

1. Scale a Simple Cluster by Increasing Node Size

The screenshot displays the Amazon ElastiCache console interface. The top navigation bar shows the AWS logo, a search bar, and the region 'Oregon'. The left sidebar contains a navigation menu with 'Resources' (Redis clusters, Global datastores, Memcached clusters, Reserved nodes, Backups) and 'Configurations' (Subnet groups, Parameter groups, User management, User group management). The main content area shows the 'Redis clusters' page with a table of existing clusters. A notification banner at the top right introduces Amazon MemoryDB for Redis. Below the table, the details for the 'simple-redis-cluster' are shown, including its status, engine version, and various configuration options.

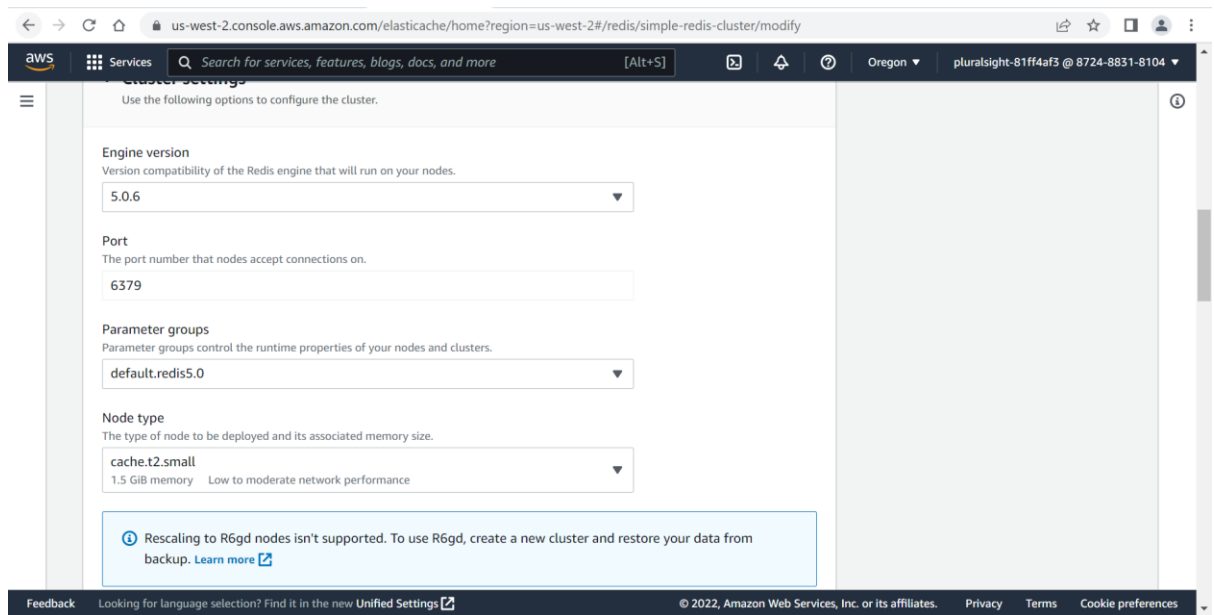
Redis clusters (3)

Cluster name	Status	Description	Cluster mode	Engine versi...
complex-redis-cluster-...	Available	2 Shards 2 nodes each,...	On	5.0.6
simple-redis-cluster	Available	-	Off	5.0.6
simple-redis-cluster-gr...	Available	1 Shard 2 nodes each, ...	On	5.0.6

