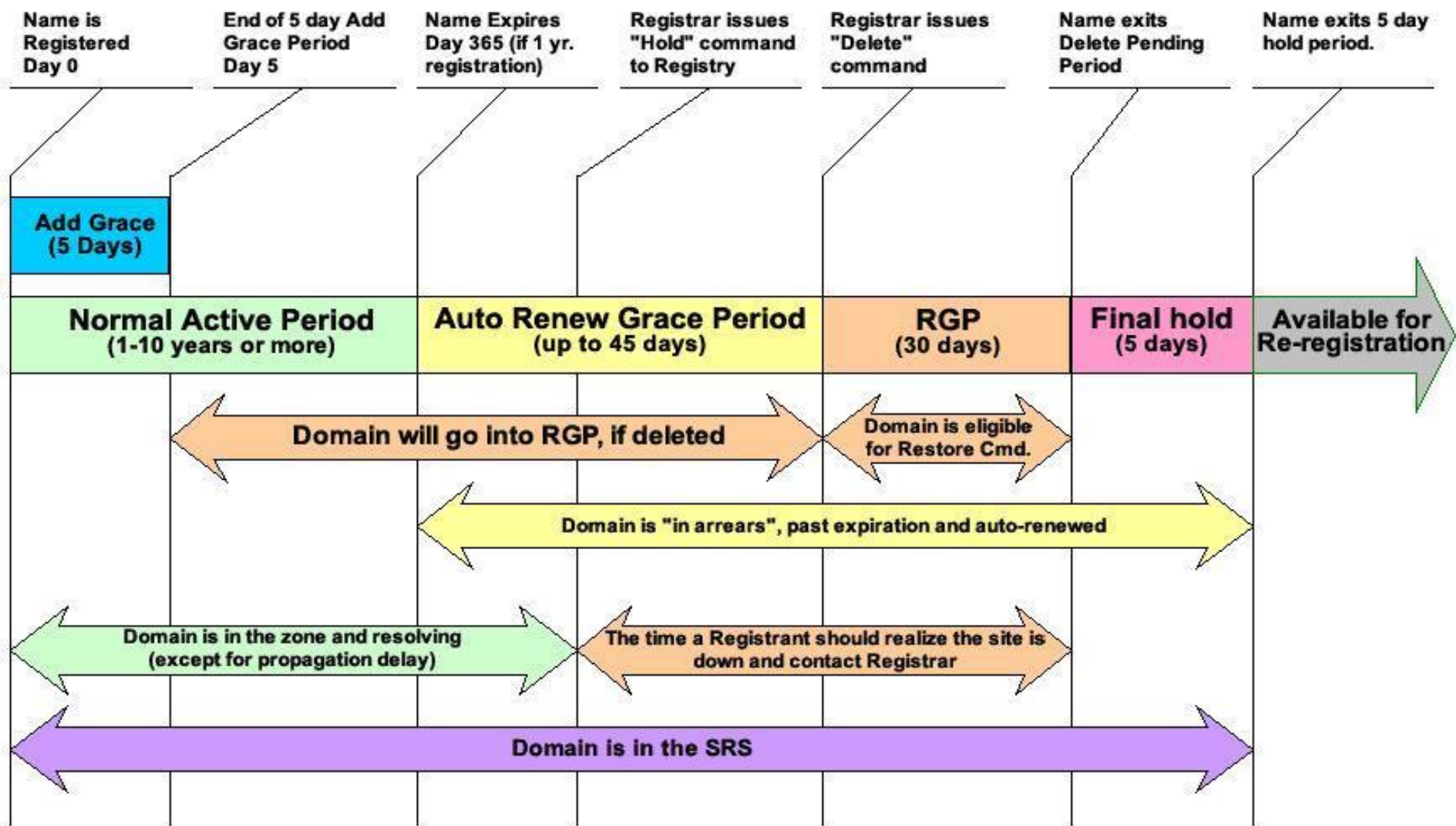
Registries, Registrars, and Registrants

- A classification of roles in the operation of a domain name space
- Registry
 - the name space's database
 - the organization which has edit control of that database
 - the organization which runs the authoritative name servers for that name space
- Registrar
 - the agent which submits change requests to the registry on behalf of the registrant
- Registrant
 - the entity which makes use of the domain name

Registries, Registrars, and Registrants



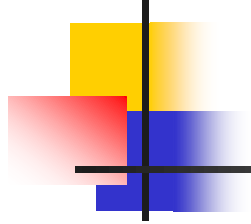
Domain Life Cycle





WHOIS Information

- WHOIS (pronounced as the phrase "who is") is a query and response protocol that is widely used for querying databases that store the registered users of an Internet resource, such as a domain name, an IP Address.
- As per Registry Advisory, WHOIS Information fo a .IN Domain should be maintained completely and accurately. The details are available on registry website -
<https://www.registry.in/registry-advisory-la02accurate-whois-information-in-domain>



Thank You