



EQUINIX

# **Deploying a Global Anycast Network on Equinix Metal**

# Prerequisites

## 1. You have an account!

If not sign up here:

<https://console.equinix.com/signup>



METAL



+ New Server

All Server Types

Search...

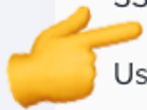
<input type="checkbox"/>	HOSTNAME	CONFIG	IPV4 ADDRESS	TYPE	OS	LOCATION	TAGS	ACTION(S)
<input type="checkbox"/>	🔒 opshub.small.x86-01	t1.small.x86	147.75.67.67	On Demand	🔥	EWR1		...
<input type="checkbox"/>	🔒 packet-bot.sjc1	c1.small.x86	139.178.89.135	On Demand	🔥	SJC1		...
<input type="checkbox"/>	🟢 slg-poc-nvidia-license-server	x1.small.x86	139.178.86.215	On Demand	🔥	DFW2		...



General

Spot Market

SSH Keys



Usage Fees

Timeline

API Keys

Delete

PROJECT NAME

Damian Sandbox

 Edit

CREATION DATE

April 12th, 2020

PROJECT ID

a6f6673f-0707-464e-a9f1-e9555e8bd1e3

 Copy





- General
- Spot Market
- SSH Keys
- Usage Fees
- Timeline
- API Keys
- Delete




## SSH Keys

Project-level SSH are SSH keys that can be deployed to instances that are not tied to a particular user. This allows for easier management of shared SSH keys without relying on non-human accounts. Project SSH keys will be deployed to new instances the same way that user SSH keys are. Any project collaborator can add and remove project-level SSH keys. Please manage your **personal keys** in your personal [account settings](#).



+ Add Key

NAME	CREATED	LAST EDITED	
macbook	1:09 AM. Apr 12th, 2020	1:31 PM. Oct 16th, 2020	<p>Edit Delete</p>

<b>General</b>	PROJECT NAME Damian Sandbox 
Spot Market	
SSH Keys	
Usage Fees	
Timeline	
API Keys	
Delete 	
	CREATION DATE April 12th, 2020
	PROJECT ID a6f6673f-0707-464e-a9f1-e9555e8bd1e3 

General

Spot Market

SSH Keys

Usage Fees

Timeline

**API Keys**

Delete

## API Keys



[+ Add](#)

NAME 

TOKEN 

PERMISSIONS 

CREATED 

# Request a /32 Global Anycast IP

3

Damian Sandbox ▾ Servers ▾ IPs & Networks ▾ Storage Project Settings

+ New Server

All Server Types ▾ Search...

<input type="checkbox"/>	HOSTNAME ↕		IPV4 ADDRESS	TYPE	OS ↕	LOCATION ↕	TAGS	ACTION(S)
<input type="checkbox"/>	opshub.small.x86-01	t1.small.x86	147.75.67.67	On Demand		EWR1		...
<input type="checkbox"/>	packet-bot.sjc1	c1.small.x86	139.178.89.135	On Demand		SJC1		...
<input type="checkbox"/>	slg-poc-nvidia-license-server	x1.small.x86	139.178.86.215	On Demand		DFW2		...

Dropdown menu items: IPs, BGP, Layer 2, Backend Transfer, Connections

### IPs

[Learn about Elastic IPs](#)

Equinix Metal supports ordering additional static IP space (referred to as "Elastic IPs") that can be moved easily between servers. Use this IP space to bind to a specific service, container or other web-facing roles.



[+ Request IP Addresses](#)

**PROJECT IP ADDRESSES**

**IP REQUESTS**

# Request a /32 Global Anycast IP

Damian Sandbox ▾ Servers **IPs & Networks** ▾ Storage Project Settings

### IPs

Equinix Metal supports ordering additional static IP space (referred to as "Elastic IPs") that can be used for specific service, container or other web-facing roles.

**PROJECT IP ADDRESSES** IP REQUESTS

ADDRESS BLOCK TYPE ▾	LOCATION ▾	IP TYPE ▾ ?	IP BLOCK ▾
Global IPv4	Global	Global	147.75.40.29/32
Global IPv4	Global	Global	147.75.40.168/28
Public IPv4	DFW2	Elastic	147.75.47.136/28
Public IPv4	EWR1	Elastic	147.75.198.8/30
Public IPv6	EWR1	Management	2604:1380:0:c00::
Public IPv6	SJC1	Management	2604:1380:100::
Public IPv6	DFW2	Management	2604:1380:411::
Public IPv6	NY5	Management	2604:1380:450::
Public IPv6	AM6	Management	2604:1380:460::
Private IPv4	AM6	Management	10.12.9.0/25

### Request IP Addresses

Deployment Type [Learn about IP Pricing](#)

**Public IPv4**  
*\$0.005/hr per IP*

Publicly addressable IPs that are announced to a single facility and can be assigned to servers as elastic IPs or announced using BGP.

**Global IPv4**  
*\$0.15/hr per IP*

Publicly addressable IPs that are announced by Equinix Metal to all facilities that support global IP and can be routed to servers as elastic IPs or with BGP.

