



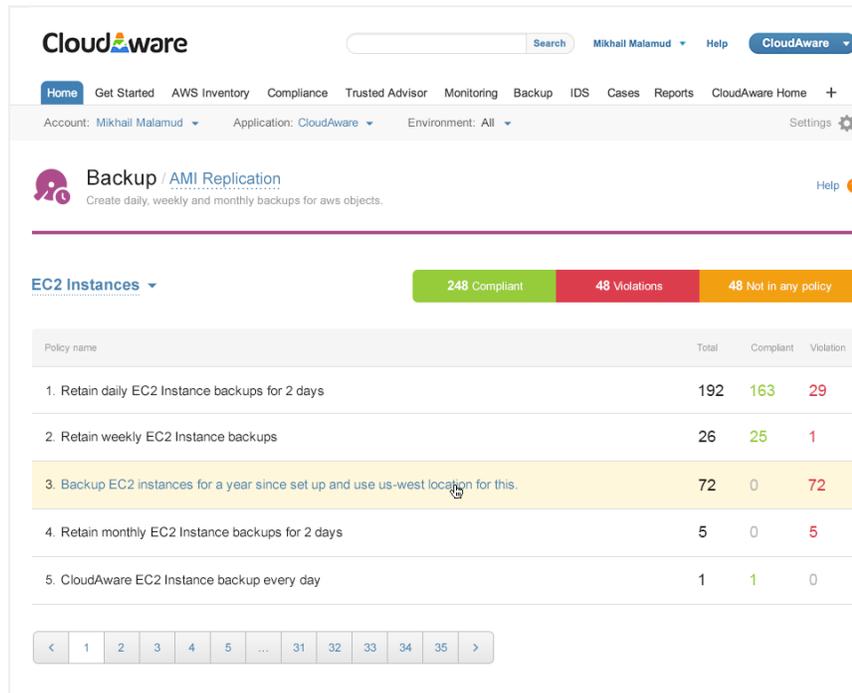
Backup & Replication

Description

Using CloudAware Backup and Replication module customers can schedule backup and replication of EC2 and RDS instances in Amazon Cloud.

Use Cases

- Restore EC2 instance to a desired configuration at some previous time.
- Perform forensic investigation in Amazon Cloud (AWS).
- Recover lost or accidentally deleted data in EC2 or RDS.
- Make data available in another Amazon Region for disaster recovery.
- Recover quickly from accidental EC2 instance terminations.
- Manage snapshots effectively (avoid snapshot sprawl).
- Backup RDS data beyond AWS maximum allowable range.
- Avoid issues with AWS native backups (MyISAM, temp tables).



The screenshot shows the CloudAware interface for the Backup & AMI Replication module. It displays a summary for EC2 Instances with 248 Compliant, 48 Violations, and 48 Not in any policy. Below this is a table of backup policies:

| Policy name | Total | Compliant | Violation |
|--|-------|-----------|-----------|
| 1. Retain daily EC2 Instance backups for 2 days | 192 | 163 | 29 |
| 2. Retain weekly EC2 Instance backups | 26 | 25 | 1 |
| 3. Backup EC2 instances for a year since set up and use us-west location for this. | 72 | 0 | 72 |
| 4. Retain monthly EC2 Instance backups for 2 days | 5 | 0 | 5 |
| 5. CloudAware EC2 Instance backup every day | 1 | 1 | 0 |

Benefits

- Avoid building home-grown tools that you eventually will not have time to support
- Know which EC2 and RDS instances are not backed up.
- Avoid wasting too much time recovering instance or data during an outage
- Keep backup costs low by not creating thousands of untrackable manual snapshots
- Replicate data and instances to other regions automatically and consistently
- Get alerts if backups are missing

Features

- Backup EC2 and RDS Instances
- Replicate EC2 and RDS instances into multiple regions
- Detect which instances are not being backed up
- Quickly map backup media to instances
- Enable backups using policy editor
- Backup Calendar
- Replication Calendar
- Initiate workflows if backups are missing
- Backup alerts and notifications

