

# Routing from AWS

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## Route 53

DNS routing service

## API Gateway

REST API based  
routing service

# Overview

**The politics of Route 53**

**Zones that are hosted**

**Passing through the API Gateway**

**Building an API for hamster races**

**Limiting the DNS possibilities**

# Route 53 Routing Policies

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# Route 53 Routing Policies



Simple

Weighted

Latency

Geolocation

Failover



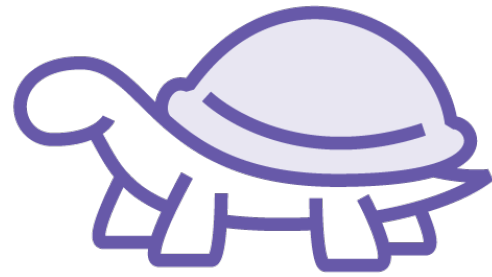
Simple  
Routing  
Policy

Single DNS record from one source to  
one AWS resource



## Weighted Routing Policy

Assign weights to multiple resources  
and divide traffic between them  
according to those weights



Latency  
Routing  
Policy

Route traffic to resources with the  
lowest latency for a region





## Geolocation Routing Policy

Route traffic to specific resources  
based on the location of the requester



## Failover Routing Policy

Configure a backup resource to route traffic to if the primary resource fails

# Creating a Hosted Zone in Route 53

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# Route 53 Hosted Zone

Resource that maps to a domain name through which you can configure subdomains and other routing rules.

# Route 53 Record Set

DNS rules that send traffic from a source to an AWS resource.



To test these changes in the wild, you'll need to purchase and use your own domain name in the following demos