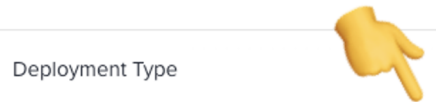
Quantity: **/32 (1 IP) - \$0.15/hr**

Description:

Comments:

**The charge will start when the request is approved.**

**Submit Request**



We just need a /32 for this.

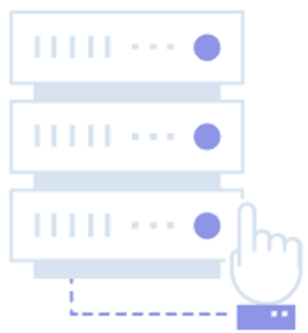
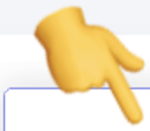


+ New Server

All Server Types

Search...

<input type="checkbox"/>	HOSTNAME	CONFIG	IPV4 ADDRESS	TYPE	OS	LOCATION	TAGS	ACTION(S)
<input type="checkbox"/>	🔒 opshub.small.x86-01	t1.small.x86	147.75.67.67	On Demand		EWR1		...
<input type="checkbox"/>	🔒 packet-bot.sjc1	c1.small.x86	139.178.89.135	On Demand		SJC1		...
<input type="checkbox"/>	● slg-poc-nvidia-license-server	x1.small.x86	139.178.86.215	On Demand		DFW2		...



ON DEMAND

Deploy curated bare metal configurations from our global pool in just minutes. All usage is billed hourly.



RESERVED

Deploy contracted servers, including custom configurations. Contact us to arrange for reserved hardware.



SPOT MARKET

Bid on spare capacity from our global pool of standard configs, including GPU nodes. Hourly billing. Revokable.



## Deploy On Demand Servers

### Select a Datacenter

<b>Amsterdam, NLD</b> CORE AM6	Amsterdam, NLD CORE AMS1	Ashburn, USA CORE IAD2	Ashburn, USA CORE DC13	Ashburn, USA IAD1
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Selected: Amsterdam, NL

### Select Your Server

<b>c3.small.x86</b> \$0.50 / hour 1x Intel(R) Xeon(R) E-2278G CPU @ 3.40GHz 2x 480GB SSD 32GB RAM 2x 10Gbps	<b>c3.medium.x86</b> \$1.10 / hour 1x AMD EPYC 7402P 24-Core Processor @ 2.8GHz 2x 240GB SSD 2x 480GB SSD 64GB RAM 2x 10Gbps	<b>s3.xlarge.x86</b> \$1.85 / hour 2x Intel(R) Xeon(R) Silver 4214 CPU @ 2.20GHz 2x 960GB SSD 2x 240GB NVME 12x 8TB HDD 192GB RAM 2x 10Gbps	<b>m3.large.x86</b> \$2.00 / hour 1x AMD EPYC 7502P 32-Core Processor @ 2.5Ghz 2x 240GB SSD 2x 3.8TB NVME 256GB RAM 2x 25Gbps	<b>n2.xlarge</b> \$2.25 / hour 2x Intel(R) Xeon(R) Platinum 8269C @ 2.20GHz 2x 120GB SSD 1x 3.8TB NVME 384GB RAM 4x 10Gbps
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Selected: c3.small.x86

### Select an Operating System

[Learn about OS Type](#)

**Popular (4)** for Containers (1) VMWare/ESXi (1) Licensed (2) All (9)

<b>CentOS</b> OS VERSION CentOS 8	<b>Custom iPXE</b> OS VERSION Custom iPXE	<b>Debian</b> OS VERSION Debian 9	<b>Ubuntu</b> OS VERSION Ubuntu 20.04 LTS
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Select Number and Name Your Server(s)

1

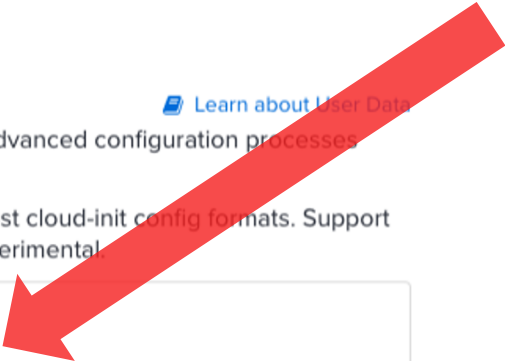
Optional Settings

**Add User Data** [Learn about User Data](#)  
Use this to execute script/package tasks or trigger more advanced configuration processes after the server is ready.

Paste your YAML or script here. Equinix Metal supports most cloud-init config formats. Support for formats other than #cloud-config and #! (script) are experimental.

**Configure IPs**  
Make changes to IP allocations. By default, Equinix Metal provides 1 public IPv4 and 1 public IPv6 address for free.