Detailed Specifications and Service Limitations

Regions

All including GovCloud

EC2 instance types

- ◇ All EBS-Root instances
- ◇ S3 instances are not supported

Operating Systems

All AWS supported operating systems

RDS Instance Types

All

Policy Types

- Daily
- Weekly
- Monthly

Retention Interval

Unlimited

Missing backup and replication alerts

Yes

Maximum number of concurrent backups jobs

Unlimited but throttled

Maximum number of concurrent EC2 replication jobs

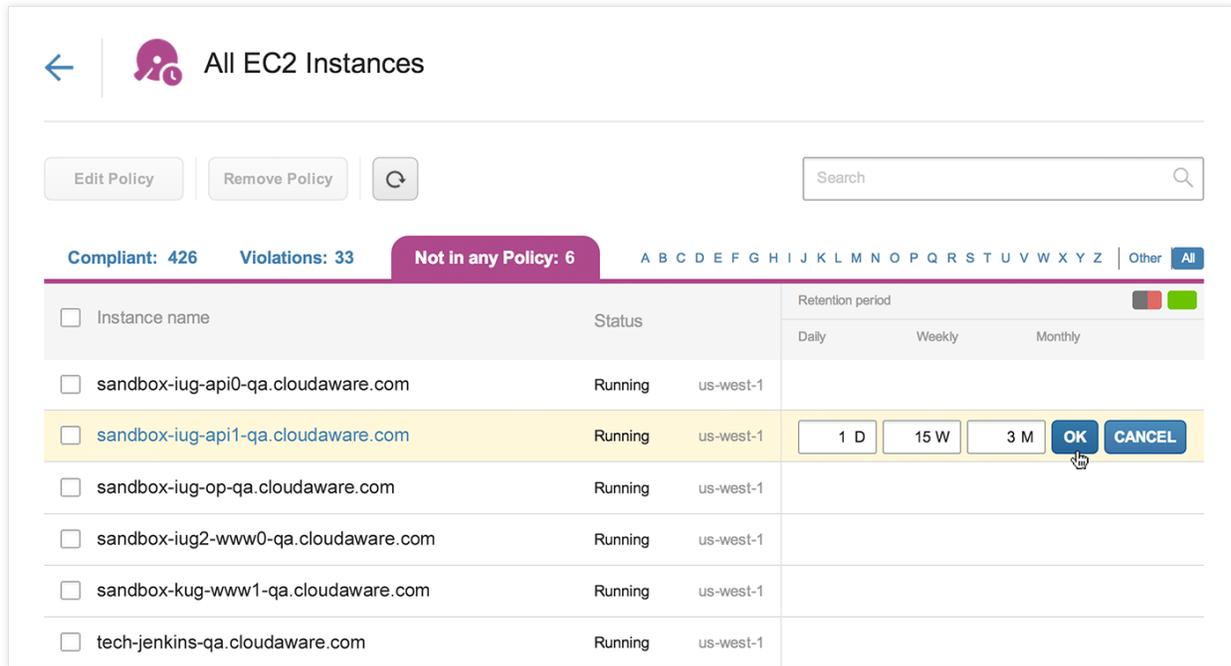
Unlimited but throttled

Maximum Number of concurrent RDS snapshot replication jobs

1 per AWS Account\Region

Enabling EC2 and RDS Backups

Backups are enabled via CloudAware Backup Policy Editor.