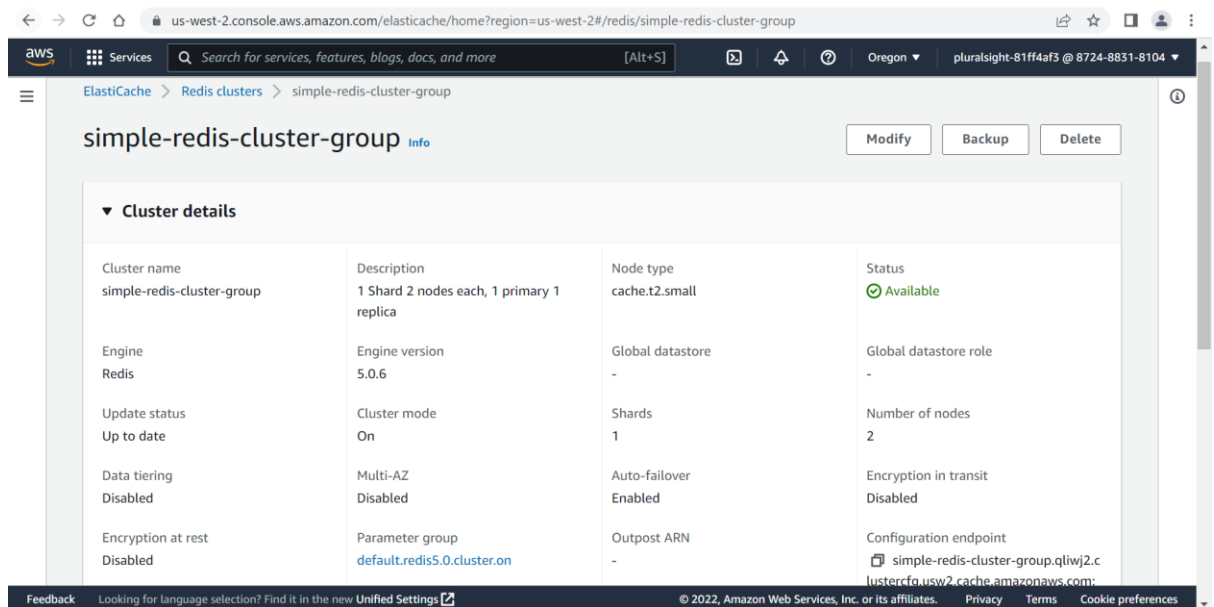
simple-redis-cluster

Cluster details

Cluster name	Description	Node type	Status
simple-redis-cluster	-	cache.t2.micro	Available
Engine	Engine version	Global datastore	Global datastore role
Redis	5.0.6	-	-
Update status	Cluster mode	Shards	Number of nodes
Up to date	Off	0	1
Data tiering	Multi-AZ	Auto-failover	Encryption in transit
Disabled	Disabled	Disabled	Disabled
Encryption at rest	Parameter group	Outpost ARN	Configuration endpoint
Disabled	default.redis5.0	-	-



2. Add Additional Replica Nodes to a Redis Cluster



us-west-2.console.aws.amazon.com/elasticache/home?region=us-west-2#/redis/simple-redis-cluster-group

arn:aws:elasticache:us-west-2:872488318104:replicationgroup:simple-redis-cluster-group

Shards and nodes Metrics Network and security Maintenance and backups Service updates Tags

Shards and nodes (1) Rebalance slot distribution Actions Add shards

Find shards and nodes

Name	Type	Nodes per shard	Slots/keyspaces	Zone	Status	ARN
simple-redis-cluster-group-0001	Shard	2	0-16383	-	Available	-
simple-redis-cluster-group-0001-001	Node	-	-	us-west-2b	Available	arn:aws:elas
simple-redis-cluster-group-0001-002	Node	-	-	us-west-2a	Available	arn:aws:elas

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us-west-2.console.aws.amazon.com/elasticache/home?region=us-west-2#/redis/simple-redis-cluster-group/addShards

ElastiCache > Redis clusters > simple-redis-cluster-group > Add shards

Add shards to scale-out cluster simple-redis-cluster-group

Cluster name
The name of the cluster that contains the primary and read-replica nodes.
simple-redis-cluster-group

