

CILSY SEKOLAH DEVOPS

# Small Project 2



By Gunawan

# Background

Diposisikan sekarang sebagai seorang SysOps Administrator baru di perusahaan berkembang bernama Gawai Studio. Kondisi saat ini, Gawai Studio memiliki sebuah layanan web yang dijalankan di beberapa server yang telah running selama 5 tahun dan sudah mendekati batas maksimal kapasitas penggunaan. Akhirnya, perusahaan tersebut akan melakukan migrasi dari server on premises yang mereka miliki menjadi sistem cloud karena kebutuhan pengguna yang sangat meningkat. Sehingga sebagai seorang SysOps Administrator yang berpengalaman dibidang cloud dengan platform AWS harus merencanakan dan menyusun infrastruktur yang tepat untuk server production yang akan mengudara pada sistem cloud mereka.

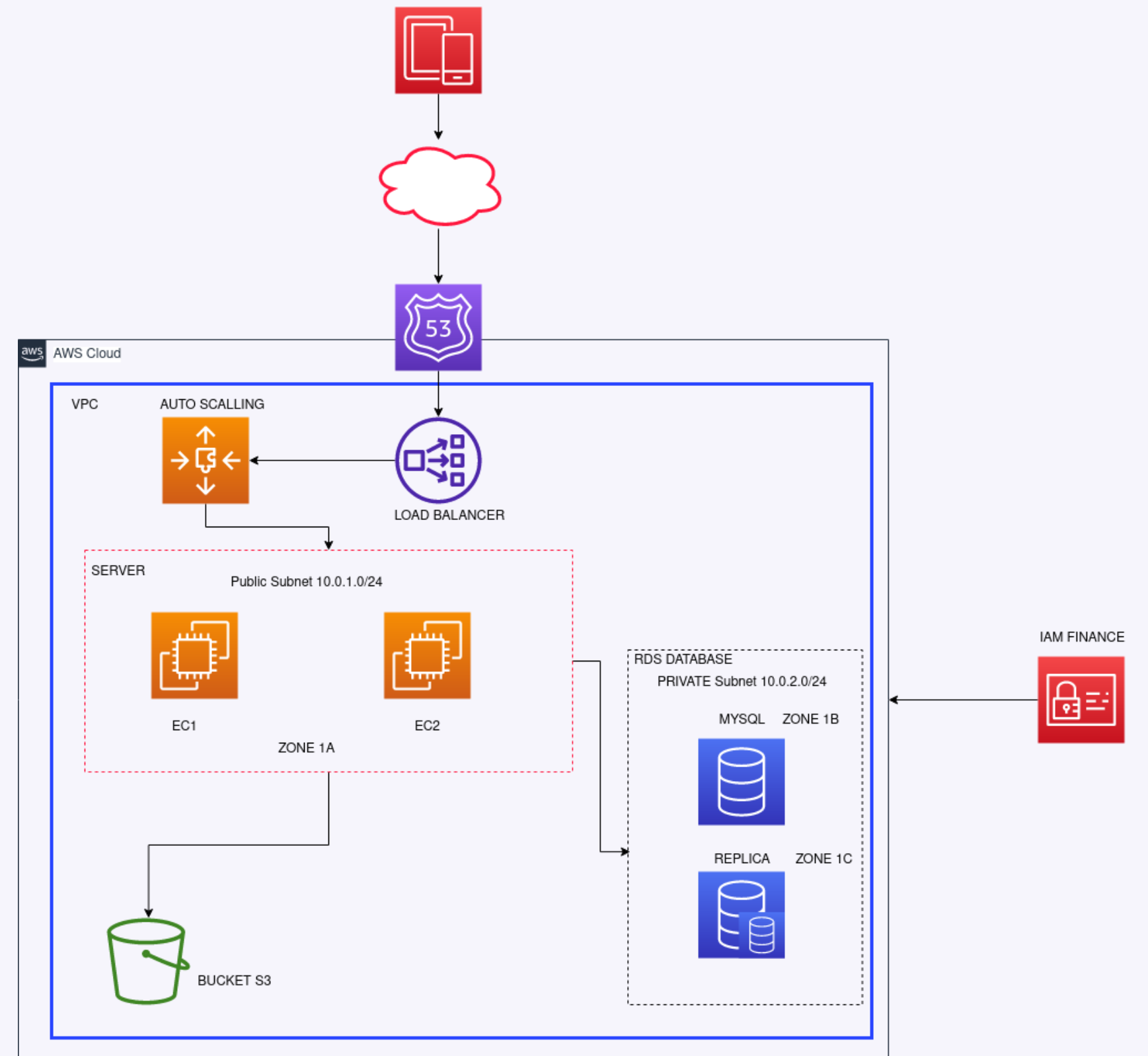
# Goal

Dari Small Project ini goalnya adalah dapat membuat sebuah infrastruktur berbasis cloud, dimana server yang digunakan akan memiliki kemampuan membagi trafik yang berguna handle aktifitas user yang tinggi, memiliki storage media yang sangat besar untuk menyimpan konten, dan database yang terpisah dengan server utama sehingga bisa melakukan mirroring database. Selain itu, karena Gawai studio asalnya merupakan perusahaan konvensional yang belum pernah menggunakan layanan cloud sebelumnya, maka Anda perlu meyakinkan Gawai Studio mengenai perencanaan budget yang akan dikeluarkan oleh Gawai Studio apabila beralih ke cloud.

# 4 STEP

- 01 Membuat Topology dan Pricing Estimation
- 02 Membuat VPC dan Subnet
- 03 Launch Instance, Autoscaling, RDS dan S3