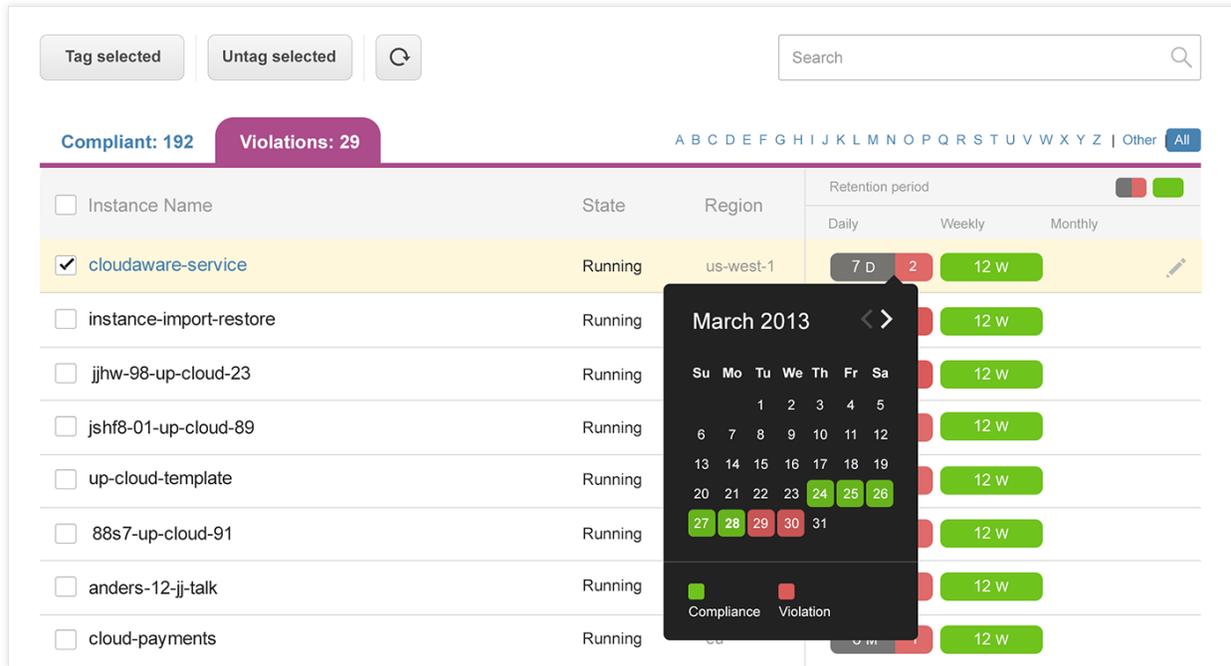
The screenshot shows the 'All EC2 Instances' page in the CloudAware Backup Policy Editor. At the top, there are buttons for 'Edit Policy', 'Remove Policy', and a refresh icon, along with a search bar. Below this, a summary bar indicates 'Compliant: 426', 'Violations: 33', and 'Not in any Policy: 6'. A navigation bar with letters A-Z and 'Other' is visible. The main table lists instances with columns for 'Instance name', 'Status', and 'Retention period'. The 'Retention period' column has a dropdown menu open for the instance 'sandbox-iug-api1-qa.cloudaware.com', showing options for '1 D', '15 W', and '3 M', with 'OK' and 'CANCEL' buttons.

| Instance name | Status | Retention period |
|--|---------|------------------|
| | | |
| <input type="checkbox"/> sandbox-iug-api0-qa.cloudaware.com | Running | us-west-1 |
| <input type="checkbox"/> sandbox-iug-api1-qa.cloudaware.com | Running | us-west-1 |
| <input type="checkbox"/> sandbox-iug-op-qa.cloudaware.com | Running | us-west-1 |
| <input type="checkbox"/> sandbox-iug2-www0-qa.cloudaware.com | Running | us-west-1 |
| <input type="checkbox"/> sandbox-kug-www1-qa.cloudaware.com | Running | us-west-1 |
| <input type="checkbox"/> tech-jenkins-qa.cloudaware.com | Running | us-west-1 |

Users can create policies that are daily, monthly and weekly. Backups are retained for as long as necessary. For example of backup policy is 2D, 3W, 5M. Cloudaware will maintain rolling backups for the last 2 days, 3 weeks and 5 months.

Backup Calendar

Backup calendar can quickly show the status of the backups and navigate to restore media for the specific day.



The screenshot shows the Cloudaware Backup Calendar interface. At the top, there are buttons for 'Tag selected', 'Untag selected', and a refresh icon. A search bar is on the right. Below these are two tabs: 'Compliant: 192' and 'Violations: 29'. A navigation bar shows letters A-Z and 'Other' and 'All'. The main table has columns for Instance Name, State, Region, and Retention period. The 'Retention period' column has sub-columns for Daily, Weekly, and Monthly. The first row, 'cloudaware-service', is highlighted in yellow and has a '7 D' (Daily) backup with a red '2' indicating a violation, and a '12 W' (Weekly) backup. A calendar overlay for March 2013 is shown, with days 27, 28, 29, and 30 highlighted in green (Compliance) and 31 highlighted in red (Violation). A legend at the bottom of the calendar shows a green square for 'Compliance' and a red square for 'Violation'.

