

## RDS - INSTANCE TYPE:

Price - <https://aws.amazon.com/rds/mysql/pricing/?pg=pr&loc=2>

Memory - <https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/Concepts.DBInstanceClass.html>

**max\_connections** - <https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/AuroraMySQL.Managing.Performance.html>

[https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/CHAP\\_Limits.html#RDS\\_Limits.MaxConnections](https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/CHAP_Limits.html#RDS_Limits.MaxConnections) - incompatible-param issue

<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/Concepts.DBInstanceClass.html> -version unsupported

Cost cal - <https://calculator.aws/#/createCalculator/AuroraMySQL>

1 Gib = 1073741824 bytes = 1.074GB

## 5.7.mysql\_aurora.2.10.2

<b>max_connections version(current-2.10.x)</b>		<b>memory/gib supporting mysql engine</b>	<b>cost/hr</b>
Current - db.t3.medium	90	4	\$0.068= 5.1/-
Preferred - db.r6g.large	1000	16	\$0.215=16.1/-
3.01.0 and higher			2.09.2 and higher, 2.10.0 and higher,
db.t3.large	135	8	\$0.136=10.2/-
db.r5.large	1000	16	\$0.24
supporting 2.x V			(1.14.4 and higher, 3.01.0 and higher) -> not

// check nodes and add ..

be\_producer - 10  
be\_reactor\_fanout - 11  
be\_reactor\_consumer\_etl - 11  
be\_reactor\_consumer\_logiflows - 12  
be\_reactor\_subscription - 3  
be\_reactor\_deadletter - 6  
be\_reactor\_metadata - 3  
be\_reactor\_sor - 3  
be\_jobs\_keeper - 8  
be\_dashboard - 3  
=====

Total 14 services \* 15 conn => 210

- 1 - In the last 6 months, what was the maximum number of connections that was needed? Since it is t3, it cannot go beyond 90. But was this threshold ever exceeded? If not, what was the closest we came to
- 2 - What is the max number of connections supported by r6g.large? Why r6 and why not r5?
- 3 - what was the 97th percentile of traffic that we received and help understand how the CPU and memory issue will be addressed in this new instance type
- 4 - Cost aspect, how much does it add to the monthly bill?

#### Findings:

1. As per the metrics from AWS console in staging , the max db-connections it reached is 90. Attached the screenshot for reference.
2. The max\_connections provided by db.r6g.large is 1000. Through db.r5.large is providing 1000 connections , it is not supporting 2.x Aurora MySQL version.

Reference - <https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/Concepts.DBInstanceClass.html>

3. CPU for both instance types (old and recommended) is same. Currently as per last 2 week AWS free-able memory metrics, around 2Gib memory is not being utilised. Memory provided by db.r6g.large is 16Gib.
4. Cost of db.t3.medium is \$0.068 per hour and for db.r6g.large \$0.215 per hour. Currently 2 nodes in staging , so as per the AWS pricing its -> 379.60 USD per month . In int DR testing is going on so they added new cluster in us-west region, currently 3 nodes , so as per the AWS pricing its -> 569.4000 USD