- 04 Membuat Load Balancer, Route 53 dan IAM Finance

# Membuat Topology dan Pricing Estimation



# Pricing Estimation

+	<u>Amazon EC2 Service (Asia Pacific (Singapore))</u>
+	<u>Amazon S3 Service (Asia Pacific (Singapore))</u>
+	<u>Amazon Route 53 Service</u>
+	<u>Amazon RDS Service (Asia Pacific (Singapore))</u>
+	<u>Amazon Elastic Load Balancing (Asia Pacific (Singapore))</u>
	<u>Amazon CloudWatch Service (Asia Pacific (Singapore))</u>
+	<u>Amazon VPC Service (Asia Pacific (Singapore))</u>
+	AWS Data Transfer In
+	AWS Data Transfer Out
+	Data Transfer Out to CloudFront
+	<u>AWS Support (Basic)</u>
<b><u>Free Tier Discount:</u></b>	
<b>Total Monthly Payment:</b>	

\$	21.38
\$	2.59
\$	0.50
\$	43.60
\$	21.30
\$	0.00
\$	43.19
\$	0.00
\$	0.00
\$	0.00
\$	0.00
\$	-34.46
\$	98.10

***ONLY 98.10 USD***

# VPC DAN SUBNET

Name ▾	VPC ID ▾	State ▾	IPv4 CIDR ▾
VPC-gunawan	vpc-06b00ceafe7572f2c	✔ Available	10.0.0.0/16
Public-Subnet-Sp2	subnet-06d6514bc1c7ec7b5	✔ Available	vpc-06b00ceafe7572f2c   VPC... 10.0.1.0/24
Private1-Subnet-Sp2	subnet-07c2b6d699d1522ef	✔ Available	vpc-06b00ceafe7572f2c   VPC... 10.0.2.0/24
Private2-Subnet-Sp2	subnet-0b746470593c677e0	✔ Available	vpc-06b00ceafe7572f2c   VPC... 10.0.3.0/24



Amazon Virtual  
Private Cloud (VPC)

# INSTANCES

Name ▾	Instance ID	Instance state ▾	Instance type ▾	Status check	Alarm status	Availability Zone
–	i-05e8f023ab34cab4a	✔ Running 🔍	t1.micro	✔ 2/2 checks passed	No alarms +	ap-southeast-1a
–	i-051f6e54b2af32e14	✔ Running 🔍	t2.micro	✔ 2/2 checks passed	No alarms +	ap-southeast-1a