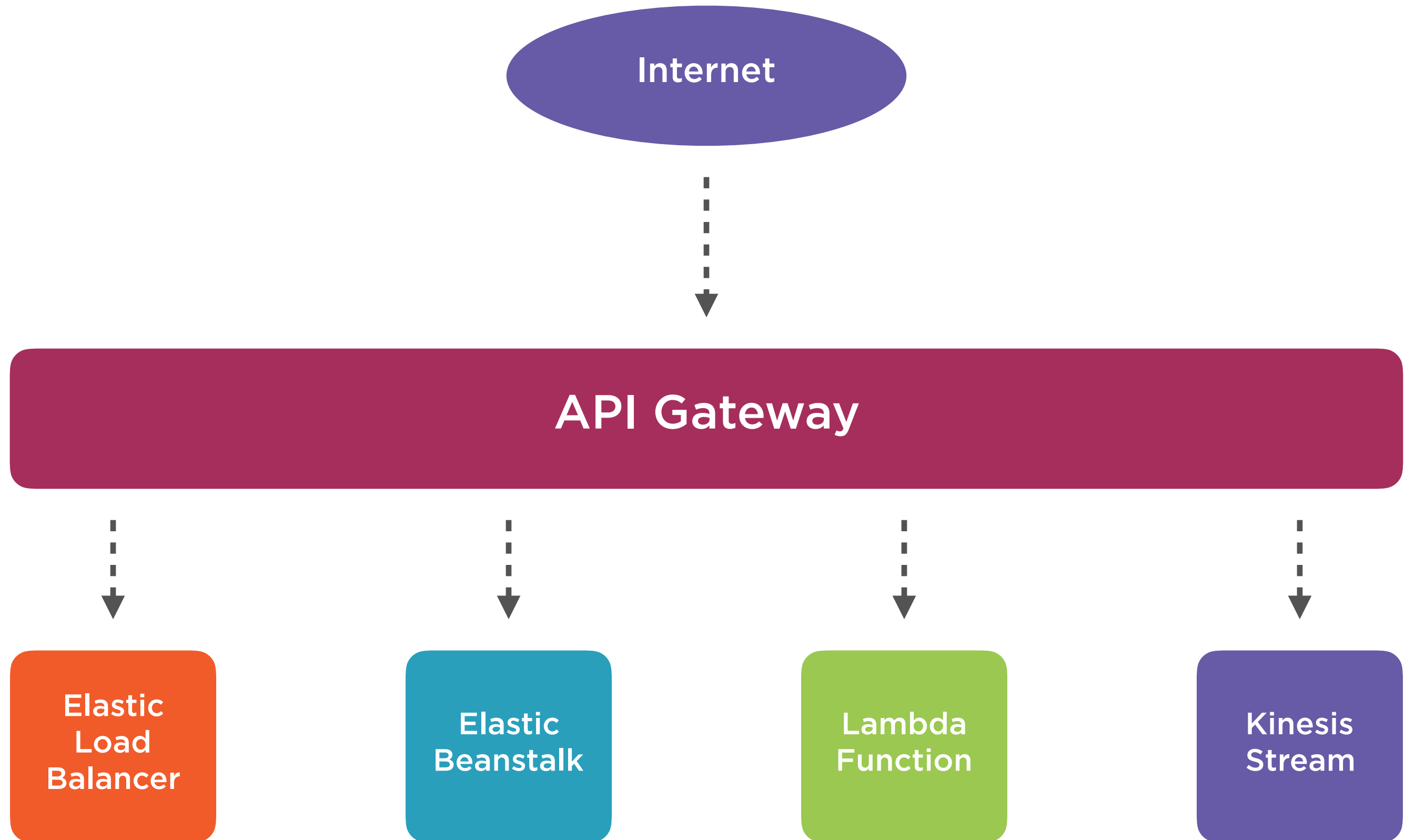
# Creating a Record Set in Route 53

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# What Is API Gateway?

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# API Gateway Path Breakdown

myAPIGatewayurl.com/hamster/races



Resource

# API Gateway Resource

Methods

Resource

/hamster/

GET



Elastic  
Load Balancer

POST



Kinesis Stream

PUT



Lambda Function

DELETE



Elastic Beanstalk



API  
Gateway



Hamster  
Ball Fantasy  
League

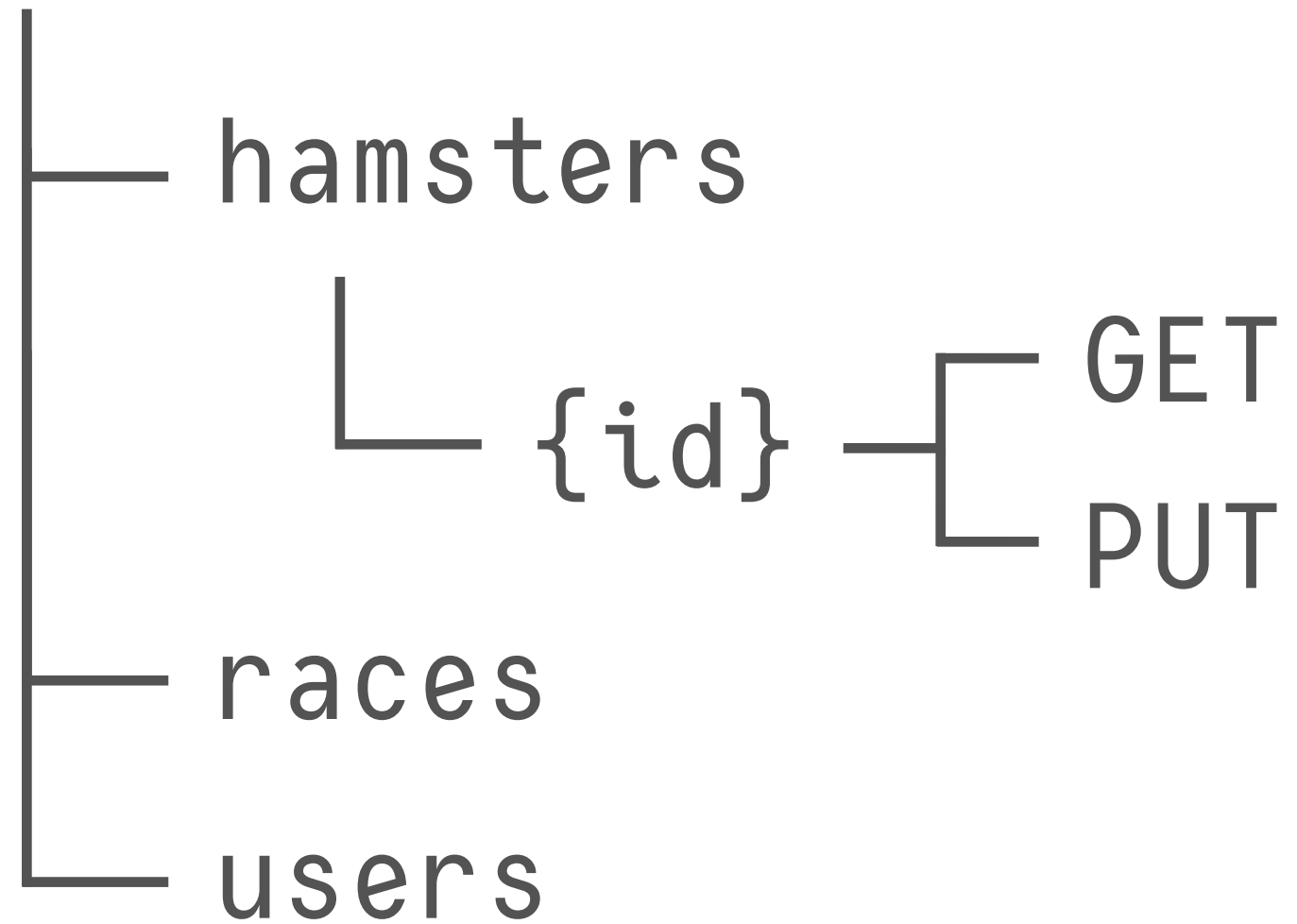
# Creating an API and Resource in API Gateway