Current number of shards
Existing number of shards present in the cluster.
1

Current number of replicas per shard
Existing minimum number of replicas per shard. New shards will be created with the same number of replicas per shard.
1

Number of shards to be added
Specify the number of new shards to be created for scaling out the cluster. The maximum total nodes in the cluster can be between 90 and 500. Contact AWS Support Center if you need more than 90 nodes.
2

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us-west-2.console.aws.amazon.com/elasticache/home?region=us-west-2#/redis

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Amazon ElastiCache

- Dashboard
- Resources
 - Redis clusters
 - Global datastores
 - Memcached clusters
 - Reserved nodes
 - Backups
- Configurations
 - Subnet groups
 - Parameter groups
 - User management
 - User group management
- Events

ElastiCache > Redis clusters

Introducing Amazon MemoryDB for Redis
MemoryDB is a fully Redis compatible database that provides in-memory performance and multi-AZ durability for modern applications.
[Console](#) | [Blog](#) | [Documentation](#)

Redis clusters (3) Info View details View metrics Actions Create Redis cluster

Find Redis clusters

	Cluster name	Status	Description	Cluster mode	Engine versi...
<input type="radio"/>	complex-redis-cluster-...	Available	2 Shards 2 nodes each,...	On	5.0.6
<input type="radio"/>	simple-redis-cluster	Modifying	-	Off	5.0.6
<input type="radio"/>	simple-redis-cluster-gr...	Modifying	1 Shard 2 nodes each, ...	On	5.0.6

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3. Downgrade Redis Cluster Storage Capacity by Downsizing Node Type

us-west-2.console.aws.amazon.com/elasticache/home?region=us-west-2#/redis/simple-redis-cluster-group/backup

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ElastiCache > Redis clusters > simple-redis-cluster-group > Backup

Backup simple-redis-cluster-group Info

Backup details

The following sections list the details of the cluster backup.

Cluster name
The name of the cluster that contains the primary and read-replica nodes for the backup.
simple-redis-cluster-group

New backup name
The descriptive name of the new backup.
shrink-cluster-backup-new

The name is required, can have up to 255 characters, and must begin with a letter. It should not end with a hyphen or contain two consecutive hyphens. Valid characters: A-Z, a-z, 0-9, and - (hyphen).

Encryption

The following fields list the encryption options for this backup.

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us-west-2.console.aws.amazon.com/elasticache/home?region=us-west-2#/snapshots

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Backup creation was initiated successfully.

ElastiCache > Backups

Backups (2) Info View details Restore Copy Delete

Find backups

	Backup name	Cluster name	Backup type	Status	Created date	Cache size
<input type="checkbox"/>	shrink-cluster-backup	complex-redis-cluster-...	Manual	Available	December 5, 2021, 08:...	10 MB
<input type="checkbox"/>	shrink-cluster-backup-...	simple-redis-cluster-gr...	Manual	Creating	-	0 MB

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us-west-2.console.aws.amazon.com/elasticache/home?region=us-west-2#/snapshots/shrink-cluster-backup-new

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ElastiCache > Backups > shrink-cluster-backup-new

shrink-cluster-backup-new Info Restore Copy Delete

Backup details

Backup name	shrink-cluster-backup-new	Cluster name	simple-redis-cluster-group	Backup type	Manual	Status	Available
Engine	Redis	Engine version	5.0.6	Node type	cache.t2.small	Cache size	9 MB
Cluster mode	Enabled	Shards	3	Number of nodes	6	Data tiering	Disabled
Zone	-	Port	6379	VPC ID	vpc-0948e476c1443d0b3	Encryption at rest	Default encryption
ARN	arn:aws:elasticache:us-west-2:872488318104:snapshot:shrink-cluster-ba	Cluster creation date	-	Backup creation date	June 28, 2022, 11:10:06 (UTC+05:30)	AWS KMS key	-

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us-west-2.console.aws.amazon.com/elasticache/home?region=us-west-2#/snapshots/shrink-cluster-backup-new/restore