| Instance Name | State | Region | Retention period | | |
|--|---------|-----------|------------------|--------|---------|
| | | | Daily | Weekly | Monthly |
| <input checked="" type="checkbox"/> cloudaware-service | Running | us-west-1 | 7 D 2 | 12 W | |
| <input type="checkbox"/> instance-import-restore | Running | | | 12 W | |
| <input type="checkbox"/> jjhw-98-up-cloud-23 | Running | | | 12 W | |
| <input type="checkbox"/> jshf8-01-up-cloud-89 | Running | | | 12 W | |
| <input type="checkbox"/> up-cloud-template | Running | | | 12 W | |
| <input type="checkbox"/> 88s7-up-cloud-91 | Running | | | 12 W | |
| <input type="checkbox"/> anders-12-jj-talk | Running | | | 12 W | |
| <input type="checkbox"/> cloud-payments | Running | | | 12 W | |

Detecting Backup Problems

By switching to violations tab, you can quickly see which instances are not being backed up at all and instances that have only partial backups. Switch to “Not in any policy” tab to see which instances are not being backed up at all.

Enabling EC2 Replication

Replication is configured via CloudAware replication policy editor. You can select any number of backups to be replicated into all other available regions.

← Copy last 2 AMIs to **us-west-1**
Replicate the latest AMIs to the specified location.

Add replication to selected Clear replication ↻ Search 🔍

Compliant: 192 Violations: 29 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z | Other All

| Instance Name | Replication status |
|---|--|
| <input checked="" type="checkbox"/> ewu-quiz-import-mount | 2 → us-west-1 2 2 → us-west-2 |
| <input type="checkbox"/> 8uu-calc-import-restore | 2 us-west-1 3 -- region -- OK Cancel + |
| <input type="checkbox"/> cloudaware.com | 2 → us-west-1 2 → us-west-2 1 |
| <input type="checkbox"/> domain-cloud-aware | 2 → us-west-1 2 us-west-2 |
| <input type="checkbox"/> billings-payments-cloud | 2 → us-west-1 2 us-west-2 |

Pricing

Pricing details are available [here](#).

FAQ

Question:

Will backed up instances be rebooted?

Answer:

No. Cloudaware backup method uses no-reboot option and is able to backup even Windows machines properly without a reboot.

Question:

I use software based RAID across multiple EBS volumes attached to an instance. Will Cloudaware backup work in this environment.

Answer:

No Cloudaware does not support logical disks that span multiple EBS volumes. While the backup might work, we cannot guarantee that it will work every time. We recommend using IOPS optimized volumes instead of striping software raid arrays.

Question:

I have enabled backups but all my instances still show up in violations tab.

Answer:

It may take up to 12 hours for the backup job to activate your account if you're just getting started with CloudAware.

Question:

Where are backups stored?

Answer:

EC2 instances backups are stored as AMIs and RDS backups are stored as RDS snapshots.

Question:

Can you store backups outside of AWS?

Answer:

There are two options. Enable replication and move backups to another region. Contact support if you want to participate in a beta for off-AWS replication.

Question:

What happens to backups for terminated instances?

Answer:

Backups are maintained according retention policy regardless whether the original EC2 or RDS instance still exists. In addition Cloudaware maintains full EC2 and RDS instance records details in its CMDB even after instance has been terminated from AWS.

Question:

What happens to backups if I unsubscribe from Cloudaware.

Answer:

You will continue to own all backup media, nothing will be deleted but new backups will be not be created. Also backups that are to be deleted in the future due to expiration will not be deleted. Cloudaware maintains all data inside tags. You will be able to correlate which AMIs belong to what instances and which RDS snapshots belong to which RDS instances using tags.

Question:

Can I create custom workflows for missing backups?

Answer:

If you purchased change management module, you can create any workflow to trigger once missing backup is identified.

Question:

Can I get daily backup reports?

Answer:

Yes, you can get them via email or chatter notification to desktop or mobile.