


# Ephemeral and Static IP Addresses

In this lesson, we will access our application using its IP address.

## WE'LL COVER THE FOLLOWING ^

- Switching Between IP Types
- Test Your Knowledge!

With our firewall rule in place and the application running on the VM, we have to check the external IP of our VM server:

<input type="checkbox"/> Name ^	Zone	Recommendation	Internal IP	External IP	Connect
<input type="checkbox"/>  instance-1	us-east1-b		10.142.0.2 (nic0)	35.196.64.74	SSH ▾ ⋮

We can now access our website from anywhere on the internet using **35.196.64.74**. Try it out yourself.

And there we have it! We have successfully deployed an application on GCP. However, we're not done yet...

If we go into the VM instance details, under the **Network interfaces** heading, we can see that our external IP is **ephemeral**:

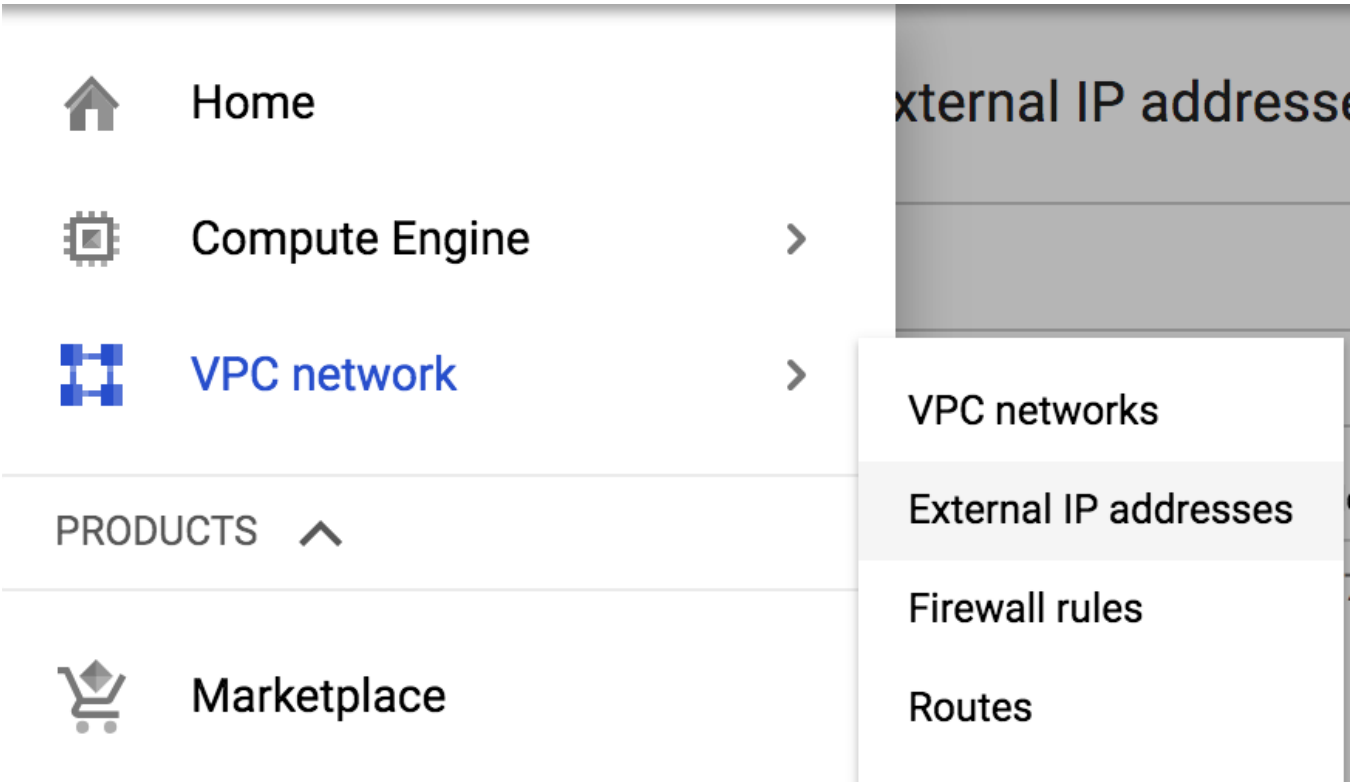
Network interfaces								
Name	Network	Subnetwork	Primary internal IP	Alias IP ranges	External IP	Network Tier ?	IP forwarding	Network details
nic0	default	default	10.142.0.2	—	35.196.64.74 (ephemeral)	Premium	Off	<b>View details</b>