# AUTO SCALLING

production	autoscalling	1	-	1	1	4	ap-southeast-1a, ap-southeast-1c, ap...
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# RDS dan REPLICA














```
ubuntu@ip-10-0-1-153:~$ sudo mysql -h database-1.cybhowvmjs3c.ap-southeast-1.rds.amazonaws.com -u admin -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 393
Server version: 8.0.23 Source distribution

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show databases;
+-----+
| Database |
+-----+
| dbosmed  |
| information_schema |
| mysql    |
| performance_schema |
| sys      |
+-----+
5 rows in set (0.01 sec)
```

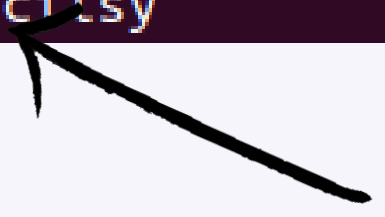
 DB identifier		Role 	Engine 	Region & AZ 	Size 	Status 	CPU	Current activity
database-1		Primary	MySQL Community	ap-southeast-1b	db.t3.micro	 Available	 3.60%	 1 Connections
replica		Replica	MySQL Community	ap-southeast-1c	db.t3.micro	 Available	 2.99%	 0 Connections



# S3

```
ubuntu@ip-10-0-1-153:/etc/apache2$ df -Th
```

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
/dev/root	ext4	7.7G	2.5G	5.2G	33%	/
devtmpfs	devtmpfs	277M	0	277M	0%	/dev
tmpfs	tmpfs	283M	0	283M	0%	/dev/shm
tmpfs	tmpfs	57M	816K	56M	2%	/run
tmpfs	tmpfs	5.0M	0	5.0M	0%	/run/lock
tmpfs	tmpfs	283M	0	283M	0%	/sys/fs/cgroup
/dev/loop1	squashfs	56M	56M	0	100%	/snap/core18/2253
/dev/loop2	squashfs	56M	56M	0	100%	/snap/core18/2284
/dev/loop0	squashfs	25M	25M	0	100%	/snap/amazon-ssm-agent/40
/dev/loop3	squashfs	62M	62M	0	100%	/snap/core20/1242
/dev/loop4	squashfs	68M	68M	0	100%	/snap/lxd/21835
/dev/loop5	squashfs	43M	43M	0	100%	/snap/snapd/14066
/dev/loop6	squashfs	62M	62M	0	100%	/snap/core20/1270
/dev/loop7	squashfs	44M	44M	0	100%	/snap/snapd/14295
tmpfs	tmpfs	57M	0	57M	0%	/run/user/1000
s3fs	fuse.s3fs	16E	0	16E	0%	/S3devopscilisy



# LOAD BALANCER

Name	DNS name	State	VPC ID	Availability Zones	Type
lbsp2	lbsp2-92449663.ap-southea...		vpc-06b00ceafe7572f2c	ap-southeast-1b, ap-so...	classic



# ROUTE 53

dualstack.lbsp2-92449663.ap-southeast-1.elb.amazonaws.com.

## Route 53 Dashboard

DNS management

1  
Hosted zone

<input type="checkbox"/>	Record name	Type	Routin...	Differ...	Value/Route traffic to
<input type="checkbox"/>	ayoreal.id	A	Simple	-	dualstack.lbsp2-92449663.ap-southeast-1.elb.amazonaws.com.
<input type="checkbox"/>	ayoreal.id	NS	Simple	-	ns-2029.awsdns-61.co.uk. ns-356.awsdns-44.com. ns-1083.awsdns-07.org. ns-635.awsdns-15.net.
<input type="checkbox"/>	ayoreal.id	SOA	Simple	-	ns-2029.awsdns-61.co.uk. awsdns-hostmaster.amazon.com. 1 7200 900 1209600 86400

# Selamat datang di Pesbuk

Bergabunglah bersama jutaan orang lainnya...

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Daftar

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Bergabunglah bersama ribuan orang lainnya...

Sudah punya akun? [Login di sini](#)

Nama Lengkap

gunawan

Username

gunawan99

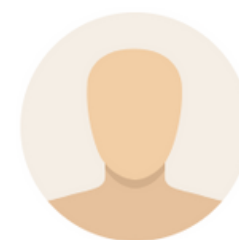
Email

gunawandigital@gmail.com

Password

\*\*\*\*\*

Daftar



gunawan

gunawandigital@gmail.com

[Logout](#)

Apa yang kamu pikirkan?

