Amazon Web Services:

Introduction to Route 53

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Route 53 is a Domain Name Service (DNS) web service that has three main functions:

- Domain Registration: registers the name of your website or web application, also known as the domain name. Example.com is an example of a domain name. Registering a domain name costs an annual fee, which depends on the top-level domain, such as .com or .net.

- DNS Routing: connects your browser with your website or web application when the domain name is entered into the browser.

- Health checking: automated requests are sent by Route 53 over the Internet to a resource, such as a web server, to verify that it is reachable, available, and functional. You can choose to route internet traffic away from unhealthy resources or receive notifications when a resource becomes unavailable.

A hosted zone is a container for records, such as information about how you want to route traffic for a domain and all its subdomains. Name servers are servers in the DNS that help to translate domain names into the IP addresses that computers use to communicate with each other.

When you register a domain with Route 53, the service automatically makes itself the DNS for the domain by creating a hosted zone that has the same name as your domain, assigning four name servers to the hosted zone that tell the browser to find your resources (such as a web server or Amazon S3 bucket), and getting the name servers from the hosted zone and adding them to the domain.

For more information about Route 53 and its functionality, please go to https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/Welcome.html.

Register a Domain with Route 53

Before creating your website, you must register a domain name with Route 53. When this domain name is entered into a browser, it will take users to your website. To register a domain with Route 53, follow these steps:

1. Sign into the **AWS Management console** and navigate to the **Route 53 console** at https://console.aws.amazon.com/route53/.

2. If you're new to Route 53, under **Domain Registration**, choose *Get Started Now*. If you've used Route 53 before, choose *Registered Domains* in the navigation pane.

3. Choose *Register Domain*.

4. Type in the *domain name* that you wish to register. Choose *Check* to see if the domain name is available for registration.

5. If the domain name is available, it will say "Available" under *Status*. Click *Add to Cart* to add the domain name to your shopping cart. **NOTE**: The **Related domains suggestions list** provides other available domains that you might want to register. You can add up to five domains to your cart.

6. Under **One-time fees**, choose the number of *years* you want to register the domain for. **NOTE:** To register more domains, repeat steps 4 through 6. The subtotal of your domain purchase will be shown.

7. Choose *Continue*.

8. On the **Contact Details for your Domain** page, enter your contact information under Registrant Contact. **NOTE:** The information you enter is applied to all domains that you are registering. By default, the same information is used for all three contacts: the domain registrant, administrator, and technical contact. If you want to enter different information for one or more contacts, change the value of *My Registrant, Administrative, and Technical Contacts are all the same* to No.

9. For some top-level domains (TLDs), additional information is requested. If required, enter values after the *Postal/Zip Code* field.

10. In the *Privacy Protection* field, choose whether or not you want to hide your contact information from WHOIS queries. **NOTE:** If you choose to disable privacy protection for a domain, anyone can send a WHOIS query for the domain and possibly obtain

contact information that you provided when you registered the domain, like your name, phone number, or email address.

11. Choose *Continue*.

12. Review the information you provided, choose whether or not you want to *automatically renew your domain*, read the terms and conditions, and select the check box to confirm that you have read and agree to the *AWS Domain Name Registration Agreement*.

13. Choose *Complete Purchase*. **NOTE:** The registrant of the domain will receive an email to verify that the registrant contact can be reached at the specified email address. The registrant contact must follow the instructions mentioned in the email to confirm that the email was received, or the domain may be suspended (not accessible on the internet).

You are able to register a domain for one year, by default. If you will not keep the domain, you can disable automatic renewal, so the domain expires at the end of the year.

To disable automatic renewal for a domain:

1. In the navigation pane, choose *Registered Domains*.

2. In the **list of domains**, choose the *name* of your domain.

3. If the *Auto renew* field value is Enabled (disable), choose *disable* to turn off automatic renewal. **NOTE:** If the field's value is Disabled (enable), do not change the setting.

To see the expiration date of a domain:

1. Go to *Registered Domains* in the navigation pane.

2. In the **list of domains**, find the name of your domain.

3. Under the **Expiration Date** column, you will find the expiration date of your domain.

You have successfully registered a domain for your website. You will continue on to create a bucket to host a static website, and perform configurations to get your website up and running.