## Switching Between IP Types #

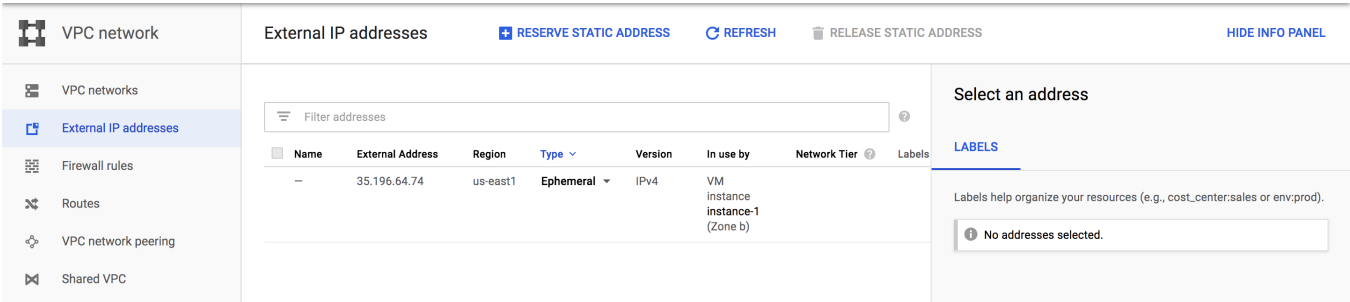
An ephemeral IP is one that is dynamic, i.e., it will change every time we log in to the platform again. This will be a problem because users cannot access our application if the IP keeps changing.

To fix this, we need to make our external IP **static**.

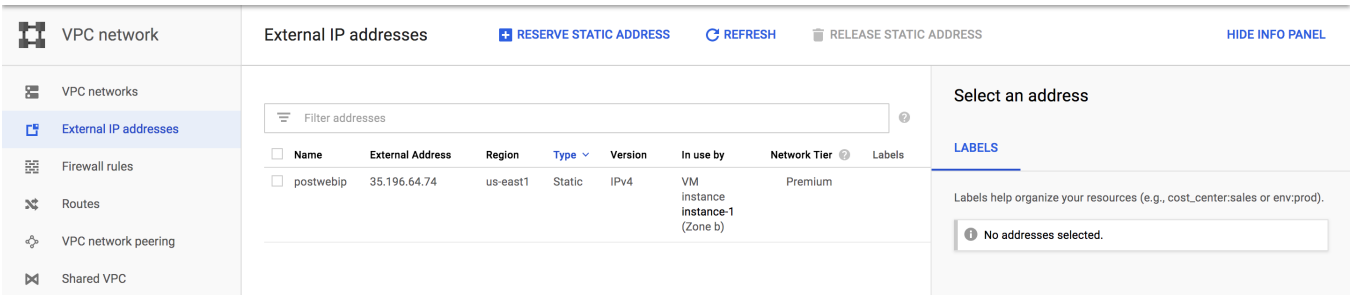
In the navigation menu, go to **VPC network > External IP addresses**:



We will be directed to this page:



Change the type from **ephemeral** to **static**. We will be prompted to set a name for the IP, after which it will become static:



This IP now belongs to *us*. We can link it to the domain name that we purchased earlier, and users would be able to access our site through that name

## Test Your Knowledge! #

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An ephemral IP can be linked to a domain name for long term use.

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We've finally published our website to the vast world of the internet, and thanks to cloud hosting, we only had to pay as much as we need to! As this section comes to an end, we will learn how to make client-server communication more secure in the form of HTTPS rather than HTTP.