**Next slide has a neat script for you.**



**Copy this gist from GitHub and paste into User Data:**

**[Configure Global Anycast IP on Equinix Metal Server](#)**

**Make sure to update the `auth_token`, `elastic_ip_cidr`, & `elastic_ip` variables.**

**You'll want to repeat for other locations and you can automate further with tools like Terraform.**

**<https://registry.terraform.io/providers/packethost/packet/latest/docs>**

### Summary

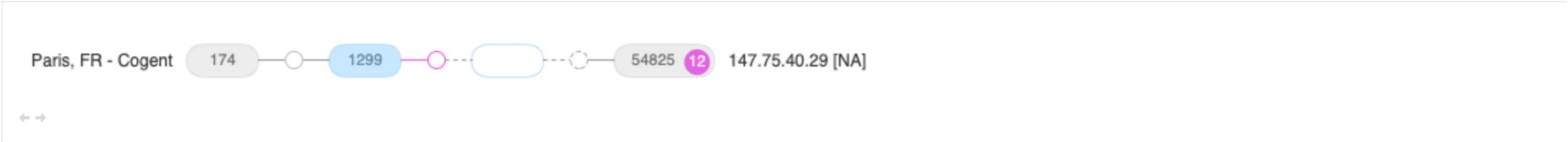
Datacenter	AM6 - Amsterdam, NL
Server	1 x c3.small.x86
OS	Ubuntu 20.04 LTS
Estimated Cost 	 \$0.50/hr

**Deploy Now**

 **Support**

# Request from Paris to 147.75.40.29 is going to AM6

Round Trip (ms) <b>12</b>	Packet Loss % <b>0</b>	# Hops <b>11</b>	# ASNs <b>3</b>
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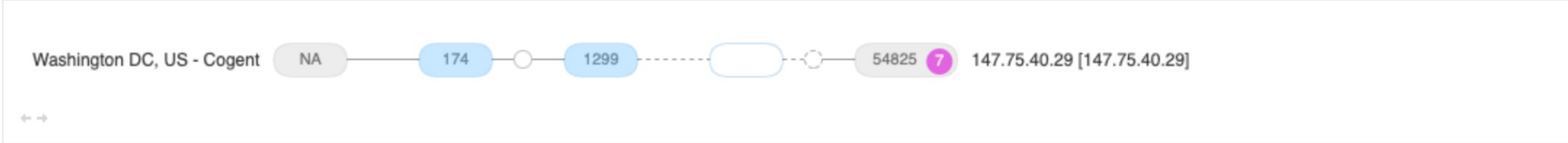
Hop	Ping 1 (ms)	Ping 2 (ms)	Ping 3 (ms)	Average Time (ms)	Packet Loss	Address
1	1	< 1	< 1	< 1	0% (0/3)	<a href="#">130.117.62.97</a> [gi0-6-0-19.212.rcr21.par02.atlas.cogentco.com]
2	1	1	1	1	0% (0/3)	<a href="#">130.117.48.249</a> [be2415.ccr41.par01.atlas.cogentco.com]
3	1	1	1	1	0% (0/3)	<a href="#">213.155.141.226</a> [prs-b2-link.telia.net]
4	15	15	15	15	0% (0/3)	<a href="#">62.115.122.10</a> [prs-bb4-link.telia.net]
5	11	11	11	11	0% (0/3)	<a href="#">213.155.136.167</a> [adm-bb4-link.telia.net]
6	15	15	15	15	0% (0/3)	<a href="#">62.115.137.65</a> [adm-b1-link.telia.net]
7	12	11	12	12	0% (0/3)	<a href="#">62.115.176.233</a> [packethost-ic-349744-adm-b1.c.telia.net]
8	*	*	*	*	100% (3/3)	NA
9	*	*	*	*	100% (3/3)	NA
10	*	*	*	*	100% (3/3)	NA
11	12	12	12	12	0% (0/20)	<a href="#">147.75.40.29</a> [NA]

# Request from Washington DC to 147.75.40.29 is going to DC13

Trace Route : 147.75.40.29 [147.75.40.29] 

Round Trip (ms)	Packet Loss %	# Hops	# ASNs
7	0	9	3

ASN Country City  



Hop	Ping 1 (ms)	Ping 2 (ms)	Ping 3 (ms)	Average Time (ms)	Packet Loss	Address
1	< 1	< 1	< 1	< 1	0% (0/3)	<a href="#">10.111.10.1</a> [10.111.10.1]
2	1	1	< 1	1	0% (0/3)	<a href="#">38.122.67.73</a> [gi0-2-1-18.216.rcr21.iad01.atlas.cogentco.com]
3	1	1	1	1	0% (0/3)	<a href="#">154.54.30.193</a> [be2956.ccr41.iad02.atlas.cogentco.com]
4	4	3	1	3	0% (0/3)	<a href="#">154.54.12.62</a> [telia.iad02.atlas.cogentco.com]
5	1	2	2	2	0% (0/3)	<a href="#">62.115.153.123</a> [packethost-svc073315-ic361184.c.telia.net]
6	*	*	*	*	100% (3/3)	NA
7	*	*	*	*	100% (3/3)	NA
8	*	*	*	*	100% (3/3)	NA
9	7	7	8	7	0% (0/20)	<a href="#">147.75.40.29</a> [147.75.40.29]

**Thank You**