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The API Gateway SDK uses camel case instead of Pascal case for param properties

# API Structure in API Gateway

hamsterAPI



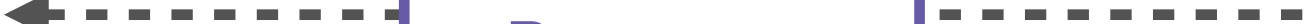
# API Gateway Method

Resource

/hamster/

Method

GET





# Creating a Method in API Gateway

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# Creating a Proxy Resource in API Gateway

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Create a proxy resource to  
preserve original request  
headers and send to the  
destination AWS resource

# Deploying an API in API Gateway

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# API Gateway Stages

**production**

`uniqueId.execute-api.region.amazonaws.com/production`

**staging**

`uniqueId.execute-api.region.amazonaws.com/staging`

**integration**

`uniqueId.execute-api.region.amazonaws.com/integration`

**development**

`uniqueId.execute-api.region.amazonaws.com/development`

# API Gateway Deployments

**production**

deployment-1234

deployment-5678

deployment-9012

deployment-3456

deployment-7890

# Limits with Route 53 and API Gateway

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## Route 53 Limit

Indeterminable delay between DNS changes



## Route 53 Limit

Soft limits on hosted zones, domains, and record sets

## API Gateway Limit

Change request hard limit that is different for each change type

Amazon API Gateway Important

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https://docs.aws.amazon.com/apigateway/latest/developerguide/api-gateway-known-issues.h

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Monitoring Your API Configuration

▶ Tagging Your API Gateway Resources

API Gateway V1 and V2 API References

▼ Limits and Important Notes

# Amazon API Gateway Important Notes

[PDF](#) | [Kindle](#) | [RSS](#)

## Topics

- Amazon API Gateway Important Notes for REST and WebSocket APIs
- Amazon API Gateway Important Notes for WebSocket APIs
- Amazon API Gateway Important Notes for REST APIs

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## Amazon API Gateway Important Notes for REST and WebSocket APIs

- API Gateway does not support sharing a custom domain name across REST and WebSocket APIs.
- Stage names can only contain alphanumeric characters, hyphens, and underscores. Maximum length is 128 characters.
- The `/ping` and `/sping` paths are reserved for the service health check. Use of these for API root-level resources with custom domains will fail to produce the expected result.

https://docs.aws.amazon.com/apigateway/latest/developerguide/api-gateway-known-issues.html

# Conclusion

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# Summary

**Ultimate routing policy control**

**Setting a hosted zoning record**

**The structure of API Gateway**

**Unleash the hamster API**

**Beware the change request limits**

Up Next

# Delivering Content with AWS