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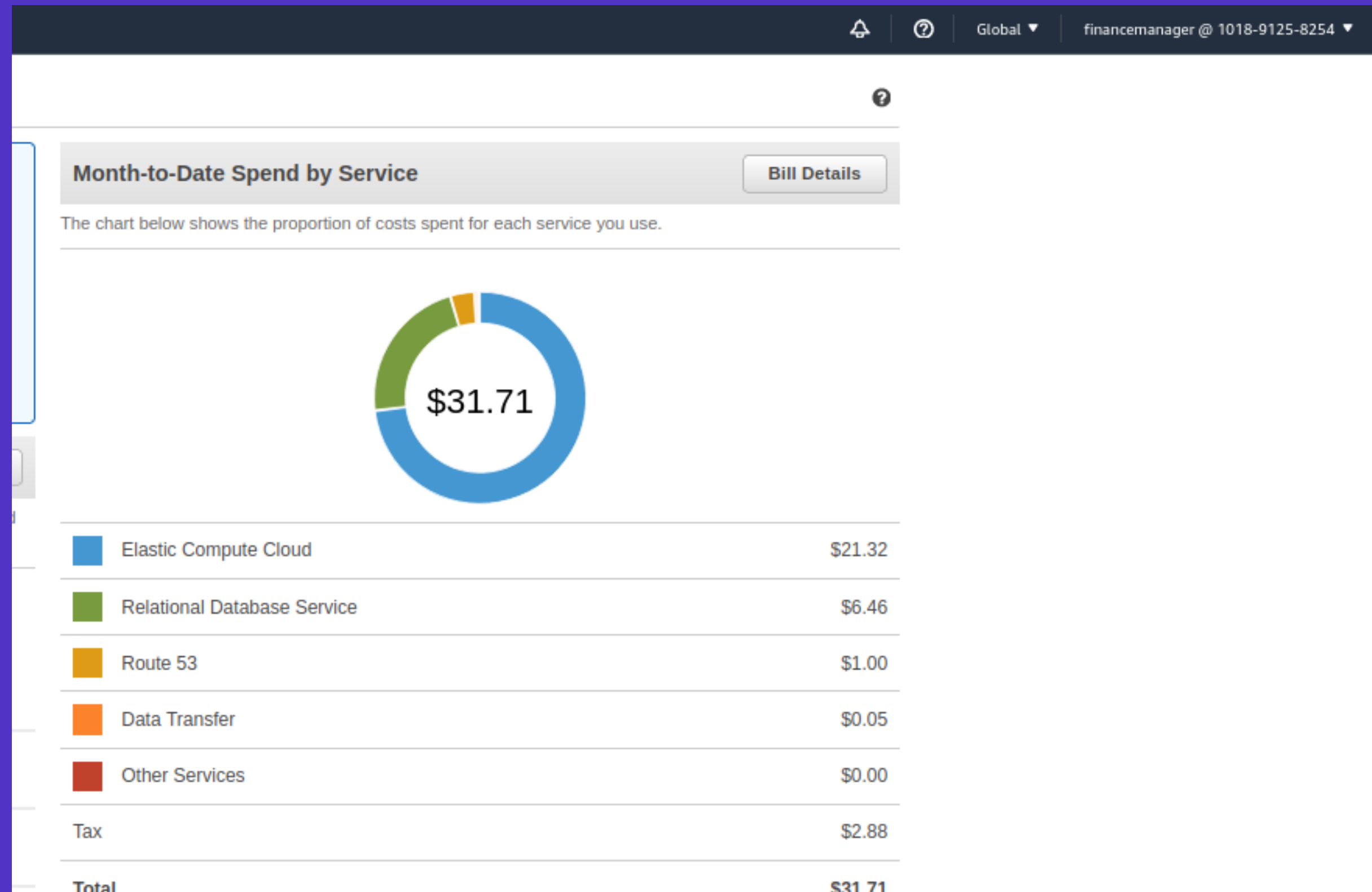
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financemanager @ 1018-9125-8254 ▼

# IAM Finance Manager



*"I don't need a hard  
disk in my computer  
if I can get to the  
server faster...  
carrying around  
these non-connected  
computers is  
byzantine by  
comparison."*





Thank You