Port
The port number that nodes accept connections on.
6379

Parameter groups
Parameter groups control the runtime properties of your nodes and clusters.
default.redis6.x.cluster.on

Node type
The type of node to be deployed and its associated memory size.
cache.t3.micro
0.5 GiB memory Up to 5 Gigabit network performance

Number of shards
Enter the number of shards in this cluster, from 1 to 500.
3

Replicas per shard
Enter the number of replicas for each shard, from 0 to 5.
2

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us-west-2.console.aws.amazon.com/elasticache/home?region=us-west-2#/redis/redis-smaller-simple-cluster/modify

Manage security groups

Security groups (1/2)

Find security groups

	Security group ID	Security group name	Description
<input type="checkbox"/>	sg-00ae0f83cf8201cf6	default	default VPC security group
<input checked="" type="checkbox"/>	sg-0a93089f555564c77	allow_redis	Allow Redis inbound traffic

Cancel Choose

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us-west-2.console.aws.amazon.com/elasticache/home?region=us-west-2#/redis

Modify cluster was initiated successfully.

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Redis clusters (4) Info

Find Redis clusters

	Cluster name	Status	Description	Cluster mode	Engine versi...	Node type	S
<input type="radio"/>	complex-redis-cluster-group	Modifying.	2 Shards 2 nodes each,...	On	5.0.6	cache.t2.micro	3
<input type="radio"/>	redis-smaller-simple-cluster	Modifying.	1 Shard 2 nodes each, ...	On	6.2.6	cache.t3.micro	3
<input type="radio"/>	simple-redis-cluster	Available..	-	Off	5.0.6	cache.t2.small	0
<input type="radio"/>	simple-redis-cluster-group	Available..	1 Shard 2 nodes each, ...	On	5.0.6	cache.t2.small	3

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4. Increase Cluster Access Capacity by Adding a Shard to a Redis Cluster

The screenshot shows the AWS Management Console for the 'complex-redis-cluster-group' in the 'us-west-2' region. The breadcrumb navigation is 'ElastiCache > Redis clusters > complex-redis-cluster-group'. The cluster name is 'complex-redis-cluster-group' with an 'Info' link. Action buttons for 'Modify', 'Backup', and 'Delete' are visible. The 'Cluster details' section contains a table with the following information:

Cluster name	Description	Node type	Status
complex-redis-cluster-group	2 Shards 2 nodes each, 1 primary 1 replica	cache.t2.micro	Available
Engine	Engine version	Global datastore	Global datastore role
Redis	5.0.6	-	-
Update status	Cluster mode	Shards	Number of nodes
Up to date	On	2	4
Data tiering	Multi-AZ	Auto-failover	Encryption in transit
Disabled	Disabled	Enabled	Disabled
Encryption at rest	Parameter group	Outpost ARN	Configuration endpoint
Disabled	default.redis5.0.cluster.on	-	complex-redis-cluster-group.qliwj

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The screenshot shows the 'Add shards' page for the 'complex-redis-cluster-group' in the 'us-west-2' region. The breadcrumb navigation is 'ElastiCache > Redis clusters > complex-redis-cluster-group > Add shards'. The page title is 'Add shards to scale-out cluster complex-redis-cluster-group' with an 'Info' link. The form contains the following fields:

- Cluster name:** The name of the cluster that contains the primary and read-replica nodes. The value is 'complex-redis-cluster-group'.
- Current number of shards:** Existing number of shards present in the cluster. The value is '2'.
- Current number of replicas per shard:** Existing minimum number of replicas per shard. New shards will be created with the same number of replicas per shard. The value is '1'.
- Number of shards to be added:** Specify the number of new shards to be created for scaling out the cluster. The maximum total nodes in the cluster can be between 90 and 500. Contact AWS Support Center if you need more than 90 nodes. The value is '1'.

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