

# Backing Up And Restoring AtScale

The following topic covers how to perform a full backup and restore of all files within `/opt/atscale` for both [stand-alone](#) and [clustered](#) AtScale instances. This includes backing up and restoring data, configurations, logs and other files.



**Note:** This section covers fully backing up and restoring all files within `/opt/atscale` on stand-alone and clustered AtScale instances. To perform a backup of embedded AtScale Postgres database instances, see [Backing up and Restoring AtScale Database Instances](#).

## Before You Begin

To perform a full backup, you must have the correct permissions to copy the database with all owners and permissions intact. This typically requires sudo access.

## Backing Up Stand-Alone AtScale

Use the following procedure to perform a full backup, including database, of a stand-alone AtScale installation. The following steps need to be executed by a user with the correct permissions (typically a user who has sudo access).

1. Remove any old AtScale versions that are no longer in use. AtScale recommends [removing](#) old versions using the package manager that was used to install AtScale.
2. Shut down AtScale in order to ensure a complete backup.

```
$ /opt/atscale/bin/atscale_stop
```

3. Perform the complete backup.

```
$ cp -Rp /opt/atscale /opt/atscale.bak
```

4. After the backup is complete, you can start AtScale again.

```
$ /opt/atscale/bin/atscale_start
```

## Restoring Stand-Alone AtScale From A Backup

Use the following procedure to restore a previously running AtScale installation. The following steps need to be executed by a user with the correct permissions (typically a user who has sudo access).

1. If AtScale is currently running, shut it down.

```
$ /opt/atscale/bin/atscale_stop
```

- Remove any versions of AtScale that are not part of the backup being restored because they were installed after the backup was created. AtScale recommends [removing](#) old versions using the package manager that was used to install AtScale.
- Move the current installation of AtScale out `/opt/atscale` to clear space for the backup.

```
$ mv /opt/atscale /opt/atscale.old
```

- Move the AtScale backup to `/opt/atscale`.

```
$ mv /opt/atscale.bak /opt/atscale
```

- Once restored, you can AtScale. AtScale will now start with the backup acting as the current installation.

```
$ /opt/atscale/bin/atscale_start
```

## Backing Up Clustered AtScale

Backing up clustered AtScale is similar to backing up stand-alone AtScale, the difference being that the nodes must be dealt with in a specific order.



The clustered AtScale backup procedure can only be performed on the node that is designated as the database Leader.

- Determine which node is the database Leader.

```
$ /opt/atscale/current/bin/database/patronictl list
+-----+-----+-----+-----+-----+-----+
| Cluster | Member | Host | Role | State | TL | Lag in MB |
+-----+-----+-----+-----+-----+-----+
| atscale_postgres_cluster | atscale-01 | atscale-01:10520 | Leader | running | 1 | |
+-----+-----+-----+-----+-----+-----+
| atscale_postgres_cluster | atscale-02 | atscale-02:10520 | | running | 1 | |
+-----+-----+-----+-----+-----+-----+
```

- On the node that is not the database Leader, shut AtScale down.

```
$ /opt/atscale/bin/atscale_stop
```

- On the database Leader, remove any old AtScale versions that are no longer in use. AtScale recommends [removing](#) old versions using the package manager that was used to install AtScale.
- Shut down AtScale on the database Leader in order to ensure a complete backup.

```
$ /opt/atscale/bin/atscale_stop
```

5. Perform the complete backup on the database Leader.

```
$ cp -Rp /opt/atscale /opt/atscale.bak
```

6. After the backup is complete, you can start AtScale again on the database Leader.

```
$ /opt/atscale/bin/atscale_start
```

7. Once the database Leader has been backed up and is running again, you can start AtScale on the node that is not the database Leader.

```
$ /opt/atscale/bin/atscale_start
```

## Restoring Clustered AtScale

Restoring clustered AtScale is similar to restoring stand-alone AtScale.

1. On the node that does not contain the backup you are restoring, shut down AtScale.

```
$ /opt/atscale/bin/atscale_stop
```

2. On the same node, uninstall all AtScale versions and wipe clean the `/opt/atscale` directory. The preferred way of [removing](#) old versions is via the package manager that was used to install AtScale.
3. On the node that does contain the backup, shut down AtScale.

```
$ /opt/atscale/bin/atscale_stop
```

4. On the Coordinator node, shut down AtScale.

```
$ /opt/atscale/bin/atscale_stop
```

5. Once AtScale is shut down, uninstall all AtScale versions and wipe clean the `/opt/atscale` directory on the Coordinator node. The preferred way of [removing](#) old versions is via the package manager that was used to install AtScale.
6. On the Coordinator node, [install](#) the version of AtScale that you will be restoring from backup. The `atscale.yaml` configuration file should be the same one that's in the backup's `conf` directory.
7. Once the Coordinator node is running, on the node that contains the backup, follow the process as laid out in [Restoring Stand-Alone AtScale From a Backup](#).
8. Once the restored node containing the backup is running, on the final node, install the version of AtScale that has been restored. The `atscale.yaml` configuration file should be the same one that's in the backup's `conf` directory.